

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110520\
 Data File : VL035869.D
 Acq On : 5 Nov 2020 21:02
 Operator : SY/AP
 Sample : L4220-05
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Nov 06 00:29:33 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	5.64	49	1016207	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.15	114	3833877	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.06	117	3445391	10.00	ppbv	-0.04

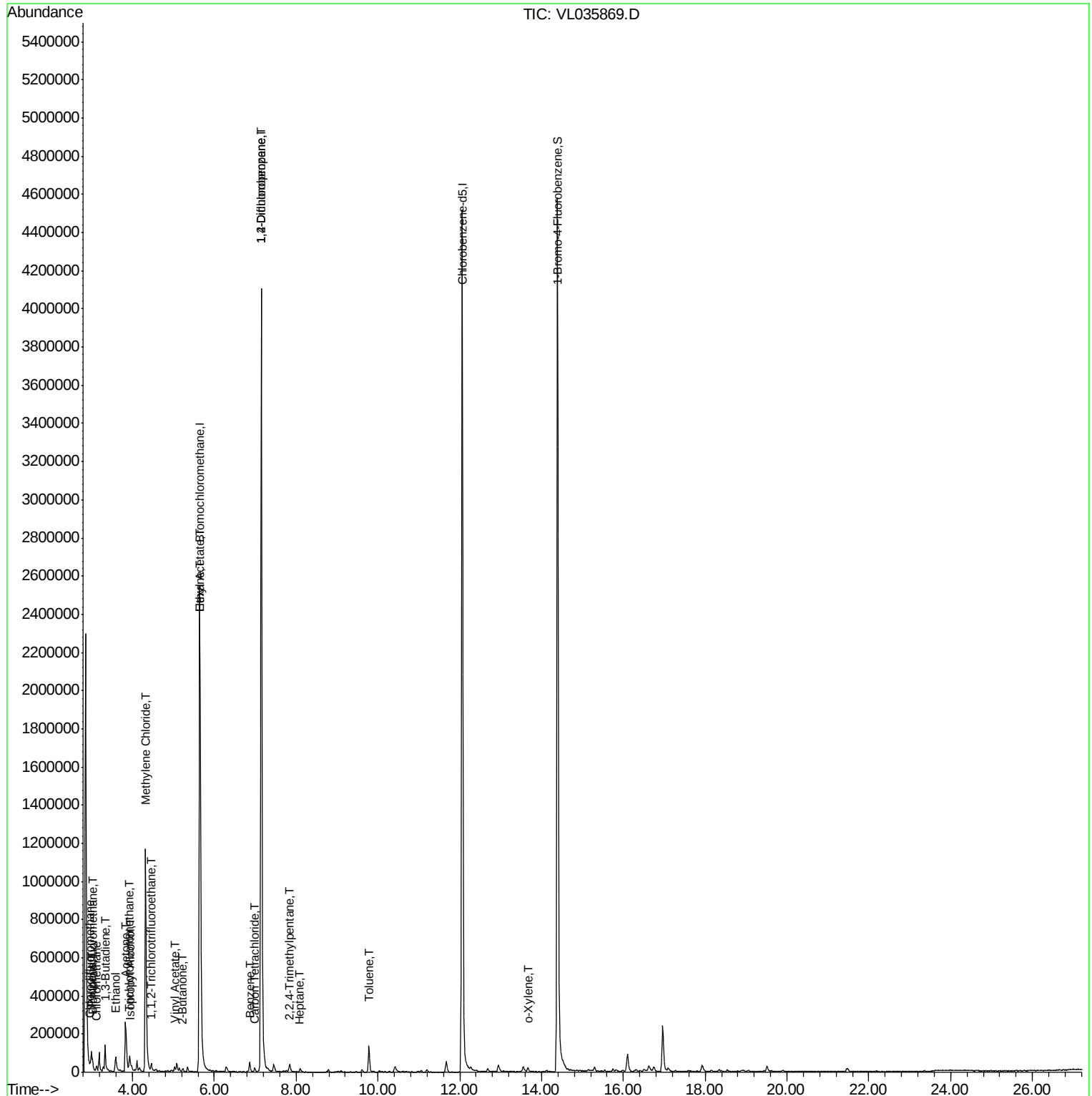
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	2440531	9.97	ppbv	-0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.70%

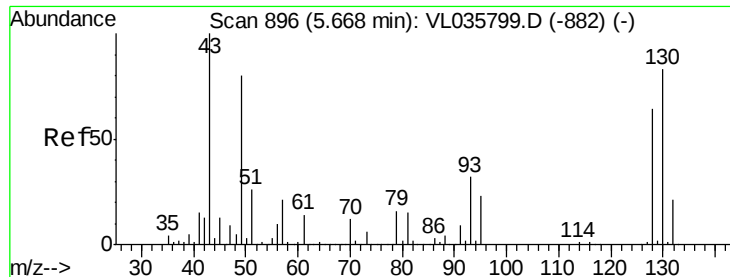
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	44554	0.233	ppbv	96
3) Chlorodifluoromethane	2.96	51	61716	0.507	ppbv #	86
4) Chloromethane	3.12	50	30609	0.518	ppbv	100
9) Propene	2.99	41	13416	0.301	ppbv #	15
10) Heptane	8.09	43	3917	0.032	ppbv #	71
11) Trichlorofluoromethane	3.92	101	60265	0.251	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.46	101	6739	0.038	ppbv #	4
13) Ethanol	3.59	45	109329	11.314	ppbv	97
15) Acetone	3.83	43	330147	3.039	ppbv	98
16) 1,3-Butadiene	3.33	39	23126	0.494	ppbv #	14
19) Isopropyl Alcohol	3.96	45	19018	0.285	ppbv #	44
20) Methylene Chloride	4.32	84	645580	8.441	ppbv	99
23) Vinyl Acetate	5.04	43	11298	0.074	ppbv #	32
25) Ethyl Acetate	5.66	43	196552	0.918	ppbv #	74
26) Hexane	5.66	57	328607	2.784	ppbv #	47
34) 2-Butanone	5.23	43	15879	0.128	ppbv #	83
35) Carbon Tetrachloride	6.99	117	13676	0.067	ppbv #	86
36) Benzene	6.86	78	52068	0.183	ppbv	95
39) 1,2-Dichloropropane	7.15	63	754484	7.863	ppbv #	30
44) 2,2,4-Trimethylpentane	7.84	57	19876	0.053	ppbv #	23
53) Toluene	9.78	91	113023	0.329	ppbv	98
60) o-Xylene	13.66	91	15667	0.045	ppbv	98

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

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QLast Update : Wed Nov 04 02:40:06 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 887

Delta R.T. -0.03 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampleId :

OA1

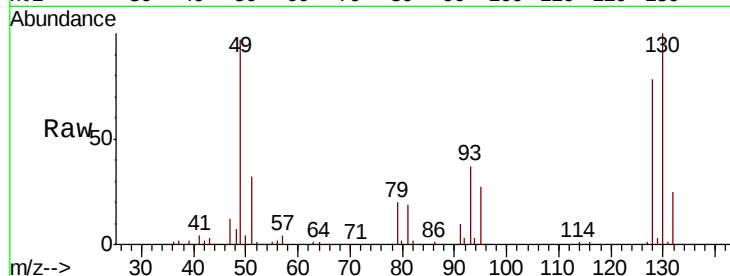
Tot Ion: 49 Resp: 1016207

Ion Ratio Lower Upper

49 100

128 81.1 41.5 124.6

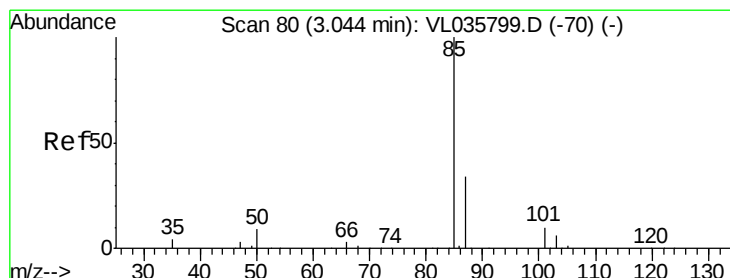
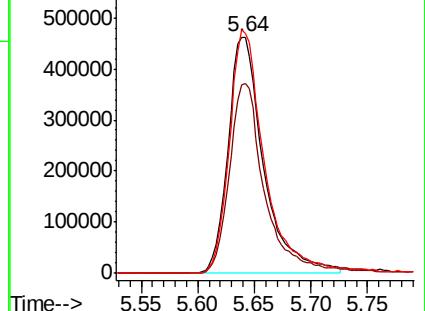
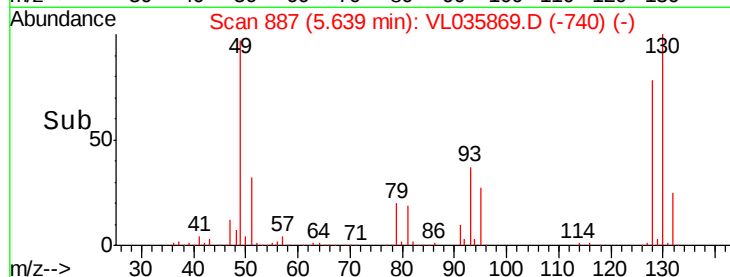
130 104.2 53.7 161.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.233 ppbv

RT: 3.02 min Scan# 74

Delta R.T. -0.02 min

Lab File: VL035869.D

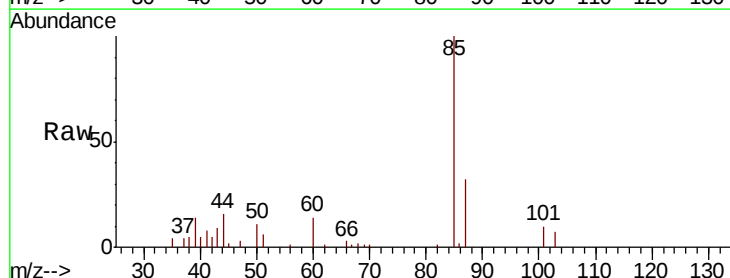
Acq: 5 Nov 2020 21:02

Tgt Ion: 85 Resp: 44554

Ion Ratio Lower Upper

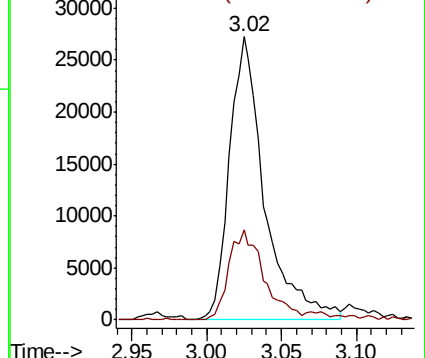
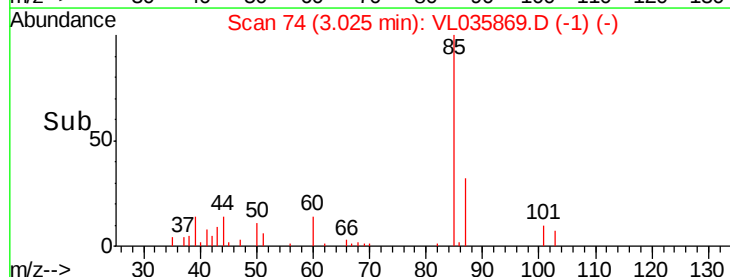
85 100

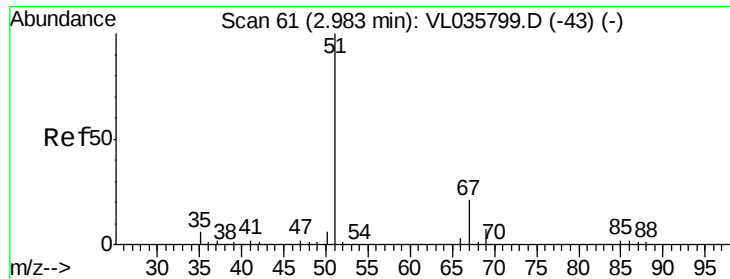
87 31.6 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.507 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.02 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampled :

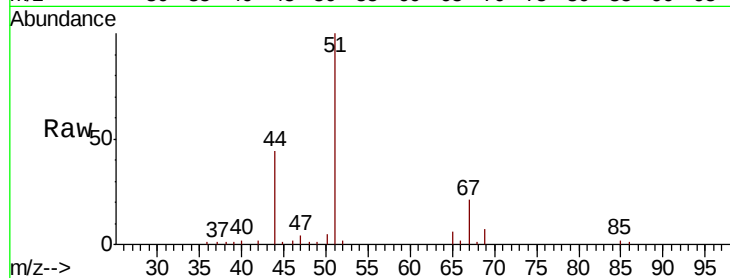
OA1

Tot Ion: 51 Resp: 61716

Ion Ratio Lower Upper

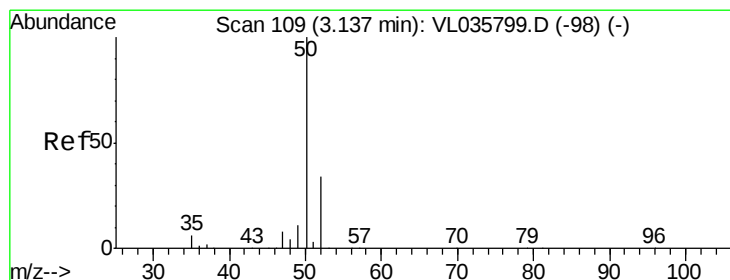
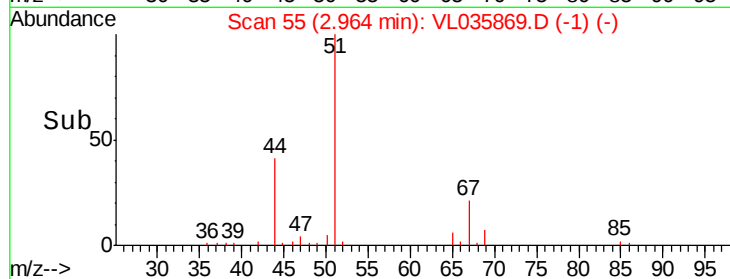
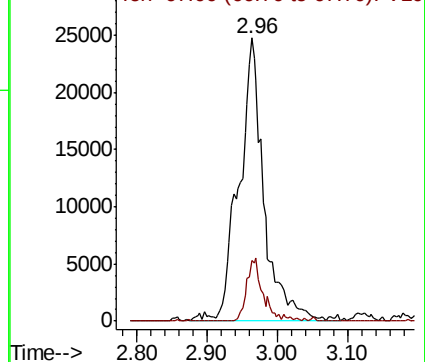
51 100

67 14.8 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: 0.518 ppbv

RT: 3.12 min Scan# 103

Delta R.T. -0.02 min

Lab File: VL035869.D

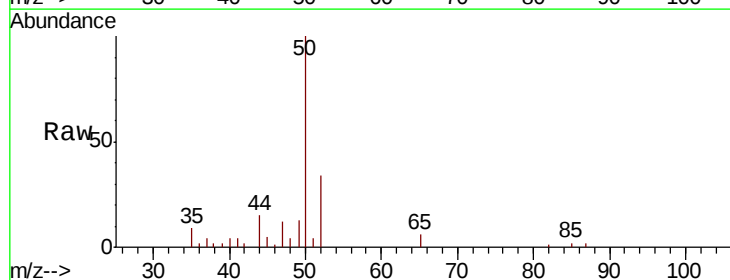
Acq: 5 Nov 2020 21:02

Tgt Ion: 50 Resp: 30609

Ion Ratio Lower Upper

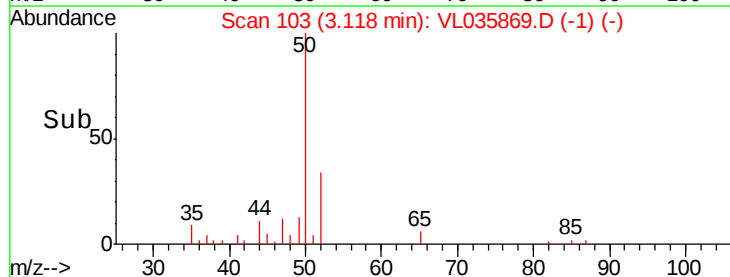
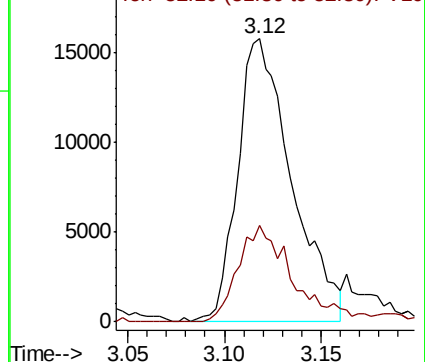
50 100

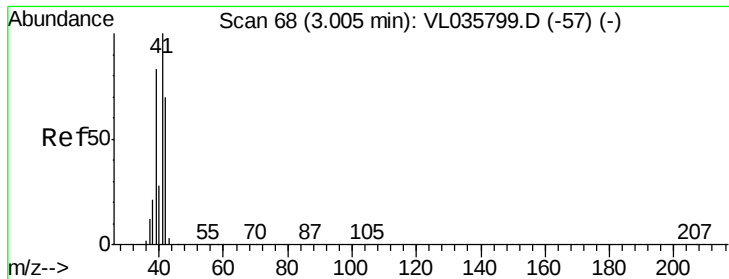
52 34.0 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.301 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.02 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampleId :

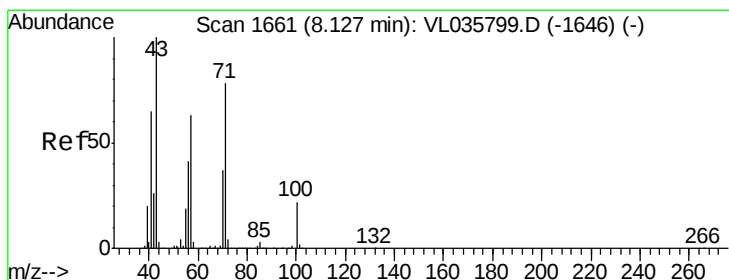
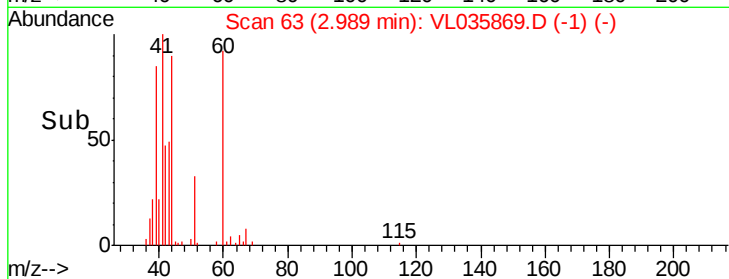
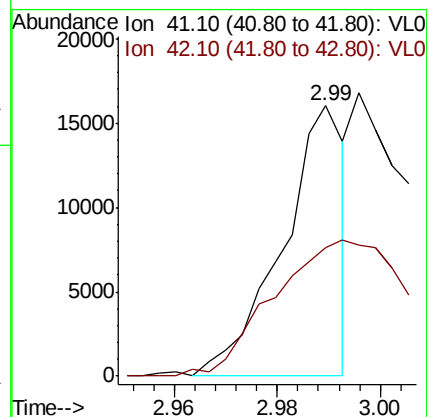
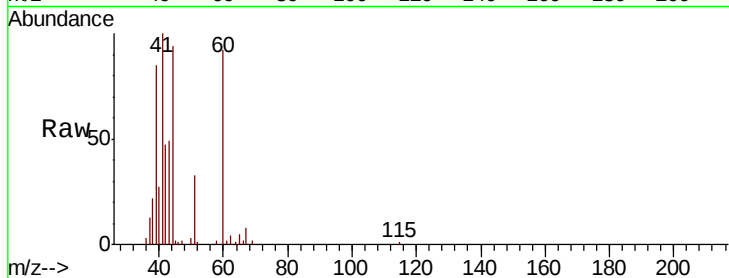
OA1

Tot Ion: 41 Resp: 13416

Ion Ratio Lower Upper

41 100

42 0.0 56.2 84.4#



#10

Heptane

Concen: 0.032 ppbv

RT: 8.09 min Scan# 1650

Delta R.T. -0.04 min

Lab File: VL035869.D

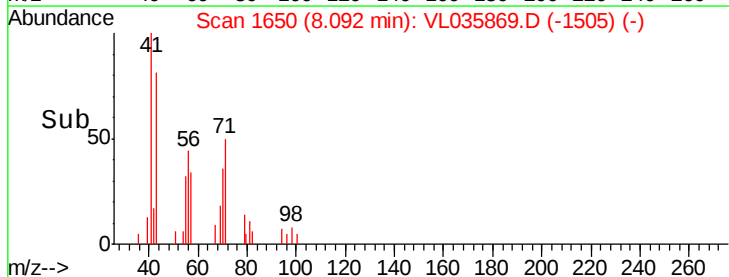
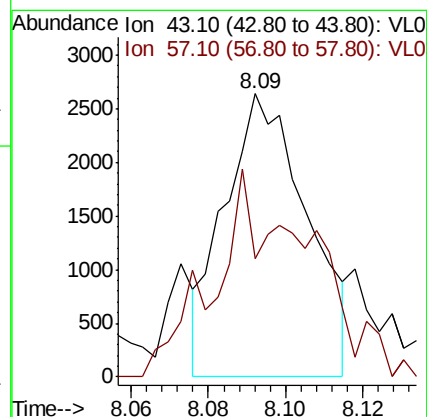
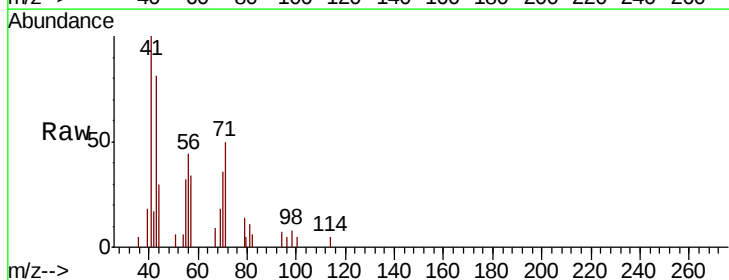
Acq: 5 Nov 2020 21:02

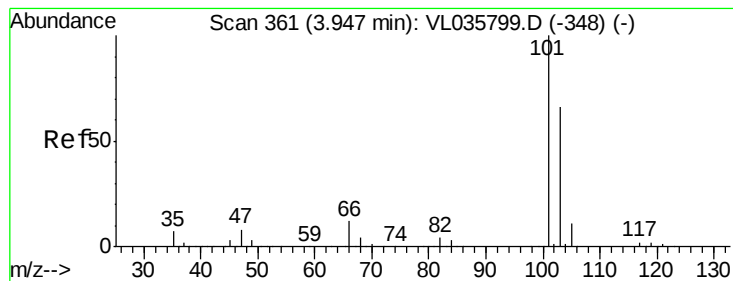
Tgt Ion: 43 Resp: 3917

Ion Ratio Lower Upper

43 100

57 85.2 50.0 75.0#





#11

Trichlorofluoromethane

Concen: 0.251 ppbv

RT: 3.92 min Scan# 354

Delta R.T. -0.02 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampleId :

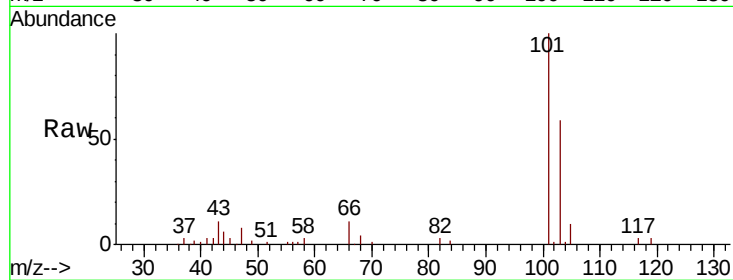
OA1

Tot Ion:101 Resp: 60265

Ion Ratio Lower Upper

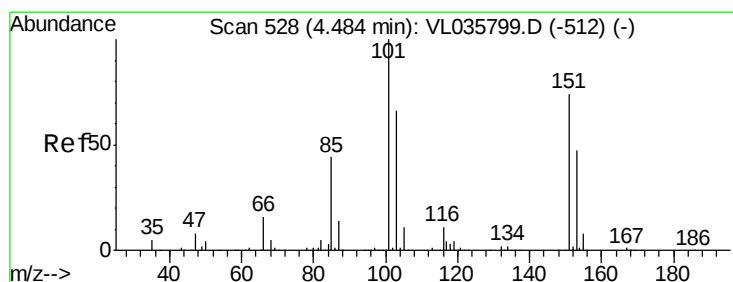
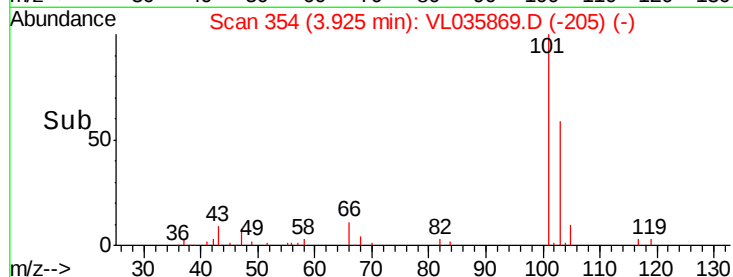
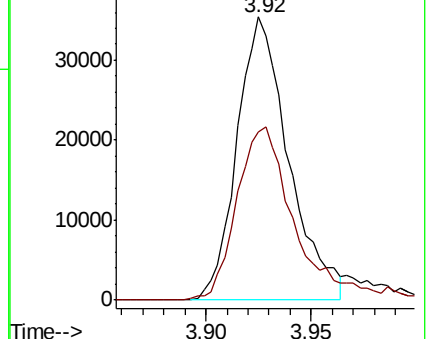
101 100

103 58.7 53.0 79.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.038 ppbv

RT: 4.46 min Scan# 521

Delta R.T. -0.02 min

Lab File: VL035869.D

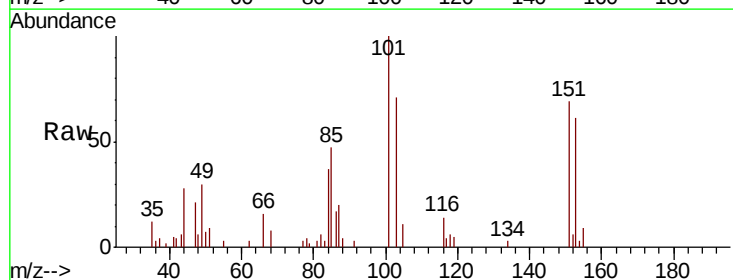
Acq: 5 Nov 2020 21:02

Tgt Ion:101 Resp: 6739

Ion Ratio Lower Upper

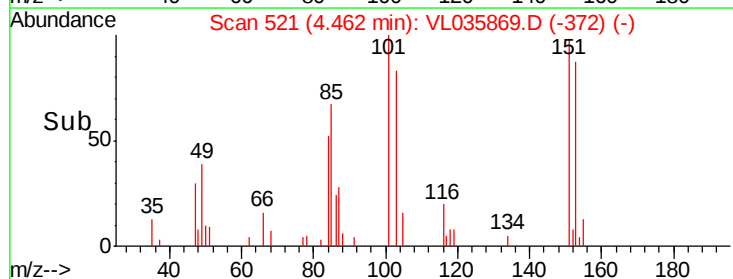
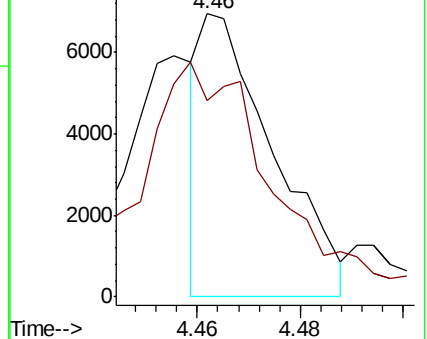
101 100

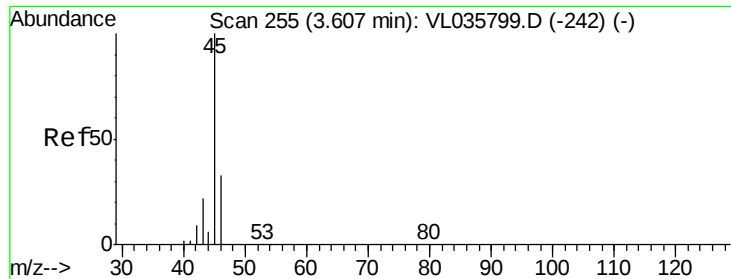
151 154.8 58.9 88.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 11.314 ppbv

RT: 3.59 min Scan# 249

Delta R.T. -0.02 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampleId :

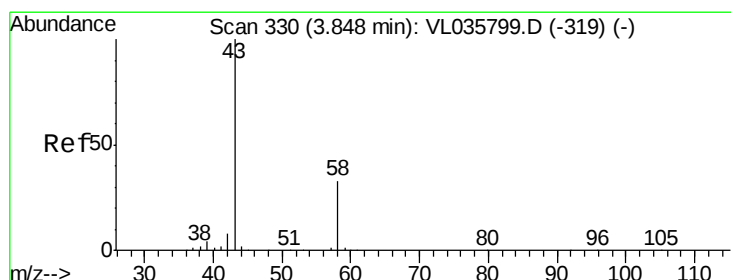
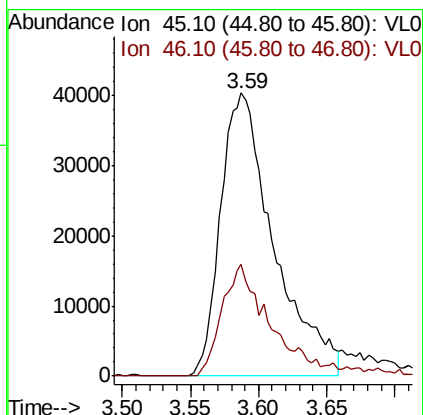
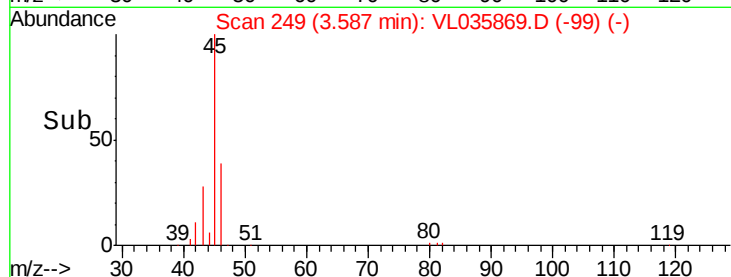
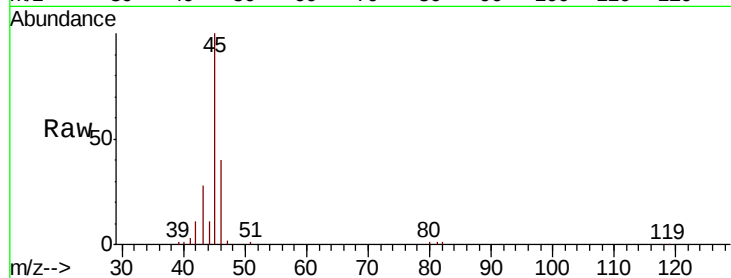
QA1

Tot Ion: 45 Resp: 109329

Ion Ratio Lower Upper

45 100

46 38.1 16.1 64.5



#15

Acetone

Concen: 3.039 ppbv

RT: 3.83 min Scan# 324

Delta R.T. -0.02 min

Lab File: VL035869.D

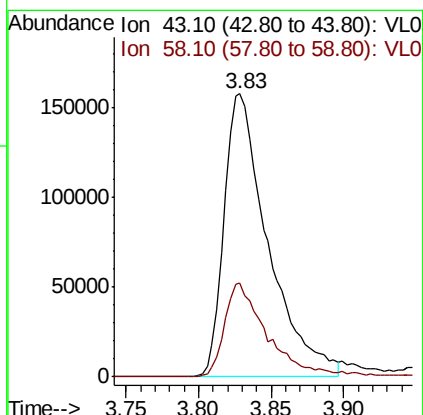
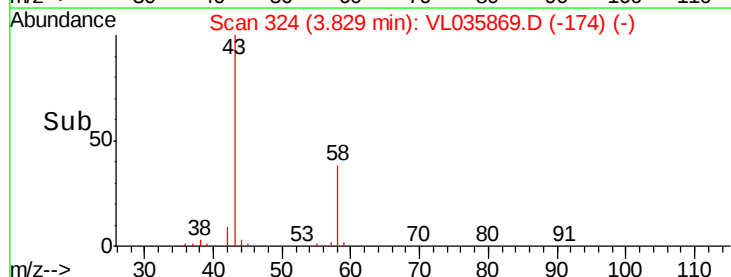
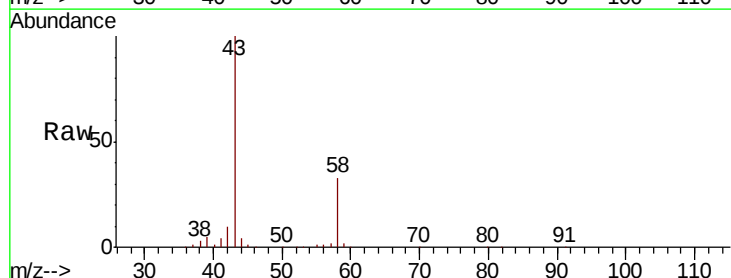
Acq: 5 Nov 2020 21:02

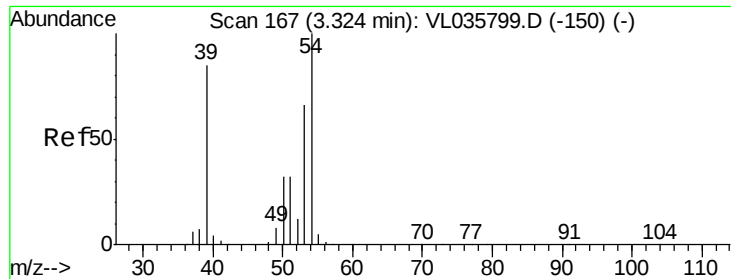
Tgt Ion: 43 Resp: 330147

Ion Ratio Lower Upper

43 100

58 33.1 27.5 41.3

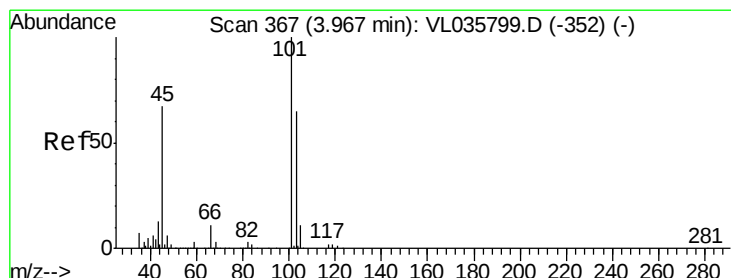
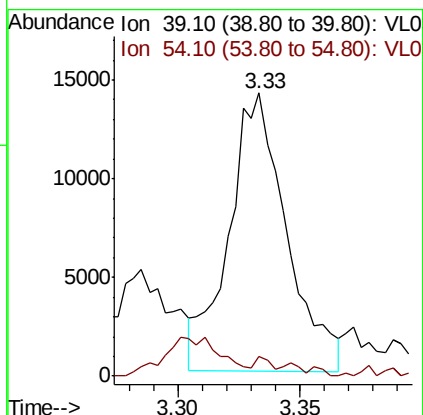
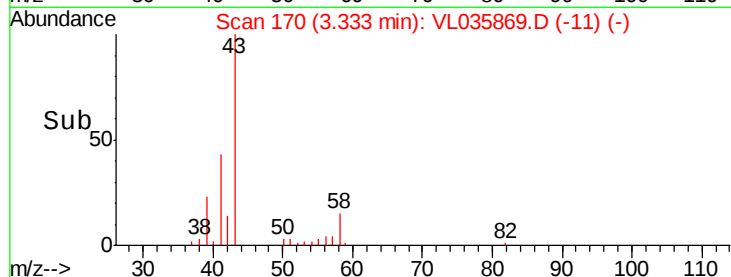
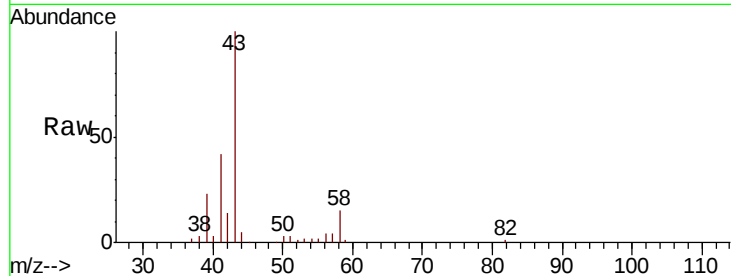




#16
 1,3-Butadiene
 Concen: 0.494 ppbv
 RT: 3.33 min Scan# 170
 Delta R.T. 0.01 min
 Lab File: VL035869.D
 Acq: 5 Nov 2020 21:02

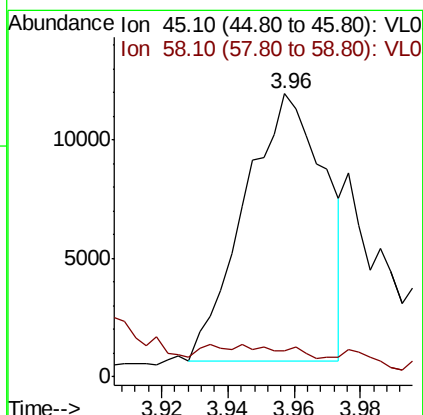
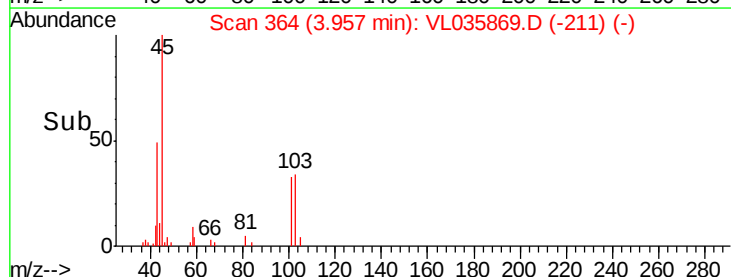
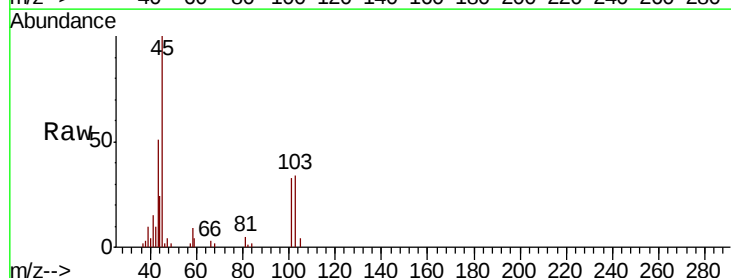
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

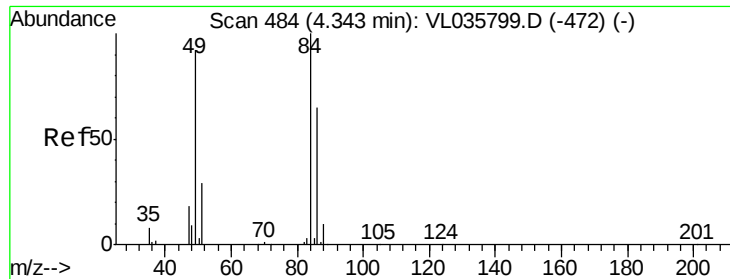
Tot Ion: 39 Resp: 23126
 Ion Ratio Lower Upper
 39 100
 54 18.2 87.1 130.7#



#19
 Isopropyl Alcohol
 Concen: 0.285 ppbv
 RT: 3.96 min Scan# 364
 Delta R.T. -0.01 min
 Lab File: VL035869.D
 Acq: 5 Nov 2020 21:02

Tgt Ion: 45 Resp: 19018
 Ion Ratio Lower Upper
 45 100
 58 21.8 2.6 3.8#

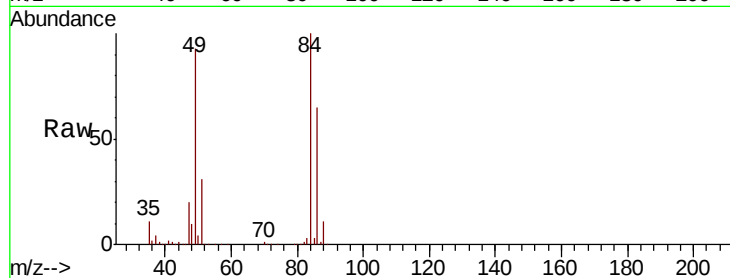




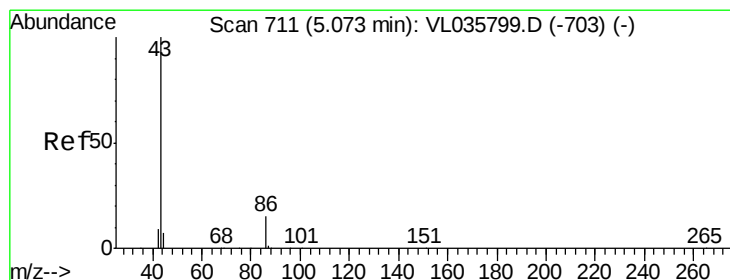
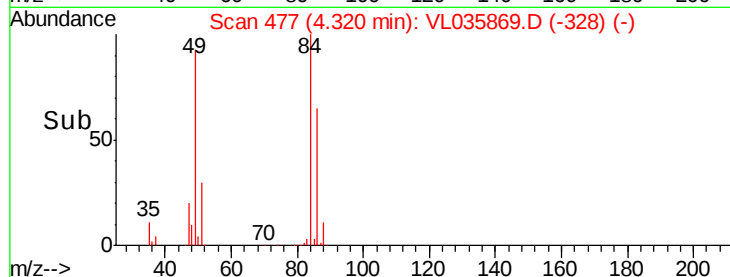
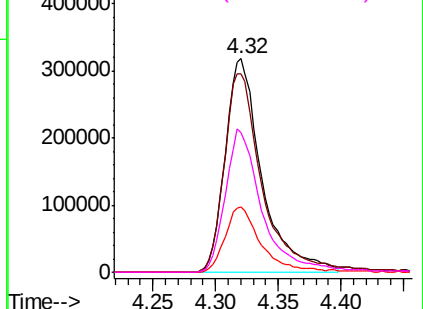
#20
Methvlene Chloride
Concen: 8.441 ppbv
RT: 4.32 min Scan# 477
Delta R.T. -0.02 min
Lab File: VL035869.D
Acq: 5 Nov 2020 21:02

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tot Ion:	84	Resp:	645580
Ion	Ratio	Lower	Upper
84	100		
49	93.1	73.8	110.8
51	30.5	23.0	34.4
86	65.3	52.1	78.1

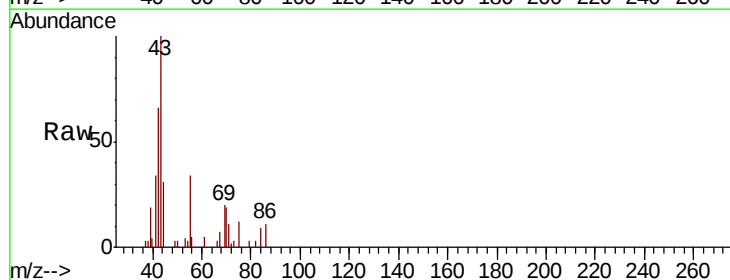


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

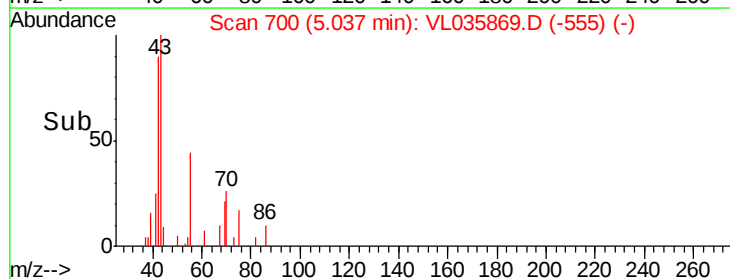
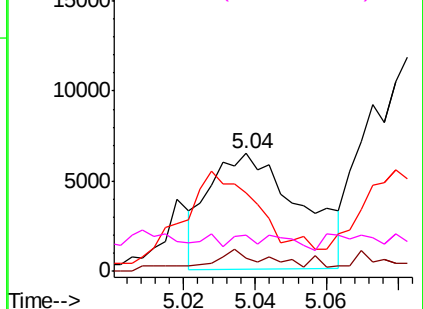


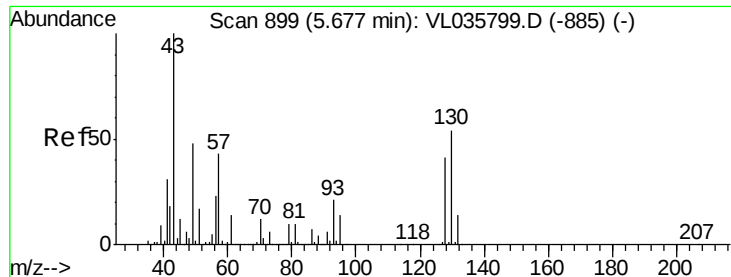
#23
Vinyl Acetate
Concen: 0.074 ppbv
RT: 5.04 min Scan# 700
Delta R.T. -0.04 min
Lab File: VL035869.D
Acq: 5 Nov 2020 21:02

Tgt Ion:	43	Resp:	11298
Ion	Ratio	Lower	Upper
43	100		
86	14.0	9.8	14.6
42	71.6	8.1	12.1#
44	14.8	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: 0.918 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.02 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampleID :

OA1

Tot Ion: 43 Resp: 196552

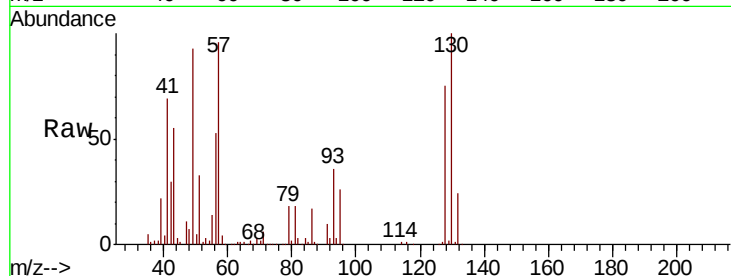
Ion Ratio Lower Upper

43 100

45 1.3 8.5 12.7#

61 0.8 10.7 16.1#

70 2.9 8.6 12.8#

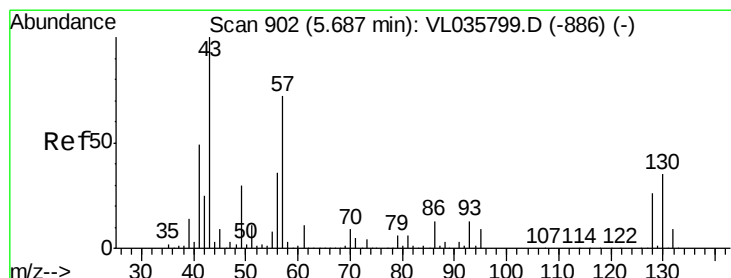
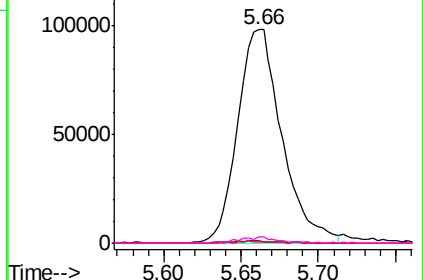
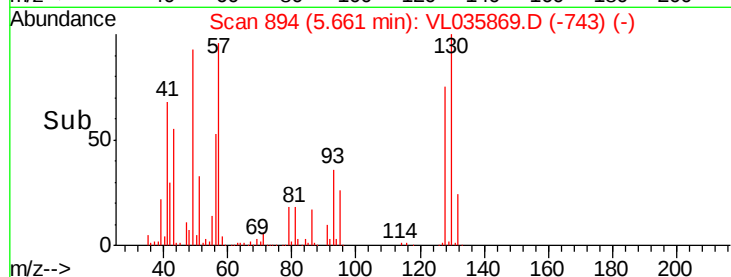


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 2.784 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.03 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Tgt Ion: 57 Resp: 328607

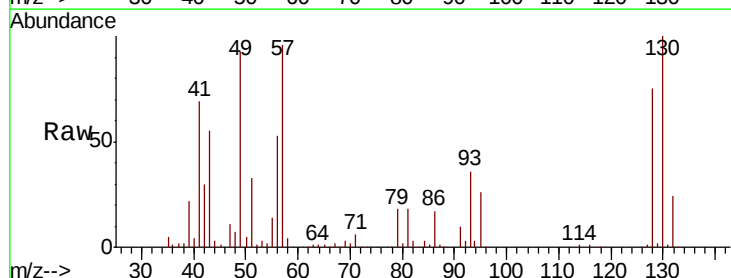
Ion Ratio Lower Upper

57 100

41 76.0 58.9 88.3

43 61.9 150.2 225.2#

56 56.2 42.4 63.6

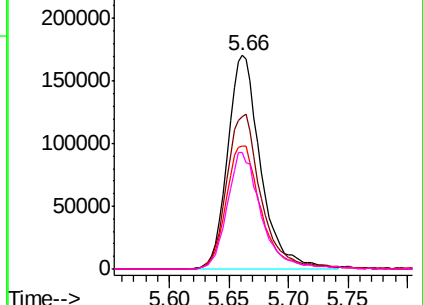
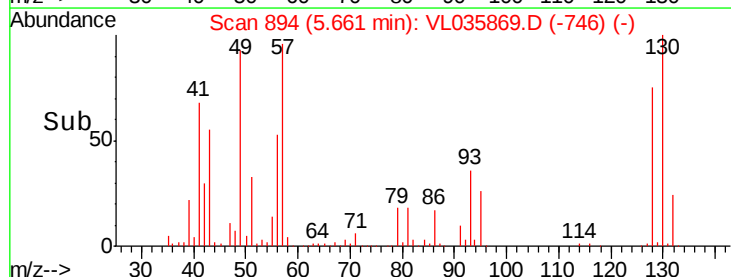


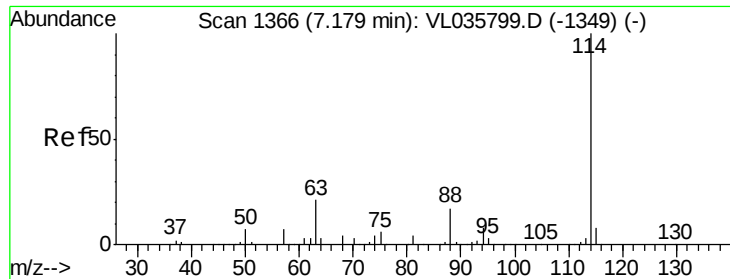
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

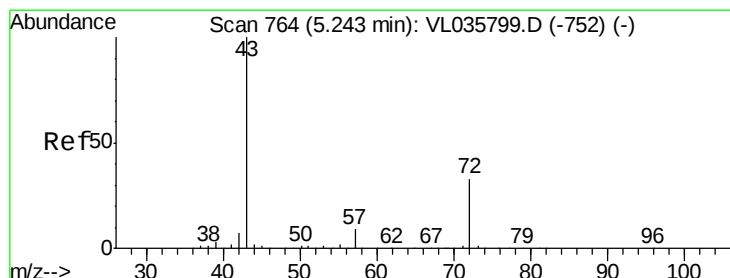
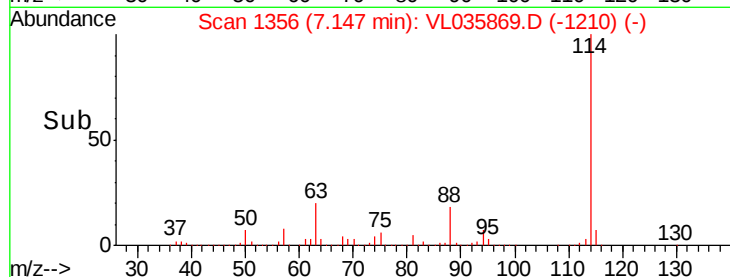
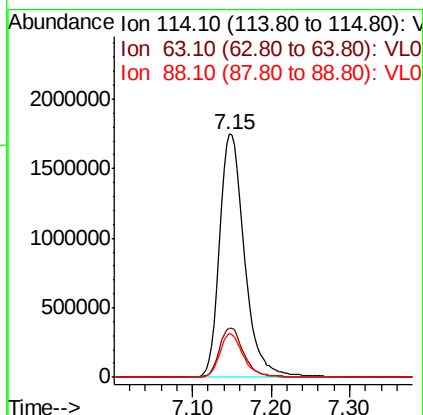
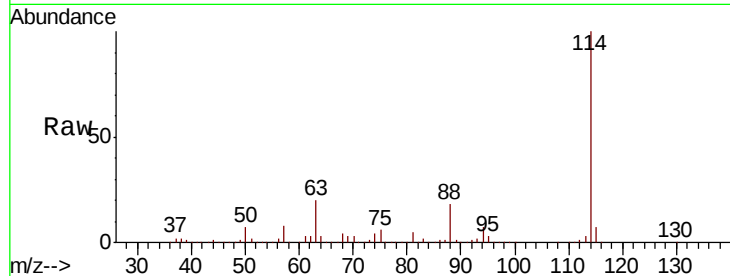




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.15 min Scan# 1356
 Delta R.T. -0.03 min
 Lab File: VL035869.D
 Acq: 5 Nov 2020 21:02

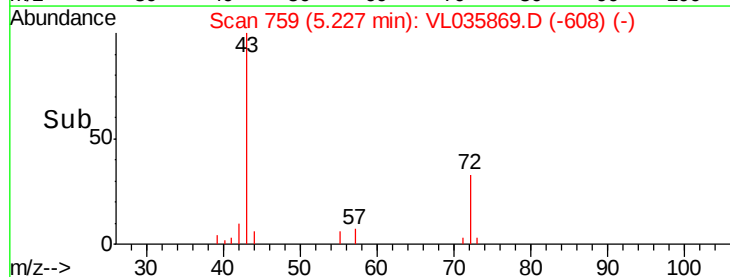
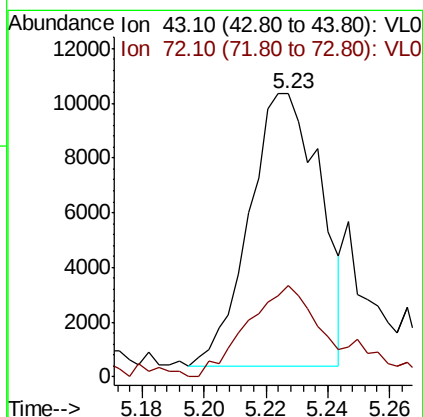
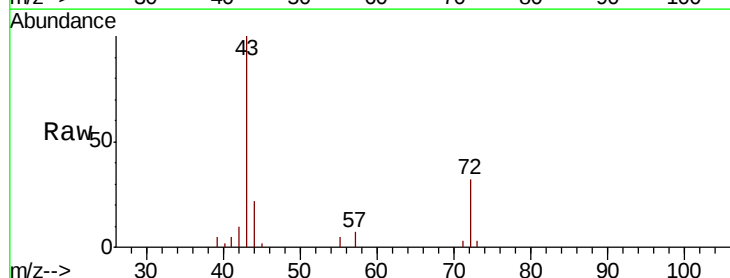
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

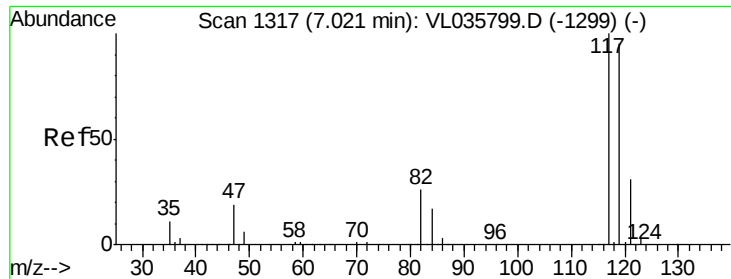
Tot Ion:114 Resp: 3833877
 Ion Ratio Lower Upper
 114 100
 63 20.0 16.1 24.1
 88 17.0 13.7 20.5



#34
 2-Butanone
 Concen: 0.128 ppbv
 RT: 5.23 min Scan# 759
 Delta R.T. -0.02 min
 Lab File: VL035869.D
 Acq: 5 Nov 2020 21:02

Tgt Ion: 43 Resp: 15879
 Ion Ratio Lower Upper
 43 100
 72 42.5 26.5 39.7#

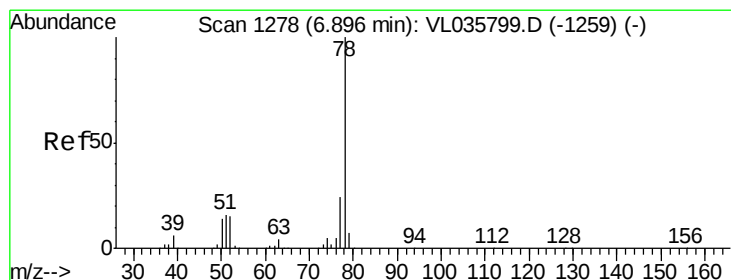
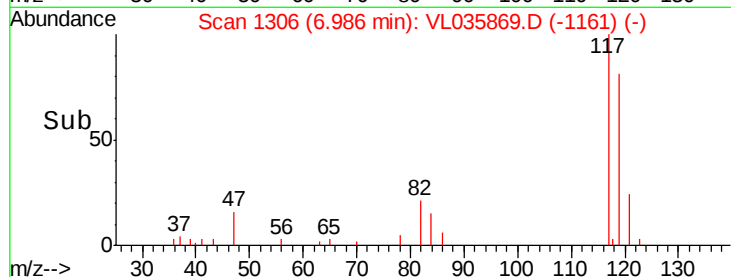
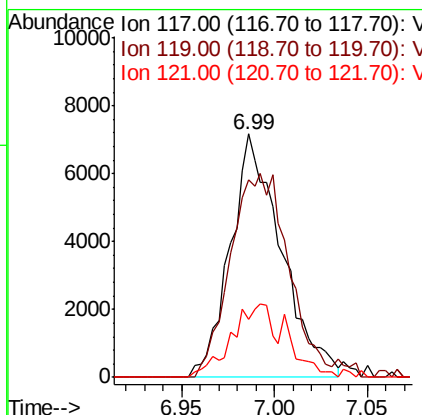
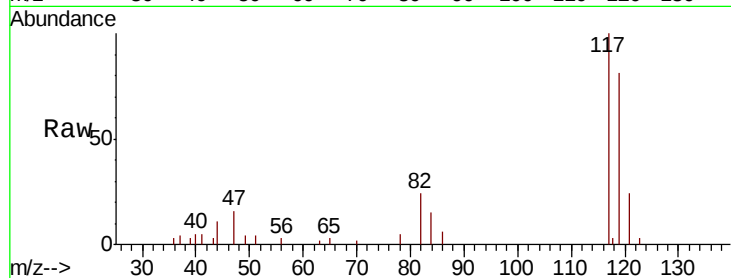




#35
Carbon Tetrachloride
Concen: 0.067 ppbv
RT: 6.99 min Scan# 1306
Delta R.T. -0.04 min
Lab File: VL035869.D
Acq: 5 Nov 2020 21:02

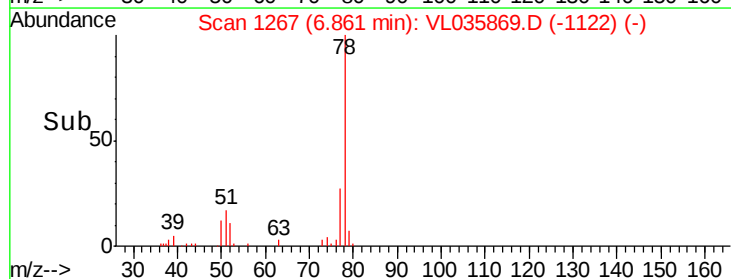
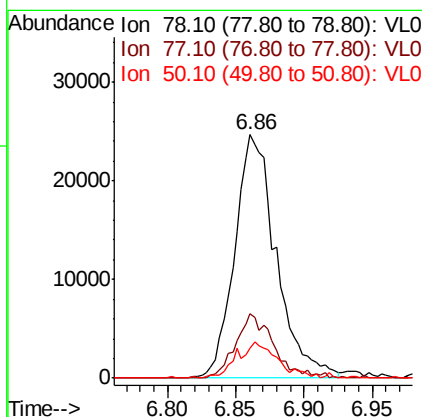
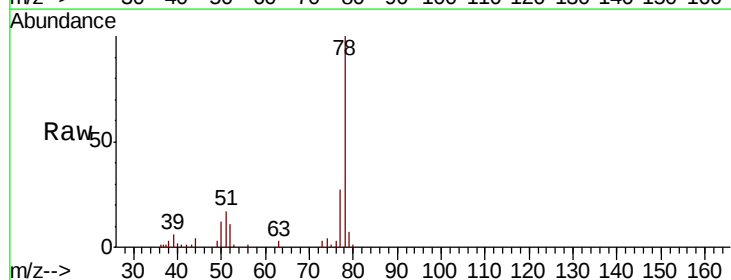
Instrument :
MSVOA_L
ClientSampleId :
OA1

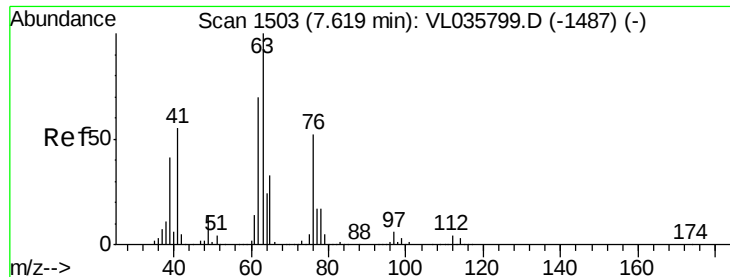
Tot Ion:117 Resp: 13676
Ion Ratio Lower Upper
117 100
119 81.1 75.6 113.4
121 24.1 25.1 37.7#



#36
Benzene
Concen: 0.183 ppbv
RT: 6.86 min Scan# 1267
Delta R.T. -0.04 min
Lab File: VL035869.D
Acq: 5 Nov 2020 21:02

Tgt Ion: 78 Resp: 52068
Ion Ratio Lower Upper
78 100
77 26.6 19.3 28.9
50 12.2 11.4 17.2





#39

1,2-Dichloropropane

Concen: 7.863 ppbv

RT: 7.15 min Scan# 1356

Delta R.T. -0.47 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampleId :

OA1

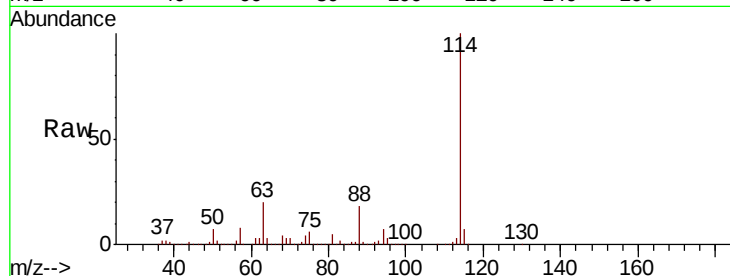
Tot Ion: 63 Resp: 754484

Ion Ratio Lower Upper

63 100

41 0.0 43.8 65.6#

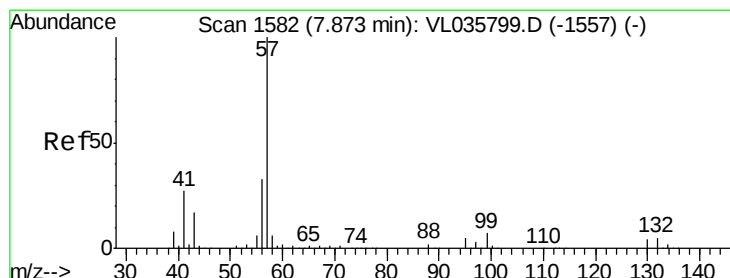
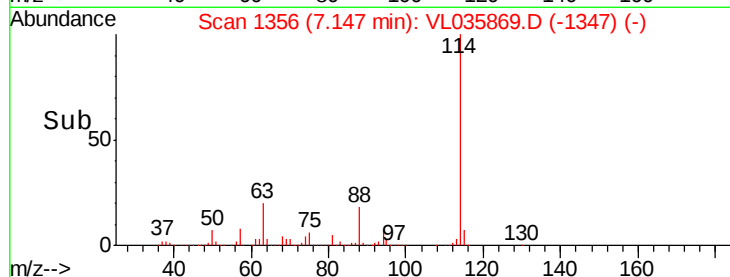
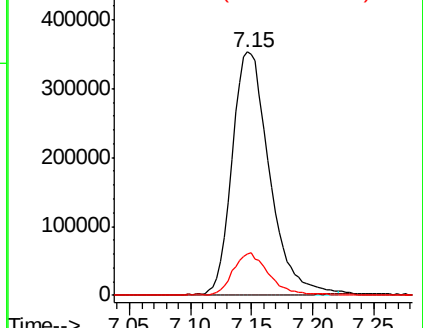
62 16.8 56.2 84.2#



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: 0.053 ppbv

RT: 7.84 min Scan# 1573

Delta R.T. -0.03 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

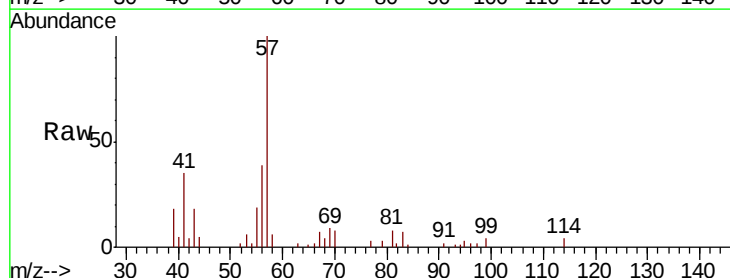
Tgt Ion: 57 Resp: 19876

Ion Ratio Lower Upper

57 100

41 74.1 21.0 31.4#

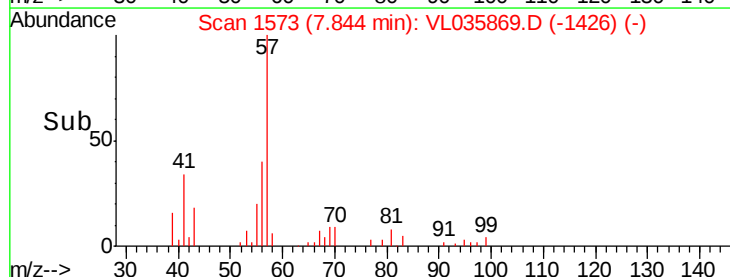
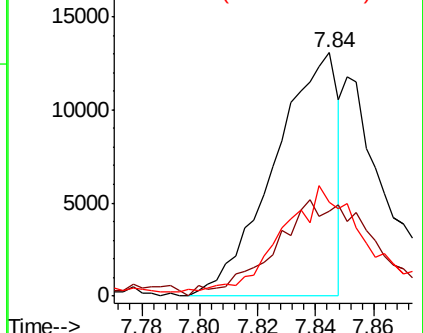
56 67.0 25.4 38.0#

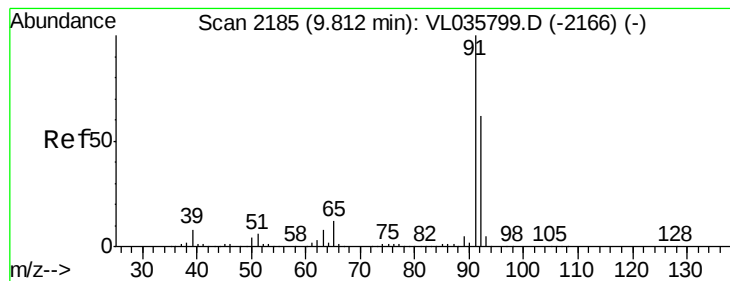


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.329 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.03 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

Instrument :

MSVOA_L

ClientSampleId :

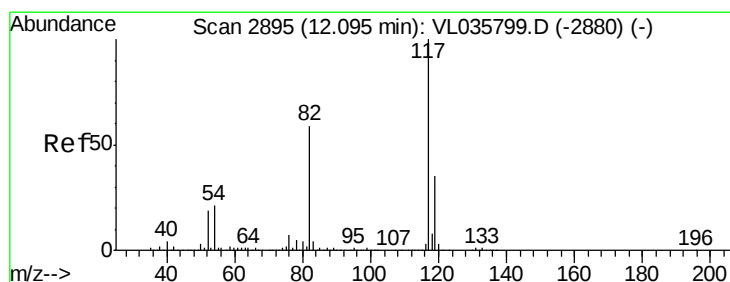
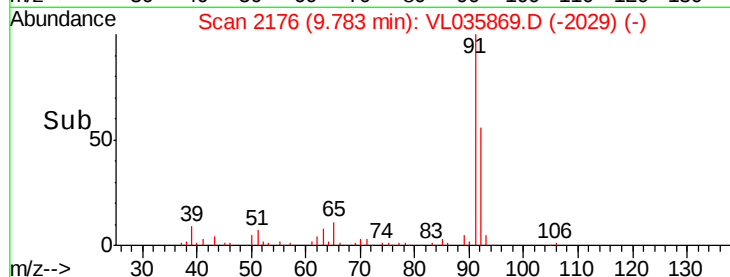
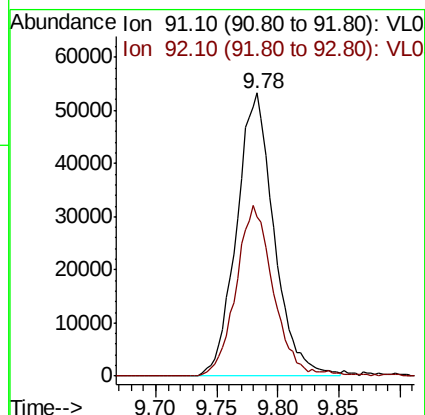
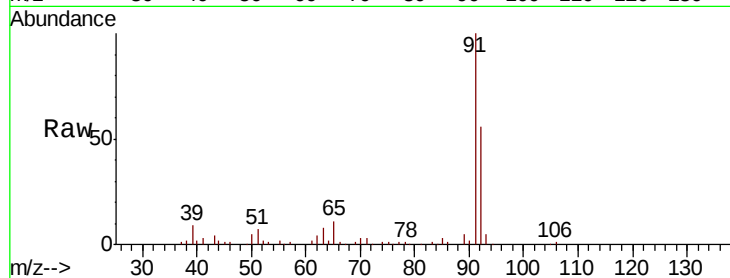
QA1

Tot Ion: 91 Resp: 113023

Ion Ratio Lower Upper

91 100

92 60.8 49.8 74.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2884

Delta R.T. -0.04 min

Lab File: VL035869.D

Acq: 5 Nov 2020 21:02

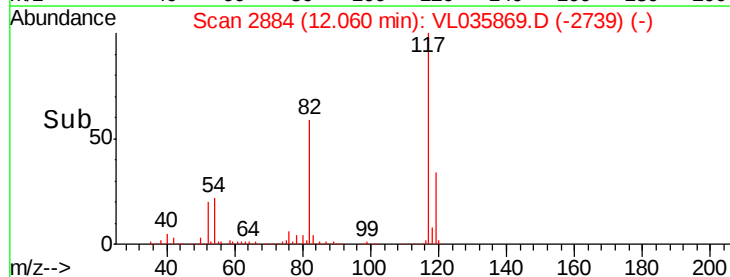
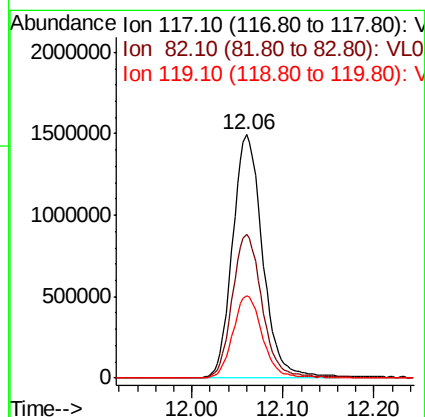
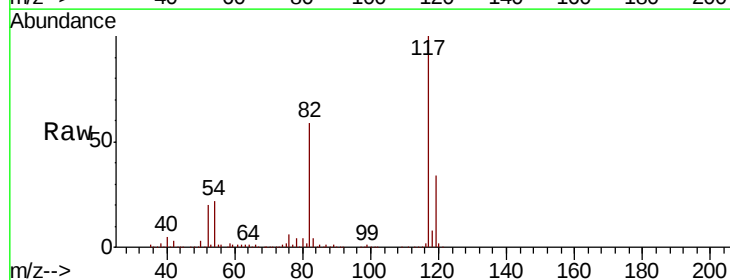
Tgt Ion: 117 Resp: 3445391

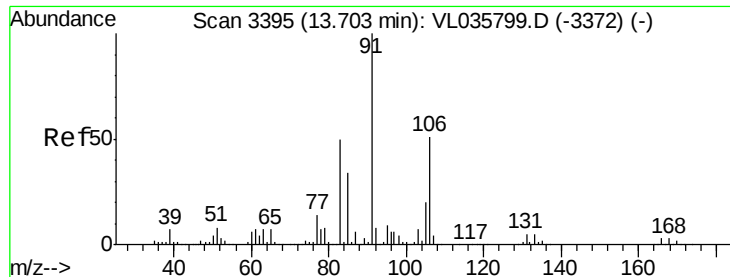
Ion Ratio Lower Upper

117 100

82 59.7 50.6 76.0

119 33.6 52.6 78.8#

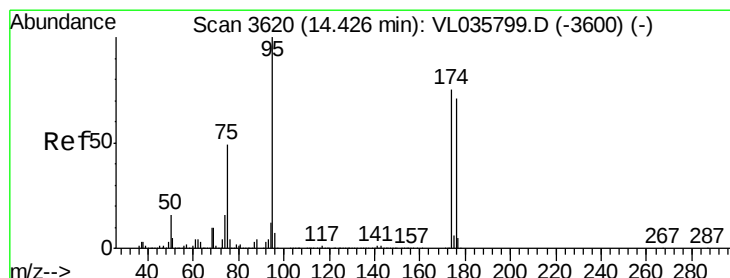
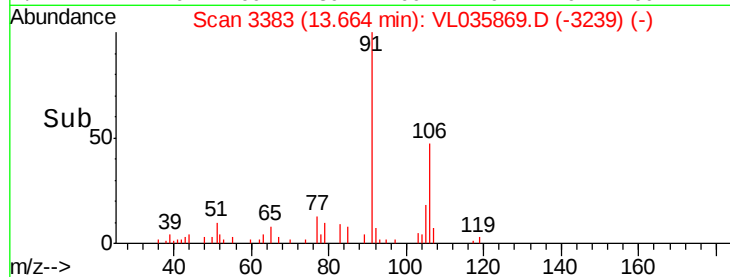
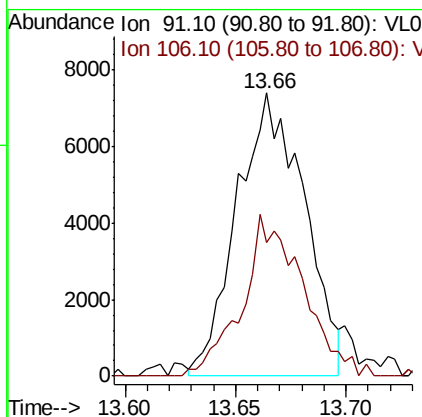
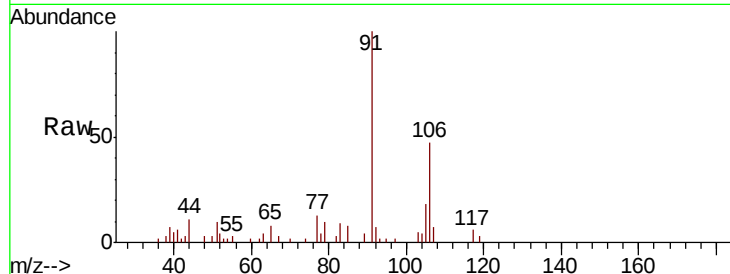




#60
o-Xylene
Concen: 0.045 ppbv
RT: 13.66 min Scan# 3383
Delta R.T. -0.04 min
Lab File: VL035869.D
Acq: 5 Nov 2020 21:02

Instrument :
MSVOA_L
ClientSampled :
OA1

Tot Ion: 91 Resp: 15667
Ion Ratio Lower Upper
91 100
106 51.0 24.8 74.4



#68
1-Bromo-4-Fluorobenzene
Concen: 9.970 ppbv
RT: 14.39 min Scan# 3609
Delta R.T. -0.04 min
Lab File: VL035869.D
Acq: 5 Nov 2020 21:02

Tgt Ion: 95 Resp: 2440531
Ion Ratio Lower Upper
95 100
174 76.4 59.8 89.6
175 5.3 4.3 6.5

