

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:	P4844	OrderDate:	11/14/2024 10:28:00 AM
Client:	Garden State Laboratories, Inc.	Project:	Waste Water 2024
Contact:	Sharon Ercoliani	Location:	VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4844-01	241113075-01-VOA	Water	VOCMS Group1	624.1	11/13/24		11/15/24	11/14/24
P4844-02	241113050-06-TRIP-BLANK	Water	VOCMS Group1	624.1	11/13/24		11/14/24	11/14/24



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

Hit Summary Sheet
SW-846

SDG No.: P4844

Client: Garden State Laboratories, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
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Client ID:

0

Total Voc :

Total Concentration:



QC SUMMARY

Surrogate Summary

SDG No.: **P4844**

Client: **Garden State Laboratories, Inc.**

Analytical Method: **SW624.1**

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P4844-01	241113075-01-VOA	1,2-Dichloroethane-d4	30	30.8	103	91	110
		Toluene-d8	30	26.7	89 *	91	112
		4-Bromofluorobenzene	30	27.5	92	63	112
P4844-02	241113050-06-TRIP-BLANK	1,2-Dichloroethane-d4	30	29.6	99	91	110
		Toluene-d8	30	28.5	95	91	112
		4-Bromofluorobenzene	30	24.3	81	63	112
VN1115WBL01	VN1115WBL01	1,2-Dichloroethane-d4	30	29.4	98	91	110
		Toluene-d8	30	28.4	95	91	112
		4-Bromofluorobenzene	30	23.9	80	63	112
VN1115WBS01	VN1115WBS01	1,2-Dichloroethane-d4	30	30.7	102	91	110
		Toluene-d8	30	29.7	99	91	112
		4-Bromofluorobenzene	30	30.2	101	63	112
VN1115WBSD0	VN1115WBSD01	1,2-Dichloroethane-d4	30	29.9	100	91	110
		Toluene-d8	30	29.6	99	91	112
		4-Bromofluorobenzene	30	31.0	103	63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4844

Client: Garden State Laboratories, Inc.

Analytical Method: SW624.1

Datafile : VN084868.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1115WBS01	Acrolein	100	100	ug/L	100			60	140	
	Acrylonitrile	100	90.9	ug/L	91			60	140	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4844

Client: Garden State Laboratories, Inc.

Analytical Method: SW624.1

Datafile : VN084869.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1115WBSD01	Acrolein	100	120	ug/L	120	18		60	140	20
	Acrylonitrile	100	97.6	ug/L	98	7		60	140	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1115WBL01

Lab Name: CHEMTECH

Contract: GARD04

Lab Code: CHEM Case No.: P4844

SAS No.: P4844 SDG NO.: P4844

Lab File ID: VN084870.D

Lab Sample ID: VN1115WBL01

Date Analyzed: 11/15/2024

Time Analyzed: 15:23

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
VN1115WBS01	VN1115WBS01	VN084868.D	11/15/2024
VN1115WBSD01	VN1115WBSD01	VN084869.D	11/15/2024
241113050-06-TRIP-BLANK	P4844-02	VN084871.D	11/15/2024
241113075-01-VOA	P4844-01	VN084876.D	11/15/2024

COMMENTS: _____



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GARD04
Lab Code: CHEM Case No.: P4844 SAS No.: P4844 SDG NO.: P4844
Lab File ID: VN084612.D BFB Injection Date: 10/31/2024
Instrument ID: MSVOA_N BFB Injection Time: 10:56
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	18.5
75	30.0 - 60.0% of mass 95	52.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1.1) 1
174	50.0 - 100.0% of mass 95	73.9
175	5.0 - 9.0% of mass 174	5.6 (7.5) 1
176	95.0 - 101.0% of mass 174	72.1 (97.5) 1
177	5.0 - 9.0% of mass 176	4.7 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VN084613.D	10/31/2024	12:08
VSTDIC020	VSTDIC020	VN084614.D	10/31/2024	12:32
VSTDIC050	VSTDIC050	VN084615.D	10/31/2024	12:56
VSTDIC100	VSTDIC100	VN084616.D	10/31/2024	13:20
VSTDIC150	VSTDIC150	VN084617.D	10/31/2024	13:44



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GARD04
Lab Code: CHEM Case No.: P4844 SAS No.: P4844 SDG NO.: P4844
Lab File ID: VN084866.D BFB Injection Date: 11/15/2024
Instrument ID: MSVOA_N BFB Injection Time: 13:01
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	17.5
75	30.0 - 60.0% of mass 95	53.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1) 1
174	50.0 - 100.0% of mass 95	77.9
175	5.0 - 9.0% of mass 174	5.3 (6.8) 1
176	95.0 - 101.0% of mass 174	74.8 (96) 1
177	5.0 - 9.0% of mass 176	5 (6.7) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC020	VSTDCCC020	VN084867.D	11/15/2024	13:49
VN1115WBS01	VN1115WBS01	VN084868.D	11/15/2024	14:26
VN1115WBSD01	VN1115WBSD01	VN084869.D	11/15/2024	14:59
VN1115WBL01	VN1115WBL01	VN084870.D	11/15/2024	15:23
241113050-06-TRIP-BLANK	P4844-02	VN084871.D	11/15/2024	16:00
241113075-01-VOA	P4844-01	VN084876.D	11/15/2024	18:00

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GARD04
 Lab Code: CHEM Case No.: P4844 SAS No.: P4844 SDG NO.: P4844
 Lab File ID: VN084867.D Date Analyzed: 11/15/2024
 Instrument ID: MSVOA_N Time Analyzed: 13:49
 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	29205	7.81	143711	9.10	129619	11.87
UPPER LIMIT	58410	8.312	287422	9.6	259238	12.365
LOWER LIMIT	14602.5	7.312	71855.5	8.6	64809.5	11.365
EPA SAMPLE NO.						
241113075-01-VOA	24378	7.81	131256	9.09	127289	11.87
241113050-06-TRIP-BLANK	28914	7.81	145852	9.10	125740	11.87
VN1115WBL01	20903	7.81	102633	9.10	89042	11.87
VN1115WBS01	28727	7.81	152762	9.10	143052	11.87
VN1115WBSD01	27777	7.81	143562	9.10	132133	11.87

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.



SAMPLE DATA

Report of Analysis

Client:	Garden State Laboratories, Inc.	Date Collected:	11/13/24
Project:	Waste Water 2024	Date Received:	11/14/24
Client Sample ID:	241113075-01-VOA	SDG No.:	P4844
Lab Sample ID:	P4844-01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	RXI-624	ID :	0.25
Prep Method :		Level :	LOW
		Final Vol:	5000
		Test:	VOCMS Group1

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084876.D	1		11/15/24 18:00	VN111524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.8		91 - 110	103%	SPK: 30
2037-26-5	Toluene-d8	26.7	*	91 - 112	89%	SPK: 30
460-00-4	4-Bromofluorobenzene	27.5		63 - 112	92%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	24400	7.812			
540-36-3	1,4-Difluorobenzene	131000	9.094			
3114-55-4	Chlorobenzene-d5	127000	11.865			

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\VN111524\
 Data File : VN084876.D
 Acq On : 15 Nov 2024 18:00
 Operator : JC\MD
 Sample : P4844-01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 241113075-01-VOA

Manual Integrations
 APPROVED

Reviewed By :John Carlone 11/17/2024
 Supervised By :Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:28:21 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	24378	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.094	114	131256	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	127289	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.576	65	60380	30.808	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.700%			
60) 4-Bromofluorobenzene	12.847	95	60280	27.504	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 91.667%			
63) Toluene-d8	10.565	98	161151	26.743	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 89.133%#			
Target Compounds						
					Qvalue	
8) Diethyl Ether	3.947	74	3167	3.449	ug/l	78
12) Methyl Acetate	5.024	43	4846m	2.188	ug/l	
15) Acetone	4.430	58	13864	74.479	ug/l	91
16) Carbon Disulfide	4.689	76	7832	1.874	ug/l	97
23) tert-Butyl Alcohol	5.541	59	3022992	11952.402	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	10797	2.350	ug/l #	76
34) Benzene	8.600	78	27262	4.172	ug/l #	85
62) Toluene	10.629	91	80765	11.140	ug/l	98
64) Chlorobenzene	11.888	112	6131	1.401	ug/l #	88
66) Ethyl Benzene	11.964	91	80469	10.561	ug/l	97
67) m/p-Xylenes	12.065	106	32906	11.281	ug/l	100
68) o-Xylene	12.394	106	18066	6.420	ug/l	99
70) Isopropylbenzene	12.694	105	6074	0.869	ug/l	97
76) 1,3,5-Trimethylbenzene	13.170	105	6111	1.023	ug/l	92
80) 1,2,4-Trimethylbenzene	13.482	105	21472	3.564	ug/l	98
82) p-Isopropyltoluene	13.729	119	50130	8.766	ug/l	96
84) 1,4-Dichlorobenzene	13.811	146	7992	2.426	ug/l	92
91) Naphthalene	15.641	128	123830	24.238	ug/l	100

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

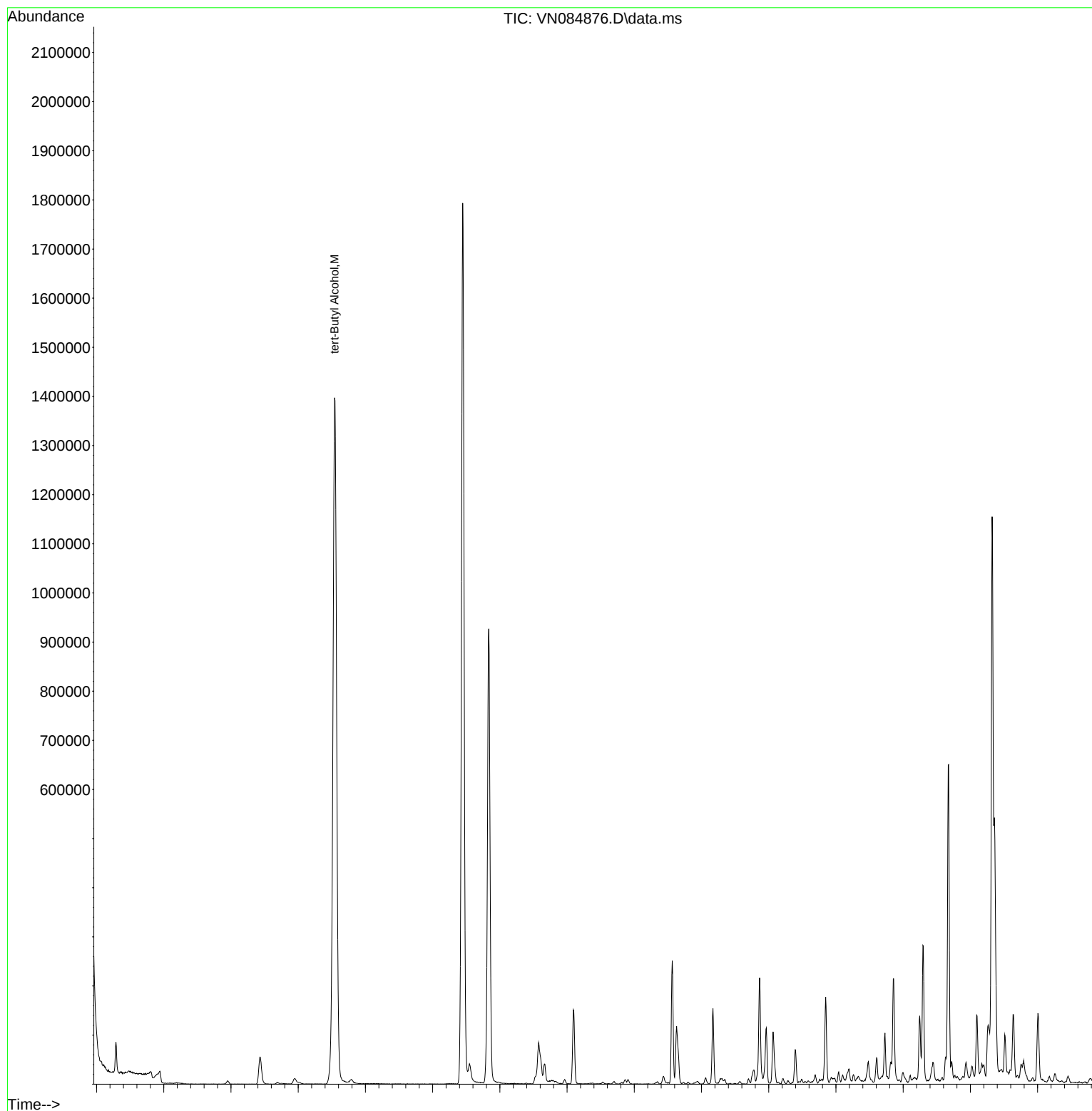
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Data File : VN084876.D
Acq On : 15 Nov 2024 18:00
Operator : JC\MD
Sample : P4844-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

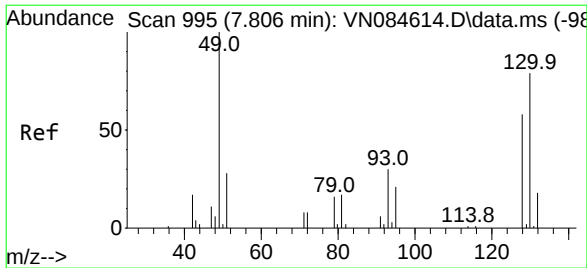
Instrument :
MSVOA_N
ClientSampleId :
241113075-01-VOA

Manual Integrations
APPROVED

Reviewed By : John Carlone 11/17/2024
Supervised By : Mahesh Dadoda 11/18/2024

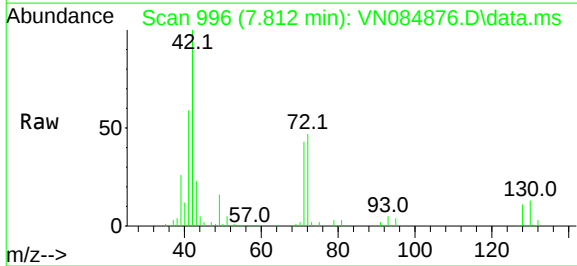
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Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration





#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 995
Delta R.T. 0.006 min
Lab File: VN084876.D
Acq: 15 Nov 2024 18:00

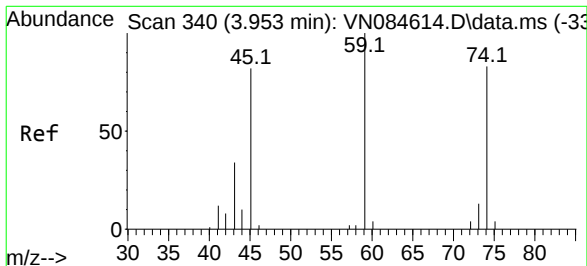
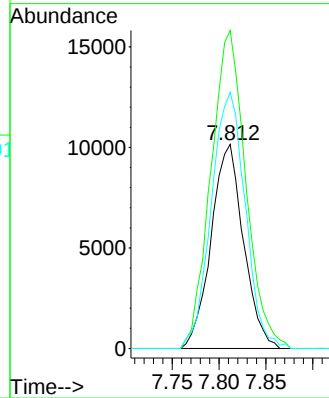
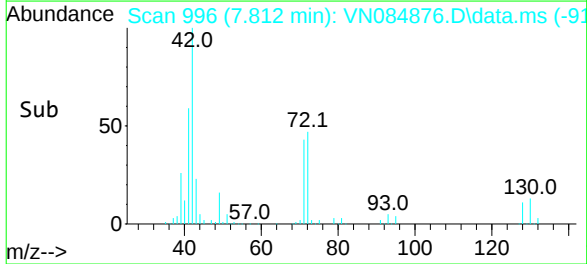
Instrument :
MSVOA_N
ClientSampleId :
241113075-01-VOA



Tgt Ion: 128 Resp: 24378
Ion Ratio Lower Upper
128 100
49 167.7 0.0 427.0
130 131.9 0.0 322.2

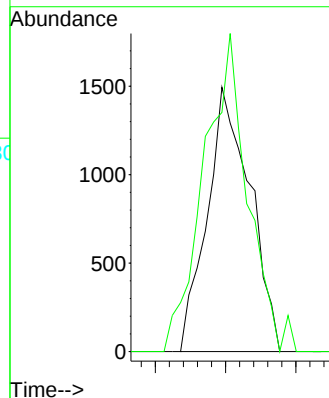
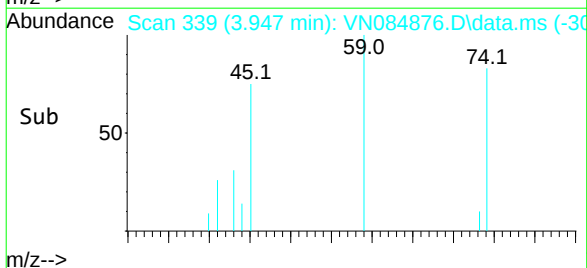
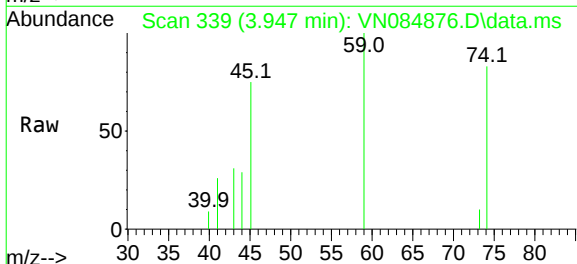
Manual Integrations
APPROVED

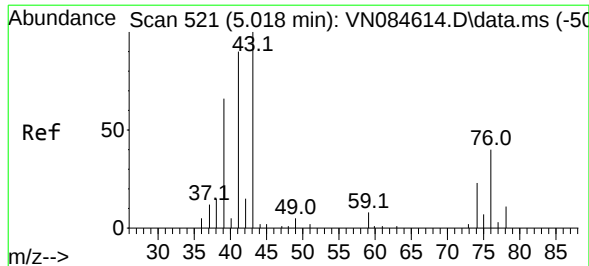
Reviewed By : John Carlone 11/17/2024
Supervised By : Mahesh Dadoda 11/18/2024



#8
Diethyl Ether
Concen: 3.449 ug/l
RT: 3.947 min Scan# 339
Delta R.T. -0.006 min
Lab File: VN084876.D
Acq: 15 Nov 2024 18:00

Tgt Ion: 74 Resp: 3167
Ion Ratio Lower Upper
74 100
45 120.8 19.8 178.4





#12

Methyl Acetate

Concen: 2.188 ug/l m

RT: 5.024 min Scan# 521

Delta R.T. 0.006 min

Lab File: VN084876.D

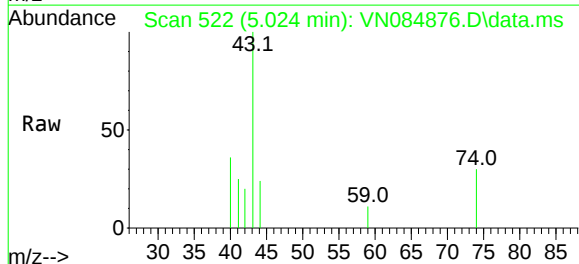
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Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA



Tgt Ion: 43 Resp: 4846

Ion Ratio Lower Upper

43 100

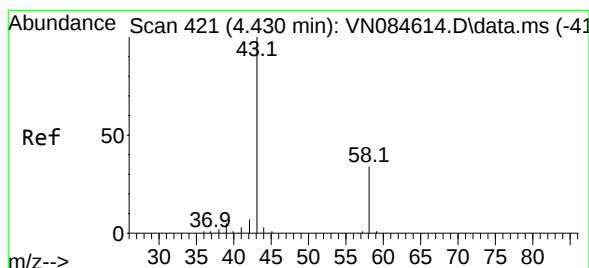
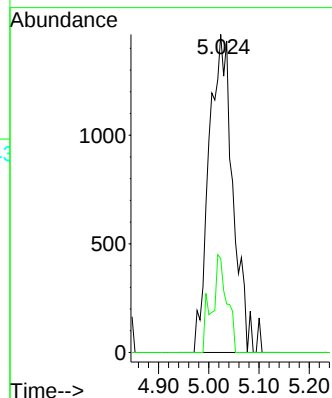
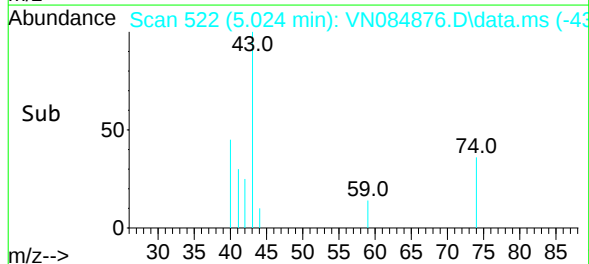
74 29.5 19.0 28.4#

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#15

Acetone

Concen: 74.479 ug/l

RT: 4.430 min Scan# 421

Delta R.T. -0.000 min

Lab File: VN084876.D

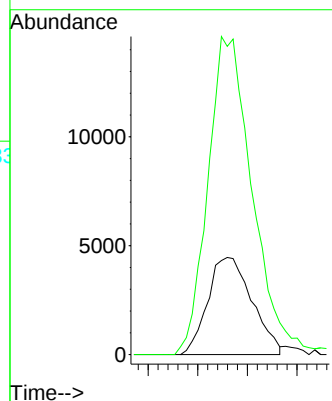
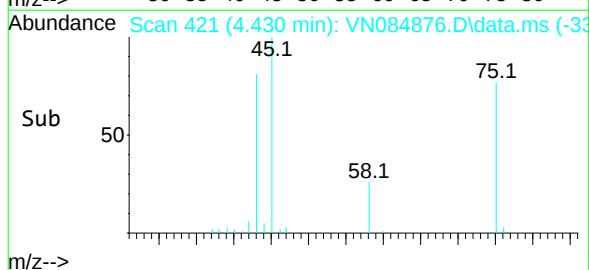
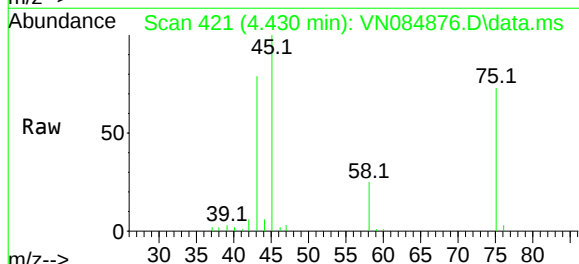
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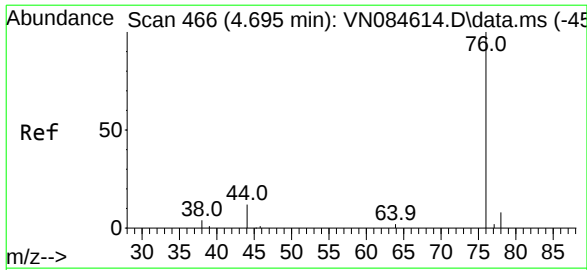
Tgt Ion: 58 Resp: 13864

Ion Ratio Lower Upper

58 100

43 309.3 233.0 349.6





#16

Carbon Disulfide

Concen: 1.874 ug/l

RT: 4.689 min Scan# 46

Delta R.T. -0.006 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA

Tgt Ion: 76 Resp: 7832

Ion Ratio Lower Upper

76 100

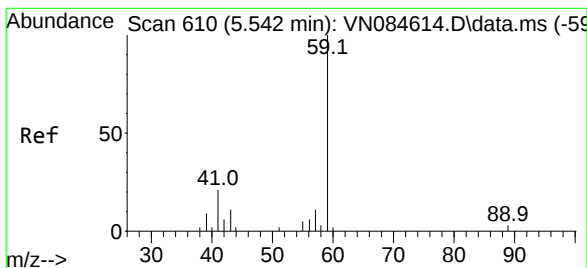
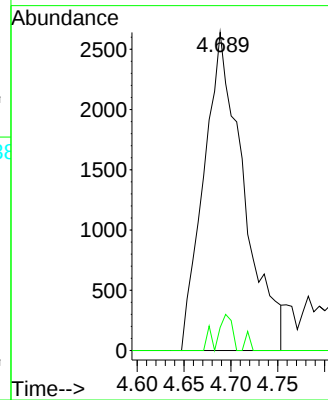
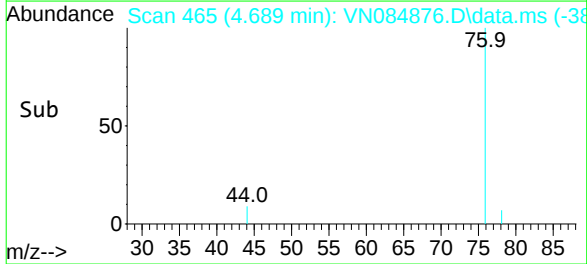
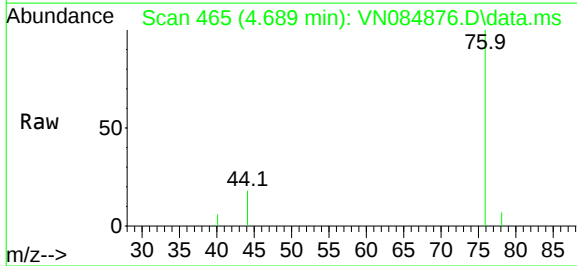
78 7.2 6.6 9.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#23

tert-Butyl Alcohol

Concen: 11952.402 ug/l

RT: 5.541 min Scan# 610

Delta R.T. -0.000 min

Lab File: VN084876.D

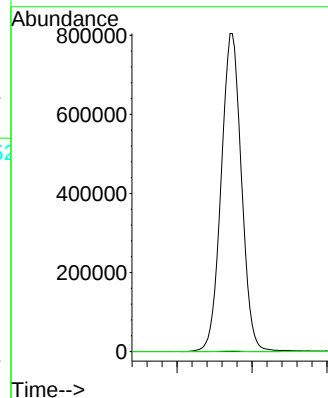
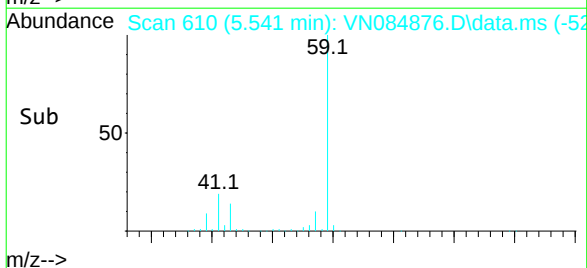
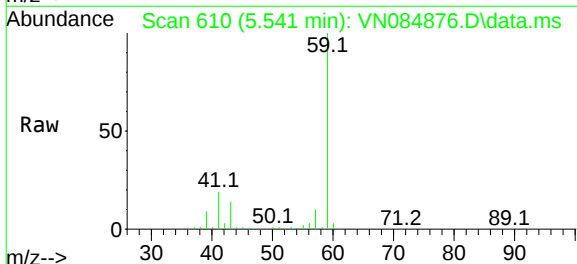
Acq: 15 Nov 2024 18:00

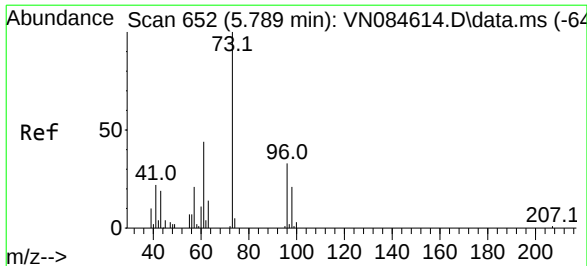
Tgt Ion: 59 Resp: 3022992

Ion Ratio Lower Upper

59 100

52 0.1 0.0 0.0#





#24

Methyl tert-Butyl Ether

Concen: 2.350 ug/l

RT: 5.794 min Scan# 65

Delta R.T. 0.006 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA

Tgt Ion: 73 Resp: 10797

Ion Ratio Lower Upper

73 100

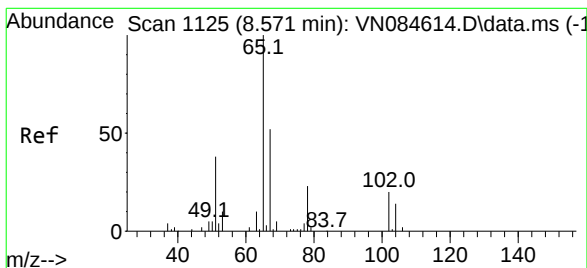
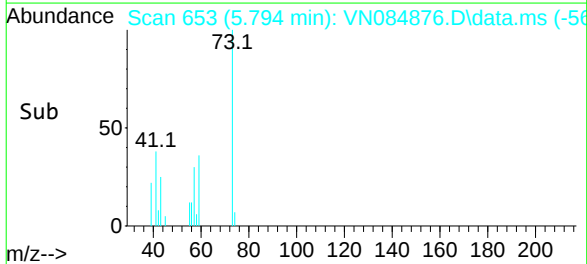
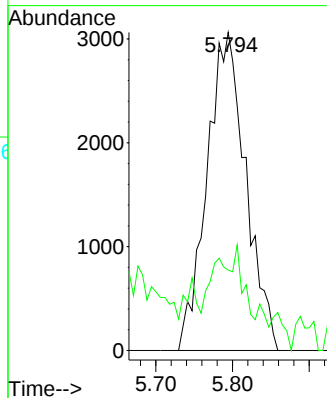
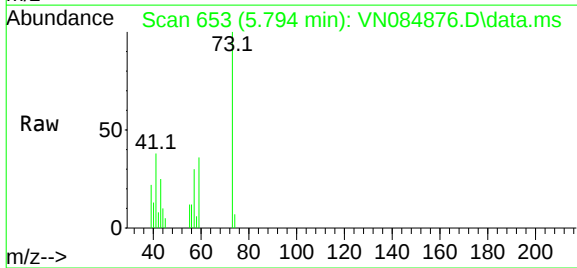
43 9.3 16.5 24.7#

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#27

1,2-Dichloroethane-d4

Concen: 30.808 ug/l

RT: 8.576 min Scan# 1126

Delta R.T. 0.006 min

Lab File: VN084876.D

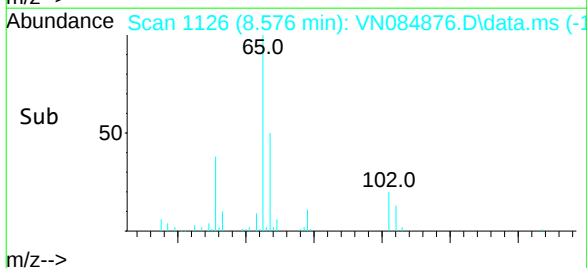
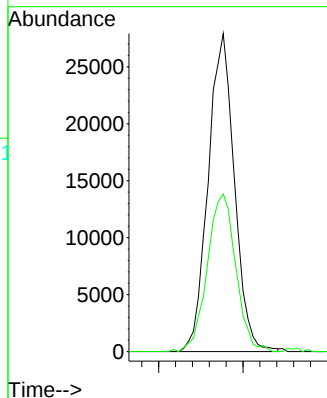
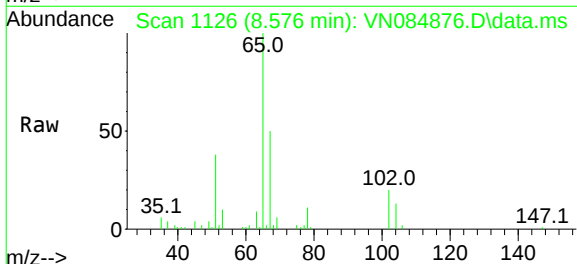
Acq: 15 Nov 2024 18:00

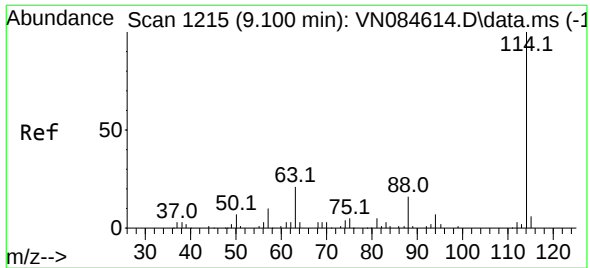
Tgt Ion: 65 Resp: 60380

Ion Ratio Lower Upper

65 100

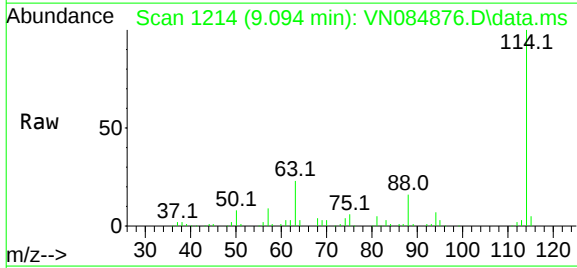
67 53.2 40.7 61.1





#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.094 min Scan# 1215
Delta R.T. -0.006 min
Lab File: VN084876.D
Acq: 15 Nov 2024 18:00

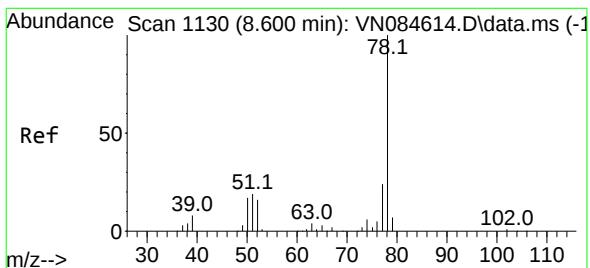
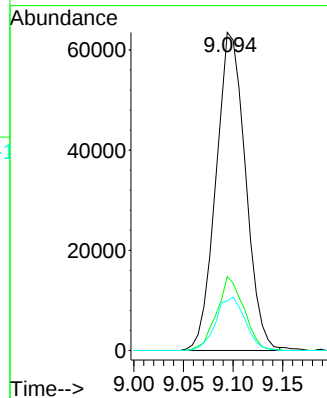
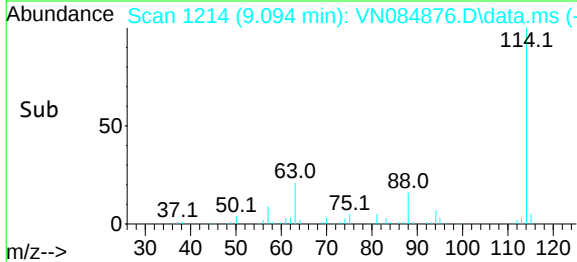
Instrument :
MSVOA_N
ClientSampleId :
241113075-01-VOA



Tgt Ion: 114 Resp: 131256
Ion Ratio Lower Upper
114 100
63 21.4 16.8 25.2
88 16.7 12.9 19.3

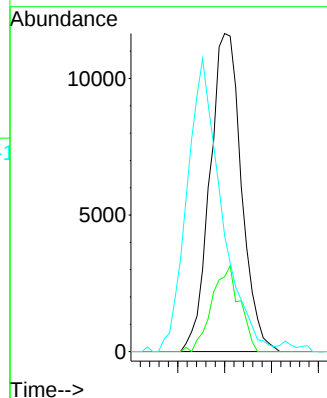
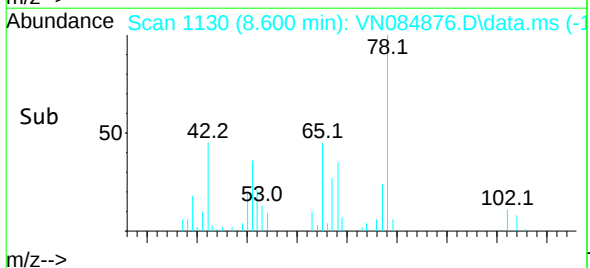
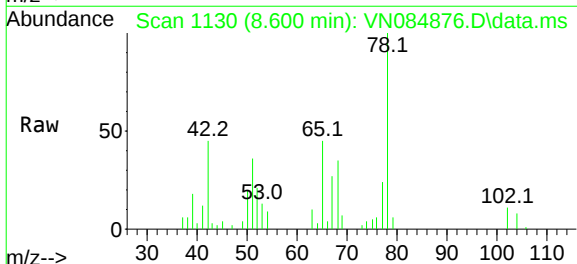
Manual Integrations
APPROVED

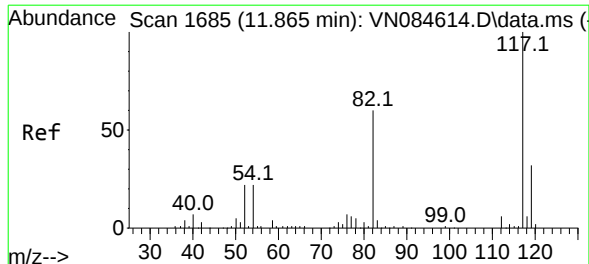
Reviewed By : John Carlone 11/17/2024
Supervised By : Mahesh Dadoda 11/18/2024



#34
Benzene
Concen: 4.172 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.000 min
Lab File: VN084876.D
Acq: 15 Nov 2024 18:00

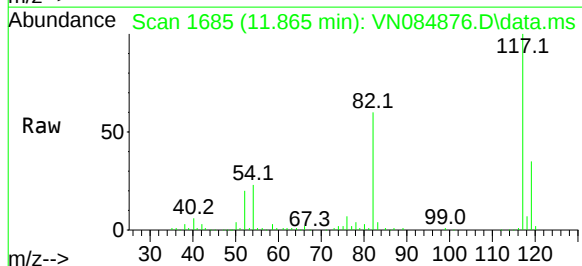
Tgt Ion: 78 Resp: 27262
Ion Ratio Lower Upper
78 100
77 23.5 19.3 28.9
51 34.5 16.1 24.1#





#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN084876.D
Acq: 15 Nov 2024 18:00

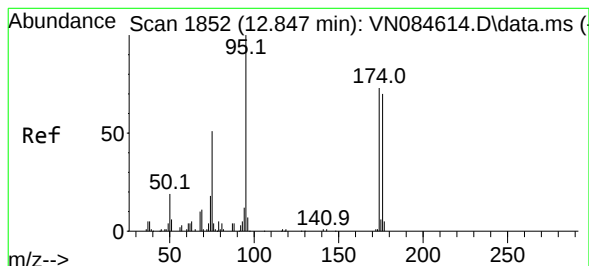
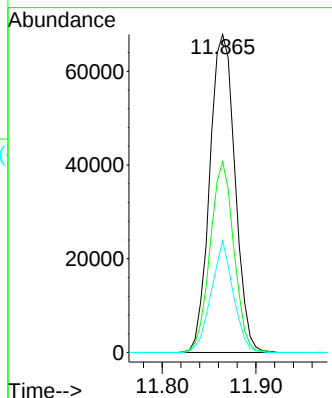
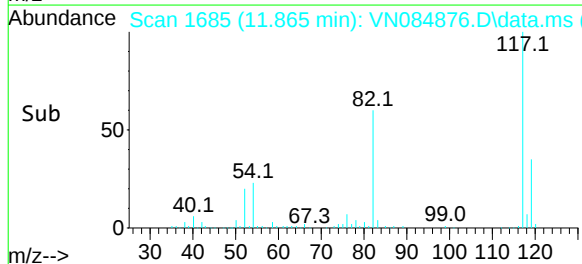
Instrument :
MSVOA_N
ClientSampleId :
241113075-01-VOA



Tgt Ion: 117 Resp: 127289
Ion Ratio Lower Upper
117 100
82 56.3 45.5 68.3
119 30.7 25.3 37.9

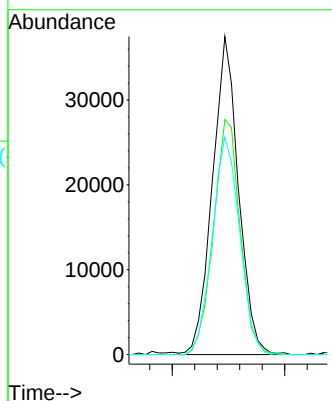
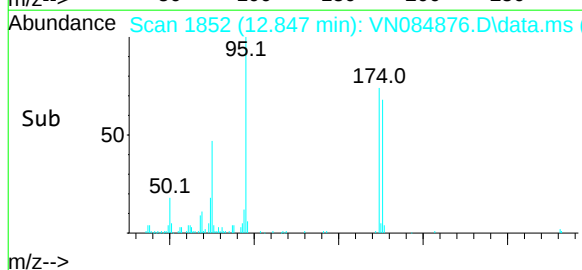
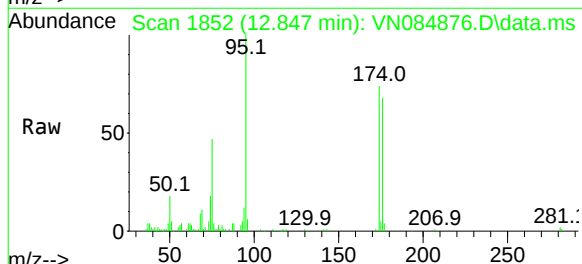
Manual Integrations
APPROVED

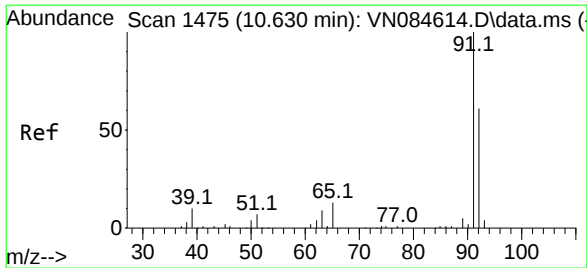
Reviewed By :John Carlone 11/17/2024
Supervised By :Mahesh Dadoda 11/18/2024



#60
4-Bromofluorobenzene
Concen: 27.504 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN084876.D
Acq: 15 Nov 2024 18:00

Tgt Ion: 95 Resp: 60280
Ion Ratio Lower Upper
95 100
174 75.5 59.6 89.4
176 71.4 58.6 88.0





#62

Toluene

Concen: 11.140 ug/l

RT: 10.629 min Scan# 1475

Delta R.T. -0.000 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA

Tgt Ion: 91 Resp: 80765

Ion Ratio Lower Upper

91 100

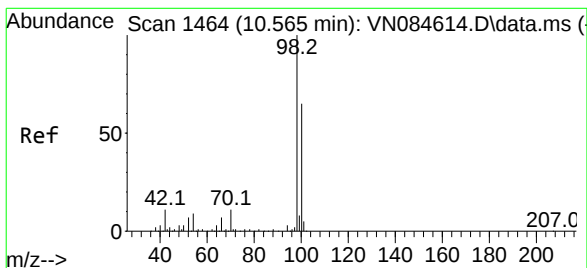
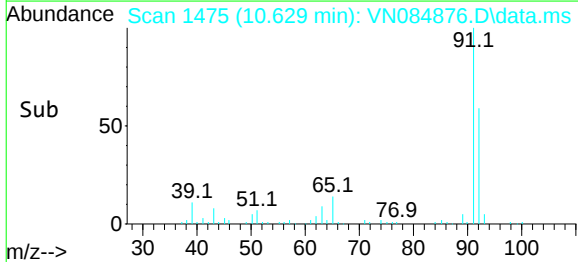
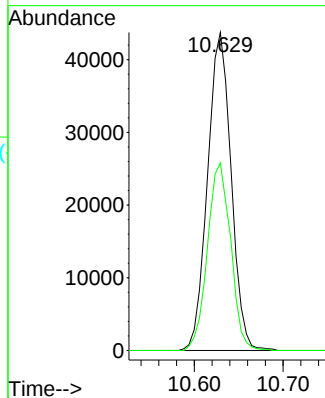
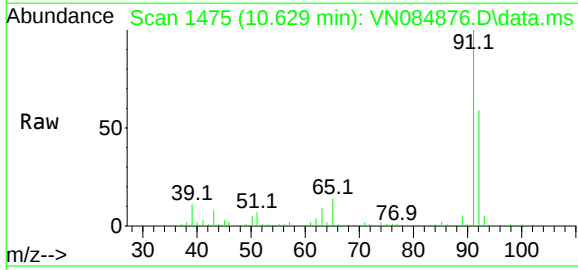
92 58.1 47.5 71.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#63

Toluene-d8

Concen: 26.743 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN084876.D

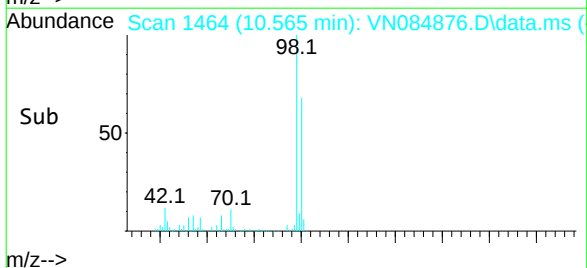
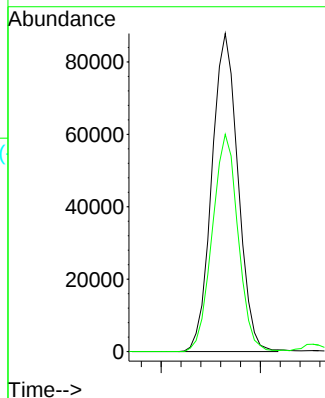
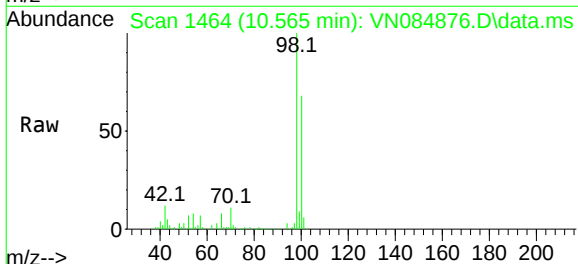
Acq: 15 Nov 2024 18:00

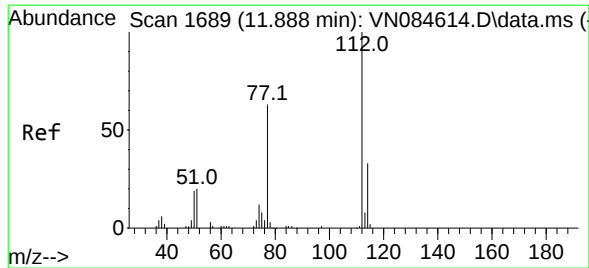
Tgt Ion: 98 Resp: 161151

Ion Ratio Lower Upper

98 100

100 67.3 52.2 78.2





#64

Chlorobenzene

Concen: 1.401 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. -0.000 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA

Tgt Ion: 112 Resp: 6131

Ion Ratio Lower Upper

112 100

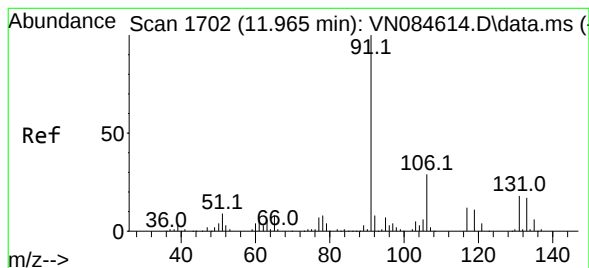
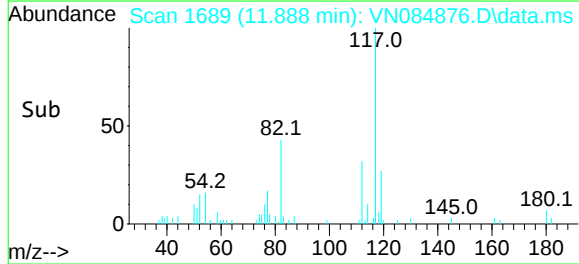
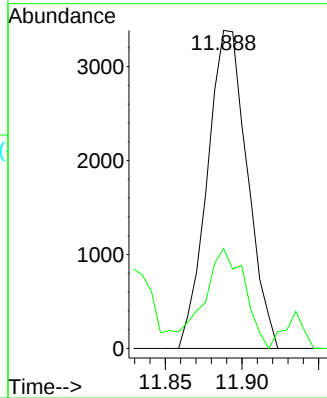
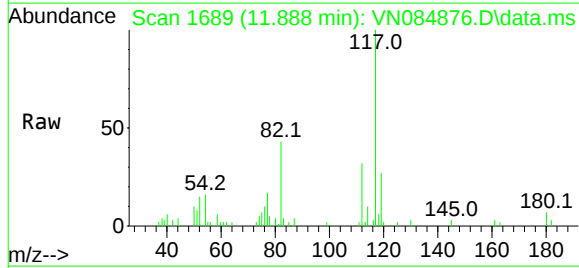
114 26.2 26.2 39.4#

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#66

Ethyl Benzene

Concen: 10.561 ug/l

RT: 11.964 min Scan# 1702

Delta R.T. -0.000 min

Lab File: VN084876.D

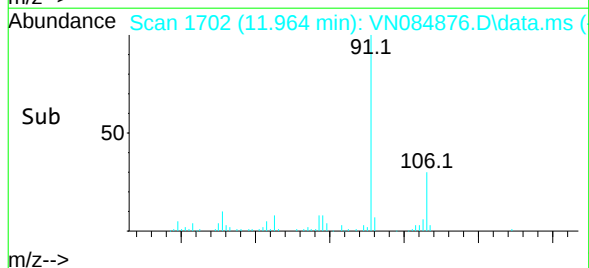
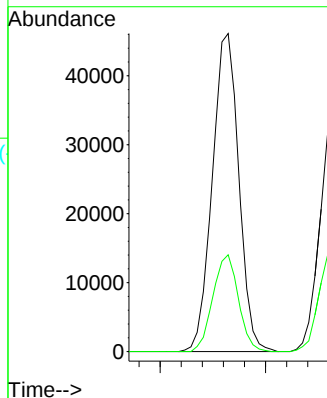
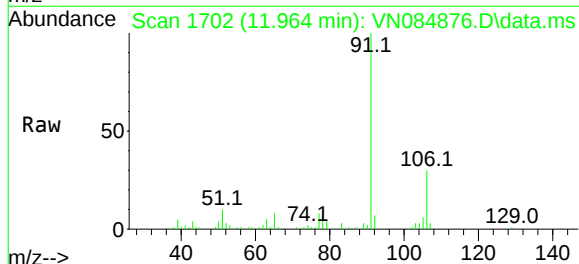
Acq: 15 Nov 2024 18:00

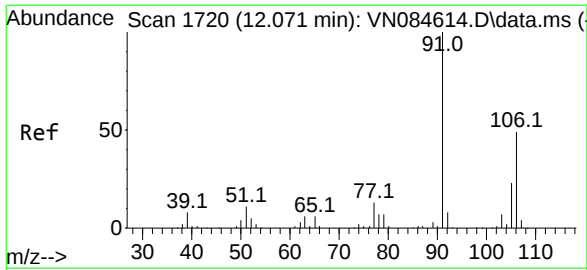
Tgt Ion: 91 Resp: 80469

Ion Ratio Lower Upper

91 100

106 30.4 22.9 34.3





#67

m/p-Xylenes

Concen: 11.281 ug/l

RT: 12.065 min Scan# 1719

Delta R.T. -0.006 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA

Tgt Ion:106 Resp: 32906

Ion Ratio Lower Upper

106 100

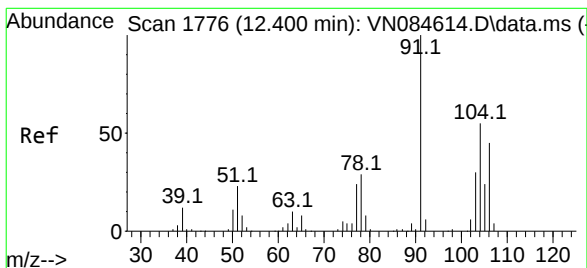
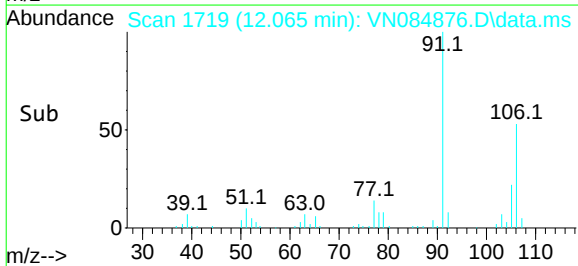
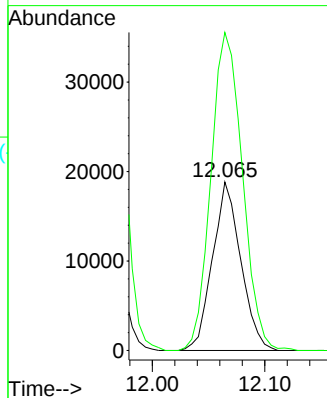
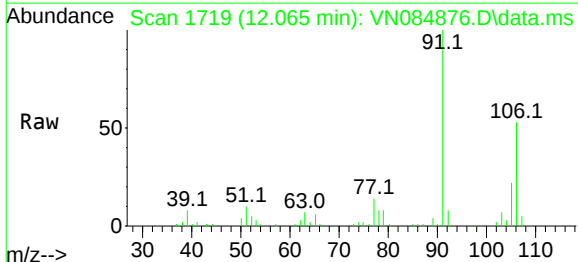
91 209.6 168.1 252.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#68

o-Xylene

Concen: 6.420 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. -0.006 min

Lab File: VN084876.D

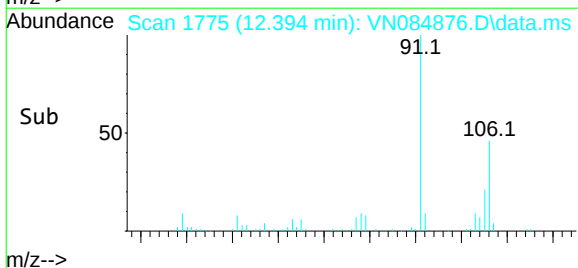
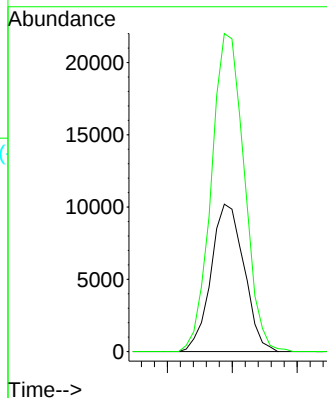
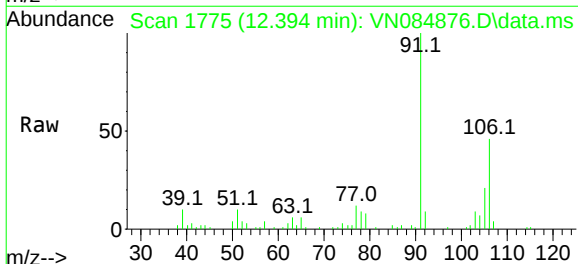
Acq: 15 Nov 2024 18:00

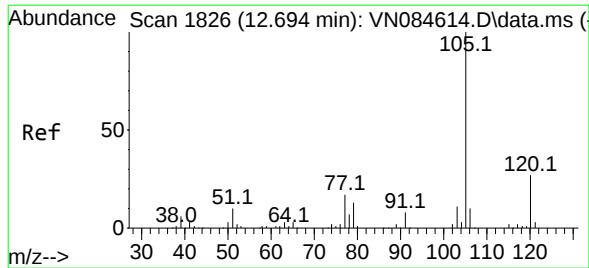
Tgt Ion:106 Resp: 18066

Ion Ratio Lower Upper

106 100

91 214.4 107.7 322.9





#70

Isopropylbenzene

Concen: 0.869 ug/l

RT: 12.694 min Scan# 1826

Delta R.T. -0.000 min

Lab File: VN084876.D

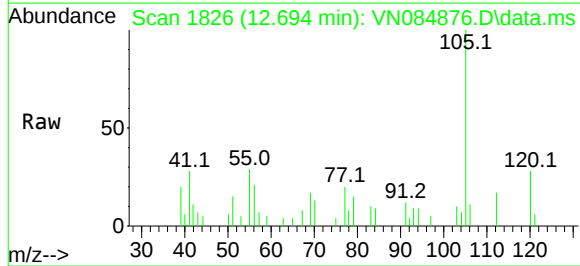
Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA



Tgt Ion:105 Resp: 6074

Ion Ratio Lower Upper

105 100

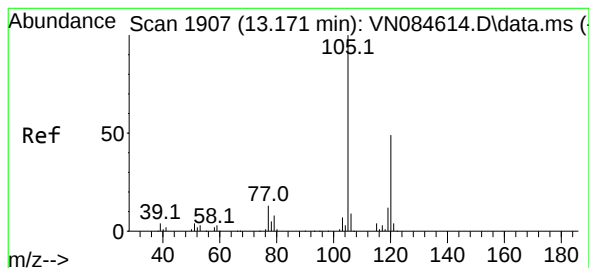
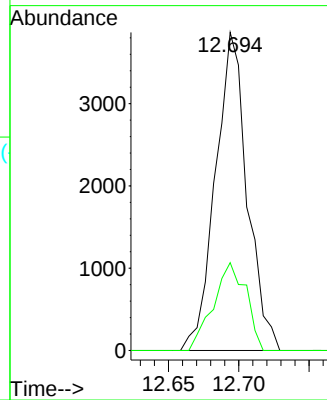
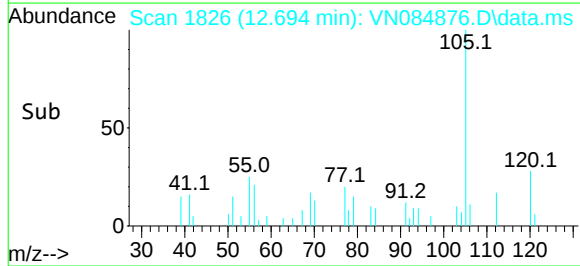
120 28.4 18.7 34.7

Manual Integrations

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Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#76

1,3,5-Trimethylbenzene

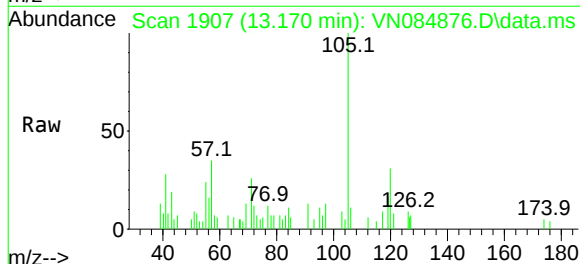
Concen: 1.023 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

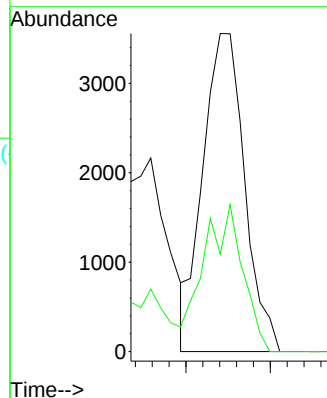
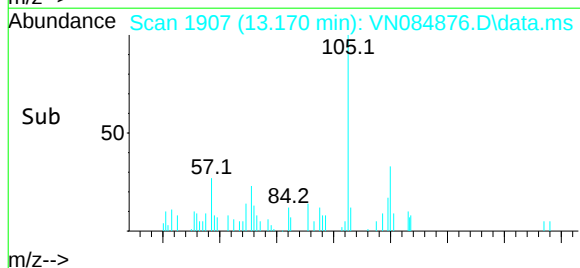


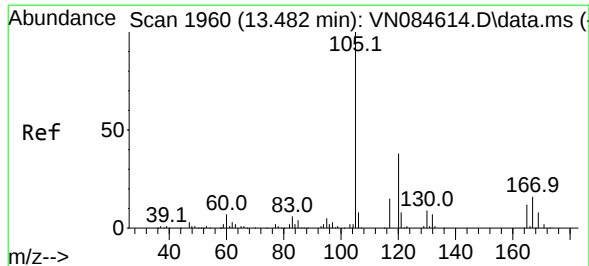
Tgt Ion:105 Resp: 6111

Ion Ratio Lower Upper

105 100

120 43.1 0.0 96.8





#80

1,2,4-Trimethylbenzene

Concen: 3.564 ug/l

RT: 13.482 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

ClientSampleId :

241113075-01-VOA

Tgt Ion:105 Resp: 21472

Ion Ratio Lower Upper

105 100

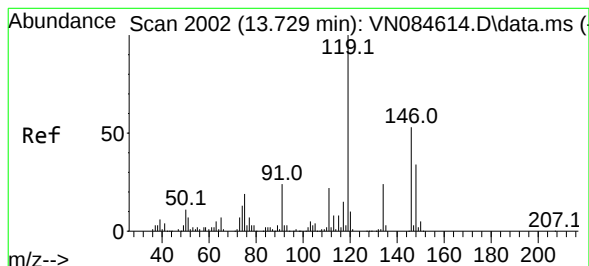
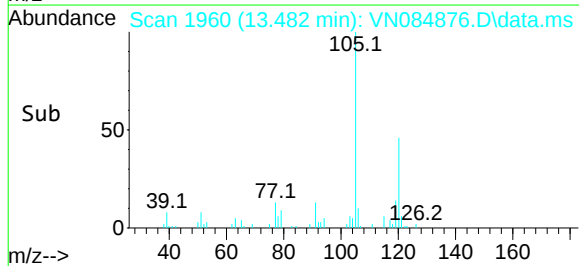
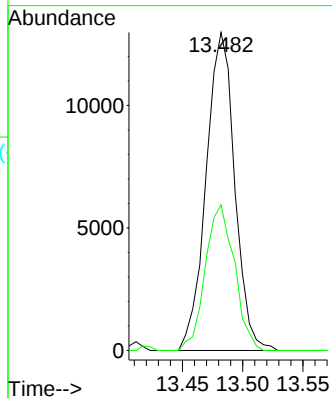
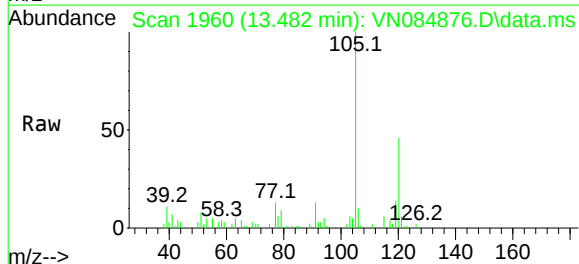
120 46.6 0.0 90.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024



#82

p-Isopropyltoluene

Concen: 8.766 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. -0.000 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

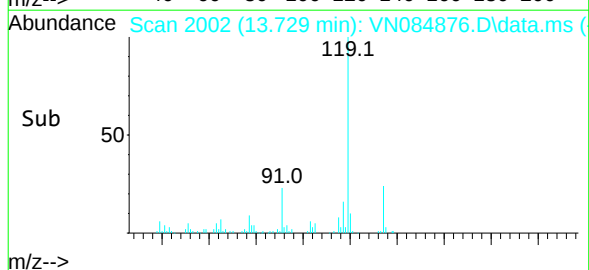
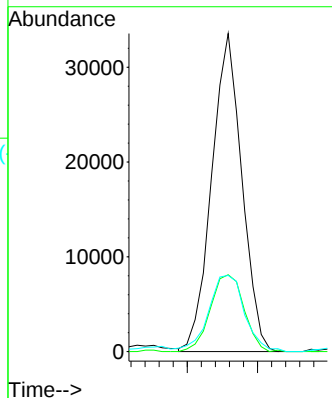
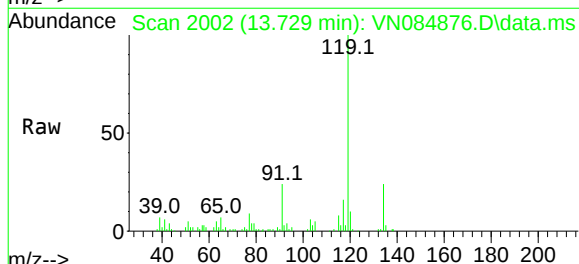
Tgt Ion:119 Resp: 50130

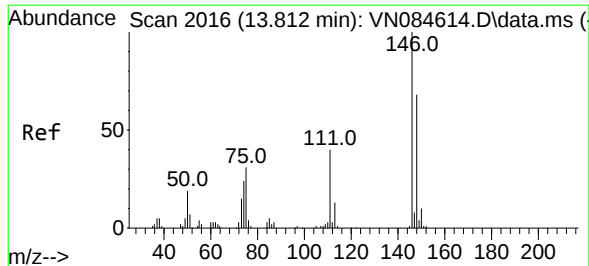
Ion Ratio Lower Upper

119 100

134 26.8 0.0 51.4

91 28.5 0.0 50.4





#84

1,4-Dichlorobenzene

Concen: 2.426 ug/l

RT: 13.811 min Scan# 2016

Delta R.T. -0.000 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Instrument :

MSVOA_N

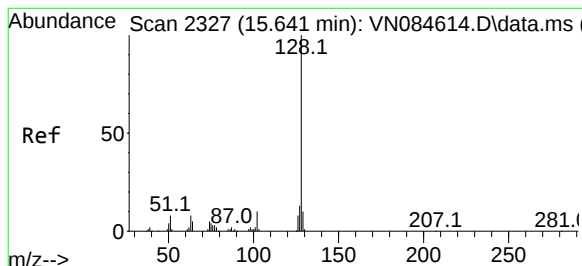
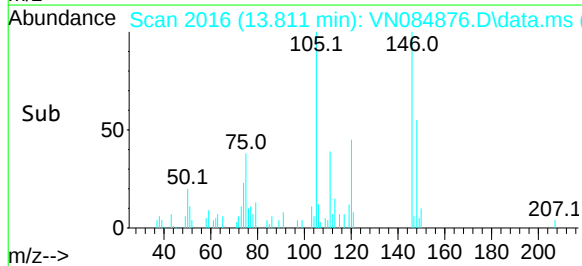
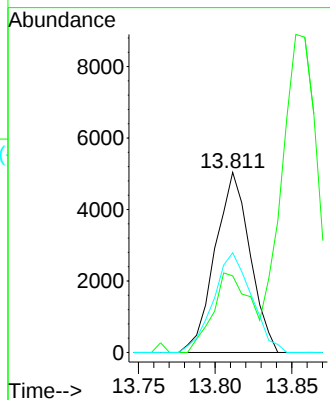
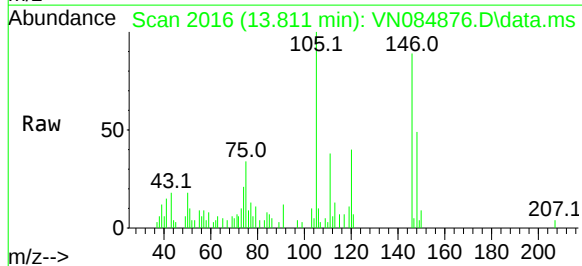
ClientSampleId :

241113075-01-VOA

Tgt Ion:	146	Resp:	7992
Ion	Ratio	Lower	Upper
146	100		
111	47.4	20.2	60.5
148	60.6	32.6	98.0

Manual Integrations
APPROVED

Reviewed By :John Carlone 11/17/2024
Supervised By :Mahesh Dadoda 11/18/2024



#91

Naphthalene

Concen: 24.238 ug/l

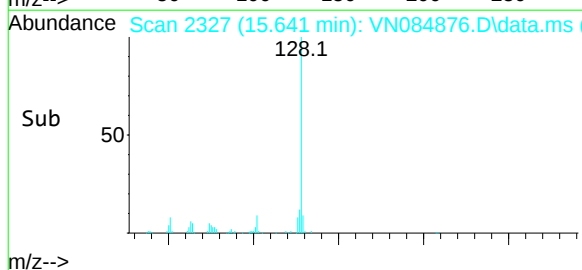
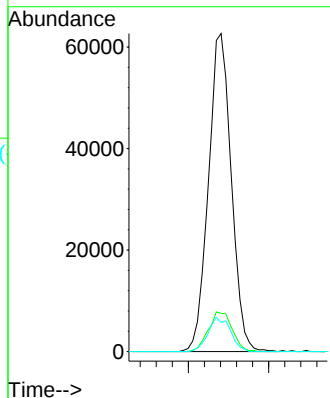
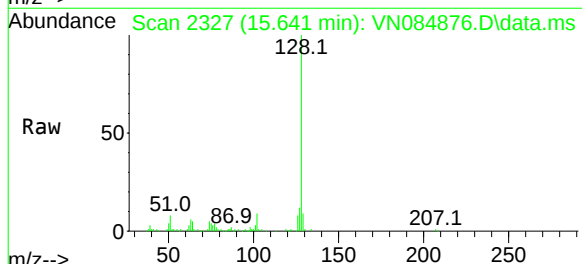
RT: 15.641 min Scan# 2327

Delta R.T. -0.000 min

Lab File: VN084876.D

Acq: 15 Nov 2024 18:00

Tgt Ion:	128	Resp:	123830
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.3	15.5
129	10.5	8.6	12.8



Report of Analysis

Client:	Garden State Laboratories, Inc.	Date Collected:	11/13/24
Project:	Waste Water 2024	Date Received:	11/14/24
Client Sample ID:	241113050-06-TRIP-BLANK	SDG No.:	P4844
Lab Sample ID:	P4844-02	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	RXI-624	ID :	0.25
Prep Method :		Level :	LOW
		Final Vol:	5000
		Test:	VOCMS Group1

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084871.D	1		11/15/24 16:00	VN111524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	29.6		91 - 110	99%	SPK: 30
2037-26-5	Toluene-d8	28.5		91 - 112	95%	SPK: 30
460-00-4	4-Bromofluorobenzene	24.3		63 - 112	81%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	28900	7.806			
540-36-3	1,4-Difluorobenzene	146000	9.1			
3114-55-4	Chlorobenzene-d5	126000	11.865			

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\VN111524\
 Data File : VN084871.D
 Acq On : 15 Nov 2024 16:00
 Operator : JC\MD
 Sample : P4844-02
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 241113050-06-TRIP-BLANK

Quant Time: Nov 15 22:26:01 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.806	128	28914	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	145852	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	125740	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.571	65	68713	29.560	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	98.533%
60) 4-Bromofluorobenzene	12.847	95	52683	24.334	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	81.100%
63) Toluene-d8	10.565	98	169501	28.475	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	94.933%

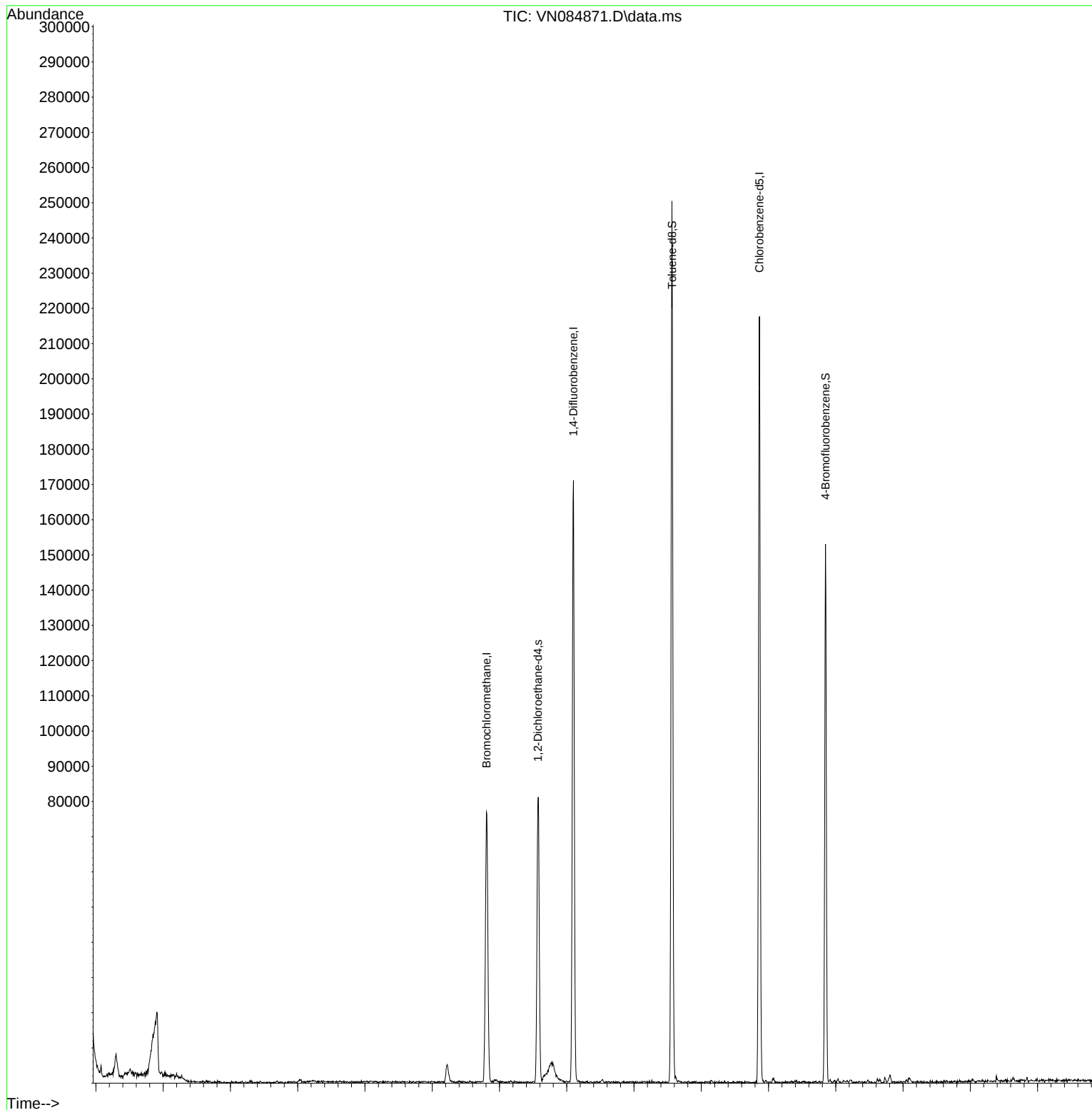
Target Compounds	Qvalue

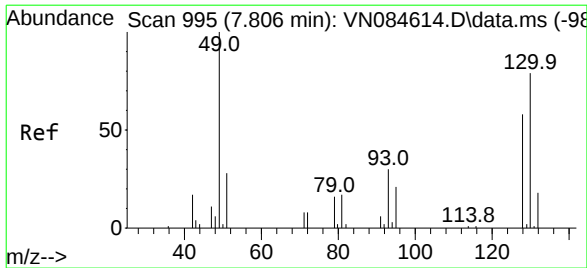
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
Data File : VN084871.D
Acq On : 15 Nov 2024 16:00
Operator : JC\MD
Sample : P4844-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
241113050-06-TRIP-BLANK

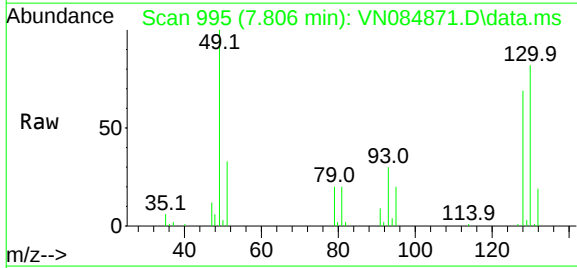
Quant Time: Nov 15 22:26:01 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



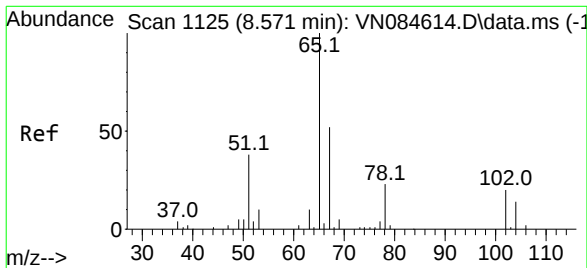
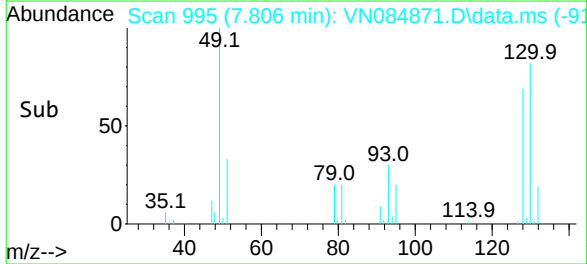
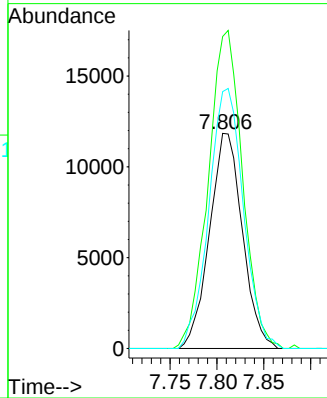


#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 995
Delta R.T. 0.000 min
Lab File: VN084871.D
Acq: 15 Nov 2024 16:00

Instrument :
MSVOA_N
ClientSampleId :
241113050-06-TRIP-BLANK

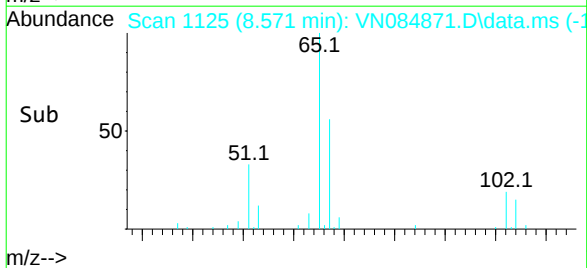
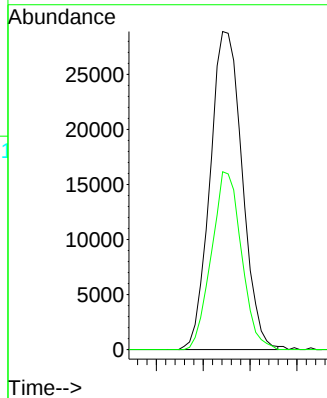
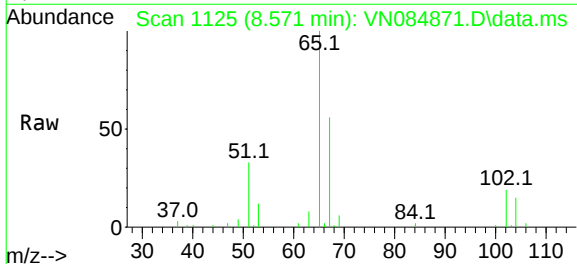


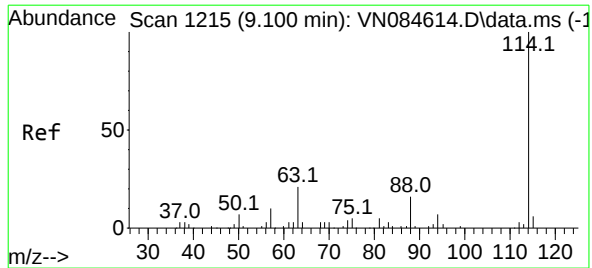
Tgt Ion:128 Resp: 28914
Ion Ratio Lower Upper
128 100
49 153.9 0.0 427.0
130 127.0 0.0 322.2



#27
1,2-Dichloroethane-d4
Concen: 29.560 ug/l
RT: 8.571 min Scan# 1125
Delta R.T. -0.000 min
Lab File: VN084871.D
Acq: 15 Nov 2024 16:00

Tgt Ion: 65 Resp: 68713
Ion Ratio Lower Upper
65 100
67 52.2 40.7 61.1

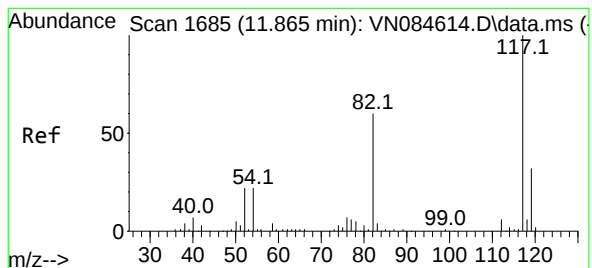
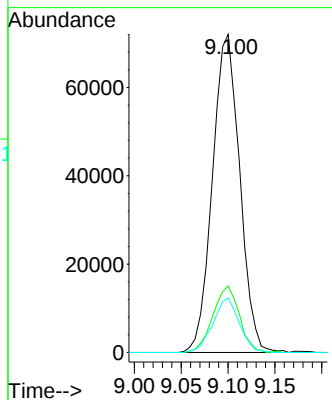
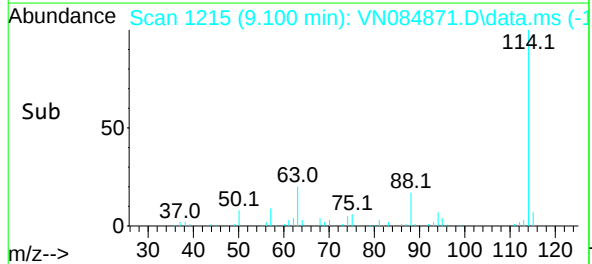
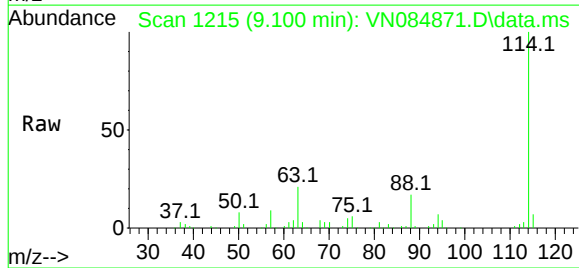




#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN084871.D
Acq: 15 Nov 2024 16:00

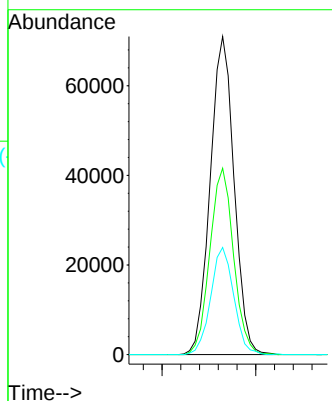
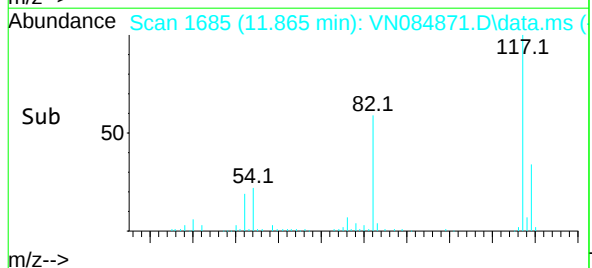
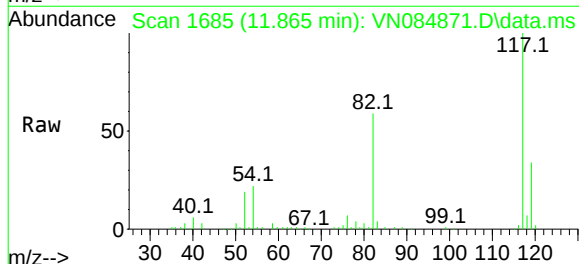
Instrument :
MSVOA_N
ClientSampleId :
241113050-06-TRIP-BLANK

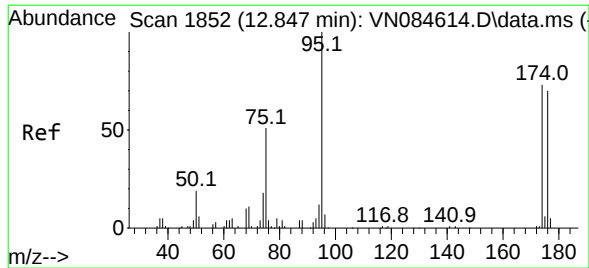
Tgt Ion:	114	Resp:	145852
Ion	Ratio	Lower	Upper
114	100		
63	20.3	16.8	25.2
88	16.6	12.9	19.3



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN084871.D
Acq: 15 Nov 2024 16:00

Tgt Ion:	117	Resp:	125740
Ion	Ratio	Lower	Upper
117	100		
82	58.1	45.5	68.3
119	32.5	25.3	37.9





#60

4-Bromofluorobenzene

Concen: 24.334 ug/l

RT: 12.847 min Scan# 18

Delta R.T. -0.000 min

Lab File: VN084871.D

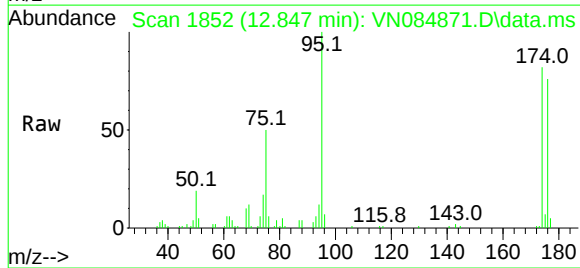
Acq: 15 Nov 2024 16:00

Instrument :

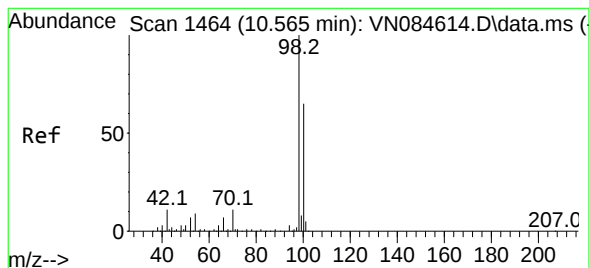
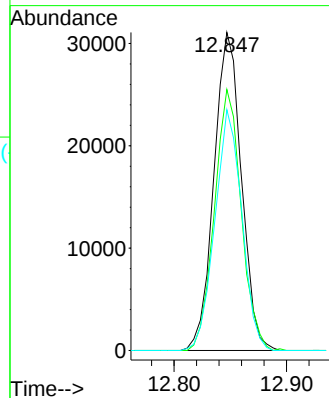
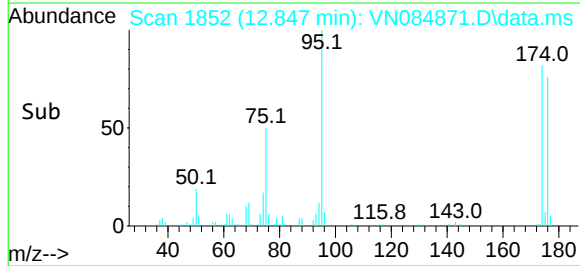
MSVOA_N

ClientSampleId :

241113050-06-TRIP-BLANK



Tgt Ion:	95	Resp:	52683
Ion	Ratio	Lower	Upper
95	100		
174	80.1	59.6	89.4
176	74.3	58.6	88.0



#63

Toluene-d8

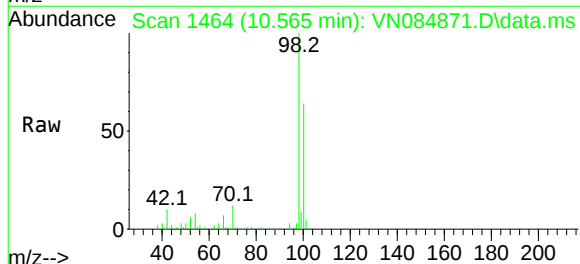
Concen: 28.475 ug/l

RT: 10.565 min Scan# 1464

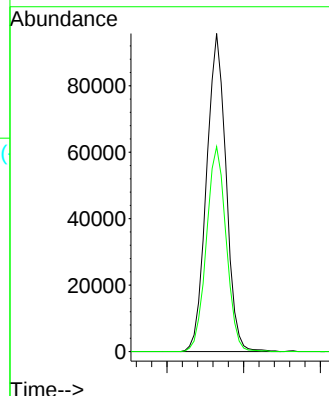
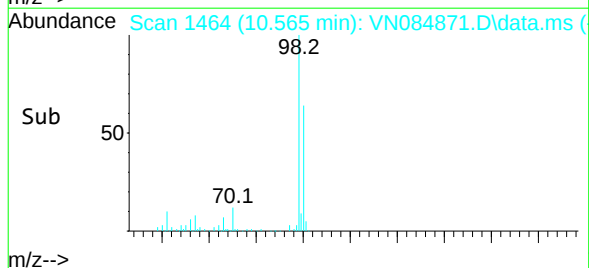
Delta R.T. -0.000 min

Lab File: VN084871.D

Acq: 15 Nov 2024 16:00



Tgt Ion:	98	Resp:	169501
Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.2	78.2





CALIBRATION SUMMARY



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: GARD04
 Lab Code: CHEM Case No.: P4844 SAS No.: P4844 SDG No.: P4844
 Instrument ID: MSVOA_N Calibration Date(s): 10/31/2024 10/31/2024
 Heated Purge: (Y/N) N Calibration Time(s): 12:08 18:13
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VN084613.D		RRF020 = VN084614.D		RRF050 = VN084615.D		
		RRF100 = VN084616.D		RRF150 = VN084617.D		RRFCAL = VN084626.D		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRFCAL	RRF	% RSD
Acrolein	0.345	0.350	0.313	0.326	0.347		0.336	4.8
Acrylonitrile	0.838	0.902	0.889	0.892	0.937		0.892	4
1,2-Dichloroethane-d4	2.444	2.473	2.377	2.353	2.413		2.412	2
Toluene-d8	1.451	1.442	1.416	1.393	1.398		1.420	1.8
4-Bromofluorobenzene	0.482	0.506	0.531	0.538	0.526		0.517	4.4

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

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 624N103124W.M
 Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 Last Update : Fri Nov 01 02:38:04 2024
 Response Via : Initial Calibration

Calibration Files

5 =VN084613.D 20 =VN084614.D 50 =VN084615.D 100 =VN084616.D 150 =VN084617.D

	Compound	5	20	50	100	150	Avg	%RSD
1) I	Bromochloromethane	-----ISTD-----						
2) M	Dichlorodifluoro...	1.762	1.842	1.727	1.647	1.746	1.745	4.00
3) M	Chloromethane	2.294	2.180	1.987	1.942	2.100	2.101	6.81
4) M	Vinyl Chloride	1.987	2.059	1.937	1.841	1.929	1.951	4.13
5) M	Bromomethane	1.026	1.087	0.943	0.927	0.969	0.990	6.66
6) M	Chloroethane	1.361	1.345	1.305	1.162	1.231	1.281	6.50
7) M	Trichlorofluorom...	3.268	3.375	3.091	2.971	3.135	3.168	4.96
8) T	Diethyl Ether	1.000	1.165	1.128	1.145	1.212	1.130	7.00
9)	1,1,2-Trichlorot...	1.776	1.938	1.786	1.675	1.777	1.790	5.27
10) M	1,1-Dichloroethene	1.685	1.840	1.711	1.699	1.807	1.748	4.00
11)	Methyl Iodide	2.378	2.507	2.375	2.318	2.437	2.403	2.99
12)	Methyl Acetate	3.900	2.690	2.326	2.302	2.408	2.725	24.75
13) M	Acrolein	0.345	0.350	0.313	0.326	0.347	0.336	4.77
14) M	Acrylonitrile	0.838	0.902	0.889	0.892	0.937	0.892	3.97
15) M	Acetone	0.231	0.235	0.223	0.223	0.233	0.229	2.34
16) M	Carbon Disulfide	5.140	5.375	5.016	4.956	5.235	5.144	3.27
17)	Allyl chloride	2.858	3.101	2.786	2.986	3.164	2.979	5.34
18) M	Methylene Chloride	2.119	2.210	1.980	1.930	2.004	2.049	5.55
19) M	trans-1,2-Dichlo...	1.819	1.905	1.810	1.776	1.854	1.833	2.67
20) T	Diisopropyl ether	5.269	6.283	6.069	5.949	6.249	5.964	6.90
21) M	1,1-Dichloroethane	3.711	3.802	3.469	3.417	3.534	3.587	4.57
22) M	cis-1,2-Dichloro...	2.121	2.237	2.172	2.141	2.269	2.188	2.89
23) M	tert-Butyl Alcohol	0.374	0.310	0.274	0.285	0.313	0.311	12.41
24) M	Methyl tert-Buty...	4.972	5.809	5.618	5.772	6.099	5.654	7.41
25) M	Chloroform	3.764	3.915	3.598	3.469	3.627	3.675	4.64
26)	Cyclohexane	2.348	2.813	2.794	2.761	2.982	2.740	8.58
27) s	1,2-Dichloroetha...	2.444	2.473	2.377	2.353	2.413	2.412	2.02
28) I	1,4-Difluorobenzene	-----ISTD-----						
29)	1,1-Dichloropropene	0.428	0.467	0.452	0.452	0.461	0.452	3.31
30) M	2-Butanone	0.206	0.207	0.207	0.210	0.213	0.208	1.26
31)	2,2-Dichloropropane	0.563	0.584	0.548	0.528	0.535	0.552	4.06
32) M	1,1,1-Trichloroe...	0.631	0.645	0.604	0.593	0.595	0.614	3.80
33) M	Carbon Tetrachlo...	0.545	0.536	0.517	0.504	0.517	0.524	3.16
34) M	Benzene	1.549	1.525	1.476	1.460	1.458	1.494	2.75
35)	Methacrylonitrile	0.240	0.246	0.234	0.256	0.258	0.247	4.17
36) M	1,2-Dichloroethane	0.521	0.521	0.488	0.469	0.484	0.497	4.71
37) M	Trichloroethene	0.340	0.350	0.331	0.325	0.338	0.337	2.76
38)	Methylcyclohexane	0.429	0.479	0.495	0.504	0.526	0.486	7.52
39) M	1,2-Dichloropropane	0.371	0.372	0.351	0.349	0.355	0.360	3.10
40)	Dibromomethane	0.257	0.262	0.247	0.246	0.245	0.252	3.04
41) M	Bromodichloromet...	0.566	0.547	0.526	0.526	0.531	0.539	3.22
42) M	Vinyl Acetate	0.692	0.782	0.788	0.809	0.824	0.779	6.59
43)	Ethyl Acetate	0.421	0.429	0.446	0.443	0.451	0.438	2.89
44)	Isopropyl Acetate	1.250	0.844	0.785	0.774	0.781	0.887	23.13
45) T	1,4-Dioxane	0.006	0.006	0.006	0.006	0.006	0.006	4.14
46)	Methyl methacrylate	0.332	0.349	0.356	0.369	0.376	0.356	4.92
47)	n-amyl Acetate	0.548	0.667	0.687	0.706	0.703	0.662	9.92
48) M	t-1,3-Dichloropr...	0.509	0.529	0.535	0.538	0.551	0.532	2.94
49) T	cis-1,3-Dichloro...	0.535	0.580	0.567	0.580	0.592	0.571	3.83
50) M	1,1,2-Trichloroe...	0.340	0.353	0.336	0.330	0.328	0.337	2.96
51)	Ethyl methacrylate	0.436	0.503	0.539	0.560	0.563	0.520	10.15
52)	1,3-Dichloropropane	0.582	0.610	0.586	0.577	0.573	0.586	2.46
53) M	Dibromochloromet...	0.378	0.400	0.401	0.397	0.398	0.395	2.47
54) M	1,2-Dibromoethane	0.334	0.357	0.337	0.339	0.339	0.341	2.63
55) M	2-Chloroethyl vi...	0.207	0.266	0.268	0.266	0.267	0.255	10.42
56) M	Bromoform	0.254	0.262	0.269	0.270	0.268	0.265	2.56

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 624N103124W.M

57) I	Chlorobenzene-d5	-----ISTD-----						
58) M	4-Methyl-2-Penta...	0.453	0.490	0.472	0.475	0.478	0.473	2.83
59) M	2-Hexanone	0.325	0.355	0.349	0.354	0.351	0.347	3.60
60) S	4-Bromofluoroben...	0.482	0.506	0.531	0.538	0.526	0.517	4.39
61) M	Tetrachloroethene	0.313	0.331	0.310	0.305	0.311	0.314	3.11
62) M	Toluene	1.732	1.781	1.675	1.658	1.698	1.709	2.87
63) S	Toluene-d8	1.451	1.442	1.416	1.393	1.398	1.420	1.81
64) M	Chlorobenzene	1.030	1.071	1.018	1.011	1.028	1.032	2.25
65)	1,1,1,2-Tetrachl...	0.383	0.398	0.380	0.366	0.368	0.379	3.36
66) M	Ethyl Benzene	1.596	1.824	1.829	1.836	1.894	1.796	6.42
67) M	m/p-Xylenes	0.615	0.710	0.706	0.695	0.712	0.687	5.98
68) M	o-Xylene	0.569	0.690	0.681	0.683	0.692	0.663	7.95
69) M	Styrene	0.911	1.136	1.179	1.154	1.180	1.112	10.22
70)	Isopropylbenzene	1.407	1.671	1.715	1.692	1.752	1.647	8.35
71) M	1,1,2,2-Tetrachl...	0.555	0.568	0.529	0.510	0.509	0.534	4.95
72)	1,2,3-Trichlorop...	0.460	0.527	0.429	0.429	0.434	0.456	9.11
73)	Bromobenzene	0.406	0.442	0.425	0.427	0.425	0.425	2.97
74)	n-propylbenzene	1.596	1.953	2.030	1.985	2.068	1.926	9.86
75)	2-Chlorotoluene	1.156	1.287	1.299	1.255	1.275	1.255	4.56
76)	1,3,5-Trimethylb...	1.193	1.438	1.480	1.442	1.485	1.408	8.64
77)	t-1,4-Dichloro-2...	0.152	0.191	0.193	0.196	0.203	0.187	10.86
78)	4-Chlorotoluene	1.151	1.299	1.301	1.280	1.306	1.268	5.18
79)	tert-butylbenzene	0.947	1.147	1.206	1.243	1.278	1.164	11.24
80)	1,2,4-Trimethylb...	1.129	1.449	1.513	1.494	1.515	1.420	11.60
81)	sec-Butylbenzene	1.290	1.605	1.691	1.689	1.744	1.604	11.37
82)	p-Isopropyltoluene	1.023	1.338	1.445	1.437	1.495	1.348	14.13
83) M	1,3-Dichlorobenzene	0.736	0.812	0.793	0.787	0.801	0.786	3.73
84) M	1,4-Dichlorobenzene	0.729	0.784	0.790	0.779	0.801	0.776	3.59
85)	n-Butylbenzene	0.852	1.069	1.186	1.237	1.316	1.132	15.96
86) T	Hexachloroethane	0.273	0.284	0.275	0.265	0.280	0.276	2.60
87) M	1,2-Dichlorobenzene	0.724	0.821	0.787	0.760	0.780	0.774	4.62
88)	1,2-Dibromo-3-Ch...	0.099	0.108	0.106	0.098	0.105	0.103	4.27
89)	1,2,4-Trichlorob...	0.308	0.383	0.381	0.390	0.424	0.377	11.21
90)	Hexachlorobutadiene	0.160	0.168	0.163	0.158	0.174	0.165	3.93
91) M	Naphthalene	0.839	1.126	1.272	1.338	1.445	1.204	19.47
92)	1,2,3-Trichlorob...	0.308	0.383	0.381	0.390	0.424	0.377	11.21

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084613.D
 Acq On : 31 Oct 2024 12:08
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/01/2024
 Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:19:55 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 01 02:19:19 2024

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	31324	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	165636	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	148900	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	76561	30.402	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 101.333%			
60) 4-Bromofluorobenzene	12.847	95	71798	28.004	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 93.333%			
63) Toluene-d8	10.565	98	216062	30.652	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 102.167%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.124	85	9198	5.049	ug/l	96
3) Chloromethane	2.359	50	11978	5.461	ug/l	99
4) Vinyl Chloride	2.512	62	10376	5.094	ug/l #	82
5) Bromomethane	2.900	94	5354	5.179	ug/l	86
6) Chloroethane	3.071	64	7106m	5.250	ug/l	
7) Trichlorofluoromethane	3.471	101	17062	5.158	ug/l	98
8) Diethyl Ether	3.953	74	5222	4.426	ug/l	86
9) 1,1,2-Trichlorotrifluo...	4.365	101	9273	4.960	ug/l #	39
10) 1,1-Dichloroethene	4.324	96	8797	4.819	ug/l	92
11) Methyl Iodide	4.571	142	12414	4.948	ug/l	99
12) Methyl Acetate	5.012	43	20360m	7.148	ug/l	
13) Acrolein	4.171	56	9009	25.674	ug/l	92
14) Acrylonitrile	5.718	53	21872m	23.496	ug/l	
15) Acetone	4.442	58	6033m	25.222	ug/l	
16) Carbon Disulfide	4.700	76	26836	4.996	ug/l #	94
17) Allyl chloride	5.006	41	14923m	4.845	ug/l	
18) Methylene Chloride	5.277	84	11065	5.173	ug/l	91
19) trans-1,2-Dichloroethene	5.777	96	9494m	4.962	ug/l	
20) Diisopropyl ether	6.665	45	27506	4.417	ug/l	93
21) 1,1-Dichloroethane	6.559	63	19373	5.173	ug/l	92
22) cis-1,2-Dichloroethene	7.483	96	11073	4.847	ug/l	98
23) tert-Butyl Alcohol	5.530	59	9753	30.011	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	25957	4.397	ug/l #	90
25) Chloroform	7.965	83	19651	5.122	ug/l	94
26) Cyclohexane	8.247	56	12257	4.285	ug/l #	98
29) 1,1-Dichloropropene	8.371	75	11807	4.733	ug/l	98
30) 2-Butanone	7.483	43	28435	24.708	ug/l	100
31) 2,2-Dichloropropane	7.488	77	15547	5.105	ug/l #	90
32) 1,1,1-Trichloroethane	8.159	97	17431	5.143	ug/l #	85
33) Carbon Tetrachloride	8.359	117	15058	5.206	ug/l	92
34) Benzene	8.600	78	42762	5.186	ug/l #	88
35) Methacrylonitrile	7.777	41	6638	4.867	ug/l	87
36) 1,2-Dichloroethane	8.671	62	14384	5.245	ug/l #	95
37) Trichloroethene	9.347	130	9396m	5.051	ug/l	
38) Methylcyclohexane	9.600	83	11830	4.405	ug/l	97
39) 1,2-Dichloropropane	9.624	63	10243	5.160	ug/l	91
40) Dibromomethane	9.706	93	7103	5.115	ug/l	98
41) Bromodichloromethane	9.888	83	15629	5.250	ug/l	99
42) Vinyl Acetate	6.600	43	95572	22.218	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084613.D
 Acq On : 31 Oct 2024 12:08
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/01/2024
 Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:19:55 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 01 02:19:19 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	11619	4.747	ug/l	97
44) Isopropyl Acetate	8.682	43	34520	7.050	ug/l #	82
45) 1,4-Dioxane	9.700	88	3084	94.340	ug/l	96
46) Methyl methacrylate	9.677	41	9158	4.654	ug/l	95
47) n-amyl Acetate	12.494	43	15131	4.138	ug/l	96
48) t-1,3-Dichloropropene	10.829	75	14040	4.776	ug/l	99
49) cis-1,3-Dichloropropene	10.306	75	14763	4.686	ug/l	98
50) 1,1,2-Trichloroethane	11.012	97	9392	5.042	ug/l #	89
51) Ethyl methacrylate	10.871	69	12033	4.191	ug/l	92
52) 1,3-Dichloropropane	11.165	76	16055	4.966	ug/l	98
53) Dibromochloromethane	11.359	129	10423	4.782	ug/l	97
54) 1,2-Dibromoethane	11.471	107	9233	4.901	ug/l	97
55) 2-Chloroethyl vinyl ether	10.159	63	28637	20.343	ug/l	99
56) Bromoform	12.576	173	7007	4.796	ug/l	97
58) 4-Methyl-2-Pentanone	10.447	43	56166	23.910	ug/l	99
59) 2-Hexanone	11.194	43	40278	23.416	ug/l	95
61) Tetrachloroethene	11.106	164	7756	4.977	ug/l	96
62) Toluene	10.629	91	42993	5.069	ug/l	99
64) Chlorobenzene	11.888	112	25563	4.993	ug/l	95
65) 1,1,1,2-Tetrachloroethane	11.959	131	9514	5.056	ug/l	93
66) Ethyl Benzene	11.959	91	39603	4.443	ug/l	98
67) m/p-Xylenes	12.070	106	30521	8.944	ug/l	91
68) o-Xylene	12.394	106	14127	4.292	ug/l	97
69) Styrene	12.412	104	22620	4.099	ug/l	99
70) Isopropylbenzene	12.694	105	34923	4.271	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	13765	5.194	ug/l	100
72) 1,2,3-Trichloropropane	12.994	75	11412m	4.514	ug/l	
73) Bromobenzene	12.976	156	10078	4.779	ug/l	92
74) n-propylbenzene	13.035	91	39598	4.141	ug/l	97
75) 2-Chlorotoluene	13.123	91	28696	4.609	ug/l	98
76) 1,3,5-Trimethylbenzene	13.170	105	29615	4.239	ug/l	100
77) t-1,4-Dichloro-2-butene	12.741	75	3762	4.053	ug/l	93
78) 4-Chlorotoluene	13.217	91	28573	4.542	ug/l	98
79) tert-butylbenzene	13.441	119	23495	4.067	ug/l	97
80) 1,2,4-Trimethylbenzene	13.482	105	28024	3.976	ug/l	100
81) sec-Butylbenzene	13.612	105	32017	4.022	ug/l	99
82) p-Isopropyltoluene	13.729	119	25380	3.794	ug/l	99
83) 1,3-Dichlorobenzene	13.729	146	18270	4.684	ug/l	97
84) 1,4-Dichlorobenzene	13.812	146	18085	4.693	ug/l	93
85) n-Butylbenzene	14.053	91	21135	3.762	ug/l	99
86) Hexachloroethane	14.335	117	6782	4.957	ug/l	99
87) 1,2-Dichlorobenzene	14.106	146	17958	4.672	ug/l	96
88) 1,2-Dibromo-3-Chloropr...	14.717	75	2451	4.793	ug/l	90
89) 1,2,4-Trichlorobenzene	15.835	180	7643	4.084	ug/l	98
90) Hexachlorobutadiene	15.500	225	3978	4.866	ug/l	96
91) Naphthalene	15.641	128	20829	3.485	ug/l	99
92) 1,2,3-Trichlorobenzene	15.835	180	7643	4.084	ug/l	98

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

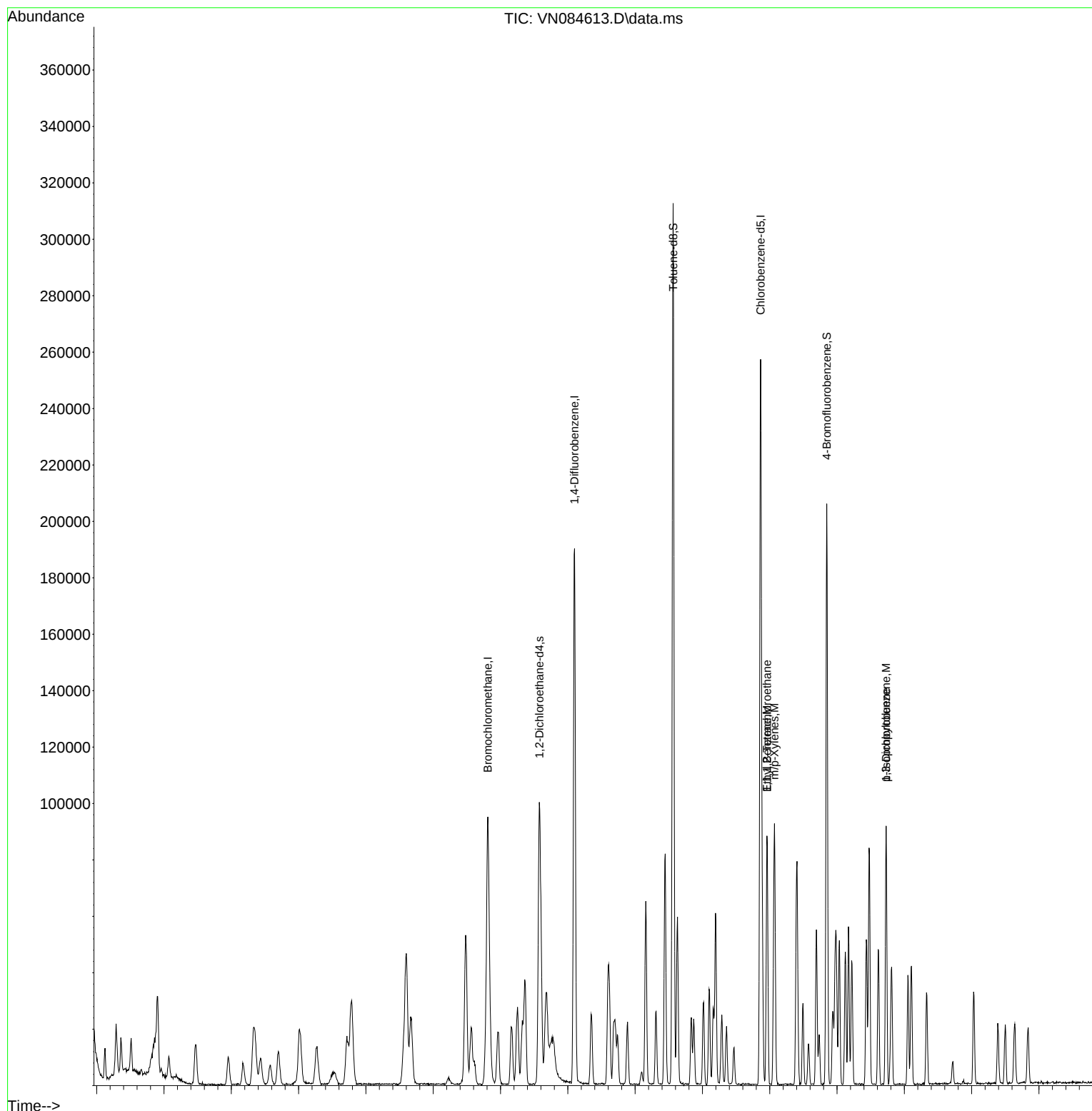
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084613.D
Acq On : 31 Oct 2024 12:08
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 11/01/2024
Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:19:55 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084614.D
 Acq On : 31 Oct 2024 12:32
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Quant Time: Nov 01 02:21:31 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:19:19 2024
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 11/04/2024
 Supervised By :Mahesh Dadoda 11/04/2024

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

Internal Standards						
1) Bromochloromethane	7.806	128	31274	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	172181	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	154107	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.571	65	77335	30.759	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.533%			
60) 4-Bromofluorobenzene	12.847	95	77916	29.364	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 97.867%			
63) Toluene-d8	10.565	98	222235	30.462	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.533%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.118	85	38402	21.112	ug/l	100
3) Chloromethane	2.359	50	45455	20.756	ug/l	100
4) Vinyl Chloride	2.512	62	42937	21.114	ug/l	100
5) Bromomethane	2.901	94	22663	21.957	ug/l	100
6) Chloroethane	3.059	64	28033	20.742	ug/l	100
7) Trichlorofluoromethane	3.465	101	70369	21.307	ug/l	100
8) Diethyl Ether	3.953	74	24291	20.620	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.359	101	40406	21.649	ug/l	100
10) 1,1-Dichloroethene	4.324	96	38356	21.045	ug/l	100
11) Methyl Iodide	4.583	142	52273	20.867	ug/l	100
12) Methyl Acetate	5.018	43	56085	19.721	ug/l	100
13) Acrolein	4.177	56	36444	104.025	ug/l	100
14) Acrylonitrile	5.718	53	93989	101.129	ug/l	100
15) Acetone	4.430	58	24469	102.461	ug/l	100
16) Carbon Disulfide	4.695	76	112057	20.895	ug/l	100
17) Allyl chloride	5.006	41	64662	21.027	ug/l	100
18) Methylene Chloride	5.265	84	46076	21.573	ug/l	100
19) trans-1,2-Dichloroethene	5.783	96	39708	20.785	ug/l	100
20) Diisopropyl ether	6.671	45	130988	21.069	ug/l	100
21) 1,1-Dichloroethane	6.559	63	79269	21.202	ug/l	100
22) cis-1,2-Dichloroethene	7.483	96	46637	20.448	ug/l	100
23) tert-Butyl Alcohol	5.542	59	32351m	99.706	ug/l	
24) Methyl tert-Butyl Ether	5.789	73	121117	20.549	ug/l	100
25) Chloroform	7.965	83	81615	21.306	ug/l	100
26) Cyclohexane	8.247	56	58646	20.535	ug/l	100
29) 1,1-Dichloropropene	8.365	75	53609	20.671	ug/l	100
30) 2-Butanone	7.483	43	118837	99.338	ug/l	100
31) 2,2-Dichloropropane	7.489	77	66980	21.158	ug/l	100
32) 1,1,1-Trichloroethane	8.159	97	74085	21.027	ug/l	100
33) Carbon Tetrachloride	8.359	117	61528	20.465	ug/l	100
34) Benzene	8.600	78	175051	20.421	ug/l	100
35) Methacrylonitrile	7.777	41	28223	19.906	ug/l	100
36) 1,2-Dichloroethane	8.665	62	59810	20.981	ug/l	100
37) Trichloroethene	9.347	130	40135	20.754	ug/l	100
38) Methylcyclohexane	9.600	83	54992	19.697	ug/l	100
39) 1,2-Dichloropropane	9.618	63	42682	20.684	ug/l	100
40) Dibromomethane	9.706	93	30074	20.833	ug/l	100
41) Bromodichloromethane	9.882	83	62781	20.287	ug/l	100
42) Vinyl Acetate	6.600	43	448664	100.337	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084614.D
 Acq On : 31 Oct 2024 12:32
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:21:31 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:19:19 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	49217	19.343	ug/l	98
44) Isopropyl Acetate	8.688	43	96864	19.030	ug/l	100
45) 1,4-Dioxane	9.694	88	13694	402.979	ug/l	100
46) Methyl methacrylate	9.682	41	40026	19.568	ug/l	100
47) n-amyl Acetate	12.494	43	76604	20.151	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	60713	19.868	ug/l	100
49) cis-1,3-Dichloropropene	10.312	75	66524	20.312	ug/l	100
50) 1,1,2-Trichloroethane	11.018	97	40510	20.921	ug/l	100
51) Ethyl methacrylate	10.877	69	57722	19.339	ug/l	100
52) 1,3-Dichloropropane	11.165	76	70002	20.827	ug/l	100
53) Dibromochloromethane	11.359	129	45946	20.276	ug/l	100
54) 1,2-Dibromoethane	11.465	107	40970	20.920	ug/l	100
55) 2-Chloroethyl vinyl ether	10.159	63	152772	104.401	ug/l	100
56) Bromoform	12.576	173	30104	19.820	ug/l	100
58) 4-Methyl-2-Pentanone	10.447	43	251499	103.446	ug/l	100
59) 2-Hexanone	11.194	43	182123	102.300	ug/l	100
61) Tetrachloroethene	11.100	164	33984	21.071	ug/l	100
62) Toluene	10.630	91	182960	20.845	ug/l	100
64) Chlorobenzene	11.888	112	110008	20.761	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	40878	20.991	ug/l	100
66) Ethyl Benzene	11.965	91	187374	20.313	ug/l	100
67) m/p-Xylenes	12.071	106	145866	41.303	ug/l	100
68) o-Xylene	12.400	106	70893	20.810	ug/l	100
69) Styrene	12.412	104	116660	20.424	ug/l	100
70) Isopropylbenzene	12.694	105	171676	20.286	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.935	83	58304	21.256	ug/l	100
72) 1,2,3-Trichloropropane	12.994	75	54117m	20.681	ug/l	
73) Bromobenzene	12.976	156	45364	20.784	ug/l	100
74) n-propylbenzene	13.035	91	200691	20.280	ug/l	100
75) 2-Chlorotoluene	13.123	91	132203	20.515	ug/l	100
76) 1,3,5-Trimethylbenzene	13.171	105	147751	20.434	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	19637	20.442	ug/l	100
78) 4-Chlorotoluene	13.218	91	133430	20.493	ug/l	100
79) tert-butylbenzene	13.435	119	117804	19.701	ug/l	100
80) 1,2,4-Trimethylbenzene	13.482	105	148836	20.404	ug/l	100
81) sec-Butylbenzene	13.612	105	164903	20.014	ug/l	100
82) p-Isopropyltoluene	13.729	119	137483	19.858	ug/l	100
83) 1,3-Dichlorobenzene	13.729	146	83438	20.670	ug/l	100
84) 1,4-Dichlorobenzene	13.812	146	80500	20.182	ug/l	100
85) n-Butylbenzene	14.053	91	109807	18.885	ug/l	100
86) Hexachloroethane	14.329	117	29191	20.617	ug/l	100
87) 1,2-Dichlorobenzene	14.100	146	84342	21.203	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	14.717	75	11061	20.899	ug/l	100
89) 1,2,4-Trichlorobenzene	15.835	180	39326	20.305	ug/l	100
90) Hexachlorobutadiene	15.500	225	17295	20.443	ug/l	100
91) Naphthalene	15.641	128	115679	18.702	ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	39326	20.305	ug/l	100

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

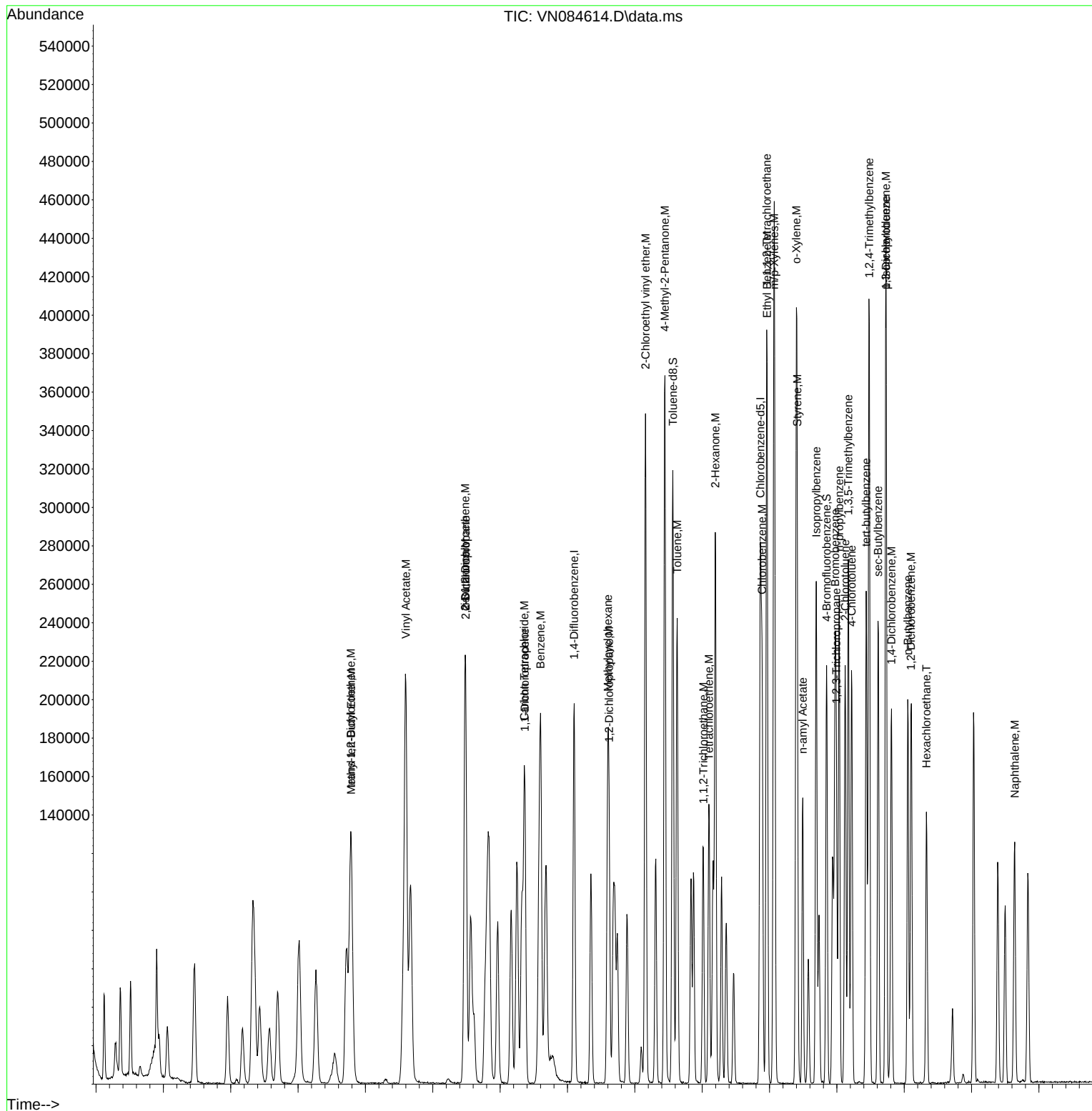
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084614.D
Acq On : 31 Oct 2024 12:32
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:21:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084615.D
 Acq On : 31 Oct 2024 12:56
 Operator : JC\MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC050

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:22:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:19:19 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	32918	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	176826	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	164720	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	78237	29.563	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.533%		
60) 4-Bromofluorobenzene	12.847	95	87434	30.828	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	102.767%		
63) Toluene-d8	10.565	98	233304	29.919	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	99.733%		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.124	85	94735	49.481	ug/l	96
3) Chloromethane	2.359	50	109029	47.299	ug/l	98
4) Vinyl Chloride	2.512	62	106283	49.654	ug/l	97
5) Bromomethane	2.901	94	51725	47.610	ug/l	100
6) Chloroethane	3.077	64	71616m	50.344	ug/l	
7) Trichlorofluoromethane	3.471	101	169605	48.790	ug/l	97
8) Diethyl Ether	3.953	74	61891	49.913	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.359	101	97991	49.880	ug/l	99
10) 1,1-Dichloroethene	4.324	96	93892	48.943	ug/l	95
11) Methyl Iodide	4.583	142	130322	49.426	ug/l	100
12) Methyl Acetate	5.018	43	127594	42.624	ug/l	94
13) Acrolein	4.171	56	85754	232.550	ug/l	98
14) Acrylonitrile	5.712	53	243950	249.373	ug/l	99
15) Acetone	4.430	58	61279	243.784	ug/l	91
16) Carbon Disulfide	4.700	76	275193	48.752	ug/l	99
17) Allyl chloride	5.012	41	152844	47.220	ug/l	98
18) Methylene Chloride	5.265	84	108652	48.332	ug/l	98
19) trans-1,2-Dichloroethene	5.783	96	99291	49.378	ug/l	91
20) Diisopropyl ether	6.671	45	332986	50.885	ug/l	98
21) 1,1-Dichloroethane	6.565	63	190325	48.363	ug/l	98
22) cis-1,2-Dichloroethene	7.483	96	119146	49.630	ug/l	94
23) tert-Butyl Alcohol	5.542	59	75243	220.317	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	308206	49.680	ug/l	99
25) Chloroform	7.959	83	197402	48.959	ug/l	94
26) Cyclohexane	8.253	56	153309	51.000	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	133196	50.010	ug/l	100
30) 2-Butanone	7.477	43	305143	248.373	ug/l	99
31) 2,2-Dichloropropane	7.483	77	161607	49.708	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	178128	49.229	ug/l	99
33) Carbon Tetrachloride	8.359	117	152324	49.334	ug/l	98
34) Benzene	8.600	78	434965	49.409	ug/l	97
35) Methacrylonitrile	7.777	41	69021	47.401	ug/l	97
36) 1,2-Dichloroethane	8.665	62	143921	49.161	ug/l	100
37) Trichloroethene	9.353	130	97539	49.114	ug/l	99
38) Methylcyclohexane	9.600	83	145824	50.859	ug/l	98
39) 1,2-Dichloropropane	9.618	63	103300	48.746	ug/l	97
40) Dibromomethane	9.706	93	72848	49.139	ug/l	99
41) Bromodichloromethane	9.882	83	154994	48.769	ug/l	99
42) Vinyl Acetate	6.600	43	1161725	252.978	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084615.D
 Acq On : 31 Oct 2024 12:56
 Operator : JC\MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC050

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:22:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:19:19 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	131344	50.265	ug/l	98
44) Isopropyl Acetate	8.688	43	231400	44.267	ug/l	98
45) 1,4-Dioxane	9.694	88	33980	973.675	ug/l #	89
46) Methyl methacrylate	9.677	41	104945	49.957	ug/l	96
47) n-amyl Acetate	12.494	43	202564	51.886	ug/l	98
48) t-1,3-Dichloropropene	10.835	75	157614	50.224	ug/l	95
49) cis-1,3-Dichloropropene	10.312	75	167077	49.675	ug/l	97
50) 1,1,2-Trichloroethane	11.012	97	98990	49.780	ug/l	96
51) Ethyl methacrylate	10.871	69	158738	51.786	ug/l	96
52) 1,3-Dichloropropane	11.159	76	172748	50.047	ug/l	99
53) Dibromochloromethane	11.359	129	118100	50.750	ug/l	97
54) 1,2-Dibromoethane	11.465	107	99236	49.341	ug/l	96
55) 2-Chloroethyl vinyl ether	10.159	63	395250	263.010	ug/l	99
56) Bromoform	12.576	173	79210	50.781	ug/l	99
58) 4-Methyl-2-Pentanone	10.447	43	647306	249.093	ug/l	98
59) 2-Hexanone	11.194	43	478961	251.701	ug/l	99
61) Tetrachloroethene	11.100	164	85090	49.359	ug/l	98
62) Toluene	10.629	91	459711	49.000	ug/l	99
64) Chlorobenzene	11.888	112	279544	49.357	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.959	131	104199	50.060	ug/l	98
66) Ethyl Benzene	11.965	91	502126	50.927	ug/l	94
67) m/p-Xylenes	12.071	106	387469	102.646	ug/l	98
68) o-Xylene	12.394	106	187021	51.361	ug/l	98
69) Styrene	12.412	104	323595	53.002	ug/l	98
70) Isopropylbenzene	12.694	105	470823	52.050	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.935	83	145223	49.532	ug/l	97
72) 1,2,3-Trichloropropane	12.994	75	117853m	42.135	ug/l	
73) Bromobenzene	12.976	156	116686	50.015	ug/l	97
74) n-propylbenzene	13.035	91	557232	52.681	ug/l	99
75) 2-Chlorotoluene	13.123	91	356739	51.790	ug/l	98
76) 1,3,5-Trimethylbenzene	13.171	105	406282	52.568	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	53054	51.671	ug/l	86
78) 4-Chlorotoluene	13.218	91	357227	51.329	ug/l	100
79) tert-butylbenzene	13.435	119	331066	51.799	ug/l	99
80) 1,2,4-Trimethylbenzene	13.482	105	415493	53.289	ug/l	98
81) sec-Butylbenzene	13.618	105	464362	52.727	ug/l	100
82) p-Isopropyltoluene	13.729	119	396709	53.609	ug/l	99
83) 1,3-Dichlorobenzene	13.729	146	217624	50.438	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	216965	50.890	ug/l	97
85) n-Butylbenzene	14.053	91	325553	52.381	ug/l	99
86) Hexachloroethane	14.329	117	75612	49.961	ug/l	99
87) 1,2-Dichlorobenzene	14.106	146	215946	50.790	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	28965	51.201	ug/l	96
89) 1,2,4-Trichlorobenzene	15.835	180	104664	50.558	ug/l	96
90) Hexachlorobutadiene	15.494	225	44832	49.577	ug/l	95
91) Naphthalene	15.641	128	349297	52.834	ug/l	99
92) 1,2,3-Trichlorobenzene	15.835	180	104664	50.558	ug/l	96

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084615.D
Acq On : 31 Oct 2024 12:56
Operator : JC\MD
Sample : VSTDIC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

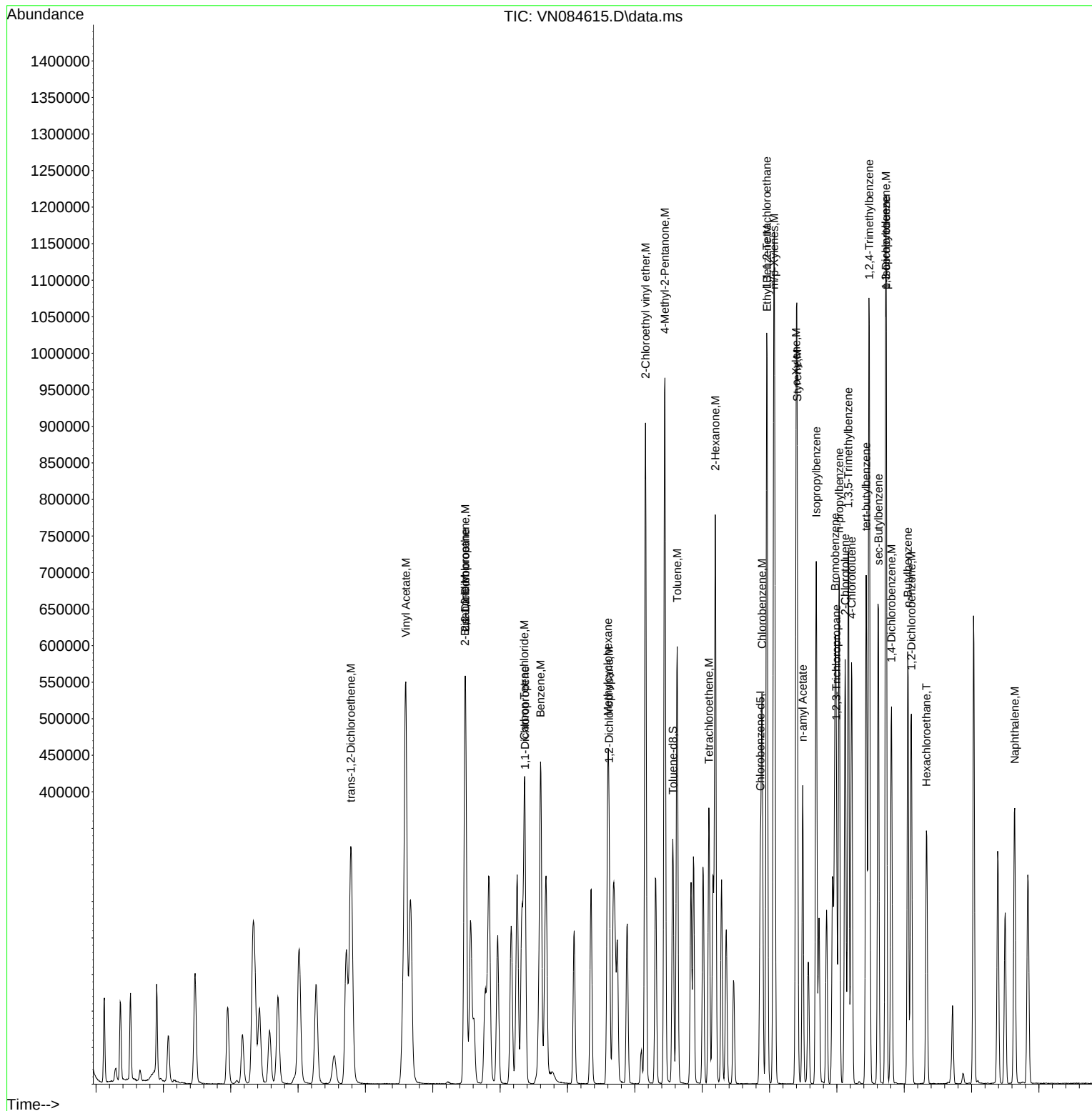
VSTDIC050

Manual Integrations

APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:22:20 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084616.D
 Acq On : 31 Oct 2024 13:20
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:23:10 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 01 02:19:19 2024

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	34742	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.094	114	185533	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	172801	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	81745	29.267	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	97.567%		
60) 4-Bromofluorobenzene	12.847	95	92972	31.247	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	104.167%		
63) Toluene-d8	10.565	98	240739	29.429	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	98.100%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.118	85	190784	94.416	ug/l	96
3) Chloromethane	2.359	50	224931	92.457	ug/l	96
4) Vinyl Chloride	2.512	62	213170	94.361	ug/l	96
5) Bromomethane	2.901	94	107304	93.582	ug/l	99
6) Chloroethane	3.059	64	134554	89.622	ug/l	91
7) Trichlorofluoromethane	3.465	101	344065	93.780	ug/l	96
8) Diethyl Ether	3.953	74	132542	101.279	ug/l	95
9) 1,1,2-Trichlorotrifluo...	4.348	101	193932	93.533	ug/l	100
10) 1,1-Dichloroethene	4.324	96	196748	97.174	ug/l	96
11) Methyl Iodide	4.577	142	268385	96.444	ug/l	93
12) Methyl Acetate	5.024	43	266611	84.389	ug/l	98
13) Acrolein	4.171	56	188911	485.398	ug/l	99
14) Acrylonitrile	5.712	53	516678	500.435	ug/l	98
15) Acetone	4.424	58	129317	487.448	ug/l	84
16) Carbon Disulfide	4.700	76	573917	96.334	ug/l	97
17) Allyl chloride	5.006	41	345769	101.215	ug/l	96
18) Methylene Chloride	5.271	84	223525	94.210	ug/l	99
19) trans-1,2-Dichloroethene	5.777	96	205660	96.906	ug/l	91
20) Diisopropyl ether	6.671	45	688942	99.753	ug/l	96
21) 1,1-Dichloroethane	6.565	63	395669	95.263	ug/l	97
22) cis-1,2-Dichloroethene	7.483	96	247895	97.839	ug/l	95
23) tert-Butyl Alcohol	5.547	59	164832	457.302	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	668387	102.082	ug/l	98
25) Chloroform	7.965	83	401691	94.396	ug/l	99
26) Cyclohexane	8.253	56	319727	100.777	ug/l #	99
29) 1,1-Dichloropropene	8.371	75	279360	99.967	ug/l	99
30) 2-Butanone	7.483	43	647906	502.619	ug/l	99
31) 2,2-Dichloropropane	7.488	77	326433	95.693	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	366838	96.624	ug/l	99
33) Carbon Tetrachloride	8.359	117	311893	96.275	ug/l	99
34) Benzene	8.600	78	902770	97.735	ug/l	95
35) Methacrylonitrile	7.777	41	158460	103.718	ug/l	97
36) 1,2-Dichloroethane	8.665	62	289900	94.377	ug/l	99
37) Trichloroethene	9.347	130	201181	96.547	ug/l	94
38) Methylcyclohexane	9.600	83	311539	103.557	ug/l	97
39) 1,2-Dichloropropane	9.618	63	215746	97.029	ug/l	92
40) Dibromomethane	9.706	93	151914	97.663	ug/l	99
41) Bromodichloromethane	9.888	83	325039	97.474	ug/l	99
42) Vinyl Acetate	6.600	43	2500453	518.946	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084616.D
 Acq On : 31 Oct 2024 13:20
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/04/2024
 Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:23:10 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 01 02:19:19 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	274207	100.013	ug/l	98
44) Isopropyl Acetate	8.688	43	478812	87.298	ug/l	96
45) 1,4-Dioxane	9.694	88	75558	2063.461	ug/l	96
46) Methyl methacrylate	9.682	41	228239	103.551	ug/l	94
47) n-amyl Acetate	12.494	43	436801	106.634	ug/l	96
48) t-1,3-Dichloropropene	10.835	75	332996	101.131	ug/l	97
49) cis-1,3-Dichloropropene	10.312	75	358906	101.702	ug/l	95
50) 1,1,2-Trichloroethane	11.018	97	204253	97.894	ug/l	98
51) Ethyl methacrylate	10.871	69	346376	107.698	ug/l	96
52) 1,3-Dichloropropane	11.159	76	357116	98.605	ug/l	99
53) Dibromochloromethane	11.359	129	245721	100.636	ug/l	97
54) 1,2-Dibromoethane	11.471	107	209631	99.338	ug/l	96
55) 2-Chloroethyl vinyl ether	10.159	63	822490	521.622	ug/l	99
56) Bromoform	12.576	173	167239	102.184	ug/l	99
58) 4-Methyl-2-Pentanone	10.447	43	1367142	501.494	ug/l	99
59) 2-Hexanone	11.194	43	1018919	510.417	ug/l	98
61) Tetrachloroethene	11.100	164	175966	97.300	ug/l	99
62) Toluene	10.629	91	954854	97.017	ug/l	98
64) Chlorobenzene	11.888	112	582322	98.008	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.959	131	211092	96.671	ug/l	99
66) Ethyl Benzene	11.965	91	1057324	102.222	ug/l	97
67) m/p-Xylenes	12.071	106	800698	202.196	ug/l	99
68) o-Xylene	12.394	106	393457	103.001	ug/l	98
69) Styrene	12.412	104	664652	103.773	ug/l	99
70) Isopropylbenzene	12.694	105	974870	102.732	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.941	83	293813	95.526	ug/l	97
72) 1,2,3-Trichloropropane	12.994	75	247347m	84.297	ug/l	
73) Bromobenzene	12.976	156	245959	100.496	ug/l	98
74) n-propylbenzene	13.035	91	1143491	103.052	ug/l	99
75) 2-Chlorotoluene	13.123	91	722984	100.052	ug/l	97
76) 1,3,5-Trimethylbenzene	13.170	105	830495	102.432	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	112802	104.723	ug/l	91
78) 4-Chlorotoluene	13.223	91	737525	101.018	ug/l	99
79) tert-butylbenzene	13.435	119	716107	106.804	ug/l	96
80) 1,2,4-Trimethylbenzene	13.482	105	860667	105.223	ug/l	99
81) sec-Butylbenzene	13.617	105	973025	105.317	ug/l	100
82) p-Isopropyltoluene	13.729	119	827966	106.655	ug/l	100
83) 1,3-Dichlorobenzene	13.735	146	453157	100.115	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	448828	100.351	ug/l	99
85) n-Butylbenzene	14.053	91	712477	109.276	ug/l	99
86) Hexachloroethane	14.329	117	152797	96.241	ug/l	98
87) 1,2-Dichlorobenzene	14.106	146	438040	98.208	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	56385	95.009	ug/l	91
89) 1,2,4-Trichlorobenzene	15.835	180	224355	103.306	ug/l	96
90) Hexachlorobutadiene	15.500	225	90825	95.741	ug/l	95
91) Naphthalene	15.635	128	770611	111.109	ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	224355	103.306	ug/l	96

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

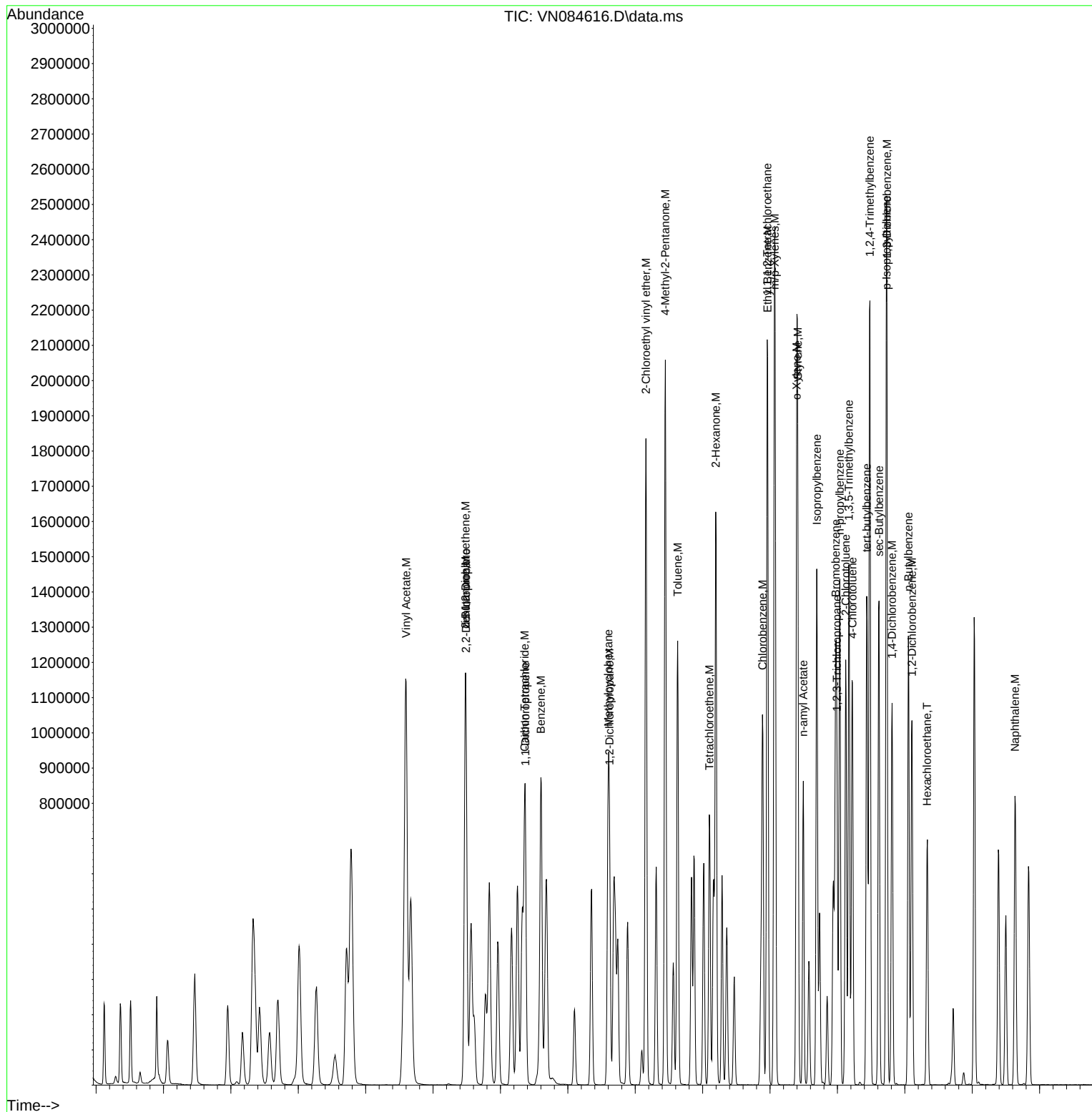
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Data File : VN084616.D  
Acq On    : 31 Oct 2024  13:20  
Operator  : JC\MD  
Sample    : VSTDICC100  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 1      Sample Multiplier: 1
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Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:23:10 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084617.D
 Acq On : 31 Oct 2024 13:44
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:24:02 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:19:19 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	34315	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	189928	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	174515	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	82785	30.008	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.033%			
60) 4-Bromofluorobenzene	12.847	95	91818	30.557	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 101.867%			
63) Toluene-d8	10.565	98	244038	29.539	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 98.467%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.124	85	299645	150.135	ug/l	94
3) Chloromethane	2.359	50	360263	149.927	ug/l	100
4) Vinyl Chloride	2.512	62	330947	148.318	ug/l	95
5) Bromomethane	2.900	94	166205	146.755	ug/l	99
6) Chloroethane	3.053	64	211245	142.454	ug/l	90
7) Trichlorofluoromethane	3.459	101	537825	148.417	ug/l	99
8) Diethyl Ether	3.953	74	208008	160.923	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.347	101	304904	148.885	ug/l	100
10) 1,1-Dichloroethene	4.324	96	309990	155.009	ug/l	93
11) Methyl Iodide	4.577	142	418106	152.116	ug/l	93
12) Methyl Acetate	5.018	43	413207	132.418	ug/l	97
13) Acrolein	4.171	56	297469	773.843	ug/l	98
14) Acrylonitrile	5.718	53	803457	787.881	ug/l	98
15) Acetone	4.424	58	199728	762.223	ug/l	94
16) Carbon Disulfide	4.694	76	898255	152.651	ug/l	98
17) Allyl chloride	5.012	41	542863	160.886	ug/l	96
18) Methylene Chloride	5.265	84	343819	146.714	ug/l	95
19) trans-1,2-Dichloroethene	5.777	96	318103	151.754	ug/l	89
20) Diisopropyl ether	6.671	45	1072240	157.183	ug/l	98
21) 1,1-Dichloroethane	6.559	63	606359	147.807	ug/l	97
22) cis-1,2-Dichloroethene	7.482	96	389337	155.576	ug/l	94
23) tert-Butyl Alcohol	5.553	59	268783	754.978	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	1046401	161.805	ug/l	98
25) Chloroform	7.965	83	622385	148.078	ug/l	96
26) Cyclohexane	8.253	56	511647	163.276	ug/l #	98
29) 1,1-Dichloropropene	8.371	75	437707	153.006	ug/l	100
30) 2-Butanone	7.482	43	1009048	764.664	ug/l	98
31) 2,2-Dichloropropane	7.488	77	508098	145.502	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	565049	145.389	ug/l	99
33) Carbon Tetrachloride	8.359	117	490498	147.903	ug/l	98
34) Benzene	8.600	78	1384757	146.447	ug/l	96
35) Methacrylonitrile	7.777	41	245428	156.925	ug/l	99
36) 1,2-Dichloroethane	8.665	62	459837	146.236	ug/l	99
37) Trichloroethene	9.347	130	321371	150.657	ug/l	93
38) Methylcyclohexane	9.600	83	499572	162.217	ug/l	97
39) 1,2-Dichloropropane	9.618	63	337522	148.284	ug/l	96
40) Dibromomethane	9.706	93	233108	146.393	ug/l	99
41) Bromodichloromethane	9.888	83	504647	147.833	ug/l	98
42) Vinyl Acetate	6.600	43	3914346	793.588	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084617.D
 Acq On : 31 Oct 2024 13:44
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:24:02 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:19:19 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	428446	152.653	ug/l	97
44) Isopropyl Acetate	8.688	43	741325	132.033	ug/l	96
45) 1,4-Dioxane	9.700	88	117373	3131.238	ug/l	96
46) Methyl methacrylate	9.682	41	357456	158.423	ug/l	98
47) n-amyl Acetate	12.494	43	667282	159.131	ug/l	94
48) t-1,3-Dichloropropene	10.835	75	523588	155.334	ug/l	97
49) cis-1,3-Dichloropropene	10.312	75	561762	155.501	ug/l	94
50) 1,1,2-Trichloroethane	11.018	97	311081	145.645	ug/l	95
51) Ethyl methacrylate	10.876	69	534438	162.326	ug/l	96
52) 1,3-Dichloropropane	11.165	76	544181	146.779	ug/l	99
53) Dibromochloromethane	11.359	129	378123	151.277	ug/l	98
54) 1,2-Dibromoethane	11.470	107	321983	149.047	ug/l	99
55) 2-Chloroethyl vinyl ether	10.159	63	1267478	785.232	ug/l	99
56) Bromoform	12.576	173	254436	151.864	ug/l	99
58) 4-Methyl-2-Pentanone	10.447	43	2085089	757.339	ug/l	98
59) 2-Hexanone	11.200	43	1531300	759.555	ug/l	98
61) Tetrachloroethene	11.100	164	271458	148.628	ug/l	98
62) Toluene	10.629	91	1481581	149.056	ug/l	98
64) Chlorobenzene	11.888	112	896579	149.418	ug/l	99
65) 1,1,1,2-Tetrachloroethane	11.959	131	321277	145.687	ug/l	100
66) Ethyl Benzene	11.965	91	1652923	158.236	ug/l	96
67) m/p-Xylenes	12.070	106	1242416	310.660	ug/l	100
68) o-Xylene	12.400	106	604062	156.582	ug/l	98
69) Styrene	12.412	104	1029762	159.199	ug/l	99
70) Isopropylbenzene	12.694	105	1528377	159.480	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	443836	142.885	ug/l	97
72) 1,2,3-Trichloropropane	12.994	75	379116m	127.935	ug/l	
73) Bromobenzene	12.982	156	370688	149.971	ug/l	97
74) n-propylbenzene	13.035	91	1804610	161.034	ug/l	99
75) 2-Chlorotoluene	13.123	91	1112415	152.433	ug/l	97
76) 1,3,5-Trimethylbenzene	13.170	105	1295565	158.223	ug/l	98
77) t-1,4-Dichloro-2-butene	12.735	75	177307	162.992	ug/l	90
78) 4-Chlorotoluene	13.223	91	1139441	154.535	ug/l	100
79) tert-butylbenzene	13.435	119	1114831	164.638	ug/l	96
80) 1,2,4-Trimethylbenzene	13.482	105	1321571	159.986	ug/l	98
81) sec-Butylbenzene	13.617	105	1521726	163.089	ug/l	100
82) p-Isopropyltoluene	13.729	119	1304826	166.431	ug/l	100
83) 1,3-Dichlorobenzene	13.729	146	699236	152.963	ug/l	99
84) 1,4-Dichlorobenzene	13.811	146	698605	154.663	ug/l	99
85) n-Butylbenzene	14.053	91	1148718	174.453	ug/l	99
86) Hexachloroethane	14.335	117	244372	152.408	ug/l	97
87) 1,2-Dichlorobenzene	14.106	146	680730	151.120	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	91914	153.355	ug/l	92
89) 1,2,4-Trichlorobenzene	15.841	180	369695	168.557	ug/l	96
90) Hexachlorobutadiene	15.500	225	151702	158.343	ug/l	94
91) Naphthalene	15.641	128	1260875	180.011	ug/l	99
92) 1,2,3-Trichlorobenzene	15.841	180	369695	168.557	ug/l	96

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

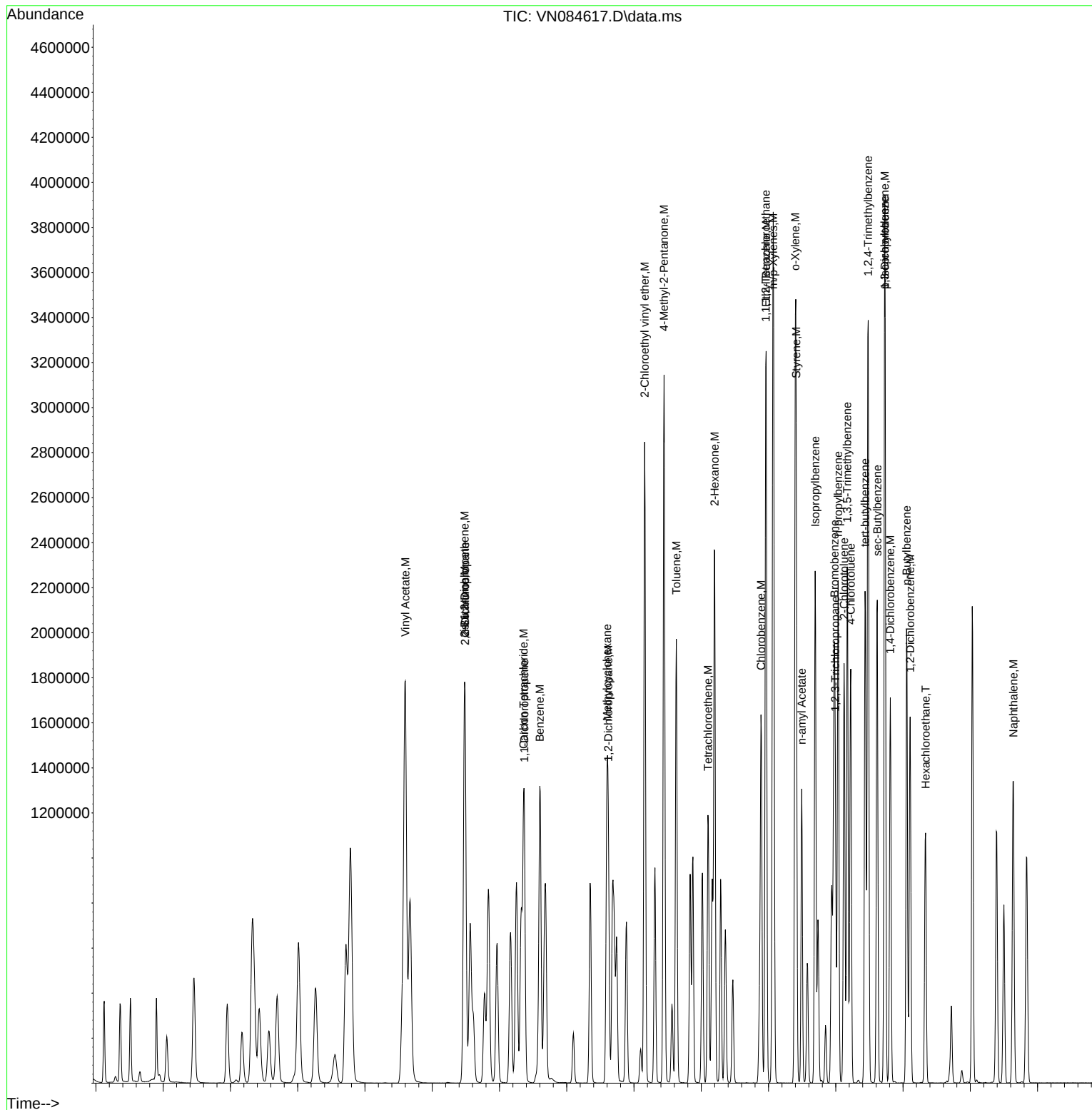
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Data File : VN084617.D
Acq On : 31 Oct 2024 13:44
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:24:02 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084619.D
 Acq On : 31 Oct 2024 14:42
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICSVN103124

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:42:26 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	33219	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	181690	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	170699	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.576	65	78518	29.401	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.000%		
60) 4-Bromofluorobenzene	12.847	95	87996	29.939	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	99.800%		
63) Toluene-d8	10.565	98	235463	29.138	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	97.133%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.124	85	39007	20.189	ug/l	96
3) Chloromethane	2.359	50	45924	19.742	ug/l	96
4) Vinyl Chloride	2.512	62	43634	20.200	ug/l	96
5) Bromomethane	2.900	94	21634	19.733	ug/l	100
6) Chloroethane	3.077	64	27349	19.284	ug/l #	89
7) Trichlorofluoromethane	3.471	101	70373	20.061	ug/l	100
8) Diethyl Ether	3.953	74	26411	21.107	ug/l	92
9) 1,1,2-Trichlorotrifluo...	4.353	101	41161	20.762	ug/l	98
10) 1,1-Dichloroethene	4.330	96	38591	19.934	ug/l	94
11) Methyl Iodide	4.577	142	52797	19.843	ug/l	92
12) Methyl Acetate	5.018	43	54572	18.084	ug/l	98
13) Acrolein	4.171	56	36257	97.432	ug/l	97
14) Acrylonitrile	5.718	53	99433	100.722	ug/l	97
15) Acetone	4.430	58	26069	102.773	ug/l	95
16) Carbon Disulfide	4.700	76	112949	19.828	ug/l	98
17) Allyl chloride	5.012	41	62388	18.913	ug/l	93
18) Methylene Chloride	5.265	84	43401	19.131	ug/l	98
19) trans-1,2-Dichloroethene	5.783	96	39248	19.342	ug/l	94
20) Diisopropyl ether	6.665	45	129663	19.635	ug/l	97
21) 1,1-Dichloroethane	6.565	63	76784	19.334	ug/l	97
22) cis-1,2-Dichloroethene	7.482	96	46989	19.396	ug/l	97
23) tert-Butyl Alcohol	5.541	59	37052	107.508	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	122468	19.562	ug/l	100
25) Chloroform	7.965	83	79286	19.486	ug/l	97
26) Cyclohexane	8.253	56	62127	20.480	ug/l #	99
29) 1,1-Dichloropropene	8.371	75	53477	19.541	ug/l	99
30) 2-Butanone	7.482	43	126487	100.199	ug/l	100
31) 2,2-Dichloropropane	7.488	77	66622	19.943	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	71786	19.308	ug/l	99
33) Carbon Tetrachloride	8.365	117	62252	19.622	ug/l	94
34) Benzene	8.606	78	173675	19.200	ug/l #	95
35) Methacrylonitrile	7.777	41	29897	19.983	ug/l	98
36) 1,2-Dichloroethane	8.671	62	57389	19.078	ug/l	99
37) Trichloroethene	9.353	130	40639	19.915	ug/l	85
38) Methylcyclohexane	9.600	83	57621	19.559	ug/l	97
39) 1,2-Dichloropropane	9.623	63	41855	19.222	ug/l	90
40) Dibromomethane	9.706	93	29763	19.539	ug/l	97
41) Bromodichloromethane	9.882	83	63336	19.395	ug/l	94
42) Vinyl Acetate	6.600	43	471501	99.926	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084619.D
 Acq On : 31 Oct 2024 14:42
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

ICVVN103124

Manual Integrations

APPROVED

Reviewed By : Semsettin Yesilyurt 11/04/2024
 Supervised By : Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:42:26 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 01 02:38:04 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	52600	19.830	ug/l	96
44) Isopropyl Acetate	8.688	43	98265	18.295	ug/l	100
45) 1,4-Dioxane	9.694	88	14685	409.524	ug/l	94
46) Methyl methacrylate	9.682	41	42350	19.620	ug/l	91
47) n-amyl Acetate	12.494	43	79469	19.811	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	63042	19.551	ug/l	96
49) cis-1,3-Dichloropropene	10.312	75	67490	19.529	ug/l	97
50) 1,1,2-Trichloroethane	11.012	97	40428	19.786	ug/l	92
51) Ethyl methacrylate	10.870	69	61356	19.481	ug/l	96
52) 1,3-Dichloropropane	11.165	76	68595	19.341	ug/l	98
53) Dibromochloromethane	11.359	129	47080	19.690	ug/l	98
54) 1,2-Dibromoethane	11.465	107	40000	19.356	ug/l	96
55) 2-Chloroethyl vinyl ether	10.159	63	158206	102.456	ug/l	99
56) Bromoform	12.582	173	31892	19.898	ug/l	99
58) 4-Methyl-2-Pentanone	10.441	43	269754	100.170	ug/l	98
59) 2-Hexanone	11.194	43	196485	99.639	ug/l	99
61) Tetrachloroethene	11.100	164	34173	19.129	ug/l	94
62) Toluene	10.629	91	184150	18.941	ug/l	99
64) Chlorobenzene	11.894	112	114563	19.519	ug/l	96
65) 1,1,1,2-Tetrachloroethane	11.959	131	40847	18.937	ug/l	97
66) Ethyl Benzene	11.965	91	193657	18.953	ug/l	95
67) m/p-Xylenes	12.070	106	153096	39.137	ug/l	98
68) o-Xylene	12.400	106	73335	19.434	ug/l	95
69) Styrene	12.412	104	124645	19.701	ug/l	99
70) Isopropylbenzene	12.694	105	188026	20.058	ug/l	97
71) 1,1,2,2-Tetrachloroethane	12.935	83	58559	19.273	ug/l	98
72) 1,2,3-Trichloropropane	12.994	75	55357m	21.337	ug/l	
73) Bromobenzene	12.982	156	46221	19.118	ug/l	94
74) n-propylbenzene	13.035	91	217666	19.858	ug/l	100
75) 2-Chlorotoluene	13.123	91	141697	19.851	ug/l	97
76) 1,3,5-Trimethylbenzene	13.170	105	160297	20.014	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	20549	19.312	ug/l	95
78) 4-Chlorotoluene	13.217	91	141472	19.616	ug/l	99
79) tert-butylbenzene	13.441	119	134979	20.379	ug/l	96
80) 1,2,4-Trimethylbenzene	13.482	105	160493	19.863	ug/l	99
81) sec-Butylbenzene	13.617	105	179829	19.704	ug/l	100
82) p-Isopropyltoluene	13.729	119	148622	19.381	ug/l	99
83) 1,3-Dichlorobenzene	13.735	146	86431	19.330	ug/l	97
84) 1,4-Dichlorobenzene	13.811	146	87143	19.724	ug/l	97
85) n-Butylbenzene	14.053	91	124802	19.377	ug/l	99
86) Hexachloroethane	14.335	117	30122	19.206	ug/l	99
87) 1,2-Dichlorobenzene	14.106	146	86578	19.650	ug/l	97
88) 1,2-Dibromo-3-Chloropr...	14.717	75	12268	20.926	ug/l	98
89) 1,2,4-Trichlorobenzene	15.835	180	43307	20.187	ug/l	98
90) Hexachlorobutadiene	15.500	225	19143	20.428	ug/l	96
91) Naphthalene	15.641	128	132615	19.356	ug/l	99
92) 1,2,3-Trichlorobenzene	15.835	180	43307	20.187	ug/l	98

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

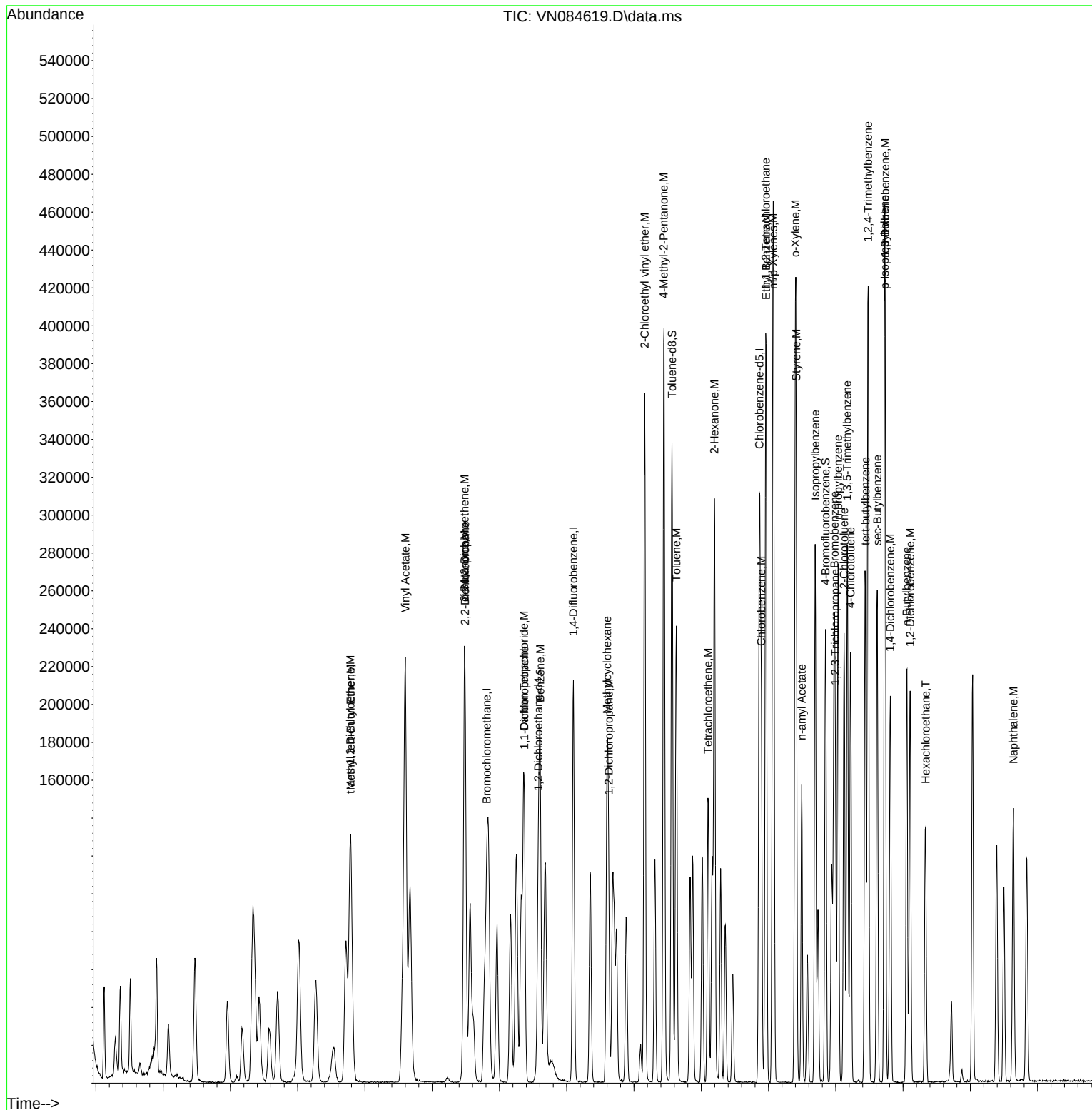
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN103124

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084619.D
 Acq On : 31 Oct 2024 14:42
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN103124

Quant Time: Nov 01 02:42:26 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 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	106	0.00
2 M	Dichlorodifluoromethane	1.745	1.761	-0.9	102	0.00
3 M	Chloromethane	2.101	2.074	1.3	101	0.00
4 M	Vinyl Chloride	1.951	1.970	-1.0	102	0.00
5 M	Bromomethane	0.990	0.977	1.3	95	0.00
6 M	Chloroethane	1.281	1.235	3.6	98	0.02
7 M	Trichlorofluoromethane	3.168	3.178	-0.3	100	0.00
8 T	Diethyl Ether	1.130	1.193	-5.6	109	0.00
9	1,1,2-Trichlorotrifluoroeth	1.790	1.859	-3.9	102	0.00
10 M	1,1-Dichloroethene	1.748	1.743	0.3	101	0.00
11	Methyl Iodide	2.403	2.384	0.8	101	0.00
12	Methyl Acetate	2.725	2.464	9.6	97	0.00
13 M	Acrolein	0.336	0.327	2.7	99	0.00
14 M	Acrylonitrile	0.892	0.898	-0.7	106	0.00
15 M	Acetone	0.229	0.235	-2.6	107	0.00
16 M	Carbon Disulfide	5.144	5.100	0.9	101	0.00
17	Allyl chloride	2.979	2.817	5.4	96	0.00
18 M	Methylene Chloride	2.049	1.960	4.3	94	0.00
19 M	trans-1,2-Dichloroethene	1.833	1.772	3.3	99	0.00
20 T	Diisopropyl ether	5.964	5.855	1.8	99	0.00
21 M	1,1-Dichloroethane	3.587	3.467	3.3	97	0.00
22 M	cis-1,2-Dichloroethene	2.188	2.122	3.0	101	0.00
23 M	tert-Butyl Alcohol	0.311	0.335	-7.7	115	0.00
24 M	Methyl tert-Butyl Ether	5.654	5.530	2.2	101	0.00
25 M	Chloroform	3.675	3.580	2.6	97	0.00
26	Cyclohexane	2.740	2.805	-2.4	106	0.00
27 s	1,2-Dichloroethane-d4	2.412	2.364	2.0	102	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
29	1,1-Dichloropropene	0.452	0.441	2.4	100	0.00
30 M	2-Butanone	0.208	0.209	-0.5	106	0.00
31	2,2-Dichloropropane	0.552	0.550	0.4	99	0.00
32 M	1,1,1-Trichloroethane	0.614	0.593	3.4	97	0.00
33 M	Carbon Tetrachloride	0.524	0.514	1.9	101	0.00
34 M	Benzene	1.494	1.434	4.0	99	0.00
35	Methacrylonitrile	0.247	0.247	0.0	106	0.00
36 M	1,2-Dichloroethane	0.497	0.474	4.6	96	0.00
37 M	Trichloroethene	0.337	0.336	0.3	101	0.00
38	Methylcyclohexane	0.486	0.476	2.1	105	0.00
39 M	1,2-Dichloropropane	0.360	0.346	3.9	98	0.00
40	Dibromomethane	0.252	0.246	2.4	99	0.00
41 M	Bromodichloromethane	0.539	0.523	3.0	101	0.00
42 M	Vinyl Acetate	0.779	0.779	0.0	105	0.00
43	Ethyl Acetate	0.438	0.434	0.9	107	0.00
44	Isopropyl Acetate	0.887	0.811	8.6	101	0.00
45 T	1,4-Dioxane	0.006	0.006	0.0	107	0.00
46	Methyl methacrylate	0.356	0.350	1.7	106	0.00
47	n-amyl Acetate	0.662	0.656	0.9	104	0.00
48 M	t-1,3-Dichloropropene	0.532	0.520	2.3	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084619.D
 Acq On : 31 Oct 2024 14:42
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN103124

Quant Time: Nov 01 02:42:26 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 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	0.571	0.557	2.5	101	0.00
50 M	1,1,2-Trichloroethane	0.337	0.334	0.9	100	0.00
51	Ethyl methacrylate	0.520	0.507	2.5	106	0.00
52	1,3-Dichloropropane	0.586	0.566	3.4	98	0.00
53 M	Dibromochloromethane	0.395	0.389	1.5	102	0.00
54 M	1,2-Dibromoethane	0.341	0.330	3.2	98	0.00
55 M	2-Chloroethyl vinyl ether	0.255	0.261	-2.4	104	0.00
56 M	Bromoform	0.265	0.263	0.8	106	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00
58 M	4-Methyl-2-Pentanone	0.473	0.474	-0.2	107	0.00
59 M	2-Hexanone	0.347	0.345	0.6	108	0.00
60 S	4-Bromofluorobenzene	0.517	0.516	0.2	113	0.00
61 M	Tetrachloroethene	0.314	0.300	4.5	101	0.00
62 M	Toluene	1.709	1.618	5.3	101	0.00
63 S	Toluene-d8	1.420	1.379	2.9	106	0.00
64 M	Chlorobenzene	1.032	1.007	2.4	104	0.00
65	1,1,1,2-Tetrachloroethane	0.379	0.359	5.3	100	0.00
66 M	Ethyl Benzene	1.796	1.702	5.2	103	0.00
67 M	m/p-Xylenes	0.687	0.673	2.0	105	0.00
68 M	o-Xylene	0.663	0.644	2.9	103	0.00
69 M	Styrene	1.112	1.095	1.5	107	0.00
70	Isopropylbenzene	1.647	1.652	-0.3	110	0.00
71 M	1,1,2,2-Tetrachloroethane	0.534	0.515	3.6	100	0.00
72	1,2,3-Trichloropropane	0.456	0.486	-6.6	102	0.00
73	Bromobenzene	0.425	0.406	4.5	102	0.00
74	n-propylbenzene	1.926	1.913	0.7	108	0.00
75	2-Chlorotoluene	1.255	1.245	0.8	107	0.00
76	1,3,5-Trimethylbenzene	1.408	1.409	-0.1	108	0.00
77	t-1,4-Dichloro-2-butene	0.187	0.181	3.2	105	0.00
78	4-Chlorotoluene	1.268	1.243	2.0	106	0.00
79	tert-butylbenzene	1.164	1.186	-1.9	115	0.00
80	1,2,4-Trimethylbenzene	1.420	1.410	0.7	108	0.00
81	sec-Butylbenzene	1.604	1.580	1.5	109	0.00
82	p-Isopropyltoluene	1.348	1.306	3.1	108	0.00
83 M	1,3-Dichlorobenzene	0.786	0.760	3.3	104	0.00
84 M	1,4-Dichlorobenzene	0.776	0.766	1.3	108	0.00
85	n-Butylbenzene	1.132	1.097	3.1	114	0.00
86 T	Hexachloroethane	0.276	0.265	4.0	103	0.00
87 M	1,2-Dichlorobenzene	0.774	0.761	1.7	103	0.00
88	1,2-Dibromo-3-Chloropropane	0.103	0.108	-4.9	111	0.00
89	1,2,4-Trichlorobenzene	0.377	0.381	-1.1	110	0.00
90	Hexachlorobutadiene	0.165	0.168	-1.8	111	0.00
91 M	Naphthalene	1.204	1.165	3.2	115	0.00
92	1,2,3-Trichlorobenzene	0.377	0.381	-1.1	110	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084619.D
 Acq On : 31 Oct 2024 14:42
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICSVN103124

Quant Time: Nov 01 02:42:26 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 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	106	0.00
2 M	Dichlorodifluoromethane	20.000	20.189	-0.9	102	0.00
3 M	Chloromethane	20.000	19.742	1.3	101	0.00
4 M	Vinyl Chloride	20.000	20.200	-1.0	102	0.00
5 M	Bromomethane	20.000	19.733	1.3	95	0.00
6 M	Chloroethane	20.000	19.284	3.6	98	0.02
7 M	Trichlorofluoromethane	20.000	20.061	-0.3	100	0.00
8 T	Diethyl Ether	20.000	21.107	-5.5	109	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	20.762	-3.8	102	0.00
10 M	1,1-Dichloroethene	20.000	19.934	0.3	101	0.00
11	Methyl Iodide	20.000	19.843	0.8	101	0.00
12	Methyl Acetate	20.000	18.084	9.6	97	0.00
13 M	Acrolein	100.000	97.432	2.6	99	0.00
14 M	Acrylonitrile	100.000	100.722	-0.7	106	0.00
15 M	Acetone	100.000	102.773	-2.8	107	0.00
16 M	Carbon Disulfide	20.000	19.828	0.9	101	0.00
17	Allyl chloride	20.000	18.913	5.4	96	0.00
18 M	Methylene Chloride	20.000	19.131	4.3	94	0.00
19 M	trans-1,2-Dichloroethene	20.000	19.342	3.3	99	0.00
20 T	Diisopropyl ether	20.000	19.635	1.8	99	0.00
21 M	1,1-Dichloroethane	20.000	19.334	3.3	97	0.00
22 M	cis-1,2-Dichloroethene	20.000	19.396	3.0	101	0.00
23 M	tert-Butyl Alcohol	100.000	107.508	-7.5	115	0.00
24 M	Methyl tert-Butyl Ether	20.000	19.562	2.2	101	0.00
25 M	Chloroform	20.000	19.486	2.6	97	0.00
26	Cyclohexane	20.000	20.480	-2.4	106	0.00
27 s	1,2-Dichloroethane-d4	30.000	29.401	2.0	102	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	106	0.00
29	1,1-Dichloropropene	20.000	19.541	2.3	100	0.00
30 M	2-Butanone	100.000	100.199	-0.2	106	0.00
31	2,2-Dichloropropane	20.000	19.943	0.3	99	0.00
32 M	1,1,1-Trichloroethane	20.000	19.308	3.5	97	0.00
33 M	Carbon Tetrachloride	20.000	19.622	1.9	101	0.00
34 M	Benzene	20.000	19.200	4.0	99	0.00
35	Methacrylonitrile	20.000	19.983	0.1	106	0.00
36 M	1,2-Dichloroethane	20.000	19.078	4.6	96	0.00
37 M	Trichloroethene	20.000	19.915	0.4	101	0.00
38	Methylcyclohexane	20.000	19.559	2.2	105	0.00
39 M	1,2-Dichloropropane	20.000	19.222	3.9	98	0.00
40	Dibromomethane	20.000	19.539	2.3	99	0.00
41 M	Bromodichloromethane	20.000	19.395	3.0	101	0.00
42 M	Vinyl Acetate	100.000	99.926	0.1	105	0.00
43	Ethyl Acetate	20.000	19.830	0.9	107	0.00
44	Isopropyl Acetate	20.000	18.295	8.5	101	0.00
45 T	1,4-Dioxane	400.000	409.524	-2.4	107	0.00
46	Methyl methacrylate	20.000	19.620	1.9	106	0.00
47	n-amyl Acetate	20.000	19.811	0.9	104	0.00
48 M	t-1,3-Dichloropropene	20.000	19.551	2.2	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
 Data File : VN084619.D
 Acq On : 31 Oct 2024 14:42
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN103124

Quant Time: Nov 01 02:42:26 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 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	19.529	2.4	101	0.00
50 M	1,1,2-Trichloroethane	20.000	19.786	1.1	100	0.00
51	Ethyl methacrylate	20.000	19.481	2.6	106	0.00
52	1,3-Dichloropropane	20.000	19.341	3.3	98	0.00
53 M	Dibromochloromethane	20.000	19.690	1.5	102	0.00
54 M	1,2-Dibromoethane	20.000	19.356	3.2	98	0.00
55 M	2-Chloroethyl vinyl ether	100.000	102.456	-2.5	104	0.00
56 M	Bromoform	20.000	19.898	0.5	106	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	111	0.00
58 M	4-Methyl-2-Pentanone	100.000	100.170	-0.2	107	0.00
59 M	2-Hexanone	100.000	99.639	0.4	108	0.00
60 S	4-Bromofluorobenzene	30.000	29.939	0.2	113	0.00
61 M	Tetrachloroethene	20.000	19.129	4.4	101	0.00
62 M	Toluene	20.000	18.941	5.3	101	0.00
63 S	Toluene-d8	30.000	29.138	2.9	106	0.00
64 M	Chlorobenzene	20.000	19.519	2.4	104	0.00
65	1,1,1,2-Tetrachloroethane	20.000	18.937	5.3	100	0.00
66 M	Ethyl Benzene	20.000	18.953	5.2	103	0.00
67 M	m/p-Xylenes	40.000	39.137	2.2	105	0.00
68 M	o-Xylene	20.000	19.434	2.8	103	0.00
69 M	Styrene	20.000	19.701	1.5	107	0.00
70	Isopropylbenzene	20.000	20.058	-0.3	110	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	19.273	3.6	100	0.00
72	1,2,3-Trichloropropane	20.000	21.337	-6.7	102	0.00
73	Bromobenzene	20.000	19.118	4.4	102	0.00
74	n-propylbenzene	20.000	19.858	0.7	108	0.00
75	2-Chlorotoluene	20.000	19.851	0.7	107	0.00
76	1,3,5-Trimethylbenzene	20.000	20.014	-0.1	108	0.00
77	t-1,4-Dichloro-2-butene	20.000	19.312	3.4	105	0.00
78	4-Chlorotoluene	20.000	19.616	1.9	106	0.00
79	tert-butylbenzene	20.000	20.379	-1.9	115	0.00
80	1,2,4-Trimethylbenzene	20.000	19.863	0.7	108	0.00
81	sec-Butylbenzene	20.000	19.704	1.5	109	0.00
82	p-Isopropyltoluene	20.000	19.381	3.1	108	0.00
83 M	1,3-Dichlorobenzene	20.000	19.330	3.4	104	0.00
84 M	1,4-Dichlorobenzene	20.000	19.724	1.4	108	0.00
85	n-Butylbenzene	20.000	19.377	3.1	114	0.00
86 T	Hexachloroethane	20.000	19.206	4.0	103	0.00
87 M	1,2-Dichlorobenzene	20.000	19.650	1.8	103	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	20.926	-4.6	111	0.00
89	1,2,4-Trichlorobenzene	20.000	20.187	-0.9	110	0.00
90	Hexachlorobutadiene	20.000	20.428	-2.1	111	0.00
91 M	Naphthalene	20.000	19.356	3.2	115	0.00
92	1,2,3-Trichlorobenzene	20.000	20.187	-0.9	110	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: CHEMTECH Contract: GARD04

Lab Code: CHEM Case No.: P4844 SAS No.: P4844 SDG No.: P4844

Instrument ID: MSVOA_N Calibration Date/Time: 11/15/2024 13:49

Lab File ID: VN084867.D Init. Calib. Date(s): 10/31/2024 10/31/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:08 18:13

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Acrolein	0.336	0.336		0	
Acrylonitrile	0.892	0.842		-5.61	
1,2-Dichloroethane-d4	2.412	2.422	0.01	0.41	
Toluene-d8	1.420	1.438	0.01	1.27	
4-Bromofluorobenzene	0.517	0.524	0.2	1.35	

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\VN111524\
 Data File : VN084867.D
 Acq On : 15 Nov 2024 13:49
 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 11/17/2024
 Supervised By : Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:22:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	29205	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	143711	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	129619	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.571	65	70731	30.125	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.433%			
60) 4-Bromofluorobenzene	12.847	95	67980	30.459	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 101.533%			
63) Toluene-d8	10.565	98	186361	30.371	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.233%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.118	85	30924	18.205	ug/l	97
3) Chloromethane	2.359	50	40318	19.714	ug/l	95
4) Vinyl Chloride	2.512	62	39327	20.709	ug/l	96
5) Bromomethane	2.901	94	21252	22.048	ug/l	96
6) Chloroethane	3.071	64	25906	20.777	ug/l	93
7) Trichlorofluoromethane	3.459	101	58770	19.056	ug/l	96
8) Diethyl Ether	3.953	74	19904	18.093	ug/l	95
9) 1,1,2-Trichlorotrifluo...	4.359	101	30359	17.418	ug/l	95
10) 1,1-Dichloroethene	4.324	96	29493	17.328	ug/l	95
11) Methyl Iodide	4.577	142	45562	19.477	ug/l	86
12) Methyl Acetate	5.018	43	43060	16.231	ug/l	98
13) Acrolein	4.171	56	32698	99.945	ug/l	97
14) Acrylonitrile	5.718	53	81966	94.441	ug/l	99
15) Acetone	4.424	58	21488	96.356	ug/l	92
16) Carbon Disulfide	4.695	76	83450	16.663	ug/l #	94
17) Allyl chloride	5.012	41	44622	15.386	ug/l	99
18) Methylene Chloride	5.265	84	37063	18.583	ug/l	92
19) trans-1,2-Dichloroethene	5.783	96	31190	17.483	ug/l	95
20) Diisopropyl ether	6.665	45	105073	18.098	ug/l	94
21) 1,1-Dichloroethane	6.559	63	63631	18.225	ug/l	98
22) cis-1,2-Dichloroethene	7.483	96	37746	17.722	ug/l	97
23) tert-Butyl Alcohol	5.536	59	25733m	84.928	ug/l	
24) Methyl tert-Butyl Ether	5.789	73	103968	18.889	ug/l	99
25) Chloroform	7.965	83	66394	18.560	ug/l	97
26) Cyclohexane	8.253	56	41700	15.636	ug/l #	96
29) 1,1-Dichloropropene	8.365	75	38880	17.962	ug/l	97
30) 2-Butanone	7.483	43	105293	105.453	ug/l	97
31) 2,2-Dichloropropane	7.489	77	51247	19.395	ug/l	98
32) 1,1,1-Trichloroethane	8.159	97	57719	19.627	ug/l	99
33) Carbon Tetrachloride	8.359	117	49987	19.920	ug/l	96
34) Benzene	8.600	78	139735	19.530	ug/l	99
35) Methacrylonitrile	7.777	41	23718	20.042	ug/l	95
36) 1,2-Dichloroethane	8.665	62	50527	21.236	ug/l	99
37) Trichloroethene	9.347	130	30042	18.613	ug/l	98
38) Methylcyclohexane	9.600	83	38328	16.448	ug/l	95
39) 1,2-Dichloropropane	9.618	63	34615	20.098	ug/l	95
40) Dibromomethane	9.706	93	25281	20.982	ug/l	96
41) Bromodichloromethane	9.888	83	51091	19.780	ug/l	100
42) Vinyl Acetate	6.600	43	353820	94.802	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
 Data File : VN084867.D
 Acq On : 15 Nov 2024 13:49
 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 11/17/2024

Supervised By :Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:22:20 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 01 02:38:04 2024

Response via : Initial Calibration

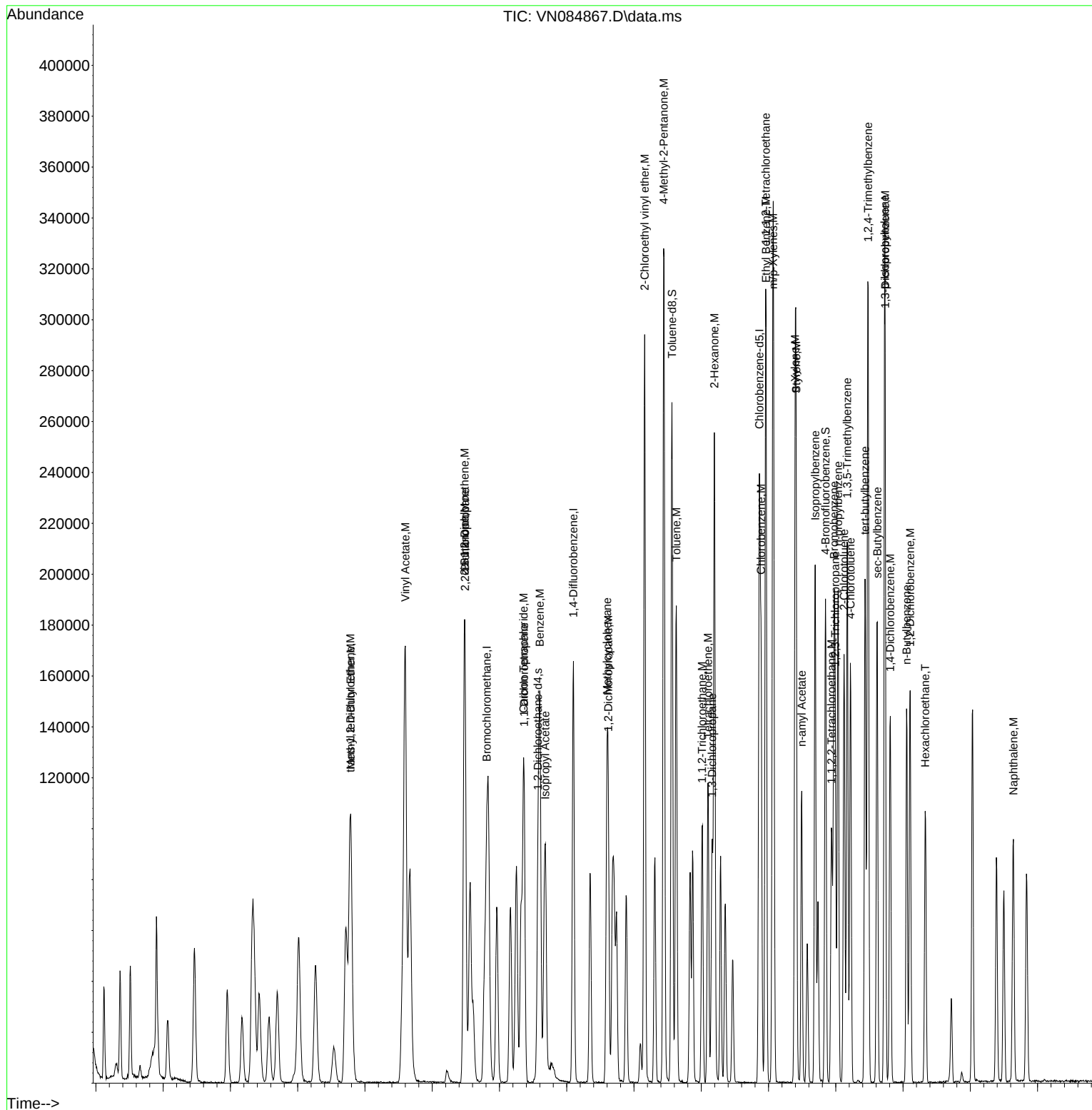
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.553	43	43215	20.598	ug/l	99
44) Isopropyl Acetate	8.683	43	76147	17.924	ug/l	96
45) 1,4-Dioxane	9.694	88	11581	408.313	ug/l	98
46) Methyl methacrylate	9.677	41	31598	18.508	ug/l	93
47) n-amyl Acetate	12.494	43	57999	18.279	ug/l	99
48) t-1,3-Dichloropropene	10.835	75	47064	18.453	ug/l	93
49) cis-1,3-Dichloropropene	10.312	75	53099	19.425	ug/l	98
50) 1,1,2-Trichloroethane	11.012	97	33847	20.943	ug/l	93
51) Ethyl methacrylate	10.877	69	47007	18.869	ug/l	93
52) 1,3-Dichloropropane	11.159	76	57997	20.674	ug/l	99
53) Dibromochloromethane	11.359	129	39443	20.855	ug/l	98
54) 1,2-Dibromoethane	11.471	107	34374	21.029	ug/l	96
55) 2-Chloroethyl vinyl ether	10.159	63	129165	105.755	ug/l	98
56) Bromoform	12.576	173	26019	20.524	ug/l	98
58) 4-Methyl-2-Pentanone	10.441	43	217184	106.208	ug/l	97
59) 2-Hexanone	11.194	43	157051	104.883	ug/l	99
61) Tetrachloroethene	11.100	164	26787	19.746	ug/l	95
62) Toluene	10.630	91	143824	19.481	ug/l	99
64) Chlorobenzene	11.888	112	88491	19.855	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.959	131	33876	20.682	ug/l	98
66) Ethyl Benzene	11.965	91	140773	18.144	ug/l	95
67) m/p-Xylenes	12.071	106	112700	37.941	ug/l	99
68) o-Xylene	12.394	106	54333	18.962	ug/l	95
69) Styrene	12.412	104	92272	19.206	ug/l	99
70) Isopropylbenzene	12.694	105	132744	18.649	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	50764	22.003	ug/l	95
72) 1,2,3-Trichloropropane	12.994	75	46309m	23.507	ug/l	
73) Bromobenzene	12.976	156	35881	19.545	ug/l	97
74) n-propylbenzene	13.035	91	154569	18.570	ug/l	100
75) 2-Chlorotoluene	13.123	91	100115	18.470	ug/l	96
76) 1,3,5-Trimethylbenzene	13.171	105	117170	19.266	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	15759	19.504	ug/l	92
78) 4-Chlorotoluene	13.218	91	100452	18.342	ug/l	99
79) tert-butylbenzene	13.435	119	93698	18.630	ug/l	99
80) 1,2,4-Trimethylbenzene	13.482	105	117990	19.231	ug/l	98
81) sec-Butylbenzene	13.618	105	126560	18.262	ug/l	98
82) p-Isopropyltoluene	13.729	119	106151	18.229	ug/l	99
83) 1,3-Dichlorobenzene	13.735	146	64615	19.031	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	62132	18.520	ug/l	99
85) n-Butylbenzene	14.053	91	79989	16.355	ug/l	97
86) Hexachloroethane	14.329	117	22330	18.750	ug/l	97
87) 1,2-Dichlorobenzene	14.106	146	64917	19.403	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	14.712	75	9097	20.435	ug/l	91
89) 1,2,4-Trichlorobenzene	15.835	180	29223	17.939	ug/l	91
90) Hexachlorobutadiene	15.500	225	14544	20.439	ug/l	99
91) Naphthalene	15.641	128	90833	17.460	ug/l	99
92) 1,2,3-Trichlorobenzene	15.835	180	29223	17.939	ug/l	91

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 11/17/2024
Supervised By :Mahesh Dadoda 11/18/2024



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
 Data File : VN084867.D
 Acq On : 15 Nov 2024 13:49
 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 15 22:22:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	93	0.00
2 M	Dichlorodifluoromethane	1.745	1.588	9.0	81	0.00
3 M	Chloromethane	2.101	2.071	1.4	89	0.00
4 M	Vinyl Chloride	1.951	2.020	-3.5	92	0.00
5 M	Bromomethane	0.990	1.092	-10.3	94	0.00
6 M	Chloroethane	1.281	1.331	-3.9	92	0.01
7 M	Trichlorofluoromethane	3.168	3.018	4.7	84	0.00
8 T	Diethyl Ether	1.130	1.022	9.6	82	0.00
9	1,1,2-Trichlorotrifluoroeth	1.790	1.559	12.9	75	0.00
10 M	1,1-Dichloroethene	1.748	1.515	13.3	77	0.00
11	Methyl Iodide	2.403	2.340	2.6	87	0.00
12	Methyl Acetate	2.725	2.212	18.8	77	0.00
13 M	Acrolein	0.336	0.336	0.0	90	0.00
14 M	Acrylonitrile	0.892	0.842	5.6	87	0.00
15 M	Acetone	0.229	0.221	3.5	88	0.00
16 M	Carbon Disulfide	5.144	4.286	16.7	74	0.00
17	Allyl chloride	2.979	2.292	23.1	69	0.00
18 M	Methylene Chloride	2.049	1.904	7.1	80	0.00
19 M	trans-1,2-Dichloroethene	1.833	1.602	12.6	79	0.00
20 T	Diisopropyl ether	5.964	5.397	9.5	80	0.00
21 M	1,1-Dichloroethane	3.587	3.268	8.9	80	0.00
22 M	cis-1,2-Dichloroethene	2.188	1.939	11.4	81	0.00
23 M	tert-Butyl Alcohol	0.311	0.264	15.1	80	0.00
24 M	Methyl tert-Butyl Ether	5.654	5.340	5.6	86	0.00
25 M	Chloroform	3.675	3.410	7.2	81	0.00
26	Cyclohexane	2.740	2.142	21.8	71	0.00
27 s	1,2-Dichloroethane-d4	2.412	2.422	-0.4	91	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	83	0.00
29	1,1-Dichloropropene	0.452	0.406	10.2	73	0.00
30 M	2-Butanone	0.208	0.220	-5.8	89	0.00
31	2,2-Dichloropropane	0.552	0.535	3.1	77	0.00
32 M	1,1,1-Trichloroethane	0.614	0.602	2.0	78	0.00
33 M	Carbon Tetrachloride	0.524	0.522	0.4	81	0.00
34 M	Benzene	1.494	1.459	2.3	80	0.00
35	Methacrylonitrile	0.247	0.248	-0.4	84	0.00
36 M	1,2-Dichloroethane	0.497	0.527	-6.0	84	0.00
37 M	Trichloroethene	0.337	0.314	6.8	75	0.00
38	Methylcyclohexane	0.486	0.400	17.7	70	0.00
39 M	1,2-Dichloropropane	0.360	0.361	-0.3	81	0.00
40	Dibromomethane	0.252	0.264	-4.8	84	0.00
41 M	Bromodichloromethane	0.539	0.533	1.1	81	0.00
42 M	Vinyl Acetate	0.779	0.739	5.1	79	0.00
43	Ethyl Acetate	0.438	0.451	-3.0	88	0.00
44	Isopropyl Acetate	0.887	0.795	10.4	79	0.00
45 T	1,4-Dioxane	0.006	0.006	0.0	85	0.00
46	Methyl methacrylate	0.356	0.330	7.3	79	0.00
47	n-amyl Acetate	0.662	0.605	8.6	76	0.00
48 M	t-1,3-Dichloropropene	0.532	0.491	7.7	78	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
 Data File : VN084867.D
 Acq On : 15 Nov 2024 13:49
 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 15 22:22:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 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	0.571	0.554	3.0	80	0.00
50 M	1,1,2-Trichloroethane	0.337	0.353	-4.7	84	0.00
51	Ethyl methacrylate	0.520	0.491	5.6	81	0.00
52	1,3-Dichloropropane	0.586	0.605	-3.2	83	0.00
53 M	Dibromochloromethane	0.395	0.412	-4.3	86	0.00
54 M	1,2-Dibromoethane	0.341	0.359	-5.3	84	0.00
55 M	2-Chloroethyl vinyl ether	0.255	0.270	-5.9	85	0.00
56 M	Bromoform	0.265	0.272	-2.6	86	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	84	0.00
58 M	4-Methyl-2-Pentanone	0.473	0.503	-6.3	86	0.00
59 M	2-Hexanone	0.347	0.363	-4.6	86	0.00
60 S	4-Bromofluorobenzene	0.517	0.524	-1.4	87	0.00
61 M	Tetrachloroethene	0.314	0.310	1.3	79	0.00
62 M	Toluene	1.709	1.664	2.6	79	0.00
63 S	Toluene-d8	1.420	1.438	-1.3	84	0.00
64 M	Chlorobenzene	1.032	1.024	0.8	80	0.00
65	1,1,1,2-Tetrachloroethane	0.379	0.392	-3.4	83	0.00
66 M	Ethyl Benzene	1.796	1.629	9.3	75	0.00
67 M	m/p-Xylenes	0.687	0.652	5.1	77	0.00
68 M	o-Xylene	0.663	0.629	5.1	77	0.00
69 M	Styrene	1.112	1.068	4.0	79	0.00
70	Isopropylbenzene	1.647	1.536	6.7	77	0.00
71 M	1,1,2,2-Tetrachloroethane	0.534	0.587	-9.9	87	0.00
72	1,2,3-Trichloropropane	0.456	0.536	-17.5	86	0.00
73	Bromobenzene	0.425	0.415	2.4	79	0.00
74	n-propylbenzene	1.926	1.789	7.1	77	0.00
75	2-Chlorotoluene	1.255	1.159	7.6	76	0.00
76	1,3,5-Trimethylbenzene	1.408	1.356	3.7	79	0.00
77	t-1,4-Dichloro-2-butene	0.187	0.182	2.7	80	0.00
78	4-Chlorotoluene	1.268	1.162	8.4	75	0.00
79	tert-butylbenzene	1.164	1.084	6.9	80	0.00
80	1,2,4-Trimethylbenzene	1.420	1.365	3.9	79	0.00
81	sec-Butylbenzene	1.604	1.465	8.7	77	0.00
82	p-Isopropyltoluene	1.348	1.228	8.9	77	0.00
83 M	1,3-Dichlorobenzene	0.786	0.748	4.8	77	0.00
84 M	1,4-Dichlorobenzene	0.776	0.719	7.3	77	0.00
85	n-Butylbenzene	1.132	0.926	18.2	73	0.00
86 T	Hexachloroethane	0.276	0.258	6.5	76	0.00
87 M	1,2-Dichlorobenzene	0.774	0.751	3.0	77	0.00
88	1,2-Dibromo-3-Chloropropane	0.103	0.105	-1.9	82	0.00
89	1,2,4-Trichlorobenzene	0.377	0.338	10.3	74	0.00
90	Hexachlorobutadiene	0.165	0.168	-1.8	84	0.00
91 M	Naphthalene	1.204	1.051	12.7	79	0.00
92	1,2,3-Trichlorobenzene	0.377	0.338	10.3	74	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
 Data File : VN084867.D
 Acq On : 15 Nov 2024 13:49
 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 15 22:22:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	30.000	30.000	0.0	93	0.00
2 M	Dichlorodifluoromethane	20.000	18.205	9.0	81	0.00
3 M	Chloromethane	20.000	19.714	1.4	89	0.00
4 M	Vinyl Chloride	20.000	20.709	-3.5	92	0.00
5 M	Bromomethane	20.000	22.048	-10.2	94	0.00
6 M	Chloroethane	20.000	20.777	-3.9	92	0.01
7 M	Trichlorofluoromethane	20.000	19.056	4.7	84	0.00
8 T	Diethyl Ether	20.000	18.093	9.5	82	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	17.418	12.9	75	0.00
10 M	1,1-Dichloroethene	20.000	17.328	13.4	77	0.00
11	Methyl Iodide	20.000	19.477	2.6	87	0.00
12	Methyl Acetate	20.000	16.231	18.8	77	0.00
13 M	Acrolein	100.000	99.945	0.1	90	0.00
14 M	Acrylonitrile	100.000	94.441	5.6	87	0.00
15 M	Acetone	100.000	96.356	3.6	88	0.00
16 M	Carbon Disulfide	20.000	16.663	16.7	74	0.00
17	Allyl chloride	20.000	15.386	23.1	69	0.00
18 M	Methylene Chloride	20.000	18.583	7.1	80	0.00
19 M	trans-1,2-Dichloroethene	20.000	17.483	12.6	79	0.00
20 T	Diisopropyl ether	20.000	18.098	9.5	80	0.00
21 M	1,1-Dichloroethane	20.000	18.225	8.9	80	0.00
22 M	cis-1,2-Dichloroethene	20.000	17.722	11.4	81	0.00
23 M	tert-Butyl Alcohol	100.000	84.928	15.1	80	0.00
24 M	Methyl tert-Butyl Ether	20.000	18.889	5.6	86	0.00
25 M	Chloroform	20.000	18.560	7.2	81	0.00
26	Cyclohexane	20.000	15.636	21.8	71	0.00
27 s	1,2-Dichloroethane-d4	30.000	30.125	-0.4	91	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	83	0.00
29	1,1-Dichloropropene	20.000	17.962	10.2	73	0.00
30 M	2-Butanone	100.000	105.453	-5.5	89	0.00
31	2,2-Dichloropropane	20.000	19.395	3.0	77	0.00
32 M	1,1,1-Trichloroethane	20.000	19.627	1.9	78	0.00
33 M	Carbon Tetrachloride	20.000	19.920	0.4	81	0.00
34 M	Benzene	20.000	19.530	2.3	80	0.00
35	Methacrylonitrile	20.000	20.042	-0.2	84	0.00
36 M	1,2-Dichloroethane	20.000	21.236	-6.2	84	0.00
37 M	Trichloroethene	20.000	18.613	6.9	75	0.00
38	Methylcyclohexane	20.000	16.448	17.8	70	0.00
39 M	1,2-Dichloropropane	20.000	20.098	-0.5	81	0.00
40	Dibromomethane	20.000	20.982	-4.9	84	0.00
41 M	Bromodichloromethane	20.000	19.780	1.1	81	0.00
42 M	Vinyl Acetate	100.000	94.802	5.2	79	0.00
43	Ethyl Acetate	20.000	20.598	-3.0	88	0.00
44	Isopropyl Acetate	20.000	17.924	10.4	79	0.00
45 T	1,4-Dioxane	400.000	408.313	-2.1	85	0.00
46	Methyl methacrylate	20.000	18.508	7.5	79	0.00
47	n-amyl Acetate	20.000	18.279	8.6	76	0.00
48 M	t-1,3-Dichloropropene	20.000	18.453	7.7	78	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
 Data File : VN084867.D
 Acq On : 15 Nov 2024 13:49
 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 15 22:22:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 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	19.425	2.9	80	0.00
50 M	1,1,2-Trichloroethane	20.000	20.943	-4.7	84	0.00
51	Ethyl methacrylate	20.000	18.869	5.7	81	0.00
52	1,3-Dichloropropane	20.000	20.674	-3.4	83	0.00
53 M	Dibromochloromethane	20.000	20.855	-4.3	86	0.00
54 M	1,2-Dibromoethane	20.000	21.029	-5.1	84	0.00
55 M	2-Chloroethyl vinyl ether	100.000	105.755	-5.8	85	0.00
56 M	Bromoform	20.000	20.524	-2.6	86	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	84	0.00
58 M	4-Methyl-2-Pentanone	100.000	106.208	-6.2	86	0.00
59 M	2-Hexanone	100.000	104.883	-4.9	86	0.00
60 S	4-Bromofluorobenzene	30.000	30.459	-1.5	87	0.00
61 M	Tetrachloroethene	20.000	19.746	1.3	79	0.00
62 M	Toluene	20.000	19.481	2.6	79	0.00
63 S	Toluene-d8	30.000	30.371	-1.2	84	0.00
64 M	Chlorobenzene	20.000	19.855	0.7	80	0.00
65	1,1,1,2-Tetrachloroethane	20.000	20.682	-3.4	83	0.00
66 M	Ethyl Benzene	20.000	18.144	9.3	75	0.00
67 M	m/p-Xylenes	40.000	37.941	5.1	77	0.00
68 M	o-Xylene	20.000	18.962	5.2	77	0.00
69 M	Styrene	20.000	19.206	4.0	79	0.00
70	Isopropylbenzene	20.000	18.649	6.8	77	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	22.003	-10.0	87	0.00
72	1,2,3-Trichloropropane	20.000	23.507	-17.5	86	0.00
73	Bromobenzene	20.000	19.545	2.3	79	0.00
74	n-propylbenzene	20.000	18.570	7.1	77	0.00
75	2-Chlorotoluene	20.000	18.470	7.7	76	0.00
76	1,3,5-Trimethylbenzene	20.000	19.266	3.7	79	0.00
77	t-1,4-Dichloro-2-butene	20.000	19.504	2.5	80	0.00
78	4-Chlorotoluene	20.000	18.342	8.3	75	0.00
79	tert-butylbenzene	20.000	18.630	6.9	80	0.00
80	1,2,4-Trimethylbenzene	20.000	19.231	3.8	79	0.00
81	sec-Butylbenzene	20.000	18.262	8.7	77	0.00
82	p-Isopropyltoluene	20.000	18.229	8.9	77	0.00
83 M	1,3-Dichlorobenzene	20.000	19.031	4.8	77	0.00
84 M	1,4-Dichlorobenzene	20.000	18.520	7.4	77	0.00
85	n-Butylbenzene	20.000	16.355	18.2	73	0.00
86 T	Hexachloroethane	20.000	18.750	6.3	76	0.00
87 M	1,2-Dichlorobenzene	20.000	19.403	3.0	77	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	20.435	-2.2	82	0.00
89	1,2,4-Trichlorobenzene	20.000	17.939	10.3	74	0.00
90	Hexachlorobutadiene	20.000	20.439	-2.2	84	0.00
91 M	Naphthalene	20.000	17.460	12.7	79	0.00
92	1,2,3-Trichlorobenzene	20.000	17.939	10.3	74	0.00

(#) = Out of Range

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



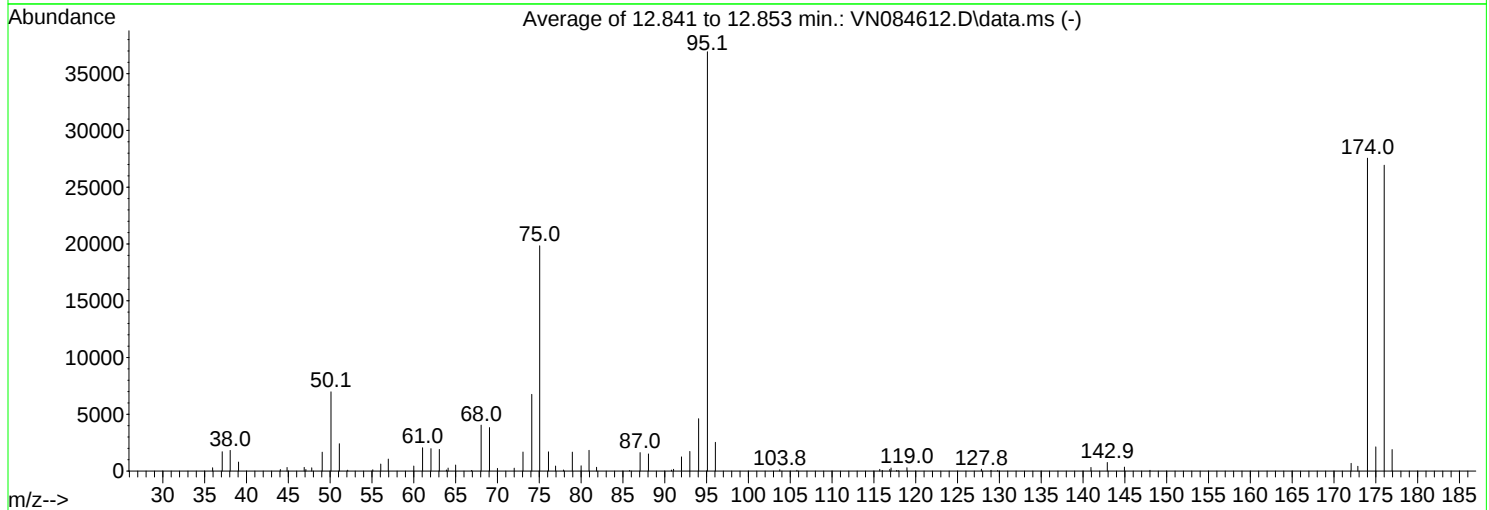
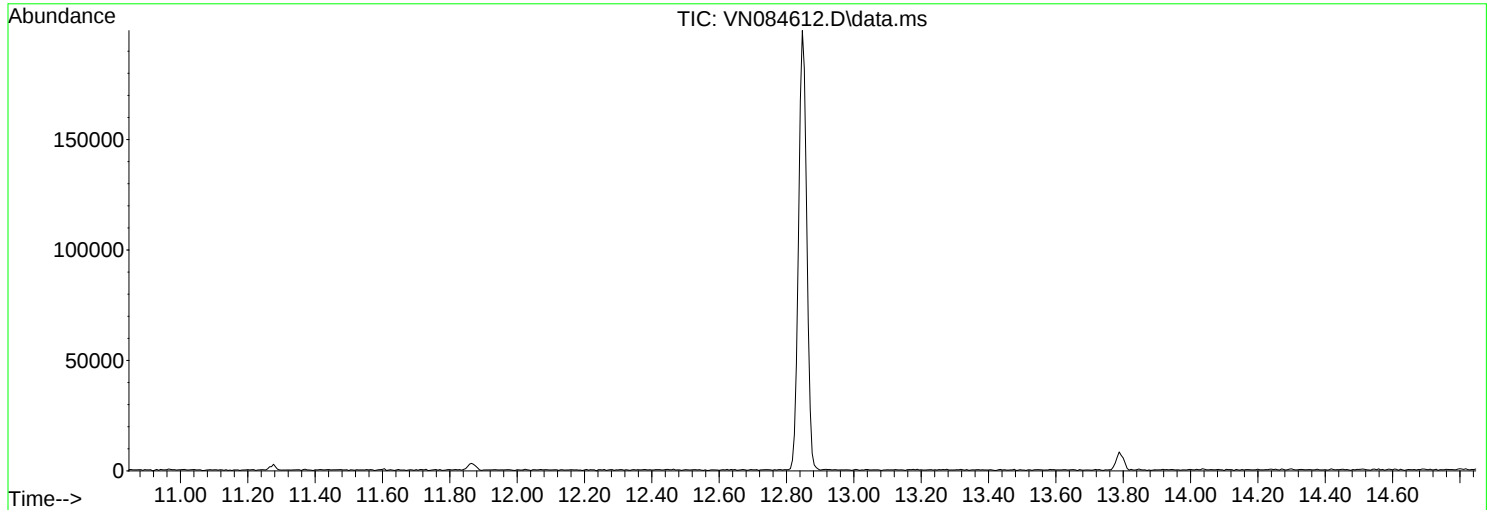
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084612.D
Acq On : 31 Oct 2024 10:56
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\624N103124W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 01 02:38:04 2024



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1844

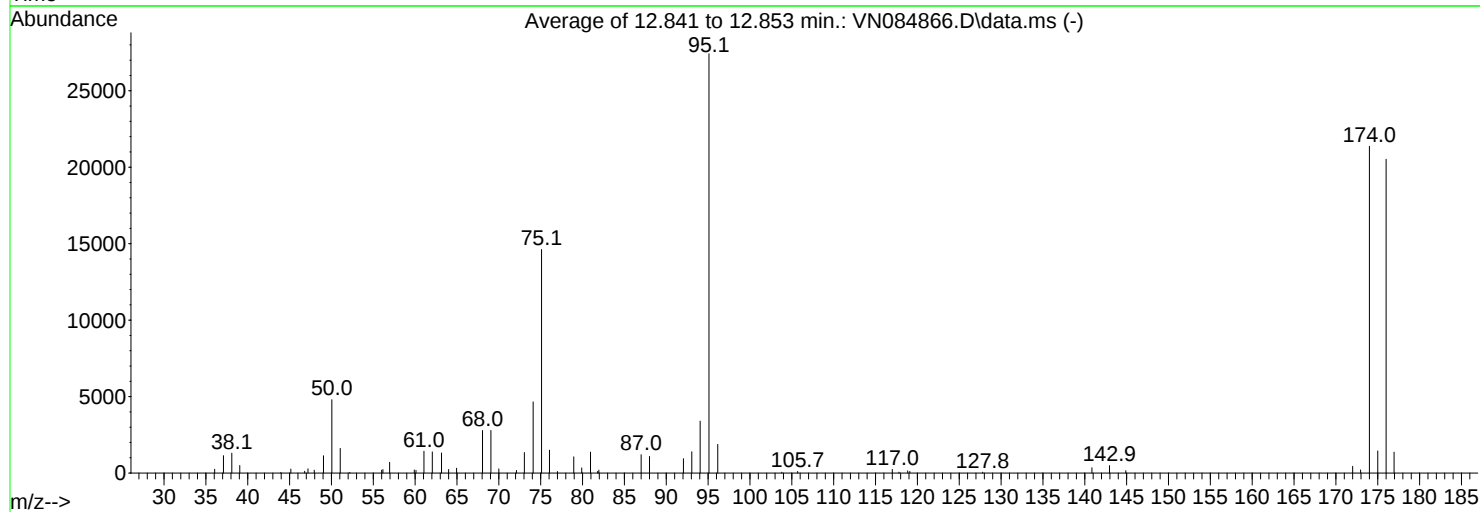
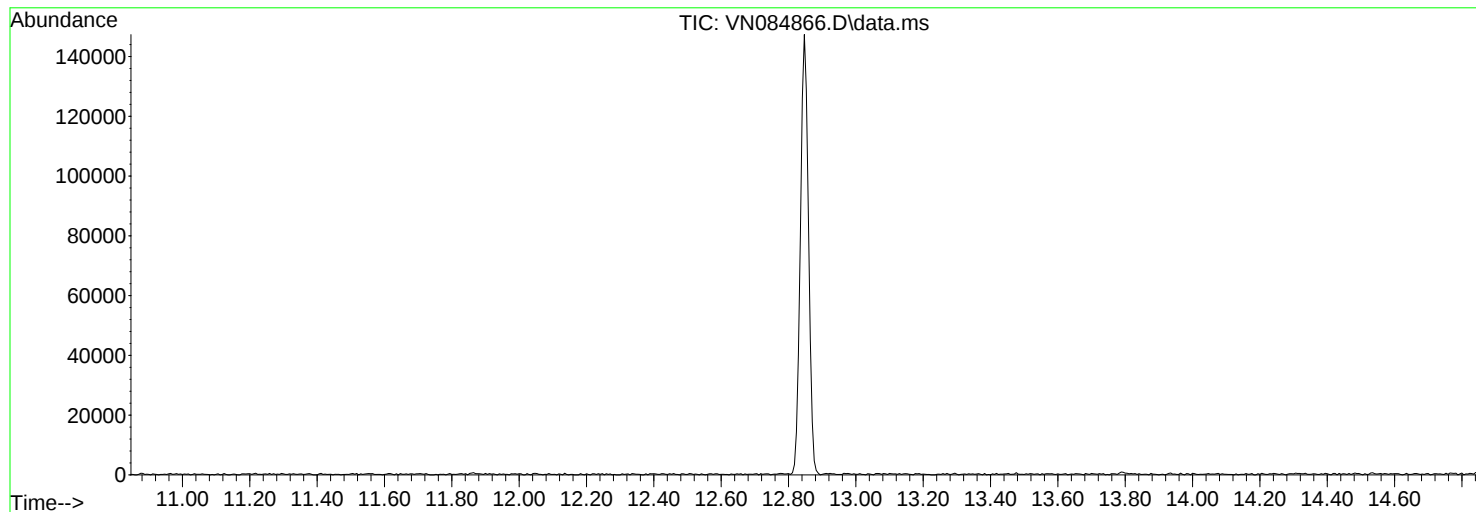
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	6981	PASS
75	95	30	60	53.7	19840	PASS
95	95	100	100	100.0	36931	PASS
96	95	5	9	6.9	2535	PASS
173	174	0.00	2	1.5	422	PASS
174	95	50	100	74.6	27560	PASS
175	174	5	9	7.7	2131	PASS
176	174	95	101	97.7	26936	PASS
177	176	5	9	7.0	1894	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
Data File : VN084866.D
Acq On : 15 Nov 2024 13:01
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\624N103124W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 01 02:38:04 2024



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1844

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	4798	PASS
75	95	30	60	53.3	14620	PASS
95	95	100	100	100.0	27421	PASS
96	95	5	9	6.8	1877	PASS
173	174	0.00	2	1.0	208	PASS
174	95	50	100	77.9	21371	PASS
175	174	5	9	6.8	1446	PASS
176	174	95	101	96.0	20520	PASS
177	176	5	9	6.7	1368	PASS

Report of Analysis

Client:	Garden State Laboratories, Inc.			Date Collected:	
Project:	Waste Water 2024			Date Received:	
Client Sample ID:	VN1115WBL01			SDG No.:	P4844
Lab Sample ID:	VN1115WBL01			Matrix:	Water
Analytical Method:	E624.1			% Solid:	0
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000 uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID :	0.25	Level :	LOW
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084870.D	1		11/15/24 15:23	VN111524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	29.4		91 - 110	98%	SPK: 30
2037-26-5	Toluene-d8	28.4		91 - 112	95%	SPK: 30
460-00-4	4-Bromofluorobenzene	23.9		63 - 112	80%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	20900	7.806			
540-36-3	1,4-Difluorobenzene	103000	9.1			
3114-55-4	Chlorobenzene-d5	89000	11.865			

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\VN111524\
Data File : VN084870.D
Acq On : 15 Nov 2024 15:23
Operator : JC\MD
Sample : VN1115WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1115WBL01

Quant Time: Nov 15 22:25:30 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.806	128	20903	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	102633	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	89042	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.571	65	49454	29.429	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	98.100%
60) 4-Bromofluorobenzene	12.847	95	36599	23.872	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	79.567%
63) Toluene-d8	10.565	98	119543	28.359	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	94.533%

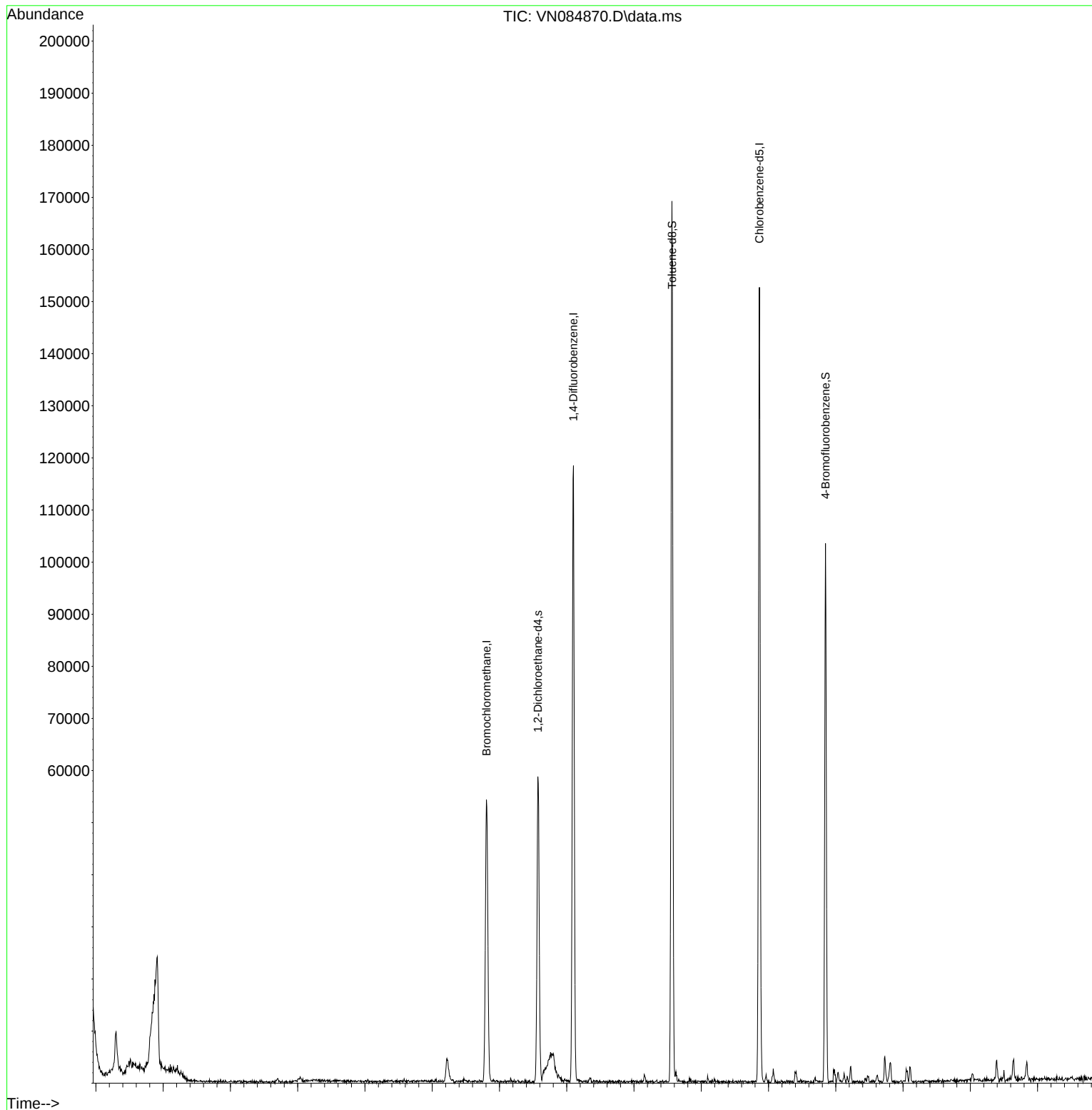
Target Compounds	Qvalue

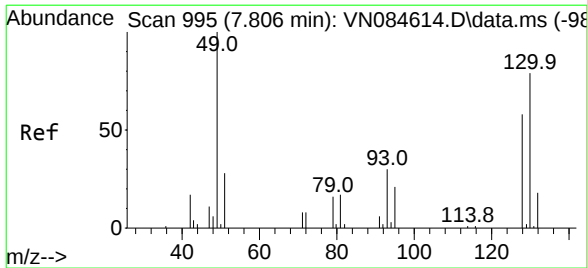
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
Data File : VN084870.D
Acq On : 15 Nov 2024 15:23
Operator : JC\MD
Sample : VN1115WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1115WBL01

Quant Time: Nov 15 22:25:30 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

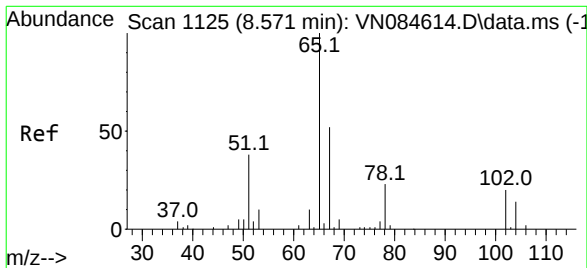
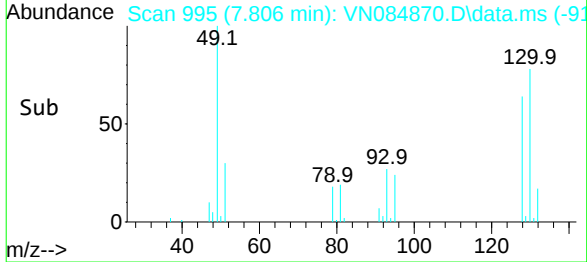
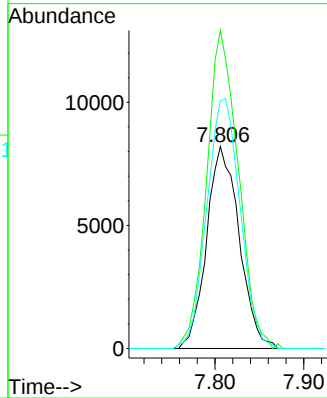
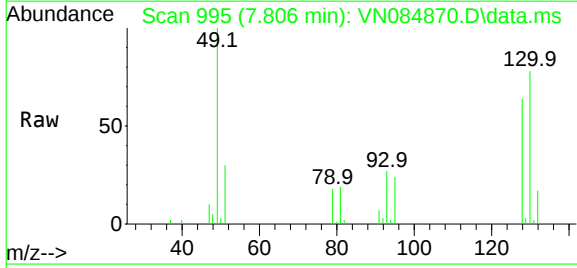




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 995
Delta R.T. 0.000 min
Lab File: VN084870.D
Acq: 15 Nov 2024 15:23

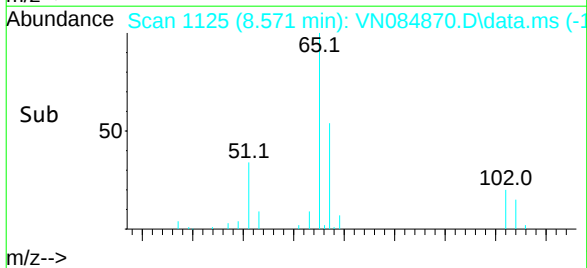
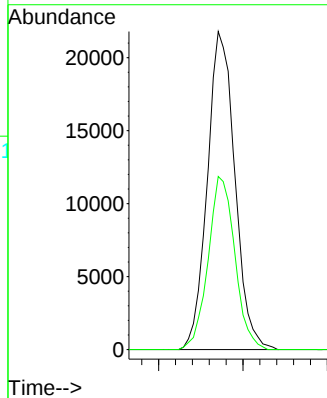
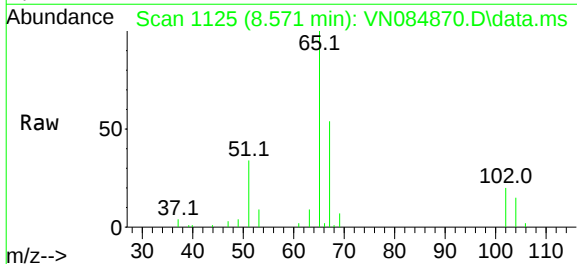
Instrument :
MSVOA_N
ClientSampleId :
VN1115WBL01

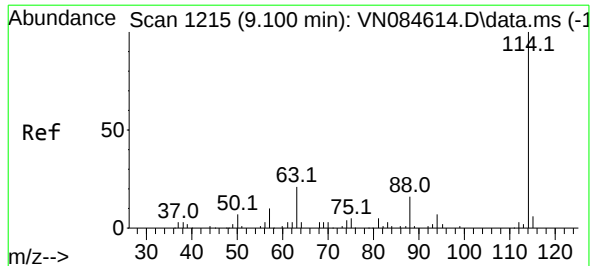
Tgt Ion	Ratio	Lower	Upper
128	100		
49	152.5	0.0	427.0
130	127.0	0.0	322.2



#27
1,2-Dichloroethane-d4
Concen: 29.429 ug/l
RT: 8.571 min Scan# 1125
Delta R.T. -0.000 min
Lab File: VN084870.D
Acq: 15 Nov 2024 15:23

Tgt Ion	Ratio	Lower	Upper
65	100		
67	52.8	40.7	61.1





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. -0.000 min

Lab File: VN084870.D

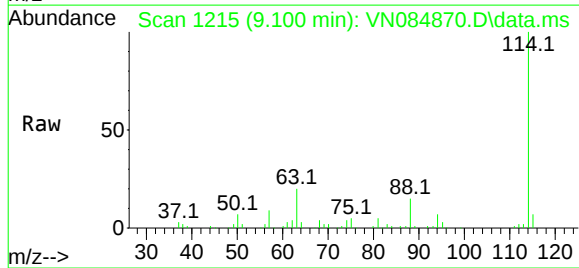
Acq: 15 Nov 2024 15:23

Instrument :

MSVOA_N

ClientSampleId :

VN1115WBL01



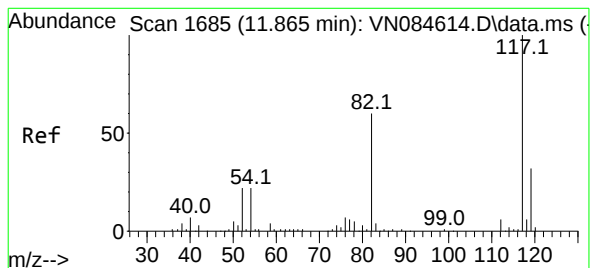
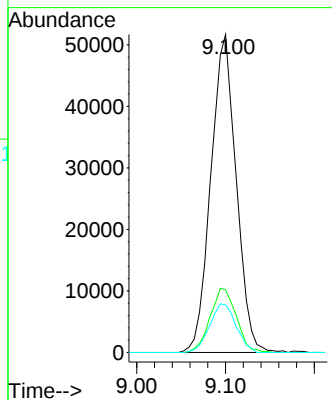
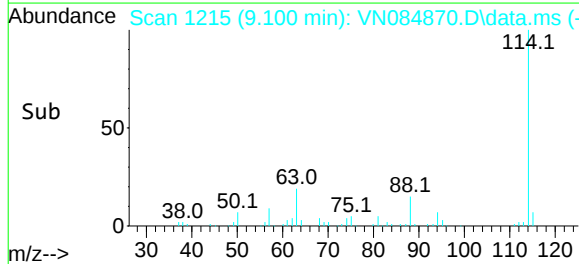
Tgt Ion:114 Resp: 102633

Ion Ratio Lower Upper

114 100

63 20.7 16.8 25.2

88 16.0 12.9 19.3



#57

Chlorobenzene-d5

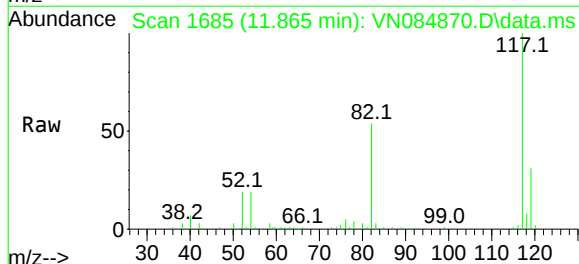
Concen: 30.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. -0.000 min

Lab File: VN084870.D

Acq: 15 Nov 2024 15:23



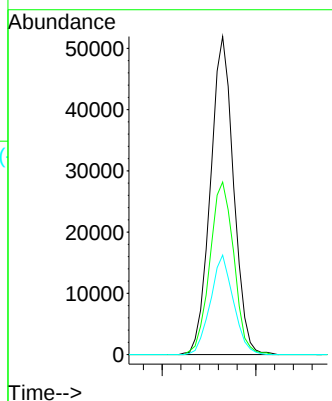
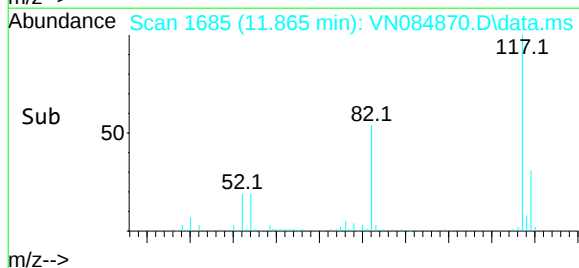
Tgt Ion:117 Resp: 89042

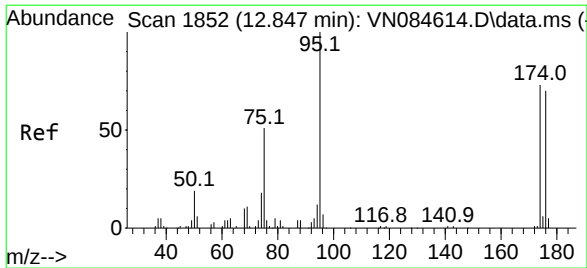
Ion Ratio Lower Upper

117 100

82 56.2 45.5 68.3

119 31.2 25.3 37.9





#60

4-Bromofluorobenzene

Concen: 23.872 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. -0.000 min

Lab File: VN084870.D

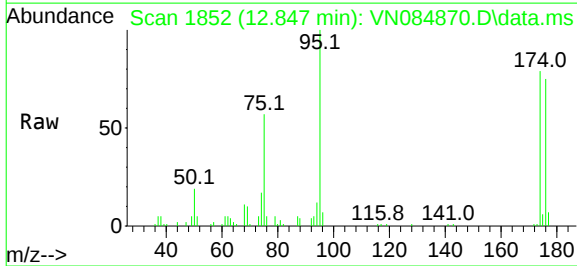
Acq: 15 Nov 2024 15:23

Instrument :

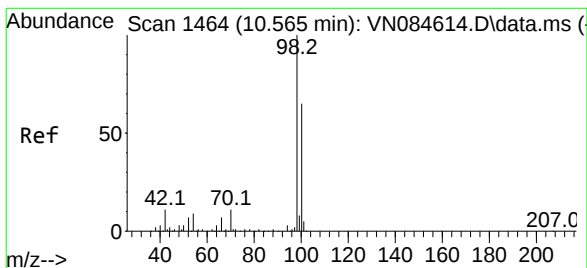
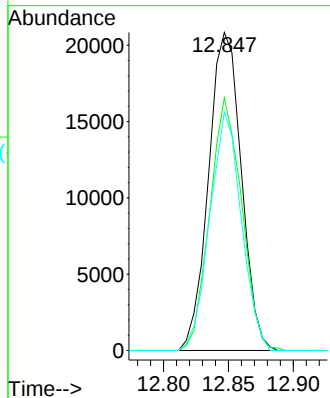
MSVOA_N

ClientSampleId :

VN1115WBL01



Tgt Ion:	95	Resp:	36599
Ion	Ratio	Lower	Upper
95	100		
174	77.3	59.6	89.4
176	72.4	58.6	88.0



#63

Toluene-d8

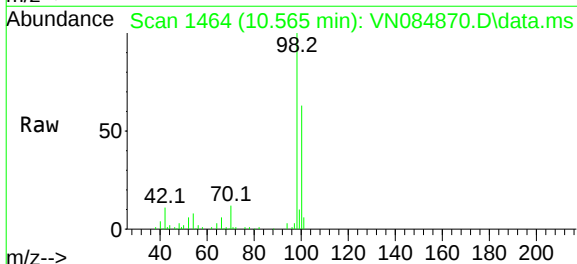
Concen: 28.359 ug/l

RT: 10.565 min Scan# 1464

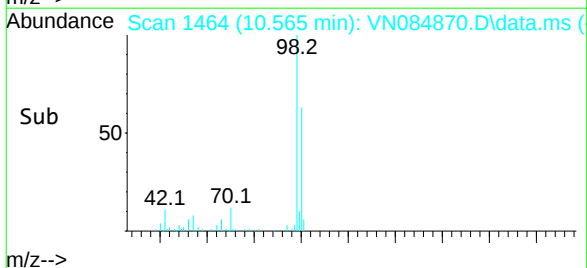
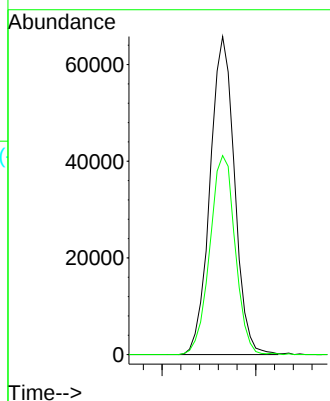
Delta R.T. -0.000 min

Lab File: VN084870.D

Acq: 15 Nov 2024 15:23



Tgt Ion:	98	Resp:	119543
Ion	Ratio	Lower	Upper
98	100		
100	64.4	52.2	78.2



Report of Analysis

Client:	Garden State Laboratories, Inc.		Date Collected:	
Project:	Waste Water 2024		Date Received:	
Client Sample ID:	VN1115WBS01		SDG No.:	P4844
Lab Sample ID:	VN1115WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084868.D	1		11/15/24 14:26	VN111524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	100		9.30	25.0	ug/L
107-13-1	Acrylonitrile	90.9		3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.7		91 - 110	102%	SPK: 30
2037-26-5	Toluene-d8	29.7		91 - 112	99%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.2		63 - 112	101%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	28700	7.812			
540-36-3	1,4-Difluorobenzene	153000	9.1			
3114-55-4	Chlorobenzene-d5	143000	11.865			

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\VN111524\
 Data File : VN084868.D
 Acq On : 15 Nov 2024 14:26
 Operator : JC\MD
 Sample : VN1115WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1115WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/17/2024
 Supervised By : Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:23:24 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	28727	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	152762	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	143052	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	70943	30.718	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.400%			
60) 4-Bromofluorobenzene	12.847	95	74373	30.195	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 100.633%			
63) Toluene-d8	10.565	98	201331	29.729	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.100%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.118	85	34534	20.669	ug/l	98
3) Chloromethane	2.359	50	41270	20.516	ug/l	97
4) Vinyl Chloride	2.512	62	40871	21.880	ug/l	92
5) Bromomethane	2.901	94	21124	22.280	ug/l	99
6) Chloroethane	3.077	64	25824	21.055	ug/l	94
7) Trichlorofluoromethane	3.471	101	62262	20.524	ug/l	99
8) Diethyl Ether	3.953	74	19593	18.106	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.359	101	35667	20.804	ug/l	97
10) 1,1-Dichloroethene	4.330	96	32031	19.133	ug/l	94
11) Methyl Iodide	4.577	142	45443	19.749	ug/l	92
12) Methyl Acetate	5.024	43	42380	16.240	ug/l	99
13) Acrolein	4.177	56	33579	104.345	ug/l	98
14) Acrylonitrile	5.712	53	77581	90.876	ug/l	100
15) Acetone	4.424	58	19745	90.014	ug/l	90
16) Carbon Disulfide	4.700	76	89763	18.222	ug/l	96
17) Allyl chloride	5.012	41	50194	17.595	ug/l	90
18) Methylene Chloride	5.265	84	36904	18.811	ug/l	97
19) trans-1,2-Dichloroethene	5.777	96	32910	18.754	ug/l	90
20) Diisopropyl ether	6.665	45	102791	18.000	ug/l	99
21) 1,1-Dichloroethane	6.565	63	64632	18.819	ug/l	98
22) cis-1,2-Dichloroethene	7.477	96	39664	18.932	ug/l	97
23) tert-Butyl Alcohol	5.536	59	25850	86.733	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	101249	18.702	ug/l	99
25) Chloroform	7.959	83	68134	19.364	ug/l	95
26) Cyclohexane	8.253	56	52497	20.012	ug/l #	96
29) 1,1-Dichloropropene	8.371	75	46466	20.195	ug/l	98
30) 2-Butanone	7.483	43	100352	94.549	ug/l #	96
31) 2,2-Dichloropropane	7.483	77	60717	21.617	ug/l	100
32) 1,1,1-Trichloroethane	8.159	97	62329	19.939	ug/l	97
33) Carbon Tetrachloride	8.359	117	54595	20.468	ug/l	99
34) Benzene	8.600	78	146411	19.251	ug/l #	95
35) Methacrylonitrile	7.777	41	22140	17.600	ug/l	92
36) 1,2-Dichloroethane	8.665	62	49956	19.752	ug/l	99
37) Trichloroethene	9.347	130	33608	19.588	ug/l	94
38) Methylcyclohexane	9.600	83	44752	18.067	ug/l	95
39) 1,2-Dichloropropane	9.618	63	35016	19.126	ug/l	100
40) Dibromomethane	9.706	93	25870	20.199	ug/l	96
41) Bromodichloromethane	9.882	83	52771	19.220	ug/l	98
42) Vinyl Acetate	6.594	43	363526	91.632	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
 Data File : VN084868.D
 Acq On : 15 Nov 2024 14:26
 Operator : JC\MD
 Sample : VN1115WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1115WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/17/2024
 Supervised By : Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:23:24 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

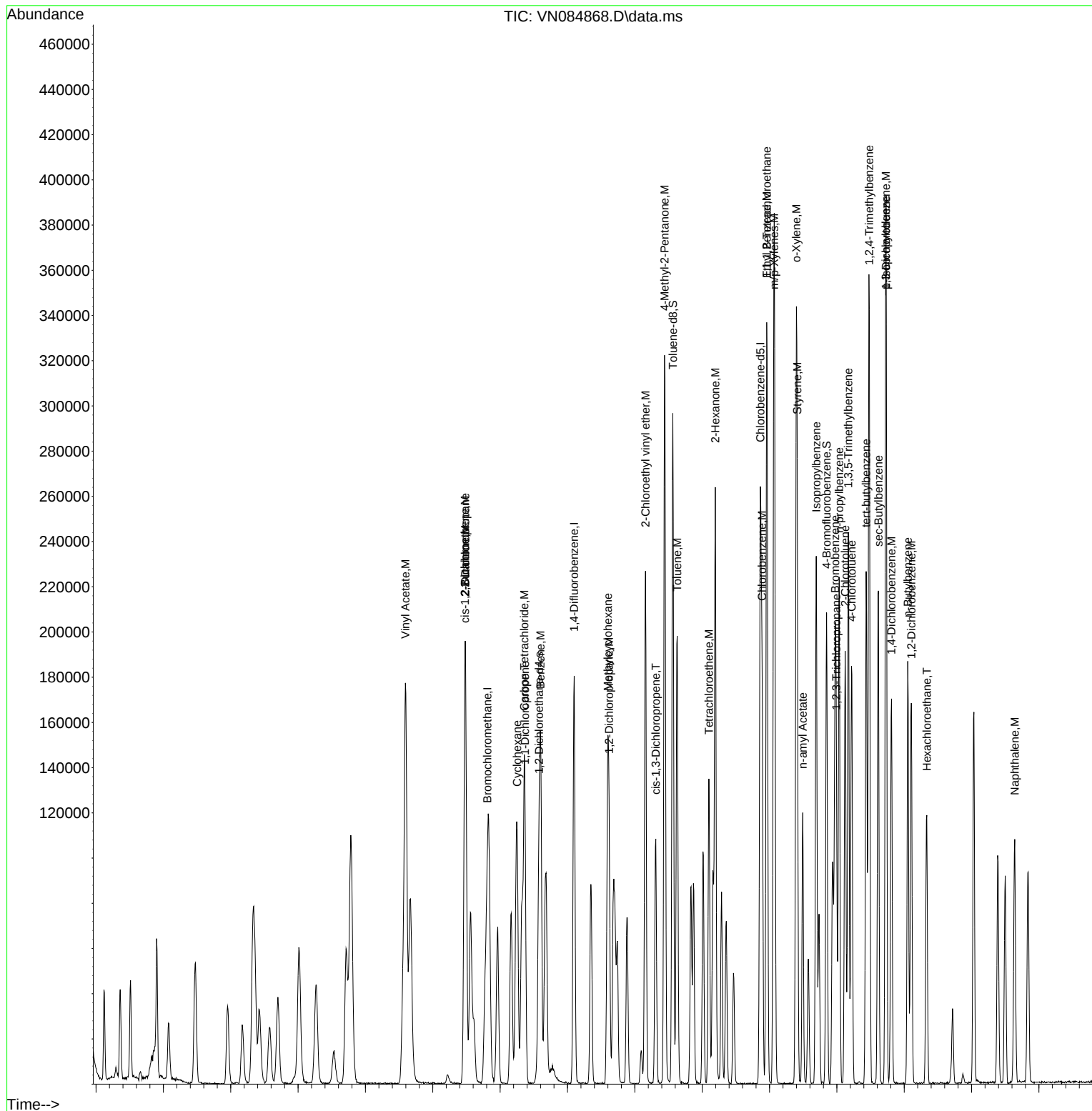
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	41308	18.522	ug/l	99
44) Isopropyl Acetate	8.688	43	73623	16.303	ug/l	96
45) 1,4-Dioxane	9.700	88	11872	393.773	ug/l	97
46) Methyl methacrylate	9.677	41	32885	18.120	ug/l	86
47) n-amyl Acetate	12.494	43	59673	17.693	ug/l	100
48) t-1,3-Dichloropropene	10.829	75	50245	18.533	ug/l	98
49) cis-1,3-Dichloropropene	10.312	75	55343	19.047	ug/l	95
50) 1,1,2-Trichloroethane	11.012	97	34982	20.363	ug/l	96
51) Ethyl methacrylate	10.871	69	47292	17.859	ug/l	97
52) 1,3-Dichloropropane	11.159	76	57505	19.284	ug/l	99
53) Dibromochloromethane	11.359	129	39398	19.597	ug/l	98
54) 1,2-Dibromoethane	11.465	107	34447	19.825	ug/l	99
55) 2-Chloroethyl vinyl ether	10.159	63	98981	76.240	ug/l	98
56) Bromoform	12.576	173	25674	19.052	ug/l	98
58) 4-Methyl-2-Pentanone	10.441	43	212863	94.320	ug/l	98
59) 2-Hexanone	11.194	43	160631	97.200	ug/l	99
61) Tetrachloroethene	11.100	164	29978	20.024	ug/l	91
62) Toluene	10.629	91	152841	18.759	ug/l	100
64) Chlorobenzene	11.888	112	96941	19.709	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	36346	20.106	ug/l	97
66) Ethyl Benzene	11.959	91	158414	18.501	ug/l	93
67) m/p-Xylenes	12.071	106	124496	37.976	ug/l	99
68) o-Xylene	12.400	106	58772	18.585	ug/l	96
69) Styrene	12.412	104	99743	18.812	ug/l	99
70) Isopropylbenzene	12.694	105	151576	19.295	ug/l	97
71) 1,1,2,2-Tetrachloroethane	12.941	83	50929	20.002	ug/l	94
72) 1,2,3-Trichloropropane	12.994	75	39398m	18.121	ug/l	
73) Bromobenzene	12.976	156	38909	19.204	ug/l	98
74) n-propylbenzene	13.035	91	176634	19.229	ug/l	100
75) 2-Chlorotoluene	13.123	91	114798	19.190	ug/l	95
76) 1,3,5-Trimethylbenzene	13.171	105	132899	19.800	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	16769	18.806	ug/l	94
78) 4-Chlorotoluene	13.218	91	117611	19.459	ug/l	97
79) tert-butylbenzene	13.435	119	105399	18.989	ug/l	99
80) 1,2,4-Trimethylbenzene	13.482	105	134591	19.877	ug/l	99
81) sec-Butylbenzene	13.618	105	150165	19.633	ug/l	99
82) p-Isopropyltoluene	13.729	119	125386	19.511	ug/l	98
83) 1,3-Dichlorobenzene	13.729	146	74185	19.798	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	72940	19.700	ug/l	99
85) n-Butylbenzene	14.053	91	101044	18.720	ug/l	99
86) Hexachloroethane	14.335	117	26188	19.925	ug/l	100
87) 1,2-Dichlorobenzene	14.106	146	72712	19.692	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	9692	19.727	ug/l	97
89) 1,2,4-Trichlorobenzene	15.835	180	33546	18.659	ug/l	95
90) Hexachlorobutadiene	15.500	225	18385	23.410	ug/l	94
91) Naphthalene	15.641	128	100764	17.550	ug/l	99
92) 1,2,3-Trichlorobenzene	15.835	180	33546	18.659	ug/l	95

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

Instrument :
MSVOA_N
ClientSampleId :
VN1115WBS01

Manual Integrations

Reviewed By :John Carlone 11/17/2024
Supervised By :Mahesh Dadoda 11/18/2024



Report of Analysis

Client:	Garden State Laboratories, Inc.			Date Collected:	
Project:	Waste Water 2024			Date Received:	
Client Sample ID:	VN1115WBSD01			SDG No.:	P4844
Lab Sample ID:	VN1115WBSD01			Matrix:	Water
Analytical Method:	E624.1			% Solid:	0
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000 uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID :	0.25	Level :	LOW
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084869.D	1		11/15/24 14:59	VN111524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	120		9.30	25.0	ug/L
107-13-1	Acrylonitrile	97.6		3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	29.9		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	29.6		91 - 112	99%	SPK: 30
460-00-4	4-Bromofluorobenzene	31.0		63 - 112	103%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	27800	7.806			
540-36-3	1,4-Difluorobenzene	144000	9.1			
3114-55-4	Chlorobenzene-d5	132000	11.865			

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\VN111524\
 Data File : VN084869.D
 Acq On : 15 Nov 2024 14:59
 Operator : JC\MD
 Sample : VN1115WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1115WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/17/2024
 Supervised By : Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:24:27 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.806	128	27777	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	143562	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	132133	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.571	65	66747	29.890	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	99.633%		
60) 4-Bromofluorobenzene	12.847	95	70609	31.035	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	103.467%		
63) Toluene-d8	10.565	98	185283	29.621	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	98.733%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.124	85	32686	20.232	ug/l	91
3) Chloromethane	2.359	50	38666	19.879	ug/l	98
4) Vinyl Chloride	2.512	62	38205	21.152	ug/l	95
5) Bromomethane	2.900	94	20669	22.546	ug/l	94
6) Chloroethane	3.071	64	26367	22.233	ug/l	98
7) Trichlorofluoromethane	3.477	101	59973	20.445	ug/l	98
8) Diethyl Ether	3.953	74	19853	18.974	ug/l	94
9) 1,1,2-Trichlorotrifluo...	4.365	101	33677	20.315	ug/l	95
10) 1,1-Dichloroethene	4.324	96	31038	19.173	ug/l	89
11) Methyl Iodide	4.571	142	44360	19.938	ug/l	84
12) Methyl Acetate	5.024	43	41237	16.343	ug/l	91
13) Acrolein	4.177	56	36553	117.472	ug/l	99
14) Acrylonitrile	5.718	53	80531	97.557	ug/l	97
15) Acetone	4.424	58	20069	94.620	ug/l	95
16) Carbon Disulfide	4.700	76	86729	18.208	ug/l	100
17) Allyl chloride	5.012	41	47364	17.171	ug/l	99
18) Methylene Chloride	5.271	84	36522	19.253	ug/l	95
19) trans-1,2-Dichloroethene	5.777	96	31643	18.649	ug/l	95
20) Diisopropyl ether	6.671	45	101553	18.391	ug/l	96
21) 1,1-Dichloroethane	6.559	63	61629	18.559	ug/l	95
22) cis-1,2-Dichloroethene	7.482	96	38262	18.888	ug/l	96
23) tert-Butyl Alcohol	5.541	59	26430	91.712	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	101702	19.428	ug/l	98
25) Chloroform	7.959	83	66435	19.527	ug/l	97
26) Cyclohexane	8.247	56	47352	18.668	ug/l #	96
29) 1,1-Dichloropropene	8.365	75	42918	19.848	ug/l	98
30) 2-Butanone	7.477	43	100555	100.812	ug/l	98
31) 2,2-Dichloropropane	7.488	77	57944	21.952	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	61181	20.826	ug/l	98
33) Carbon Tetrachloride	8.353	117	51647	20.603	ug/l	98
34) Benzene	8.606	78	142162	19.890	ug/l #	93
35) Methacrylonitrile	7.777	41	22520	19.050	ug/l	97
36) 1,2-Dichloroethane	8.665	62	48331	20.334	ug/l	100
37) Trichloroethene	9.347	130	31820	19.735	ug/l	95
38) Methylcyclohexane	9.594	83	44082	18.937	ug/l	97
39) 1,2-Dichloropropane	9.618	63	33278	19.342	ug/l	97
40) Dibromomethane	9.706	93	24619	20.454	ug/l	96
41) Bromodichloromethane	9.882	83	50075	19.407	ug/l	99
42) Vinyl Acetate	6.600	43	354614	95.113	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111524\
 Data File : VN084869.D
 Acq On : 15 Nov 2024 14:59
 Operator : JC\MD
 Sample : VN1115WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1115WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/17/2024
 Supervised By : Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:24:27 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 01 02:38:04 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.553	43	42917	20.477	ug/l	98
44) Isopropyl Acetate	8.688	43	73627	17.348	ug/l	96
45) 1,4-Dioxane	9.700	88	11947	421.654	ug/l	93
46) Methyl methacrylate	9.676	41	32421	19.010	ug/l	90
47) n-amyl Acetate	12.494	43	59136	18.657	ug/l	98
48) t-1,3-Dichloropropene	10.835	75	49378	19.380	ug/l	97
49) cis-1,3-Dichloropropene	10.306	75	55708	20.401	ug/l	96
50) 1,1,2-Trichloroethane	11.018	97	34274	21.229	ug/l	96
51) Ethyl methacrylate	10.871	69	49829	20.023	ug/l	94
52) 1,3-Dichloropropane	11.159	76	55741	19.891	ug/l	98
53) Dibromochloromethane	11.359	129	38777	20.524	ug/l	96
54) 1,2-Dibromoethane	11.465	107	34963	21.412	ug/l	100
55) 2-Chloroethyl vinyl ether	10.159	63	118346	96.998	ug/l	99
56) Bromoform	12.576	173	26958	21.287	ug/l	97
58) 4-Methyl-2-Pentanone	10.441	43	214726	103.008	ug/l	98
59) 2-Hexanone	11.194	43	158511	103.844	ug/l	98
61) Tetrachloroethene	11.100	164	29049	21.006	ug/l	98
62) Toluene	10.623	91	151208	20.092	ug/l	98
64) Chlorobenzene	11.888	112	90954	20.020	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.959	131	35740	21.405	ug/l	97
66) Ethyl Benzene	11.965	91	153019	19.347	ug/l	96
67) m/p-Xylenes	12.070	106	122503	40.456	ug/l	99
68) o-Xylene	12.400	106	57915	19.828	ug/l	98
69) Styrene	12.412	104	100487	20.518	ug/l	98
70) Isopropylbenzene	12.694	105	144485	19.912	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	50122	21.312	ug/l	98
72) 1,2,3-Trichloropropane	12.994	75	45853m	22.833	ug/l	
73) Bromobenzene	12.982	156	38814	20.740	ug/l	98
74) n-propylbenzene	13.035	91	173358	20.432	ug/l	99
75) 2-Chlorotoluene	13.123	91	114083	20.647	ug/l	98
76) 1,3,5-Trimethylbenzene	13.170	105	128489	20.725	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	16818	20.419	ug/l	90
78) 4-Chlorotoluene	13.217	91	113835	20.391	ug/l	99
79) tert-butylbenzene	13.435	119	103008	20.092	ug/l	98
80) 1,2,4-Trimethylbenzene	13.482	105	131357	21.002	ug/l	98
81) sec-Butylbenzene	13.611	105	143056	20.250	ug/l	98
82) p-Isopropyltoluene	13.729	119	121558	20.478	ug/l	100
83) 1,3-Dichlorobenzene	13.729	146	70929	20.493	ug/l	97
84) 1,4-Dichlorobenzene	13.811	146	71089	20.786	ug/l	98
85) n-Butylbenzene	14.053	91	98151	19.687	ug/l	98
86) Hexachloroethane	14.335	117	23621	19.457	ug/l	94
87) 1,2-Dichlorobenzene	14.106	146	71901	21.082	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	9680	21.331	ug/l	96
89) 1,2,4-Trichlorobenzene	15.841	180	33559	20.209	ug/l	97
90) Hexachlorobutadiene	15.500	225	16226	22.369	ug/l	97
91) Naphthalene	15.641	128	101921	19.218	ug/l	100
92) 1,2,3-Trichlorobenzene	15.841	180	33559	20.209	ug/l	97

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

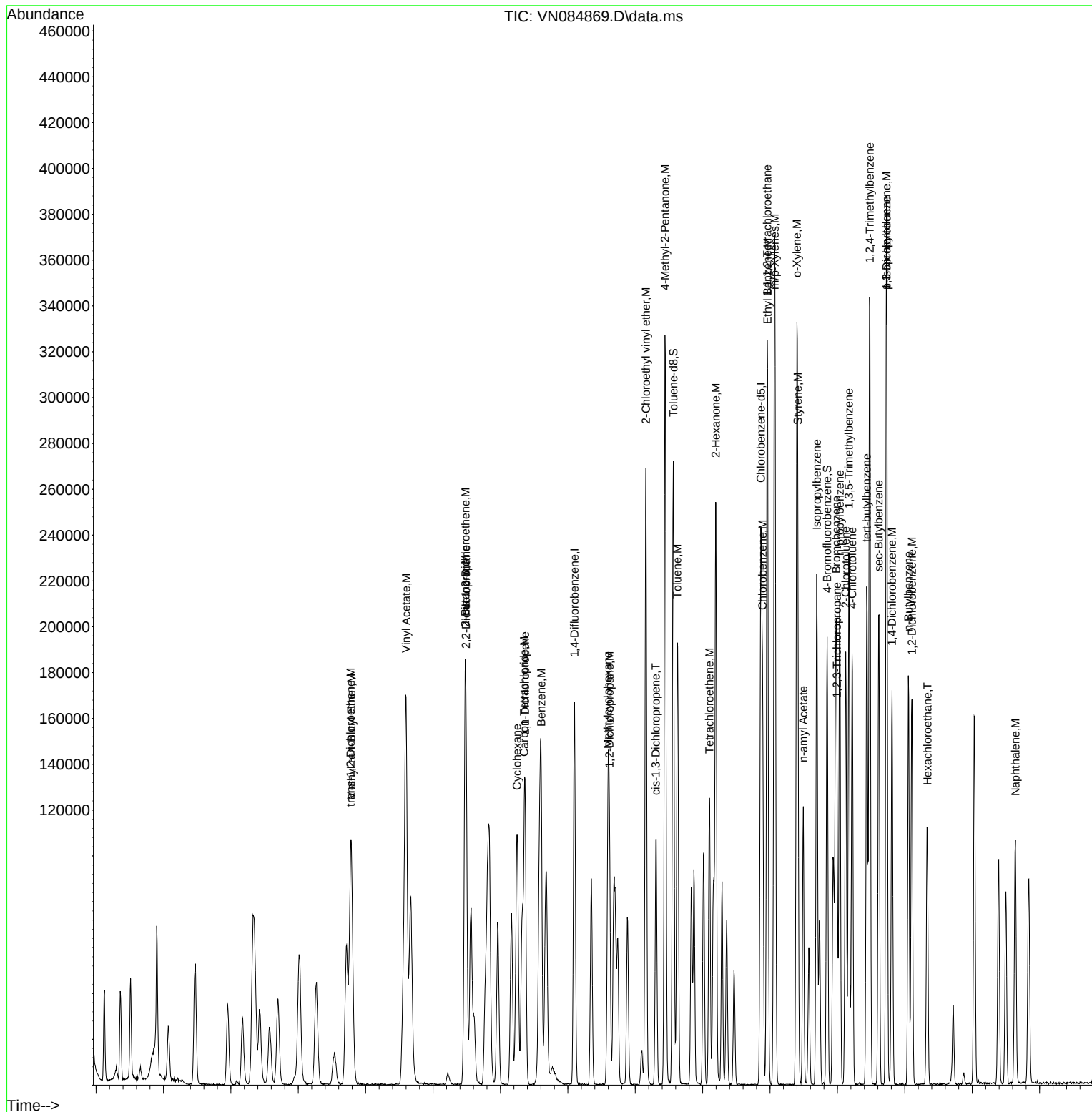
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Data File : VN084869.D  
Acq On    : 15 Nov 2024  14:59  
Operator  : JC\MD  
Sample    : VN1115WBSD01  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 5      Sample Multiplier: 1
```

Instrument :
MSVOA_N
ClientSampleId :
VN1115WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 11/17/2024
Supervised By :Mahesh Dadoda 11/18/2024

Quant Time: Nov 15 22:24:27 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



Manual Integration Report

Sequence:	VN103124	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VN084613.D	1,2,3-Trichloropropane	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICC005	VN084613.D	Acetone	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICC005	VN084613.D	Acrylonitrile	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICC005	VN084613.D	Allyl chloride	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICC005	VN084613.D	Chloroethane	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICC005	VN084613.D	Methyl Acetate	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICC005	VN084613.D	trans-1,2-Dichloroethene	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICC005	VN084613.D	Trichloroethene	SAM	11/1/2024 11:36:59 AM	MMDadoda	11/4/2024 1:19:09 AM	Peak Integrated by Software
VSTDICCC020	VN084614.D	1,2,3-Trichloropropane	SAM	11/4/2024 1:13:50 AM	MMDadoda	11/4/2024 1:19:11 AM	Peak Integrated by Software
VSTDICCC020	VN084614.D	tert-Butyl Alcohol	SAM	11/4/2024 1:13:50 AM	MMDadoda	11/4/2024 1:19:11 AM	Peak Integrated by Software
VSTDICCC050	VN084615.D	1,2,3-Trichloropropane	SAM	11/4/2024 1:13:52 AM	MMDadoda	11/4/2024 1:19:12 AM	Peak Integrated by Software
VSTDICCC050	VN084615.D	Chloroethane	SAM	11/4/2024 1:13:52 AM	MMDadoda	11/4/2024 1:19:12 AM	Peak Integrated by Software
VSTDICCC100	VN084616.D	1,2,3-Trichloropropane	SAM	11/4/2024 1:13:53 AM	MMDadoda	11/4/2024 1:19:13 AM	Peak Integrated by Software

Manual Integration Report

Sequence:

VN103124

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC150	VN084617.D	1,2,3-Trichloropropane	SAM	11/4/2024 1:13:54 AM	MMDadoda	11/4/2024 1:19:15 AM	Peak Integrated by Software
VSTDICV020	VN084619.D	1,2,3-Trichloropropane	SAM	11/4/2024 1:13:55 AM	MMDadoda	11/4/2024 1:19:16 AM	Peak Integrated by Software
VSTDCCC020	VN084626.D	1,2,3-Trichloropropane	SAM	11/4/2024 1:14:00 AM	MMDadoda	11/4/2024 1:19:23 AM	Peak Integrated by Software
VSTDCCC020	VN084626.D	Allyl chloride	SAM	11/4/2024 1:14:00 AM	MMDadoda	11/4/2024 1:19:23 AM	Peak Integrated by Software
VSTDCCC020	VN084626.D	Diethyl Ether	SAM	11/4/2024 1:14:00 AM	MMDadoda	11/4/2024 1:19:23 AM	Peak Integrated by Software
VSTDCCC020	VN084626.D	tert-Butyl Alcohol	SAM	11/4/2024 1:14:00 AM	MMDadoda	11/4/2024 1:19:23 AM	Peak Integrated by Software
VSTDCCC020	VN084626.D	trans-1,2-Dichloroethene	SAM	11/4/2024 1:14:00 AM	MMDadoda	11/4/2024 1:19:23 AM	Peak Integrated by Software

Manual Integration Report

Sequence:

VN111524

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC020	VN084867.D	1,2,3-Trichloropropane	JOHN	11/17/2024 9:34:37 AM	MMDadoda	11/18/2024 3:13:45 PM	Peak Integrated by Software
VSTDCCC020	VN084867.D	tert-Butyl Alcohol	JOHN	11/17/2024 9:34:37 AM	MMDadoda	11/18/2024 3:13:45 PM	Peak Integrated by Software
VN1115WBS01	VN084868.D	1,2,3-Trichloropropane	JOHN	11/17/2024 9:34:41 AM	MMDadoda	11/18/2024 3:13:45 PM	Peak Integrated by Software
VN1115WBSD0 1	VN084869.D	1,2,3-Trichloropropane	JOHN	11/17/2024 9:34:45 AM	MMDadoda	11/18/2024 3:13:47 PM	Peak Integrated by Software
P4844-01	VN084876.D	Methyl Acetate	JOHN	11/17/2024 9:34:50 AM	MMDadoda	11/18/2024 3:13:49 PM	Peak Integrated by Software
VSTDCCC020	VN084882.D	1,2,3-Trichloropropane	JOHN	11/17/2024 9:34:54 AM	MMDadoda	11/18/2024 3:13:51 PM	Peak Integrated by Software

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN103124

Review By	Semsettin Yesilyurt	Review On	11/1/2024 11:37:52 AM		
Supervise By	Maresh Dadoda	Supervise On	11/4/2024 1:19:34 AM		
SubDirectory	VN103124	HP Acquire Method	MSVOA_N	HP Processing Method	624n103124w.m
STD. NAME		STD REF.#			
Tune/Reschk		VP131208			
Initial Calibration Stds		VP131209,VP131210,VP131211,VP131212,VP131213			
CCC		VP131215,VP131216			
Internal Standard/PEM		VP130994			
ICV/I.BLK		VP131214			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN084612.D	31 Oct 2024 10:56	JC\MD	Ok
2	VSTDIC005	VN084613.D	31 Oct 2024 12:08	JC\MD	Ok,M
3	VSTDICCC020	VN084614.D	31 Oct 2024 12:32	JC\MD	Ok,M
4	VSTDIC050	VN084615.D	31 Oct 2024 12:56	JC\MD	Ok,M
5	VSTDIC100	VN084616.D	31 Oct 2024 13:20	JC\MD	Ok,M
6	VSTDIC150	VN084617.D	31 Oct 2024 13:44	JC\MD	Ok,M
7	VIBLK	VN084618.D	31 Oct 2024 14:08	JC\MD	Ok
8	VSTDICV020	VN084619.D	31 Oct 2024 14:42	JC\MD	Ok,M
9	VN1031WBS01	VN084620.D	31 Oct 2024 15:25	JC\MD	Ok,M
10	VN1031WBSD01	VN084621.D	31 Oct 2024 15:49	JC\MD	Ok,M
11	VN1031WBL01	VN084622.D	31 Oct 2024 16:37	JC\MD	Ok
12	P4646-02	VN084623.D	31 Oct 2024 17:01	JC\MD	Ok
13	P4646-01	VN084624.D	31 Oct 2024 17:25	JC\MD	Ok,M
14	VIBLK	VN084625.D	31 Oct 2024 17:49	JC\MD	Ok
15	VSTDCCC020	VN084626.D	31 Oct 2024 18:13	JC\MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN111524

Review By	John Carlone	Review On	11/17/2024 9:40:01 AM
Supervise By	Maresh Dadoda	Supervise On	11/18/2024 3:13:56 PM
SubDirectory	VN111524	HP Acquire Method	HP Processing Method 624N103124W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP131532		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP131533,VP131534		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN084866.D	15 Nov 2024 13:01	JC\MD	Ok
2	VSTDCCC020	VN084867.D	15 Nov 2024 13:49	JC\MD	Ok,M
3	VN1115WBS01	VN084868.D	15 Nov 2024 14:26	JC\MD	Ok,M
4	VN1115WBSD01	VN084869.D	15 Nov 2024 14:59	JC\MD	Ok,M
5	VN1115WBL01	VN084870.D	15 Nov 2024 15:23	JC\MD	Ok
6	P4844-02	VN084871.D	15 Nov 2024 16:00	JC\MD	Ok
7	P4867-01	VN084872.D	15 Nov 2024 16:24	JC\MD	Ok
8	P4867-04	VN084873.D	15 Nov 2024 16:48	JC\MD	Ok
9	P4853-01	VN084874.D	15 Nov 2024 17:12	JC\MD	Dilution
10	P4853-02	VN084875.D	15 Nov 2024 17:36	JC\MD	Dilution
11	P4844-01	VN084876.D	15 Nov 2024 18:00	JC\MD	Ok,M
12	IBLK	VN084877.D	15 Nov 2024 18:24	JC\MD	Ok
13	P4867-02	VN084878.D	15 Nov 2024 18:48	JC\MD	Ok
14	P4867-03	VN084879.D	15 Nov 2024 19:12	JC\MD	Ok
15	P4762-01	VN084880.D	15 Nov 2024 19:36	JC\MD	Ok
16	IBLK	VN084881.D	15 Nov 2024 20:00	JC\MD	Ok
17	VSTDCCC020	VN084882.D	15 Nov 2024 20:24	JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN103124

Review By	Semsettin Yesilyurt	Review On	11/1/2024 11:37:52 AM
Supervise By	Maresh Dadoda	Supervise On	11/4/2024 1:19:34 AM
SubDirectory	VN103124	HP Acquire Method	MSVOA_N HP Processing Method 624n103124w.m

STD. NAME	STD REF.#
Tune/Reschk	VP131208
Initial Calibration Stds	VP131209,VP131210,VP131211,VP131212,VP131213
CCC	VP131215,VP131216
Internal Standard/PEM	VP130994
ICV/I.BLK	VP131214
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN084612.D	31 Oct 2024 10:56		JC\MD	Ok
2	VSTDIC005	VSTDIC005	VN084613.D	31 Oct 2024 12:08		JC\MD	Ok,M
3	VSTDICCC020	VSTDICCC020	VN084614.D	31 Oct 2024 12:32		JC\MD	Ok,M
4	VSTDIC050	VSTDIC050	VN084615.D	31 Oct 2024 12:56		JC\MD	Ok,M
5	VSTDIC100	VSTDIC100	VN084616.D	31 Oct 2024 13:20		JC\MD	Ok,M
6	VSTDIC150	VSTDIC150	VN084617.D	31 Oct 2024 13:44		JC\MD	Ok,M
7	VIBLK	VIBLK	VN084618.D	31 Oct 2024 14:08		JC\MD	Ok
8	VSTDICV020	ICVVN103124	VN084619.D	31 Oct 2024 14:42		JC\MD	Ok,M
9	VN1031WBS01	VN1031WBS01	VN084620.D	31 Oct 2024 15:25		JC\MD	Ok,M
10	VN1031WBSD01	VN1031WBSD01	VN084621.D	31 Oct 2024 15:49		JC\MD	Ok,M
11	VN1031WBL01	VN1031WBL01	VN084622.D	31 Oct 2024 16:37		JC\MD	Ok
12	P4646-02	241030043-05-TRIP-BL	VN084623.D	31 Oct 2024 17:01	TB,pH#6.0 B	JC\MD	Ok
13	P4646-01	241030069-01-VOA	VN084624.D	31 Oct 2024 17:25	pH#9.0 B	JC\MD	Ok,M
14	VIBLK	VIBLK	VN084625.D	31 Oct 2024 17:49		JC\MD	Ok
15	VSTDCCC020	VSTDCCC020EC	VN084626.D	31 Oct 2024 18:13		JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN111524

Review By	John Carlone	Review On	11/17/2024 9:40:01 AM
Supervise By	Maresh Dadoda	Supervise On	11/18/2024 3:13:56 PM
SubDirectory	VN111524	HP Acquire Method	HP Processing Method 624N103124W.M

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP131532
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP131533,VP131534

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN084866.D	15 Nov 2024 13:01		JC\MD	Ok
2	VSTDCCC020	VSTDCCC020	VN084867.D	15 Nov 2024 13:49	V13516	JC\MD	Ok,M
3	VN1115WBS01	VN1115WBS01	VN084868.D	15 Nov 2024 14:26		JC\MD	Ok,M
4	VN1115WBSD01	VN1115WBSD01	VN084869.D	15 Nov 2024 14:59		JC\MD	Ok,M
5	VN1115WBL01	VN1115WBL01	VN084870.D	15 Nov 2024 15:23		JC\MD	Ok
6	P4844-02	241113050-06-TRIP-BL	VN084871.D	15 Nov 2024 16:00	vial B pH#6.0 TB	JC\MD	Ok
7	P4867-01	TT-TB-20241113	VN084872.D	15 Nov 2024 16:24	vial A pH<2 TB	JC\MD	Ok
8	P4867-04	TT-072-IDWGW-20241	VN084873.D	15 Nov 2024 16:48	vial A pH<2	JC\MD	Ok
9	P4853-01	001-WILLETS-PT-BLV	VN084874.D	15 Nov 2024 17:12	vial A pH<2 Need 5X	JC\MD	Dilution
10	P4853-02	002-35TH-AVE(NOV)	VN084875.D	15 Nov 2024 17:36	vial A pH<2 Need 5X	JC\MD	Dilution
11	P4844-01	241113075-01-VOA	VN084876.D	15 Nov 2024 18:00	vial B pH#6.0 ; Surrogate fail	JC\MD	Ok,M
12	IBLK	IBLK	VN084877.D	15 Nov 2024 18:24		JC\MD	Ok
13	P4867-02	TT-070-IDWGW-20241	VN084878.D	15 Nov 2024 18:48	vial A pH<2	JC\MD	Ok
14	P4867-03	TT-071-IDWGW-20241	VN084879.D	15 Nov 2024 19:12	vial A pH<2	JC\MD	Ok
15	P4762-01	EFF-WW	VN084880.D	15 Nov 2024 19:36	vial A pH<2	JC\MD	Ok
16	IBLK	IBLK	VN084881.D	15 Nov 2024 20:00		JC\MD	Ok
17	VSTDCCC020	VSTDCCC020EC	VN084882.D	15 Nov 2024 20:24		JC\MD	Ok,M

M : Manual Integration



SHIPPING DOCUMENTS

CHAIN OF CUSTODY RECORD - PRESS HARD AND PRINT CLEARLY - USE BALL POINT PEN

Garden State Laboratories, Inc.

Main Lab - 410 Hillside Avenue, Hillside NJ 07205 - NJDEP Lab Cert. #20044
Jersey Shore Lab - 54 Main Street, Waretown NJ 08758 - NJDEP Lab Cert. #15037

Tel. 800-273-8901/908-688-8900 Fax 908-688-8966 www.gslabs.com info@gslabs.com

Office and Drop off Locations

North Jersey Office: 225 Sparta Avenue, Sparta, NJ 07871 Tel. 973-729-1827

West Jersey Office: 2050 Route 31 North, Glen Gardner, NJ 08826 Tel. 908-537-7414

OR SAMPLE RECEIVING USE ONLY

DATE/TIME/TEMP. REC'D AT LAB:

Page _____ of _____

GSL CLIENT #

MICRO #

CHEM. #

SAMPLE REC'D BY:

☐ GSL FIELD SAMPLER/PICK-UP

☐ PICK-UP AT DROP OFF LOCATION

☐ DELIVERED BY CLIENT

CLIENT INFORMATION (REPORT TO BE SENT TO)

Name: Garden State Laboratories, Inc.

Contact/Authorized by: Robert Szot

Mailing Address: 410 Hillside Ave.

Phone: 908-688-8900 EXT 129

City/State/Zip: Hillside, NJ. 07205

Email: rszot@gslabs.com

SAMPLE INFORMATION

SAMPLE TYPE: WASTE WATER

SAMPLE LOCATI ACUA SW LANDFILL LEACHATE TANKS

Grab/Comp	SAMPLE ID	SAMPLE COLLECTION				ANALYSIS REQUIRED (Print Legibly)		CONTAINER INFORMATION			
		Date	Time	AM	PM	☐ List attached	Total Pages	No.	Type*	Size	Pres.*
☒	2411130750 VOA	11/13/24	8:27	X		☒	EPA 8260 TCL LIST + Acrolien & Acrylonitrile	3	V	10mL	A
☒	241113050-06 Trip blank					☒	EPA 8260 TCL LIST + Acrolien & Ac	2	V	10mL	A

*Container Type: P = Plastic G = Glass A = Amber Glass T = Sterile Thio V = Vial Other/Specify: _____
 Preservation Code: A = Non Preserved B = Sulfuric Acid C = Sodium Hydroxide D = Nitric Acid
 E = Hydrochloric Acid F = Zinc Acetate G = Sodium Thiosulfate H = Ascorbic Acid I = Cooled Other/Specify: _____

☒ SUBCONTRACTED WORK

TURNAROUND TIME: ☐ Stand ☐ Rush (If RUSH REQUESTED) Rush Due by:

SEND TO: Chem Tech

REPORT FORM: ☐ Standard Report ☐ Other/Specify:

DATE/TIME:

☐ Standard Report + E2 PWS ID#:

METHOD OF SHIPMEN Deliver

PAYMENT INFORMATION

☐ Sampling/Pick-up Fee: \$ ☐ Composite Fee: \$ ☐ Rush Fee: \$ Amount Due: \$

Payment Method: ☐ Credit Card Type: ☐ Check # ☐ Other: See Quote

Note:

VOA UNPRESERVED DUE TO EFFERVESCENCE - 3 DAY TAT PER JORDAN HE

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION
PLEASE PRINT YOUR NAME LEGIBLY, USE FULL LEGAL SIGNATURE, DATE AND TIME

Sampled by (PRINT):

Signature:

Date/Time:

Client/Client's Representative (PRINT):

Signature:

Date/Time:

1. Received/Relinquished by (PRINT):

Signature:

Date/Time:

2. Received/Relinquished by (PRINT):

Signature:

Date/Time:

11-14-24 8:20 2.3



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

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4844 GARD04

Order Date : 11/14/2024 10:28:00 AM

Project Mgr :

Client Name : Garden State Laboratories,]

Project Name : Waste Water 2024

Report Type : Level 1

Client Contact : Sharon Ercoliani

Receive DateTime : 11/14/2024 8:20:00 AM

EDD Type : EXCEL NOCLEANUP

Invoice Name : Garden State Laboratories,]

Purchase Order :

Hard Copy Date :

Invoice Contact : Sharon Ercoliani

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4844-01	241113075-01-VOA	Water	11/13/2024	09:27					
					VOCMS Group1		624.1		10 Bus. Days
					VOCMS Group2		8260-Low		10 Bus. Days
P4844-02	241113050-06-TRIP-BLANK	Water	11/13/2024	00:00					
					VOCMS Group1		624.1		10 Bus. Days
					VOCMS Group2		8260-Low		10 Bus. Days

Relinquished By :

Date / Time :

11-14-24 11:55

Received By :

Date / Time :

11-14-24 11:55

Storage Area : VOA Refridgerator Room