

Data File : VL033866.D
Acq On : 30 May 2019 11:46
Operator : SY/AP
Sample : K3007-02DL DUP 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SSG-2DL DUP

Quant Time: May 31 07:06:41 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	5.75	49	779694	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1847105	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1893287	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.56	95	1525479	9.94	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%

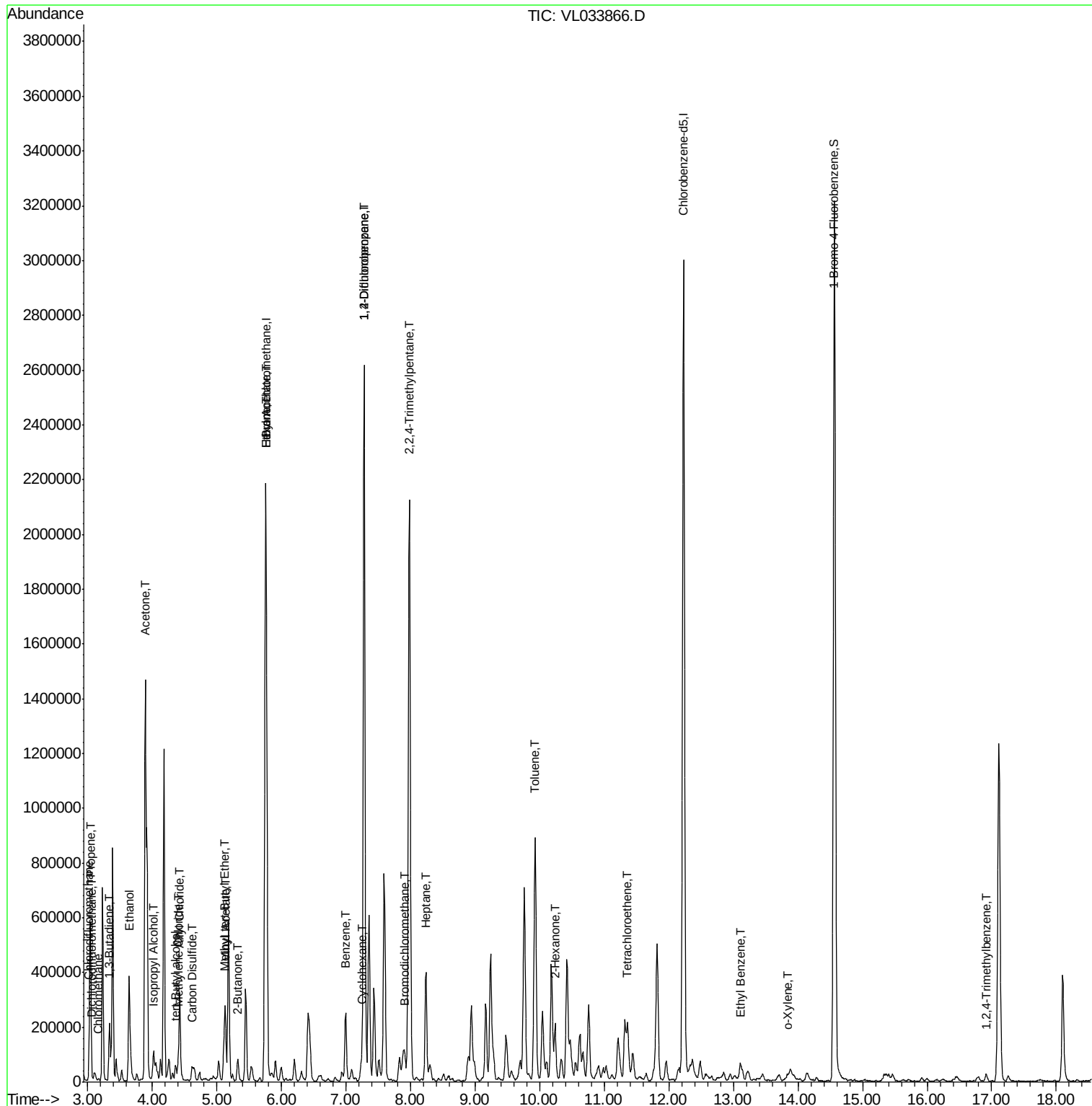
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.07	85	6484	0.039	ppbv #	82
3) Chlorodifluoromethane	3.01	51	6707	0.075	ppbv	97
4) Chloromethane	3.16	50	4609	0.090	ppbv	92
9) Propene	3.04	41	199282	5.246	ppbv	84
10) Heptane	8.24	43	157248	1.462	ppbv	97
13) Ethanol	3.64	45	412559	33.601	ppbv	97
15) Acetone	3.89	43	1635511	15.119	ppbv	97
16) 1,3-Butadiene	3.34	39	78850	1.830	ppbv #	48
17) tert-Butyl alcohol	4.36	59	26117	0.299	ppbv #	72
19) Isopropyl Alcohol	4.02	45	113686	1.630	ppbv #	1
20) Methylene Chloride	4.40	84	9356	0.225	ppbv #	86
21) Allyl Chloride	4.43	41	18702	0.277	ppbv #	18
23) Vinyl Acetate	5.13	43	123618	0.867	ppbv #	1
25) Ethyl Acetate	5.77	43	299495	1.576	ppbv #	77
26) Hexane	5.77	57	439912	5.385	ppbv #	39
27) Carbon Disulfide	4.62	76	36254	0.323	ppbv #	74
28) Methyl tert-Butyl Ether	5.11	73	81689	0.613	ppbv	96
30) Cyclohexane	7.24	84	12465	0.181	ppbv #	24
34) 2-Butanone	5.32	43	48204	0.421	ppbv #	54
36) Benzene	6.99	78	181932	1.083	ppbv	97
39) 1,2-Dichloropropane	7.28	63	465642	7.433	ppbv #	23
42) Bromodichloromethane	7.91	83	6393	0.043	ppbv #	33
44) 2,2,4-Trimethylpentane	7.98	57	2027299	7.139	ppbv	96
51) 2-Hexanone	10.24	43	96071	0.699	ppbv #	29
52) Tetrachloroethene	11.36	164	17446	0.295	ppbv	97
53) Toluene	9.94	91	164860	0.910	ppbv	99
58) Ethyl Benzene	13.12	91	14195	0.057	ppbv	97
60) o-Xylene	13.84	91	13852	0.063	ppbv	89
74) 1,2,4-Trimethylbenzene	16.91	105	9204	0.034	ppbv #	67

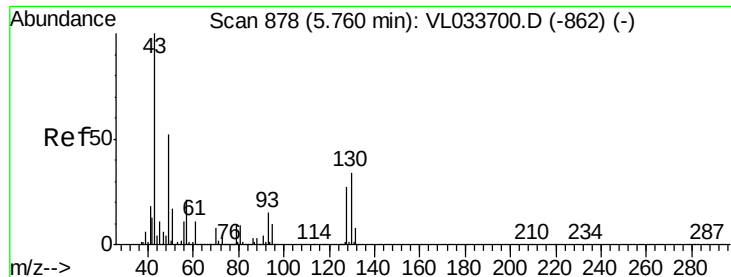
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 875

Delta R.T. -0.01 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

SSG-2DLDUP

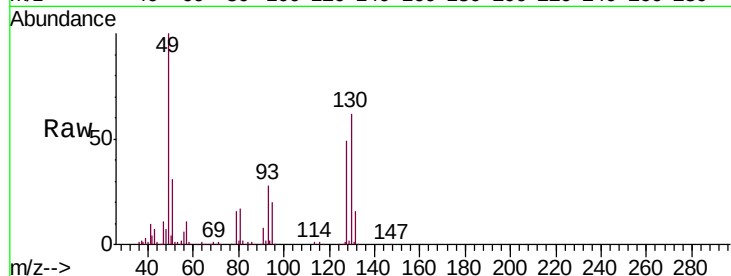
Tgt Ion: 49 Resp: 779694

Ion Ratio Lower Upper

49 100

128 49.9 25.2 75.6

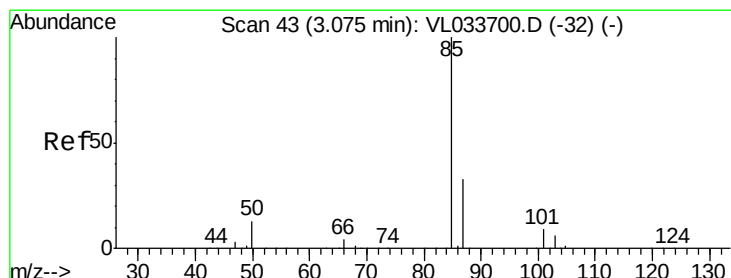
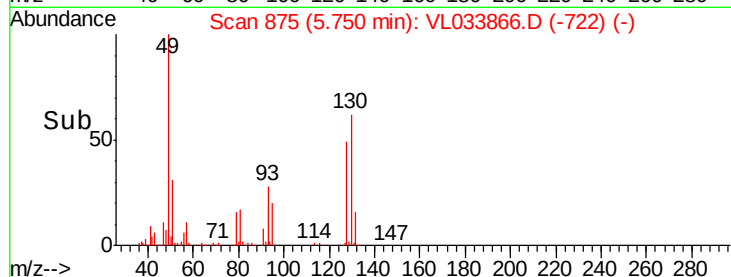
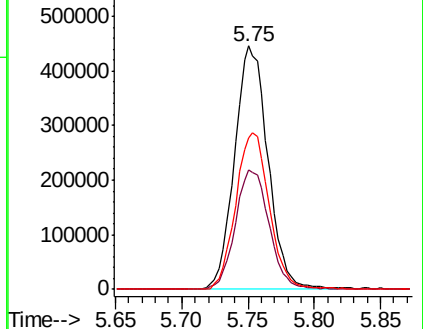
130 65.4 32.5 97.5



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: 0.039 ppbv

RT: 3.07 min Scan# 42

Delta R.T. -0.00 min

Lab File: VL033866.D

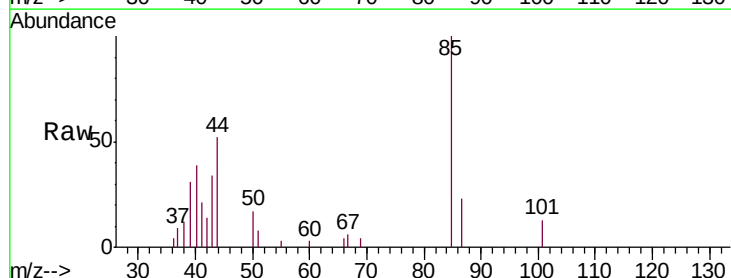
Acq: 30 May 2019 11:46

Tgt Ion: 85 Resp: 6484

Ion Ratio Lower Upper

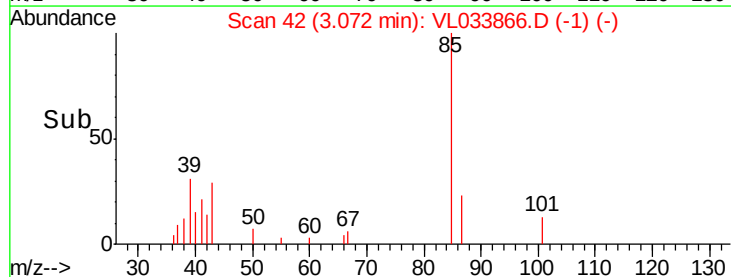
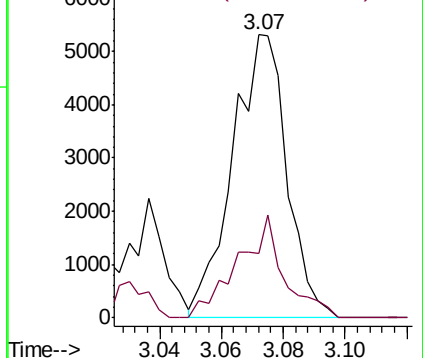
85 100

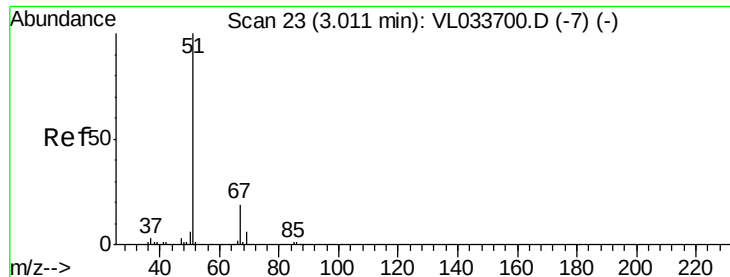
87 22.9 26.3 39.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.075 ppbv

RT: 3.01 min Scan# 24

Delta R.T. 0.00 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

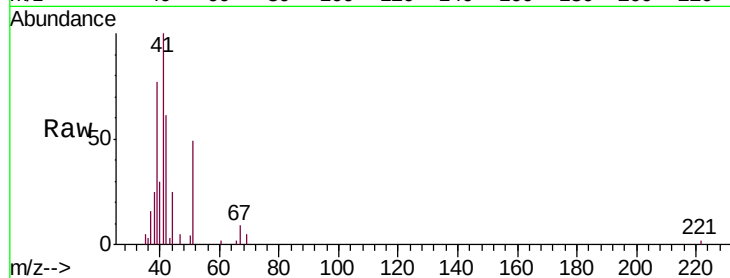
SSG-2DLDUP

Tgt Ion: 51 Resp: 6707

Ion Ratio Lower Upper

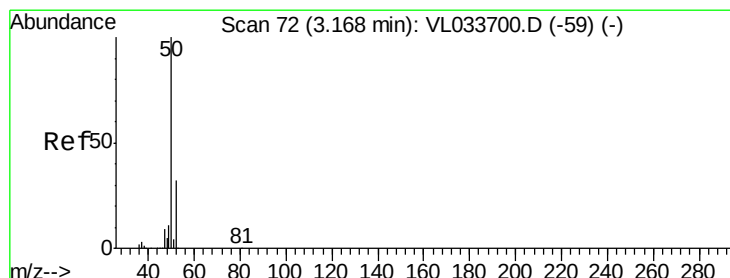
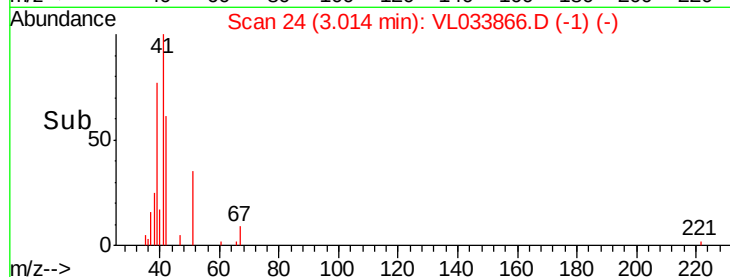
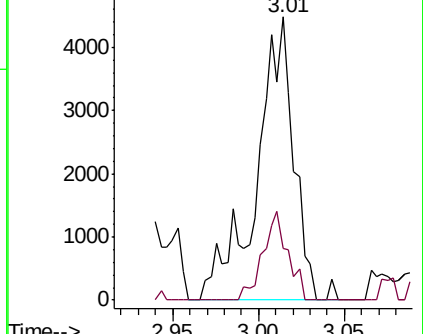
51 100

67 20.8 15.6 23.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.090 ppbv

RT: 3.16 min Scan# 70

Delta R.T. -0.01 min

Lab File: VL033866.D

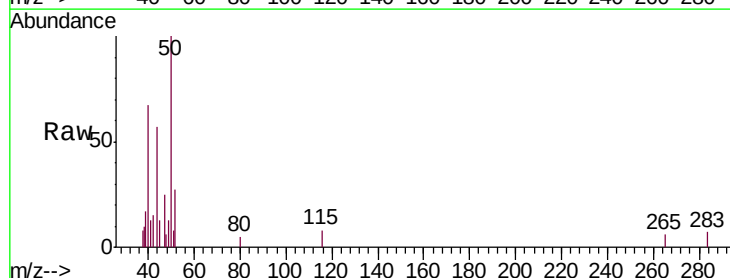
Acq: 30 May 2019 11:46

Tgt Ion: 50 Resp: 4609

Ion Ratio Lower Upper

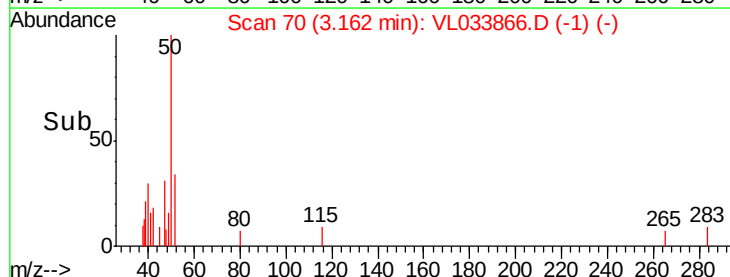
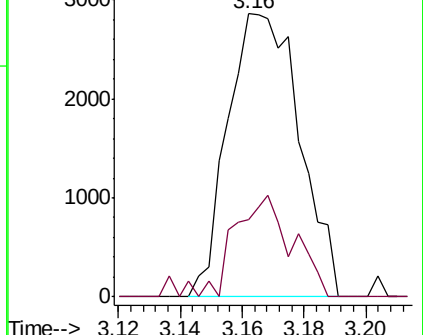
50 100

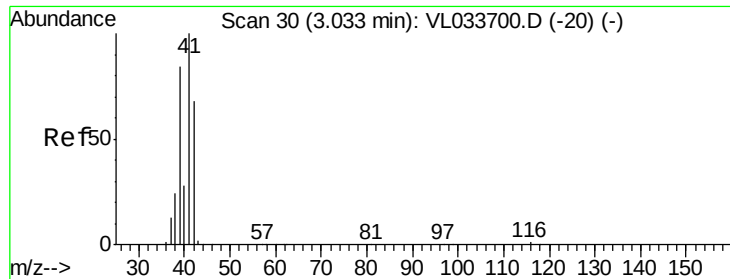
52 27.4 25.7 38.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 5.246 ppbv

RT: 3.04 min Scan# 31

Delta R.T. 0.00 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

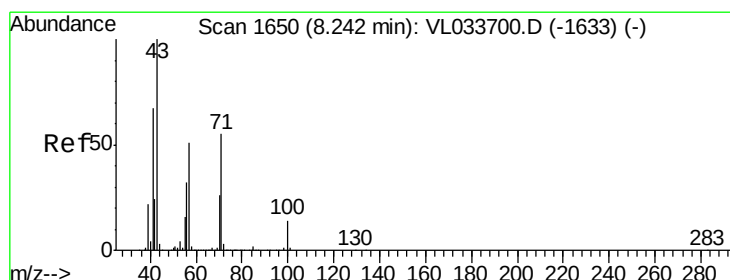
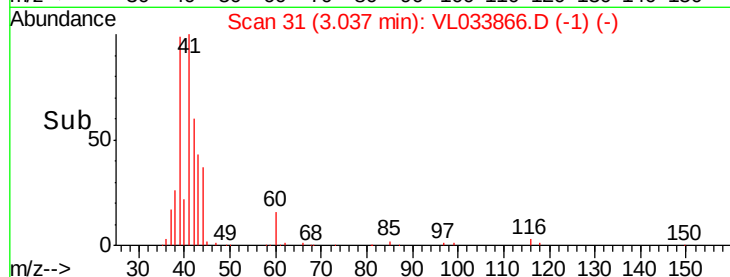
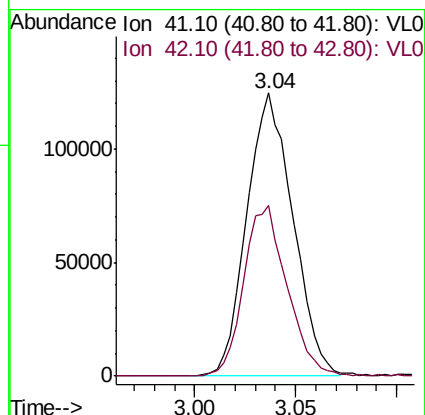
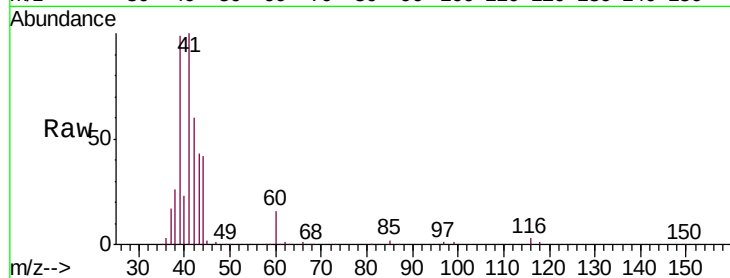
SSG-2DLDUP

Tgt Ion: 41 Resp: 199282

Ion Ratio Lower Upper

41 100

42 56.8 56.1 84.1



#10

Heptane

Concen: 1.462 ppbv

RT: 8.24 min Scan# 1649

Delta R.T. -0.00 min

Lab File: VL033866.D

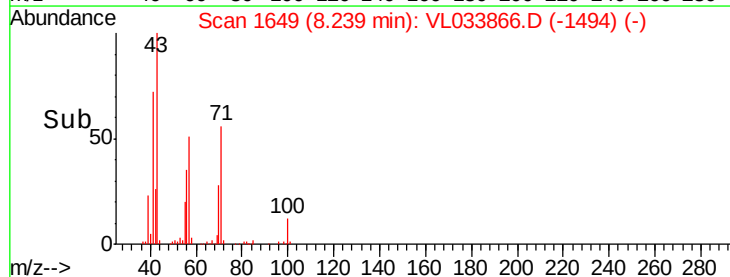
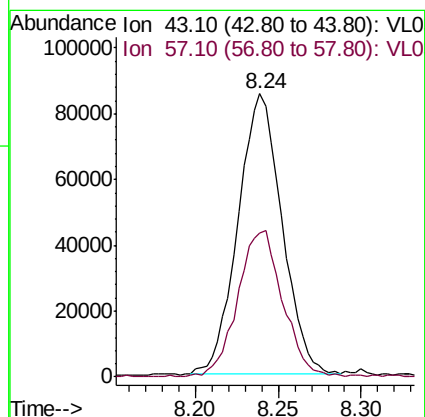
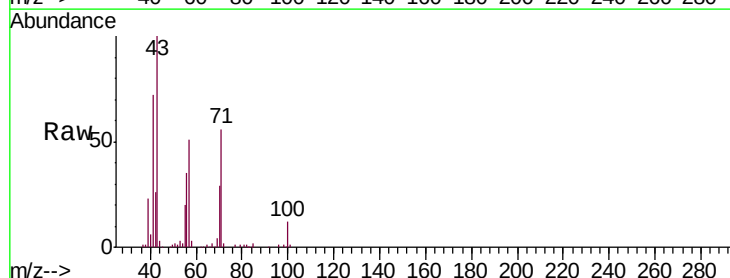
Acq: 30 May 2019 11:46

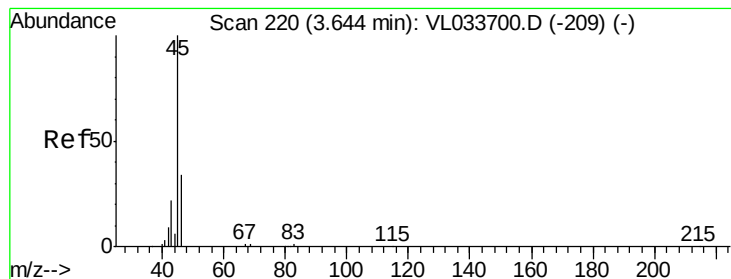
Tgt Ion: 43 Resp: 157248

Ion Ratio Lower Upper

43 100

57 54.1 41.4 62.0





#13

Ethanol

Concen: 33.601 ppbv

RT: 3.64 min Scan# 219

Delta R.T. -0.00 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

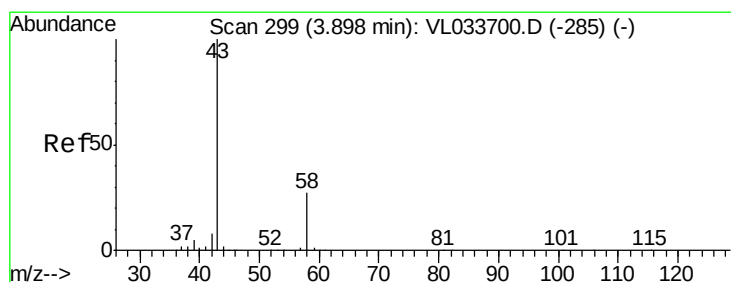
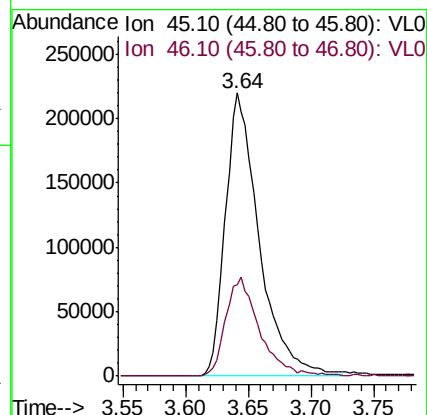
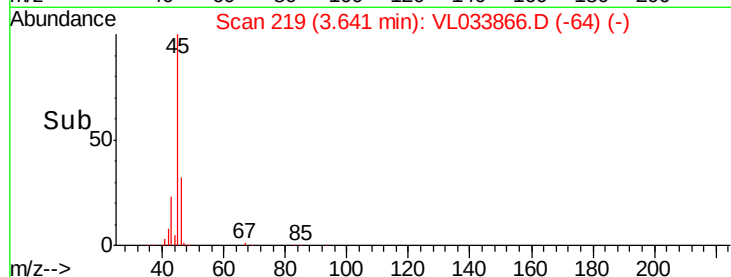
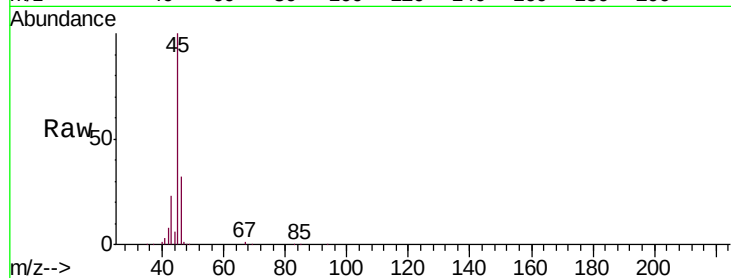
SSG-2DLDUP

Tgt Ion: 45 Resp: 412559

Ion Ratio Lower Upper

45 100

46 35.1 14.8 59.0



#15

Acetone

Concen: 15.119 ppbv

RT: 3.89 min Scan# 297

Delta R.T. -0.01 min

Lab File: VL033866.D

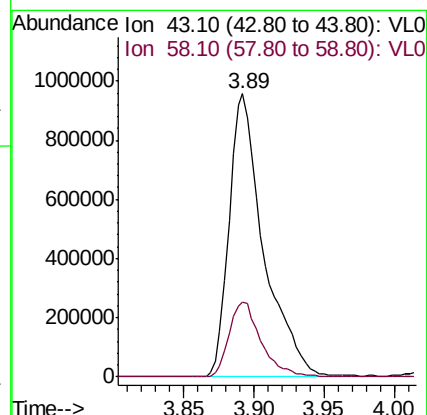
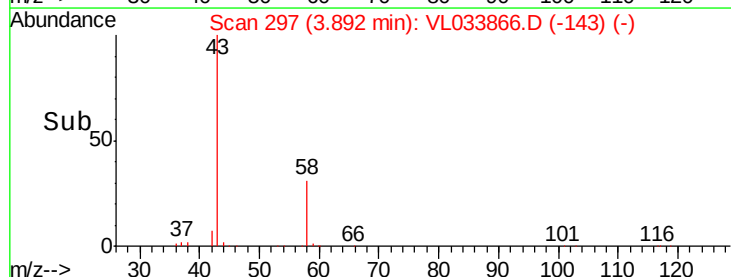
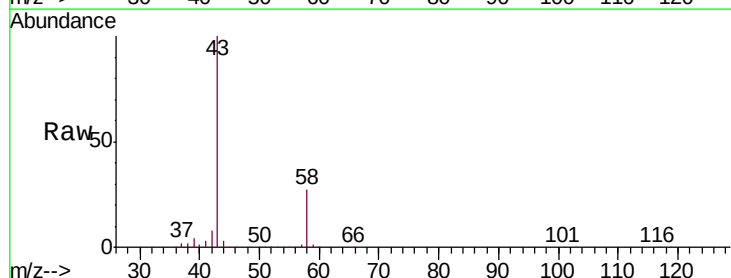
Acq: 30 May 2019 11:46

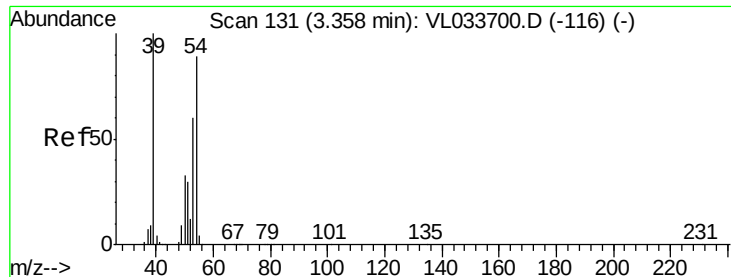
Tgt Ion: 43 Resp: 1635511

Ion Ratio Lower Upper

43 100

58 24.8 21.3 31.9

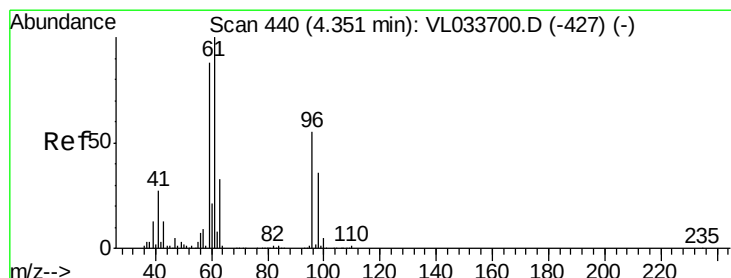
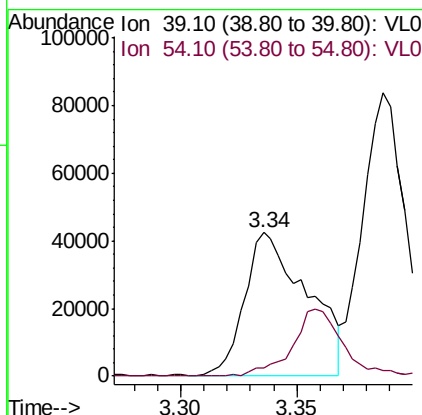
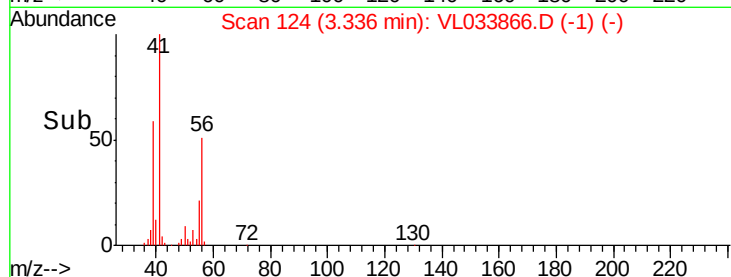
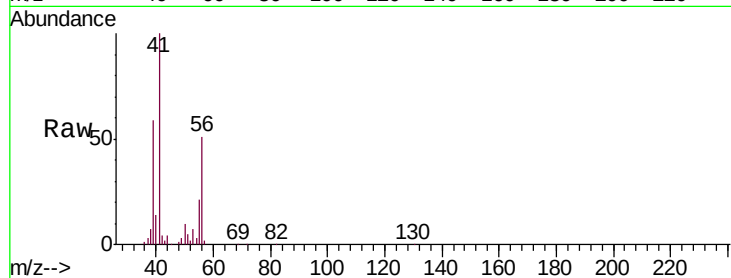




#16
 1,3-Butadiene
 Concen: 1.830 ppbv
 RT: 3.34 min Scan# 124
 Delta R.T. -0.02 min
 Lab File: VL033866.D
 Acq: 30 May 2019 11:46

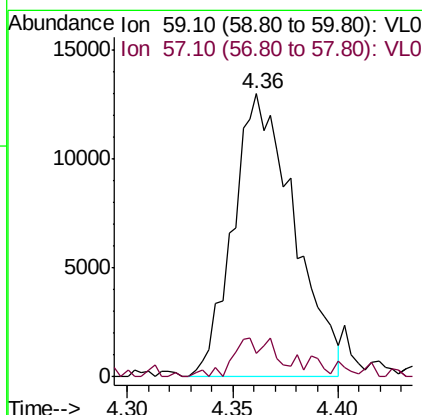
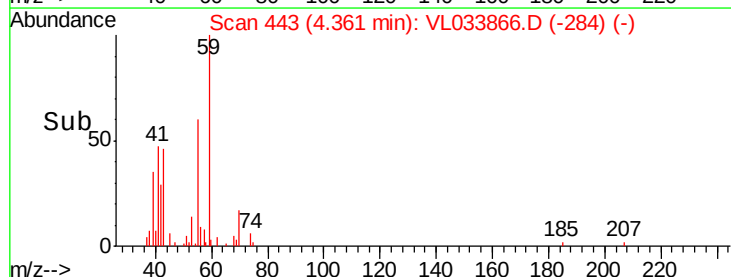
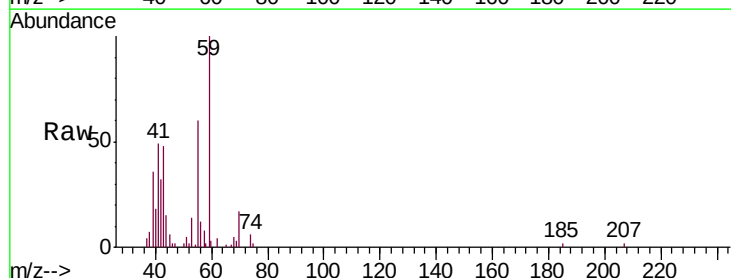
Instrument :
 MSVOA_L
 ClientSampleId :
 SSG-2DLDUP

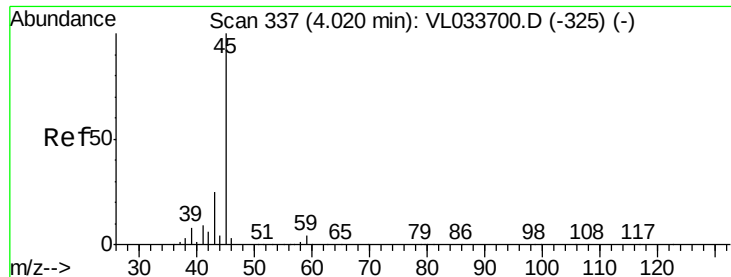
Tgt Ion: 39 Resp: 78850
 Ion Ratio Lower Upper
 39 100
 54 38.3 69.0 103.6#



#17
 tert-Butyl alcohol
 Concen: 0.299 ppbv
 RT: 4.36 min Scan# 443
 Delta R.T. 0.01 min
 Lab File: VL033866.D
 Acq: 30 May 2019 11:46

Tgt Ion: 59 Resp: 26117
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 1.630 ppbv

RT: 4.02 min Scan# 338

Delta R.T. 0.00 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

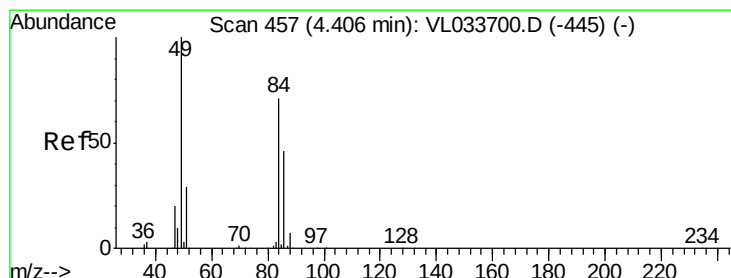
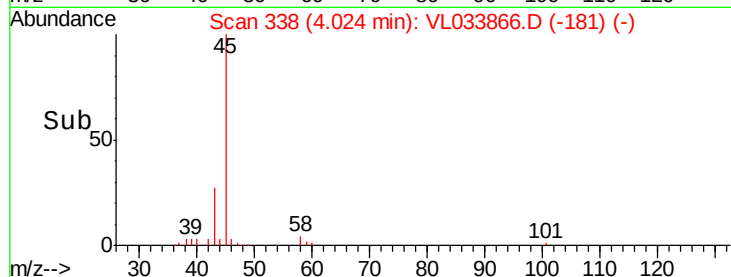
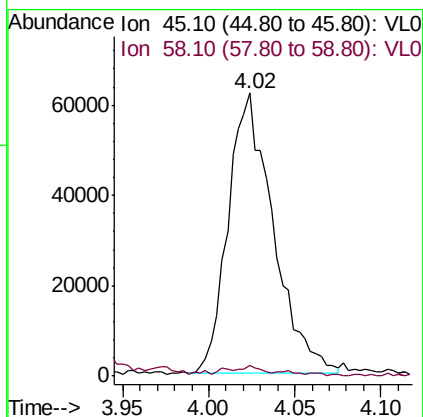
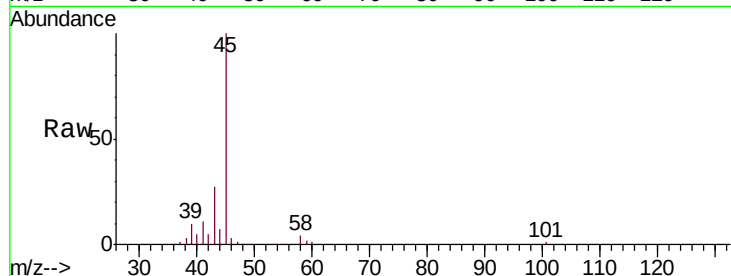
SSG-2DLDUP

Tgt Ion: 45 Resp: 113686

Ion Ratio Lower Upper

45 100

58 356.4 1.6 2.4#



#20

Methylene Chloride

Concen: 0.225 ppbv

RT: 4.40 min Scan# 454

Delta R.T. -0.01 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Tgt Ion: 84 Resp: 9356

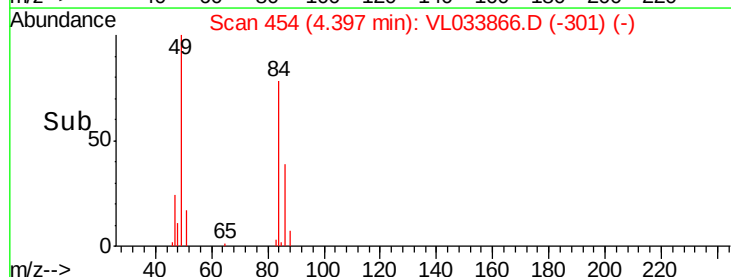
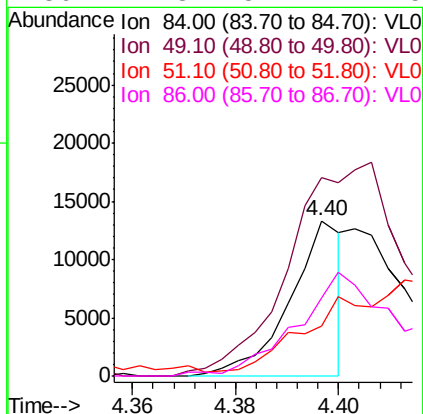
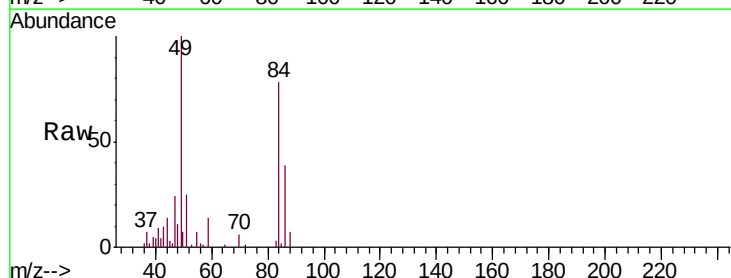
Ion Ratio Lower Upper

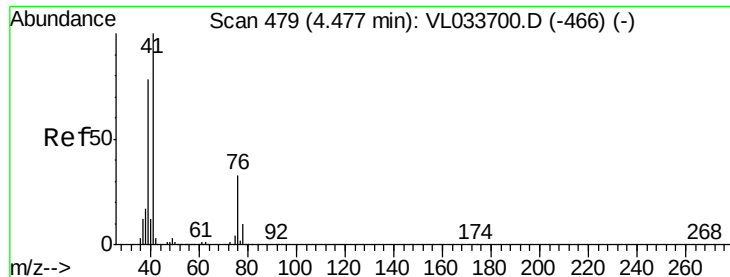
84 100

49 133.3 112.8 169.2

51 25.1 33.4 50.0#

86 47.8 51.7 77.5#





#21

Allyl Chloride

Concen: 0.277 ppbv

RT: 4.43 min Scan# 464

Delta R.T. -0.05 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

SSG-2DLDUP

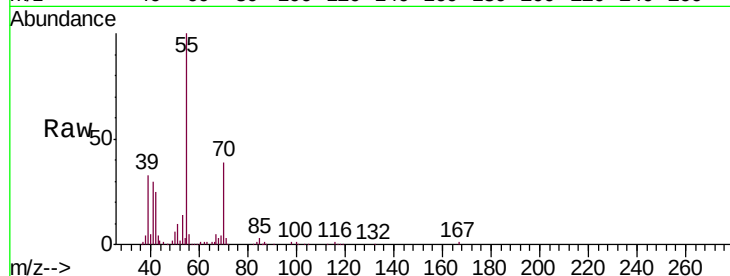
Tgt Ion: 41 Resp: 18702

Ion Ratio Lower Upper

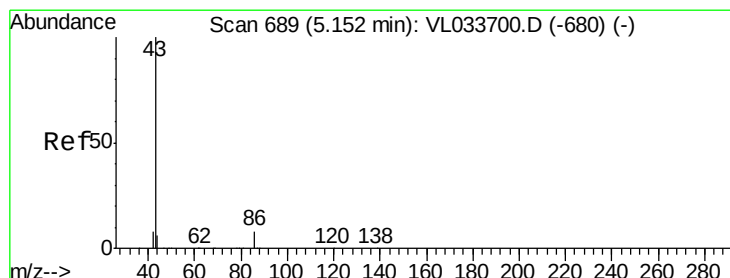
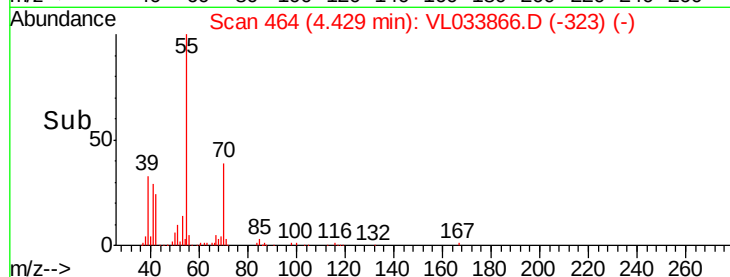
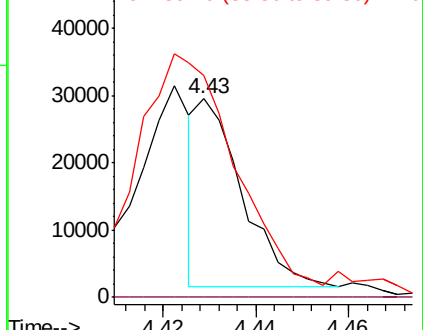
41 100

76 0.0 25.9 38.9#

39 0.0 64.6 97.0#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0



#23

Vinyl Acetate

Concen: 0.867 ppbv

RT: 5.13 min Scan# 682

Delta R.T. -0.02 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Tgt Ion: 43 Resp: 123618

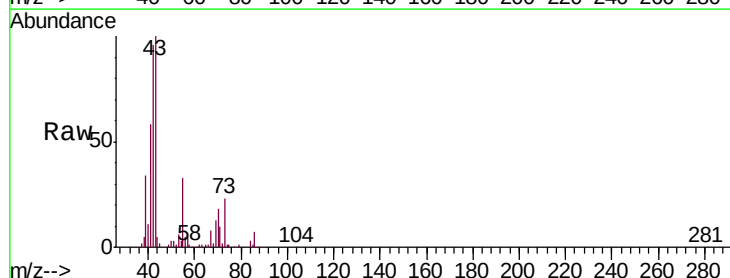
Ion Ratio Lower Upper

43 100

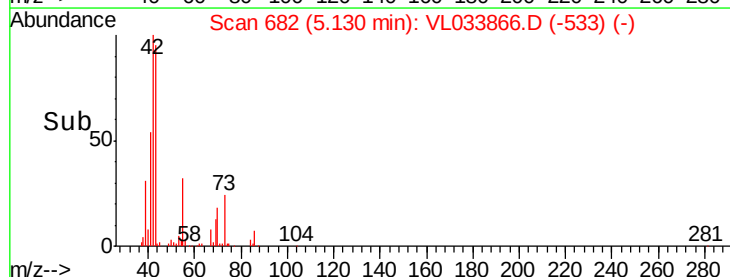
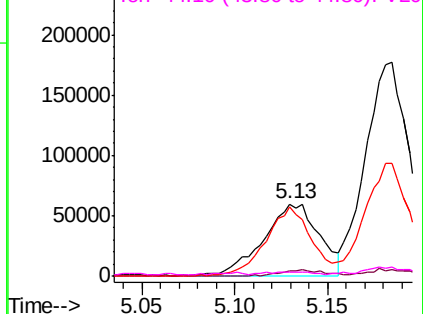
86 6.6 6.0 9.0

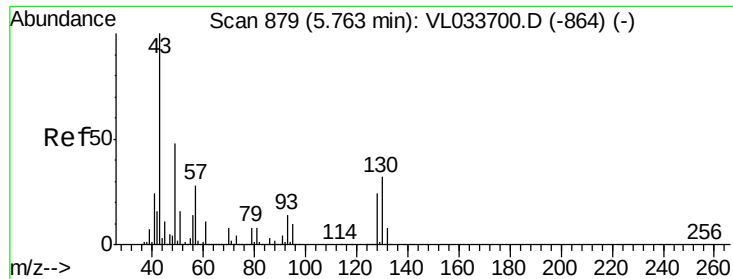
42 96.7 7.5 11.3#

44 2.7 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: 1.576 ppbv

RT: 5.77 min Scan# 881

Delta R.T. 0.01 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

SSG-2DLDUP

Tgt Ion: 43 Resp: 299495

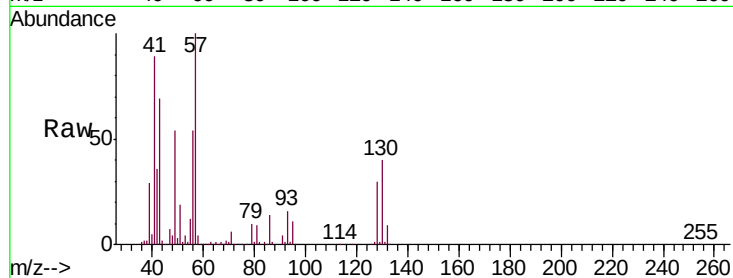
Ion Ratio Lower Upper

43 100

45 0.6 7.9 11.9#

61 0.1 7.7 11.5#

70 1.8 5.8 8.6#



Abundance

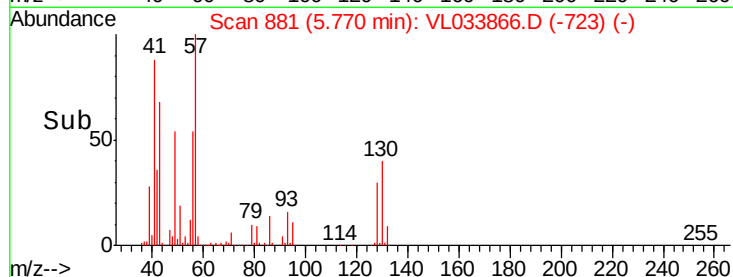
Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

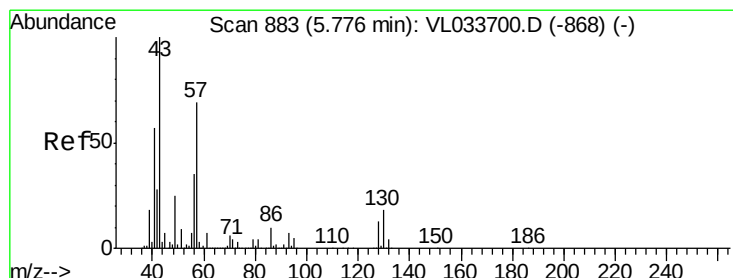
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

Time-->



Time-->



#26

Hexane

Concen: 5.385 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.01 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Tgt Ion: 57 Resp: 439912

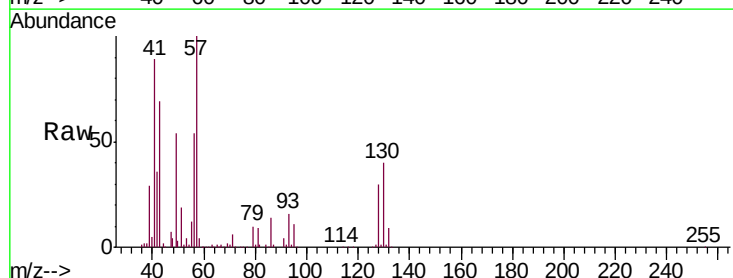
Ion Ratio Lower Upper

57 100

41 88.9 69.8 104.6

43 68.2 181.8 272.6#

56 53.8 42.1 63.1



Abundance

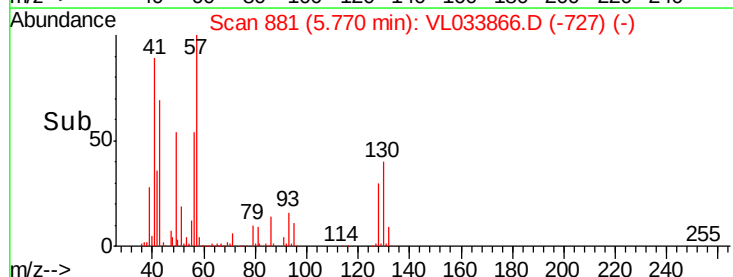
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

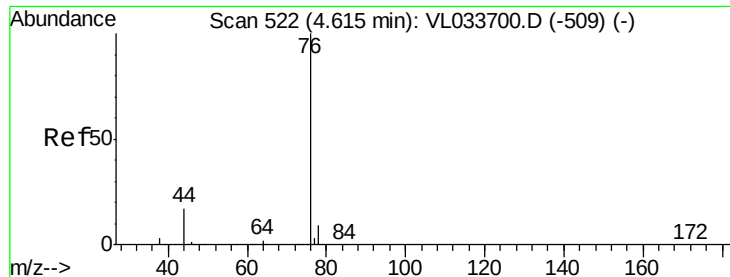
Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

Time-->



Time-->



#27

Carbon Disulfide

Concen: 0.323 ppbv

RT: 4.62 min Scan# 523

Delta R.T. 0.00 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

SSG-2DLDUP

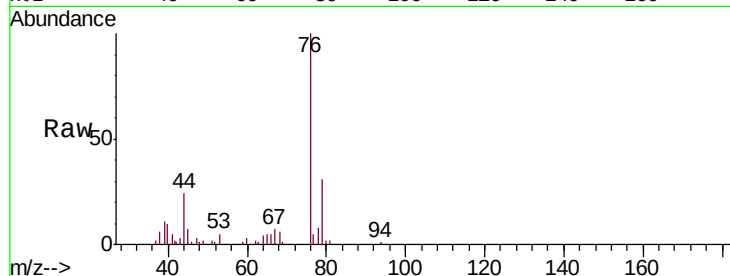
Tgt Ion: 76 Resp: 36254

Ion Ratio Lower Upper

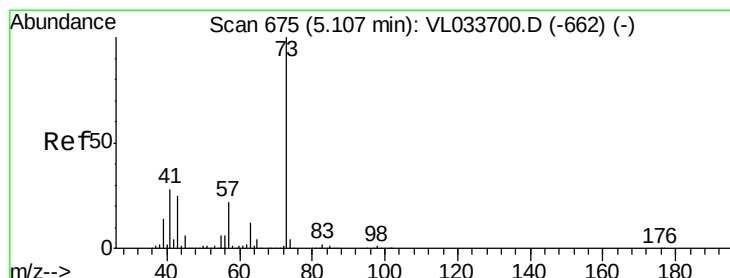
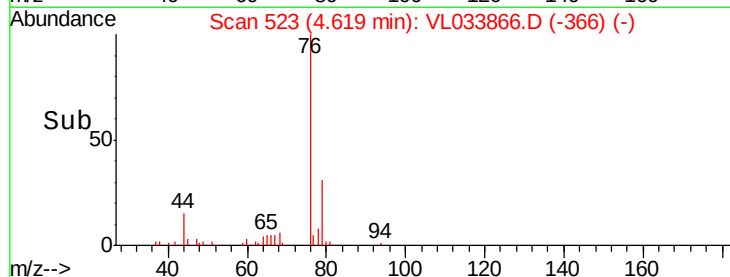
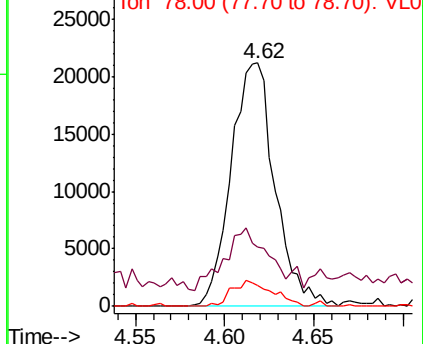
76 100

44 33.9 13.8 20.8#

78 10.2 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



#28

Methyl tert-Butyl Ether

Concen: 0.613 ppbv

RT: 5.11 min Scan# 676

Delta R.T. 0.00 min

Lab File: VL033866.D

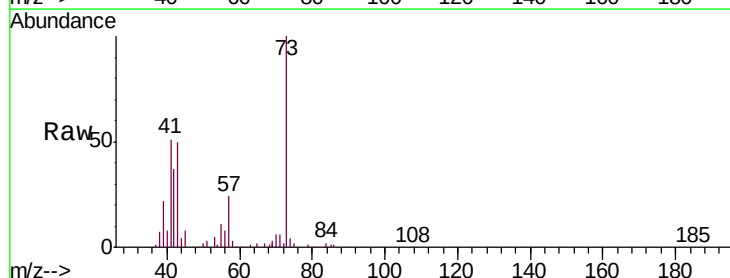
Acq: 30 May 2019 11:46

Tgt Ion: 73 Resp: 81689

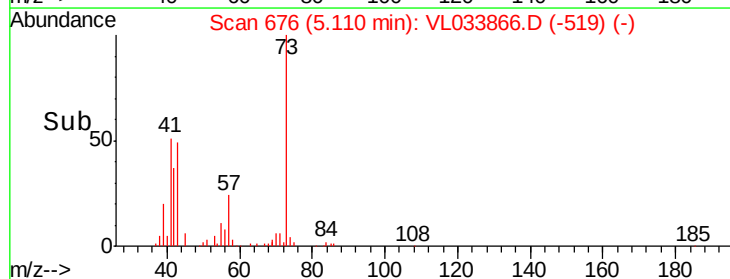
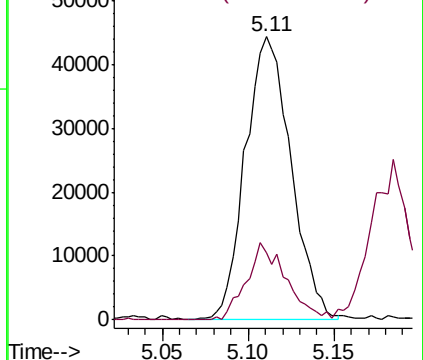
Ion Ratio Lower Upper

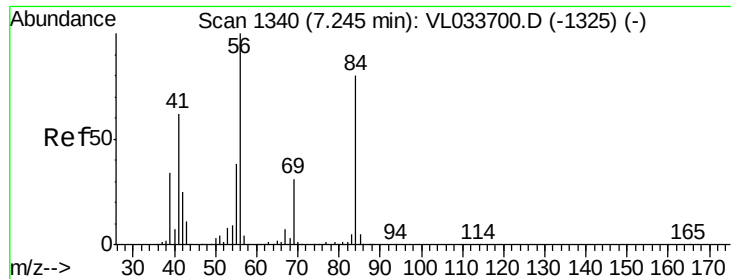
73 100

57 23.5 17.4 26.2



Abundance Ion 73.10 (72.80 to 73.80): VL0
Ion 57.10 (56.80 to 57.80): VL0

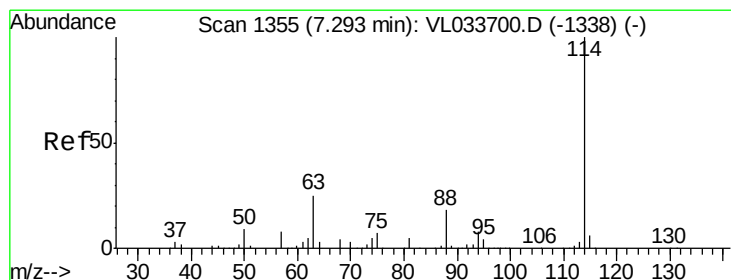
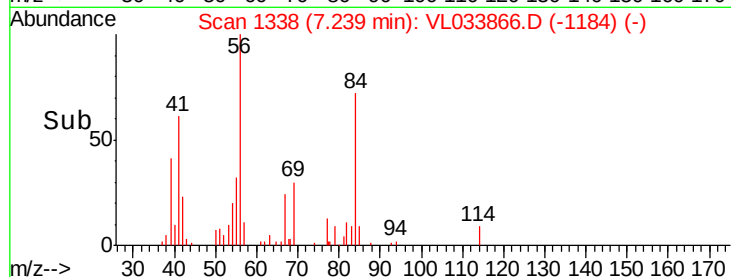
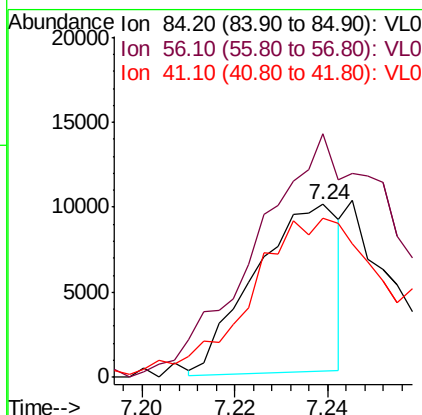
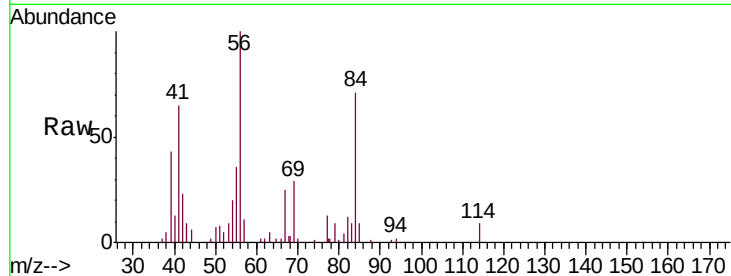




#30
Cyclohexane
Concen: 0.181 ppbv
RT: 7.24 min Scan# 1338
Delta R.T. -0.01 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

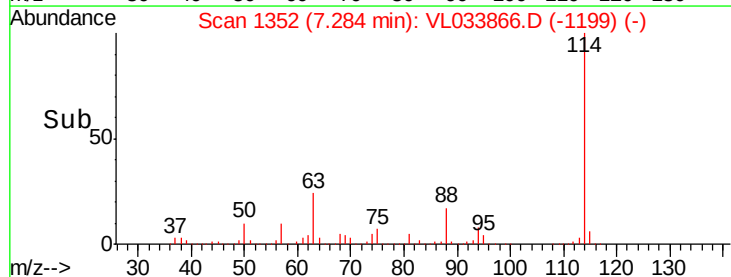
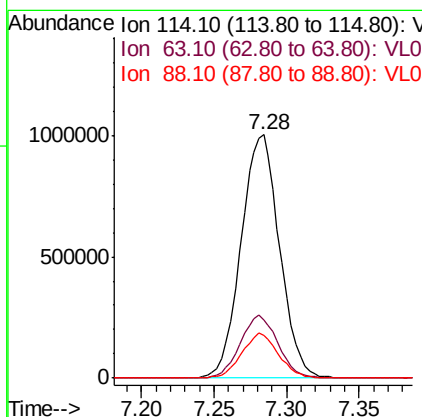
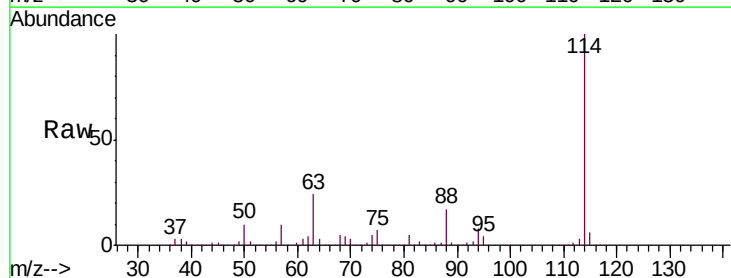
Instrument :
MSVOA_L
ClientSampleId :
SSG-2DLDUP

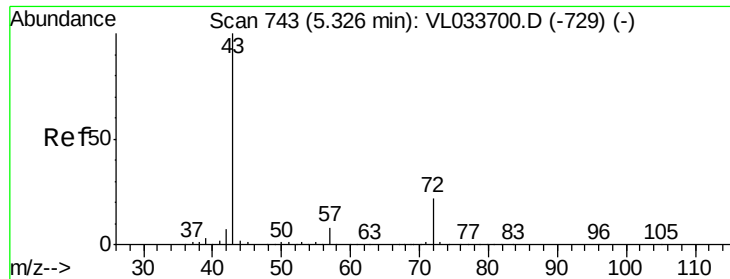
Tgt Ion: 84 Resp: 12465
Ion Ratio Lower Upper
84 100
56 211.3 107.7 161.5#
41 168.1 66.0 99.0#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.28 min Scan# 1352
Delta R.T. -0.01 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

Tgt Ion: 114 Resp: 1847105
Ion Ratio Lower Upper
114 100
63 25.5 20.9 31.3
88 17.6 14.3 21.5

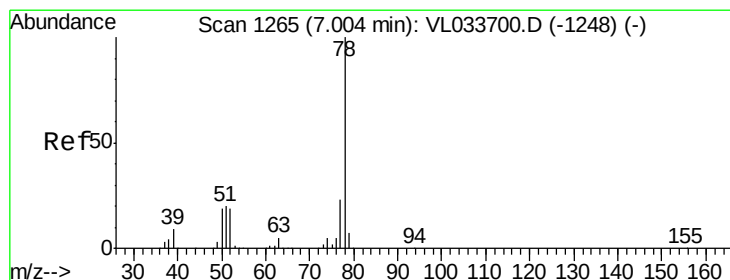
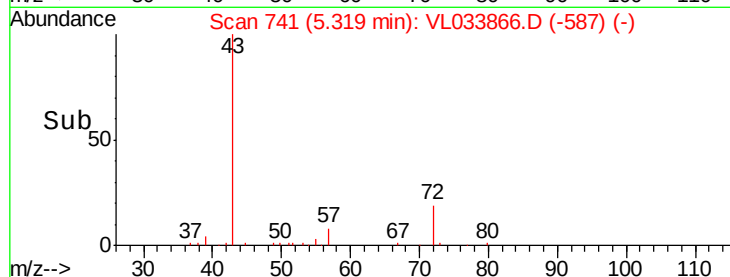
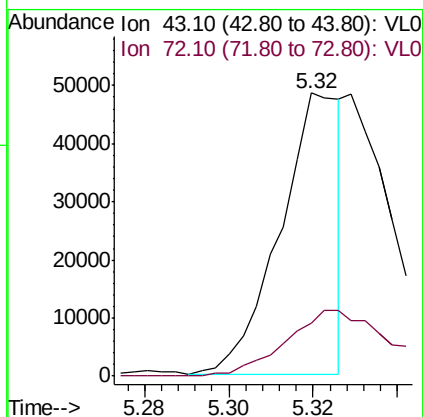
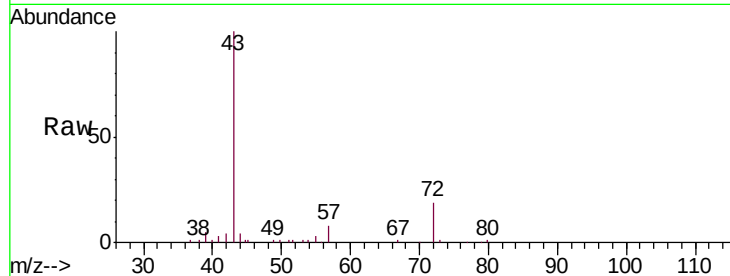




#34
2-Butanone
Concen: 0.421 ppbv
RT: 5.32 min Scan# 741
Delta R.T. -0.01 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

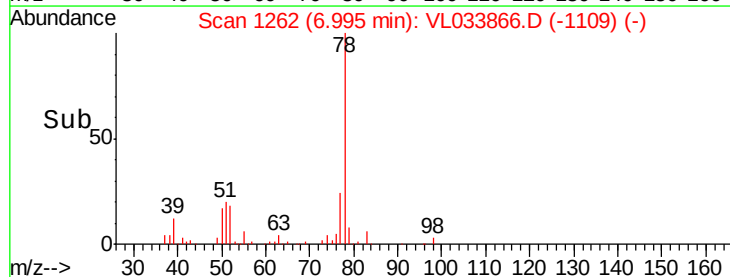
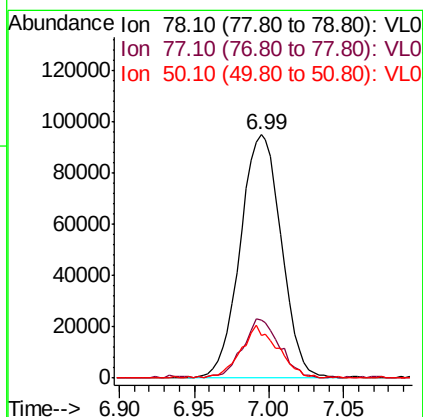
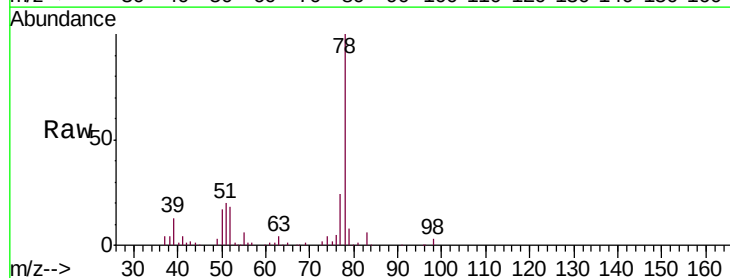
Instrument :
MSVOA_L
ClientSampleId :
SSG-2DLDUP

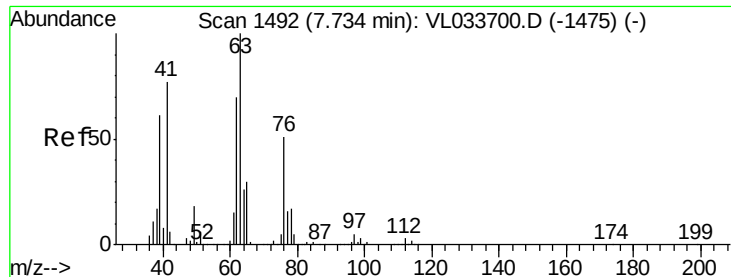
Tgt Ion: 43 Resp: 48204
Ion Ratio Lower Upper
43 100
72 0.0 17.8 26.6#



#36
Benzene
Concen: 1.083 ppbv
RT: 6.99 min Scan# 1262
Delta R.T. -0.01 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

Tgt Ion: 78 Resp: 181932
Ion Ratio Lower Upper
78 100
77 23.8 18.4 27.6
50 17.0 15.5 23.3





#39

1,2-Dichloropropane

Concen: 7.433 ppbv

RT: 7.28 min Scan# 1351

Delta R.T. -0.45 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

SSG-2DLDUP

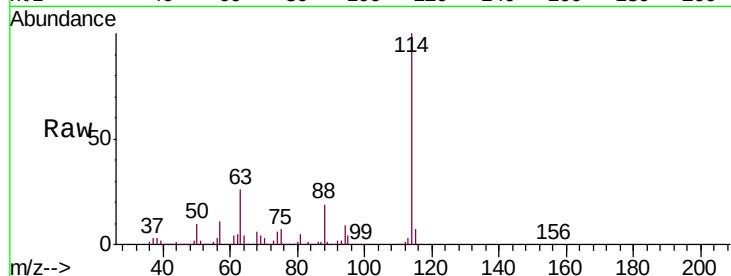
Tgt Ion: 63 Resp: 465642

Ion Ratio Lower Upper

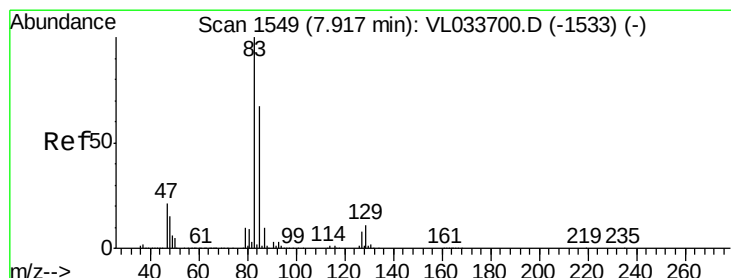
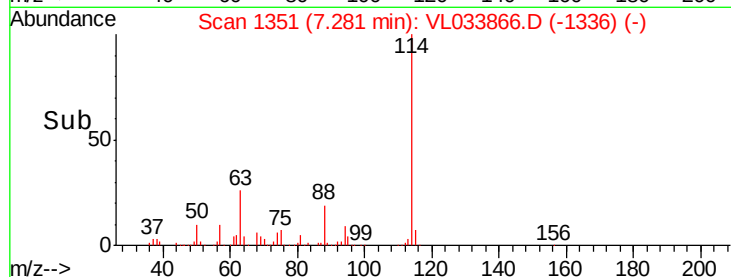
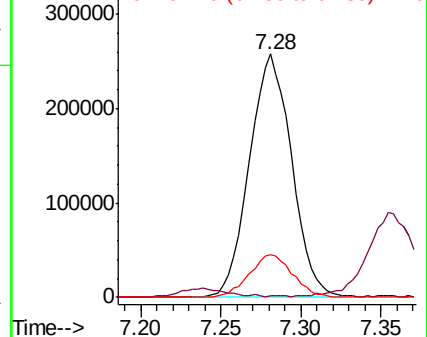
63 100

41 0.0 61.5 92.3#

62 17.6 56.2 84.4#



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



#42

Bromodichloromethane

Concen: 0.043 ppbv

RT: 7.91 min Scan# 1546

Delta R.T. -0.01 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

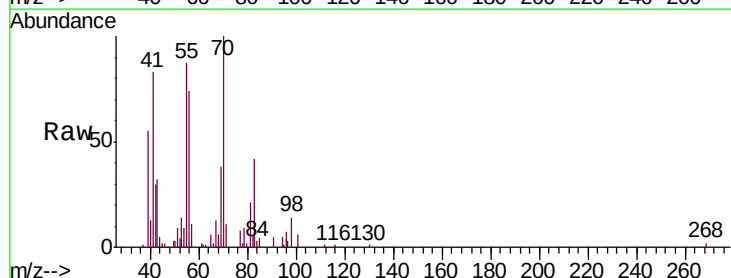
Tgt Ion: 83 Resp: 6393

Ion Ratio Lower Upper

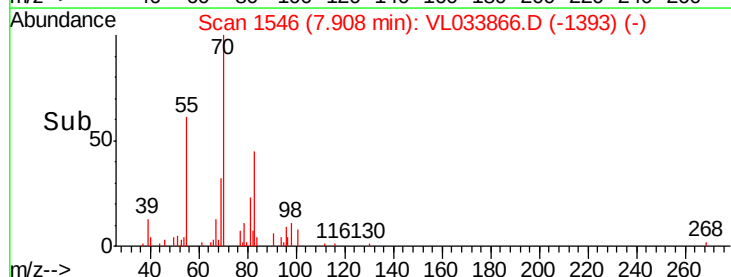
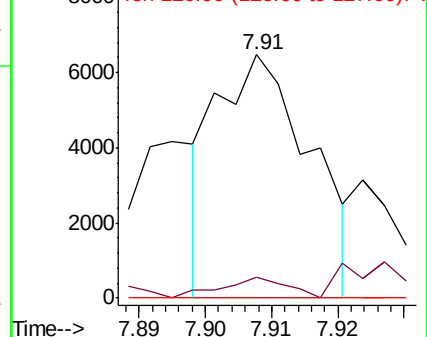
83 100

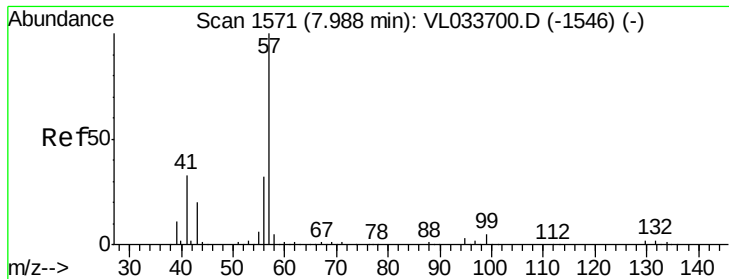
85 8.4 53.3 79.9#

127 0.0 6.5 9.7#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0
Ion 126.90 (126.60 to 127.60): V

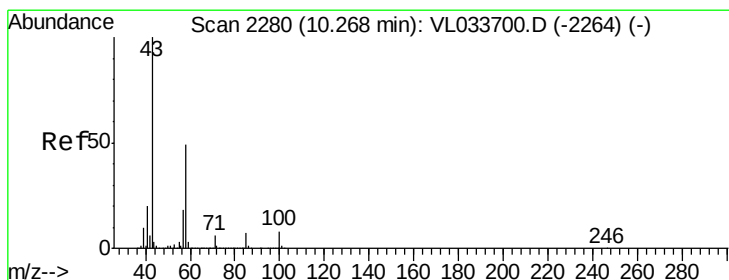
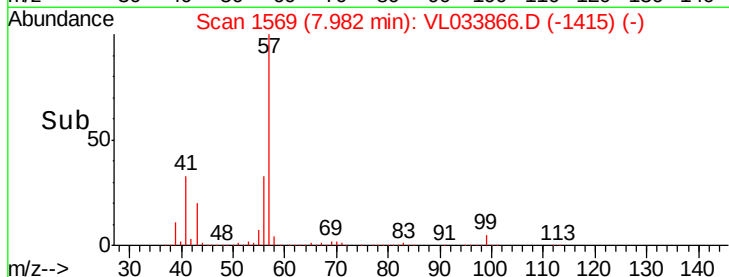
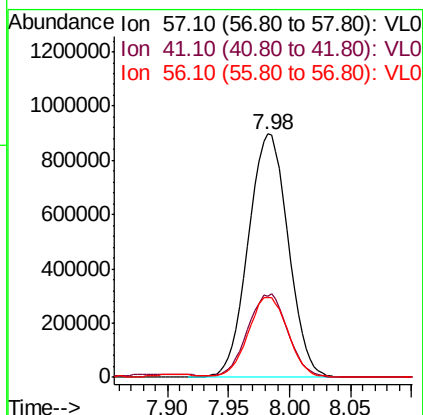
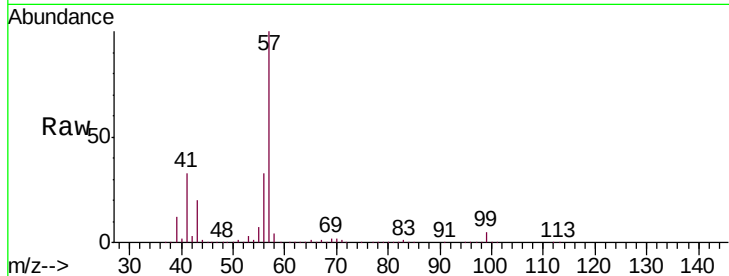




#44
 2,2,4-Trimethylpentane
 Concen: 7.139 ppbv
 RT: 7.98 min Scan# 1569
 Delta R.T. -0.01 min
 Lab File: VL033866.D
 Acq: 30 May 2019 11:46

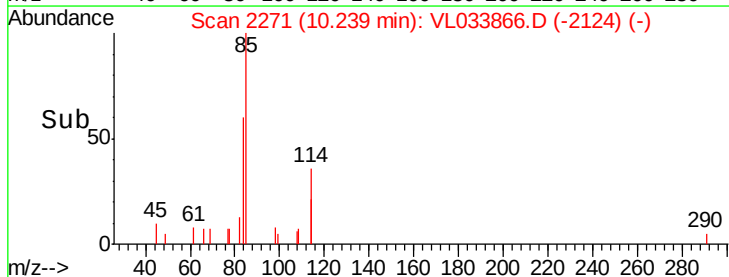
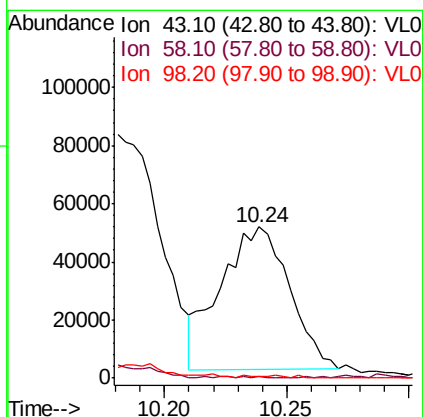
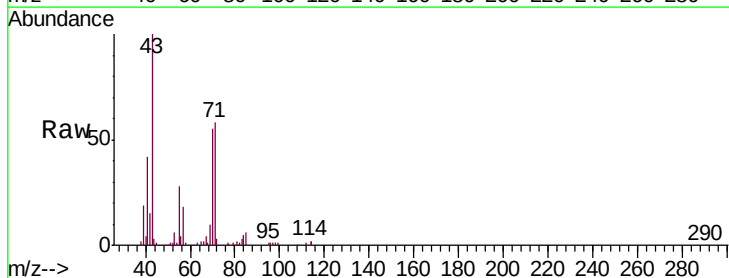
Instrument :
 MSVOA_L
 ClientSampleId :
 SSG-2DLDUP

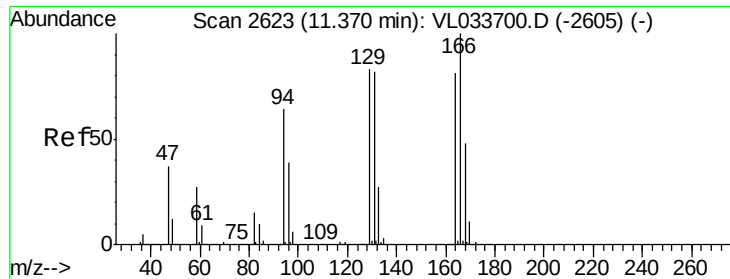
Tgt Ion: 57 Resp: 2027299
 Ion Ratio Lower Upper
 57 100
 41 34.5 25.4 38.0
 56 33.0 24.7 37.1



#51
 2-Hexanone
 Concen: 0.699 ppbv
 RT: 10.24 min Scan# 2271
 Delta R.T. -0.03 min
 Lab File: VL033866.D
 Acq: 30 May 2019 11:46

Tgt Ion: 43 Resp: 96071
 Ion Ratio Lower Upper
 43 100
 58 0.0 38.7 58.1#
 98 1.3 0.2 0.4#





#52

Tetrachloroethene

Concen: 0.295 ppbv

RT: 11.36 min Scan# 2619

Delta R.T. -0.01 min

Lab File: VL033866.D

Acq: 30 May 2019 11:46

Instrument :

MSVOA_L

ClientSampleId :

SSG-2DLDUP

Tgt Ion:164 Resp: 17446

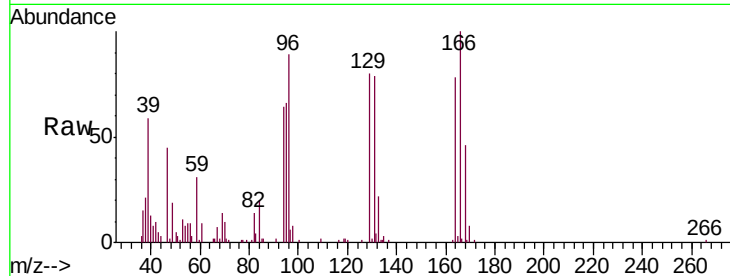
Ion Ratio Lower Upper

164 100

166 128.6 98.9 148.3

129 99.7 81.8 122.6

131 102.1 81.1 121.7

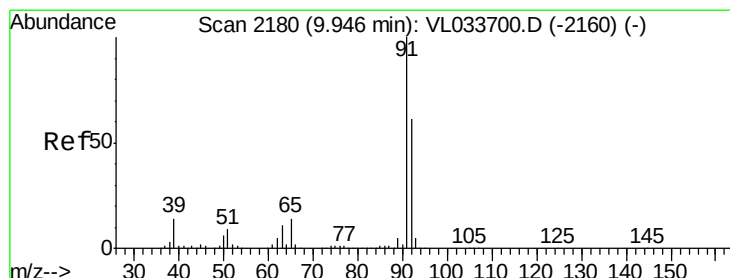
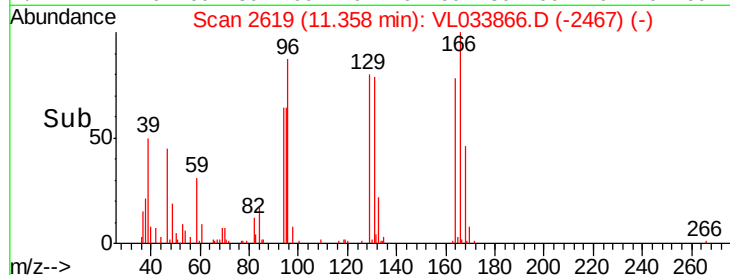
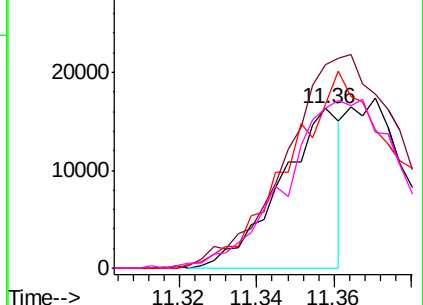


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.910 ppbv

RT: 9.94 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL033866.D

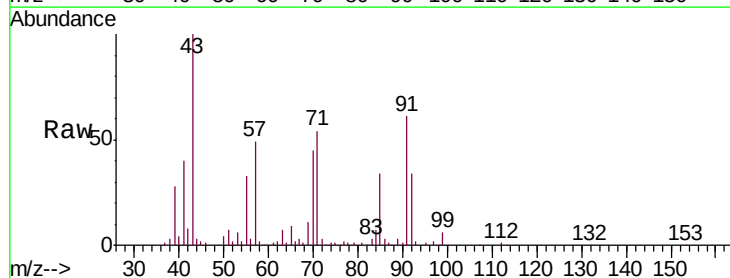
Acq: 30 May 2019 11:46

Tgt Ion: 91 Resp: 164860

Ion Ratio Lower Upper

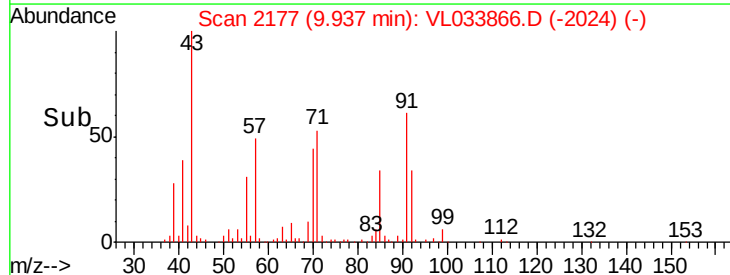
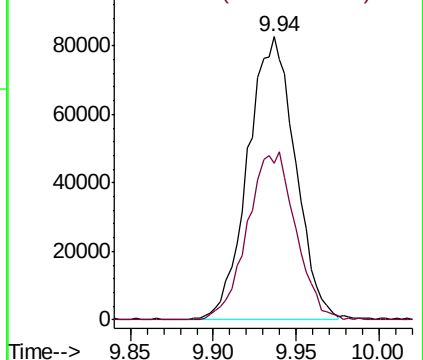
91 100

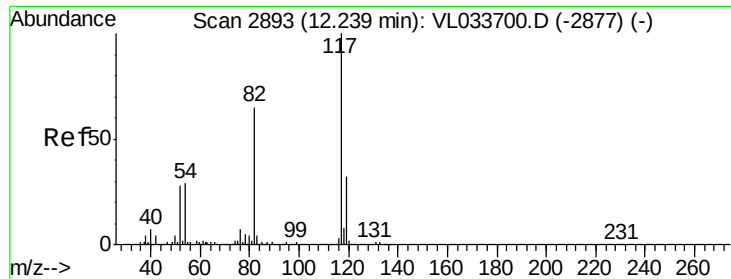
92 60.1 47.6 71.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

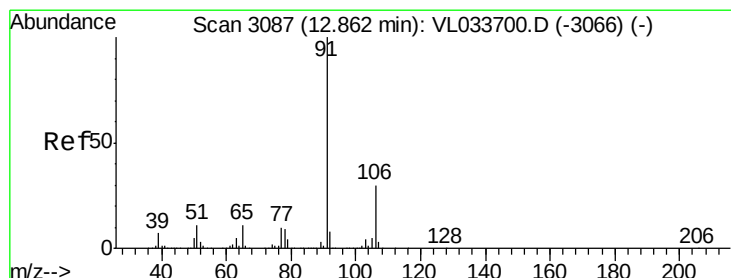
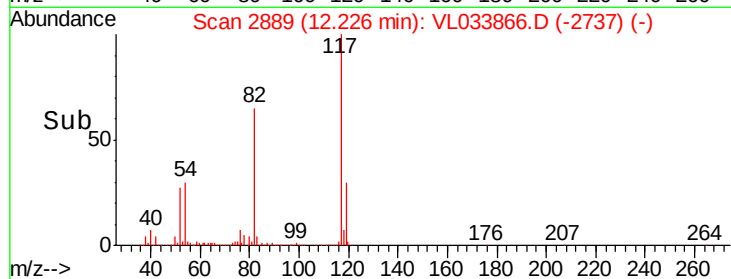
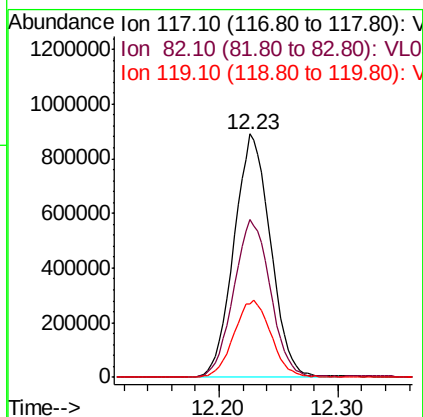
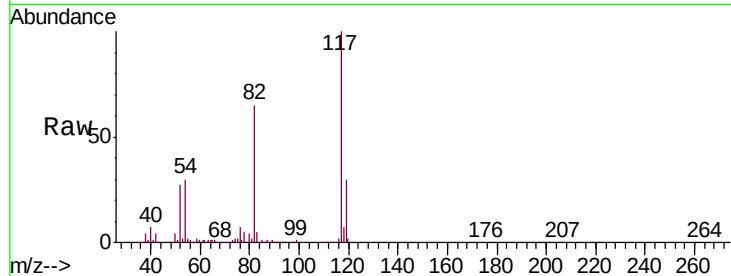




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2889
Delta R.T. -0.01 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

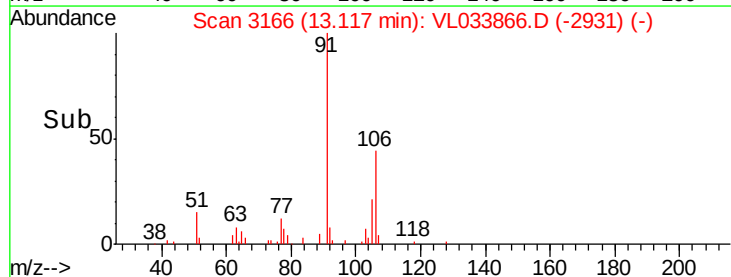
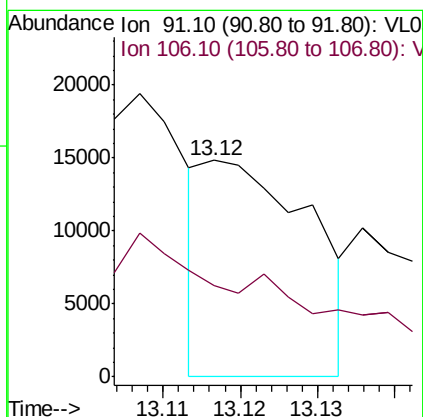
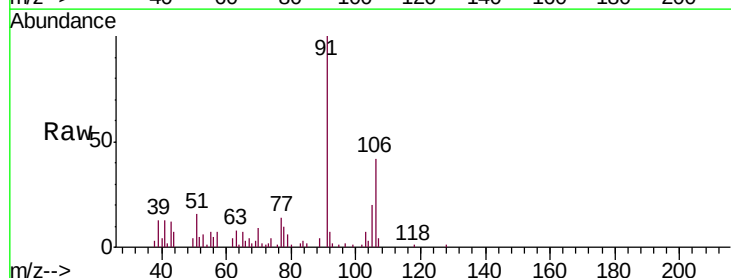
Instrument :
MSVOA_L
ClientSampleId :
SSG-2DLDUP

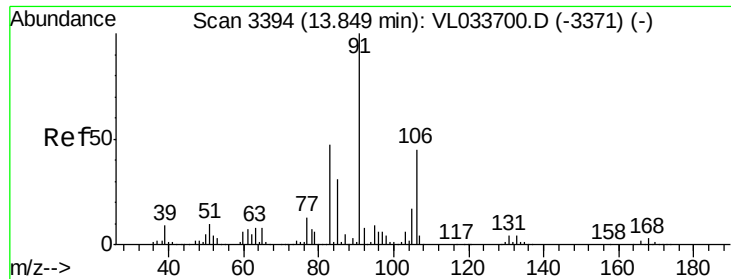
Tgt Ion: 117 Resp: 1893287
Ion Ratio Lower Upper
117 100
82 65.3 49.4 74.0
119 32.1 24.9 37.3



#58
Ethyl Benzene
Concen: 0.057 ppbv
RT: 13.12 min Scan# 3166
Delta R.T. 0.25 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

Tgt Ion: 91 Resp: 14195
Ion Ratio Lower Upper
91 100
106 28.0 23.9 35.9

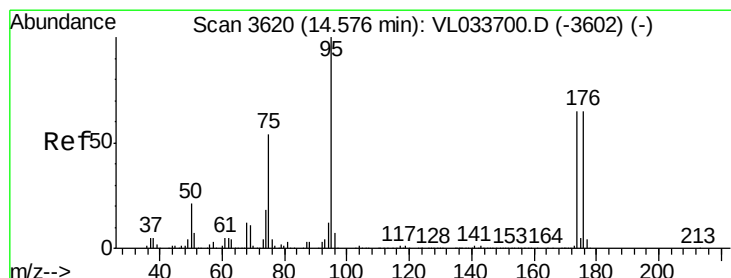
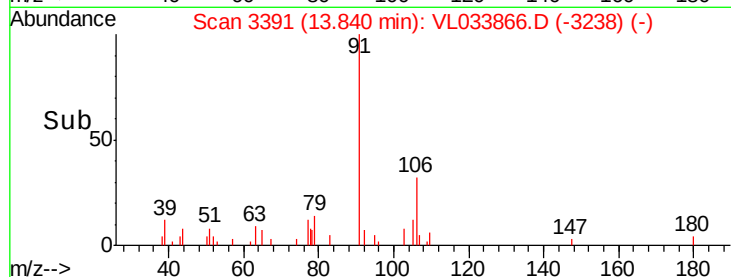
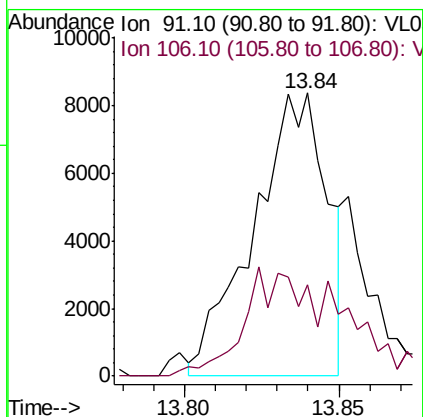
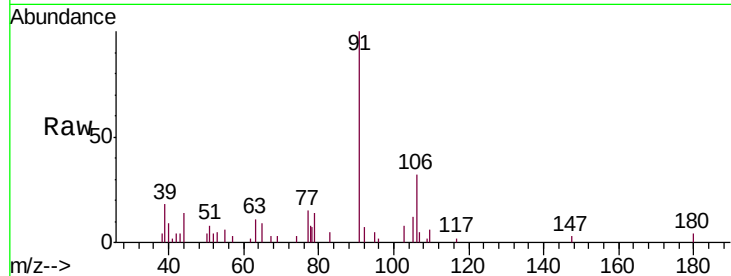




#60
o-Xylene
Concen: 0.063 ppbv
RT: 13.84 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

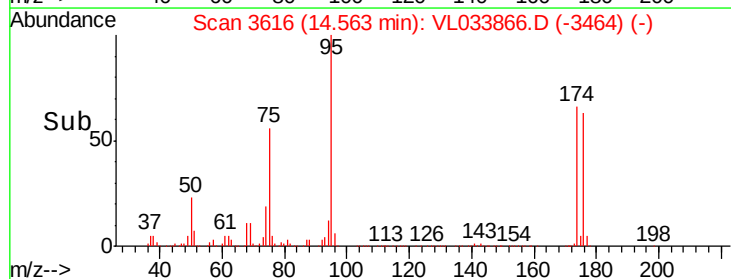
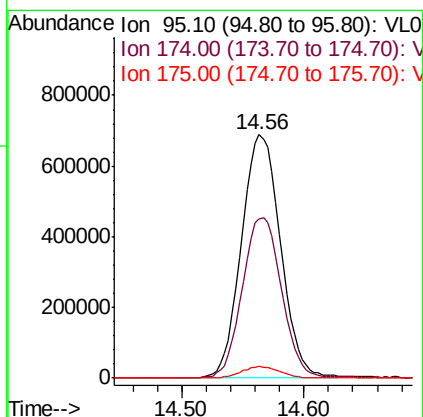
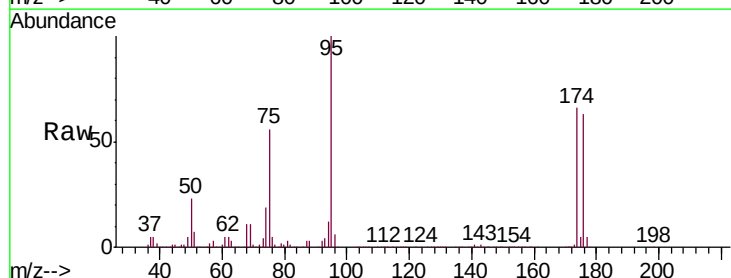
Instrument :
MSVOA_L
ClientSampleId :
SSG-2DLDUP

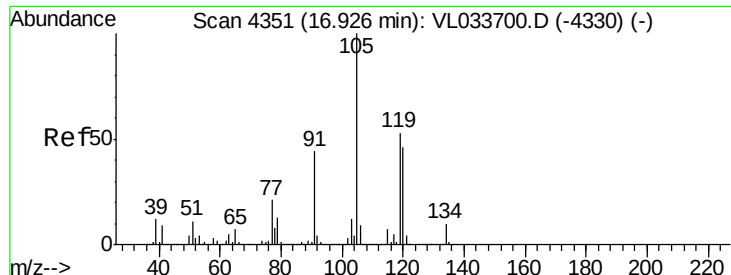
Tgt Ion: 91 Resp: 13852
Ion Ratio Lower Upper
91 100
106 50.3 21.6 64.8



#68
1-Bromo-4-Fluorobenzene
Concen: 9.939 ppbv
RT: 14.56 min Scan# 3616
Delta R.T. -0.01 min
Lab File: VL033866.D
Acq: 30 May 2019 11:46

Tgt Ion: 95 Resp: 1525479
Ion Ratio Lower Upper
95 100
174 67.0 53.9 80.9
175 4.7 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.034 ppbv
 RT: 16.91 min Scan# 4346
 Delta R.T. -0.02 min
 Lab File: VL033866.D
 Acq: 30 May 2019 11:46

Instrument :
 MSVOA_L
 ClientSampleId :
 SSG-2DLDP

Tgt Ion:	105	Resp:	9204
Ion	Ratio	Lower	Upper
105	100		
120	26.9	36.8	55.2#
91	16.4	35.4	53.0#
77	10.9	16.8	25.2#

