

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111820\
 Data File : VL035987.D
 Acq On : 19 Nov 2020 00:04
 Operator : SY/AP
 Sample : L4781-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Quant Time: Nov 19 08:13:30 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.62	49	1054085	10.00	ppbv	-0.04
33) 1,4-Difluorobenzene	7.13	114	3831194	10.00	ppbv	-0.05
55) Chlorobenzene-d5	12.04	117	3535783	10.00	ppbv	-0.05

System Monitoring Compounds

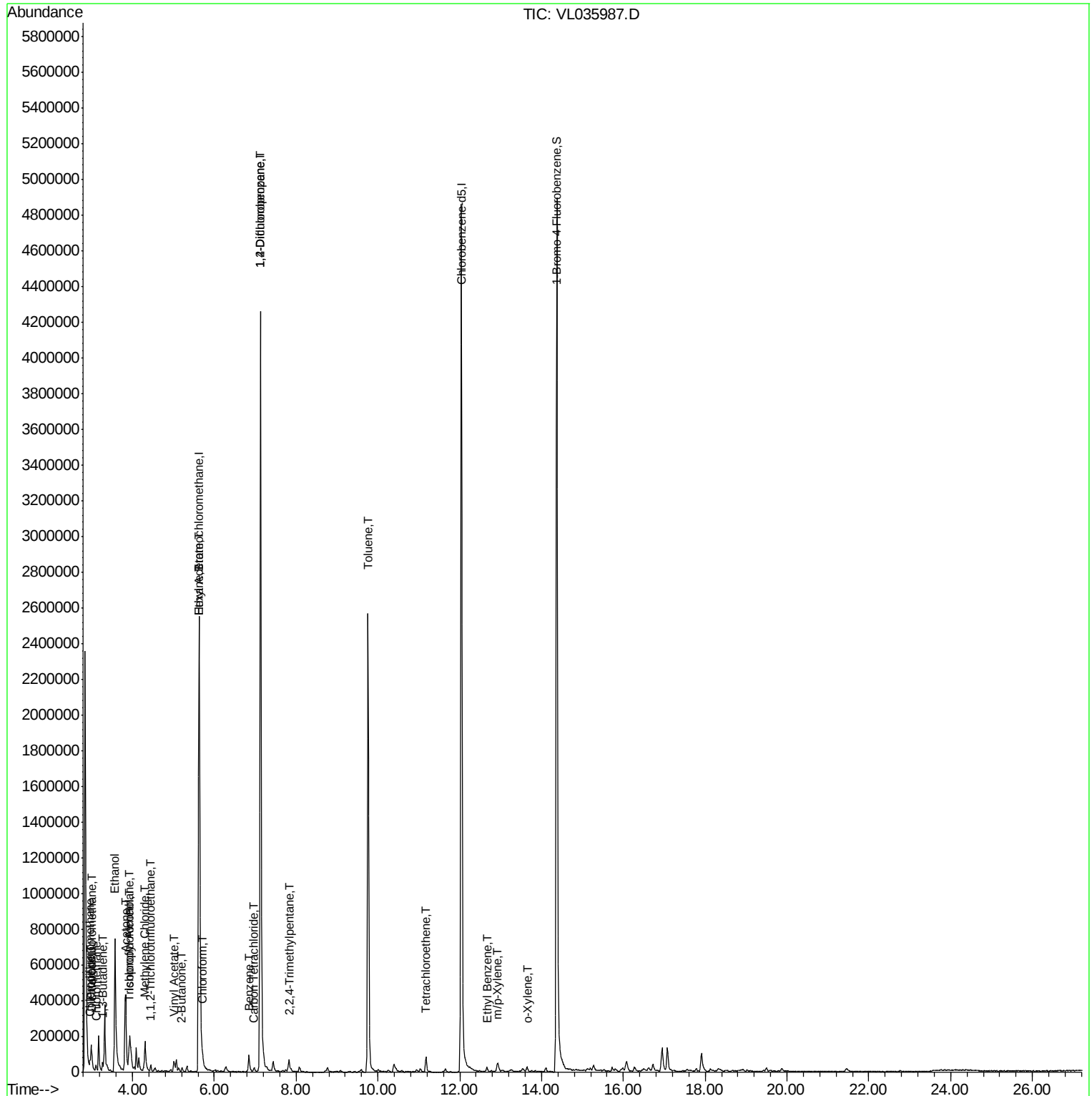
68) 1-Bromo-4-Fluorobenzene	14.37	95	2670635	10.63	ppbv	-0.06
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.30%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.01	85	41669	0.210 ppbv	99
3) Chlorodifluoromethane	2.95	51	70944	0.562 ppbv #	84
4) Chloromethane	3.11	50	31717	0.517 ppbv	95
9) Propene	2.99	41	44743	0.968 ppbv	85
11) Trichlorofluoromethane	3.91	101	74069	0.297 ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.45	101	14681	0.079 ppbv	100
13) Ethanol	3.57	45	1053126	105.069 ppbv	95
15) Acetone	3.82	43	537249	4.767 ppbv	90
16) 1,3-Butadiene	3.27	39	16148	0.333 ppbv #	46
19) Isopropyl Alcohol	3.94	45	124341	1.795 ppbv #	77
20) Methylene Chloride	4.30	84	87319	1.101 ppbv	98
23) Vinyl Acetate	5.02	43	21553	0.136 ppbv #	15
25) Ethyl Acetate	5.64	43	187408	0.844 ppbv #	80
26) Hexane	5.64	57	251691	2.056 ppbv #	50
29) Chloroform	5.71	83	27671	0.115 ppbv	86
34) 2-Butanone	5.21	43	24268	0.195 ppbv	90
35) Carbon Tetrachloride	6.97	117	14276	0.070 ppbv	91
36) Benzene	6.84	78	84722	0.297 ppbv	98
39) 1,2-Dichloropropane	7.13	63	787108	8.208 ppbv #	30
44) 2,2,4-Trimethylpentane	7.83	57	44126	0.117 ppbv #	50
52) Tetrachloroethene	11.18	164	13941	0.103 ppbv	93
53) Toluene	9.76	91	2203749	6.412 ppbv	99
58) Ethyl Benzene	12.67	91	21799	0.051 ppbv #	82
59) m/p-Xylene	12.93	91	24635	0.068 ppbv #	28
60) o-Xylene	13.64	91	13860	0.039 ppbv #	28

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL111820\  
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Acq On    : 19 Nov 2020   00:04  
Operator  : SY/AP  
Sample    : L4781-04  
Misc      : 400ml/MSVOA L  
ALS Vial  : 1    Sample Multiplier: 1
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Quant Time: Nov 19 08:13:30 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
QLast Update : Wed Nov 04 02:40:06 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.62 min Scan# 882

Delta R.T. -0.04 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

IA3

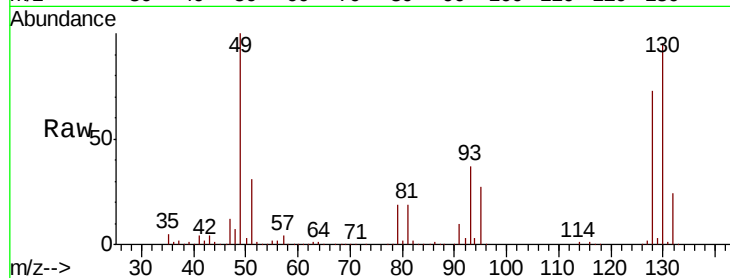
Tot Ion: 49 Resp: 1054085

Ion Ratio Lower Upper

49 100

128 79.3 41.5 124.6

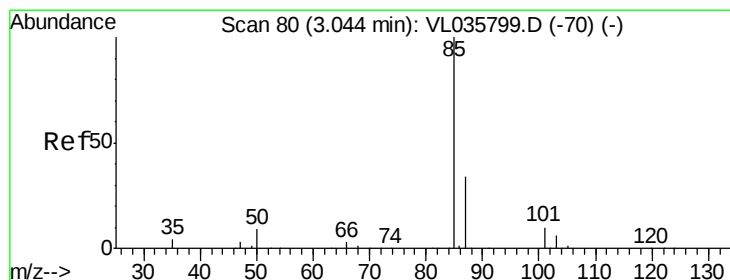
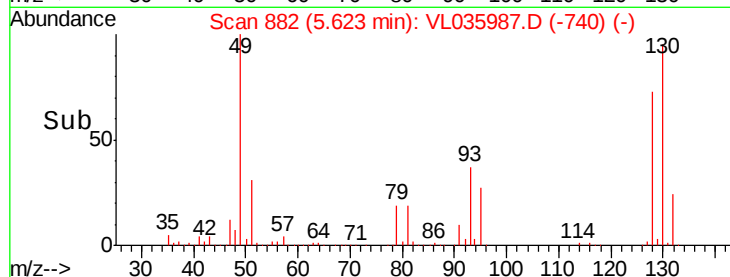
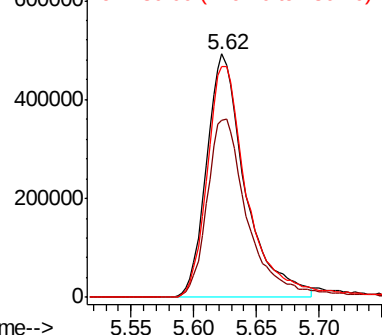
130 100.7 53.7 161.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.210 ppbv

RT: 3.01 min Scan# 70

Delta R.T. -0.03 min

Lab File: VL035987.D

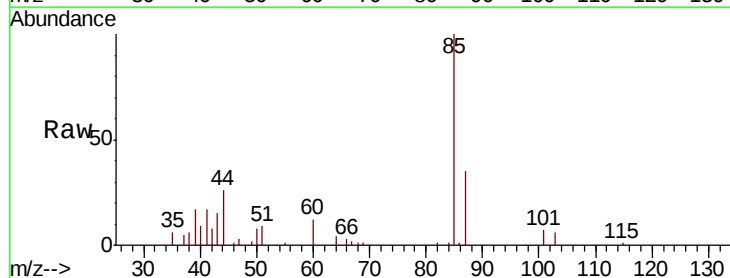
Acq: 19 Nov 2020 00:04

Tgt Ion: 85 Resp: 41669

Ion Ratio Lower Upper

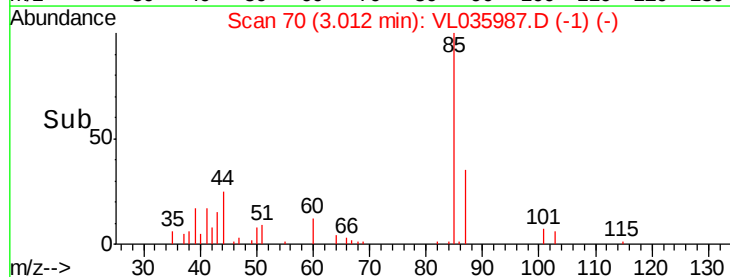
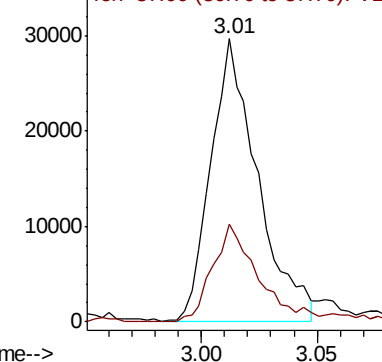
85 100

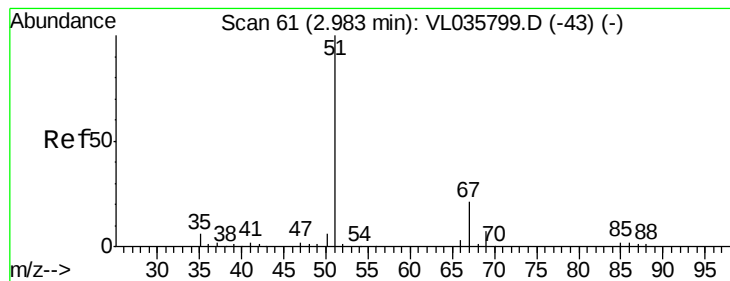
87 34.6 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.562 ppbv

RT: 2.95 min Scan# 52

Delta R.T. -0.03 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

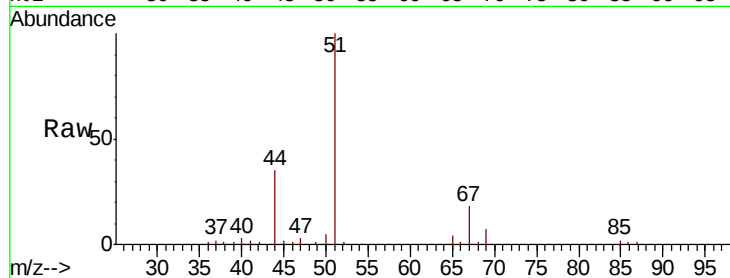
IA3

Tot Ion: 51 Resp: 70944

Ion Ratio Lower Upper

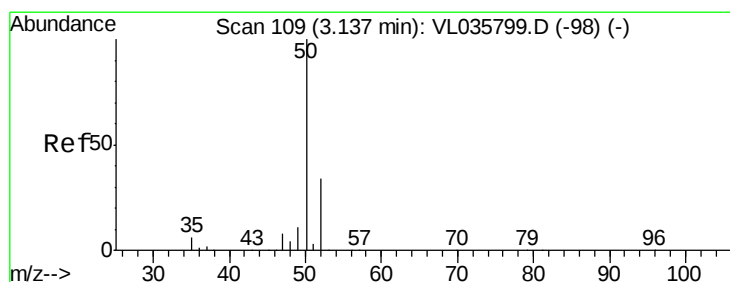
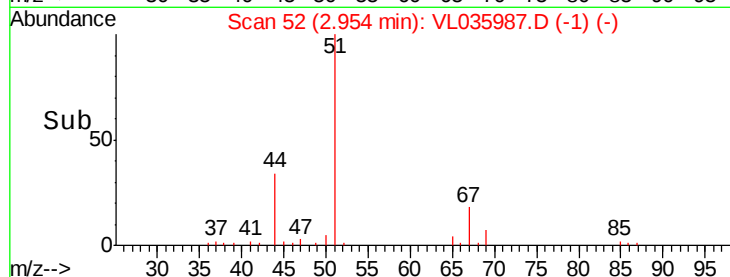
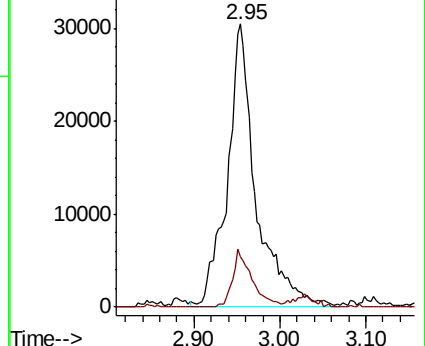
51 100

67 13.8 17.0 25.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.517 ppbv

RT: 3.11 min Scan# 99

Delta R.T. -0.03 min

Lab File: VL035987.D

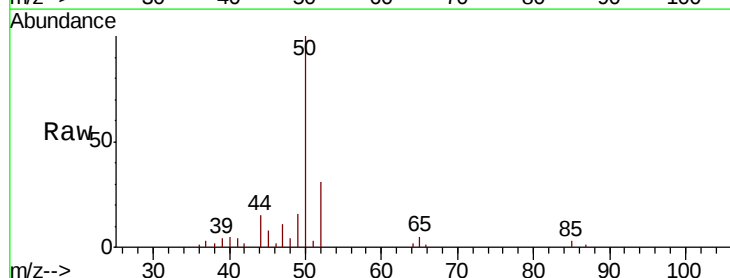
Acq: 19 Nov 2020 00:04

Tgt Ion: 50 Resp: 31717

Ion Ratio Lower Upper

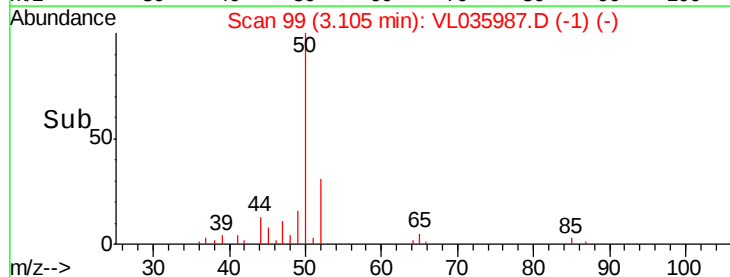
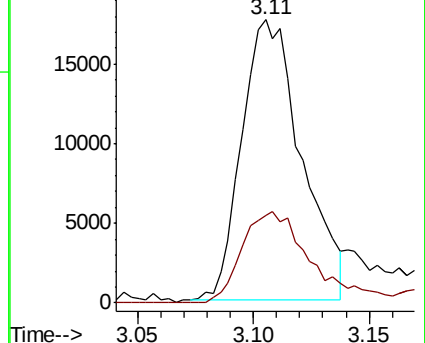
50 100

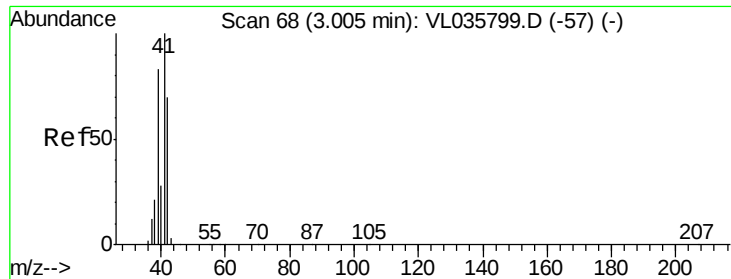
52 31.3 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.968 ppbv

RT: 2.99 min Scan# 62

Delta R.T. -0.02 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

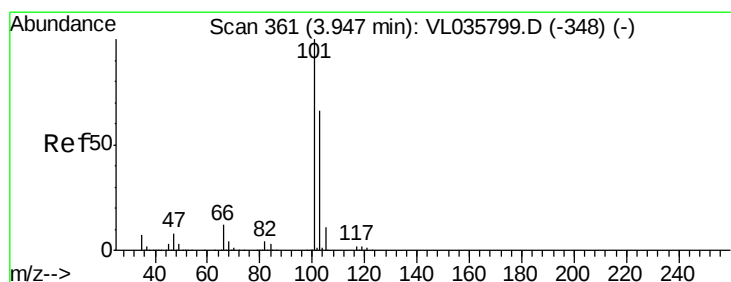
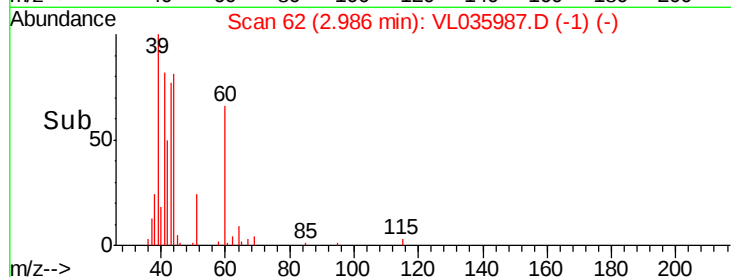
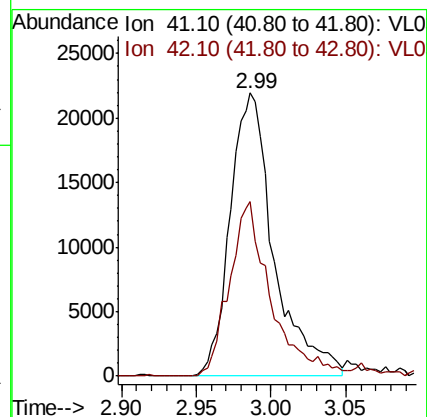
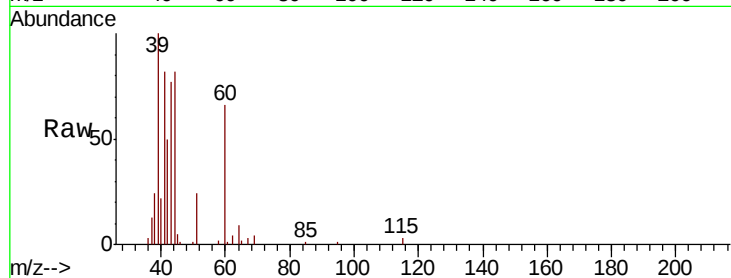
IA3

Tot Ion: 41 Resp: 44743

Ion Ratio Lower Upper

41 100

42 58.3 56.2 84.4



#11

Trichlorofluoromethane

Concen: 0.297 ppbv

RT: 3.91 min Scan# 349

Delta R.T. -0.04 min

Lab File: VL035987.D

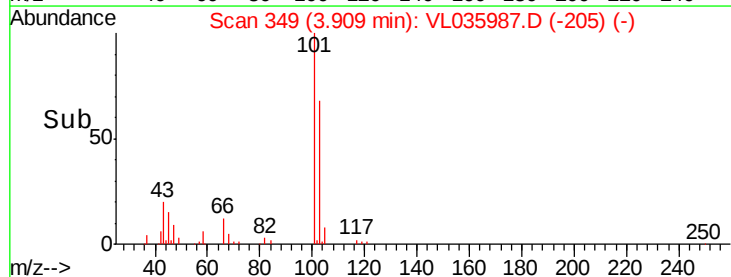
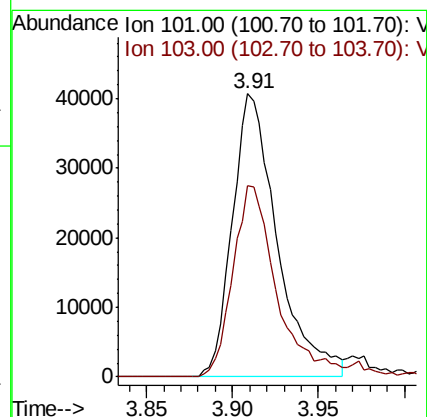
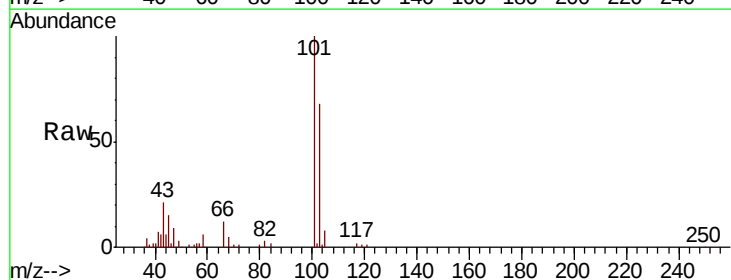
Acq: 19 Nov 2020 00:04

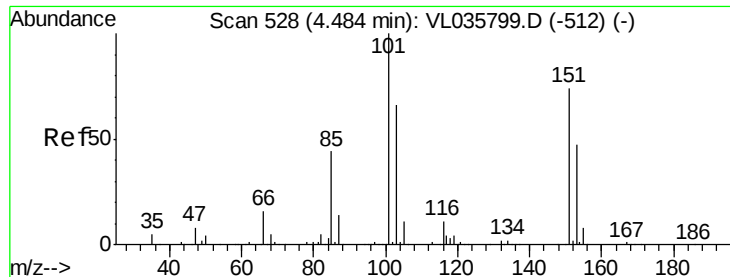
Tgt Ion: 101 Resp: 74069

Ion Ratio Lower Upper

101 100

103 67.7 53.0 79.4





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.079 ppbv

RT: 4.45 min Scan# 517

Delta R.T. -0.04 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

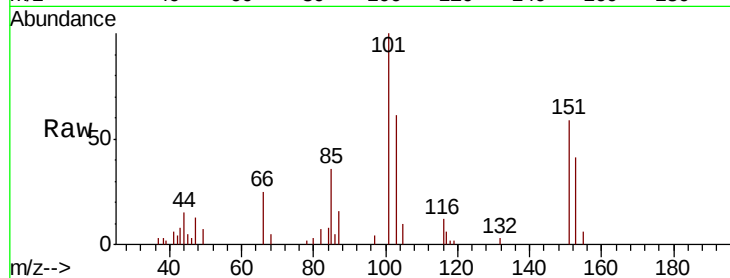
IA3

Tot Ion:101 Resp: 14681

Ion Ratio Lower Upper

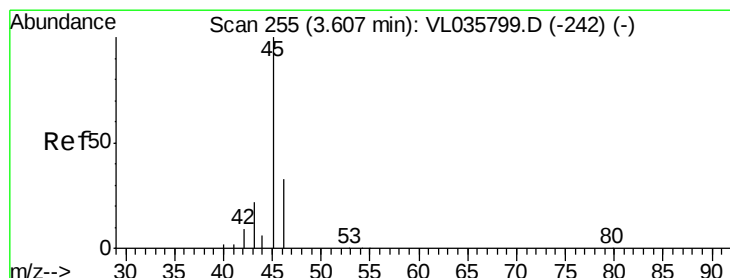
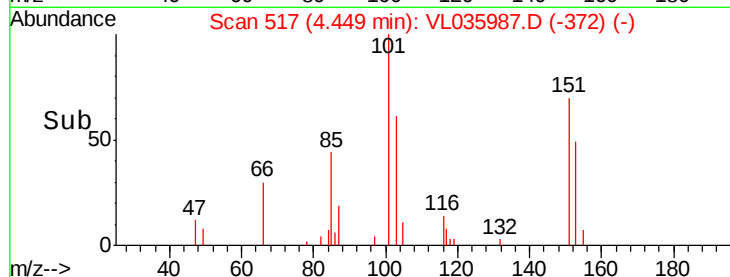
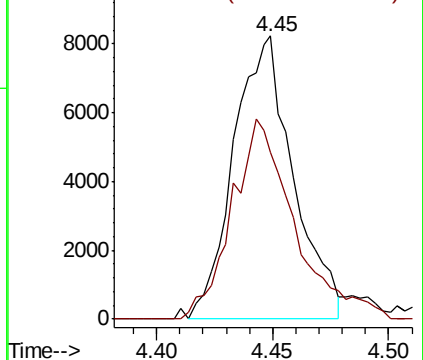
101 100

151 74.0 58.9 88.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 105.069 ppbv

RT: 3.57 min Scan# 243

Delta R.T. -0.04 min

Lab File: VL035987.D

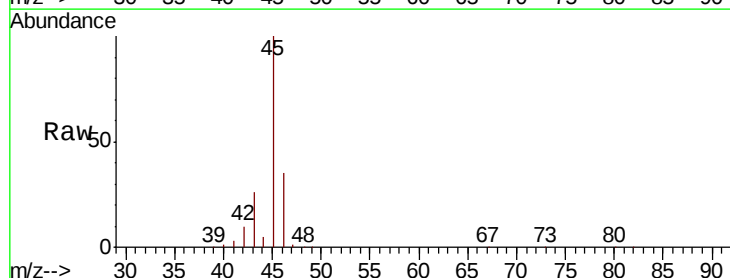
Acq: 19 Nov 2020 00:04

Tgt Ion: 45 Resp: 1053126

Ion Ratio Lower Upper

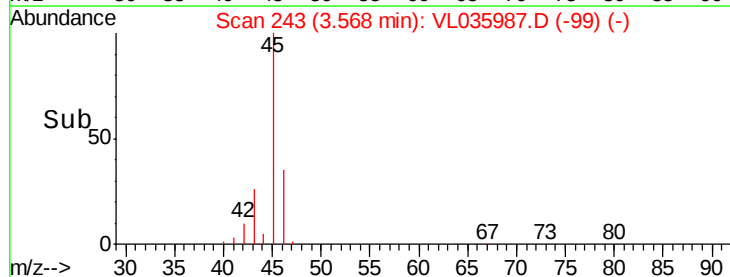
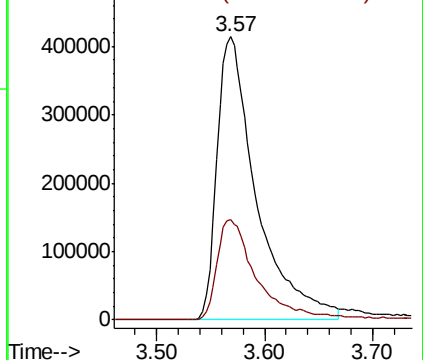
45 100

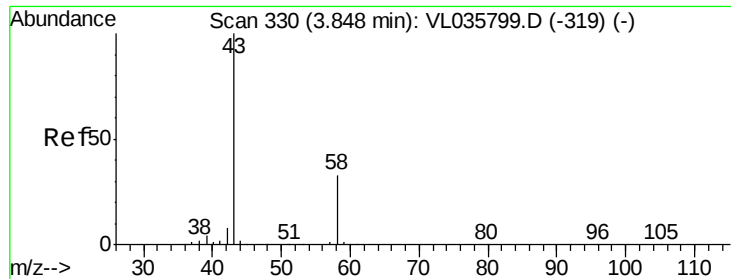
46 37.3 16.1 64.5



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 4.767 ppbv

RT: 3.82 min Scan# 320

Delta R.T. -0.03 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

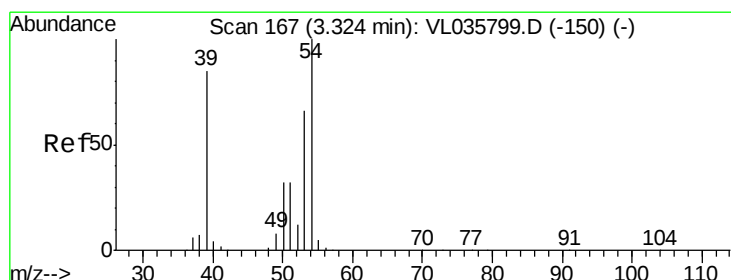
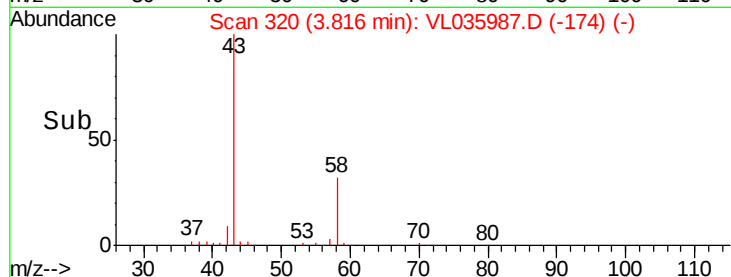
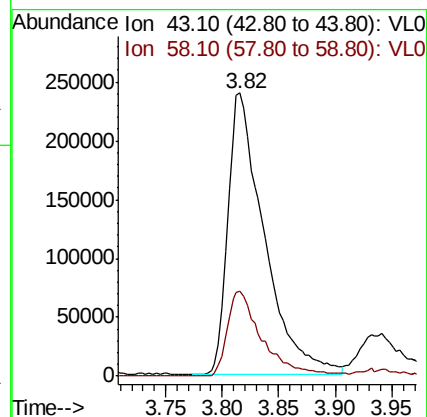
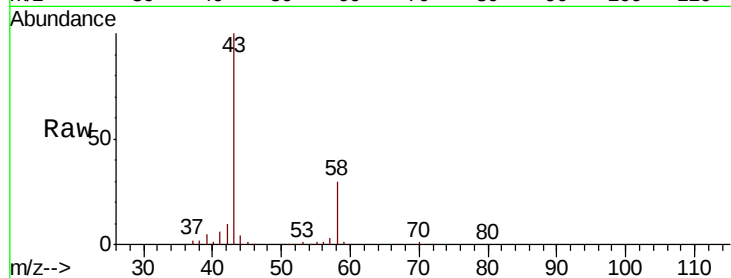
IA3

Tot Ion: 43 Resp: 537249

Ion Ratio Lower Upper

43 100

58 28.8 27.5 41.3



#16

1,3-Butadiene

Concen: 0.333 ppbv

RT: 3.27 min Scan# 151

Delta R.T. -0.05 min

Lab File: VL035987.D

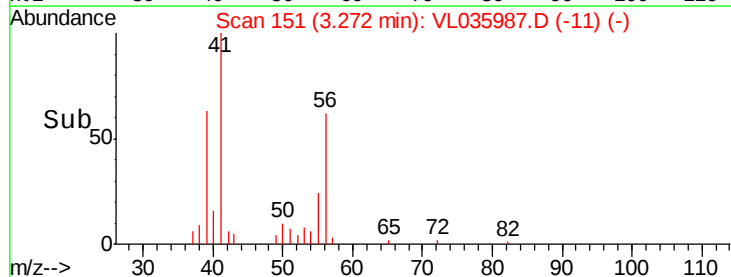
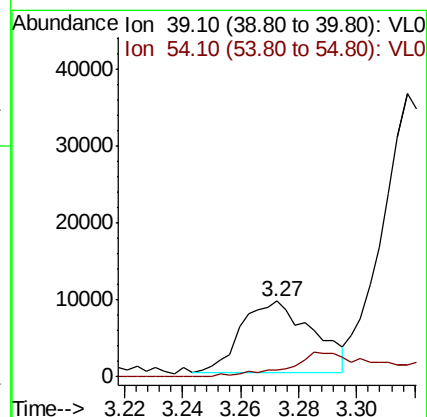
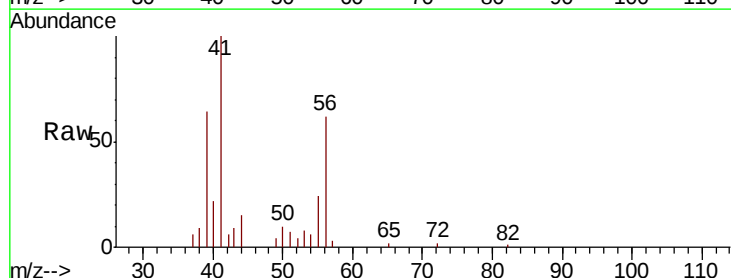
Acq: 19 Nov 2020 00:04

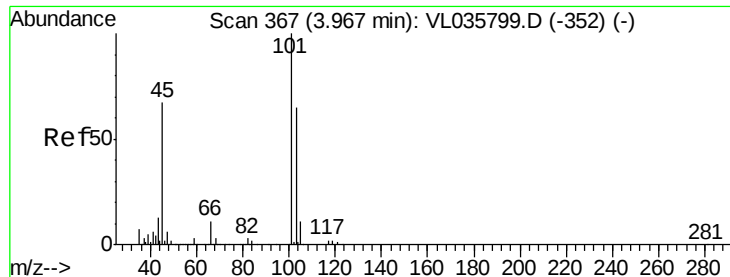
Tgt Ion: 39 Resp: 16148

Ion Ratio Lower Upper

39 100

54 52.2 87.1 130.7#





#19

Isopropyl Alcohol

Concen: 1.795 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.03 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampled :

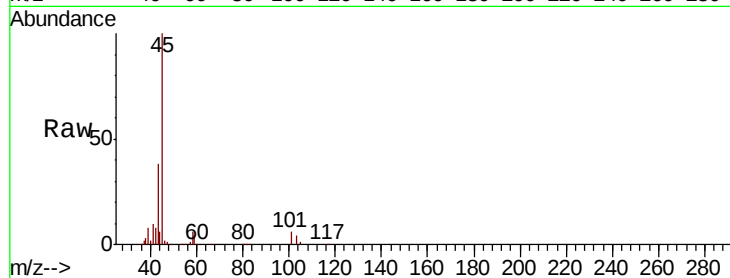
IA3

Tot Ion: 45 Resp: 124341

Ion Ratio Lower Upper

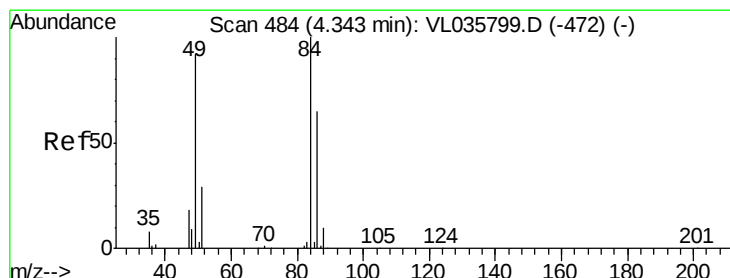
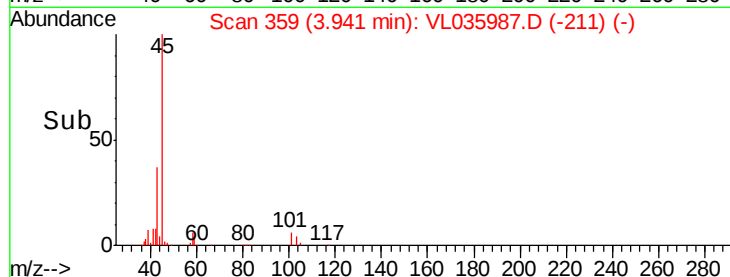
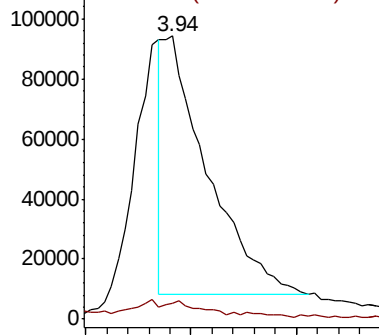
45 100

58 10.7 2.6 3.8#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 1.101 ppbv

RT: 4.30 min Scan# 471

Delta R.T. -0.04 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Tgt Ion: 84 Resp: 87319

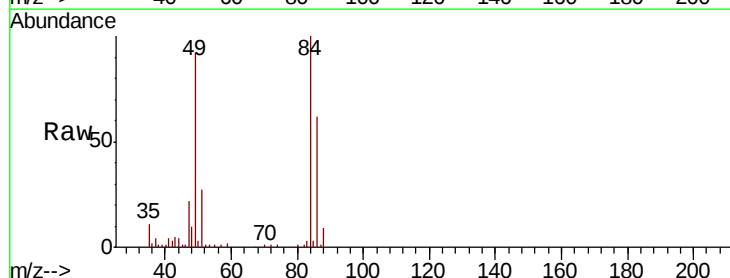
Ion Ratio Lower Upper

84 100

49 91.9 73.8 110.8

51 26.5 23.0 34.4

86 61.9 52.1 78.1

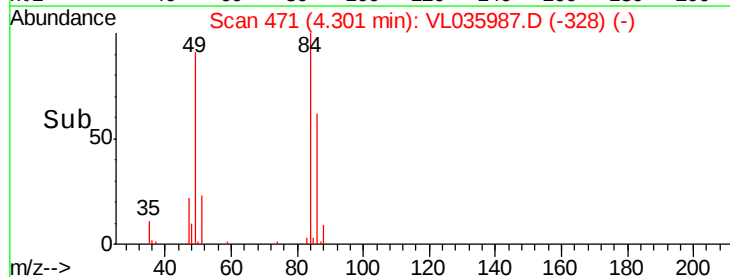
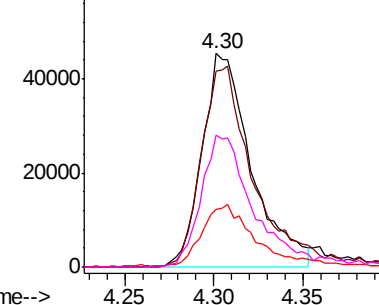


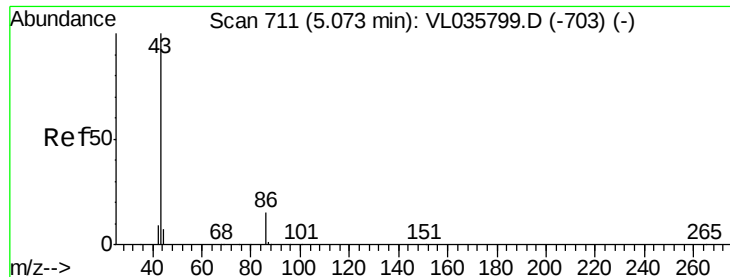
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#23

Vinyl Acetate

Concen: 0.136 ppbv

RT: 5.02 min Scan# 693

Delta R.T. -0.06 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

IA3

Tot Ion: 43 Resp: 21553

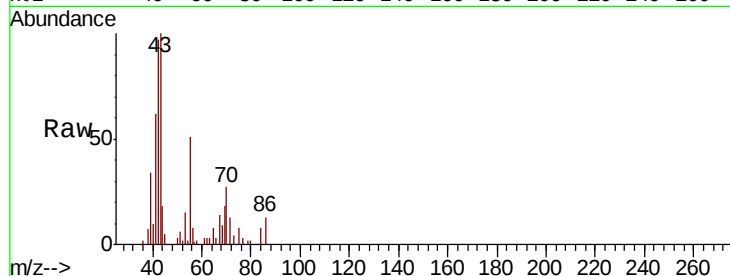
Ion Ratio Lower Upper

43 100

86 13.4 9.8 14.6

42 94.3 8.1 12.1#

44 6.5 4.2 6.4#

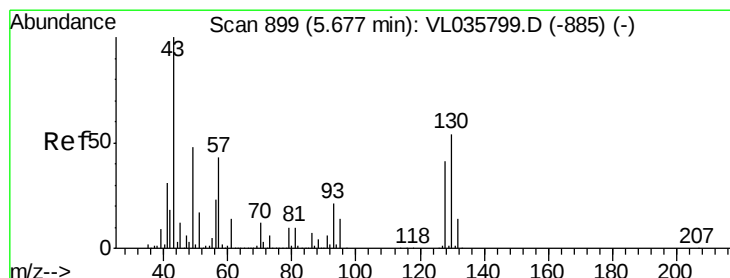
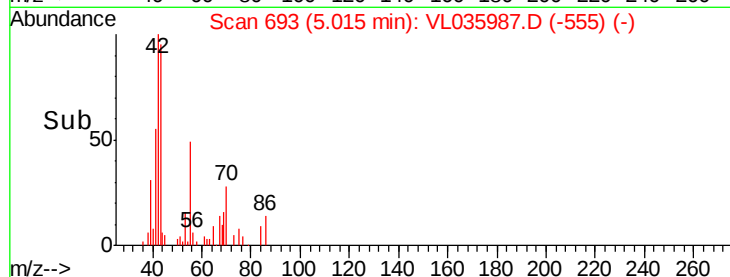
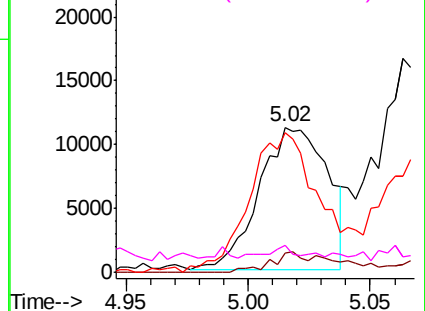


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.844 ppbv

RT: 5.64 min Scan# 888

Delta R.T. -0.04 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Tgt Ion: 43 Resp: 187408

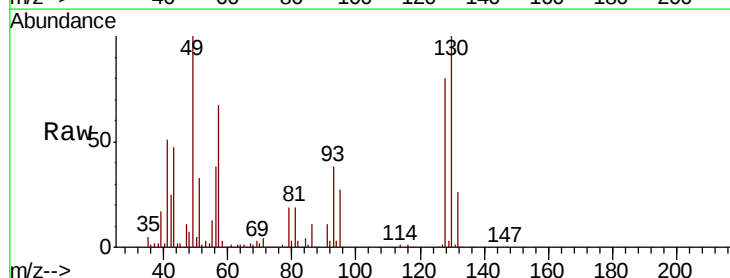
Ion Ratio Lower Upper

43 100

45 4.3 8.5 12.7#

61 3.3 10.7 16.1#

70 4.8 8.6 12.8#

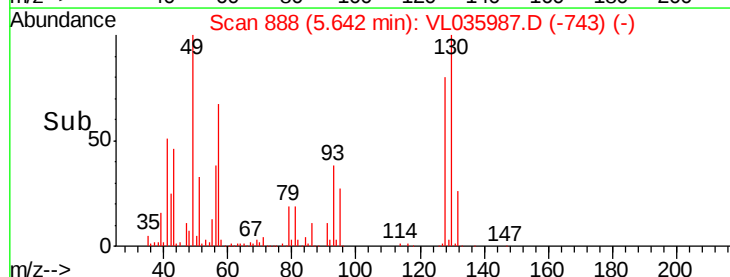
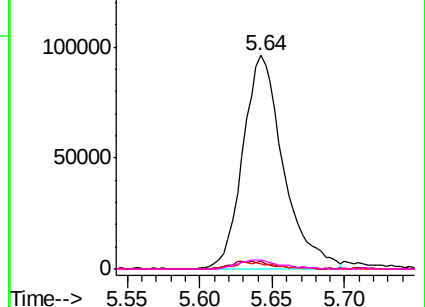


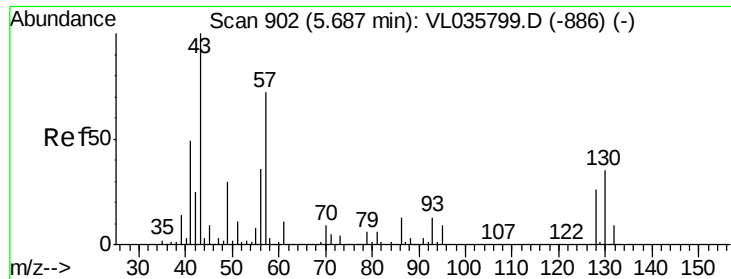
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

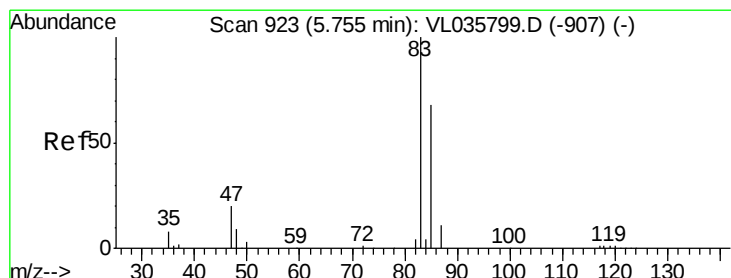
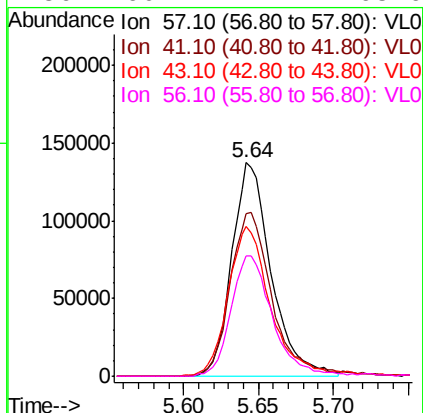
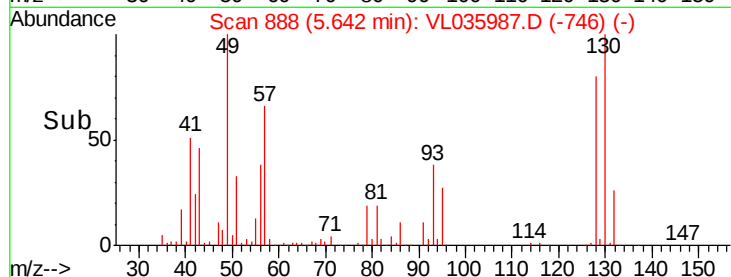
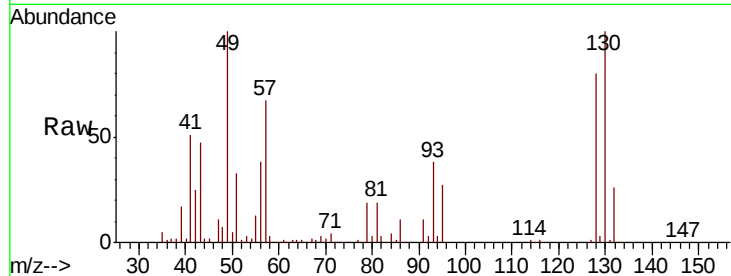




#26
Hexane
Concen: 2.056 ppbv
RT: 5.64 min Scan# 888
Delta R.T. -0.04 min
Lab File: VL035987.D
Acq: 19 Nov 2020 00:04

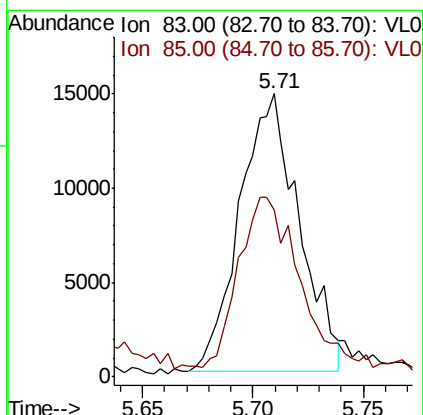
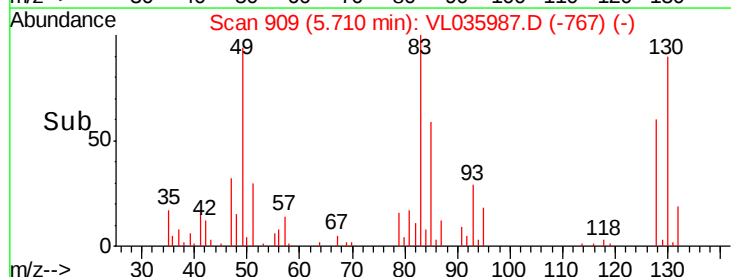
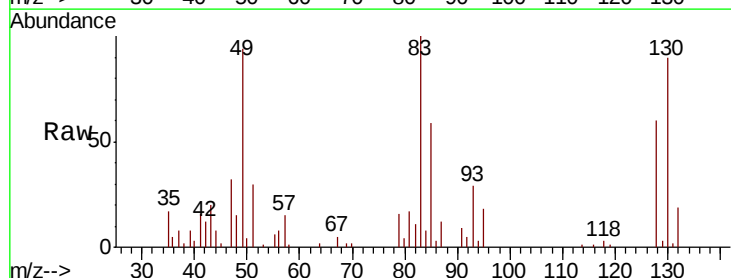
Instrument :
MSVOA_L
ClientSampleId :
IA3

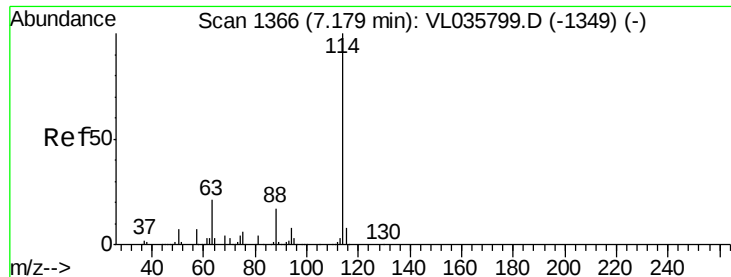
Tot Ion: 57 Resp: 251691
Ion Ratio Lower Upper
57 100
41 82.7 58.9 88.3
43 76.9 150.2 225.2#
56 60.4 42.4 63.6



#29
Chloroform
Concen: 0.115 ppbv
RT: 5.71 min Scan# 909
Delta R.T. -0.04 min
Lab File: VL035987.D
Acq: 19 Nov 2020 00:04

Tgt Ion: 83 Resp: 27671
Ion Ratio Lower Upper
83 100
85 56.5 54.6 81.8

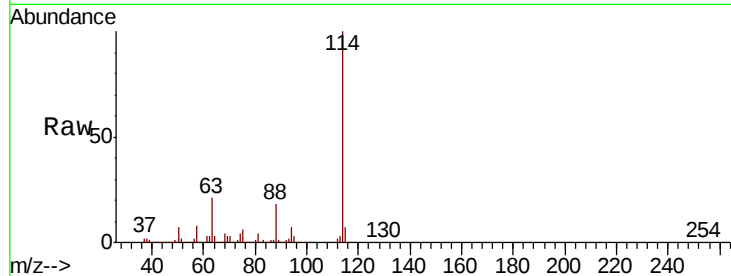




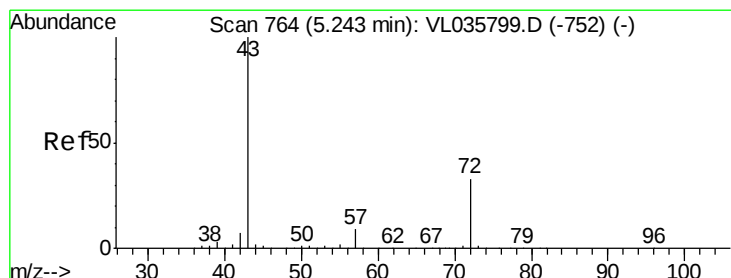
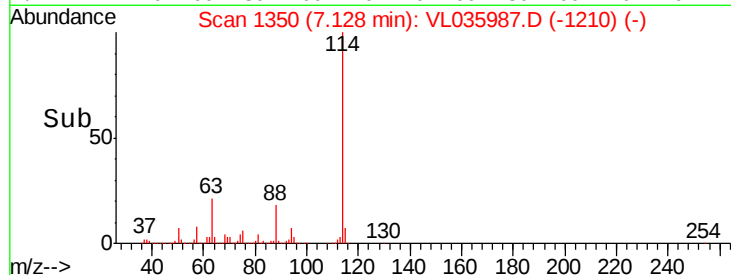
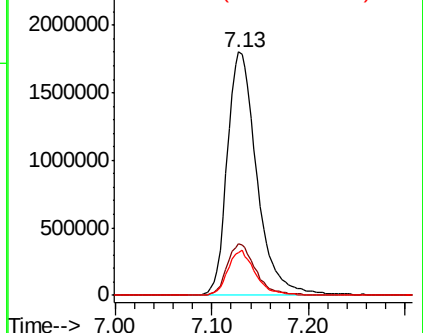
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.13 min Scan# 1350
 Delta R.T. -0.05 min
 Lab File: VL035987.D
 Acq: 19 Nov 2020 00:04

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Tot Ion:114 Resp: 3831194
 Ion Ratio Lower Upper
 114 100
 63 20.7 16.1 24.1
 88 17.3 13.7 20.5

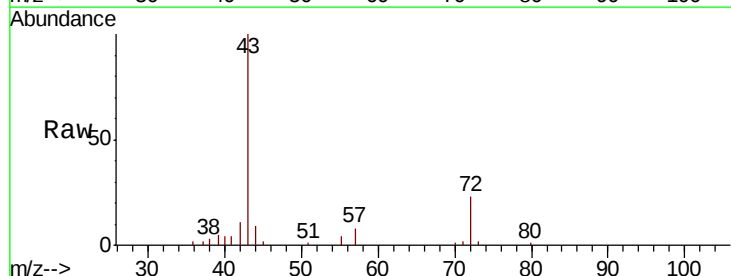


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

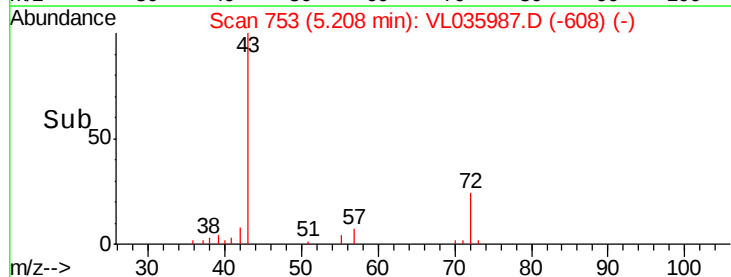
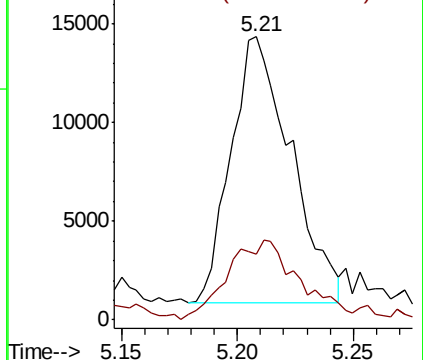


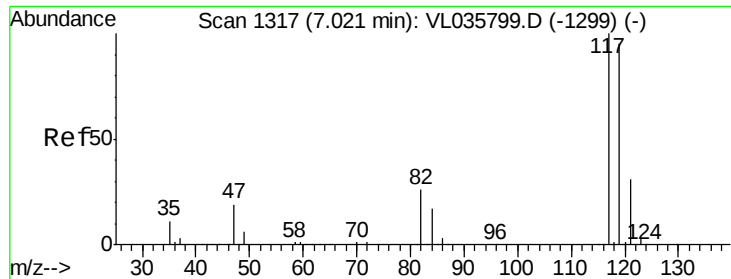
#34
 2-Butanone
 Concen: 0.195 ppbv
 RT: 5.21 min Scan# 753
 Delta R.T. -0.04 min
 Lab File: VL035987.D
 Acq: 19 Nov 2020 00:04

Tgt Ion: 43 Resp: 24268
 Ion Ratio Lower Upper
 43 100
 72 38.8 26.5 39.7



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.070 ppbv

RT: 6.97 min Scan# 1302

Delta R.T. -0.05 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

IA3

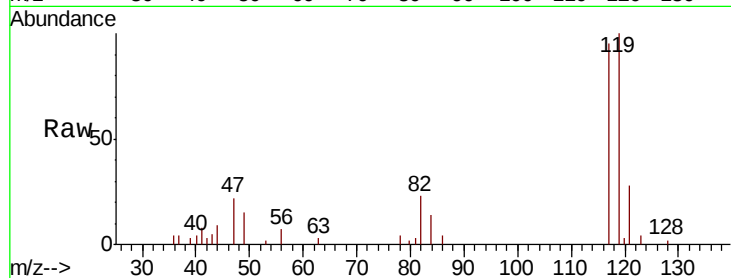
Tot Ion:117 Resp: 14276

Ion Ratio Lower Upper

117 100

119 104.8 75.6 113.4

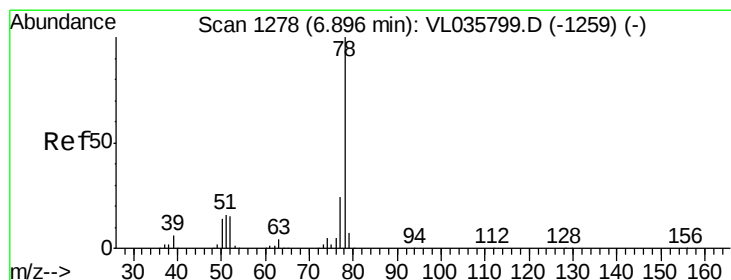
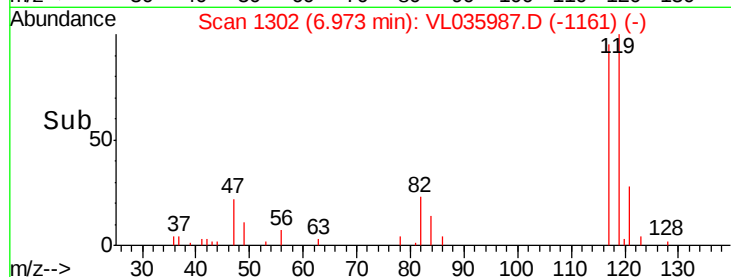
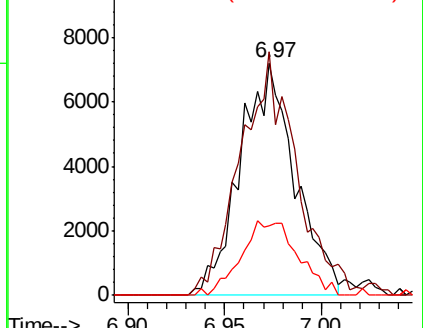
121 29.7 25.1 37.7



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.297 ppbv

RT: 6.84 min Scan# 1262

Delta R.T. -0.05 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

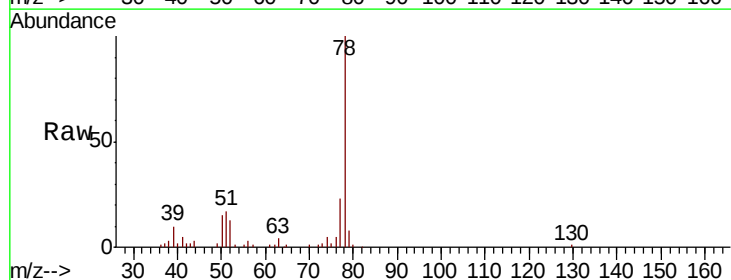
Tgt Ion: 78 Resp: 84722

Ion Ratio Lower Upper

78 100

77 23.2 19.3 28.9

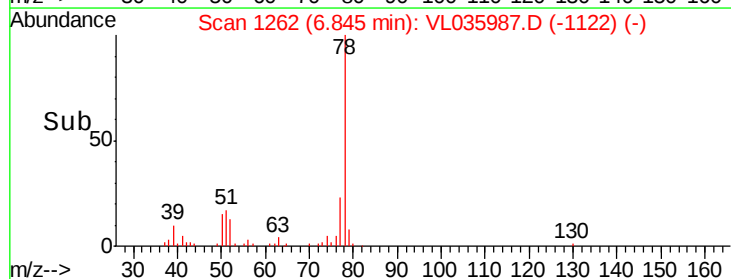
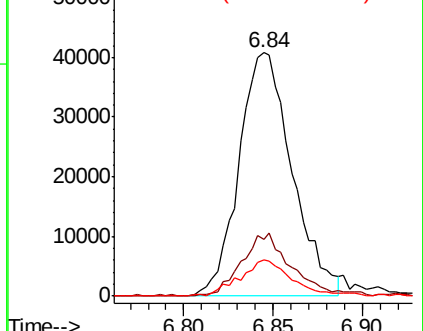
50 15.1 11.4 17.2

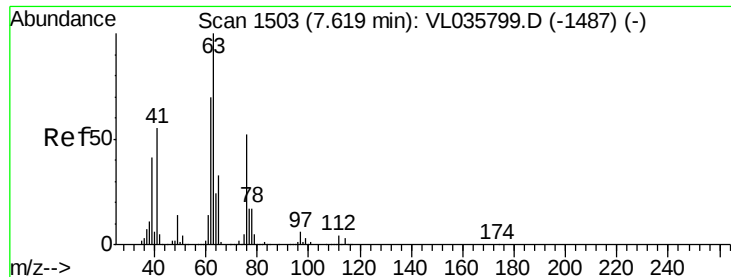


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.208 ppbv

RT: 7.13 min Scan# 1350

Delta R.T. -0.49 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

IA3

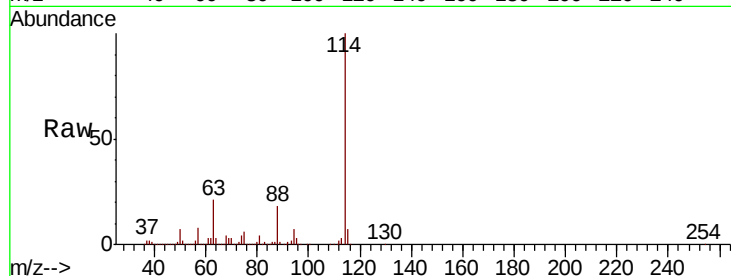
Tot Ion: 63 Resp: 787108

Ion Ratio Lower Upper

63 100

41 0.0 43.8 65.6#

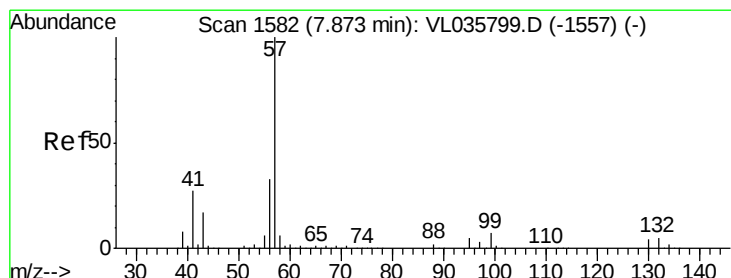
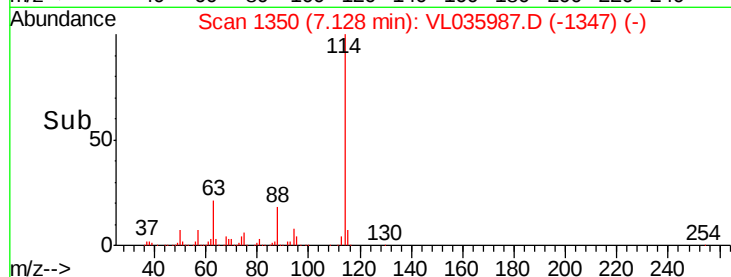
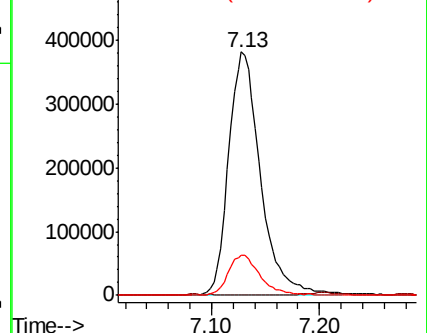
62 16.3 56.2 84.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.117 ppbv

RT: 7.83 min Scan# 1568

Delta R.T. -0.04 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

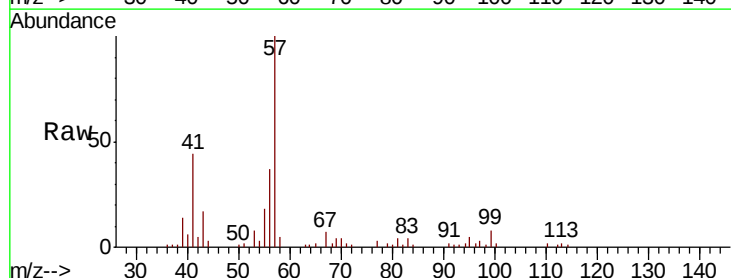
Tgt Ion: 57 Resp: 44126

Ion Ratio Lower Upper

57 100

41 55.4 21.0 31.4#

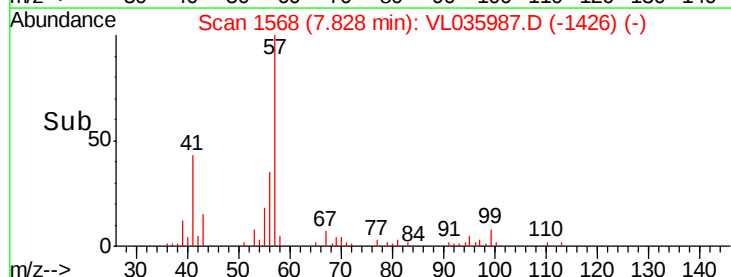
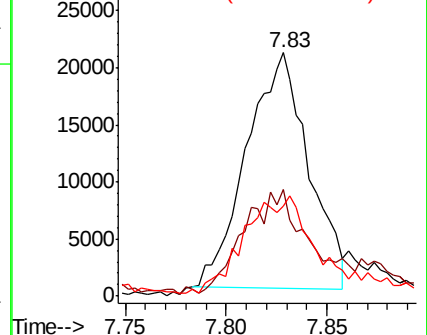
56 56.3 25.4 38.0#

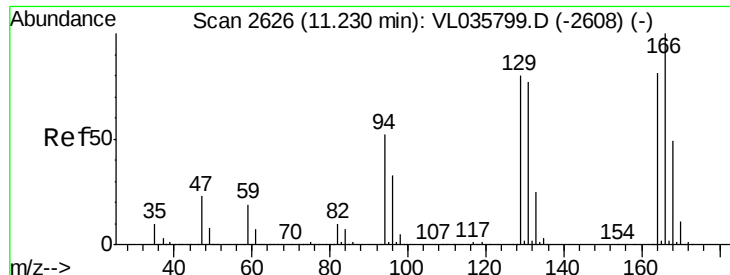


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 0.103 ppbv

RT: 11.18 min Scan# 2609

Delta R.T. -0.05 min

Lab File: VL035987.D

Acq: 19 Nov 2020 00:04

Instrument :

MSVOA_L

ClientSampleId :

IA3

Tot Ion:164 Resp: 13941

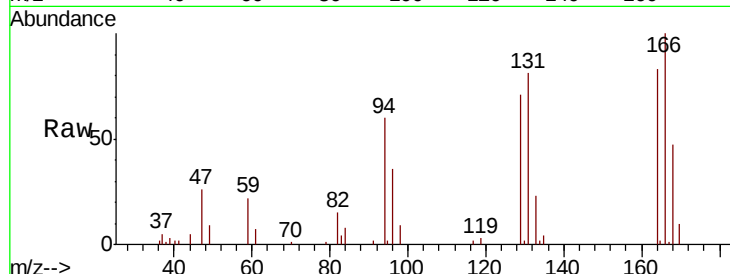
Ion Ratio Lower Upper

164 100

166 118.5 99.3 148.9

129 84.7 79.3 118.9

131 96.4 76.5 114.7

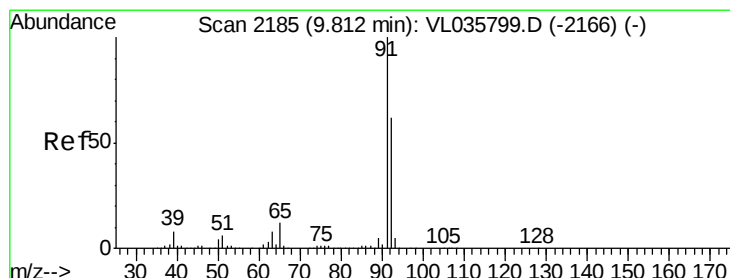
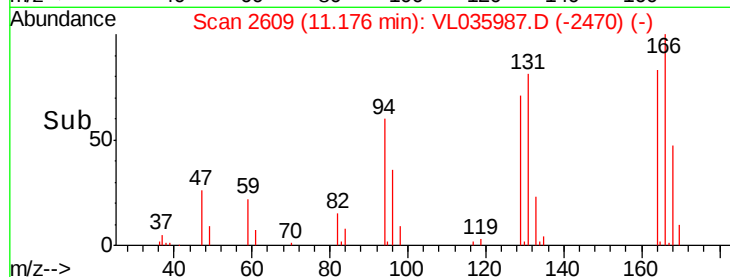
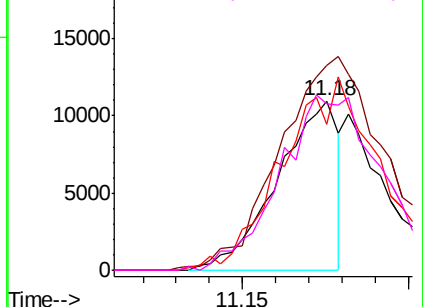


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 6.412 ppbv

RT: 9.76 min Scan# 2168

Delta R.T. -0.05 min

Lab File: VL035987.D

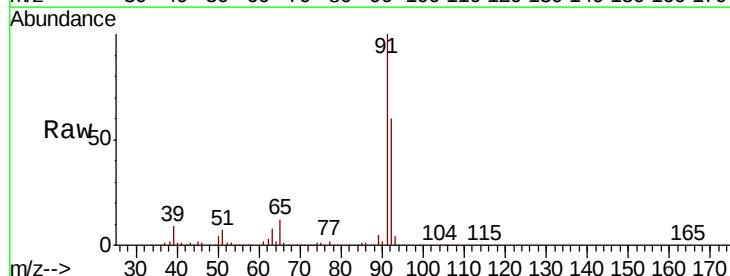
Acq: 19 Nov 2020 00:04

Tgt Ion: 91 Resp: 2203749

Ion Ratio Lower Upper

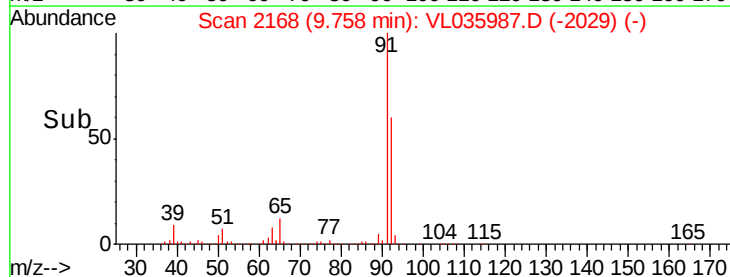
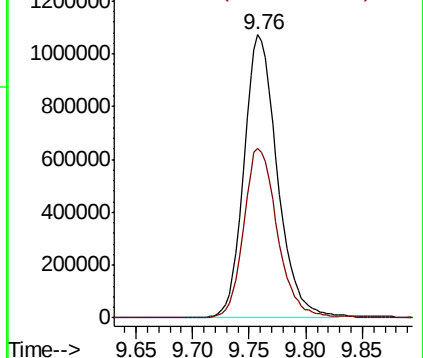
91 100

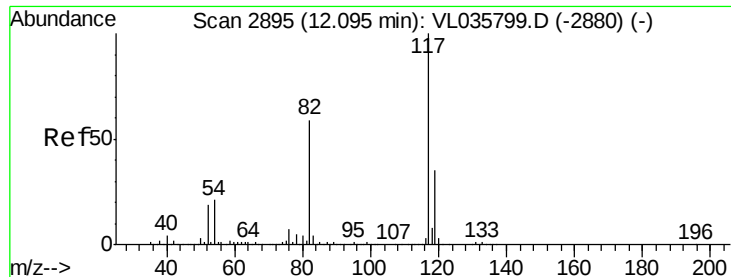
92 61.1 49.8 74.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

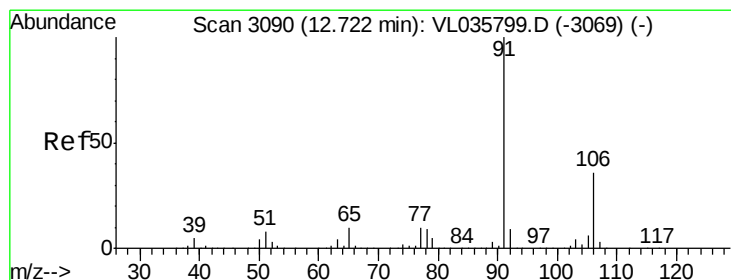
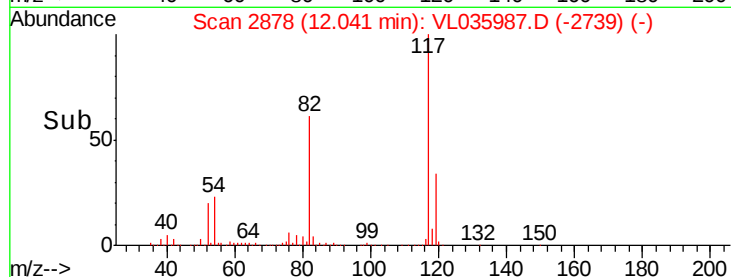
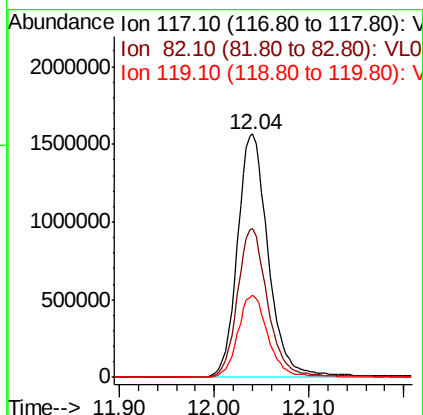
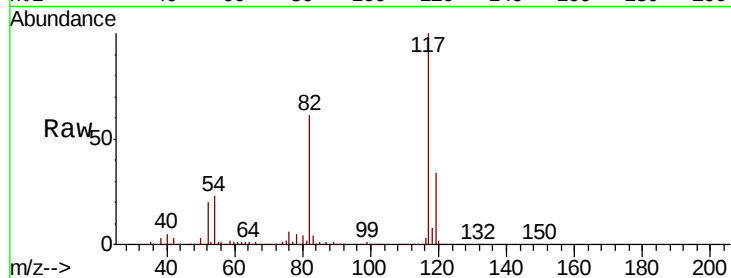




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.04 min Scan# 2878
Delta R.T. -0.05 min
Lab File: VL035987.D
Acq: 19 Nov 2020 00:04

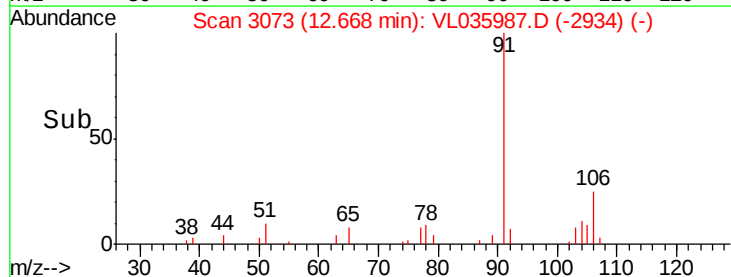
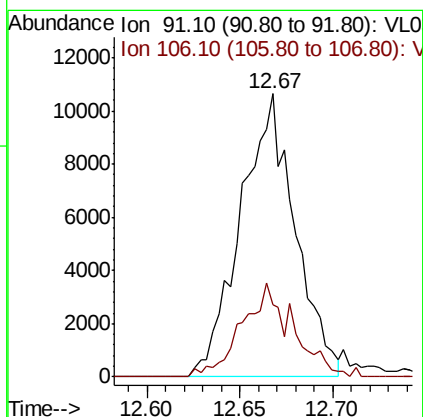
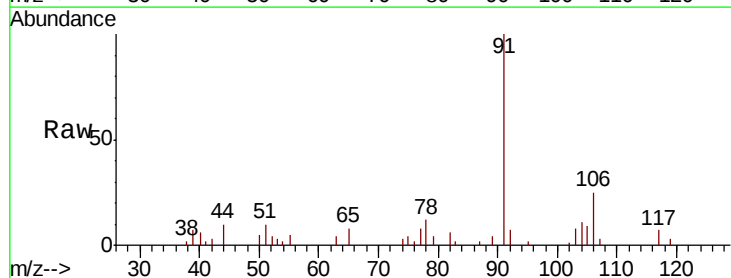
Instrument :
MSVOA_L
ClientSampleId :
IA3

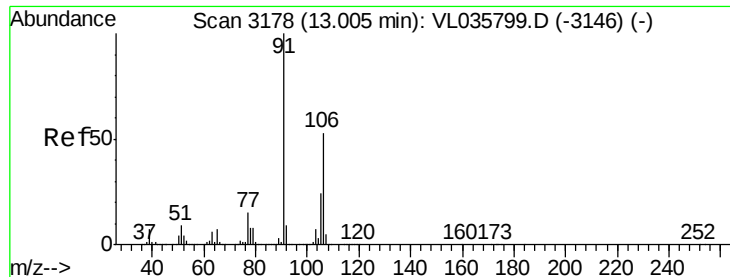
Tot Ion:117 Resp: 3535783
Ion Ratio Lower Upper
117 100
82 61.5 50.6 76.0
119 33.8 52.6 78.8#



#58
Ethyl Benzene
Concen: 0.051 ppbv
RT: 12.67 min Scan# 3073
Delta R.T. -0.05 min
Lab File: VL035987.D
Acq: 19 Nov 2020 00:04

Tgt Ion: 91 Resp: 21799
Ion Ratio Lower Upper
91 100
106 25.3 28.6 43.0#

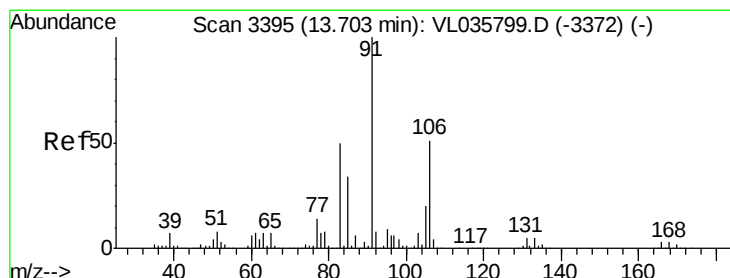
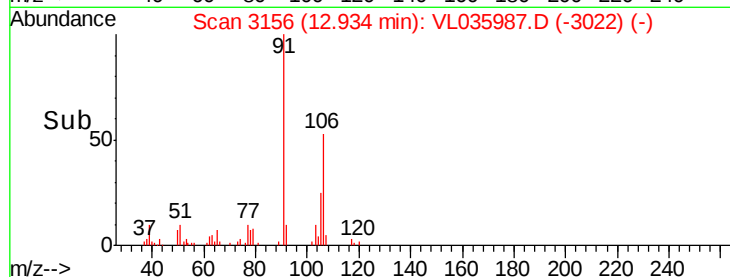
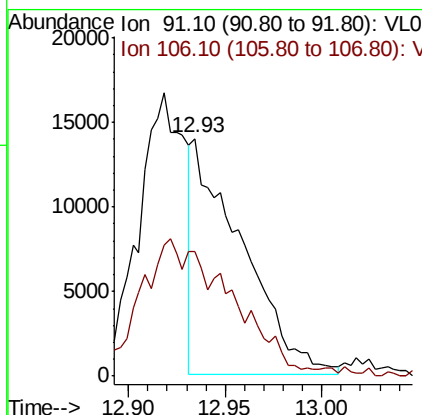
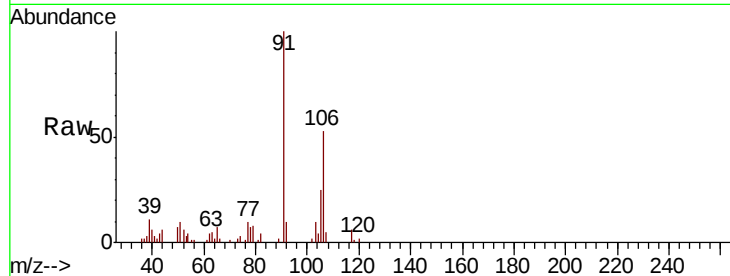




#59
m/p-Xylene
Concen: 0.068 ppbv
RT: 12.93 min Scan# 3156
Delta R.T. -0.07 min
Lab File: VL035987.D
Acq: 19 Nov 2020 00:04

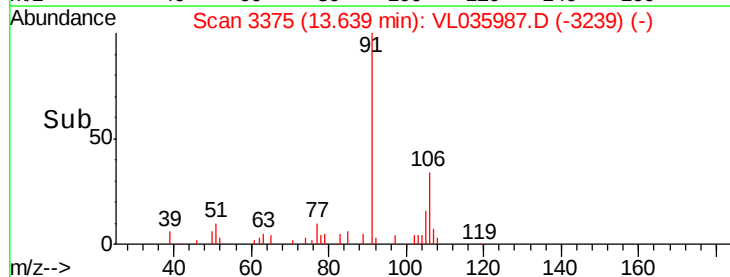
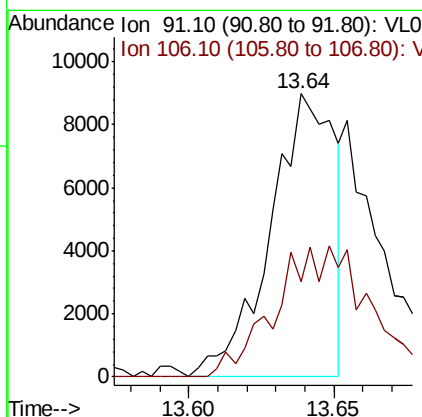
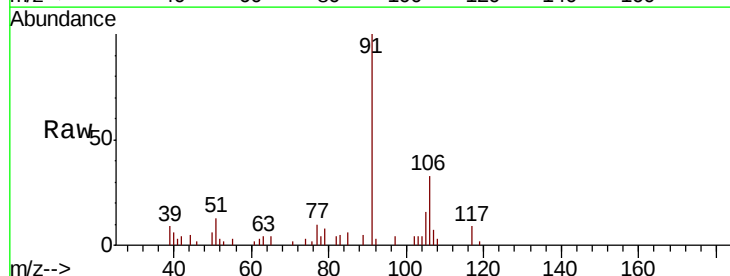
Instrument :
MSVOA_L
ClientSampled :
IA3

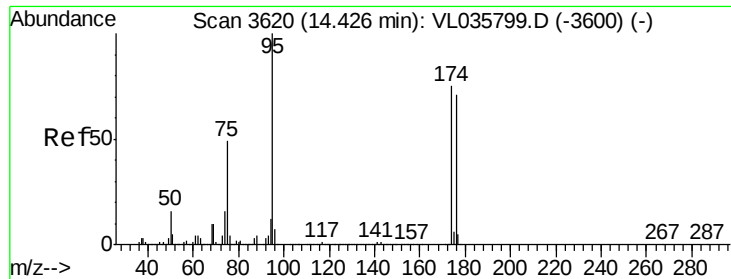
Tot Ion: 91 Resp: 24635
Ion Ratio Lower Upper
91 100
106 0.0 39.5 59.3#



#60
o-Xylene
Concen: 0.039 ppbv
RT: 13.64 min Scan# 3375
Delta R.T. -0.06 min
Lab File: VL035987.D
Acq: 19 Nov 2020 00:04

Tgt Ion: 91 Resp: 13860
Ion Ratio Lower Upper
91 100
106 0.0 24.8 74.4#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.631 ppbv
 RT: 14.37 min Scan# 3602
 Delta R.T. -0.06 min
 Lab File: VL035987.D
 Acq: 19 Nov 2020 00:04

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Tot Ion:	95	Resp:	2670635
Ion	Ratio	Lower	Upper
95	100		
174	70.1	59.8	89.6
175	4.9	4.3	6.5

