

DATA REPORTING QUALIFIERS- ORGANIC

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

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

LAB CHRONICLE

OrderID:	Q3551	OrderDate:	11/5/2025 2:16:00 PM
Client:	Spectra East Inc.	Project:	Outfall 001 - Orangetown Dis Permit 2025
Contact:	Jacob Valeich	Location:	D41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3551-01	MANHOLE	Water	VOCMS Group1	624.1	11/05/25		11/14/25	11/05/25



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Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q3551

Client: Spectra East Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: Q3551-01	MANHOLE MANHOLE	Water	Chloroform	3.40	J	0.55	5.00	ug/L
			Total Voc :	3.40				
			Total Concentration:	3.40				



QC SUMMARY

Surrogate Summary

SDG No.: Q3551

Client: Spectra East Inc.

Analytical Method: SW624.1

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%)	
							Low	High
Q3551-01	MANHOLE	1,2-Dichloroethane-d4	30	28.4	95		91	110
		Toluene-d8	30	29.4	98		91	112
		4-Bromofluorobenzene	30	26.0	87		63	112
VN1114WBL01	VN1114WBL01	1,2-Dichloroethane-d4	30	30.6	102		91	110
		Toluene-d8	30	29.6	98		91	112
		4-Bromofluorobenzene	30	26.5	88		63	112
VN1114WBS01	VN1114WBS01	1,2-Dichloroethane-d4	30	29.7	99		91	110
		Toluene-d8	30	30.5	102		91	112
		4-Bromofluorobenzene	30	29.6	99		63	112
VN1114WBSD0	VN1114WBSD01	1,2-Dichloroethane-d4	30	29.5	98		91	110
		Toluene-d8	30	30.6	102		91	112
		4-Bromofluorobenzene	30	29.9	100		63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q3551</u>	Analytical Method:	<u>SW624.1</u>
Client:	<u>Spectra East Inc.</u>	Datafile :	<u>VN088283.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1114WBS01	Methylene Chloride	20	20.5	ug/L	103			60	140	
	trans-1,2-Dichloroethene	20	19.1	ug/L	96			70	130	
	Chloroform	20	19.4	ug/L	97			70	135	
	1,1,1-Trichloroethane	20	19.0	ug/L	95			70	130	
	Trichloroethene	20	19.3	ug/L	97			65	135	
	Toluene	20	19.7	ug/L	99			70	130	
	Tetrachloroethene	20	18.7	ug/L	94			70	130	
	Ethyl Benzene	20	19.2	ug/L	96			60	140	
	m/p-Xylenes	40	38.7	ug/L	97			87	111	
	o-Xylene	20	18.9	ug/L	95			87	111	
	1,3-Dichlorobenzene	20	19.4	ug/L	97			70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q3551</u>	Analytical Method:	<u>SW624.1</u>
Client:	<u>Spectra East Inc.</u>	Datafile :	<u>VN088284.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1114WBSD01	Methylene Chloride	20	19.6	ug/L	98	5		60	140	20
	trans-1,2-Dichloroethene	20	19.2	ug/L	96	0		70	130	20
	Chloroform	20	19.5	ug/L	98	1		70	135	20
	1,1,1-Trichloroethane	20	19.3	ug/L	97	2		70	130	20
	Trichloroethene	20	19.5	ug/L	98	1		65	135	20
	Toluene	20	20.0	ug/L	100	1		70	130	20
	Tetrachloroethene	20	20.0	ug/L	100	6		70	130	20
	Ethyl Benzene	20	19.6	ug/L	98	2		60	140	20
	m/p-Xylenes	40	38.6	ug/L	97	0		87	111	20
	o-Xylene	20	19.6	ug/L	98	3		87	111	20
	1,3-Dichlorobenzene	20	19.9	ug/L	100	3		70	130	20

VOLATILE METHOD BLANK SUMMARY

Client ID

VN1114WBL01

Lab Name: Alliance

Contract: SPEC01

Lab Code: ACE

SDG NO.: Q3551

Lab File ID: VN088285.D

Lab Sample ID: VN1114WBL01

Date Analyzed: 11/14/2025

Time Analyzed: 10:38

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

Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1114WBS01	VN1114WBS01	VN088283.D	11/14/2025
VN1114WBSD01	VN1114WBSD01	VN088284.D	11/14/2025
MANHOLE	Q3551-01	VN088289.D	11/14/2025

COMMENTS: _____



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: SPEC01

Lab Code: ACE

SDG NO.: Q3551

Lab File ID: VN088273.D

BFB Injection Date: 11/13/2025

Instrument ID: MSVOA_N

BFB Injection Time: 08:08

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

Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.2
75	30.0 - 60.0% of mass 95	57.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.5 (0.8) 1
174	50.0 - 100.0% of mass 95	68.5
175	5.0 - 9.0% of mass 174	5 (7.3) 1
176	95.0 - 101.0% of mass 174	66.3 (96.7) 1
177	5.0 - 9.0% of mass 176	4.3 (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:

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VN088274.D	11/13/2025	10:14
VSTDIC020	VSTDIC020	VN088275.D	11/13/2025	10:47
VSTDIC050	VSTDIC050	VN088276.D	11/13/2025	11:08
VSTDIC100	VSTDIC100	VN088277.D	11/13/2025	11:29
VSTDIC150	VSTDIC150	VN088278.D	11/13/2025	11:50



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: SPEC01

Lab Code: ACE

SDG NO.: Q3551

Lab File ID: VN088281.D

BFB Injection Date: 11/14/2025

Instrument ID: MSVOA_N

BFB Injection Time: 08:34

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

Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.9
75	30.0 - 60.0% of mass 95	57.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.8 (1.1) 1
174	50.0 - 100.0% of mass 95	71
175	5.0 - 9.0% of mass 174	5.5 (7.8) 1
176	95.0 - 101.0% of mass 174	67.8 (95.5) 1
177	5.0 - 9.0% of mass 176	4.3 (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:

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC020	VSTDCCC020	VN088282.D	11/14/2025	09:07
VN1114WBS01	VN1114WBS01	VN088283.D	11/14/2025	09:41
VN1114WBSD01	VN1114WBSD01	VN088284.D	11/14/2025	10:17
VN1114WBL01	VN1114WBL01	VN088285.D	11/14/2025	10:38
MANHOLE	Q3551-01	VN088289.D	11/14/2025	12:15

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: SPEC01
 Lab Code: ACE SDG NO.: Q3551
 Lab File ID: VN088282.D Date Analyzed: 11/14/2025
 Instrument ID: MSVOA_N Time Analyzed: 09:07
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	56753	7.79	292349	9.08	258679	11.85
UPPER LIMIT	113506	8.294	584698	9.582	517358	12.347
LOWER LIMIT	28376.5	7.294	146175	8.582	129340	11.347
EPA SAMPLE NO.						
MANHOLE	53480	7.79	279713	9.08	245018	11.84
VN1114WBL01	53945	7.79	285107	9.08	248105	11.84
VN1114WBS01	59304	7.79	313554	9.08	280371	11.84
VN1114WBSD01	57783	7.79	307983	9.08	272076	11.85

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: Alliance Contract: SPEC01
 Lab Code: ACE SDG NO.: Q3551
 Lab File ID: VN088282.D Date Analyzed: 11/14/2025
 Instrument ID: MSVOA_N Time Analyzed: 09:07
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	0	0				
UPPER LIMIT	0					
LOWER LIMIT	0					
EPA SAMPLE NO.						
MANHOLE	0	0.00				
VN1114WBL01	0	0.00				
VN1114WBS01	0	0.00				
VN1114WBSD01	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



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	Spectra East Inc.	Date Collected:	11/05/25
Project:	Outfall 001 - Orangetown Dis Permit 2025	Date Received:	11/05/25
Client Sample ID:	MANHOLE	SDG No.:	Q3551
Lab Sample ID:	Q3551-01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 mL	Test:	VOCMS Group1
	Level: LOW		
	Final Vol: 5000 uL		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-09-2	Methylene Chloride	0.86	U	1	0.86	5.00	ug/L	11/14/25 12:15	VN111425
156-60-5	trans-1,2-Dichloroethene	0.82	U	1	0.82	5.00	ug/L	11/14/25 12:15	VN111425
67-66-3	Chloroform	3.40	J	1	0.55	5.00	ug/L	11/14/25 12:15	VN111425
71-55-6	1,1,1-Trichloroethane	0.63	U	1	0.63	5.00	ug/L	11/14/25 12:15	VN111425
79-01-6	Trichloroethene	0.49	U	1	0.49	5.00	ug/L	11/14/25 12:15	VN111425
108-88-3	Toluene	0.46	U	1	0.46	5.00	ug/L	11/14/25 12:15	VN111425
127-18-4	Tetrachloroethene	0.84	U	1	0.84	5.00	ug/L	11/14/25 12:15	VN111425
100-41-4	Ethyl Benzene	0.56	U	1	0.56	5.00	ug/L	11/14/25 12:15	VN111425
1330-20-7	Total Xylenes	1.97	U	1	1.97	15.0	ug/L	11/14/25 12:15	VN111425
541-73-1	1,3-Dichlorobenzene	0.67	U	1	0.67	5.00	ug/L	11/14/25 12:15	VN111425
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	28.4			91 - 110	95%	SPK: 30		
2037-26-5	Toluene-d8	29.4			91 - 112	98%	SPK: 30		
460-00-4	4-Bromofluorobenzene	26.0			63 - 112	87%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	53500							
540-36-3	1,4-Difluorobenzene	280000							
3114-55-4	Chlorobenzene-d5	245000							

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088289.D
 Acq On : 14 Nov 2025 12:15
 Operator : JC\MD
 Sample : Q3551-01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 MANHOLE

Quant Time: Nov 14 21:49:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

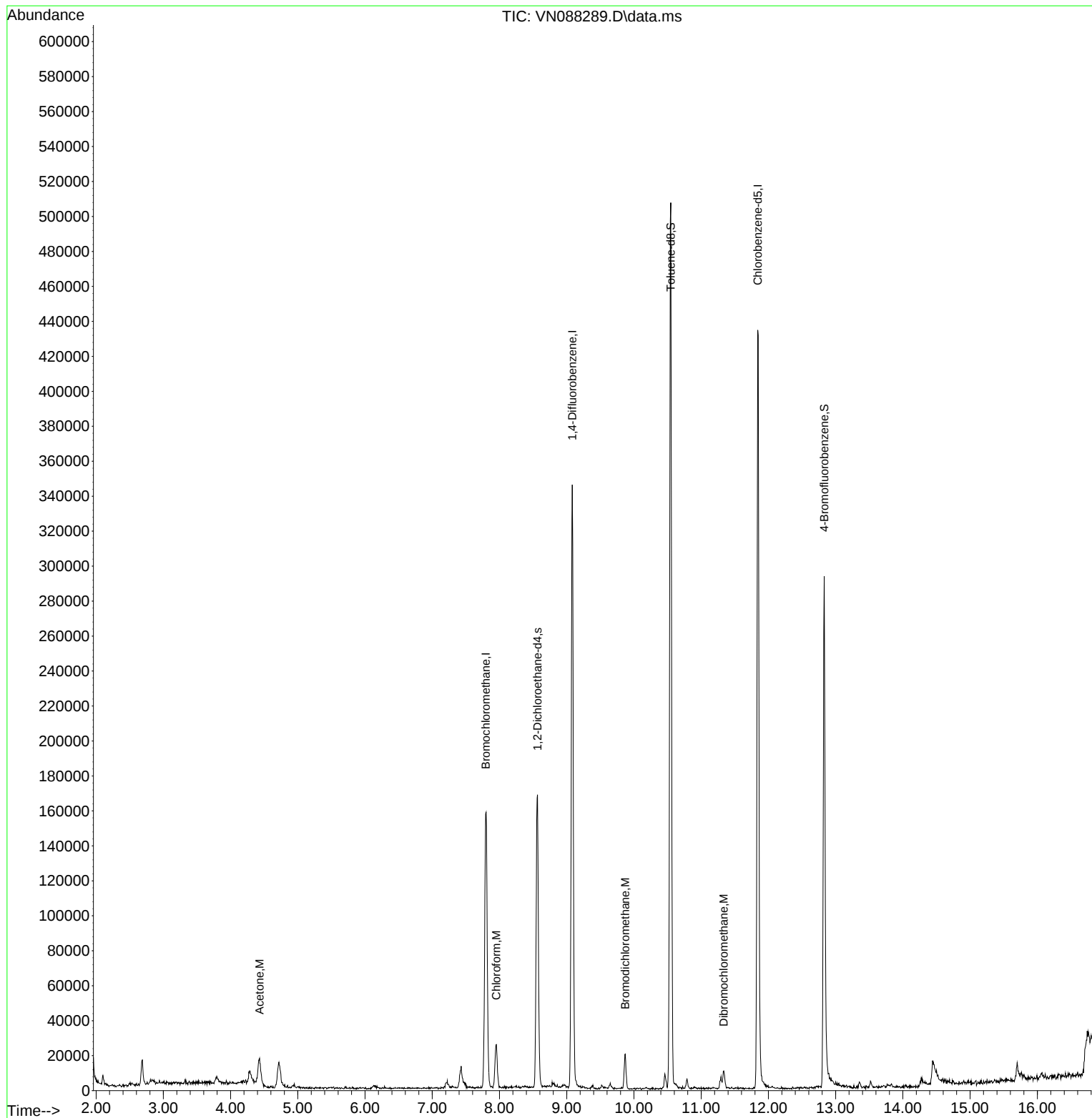
Internal Standards						
1) Bromochloromethane	7.794	128	53480	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.083	114	279713	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	245018	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.565	65	138545	28.361	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	94.533%
60) 4-Bromofluorobenzene	12.829	95	107636	25.987	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	86.633%
63) Toluene-d8	10.547	98	340690	29.370	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	97.900%
Target Compounds						
					Qvalue	
15) Acetone	4.430	58	8772	13.914	ug/l	90
25) Chloroform	7.953	83	23375	3.429	ug/l	97
41) Bromodichloromethane	9.871	83	13403	2.575	ug/l #	99
53) Dibromochloromethane	11.335	129	4606	1.254	ug/l	92

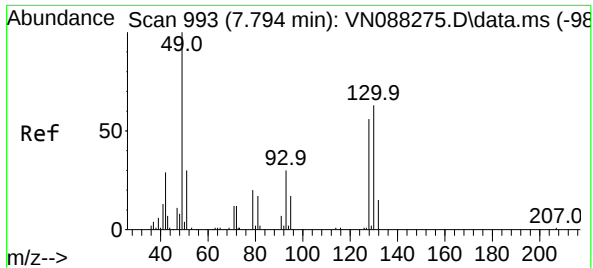
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
Data File : VN088289.D
Acq On : 14 Nov 2025 12:15
Operator : JC\MD
Sample : Q3551-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
MANHOLE

Quant Time: Nov 14 21:49:47 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration

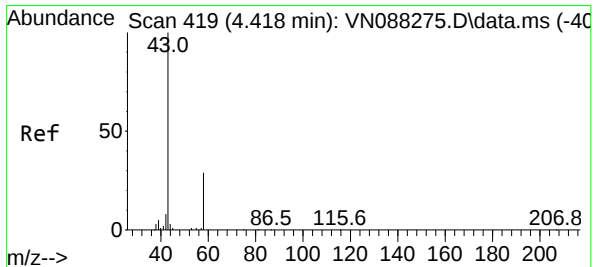
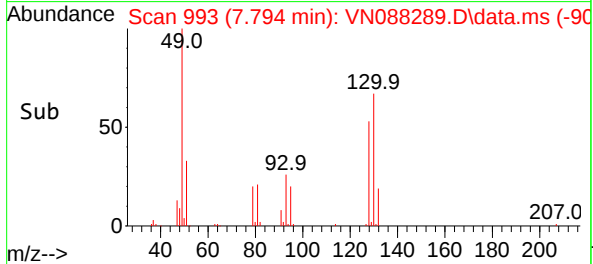
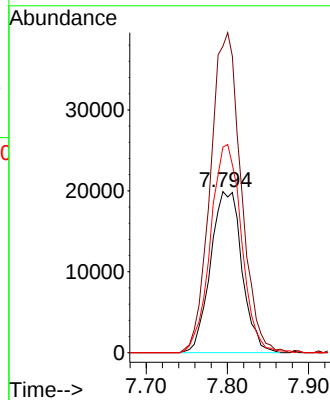
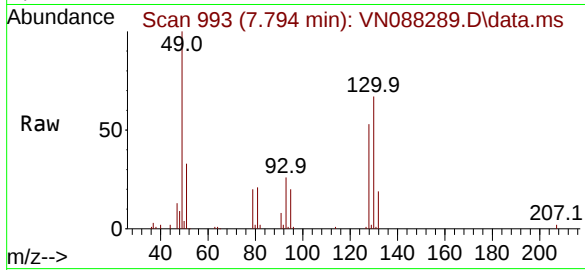




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN088289.D
Acq: 14 Nov 2025 12:15

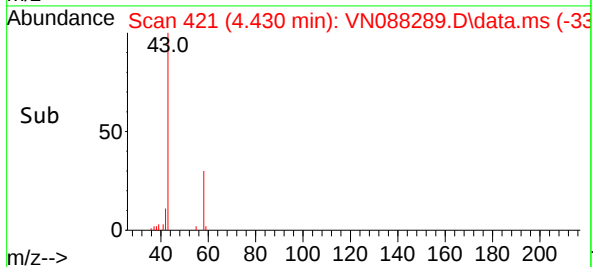
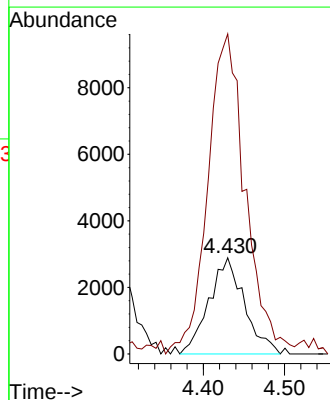
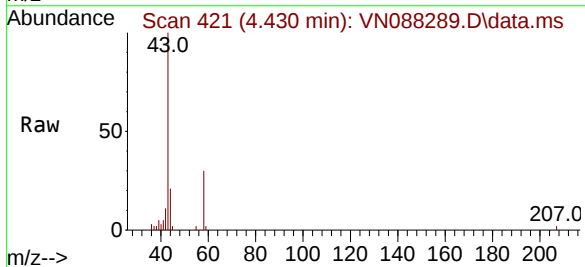
Instrument :
MSVOA_N
ClientSampleId :
MANHOLE

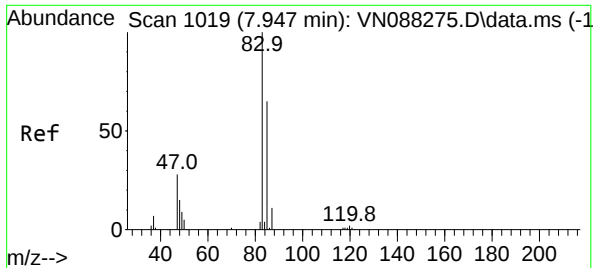
Tgt Ion	Ratio	Lower	Upper
128	100		
49	193.9	0.0	501.2
130	127.3	0.0	320.2



#15
Acetone
Concen: 13.914 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.012 min
Lab File: VN088289.D
Acq: 14 Nov 2025 12:15

Tgt Ion	Ratio	Lower	Upper
58	100		
43	321.2	273.9	410.9





#25

Chloroform

Concen: 3.429 ug/l

RT: 7.953 min Scan# 1020

Delta R.T. 0.006 min

Lab File: VN088289.D

Acq: 14 Nov 2025 12:15

Instrument :

MSVOA_N

ClientSampleId :

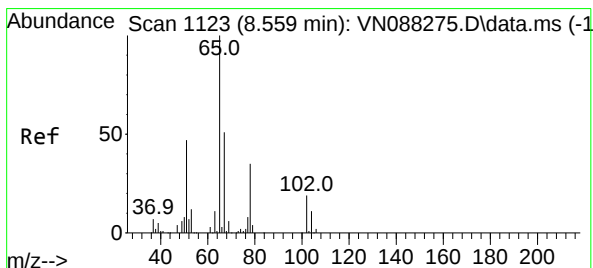
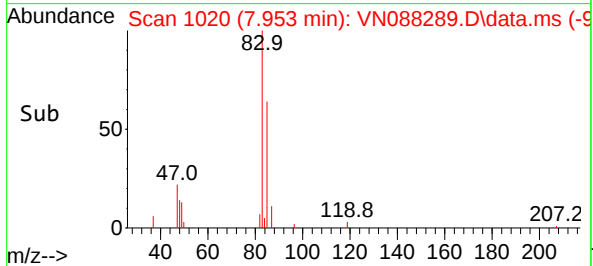
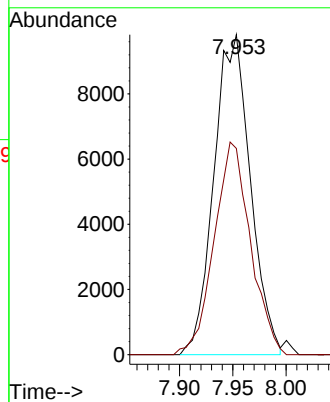
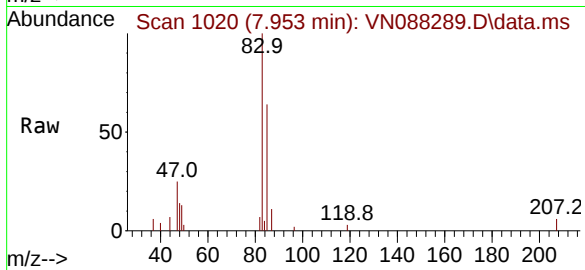
MANHOLE

Tgt Ion: 83 Resp: 23375

Ion Ratio Lower Upper

83 100

85 62.7 52.2 78.4



#27

1,2-Dichloroethane-d4

Concen: 28.361 ug/l

RT: 8.565 min Scan# 1124

Delta R.T. 0.006 min

Lab File: VN088289.D

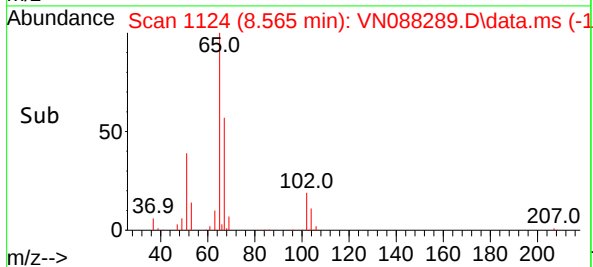
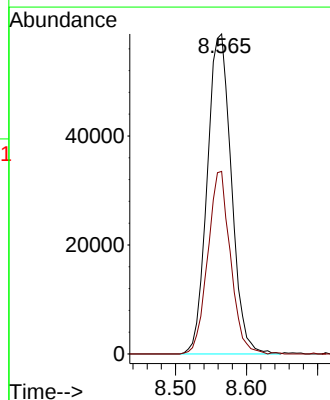
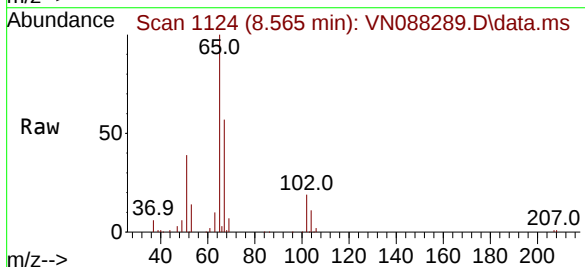
Acq: 14 Nov 2025 12:15

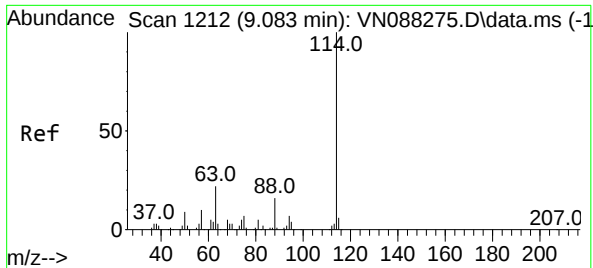
Tgt Ion: 65 Resp: 138545

Ion Ratio Lower Upper

65 100

67 53.6 40.2 60.2





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.083 min Scan# 1

Delta R.T. 0.000 min

Lab File: VN088289.D

Acq: 14 Nov 2025 12:15

Instrument :

MSVOA_N

ClientSampleId :

MANHOLE

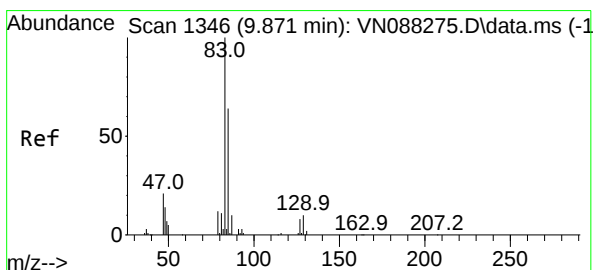
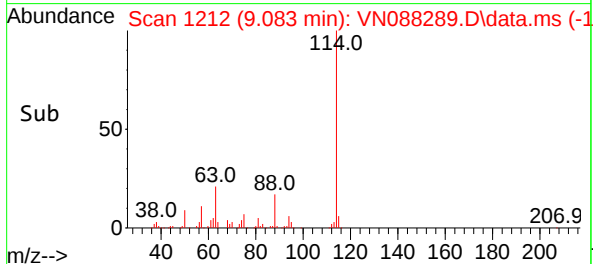
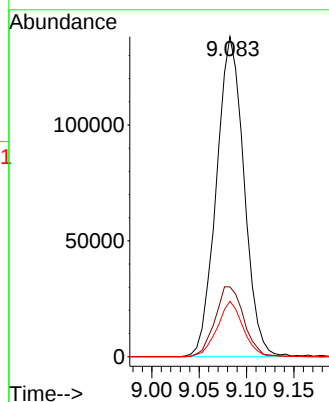
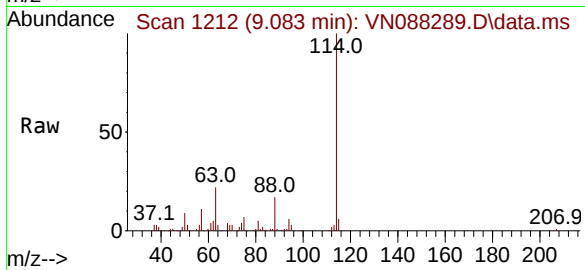
Tgt Ion:114 Resp: 279713

Ion Ratio Lower Upper

114 100

63 22.9 18.9 28.3

88 16.3 12.8 19.2



#41

Bromodichloromethane

Concen: 2.575 ug/l

RT: 9.871 min Scan# 1346

Delta R.T. 0.000 min

Lab File: VN088289.D

Acq: 14 Nov 2025 12:15

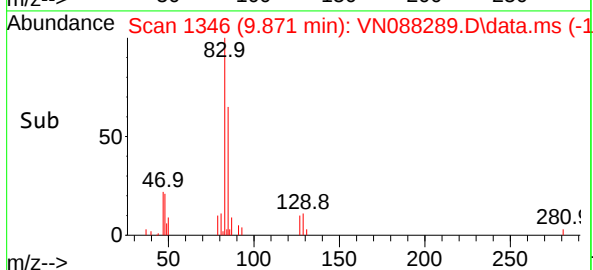
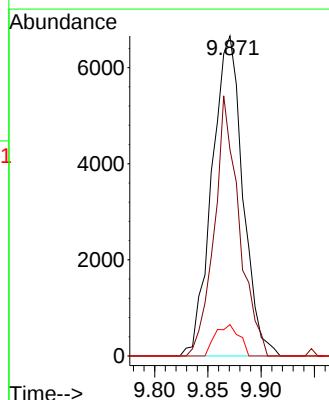
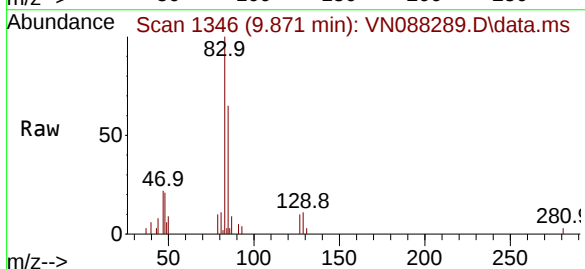
Tgt Ion: 83 Resp: 13403

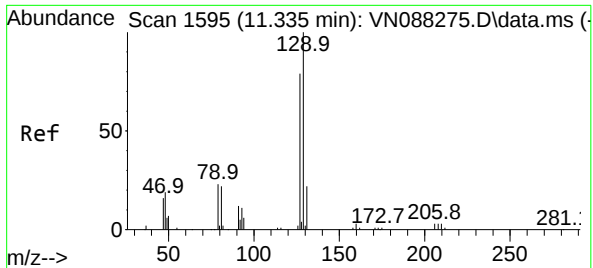
Ion Ratio Lower Upper

83 100

85 64.5 51.4 77.2

127 9.8 6.4 9.6#

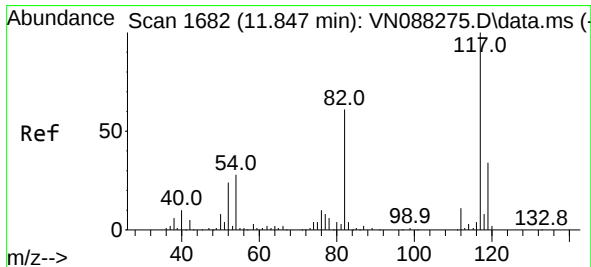
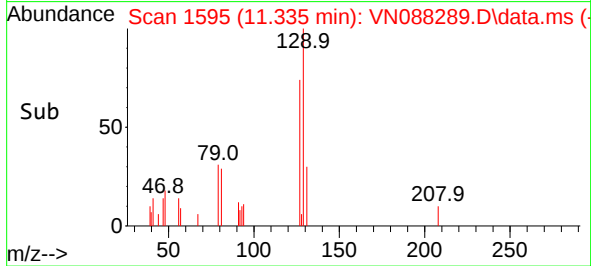
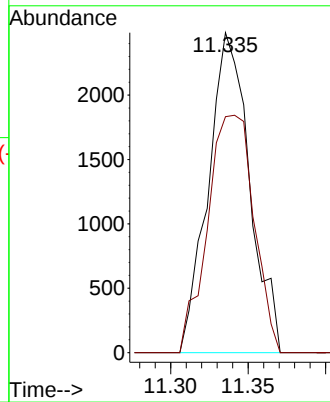
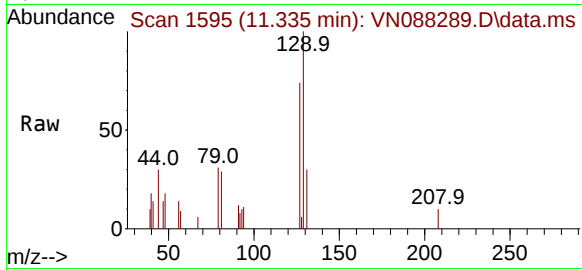




#53
Dibromochloromethane
Concen: 1.254 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. 0.000 min
Lab File: VN088289.D
Acq: 14 Nov 2025 12:15

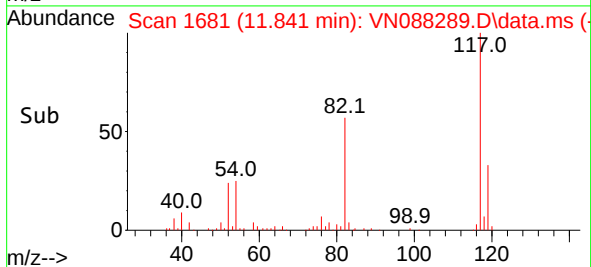
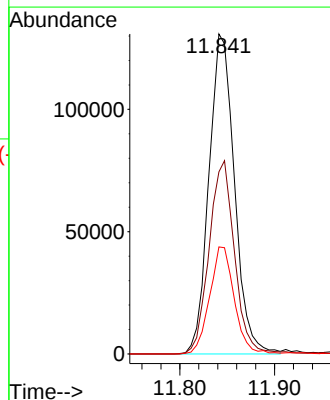
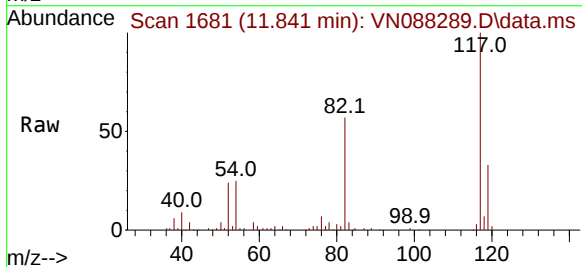
Instrument :
MSVOA_N
ClientSampleId :
MANHOLE

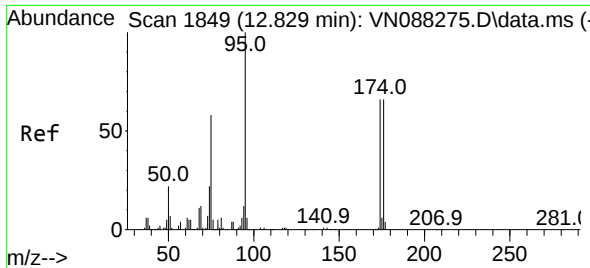
Tgt Ion:129 Resp: 4606
Ion Ratio Lower Upper
129 100
127 83.1 38.2 114.6



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.841 min Scan# 1681
Delta R.T. -0.006 min
Lab File: VN088289.D
Acq: 14 Nov 2025 12:15

Tgt Ion:117 Resp: 245018
Ion Ratio Lower Upper
117 100
82 59.9 49.3 73.9
119 32.3 26.4 39.6

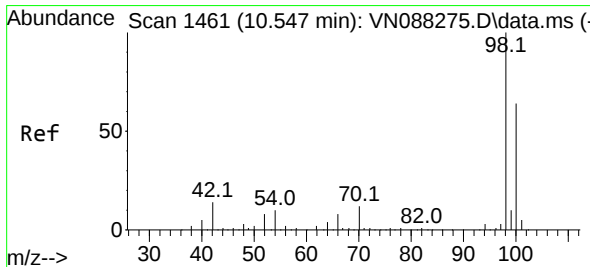
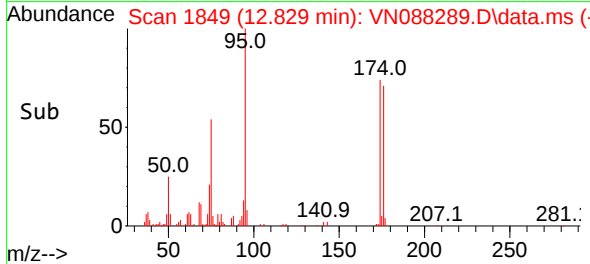
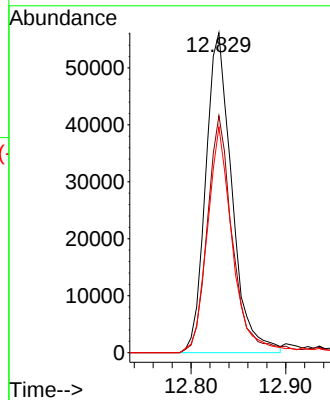
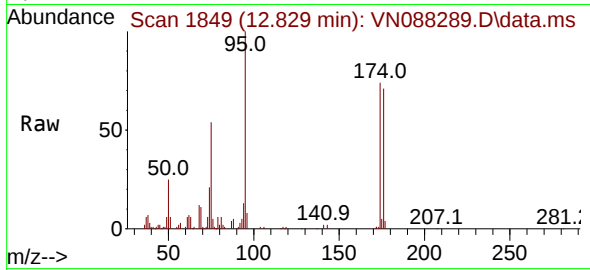




#60
4-Bromofluorobenzene
Concen: 25.987 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN088289.D
Acq: 14 Nov 2025 12:15

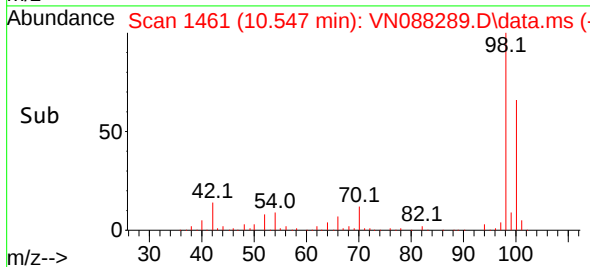
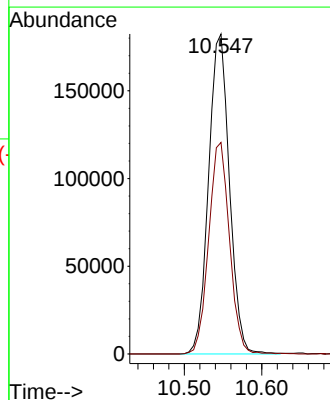
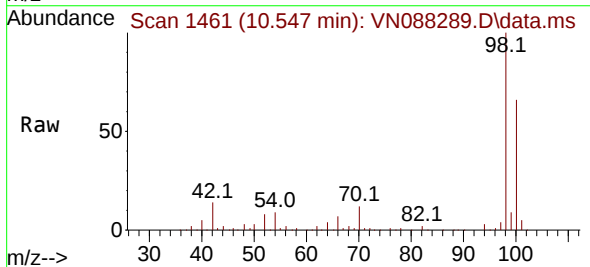
Instrument :
MSVOA_N
ClientSampleId :
MANHOLE

Tgt Ion: 95 Resp: 107636
Ion Ratio Lower Upper
95 100
174 70.8 54.5 81.7
176 68.0 53.8 80.6



#63
Toluene-d8
Concen: 29.370 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN088289.D
Acq: 14 Nov 2025 12:15

Tgt Ion: 98 Resp: 340690
Ion Ratio Lower Upper
98 100
100 65.8 51.6 77.4





CALIBRATION SUMMARY



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: SPEC01
 Lab Code: ACE SDG No.: Q3551
 Instrument ID: MSVOA_N Calibration Date(s): 11/13/2025 11/13/2025
 Heated Purge: (Y/N) N Calibration Time(s): 10:14 11:50
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VN088274.D		RRF020 = VN088275.D		RRF050 = VN088276.D		
		RRF100 = VN088277.D		RRF150 = VN088278.D		RRF =		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	RRF	% RSD
Methylene Chloride	2.165	2.098	1.983	1.998	2.009		2.050	3.8
trans-1,2-Dichloroethene	1.917	2.036	1.848	1.810	1.993		1.921	4.9
Chloroform	3.861	3.873	3.674	3.755	3.958		3.824	2.9
1,1,1-Trichloroethane	0.623	0.624	0.578	0.609	0.651		0.617	4.3
Trichloroethene	0.350	0.340	0.321	0.335	0.349		0.339	3.4
Toluene	1.716	1.777	1.619	1.714	1.782		1.722	3.8
Tetrachloroethene	0.305	0.329	0.295	0.297	0.321		0.309	4.8
Ethyl Benzene	1.763	1.927	1.813	1.933	2.052		1.897	6
m/p-Xylenes	0.660	0.723	0.687	0.718	0.760		0.710	5.4
o-Xylene	0.619	0.665	0.643	0.698	0.721		0.669	6.2
1,3-Dichlorobenzene	0.726	0.795	0.753	0.802	0.815		0.778	4.8
1,2-Dichloroethane-d4	2.725	2.740	2.769	2.745	2.723		2.740	0.7
Toluene-d8	1.418	1.455	1.418	1.385	1.426		1.420	1.8
4-Bromofluorobenzene	0.479	0.494	0.513	0.515	0.534		0.507	4.1

* 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_N\methods\
 Method File : 624N111325W.M
 Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 Last Update : Fri Nov 14 00:49:21 2025
 Response Via : Initial Calibration

Calibration Files

5 =VN088274.D 20 =VN088275.D 50 =VN088276.D 100 =VN088277.D 150 =VN088278.D

Compound		5	20	50	100	150	Avg	%RSD

1) I	Bromochloromethane	-----ISTD-----						
2) M	Dichlorodifluoro...	1.540	2.366	2.176	2.015	2.447	2.109	17.06
3) M	Chloromethane	2.094	2.291	2.114	2.068	2.305	2.174	5.25
4) M	Vinyl Chloride	2.166	2.413	2.246	2.166	2.505	2.299	6.65
5) M	Bromomethane	1.249	1.214	1.149	1.224	1.294	1.226	4.32
6) M	Chloroethane	1.399	1.495	1.336	1.378	1.498	1.421	5.08
7) M	Trichlorofluorom...	2.922	3.441	3.168	3.005	3.580	3.223	8.72
8) T	Diethyl Ether	1.285	1.200	1.121	1.191	1.226	1.205	4.94
9)	1,1,2-Trichlorot...	1.587	1.800	1.631	1.547	1.889	1.691	8.68
10) M	1,1-Dichloroethene	1.558	1.748	1.601	1.557	1.784	1.650	6.58
11)	Methyl Iodide	1.267	1.744	1.806	1.920	2.041	1.756	16.84
12)	Methyl Acetate	2.674	2.716	2.562	2.661	2.694	2.661	2.23
13) M	Acrolein	0.445	0.354	0.354	0.399	0.406	0.392	9.90
14) M	Acrylonitrile	1.212	1.224	1.162	1.213	1.236	1.209	2.33
15) M	Acetone	0.339	0.364	0.340	0.357	0.369	0.354	3.88
16) M	Carbon Disulfide	5.228	5.928	5.506	5.256	5.901	5.564	6.08
17)	Allyl chloride	3.150	3.298	3.146	3.091	3.344	3.206	3.41
18) M	Methylene Chloride	2.165	2.098	1.983	1.998	2.009	2.050	3.80
19) M	trans-1,2-Dichlo...	1.917	2.036	1.848	1.810	1.993	1.921	4.92
20) T	Diisopropyl ether	6.753	6.994	6.417	6.799	7.288	6.850	4.69
21) M	1,1-Dichloroethane	3.827	4.008	3.728	3.748	3.985	3.859	3.40
22) M	cis-1,2-Dichloro...	2.263	2.268	2.137	2.183	2.312	2.233	3.18
23) M	tert-Butyl Alcohol	0.528	0.435	0.407	0.422	0.431	0.445	10.75
24) M	Methyl tert-Buty...	6.526	6.635	6.404	6.727	6.964	6.651	3.19
25) M	Chloroform	3.861	3.873	3.674	3.755	3.958	3.824	2.90
26)	Cyclohexane	2.831	3.534	3.200	3.018	3.716	3.260	11.16
27) s	1,2-Dichloroetha...	2.725	2.740	2.769	2.745	2.723	2.740	0.67
28) I	1,4-Difluorobenzene	-----ISTD-----						
29)	1,1-Dichloropropene	0.484	0.508	0.471	0.497	0.542	0.501	5.43
30) M	2-Butanone	0.335	0.314	0.299	0.335	0.336	0.324	5.15
31)	2,2-Dichloropropane	0.605	0.623	0.581	0.619	0.659	0.617	4.60
32) M	1,1,1-Trichloroe...	0.623	0.624	0.578	0.609	0.651	0.617	4.30
33) M	Carbon Tetrachlo...	0.524	0.532	0.499	0.511	0.569	0.527	5.04
34) M	Benzene	1.560	1.495	1.392	1.499	1.535	1.496	4.28
35)	Methacrylonitrile	0.355	0.325	0.307	0.355	0.347	0.338	6.21
36) M	1,2-Dichloroethane	0.585	0.575	0.546	0.608	0.597	0.582	4.09
37) M	Trichloroethene	0.350	0.340	0.321	0.335	0.349	0.339	3.43
38)	Methylcyclohexane	0.509	0.593	0.554	0.552	0.661	0.574	9.95
39) M	1,2-Dichloropropane	0.414	0.378	0.356	0.391	0.391	0.386	5.53
40)	Dibromomethane	0.292	0.277	0.254	0.284	0.281	0.277	5.20
41) M	Bromodichloromet...	0.566	0.535	0.518	0.584	0.588	0.558	5.45
42) M	Vinyl Acetate	1.052	1.049	1.034	1.148	1.121	1.081	4.68
43)	Ethyl Acetate	0.675	0.645	0.608	0.680	0.649	0.651	4.40
44)	Isopropyl Acetate	0.981	0.975	0.929	1.071	1.063	1.004	6.08
45) T	1,4-Dioxane	0.006	0.006	0.006	0.006	0.006	0.006	3.52
46)	Methyl methacrylate	0.433	0.448	0.440	0.513	0.515	0.470	8.69
47)	n-amyl Acetate	0.516	0.456	0.455	0.558	0.559	0.509	10.15
48) M	t-1,3-Dichloropr...	0.579	0.559	0.550	0.647	0.651	0.597	8.11
49) T	cis-1,3-Dichloro...	0.606	0.610	0.581	0.651	0.660	0.621	5.33
50) M	1,1,2-Trichloroe...	0.363	0.334	0.318	0.353	0.347	0.343	5.08
51)	Ethyl methacrylate	0.497	0.522	0.533	0.635	0.633	0.564	11.59
52)	1,3-Dichloropropane	0.642	0.612	0.576	0.647	0.646	0.625	4.98
53) M	Dibromochloromet...	0.382	0.377	0.368	0.423	0.420	0.394	6.47
54) M	1,2-Dibromoethane	0.368	0.342	0.325	0.378	0.370	0.356	6.23
55) M	2-Chloroethyl vi...	0.323	0.304	0.282	0.355	0.361	0.325	10.30
56) M	Bromoform	0.229	0.233	0.232	0.278	0.276	0.249	10.05

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 624N111325W.M

		-----ISTD-----						
57) I	Chlorobenzene-d5							
58) M	4-Methyl-2-Penta...	0.654	0.685	0.642	0.710	0.701	0.679	4.35
59) M	2-Hexanone	0.370	0.436	0.440	0.501	0.505	0.451	12.33
60) S	4-Bromofluoroben...	0.479	0.494	0.513	0.515	0.534	0.507	4.15
61) M	Tetrachloroethene	0.305	0.329	0.295	0.297	0.321	0.309	4.85
62) M	Toluene	1.716	1.777	1.619	1.714	1.782	1.722	3.83
63) S	Toluene-d8	1.418	1.455	1.418	1.385	1.426	1.420	1.76
64) M	Chlorobenzene	1.098	1.065	0.994	1.074	1.099	1.066	4.04
65)	1,1,1,2-Tetrachl...	0.374	0.369	0.338	0.368	0.375	0.365	4.19
66) M	Ethyl Benzene	1.763	1.927	1.813	1.933	2.052	1.897	5.97
67) M	m/p-Xylenes	0.660	0.723	0.687	0.718	0.760	0.710	5.37
68) M	o-Xylene	0.619	0.665	0.643	0.698	0.721	0.669	6.18
69) M	Styrene	1.010	1.113	1.104	1.209	1.248	1.137	8.29
70)	Isopropylbenzene	1.587	1.799	1.703	1.815	1.966	1.774	7.95
71) M	1,1,2,2-Tetrachl...	0.574	0.575	0.541	0.593	0.589	0.575	3.56
72)	1,2,3-Trichlorop...	0.611	0.509	0.524	0.576	0.563	0.557	7.31
73)	Bromobenzene	0.390	0.399	0.386	0.416	0.412	0.400	3.35
74)	n-propylbenzene	1.999	2.235	2.127	2.235	2.380	2.195	6.47
75)	2-Chlorotoluene	1.289	1.337	1.272	1.366	1.410	1.335	4.22
76)	1,3,5-Trimethylb...	1.318	1.500	1.447	1.538	1.642	1.489	8.00
77)	t-1,4-Dichloro-2...	0.144	0.179	0.184	0.220	0.229	0.191	17.90
78)	4-Chlorotoluene	1.240	1.360	1.301	1.407	1.457	1.353	6.33
79)	tert-butylbenzene	1.171	1.273	1.238	1.291	1.402	1.275	6.62
80)	1,2,4-Trimethylb...	1.279	1.474	1.447	1.576	1.627	1.481	9.09
81)	sec-Butylbenzene	1.667	1.917	1.793	1.867	2.053	1.859	7.71
82)	p-Isopropyltoluene	1.325	1.574	1.512	1.559	1.712	1.536	9.09
83) M	1,3-Dichlorobenzene	0.726	0.795	0.753	0.802	0.815	0.778	4.83
84) M	1,4-Dichlorobenzene	0.769	0.785	0.745	0.815	0.826	0.788	4.23
85)	n-Butylbenzene	1.210	1.538	1.426	1.492	1.656	1.464	11.28
86) T	Hexachloroethane	0.283	0.293	0.279	0.298	0.319	0.294	5.42
87) M	1,2-Dichlorobenzene	0.709	0.744	0.697	0.759	0.764	0.734	4.10
88)	1,2-Dibromo-3-Ch...	0.131	0.129	0.128	0.141	0.147	0.135	6.28
89)	1,2,4-Trichlorob...	0.388	0.404	0.390	0.429	0.451	0.412	6.59
90)	Hexachlorobutadiene	0.155	0.165	0.155	0.150	0.175	0.160	6.34
91) M	Naphthalene	1.322	1.441	1.415	1.607	1.671	1.491	9.67
92)	1,2,3-Trichlorob...	0.388	0.404	0.390	0.429	0.451	0.412	6.59

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088274.D
 Acq On : 13 Nov 2025 10:14
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :John Carlone 11/14/2025
 Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:31:56 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	59982	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	315158	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	280094	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	163453	33.778	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 112.600%#			
60) 4-Bromofluorobenzene	12.829	95	134269	29.108	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 97.033%			
63) Toluene-d8	10.547	98	397107	31.297	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.333%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.142	85	15397	4.199	ug/l	99
3) Chloromethane	2.389	50	20933	5.188	ug/l	98
4) Vinyl Chloride	2.536	62	21649	5.144	ug/l	95
5) Bromomethane	2.977	94	12485	5.542	ug/l	87
6) Chloroethane	3.136	64	13983	5.095	ug/l	93
7) Trichlorofluoromethane	3.512	101	29208	5.032	ug/l	91
8) Diethyl Ether	3.959	74	12849	5.169	ug/l	81
9) 1,1,2-Trichlorotrifluo...	4.365	101	15868m	5.132	ug/l	
10) 1,1-Dichloroethene	4.330	96	15573	4.823	ug/l	95
11) Methyl Iodide	4.583	142	12669	4.056	ug/l	92
12) Methyl Acetate	5.012	43	26727	5.139	ug/l	96
13) Acrolein	4.171	56	22260m	28.039	ug/l	
14) Acrylonitrile	5.706	53	60558	24.465	ug/l	99
15) Acetone	4.430	58	16946	23.407	ug/l	93
16) Carbon Disulfide	4.712	76	52263m	5.069	ug/l	
17) Allyl chloride	5.018	41	31489	5.167	ug/l	97
18) Methylene Chloride	5.265	84	21639	5.317	ug/l	93
19) trans-1,2-Dichloroethene	5.771	96	19169	5.139	ug/l #	81
20) Diisopropyl ether	6.659	45	67510	4.944	ug/l	97
21) 1,1-Dichloroethane	6.553	63	38262	5.276	ug/l	98
22) cis-1,2-Dichloroethene	7.465	96	22622	4.954	ug/l #	90
23) tert-Butyl Alcohol	5.524	59	26385m	27.232	ug/l	
24) Methyl tert-Butyl Ether	5.794	73	65238	4.803	ug/l #	82
25) Chloroform	7.953	83	38596	5.219	ug/l	93
26) Cyclohexane	8.229	56	28299m	4.661	ug/l	
29) 1,1-Dichloropropene	8.347	75	25434	5.410	ug/l	98
30) 2-Butanone	7.471	43	87884	26.404	ug/l #	98
31) 2,2-Dichloropropane	7.477	77	31772m	5.318	ug/l	
32) 1,1,1-Trichloroethane	8.147	97	32744	5.623	ug/l	98
33) Carbon Tetrachloride	8.341	117	27520	5.603	ug/l	85
34) Benzene	8.588	78	81926	5.397	ug/l #	93
35) Methacrylonitrile	7.759	41	18631	5.343	ug/l	93
36) 1,2-Dichloroethane	8.653	62	30747	5.714	ug/l	97
37) Trichloroethene	9.335	130	18362	5.154	ug/l	84
38) Methylcyclohexane	9.582	83	26740	4.668	ug/l	98
39) 1,2-Dichloropropane	9.600	63	21746	5.698	ug/l	99
40) Dibromomethane	9.688	93	15320	5.523	ug/l	99
41) Bromodichloromethane	9.865	83	29744	5.289	ug/l #	94
42) Vinyl Acetate	6.588	43	276230	24.145	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088274.D
 Acq On : 13 Nov 2025 10:14
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:31:56 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	35436	5.467	ug/l #	81
44) Isopropyl Acetate	8.671	43	51550	4.931	ug/l	96
45) 1,4-Dioxane	9.682	88	6293	92.862	ug/l #	93
46) Methyl methacrylate	9.665	41	22745	4.800	ug/l	93
47) n-amyl Acetate	13.111	43	27105m	5.506	ug/l	
48) t-1,3-Dichloropropene	10.818	75	30392	4.911	ug/l	99
49) cis-1,3-Dichloropropene	10.294	75	31815	4.902	ug/l	99
50) 1,1,2-Trichloroethane	10.994	97	19062	5.278	ug/l	95
51) Ethyl methacrylate	10.859	69	26099m	4.302	ug/l	
52) 1,3-Dichloropropane	11.141	76	33732	5.305	ug/l	97
53) Dibromochloromethane	11.341	129	20062	4.685	ug/l	99
54) 1,2-Dibromoethane	11.447	107	19322	5.037	ug/l	90
55) 2-Chloroethyl vinyl ether	10.135	63	84863	25.902	ug/l	98
56) Bromoform	12.559	173	12003	4.198	ug/l #	99
58) 4-Methyl-2-Pentanone	10.429	43	152747	24.280	ug/l	100
59) 2-Hexanone	11.182	43	86444	20.905	ug/l	91
61) Tetrachloroethene	11.082	164	14222	4.941	ug/l	97
62) Toluene	10.612	91	80108	4.996	ug/l	99
64) Chlorobenzene	11.870	112	51274	5.070	ug/l	91
65) 1,1,1,2-Tetrachloroethane	11.941	131	17465	5.028	ug/l	100
66) Ethyl Benzene	11.941	91	82280	4.718	ug/l	90
67) m/p-Xylenes	12.053	106	61616	9.227	ug/l	96
68) o-Xylene	12.376	106	28878	4.411	ug/l	96
69) Styrene	12.394	104	47137	4.312	ug/l	97
70) Isopropylbenzene	12.670	105	74065	4.517	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.917	83	26814	4.879	ug/l	99
72) 1,2,3-Trichloropropane	12.976	75	28504m	5.588	ug/l	
73) Bromobenzene	12.959	156	18184	4.642	ug/l	98
74) n-propylbenzene	13.011	91	93306	4.685	ug/l	99
75) 2-Chlorotoluene	13.106	91	60165	4.967	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	61542	4.437	ug/l	99
77) t-1,4-Dichloro-2-butene	12.717	75	6714m	3.347	ug/l	
78) 4-Chlorotoluene	13.206	91	57871	4.703	ug/l	98
79) tert-butylbenzene	13.417	119	54661	4.578	ug/l	98
80) 1,2,4-Trimethylbenzene	13.459	105	59703	4.320	ug/l	99
81) sec-Butylbenzene	13.594	105	77820	4.567	ug/l	98
82) p-Isopropyltoluene	13.706	119	61858	4.288	ug/l	98
83) 1,3-Dichlorobenzene	13.717	146	33873	4.543	ug/l	96
84) 1,4-Dichlorobenzene	13.794	146	35917	4.716	ug/l	95
85) n-Butylbenzene	14.035	91	56470	4.165	ug/l	97
86) Hexachloroethane	14.311	117	13194	4.616	ug/l	98
87) 1,2-Dichlorobenzene	14.094	146	33084	4.551	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.700	75	6096	4.899	ug/l	99
89) 1,2,4-Trichlorobenzene	15.817	180	18113	4.257	ug/l	98
90) Hexachlorobutadiene	15.470	225	7223	4.707	ug/l	96
91) Naphthalene	15.617	128	61691	3.973	ug/l	98
92) 1,2,3-Trichlorobenzene	15.817	180	18113	4.257	ug/l	98

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 11/14/2025
Supervised By :Semsettin Yesilyurt 11/14/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088275.D
 Acq On : 13 Nov 2025 10:47
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:32:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	56809	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.083	114	316009	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	274966	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	155667	33.966	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 113.233%#			
60) 4-Bromofluorobenzene	12.829	95	135914	30.014	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 100.033%			
63) Toluene-d8	10.547	98	400066	32.118	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 107.067%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	89611	25.803	ug/l	100
3) Chloromethane	2.383	50	86783	22.710	ug/l	100
4) Vinyl Chloride	2.536	62	91378	22.923	ug/l	100
5) Bromomethane	2.983	94	45970	21.544	ug/l	100
6) Chloroethane	3.142	64	56603	21.775	ug/l	100
7) Trichlorofluoromethane	3.512	101	130333	23.708	ug/l	100
8) Diethyl Ether	3.965	74	45445	19.304	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	68173	23.278	ug/l	100
10) 1,1-Dichloroethene	4.336	96	66195	21.644	ug/l	100
11) Methyl Iodide	4.583	142	66051	22.325	ug/l	100
12) Methyl Acetate	5.018	43	102860	20.884	ug/l	100
13) Acrolein	4.183	56	67002	89.110	ug/l	100
14) Acrylonitrile	5.706	53	231708	98.836	ug/l	100
15) Acetone	4.418	58	68836	100.391	ug/l	100
16) Carbon Disulfide	4.706	76	224507	22.989	ug/l	100
17) Allyl chloride	5.018	41	124920	21.641	ug/l	100
18) Methylene Chloride	5.259	84	79465	20.618	ug/l	100
19) trans-1,2-Dichloroethene	5.783	96	77097m	21.822	ug/l	100
20) Diisopropyl ether	6.653	45	264884	20.483	ug/l	100
21) 1,1-Dichloroethane	6.553	63	151801	22.101	ug/l	100
22) cis-1,2-Dichloroethene	7.471	96	85904	19.863	ug/l	100
23) tert-Butyl Alcohol	5.524	59	82461	89.862	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	251301	19.534	ug/l	100
25) Chloroform	7.947	83	146699	20.947	ug/l	100
26) Cyclohexane	8.241	56	133859	23.277	ug/l	100
29) 1,1-Dichloropropene	8.353	75	107093	22.717	ug/l	100
30) 2-Butanone	7.471	43	330360	98.988	ug/l	100
31) 2,2-Dichloropropane	7.471	77	131341	21.925	ug/l	100
32) 1,1,1-Trichloroethane	8.147	97	131366	22.498	ug/l	100
33) Carbon Tetrachloride	8.341	117	112124	22.765	ug/l	100
34) Benzene	8.588	78	314932	20.690	ug/l	100
35) Methacrylonitrile	7.765	41	68465	19.580	ug/l	100
36) 1,2-Dichloroethane	8.653	62	121133	22.449	ug/l	100
37) Trichloroethene	9.330	130	71676	20.066	ug/l	100
38) Methylcyclohexane	9.577	83	124934	21.749	ug/l	100
39) 1,2-Dichloropropane	9.600	63	79702	20.829	ug/l	100
40) Dibromomethane	9.688	93	58255	20.946	ug/l	100
41) Bromodichloromethane	9.871	83	112790	20.003	ug/l	100
42) Vinyl Acetate	6.589	43	1104913	96.320	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088275.D
 Acq On : 13 Nov 2025 10:47
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:32:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.541	43	135974	20.923	ug/l	100
44) Isopropyl Acetate	8.671	43	205400	19.593	ug/l	100
45) 1,4-Dioxane	9.682	88	26417	388.772	ug/l	100
46) Methyl methacrylate	9.665	41	94347	19.858	ug/l	100
47) n-amyl Acetate	12.671	43	96079m	19.466	ug/l	
48) t-1,3-Dichloropropene	10.812	75	117823	18.989	ug/l	100
49) cis-1,3-Dichloropropene	10.294	75	128462	19.738	ug/l	100
50) 1,1,2-Trichloroethane	10.994	97	70272	19.404	ug/l	100
51) Ethyl methacrylate	10.853	69	110057	18.093	ug/l	100
52) 1,3-Dichloropropane	11.141	76	128846	20.209	ug/l	100
53) Dibromochloromethane	11.335	129	79410	18.494	ug/l	100
54) 1,2-Dibromoethane	11.447	107	71949	18.708	ug/l	100
55) 2-Chloroethyl vinyl ether	10.141	63	320128	97.447	ug/l	100
56) Bromoform	12.565	173	49101	17.127	ug/l	100
58) 4-Methyl-2-Pentanone	10.424	43	627464	101.601	ug/l	100
59) 2-Hexanone	11.177	43	399715	98.468	ug/l	100
61) Tetrachloroethene	11.082	164	60224	21.314	ug/l	100
62) Toluene	10.606	91	325793	20.699	ug/l	100
64) Chlorobenzene	11.871	112	195311	19.673	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.941	131	67699	19.855	ug/l	100
66) Ethyl Benzene	11.941	91	353168	20.628	ug/l	100
67) m/p-Xylenes	12.053	106	265069	40.436	ug/l	100
68) o-Xylene	12.376	106	121940	18.975	ug/l	100
69) Styrene	12.394	104	204002	19.012	ug/l	100
70) Isopropylbenzene	12.676	105	329705	20.485	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.918	83	105470	19.550	ug/l	100
72) 1,2,3-Trichloropropane	12.976	75	93353m	18.642	ug/l	
73) Bromobenzene	12.959	156	73152	19.023	ug/l	100
74) n-propylbenzene	13.012	91	409616	20.952	ug/l	100
75) 2-Chlorotoluene	13.106	91	245108	20.611	ug/l	100
76) 1,3,5-Trimethylbenzene	13.153	105	274988	20.196	ug/l	100
77) t-1,4-Dichloro-2-butene	12.718	75	32812	16.660	ug/l	100
78) 4-Chlorotoluene	13.200	91	249260	20.636	ug/l	100
79) tert-butylbenzene	13.412	119	233396	19.912	ug/l	100
80) 1,2,4-Trimethylbenzene	13.459	105	270223	19.918	ug/l	100
81) sec-Butylbenzene	13.594	105	351400	21.009	ug/l	100
82) p-Isopropyltoluene	13.706	119	288563	20.375	ug/l	100
83) 1,3-Dichlorobenzene	13.712	146	145695	19.906	ug/l	100
84) 1,4-Dichlorobenzene	13.788	146	143865	19.240	ug/l	100
85) n-Butylbenzene	14.035	91	281860	21.176	ug/l	100
86) Hexachloroethane	14.312	117	53696	19.135	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	136306	19.098	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	14.700	75	23631	19.344	ug/l	100
89) 1,2,4-Trichlorobenzene	15.812	180	73982	17.714	ug/l	100
90) Hexachlorobutadiene	15.476	225	30294	20.112	ug/l	100
91) Naphthalene	15.612	128	264153	17.329	ug/l	100
92) 1,2,3-Trichlorobenzene	15.812	180	73982	17.714	ug/l	100

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

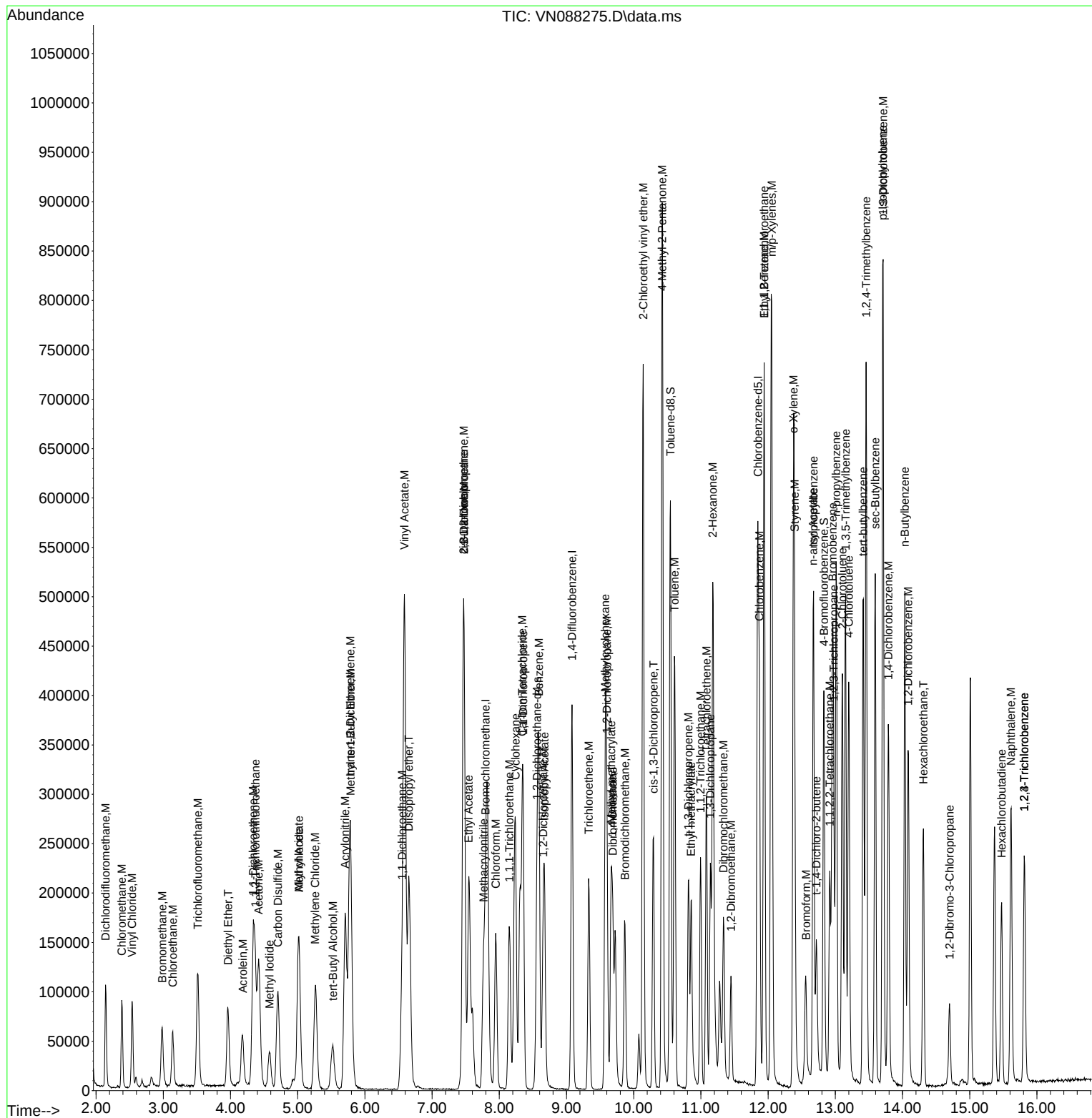
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088275.D
 Acq On : 13 Nov 2025 10:47
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:32:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088276.D
 Acq On : 13 Nov 2025 11:08
 Operator : JC\MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC050

Manual Integrations
 APPROVED

Reviewed By :John Carlone 11/14/2025
 Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:33:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	55911	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	311518	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	279554	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	154791	34.317	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 114.400%#			
60) 4-Bromofluorobenzene	12.829	95	143308	31.127	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 103.767%			
63) Toluene-d8	10.541	98	396360	31.299	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.333%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	202763	59.321	ug/l	99
3) Chloromethane	2.383	50	196949	52.368	ug/l	95
4) Vinyl Chloride	2.536	62	209252	53.337	ug/l	99
5) Bromomethane	2.977	94	107066	50.983	ug/l	93
6) Chloroethane	3.136	64	124513	48.668	ug/l	95
7) Trichlorofluoromethane	3.512	101	295192	54.558	ug/l	95
8) Diethyl Ether	3.965	74	104470	45.088	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.371	101	151998	52.734	ug/l	82
10) 1,1-Dichloroethene	4.336	96	149214	49.573	ug/l	85
11) Methyl Iodide	4.583	142	168273	57.790	ug/l	85
12) Methyl Acetate	5.018	43	238741	49.250	ug/l	93
13) Acrolein	4.177	56	164787	222.681	ug/l	96
14) Acrylonitrile	5.706	53	541419	234.654	ug/l	99
15) Acetone	4.424	58	158252	234.503	ug/l	94
16) Carbon Disulfide	4.706	76	513072	53.381	ug/l	100
17) Allyl chloride	5.012	41	293130	51.598	ug/l	96
18) Methylene Chloride	5.259	84	184772	48.711	ug/l	93
19) trans-1,2-Dichloroethene	5.777	96	172251	49.537	ug/l	98
20) Diisopropyl ether	6.659	45	597968	46.983	ug/l	97
21) 1,1-Dichloroethane	6.553	63	347380	51.389	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	199123	46.782	ug/l	98
23) tert-Butyl Alcohol	5.530	59	189443m	209.762	ug/l	
24) Methyl tert-Butyl Ether	5.789	73	596789	47.134	ug/l	99
25) Chloroform	7.947	83	342347	49.668	ug/l	97
26) Cyclohexane	8.235	56	298210	52.690	ug/l	100
29) 1,1-Dichloropropene	8.353	75	244552	52.624	ug/l	99
30) 2-Butanone	7.471	43	776756	236.100	ug/l	99
31) 2,2-Dichloropropane	7.471	77	301771	51.101	ug/l	99
32) 1,1,1-Trichloroethane	8.147	97	300299	52.171	ug/l	99
33) Carbon Tetrachloride	8.341	117	258895	53.323	ug/l	96
34) Benzene	8.588	78	722849	48.174	ug/l	98
35) Methacrylonitrile	7.765	41	159534	46.282	ug/l	97
36) 1,2-Dichloroethane	8.653	62	283447	53.288	ug/l	100
37) Trichloroethene	9.329	130	166803	47.370	ug/l	100
38) Methylcyclohexane	9.577	83	287564	50.783	ug/l	99
39) 1,2-Dichloropropane	9.600	63	184617	48.942	ug/l	97
40) Dibromomethane	9.688	93	131620	48.007	ug/l	98
41) Bromodichloromethane	9.865	83	269136	48.418	ug/l	99
42) Vinyl Acetate	6.588	43	2683358m	237.292	ug/l	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088276.D
 Acq On : 13 Nov 2025 11:08
 Operator : JC\MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:33:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	315737m	49.283	ug/l	
44) Isopropyl Acetate	8.671	43	482542	46.694	ug/l	99
45) 1,4-Dioxane	9.682	88	59672	890.836	ug/l	96
46) Methyl methacrylate	9.665	41	228386	48.764	ug/l	94
47) n-amyl Acetate	12.500	43	236169m	48.538	ug/l	
48) t-1,3-Dichloropropene	10.818	75	285594	46.692	ug/l	96
49) cis-1,3-Dichloropropene	10.288	75	301442	46.984	ug/l	98
50) 1,1,2-Trichloroethane	10.994	97	165256	46.289	ug/l	95
51) Ethyl methacrylate	10.853	69	276826	46.165	ug/l	96
52) 1,3-Dichloropropane	11.141	76	298832	47.547	ug/l	100
53) Dibromochloromethane	11.335	129	191134	45.155	ug/l	99
54) 1,2-Dibromoethane	11.447	107	168709	44.499	ug/l	99
55) 2-Chloroethyl vinyl ether	10.141	63	732371	226.148	ug/l	98
56) Bromoform	12.553	173	120289	42.562	ug/l	98
58) 4-Methyl-2-Pentanone	10.424	43	1495694	238.212	ug/l	100
59) 2-Hexanone	11.176	43	1024210	248.170	ug/l	100
61) Tetrachloroethene	11.082	164	137527	47.874	ug/l	98
62) Toluene	10.606	91	754127	47.127	ug/l	100
64) Chlorobenzene	11.871	112	463060	45.876	ug/l	98
65) 1,1,1,2-Tetrachloroethane	11.941	131	157503	45.435	ug/l	96
66) Ethyl Benzene	11.941	91	844642	48.524	ug/l	100
67) m/p-Xylenes	12.047	106	639721	95.987	ug/l	100
68) o-Xylene	12.376	106	299638	45.862	ug/l	99
69) Styrene	12.388	104	514330	47.146	ug/l	99
70) Isopropylbenzene	12.670	105	793307	48.480	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.918	83	252114	45.966	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	244240m	47.973	ug/l	
73) Bromobenzene	12.959	156	179669	45.956	ug/l	99
74) n-propylbenzene	13.012	91	991194	49.867	ug/l	100
75) 2-Chlorotoluene	13.100	91	592686	49.020	ug/l	98
76) 1,3,5-Trimethylbenzene	13.153	105	674081	48.695	ug/l	99
77) t-1,4-Dichloro-2-butene	12.718	75	85815	42.857	ug/l	99
78) 4-Chlorotoluene	13.200	91	605977	49.346	ug/l	99
79) tert-butylbenzene	13.412	119	576731	48.395	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	674243	48.884	ug/l	98
81) sec-Butylbenzene	13.594	105	835470	49.130	ug/l	100
82) p-Isopropyltoluene	13.706	119	704697	48.941	ug/l	98
83) 1,3-Dichlorobenzene	13.712	146	350626	47.120	ug/l	99
84) 1,4-Dichlorobenzene	13.788	146	346883	45.631	ug/l	98
85) n-Butylbenzene	14.035	91	664503	49.104	ug/l	98
86) Hexachloroethane	14.306	117	129811	45.501	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	324709	44.748	ug/l	97
88) 1,2-Dibromo-3-Chloropr...	14.700	75	59546	47.944	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	181481	42.739	ug/l	98
90) Hexachlorobutadiene	15.476	225	72346	47.241	ug/l	95
91) Naphthalene	15.611	128	659204	42.535	ug/l	99
92) 1,2,3-Trichlorobenzene	15.811	180	181481	42.739	ug/l	98

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088276.D
 Acq On : 13 Nov 2025 11:08
 Operator : JC\MD
 Sample : VSTDIC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDIC050

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

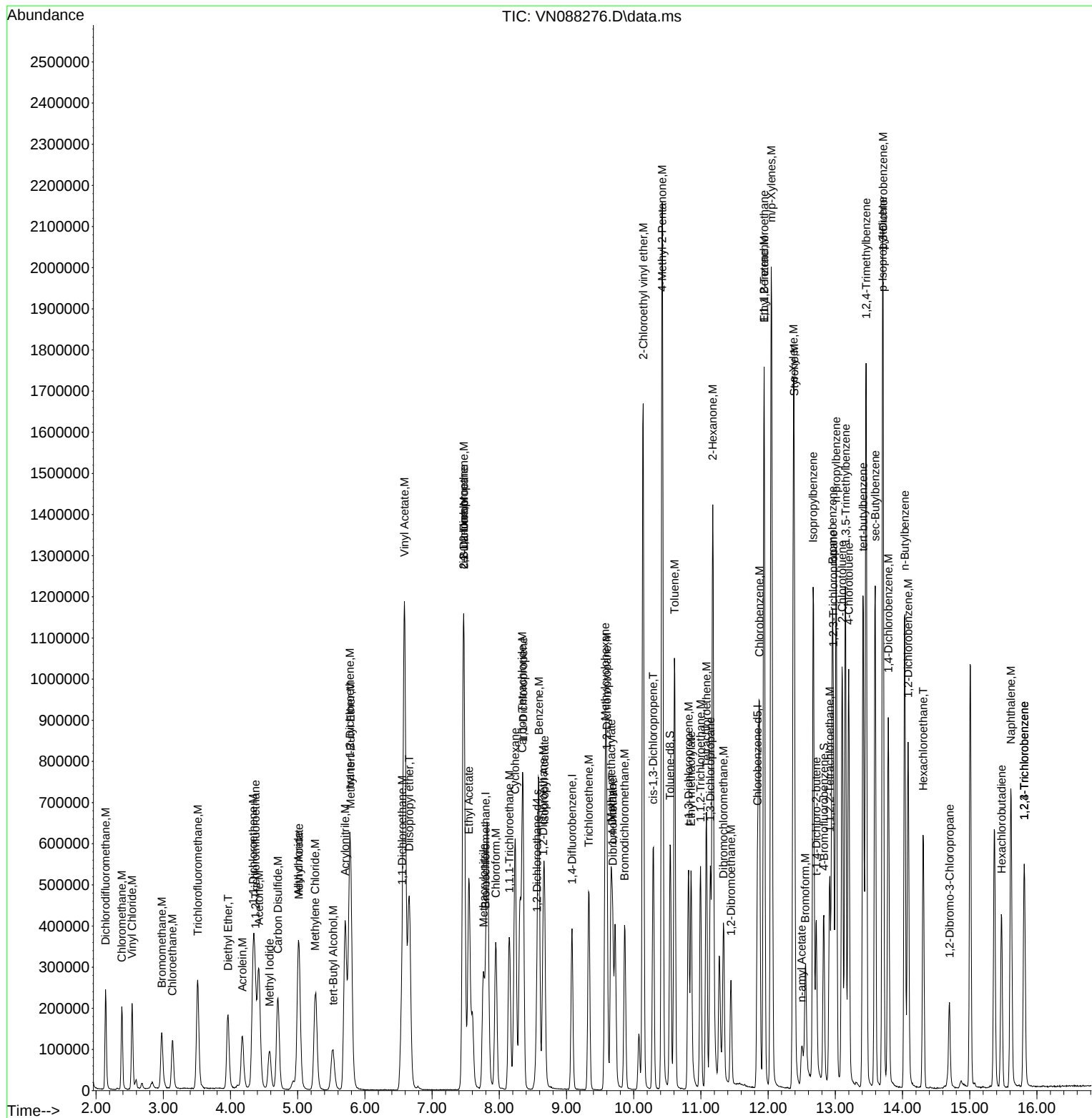
Quant Time: Nov 14 00:33:32 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088277.D
 Acq On : 13 Nov 2025 11:29
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:34:18 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.800	128	57576	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	302391	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	280939	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	158023	34.021	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 113.400%#			
60) 4-Bromofluorobenzene	12.829	95	144691	31.273	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 104.233%			
63) Toluene-d8	10.547	98	389074	30.572	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.900%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	386633	109.844	ug/l	99
3) Chloromethane	2.383	50	396903	102.483	ug/l	95
4) Vinyl Chloride	2.536	62	415782	102.915	ug/l	100
5) Bromomethane	2.965	94	234848	108.597	ug/l	94
6) Chloroethane	3.130	64	264477	100.386	ug/l	98
7) Trichlorofluoromethane	3.506	101	576793	103.522	ug/l	96
8) Diethyl Ether	3.959	74	228588	95.803	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.365	101	296955	100.046	ug/l	99
10) 1,1-Dichloroethene	4.336	96	298818	96.404	ug/l	87
11) Methyl Iodide	4.583	142	368511	122.898	ug/l	84
12) Methyl Acetate	5.018	43	510686	102.304	ug/l	93
13) Acrolein	4.177	56	382851	502.395	ug/l	100
14) Acrylonitrile	5.706	53	1164326	490.032	ug/l	99
15) Acetone	4.424	58	342742	493.199	ug/l	96
16) Carbon Disulfide	4.706	76	1008701	101.913	ug/l	99
17) Allyl chloride	5.012	41	593156	101.390	ug/l	95
18) Methylene Chloride	5.265	84	383510	98.179	ug/l	87
19) trans-1,2-Dichloroethene	5.777	96	347465	97.037	ug/l	97
20) Diisopropyl ether	6.659	45	1304925	99.564	ug/l	94
21) 1,1-Dichloroethane	6.553	63	719300	103.332	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	418959	95.583	ug/l	99
23) tert-Butyl Alcohol	5.524	59	405082	435.560	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	1291019	99.015	ug/l	99
25) Chloroform	7.947	83	720609	101.523	ug/l	98
26) Cyclohexane	8.235	56	579253	99.388	ug/l #	97
29) 1,1-Dichloropropene	8.353	75	500890	111.037	ug/l	98
30) 2-Butanone	7.471	43	1690170	529.244	ug/l	100
31) 2,2-Dichloropropane	7.471	77	623466	108.762	ug/l	99
32) 1,1,1-Trichloroethane	8.147	97	613629	109.824	ug/l	99
33) Carbon Tetrachloride	8.347	117	515390	109.356	ug/l	99
34) Benzene	8.588	78	1510830	103.729	ug/l	99
35) Methacrylonitrile	7.759	41	357832	106.943	ug/l	96
36) 1,2-Dichloroethane	8.653	62	612885	118.700	ug/l	98
37) Trichloroethene	9.329	130	337963	98.874	ug/l	98
38) Methylcyclohexane	9.582	83	556698	101.278	ug/l	99
39) 1,2-Dichloropropane	9.600	63	394096	107.628	ug/l	93
40) Dibromomethane	9.688	93	286468	107.639	ug/l	99
41) Bromodichloromethane	9.865	83	588644	109.095	ug/l	100
42) Vinyl Acetate	6.588	43	5787487	527.240	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088277.D
 Acq On : 13 Nov 2025 11:29
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:34:18 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

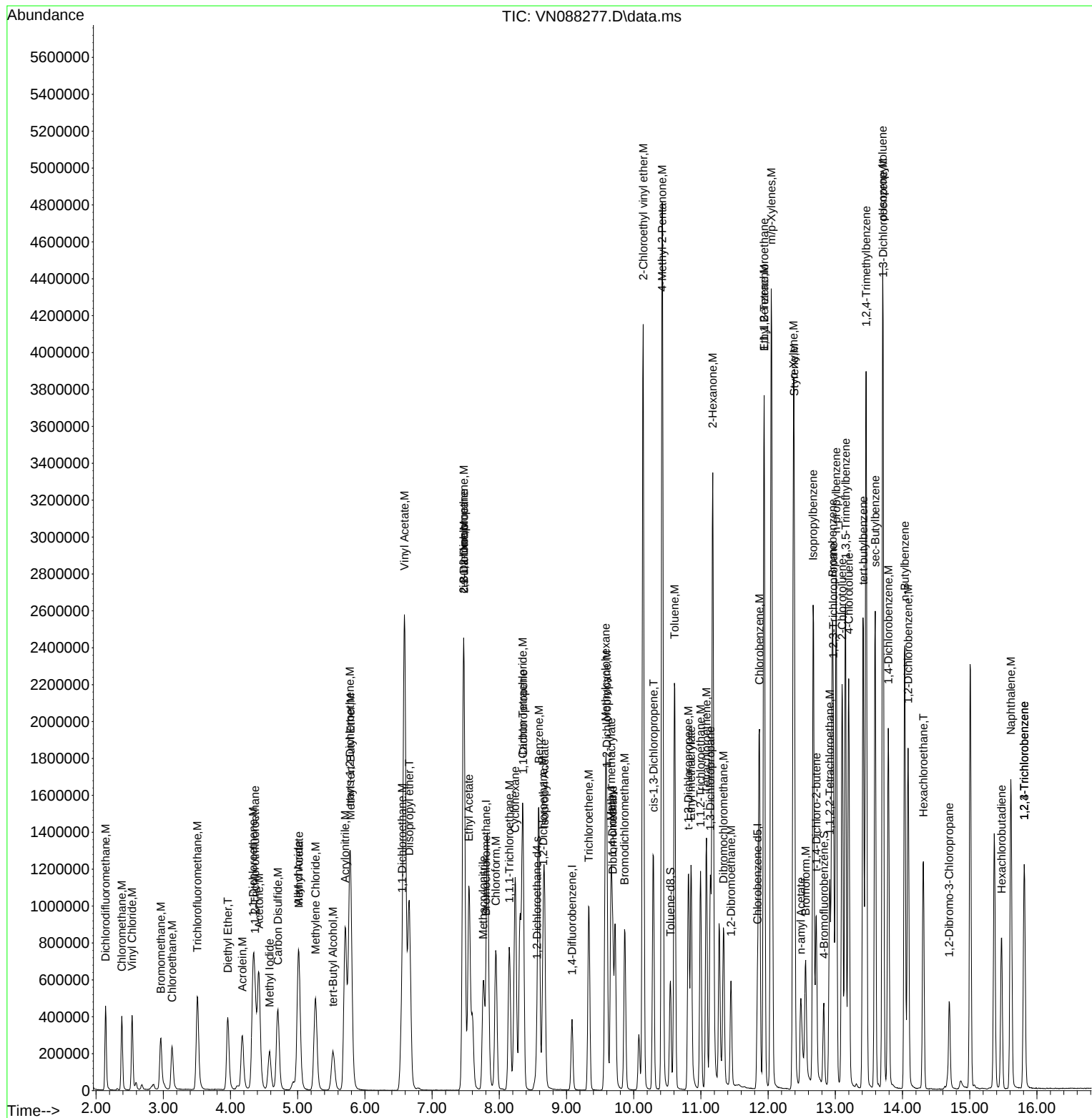
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	685746	110.269	ug/l	100
44) Isopropyl Acetate	8.671	43	1079569	107.619	ug/l	99
45) 1,4-Dioxane	9.682	88	125652	1932.462	ug/l #	94
46) Methyl methacrylate	9.665	41	517547	113.839	ug/l	93
47) n-amyl Acetate	12.488	43	562356m	119.065	ug/l	
48) t-1,3-Dichloropropene	10.812	75	652430	109.885	ug/l	96
49) cis-1,3-Dichloropropene	10.294	75	656345	105.389	ug/l	97
50) 1,1,2-Trichloroethane	10.994	97	355954	102.714	ug/l	96
51) Ethyl methacrylate	10.853	69	640389	110.018	ug/l	94
52) 1,3-Dichloropropane	11.141	76	652611	106.971	ug/l	99
53) Dibromochloromethane	11.335	129	425915	103.658	ug/l	99
54) 1,2-Dibromoethane	11.447	107	380679	103.438	ug/l	97
55) 2-Chloroethyl vinyl ether	10.141	63	1790152	569.464	ug/l	99
56) Bromoform	12.559	173	279810	101.994	ug/l	99
58) 4-Methyl-2-Pentanone	10.424	43	3325706	527.058	ug/l	100
59) 2-Hexanone	11.176	43	2346954	565.872	ug/l	100
61) Tetrachloroethene	11.082	164	277837	96.241	ug/l	95
62) Toluene	10.606	91	1605459	99.833	ug/l	100
64) Chlorobenzene	11.870	112	1005878	99.163	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.941	131	344917	99.007	ug/l	96
66) Ethyl Benzene	11.941	91	1810409	103.494	ug/l	98
67) m/p-Xylenes	12.047	106	1345328	200.864	ug/l	98
68) o-Xylene	12.376	106	654049	99.614	ug/l	100
69) Styrene	12.388	104	1132505	103.300	ug/l	99
70) Isopropylbenzene	12.670	105	1699976	103.375	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.917	83	555412	100.764	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	539279m	105.401	ug/l	
73) Bromobenzene	12.959	156	389367	99.102	ug/l	100
74) n-propylbenzene	13.012	91	2093385	104.799	ug/l	100
75) 2-Chlorotoluene	13.100	91	1279663	105.317	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	1440376	103.538	ug/l	99
77) t-1,4-Dichloro-2-butene	12.717	75	206317	102.530	ug/l	95
78) 4-Chlorotoluene	13.200	91	1317180	106.732	ug/l	99
79) tert-butylbenzene	13.417	119	1208602	100.916	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	1476053	106.488	ug/l	98
81) sec-Butylbenzene	13.594	105	1748566	102.318	ug/l	99
82) p-Isopropyltoluene	13.706	119	1459564	100.866	ug/l	99
83) 1,3-Dichlorobenzene	13.712	146	751195	100.454	ug/l	99
84) 1,4-Dichlorobenzene	13.788	146	763171	99.896	ug/l	99
85) n-Butylbenzene	14.035	91	1397544	102.763	ug/l	98
86) Hexachloroethane	14.312	117	278606	97.175	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	710660	97.453	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.694	75	132109	105.844	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	401343	94.051	ug/l	97
90) Hexachlorobutadiene	15.476	225	140304	91.164	ug/l	97
91) Naphthalene	15.611	128	1505179	96.642	ug/l	99
92) 1,2,3-Trichlorobenzene	15.811	180	401343	94.051	ug/l	97

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 11/14/2025
Supervised By :Semsettin Yesilyurt 11/14/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088278.D
 Acq On : 13 Nov 2025 11:50
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC150

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:35:04 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.800	128	58005	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	317019	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	293637	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	157963	33.756	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 112.533%#			
60) 4-Bromofluorobenzene	12.829	95	156905	32.446	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 108.167%			
63) Toluene-d8	10.547	98	418750	31.481	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.933%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	709810	200.169	ug/l	100
3) Chloromethane	2.383	50	668367	171.300	ug/l	96
4) Vinyl Chloride	2.536	62	726496	178.493	ug/l	99
5) Bromomethane	2.953	94	375277	172.250	ug/l	91
6) Chloroethane	3.124	64	434399	163.663	ug/l	97
7) Trichlorofluoromethane	3.506	101	1038285	184.971	ug/l	95
8) Diethyl Ether	3.959	74	355635	147.948	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.365	101	547868	183.214	ug/l	97
10) 1,1-Dichloroethene	4.336	96	517537	165.732	ug/l	87
11) Methyl Iodide	4.577	142	591847	195.920	ug/l	85
12) Methyl Acetate	5.018	43	781462	155.390	ug/l	94
13) Acrolein	4.177	56	588784	766.915	ug/l	98
14) Acrylonitrile	5.712	53	1792462	748.818	ug/l	99
15) Acetone	4.424	58	534918	764.044	ug/l	91
16) Carbon Disulfide	4.700	76	1711397	171.629	ug/l	99
17) Allyl chloride	5.012	41	969891	164.560	ug/l	96
18) Methylene Chloride	5.265	84	582523	148.024	ug/l	92
19) trans-1,2-Dichloroethene	5.777	96	577960	160.214	ug/l	97
20) Diisopropyl ether	6.659	45	2113687	160.079	ug/l	95
21) 1,1-Dichloroethane	6.553	63	1155893	164.822	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	670659	151.876	ug/l	99
23) tert-Butyl Alcohol	5.530	59	625469	667.554	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	2019738	153.759	ug/l	98
25) Chloroform	7.947	83	1147984	160.537	ug/l	98
26) Cyclohexane	8.235	56	1077697	183.543	ug/l #	98
29) 1,1-Dichloropropene	8.353	75	859630	181.769	ug/l	98
30) 2-Butanone	7.471	43	2664153	795.735	ug/l	100
31) 2,2-Dichloropropane	7.471	77	1044376	173.782	ug/l	98
32) 1,1,1-Trichloroethane	8.153	97	1032260	176.224	ug/l	99
33) Carbon Tetrachloride	8.347	117	901323	182.420	ug/l	99
34) Benzene	8.588	78	2433755	159.383	ug/l	99
35) Methacrylonitrile	7.765	41	549670	156.696	ug/l	98
36) 1,2-Dichloroethane	8.653	62	946592	174.871	ug/l	98
37) Trichloroethene	9.335	130	553150	154.362	ug/l	96
38) Methylcyclohexane	9.582	83	1047944	181.852	ug/l	99
39) 1,2-Dichloropropane	9.600	63	620150	161.548	ug/l	98
40) Dibromomethane	9.688	93	445197	159.562	ug/l	100
41) Bromodichloromethane	9.871	83	931442	164.661	ug/l	99
42) Vinyl Acetate	6.588	43	8882940m	771.895	ug/l	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088278.D
 Acq On : 13 Nov 2025 11:50
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:35:04 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	1028651m	157.776	ug/l	
44) Isopropyl Acetate	8.671	43	1685410	160.261	ug/l	100
45) 1,4-Dioxane	9.682	88	189937	2786.344	ug/l	96
46) Methyl methacrylate	9.665	41	816245	171.256	ug/l	94
47) n-amyl Acetate	12.482	43	886019	178.936	ug/l #	100
48) t-1,3-Dichloropropene	10.818	75	1031386	165.696	ug/l	96
49) cis-1,3-Dichloropropene	10.294	75	1045380	160.111	ug/l	99
50) 1,1,2-Trichloroethane	10.994	97	549793	151.328	ug/l	97
51) Ethyl methacrylate	10.853	69	1004034	164.532	ug/l	95
52) 1,3-Dichloropropane	11.141	76	1024092	160.116	ug/l	100
53) Dibromochloromethane	11.335	129	665870	154.580	ug/l	98
54) 1,2-Dibromoethane	11.447	107	585979	151.875	ug/l	98
55) 2-Chloroethyl vinyl ether	10.141	63	2859403	867.631	ug/l	99
56) Bromoform	12.559	173	437240	152.024	ug/l	98
58) 4-Methyl-2-Pentanone	10.423	43	5148363	780.630	ug/l	100
59) 2-Hexanone	11.176	43	3710506	855.949	ug/l	100
61) Tetrachloroethene	11.082	164	471972	156.418	ug/l	97
62) Toluene	10.606	91	2615873	155.630	ug/l	99
64) Chlorobenzene	11.870	112	1614092	152.242	ug/l	98
65) 1,1,1,2-Tetrachloroethane	11.941	131	550423	151.164	ug/l	96
66) Ethyl Benzene	11.941	91	3012482	164.765	ug/l	97
67) m/p-Xylenes	12.047	106	2231809	318.811	ug/l	98
68) o-Xylene	12.376	106	1059250	154.351	ug/l	100
69) Styrene	12.388	104	1832890	159.954	ug/l	98
70) Isopropylbenzene	12.670	105	2887068	167.970	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.917	83	864951	150.136	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	827243m	154.690	ug/l	
73) Bromobenzene	12.959	156	605473	147.441	ug/l	97
74) n-propylbenzene	13.011	91	3494880	167.395	ug/l	100
75) 2-Chlorotoluene	13.100	91	2070119	163.004	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	2410543	165.784	ug/l	99
77) t-1,4-Dichloro-2-butene	12.717	75	335518	159.527	ug/l	99
78) 4-Chlorotoluene	13.200	91	2139279	165.851	ug/l	100
79) tert-butylbenzene	13.417	119	2057918	164.402	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	2388876	164.890	ug/l	99
81) sec-Butylbenzene	13.594	105	3013988	168.738	ug/l	99
82) p-Isopropyltoluene	13.706	119	2513693	166.202	ug/l	99
83) 1,3-Dichlorobenzene	13.711	146	1197075	153.157	ug/l	98
84) 1,4-Dichlorobenzene	13.788	146	1213140	151.929	ug/l	99
85) n-Butylbenzene	14.035	91	2431132	171.034	ug/l	97
86) Hexachloroethane	14.311	117	468741	156.422	ug/l	99
87) 1,2-Dichlorobenzene	14.082	146	1121846	147.186	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.700	75	215743	165.376	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	662170	148.463	ug/l	98
90) Hexachlorobutadiene	15.476	225	257201	159.893	ug/l	96
91) Naphthalene	15.611	128	2454033	150.750	ug/l	100
92) 1,2,3-Trichlorobenzene	15.811	180	662170	148.463	ug/l	98

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

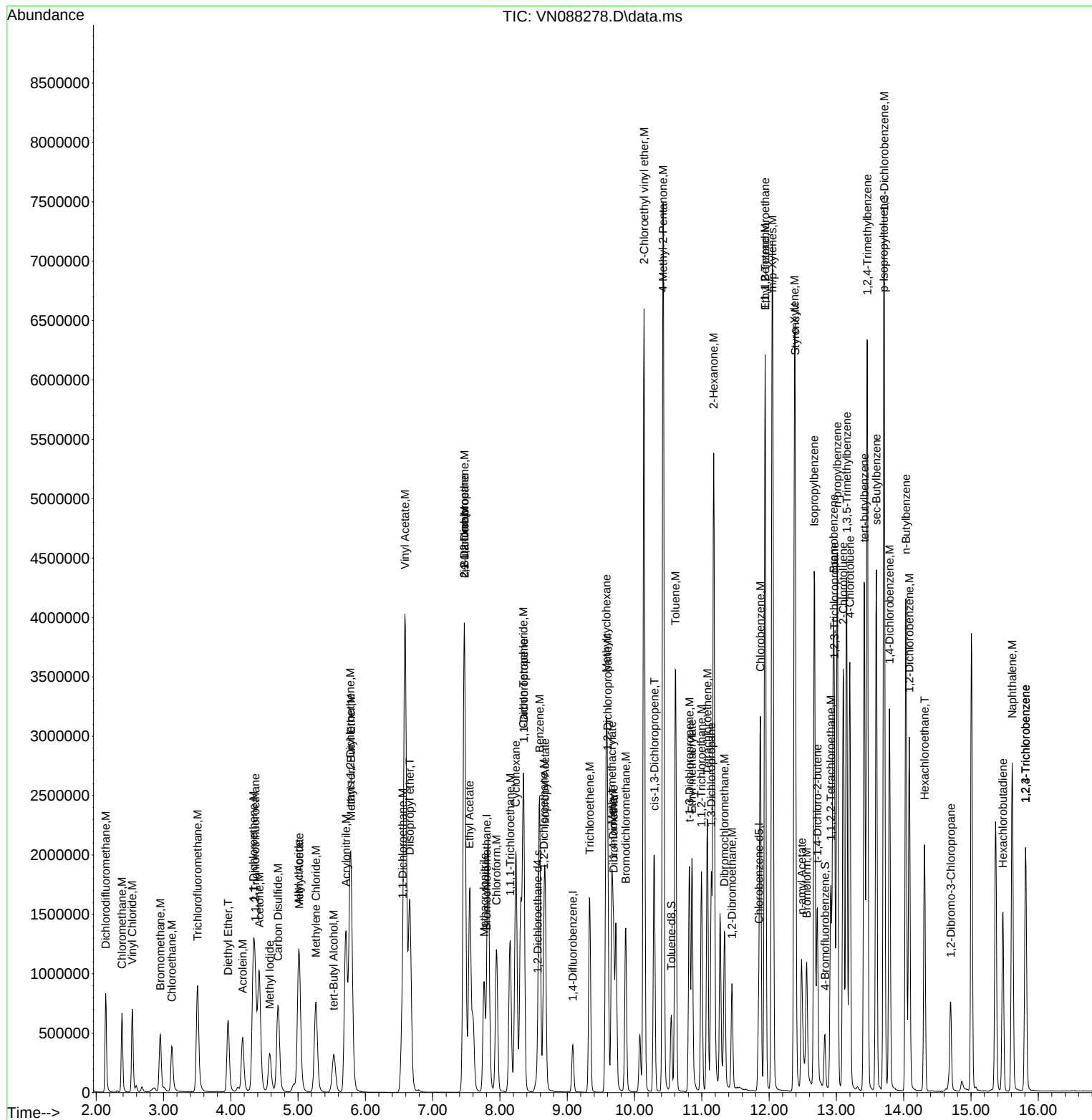
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Data File : VN088278.D  
Acq On    : 13 Nov 2025  11:50  
Operator  : JC\MD  
Sample    : VSTDICC150  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 6      Sample Multiplier: 1
```

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 11/14/2025
Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:35:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:31:19 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

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

Internal Standards						
1) Bromochloromethane	7.794	128	59836	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	314478	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	281376	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	164242	30.050	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.167%			
60) 4-Bromofluorobenzene	12.829	95	141628	29.776	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.267%			
63) Toluene-d8	10.541	98	398285	29.898	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.667%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	77036	18.315	ug/l	98
3) Chloromethane	2.383	50	86177	19.872	ug/l	98
4) Vinyl Chloride	2.536	62	84527	18.433	ug/l	98
5) Bromomethane	2.977	94	48863	19.985	ug/l	97
6) Chloroethane	3.136	64	50576	17.844	ug/l	94
7) Trichlorofluoromethane	3.512	101	110113	17.128	ug/l	100
8) Diethyl Ether	3.965	74	46163	19.212	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.371	101	57310	16.992	ug/l	79
10) 1,1-Dichloroethene	4.336	96	59274	18.015	ug/l	94
11) Methyl Iodide	4.577	142	58877	16.814	ug/l	90
12) Methyl Acetate	5.018	43	105672	19.907	ug/l	92
13) Acrolein	4.177	56	76696	98.203	ug/l	99
14) Acrylonitrile	5.706	53	236180	97.918	ug/l	98
15) Acetone	4.424	58	63872	90.552	ug/l	96
16) Carbon Disulfide	4.706	76	208629	18.801	ug/l	99
17) Allyl chloride	5.006	41	118554	18.542	ug/l	96
18) Methylene Chloride	5.271	84	79620m	19.468	ug/l	
19) trans-1,2-Dichloroethene	5.771	96	71896	18.765	ug/l	89
20) Diisopropyl ether	6.659	45	256681	18.786	ug/l	96
21) 1,1-Dichloroethane	6.553	63	143051	18.584	ug/l	98
22) cis-1,2-Dichloroethene	7.471	96	84864	19.057	ug/l	97
23) tert-Butyl Alcohol	5.524	59	86459	97.482	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	257315	19.396	ug/l	100
25) Chloroform	7.953	83	142847	18.728	ug/l	98
26) Cyclohexane	8.235	56	106714	16.413	ug/l #	98
29) 1,1-Dichloropropene	8.347	75	96367	18.365	ug/l	99
30) 2-Butanone	7.471	43	327303	96.429	ug/l	98
31) 2,2-Dichloropropane	7.471	77	112256	17.345	ug/l	98
32) 1,1,1-Trichloroethane	8.147	97	119999	18.551	ug/l	98
33) Carbon Tetrachloride	8.341	117	97677	17.683	ug/l	98
34) Benzene	8.582	78	299669	19.106	ug/l #	93
35) Methacrylonitrile	7.759	41	69495	19.629	ug/l	94
36) 1,2-Dichloroethane	8.653	62	120013	19.661	ug/l	98
37) Trichloroethene	9.329	130	64617	18.180	ug/l	98
38) Methylcyclohexane	9.582	83	99896	16.606	ug/l	99
39) 1,2-Dichloropropane	9.600	63	78870	19.491	ug/l	90
40) Dibromomethane	9.688	93	56759	19.523	ug/l	99
41) Bromodichloromethane	9.865	83	116210	19.856	ug/l	99
42) Vinyl Acetate	6.588	43	1092816	96.465	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

ICVVN111325

Manual Integrations**APPROVED**

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:53:31 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:49:21 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	134361	19.674	ug/l	96
44) Isopropyl Acetate	8.671	43	208844	19.843	ug/l	99
45) 1,4-Dioxane	9.676	88	29023	457.924	ug/l	94
46) Methyl methacrylate	9.659	41	90781	18.433	ug/l	96
47) n-amyl Acetate	12.688	43	103680m	19.440	ug/l	
48) t-1,3-Dichloropropene	10.812	75	116148	18.554	ug/l	100
49) cis-1,3-Dichloropropene	10.294	75	122990	18.883	ug/l	98
50) 1,1,2-Trichloroethane	10.994	97	71176	19.799	ug/l	94
51) Ethyl methacrylate	10.853	69	111049	18.775	ug/l	98
52) 1,3-Dichloropropane	11.141	76	127801	19.520	ug/l	99
53) Dibromochloromethane	11.341	129	80293	19.444	ug/l	98
54) 1,2-Dibromoethane	11.447	107	72030	19.284	ug/l	98
55) 2-Chloroethyl vinyl ether	10.141	63	344568	101.131	ug/l	99
56) Bromoform	12.559	173	48800	18.671	ug/l	99
58) 4-Methyl-2-Pentanone	10.423	43	643377	101.096	ug/l	99
59) 2-Hexanone	11.176	43	393465	93.108	ug/l	100
61) Tetrachloroethene	11.082	164	54040	18.628	ug/l	94
62) Toluene	10.612	91	313035	19.386	ug/l	98
64) Chlorobenzene	11.870	112	191339	19.133	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.941	131	66791	19.513	ug/l	96
66) Ethyl Benzene	11.941	91	332207	18.667	ug/l	98
67) m/p-Xylenes	12.053	106	248347	37.317	ug/l	99
68) o-Xylene	12.376	106	119521	19.038	ug/l	98
69) Styrene	12.394	104	195500	18.335	ug/l	99
70) Isopropylbenzene	12.676	105	294499	17.700	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.917	83	101792	18.887	ug/l	98
72) 1,2,3-Trichloropropane	12.976	75	109453m	20.963	ug/l	
73) Bromobenzene	12.959	156	72384	19.271	ug/l	96
74) n-propylbenzene	13.012	91	372792	18.105	ug/l	100
75) 2-Chlorotoluene	13.106	91	227167	18.144	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	251921	18.038	ug/l	98
77) t-1,4-Dichloro-2-butene	12.723	75	31173	17.386	ug/l	89
78) 4-Chlorotoluene	13.200	91	235228	18.540	ug/l	98
79) tert-butylbenzene	13.417	119	212022	17.732	ug/l	100
80) 1,2,4-Trimethylbenzene	13.459	105	252748	18.199	ug/l	98
81) sec-Butylbenzene	13.594	105	303762	17.417	ug/l	99
82) p-Isopropyltoluene	13.706	119	250478	17.381	ug/l	98
83) 1,3-Dichlorobenzene	13.711	146	133127	18.242	ug/l	98
84) 1,4-Dichlorobenzene	13.794	146	138360	18.721	ug/l	99
85) n-Butylbenzene	14.035	91	237919	17.323	ug/l	98
86) Hexachloroethane	14.311	117	48251	17.487	ug/l	97
87) 1,2-Dichlorobenzene	14.088	146	132768	19.274	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.700	75	24904	19.659	ug/l	95
89) 1,2,4-Trichlorobenzene	15.817	180	71398	18.470	ug/l	97
90) Hexachlorobutadiene	15.476	225	26997	17.984	ug/l	94
91) Naphthalene	15.617	128	257726	18.427	ug/l	99
92) 1,2,3-Trichlorobenzene	15.817	180	71398	18.470	ug/l	97

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

MSVOA_N

Client Sample Id :

ICVVN111325

Manual Integrations

APPROVED

Reviewed By : John Carlone 11/14/2025

Supervised By : Semsettin Yesilyurt 11/14/2025

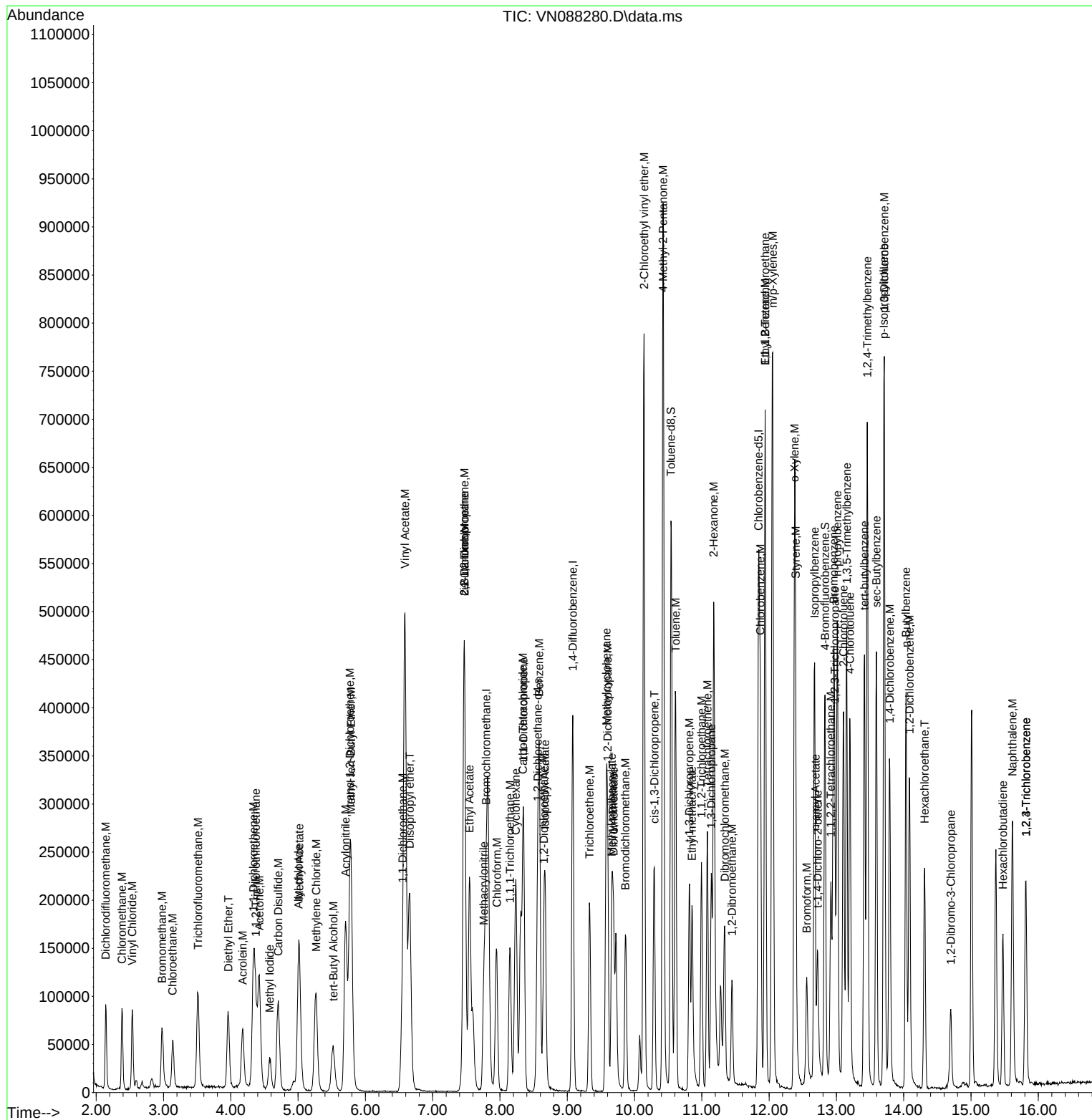
Quant Time: Nov 14 00:53:31 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:49:21 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	105	0.00
2 M	Dichlorodifluoromethane	2.109	1.931	8.4	86	0.00
3 M	Chloromethane	2.174	2.160	0.6	99	0.00
4 M	Vinyl Chloride	2.299	2.119	7.8	93	0.00
5 M	Bromomethane	1.226	1.225	0.1	106	0.00
6 M	Chloroethane	1.421	1.268	10.8	89	0.00
7 M	Trichlorofluoromethane	3.223	2.760	14.4	84	0.00
8 T	Diethyl Ether	1.205	1.157	4.0	102	0.00
9	1,1,2-Trichlorotrifluoroeth	1.691	1.437	15.0	84	0.00
10 M	1,1-Dichloroethene	1.650	1.486	9.9	90	0.00
11	Methyl Iodide	1.756	1.476	15.9	89	0.00
12	Methyl Acetate	2.661	2.649	0.5	103	0.00
13 M	Acrolein	0.392	0.385	1.8	114	0.00
14 M	Acrylonitrile	1.209	1.184	2.1	102	0.00
15 M	Acetone	0.354	0.320	9.6	93	0.00
16 M	Carbon Disulfide	5.564	5.230	6.0	93	0.00
17	Allyl chloride	3.206	2.972	7.3	95	-0.01
18 M	Methylene Chloride	2.050	1.996	2.6	100	0.01
19 M	trans-1,2-Dichloroethene	1.921	1.802	6.2	93	-0.01
20 T	Diisopropyl ether	6.850	6.435	6.1	97	0.00
21 M	1,1-Dichloroethane	3.859	3.586	7.1	94	0.00
22 M	cis-1,2-Dichloroethene	2.233	2.127	4.7	99	0.00
23 M	tert-Butyl Alcohol	0.445	0.433	2.7	105	0.00
24 M	Methyl tert-Butyl Ether	6.651	6.451	3.0	102	0.00
25 M	Chloroform	3.824	3.581	6.4	97	0.00
26	Cyclohexane	3.260	2.675	17.9	80	0.00
27 s	1,2-Dichloroethane-d4	2.740	2.745	-0.2	106	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
29	1,1-Dichloropropene	0.501	0.460	8.2	90	0.00
30 M	2-Butanone	0.324	0.312	3.7	99	0.00
31	2,2-Dichloropropane	0.617	0.535	13.3	85	0.00
32 M	1,1,1-Trichloroethane	0.617	0.572	7.3	91	0.00
33 M	Carbon Tetrachloride	0.527	0.466	11.6	87	0.00
34 M	Benzene	1.496	1.429	4.5	95	0.00
35	Methacrylonitrile	0.338	0.331	2.1	102	0.00
36 M	1,2-Dichloroethane	0.582	0.572	1.7	99	0.00
37 M	Trichloroethene	0.339	0.308	9.1	90	0.00
38	Methylcyclohexane	0.574	0.476	17.1	80	0.00
39 M	1,2-Dichloropropane	0.386	0.376	2.6	99	0.00
40	Dibromomethane	0.277	0.271	2.2	97	0.00
41 M	Bromodichloromethane	0.558	0.554	0.7	103	0.00
42 M	Vinyl Acetate	1.081	1.043	3.5	99	0.00
43	Ethyl Acetate	0.651	0.641	1.5	99	0.00
44	Isopropyl Acetate	1.004	0.996	0.8	102	0.00
45 T	1,4-Dioxane	0.006	0.007	-16.7	110	0.00
46	Methyl methacrylate	0.470	0.433	7.9	96	0.00
47	n-amyl Acetate	0.509	0.495	2.8	108	0.02
48 M	t-1,3-Dichloropropene	0.597	0.554	7.2	99	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	0.621	0.587	5.5	96	0.00
50 M	1,1,2-Trichloroethane	0.343	0.339	1.2	101	0.00
51	Ethyl methacrylate	0.564	0.530	6.0	101	0.00
52	1,3-Dichloropropane	0.625	0.610	2.4	99	0.00
53 M	Dibromochloromethane	0.394	0.383	2.8	101	0.00
54 M	1,2-Dibromoethane	0.356	0.344	3.4	100	0.00
55 M	2-Chloroethyl vinyl ether	0.325	0.329	-1.2	108	0.00
56 M	Bromoform	0.249	0.233	6.4	99	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
58 M	4-Methyl-2-Pentanone	0.679	0.686	-1.0	103	0.00
59 M	2-Hexanone	0.451	0.420	6.9	98	0.00
60 S	4-Bromofluorobenzene	0.507	0.503	0.8	104	0.00
61 M	Tetrachloroethene	0.309	0.288	6.8	90	0.00
62 M	Toluene	1.722	1.669	3.1	96	0.00
63 S	Toluene-d8	1.420	1.415	0.4	100	0.00
64 M	Chlorobenzene	1.066	1.020	4.3	98	0.00
65	1,1,1,2-Tetrachloroethane	0.365	0.356	2.5	99	0.00
66 M	Ethyl Benzene	1.897	1.771	6.6	94	0.00
67 M	m/p-Xylenes	0.710	0.662	6.8	94	0.00
68 M	o-Xylene	0.669	0.637	4.8	98	0.00
69 M	Styrene	1.137	1.042	8.4	96	0.00
70	Isopropylbenzene	1.774	1.570	11.5	89	0.00
71 M	1,1,2,2-Tetrachloroethane	0.575	0.543	5.6	97	0.00
72	1,2,3-Trichloropropane	0.557	0.583	-4.7	117	0.00
73	Bromobenzene	0.400	0.386	3.5	99	0.00
74	n-propylbenzene	2.195	1.987	9.5	91	0.00
75	2-Chlorotoluene	1.335	1.211	9.3	93	0.00
76	1,3,5-Trimethylbenzene	1.489	1.343	9.8	92	0.00
77	t-1,4-Dichloro-2-butene	0.191	0.166	13.1	95	0.00
78	4-Chlorotoluene	1.353	1.254	7.3	94	0.00
79	tert-butylbenzene	1.275	1.130	11.4	91	0.00
80	1,2,4-Trimethylbenzene	1.481	1.347	9.0	94	0.00
81	sec-Butylbenzene	1.859	1.619	12.9	86	0.00
82	p-Isopropyltoluene	1.536	1.335	13.1	87	0.00
83 M	1,3-Dichlorobenzene	0.778	0.710	8.7	91	0.00
84 M	1,4-Dichlorobenzene	0.788	0.738	6.3	96	0.00
85	n-Butylbenzene	1.464	1.268	13.4	84	0.00
86 T	Hexachloroethane	0.294	0.257	12.6	90	0.00
87 M	1,2-Dichlorobenzene	0.734	0.708	3.5	97	0.00
88	1,2-Dibromo-3-Chloropropane	0.135	0.133	1.5	105	0.00
89	1,2,4-Trichlorobenzene	0.412	0.381	7.5	97	0.00
90	Hexachlorobutadiene	0.160	0.144	10.0	89	0.00
91 M	Naphthalene	1.491	1.374	7.8	98	0.00
92	1,2,3-Trichlorobenzene	0.412	0.381	7.5	97	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	105	0.00
2 M	Dichlorodifluoromethane	20.000	18.315	8.4	86	0.00
3 M	Chloromethane	20.000	19.872	0.6	99	0.00
4 M	Vinyl Chloride	20.000	18.433	7.8	93	0.00
5 M	Bromomethane	20.000	19.985	0.1	106	0.00
6 M	Chloroethane	20.000	17.844	10.8	89	0.00
7 M	Trichlorofluoromethane	20.000	17.128	14.4	84	0.00
8 T	Diethyl Ether	20.000	19.212	3.9	102	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	16.992	15.0	84	0.00
10 M	1,1-Dichloroethene	20.000	18.015	9.9	90	0.00
11	Methyl Iodide	20.000	16.814	15.9	89	0.00
12	Methyl Acetate	20.000	19.907	0.5	103	0.00
13 M	Acrolein	100.000	98.203	1.8	114	0.00
14 M	Acrylonitrile	100.000	97.918	2.1	102	0.00
15 M	Acetone	100.000	90.552	9.4	93	0.00
16 M	Carbon Disulfide	20.000	18.801	6.0	93	0.00
17	Allyl chloride	20.000	18.542	7.3	95	-0.01
18 M	Methylene Chloride	20.000	19.468	2.7	100	0.01
19 M	trans-1,2-Dichloroethene	20.000	18.765	6.2	93	-0.01
20 T	Diisopropyl ether	20.000	18.786	6.1	97	0.00
21 M	1,1-Dichloroethane	20.000	18.584	7.1	94	0.00
22 M	cis-1,2-Dichloroethene	20.000	19.057	4.7	99	0.00
23 M	tert-Butyl Alcohol	100.000	97.482	2.5	105	0.00
24 M	Methyl tert-Butyl Ether	20.000	19.396	3.0	102	0.00
25 M	Chloroform	20.000	18.728	6.4	97	0.00
26	Cyclohexane	20.000	16.413	17.9	80	0.00
27 s	1,2-Dichloroethane-d4	30.000	30.050	-0.2	106	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	100	0.00
29	1,1-Dichloropropene	20.000	18.365	8.2	90	0.00
30 M	2-Butanone	100.000	96.429	3.6	99	0.00
31	2,2-Dichloropropane	20.000	17.345	13.3	85	0.00
32 M	1,1,1-Trichloroethane	20.000	18.551	7.2	91	0.00
33 M	Carbon Tetrachloride	20.000	17.683	11.6	87	0.00
34 M	Benzene	20.000	19.106	4.5	95	0.00
35	Methacrylonitrile	20.000	19.629	1.9	102	0.00
36 M	1,2-Dichloroethane	20.000	19.661	1.7	99	0.00
37 M	Trichloroethene	20.000	18.180	9.1	90	0.00
38	Methylcyclohexane	20.000	16.606	17.0	80	0.00
39 M	1,2-Dichloropropane	20.000	19.491	2.5	99	0.00
40	Dibromomethane	20.000	19.523	2.4	97	0.00
41 M	Bromodichloromethane	20.000	19.856	0.7	103	0.00
42 M	Vinyl Acetate	100.000	96.465	3.5	99	0.00
43	Ethyl Acetate	20.000	19.674	1.6	99	0.00
44	Isopropyl Acetate	20.000	19.843	0.8	102	0.00
45 T	1,4-Dioxane	400.000	457.924	-14.5	110	0.00
46	Methyl methacrylate	20.000	18.433	7.8	96	0.00
47	n-amyl Acetate	20.000	19.440	2.8	108	0.02
48 M	t-1,3-Dichloropropene	20.000	18.554	7.2	99	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	18.883	5.6	96	0.00
50 M	1,1,2-Trichloroethane	20.000	19.799	1.0	101	0.00
51	Ethyl methacrylate	20.000	18.775	6.1	101	0.00
52	1,3-Dichloropropane	20.000	19.520	2.4	99	0.00
53 M	Dibromochloromethane	20.000	19.444	2.8	101	0.00
54 M	1,2-Dibromoethane	20.000	19.284	3.6	100	0.00
55 M	2-Chloroethyl vinyl ether	100.000	101.131	-1.1	108	0.00
56 M	Bromoform	20.000	18.671	6.6	99	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	102	0.00
58 M	4-Methyl-2-Pentanone	100.000	101.096	-1.1	103	0.00
59 M	2-Hexanone	100.000	93.108	6.9	98	0.00
60 S	4-Bromofluorobenzene	30.000	29.776	0.7	104	0.00
61 M	Tetrachloroethene	20.000	18.628	6.9	90	0.00
62 M	Toluene	20.000	19.386	3.1	96	0.00
63 S	Toluene-d8	30.000	29.898	0.3	100	0.00
64 M	Chlorobenzene	20.000	19.133	4.3	98	0.00
65	1,1,1,2-Tetrachloroethane	20.000	19.513	2.4	99	0.00
66 M	Ethyl Benzene	20.000	18.667	6.7	94	0.00
67 M	m/p-Xylenes	40.000	37.317	6.7	94	0.00
68 M	o-Xylene	20.000	19.038	4.8	98	0.00
69 M	Styrene	20.000	18.335	8.3	96	0.00
70	Isopropylbenzene	20.000	17.700	11.5	89	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	18.887	5.6	97	0.00
72	1,2,3-Trichloropropane	20.000	20.963	-4.8	117	0.00
73	Bromobenzene	20.000	19.271	3.6	99	0.00
74	n-propylbenzene	20.000	18.105	9.5	91	0.00
75	2-Chlorotoluene	20.000	18.144	9.3	93	0.00
76	1,3,5-Trimethylbenzene	20.000	18.038	9.8	92	0.00
77	t-1,4-Dichloro-2-butene	20.000	17.386	13.1	95	0.00
78	4-Chlorotoluene	20.000	18.540	7.3	94	0.00
79	tert-butylbenzene	20.000	17.732	11.3	91	0.00
80	1,2,4-Trimethylbenzene	20.000	18.199	9.0	94	0.00
81	sec-Butylbenzene	20.000	17.417	12.9	86	0.00
82	p-Isopropyltoluene	20.000	17.381	13.1	87	0.00
83 M	1,3-Dichlorobenzene	20.000	18.242	8.8	91	0.00
84 M	1,4-Dichlorobenzene	20.000	18.721	6.4	96	0.00
85	n-Butylbenzene	20.000	17.323	13.4	84	0.00
86 T	Hexachloroethane	20.000	17.487	12.6	90	0.00
87 M	1,2-Dichlorobenzene	20.000	19.274	3.6	97	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	19.659	1.7	105	0.00
89	1,2,4-Trichlorobenzene	20.000	18.470	7.7	97	0.00
90	Hexachlorobutadiene	20.000	17.984	10.1	89	0.00
91 M	Naphthalene	20.000	18.427	7.9	98	0.00
92	1,2,3-Trichlorobenzene	20.000	18.470	7.7	97	0.00

(#) = Out of Range

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



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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	<u>Alliance</u>	Contract:	<u>SPEC01</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q3551</u>
Instrument ID:	<u>MSVOA_N</u>	Calibration Date/Time:	<u>11/14/2025</u> <u>09:07</u>
Lab File ID:	<u>VN088282.D</u>	Init. Calib. Date(s):	<u>11/13/2025</u> <u>11/13/2025</u>
Heated Purge: (Y/N)	<u>N</u>	Init. Calib. Time(s):	<u>10:14</u> <u>11:50</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Methylene Chloride	2.050	1.980		-3.41	
trans-1,2-Dichloroethene	1.921	1.763		-8.23	
Chloroform	3.824	3.550	0.2	-7.16	
1,1,1-Trichloroethane	0.617	0.568	0.1	-7.94	
Trichloroethene	0.339	0.323	0.3	-4.72	
Toluene	1.722	1.677	0.4	-2.61	
Tetrachloroethene	0.309	0.295	0.2	-4.53	
Ethyl Benzene	1.897	1.783	0.1	-6.01	
m/p-Xylenes	0.710	0.649	0.3	-8.59	
o-Xylene	0.669	0.625	0.3	-6.58	
1,3-Dichlorobenzene	0.778	0.743	0.2	-4.5	
1,2-Dichloroethane-d4	2.740	2.641	0.01	-3.61	
Toluene-d8	1.420	1.415	0.01	-0.35	
4-Bromofluorobenzene	0.507	0.504	0.2	-0.59	

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088282.D
 Acq On : 14 Nov 2025 09:07
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020

Manual Integrations

APPROVED

Reviewed By :John
 Carlone

11/17/2025

Supervised By :Mahesh
 Dadoda

Quant Time: Nov 14 21:46:39 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	56753	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	292349	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	258679	30.000	ug/l	0.00

11/17/2025

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	8.565	65	149883	28.912	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	96.367%
60) 4-Bromofluorobenzene	12.829	95	130266	29.790	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	99.300%
63) Toluene-d8	10.547	98	365993	29.885	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	99.600%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.142	85	70469	17.664	ug/l	99
3) Chloromethane	2.383	50	77904	18.940	ug/l	97
4) Vinyl Chloride	2.536	62	76500	17.589	ug/l	97
5) Bromomethane	2.983	94	45280	19.525	ug/l	86
6) Chloroethane	3.142	64	47922	17.826	ug/l	96
7) Trichlorofluoromethane	3.512	101	103380	16.954	ug/l	95
8) Diethyl Ether	3.965	74	43386	19.037	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.371	101	52751	16.490	ug/l	72
10) 1,1-Dichloroethene	4.336	96	55978	17.937	ug/l	92
11) Methyl Iodide	4.577	142	55666	16.761	ug/l	89
12) Methyl Acetate	5.018	43	97586	19.383	ug/l	99
13) Acrolein	4.177	56	66384	89.617	ug/l	99
14) Acrylonitrile	5.706	53	221278	96.723	ug/l	98
15) Acetone	4.424	58	71977	107.586	ug/l	97
16) Carbon Disulfide	4.706	76	188992	17.956	ug/l	98
17) Allyl chloride	5.012	41	111829	18.440	ug/l	95
18) Methylene Chloride	5.265	84	74926	19.316	ug/l	96
19) trans-1,2-Dichloroethene	5.783	96	66706	18.356	ug/l	96
20) Diisopropyl ether	6.659	45	246854	19.049	ug/l	95
21) 1,1-Dichloroethane	6.553	63	132554	18.156	ug/l	97
22) cis-1,2-Dichloroethene	7.471	96	78155	18.504	ug/l	97
23) tert-Butyl Alcohol	5.518	59	77299	91.889	ug/l #	100
24) Methyl tert-Butyl Ether	5.783	73	241766	19.214	ug/l #	75
25) Chloroform	7.947	83	134330	18.568	ug/l	93
26) Cyclohexane	8.241	56	100977	16.374	ug/l #	95
29) 1,1-Dichloropropene	8.353	75	88757	18.195	ug/l	98
30) 2-Butanone	7.471	43	322492	102.204	ug/l	99
31) 2,2-Dichloropropane	7.471	77	112063	18.626	ug/l	100
32) 1,1,1-Trichloroethane	8.153	97	110767	18.420	ug/l	98
33) Carbon Tetrachloride	8.341	117	91711	17.860	ug/l	99
34) Benzene	8.588	78	279477	19.168	ug/l	96
35) Methacrylonitrile	7.765	41	64369	19.557	ug/l	95
36) 1,2-Dichloroethane	8.653	62	114265	20.137	ug/l	99
37) Trichloroethene	9.335	130	62874	19.029	ug/l	99
38) Methylcyclohexane	9.576	83	87911	15.720	ug/l	97
39) 1,2-Dichloropropane	9.600	63	73389	19.509	ug/l	96
40) Dibromomethane	9.688	93	53825	19.915	ug/l	98
41) Bromodichloromethane	9.870	83	108899	20.015	ug/l	96
42) Vinyl Acetate	6.588	43	1021613	97.006	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088282.D
 Acq On : 14 Nov 2025 09:07
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020

Manual Integrations

APPROVED

Reviewed By :John
 Carlone

11/17/2025

Supervised By :Mahesh
 Dadoda

Quant Time: Nov 14 21:46:39 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.541	43	122405	19.280	ug/l	98
44) Isopropyl Acetate	8.671	43	191740	19.597	ug/l	100
45) 1,4-Dioxane	9.682	88	22316	378.753	ug/l #	95
46) Methyl methacrylate	9.665	41	89606	19.571	ug/l	89
47) n-amyl Acetate	12.682	43	76641m	15.458	ug/l	
48) t-1,3-Dichloropropene	10.818	75	110268	18.948	ug/l	99
49) cis-1,3-Dichloropropene	10.294	75	119341	19.710	ug/l	96
50) 1,1,2-Trichloroethane	10.994	97	66320	19.844	ug/l	98
51) Ethyl methacrylate	10.853	69	101720	18.500	ug/l	97
52) 1,3-Dichloropropane	11.141	76	118417	19.456	ug/l	98
53) Dibromochloromethane	11.335	129	76785	20.002	ug/l	100
54) 1,2-Dibromoethane	11.447	107	67347	19.395	ug/l	98
55) 2-Chloroethyl vinyl ether	10.141	63	260441	82.226	ug/l	98
56) Bromoform	12.559	173	45527	18.737	ug/l	97
58) 4-Methyl-2-Pentanone	10.423	43	594651	101.638	ug/l	99
59) 2-Hexanone	11.176	43	404541	104.129	ug/l	99
61) Tetrachloroethene	11.082	164	50923	19.094	ug/l	94
62) Toluene	10.606	91	289263	19.486	ug/l	98
64) Chlorobenzene	11.870	112	181009	19.688	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.941	131	63696	20.242	ug/l	99
66) Ethyl Benzene	11.941	91	307462	18.793	ug/l	98
67) m/p-Xylenes	12.053	106	223869	36.590	ug/l	97
68) o-Xylene	12.376	106	107785	18.675	ug/l	97
69) Styrene	12.394	104	181322	18.497	ug/l	98
70) Isopropylbenzene	12.676	105	275978	18.043	ug/l	97
71) 1,1,2,2-Tetrachloroethane	12.917	83	101244	20.434	ug/l	98
72) 1,2,3-Trichloropropane	12.970	75	100507m	20.939	ug/l	
73) Bromobenzene	12.959	156	67754	19.621	ug/l	95
74) n-propylbenzene	13.011	91	343303	18.136	ug/l	100
75) 2-Chlorotoluene	13.106	91	214918	18.672	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	240526	18.733	ug/l	99
77) t-1,4-Dichloro-2-butene	12.717	75	30604m	18.566	ug/l	
78) 4-Chlorotoluene	13.200	91	217919	18.683	ug/l	99
79) tert-butylbenzene	13.417	119	194329	17.678	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	238237	18.660	ug/l	100
81) sec-Butylbenzene	13.594	105	283792	17.700	ug/l	99
82) p-Isopropyltoluene	13.706	119	233504	17.625	ug/l	99
83) 1,3-Dichlorobenzene	13.711	146	128165	19.103	ug/l	100
84) 1,4-Dichlorobenzene	13.794	146	131673	19.379	ug/l	97
85) n-Butylbenzene	14.035	91	228661	18.110	ug/l	99
86) Hexachloroethane	14.311	117	46023	18.143	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	124546	19.667	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.694	75	22398	19.232	ug/l	99
89) 1,2,4-Trichlorobenzene	15.811	180	66581	18.736	ug/l	98
90) Hexachlorobutadiene	15.470	225	24063	17.436	ug/l	97
91) Naphthalene	15.611	128	238883	18.578	ug/l	99
92) 1,2,3-Trichlorobenzene	15.811	180	66581	18.736	ug/l	98

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

```
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\  
Data File : VN088282.D  
Acq On    : 14 Nov 2025   09:07  
Operator  : JC\MD  
Sample    : VSTDCCC020  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 3      Sample Multiplier: 1
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Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020

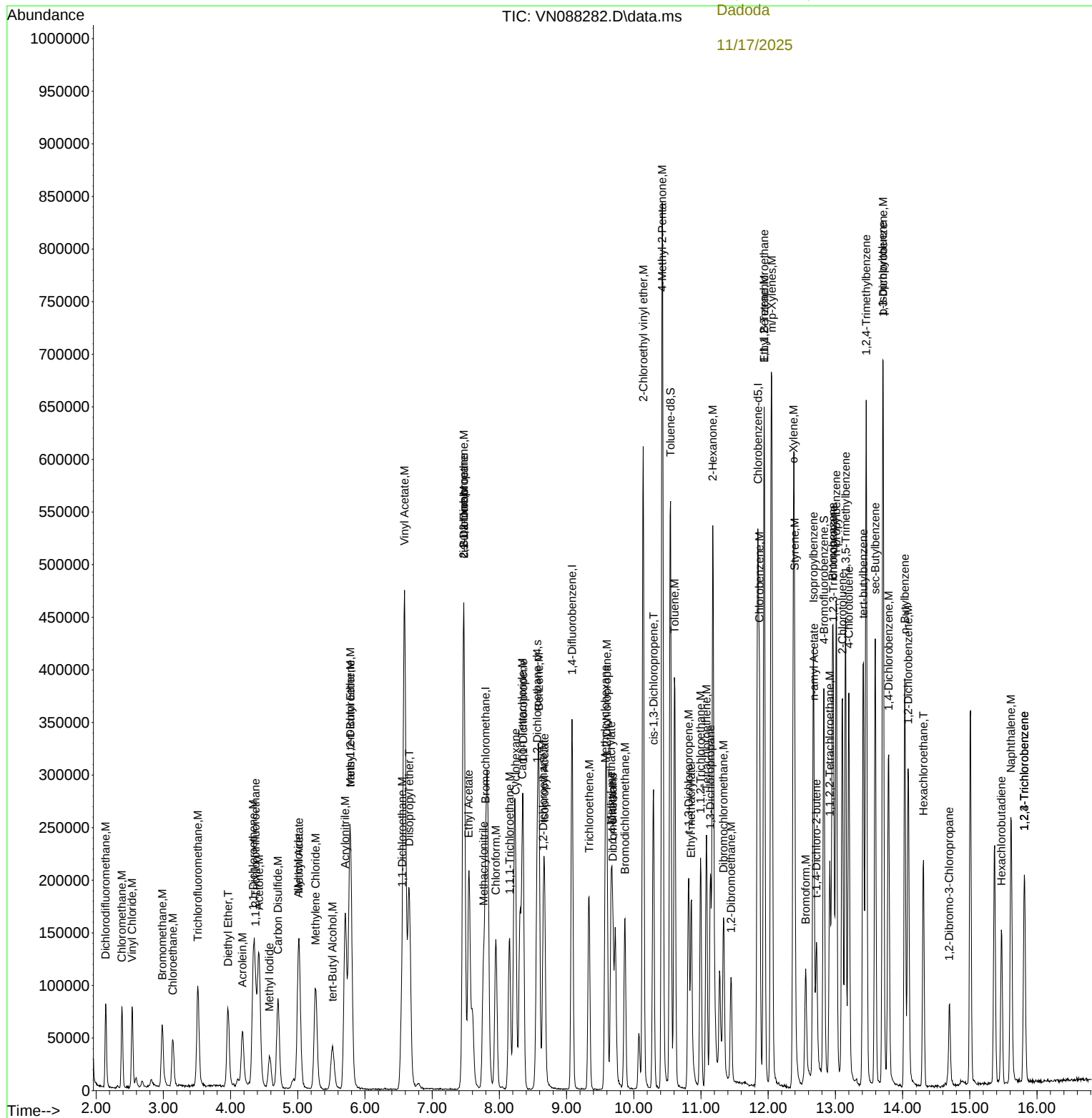
Manual Integrations APPROVED

Reviewed By :John
Carlone

11/17/2025
Supervised By :Mahesh
Dadoda

11/17/2025

Quant Time: Nov 14 21:46:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088282.D
 Acq On : 14 Nov 2025 09:07
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Nov 14 21:46:39 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	100	0.00
2 M	Dichlorodifluoromethane	2.109	1.863	11.7	79	0.00
3 M	Chloromethane	2.174	2.059	5.3	90	0.00
4 M	Vinyl Chloride	2.299	2.022	12.0	84	0.00
5 M	Bromomethane	1.226	1.197	2.4	98	0.00
6 M	Chloroethane	1.421	1.267	10.8	85	0.00
7 M	Trichlorofluoromethane	3.223	2.732	15.2	79	0.00
8 T	Diethyl Ether	1.205	1.147	4.8	95	0.00
9	1,1,2-Trichlorotrifluoroeth	1.691	1.394	17.6	77	0.00
10 M	1,1-Dichloroethene	1.650	1.480	10.3	85	0.00
11	Methyl Iodide	1.756	1.471	16.2	84	0.00
12	Methyl Acetate	2.661	2.579	3.1	95	0.00
13 M	Acrolein	0.392	0.351	10.5	99	0.00
14 M	Acrylonitrile	1.209	1.170	3.2	95	0.00
15 M	Acetone	0.354	0.380	-7.3	105	0.00
16 M	Carbon Disulfide	5.564	4.995	10.2	84	0.00
17	Allyl chloride	3.206	2.956	7.8	90	0.00
18 M	Methylene Chloride	2.050	1.980	3.4	94	0.00
19 M	trans-1,2-Dichloroethene	1.921	1.763	8.2	87	0.00
20 T	Diisopropyl ether	6.850	6.524	4.8	93	0.00
21 M	1,1-Dichloroethane	3.859	3.503	9.2	87	0.00
22 M	cis-1,2-Dichloroethene	2.233	2.066	7.5	91	0.00
23 M	tert-Butyl Alcohol	0.445	0.409	8.1	94	0.00
24 M	Methyl tert-Butyl Ether	6.651	6.390	3.9	96	0.00
25 M	Chloroform	3.824	3.550	7.2	92	0.00
26	Cyclohexane	3.260	2.669	18.1	75	0.00
27 s	1,2-Dichloroethane-d4	2.740	2.641	3.6	96	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	93	0.00
29	1,1-Dichloropropene	0.501	0.455	9.2	83	0.00
30 M	2-Butanone	0.324	0.331	-2.2	98	0.00
31	2,2-Dichloropropane	0.617	0.575	6.8	85	0.00
32 M	1,1,1-Trichloroethane	0.617	0.568	7.9	84	0.00
33 M	Carbon Tetrachloride	0.527	0.471	10.6	82	0.00
34 M	Benzene	1.496	1.434	4.1	89	0.00
35	Methacrylonitrile	0.338	0.330	2.4	94	0.00
36 M	1,2-Dichloroethane	0.582	0.586	-0.7	94	0.00
37 M	Trichloroethene	0.339	0.323	4.7	88	0.00
38	Methylcyclohexane	0.574	0.451	21.4	70	0.00
39 M	1,2-Dichloropropane	0.386	0.377	2.3	92	0.00
40	Dibromomethane	0.277	0.276	0.4	92	0.00
41 M	Bromodichloromethane	0.558	0.559	-0.2	97	0.00
42 M	Vinyl Acetate	1.081	1.048	3.1	92	0.00
43	Ethyl Acetate	0.651	0.628	3.5	90	0.00
44	Isopropyl Acetate	1.004	0.984	2.0	93	0.00
45 T	1,4-Dioxane	0.006	0.006	0.0	84	0.00
46	Methyl methacrylate	0.470	0.460	2.1	95	0.00
47	n-amyl Acetate	0.509	0.393	22.8	80	0.01
48 M	t-1,3-Dichloropropene	0.597	0.566	5.2	94	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088282.D
 Acq On : 14 Nov 2025 09:07
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Nov 14 21:46:39 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	0.621	0.612	1.4	93	0.00
50 M	1,1,2-Trichloroethane	0.343	0.340	0.9	94	0.00
51	Ethyl methacrylate	0.564	0.522	7.4	92	0.00
52	1,3-Dichloropropane	0.625	0.608	2.7	92	0.00
53 M	Dibromochloromethane	0.394	0.394	0.0	97	0.00
54 M	1,2-Dibromoethane	0.356	0.346	2.8	94	0.00
55 M	2-Chloroethyl vinyl ether	0.325	0.267	17.8	81	0.00
56 M	Bromoform	0.249	0.234	6.0	93	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	94	0.00
58 M	4-Methyl-2-Pentanone	0.679	0.690	-1.6	95	0.00
59 M	2-Hexanone	0.451	0.469	-4.0	101	0.00
60 S	4-Bromofluorobenzene	0.507	0.504	0.6	96	0.00
61 M	Tetrachloroethene	0.309	0.295	4.5	85	0.00
62 M	Toluene	1.722	1.677	2.6	89	0.00
63 S	Toluene-d8	1.420	1.415	0.4	91	0.00
64 M	Chlorobenzene	1.066	1.050	1.5	93	0.00
65	1,1,1,2-Tetrachloroethane	0.365	0.369	-1.1	94	0.00
66 M	Ethyl Benzene	1.897	1.783	6.0	87	0.00
67 M	m/p-Xylenes	0.710	0.649	8.6	84	0.00
68 M	o-Xylene	0.669	0.625	6.6	88	0.00
69 M	Styrene	1.137	1.051	7.6	89	0.00
70	Isopropylbenzene	1.774	1.600	9.8	84	0.00
71 M	1,1,2,2-Tetrachloroethane	0.575	0.587	-2.1	96	0.00
72	1,2,3-Trichloropropane	0.557	0.583	-4.7	108	0.00
73	Bromobenzene	0.400	0.393	1.8	93	0.00
74	n-propylbenzene	2.195	1.991	9.3	84	0.00
75	2-Chlorotoluene	1.335	1.246	6.7	88	0.00
76	1,3,5-Trimethylbenzene	1.489	1.395	6.3	87	0.00
77	t-1,4-Dichloro-2-butene	0.191	0.177	7.3	93	0.00
78	4-Chlorotoluene	1.353	1.264	6.6	87	0.00
79	tert-butylbenzene	1.275	1.127	11.6	83	0.00
80	1,2,4-Trimethylbenzene	1.481	1.381	6.8	88	0.00
81	sec-Butylbenzene	1.859	1.646	11.5	81	0.00
82	p-Isopropyltoluene	1.536	1.354	11.8	81	0.00
83 M	1,3-Dichlorobenzene	0.778	0.743	4.5	88	0.00
84 M	1,4-Dichlorobenzene	0.788	0.764	3.0	92	0.00
85	n-Butylbenzene	1.464	1.326	9.4	81	0.00
86 T	Hexachloroethane	0.294	0.267	9.2	86	0.00
87 M	1,2-Dichlorobenzene	0.734	0.722	1.6	91	0.00
88	1,2-Dibromo-3-Chloropropane	0.135	0.130	3.7	95	0.00
89	1,2,4-Trichlorobenzene	0.412	0.386	6.3	90	0.00
90	Hexachlorobutadiene	0.160	0.140	12.5	79	0.00
91 M	Naphthalene	1.491	1.385	7.1	90	0.00
92	1,2,3-Trichlorobenzene	0.412	0.386	6.3	90	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088282.D
 Acq On : 14 Nov 2025 09:07
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Nov 14 21:46:39 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	100	0.00
2 M	Dichlorodifluoromethane	20.000	17.664	11.7	79	0.00
3 M	Chloromethane	20.000	18.940	5.3	90	0.00
4 M	Vinyl Chloride	20.000	17.589	12.1	84	0.00
5 M	Bromomethane	20.000	19.525	2.4	98	0.00
6 M	Chloroethane	20.000	17.826	10.9	85	0.00
7 M	Trichlorofluoromethane	20.000	16.954	15.2	79	0.00
8 T	Diethyl Ether	20.000	19.037	4.8	95	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	16.490	17.6	77	0.00
10 M	1,1-Dichloroethene	20.000	17.937	10.3	85	0.00
11	Methyl Iodide	20.000	16.761	16.2	84	0.00
12	Methyl Acetate	20.000	19.383	3.1	95	0.00
13 M	Acrolein	100.000	89.617	10.4	99	0.00
14 M	Acrylonitrile	100.000	96.723	3.3	95	0.00
15 M	Acetone	100.000	107.586	-7.6	105	0.00
16 M	Carbon Disulfide	20.000	17.956	10.2	84	0.00
17	Allyl chloride	20.000	18.440	7.8	90	0.00
18 M	Methylene Chloride	20.000	19.316	3.4	94	0.00
19 M	trans-1,2-Dichloroethene	20.000	18.356	8.2	87	0.00
20 T	Diisopropyl ether	20.000	19.049	4.8	93	0.00
21 M	1,1-Dichloroethane	20.000	18.156	9.2	87	0.00
22 M	cis-1,2-Dichloroethene	20.000	18.504	7.5	91	0.00
23 M	tert-Butyl Alcohol	100.000	91.889	8.1	94	0.00
24 M	Methyl tert-Butyl Ether	20.000	19.214	3.9	96	0.00
25 M	Chloroform	20.000	18.568	7.2	92	0.00
26	Cyclohexane	20.000	16.374	18.1	75	0.00
27 s	1,2-Dichloroethane-d4	30.000	28.912	3.6	96	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	93	0.00
29	1,1-Dichloropropene	20.000	18.195	9.0	83	0.00
30 M	2-Butanone	100.000	102.204	-2.2	98	0.00
31	2,2-Dichloropropane	20.000	18.626	6.9	85	0.00
32 M	1,1,1-Trichloroethane	20.000	18.420	7.9	84	0.00
33 M	Carbon Tetrachloride	20.000	17.860	10.7	82	0.00
34 M	Benzene	20.000	19.168	4.2	89	0.00
35	Methacrylonitrile	20.000	19.557	2.2	94	0.00
36 M	1,2-Dichloroethane	20.000	20.137	-0.7	94	0.00
37 M	Trichloroethene	20.000	19.029	4.9	88	0.00
38	Methylcyclohexane	20.000	15.720	21.4	70	0.00
39 M	1,2-Dichloropropane	20.000	19.509	2.5	92	0.00
40	Dibromomethane	20.000	19.915	0.4	92	0.00
41 M	Bromodichloromethane	20.000	20.015	-0.1	97	0.00
42 M	Vinyl Acetate	100.000	97.006	3.0	92	0.00
43	Ethyl Acetate	20.000	19.280	3.6	90	0.00
44	Isopropyl Acetate	20.000	19.597	2.0	93	0.00
45 T	1,4-Dioxane	400.000	378.753	5.3	84	0.00
46	Methyl methacrylate	20.000	19.571	2.1	95	0.00
47	n-amyl Acetate	20.000	15.458	22.7	80	0.01
48 M	t-1,3-Dichloropropene	20.000	18.948	5.3	94	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088282.D
 Acq On : 14 Nov 2025 09:07
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Nov 14 21:46:39 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 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	19.710	1.4	93	0.00
50 M	1,1,2-Trichloroethane	20.000	19.844	0.8	94	0.00
51	Ethyl methacrylate	20.000	18.500	7.5	92	0.00
52	1,3-Dichloropropane	20.000	19.456	2.7	92	0.00
53 M	Dibromochloromethane	20.000	20.002	-0.0	97	0.00
54 M	1,2-Dibromoethane	20.000	19.395	3.0	94	0.00
55 M	2-Chloroethyl vinyl ether	100.000	82.226	17.8	81	0.00
56 M	Bromoform	20.000	18.737	6.3	93	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	94	0.00
58 M	4-Methyl-2-Pentanone	100.000	101.638	-1.6	95	0.00
59 M	2-Hexanone	100.000	104.129	-4.1	101	0.00
60 S	4-Bromofluorobenzene	30.000	29.790	0.7	96	0.00
61 M	Tetrachloroethene	20.000	19.094	4.5	85	0.00
62 M	Toluene	20.000	19.486	2.6	89	0.00
63 S	Toluene-d8	30.000	29.885	0.4	91	0.00
64 M	Chlorobenzene	20.000	19.688	1.6	93	0.00
65	1,1,1,2-Tetrachloroethane	20.000	20.242	-1.2	94	0.00
66 M	Ethyl Benzene	20.000	18.793	6.0	87	0.00
67 M	m/p-Xylenes	40.000	36.590	8.5	84	0.00
68 M	o-Xylene	20.000	18.675	6.6	88	0.00
69 M	Styrene	20.000	18.497	7.5	89	0.00
70	Isopropylbenzene	20.000	18.043	9.8	84	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	20.434	-2.2	96	0.00
72	1,2,3-Trichloropropane	20.000	20.939	-4.7	108	0.00
73	Bromobenzene	20.000	19.621	1.9	93	0.00
74	n-propylbenzene	20.000	18.136	9.3	84	0.00
75	2-Chlorotoluene	20.000	18.672	6.6	88	0.00
76	1,3,5-Trimethylbenzene	20.000	18.733	6.3	87	0.00
77	t-1,4-Dichloro-2-butene	20.000	18.566	7.2	93	0.00
78	4-Chlorotoluene	20.000	18.683	6.6	87	0.00
79	tert-butylbenzene	20.000	17.678	11.6	83	0.00
80	1,2,4-Trimethylbenzene	20.000	18.660	6.7	88	0.00
81	sec-Butylbenzene	20.000	17.700	11.5	81	0.00
82	p-Isopropyltoluene	20.000	17.625	11.9	81	0.00
83 M	1,3-Dichlorobenzene	20.000	19.103	4.5	88	0.00
84 M	1,4-Dichlorobenzene	20.000	19.379	3.1	92	0.00
85	n-Butylbenzene	20.000	18.110	9.5	81	0.00
86 T	Hexachloroethane	20.000	18.143	9.3	86	0.00
87 M	1,2-Dichlorobenzene	20.000	19.667	1.7	91	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	19.232	3.8	95	0.00
89	1,2,4-Trichlorobenzene	20.000	18.736	6.3	90	0.00
90	Hexachlorobutadiene	20.000	17.436	12.8	79	0.00
91 M	Naphthalene	20.000	18.578	7.1	90	0.00
92	1,2,3-Trichlorobenzene	20.000	18.736	6.3	90	0.00

(#) = Out of Range

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



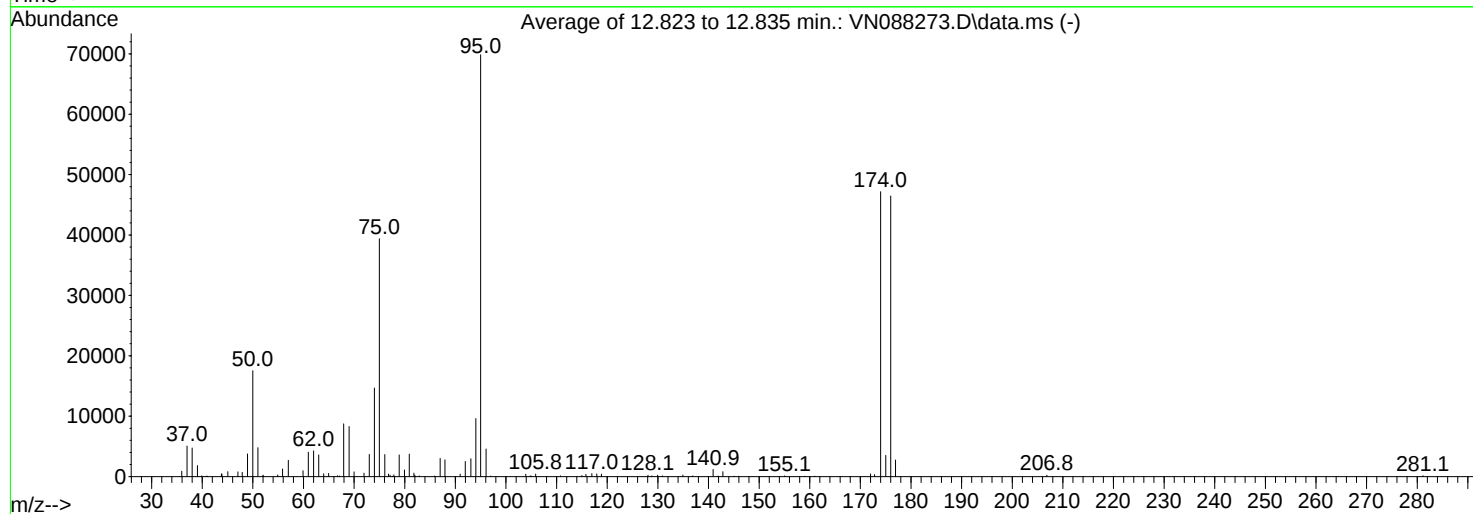
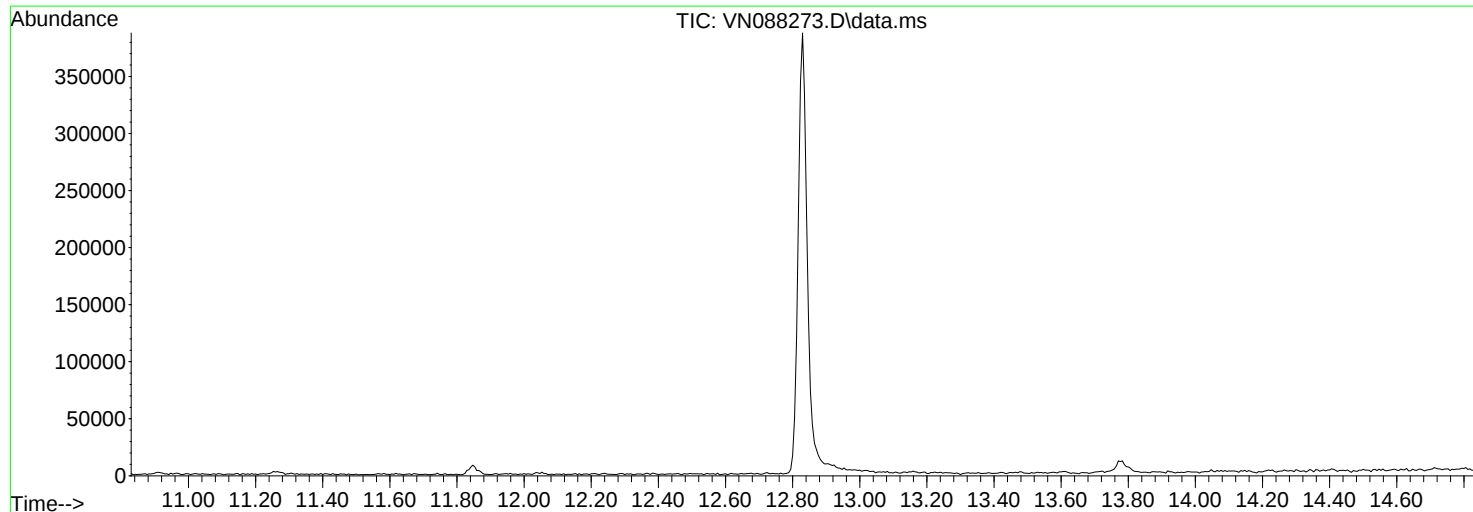
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
Data File : VN088273.D
Acq On : 13 Nov 2025 08:08
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 14 00:49:21 2025



AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1841

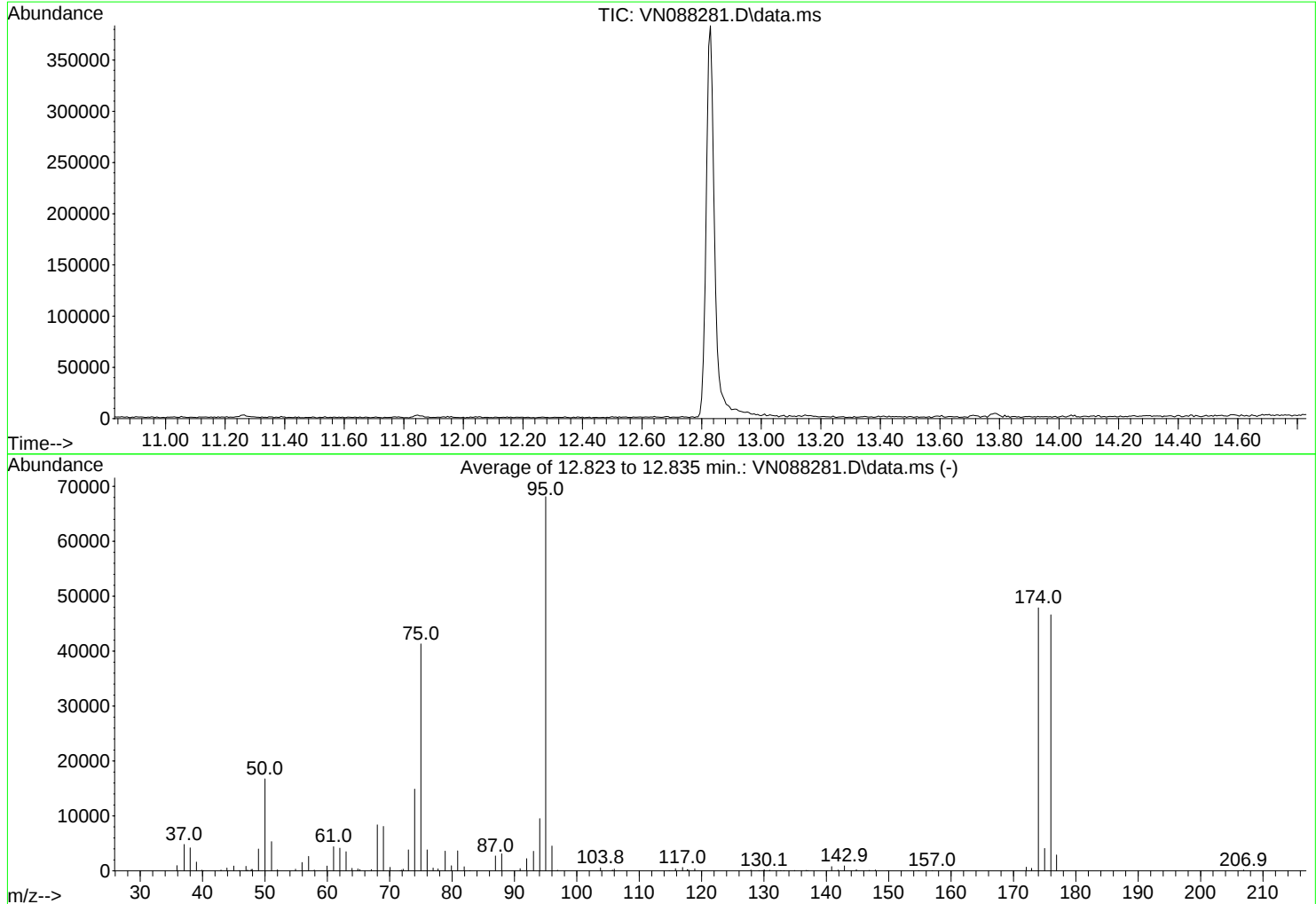
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.1	17526	PASS
75	95	30	60	56.4	39381	PASS
95	95	100	100	100.0	69848	PASS
96	95	5	9	6.5	4575	PASS
173	174	0.00	2	0.7	340	PASS
174	95	50	100	67.5	47176	PASS
175	174	5	9	7.5	3521	PASS
176	174	95	101	98.5	46469	PASS
177	176	5	9	5.9	2756	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
Data File : VN088281.D
Acq On : 14 Nov 2025 08:34
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 14 00:49:21 2025



AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1841

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.6	16738	PASS
75	95	30	60	60.7	41339	FAIL*
95	95	100	100	100.0	68131	PASS
96	95	5	9	6.7	4538	PASS
173	174	0.00	2	1.0	462	PASS
174	95	50	100	70.3	47893	PASS
175	174	5	9	8.5	4073	PASS
176	174	95	101	97.4	46637	PASS
177	176	5	9	6.2	2894	PASS



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

Report of Analysis

Client:	Spectra East Inc.	Date Collected:	
Project:	Outfall 001 - Orangetown Dis Permit 2025	Date Received:	
Client Sample ID:	VN1114WBL01	SDG No.:	Q3551
Lab Sample ID:	VN1114WBL01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 mL	Test:	VOCMS Group1
	Level: LOW		
	Final Vol: 5000 uL		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-09-2	Methylene Chloride	0.86	U	1	0.86	5.00	ug/L	11/14/25 10:38	VN111425
156-60-5	trans-1,2-Dichloroethene	0.82	U	1	0.82	5.00	ug/L	11/14/25 10:38	VN111425
67-66-3	Chloroform	0.55	U	1	0.55	5.00	ug/L	11/14/25 10:38	VN111425
71-55-6	1,1,1-Trichloroethane	0.63	U	1	0.63	5.00	ug/L	11/14/25 10:38	VN111425
79-01-6	Trichloroethene	0.49	U	1	0.49	5.00	ug/L	11/14/25 10:38	VN111425
108-88-3	Toluene	0.46	U	1	0.46	5.00	ug/L	11/14/25 10:38	VN111425
127-18-4	Tetrachloroethene	0.84	U	1	0.84	5.00	ug/L	11/14/25 10:38	VN111425
100-41-4	Ethyl Benzene	0.56	U	1	0.56	5.00	ug/L	11/14/25 10:38	VN111425
1330-20-7	Total Xylenes	1.97	U	1	1.97	15.0	ug/L	11/14/25 10:38	VN111425
541-73-1	1,3-Dichlorobenzene	0.67	U	1	0.67	5.00	ug/L	11/14/25 10:38	VN111425
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	30.6			91 - 110	102%	SPK: 30		
2037-26-5	Toluene-d8	29.5			91 - 112	98%	SPK: 30		
460-00-4	4-Bromofluorobenzene	26.5			63 - 112	88%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	53900							
540-36-3	1,4-Difluorobenzene	285000							
3114-55-4	Chlorobenzene-d5	248000							

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088285.D
 Acq On : 14 Nov 2025 10:38
 Operator : JC\MD
 Sample : VN1114WBL01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1114WBL01

Quant Time: Nov 14 21:49:14 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	53945	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	285107	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	248105	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.565	65	150878	30.619	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	102.067%
60) 4-Bromofluorobenzene	12.829	95	110999	26.466	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	88.233%
63) Toluene-d8	10.541	98	347089	29.549	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	98.500%

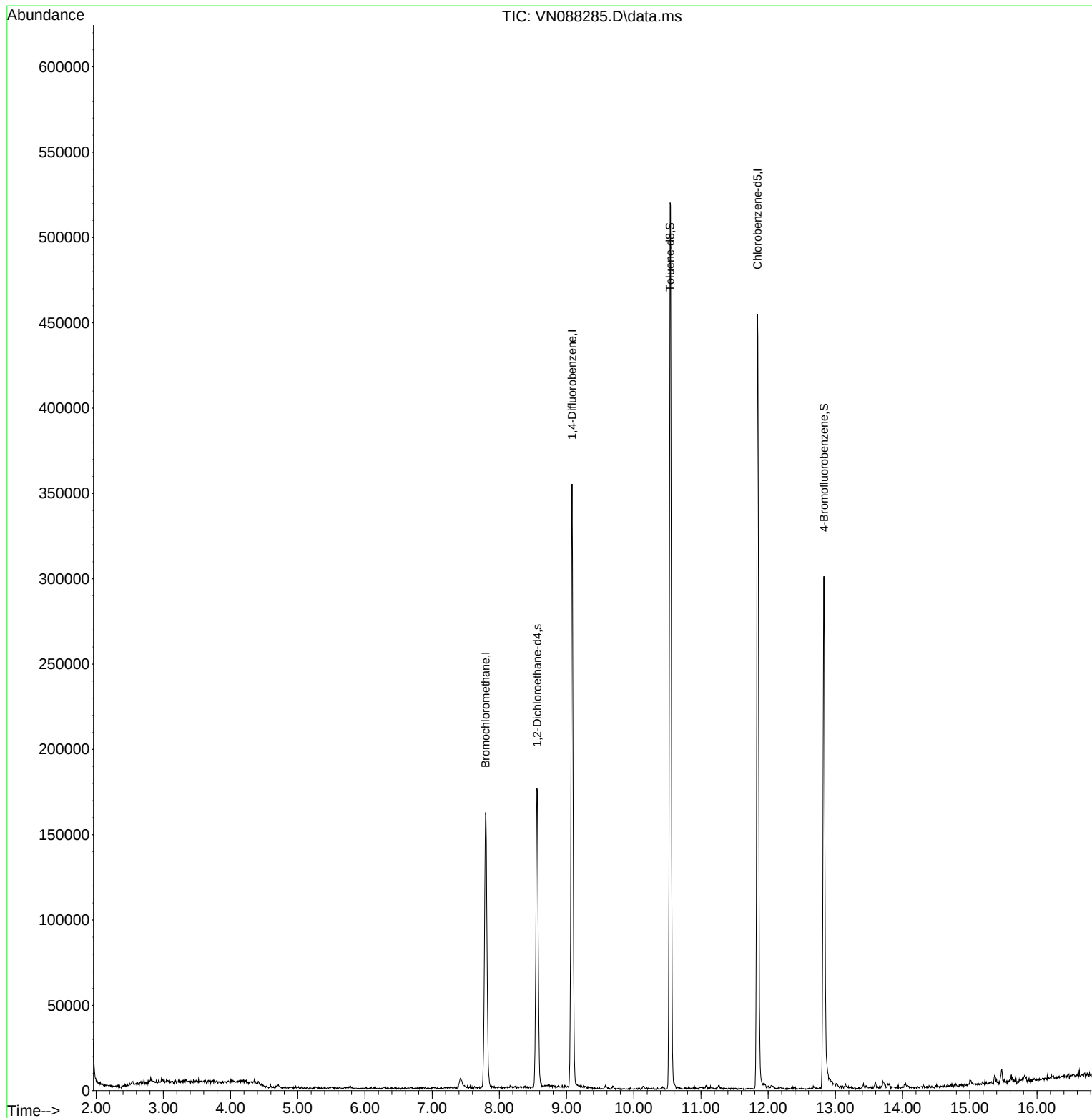
Target Compounds	Qvalue

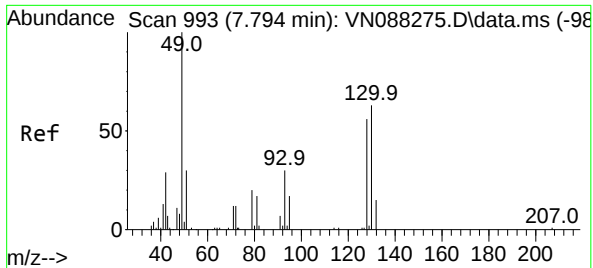
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
Data File : VN088285.D
Acq On : 14 Nov 2025 10:38
Operator : JC\MD
Sample : VN1114WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1114WBL01

Quant Time: Nov 14 21:49:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration

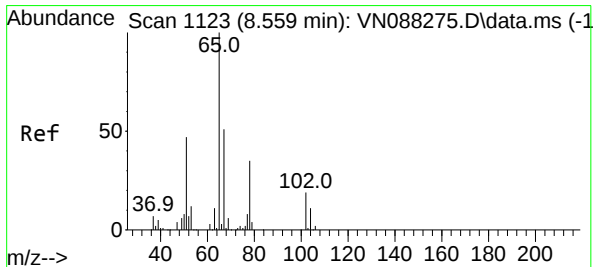
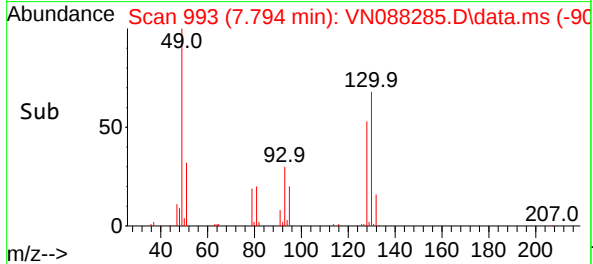
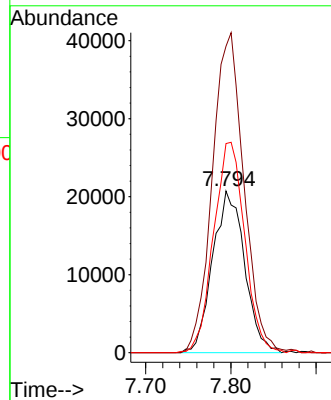
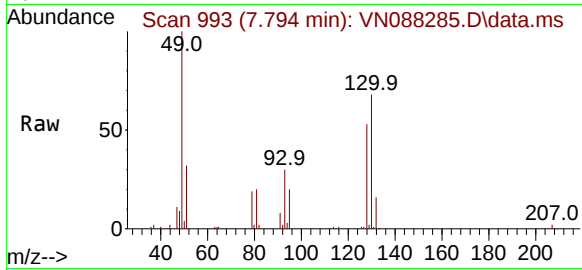




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN088285.D
Acq: 14 Nov 2025 10:38

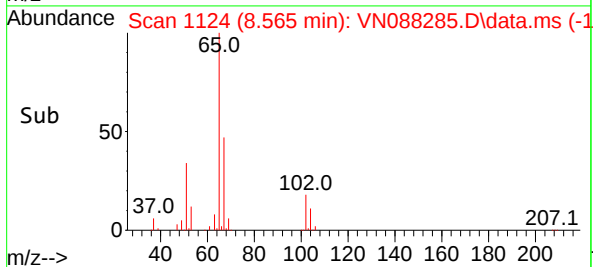
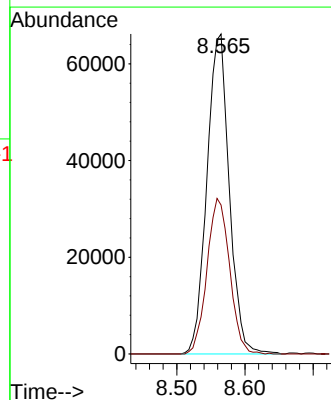
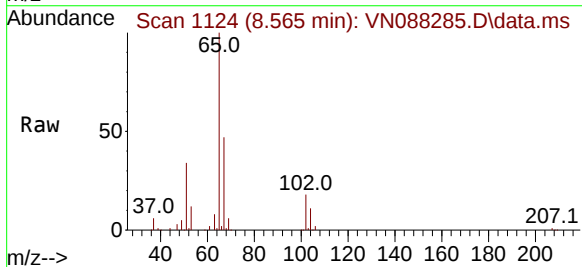
Instrument :
MSVOA_N
ClientSampleId :
VN1114WBL01

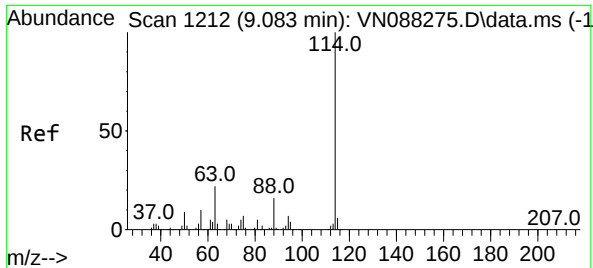
Tgt Ion:	128	Resp:	53945
Ion Ratio	Lower	Upper	
128	100		
49	195.3	0.0	501.2
130	126.8	0.0	320.2



#27
1,2-Dichloroethane-d4
Concen: 30.619 ug/l
RT: 8.565 min Scan# 1124
Delta R.T. 0.006 min
Lab File: VN088285.D
Acq: 14 Nov 2025 10:38

Tgt Ion:	65	Resp:	150878
Ion Ratio	Lower	Upper	
65	100		
67	49.3	40.2	60.2

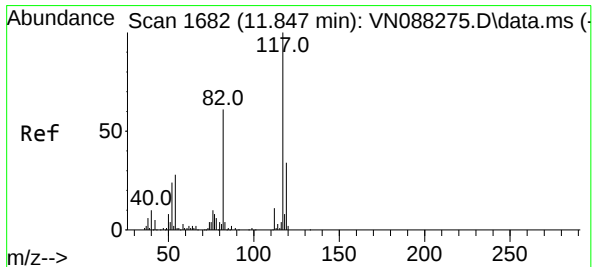
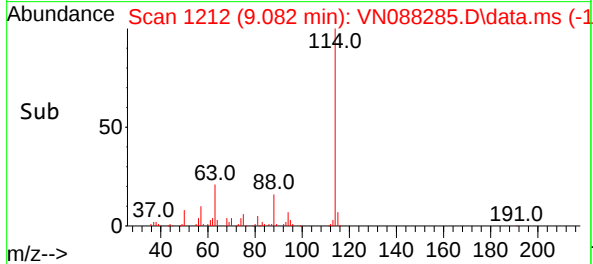
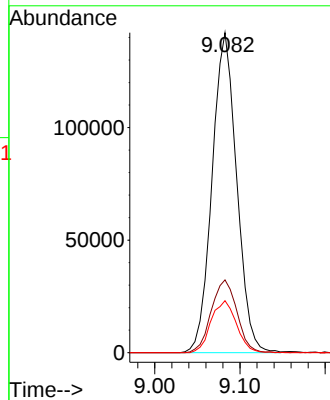
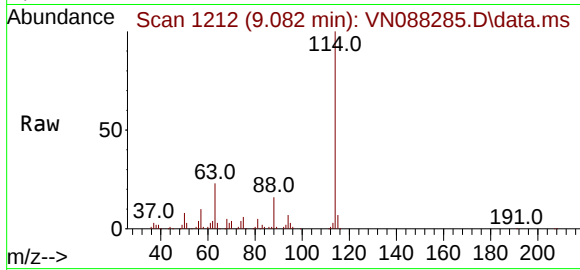




#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.082 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN088285.D
Acq: 14 Nov 2025 10:38

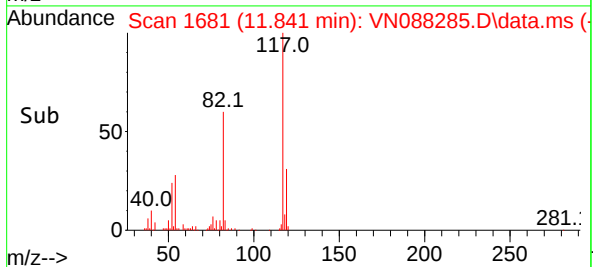
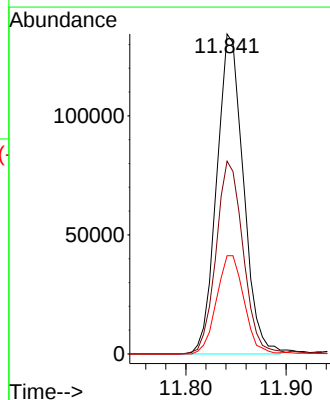
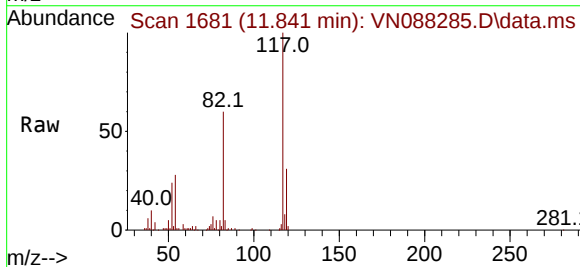
Instrument :
MSVOA_N
ClientSampleId :
VN1114WBL01

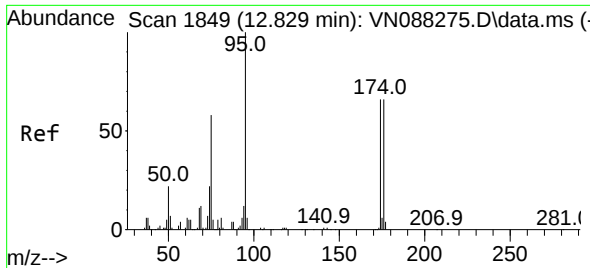
Tgt Ion	Ratio	Lower	Upper
114	100		
63	23.7	18.9	28.3
88	16.7	12.8	19.2



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.841 min Scan# 1681
Delta R.T. -0.006 min
Lab File: VN088285.D
Acq: 14 Nov 2025 10:38

Tgt Ion	Ratio	Lower	Upper
117	100		
82	61.1	49.3	73.9
119	31.5	26.4	39.6

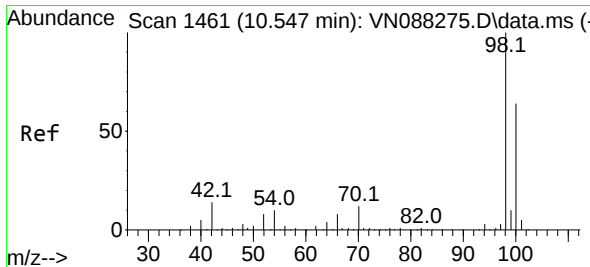
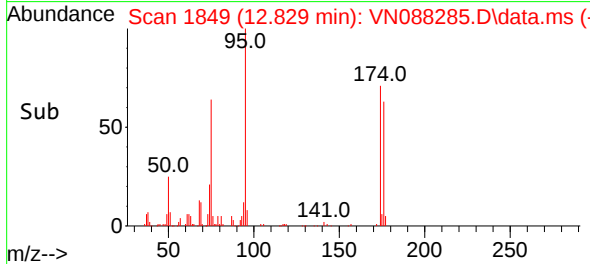
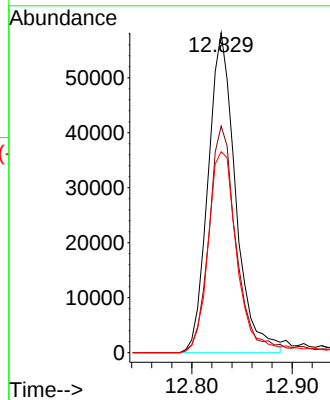
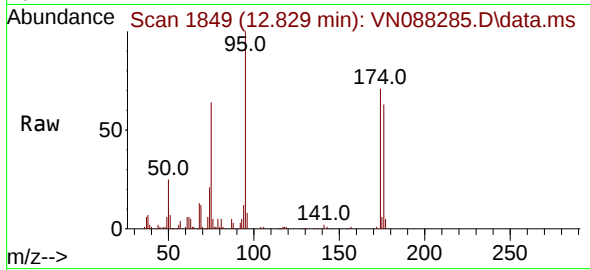




#60
4-Bromofluorobenzene
Concen: 26.466 ug/l
RT: 12.829 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN088285.D
Acq: 14 Nov 2025 10:38

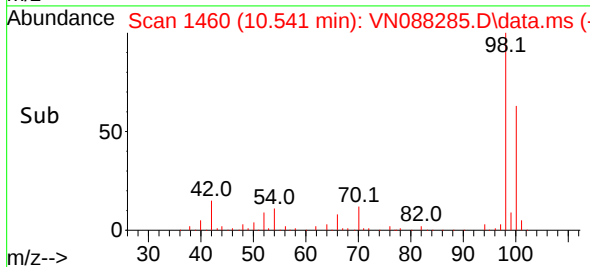
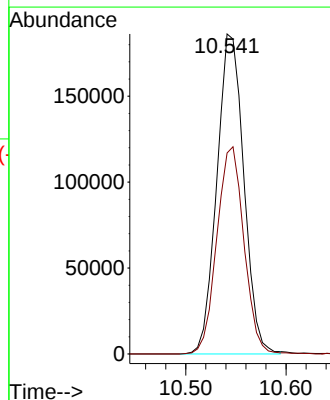
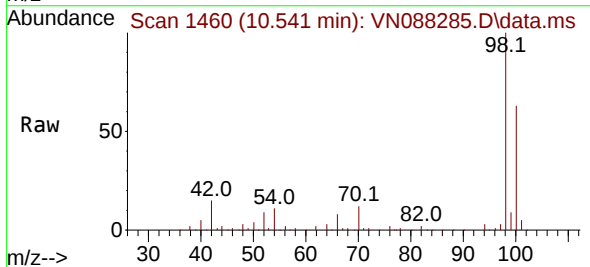
Instrument :
MSVOA_N
ClientSampleId :
VN1114WBL01

Tgt Ion: 95 Resp: 110999
Ion Ratio Lower Upper
95 100
174 67.8 54.5 81.7
176 65.2 53.8 80.6



#63
Toluene-d8
Concen: 29.549 ug/l
RT: 10.541 min Scan# 1460
Delta R.T. -0.006 min
Lab File: VN088285.D
Acq: 14 Nov 2025 10:38

Tgt Ion: 98 Resp: 347089
Ion Ratio Lower Upper
98 100
100 65.0 51.6 77.4





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

Report of Analysis

Client: Spectra East Inc.
Project: Outfall 001 - Orangetown Dis Permit 2025
Client Sample ID: VN1114WBS01
Lab Sample ID: VN1114WBS01
Analytical Method: E624.1
Sample Wt/Vol: 5 mL

Level: LOW
Final Vol: 5000 uL

Date Collected:
Date Received:
SDG No.: Q3551
Matrix: Water
% Solid: 0
Test: VOCMS Group1

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-09-2	Methylene Chloride	20.5		1	0.86	5.00	ug/L	11/14/25 09:41	VN111425
156-60-5	trans-1,2-Dichloroethene	19.1		1	0.82	5.00	ug/L	11/14/25 09:41	VN111425
67-66-3	Chloroform	19.4		1	0.55	5.00	ug/L	11/14/25 09:41	VN111425
71-55-6	1,1,1-Trichloroethane	19.0		1	0.63	5.00	ug/L	11/14/25 09:41	VN111425
79-01-6	Trichloroethene	19.3		1	0.49	5.00	ug/L	11/14/25 09:41	VN111425
108-88-3	Toluene	19.7		1	0.46	5.00	ug/L	11/14/25 09:41	VN111425
127-18-4	Tetrachloroethene	18.7		1	0.84	5.00	ug/L	11/14/25 09:41	VN111425
100-41-4	Ethyl Benzene	19.2		1	0.56	5.00	ug/L	11/14/25 09:41	VN111425
1330-20-7	Total Xylenes	57.6		1	1.97	15.0	ug/L	11/14/25 09:41	VN111425
541-73-1	1,3-Dichlorobenzene	19.4		1	0.67	5.00	ug/L	11/14/25 09:41	VN111425
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	29.7			91 - 110	99%	SPK: 30		
2037-26-5	Toluene-d8	30.5			91 - 112	102%	SPK: 30		
460-00-4	4-Bromofluorobenzene	29.6			63 - 112	99%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	59300							
540-36-3	1,4-Difluorobenzene	314000							
3114-55-4	Chlorobenzene-d5	280000							

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088283.D
 Acq On : 14 Nov 2025 09:41
 Operator : JC\MD
 Sample : VN1114WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1114WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/17/2025
 Supervised By : Mahesh Dadoda 11/17/2025

Quant Time: Nov 14 21:47:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	59304	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	313554	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	280371	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	160778	29.680	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.933%		
60) 4-Bromofluorobenzene	12.829	95	140201	29.581	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	98.600%		
63) Toluene-d8	10.541	98	404847	30.500	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	101.667%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	78136	18.743	ug/l	99
3) Chloromethane	2.383	50	81974	19.072	ug/l	95
4) Vinyl Chloride	2.536	62	84606	18.616	ug/l	99
5) Bromomethane	2.983	94	47769	19.713	ug/l	89
6) Chloroethane	3.142	64	53357	18.994	ug/l	97
7) Trichlorofluoromethane	3.518	101	114592	17.985	ug/l	93
8) Diethyl Ether	3.965	74	46660	19.593	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.377	101	60245	18.023	ug/l	80
10) 1,1-Dichloroethene	4.341	96	61713	18.924	ug/l	94
11) Methyl Iodide	4.583	142	62271	17.943	ug/l	89
12) Methyl Acetate	5.018	43	103293	19.634	ug/l	90
13) Acrolein	4.177	56	67516	87.225	ug/l	100
14) Acrylonitrile	5.706	53	231708	96.925	ug/l	99
15) Acetone	4.424	58	65953	94.341	ug/l	86
16) Carbon Disulfide	4.706	76	209983	19.092	ug/l	98
17) Allyl chloride	5.018	41	117552	18.550	ug/l	98
18) Methylene Chloride	5.259	84	83086	20.498	ug/l	97
19) trans-1,2-Dichloroethene	5.777	96	72467	19.083	ug/l	99
20) Diisopropyl ether	6.653	45	256798	18.964	ug/l	96
21) 1,1-Dichloroethane	6.553	63	145315	19.047	ug/l	98
22) cis-1,2-Dichloroethene	7.471	96	85289	19.324	ug/l	96
23) tert-Butyl Alcohol	5.518	59	73900	84.070	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	256875	19.537	ug/l	100
25) Chloroform	7.953	83	146313	19.354	ug/l	99
26) Cyclohexane	8.241	56	114249	17.729	ug/l #	98
29) 1,1-Dichloropropene	8.353	75	99816	19.079	ug/l	97
30) 2-Butanone	7.471	43	322115	95.181	ug/l	98
31) 2,2-Dichloropropane	7.477	77	125665	19.474	ug/l	99
32) 1,1,1-Trichloroethane	8.147	97	122376	18.975	ug/l	98
33) Carbon Tetrachloride	8.347	117	104093	18.900	ug/l	98
34) Benzene	8.588	78	302912	19.370	ug/l	96
35) Methacrylonitrile	7.759	41	66962	18.969	ug/l	93
36) 1,2-Dichloroethane	8.653	62	118846	19.527	ug/l	100
37) Trichloroethene	9.335	130	68551	19.344	ug/l	93
38) Methylcyclohexane	9.582	83	105827	17.644	ug/l	100
39) 1,2-Dichloropropane	9.600	63	78277	19.401	ug/l	95
40) Dibromomethane	9.688	93	57513	19.840	ug/l	98
41) Bromodichloromethane	9.871	83	116563	19.975	ug/l	99
42) Vinyl Acetate	6.588	43	1211755	107.279	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088283.D
 Acq On : 14 Nov 2025 09:41
 Operator : JC\MD
 Sample : VN1114WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1114WBS01

Manual Integrations
 APPROVED

Reviewed By :John Carlone 11/17/2025
 Supervised By :Mahesh Dadoda 11/17/2025

Quant Time: Nov 14 21:47:35 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.541	43	115471	16.958	ug/l	97
44) Isopropyl Acetate	8.676	43	201429	19.195	ug/l	100
45) 1,4-Dioxane	9.682	88	21830	345.448	ug/l	95
46) Methyl methacrylate	9.665	41	94289	19.201	ug/l	91
47) n-amyl Acetate	12.582	43	81840m	15.391	ug/l	
48) t-1,3-Dichloropropene	10.818	75	118714	19.020	ug/l	96
49) cis-1,3-Dichloropropene	10.288	75	127851	19.687	ug/l	99
50) 1,1,2-Trichloroethane	11.000	97	70708	19.726	ug/l	97
51) Ethyl methacrylate	10.853	69	110302	18.704	ug/l	90
52) 1,3-Dichloropropane	11.141	76	128186	19.637	ug/l	98
53) Dibromochloromethane	11.335	129	79806	19.383	ug/l	98
54) 1,2-Dibromoethane	11.447	107	74332	19.959	ug/l	95
55) 2-Chloroethyl vinyl ether	10.141	63	309281	91.042	ug/l	100
56) Bromoform	12.559	173	49286	18.912	ug/l	96
58) 4-Methyl-2-Pentanone	10.423	43	629784	99.315	ug/l	100
59) 2-Hexanone	11.176	43	411476	97.719	ug/l	99
61) Tetrachloroethene	11.082	164	54026	18.690	ug/l	91
62) Toluene	10.612	91	316243	19.655	ug/l	98
64) Chlorobenzene	11.870	112	193352	19.404	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.935	131	69473	20.370	ug/l	98
66) Ethyl Benzene	11.941	91	341247	19.244	ug/l	98
67) m/p-Xylenes	12.047	106	256854	38.733	ug/l	98
68) o-Xylene	12.376	106	118439	18.933	ug/l	99
69) Styrene	12.388	104	201756	18.989	ug/l	99
70) Isopropylbenzene	12.676	105	312750	18.865	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.917	83	107172	19.957	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	111173m	21.369	ug/l	
73) Bromobenzene	12.959	156	75039	20.049	ug/l	96
74) n-propylbenzene	13.012	91	382884	18.662	ug/l	100
75) 2-Chlorotoluene	13.100	91	234052	18.761	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	267060	19.191	ug/l	100
77) t-1,4-Dichloro-2-butene	12.717	75	33315	18.647	ug/l	93
78) 4-Chlorotoluene	13.200	91	233650	18.482	ug/l	97
79) tert-butylbenzene	13.417	119	223315	18.743	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	268346	19.392	ug/l	97
81) sec-Butylbenzene	13.594	105	324668	18.683	ug/l	98
82) p-Isopropyltoluene	13.706	119	264787	18.440	ug/l	98
83) 1,3-Dichlorobenzene	13.711	146	141199	19.417	ug/l	99
84) 1,4-Dichlorobenzene	13.794	146	142468	19.346	ug/l	99
85) n-Butylbenzene	14.035	91	256344	18.731	ug/l	100
86) Hexachloroethane	14.306	117	52358	19.043	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	134793	19.638	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.694	75	25430	20.146	ug/l	93
89) 1,2,4-Trichlorobenzene	15.811	180	72891	18.924	ug/l	98
90) Hexachlorobutadiene	15.476	225	28806	19.258	ug/l	96
91) Naphthalene	15.611	128	259315	18.607	ug/l	99
92) 1,2,3-Trichlorobenzene	15.811	180	72891	18.924	ug/l	98

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

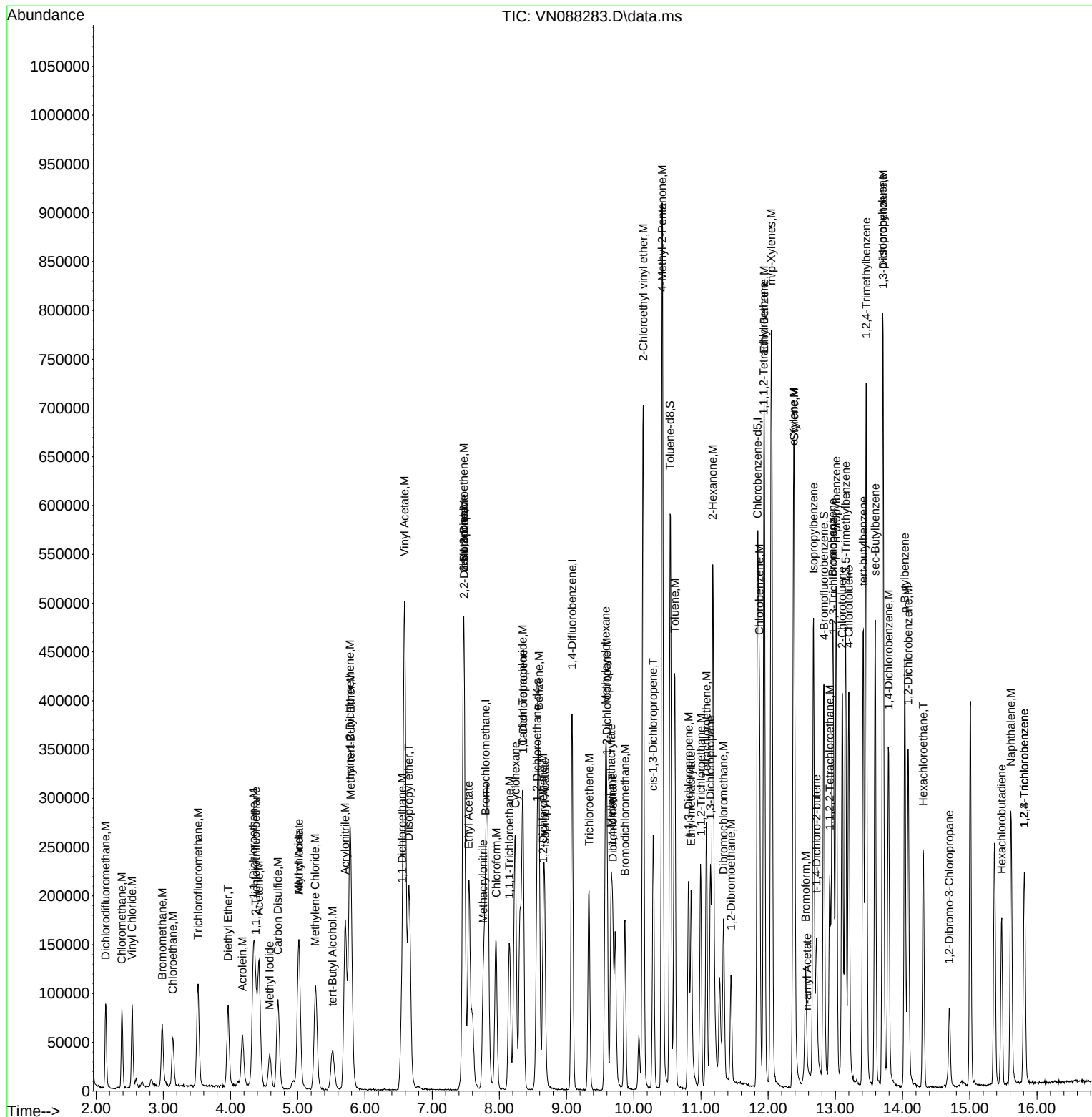
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
Data File : VN088283.D
Acq On : 14 Nov 2025 09:41
Operator : JC\MD
Sample : VN1114WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1114WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 11/17/2025
Supervised By :Mahesh Dadoda 11/17/2025

Quant Time: Nov 14 21:47:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration





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

Report of Analysis

Client: Spectra East Inc.
Project: Outfall 001 - Orangetown Dis Permit 2025
Client Sample ID: VN1114WBSD01
Lab Sample ID: VN1114WBSD01
Analytical Method: E624.1
Sample Wt/Vol: 5 mL

Level: LOW
Final Vol: 5000 uL

Date Collected:
Date Received:
SDG No.: Q3551
Matrix: Water
% Solid: 0
Test: VOCMS Group1

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
75-09-2	Methylene Chloride	19.6		1	0.86	5.00	ug/L	11/14/25 10:17	VN111425
156-60-5	trans-1,2-Dichloroethene	19.2		1	0.82	5.00	ug/L	11/14/25 10:17	VN111425
67-66-3	Chloroform	19.5		1	0.55	5.00	ug/L	11/14/25 10:17	VN111425
71-55-6	1,1,1-Trichloroethane	19.3		1	0.63	5.00	ug/L	11/14/25 10:17	VN111425
79-01-6	Trichloroethene	19.5		1	0.49	5.00	ug/L	11/14/25 10:17	VN111425
108-88-3	Toluene	20.0		1	0.46	5.00	ug/L	11/14/25 10:17	VN111425
127-18-4	Tetrachloroethene	20.0		1	0.84	5.00	ug/L	11/14/25 10:17	VN111425
100-41-4	Ethyl Benzene	19.6		1	0.56	5.00	ug/L	11/14/25 10:17	VN111425
1330-20-7	Total Xylenes	58.2		1	1.97	15.0	ug/L	11/14/25 10:17	VN111425
541-73-1	1,3-Dichlorobenzene	19.9		1	0.67	5.00	ug/L	11/14/25 10:17	VN111425
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	29.5			91 - 110	98%	SPK: 30		
2037-26-5	Toluene-d8	30.5			91 - 112	102%	SPK: 30		
460-00-4	4-Bromofluorobenzene	29.9			63 - 112	100%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	57800							
540-36-3	1,4-Difluorobenzene	308000							
3114-55-4	Chlorobenzene-d5	272000							

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088284.D
 Acq On : 14 Nov 2025 10:17
 Operator : JC\MD
 Sample : VN1114WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1114WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/17/2025
 Supervised By : Mahesh Dadoda 11/17/2025

Quant Time: Nov 14 21:48:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	57783	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	307983	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	272076	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	155790	29.516	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.400%		
60) 4-Bromofluorobenzene	12.829	95	137356	29.865	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	99.533%		
63) Toluene-d8	10.547	98	393467	30.546	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	101.833%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	80968	19.934	ug/l	96
3) Chloromethane	2.383	50	81366	19.429	ug/l	94
4) Vinyl Chloride	2.536	62	83831	18.931	ug/l	96
5) Bromomethane	2.983	94	47613	20.165	ug/l	92
6) Chloroethane	3.142	64	52264	19.095	ug/l	94
7) Trichlorofluoromethane	3.512	101	120249	19.369	ug/l	93
8) Diethyl Ether	3.965	74	46423	20.006	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.371	101	62918	19.318	ug/l	99
10) 1,1-Dichloroethene	4.342	96	60609	19.075	ug/l	82
11) Methyl Iodide	4.583	142	61778	18.270	ug/l	93
12) Methyl Acetate	5.018	43	101813	19.862	ug/l	95
13) Acrolein	4.171	56	69495	92.145	ug/l	99
14) Acrylonitrile	5.706	53	228243	97.989	ug/l	98
15) Acetone	4.424	58	65068	95.525	ug/l	100
16) Carbon Disulfide	4.706	76	205379	19.165	ug/l	98
17) Allyl chloride	5.012	41	119625	19.374	ug/l	97
18) Methylene Chloride	5.265	84	77218	19.552	ug/l	97
19) trans-1,2-Dichloroethene	5.771	96	71150	19.230	ug/l	97
20) Diisopropyl ether	6.659	45	257638	19.526	ug/l	94
21) 1,1-Dichloroethane	6.553	63	141989	19.101	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	82202	19.115	ug/l	96
23) tert-Butyl Alcohol	5.524	59	79534	92.861	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	252525	19.712	ug/l	99
25) Chloroform	7.947	83	143969	19.546	ug/l	99
26) Cyclohexane	8.241	56	118545	18.880	ug/l #	97
29) 1,1-Dichloropropene	8.353	75	99226	19.309	ug/l	85
30) 2-Butanone	7.471	43	319102	95.996	ug/l #	94
31) 2,2-Dichloropropane	7.477	77	120658	19.037	ug/l	96
32) 1,1,1-Trichloroethane	8.147	97	122238	19.296	ug/l	98
33) Carbon Tetrachloride	8.341	117	105234	19.453	ug/l	94
34) Benzene	8.583	78	294535	19.175	ug/l #	95
35) Methacrylonitrile	7.759	41	66657	19.224	ug/l	97
36) 1,2-Dichloroethane	8.653	62	119644	20.014	ug/l	99
37) Trichloroethene	9.335	130	67942	19.519	ug/l	98
38) Methylcyclohexane	9.582	83	109116	18.521	ug/l	96
39) 1,2-Dichloropropane	9.600	63	78656	19.848	ug/l	92
40) Dibromomethane	9.688	93	56111	19.707	ug/l	98
41) Bromodichloromethane	9.865	83	116185	20.270	ug/l	98
42) Vinyl Acetate	6.589	43	1204630	108.578	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
 Data File : VN088284.D
 Acq On : 14 Nov 2025 10:17
 Operator : JC\MD
 Sample : VN1114WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1114WBSD01

Manual Integrations
 APPROVED

Reviewed By :John Carlone 11/17/2025
 Supervised By :Mahesh Dadoda 11/17/2025

Quant Time: Nov 14 21:48:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	128600	19.228	ug/l	99
44) Isopropyl Acetate	8.671	43	204470	19.837	ug/l	100
45) 1,4-Dioxane	9.677	88	23446	377.731	ug/l	95
46) Methyl methacrylate	9.659	41	91015	18.870	ug/l	94
47) n-amyl Acetate	12.676	43	86844m	16.627	ug/l	
48) t-1,3-Dichloropropene	10.818	75	115520	18.843	ug/l	98
49) cis-1,3-Dichloropropene	10.288	75	125386	19.657	ug/l	95
50) 1,1,2-Trichloroethane	10.994	97	69203	19.656	ug/l	96
51) Ethyl methacrylate	10.859	69	109503	18.904	ug/l	97
52) 1,3-Dichloropropane	11.141	76	126059	19.660	ug/l	100
53) Dibromochloromethane	11.341	129	78172	19.330	ug/l	98
54) 1,2-Dibromoethane	11.447	107	72255	19.752	ug/l	95
55) 2-Chloroethyl vinyl ether	10.141	63	303144	90.850	ug/l	99
56) Bromoform	12.559	173	49476	19.328	ug/l	98
58) 4-Methyl-2-Pentanone	10.424	43	625864	101.706	ug/l	100
59) 2-Hexanone	11.176	43	395404	96.765	ug/l	100
61) Tetrachloroethene	11.082	164	55988	19.959	ug/l	94
62) Toluene	10.612	91	312483	20.014	ug/l	99
64) Chlorobenzene	11.871	112	189846	19.633	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.941	131	65838	19.892	ug/l	97
66) Ethyl Benzene	11.941	91	337712	19.625	ug/l	98
67) m/p-Xylenes	12.047	106	248368	38.595	ug/l	100
68) o-Xylene	12.376	106	118994	19.602	ug/l	98
69) Styrene	12.388	104	196508	19.059	ug/l	99
70) Isopropylbenzene	12.676	105	309649	19.247	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.918	83	104657	20.083	ug/l	98
72) 1,2,3-Trichloropropane	12.970	75	105923m	20.981	ug/l	
73) Bromobenzene	12.965	156	71421	19.664	ug/l	100
74) n-propylbenzene	13.012	91	378570	19.014	ug/l	99
75) 2-Chlorotoluene	13.106	91	231421	19.116	ug/l	100
76) 1,3,5-Trimethylbenzene	13.153	105	264183	19.563	ug/l	98
77) t-1,4-Dichloro-2-butene	12.718	75	32958	19.010	ug/l	92
78) 4-Chlorotoluene	13.200	91	245229	19.989	ug/l	98
79) tert-butylbenzene	13.412	119	221103	19.123	ug/l	98
80) 1,2,4-Trimethylbenzene	13.459	105	261739	19.491	ug/l	100
81) sec-Butylbenzene	13.594	105	324141	19.221	ug/l	99
82) p-Isopropyltoluene	13.706	119	268941	19.300	ug/l	99
83) 1,3-Dichlorobenzene	13.712	146	140576	19.921	ug/l	99
84) 1,4-Dichlorobenzene	13.788	146	137586	19.252	ug/l	98
85) n-Butylbenzene	14.035	91	260428	19.610	ug/l	99
86) Hexachloroethane	14.312	117	51286	19.222	ug/l	98
87) 1,2-Dichlorobenzene	14.082	146	134359	20.172	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.700	75	23624	19.286	ug/l	99
89) 1,2,4-Trichlorobenzene	15.811	180	72424	19.376	ug/l	98
90) Hexachlorobutadiene	15.470	225	29560	20.364	ug/l	97
91) Naphthalene	15.617	128	258514	19.115	ug/l	99
92) 1,2,3-Trichlorobenzene	15.811	180	72424	19.376	ug/l	98

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

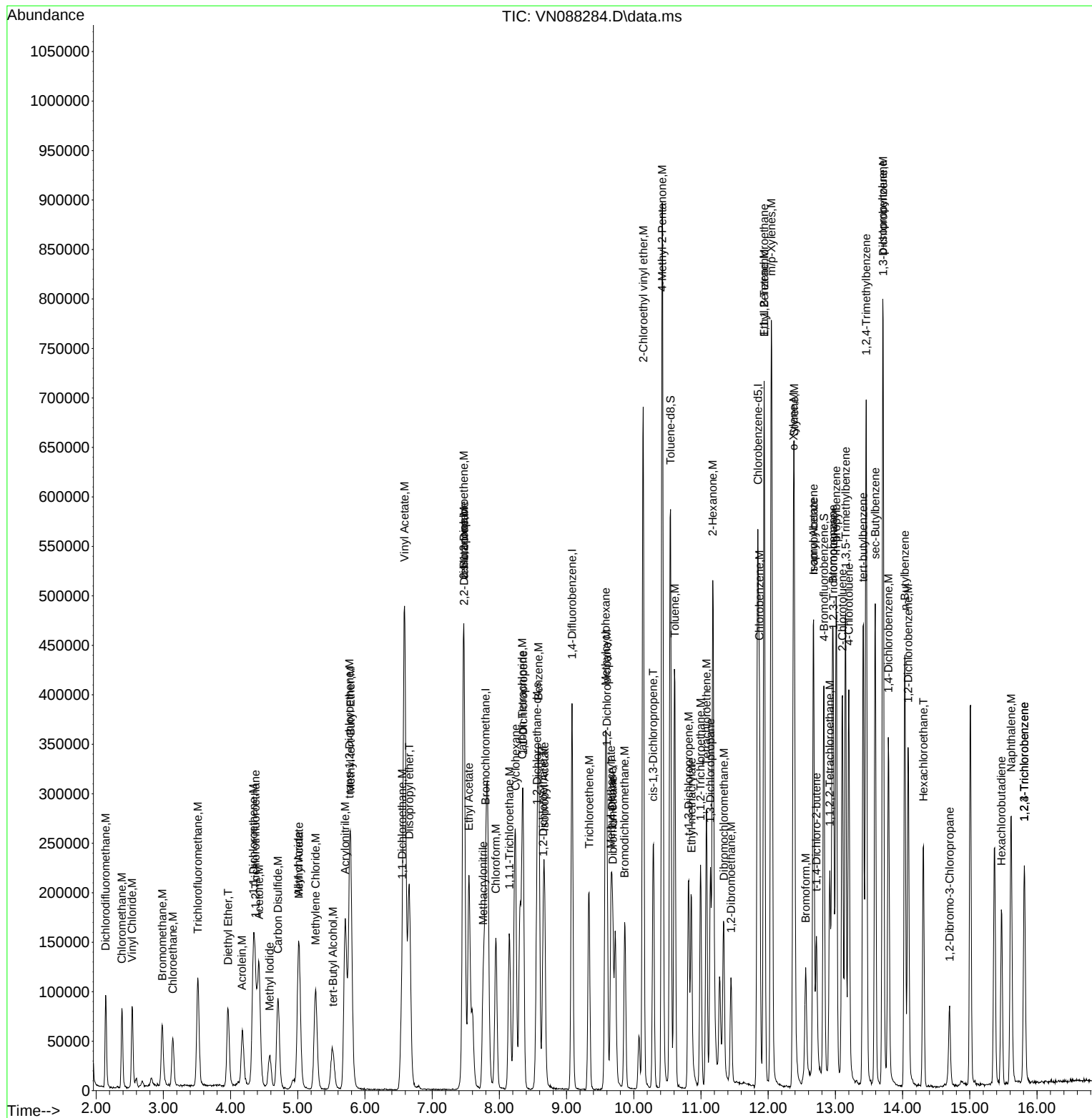
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111425\
Data File : VN088284.D
Acq On : 14 Nov 2025 10:17
Operator : JC\MD
Sample : VN1114WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1114WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 11/17/2025
Supervised By :Mahesh Dadoda 11/17/2025

Quant Time: Nov 14 21:48:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration



Manual Integration Report

Sequence:	VN111325	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VN088274.D	1,1,2-Trichlorotrifluoroethane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	2,2-Dichloropropane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Acrolein	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Carbon Disulfide	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Cyclohexane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Ethyl methacrylate	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	n-amyl Acetate	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	t-1,4-Dichloro-2-butene	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	tert-Butyl Alcohol	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICCC020	VN088275.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:20 AM	sam	11/14/2025 12:24:45 PM	Peak Integrated by Software
VSTDICCC020	VN088275.D	n-amyl Acetate	JOHN	11/14/2025 8:03:20 AM	sam	11/14/2025 12:24:45 PM	Peak Integrated by Software
VSTDICCC020	VN088275.D	trans-1,2-Dichloroethene	JOHN	11/14/2025 8:03:20 AM	sam	11/14/2025 12:24:45 PM	Peak Integrated by Software

Manual Integration Report

Sequence:

VN111325

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC050	VN088276.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	Ethyl Acetate	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	n-amyl Acetate	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	tert-Butyl Alcohol	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	Vinyl Acetate	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC100	VN088277.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:29 AM	sam	11/14/2025 12:24:49 PM	Peak Integrated by Software
VSTDICC100	VN088277.D	n-amyl Acetate	JOHN	11/14/2025 8:03:29 AM	sam	11/14/2025 12:24:49 PM	Peak Integrated by Software
VSTDICC150	VN088278.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:34 AM	sam	11/14/2025 12:25:08 PM	Peak Integrated by Software
VSTDICC150	VN088278.D	Ethyl Acetate	JOHN	11/14/2025 8:03:34 AM	sam	11/14/2025 12:25:08 PM	Peak Integrated by Software
VSTDICC150	VN088278.D	Vinyl Acetate	JOHN	11/14/2025 8:03:34 AM	sam	11/14/2025 12:25:08 PM	Peak Integrated by Software
VSTDICV020	VN088280.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:38 AM	sam	11/14/2025 12:24:55 PM	Peak Integrated by Software
VSTDICV020	VN088280.D	Methylene Chloride	JOHN	11/14/2025 8:03:38 AM	sam	11/14/2025 12:24:55 PM	Peak Integrated by Software
VSTDICV020	VN088280.D	n-amyl Acetate	JOHN	11/14/2025 8:03:38 AM	sam	11/14/2025 12:24:55 PM	Peak Integrated by Software



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

Manual Integration Report

Sequence:

VN111325

Instrument

MSVOA_n

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:	VN111425	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC020	VN088282.D	1,2,3-Trichloropropane	JOHN	11/17/2025 7:58:23 AM	MMDadoda	11/17/2025 9:24:12 AM	Peak Integrated by Software
VSTDCCC020	VN088282.D	n-amyl Acetate	JOHN	11/17/2025 7:58:23 AM	MMDadoda	11/17/2025 9:24:12 AM	Peak Integrated by Software
VSTDCCC020	VN088282.D	t-1,4-Dichloro-2-butene	JOHN	11/17/2025 7:58:23 AM	MMDadoda	11/17/2025 9:24:12 AM	Peak Integrated by Software
VN1114WBS01	VN088283.D	1,2,3-Trichloropropane	JOHN	11/17/2025 7:58:28 AM	MMDadoda	11/17/2025 9:24:16 AM	Peak Integrated by Software
VN1114WBS01	VN088283.D	n-amyl Acetate	JOHN	11/17/2025 7:58:28 AM	MMDadoda	11/17/2025 9:24:16 AM	Peak Integrated by Software
VN1114WBSD0 1	VN088284.D	1,2,3-Trichloropropane	JOHN	11/17/2025 7:58:33 AM	MMDadoda	11/17/2025 9:24:19 AM	Peak Integrated by Software
VN1114WBSD0 1	VN088284.D	n-amyl Acetate	JOHN	11/17/2025 7:58:33 AM	MMDadoda	11/17/2025 9:24:19 AM	Peak Integrated by Software
VSTDCCC020	VN088290.D	1,2,3-Trichloropropane	JOHN	11/17/2025 7:58:37 AM	MMDadoda	11/17/2025 9:24:22 AM	Peak Integrated by Software
VSTDCCC020	VN088290.D	n-amyl Acetate	JOHN	11/17/2025 7:58:37 AM	MMDadoda	11/17/2025 9:24:22 AM	Peak Integrated by Software

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN111325

Review By	John Carlone	Review On	11/14/2025 8:03:53 AM
Supervise By	Mahesh Dadoda	Supervise On	11/14/2025 12:39:20 PM
SubDirectory	VN111325	HP Acquire Method	HP Processing Method 624N111325W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP136189		
Initial Calibration Stds	VP136197,VP136198,VP136199,VP136200,VP136201		
CCC			
Internal Standard/PEM			
ICV/I.BLK	VP136212		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN088273.D	13 Nov 2025 08:08	JC\MD	Ok
2	VSTDIC005	VN088274.D	13 Nov 2025 10:14	JC\MD	Ok,M
3	VSTDIC020	VN088275.D	13 Nov 2025 10:47	JC\MD	Ok,M
4	VSTDIC050	VN088276.D	13 Nov 2025 11:08	JC\MD	Ok,M
5	VSTDIC100	VN088277.D	13 Nov 2025 11:29	JC\MD	Ok,M
6	VSTDIC150	VN088278.D	13 Nov 2025 11:50	JC\MD	Ok,M
7	IBLK	VN088279.D	13 Nov 2025 12:11	JC\MD	Ok
8	VSTDICV020	VN088280.D	13 Nov 2025 14:52	JC\MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN111425

Review By	John Carlone	Review On	11/17/2025 7:59:23 AM
Supervise By	Maresh Dadoda	Supervise On	11/17/2025 9:24:29 AM
SubDirectory	VN111425	HP Acquire Method	HP Processing Method 624N111325W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP136202		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP136203,VP136204		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN088281.D	14 Nov 2025 08:34	JC\MD	Ok
2	VSTDCCC020	VN088282.D	14 Nov 2025 09:07	JC\MD	Ok,M
3	VN1114WBS01	VN088283.D	14 Nov 2025 09:41	JC\MD	Ok,M
4	VN1114WBSD01	VN088284.D	14 Nov 2025 10:17	JC\MD	Ok,M
5	VN1114WBL01	VN088285.D	14 Nov 2025 10:38	JC\MD	Ok
6	Q3575-01	VN088286.D	14 Nov 2025 11:12	JC\MD	Ok
7	Q3575-02	VN088287.D	14 Nov 2025 11:33	JC\MD	Ok
8	IBLK	VN088288.D	14 Nov 2025 11:54	JC\MD	Ok
9	Q3551-01	VN088289.D	14 Nov 2025 12:15	JC\MD	Ok
10	VSTDCCC020	VN088290.D	14 Nov 2025 15:08	JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN111325

Review By	John Carlone	Review On	11/14/2025 8:03:53 AM
Supervise By	Maresh Dadoda	Supervise On	11/14/2025 12:39:20 PM
SubDirectory	VN111325	HP Acquire Method	HP Processing Method 624N111325W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP136189		
Initial Calibration Stds	VP136197,VP136198,VP136199,VP136200,VP136201		
CCC			
Internal Standard/PEM			
ICV/I.BLK	VP136212		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN088273.D	13 Nov 2025 08:08		JC\MD	Ok
2	VSTDIC005	VSTDIC005	VN088274.D	13 Nov 2025 10:14		JC\MD	Ok,M
3	VSTDICCC020	VSTDICCC020	VN088275.D	13 Nov 2025 10:47		JC\MD	Ok,M
4	VSTDIC050	VSTDIC050	VN088276.D	13 Nov 2025 11:08		JC\MD	Ok,M
5	VSTDIC100	VSTDIC100	VN088277.D	13 Nov 2025 11:29		JC\MD	Ok,M
6	VSTDIC150	VSTDIC150	VN088278.D	13 Nov 2025 11:50		JC\MD	Ok,M
7	IBLK	IBLK	VN088279.D	13 Nov 2025 12:11		JC\MD	Ok
8	VSTDICV020	ICVVN111325	VN088280.D	13 Nov 2025 14:52		JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN111425

Review By	John Carlone	Review On	11/17/2025 7:59:23 AM
Supervise By	Mahesh Dadoda	Supervise On	11/17/2025 9:24:29 AM
SubDirectory	VN111425	HP Acquire Method	HP Processing Method 624N111325W.M

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP136202
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP136203,VP136204

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN088281.D	14 Nov 2025 08:34		JC\MD	Ok
2	VSTDCCC020	VSTDCCC020	VN088282.D	14 Nov 2025 09:07	pH#Lot#V12668	JC\MD	Ok,M
3	VN1114WBS01	VN1114WBS01	VN088283.D	14 Nov 2025 09:41		JC\MD	Ok,M
4	VN1114WBSD01	VN1114WBSD01	VN088284.D	14 Nov 2025 10:17		JC\MD	Ok,M
5	VN1114WBL01	VN1114WBL01	VN088285.D	14 Nov 2025 10:38		JC\MD	Ok
6	Q3575-01	001 Willets Pt Blvd (Nov)	VN088286.D	14 Nov 2025 11:12	vial A pH<2	JC\MD	Ok
7	Q3575-02	002 35th Ave (Nov)	VN088287.D	14 Nov 2025 11:33	vial A pH<2	JC\MD	Ok
8	IBLK	IBLK	VN088288.D	14 Nov 2025 11:54		JC\MD	Ok
9	Q3551-01	MANHOLE	VN088289.D	14 Nov 2025 12:15	vial A pH<2	JC\MD	Ok
10	VSTDCCC020	VSTDCCC020EC	VN088290.D	14 Nov 2025 15:08		JC\MD	Ok,M

M : Manual Integration



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Spectra East Inc
ADDRESS: 8 King Road
CITY: Rockleigh STATE: NJ ZIP: 07647
ATTENTION: Jacob Valeich
PHONE: 201-767-7070 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Outfall 1001-Orangetown Dis Permit 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) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

1: oil & Grease
2: Phenolics
3: SVOCs Group 1
4: PCB
5: PCST/Cide Group
6: Ni + rate
7: BOD5
8: TSS
9: VOCs Group 1

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		C	C	E	E	E	E	E	E	A	← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER	
1.	Manhole	W	✓		11-5-25	1535	20	✓	✓	✓	✓	✓	✓	✓	✓	✓		
2.																		
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.	DATE/TIME: <u>11-5-25</u>	RECEIVED BY: 1.	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>3-20</u> °C Comments:
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.	
RELINQUISHED BY SAMPLER: 3.	DATE/TIME: <u>11-5-25</u>	RECEIVED BY: 3.	

Page ____ of CLIENT: ☐ Hand Delivered ☐ Other Shipment Complete ☐ YES ☐ NO

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Spectra East Inc
ADDRESS: 8 King Road
CITY: Rockleigh STATE: NJ ZIP: 07647
ATTENTION: Jacob Valeich
PHONE: 201-767-7070 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Outfall 001-Orangetown
PROJECT NO.: DIS permit 2023
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

1. Metals
2. Cyanide
3. Cyanide
4. COD
5. Ammonia
6. Low-level metals
7. 500
8.
9.

ALLIANCE
SAMPLE
ID

PROJECT
SAMPLE IDENTIFICATION

SAMPLE
MATRIX

SAMPLE
TYPE
COMP GRAB

SAMPLE
COLLECTION
DATE TIME

OF BOTTLES

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

1. Manhole

W ✓ 11-5-25 1535 20

B D D C C A
1 2 3 4 5 6 7 8 9

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

RELINQUISHED BY SAMPLER: 1. 11-5-25
RELINQUISHED BY SAMPLER: 2.
RELINQUISHED BY SAMPLER: 3. 11-5-25
RECEIVED BY: 1.
RECEIVED BY: 2.
RECEIVED BY: 3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.2 °C

Comments:

Page ____ of ____

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete
☐ YES ☐ NO

Liance Technical Group, LLC-Newark

284 Sheffield Street, Mountainside, NJ 07092 Tel. 908-789-8900 Fax 908-789-8922
FIELD SAMPLING LOG

Client Name: Spectra East inc
 Client Address: 8 King Road
 Client Rep on Site: Jacob Valeich
 Sampling Date: 11-4-25
 Arrival Time: 1545

Project Name: off-fall 001 - orangetown
Dis permit 2025
 Project Location: Rockleigh
 Cooler Custody Seal: N/A
 Temperature Correction Factor (°C): 0

Departure Time: 1620

FIELD EQUIPMENT CALIBRATION

pH Calibration (SM4500-H B/9040C)

Calibration (acceptance criteria ± 0.05 pH unit)				ICV (± 0.1 pH unit)
	7.00 Buffer	4.00 Buffer	10.00 Buffer	7.00 Buffer
	W 3217	W 3178	W 3191	W 3093
Time	1550	1552	1554	1556
Temp °C	21.2°	21.8°	21.7°	20.4°
pH	7.02	4.00	10.04	7.00

FIELD EQUIPMENT CALIBRATION

Specific Conductance (mS/cm) (99% -101%)/(mmho/cm) (SM2510 B/120.1/9050A)

Calibration ($\pm 1\%$) (99% -101%)		ICV ($\pm 1\%$) (99% -101%)
	WP	WP
Time		
Temp °C		
Reading (mS/cm)		

Sampler Signature/Date:

 11-4-25

Supervisor Review/Date:

FIELD SAMPLING LOG

Client Name: Spectra East inc
Client Address: 8 King Road
Client Rep on Site: Jacob Valeich
Sampling Date: 11-4-25
Arrival Time: 1545

Project Name: outfall 001-Orangetown
 Project Location: Dis permit 2025
 Cooler Custody Seal: Rockleigh
 Temperature Correction Factor (°C): N/A
 Temperature Correction Factor (°C): 0

FIELD SAMPLING INFORMATION

[illegible]

Meter: YSI PRO Quatro, Serial # 25A103198

Sampler Signature/Date:

11-4-25

Supervisor Review/Date:

QA Control# A3041253

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3551	SPEC01	Order Date : 11/5/2025 2:16:00 PM	Project Mgr :
Client Name : Spectra East Inc.		Project Name : Outfall 001 - Orangetown E	Report Type : Level 2
Client Contact : Jacob Valeich		Receive DateTime : 11/5/2025 12:00:00 AM	EDD Type : EXCEL NOCLEANUP
Invoice Name : Spectra East Inc.		Purchase Order : 17254 PM	Hard Copy Date :
Invoice Contact : Jacob Valeich			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3551-01	MANHOLE	Water	11/05/2025	15:35 12:00 AM	VOCMS Group1		624.1		10 Bus. Days

Relinquished By :

Date / Time :

CL
11/6/25 10:26
10:26

Received By :

Date / Time :

Sam
11/06/25 10:26 12:45

Storage Area : VOA Refridgerator Room