

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100719\
 Data File : VL034231.D
 Acq On : 7 Oct 2019 20:56
 Operator : SY/AP
 Sample : K5225-03
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Oct 09 02:21:59 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 18 12:53:31 2019
 QLast Update : Wed Sep 18 12:53:31 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	1135004	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.21	114	1859336	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.15	117	1872753	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.49	95	1689706	10.38	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.80%

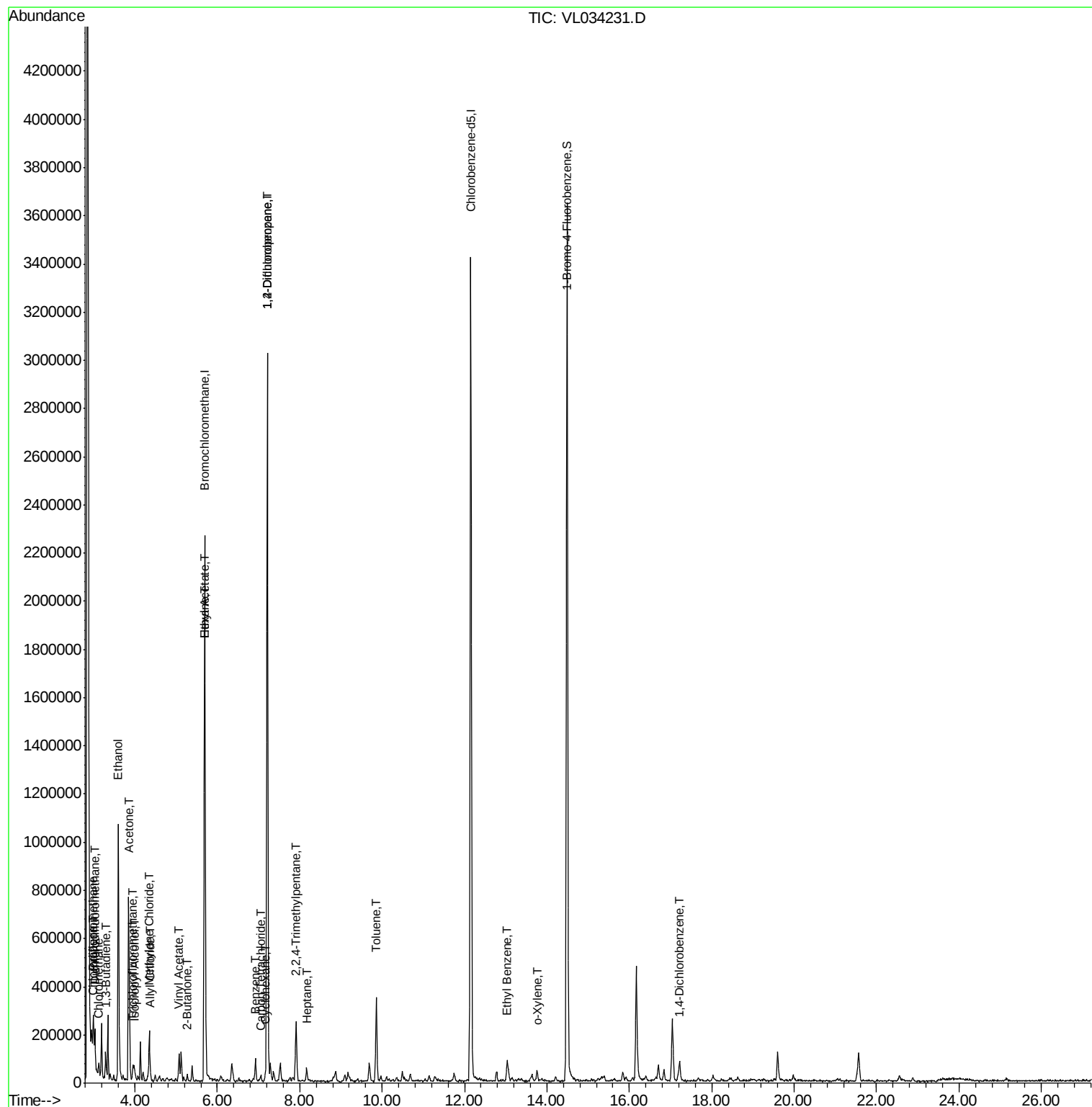
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.03	85	102759	0.613	ppbv	96
3) Chlorodifluoromethane	2.97	51	62193	0.467	ppbv	97
4) Chloromethane	3.12	50	20460	0.262	ppbv	99
9) Propene	2.99	41	65371	0.996	ppbv	95
10) Heptane	8.17	43	12546	0.073	ppbv #	59
11) Trichlorofluoromethane	3.95	101	39148	0.257	ppbv	93
13) Ethanol	3.59	45	1039873	65.405	ppbv	98
15) Acetone	3.84	43	793481	5.216	ppbv	93
16) 1,3-Butadiene	3.29	39	30141	0.454	ppbv #	33
19) Isopropyl Alcohol	3.98	45	35561	0.380	ppbv #	95
20) Methylene Chloride	4.35	84	34025	0.776	ppbv	90
21) Allyl Chloride	4.37	41	5742	0.067	ppbv #	17
23) Vinyl Acetate	5.07	43	54459	0.243	ppbv #	1
25) Ethyl Acetate	5.71	43	101446	0.353	ppbv #	87
26) Hexane	5.71	57	102060	0.853	ppbv #	50
30) Cyclohexane	7.17	84	2765	0.032	ppbv #	1
34) 2-Butanone	5.26	43	13484	0.071	ppbv #	53
35) Carbon Tetrachloride	7.06	117	9474	0.061	ppbv #	89
36) Benzene	6.92	78	33710	0.164	ppbv	96
39) 1,2-Dichloropropane	7.21	63	622044	6.742	ppbv #	20
44) 2,2,4-Trimethylpentane	7.91	57	205033	0.519	ppbv	92
53) Toluene	9.86	91	93353	0.416	ppbv #	20
58) Ethyl Benzene	13.02	91	23370	0.077	ppbv	94
60) o-Xylene	13.76	91	21958	0.088	ppbv	78
76) 1,4-Dichlorobenzene	17.22	146	30922	0.194	ppbv	86

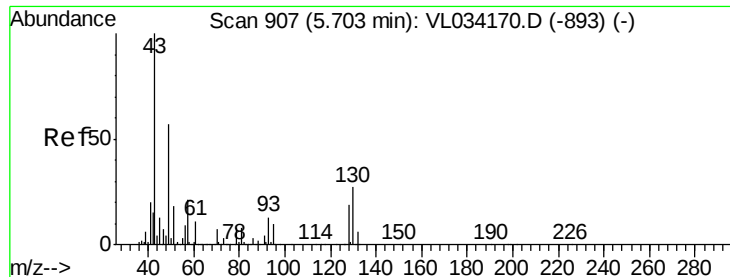
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 903

Delta R.T. -0.01 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

OA1

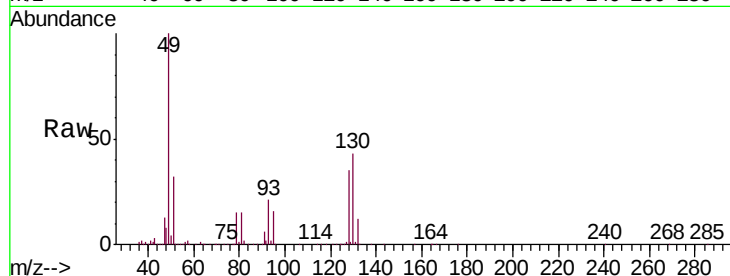
Tgt Ion: 49 Resp: 1135004

Ion Ratio Lower Upper

49 100

128 34.3 17.6 52.9

130 43.7 22.3 66.9



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

5.69

800000

600000

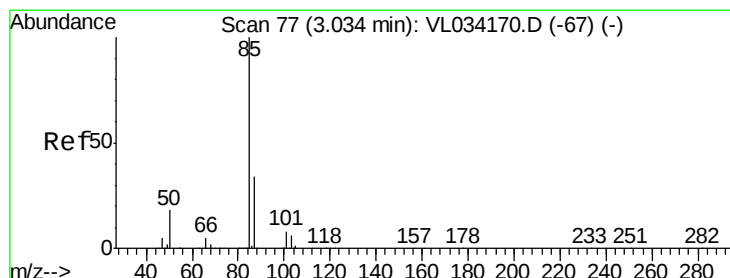
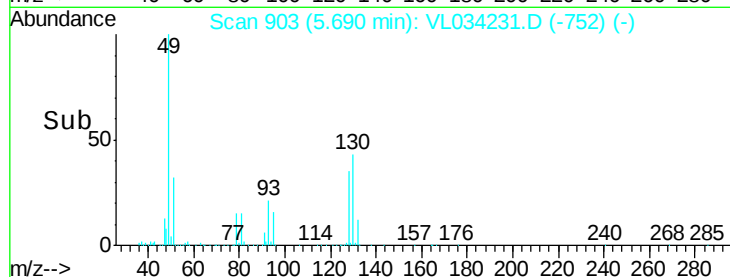
400000

200000

0

Time-->

5.60 5.65 5.70 5.75



#2

Dichlorodifluoromethane

Concen: 0.613 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.00 min

Lab File: VL034231.D

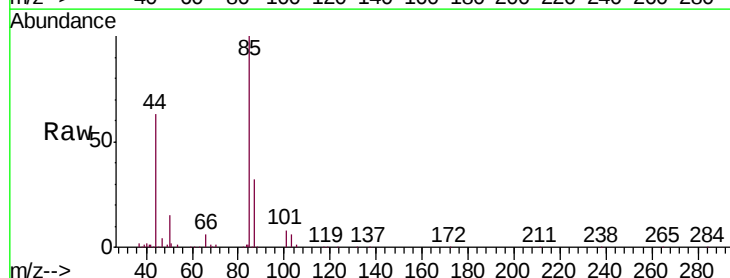
Acq: 7 Oct 2019 20:56

Tgt Ion: 85 Resp: 102759

Ion Ratio Lower Upper

85 100

87 31.8 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.03

100000

80000

60000

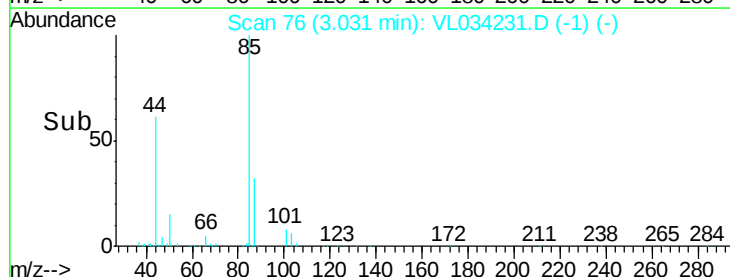
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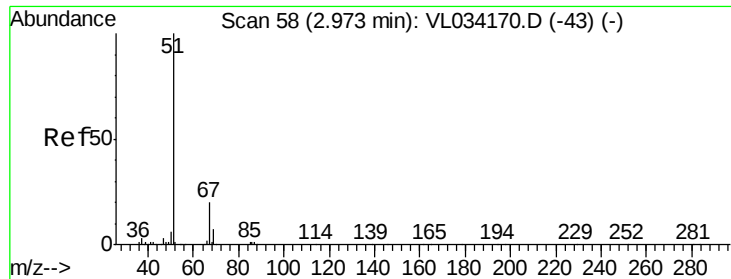
20000

0

Time-->

3.00 3.05





#3

Chlorodifluoromethane

Concen: 0.467 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.01 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

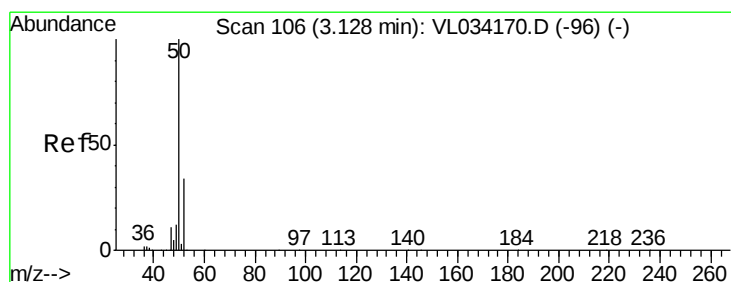
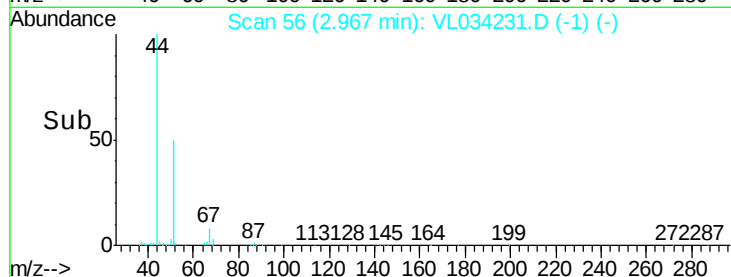
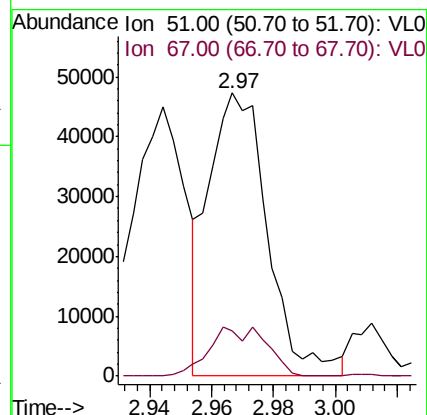
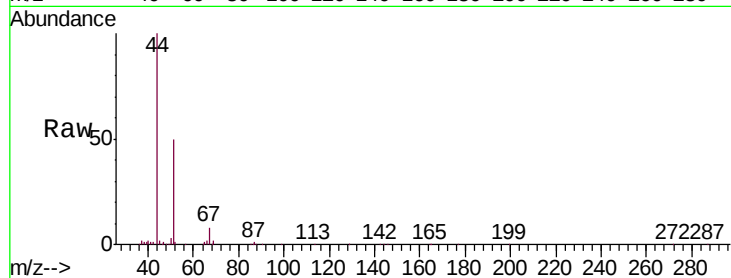
OA1

Tgt Ion: 51 Resp: 62193

Ion Ratio Lower Upper

51 100

67 17.1 14.8 22.2



#4

Chloromethane

Concen: 0.262 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.01 min

Lab File: VL034231.D

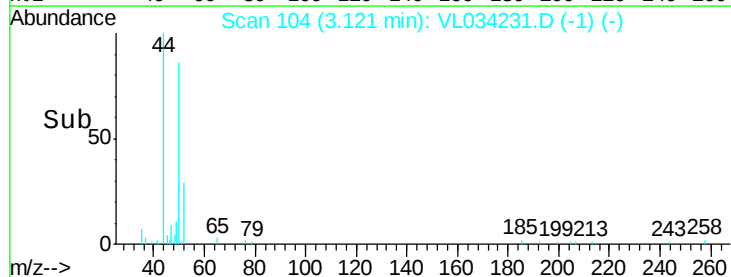
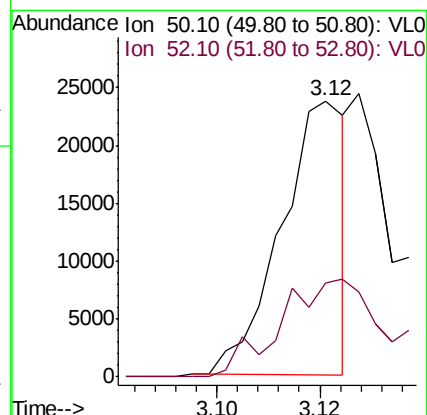
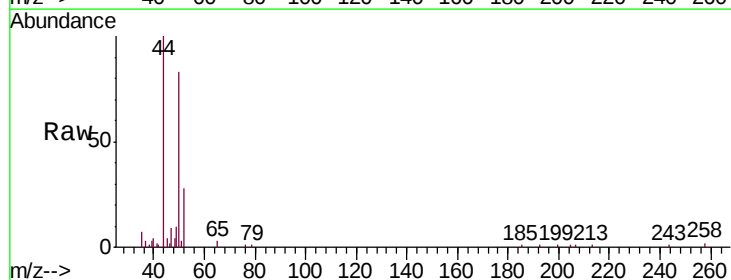
Acq: 7 Oct 2019 20:56

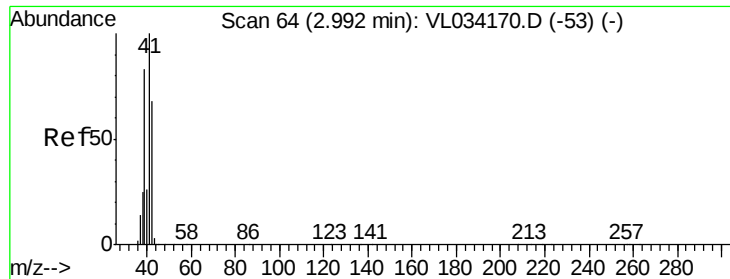
Tgt Ion: 50 Resp: 20460

Ion Ratio Lower Upper

50 100

52 34.2 27.1 40.7





#9

Propene

Concen: 0.996 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.00 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

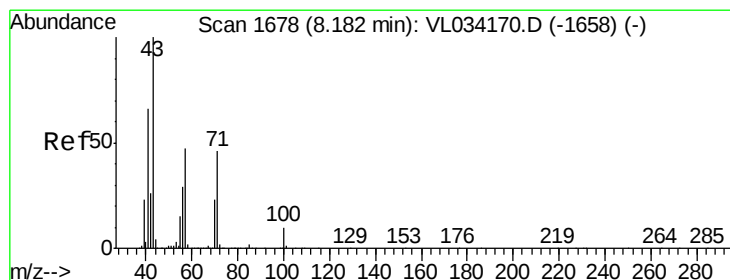
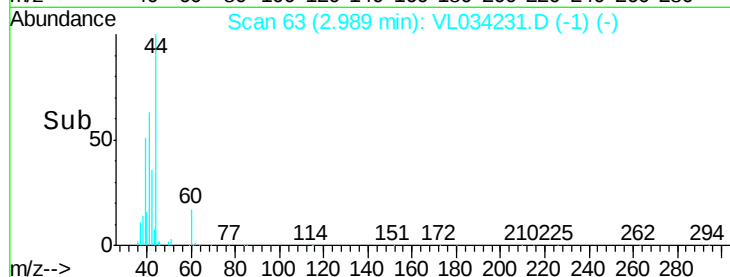
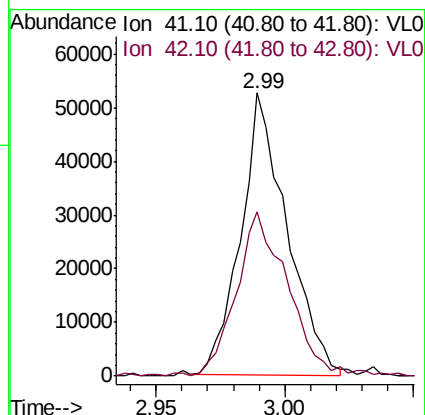
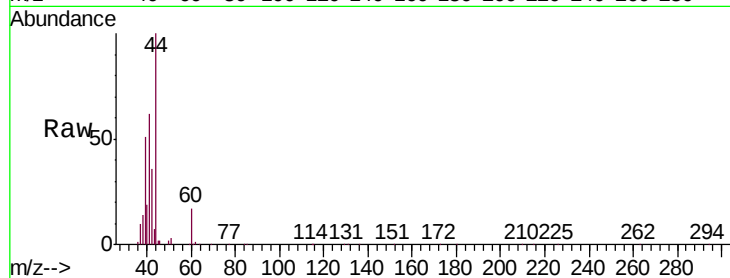
OA1

Tgt Ion: 41 Resp: 65371

Ion Ratio Lower Upper

41 100

42 65.7 55.8 83.6



#10

Heptane

Concen: 0.073 ppbv

RT: 8.17 min Scan# 1675

Delta R.T. -0.01 min

Lab File: VL034231.D

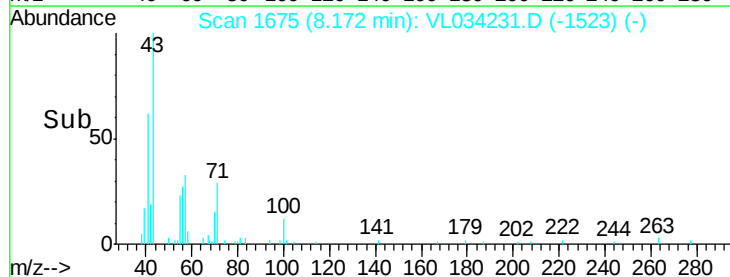
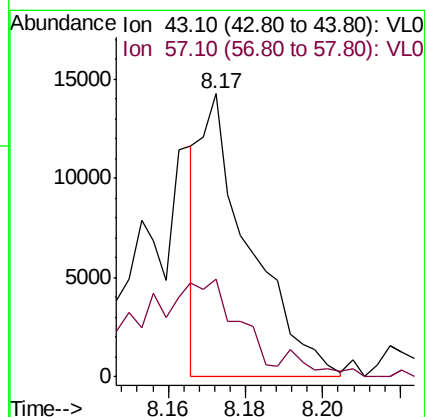
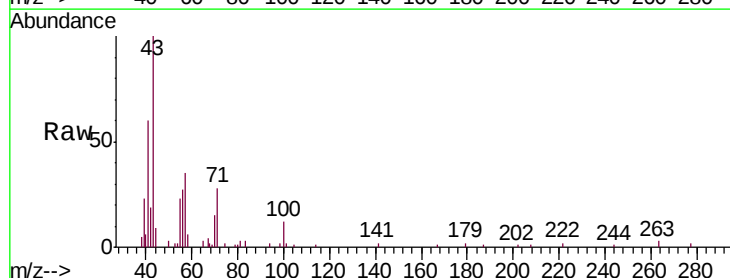
Acq: 7 Oct 2019 20:56

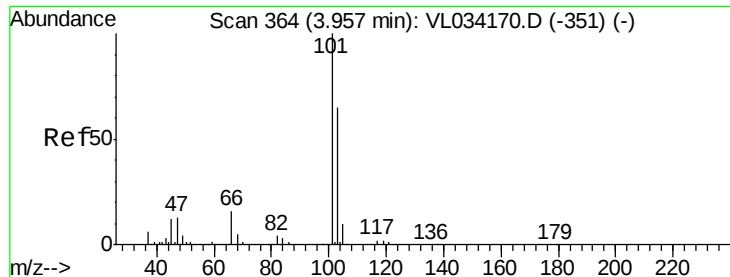
Tgt Ion: 43 Resp: 12546

Ion Ratio Lower Upper

43 100

57 74.4 37.5 56.3#

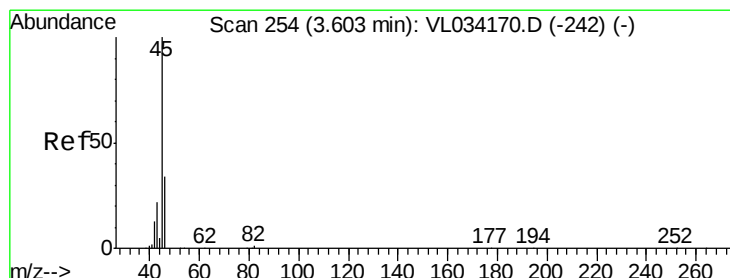
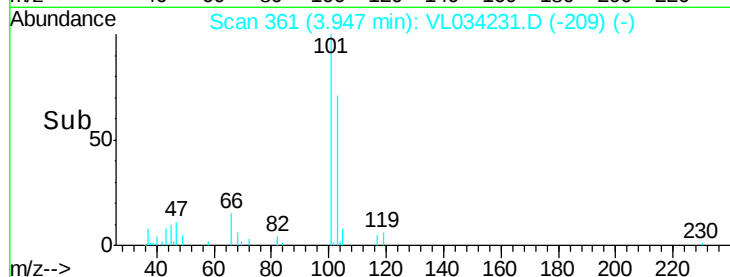
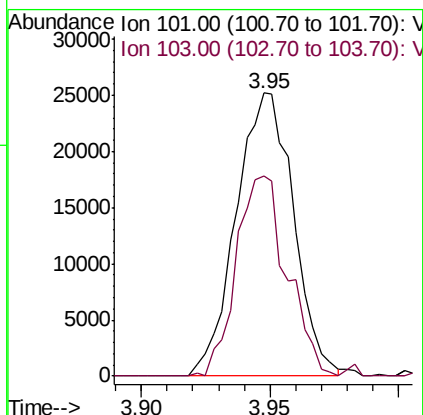
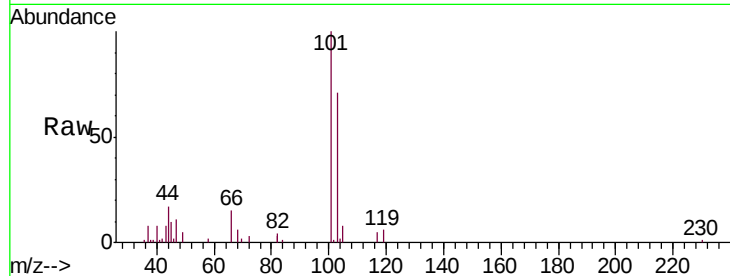




#11
 Trichlorofluoromethane
 Concen: 0.257 ppbv
 RT: 3.95 min Scan# 361
 Delta R.T. -0.01 min
 Lab File: VL034231.D
 Acq: 7 Oct 2019 20:56

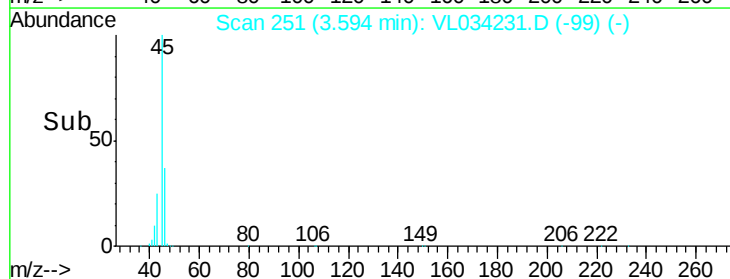
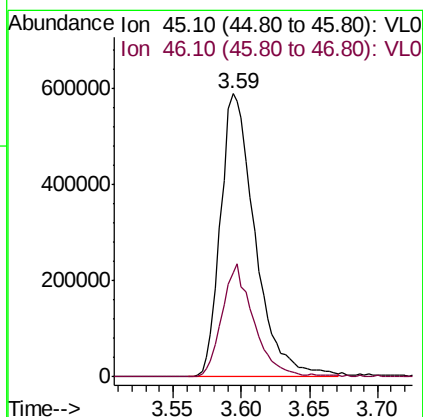
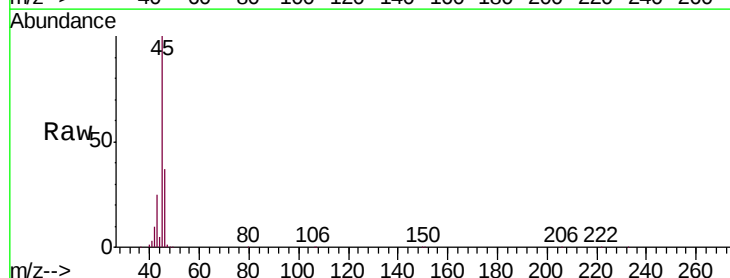
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

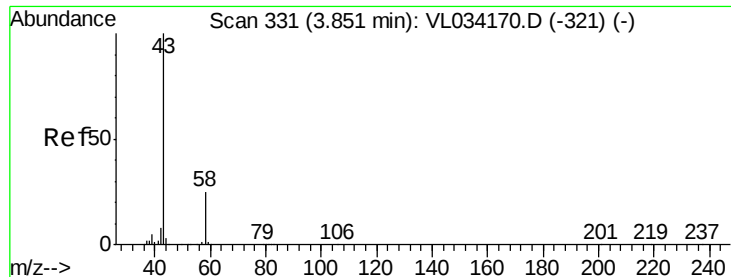
Tgt Ion: 101 Resp: 39148
 Ion Ratio Lower Upper
 101 100
 103 70.9 52.1 78.1



#13
 Ethanol
 Concen: 65.405 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. -0.01 min
 Lab File: VL034231.D
 Acq: 7 Oct 2019 20:56

Tgt Ion: 45 Resp: 1039873
 Ion Ratio Lower Upper
 45 100
 46 37.3 15.5 61.9





#15

Acetone

Concen: 5.216 ppbv

RT: 3.84 min Scan# 329

Delta R.T. -0.01 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampled :

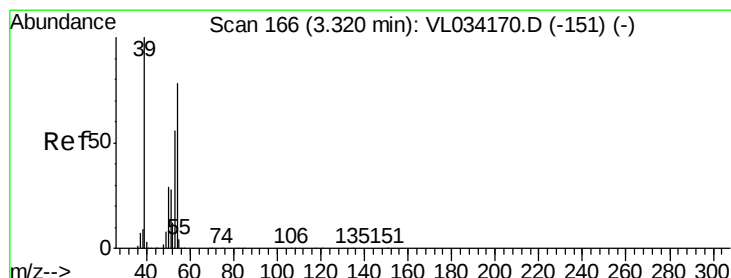
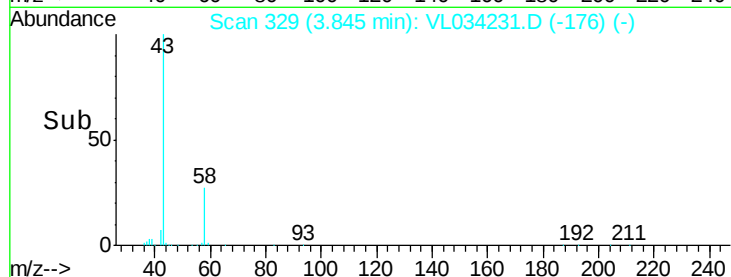
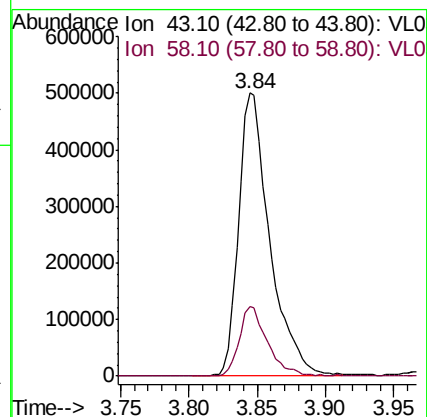
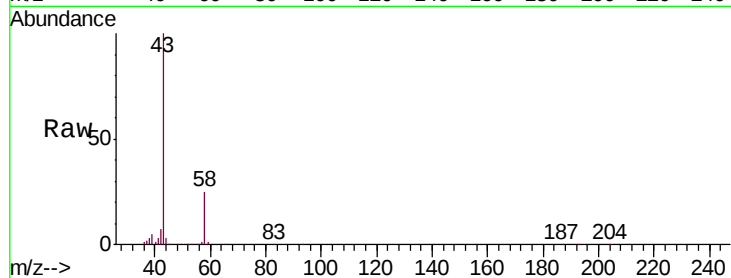
OA1

Tgt Ion: 43 Resp: 793481

Ion Ratio Lower Upper

43 100

58 22.3 20.5 30.7



#16

1,3-Butadiene

Concen: 0.454 ppbv

RT: 3.29 min Scan# 157

Delta R.T. -0.03 min

Lab File: VL034231.D

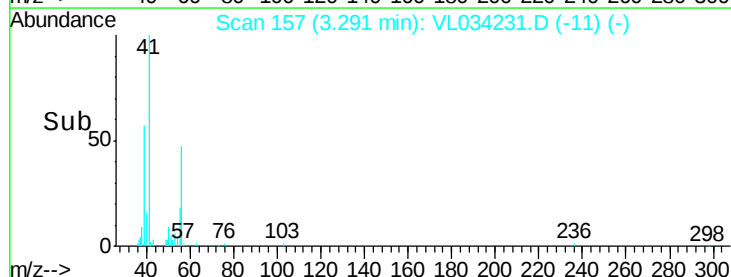
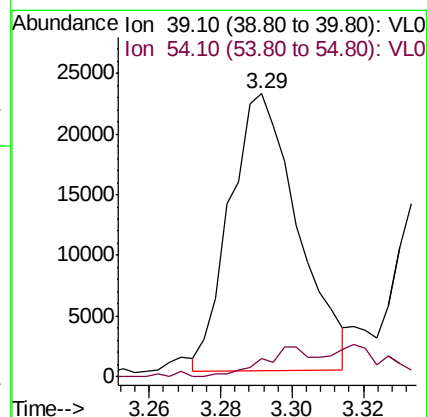
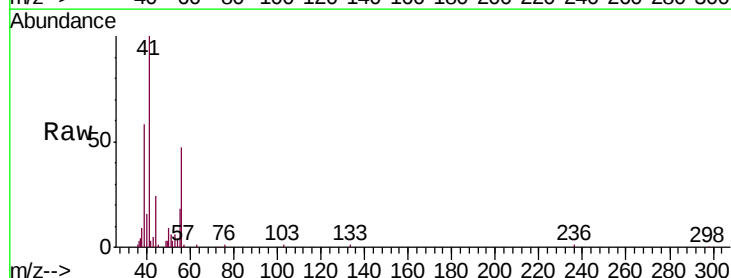
Acq: 7 Oct 2019 20:56

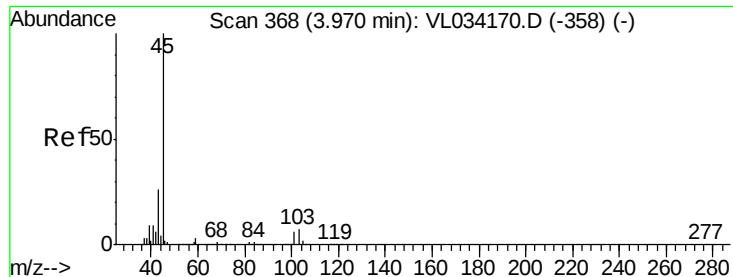
Tgt Ion: 39 Resp: 30141

Ion Ratio Lower Upper

39 100

54 20.4 63.4 95.0#





#19

Isopropyl Alcohol

Concen: 0.380 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.01 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

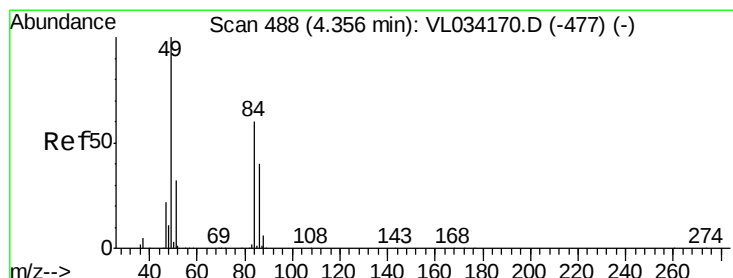
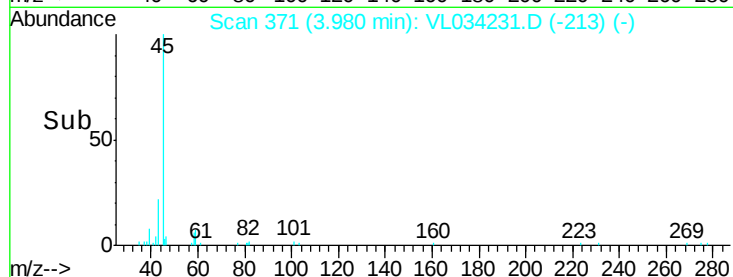
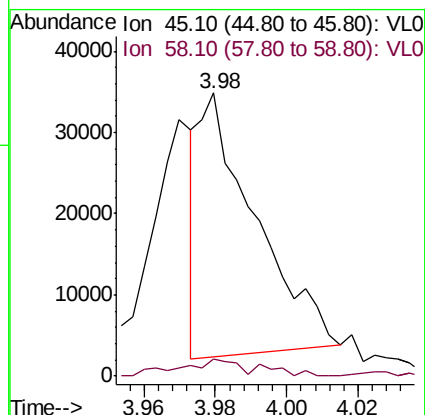
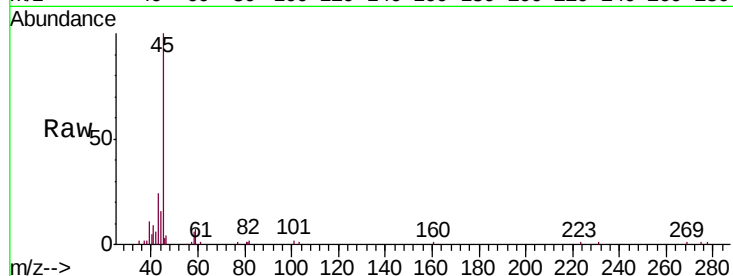
QA1

Tgt Ion: 45 Resp: 35561

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.0#



#20

Methylene Chloride

Concen: 0.776 ppbv

RT: 4.35 min Scan# 485

Delta R.T. -0.01 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Tgt Ion: 84 Resp: 34025

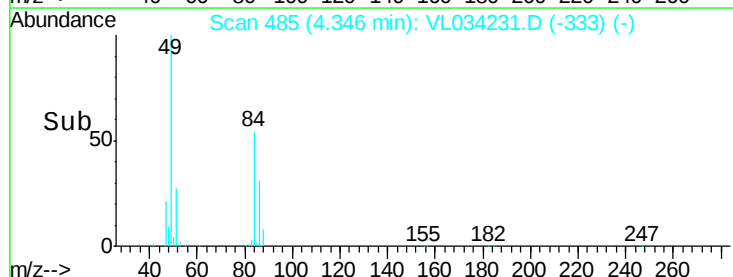
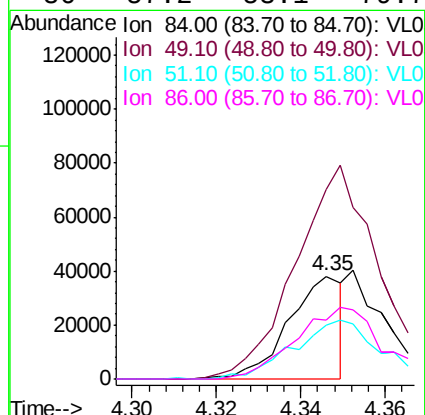
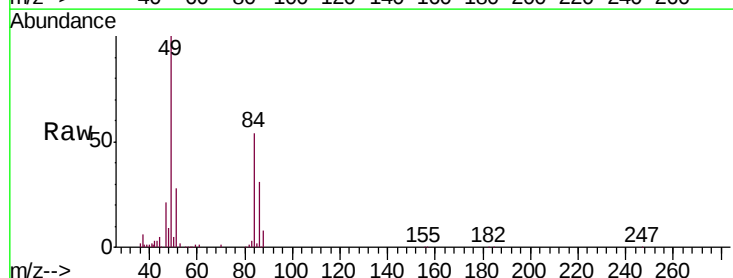
Ion Ratio Lower Upper

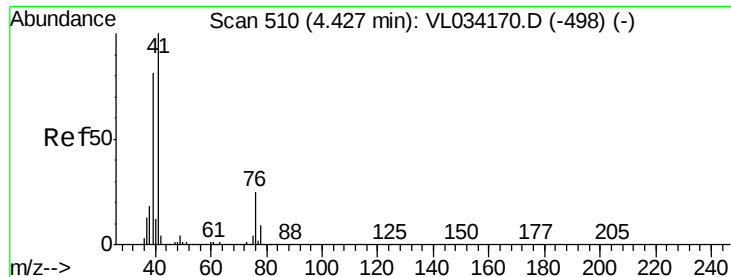
84 100

49 182.6 133.8 200.8

51 52.3 43.6 65.4

86 57.2 53.1 79.7





#21

Allyl Chloride

Concen: 0.067 ppbv

RT: 4.37 min Scan# 492

Delta R.T. -0.06 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

OA1

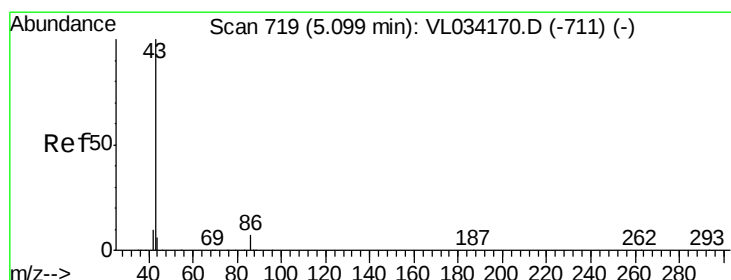
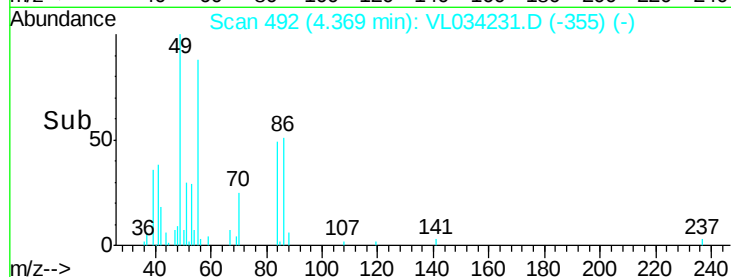
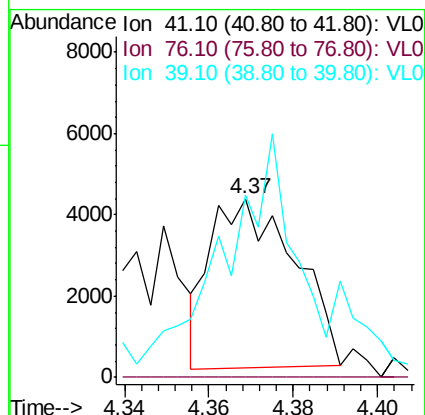
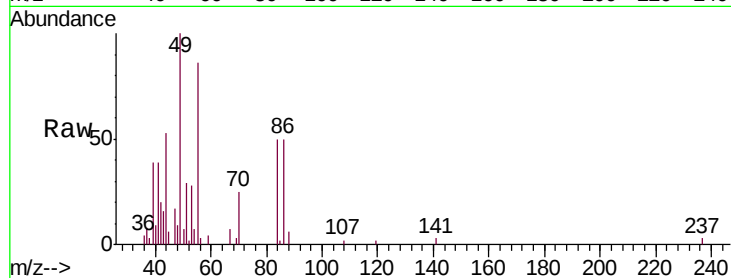
Tgt Ion: 41 Resp: 5742

Ion Ratio Lower Upper

41 100

76 0.0 21.8 32.6#

39 163.7 64.8 97.2#



#23

Vinyl Acetate

Concen: 0.243 ppbv

RT: 5.07 min Scan# 711

Delta R.T. -0.03 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Tgt Ion: 43 Resp: 54459

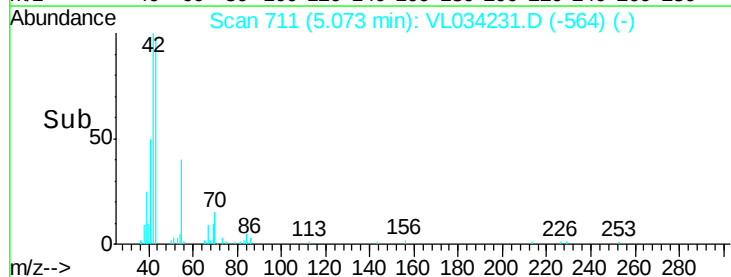
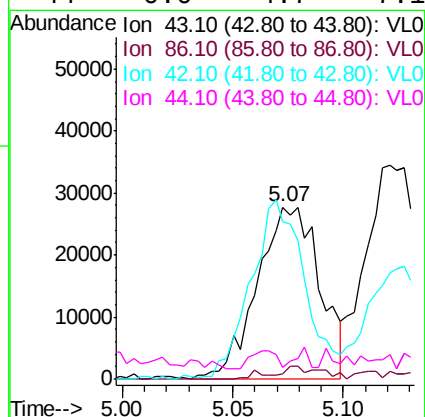
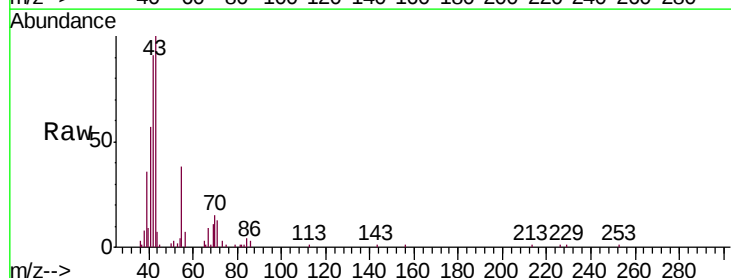
Ion Ratio Lower Upper

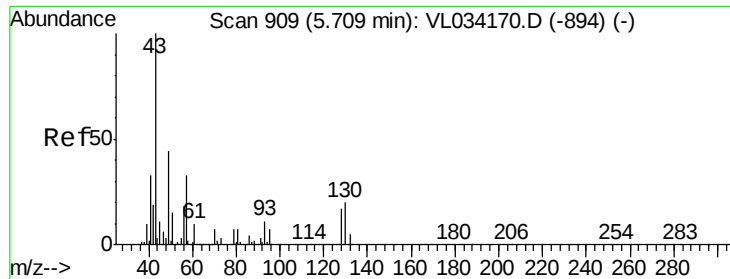
43 100

86 2.6 5.1 7.7#

42 89.8 8.6 12.8#

44 0.0 4.7 7.1#

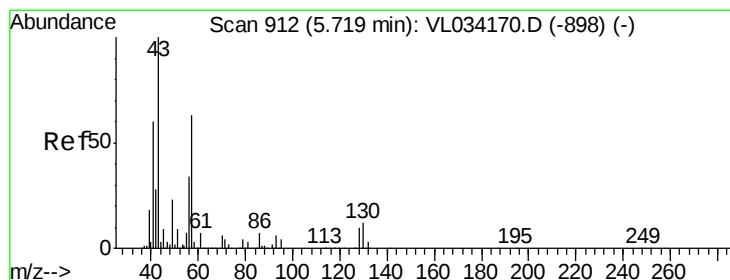
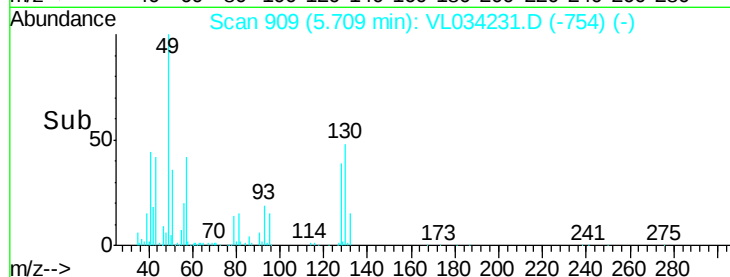
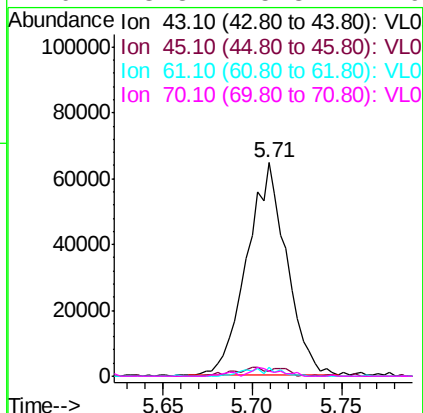
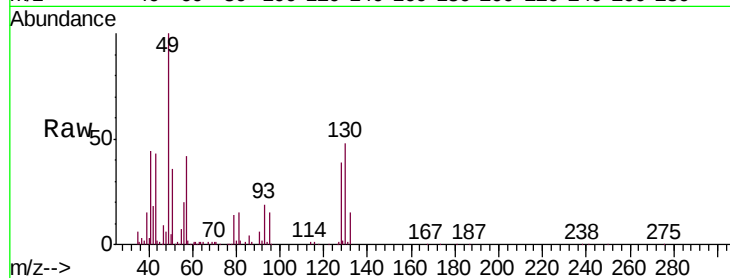




#25
Ethyl Acetate
Concen: 0.353 ppbv
RT: 5.71 min Scan# 909
Delta R.T. -0.00 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

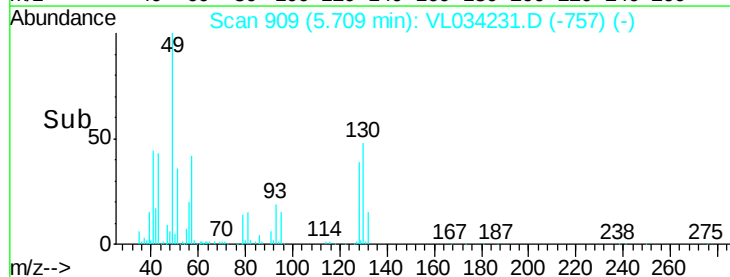
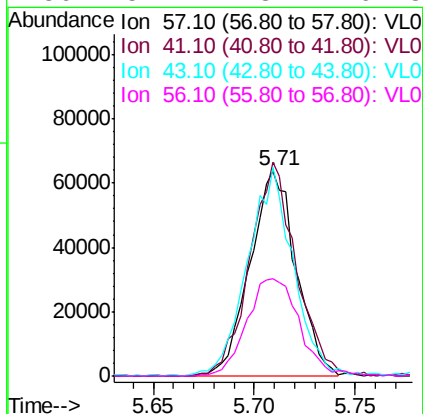
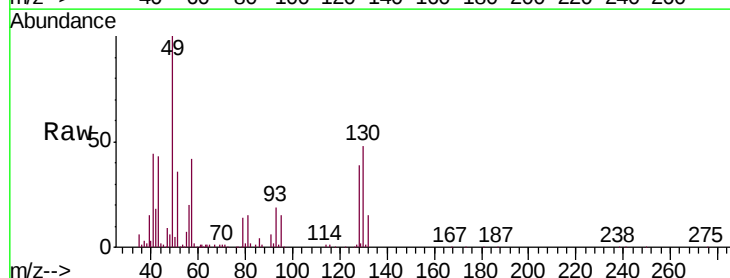
Instrument :
MSVOA_L
ClientSampleId :
OA1

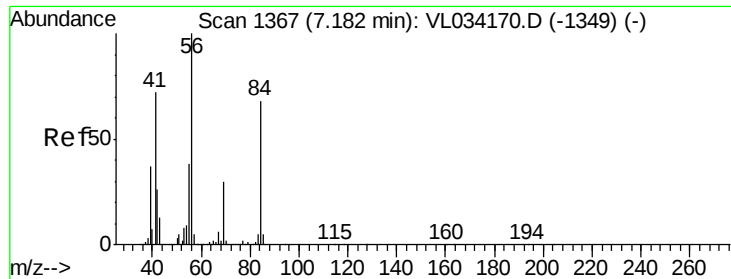
Tgt Ion:	43	Resp:	101446
Ion	Ratio	Lower	Upper
43	100		
45	5.0	8.4	12.6#
61	3.3	7.2	10.8#
70	3.8	5.3	7.9#



#26
Hexane
Concen: 0.853 ppbv
RT: 5.71 min Scan# 909
Delta R.T. -0.01 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

Tgt Ion:	57	Resp:	102060
Ion	Ratio	Lower	Upper
57	100		
41	105.1	78.5	117.7
43	102.9	189.5	284.3#
56	54.4	43.2	64.8

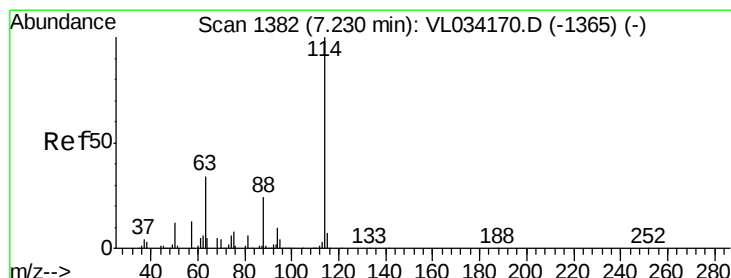
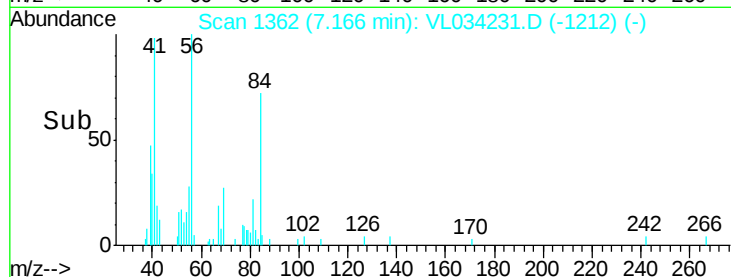
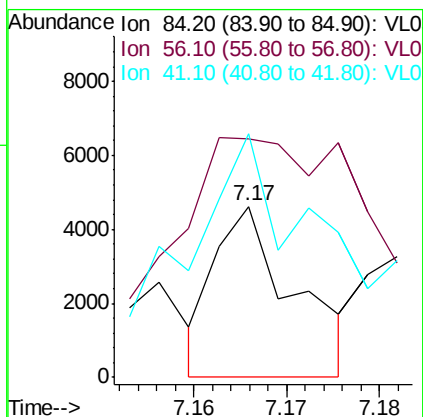
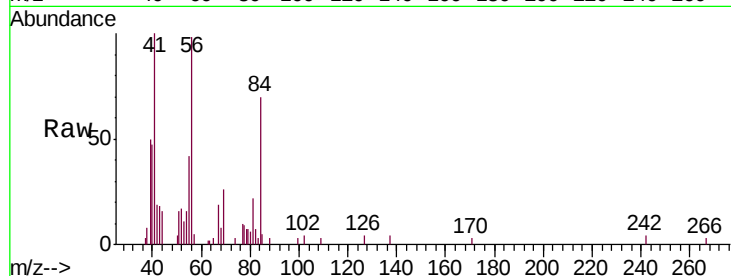




#30
Cyclohexane
Concen: 0.032 ppbv
RT: 7.17 min Scan# 1362
Delta R.T. -0.02 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

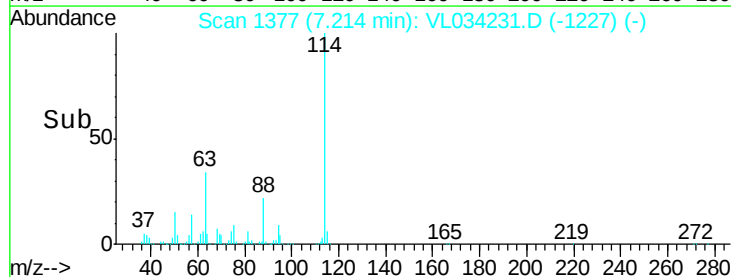
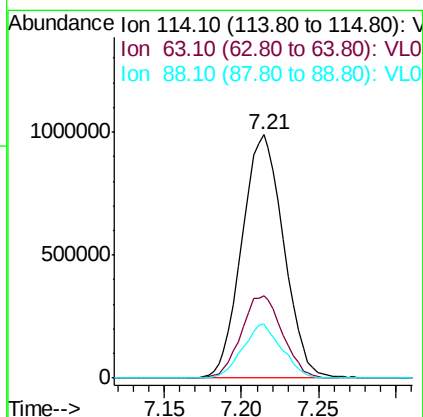
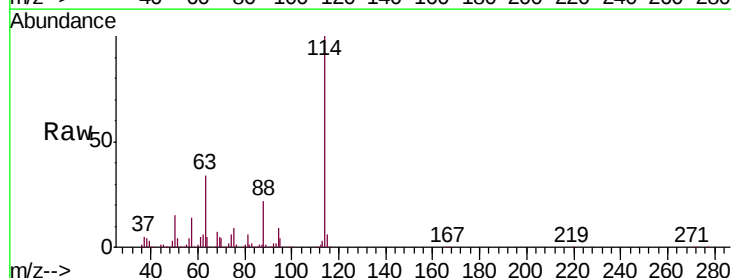
Instrument :
MSVOA_L
ClientSampleId :
OA1

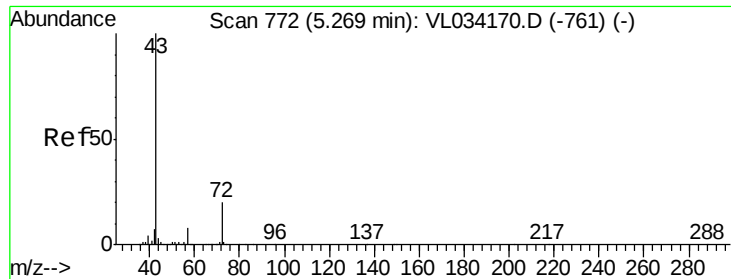
Tgt Ion: 84 Resp: 2765
Ion Ratio Lower Upper
84 100
56 0.0 126.2 189.2#
41 375.0 85.8 128.8#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.21 min Scan# 1377
Delta R.T. -0.02 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

Tgt Ion: 114 Resp: 1859336
Ion Ratio Lower Upper
114 100
63 33.6 27.8 41.6
88 20.9 17.1 25.7





#34

2-Butanone

Concen: 0.071 ppbv

RT: 5.26 min Scan# 770

Delta R.T. -0.01 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

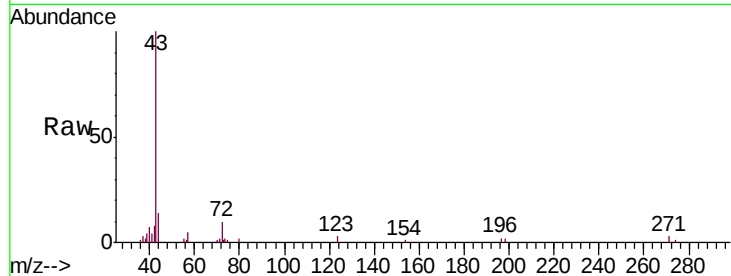
OA1

Tgt Ion: 43 Resp: 13484

Ion Ratio Lower Upper

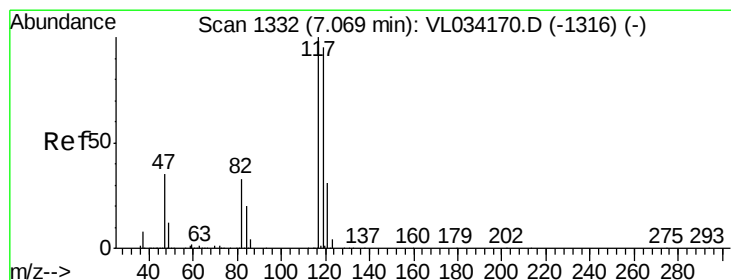
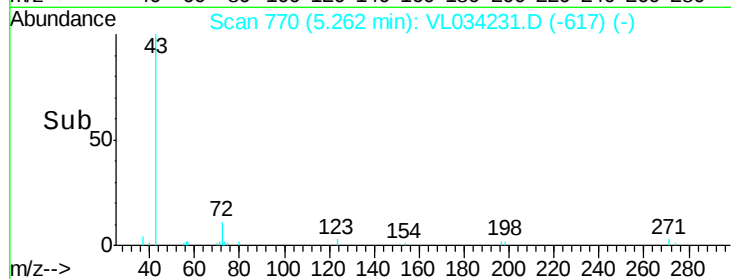
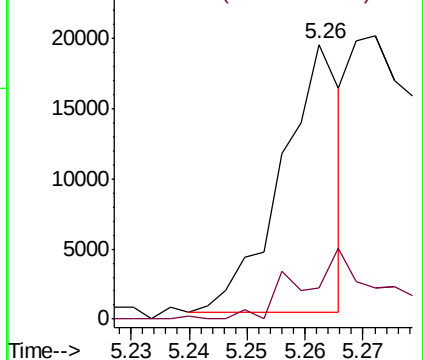
43 100

72 40.0 15.0 22.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.061 ppbv

RT: 7.06 min Scan# 1328

Delta R.T. -0.01 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

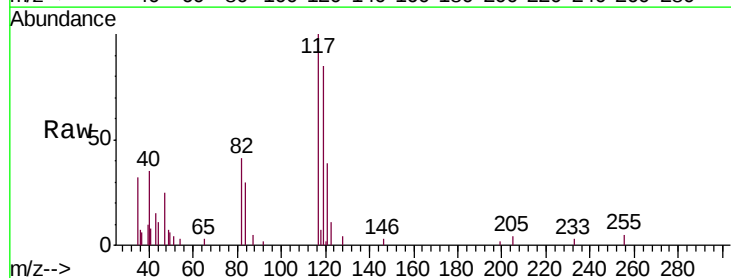
Tgt Ion: 117 Resp: 9474

Ion Ratio Lower Upper

117 100

119 84.6 75.8 113.6

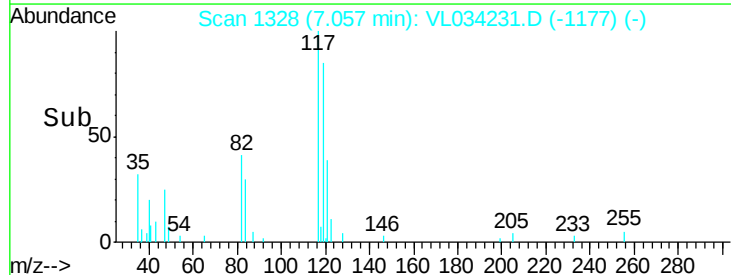
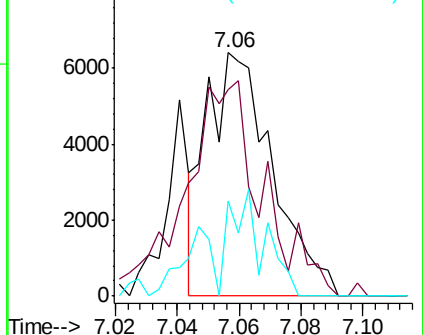
121 39.3 25.0 37.6#

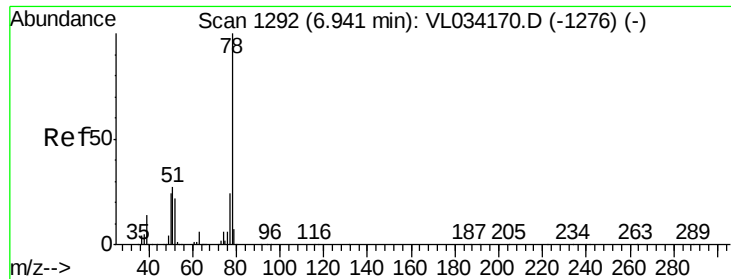


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





#36

Benzene

Concen: 0.164 ppbv

RT: 6.92 min Scan# 1287

Delta R.T. -0.02 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

OA1

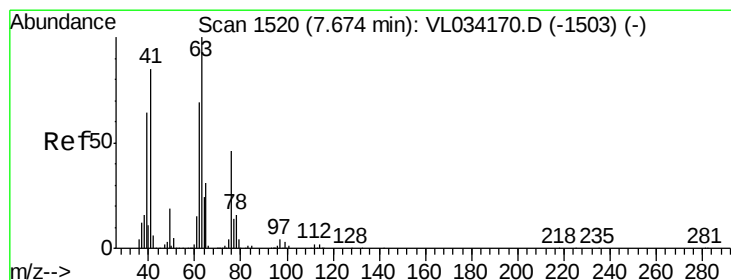
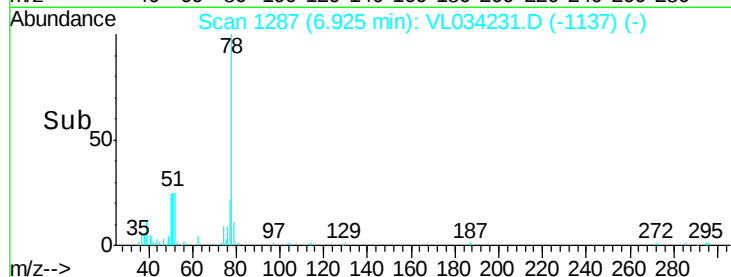
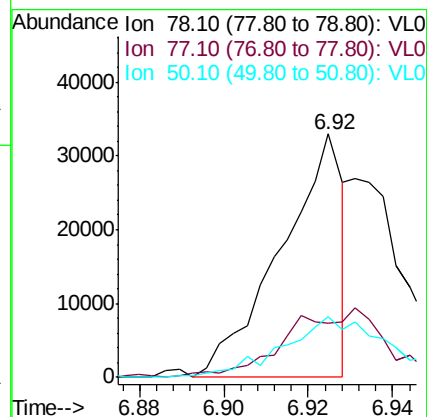
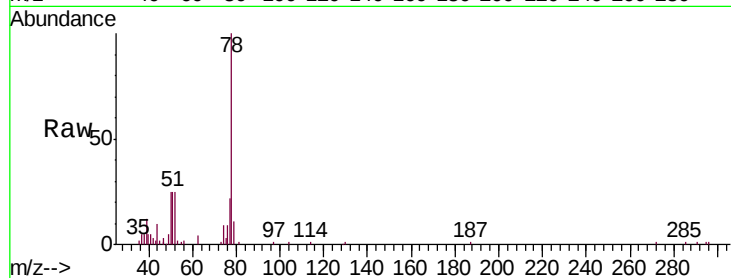
Tgt Ion: 78 Resp: 33710

Ion Ratio Lower Upper

78 100

77 20.6 19.0 28.4

50 24.4 18.9 28.3



#39

1,2-Dichloropropane

Concen: 6.742 ppbv

RT: 7.21 min Scan# 1377

Delta R.T. -0.46 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

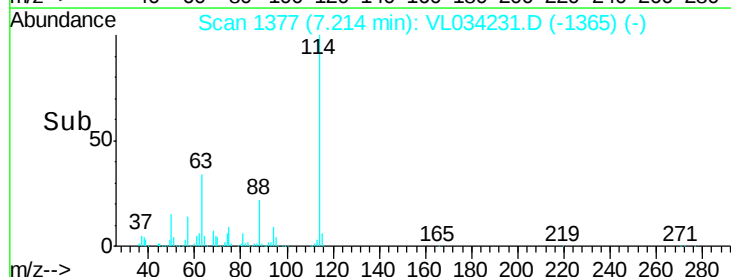
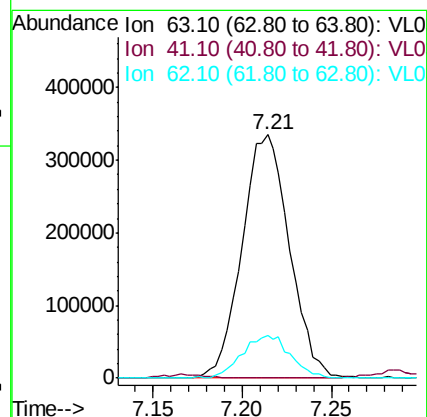
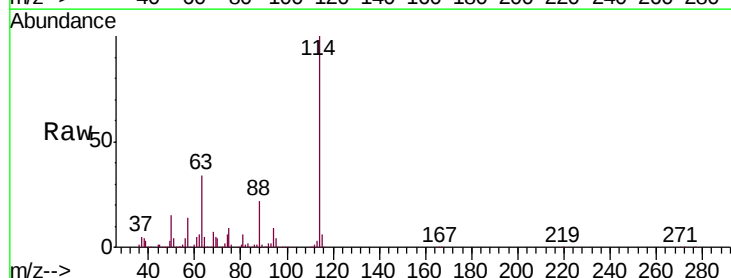
Tgt Ion: 63 Resp: 622044

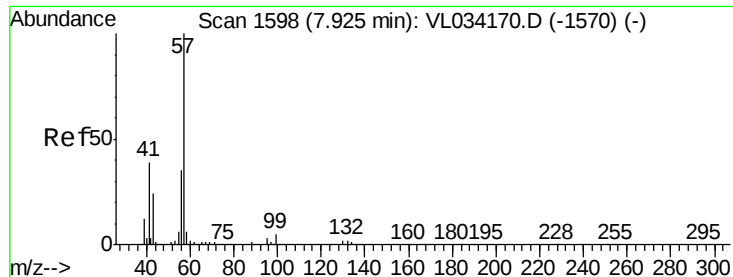
Ion Ratio Lower Upper

63 100

41 0.0 68.4 102.6#

62 17.4 55.4 83.2#

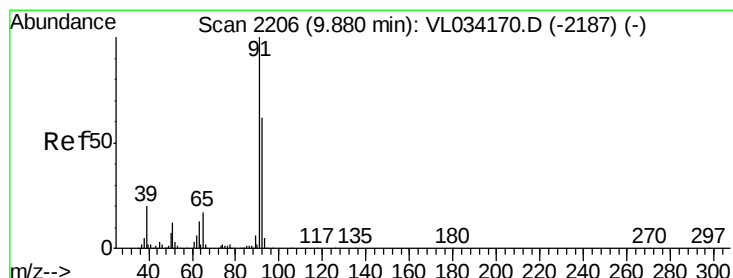
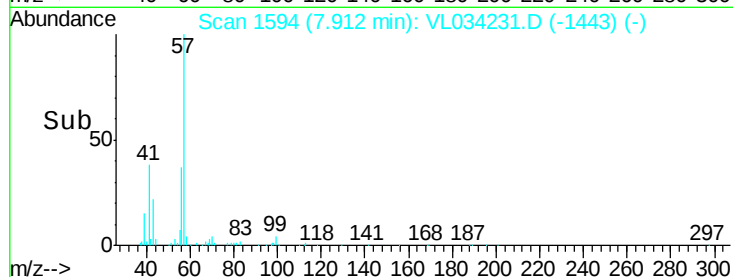
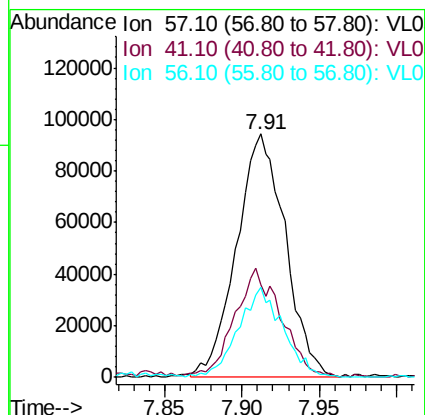
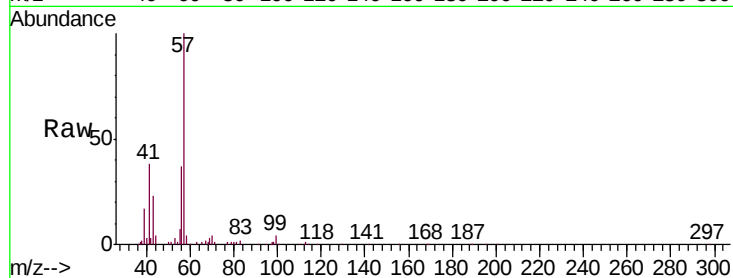




#44
 2,2,4-Trimethylpentane
 Concen: 0.519 ppbv
 RT: 7.91 min Scan# 1594
 Delta R.T. -0.01 min
 Lab File: VL034231.D
 Acq: 7 Oct 2019 20:56

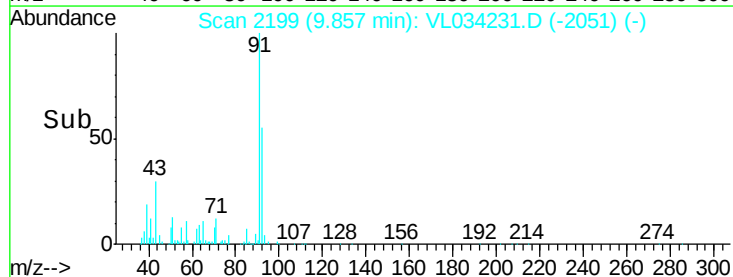
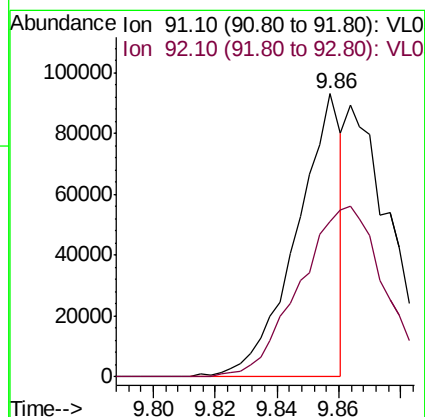
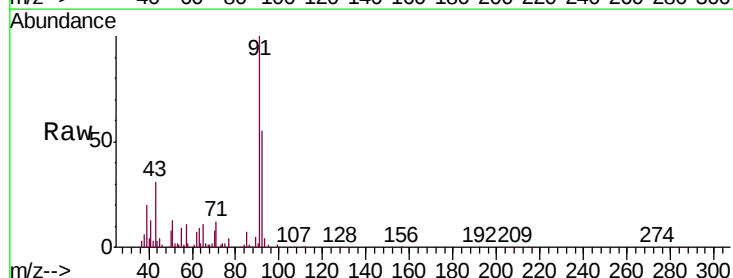
Instrument :
 MSVOA_L
 ClientSampled :
 OA1

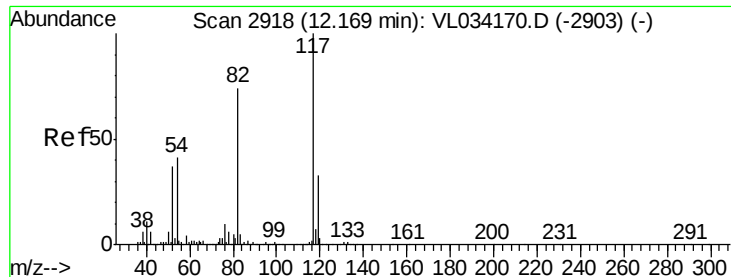
Tgt Ion:	57	Resp:	205033
Ion	Ratio	Lower	Upper
57	100		
41	43.9	29.8	44.6
56	34.5	25.9	38.9



#53
 Toluene
 Concen: 0.416 ppbv
 RT: 9.86 min Scan# 2199
 Delta R.T. -0.02 min
 Lab File: VL034231.D
 Acq: 7 Oct 2019 20:56

Tgt Ion:	91	Resp:	93353
Ion	Ratio	Lower	Upper
91	100		
92	0.0	49.0	73.6#

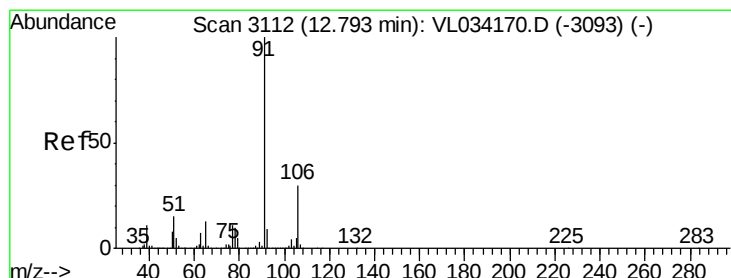
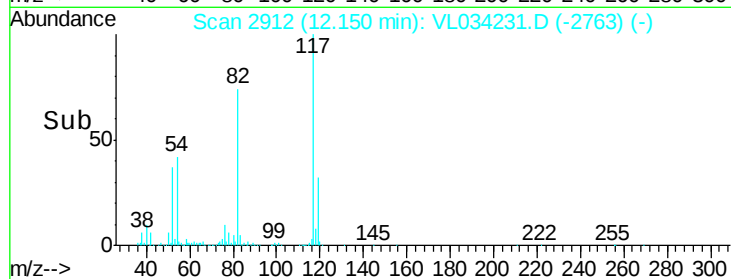
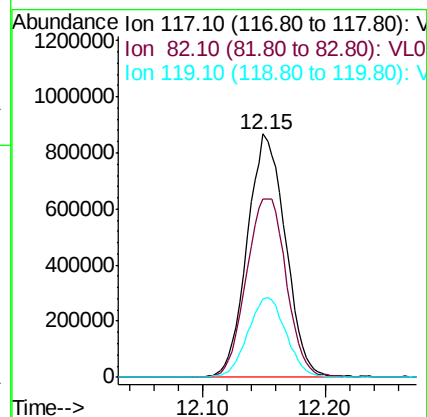
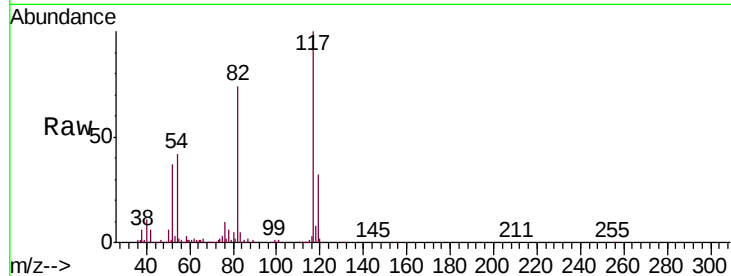




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.15 min Scan# 2912
Delta R.T. -0.02 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

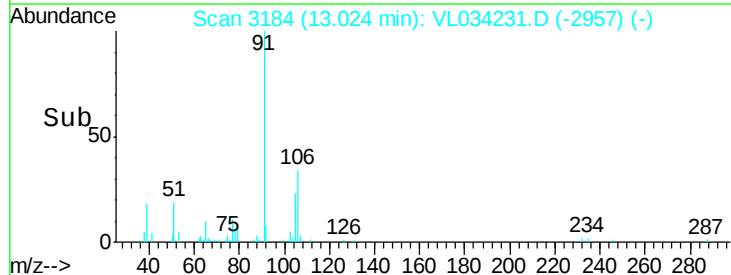
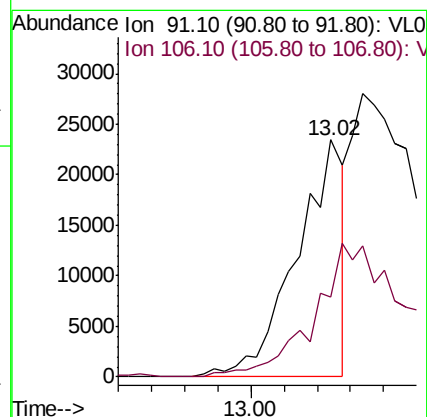
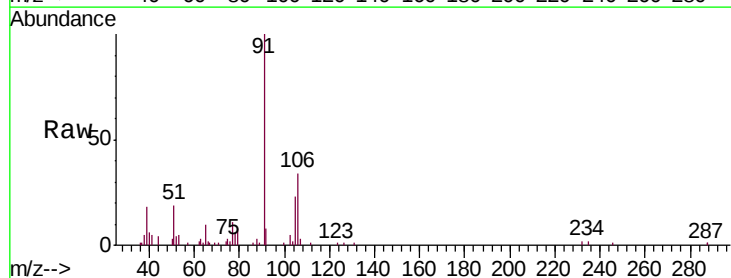
Instrument :
MSVOA_L
ClientSampleID :
OA1

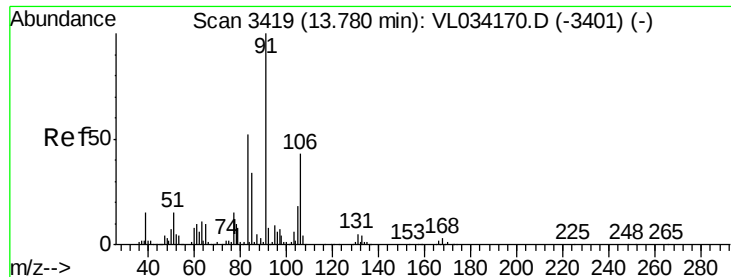
Tgt Ion: 117 Resp: 1872753
Ion Ratio Lower Upper
117 100
82 77.4 58.2 87.4
119 33.0 23.7 35.5



#58
Ethyl Benzene
Concen: 0.077 ppbv
RT: 13.02 min Scan# 3184
Delta R.T. 0.23 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

Tgt Ion: 91 Resp: 23370
Ion Ratio Lower Upper
91 100
106 33.8 24.2 36.4

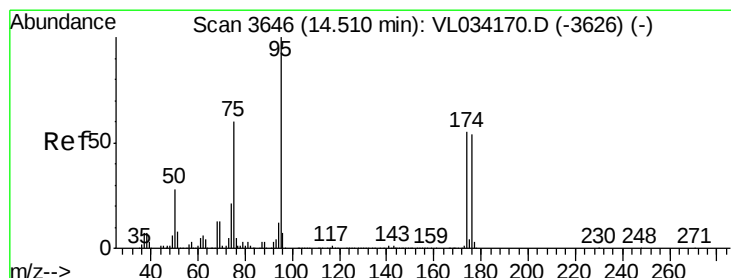
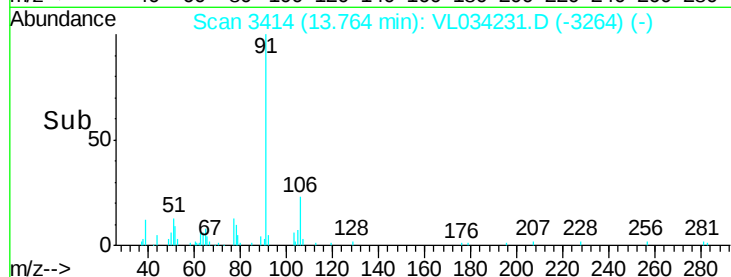
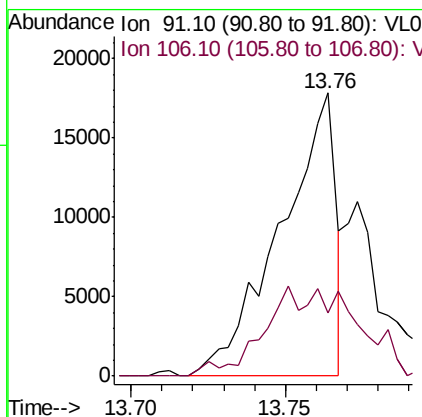
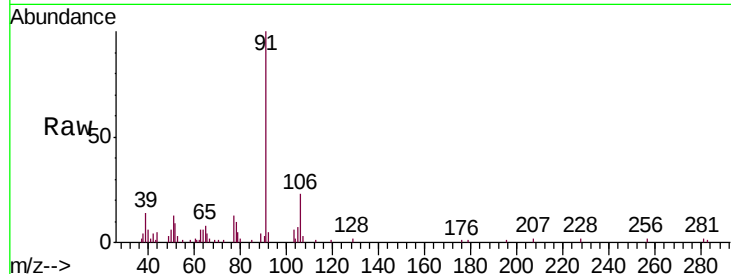




#60
o-Xylene
Concen: 0.088 ppbv
RT: 13.76 min Scan# 3414
Delta R.T. -0.02 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

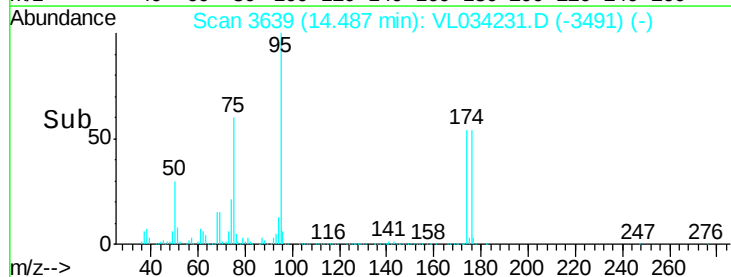
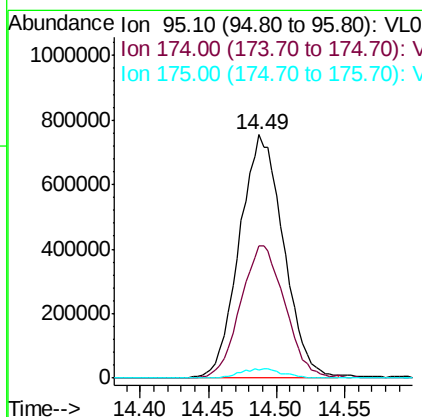
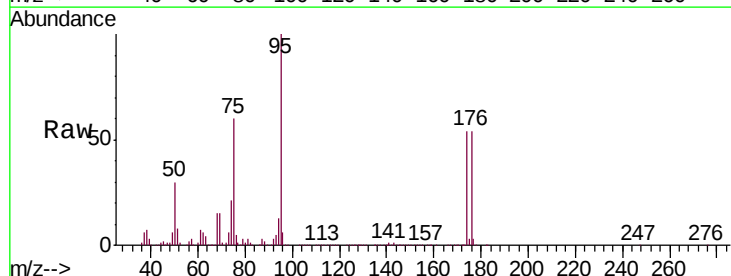
Instrument :
MSVOA_L
ClientSampleId :
OA1

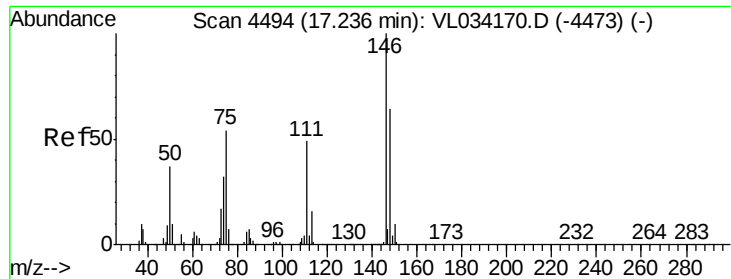
Tgt Ion: 91 Resp: 21958
Ion Ratio Lower Upper
91 100
106 56.1 21.2 63.6



#68
1-Bromo-4-Fluorobenzene
Concen: 10.384 ppbv
RT: 14.49 min Scan# 3639
Delta R.T. -0.02 min
Lab File: VL034231.D
Acq: 7 Oct 2019 20:56

Tgt Ion: 95 Resp: 1689706
Ion Ratio Lower Upper
95 100
174 55.0 45.1 67.7
175 3.9 3.3 4.9





#76

1,4-Dichlorobenzene

Concen: 0.194 ppbv

RT: 17.22 min Scan# 4489

Delta R.T. -0.02 min

Lab File: VL034231.D

Acq: 7 Oct 2019 20:56

Instrument :

MSVOA_L

ClientSampleId :

OA1

Tgt Ion:146 Resp: 30922

Ion Ratio Lower Upper

146 100

111 61.0 24.6 74.0

148 74.2 32.4 97.0

