

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL031519\
 Data File : VL033331.D
 Acq On : 15 Mar 2019 13:38
 Operator : SY/AP
 Sample : VSTDIC0.03
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

Quant Time: Mar 15 14:10:24 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL031519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar 15 12:24:28 2019
 QLast Update : Fri Mar 15 12:24:28 2019
 Response via : Initial Calibration

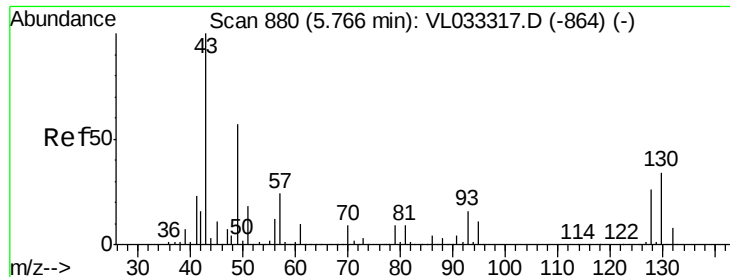
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	839559	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1907122	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2071940	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1571494	9.98	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.08	85	6300	0.041 ppbv	94
3) Chlorodifluoromethane	3.02	51	4448	0.046 ppbv #	89
5) Vinyl Chloride	3.30	62	2179	0.041 ppbv #	76
6) Bromomethane	3.52	94	952	0.030 ppbv #	31
8) Dichlorotetrafluoroethane	3.22	85	5024	0.039 ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.55	101	2085	0.022 ppbv #	14
14) Bromoethene	3.79	108	1050	0.026 ppbv #	47
15) Acetone	3.93	43	10131	0.079 ppbv	90
16) 1,3-Butadiene	3.36	39	1078	0.024 ppbv #	2
20) Methylene Chloride	4.41	84	5221	0.127 ppbv #	89
21) Allyl Chloride	4.48	41	2349	0.037 ppbv #	92
22) trans-1,2-Dichloroethene	4.97	96	961	0.023 ppbv #	43
26) Hexane	5.78	57	1997	0.023 ppbv #	1
27) Carbon Disulfide	4.62	76	2477	0.026 ppbv #	1
39) 1,2-Dichloropropane	7.29	63	510025	7.863 ppbv #	25
42) Bromodichloromethane	7.91	83	3396	0.023 ppbv #	91
57) Chlorobenzene	12.30	112	3626	0.022 ppbv #	37

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.00 min

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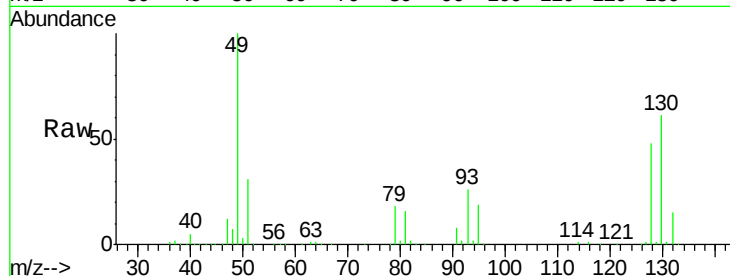
Tgt Ion: 49 Resp: 839559

Ion Ratio Lower Upper

49 100

128 47.2 23.5 70.6

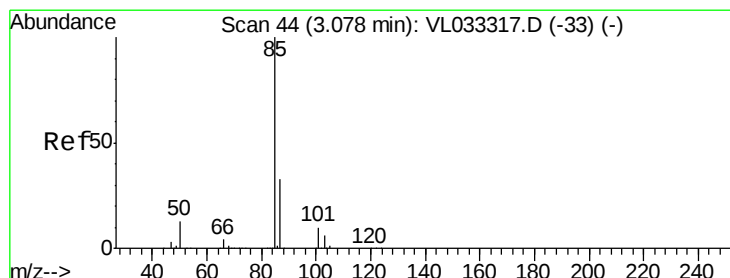
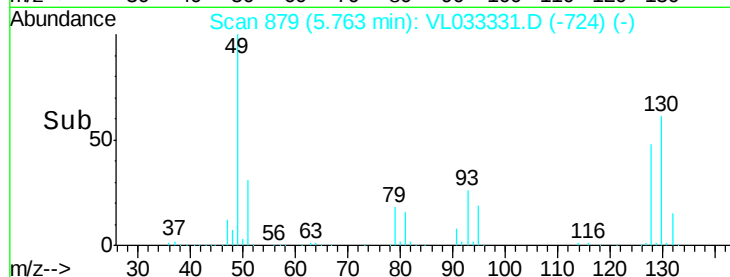
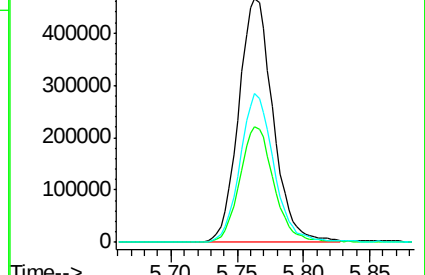
130 60.6 30.1 90.3



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: 0.041 ppbv

RT: 3.08 min Scan# 45

Delta R.T. 0.00 min

Lab File: VL033331.D

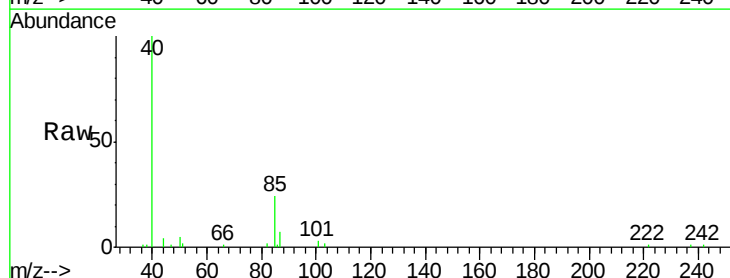
Acq: 15 Mar 2019 13:38

Tgt Ion: 85 Resp: 6300

Ion Ratio Lower Upper

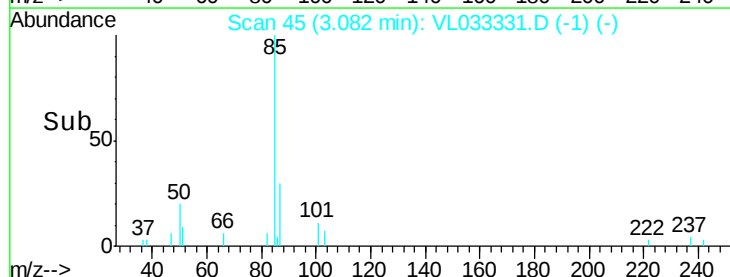
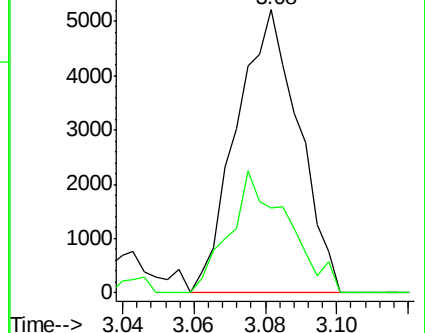
85 100

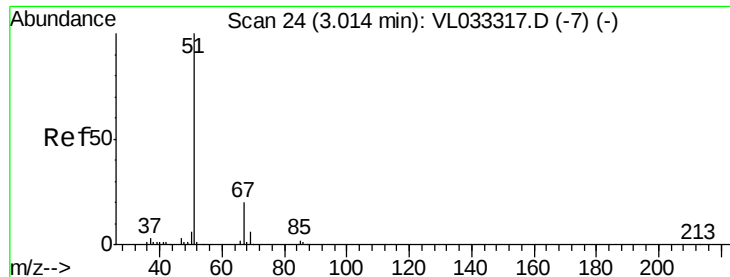
87 30.0 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

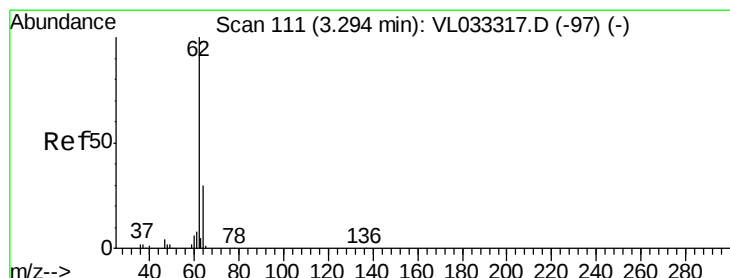
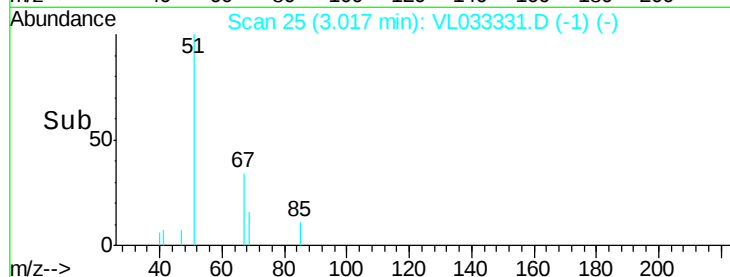
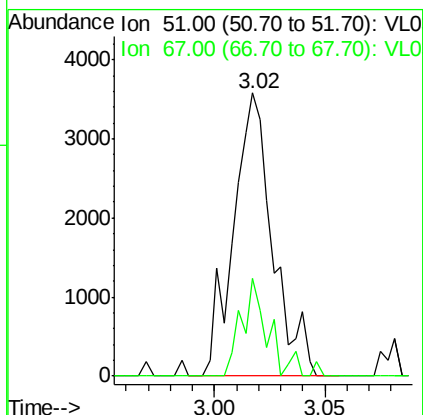
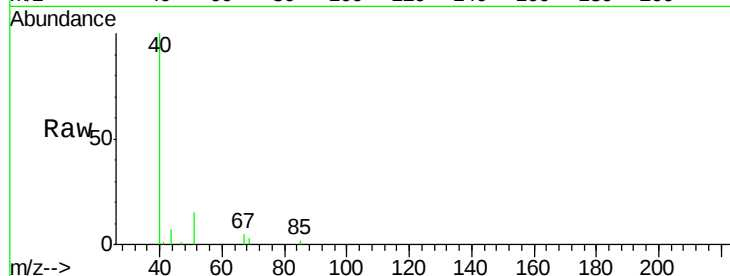




#3
Chlorodifluoromethane
Concen: 0.046 ppbv
RT: 3.02 min Scan# 25
Delta R.T. -0.00 min
Lab File: VL033331.D
Acq: 15 Mar 2019 13:38

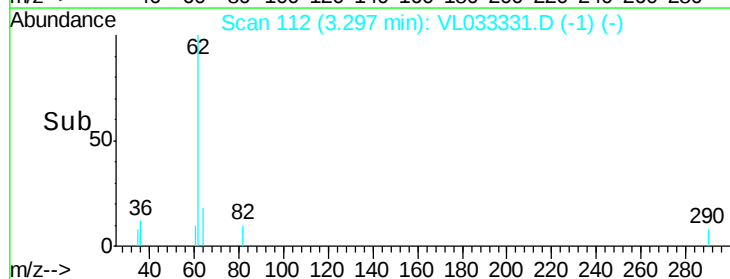
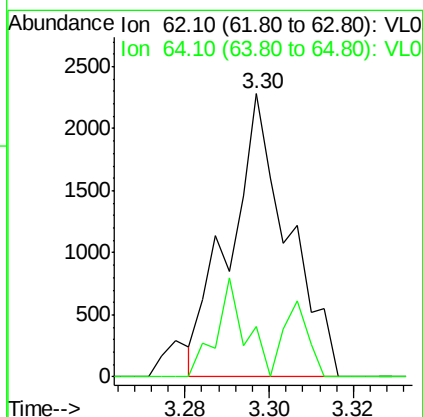
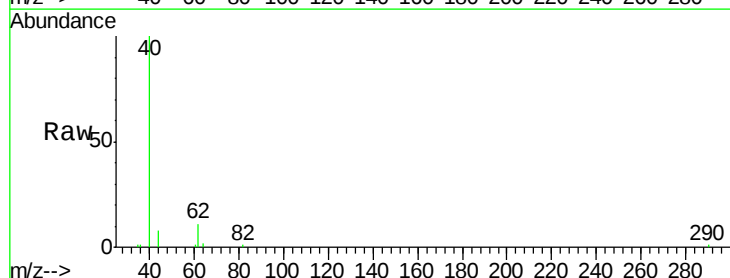
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

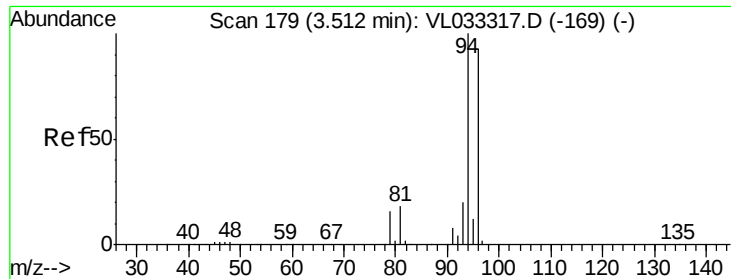
Tgt Ion: 51 Resp: 4448
Ion Ratio Lower Upper
51 100
67 23.7 14.9 22.3#



#5
Vinyl Chloride
Concen: 0.041 ppbv
RT: 3.30 min Scan# 112
Delta R.T. 0.00 min
Lab File: VL033331.D
Acq: 15 Mar 2019 13:38

Tgt Ion: 62 Resp: 2179
Ion Ratio Lower Upper
62 100
64 18.0 25.0 37.6#





#6

Bromomethane

Concen: 0.030 ppbv

RT: 3.52 min Scan# 182

Delta R.T. 0.01 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Instrument :

MSVOA_L

ClientSampleId :

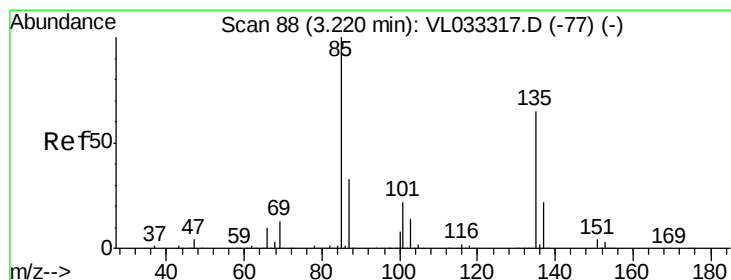
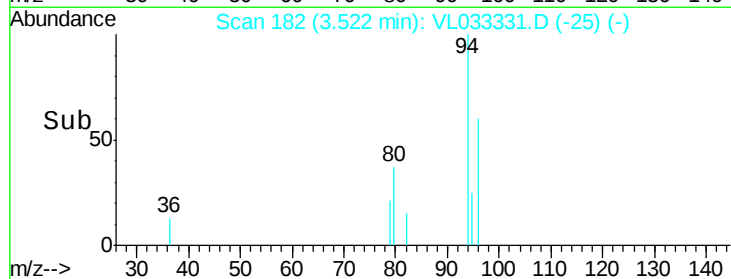
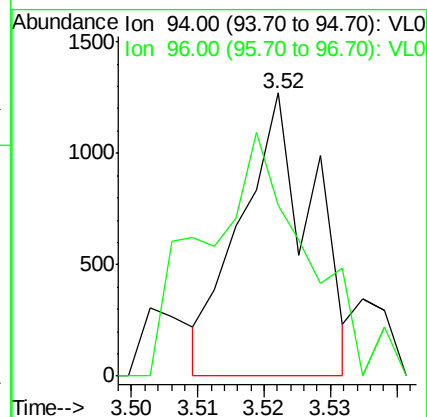
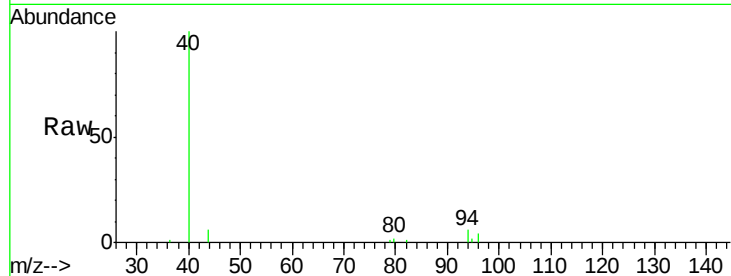
VSTDIC0.03

Tgt Ion: 94 Resp: 952

Ion Ratio Lower Upper

94 100

96 26.4 74.6 111.8#



#8

Dichlorotetrafluoroethane

Concen: 0.039 ppbv

RT: 3.22 min Scan# 89

Delta R.T. -0.00 min

Lab File: VL033331.D

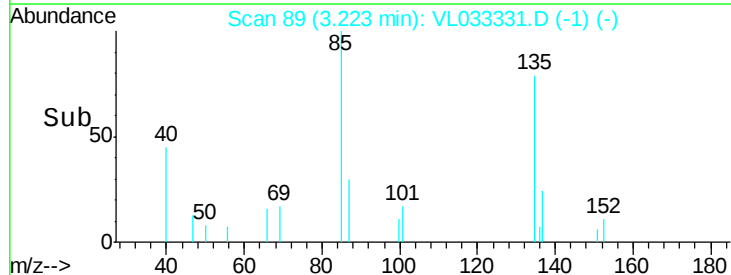
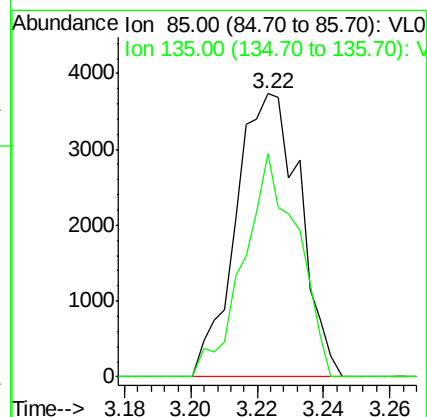
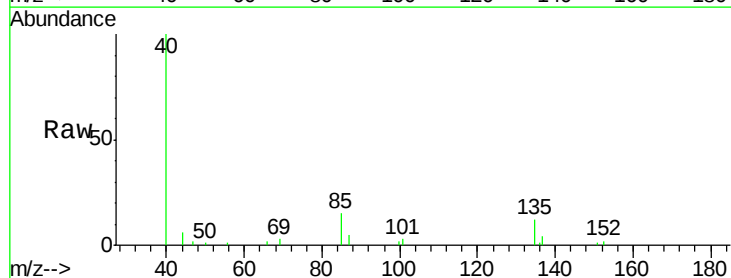
Acq: 15 Mar 2019 13:38

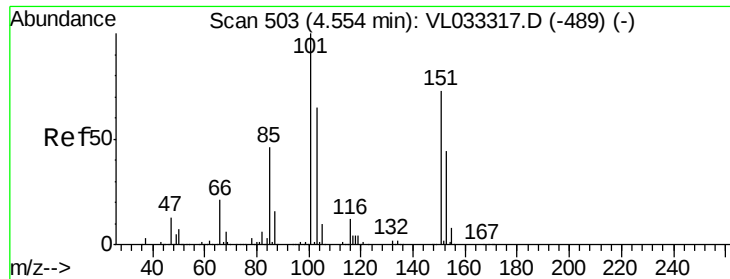
Tgt Ion: 85 Resp: 5024

Ion Ratio Lower Upper

85 100

135 66.3 53.4 80.2





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.022 ppbv

RT: 4.55 min Scan# 501

Delta R.T. -0.01 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Instrument :

MSVOA_L

ClientSampleId :

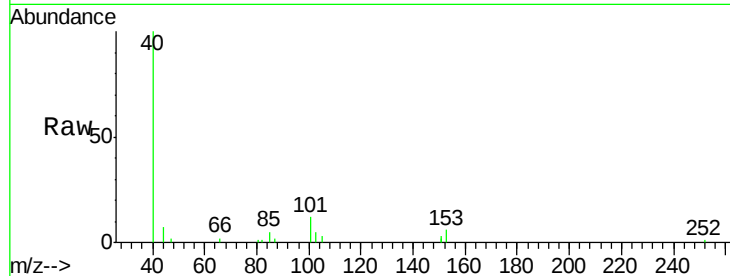
VSTDIC0.03

Tgt Ion:101 Resp: 2085

Ion Ratio Lower Upper

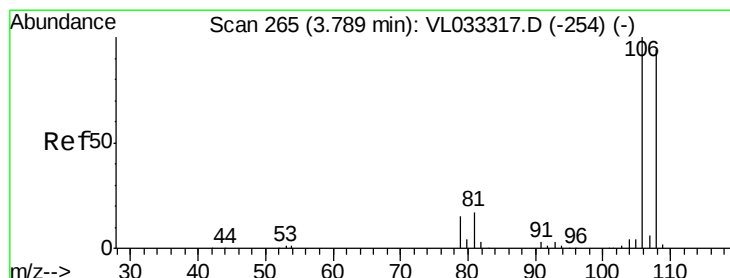
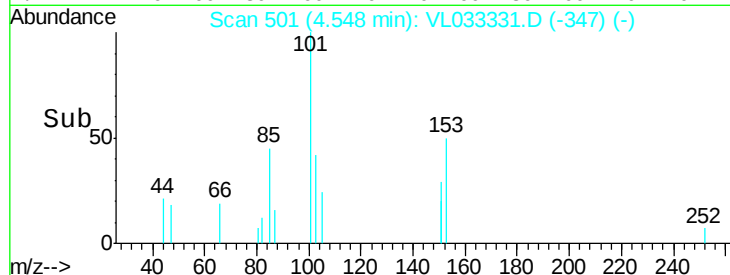
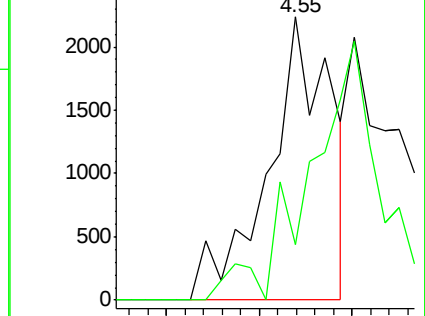
101 100

151 0.0 56.3 84.5#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#14

Bromoethene

Concen: 0.026 ppbv

RT: 3.79 min Scan# 266

Delta R.T. -0.00 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

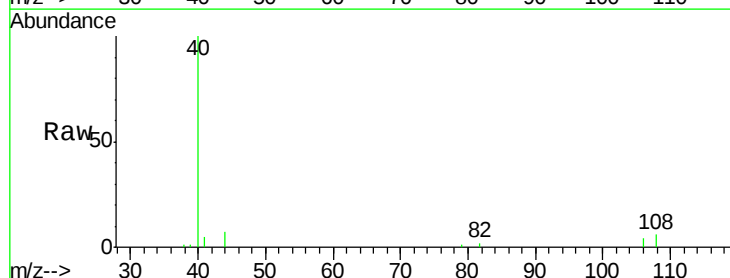
Tgt Ion:108 Resp: 1050

Ion Ratio Lower Upper

108 100

106 161.9 86.2 129.2#

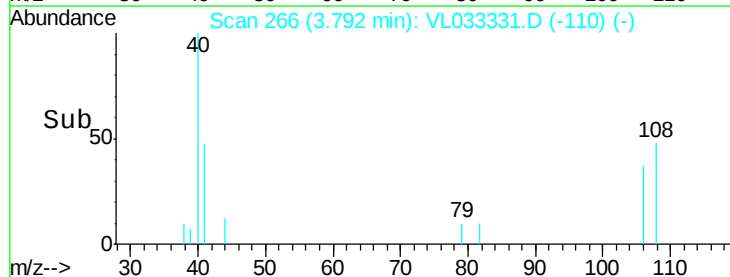
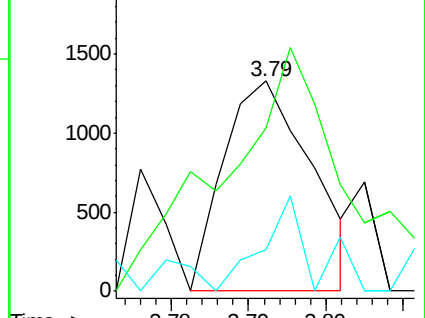
79 44.7 15.4 23.2#

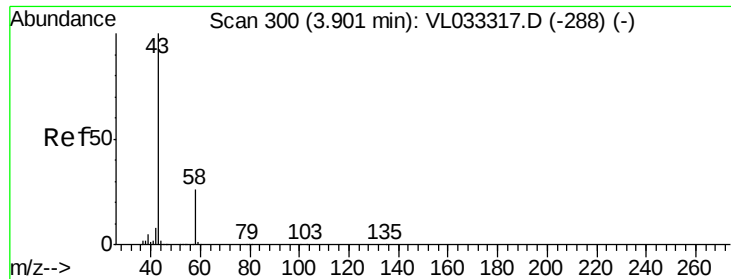


Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VL0





#15

Acetone

Concen: 0.079 ppbv

RT: 3.93 min Scan# 310

Delta R.T. 0.03 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Instrument :

MSVOA_L

ClientSampleId :

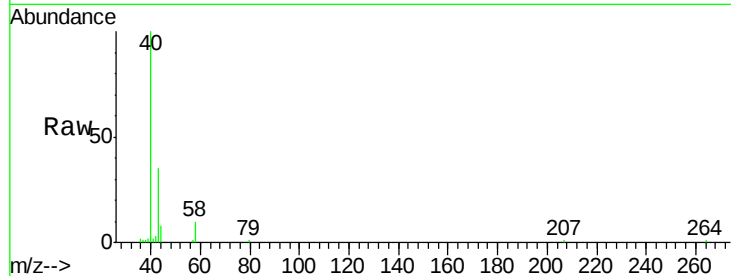
VSTDIC0.03

Tgt Ion: 43 Resp: 10131

Ion Ratio Lower Upper

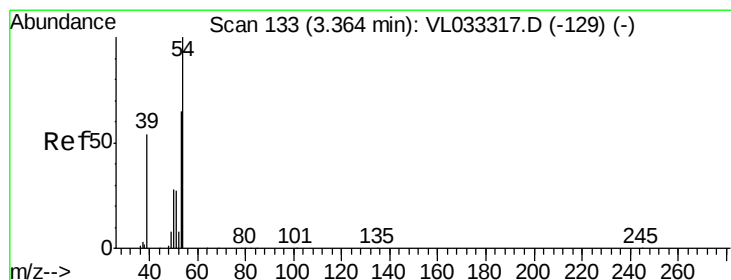
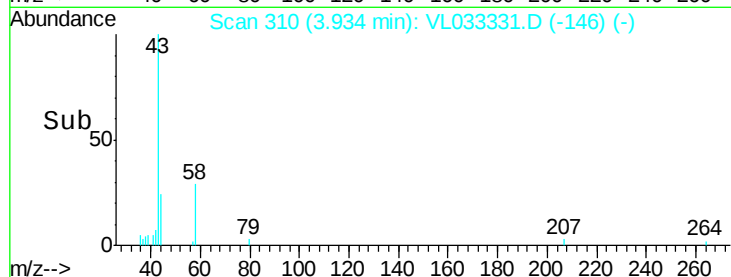
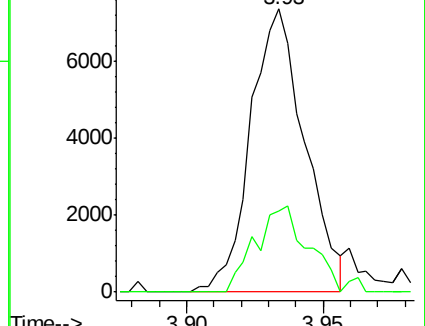
43 100

58 30.6 20.4 30.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.024 ppbv

RT: 3.36 min Scan# 132

Delta R.T. -0.00 min

Lab File: VL033331.D

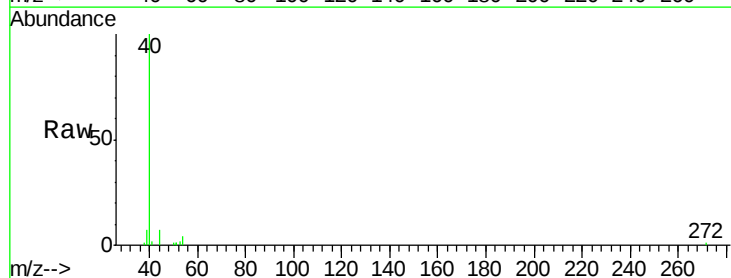
Acq: 15 Mar 2019 13:38

Tgt Ion: 39 Resp: 1078

Ion Ratio Lower Upper

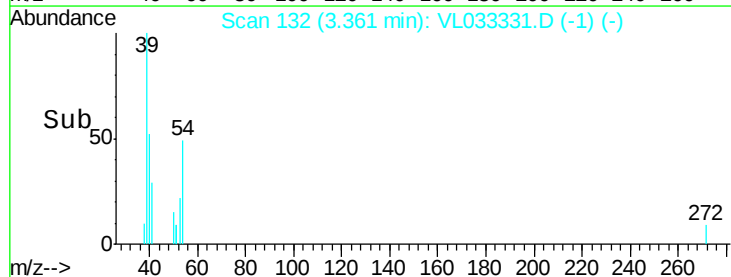
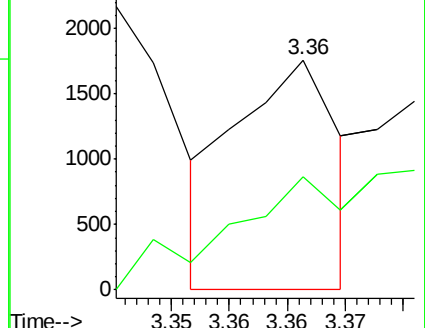
39 100

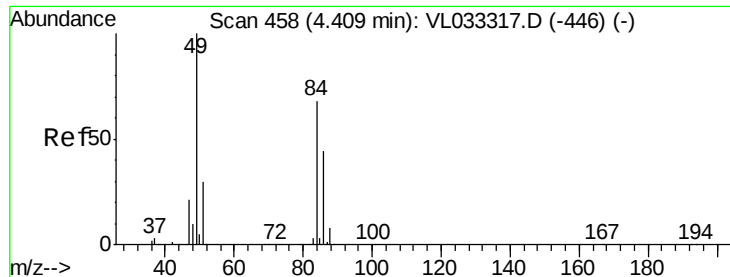
54 0.0 76.8 115.2#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#20

Methylene Chloride

Concen: 0.127 ppbv

RT: 4.41 min Scan# 458

Delta R.T. -0.00 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

Tgt Ion: 84 Resp: 5221

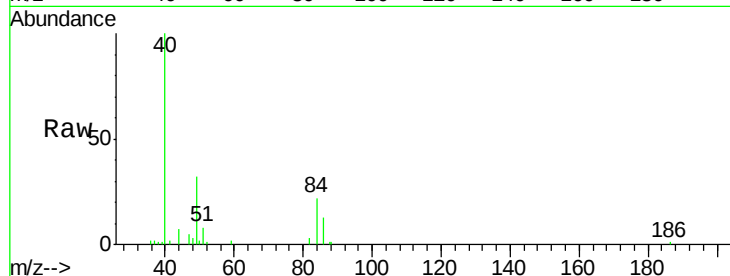
Ion Ratio Lower Upper

84 100

49 131.6 115.4 173.0

51 35.3 35.8 53.6#

86 54.7 50.6 75.8

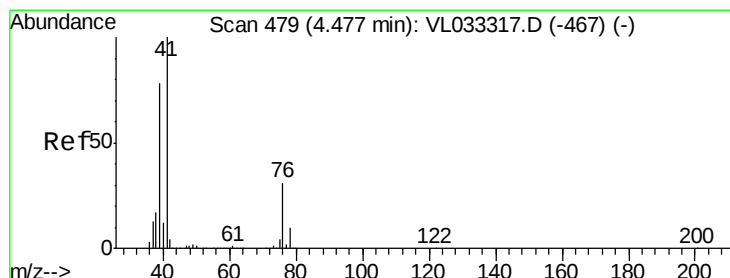
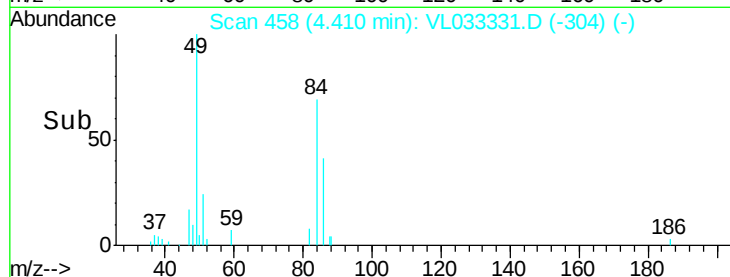
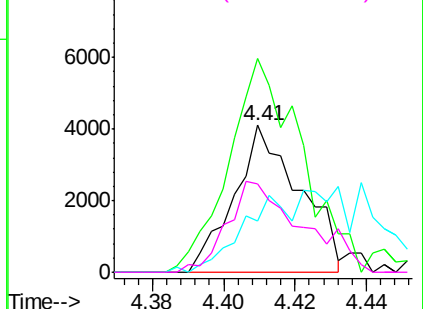


Abundance Ion 84.00 (83.70 to 84.70): VL0

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



#21

Allyl Chloride

Concen: 0.037 ppbv

RT: 4.48 min Scan# 481

Delta R.T. 0.00 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

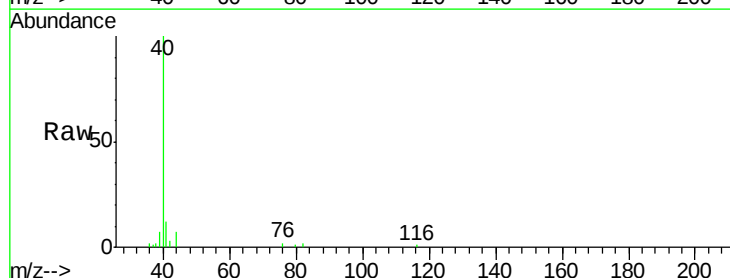
Tgt Ion: 41 Resp: 2349

Ion Ratio Lower Upper

41 100

76 20.3 25.0 37.4#

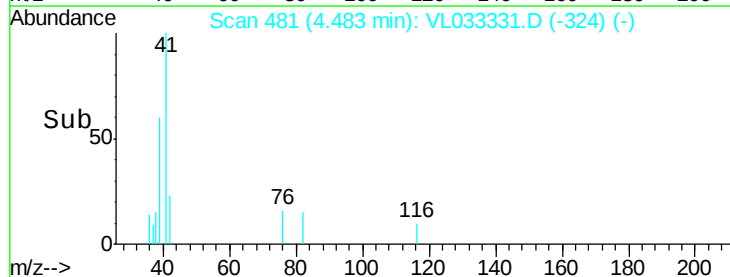
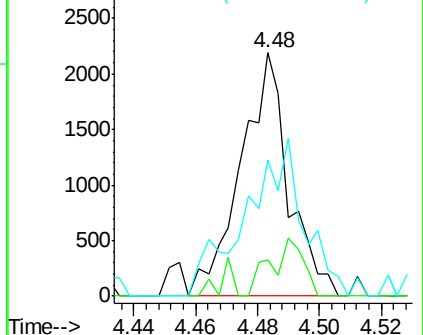
39 79.7 65.9 98.9

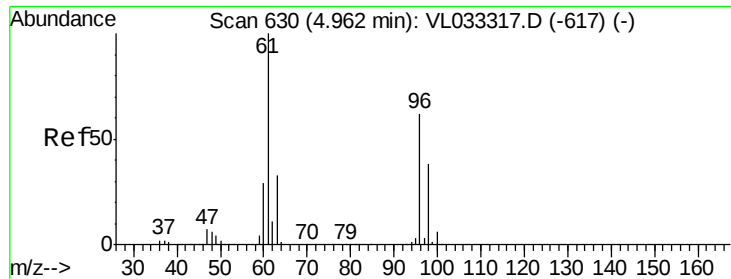


Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#22

trans-1,2-Dichloroethene

Concen: 0.023 ppbv

RT: 4.97 min Scan# 632

Delta R.T. 0.00 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

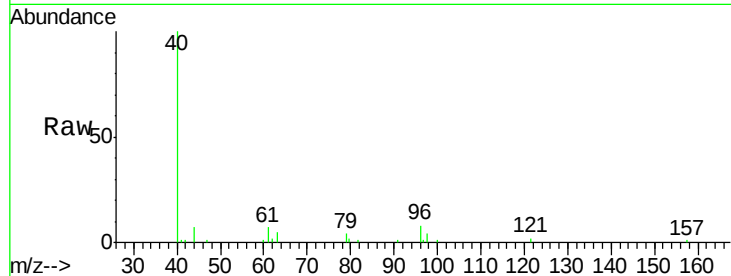
Tgt Ion: 96 Resp: 961

Ion Ratio Lower Upper

96 100

61 83.9 130.0 195.0#

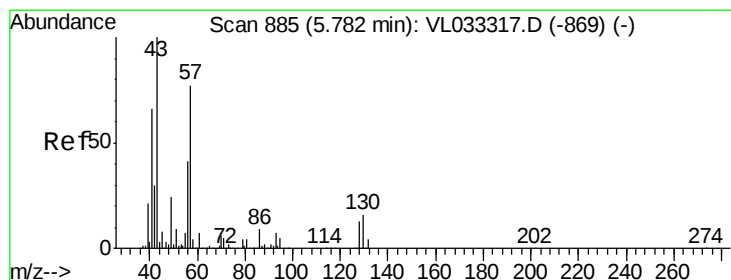
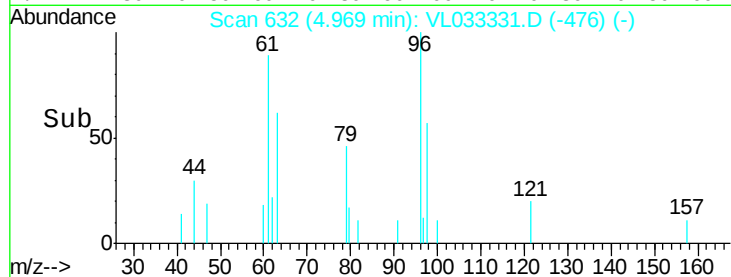
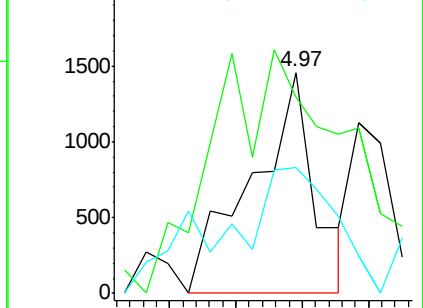
98 22.5 50.0 75.0#



Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#26

Hexane

Concen: 0.023 ppbv

RT: 5.78 min Scan# 884

Delta R.T. -0.00 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Tgt Ion: 57 Resp: 1997

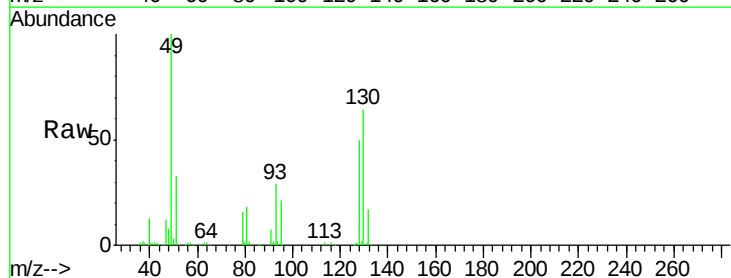
Ion Ratio Lower Upper

57 100

41 0.0 70.5 105.7#

43 0.0 181.8 272.8#

56 111.9 42.2 63.2#

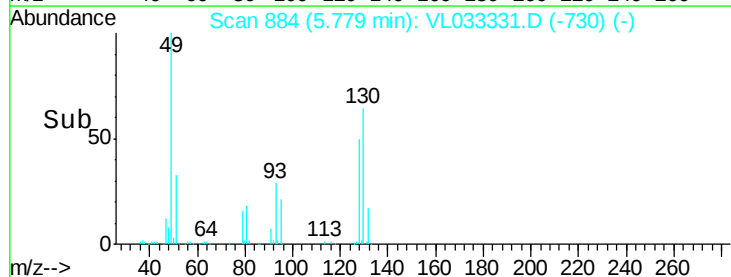
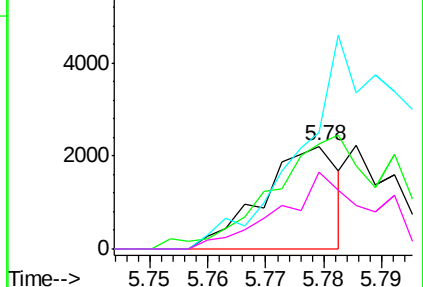


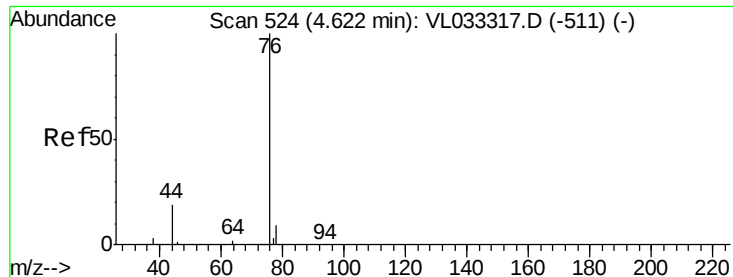
Abundance Ion 57.10 (56.80 to 57.80): VL0

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





#27

Carbon Disulfide

Concen: 0.026 ppbv

RT: 4.62 min Scan# 525

Delta R.T. 0.00 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

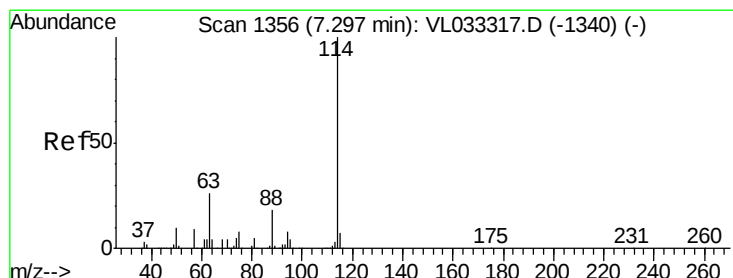
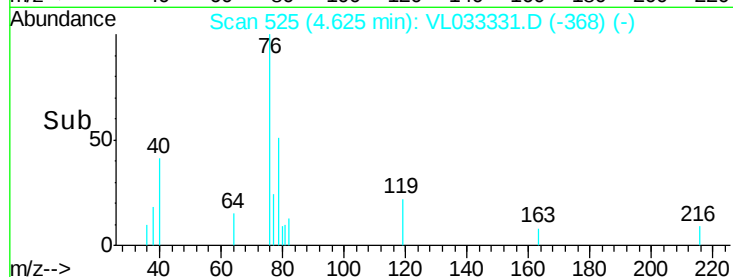
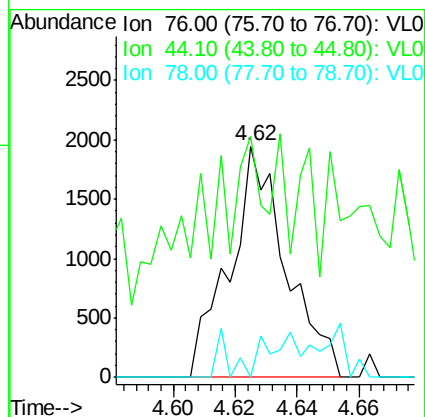
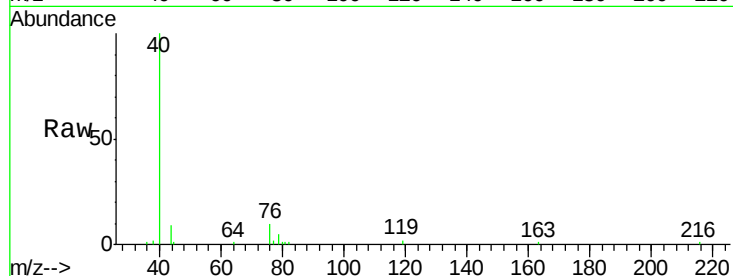
Tgt Ion: 76 Resp: 2477

Ion Ratio Lower Upper

76 100

44 146.0 15.2 22.8#

78 25.6 7.2 10.8#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.01 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

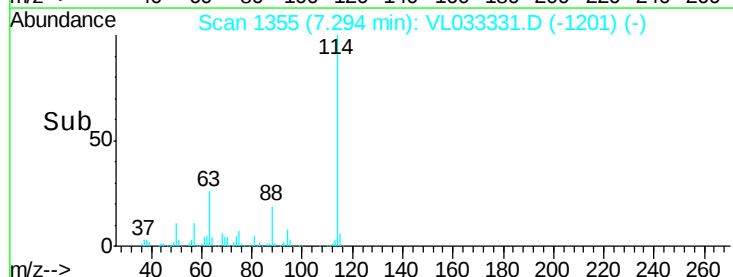
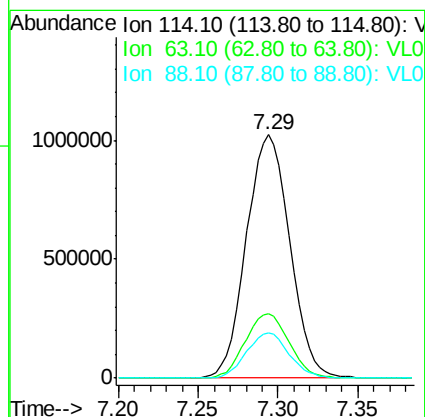
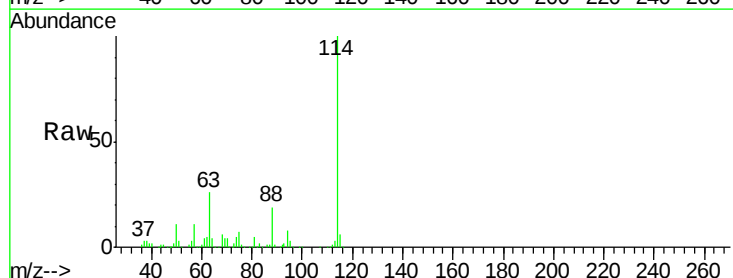
Tgt Ion: 114 Resp: 1907122

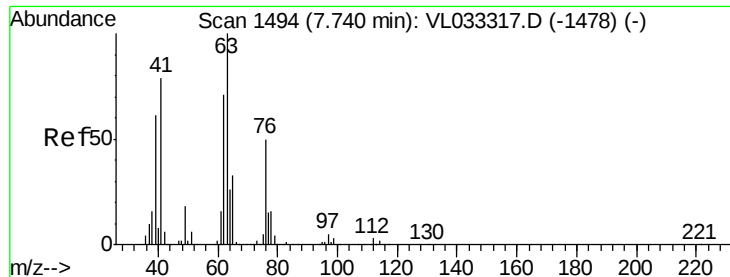
Ion Ratio Lower Upper

114 100

63 26.9 21.4 32.2

88 18.4 14.5 21.7





#39

1,2-Dichloropropane

Concen: 7.863 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.45 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

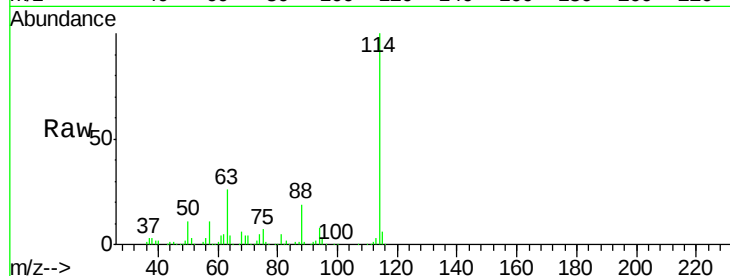
Tgt Ion: 63 Resp: 510025

Ion Ratio Lower Upper

63 100

41 0.0 59.5 89.3#

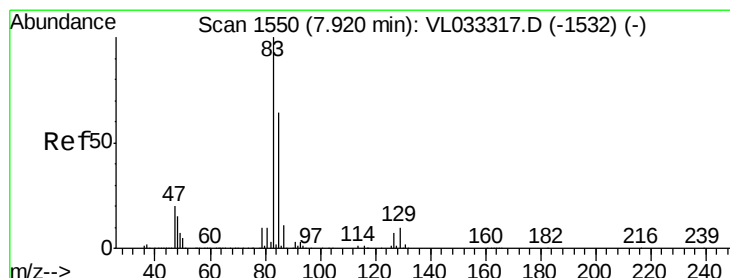
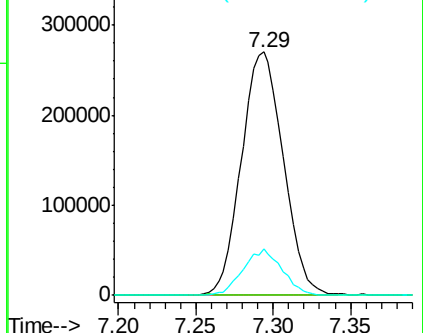
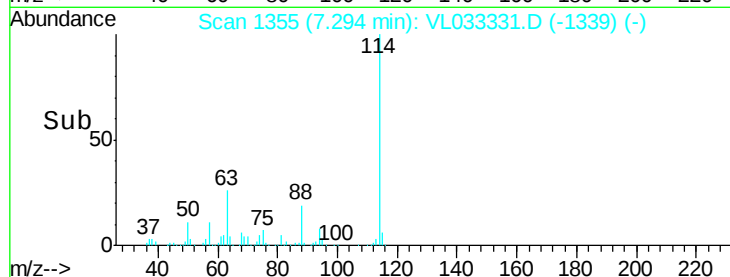
62 19.1 54.7 82.1#



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



#42

Bromodichloromethane

Concen: 0.023 ppbv

RT: 7.91 min Scan# 1547

Delta R.T. -0.01 min

Lab File: VL033331.D

Acq: 15 Mar 2019 13:38

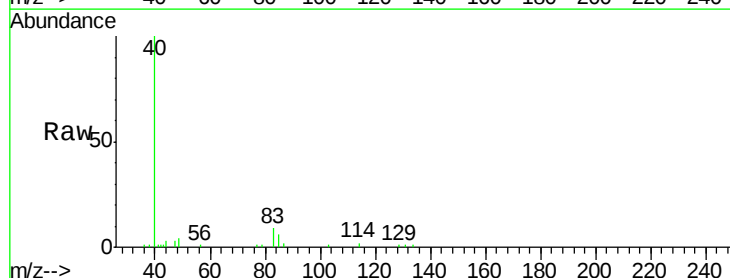
Tgt Ion: 83 Resp: 3396

Ion Ratio Lower Upper

83 100

85 58.8 51.8 77.6

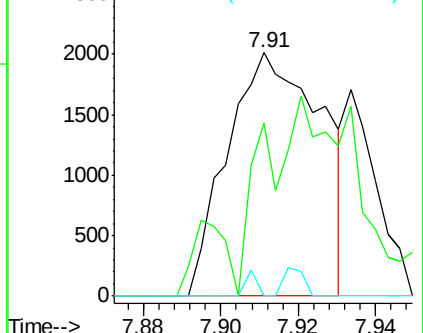
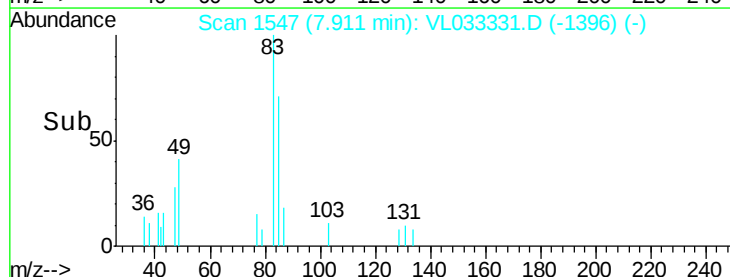
127 0.0 6.2 9.2#

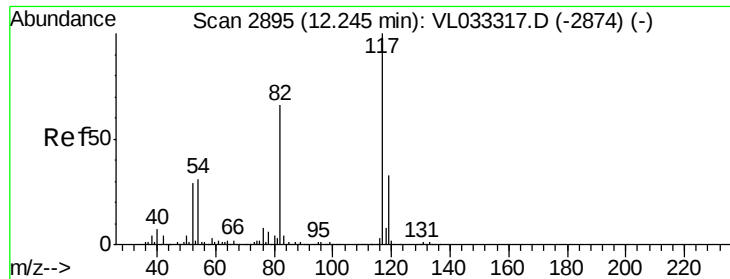


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): V

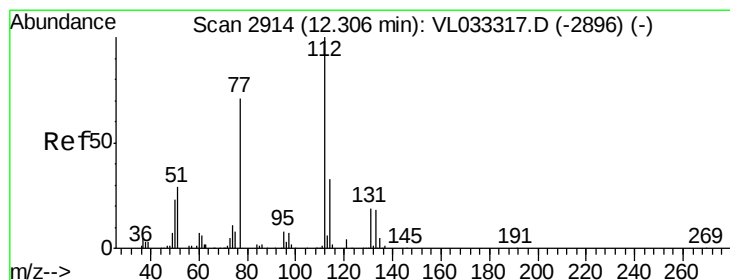
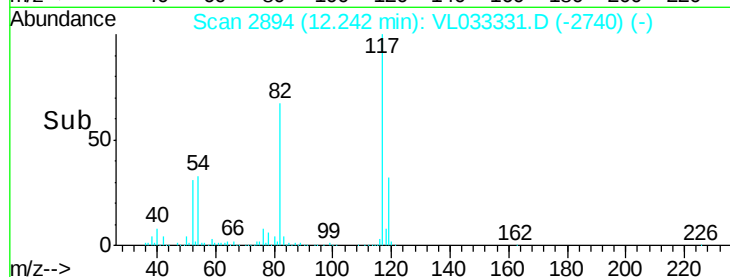
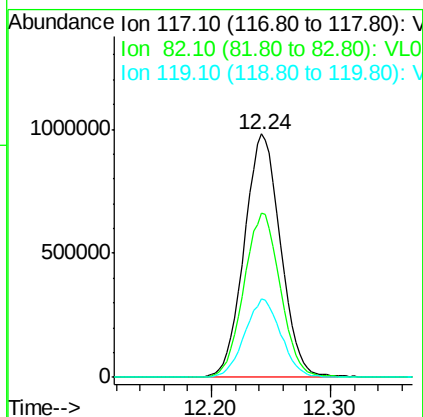
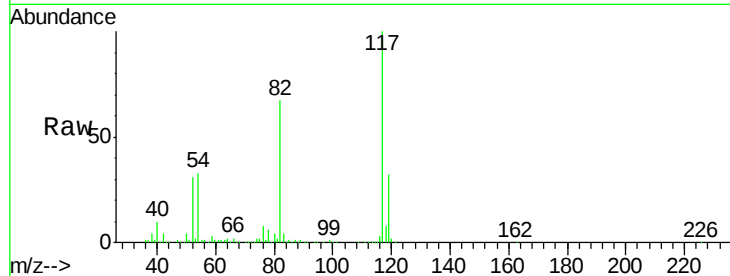




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2894
Delta R.T. -0.00 min
Lab File: VL033331.D
Acq: 15 Mar 2019 13:38

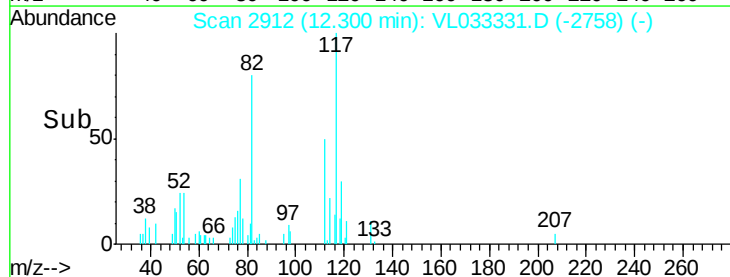
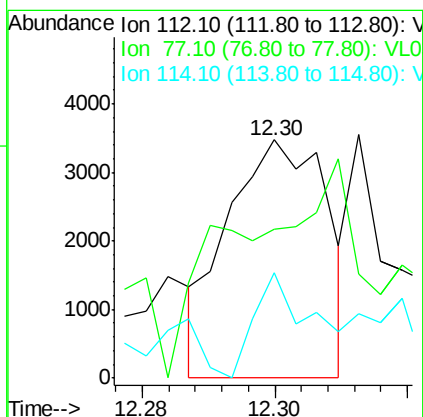
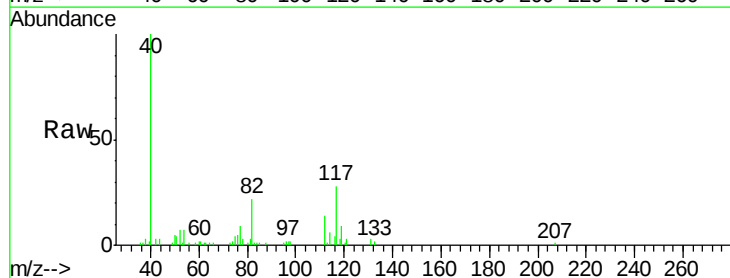
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

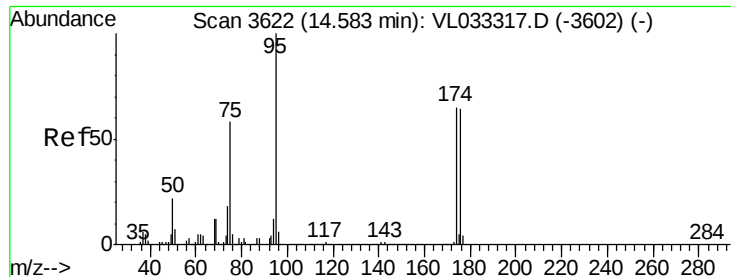
Tgt Ion:117 Resp: 2071940
Ion Ratio Lower Upper
117 100
82 68.0 53.4 80.2
119 32.2 27.3 40.9



#57
Chlorobenzene
Concen: 0.022 ppbv
RT: 12.30 min Scan# 2912
Delta R.T. -0.01 min
Lab File: VL033331.D
Acq: 15 Mar 2019 13:38

Tgt Ion:112 Resp: 3626
Ion Ratio Lower Upper
112 100
77 0.1 55.8 83.6#
114 40.0 28.6 35.0#

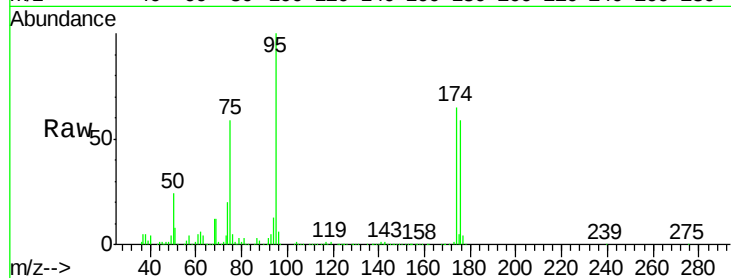




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.979 ppbv
 RT: 14.58 min Scan# 3621
 Delta R.T. -0.00 min
 Lab File: VL033331.D
 Acq: 15 Mar 2019 13:38

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

Tgt Ion: 95 Resp: 1571494
 Ion Ratio Lower Upper
 95 100
 174 64.6 51.5 77.3
 175 4.7 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

