

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL032019\
 Data File : VL033412.D
 Acq On : 21 Mar 2019 5:29
 Operator : SY/AP
 Sample : K1976-03 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: Mar 21 12:42:53 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL031519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Mar 15 14:52:14 2019
 QLast Update : Fri Mar 15 14:52:14 2019
 Response via : Initial Calibration

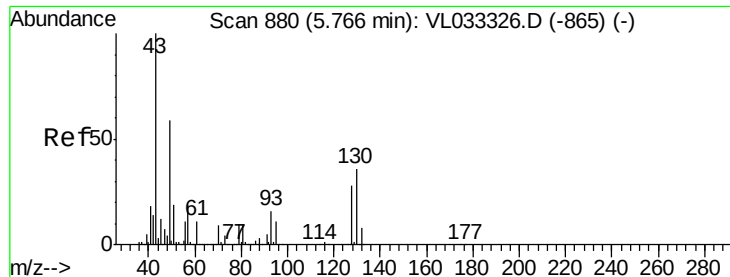
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	768859	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1813029	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	1727042	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1344300	10.50	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.07	85	11134	0.082	ppbv	94
3) Chlorodifluoromethane	3.01	51	83093	0.942	ppbv	97
9) Propene	3.39	41	7086	0.180	ppbv	86
10) Heptane	8.25	43	5324	0.054	ppbv #	57
11) Trichlorofluoromethane	4.01	101	4266	0.032	ppbv #	77
13) Ethanol	3.65	45	8837	0.471	ppbv #	24
15) Acetone	3.90	43	2140495	17.909	ppbv	96
16) 1,3-Butadiene	3.34	39	73055	1.882	ppbv #	9
17) tert-Butyl alcohol	4.38	59	7685	0.457	ppbv #	86
19) Isopropyl Alcohol	4.04	45	25363	0.446	ppbv #	95
20) Methylene Chloride	4.41	84	11671	0.299	ppbv #	76
23) Vinyl Acetate	5.14	43	10436	0.075	ppbv #	94
25) Ethyl Acetate	5.78	43	11325	0.065	ppbv #	85
26) Hexane	5.78	57	13716	0.177	ppbv #	36
27) Carbon Disulfide	4.62	76	23872	0.267	ppbv #	90
29) Chloroform	5.85	83	12607	0.099	ppbv #	76
31) cis-1,2-Dichloroethene	5.64	61	40277	0.519	ppbv	93
34) 2-Butanone	5.34	43	200819	1.687	ppbv	100
38) Trichloroethene	7.96	130	391423	6.375	ppbv	97
39) 1,2-Dichloropropane	7.29	63	475429	7.824	ppbv #	23
51) 2-Hexanone	10.29	43	51008	0.393	ppbv #	95
52) Tetrachloroethene	11.43	164	26794136	396.382	ppbv	88
53) Toluene	9.95	91	29908	0.162	ppbv	97
58) Ethyl Benzene	12.87	91	14900	0.061	ppbv	97
59) m/p-Xylene	13.13	91	16660	0.079	ppbv #	100
60) o-Xylene	13.86	91	16985	0.083	ppbv #	51
74) 1,2,4-Trimethylbenzene	16.93	105	26333	0.110	ppbv #	63

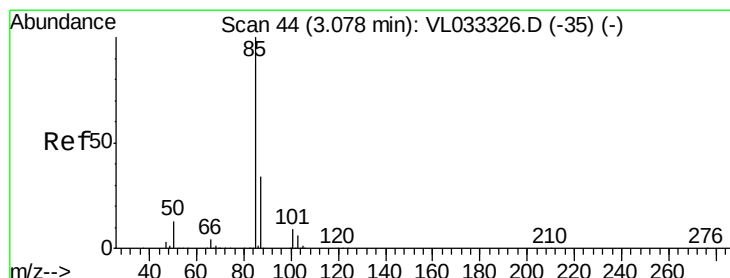
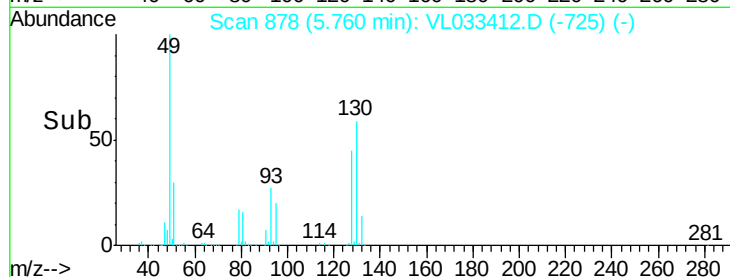
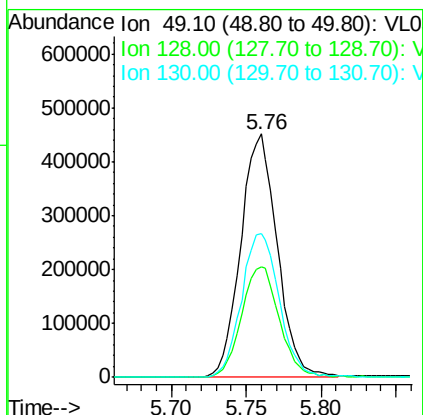
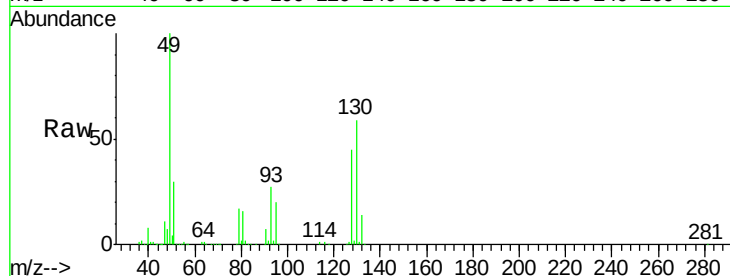
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.76 min Scan# 878
 Delta R.T. -0.01 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

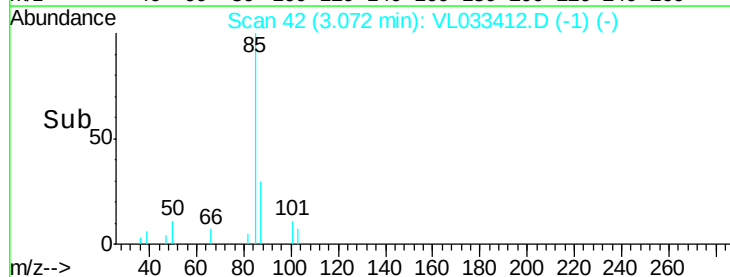
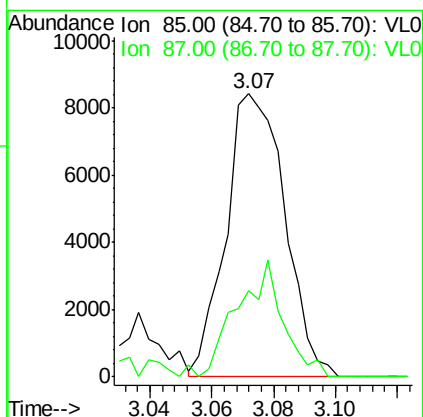
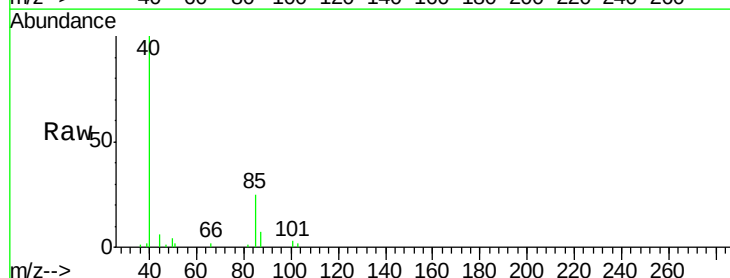
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

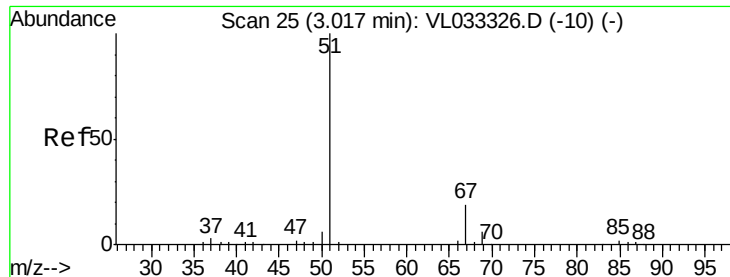
Tgt Ion: 49 Resp: 768859
 Ion Ratio Lower Upper
 49 100
 128 47.2 23.5 70.6
 130 61.5 30.1 90.3



#2
 Dichlorodifluoromethane
 Concen: 0.082 ppbv
 RT: 3.07 min Scan# 42
 Delta R.T. -0.01 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

Tgt Ion: 85 Resp: 11134
 Ion Ratio Lower Upper
 85 100
 87 30.4 26.9 40.3





#3

Chlorodifluoromethane

Concen: 0.942 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

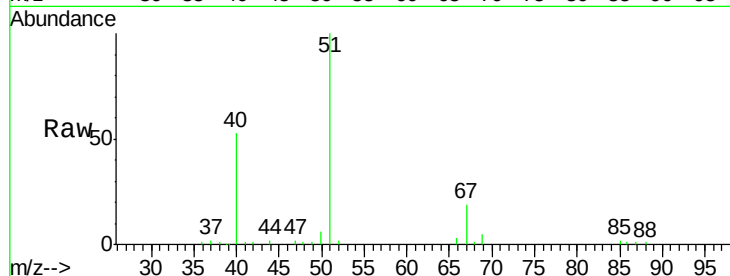
SV1

Tgt Ion: 51 Resp: 83093

Ion Ratio Lower Upper

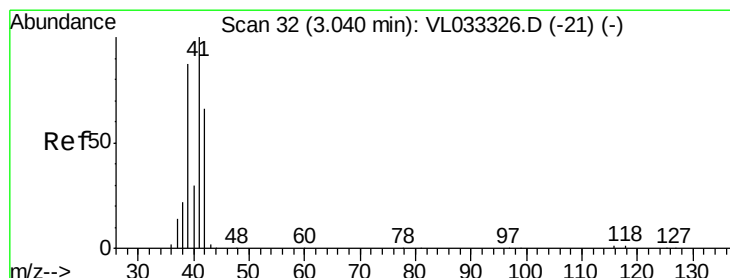
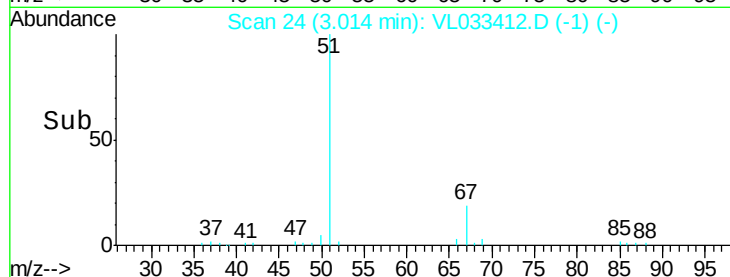
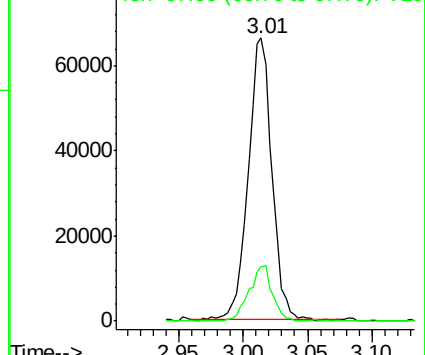
51 100

67 19.8 14.9 22.3



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 0.180 ppbv

RT: 3.39 min Scan# 142

Delta R.T. 0.35 min

Lab File: VL033412.D

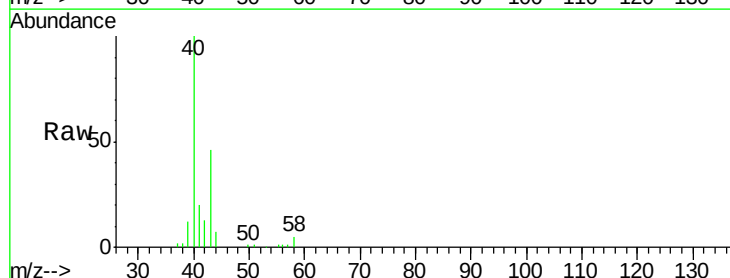
Acq: 21 Mar 2019 5:29

Tgt Ion: 41 Resp: 7086

Ion Ratio Lower Upper

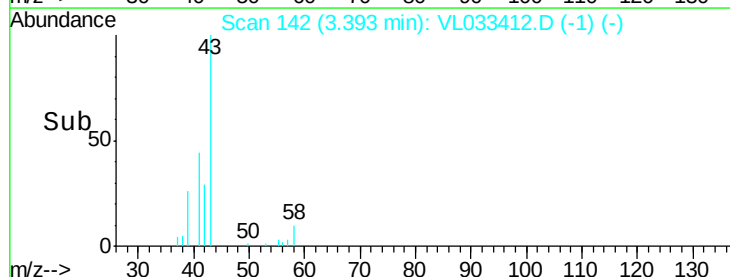
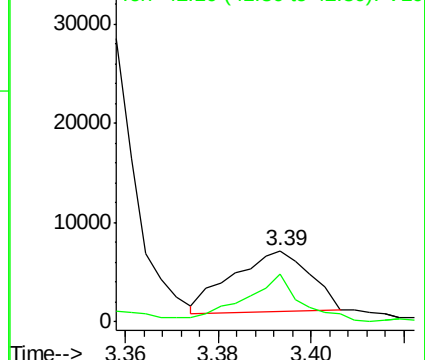
41 100

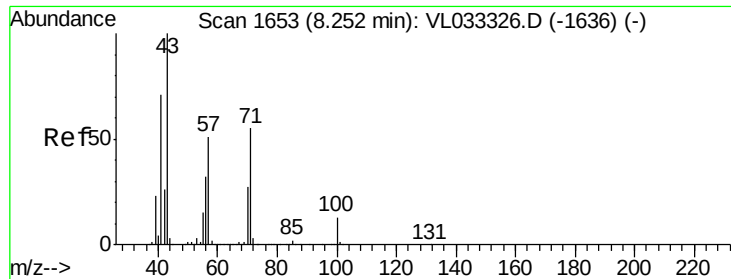
42 58.0 55.2 82.8



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

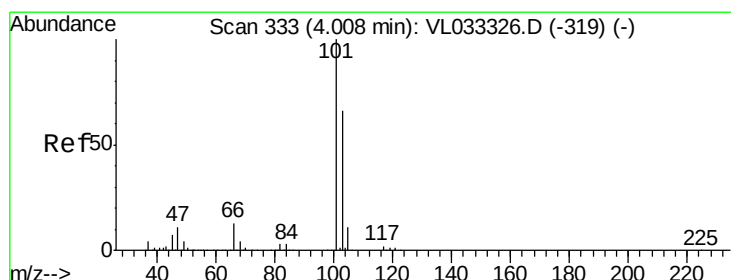
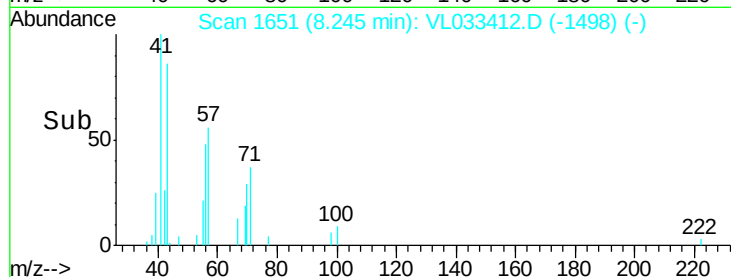
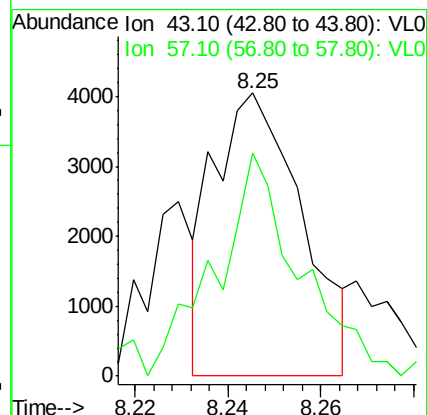
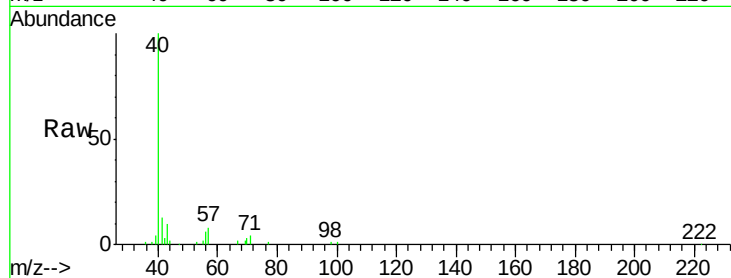




#10
 Heptane
 Concen: 0.054 ppbv
 RT: 8.25 min Scan# 1651
 Delta R.T. -0.01 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

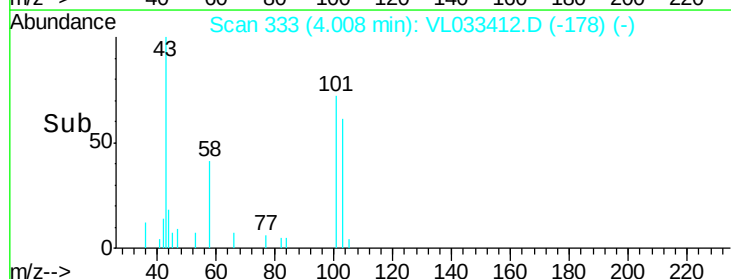
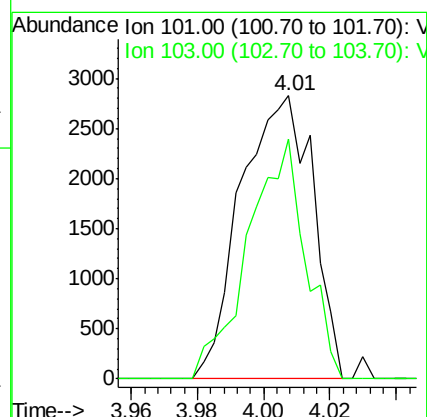
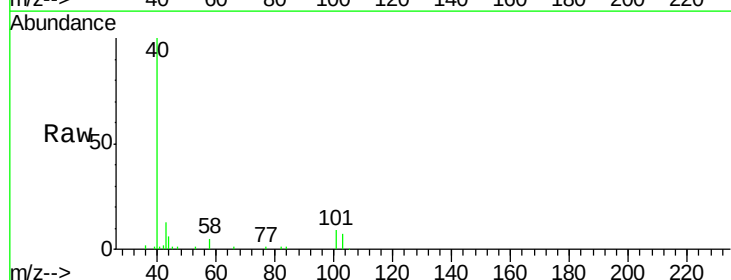
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

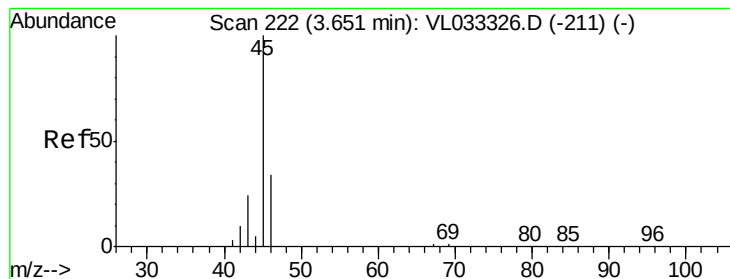
Tgt Ion: 43 Resp: 5324
 Ion Ratio Lower Upper
 43 100
 57 80.0 40.4 60.6#



#11
 Trichlorofluoromethane
 Concen: 0.032 ppbv
 RT: 4.01 min Scan# 333
 Delta R.T. -0.00 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

Tgt Ion: 101 Resp: 4266
 Ion Ratio Lower Upper
 101 100
 103 84.6 52.9 79.3#





#13

Ethanol

Concen: 0.471 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

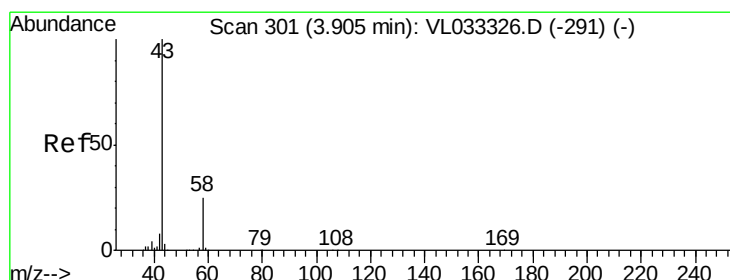
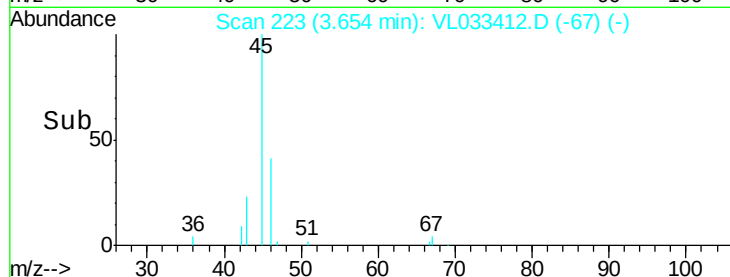
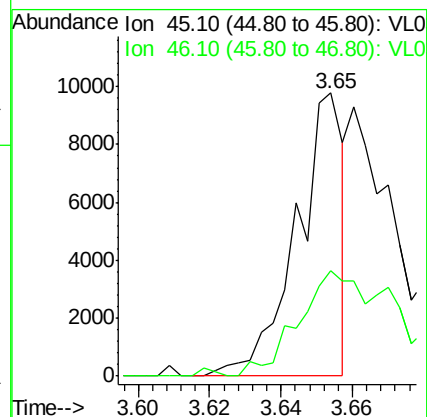
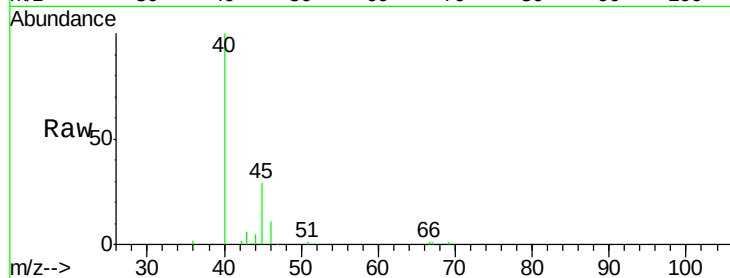
SV1

Tgt Ion: 45 Resp: 8837

Ion Ratio Lower Upper

45 100

46 82.9 14.9 59.7#



#15

Acetone

Concen: 17.909 ppbv

RT: 3.90 min Scan# 298

Delta R.T. -0.01 min

Lab File: VL033412.D

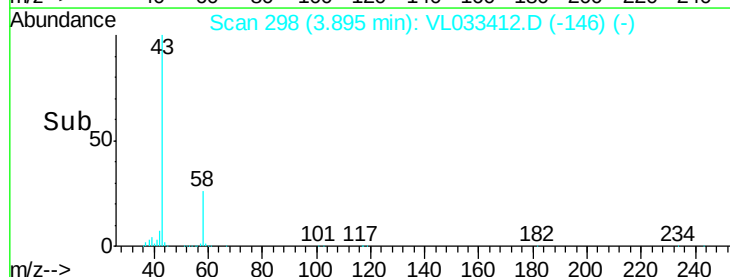
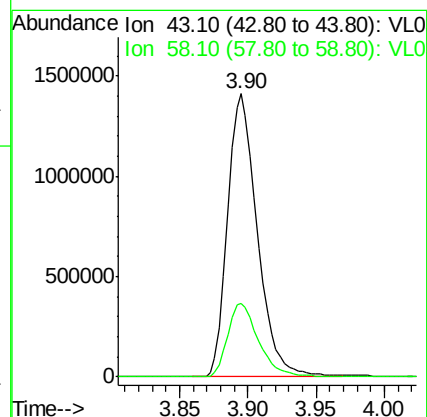
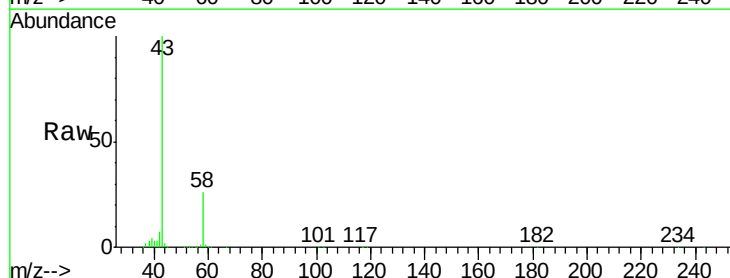
Acq: 21 Mar 2019 5:29

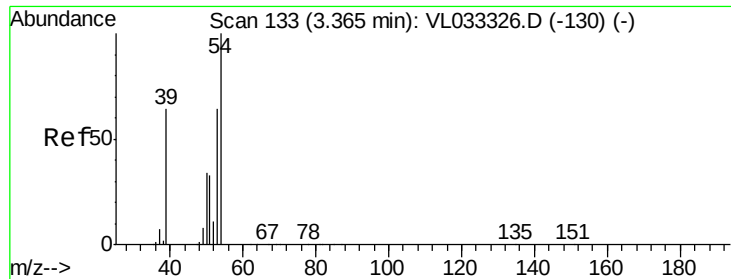
Tgt Ion: 43 Resp: 2140495

Ion Ratio Lower Upper

43 100

58 27.3 20.4 30.6

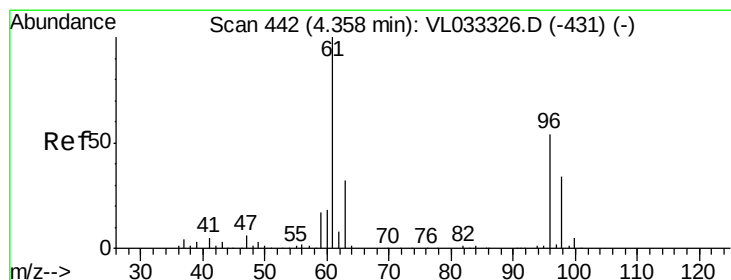
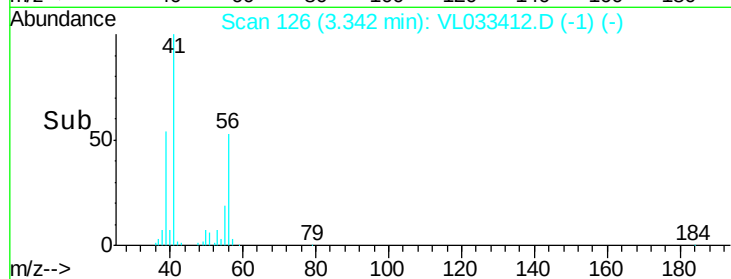
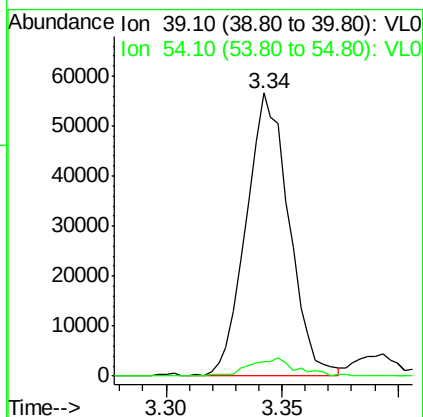
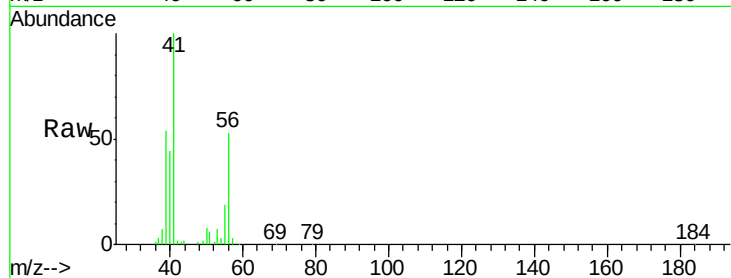




#16
 1,3-Butadiene
 Concen: 1.882 ppbv
 RT: 3.34 min Scan# 126
 Delta R.T. -0.02 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

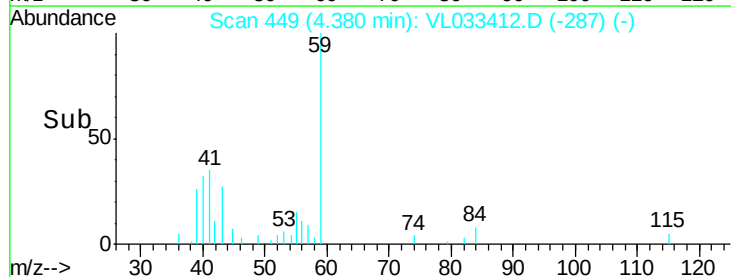
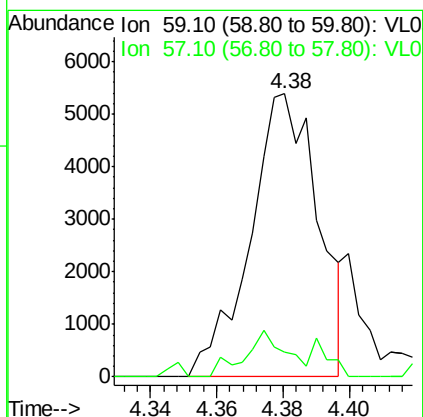
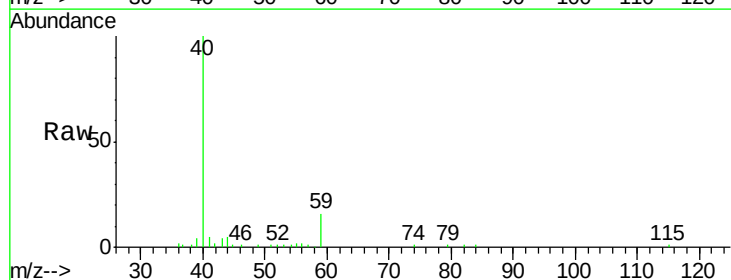
Instrument :
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 ClientSampled :
 SV1

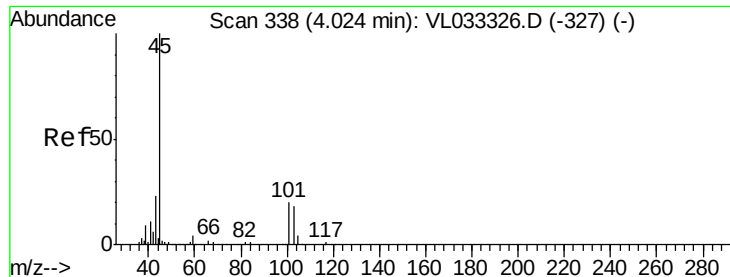
Tgt Ion: 39 Resp: 73055
 Ion Ratio Lower Upper
 39 100
 54 7.0 76.8 115.2#



#17
 tert-Butyl alcohol
 Concen: 0.457 ppbv
 RT: 4.38 min Scan# 449
 Delta R.T. 0.02 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

Tgt Ion: 59 Resp: 7685
 Ion Ratio Lower Upper
 59 100
 57 14.6 7.7 11.5#





#19

Isopropyl Alcohol

Concen: 0.446 ppbv

RT: 4.04 min Scan# 342

Delta R.T. 0.01 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

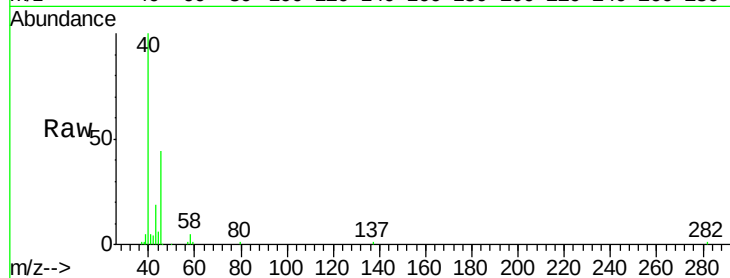
SV1

Tgt Ion: 45 Resp: 25363

Ion Ratio Lower Upper

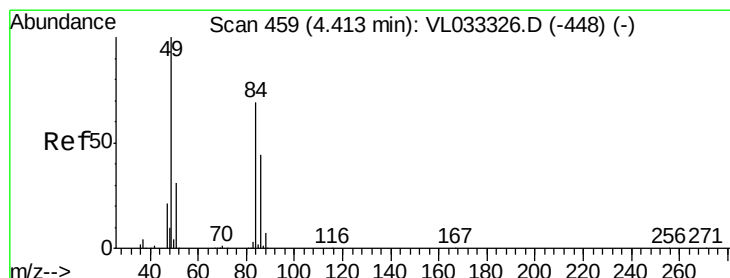
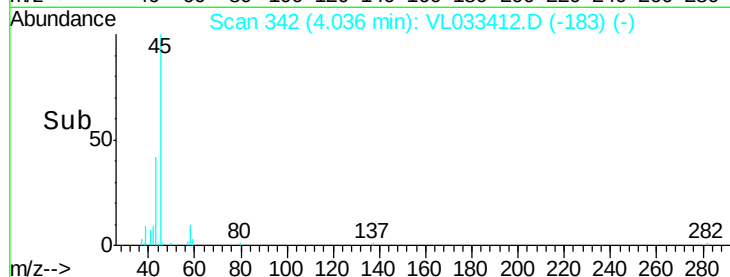
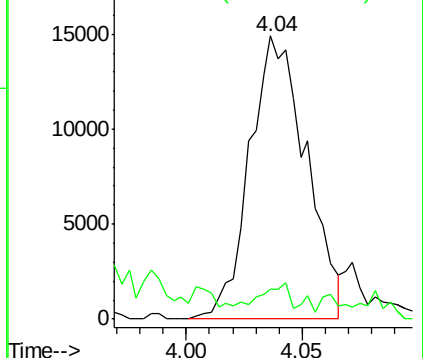
45 100

58 0.0 1.5 2.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.299 ppbv

RT: 4.41 min Scan# 458

Delta R.T. -0.00 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Tgt Ion: 84 Resp: 11671

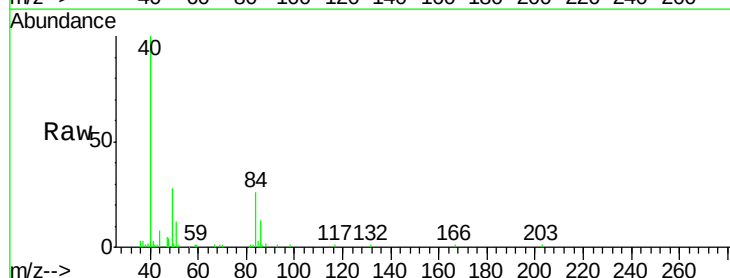
Ion Ratio Lower Upper

84 100

49 101.2 115.4 173.0#

51 44.8 35.8 53.6

86 48.8 50.6 75.8#

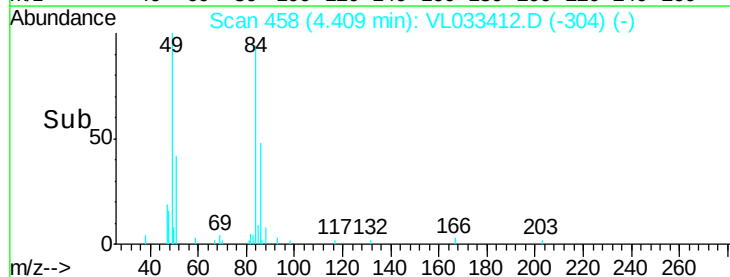
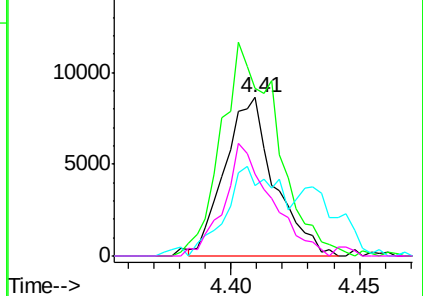


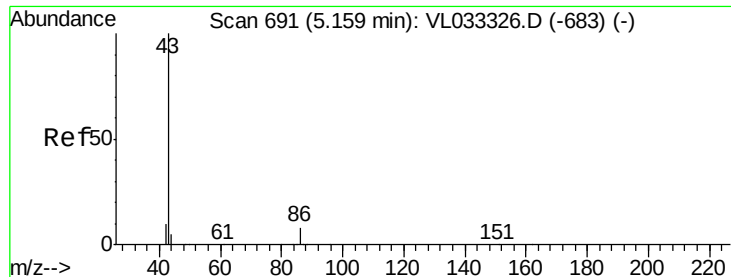
Abundance Ion 84.00 (83.70 to 84.70): VL0

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

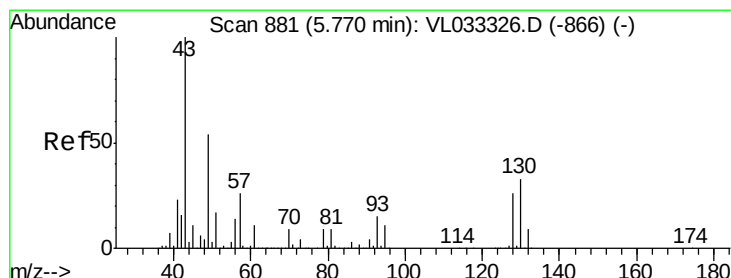
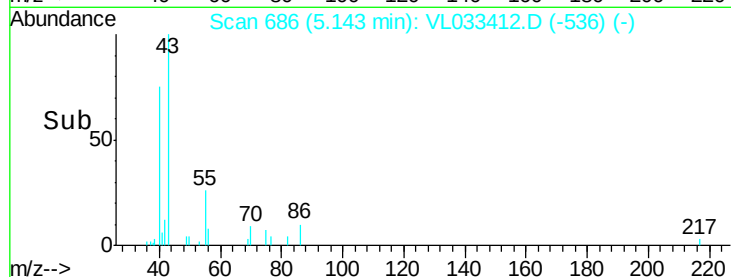
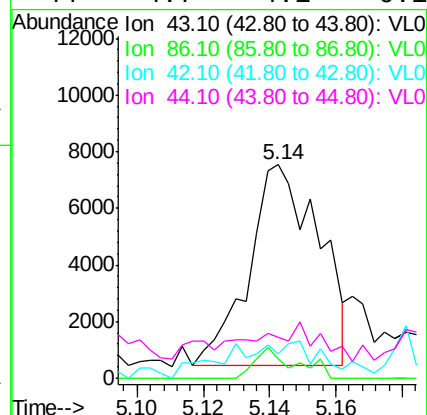
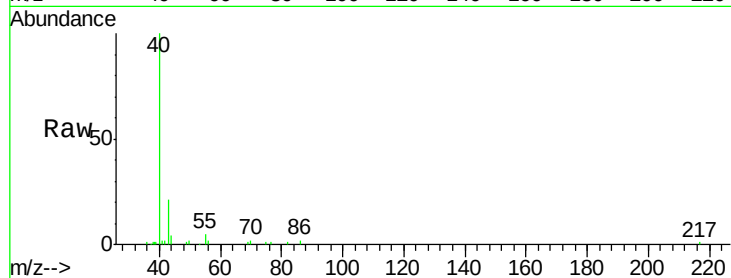




#23
 Vinyl Acetate
 Concen: 0.075 ppbv
 RT: 5.14 min Scan# 686
 Delta R.T. -0.02 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

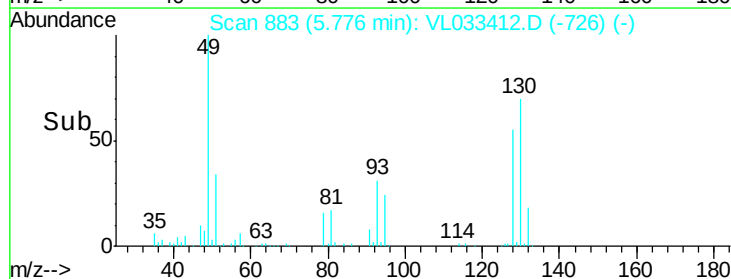
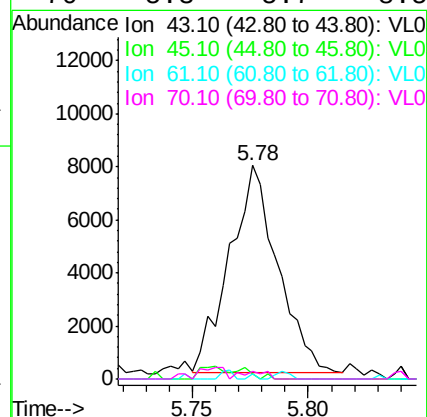
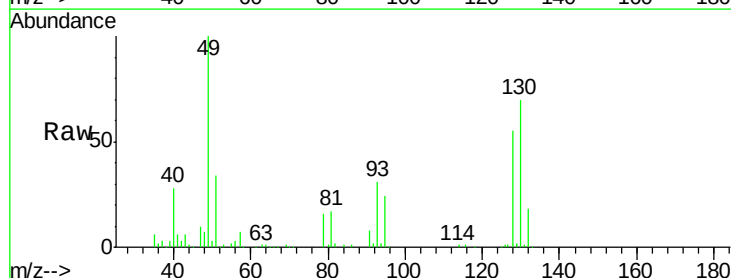
Instrument :
 MSVOA_L
 ClientSampleID :
 SV1

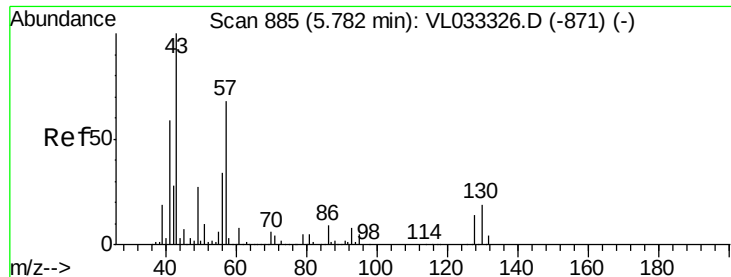
Tgt Ion:	43	Resp:	10436
Ion	Ratio	Lower	Upper
43	100		
86	9.8	6.2	9.2#
42	7.4	8.1	12.1#
44	4.7	4.1	6.1



#25
 Ethyl Acetate
 Concen: 0.065 ppbv
 RT: 5.78 min Scan# 883
 Delta R.T. 0.01 min
 Lab File: VL033412.D
 Acq: 21 Mar 2019 5:29

Tgt Ion:	43	Resp:	11325
Ion	Ratio	Lower	Upper
43	100		
45	5.1	7.9	11.9#
61	0.0	7.4	11.2#
70	5.3	5.7	8.5#





#26

Hexane

Concen: 0.177 ppbv

RT: 5.78 min Scan# 884

Delta R.T. -0.00 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 57 Resp: 13716

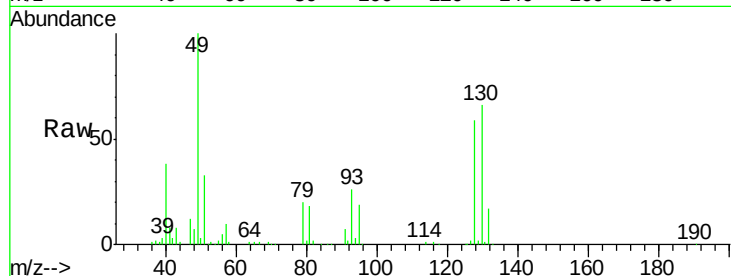
Ion Ratio Lower Upper

57 100

41 133.4 70.5 105.7#

43 95.8 181.8 272.8#

56 64.7 42.2 63.2#

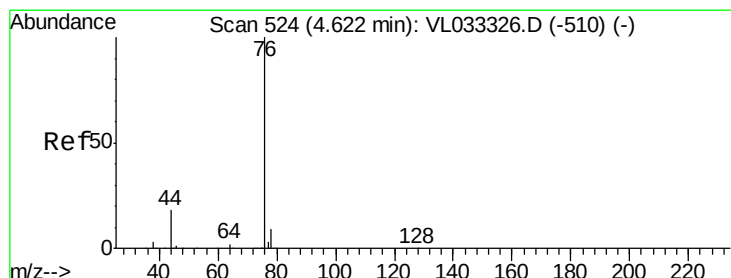
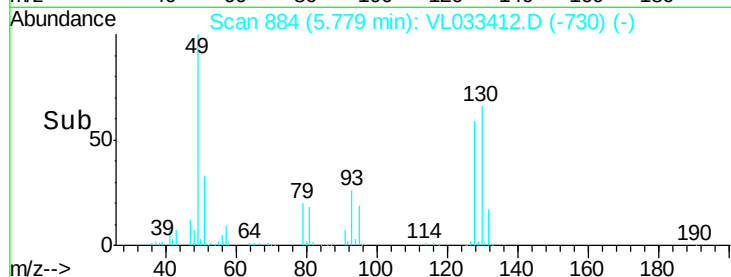
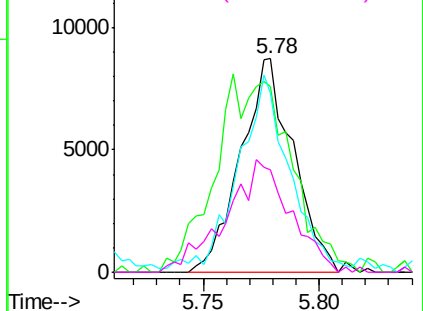


Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 0.267 ppbv

RT: 4.62 min Scan# 524

Delta R.T. -0.00 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

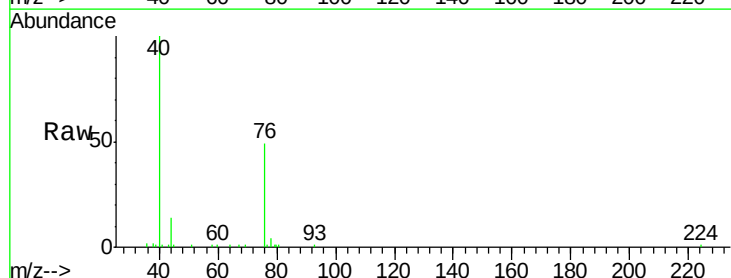
Tgt Ion: 76 Resp: 23872

Ion Ratio Lower Upper

76 100

44 25.4 15.2 22.8#

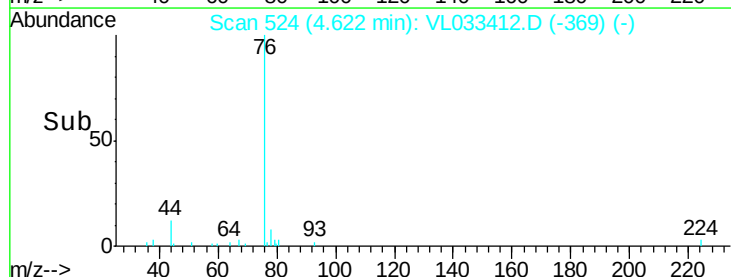
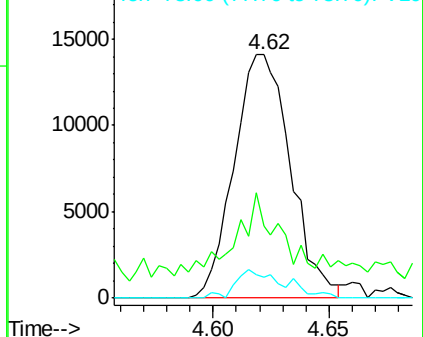
78 10.0 7.2 10.8

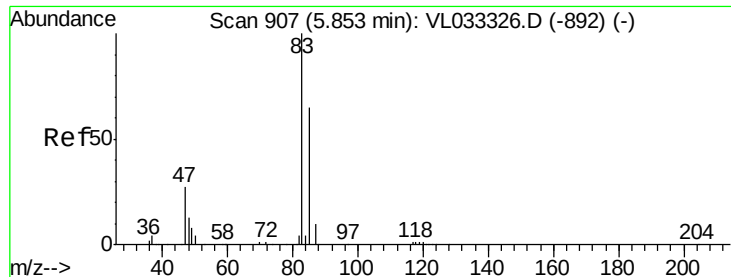


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0

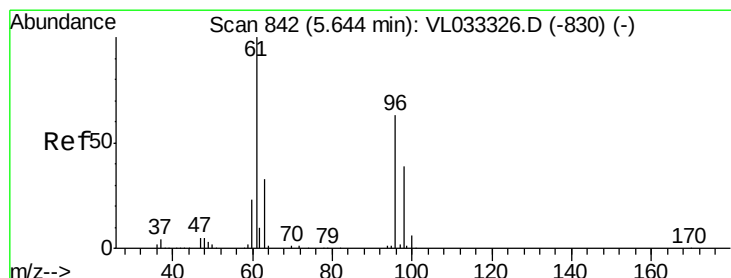
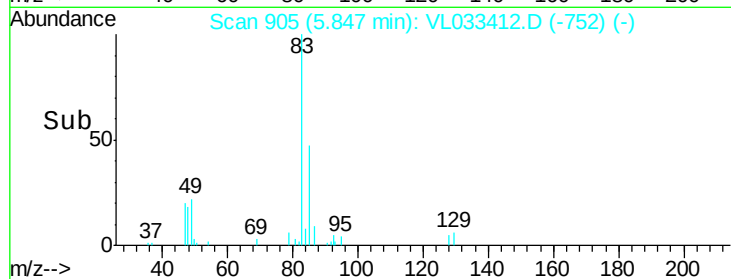
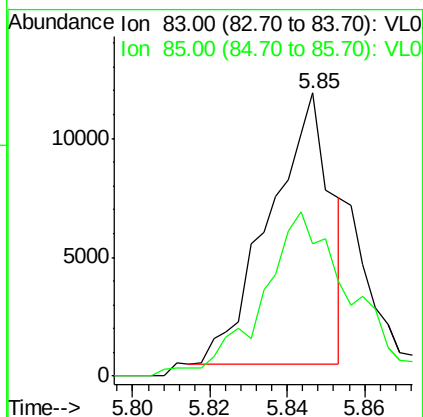
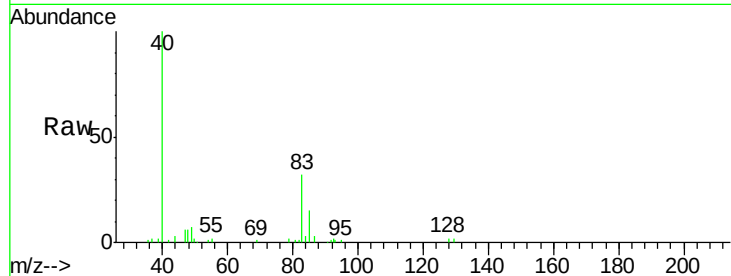




#29
Chloroform
Concen: 0.099 ppbv
RT: 5.85 min Scan# 905
Delta R.T. -0.01 min
Lab File: VL033412.D
Acq: 21 Mar 2019 5:29

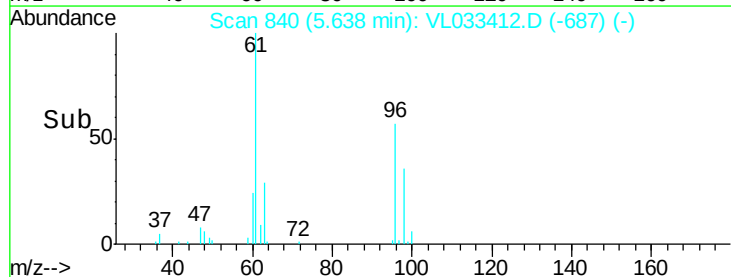
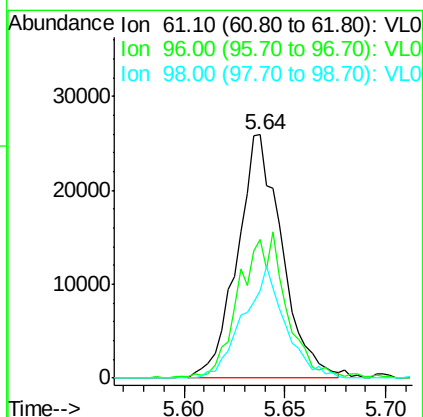
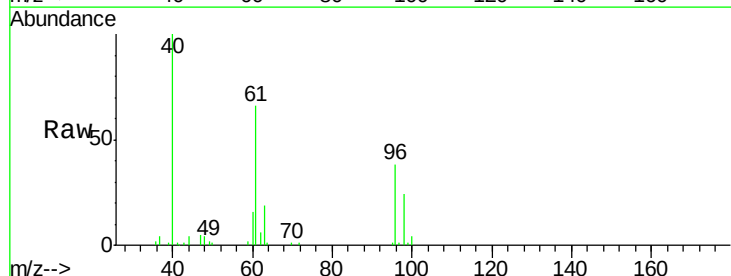
Instrument :
MSVOA_L
ClientSampleId :
SV1

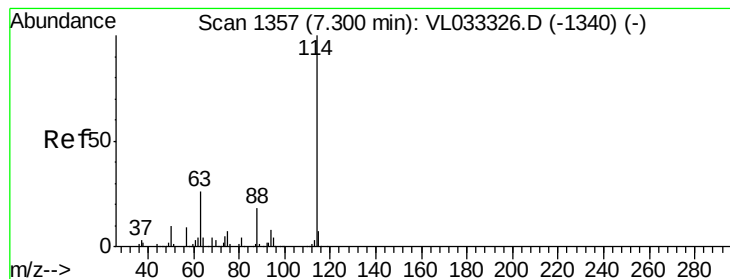
Tgt Ion: 83 Resp: 12607
Ion Ratio Lower Upper
83 100
85 45.7 52.0 78.0#



#31
cis-1,2-Dichloroethene
Concen: 0.519 ppbv
RT: 5.64 min Scan# 840
Delta R.T. -0.01 min
Lab File: VL033412.D
Acq: 21 Mar 2019 5:29

Tgt Ion: 61 Resp: 40277
Ion Ratio Lower Upper
61 100
96 56.5 50.3 75.5
98 35.8 31.5 47.3





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1354

Delta R.T. -0.01 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

SV1

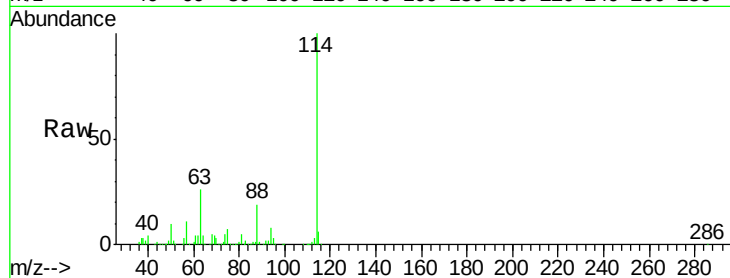
Tgt Ion:114 Resp: 1813029

Ion Ratio Lower Upper

114 100

63 26.4 21.4 32.2

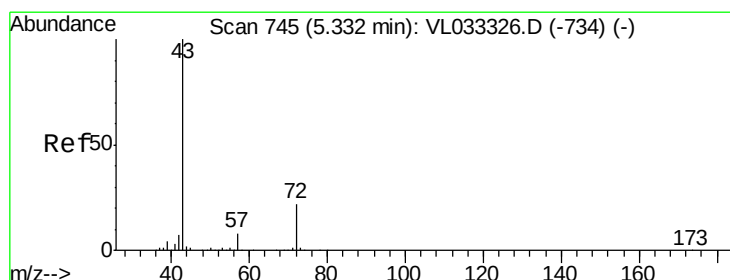
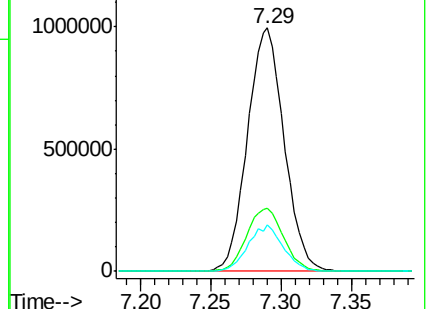
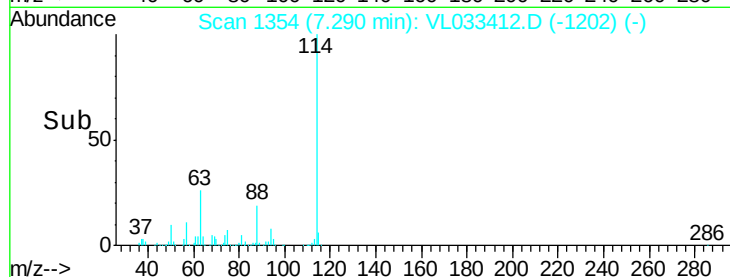
88 18.2 14.5 21.7



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.687 ppbv

RT: 5.34 min Scan# 746

Delta R.T. 0.00 min

Lab File: VL033412.D

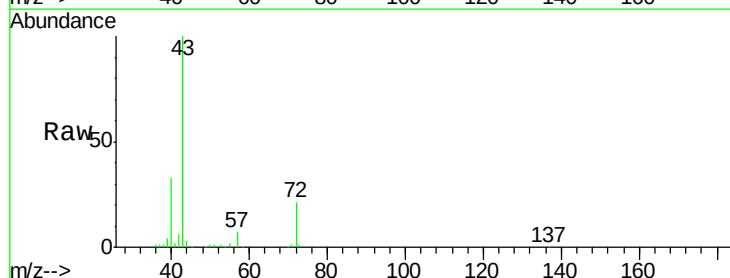
Acq: 21 Mar 2019 5:29

Tgt Ion: 43 Resp: 200819

Ion Ratio Lower Upper

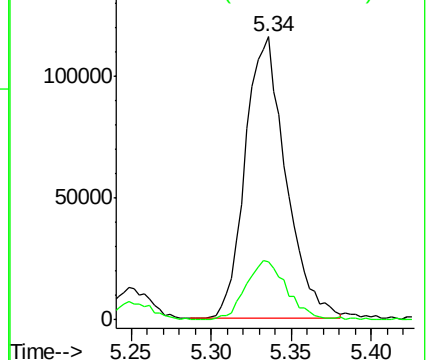
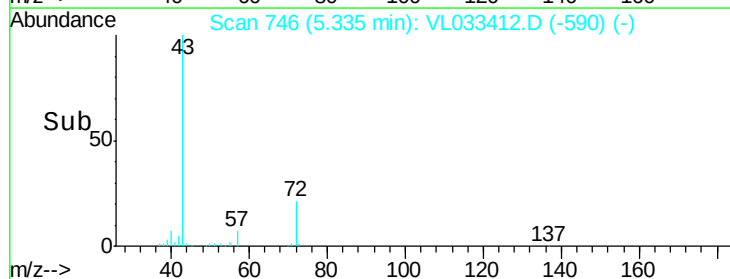
43 100

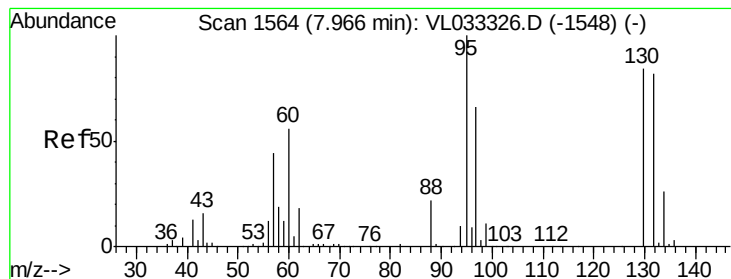
72 22.0 17.7 26.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#38

Trichloroethene

Concen: 6.375 ppbv

RT: 7.96 min Scan# 1562

Delta R.T. -0.01 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 130 Resp: 391423

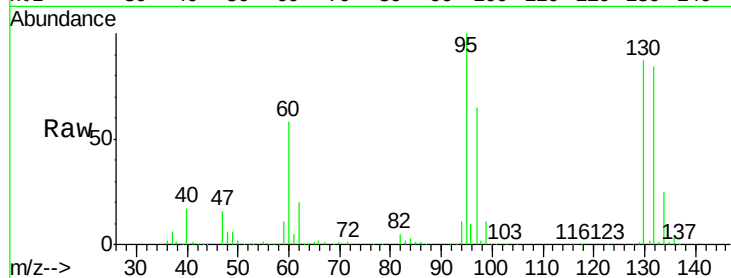
Ion Ratio Lower Upper

130 100

95 114.9 95.2 142.8

132 96.3 77.7 116.5

97 74.5 62.8 94.2

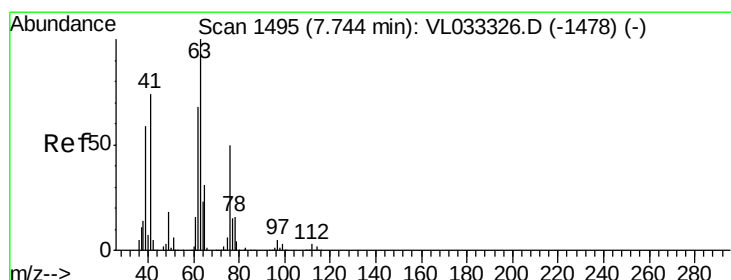
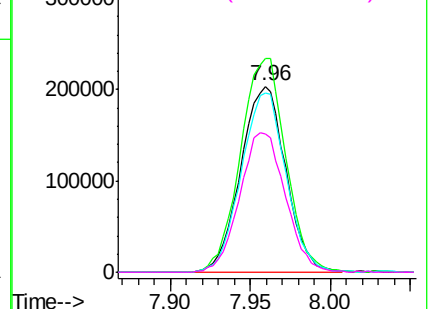
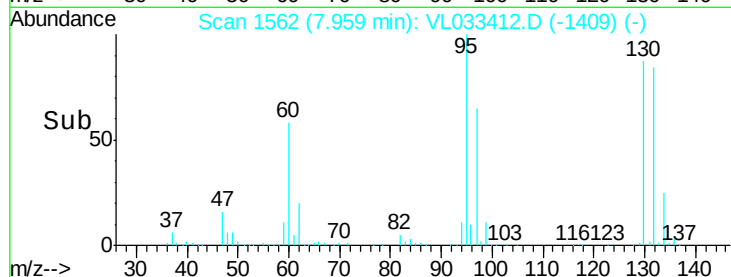


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.824 ppbv

RT: 7.29 min Scan# 1354

Delta R.T. -0.45 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

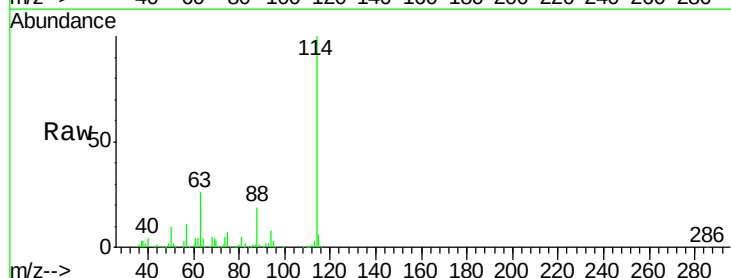
Tgt Ion: 63 Resp: 475429

Ion Ratio Lower Upper

63 100

41 0.0 59.5 89.3#

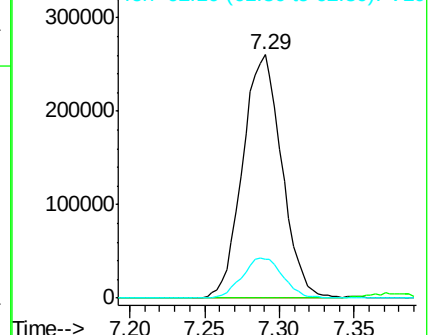
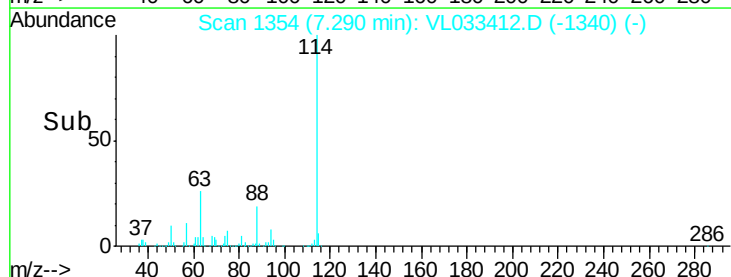
62 15.8 54.7 82.1#

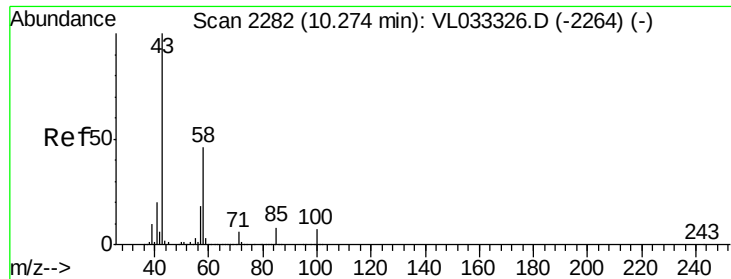


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

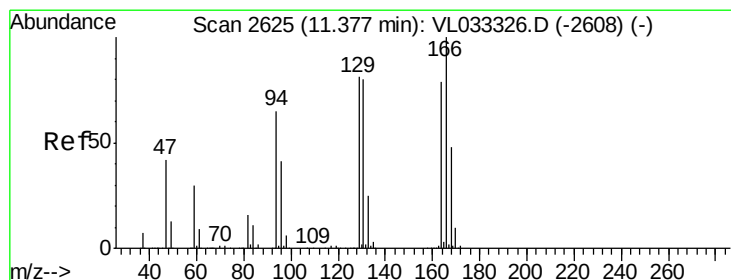
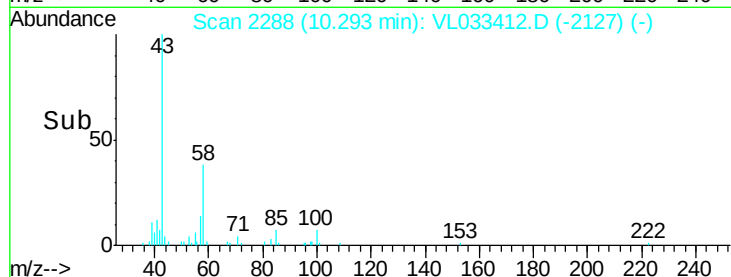
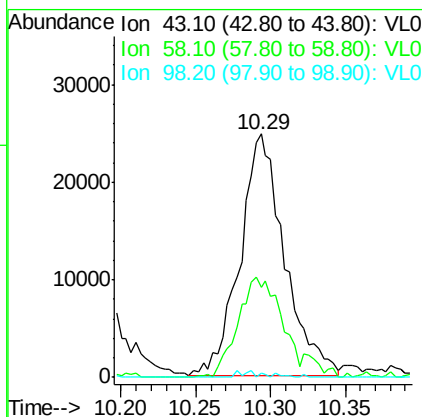
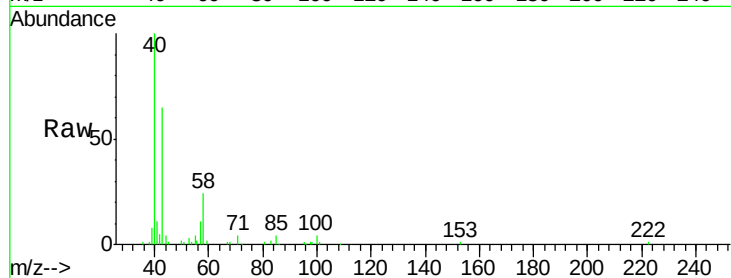




#51
2-Hexanone
Concen: 0.393 ppbv
RT: 10.29 min Scan# 2288
Delta R.T. 0.02 min
Lab File: VL033412.D
Acq: 21 Mar 2019 5:29

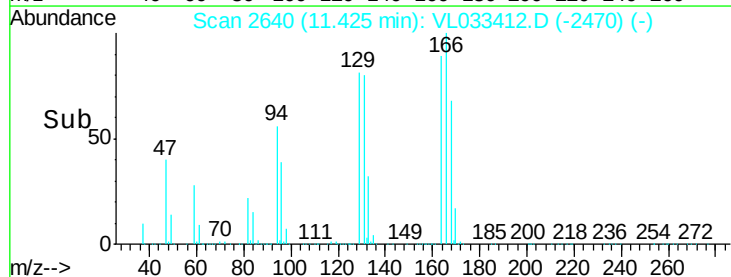
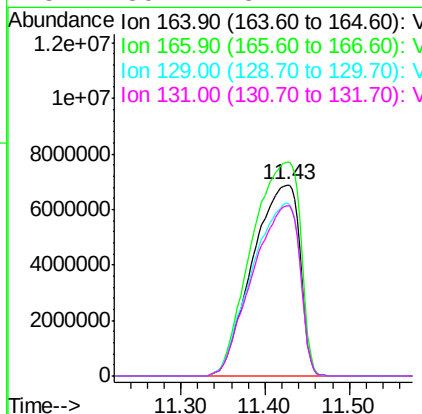
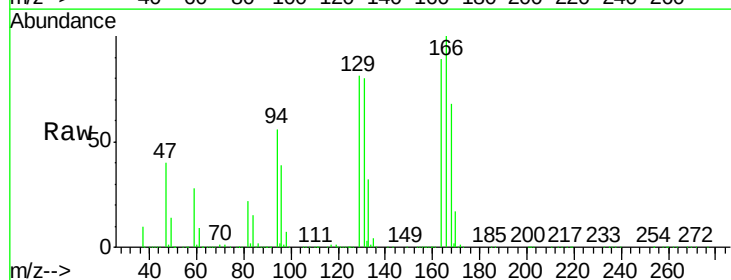
Instrument :
MSVOA_L
ClientSampleId :
SV1

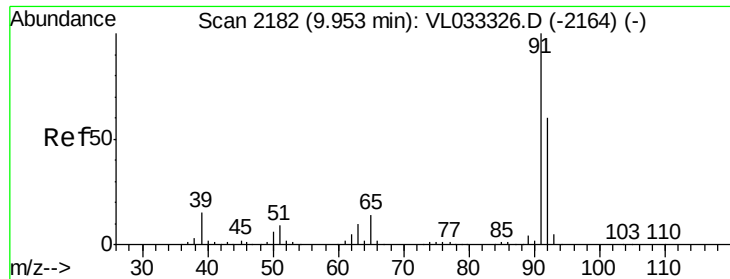
Tgt Ion: 43 Resp: 51008
Ion Ratio Lower Upper
43 100
58 44.2 38.0 57.0
98 1.1 0.1 0.1#



#52
Tetrachloroethene
Concen: 396.382 ppbv
RT: 11.43 min Scan# 2640
Delta R.T. 0.05 min
Lab File: VL033412.D
Acq: 21 Mar 2019 5:29

Tgt Ion: 164 Resp: 26794136
Ion Ratio Lower Upper
164 100
166 111.8 101.5 152.3
129 90.4 82.2 123.2
131 89.2 81.1 121.7





#53

Toluene

Concen: 0.162 ppbv

RT: 9.95 min Scan# 2180

Delta R.T. -0.01 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

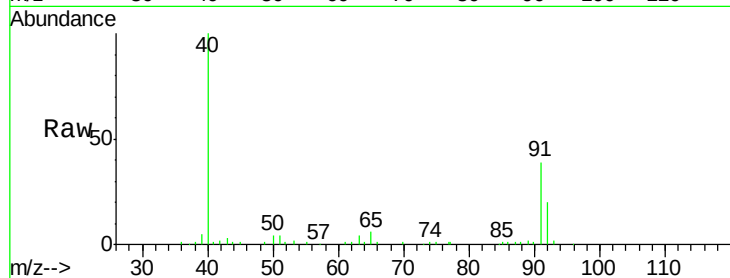
SV1

Tgt Ion: 91 Resp: 29908

Ion Ratio Lower Upper

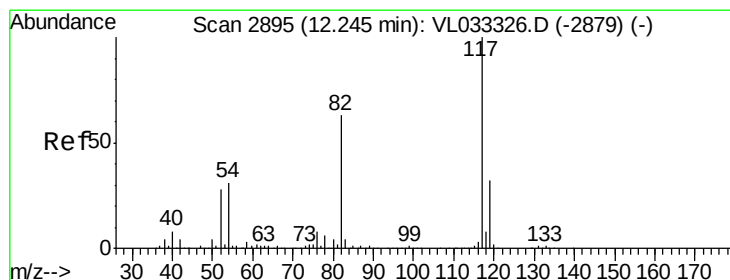
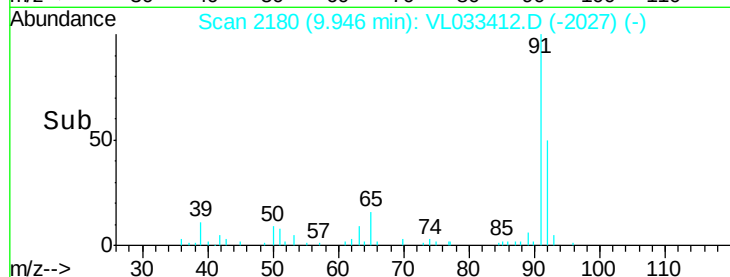
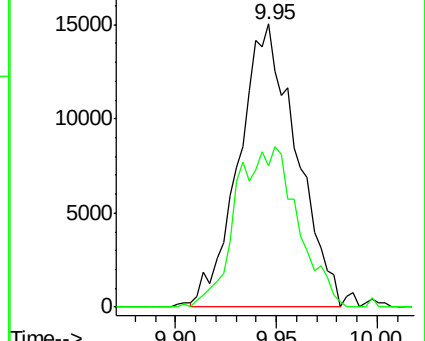
91 100

92 61.2 47.4 71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2896

Delta R.T. 0.00 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

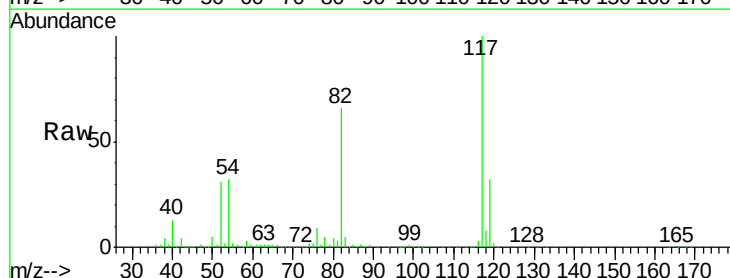
Tgt Ion: 117 Resp: 1727042

Ion Ratio Lower Upper

117 100

82 66.7 53.4 80.2

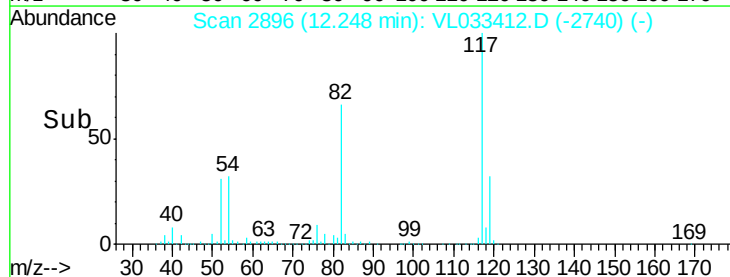
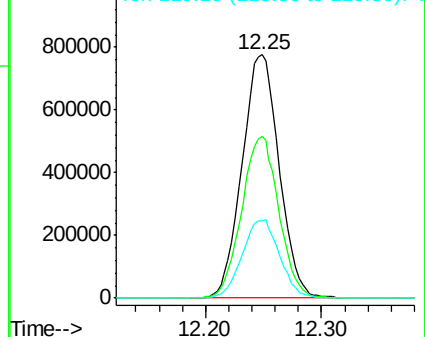
119 32.4 27.3 40.9

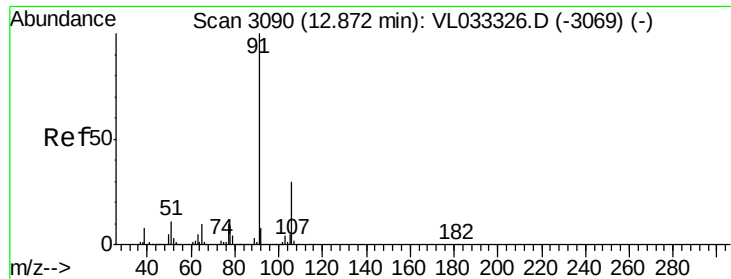


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.061 ppbv

RT: 12.87 min Scan# 3090

Delta R.T. -0.00 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

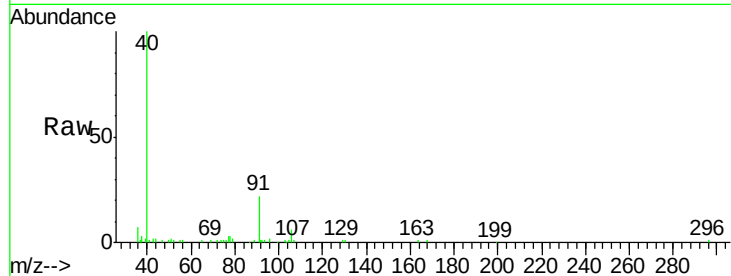
SV1

Tgt Ion: 91 Resp: 14900

Ion Ratio Lower Upper

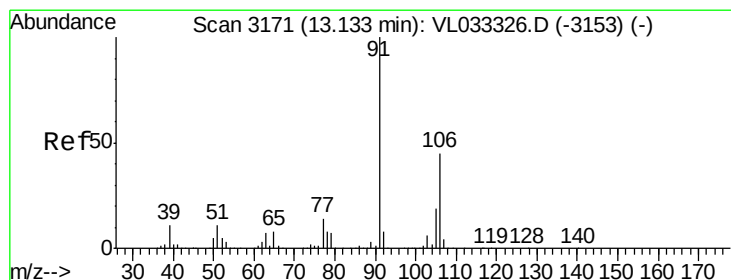
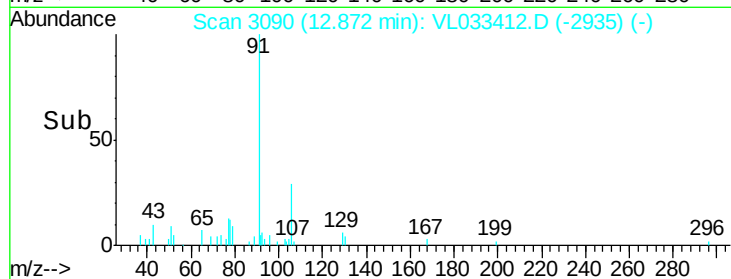
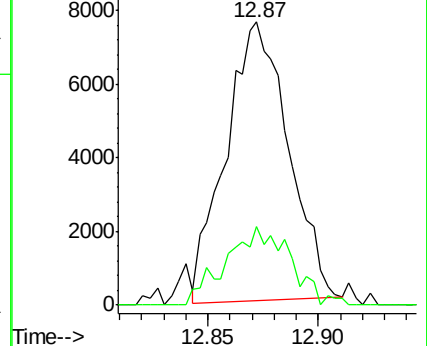
91 100

106 28.6 24.2 36.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.079 ppbv

RT: 13.13 min Scan# 3171

Delta R.T. -0.00 min

Lab File: VL033412.D

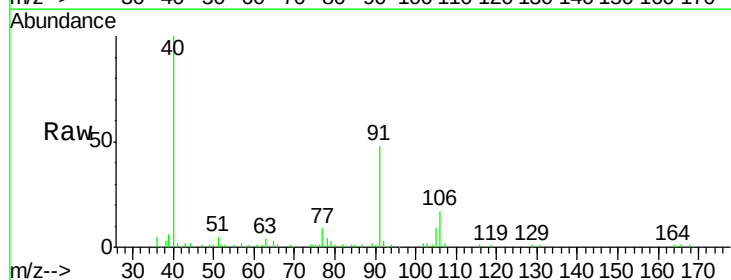
Acq: 21 Mar 2019 5:29

Tgt Ion: 91 Resp: 16660

Ion Ratio Lower Upper

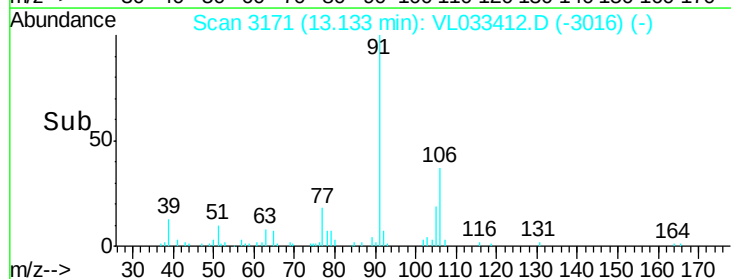
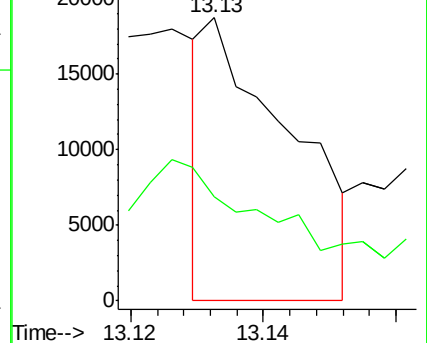
91 100

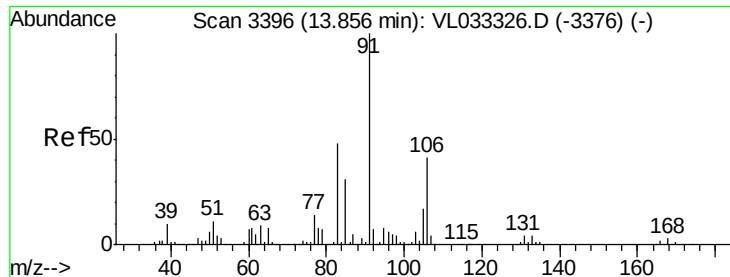
106 0.0 0.0 0.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

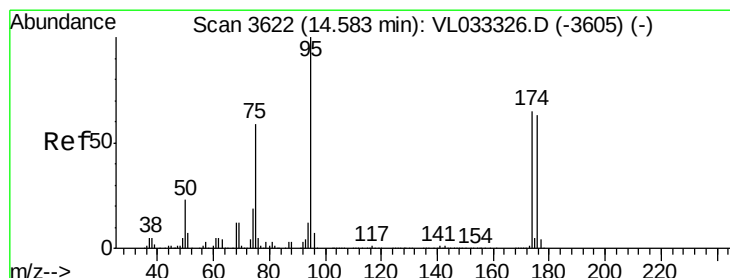
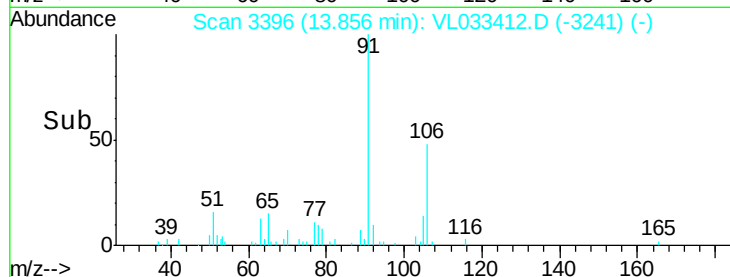
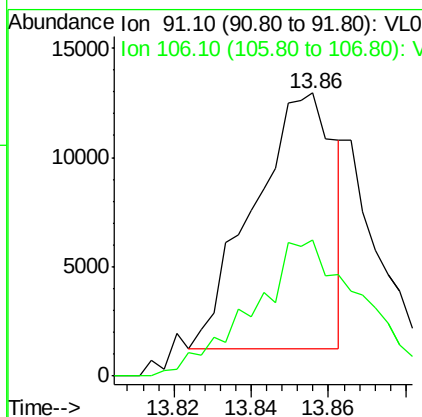
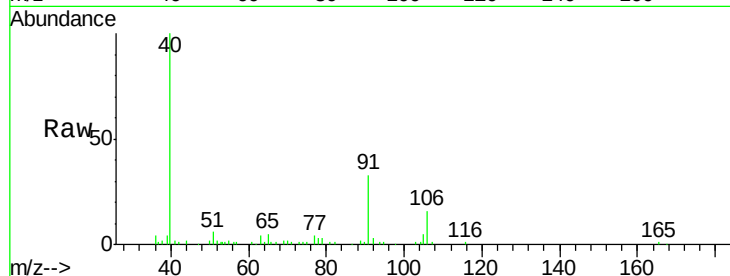




#60
o-Xylene
Concen: 0.083 ppbv
RT: 13.86 min Scan# 3396
Delta R.T. -0.00 min
Lab File: VL033412.D
Acq: 21 Mar 2019 5:29

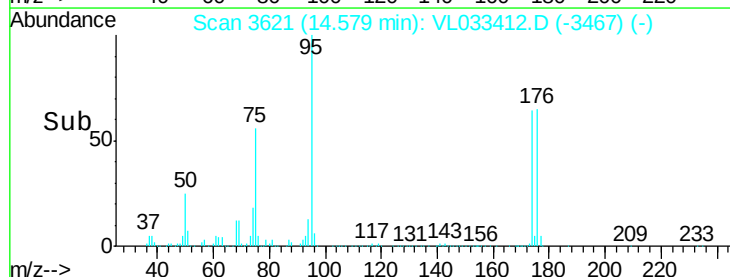
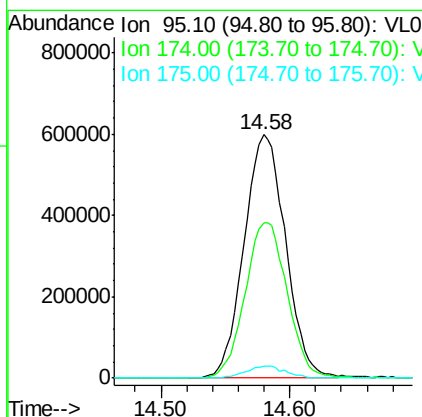
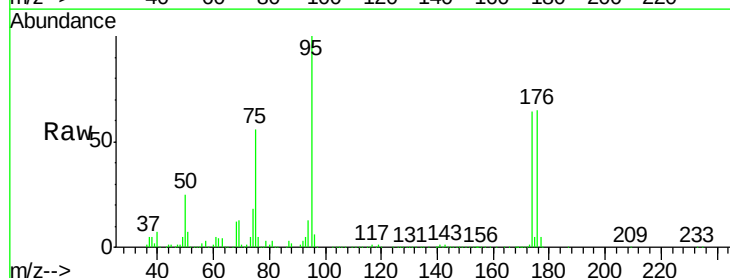
Instrument :
MSVOA_L
ClientSampleId :
SV1

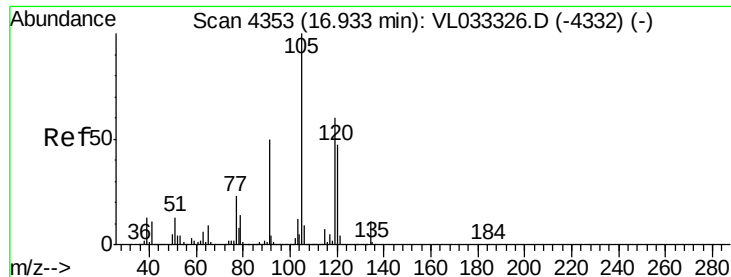
Tgt Ion: 91 Resp: 16985
Ion Ratio Lower Upper
91 100
106 74.0 21.3 63.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.505 ppbv
RT: 14.58 min Scan# 3621
Delta R.T. -0.00 min
Lab File: VL033412.D
Acq: 21 Mar 2019 5:29

Tgt Ion: 95 Resp: 1344300
Ion Ratio Lower Upper
95 100
174 65.3 51.5 77.3
175 4.8 3.8 5.6





#74

1,2,4-Trimethylbenzene

Concen: 0.110 ppbv

RT: 16.93 min Scan# 4351

Delta R.T. -0.01 min

Lab File: VL033412.D

Acq: 21 Mar 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion:105 Resp: 26333

Ion Ratio Lower Upper

105 100

120 37.4 37.4 56.2#

91 5.8 41.0 61.4#

77 12.0 18.5 27.7#

