

Data File : VL033540.D
Acq On : 4 Apr 2019 19:40
Operator : SY/AP
Sample : K2096-03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
A-3

Quant Time: Apr 05 01:58:49 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 26 16:00:50 2019
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	974896	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1940474	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2231508	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1774886 10.15 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 101.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	78886	0.555	ppbv	100
3) Chlorodifluoromethane	3.01	51	34072	0.304	ppbv	96
4) Chloromethane	3.17	50	27929	0.470	ppbv	96
9) Propene	3.05	41	24430	0.518	ppbv #	71
11) Trichlorofluoromethane	4.00	101	39120	0.223	ppbv	98
13) Ethanol	3.65	45	486135	39.857	ppbv	64
15) Acetone	3.90	43	388185	3.312	ppbv	98
16) 1,3-Butadiene	3.34	39	3884	0.084	ppbv #	27
19) Isopropyl Alcohol	4.04	45	27878	0.376	ppbv #	1
20) Methylene Chloride	4.41	84	520700	10.464	ppbv	99
23) Vinyl Acetate	5.15	43	8122	0.049	ppbv #	74
25) Ethyl Acetate	5.77	43	524116	2.410	ppbv #	86
26) Hexane	5.78	57	566797	5.861	ppbv #	49
27) Carbon Disulfide	4.62	76	4549	0.040	ppbv #	89
30) Cyclohexane	7.24	84	2945	0.038	ppbv #	1
31) cis-1,2-Dichloroethene	5.76	61	18109	0.188	ppbv #	36
34) 2-Butanone	5.34	43	30673	0.263	ppbv	99
35) Carbon Tetrachloride	7.13	117	4178	0.030	ppbv	95
36) Benzene	7.00	78	18938	0.116	ppbv #	85
38) Trichloroethene	7.96	130	9729	0.159	ppbv #	75
39) 1,2-Dichloropropane	7.29	63	513204	8.046	ppbv #	24
41) Tetrahydrofuran	6.42	42	4527	0.071	ppbv #	38
53) Toluene	9.94	91	1073944	5.676	ppbv	100

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

Data File : VL033540.D

Acq On : 4 Apr 2019 19:40

Operator : SY/AP

Sample : K2096-03

Misc : 400ml/MSVOA_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
A-3

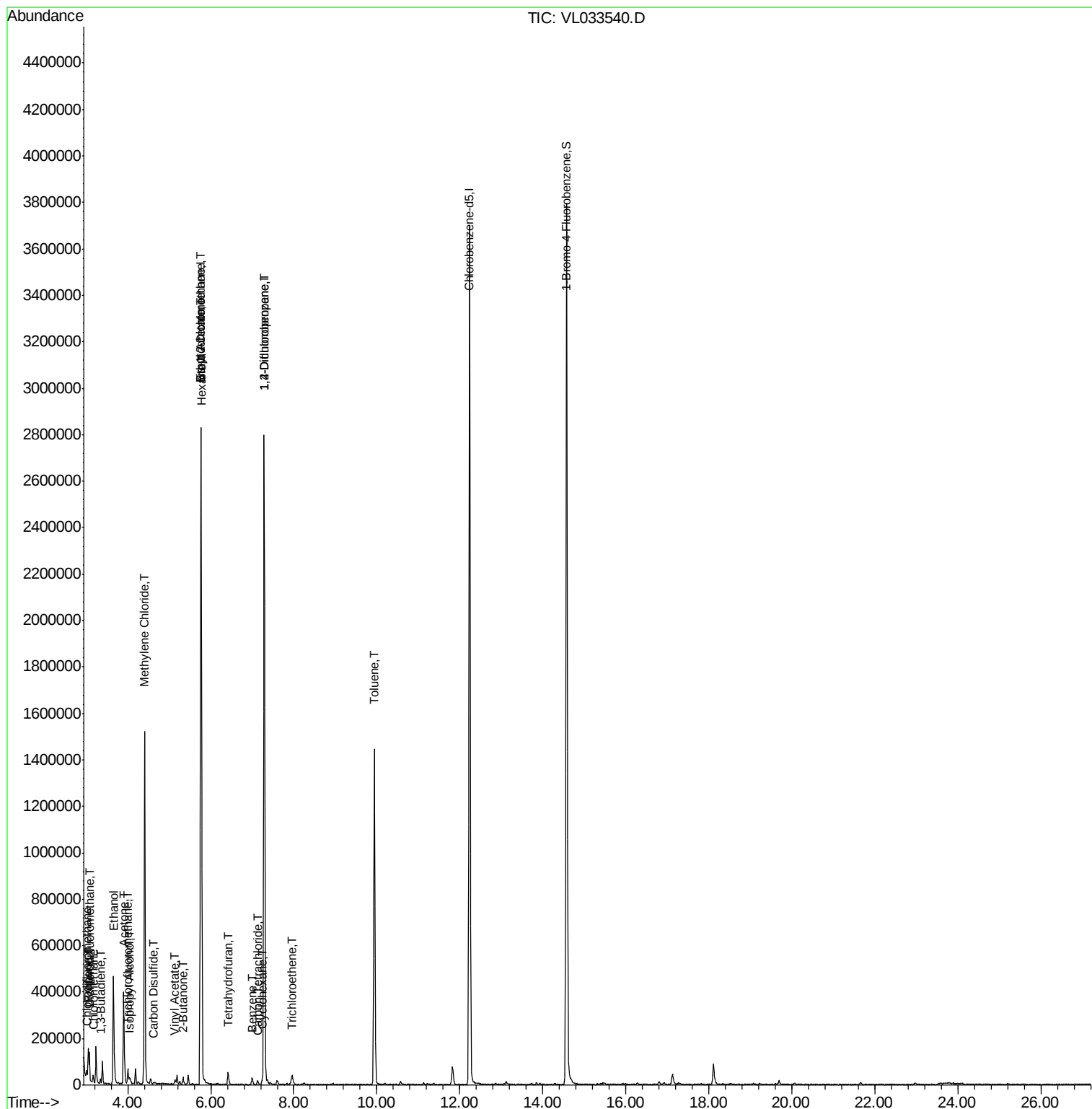
Quant Time: Apr 05 01:58:49 2019

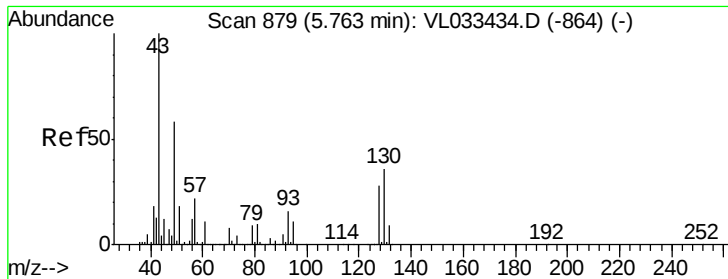
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032519AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 26 16:00:50 2019

QLast Update : Tue Mar 26 16:00:50 2019

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampled :

A-3

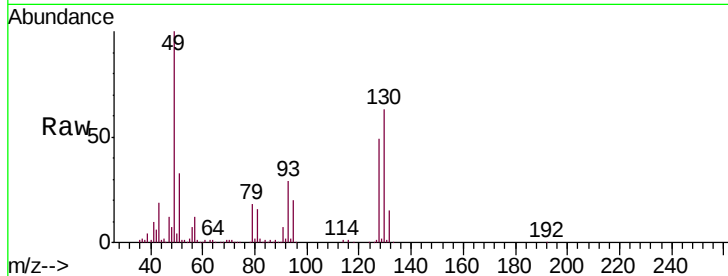
Tgt Ion: 49 Resp: 974896

Ion Ratio Lower Upper

49 100

128 49.2 24.0 72.0

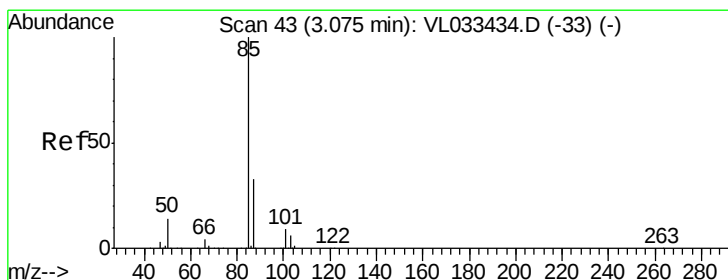
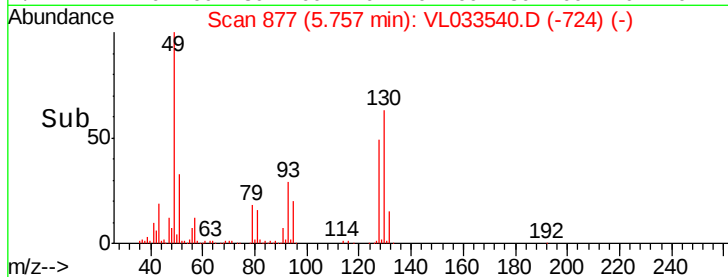
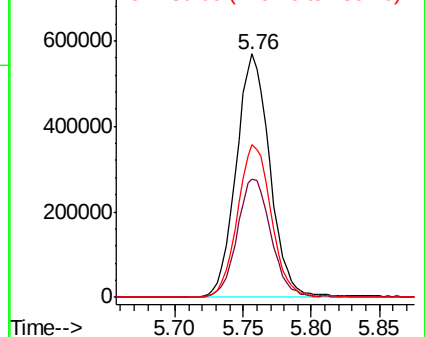
130 63.3 31.2 93.6



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: 0.555 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033540.D

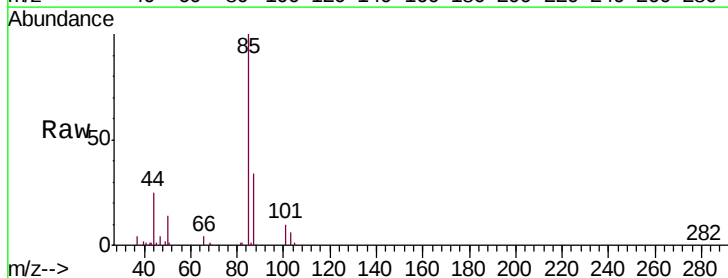
Acq: 4 Apr 2019 19:40

Tgt Ion: 85 Resp: 78886

Ion Ratio Lower Upper

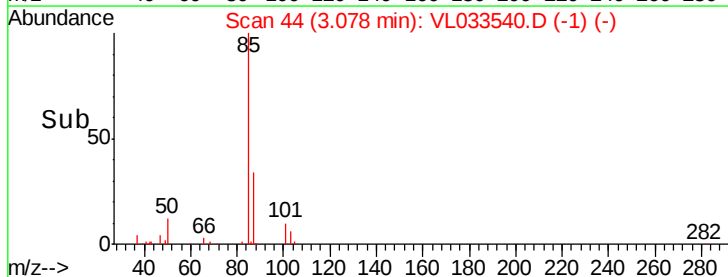
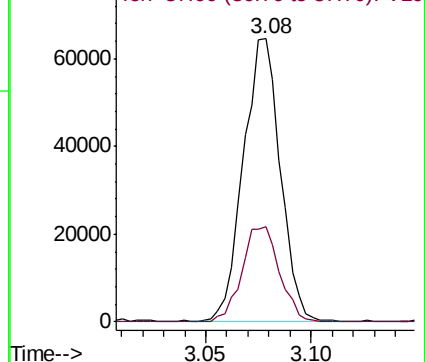
85 100

87 33.6 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.304 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

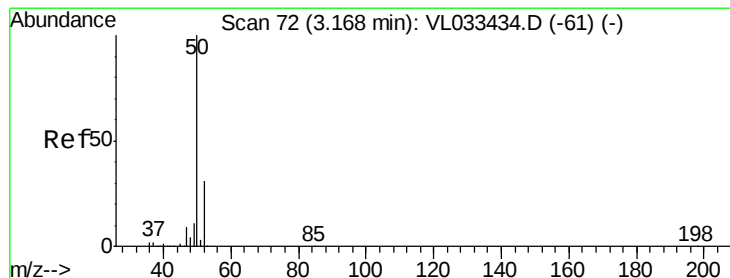
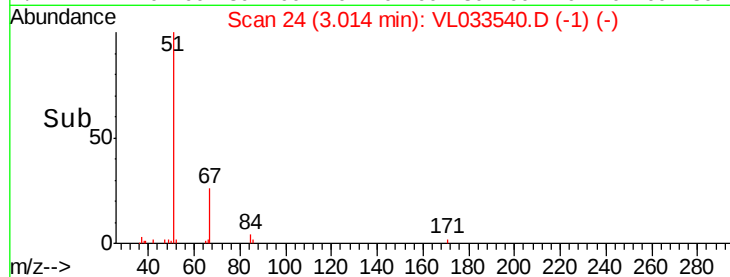
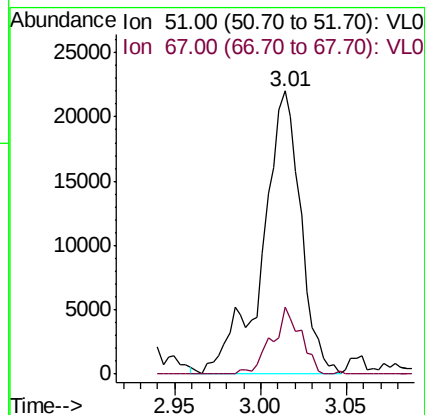
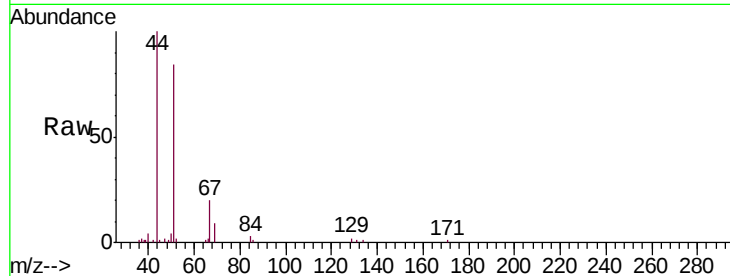
A-3

Tgt Ion: 51 Resp: 34072

Ion Ratio Lower Upper

51 100

67 17.8 15.7 23.5



#4

Chloromethane

Concen: 0.470 ppbv

RT: 3.17 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL033540.D

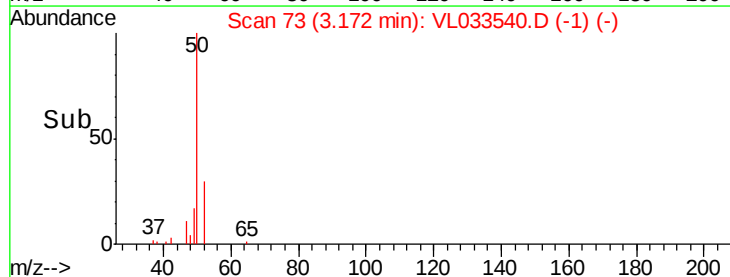
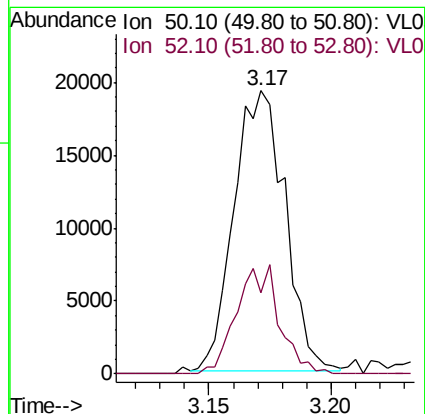
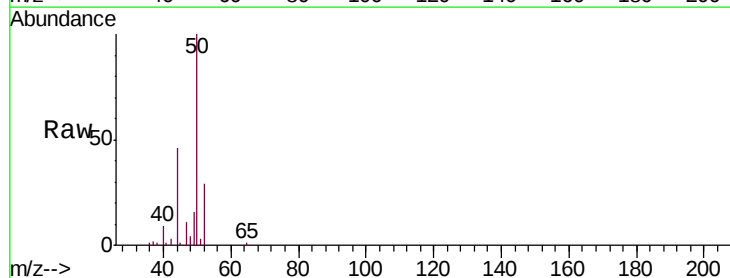
Acq: 4 Apr 2019 19:40

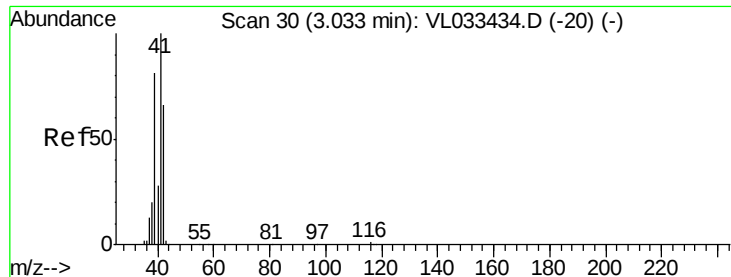
Tgt Ion: 50 Resp: 27929

Ion Ratio Lower Upper

50 100

52 28.8 25.0 37.6





#9

Propene

Concen: 0.518 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.02 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

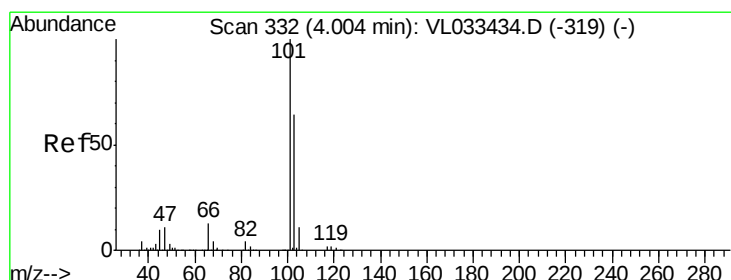
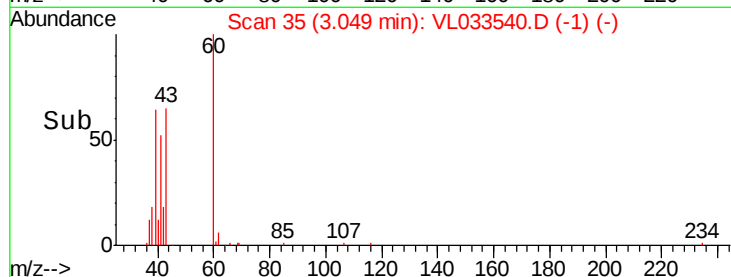
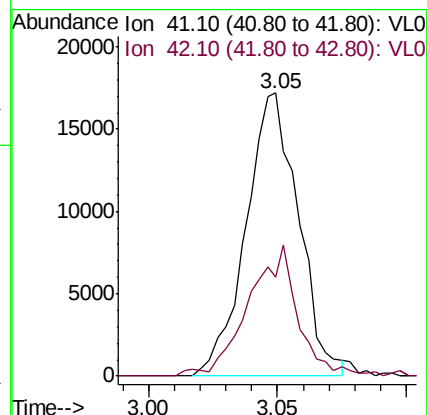
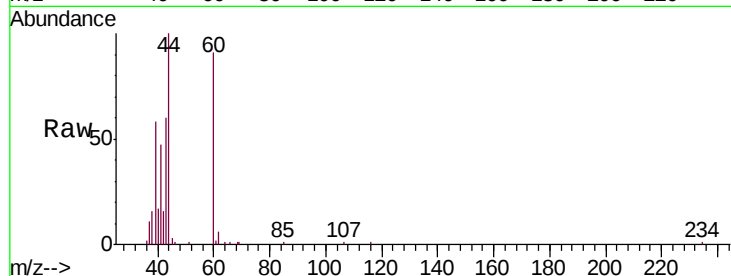
A-3

Tgt Ion: 41 Resp: 24430

Ion Ratio Lower Upper

41 100

42 44.2 53.9 80.9#



#11

Trichlorofluoromethane

Concen: 0.223 ppbv

RT: 4.00 min Scan# 332

Delta R.T. -0.00 min

Lab File: VL033540.D

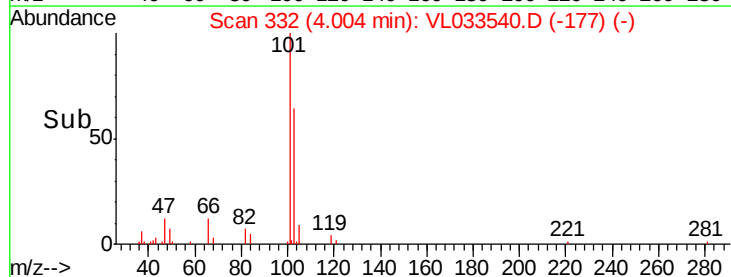
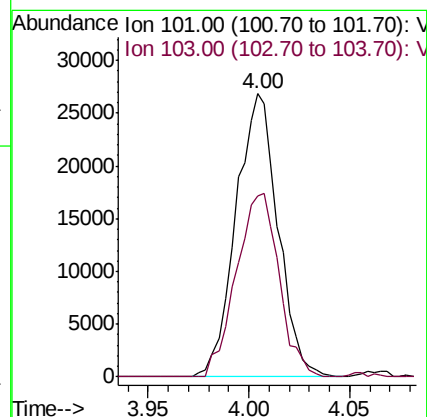
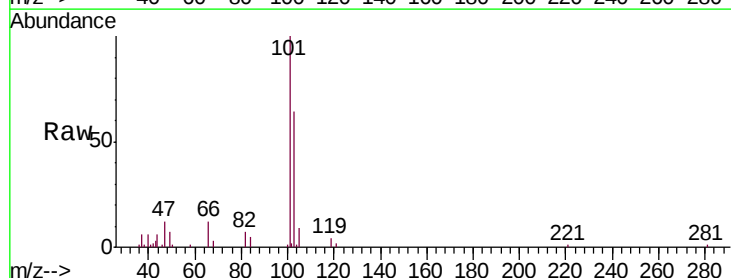
Acq: 4 Apr 2019 19:40

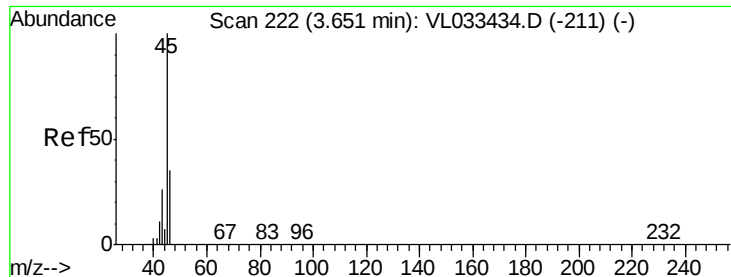
Tgt Ion: 101 Resp: 39120

Ion Ratio Lower Upper

101 100

103 62.5 51.3 76.9





#13

Ethanol

Concen: 39.857 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

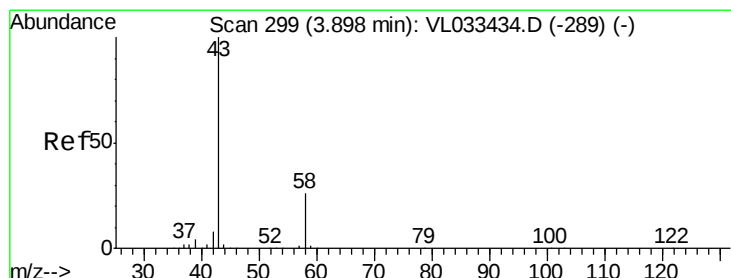
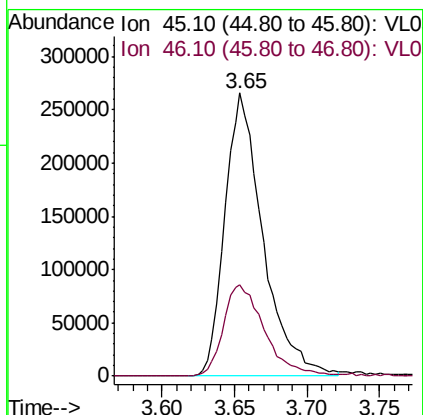
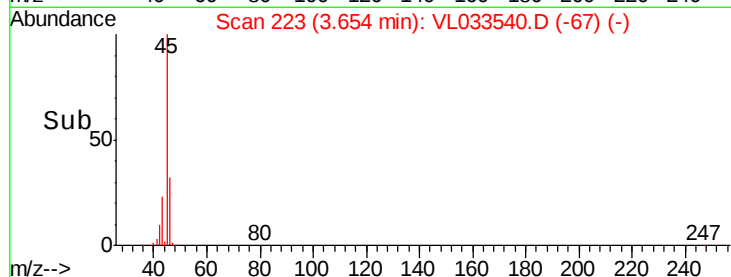
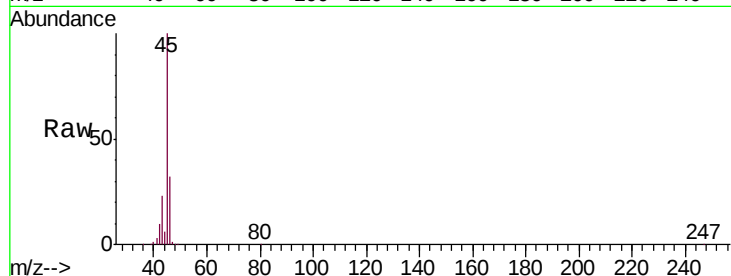
A-3

Tgt Ion: 45 Resp: 486135

Ion Ratio Lower Upper

45 100

46 35.3 25.4 101.8



#15

Acetone

Concen: 3.312 ppbv

RT: 3.90 min Scan# 300

Delta R.T. 0.00 min

Lab File: VL033540.D

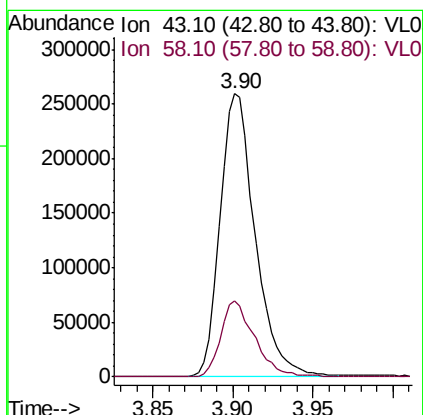
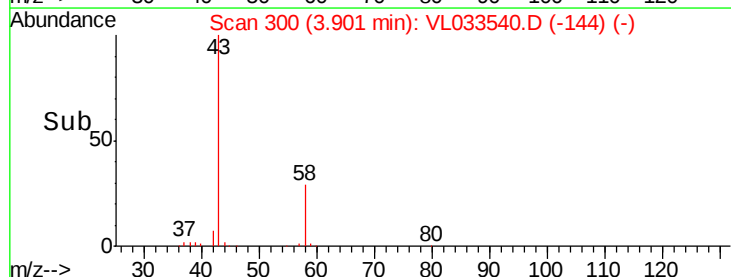
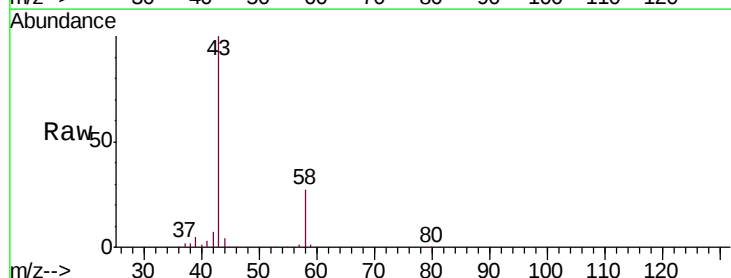
Acq: 4 Apr 2019 19:40

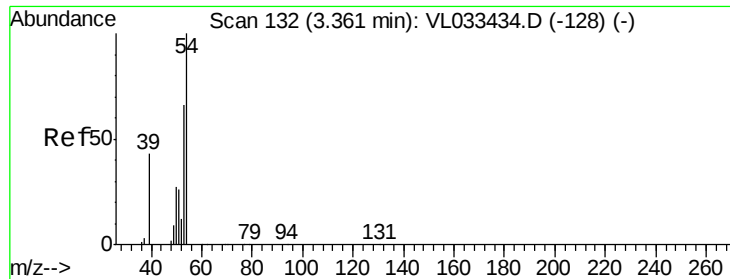
Tgt Ion: 43 Resp: 388185

Ion Ratio Lower Upper

43 100

58 26.4 20.5 30.7

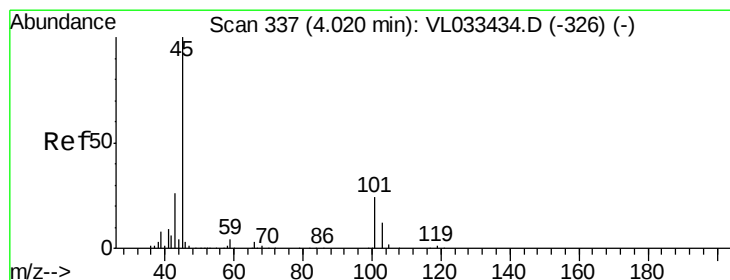
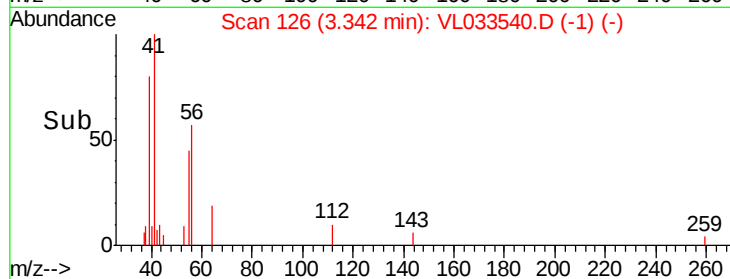
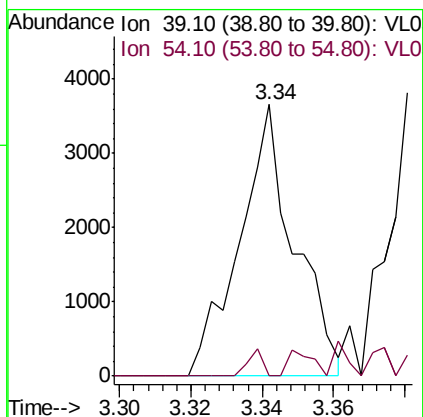
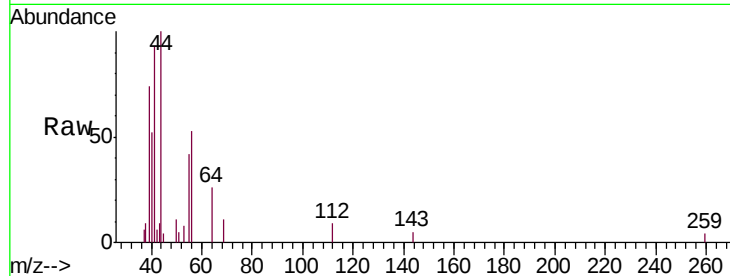




#16
 1,3-Butadiene
 Concen: 0.084 ppbv
 RT: 3.34 min Scan# 126
 Delta R.T. -0.02 min
 Lab File: VL033540.D
 Acq: 4 Apr 2019 19:40

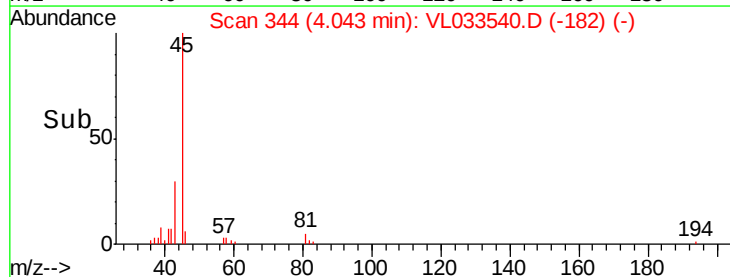
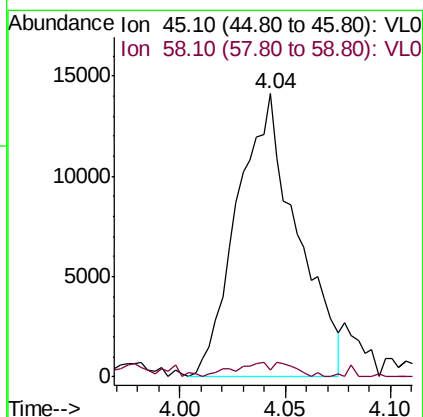
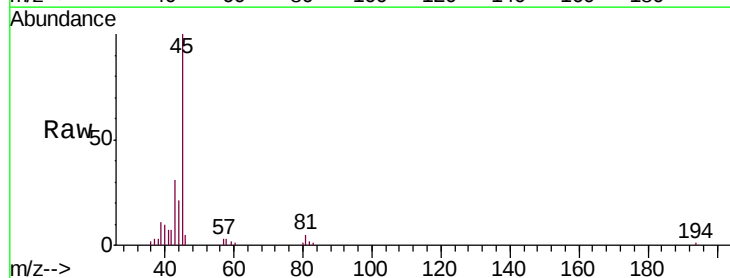
Instrument :
 MSVOA_L
 ClientSampleId :
 A-3

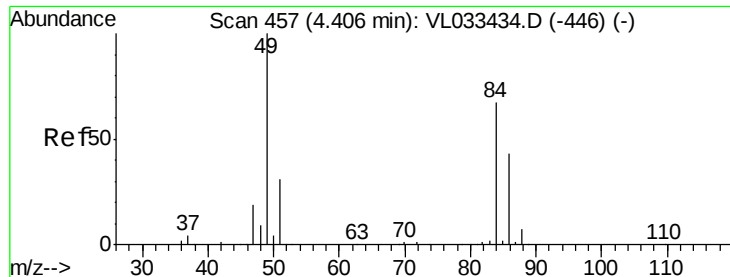
Tgt Ion: 39 Resp: 3884
 Ion Ratio Lower Upper
 39 100
 54 19.3 69.4 104.2#



#19
 Isopropyl Alcohol
 Concen: 0.376 ppbv
 RT: 4.04 min Scan# 344
 Delta R.T. 0.02 min
 Lab File: VL033540.D
 Acq: 4 Apr 2019 19:40

Tgt Ion: 45 Resp: 27878
 Ion Ratio Lower Upper
 45 100
 58 364.7 1.4 2.2#

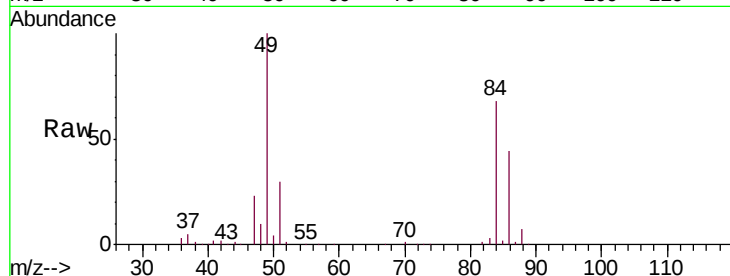




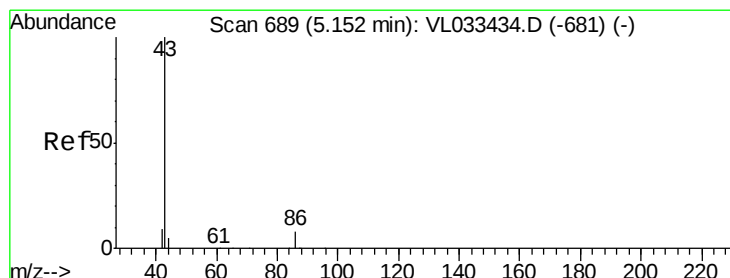
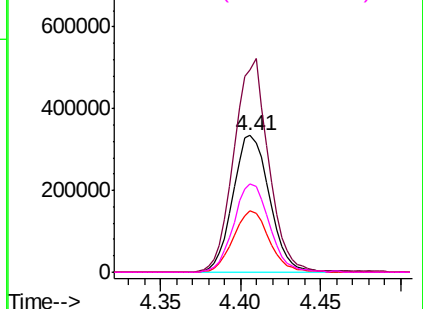
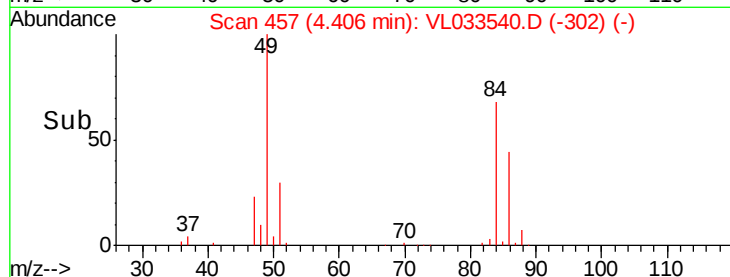
#20
Methylene Chloride
Concen: 10.464 ppbv
RT: 4.41 min Scan# 457
Delta R.T. -0.00 min
Lab File: VL033540.D
Acq: 4 Apr 2019 19:40

Instrument :
MSVOA_L
ClientSampleId :
A-3

Tgt Ion:	84	Resp:	520700
Ion	Ratio	Lower	Upper
84	100		
49	148.0	120.0	180.0
51	44.8	36.7	55.1
86	65.2	51.9	77.9

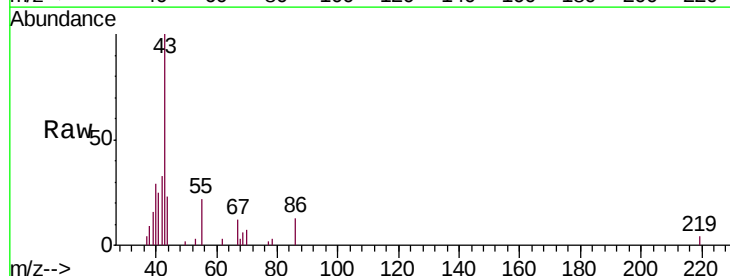


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

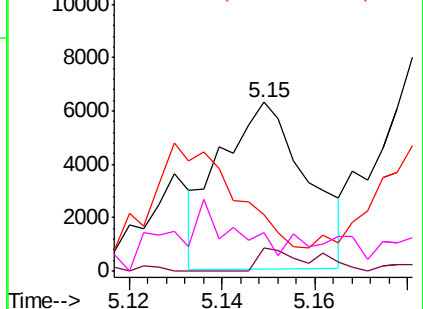
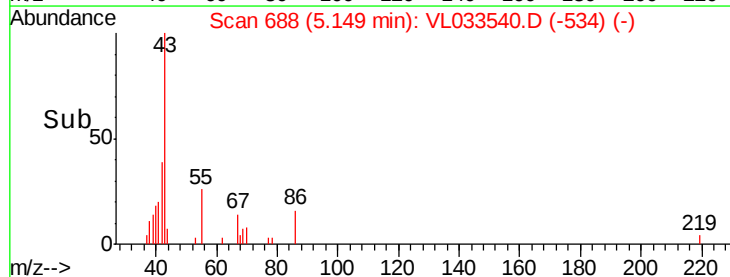


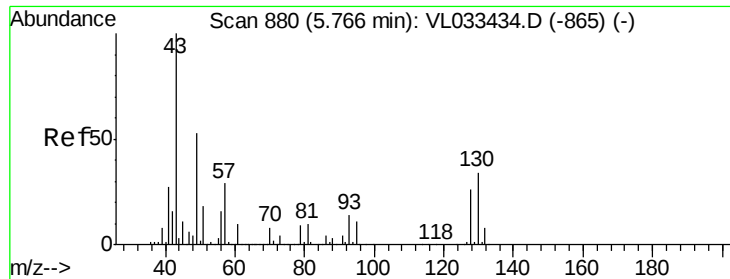
#23
Vinyl Acetate
Concen: 0.049 ppbv
RT: 5.15 min Scan# 688
Delta R.T. -0.00 min
Lab File: VL033540.D
Acq: 4 Apr 2019 19:40

Tgt Ion:	43	Resp:	8122
Ion	Ratio	Lower	Upper
43	100		
86	16.8	5.6	8.4#
42	21.2	8.0	12.0#
44	9.8	3.9	5.9#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0





#25

Ethyl Acetate

Concen: 2.410 ppbv

RT: 5.77 min Scan# 882

Delta R.T. 0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampled :

A-3

Tgt Ion: 43 Resp: 524116

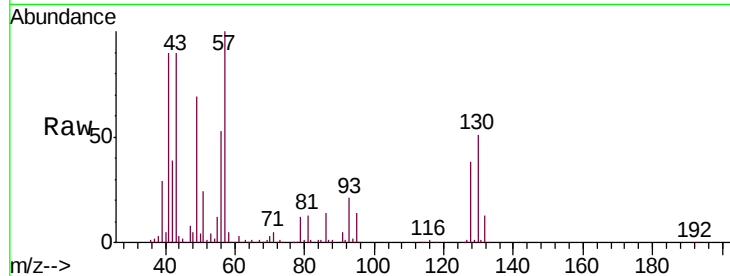
Ion Ratio Lower Upper

43 100

45 4.0 7.8 11.6#

61 3.6 7.3 10.9#

70 3.5 5.6 8.4#

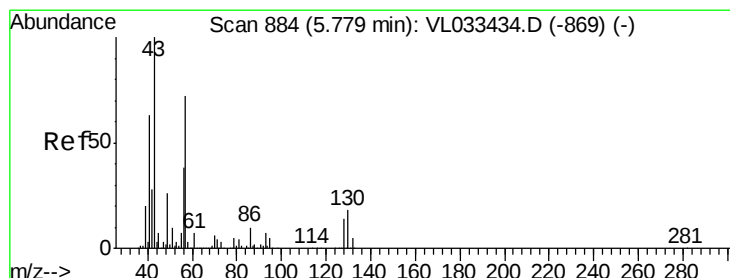
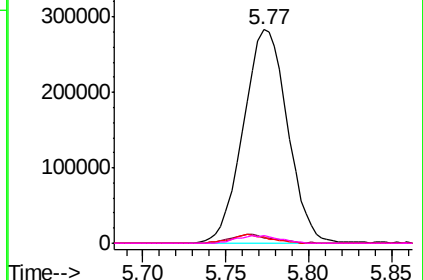
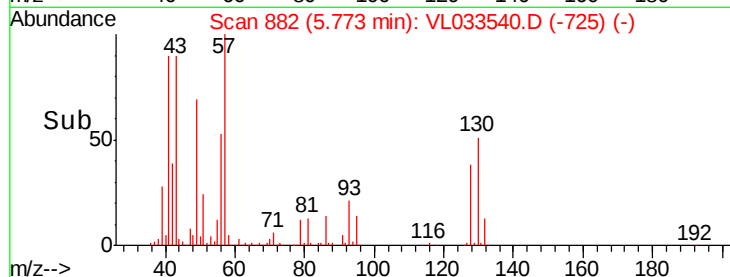


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 5.861 ppbv

RT: 5.78 min Scan# 883

Delta R.T. -0.00 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Tgt Ion: 57 Resp: 566797

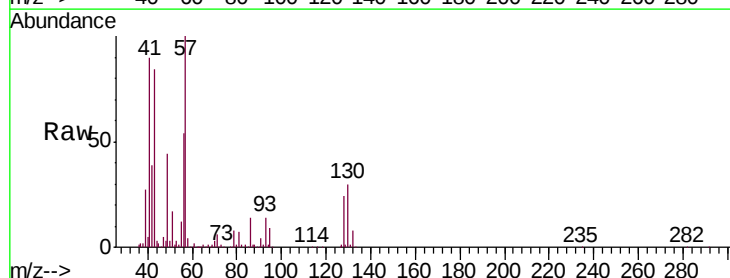
Ion Ratio Lower Upper

57 100

41 90.8 70.7 106.1

43 93.6 182.6 274.0#

56 53.6 42.0 63.0

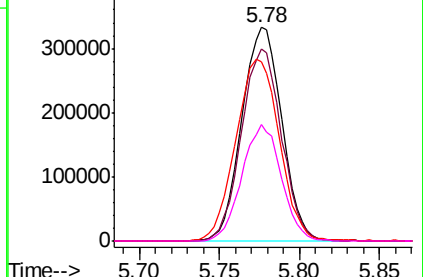
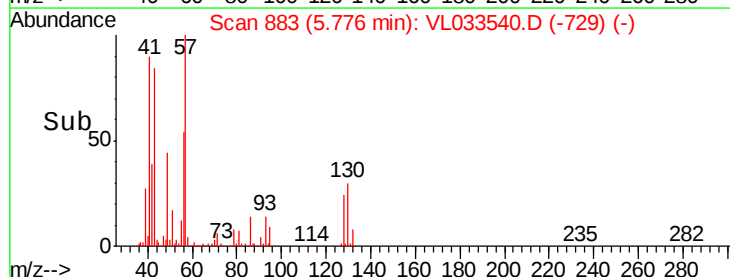


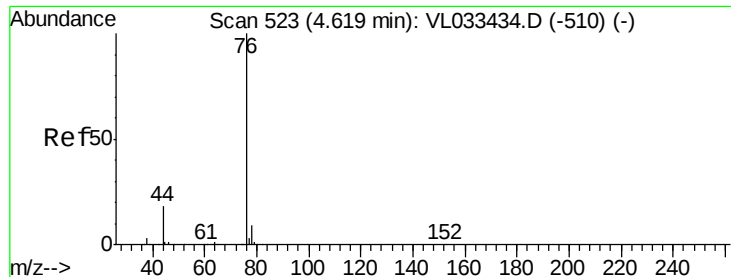
Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 0.040 ppbv

RT: 4.62 min Scan# 525

Delta R.T. 0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

A-3

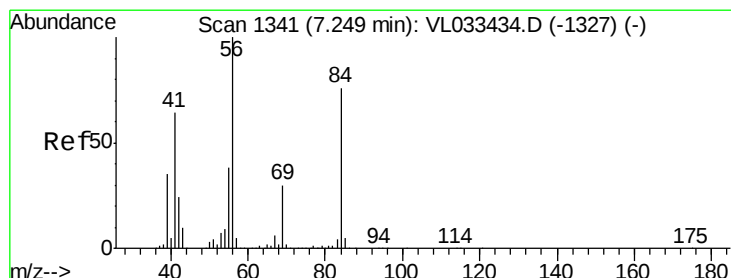
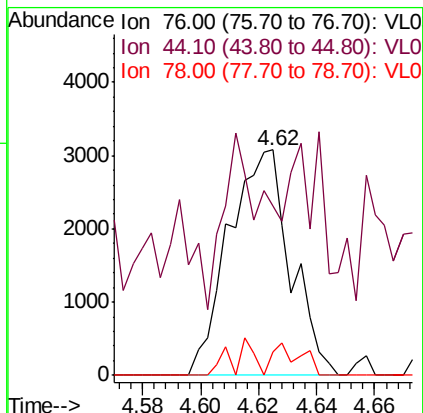
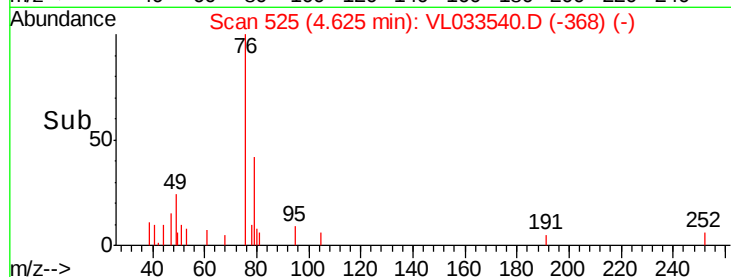
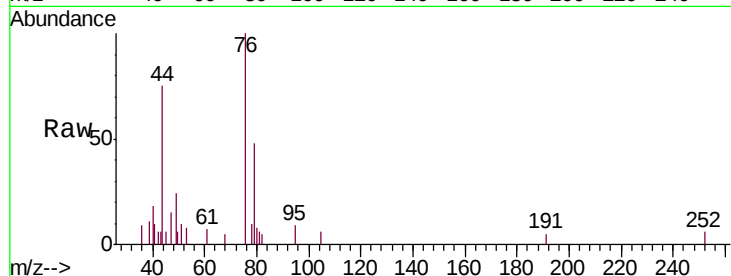
Tgt Ion: 76 Resp: 4549

Ion Ratio Lower Upper

76 100

44 24.2 14.8 22.2#

78 12.2 7.6 11.4#



#30

Cyclohexane

Concen: 0.038 ppbv

RT: 7.24 min Scan# 1339

Delta R.T. -0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

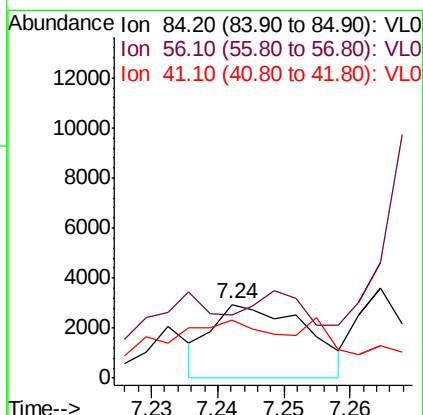
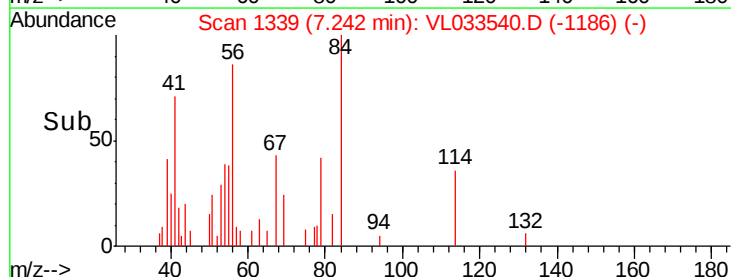
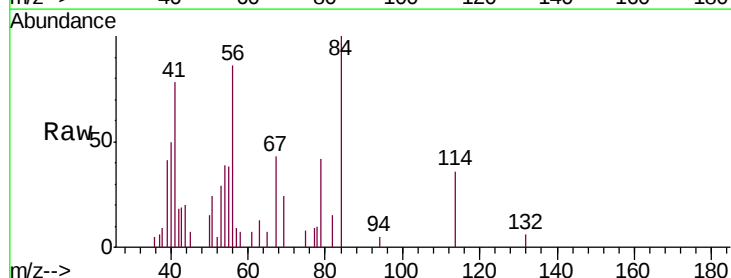
Tgt Ion: 84 Resp: 2945

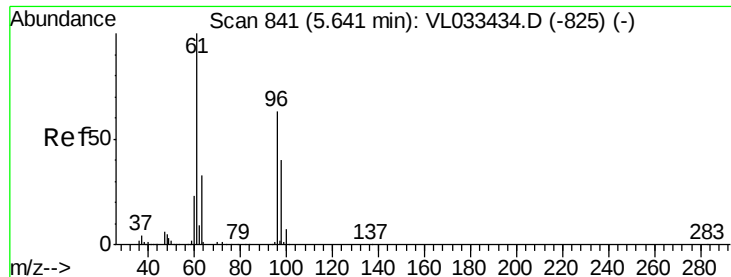
Ion Ratio Lower Upper

84 100

56 0.0 109.7 164.5#

41 0.0 68.2 102.2#



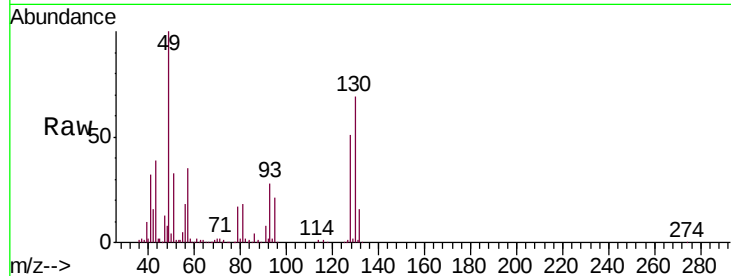


#31

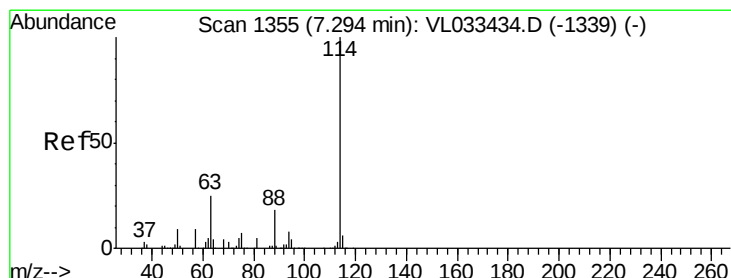
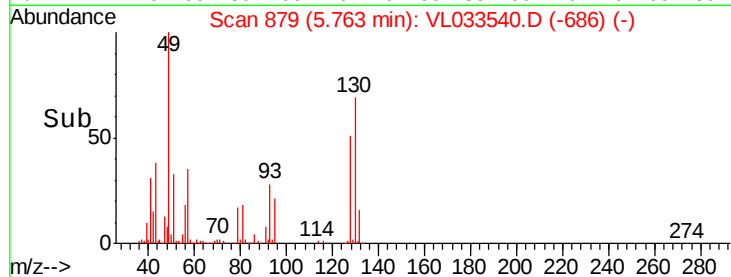
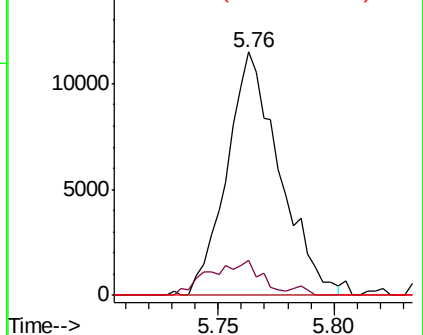
cis-1,2-Dichloroethene
 Concen: 0.188 ppbv
 RT: 5.76 min Scan# 879
 Delta R.T. 0.12 min
 Lab File: VL033540.D
 Acq: 4 Apr 2019 19:40

Instrument :
 MSVOA_L
 ClientSampleId :
 A-3

Tgt Ion: 61 Resp: 18109
 Ion Ratio Lower Upper
 61 100
 96 14.4 50.6 76.0#
 98 0.0 32.2 48.2#



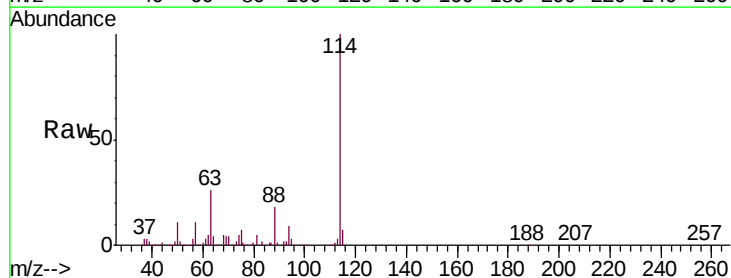
Abundance Ion 61.10 (60.80 to 61.80): VL0
 Ion 96.00 (95.70 to 96.70): VL0
 Ion 98.00 (97.70 to 98.70): VL0



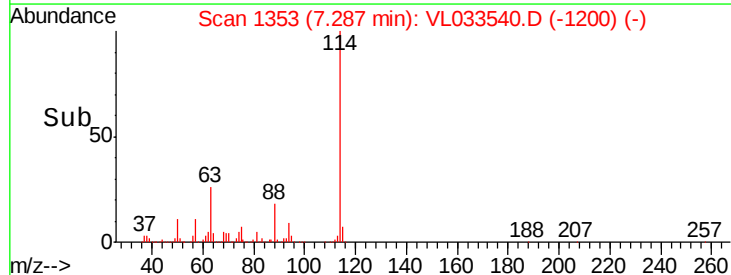
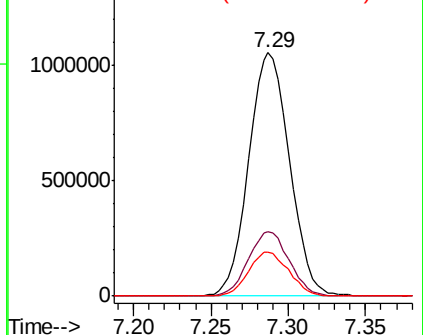
#33

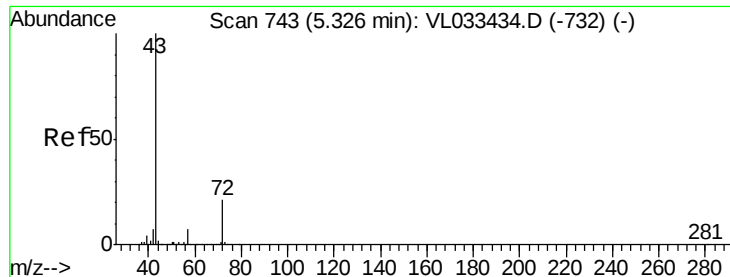
1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033540.D
 Acq: 4 Apr 2019 19:40

Tgt Ion: 114 Resp: 1940474
 Ion Ratio Lower Upper
 114 100
 63 26.6 21.5 32.3
 88 18.1 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: 0.263 ppbv

RT: 5.34 min Scan# 746

Delta R.T. 0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampled :

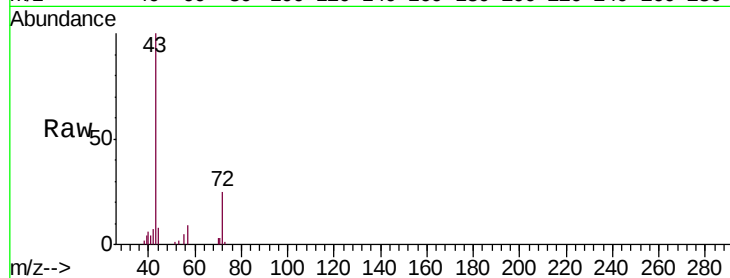
A-3

Tgt Ion: 43 Resp: 30673

Ion Ratio Lower Upper

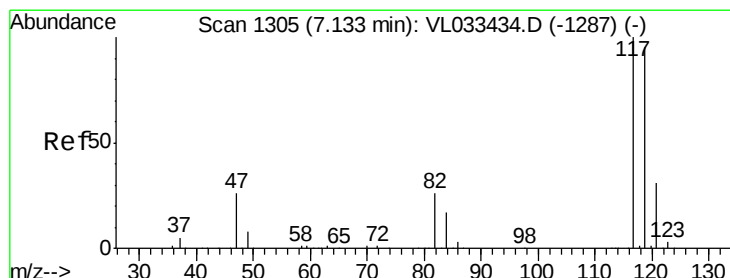
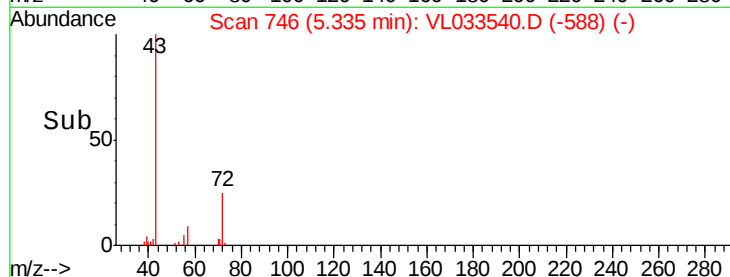
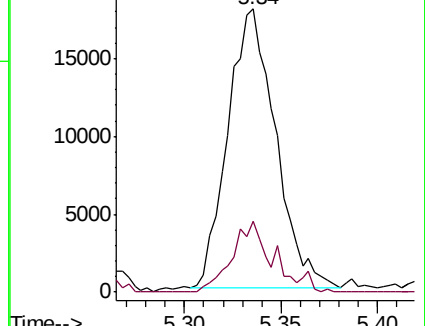
43 100

72 22.1 17.4 26.2



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.030 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. -0.00 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

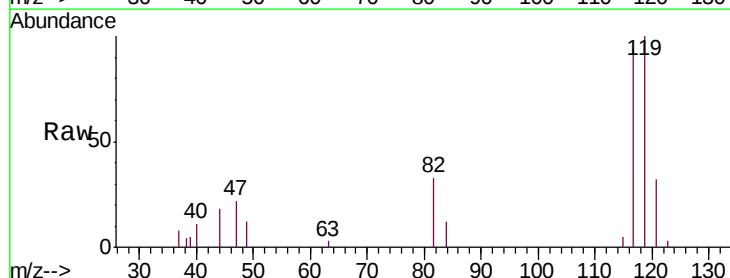
Tgt Ion: 117 Resp: 4178

Ion Ratio Lower Upper

117 100

119 100.4 75.8 113.8

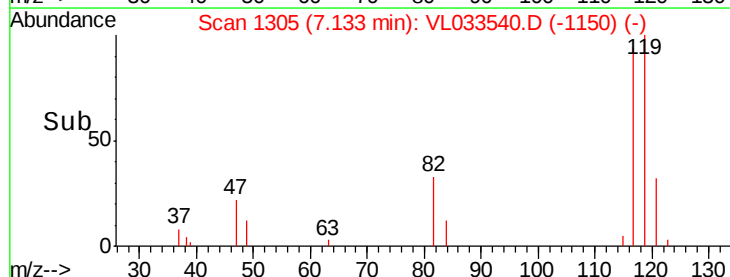
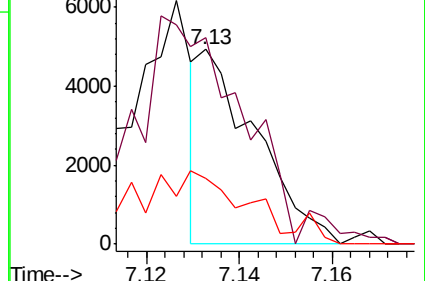
121 33.5 24.7 37.1

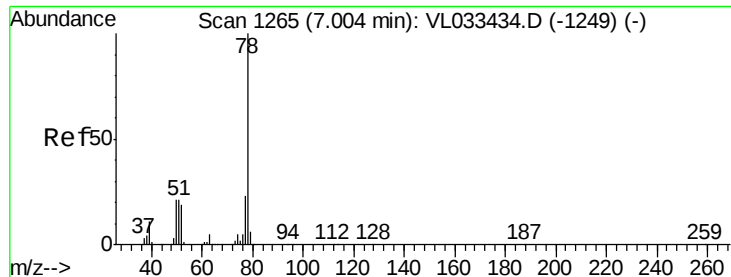


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





#36

Benzene

Concen: 0.116 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampled :

A-3

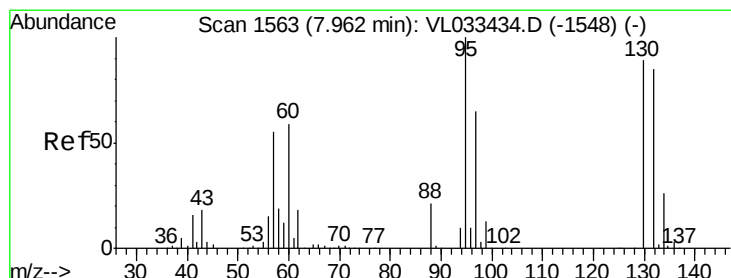
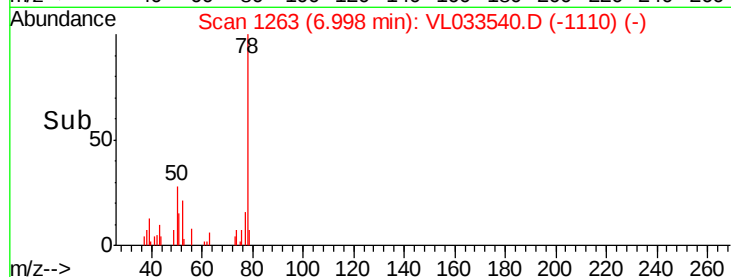
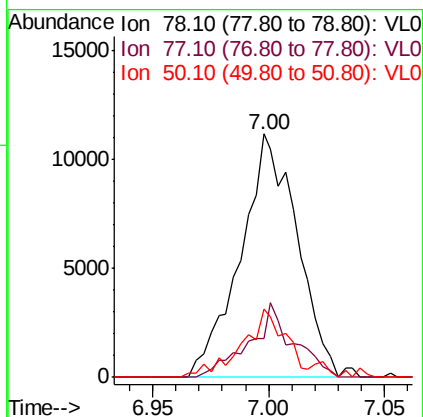
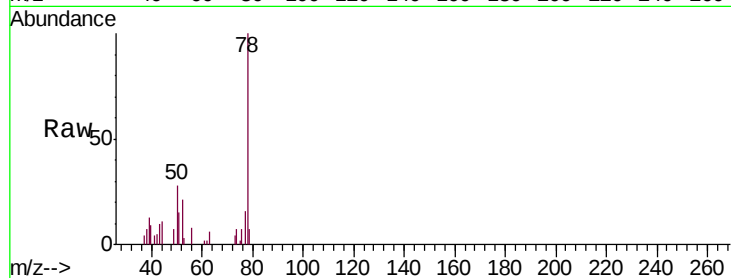
Tgt Ion: 78 Resp: 18938

Ion Ratio Lower Upper

78 100

77 15.9 18.1 27.1#

50 28.0 16.7 25.1#



#38

Trichloroethene

Concen: 0.159 ppbv

RT: 7.96 min Scan# 1563

Delta R.T. -0.00 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Tgt Ion: 130 Resp: 9729

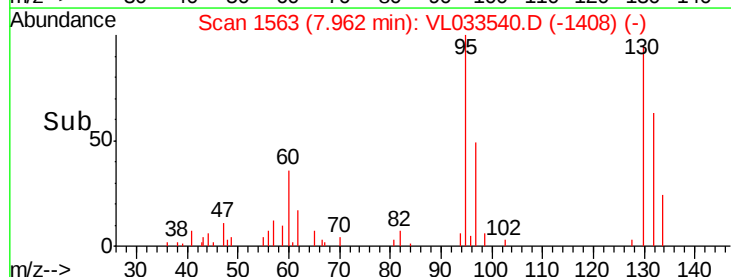
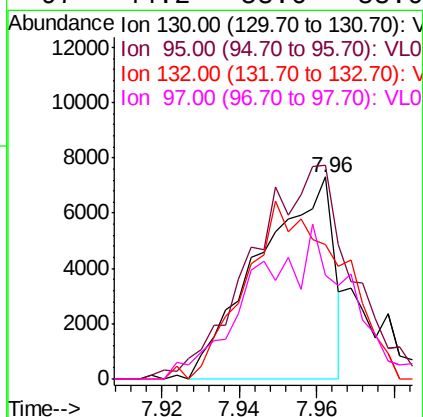
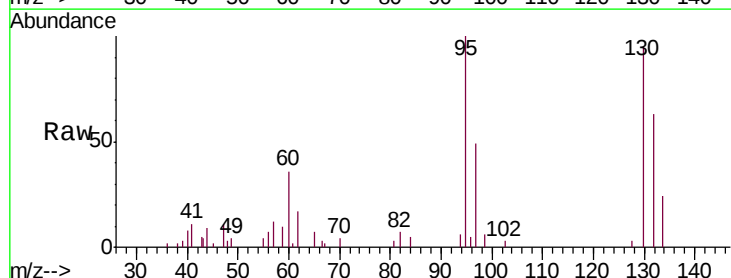
Ion Ratio Lower Upper

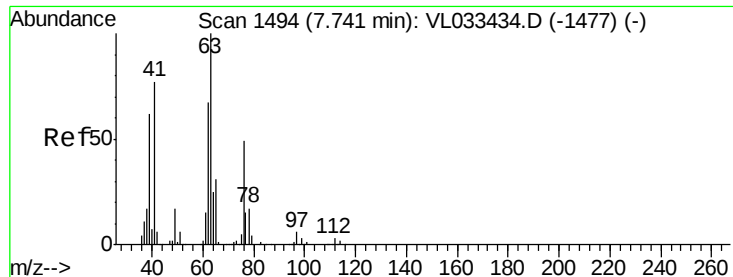
130 100

95 95.4 89.8 134.8

132 66.8 76.6 115.0#

97 44.2 58.6 88.0#

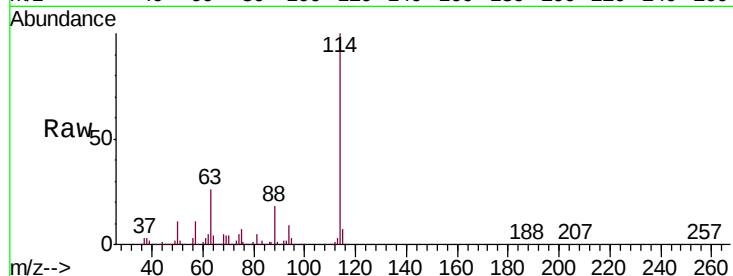




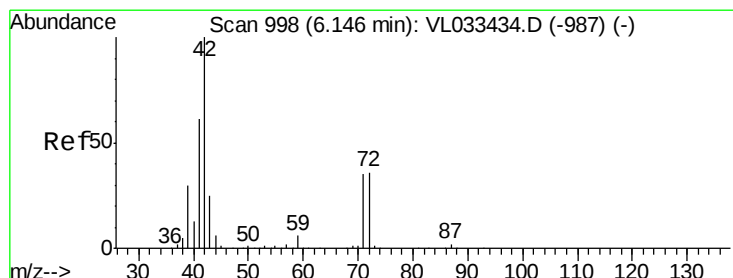
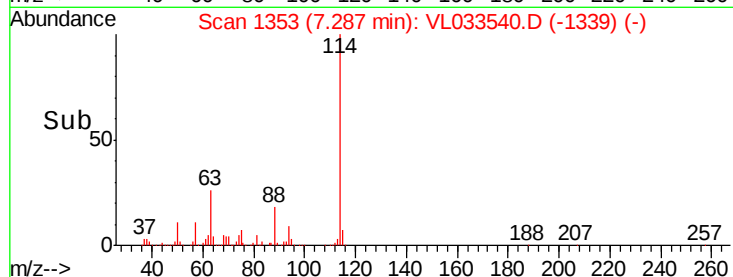
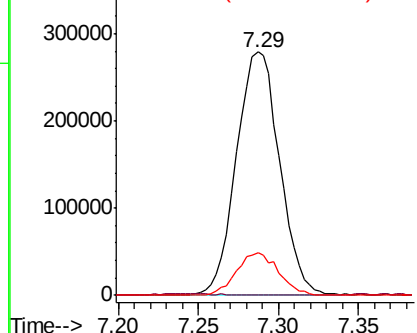
#39
 1,2-Dichloropropane
 Concen: 8.046 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.45 min
 Lab File: VL033540.D
 Acq: 4 Apr 2019 19:40

Instrument :
 MSVOA_L
 ClientSampleId :
 A-3

Tgt Ion: 63 Resp: 513204
 Ion Ratio Lower Upper
 63 100
 41 0.0 61.2 91.8#
 62 17.5 54.0 81.0#

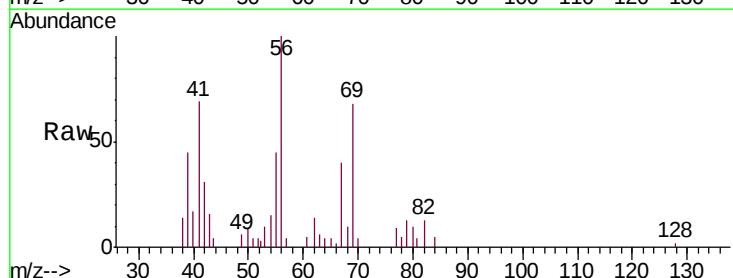


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

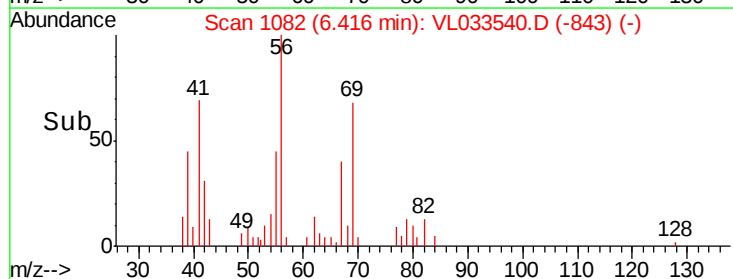
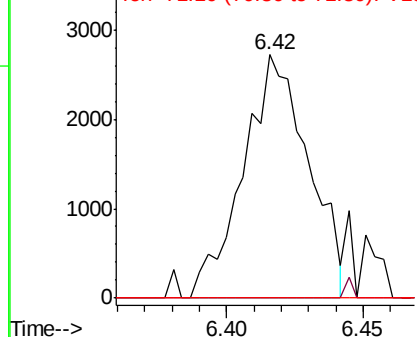


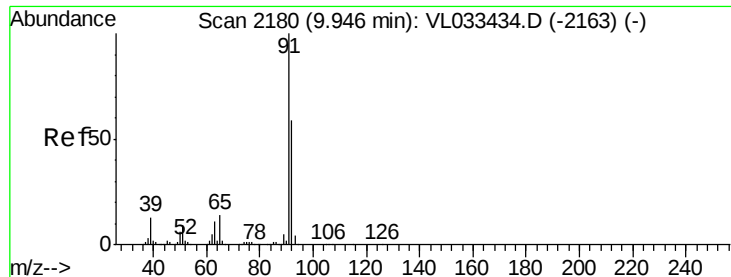
#41
 Tetrahydrofuran
 Concen: 0.071 ppbv
 RT: 6.42 min Scan# 1082
 Delta R.T. 0.27 min
 Lab File: VL033540.D
 Acq: 4 Apr 2019 19:40

Tgt Ion: 42 Resp: 4527
 Ion Ratio Lower Upper
 42 100
 72 0.0 30.2 45.2#
 71 0.0 29.4 44.2#



Abundance Ion 42.10 (41.80 to 42.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0
 Ion 71.10 (70.80 to 71.80): VL0





#53

Toluene

Concen: 5.676 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampled :

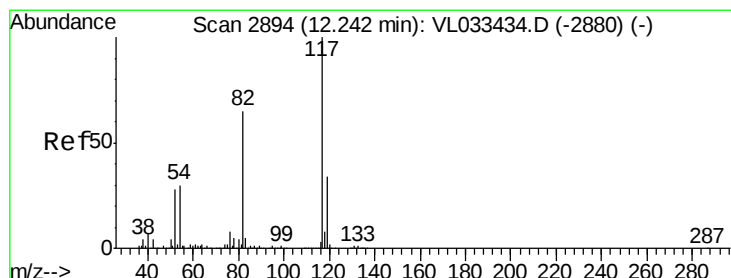
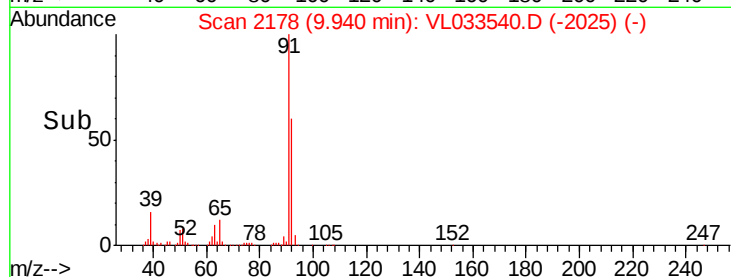
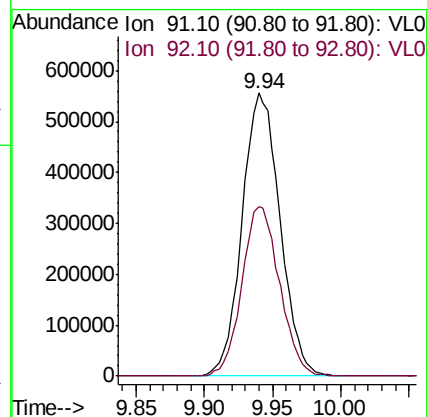
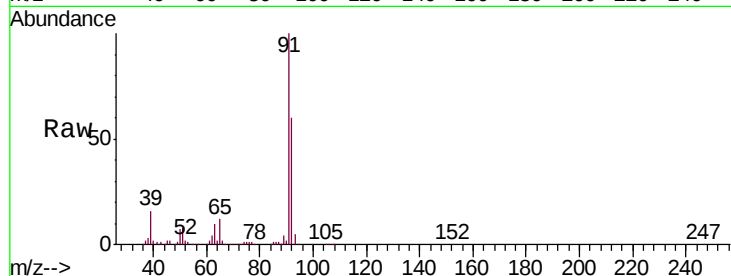
A-3

Tgt Ion: 91 Resp: 1073944

Ion Ratio Lower Upper

91 100

92 59.5 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

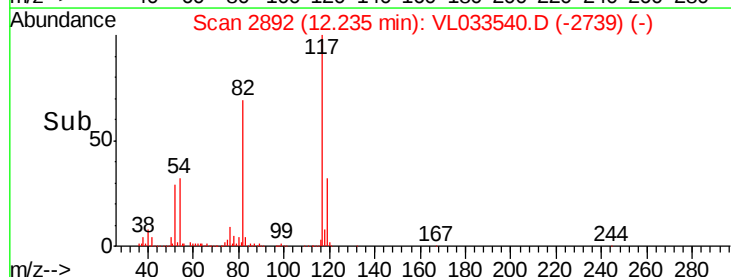
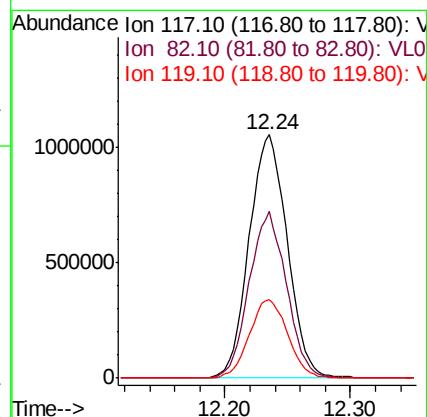
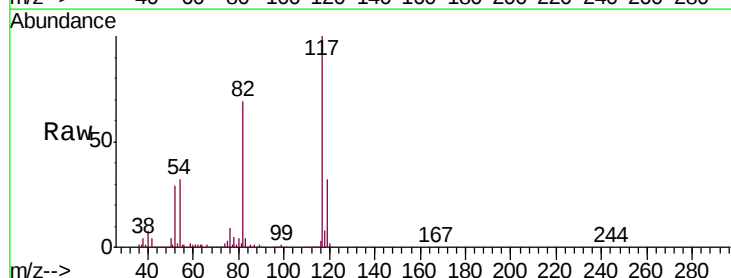
Tgt Ion: 117 Resp: 2231508

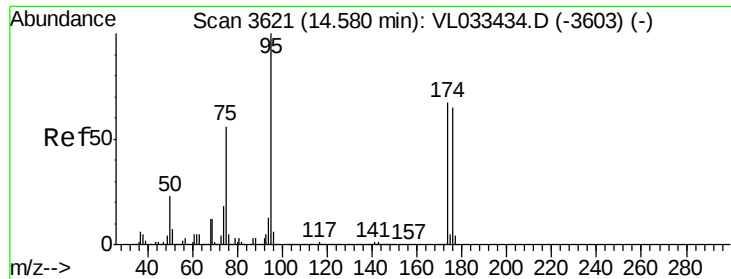
Ion Ratio Lower Upper

117 100

82 67.3 51.5 77.3

119 32.5 25.5 38.3





#68

1-Bromo-4-Fluorobenzene

Concen: 10.146 ppbv

RT: 14.57 min Scan# 3619

Delta R.T. -0.01 min

Lab File: VL033540.D

Acq: 4 Apr 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

A-3

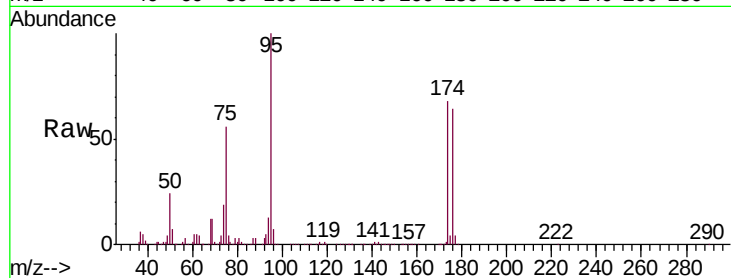
Tgt Ion: 95 Resp: 1774886

Ion Ratio Lower Upper

95 100

174 67.2 52.9 79.3

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

