

Data File : VL033710.D
Acq On : 17 May 2019 10:43
Operator : SY/AP
Sample : K2893-02DL 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SV-02DL

Quant Time: May 17 23:19:29 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL051719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May 17 08:15:41 2019
QLast Update : Fri May 17 08:15:41 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1137973	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2669123	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2750755	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 2269106 10.18 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 101.80%

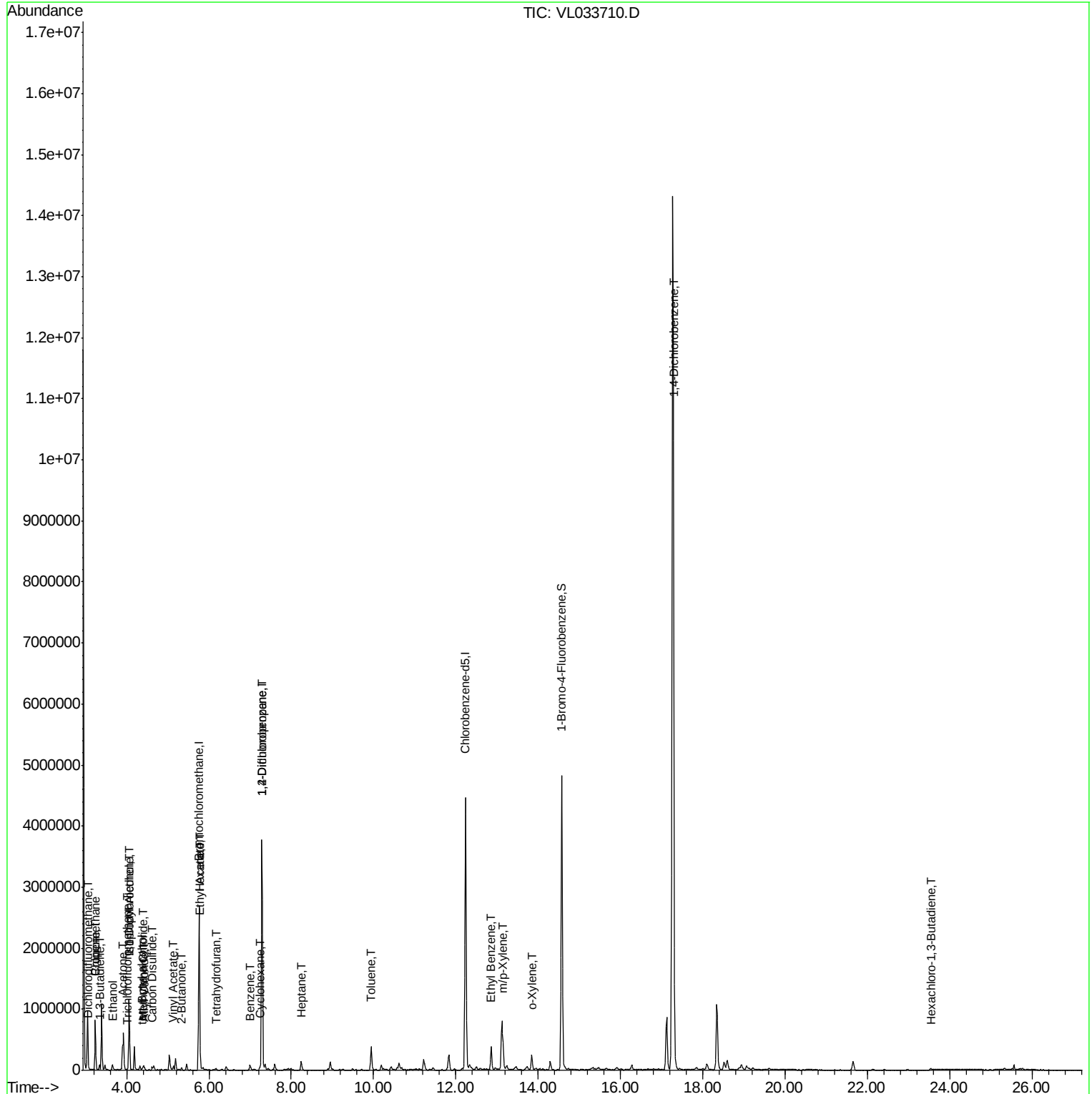
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.08	85	11945	0.050 ppbv	97
4) Chloromethane	3.24	50	5900	0.079 ppbv #	74
9) Propene	3.24	41	215826	3.893 ppbv	95
10) Heptane	8.25	43	48586	0.309 ppbv	98
11) Trichlorofluoromethane	4.00	101	8106	0.035 ppbv	95
13) Ethanol	3.65	45	39652	2.213 ppbv #	21
15) Acetone	3.90	43	611395	3.872 ppbv	90
16) 1,3-Butadiene	3.34	39	22597	0.359 ppbv #	19
17) tert-Butyl alcohol	4.37	59	10320	0.081 ppbv #	72
18) 1,1-Dichloroethene	4.06	96	2022	0.030 ppbv #	1
19) Isopropyl Alcohol	4.06	45	216107	2.123 ppbv #	1
20) Methylene Chloride	4.41	84	21939	0.361 ppbv #	93
21) Allyl Chloride	4.43	41	1210	0.012 ppbv #	1
23) Vinyl Acetate	5.15	43	3241	0.016 ppbv #	1
25) Ethyl Acetate	5.78	43	91344	0.329 ppbv #	91
26) Hexane	5.78	57	96480	0.809 ppbv #	48
27) Carbon Disulfide	4.62	76	57891	0.354 ppbv #	79
30) Cyclohexane	7.25	84	5457	0.054 ppbv #	1
34) 2-Butanone	5.34	43	37350	0.226 ppbv	100
36) Benzene	7.00	78	36175	0.149 ppbv #	91
39) 1,2-Dichloropropane	7.29	63	690480	7.628 ppbv #	24
41) Tetrahydrofuran	6.16	42	15141	0.163 ppbv	96
53) Toluene	9.94	91	290261	1.108 ppbv	98
58) Ethyl Benzene	12.86	91	321849	0.884 ppbv	92
59) m/p-Xylene	13.15	91	180288	0.566 ppbv #	31
60) o-Xylene	13.84	91	185812	0.579 ppbv	98
76) 1,4-Dichlorobenzene	17.30	146	4704	0.021 ppbv #	9
78) Hexachloro-1,3-Butadiene	23.53	225	2066	0.012 ppbv #	19

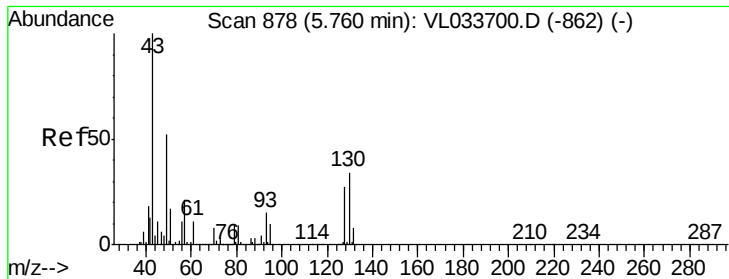
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ALS Vial : 1 Sample Multiplier: 1

SV-02DL

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033710.D

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SV-02DL

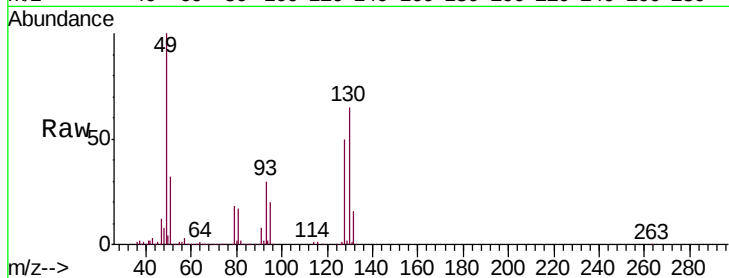
Tgt Ion: 49 Resp: 1137973

Ion Ratio Lower Upper

49 100

128 50.0 25.2 75.6

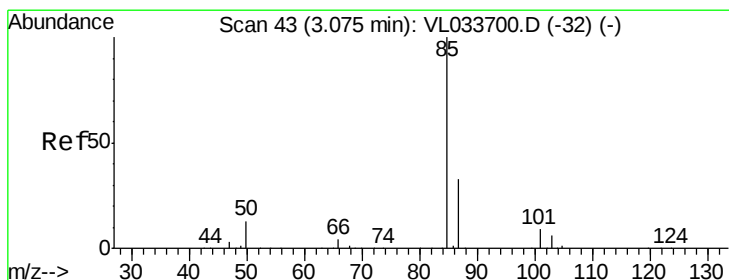
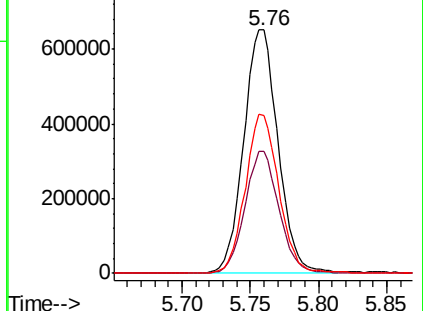
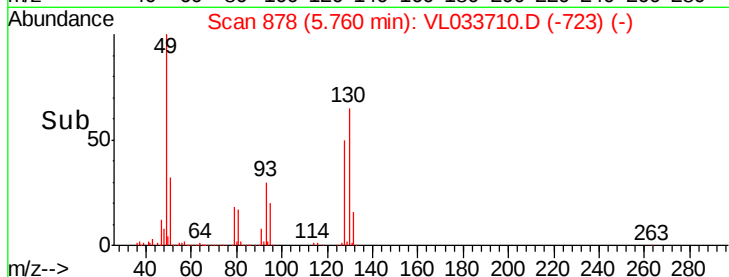
130 64.2 32.5 97.5



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: 0.050 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033710.D

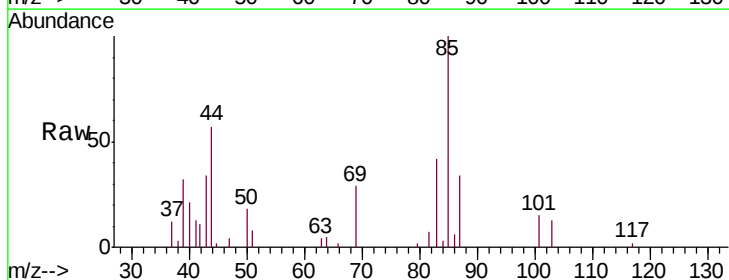
Acq: 17 May 2019 10:43

Tgt Ion: 85 Resp: 11945

Ion Ratio Lower Upper

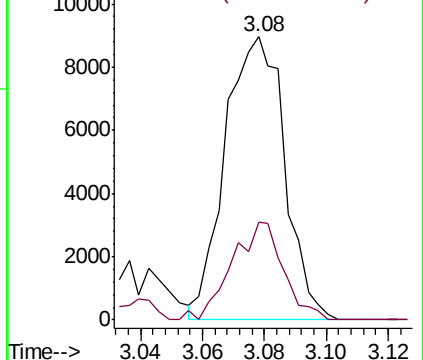
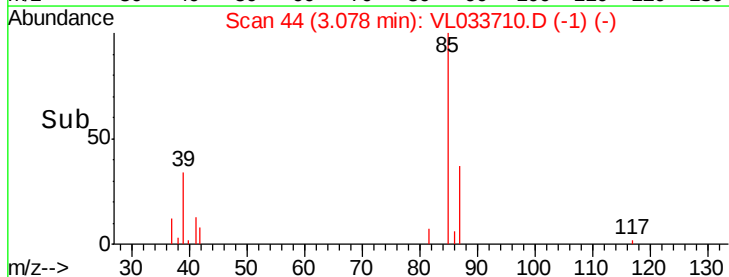
85 100

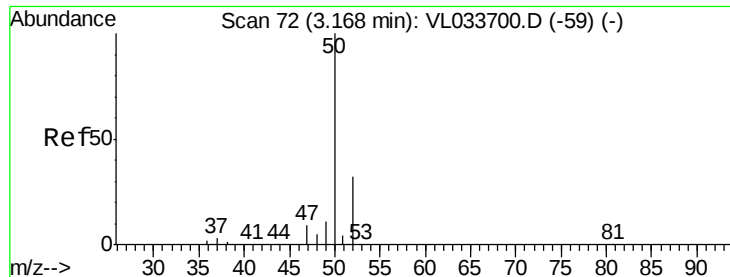
87 34.3 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.079 ppbv

RT: 3.24 min Scan# 93

Delta R.T. 0.07 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleId :

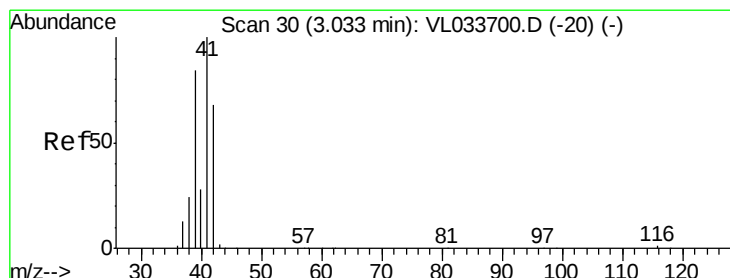
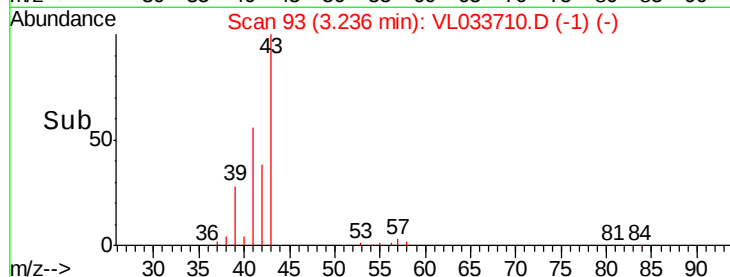
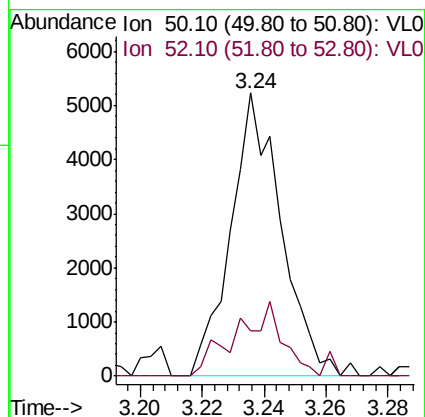
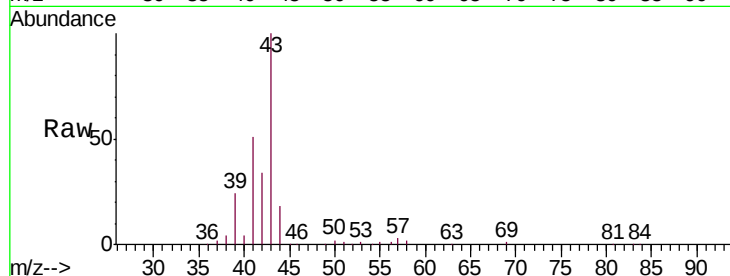
SV-02DL

Tgt Ion: 50 Resp: 5900

Ion Ratio Lower Upper

50 100

52 17.6 25.7 38.5#



#9

Propene

Concen: 3.893 ppbv

RT: 3.24 min Scan# 94

Delta R.T. 0.21 min

Lab File: VL033710.D

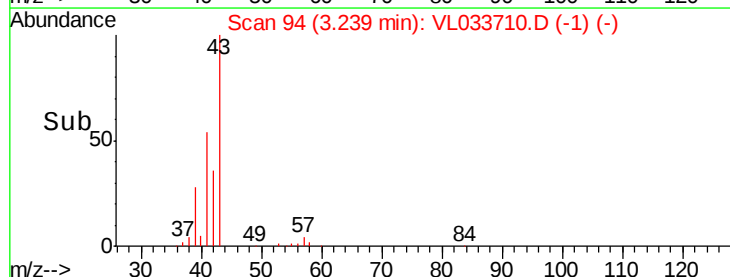
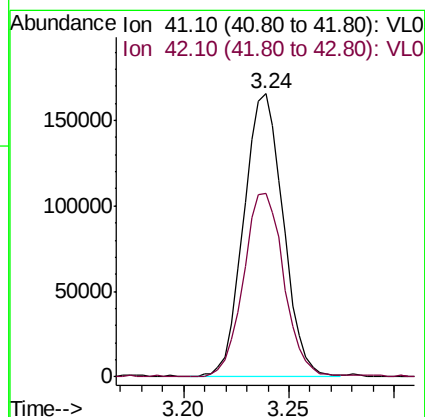
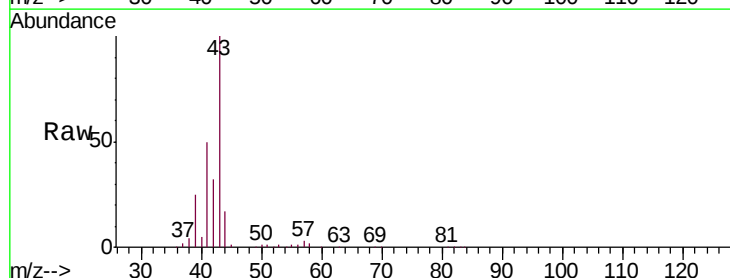
Acq: 17 May 2019 10:43

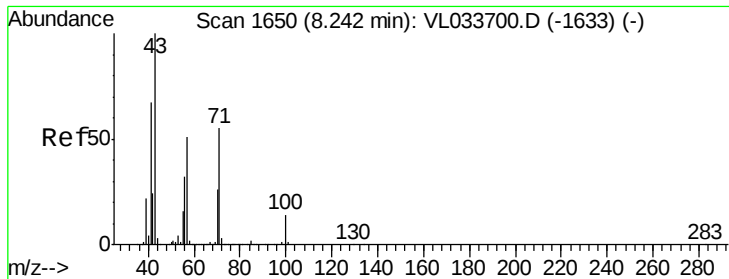
Tgt Ion: 41 Resp: 215826

Ion Ratio Lower Upper

41 100

42 65.8 56.1 84.1

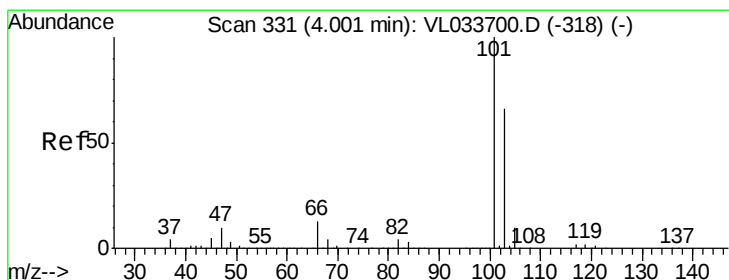
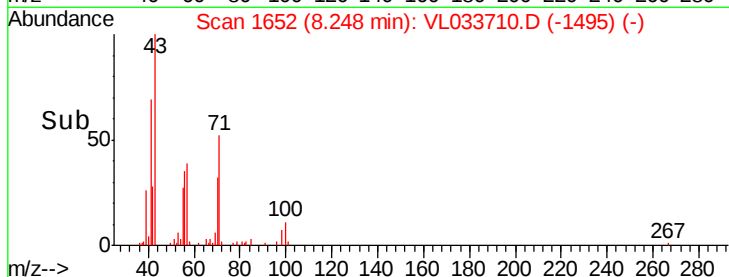
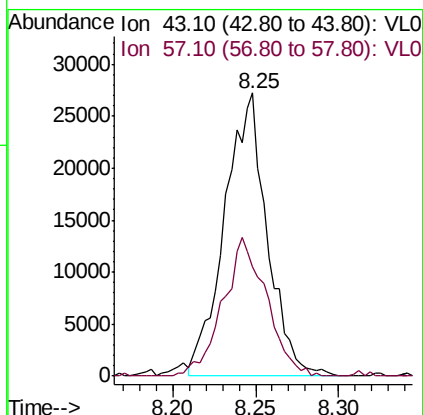
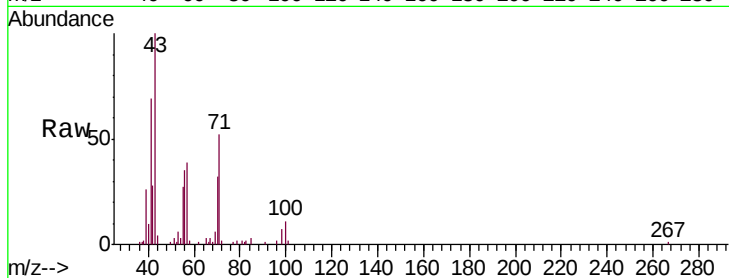




#10
 Heptane
 Concen: 0.309 ppbv
 RT: 8.25 min Scan# 1652
 Delta R.T. 0.01 min
 Lab File: VL033710.D
 Acq: 17 May 2019 10:43

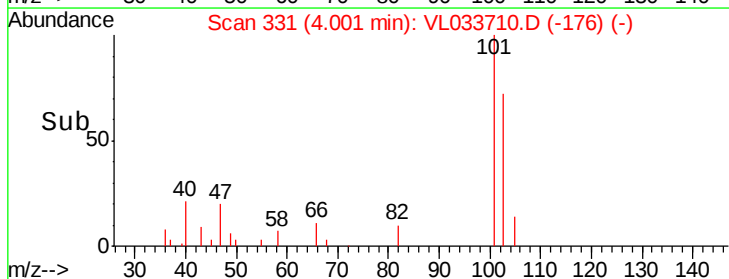
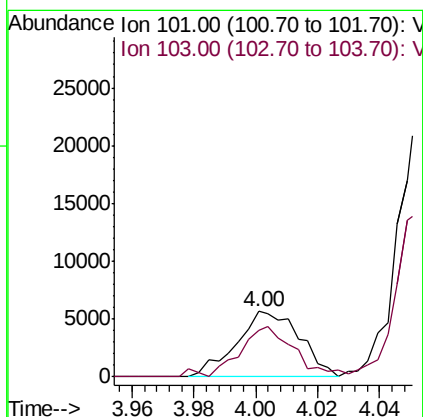
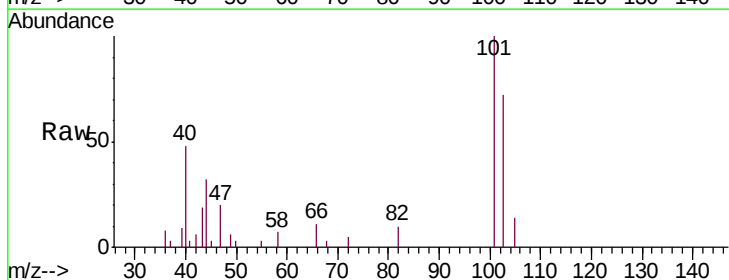
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-02DL

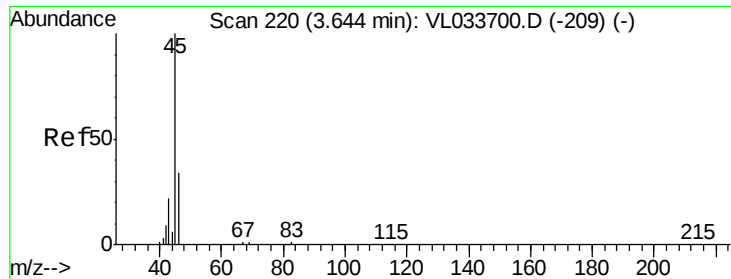
Tgt Ion: 43 Resp: 48586
 Ion Ratio Lower Upper
 43 100
 57 50.1 41.4 62.0



#11
 Trichlorofluoromethane
 Concen: 0.035 ppbv
 RT: 4.00 min Scan# 331
 Delta R.T. -0.00 min
 Lab File: VL033710.D
 Acq: 17 May 2019 10:43

Tgt Ion: 101 Resp: 8106
 Ion Ratio Lower Upper
 101 100
 103 61.9 52.6 78.8





#13

Ethanol

Concen: 2.213 ppbv

RT: 3.65 min Scan# 222

Delta R.T. 0.01 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleID :

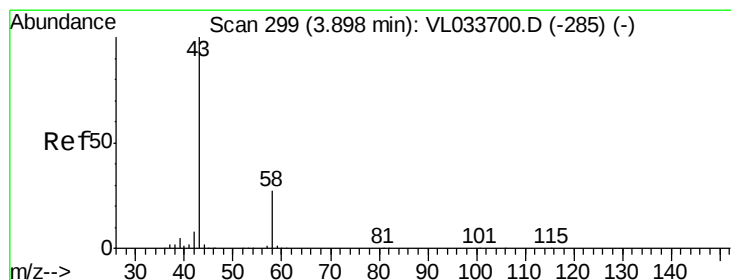
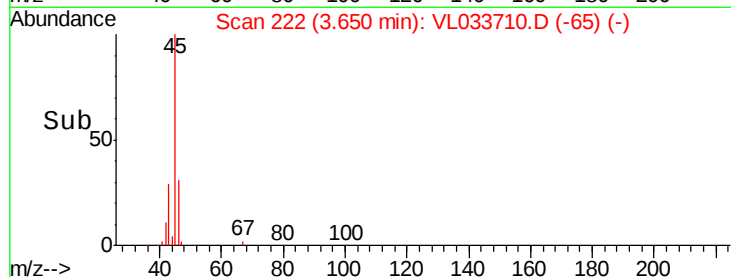
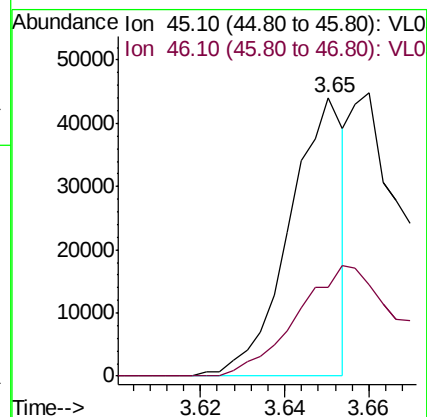
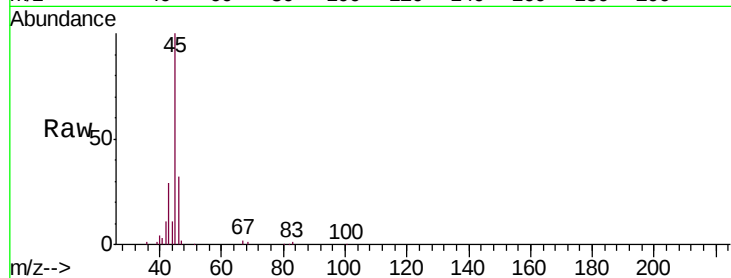
SV-02DL

Tgt Ion: 45 Resp: 39652

Ion Ratio Lower Upper

45 100

46 83.7 14.8 59.0#



#15

Acetone

Concen: 3.872 ppbv

RT: 3.90 min Scan# 300

Delta R.T. 0.00 min

Lab File: VL033710.D

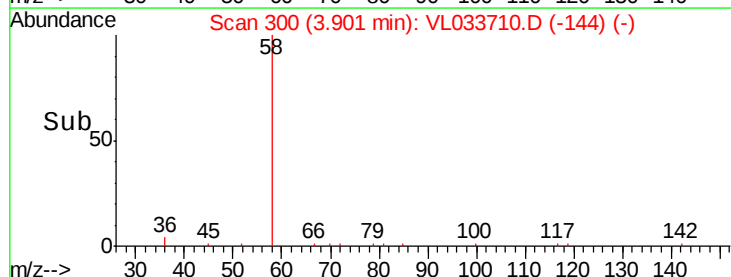
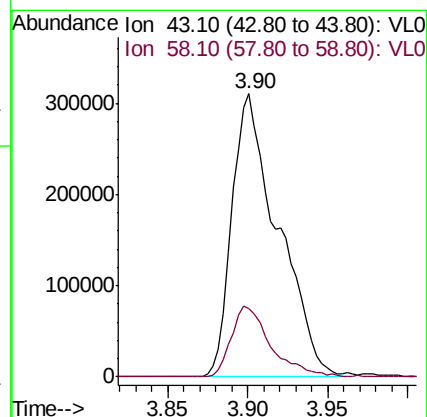
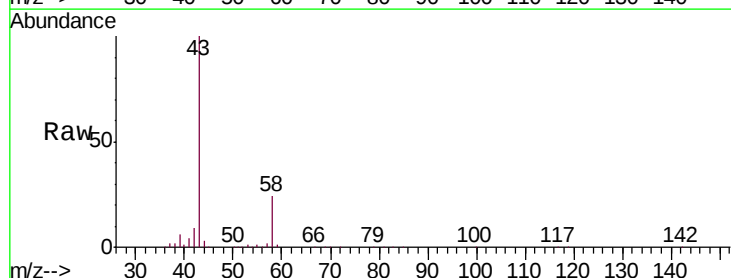
Acq: 17 May 2019 10:43

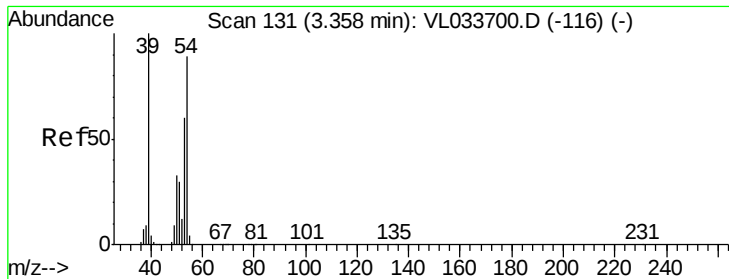
Tgt Ion: 43 Resp: 611395

Ion Ratio Lower Upper

43 100

58 21.6 21.3 31.9

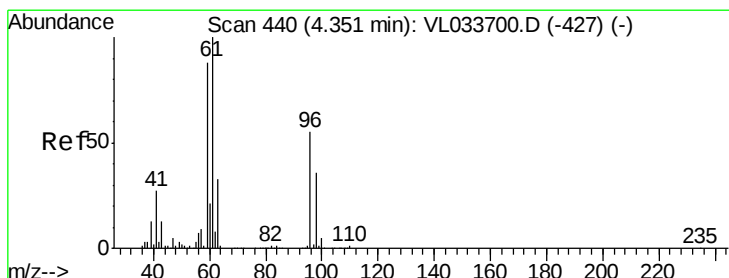
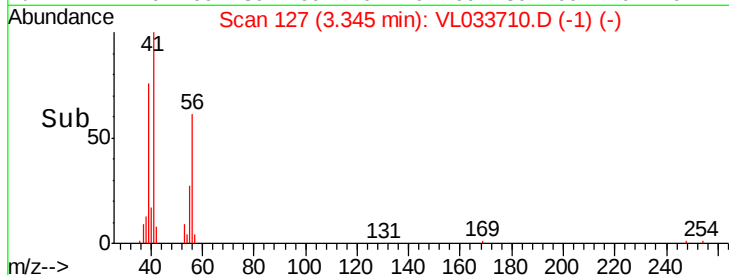
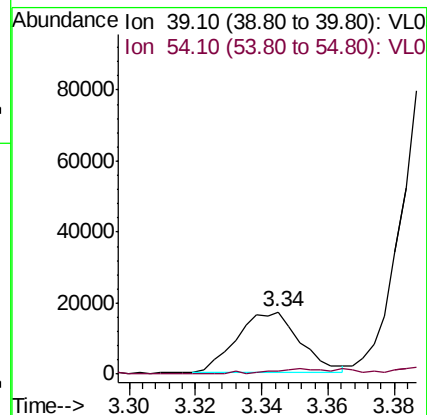
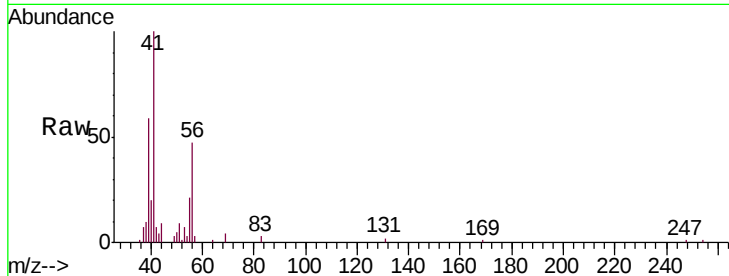




#16
 1,3-Butadiene
 Concen: 0.359 ppbv
 RT: 3.34 min Scan# 127
 Delta R.T. -0.01 min
 Lab File: VL033710.D
 Acq: 17 May 2019 10:43

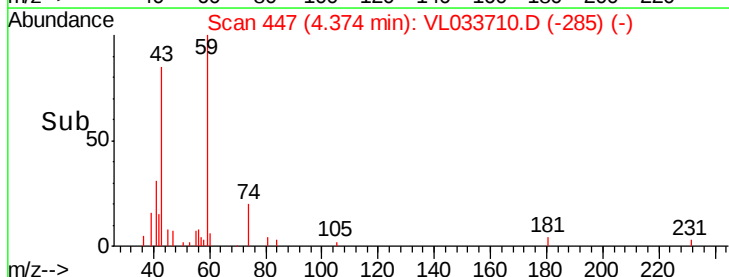
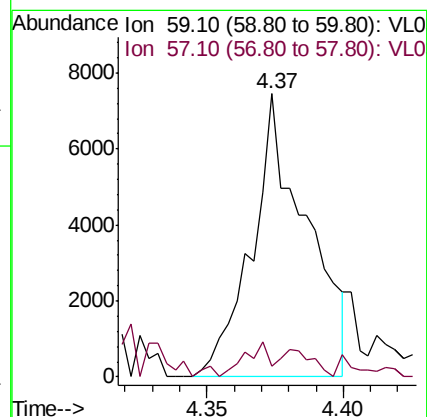
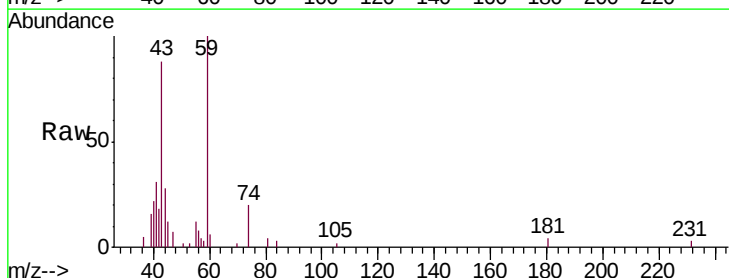
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-02DL

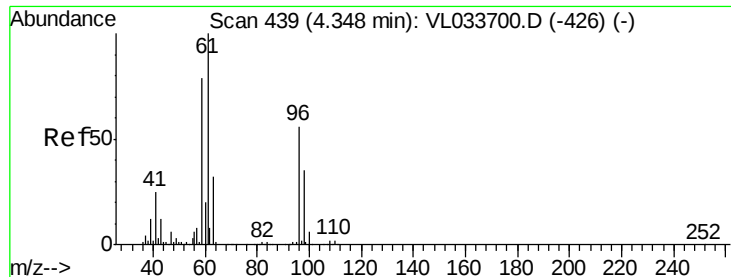
Tgt Ion: 39 Resp: 22597
 Ion Ratio Lower Upper
 39 100
 54 11.7 69.0 103.6#



#17
 tert-Butyl alcohol
 Concen: 0.081 ppbv
 RT: 4.37 min Scan# 447
 Delta R.T. 0.02 min
 Lab File: VL033710.D
 Acq: 17 May 2019 10:43

Tgt Ion: 59 Resp: 10320
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.4 12.6#





#18

1,1-Dichloroethene

Concen: 0.030 ppbv

RT: 4.06 min Scan# 349

Delta R.T. -0.29 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleID :

SV-02DL

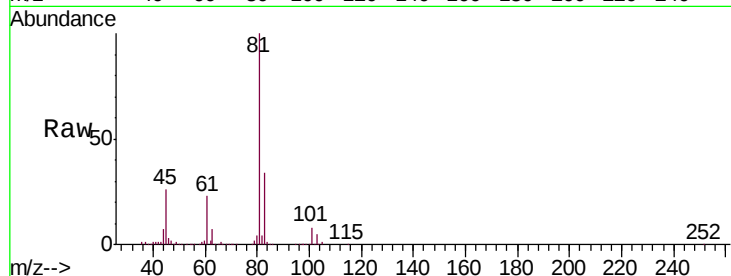
Tgt Ion: 96 Resp: 2022

Ion Ratio Lower Upper

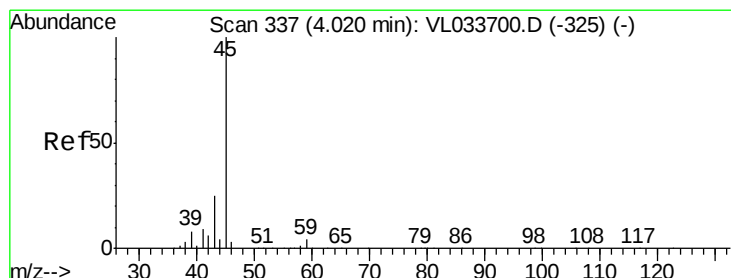
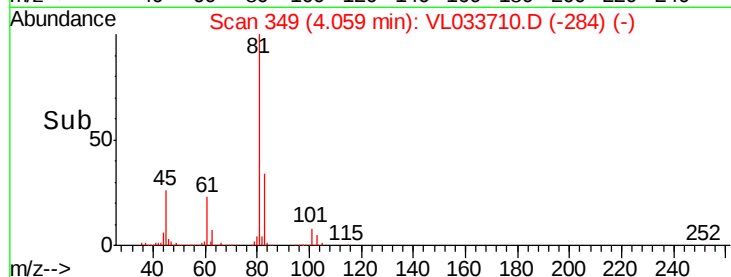
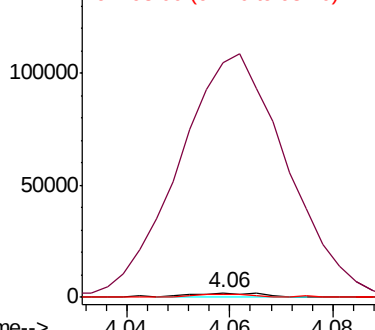
96 100

61 4087.6 143.1 214.7#

98 47.8 49.5 74.3#



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



#19

Isopropyl Alcohol

Concen: 2.123 ppbv

RT: 4.06 min Scan# 350

Delta R.T. 0.04 min

Lab File: VL033710.D

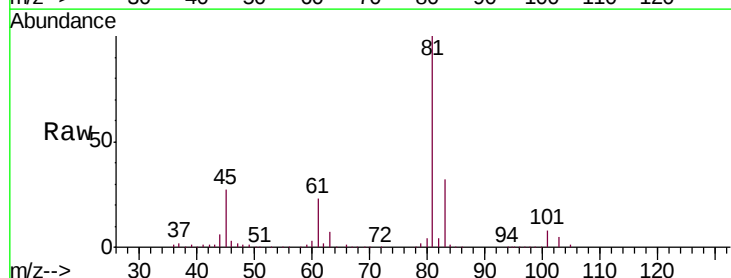
Acq: 17 May 2019 10:43

Tgt Ion: 45 Resp: 216107

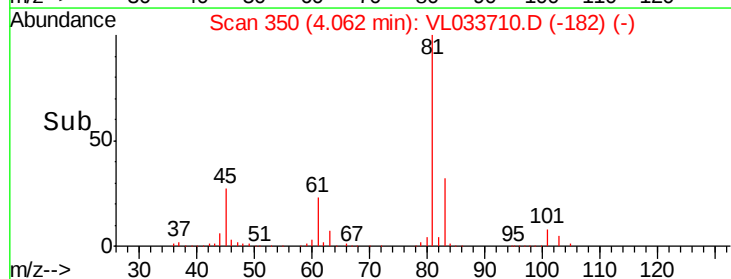
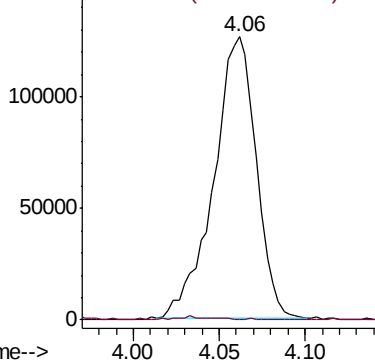
Ion Ratio Lower Upper

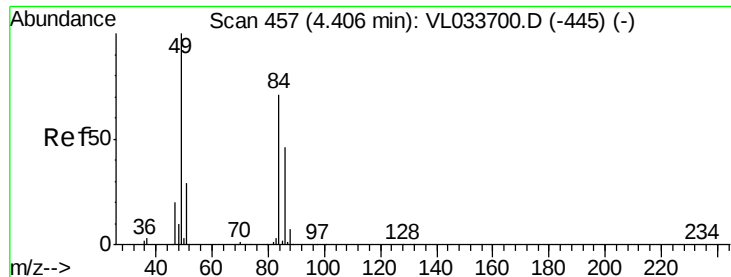
45 100

58 61.3 1.6 2.4#



Abundance Ion 45.10 (44.80 to 45.80): VL0
Ion 58.10 (57.80 to 58.80): VL0

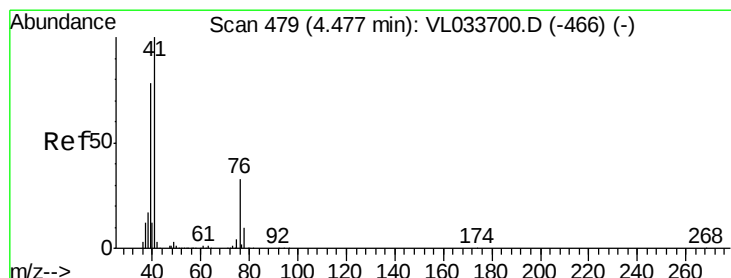
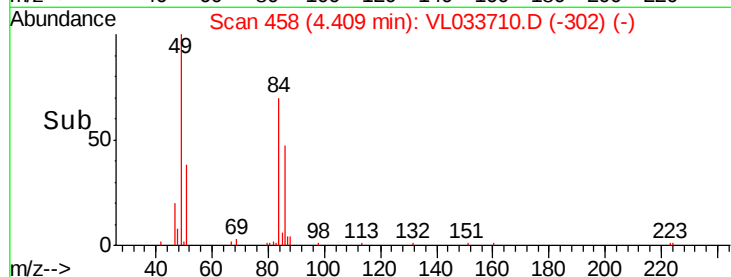
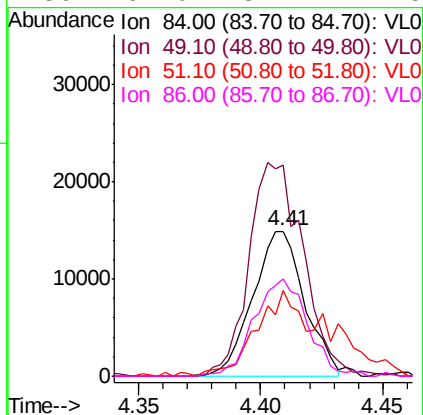
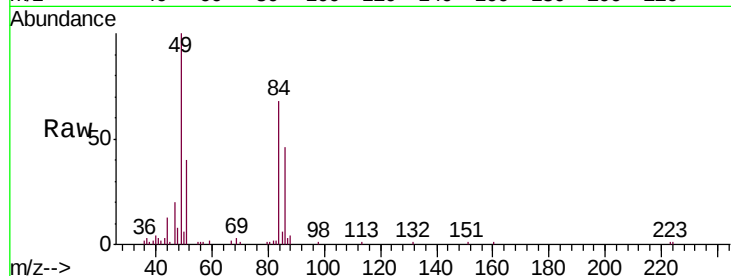




#20
Methylene Chloride
Concen: 0.361 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.00 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

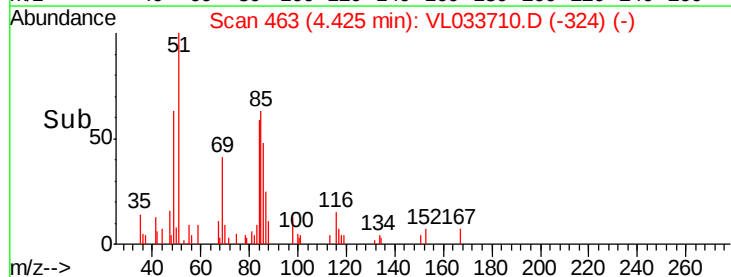
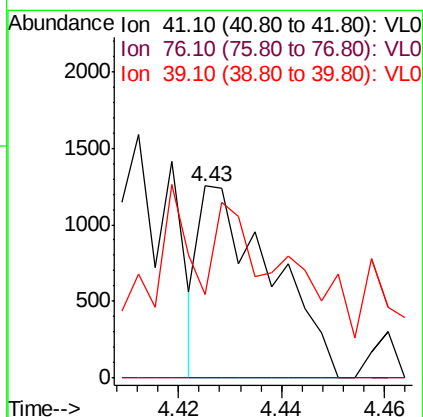
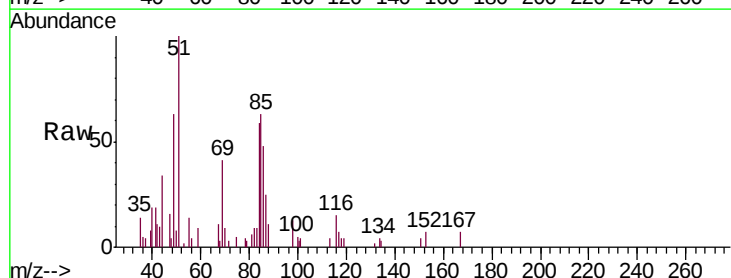
Instrument :
MSVOA_L
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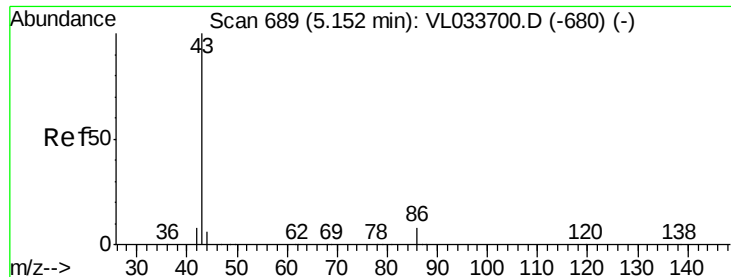
Tgt Ion: 84 Resp: 21939
Ion Ratio Lower Upper
84 100
49 146.0 112.8 169.2
51 57.3 33.4 50.0#
86 67.0 51.7 77.5



#21
Allyl Chloride
Concen: 0.012 ppbv
RT: 4.43 min Scan# 463
Delta R.T. -0.05 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

Tgt Ion: 41 Resp: 1210
Ion Ratio Lower Upper
41 100
76 0.0 25.9 38.9#
39 245.6 64.6 97.0#





#23

Vinyl Acetate

Concen: 0.016 ppbv

RT: 5.15 min Scan# 689

Delta R.T. -0.00 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleId :

SV-02DL

Tgt Ion: 43 Resp: 3241

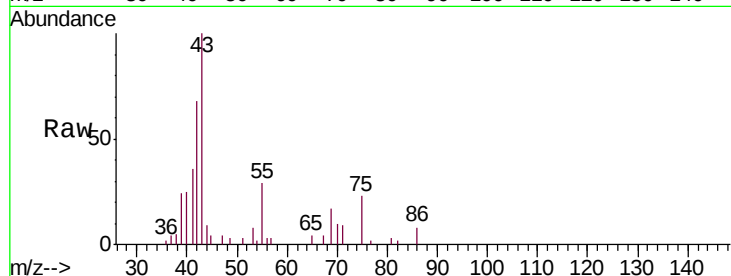
Ion Ratio Lower Upper

43 100

86 7.4 6.0 9.0

42 135.2 7.5 11.3#

44 0.0 4.4 6.6#

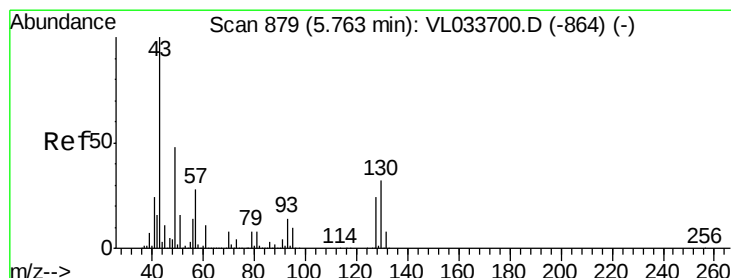
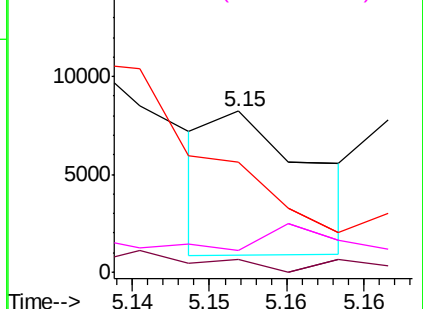
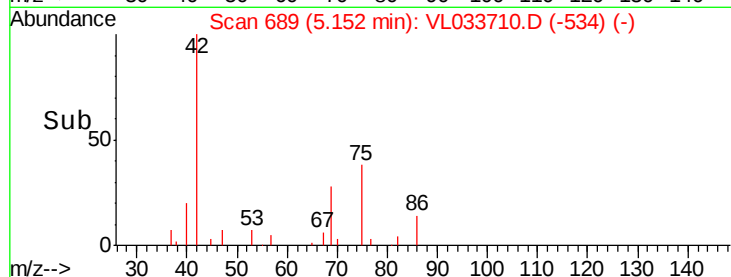


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.329 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.02 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Tgt Ion: 43 Resp: 91344

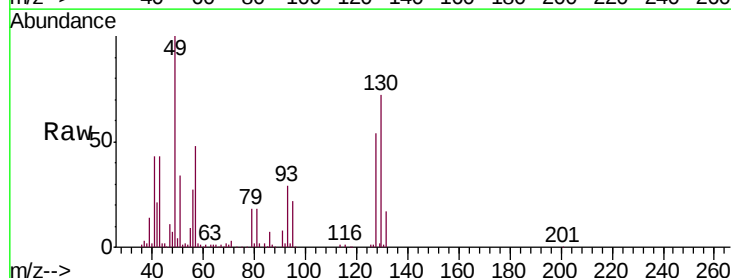
Ion Ratio Lower Upper

43 100

45 11.1 7.9 11.9

61 4.0 7.7 11.5#

70 3.8 5.8 8.6#

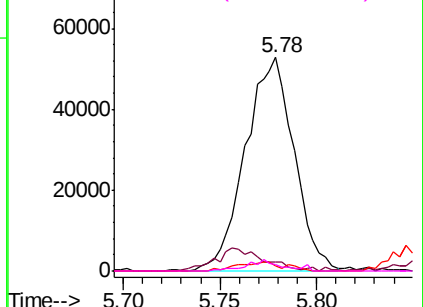
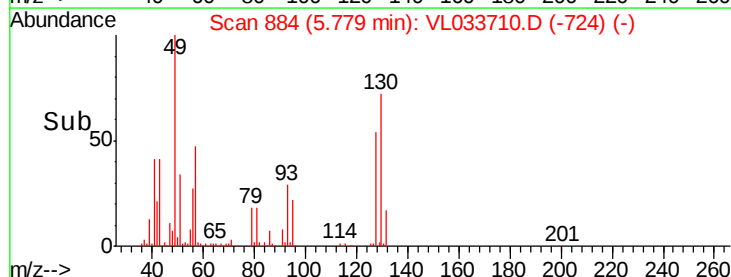


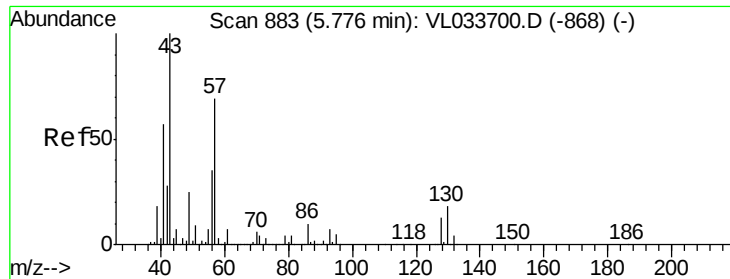
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

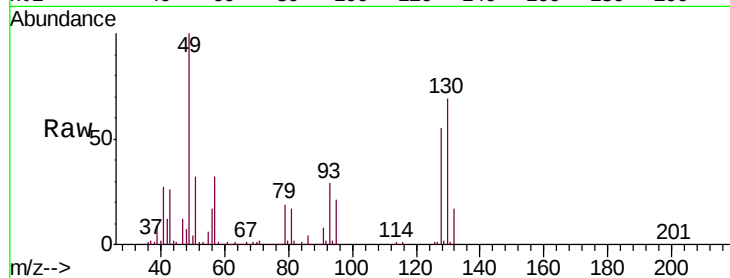




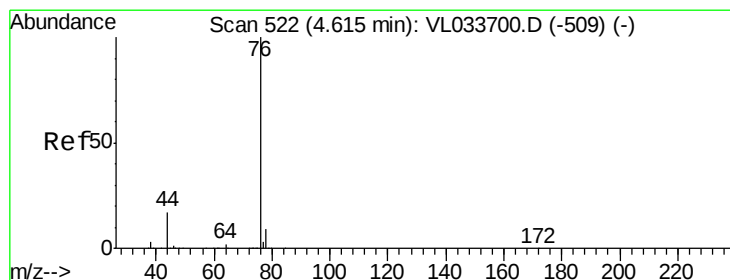
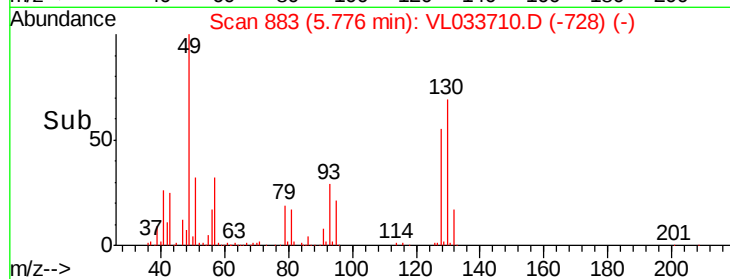
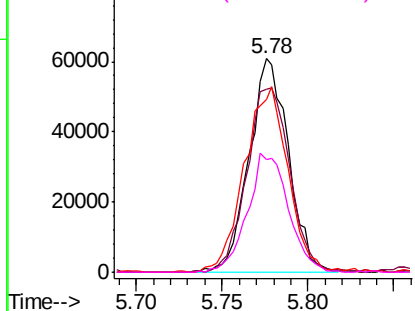
#26
Hexane
Concen: 0.809 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.00 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

Instrument :
MSVOA_L
ClientSampleId :
SV-02DL

Tgt Ion: 57 Resp: 96480
Ion Ratio Lower Upper
57 100
41 94.5 69.8 104.6
43 97.8 181.8 272.6#
56 57.6 42.1 63.1

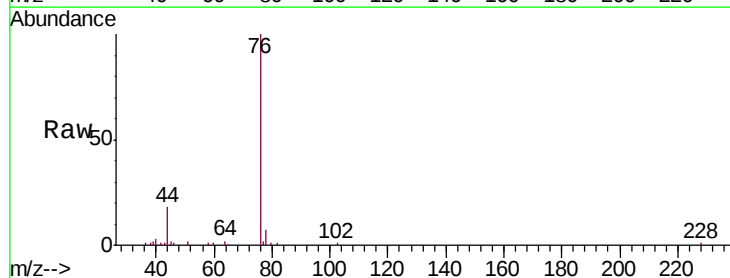


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

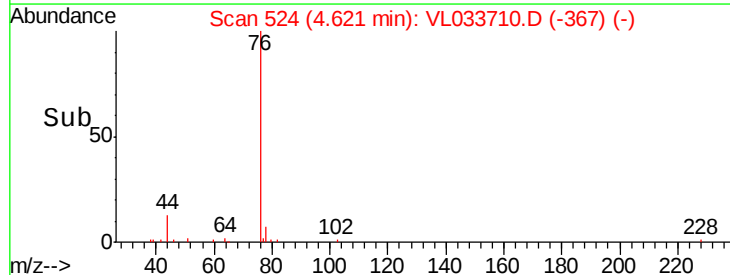
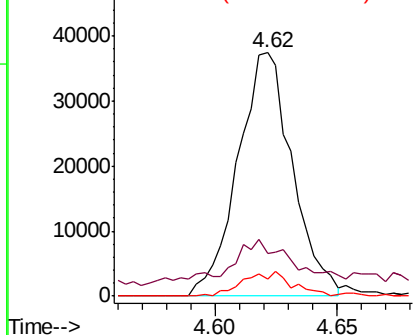


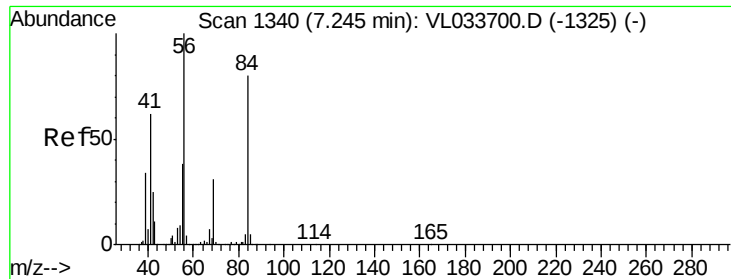
#27
Carbon Disulfide
Concen: 0.354 ppbv
RT: 4.62 min Scan# 524
Delta R.T. 0.01 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

Tgt Ion: 76 Resp: 57891
Ion Ratio Lower Upper
76 100
44 31.1 13.8 20.8#
78 9.6 7.4 11.0



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

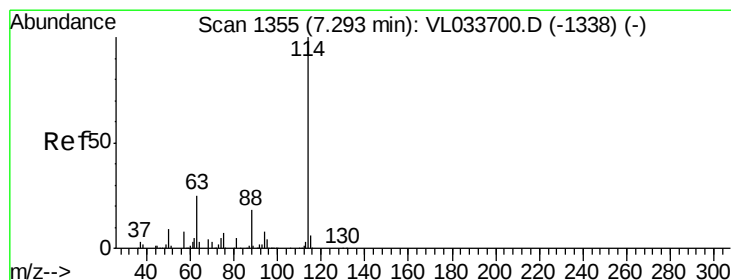
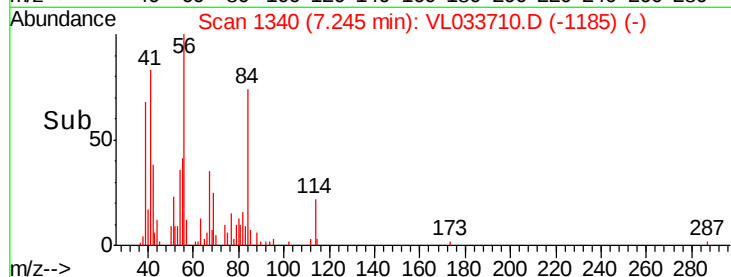
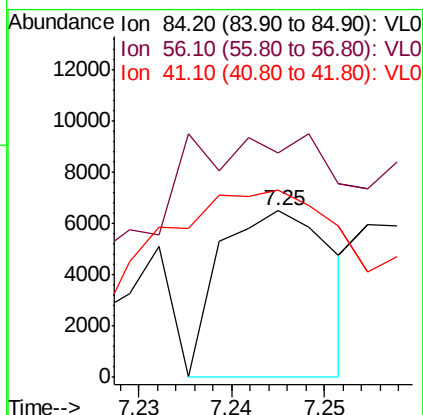
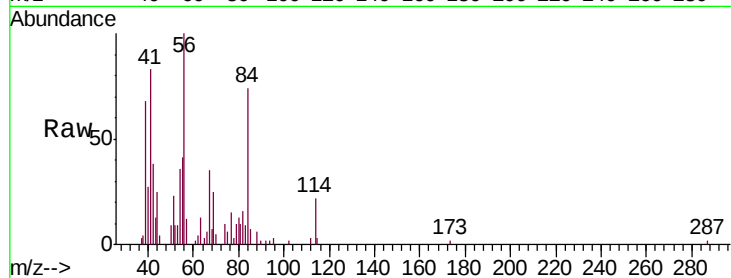




#30
Cyclohexane
Concen: 0.054 ppbv
RT: 7.25 min Scan# 1340
Delta R.T. -0.00 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

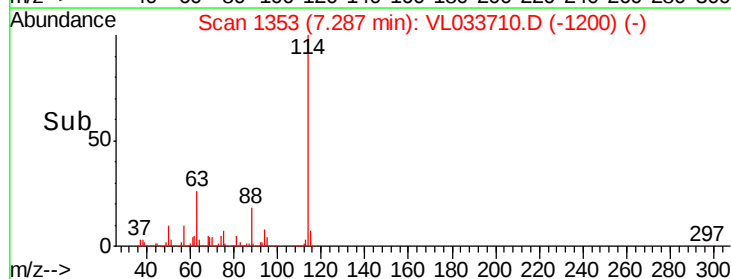
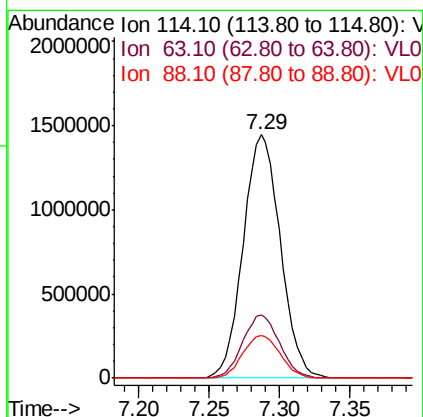
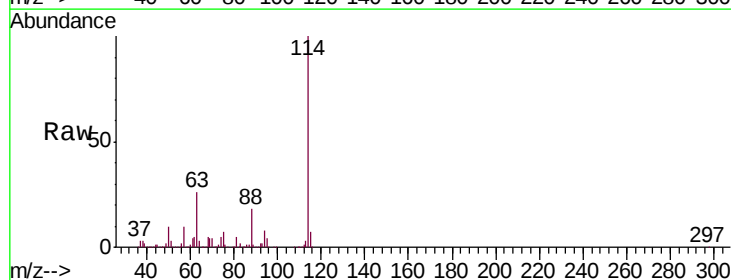
Instrument :
MSVOA_L
ClientSampleId :
SV-02DL

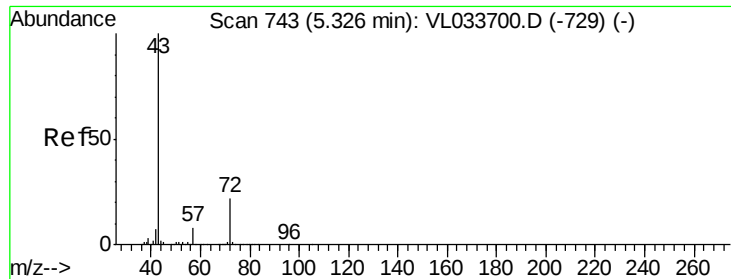
Tgt Ion: 84 Resp: 5457
Ion Ratio Lower Upper
84 100
56 0.0 107.7 161.5#
41 309.6 66.0 99.0#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1353
Delta R.T. -0.01 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

Tgt Ion: 114 Resp: 2669123
Ion Ratio Lower Upper
114 100
63 26.0 20.9 31.3
88 17.8 14.3 21.5





#34

2-Butanone

Concen: 0.226 ppbv

RT: 5.34 min Scan# 746

Delta R.T. 0.01 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleId :

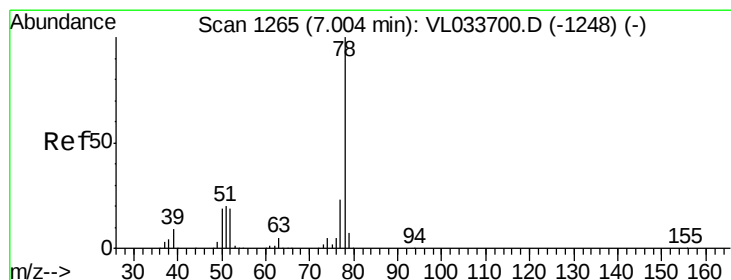
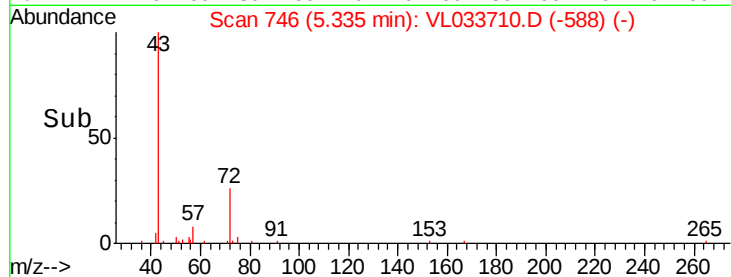
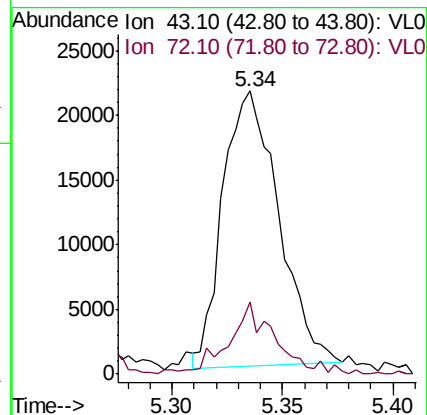
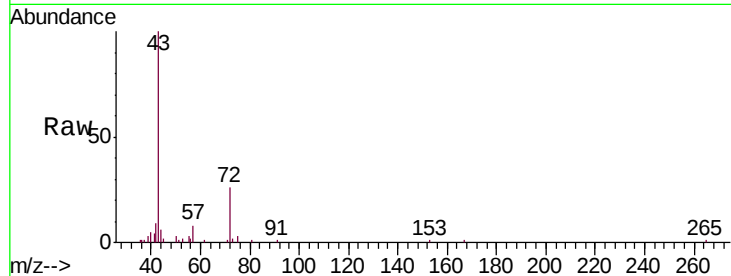
SV-02DL

Tgt Ion: 43 Resp: 37350

Ion Ratio Lower Upper

43 100

72 22.4 17.8 26.6



#36

Benzene

Concen: 0.149 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

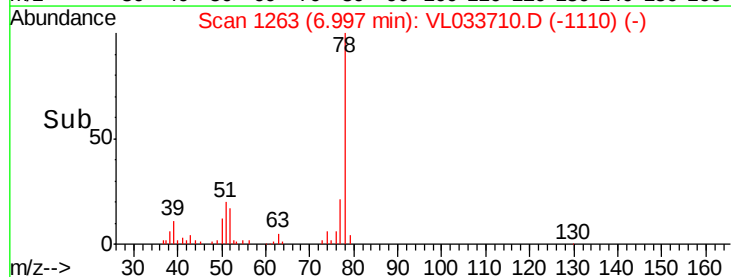
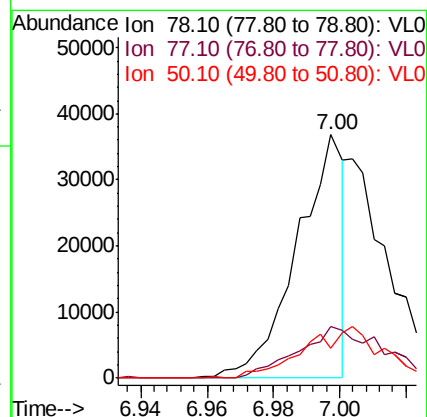
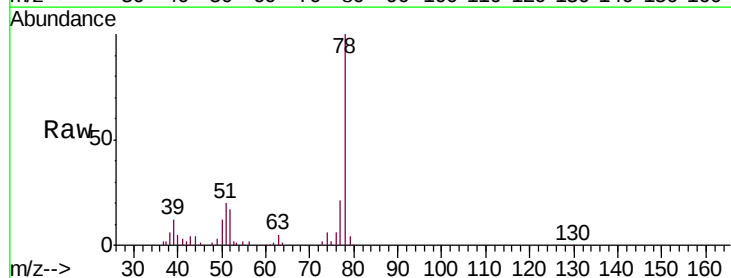
Tgt Ion: 78 Resp: 36175

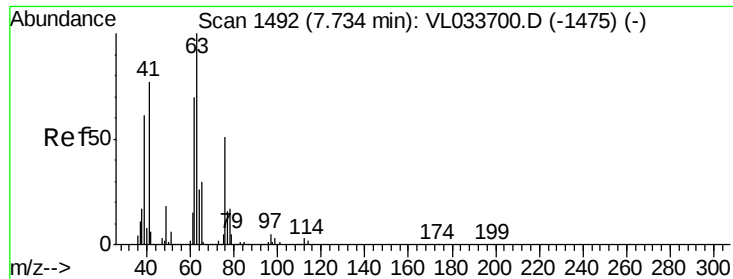
Ion Ratio Lower Upper

78 100

77 21.0 18.4 27.6

50 12.5 15.5 23.3#





#39

1,2-Dichloropropane

Concen: 7.628 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.45 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleId :

SV-02DL

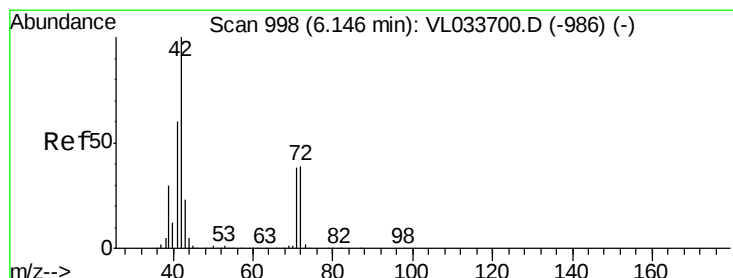
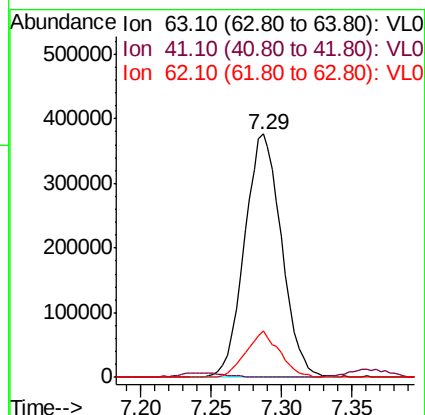
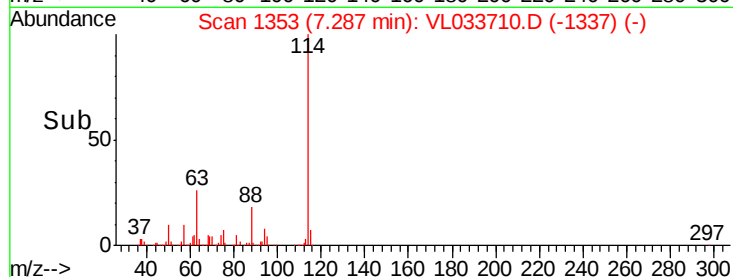
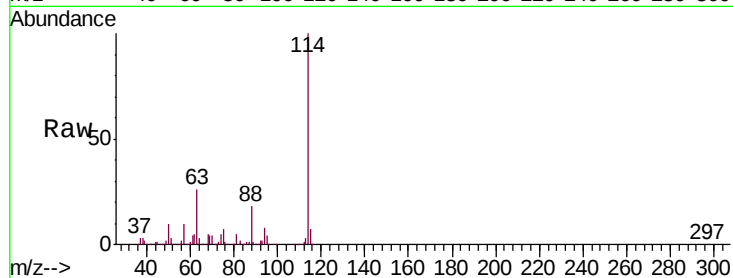
Tgt Ion: 63 Resp: 690480

Ion Ratio Lower Upper

63 100

41 0.0 61.5 92.3#

62 18.9 56.2 84.4#



#41

Tetrahydrofuran

Concen: 0.163 ppbv

RT: 6.16 min Scan# 1003

Delta R.T. 0.02 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

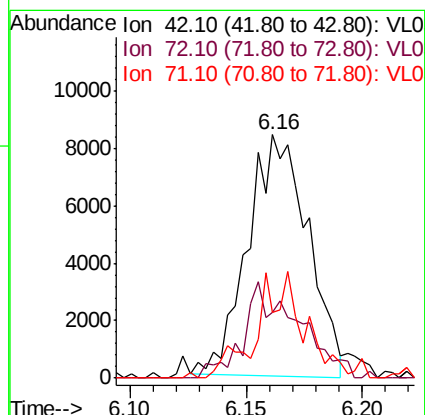
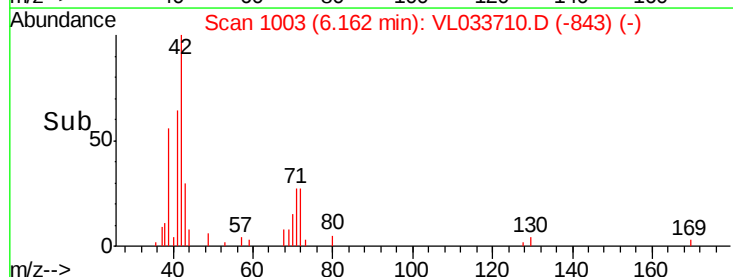
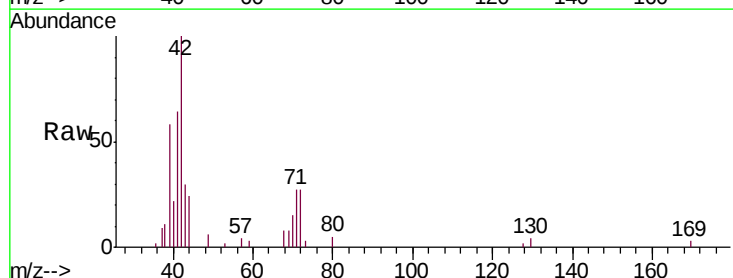
Tgt Ion: 42 Resp: 15141

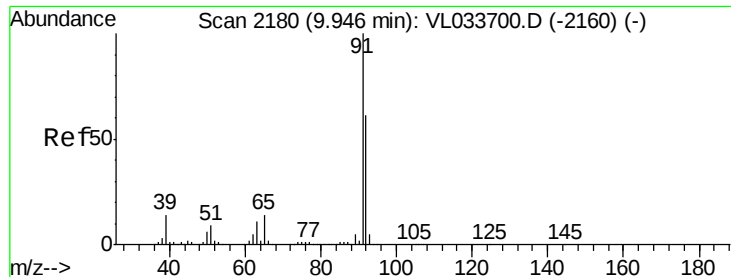
Ion Ratio Lower Upper

42 100

72 37.0 32.0 48.0

71 36.2 30.4 45.6





#53

Toluene

Concen: 1.108 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleId :

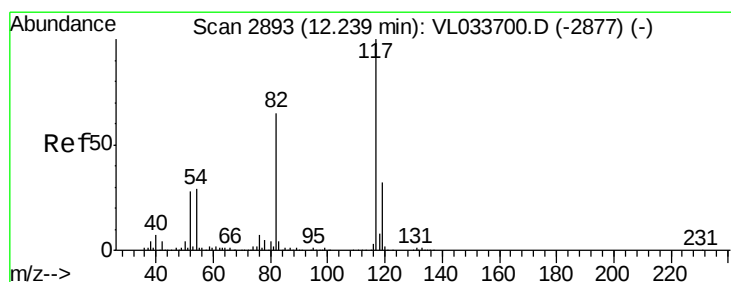
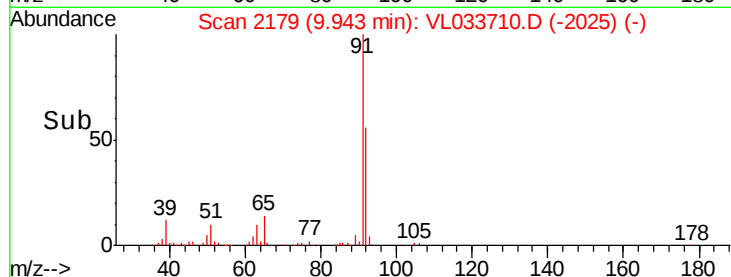
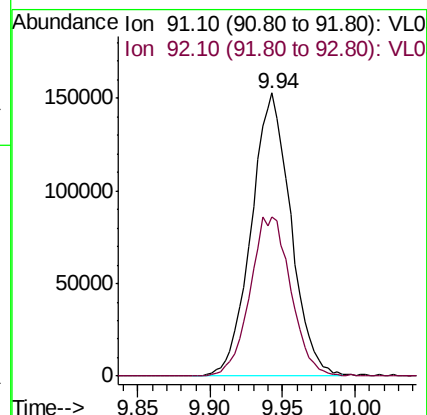
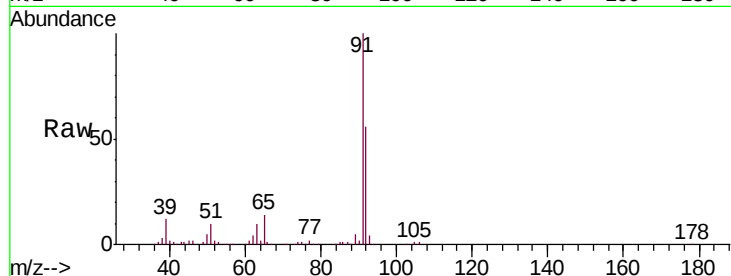
SV-02DL

Tgt Ion: 91 Resp: 290261

Ion Ratio Lower Upper

91 100

92 58.2 47.6 71.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. -0.00 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

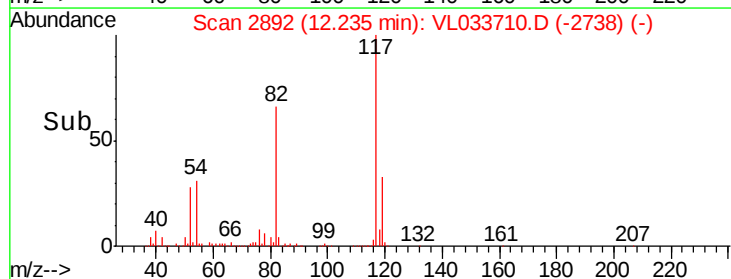
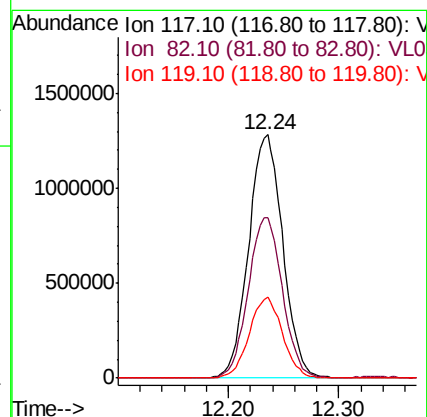
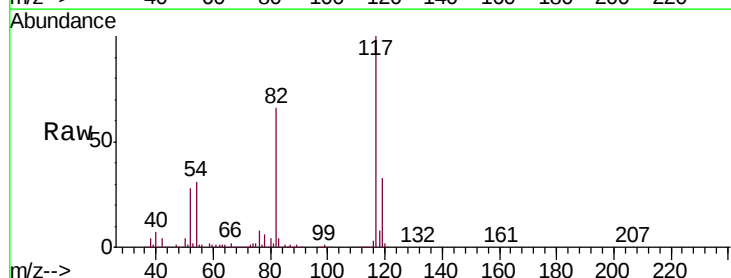
Tgt Ion: 117 Resp: 2750755

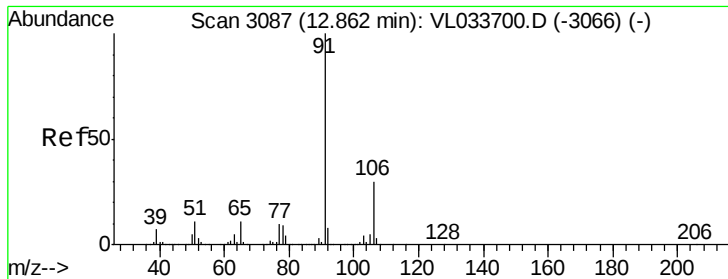
Ion Ratio Lower Upper

117 100

82 66.1 49.4 74.0

119 32.5 24.9 37.3





#58

Ethyl Benzene

Concen: 0.884 ppbv

RT: 12.86 min Scan# 3086

Delta R.T. -0.00 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleId :

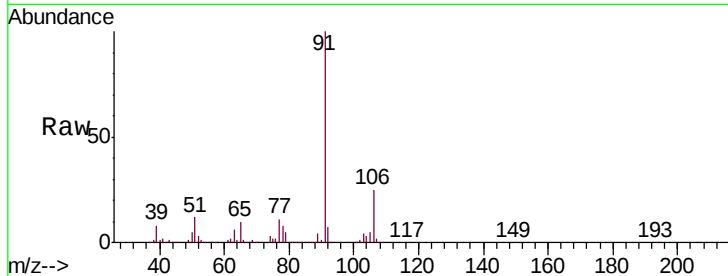
SV-02DL

Tgt Ion: 91 Resp: 321849

Ion Ratio Lower Upper

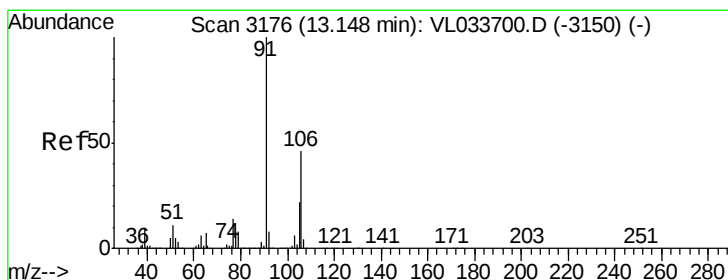
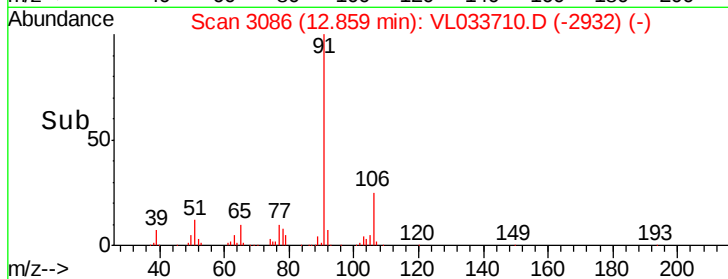
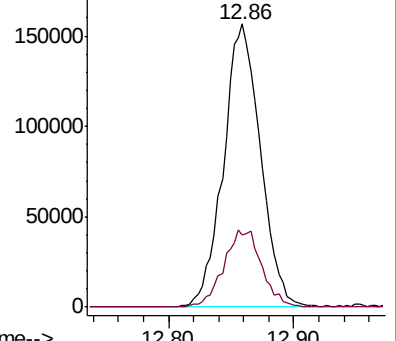
91 100

106 25.4 23.9 35.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.566 ppbv

RT: 13.15 min Scan# 3175

Delta R.T. -0.00 min

Lab File: VL033710.D

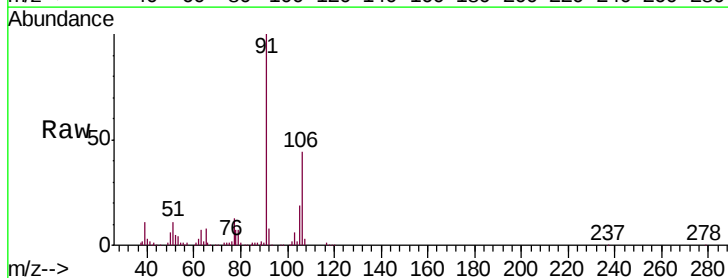
Acq: 17 May 2019 10:43

Tgt Ion: 91 Resp: 180288

Ion Ratio Lower Upper

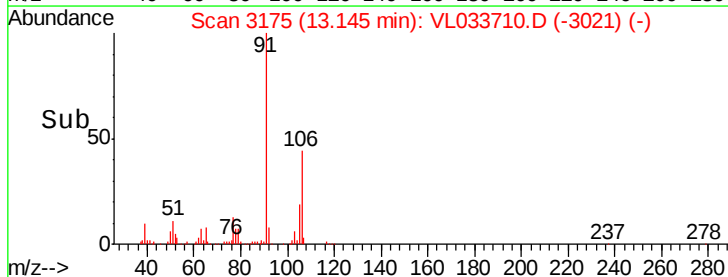
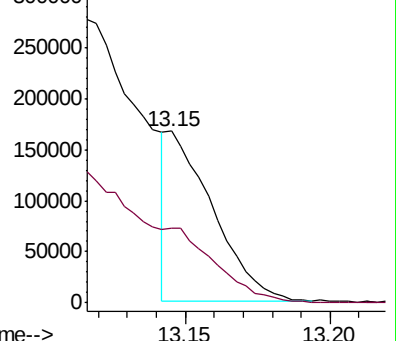
91 100

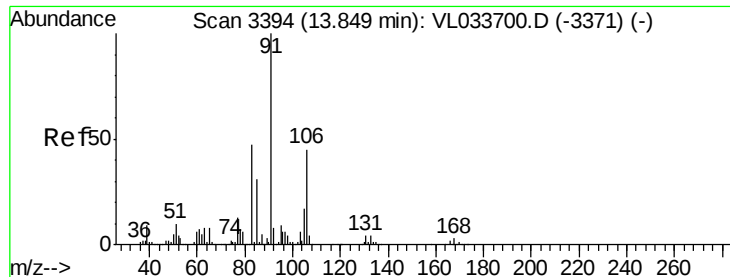
106 0.0 35.8 53.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

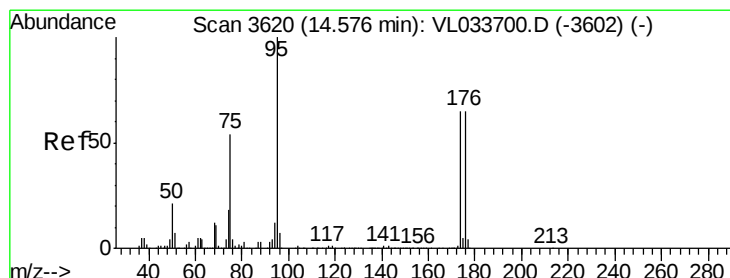
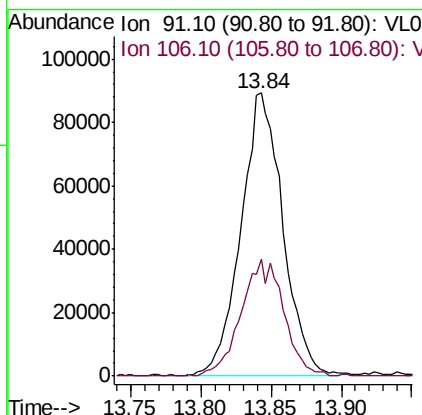
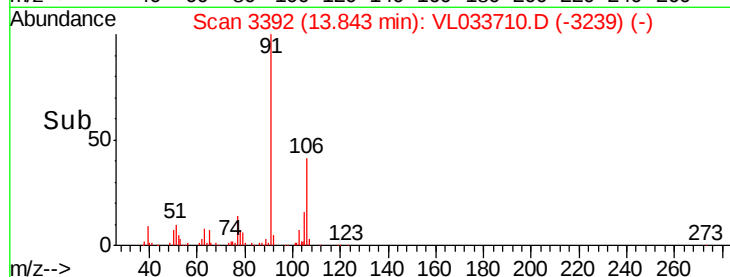
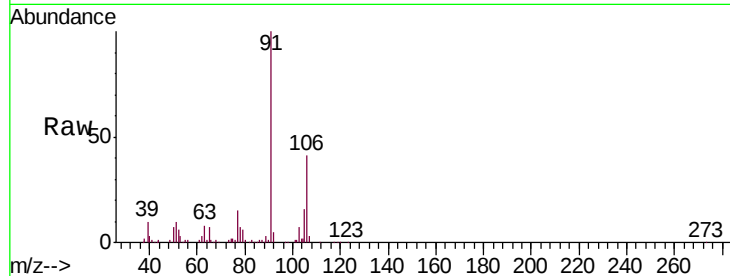




#60
o-Xylene
Concen: 0.579 ppbv
RT: 13.84 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

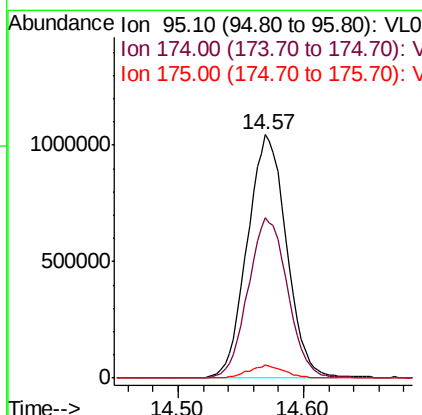
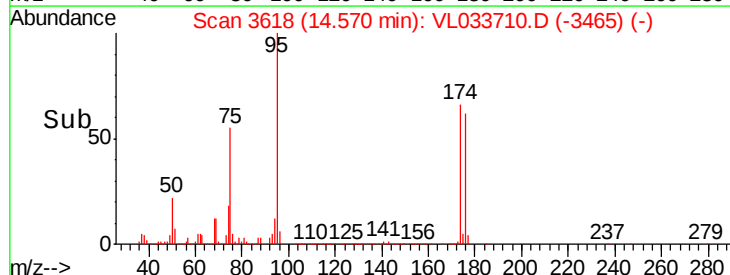
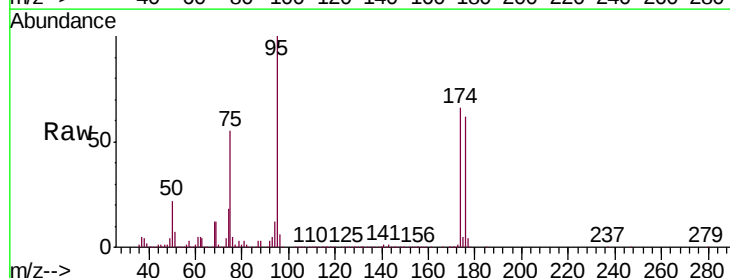
Instrument :
MSVOA_L
ClientSampleId :
SV-02DL

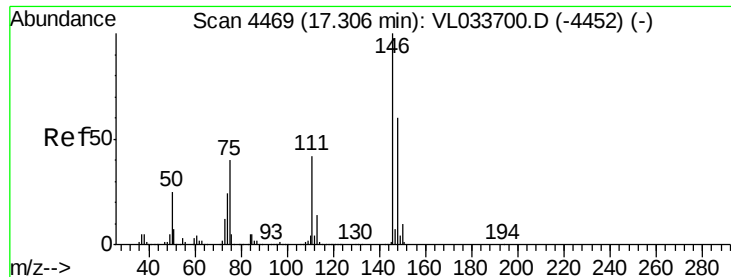
Tgt Ion: 91 Resp: 185812
Ion Ratio Lower Upper
91 100
106 42.2 21.6 64.8



#68
1-Bromo-4-Fluorobenzene
Concen: 10.175 ppbv
RT: 14.57 min Scan# 3618
Delta R.T. -0.01 min
Lab File: VL033710.D
Acq: 17 May 2019 10:43

Tgt Ion: 95 Resp: 2269106
Ion Ratio Lower Upper
95 100
174 66.9 53.9 80.9
175 4.8 3.8 5.8





#76

1,4-Dichlorobenzene

Concen: 0.021 ppbv

RT: 17.30 min Scan# 4466

Delta R.T. -0.01 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Instrument :

MSVOA_L

ClientSampleId :

SV-02DL

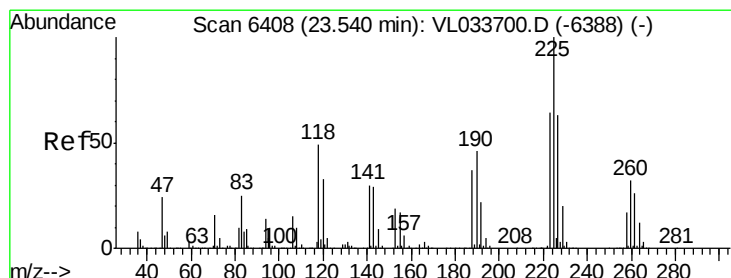
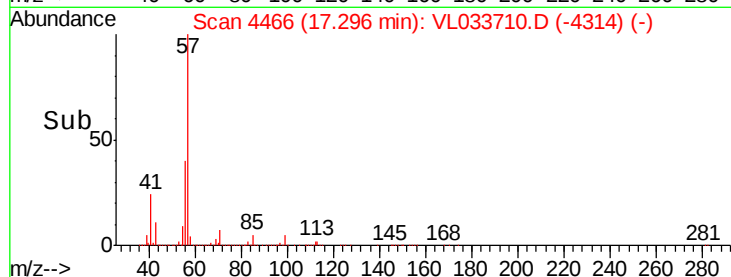
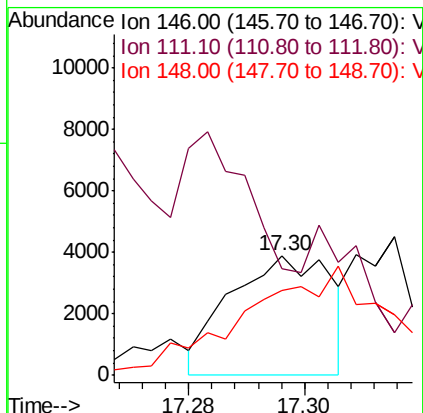
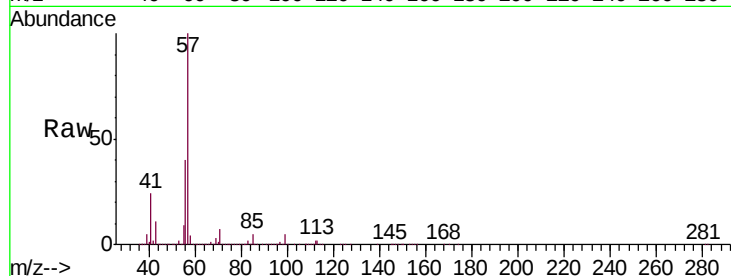
Tgt Ion:146 Resp: 4704

Ion Ratio Lower Upper

146 100

111 0.0 21.9 65.8#

148 147.8 32.1 96.3#



#78

Hexachloro-1,3-Butadiene

Concen: 0.012 ppbv

RT: 23.53 min Scan# 6406

Delta R.T. -0.01 min

Lab File: VL033710.D

Acq: 17 May 2019 10:43

Tgt Ion:225 Resp: 2066

Ion Ratio Lower Upper

225 100

223 0.0 50.2 75.4#

227 0.0 50.7 76.1#

