

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122018\
 Data File : VL033046.D
 Acq On : 21 Dec 2018 8:50
 Operator : SY/AP
 Sample : J6480-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 22 05:36:34 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 07 09:35:17 2018
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	839361	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	1978880	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	1920970	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.59	95	1514600	10.67	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.70%

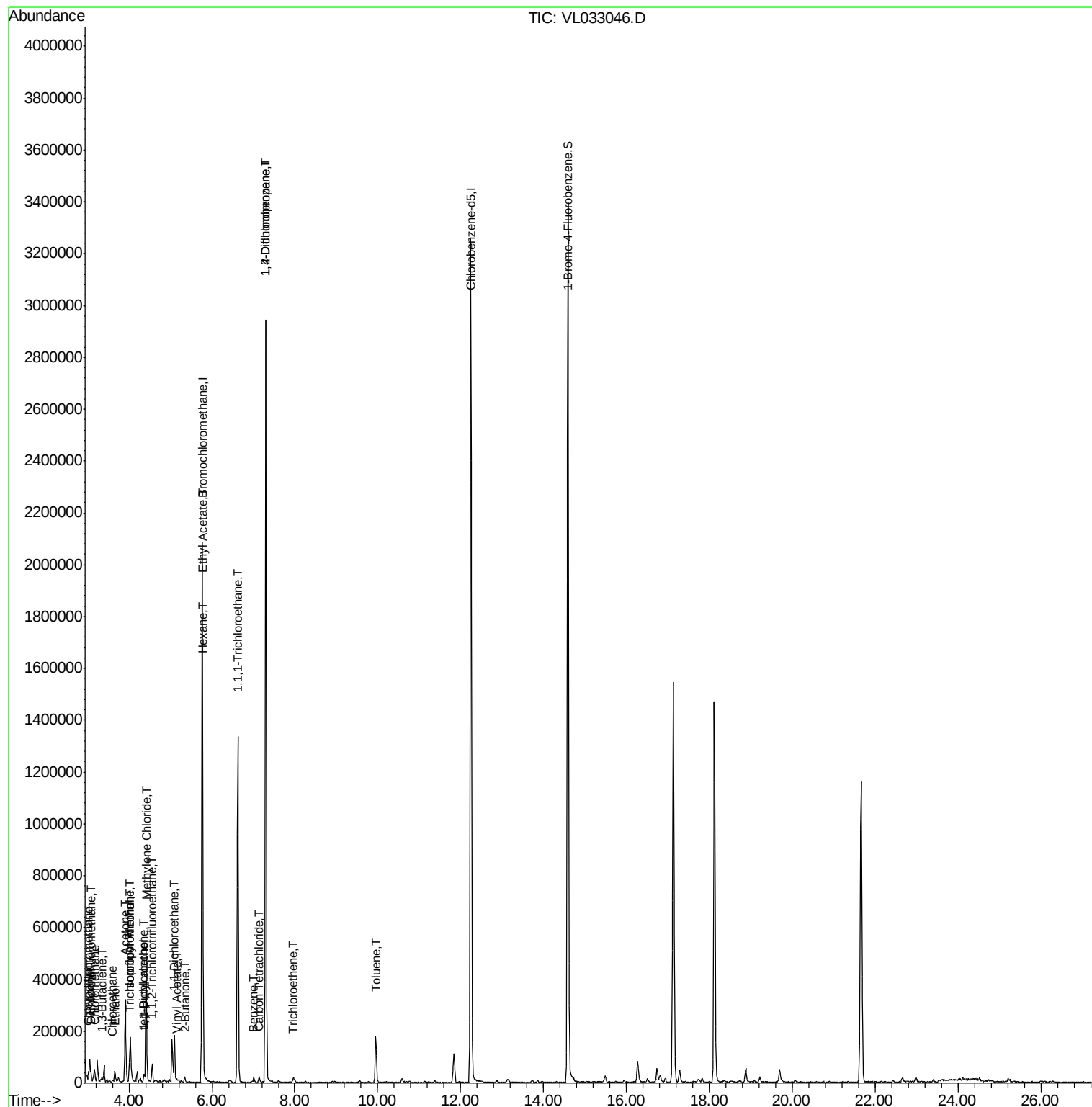
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.08	85	29769	0.266 ppbv	95
3) Chlorodifluoromethane	3.02	51	29414	0.463 ppbv	99
4) Chloromethane	3.17	50	28662	0.774 ppbv	99
7) Chloroethane	3.60	64	2826	0.209 ppbv	97
9) Propene	3.05	41	6175	0.246 ppbv #	15
11) Trichlorofluoromethane	4.01	101	44728	0.424 ppbv	92
12) 1,1,2-Trichlorotrifluoroet	4.56	101	22081	0.245 ppbv	99
13) Ethanol	3.66	45	39255	4.536 ppbv	87
15) Acetone	3.90	43	325597	4.519 ppbv	99
16) 1,3-Butadiene	3.35	39	1301	0.046 ppbv #	4
17) tert-Butyl alcohol	4.35	59	932	0.051 ppbv #	98
18) 1,1-Dichloroethene	4.35	96	4083	0.116 ppbv #	63
19) Isopropyl Alcohol	4.03	45	161062	3.560 ppbv #	97
20) Methylene Chloride	4.41	84	176953	5.025 ppbv	97
23) Vinyl Acetate	5.15	43	5714	0.047 ppbv #	66
24) 1,1-Dichloroethane	5.10	63	144209	1.360 ppbv	99
25) Ethyl Acetate	5.78	43	49220	0.289 ppbv #	81
26) Hexane	5.79	57	65005	0.827 ppbv #	42
32) 1,1,1-Trichloroethane	6.62	97	840616	5.667 ppbv	100
34) 2-Butanone	5.34	43	8747	0.101 ppbv #	52
35) Carbon Tetrachloride	7.14	117	8527	0.055 ppbv	93
36) Benzene	7.01	78	5125	0.035 ppbv #	87
38) Trichloroethene	7.97	130	3256	0.054 ppbv #	35
39) 1,2-Dichloropropane	7.30	63	504921	9.147 ppbv #	21
53) Toluene	9.96	91	126658	0.821 ppbv	97

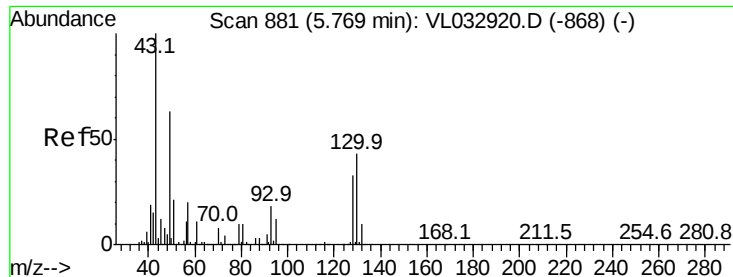
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL122018\
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QLast Update : Fri Dec 07 09:35:17 2018
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.01 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

ClientSampleId :

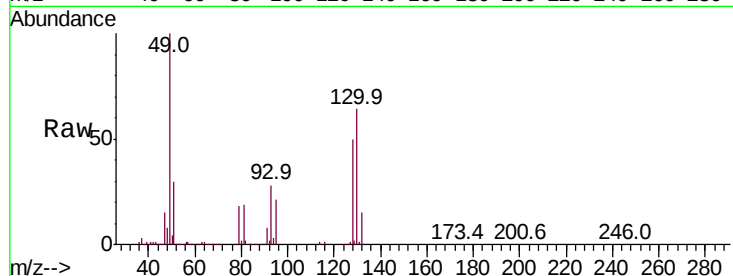
Tot Ion: 49 Resp: 839361

Ion Ratio Lower Upper

49 100

128 53.1 26.3 78.8

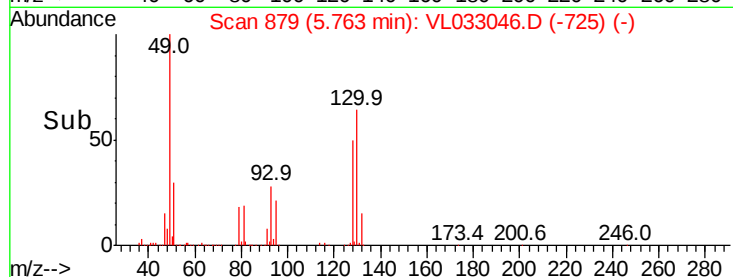
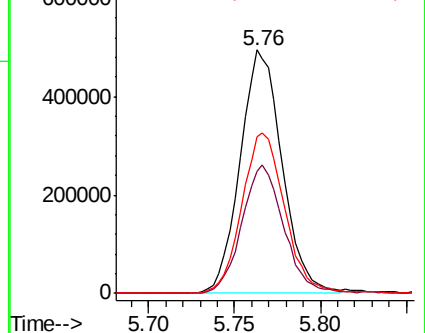
130 68.1 33.9 101.7



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: 0.266 ppbv

RT: 3.08 min Scan# 45

Delta R.T. 0.00 min

Lab File: VL033046.D

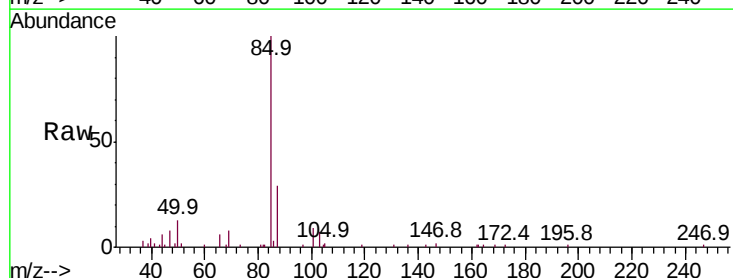
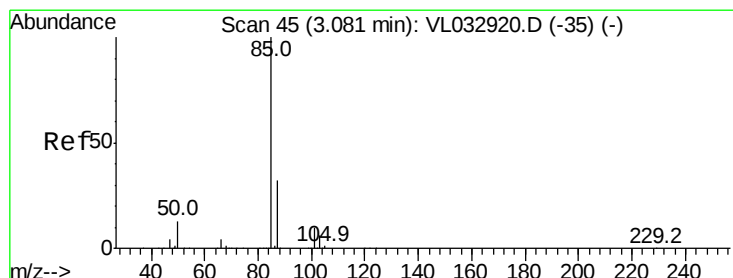
Acq: 21 Dec 2018 8:50

Tgt Ion: 85 Resp: 29769

Ion Ratio Lower Upper

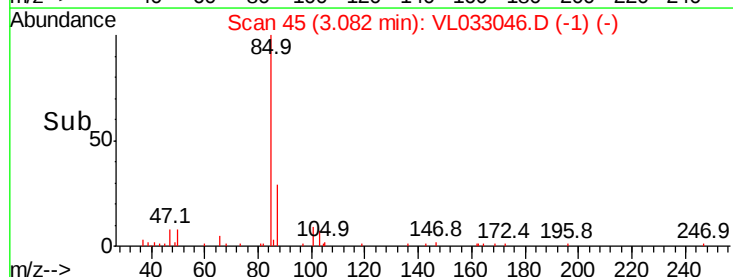
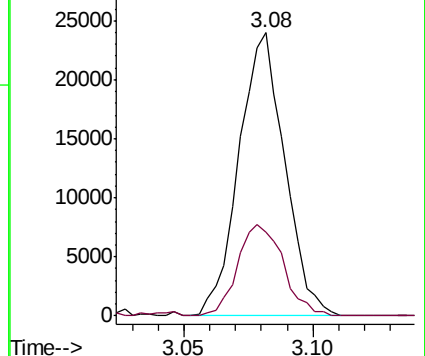
85 100

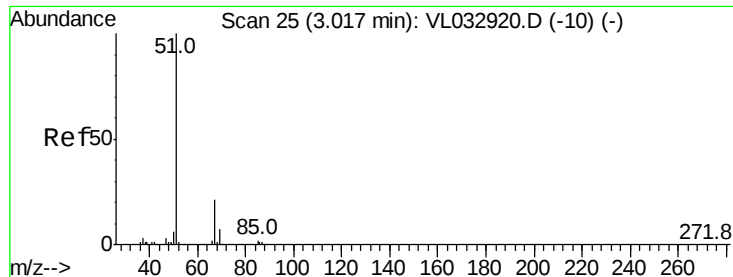
87 29.4 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.463 ppbv

RT: 3.02 min Scan# 26

Delta R.T. 0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

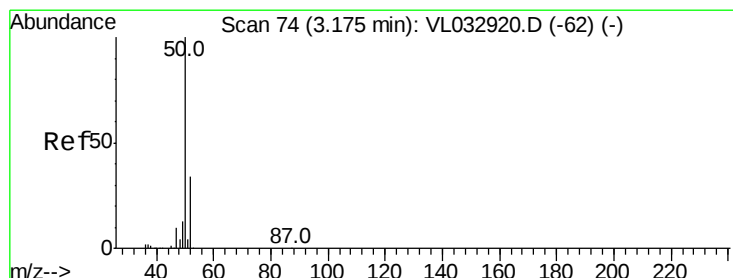
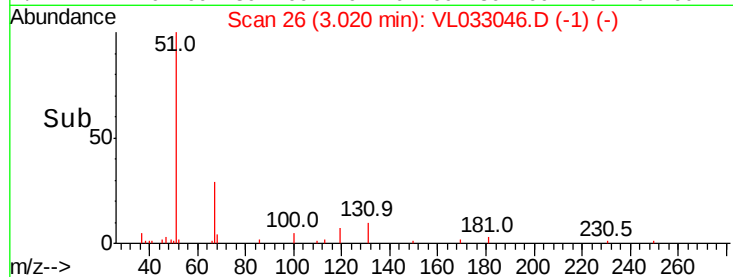
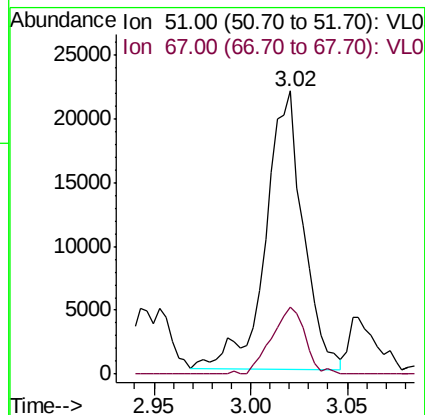
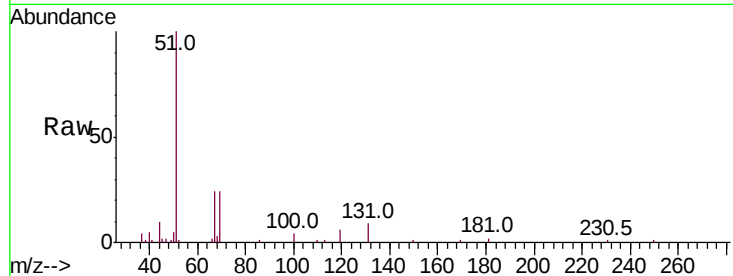
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 51 Resp: 29414

Ion Ratio Lower Upper

51 100

67 21.6 16.8 25.2



#4

Chloromethane

Concen: 0.774 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL033046.D

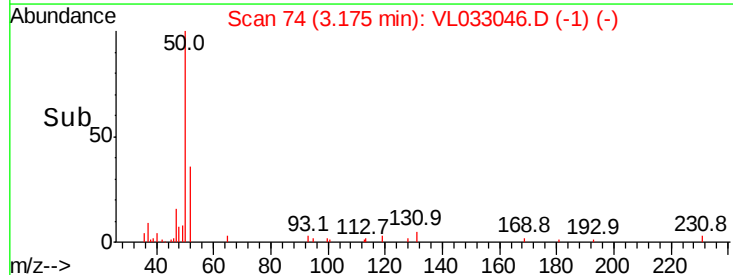
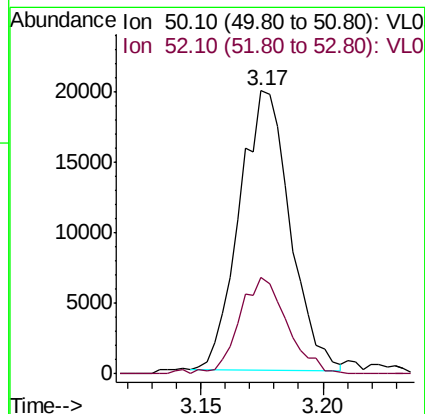
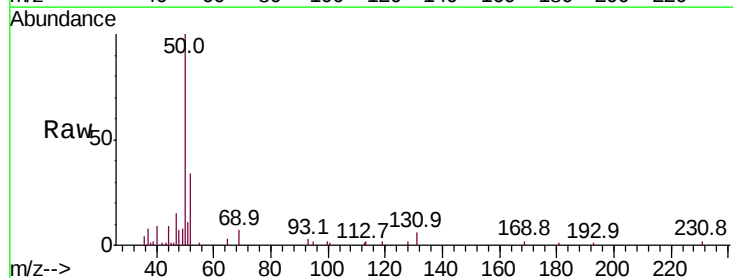
Acq: 21 Dec 2018 8:50

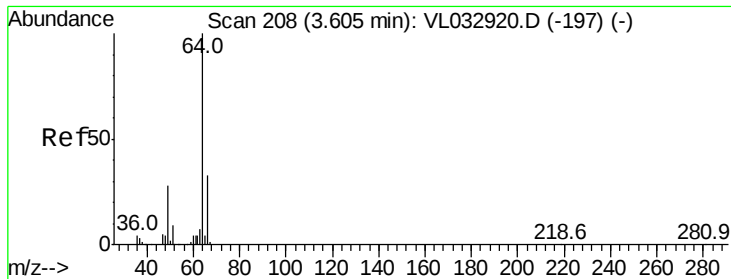
Tgt Ion: 50 Resp: 28662

Ion Ratio Lower Upper

50 100

52 34.6 27.3 40.9





#7

Chloroethane

Concen: 0.209 ppbv

RT: 3.60 min Scan# 207

Delta R.T. -0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

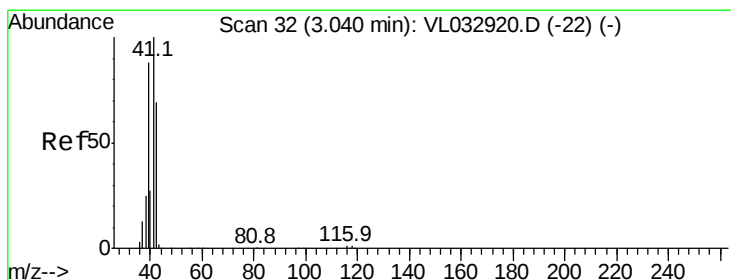
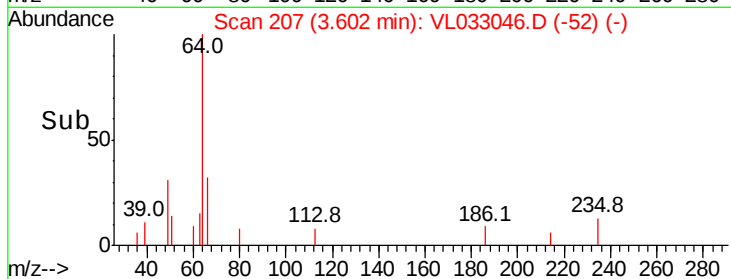
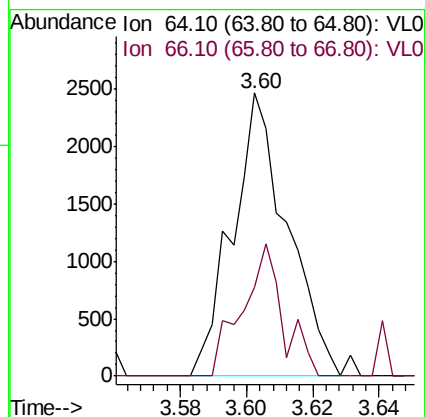
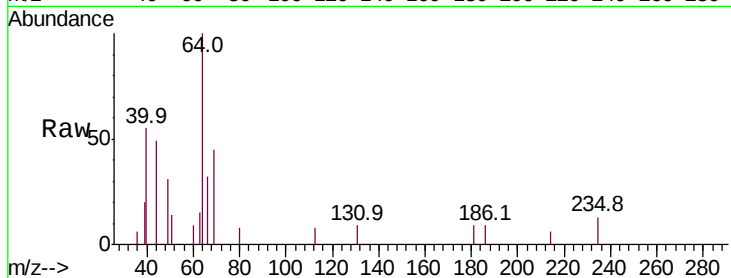
ClientSampleId :

Tot Ion: 64 Resp: 2826

Ion Ratio Lower Upper

64 100

66 31.6 26.6 40.0



#9

Propene

Concen: 0.246 ppbv

RT: 3.05 min Scan# 34

Delta R.T. 0.01 min

Lab File: VL033046.D

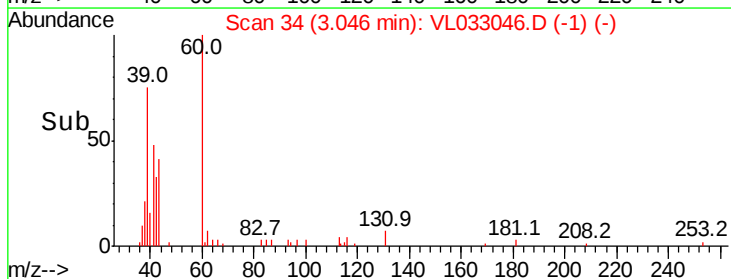
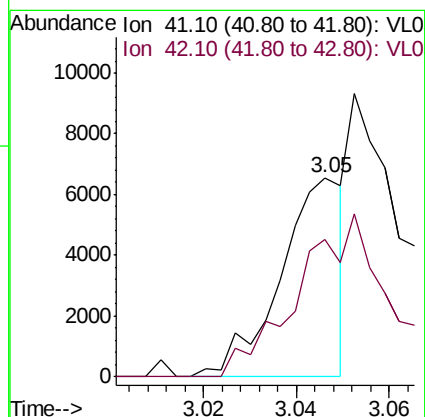
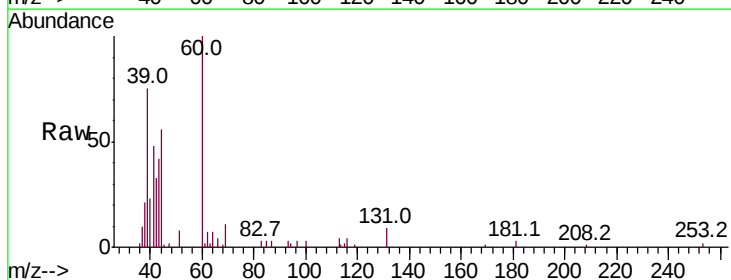
Acq: 21 Dec 2018 8:50

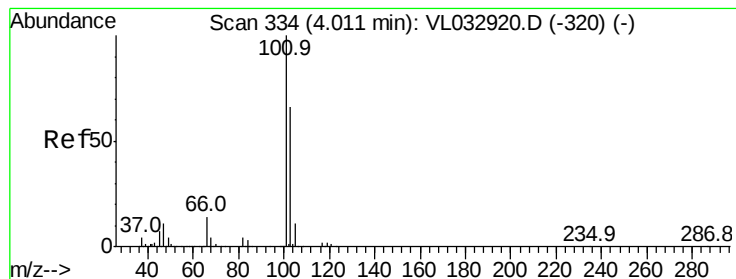
Tgt Ion: 41 Resp: 6175

Ion Ratio Lower Upper

41 100

42 0.0 56.2 84.2#





#11

Trichlorofluoromethane

Concen: 0.424 ppbv

RT: 4.01 min Scan# 333

Delta R.T. -0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

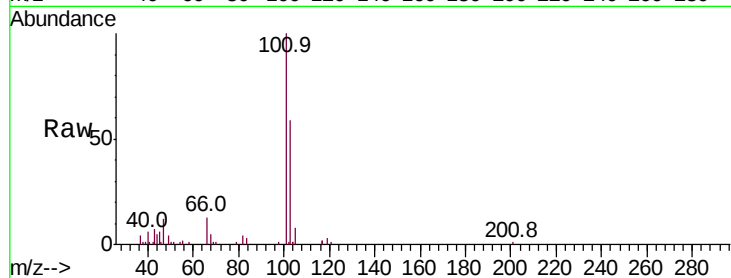
ClientSampleId :

Tot Ion:101 Resp: 44728

Ion Ratio Lower Upper

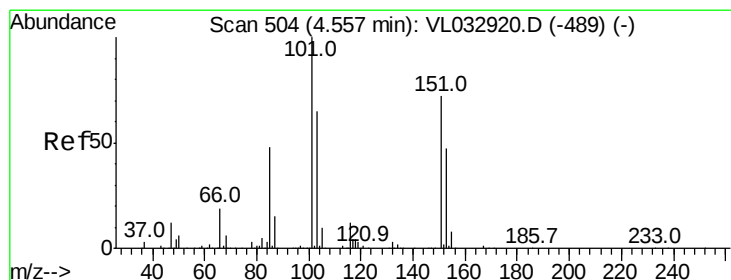
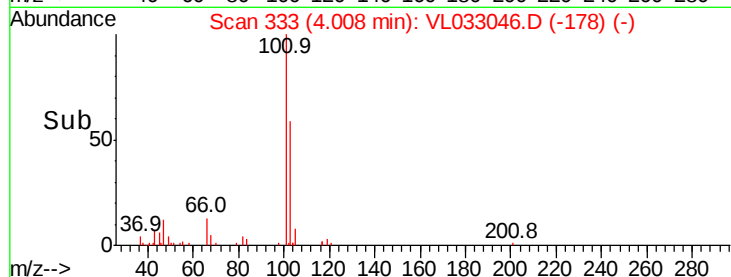
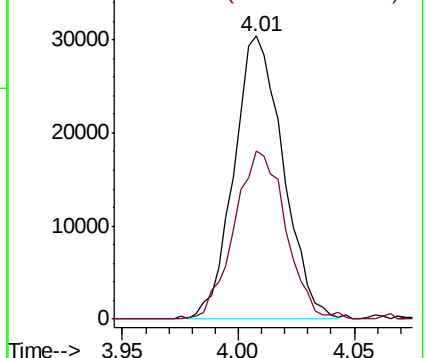
101 100

103 59.4 52.7 79.1



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: 0.245 ppbv

RT: 4.56 min Scan# 504

Delta R.T. 0.00 min

Lab File: VL033046.D

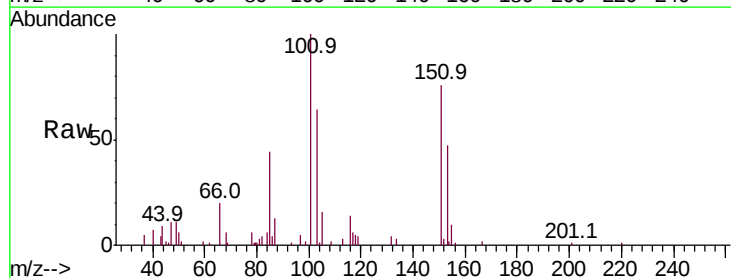
Acq: 21 Dec 2018 8:50

Tgt Ion:101 Resp: 22081

Ion Ratio Lower Upper

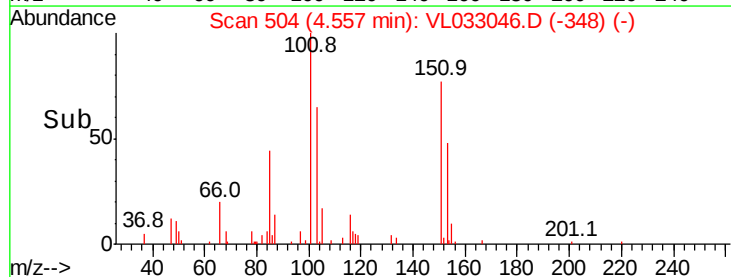
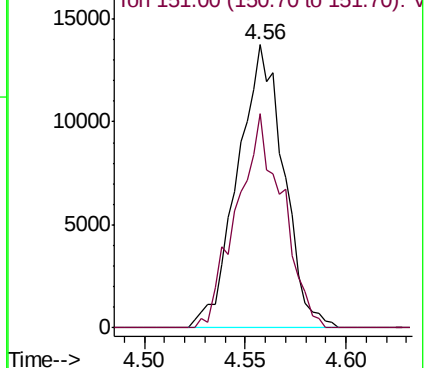
101 100

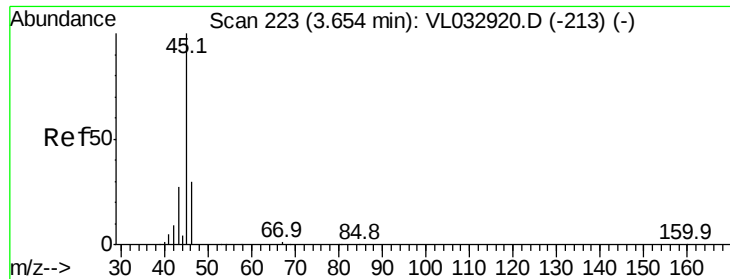
151 74.8 59.3 88.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 4.536 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

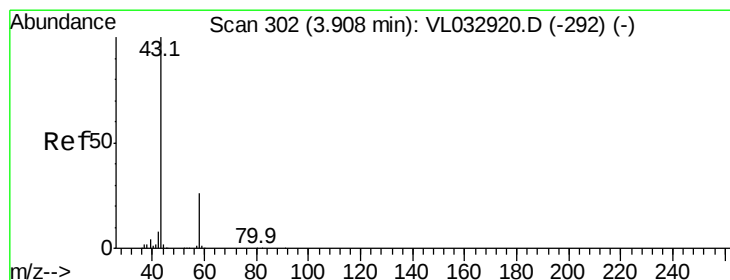
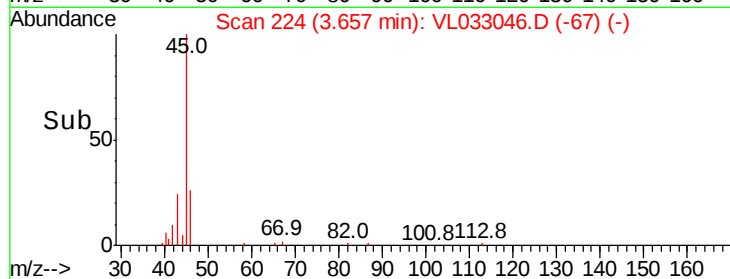
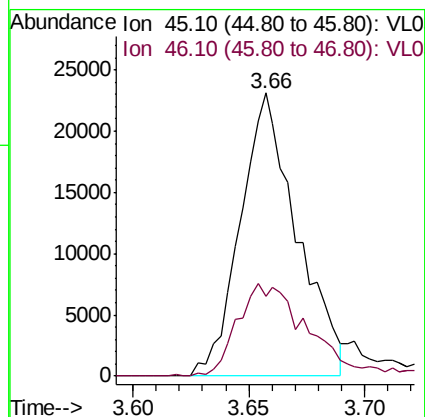
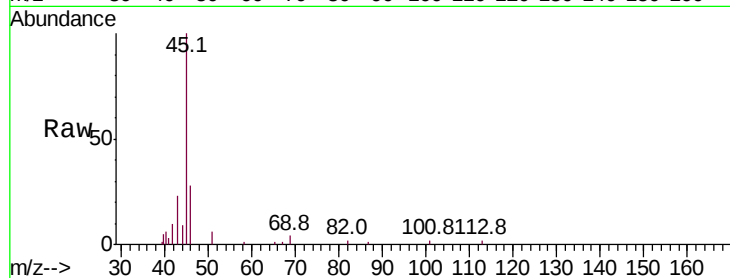
ClientSampleId :

Tot Ion: 45 Resp: 39255

Ion Ratio Lower Upper

45 100

46 42.2 13.8 55.4



#15

Acetone

Concen: 4.519 ppbv

RT: 3.90 min Scan# 301

Delta R.T. -0.00 min

Lab File: VL033046.D

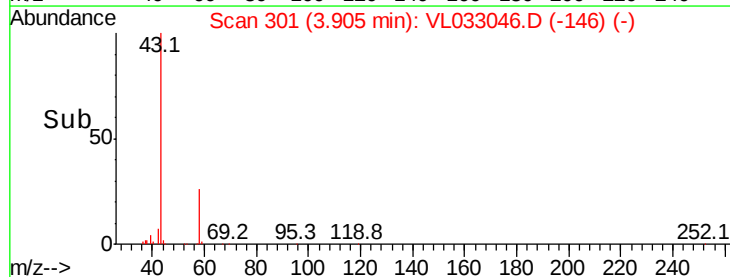
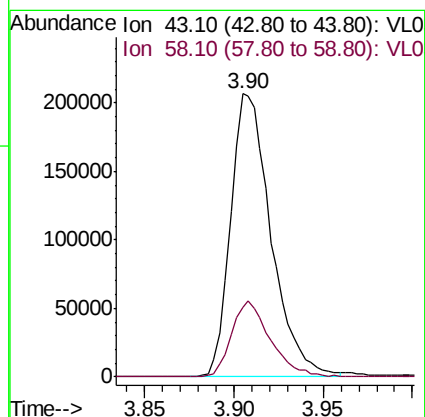
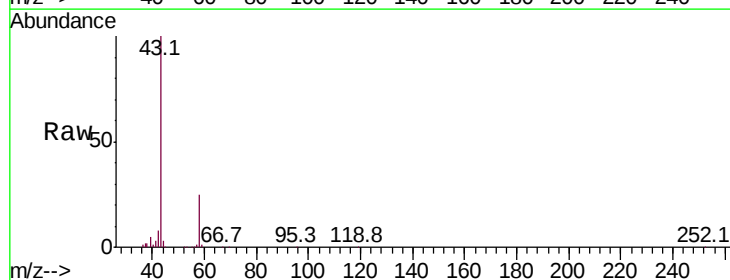
Acq: 21 Dec 2018 8:50

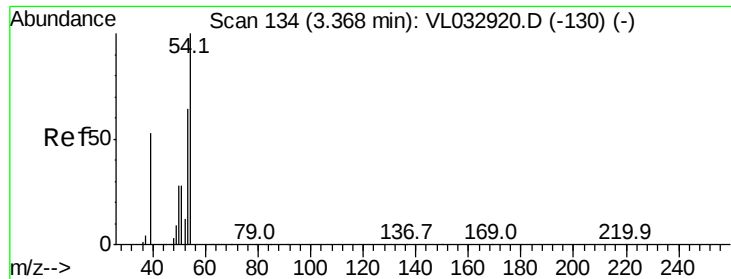
Tgt Ion: 43 Resp: 325597

Ion Ratio Lower Upper

43 100

58 26.0 20.6 30.8





#16

1,3-Butadiene

Concen: 0.046 ppbv

RT: 3.35 min Scan# 130

Delta R.T. -0.01 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

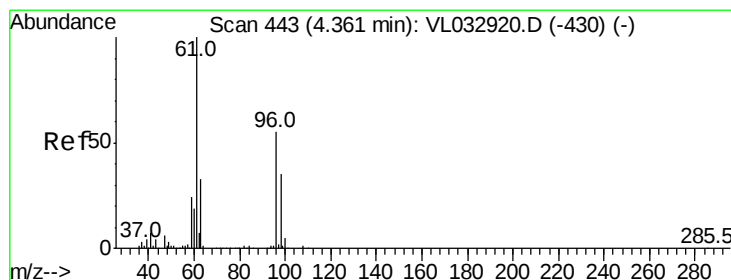
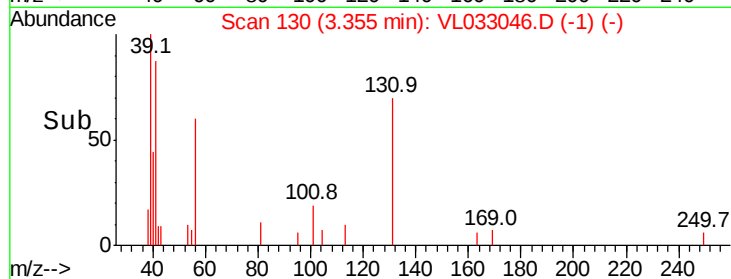
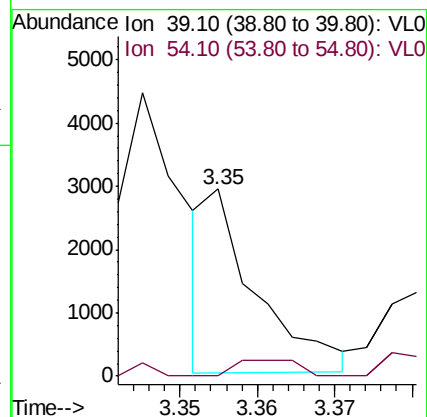
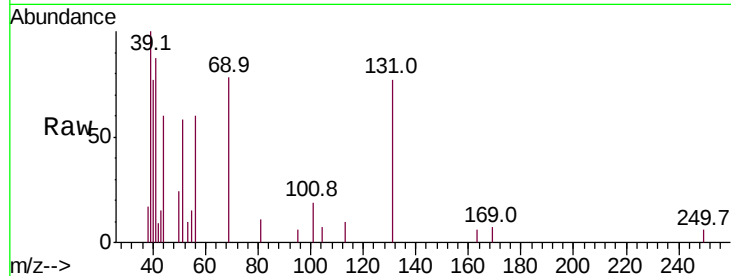
ClientSampleId :

Tot Ion: 39 Resp: 1301

Ion Ratio Lower Upper

39 100

54 0.0 72.7 109.1#



#17

tert-Butyl alcohol

Concen: 0.051 ppbv

RT: 4.35 min Scan# 441

Delta R.T. -0.01 min

Lab File: VL033046.D

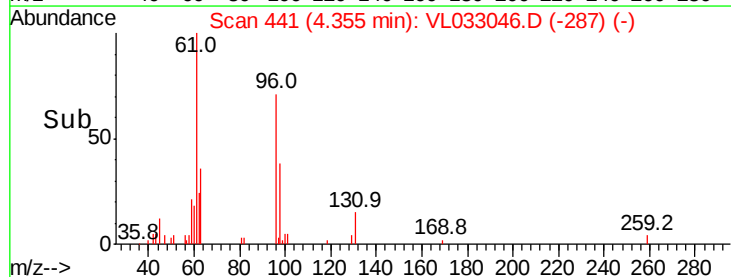
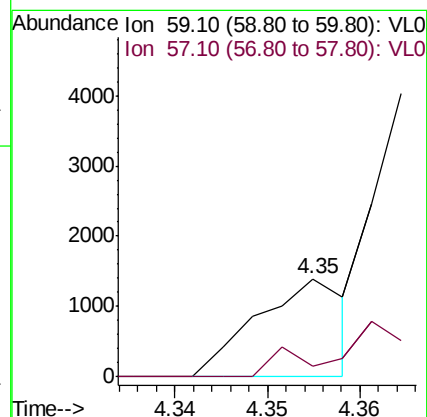
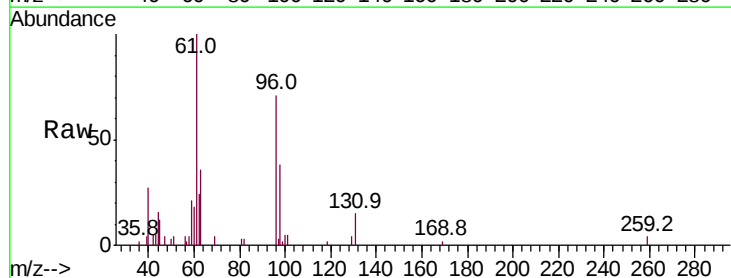
Acq: 21 Dec 2018 8:50

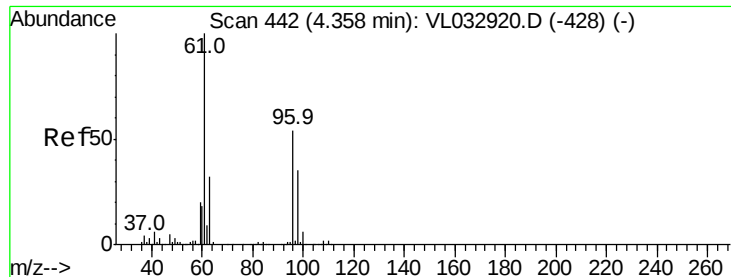
Tgt Ion: 59 Resp: 932

Ion Ratio Lower Upper

59 100

57 0.0 0.6 1.0#





#18

1,1-Dichloroethene

Concen: 0.116 ppbv

RT: 4.35 min Scan# 441

Delta R.T. -0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

ClientSampleId :

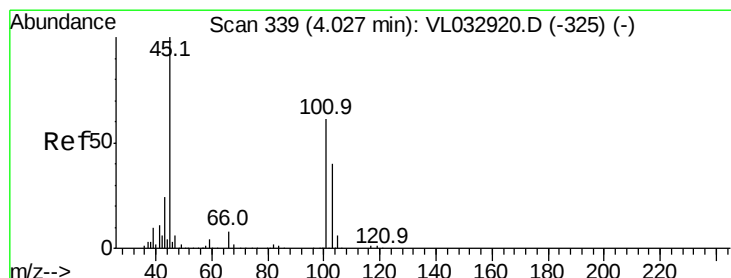
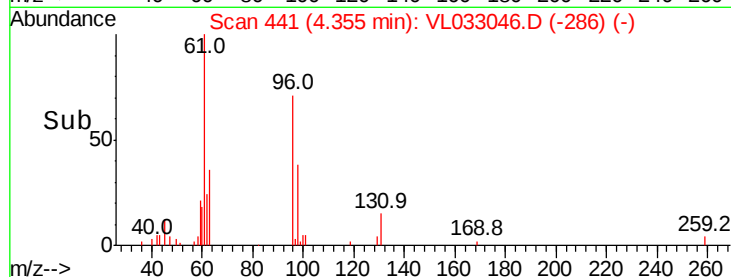
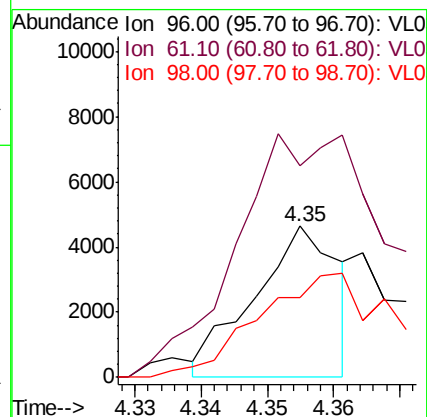
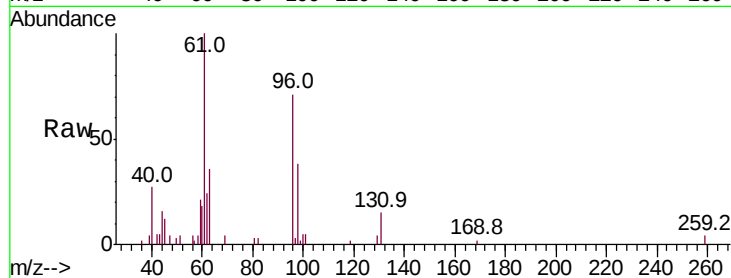
Tot Ion: 96 Resp: 4083

Ion Ratio Lower Upper

96 100

61 120.0 147.0 220.4#

98 51.4 50.7 76.1



#19

Isopropyl Alcohol

Concen: 3.560 ppbv

RT: 4.03 min Scan# 341

Delta R.T. 0.01 min

Lab File: VL033046.D

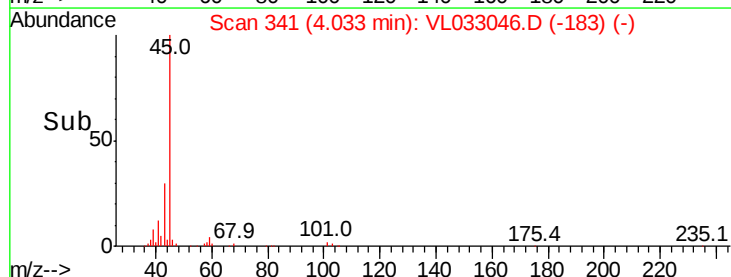
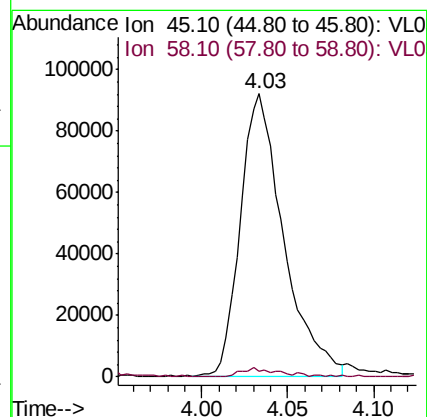
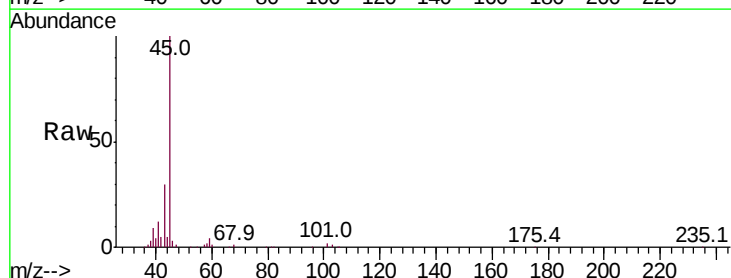
Acq: 21 Dec 2018 8:50

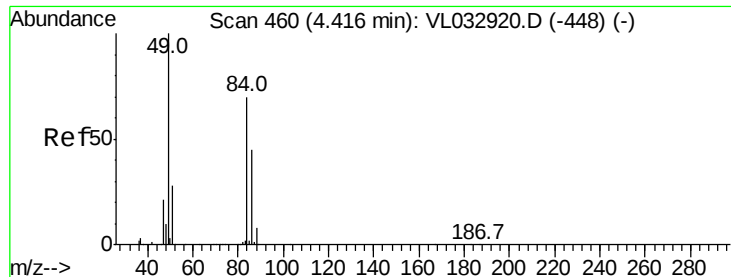
Tgt Ion: 45 Resp: 161062

Ion Ratio Lower Upper

45 100

58 2.8 1.4 2.2#

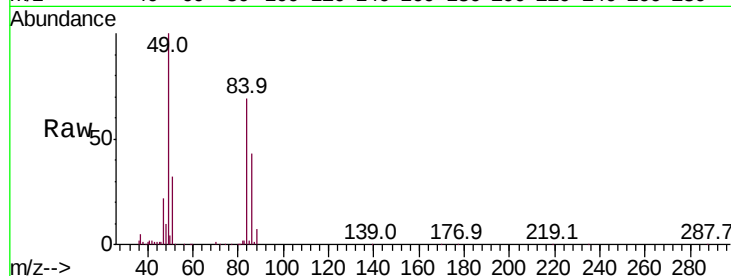




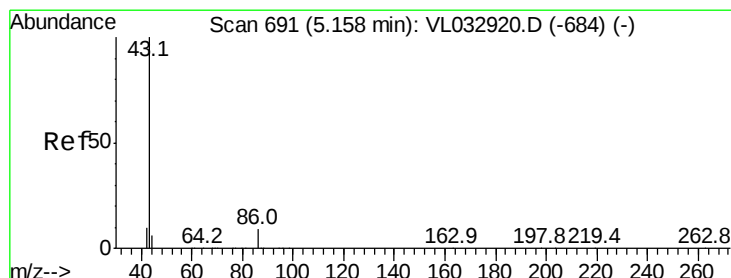
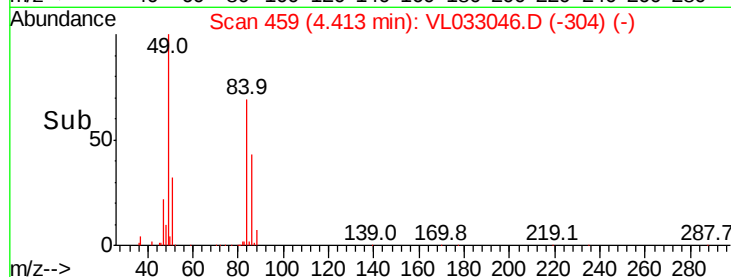
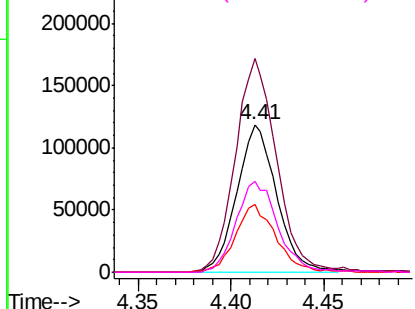
#20
Methvlene Chloride
Concen: 5.025 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL033046.D
Acq: 21 Dec 2018 8:50

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	84	Resp:	176953
Ion	Ratio	Lower	Upper
84	100		
49	144.1	113.8	170.8
51	45.7	31.8	47.8
86	61.5	50.8	76.2

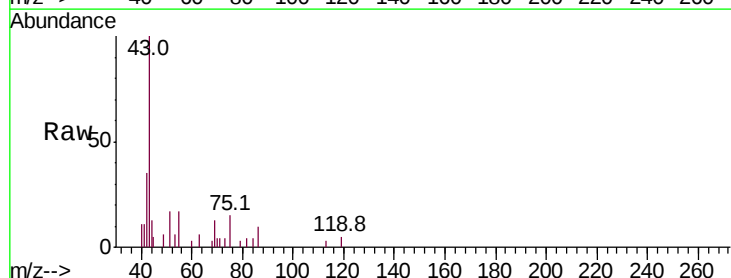


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

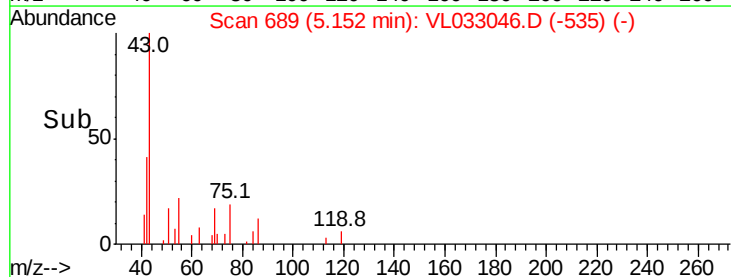
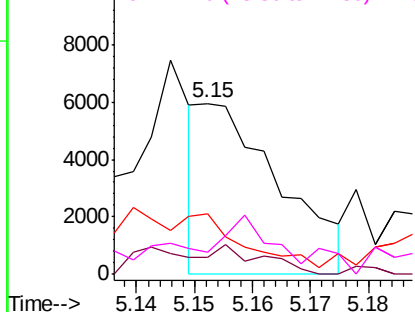


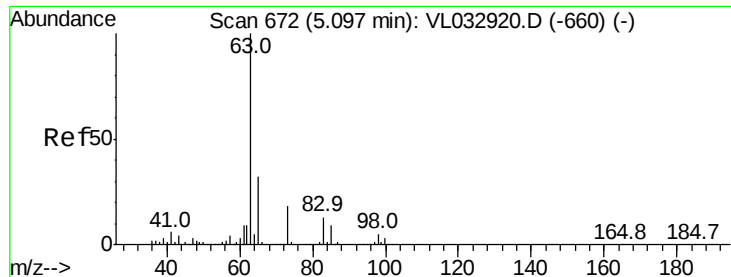
#23
Vinyl Acetate
Concen: 0.047 ppbv
RT: 5.15 min Scan# 689
Delta R.T. -0.01 min
Lab File: VL033046.D
Acq: 21 Dec 2018 8:50

Tgt Ion:	43	Resp:	5714
Ion	Ratio	Lower	Upper
43	100		
86	13.7	6.6	9.8#
42	33.6	8.3	12.5#
44	8.5	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





#24

1,1-Dichloroethane

Concen: 1.360 ppbv

RT: 5.10 min Scan# 672

Delta R.T. 0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :
MSVOA_L
ClientSampled :

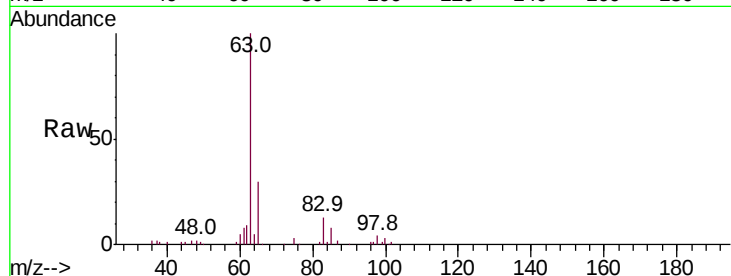
Tot Ion: 63 Resp: 144209

Ion Ratio Lower Upper

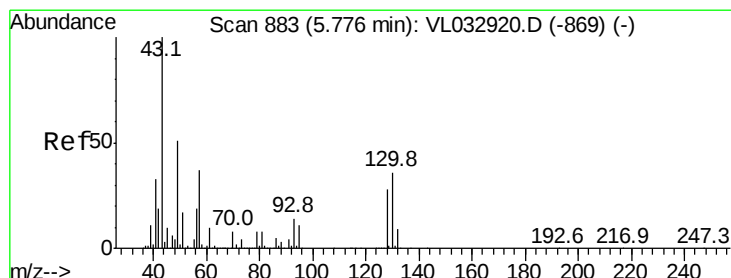
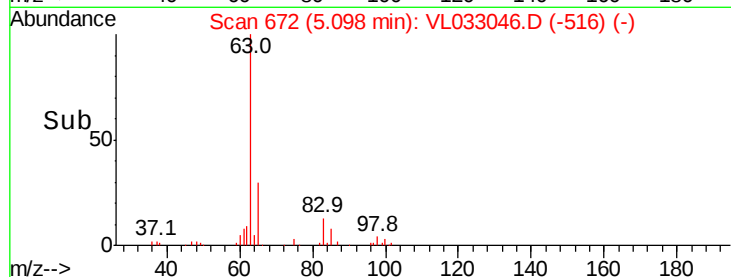
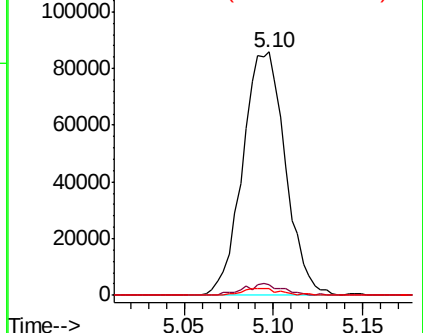
63 100

98 4.4 2.5 7.5

100 3.0 1.4 4.2



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 98.00 (97.70 to 98.70): VL0
Ion 100.00 (99.70 to 100.70): VL0



#25

Ethyl Acetate

Concen: 0.289 ppbv

RT: 5.78 min Scan# 885

Delta R.T. 0.01 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Tgt Ion: 43 Resp: 49220

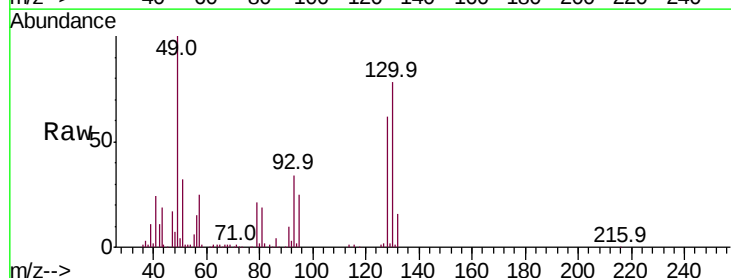
Ion Ratio Lower Upper

43 100

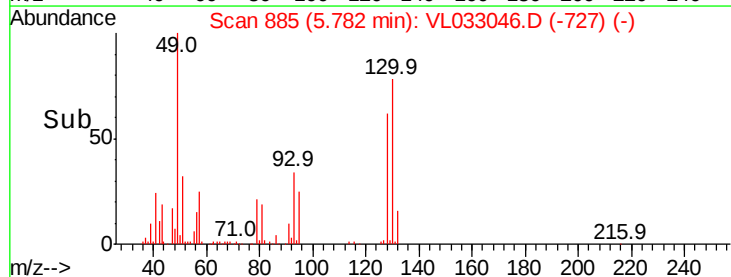
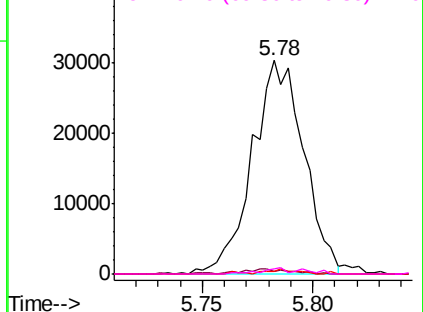
45 2.4 7.8 11.6#

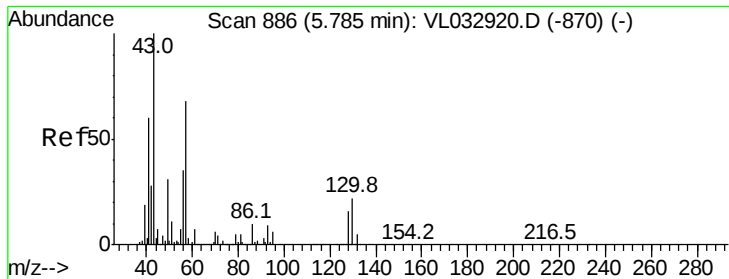
61 1.7 7.4 11.2#

70 2.2 5.7 8.5#



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

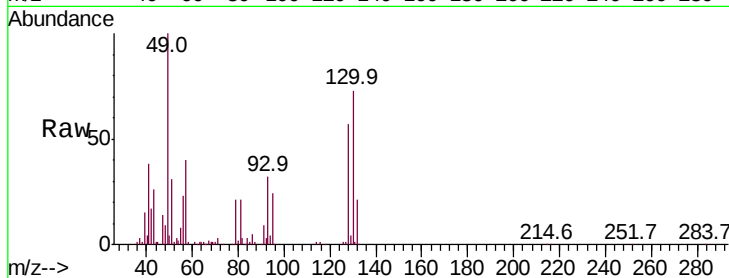




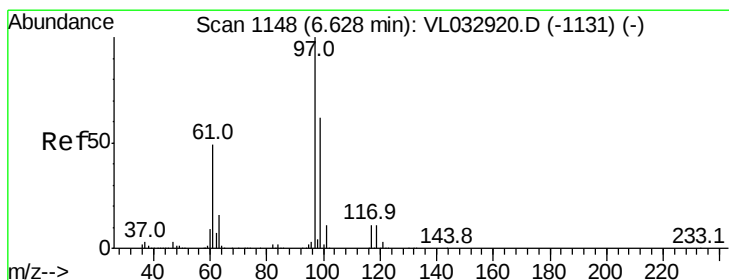
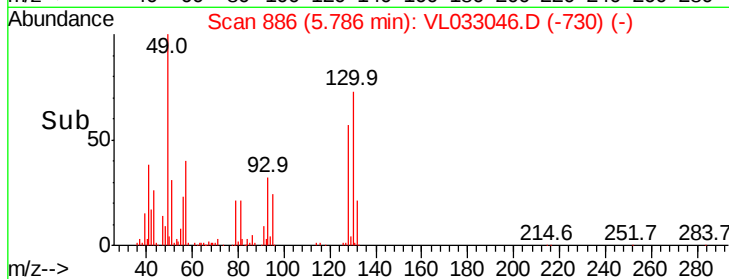
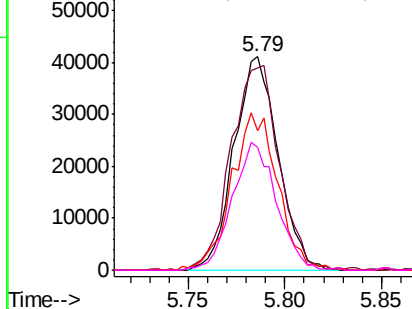
#26
Hexane
Concen: 0.827 ppbv
RT: 5.79 min Scan# 886
Delta R.T. 0.00 min
Lab File: VL033046.D
Acq: 21 Dec 2018 8:50

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 65005
Ion Ratio Lower Upper
57 100
41 105.9 72.2 108.2
43 77.2 171.9 257.9#
56 60.2 42.2 63.2

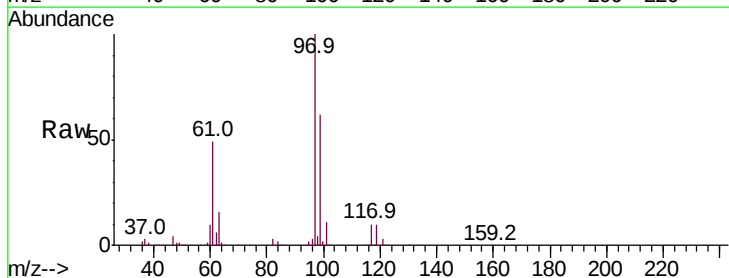


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

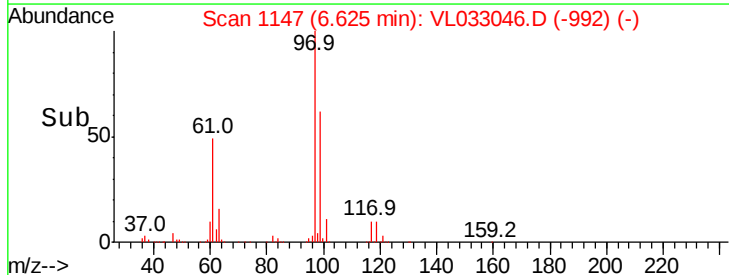
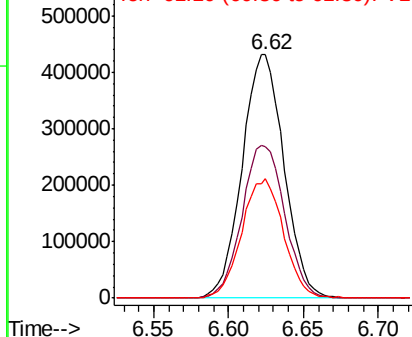


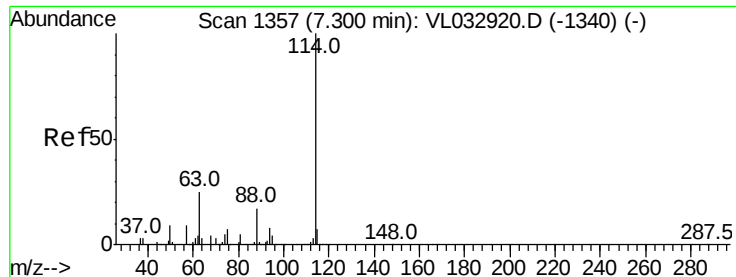
#32
1,1,1-Trichloroethane
Concen: 5.667 ppbv
RT: 6.62 min Scan# 1147
Delta R.T. -0.00 min
Lab File: VL033046.D
Acq: 21 Dec 2018 8:50

Tgt Ion: 97 Resp: 840616
Ion Ratio Lower Upper
97 100
99 64.2 51.1 76.7
61 49.0 39.3 58.9



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0

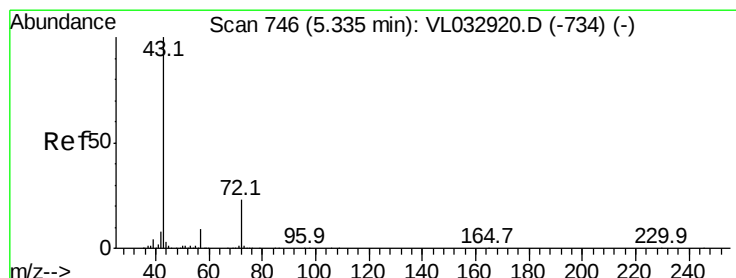
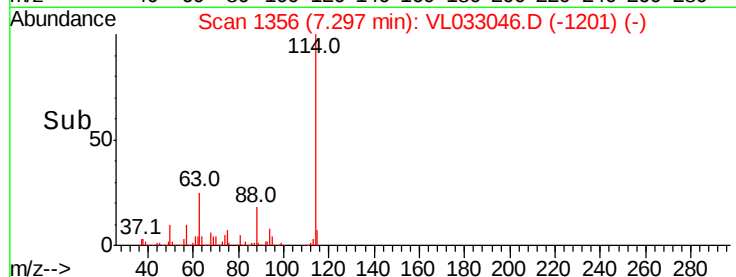
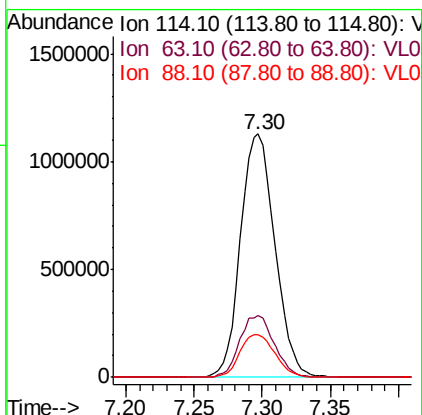
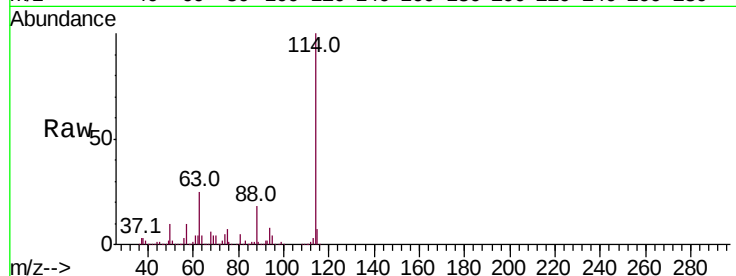




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1356
 Delta R.T. -0.00 min
 Lab File: VL033046.D
 Acq: 21 Dec 2018 8:50

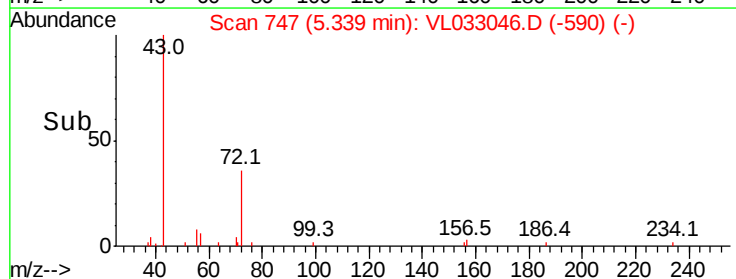
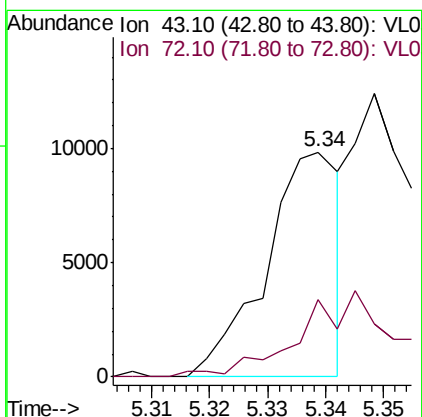
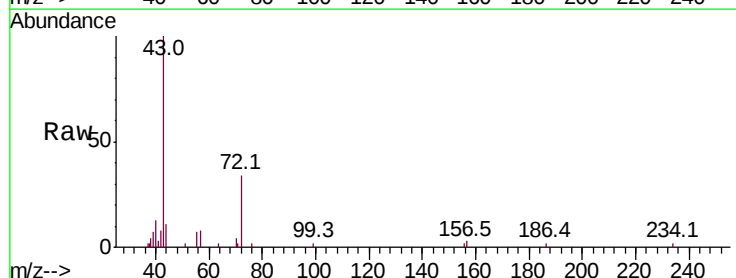
Instrument :
 MSVOA_L
 ClientSampleId :

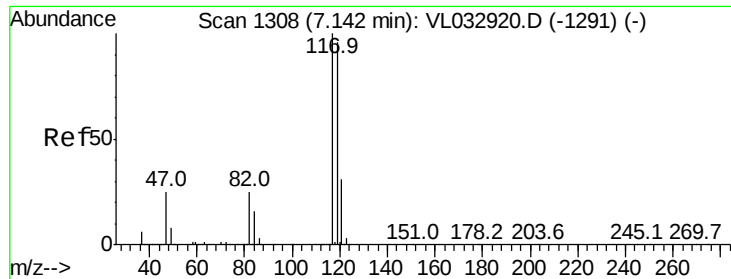
Tot Ion:114 Resp: 1978880
 Ion Ratio Lower Upper
 114 100
 63 25.7 20.1 30.1
 88 18.0 14.2 21.4



#34
 2-Butanone
 Concen: 0.101 ppbv
 RT: 5.34 min Scan# 747
 Delta R.T. 0.00 min
 Lab File: VL033046.D
 Acq: 21 Dec 2018 8:50

Tgt Ion: 43 Resp: 8747
 Ion Ratio Lower Upper
 43 100
 72 0.0 18.8 28.2#





#35

Carbon Tetrachloride

Concen: 0.055 ppbv

RT: 7.14 min Scan# 1307

Delta R.T. -0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

ClientSampled :

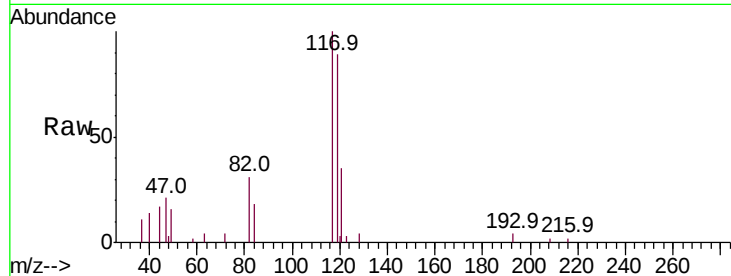
Tot Ion:117 Resp: 8527

Ion Ratio Lower Upper

117 100

119 88.6 76.5 114.7

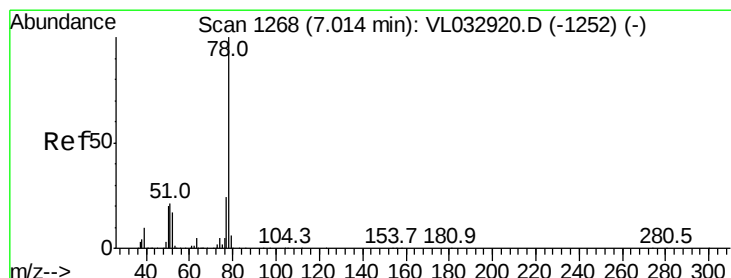
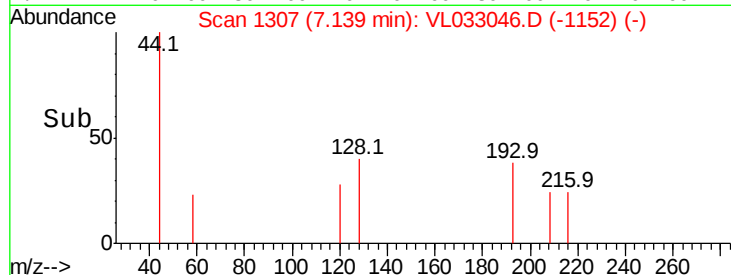
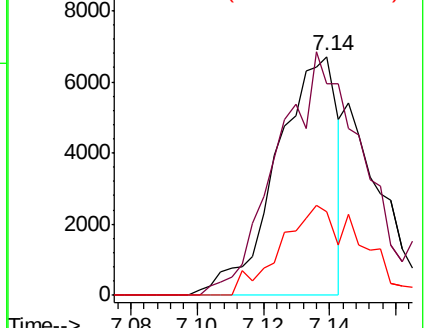
121 35.1 24.5 36.7



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: 0.035 ppbv

RT: 7.01 min Scan# 1268

Delta R.T. 0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

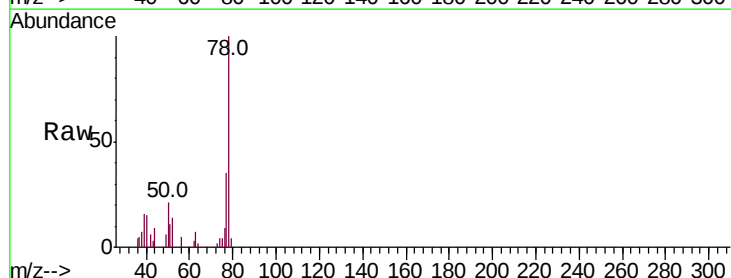
Tgt Ion: 78 Resp: 5125

Ion Ratio Lower Upper

78 100

77 34.6 18.9 28.3#

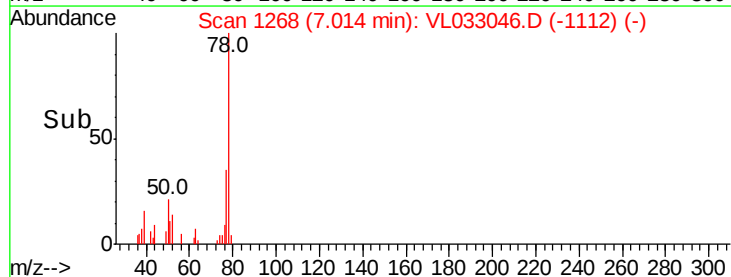
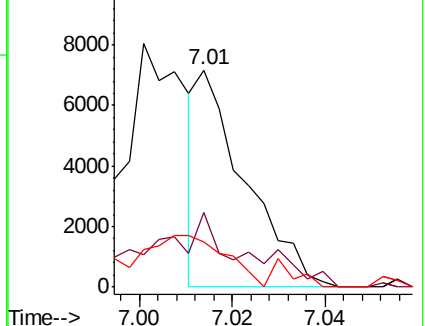
50 20.8 16.1 24.1

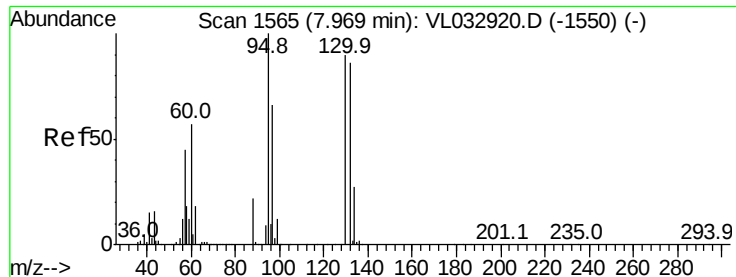


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

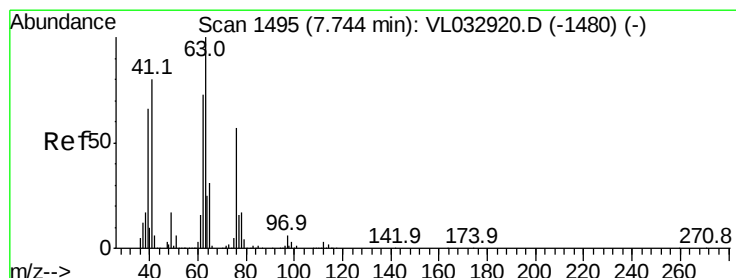
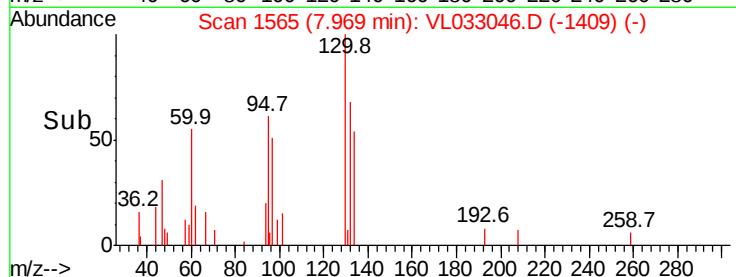
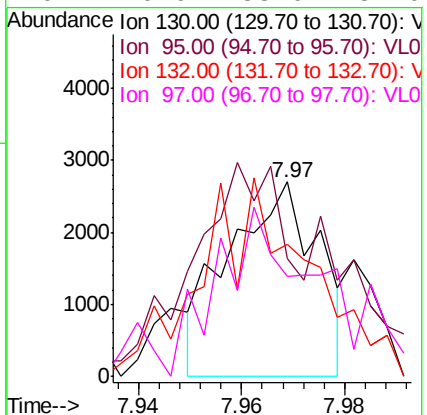
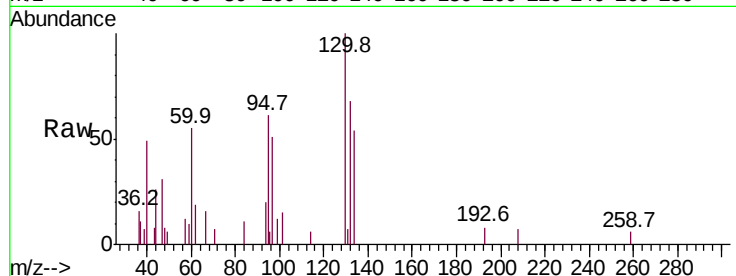




#38
 Trichloroethene
 Concen: 0.054 ppbv
 RT: 7.97 min Scan# 1565
 Delta R.T. 0.00 min
 Lab File: VL033046.D
 Acq: 21 Dec 2018 8:50

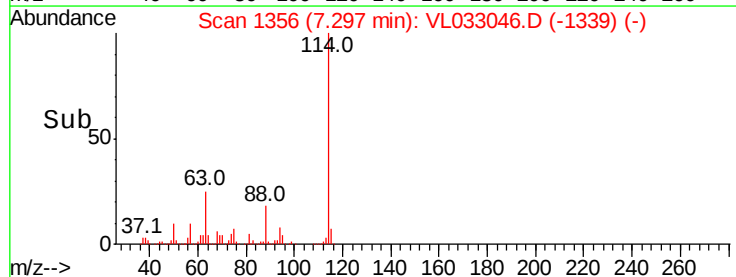
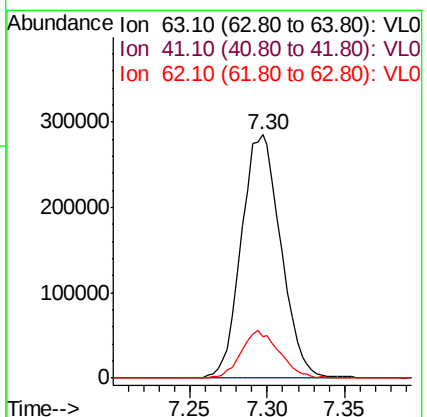
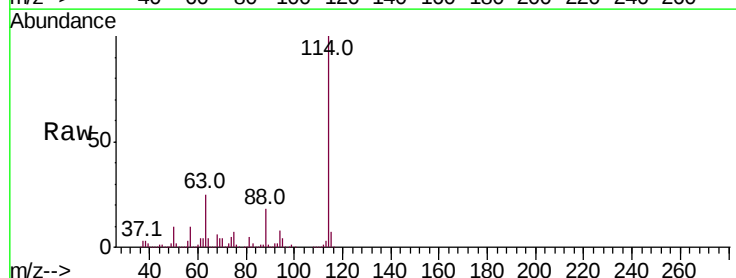
Instrument :
 MSVOA_L
 ClientSampleId :

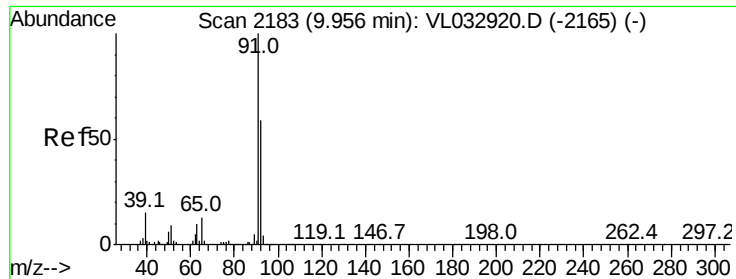
Tot Ion:130 Resp: 3256
 Ion Ratio Lower Upper
 130 100
 95 26.3 88.6 132.8#
 132 56.0 76.1 114.1#
 97 9.9 58.0 87.0#



#39
 1,2-Dichloropropane
 Concen: 9.147 ppbv
 RT: 7.30 min Scan# 1356
 Delta R.T. -0.45 min
 Lab File: VL033046.D
 Acq: 21 Dec 2018 8:50

Tgt Ion: 63 Resp: 504921
 Ion Ratio Lower Upper
 63 100
 41 0.1 63.9 95.9#
 62 16.8 58.8 88.2#





#53

Toluene

Concen: 0.821 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. 0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

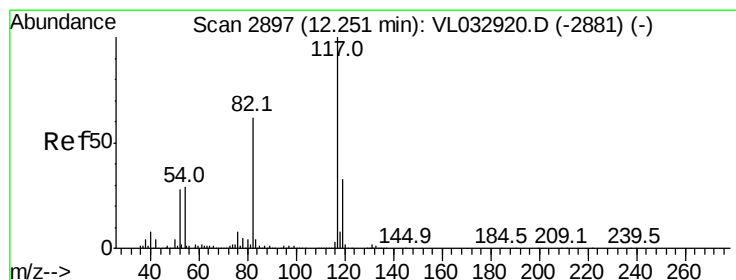
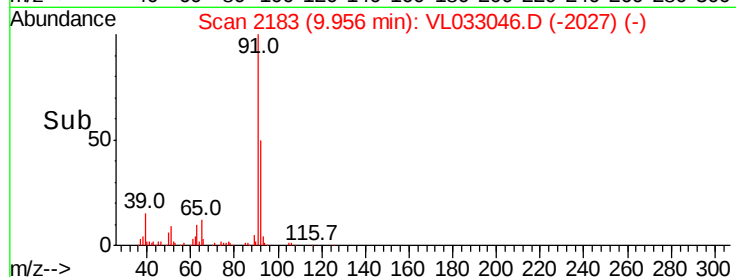
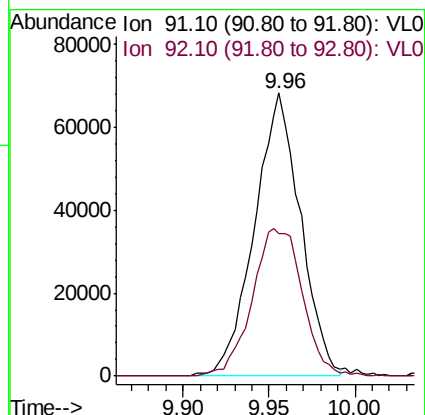
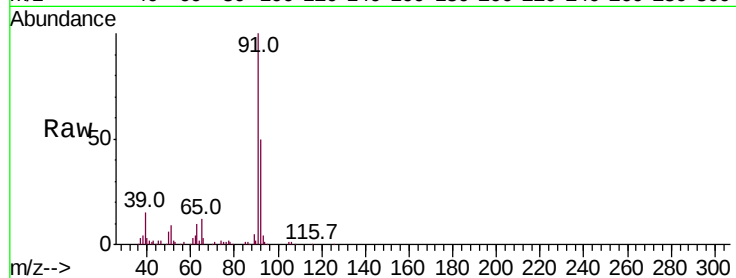
ClientSampleId :

Tot Ion: 91 Resp: 126658

Ion Ratio Lower Upper

91 100

92 57.3 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2895

Delta R.T. -0.01 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

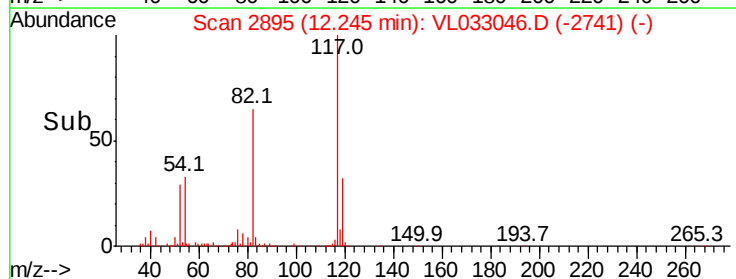
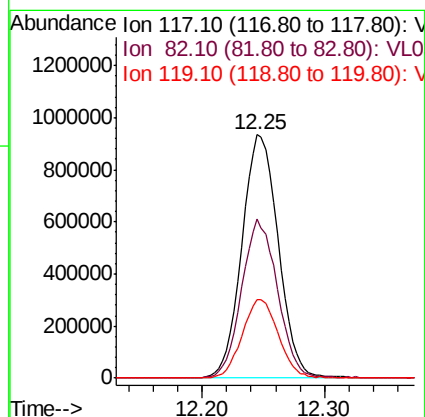
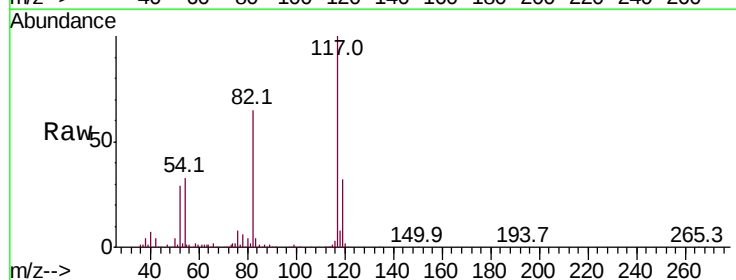
Tgt Ion: 117 Resp: 1920970

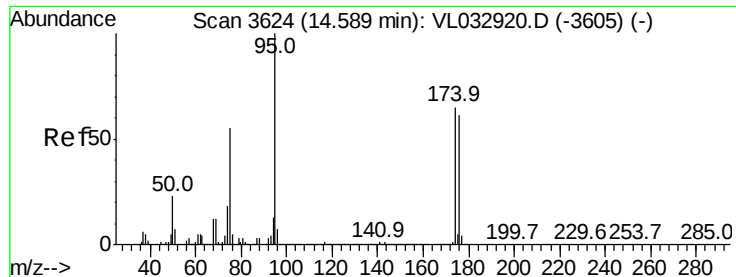
Ion Ratio Lower Upper

117 100

82 64.9 47.8 71.8

119 32.4 43.1 64.7#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.672 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.00 min

Lab File: VL033046.D

Acq: 21 Dec 2018 8:50

Instrument :

MSVOA_L

ClientSampleId :

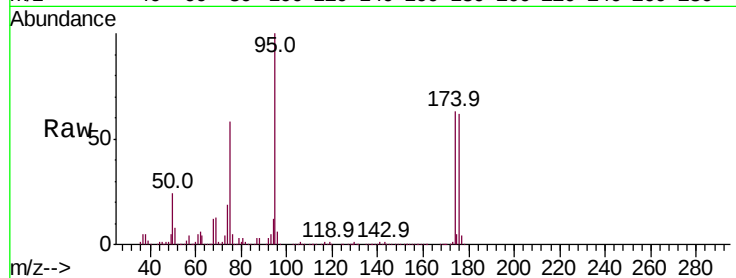
Tot Ion: 95 Resp: 1514600

Ion Ratio Lower Upper

95 100

174 65.1 51.4 77.0

175 4.8 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

