

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101220\
 Data File : VL035779.D
 Acq On : 13 Oct 2020 2:07
 Operator : SY/AP
 Sample : L4347-04DL 40X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 4DL2

Quant Time: Oct 13 02:35:18 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 23 07:38:05 2020
 QLast Update : Wed Sep 23 07:38:05 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1092404	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4036053	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	3991894	10.00	ppbv	-0.01

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.44	95	2988298	9.99	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.90%	

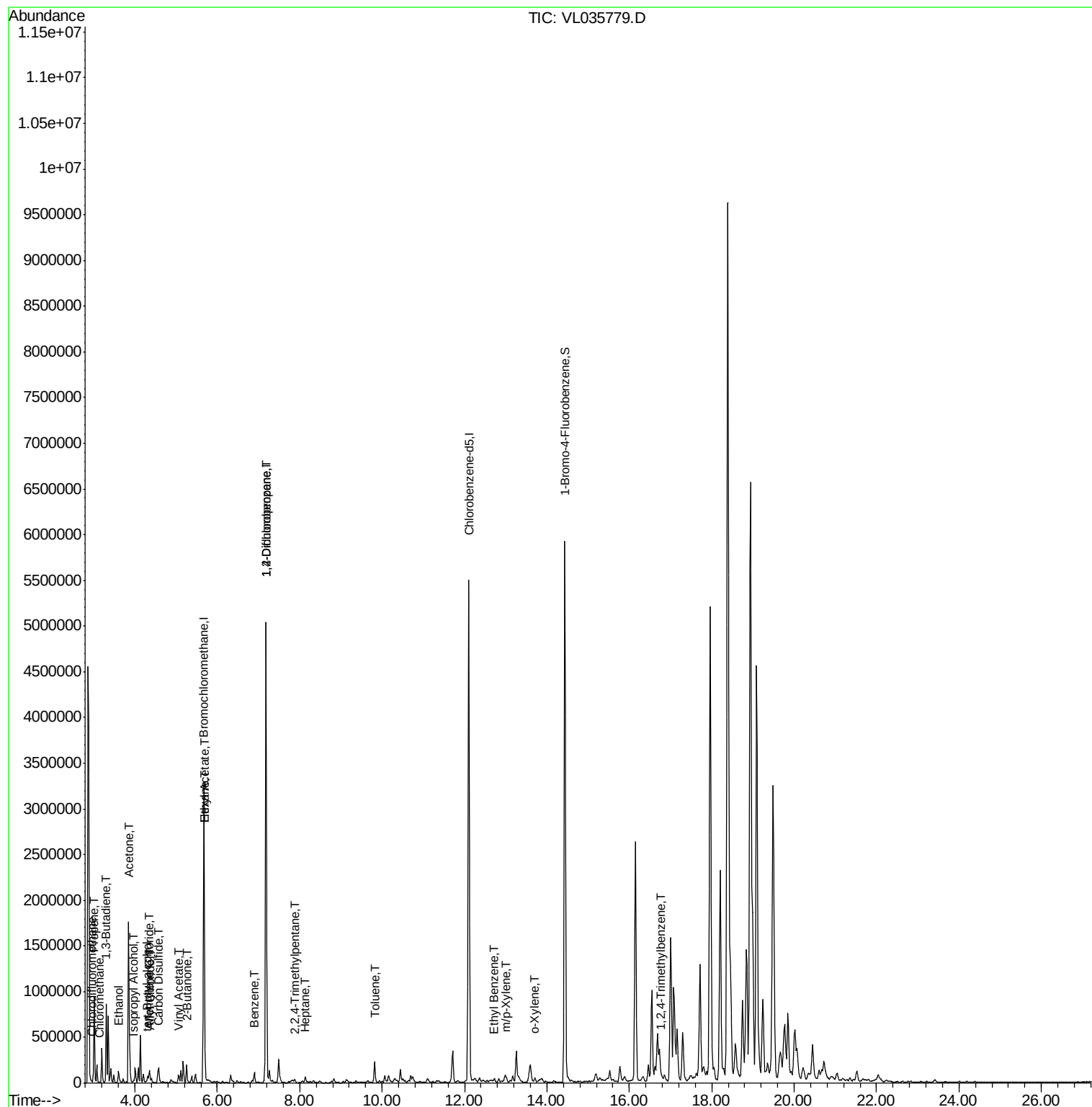
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.96	51	4808	0.041	ppbv #	78
4) Chloromethane	3.14	50	2514	0.040	ppbv	92
9) Propene	3.01	41	365370	8.563	ppbv	94
10) Heptane	8.13	43	13701	0.115	ppbv #	69
13) Ethanol	3.60	45	128110	12.174	ppbv	100
15) Acetone	3.84	43	1713805	14.580	ppbv	96
16) 1,3-Butadiene	3.30	39	216412	5.032	ppbv #	15
17) tert-Butyl alcohol	4.31	59	9163	0.072	ppbv #	72
19) Isopropyl Alcohol	3.97	45	13835	0.216	ppbv #	89
20) Methylene Chloride	4.35	84	52680	0.610	ppbv	95
21) Allyl Chloride	4.37	41	6889	0.121	ppbv #	1
23) Vinyl Acetate	5.07	43	24046	0.167	ppbv #	11
25) Ethyl Acetate	5.69	43	53825	0.254	ppbv #	80
26) Hexane	5.69	57	81697	0.705	ppbv #	46
27) Carbon Disulfide	4.55	76	110079	0.637	ppbv	97
34) 2-Butanone	5.25	43	191866	1.437	ppbv	98
36) Benzene	6.90	78	101766	0.387	ppbv	99
39) 1,2-Dichloropropane	7.18	63	802365	8.417	ppbv #	31
44) 2,2,4-Trimethylpentane	7.87	57	12432	0.033	ppbv #	10
53) Toluene	9.82	91	172601	0.557	ppbv	95
58) Ethyl Benzene	12.73	91	26720	0.067	ppbv	91
59) m/p-Xylene	13.01	91	14338	0.041	ppbv #	26
60) o-Xylene	13.71	91	23389	0.066	ppbv	91
74) 1,2,4-Trimethylbenzene	16.78	105	33620	0.075	ppbv #	69

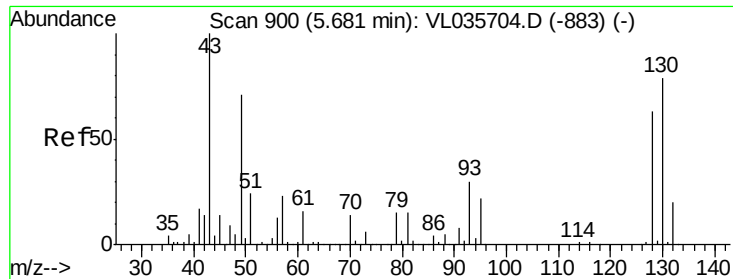
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Sep 23 07:38:05 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.01 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampleId :

4DL2

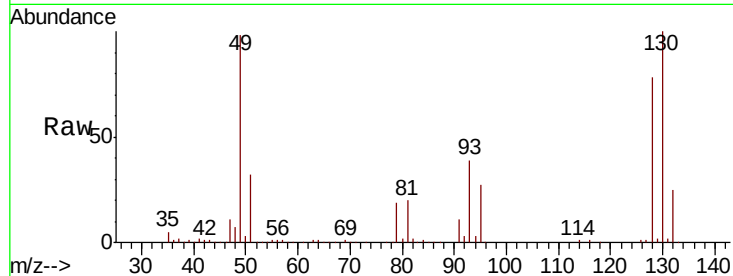
Tot Ion: 49 Resp: 1092404

Ion Ratio Lower Upper

49 100

128 81.0 43.1 129.4

130 103.6 54.9 164.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

800000

600000

400000

200000

0

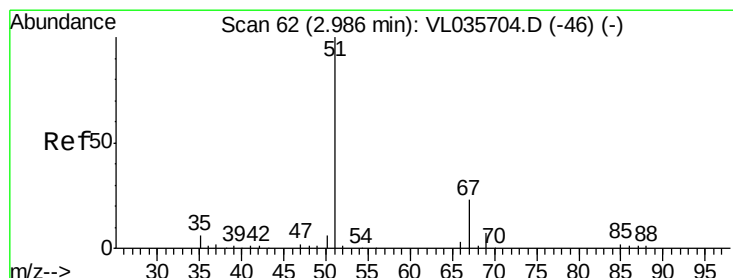
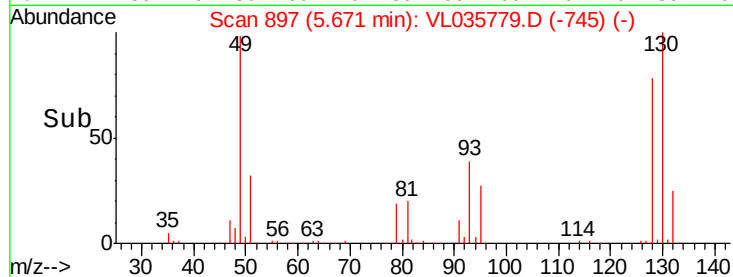
5.60

5.65

5.70

5.75

Time-->



#3

Chlorodifluoromethane

Concen: 0.041 ppbv

RT: 2.96 min Scan# 54

Delta R.T. -0.03 min

Lab File: VL035779.D

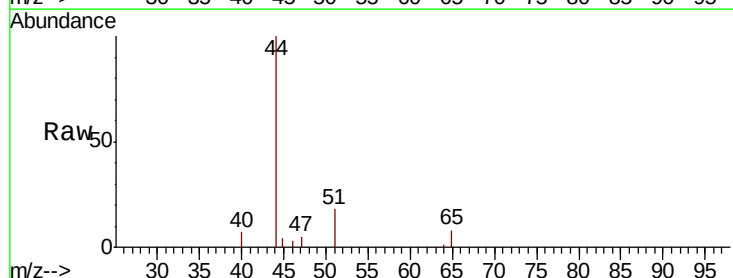
Acq: 13 Oct 2020 2:07

Tgt Ion: 51 Resp: 4808

Ion Ratio Lower Upper

51 100

67 11.7 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3000

2500

2000

1500

1000

500

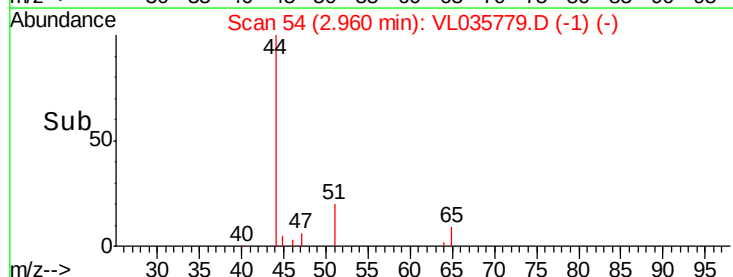
0

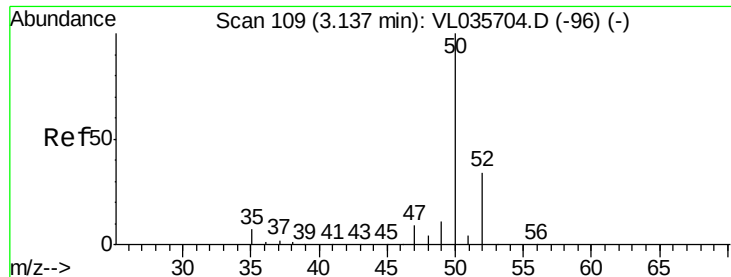
2.90

2.95

3.00

Time-->





#4

Chloromethane

Concen: 0.040 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampled :

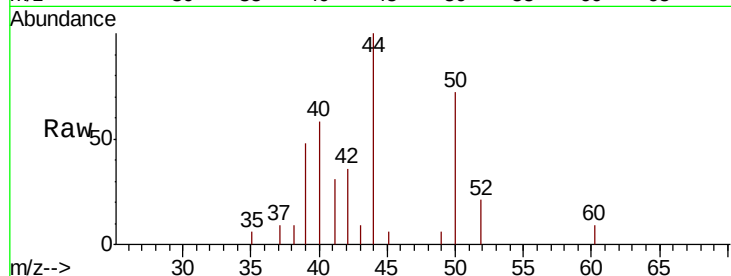
4DL2

Tot Ion: 50 Resp: 2514

Ion Ratio Lower Upper

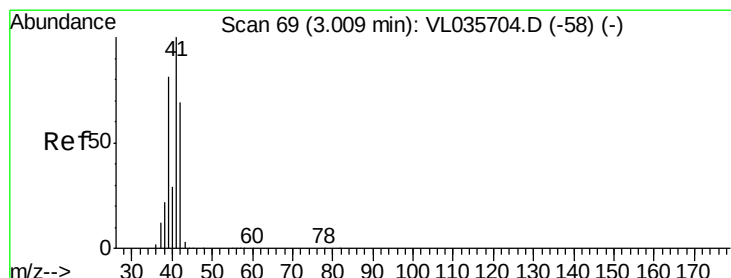
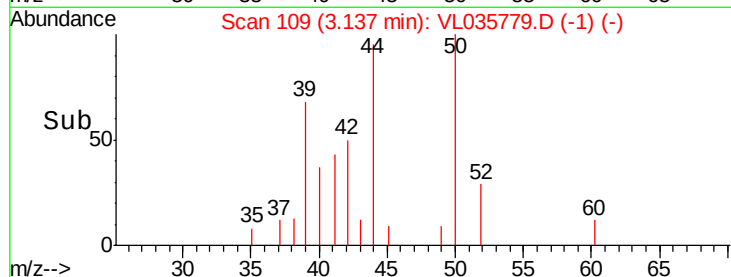
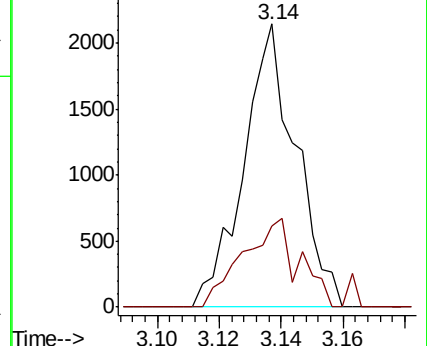
50 100

52 28.7 26.8 40.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 8.563 ppbv

RT: 3.01 min Scan# 68

Delta R.T. -0.00 min

Lab File: VL035779.D

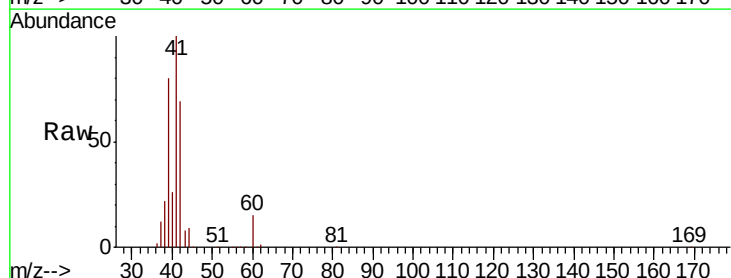
Acq: 13 Oct 2020 2:07

Tgt Ion: 41 Resp: 365370

Ion Ratio Lower Upper

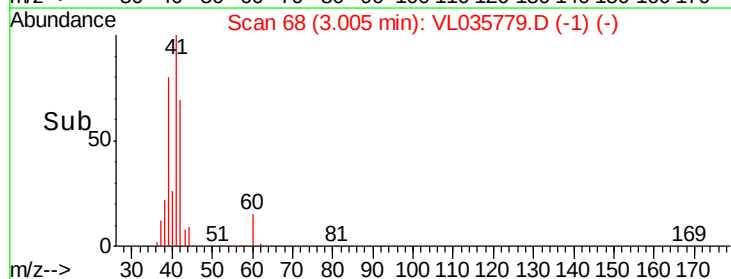
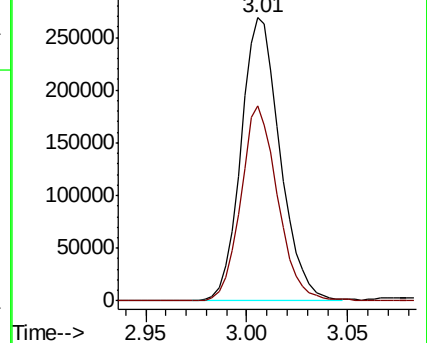
41 100

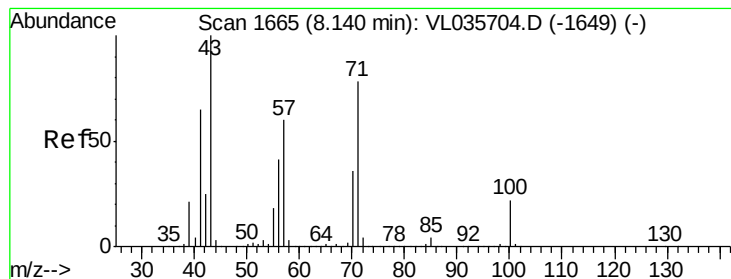
42 65.1 56.2 84.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.115 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. -0.01 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampleId :

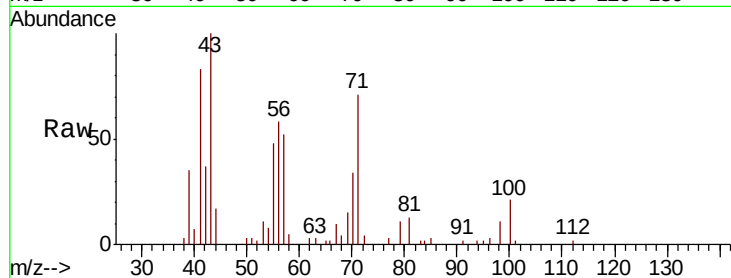
4DL2

Tot Ion: 43 Resp: 13701

Ion Ratio Lower Upper

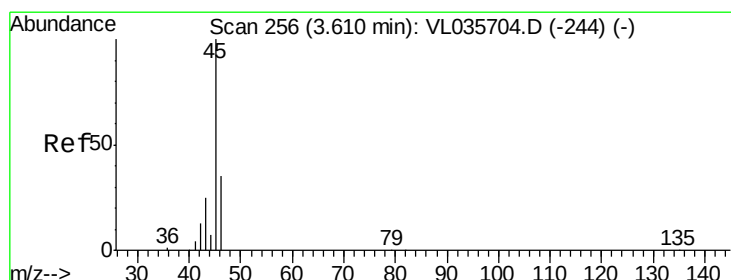
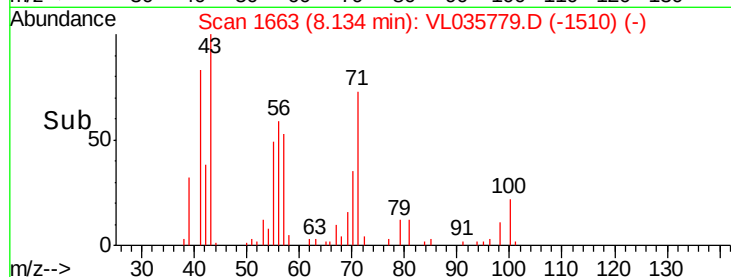
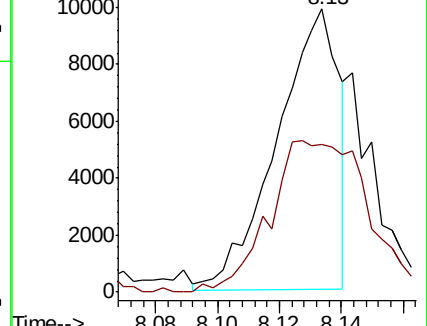
43 100

57 87.1 50.4 75.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#13

Ethanol

Concen: 12.174 ppbv

RT: 3.60 min Scan# 253

Delta R.T. -0.01 min

Lab File: VL035779.D

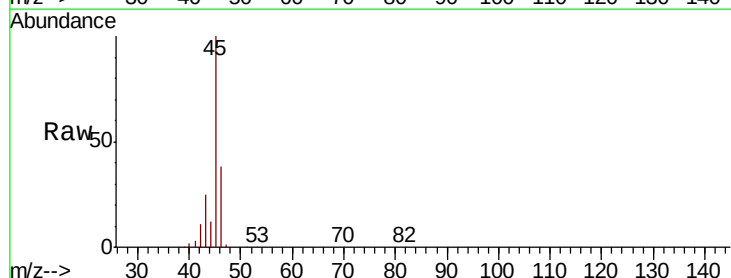
Acq: 13 Oct 2020 2:07

Tgt Ion: 45 Resp: 128110

Ion Ratio Lower Upper

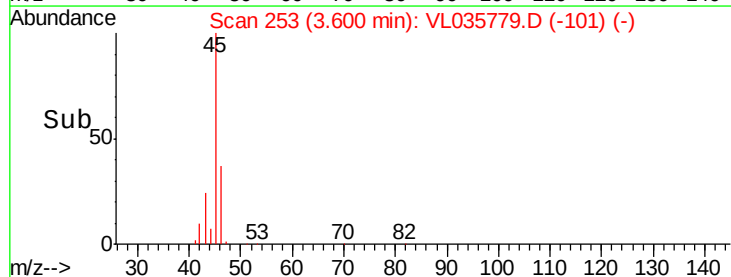
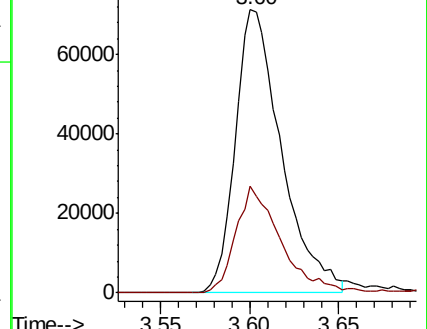
45 100

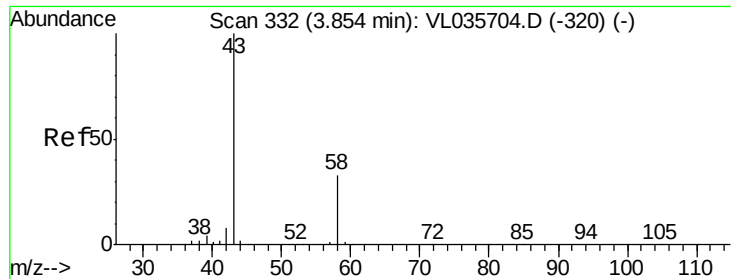
46 37.0 14.7 58.7



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 14.580 ppbv

RT: 3.84 min Scan# 329

Delta R.T. -0.01 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampleId :

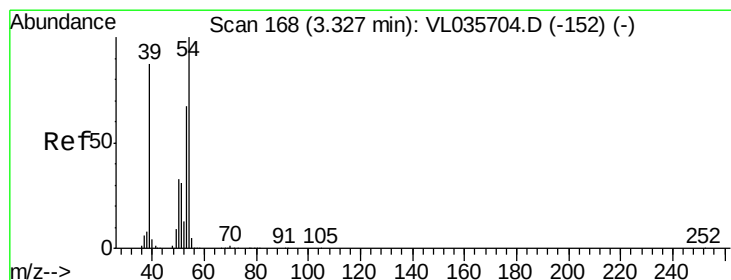
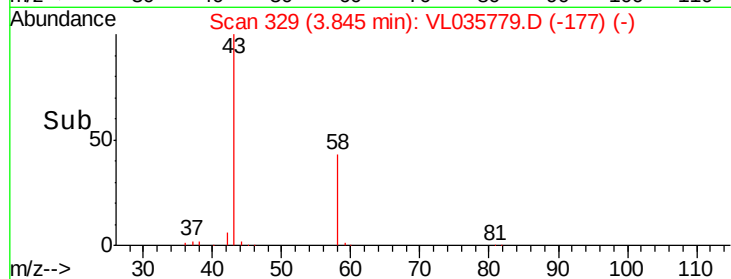
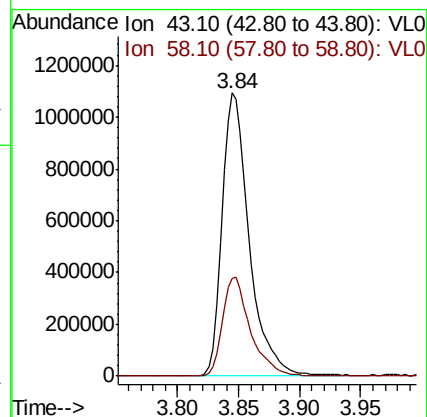
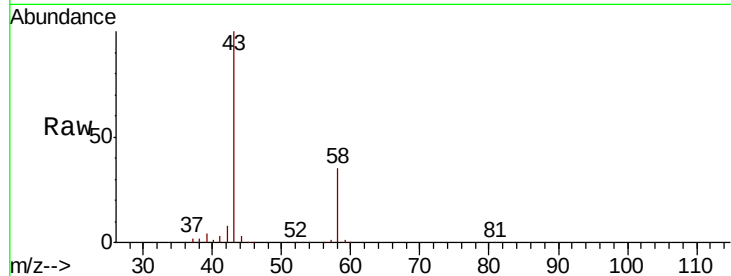
4DL2

Tot Ion: 43 Resp: 1713805

Ion Ratio Lower Upper

43 100

58 36.3 27.3 40.9



#16

1,3-Butadiene

Concen: 5.032 ppbv

RT: 3.30 min Scan# 161

Delta R.T. -0.02 min

Lab File: VL035779.D

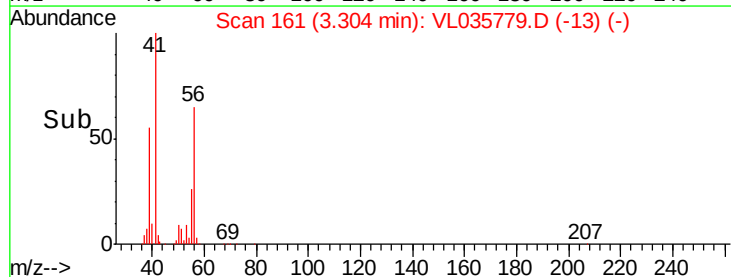
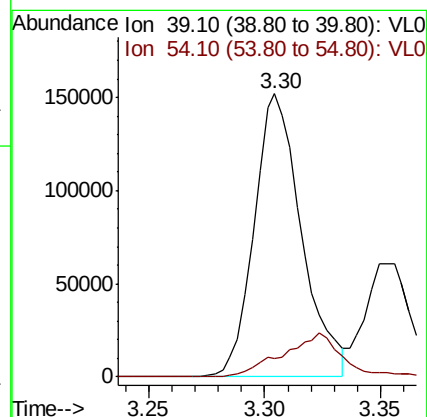
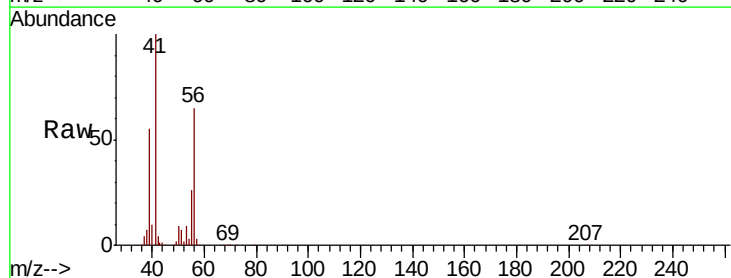
Acq: 13 Oct 2020 2:07

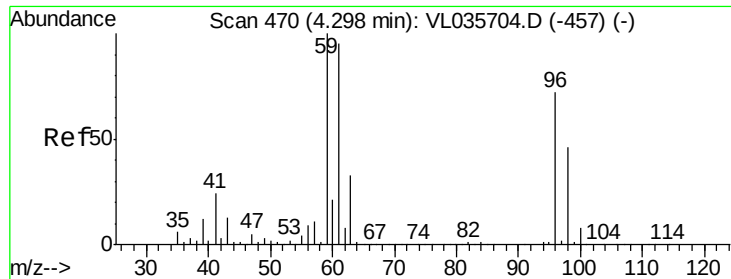
Tgt Ion: 39 Resp: 216412

Ion Ratio Lower Upper

39 100

54 19.3 87.4 131.0#





#17

tert-Butyl alcohol

Concen: 0.072 ppbv

RT: 4.31 min Scan# 474

Delta R.T. 0.01 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampleId :

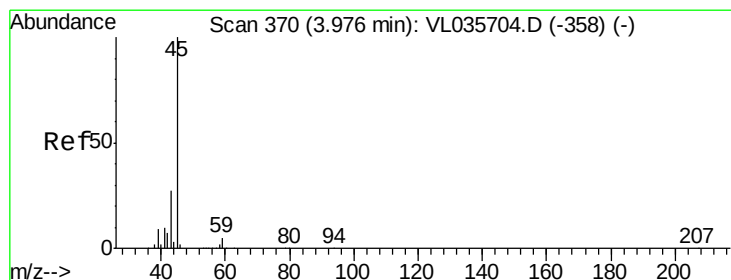
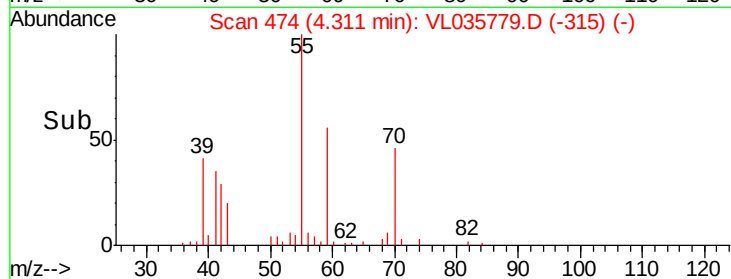
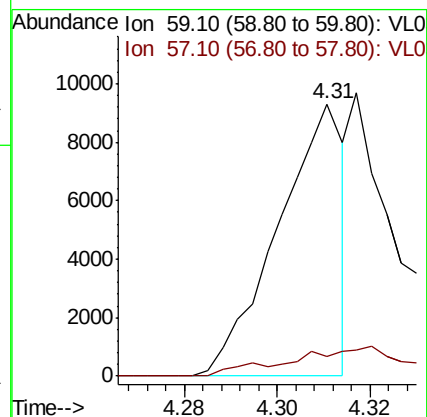
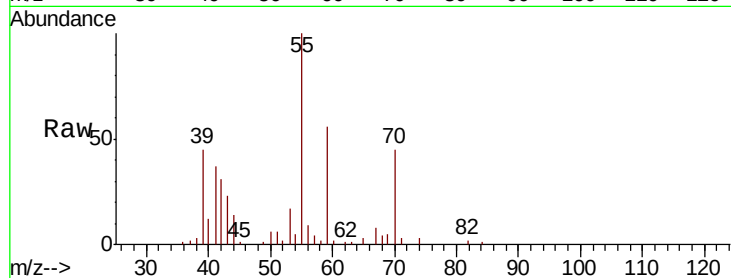
4DL2

Tot Ion: 59 Resp: 9163

Ion Ratio Lower Upper

59 100

57 0.0 8.5 12.7#



#19

Isopropyl Alcohol

Concen: 0.216 ppbv

RT: 3.97 min Scan# 369

Delta R.T. -0.00 min

Lab File: VL035779.D

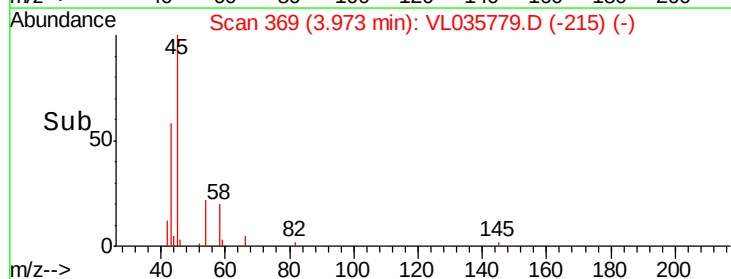
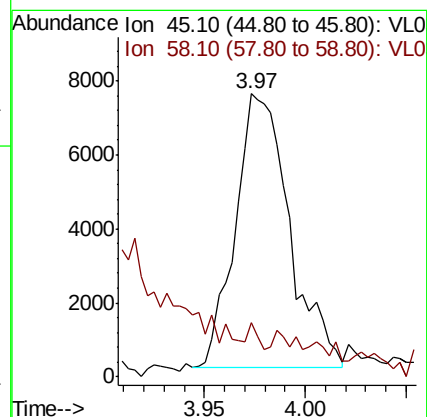
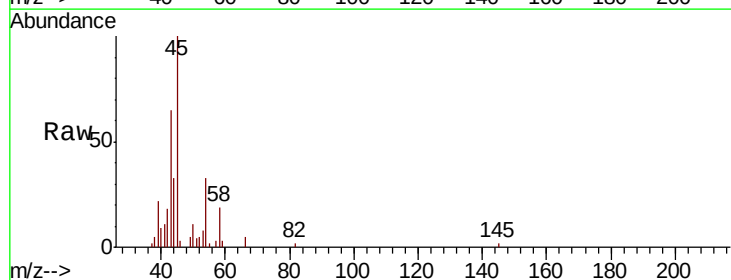
Acq: 13 Oct 2020 2:07

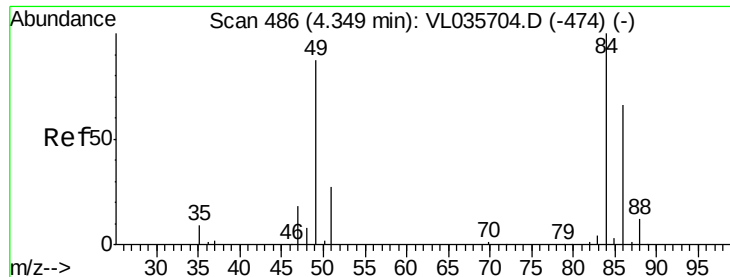
Tgt Ion: 45 Resp: 13835

Ion Ratio Lower Upper

45 100

58 0.0 2.8 4.2#

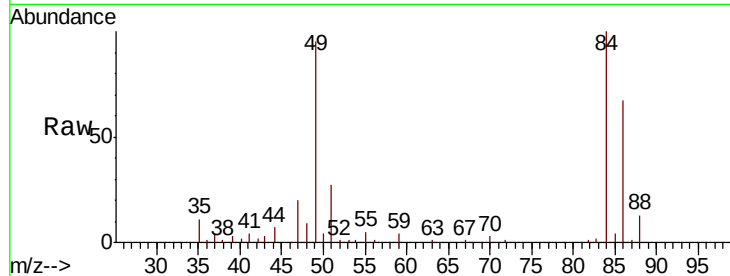




#20
Methylene Chloride
Concen: 0.610 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.00 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

Instrument :
MSVOA_L
ClientSampleId :
4DL2

Tot Ion:	84	Resp:	52680
Ion	Ratio	Lower	Upper
84	100		
49	94.7	69.8	104.6
51	25.1	21.8	32.8
86	66.5	52.6	78.8



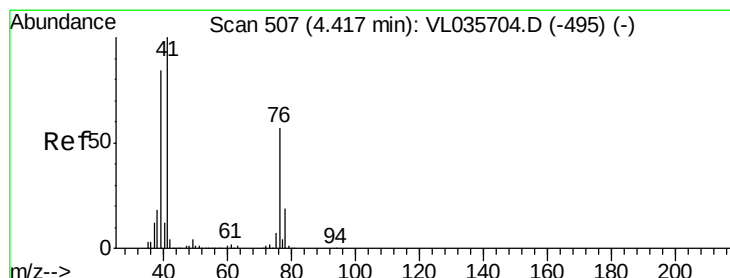
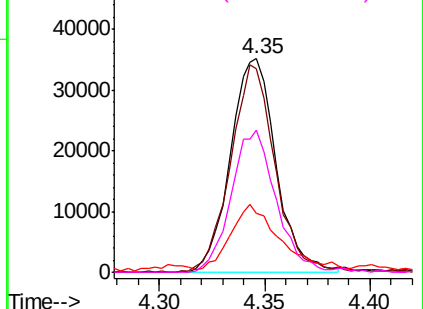
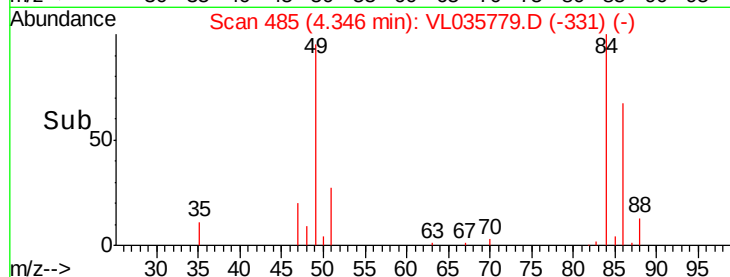
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

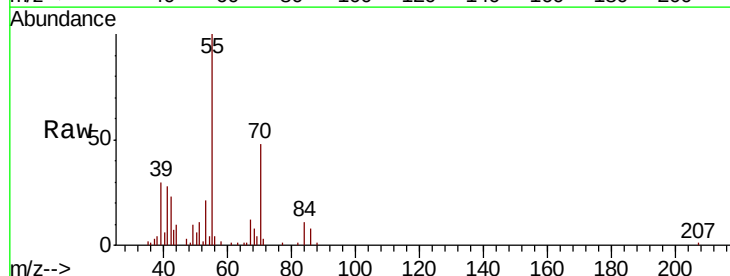
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.121 ppbv
RT: 4.37 min Scan# 492
Delta R.T. -0.05 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

Tgt Ion:	41	Resp:	6889
Ion	Ratio	Lower	Upper
41	100		
76	0.0	44.8	67.2#
39	237.5	68.4	102.6#

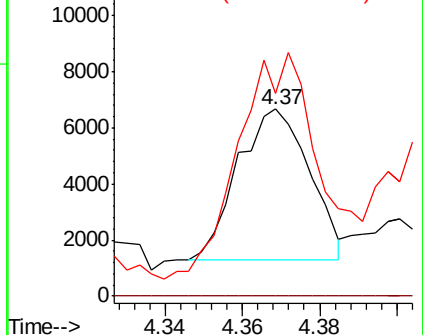
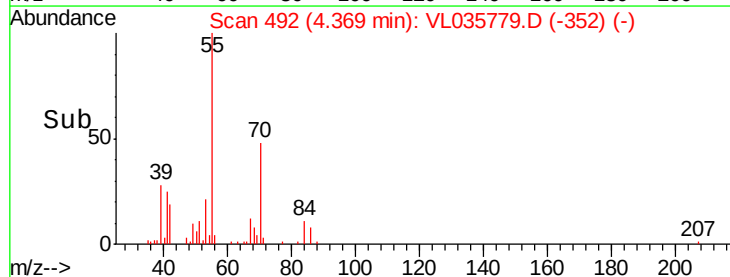


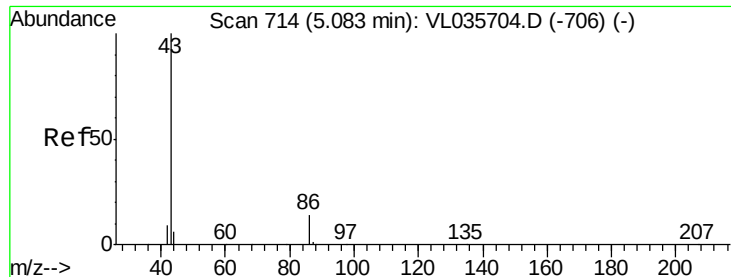
Abundance

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: 0.167 ppbv

RT: 5.07 min Scan# 709

Delta R.T. -0.02 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampled :

4DL2

Tot Ion: 43 Resp: 24046

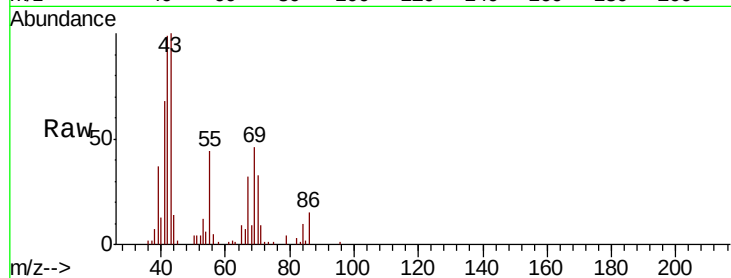
Ion Ratio Lower Upper

43 100

86 14.8 9.7 14.5#

42 97.5 7.9 11.9#

44 2.7 4.8 7.2#

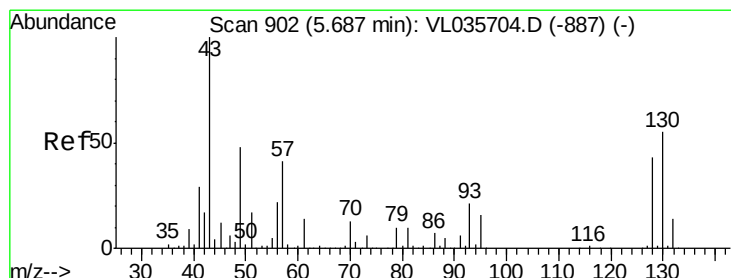
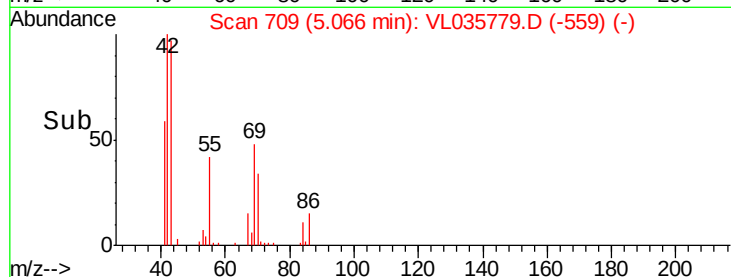
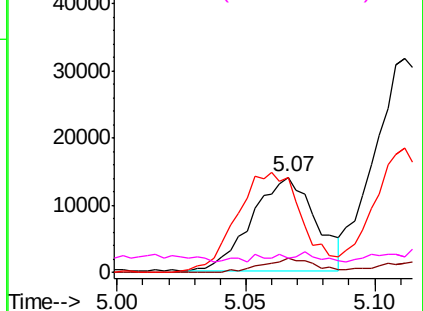


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.254 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.00 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Tgt Ion: 43 Resp: 53825

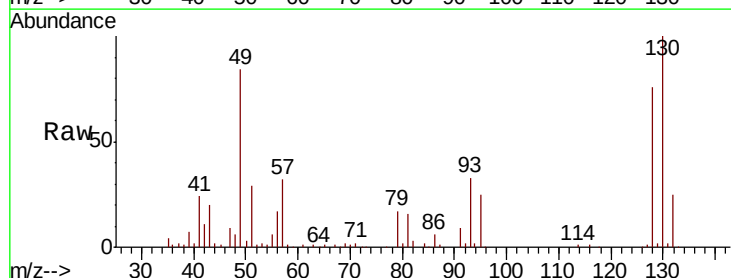
Ion Ratio Lower Upper

43 100

45 4.8 8.6 12.8#

61 2.4 10.4 15.6#

70 4.7 8.9 13.3#

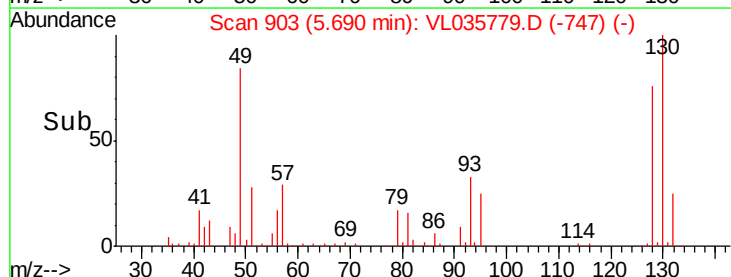
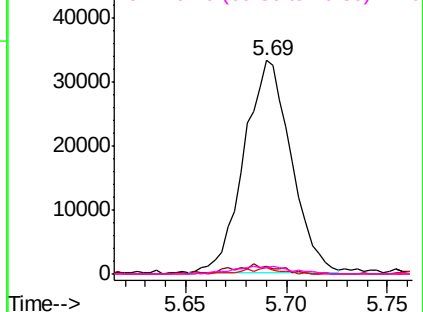


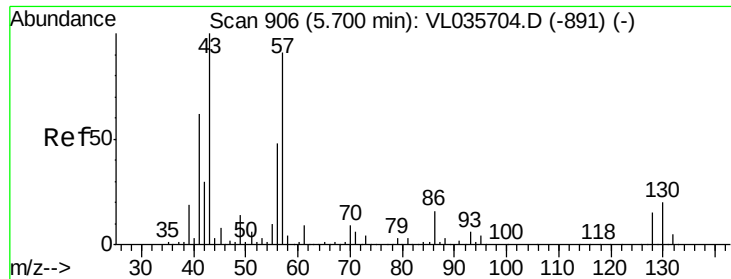
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.705 ppbv

RT: 5.69 min Scan# 903

Delta R.T. -0.01 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampleId :

4DL2

Tot Ion: 57 Resp: 81697

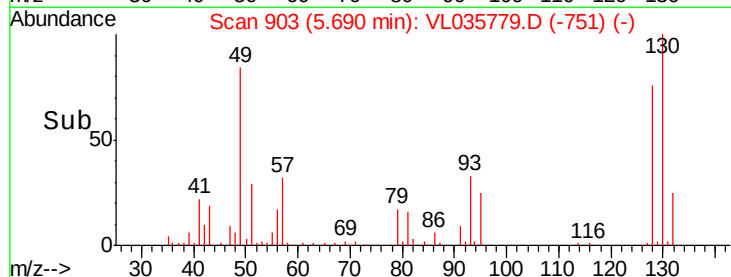
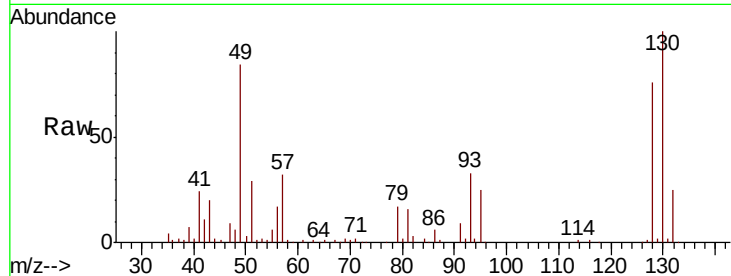
Ion Ratio Lower Upper

57 100

41 89.4 57.9 86.9#

43 66.9 143.8 215.6#

56 62.6 43.0 64.6

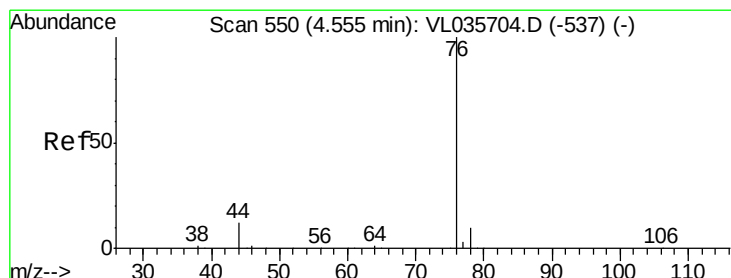
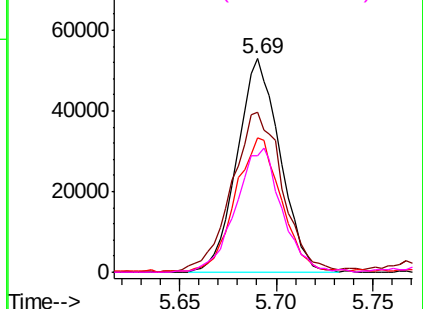


Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 0.637 ppbv

RT: 4.55 min Scan# 549

Delta R.T. -0.00 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

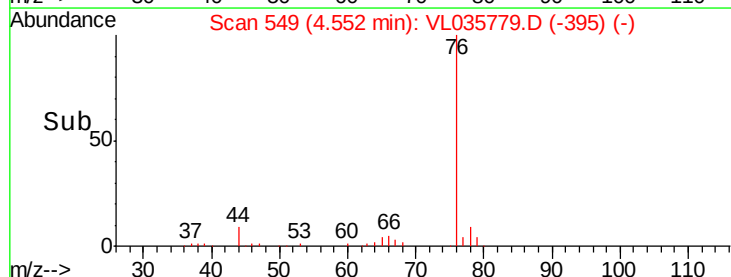
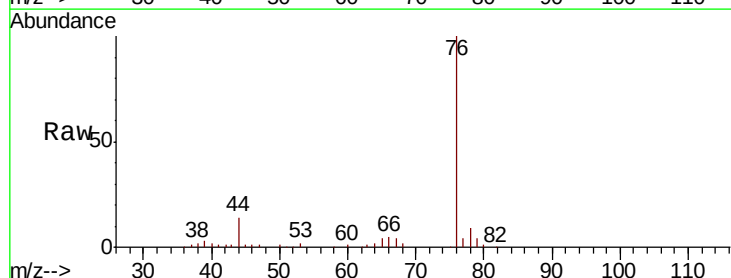
Tgt Ion: 76 Resp: 110079

Ion Ratio Lower Upper

76 100

44 13.9 9.7 14.5

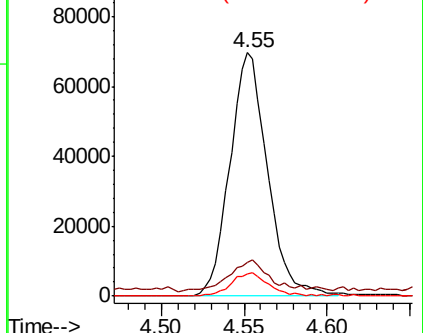
78 9.4 7.8 11.8

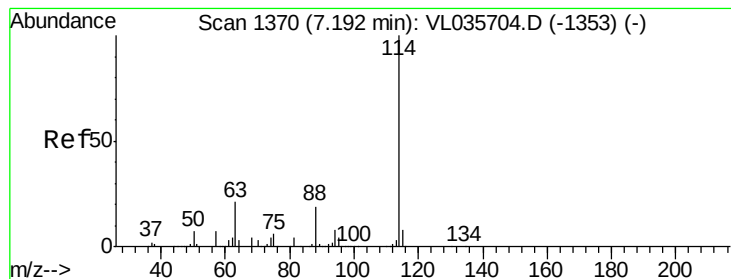


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.01 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampleId :

4DL2

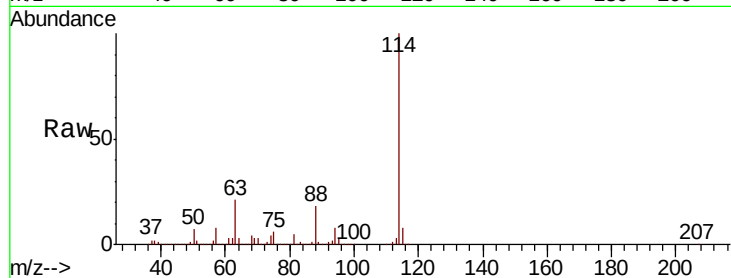
Tot Ion:114 Resp: 4036053

Ion Ratio Lower Upper

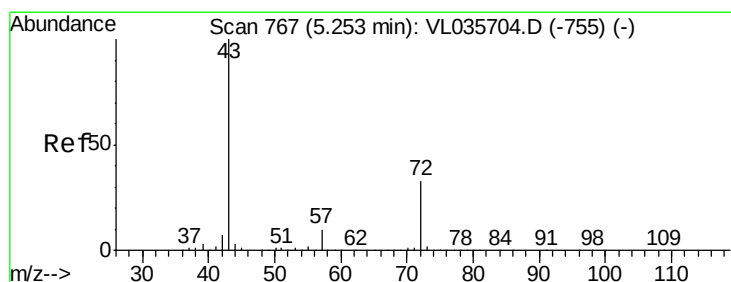
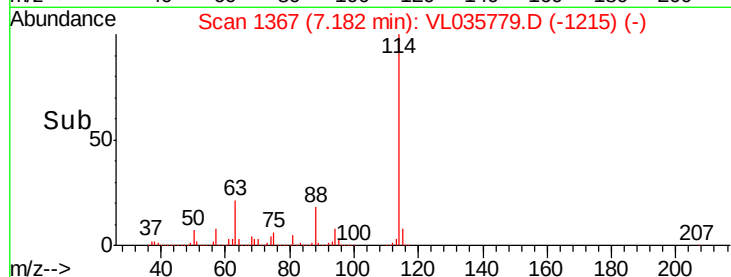
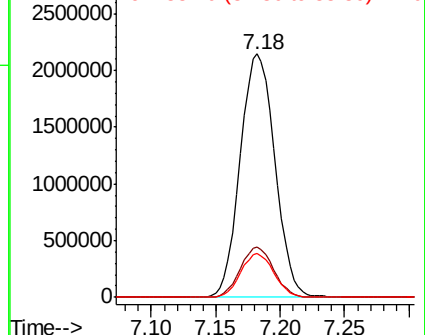
114 100

63 20.0 16.1 24.1

88 17.3 14.1 21.1



Abundance Ion 114.10 (113.80 to 114.80): VL0
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.437 ppbv

RT: 5.25 min Scan# 767

Delta R.T. -0.00 min

Lab File: VL035779.D

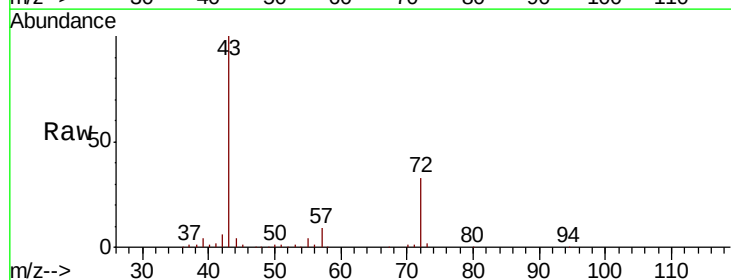
Acq: 13 Oct 2020 2:07

Tgt Ion: 43 Resp: 191866

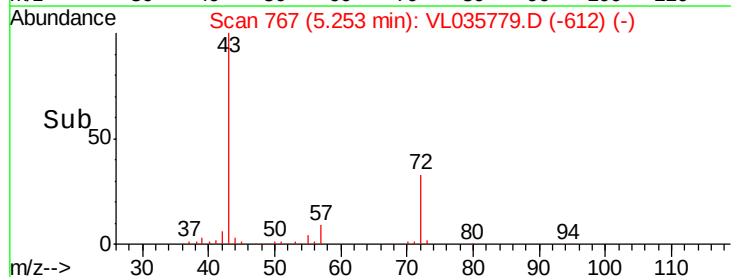
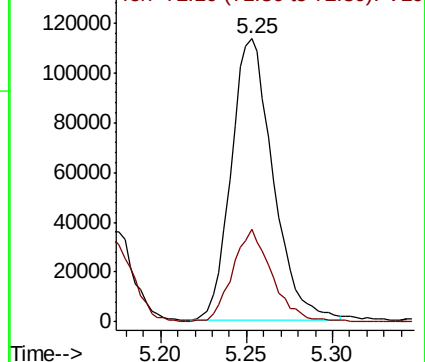
Ion Ratio Lower Upper

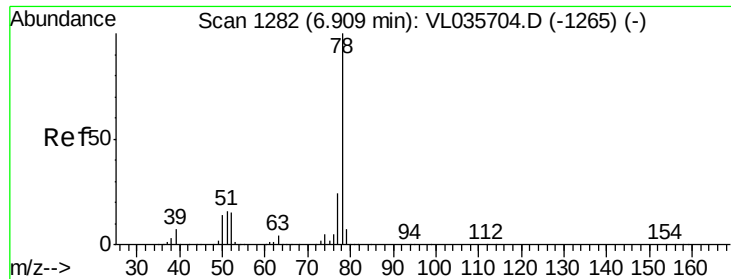
43 100

72 31.6 26.1 39.1



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 72.10 (71.80 to 72.80): VL0

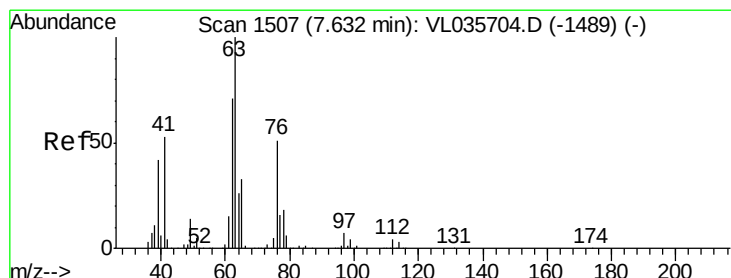
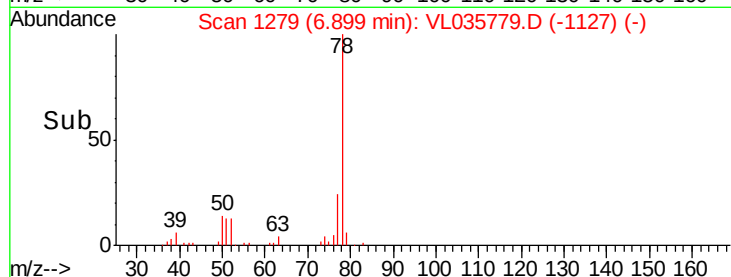
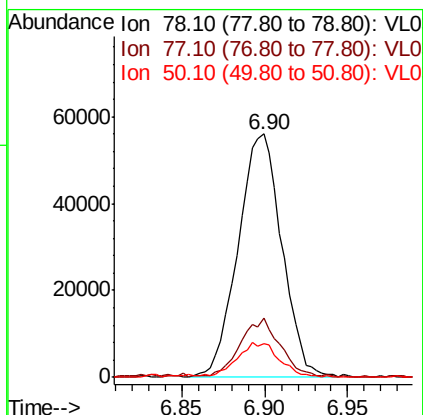
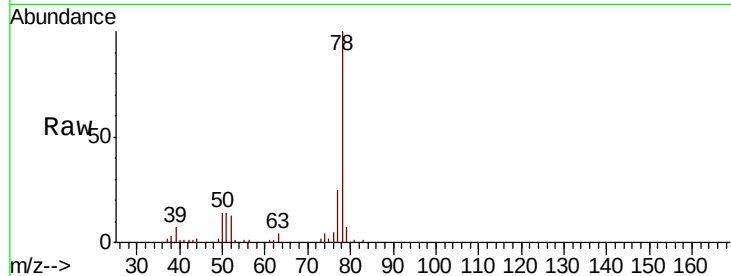




#36
Benzene
Concen: 0.387 ppbv
RT: 6.90 min Scan# 1279
Delta R.T. -0.01 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

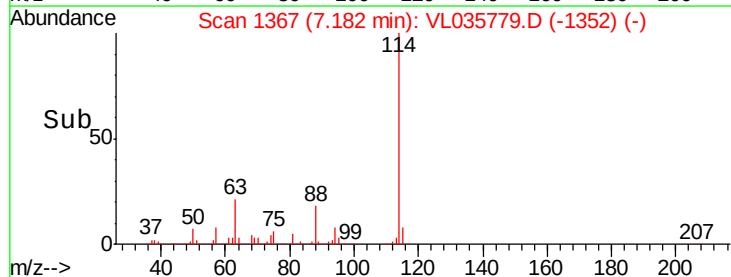
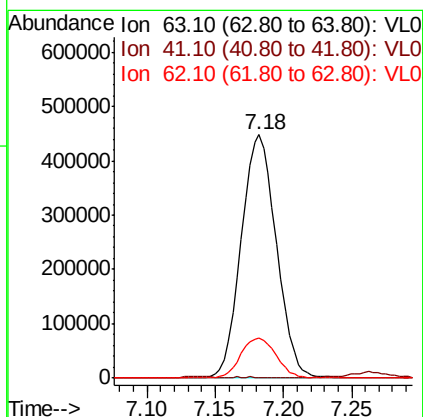
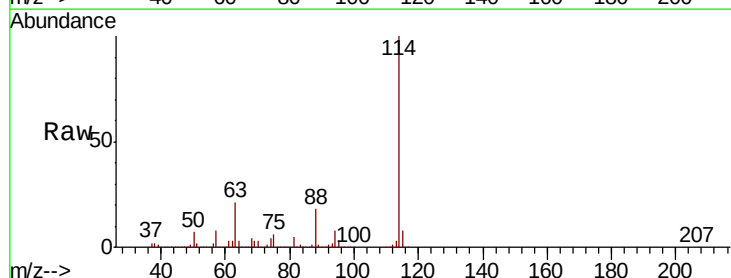
Instrument :
MSVOA_L
ClientSampled :
4DL2

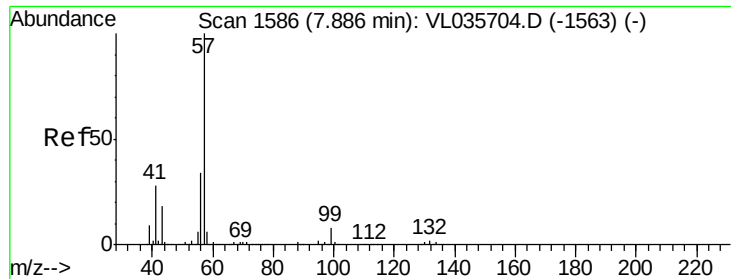
Tot Ion: 78 Resp: 101766
Ion Ratio Lower Upper
78 100
77 24.4 19.3 28.9
50 13.9 11.6 17.4



#39
1,2-Dichloropropane
Concen: 8.417 ppbv
RT: 7.18 min Scan# 1367
Delta R.T. -0.45 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

Tgt Ion: 63 Resp: 802365
Ion Ratio Lower Upper
63 100
41 0.0 42.6 63.8#
62 16.7 56.5 84.7#

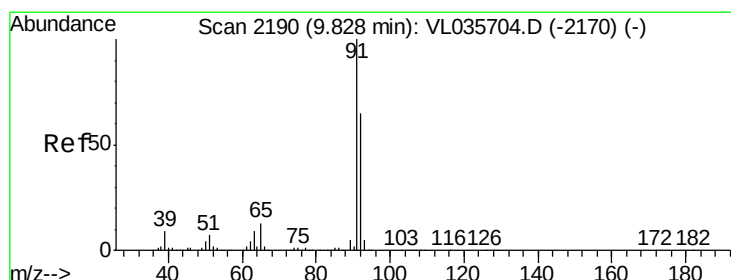
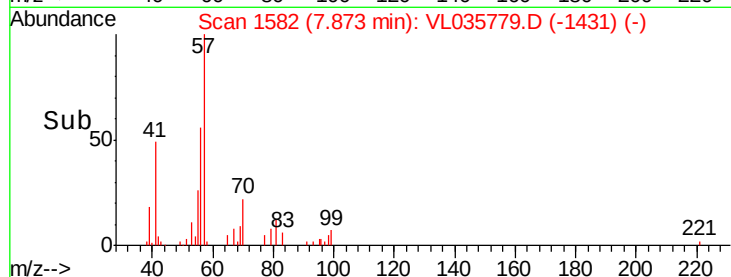
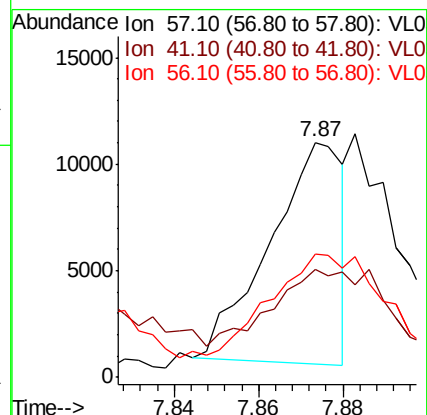
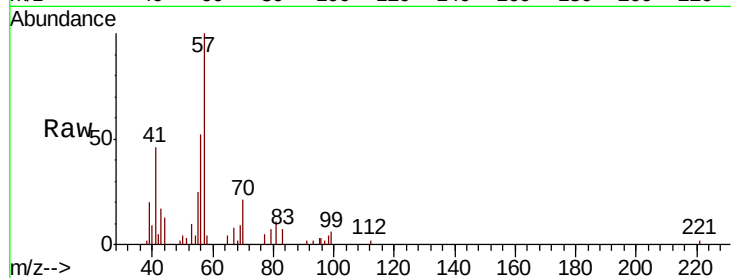




#44
 2,2,4-Trimethylpentane
 Concen: 0.033 ppbv
 RT: 7.87 min Scan# 1582
 Delta R.T. -0.01 min
 Lab File: VL035779.D
 Acq: 13 Oct 2020 2:07

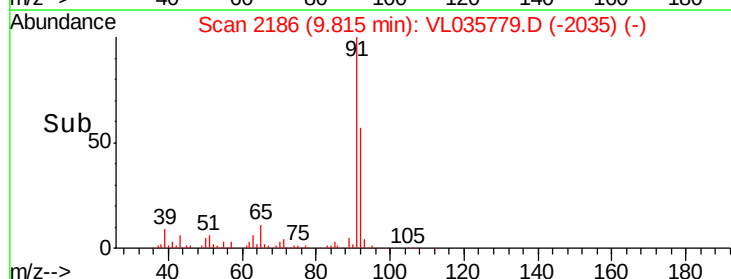
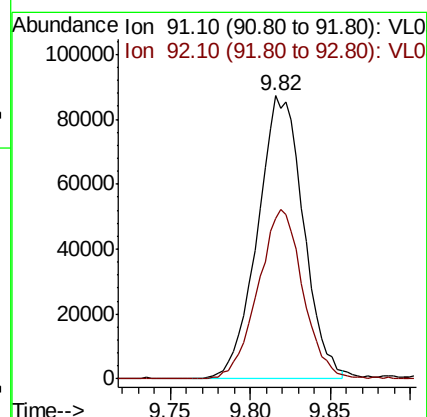
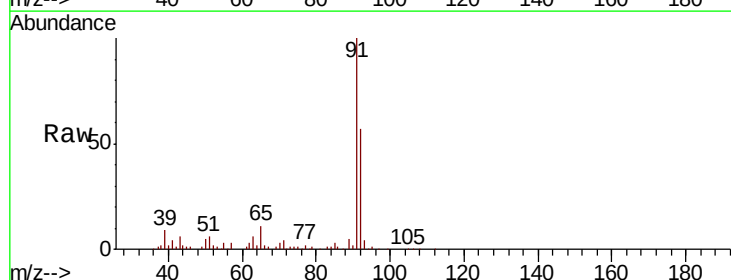
Instrument :
 MSVOA_L
 ClientSampleId :
 4DL2

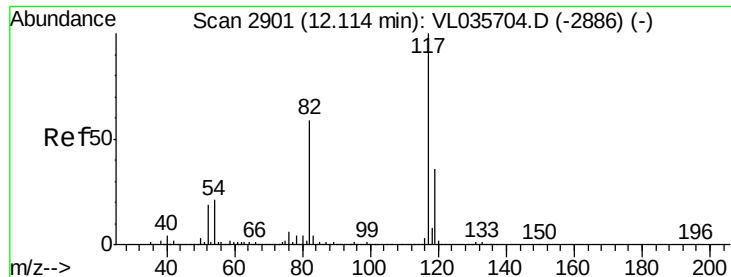
Tot Ion: 57 Resp: 12432
 Ion Ratio Lower Upper
 57 100
 41 0.0 21.2 31.8#
 56 99.9 25.8 38.8#



#53
 Toluene
 Concen: 0.557 ppbv
 RT: 9.82 min Scan# 2186
 Delta R.T. -0.01 min
 Lab File: VL035779.D
 Acq: 13 Oct 2020 2:07

Tgt Ion: 91 Resp: 172601
 Ion Ratio Lower Upper
 91 100
 92 58.8 50.0 75.0

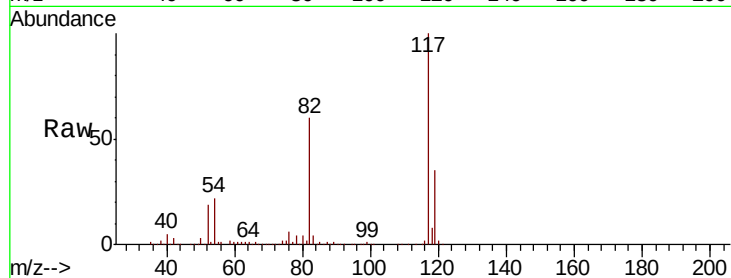




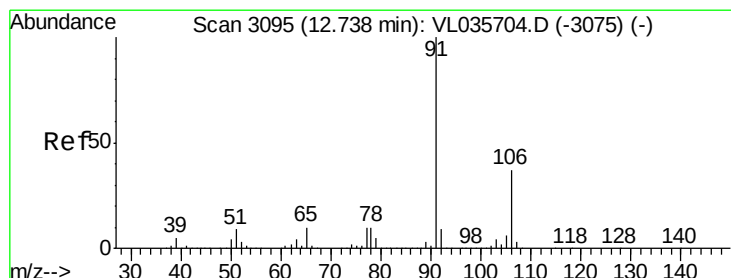
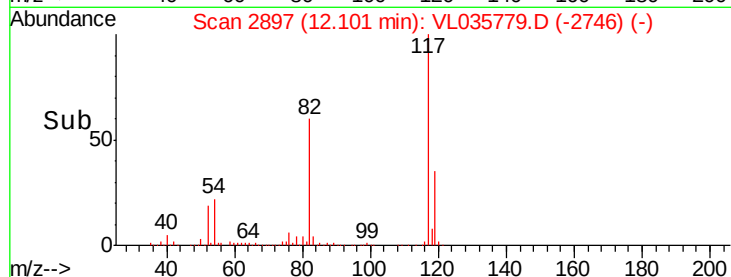
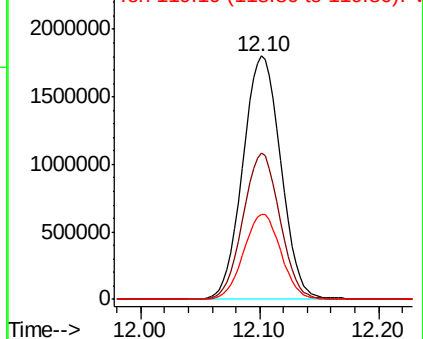
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2897
Delta R.T. -0.01 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

Instrument :
MSVOA_L
ClientSampleId :
4DL2

Tot Ion:117 Resp: 3991894
Ion Ratio Lower Upper
117 100
82 58.6 46.1 69.1
119 34.4 28.0 42.0

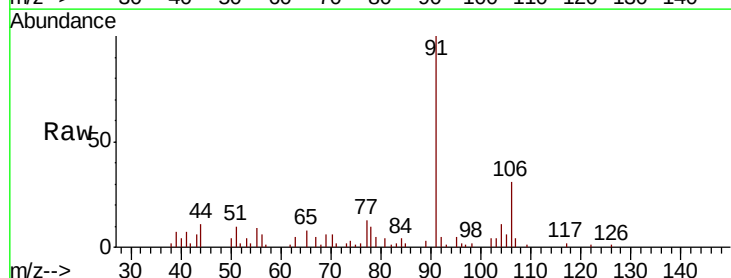


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

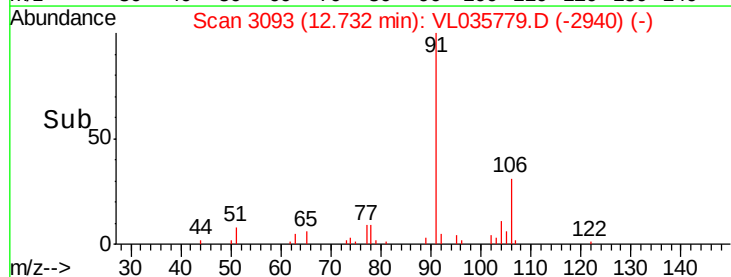
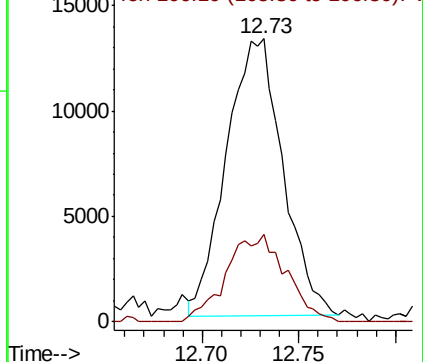


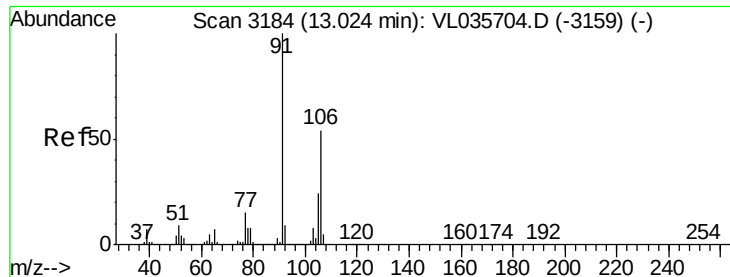
#58
Ethyl Benzene
Concen: 0.067 ppbv
RT: 12.73 min Scan# 3093
Delta R.T. -0.01 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

Tgt Ion: 91 Resp: 26720
Ion Ratio Lower Upper
91 100
106 31.6 29.7 44.5



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V

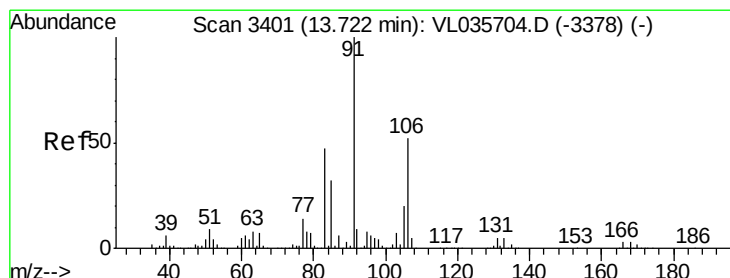
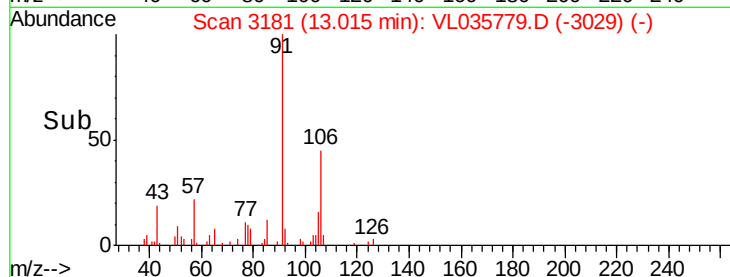
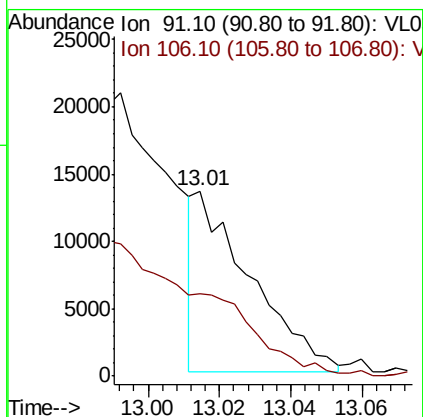
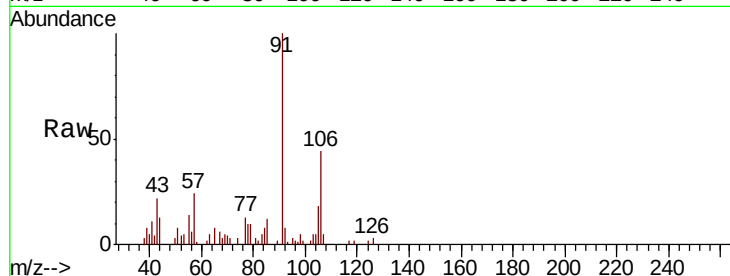




#59
m/p-Xylene
Concen: 0.041 ppbv
RT: 13.01 min Scan# 3181
Delta R.T. -0.01 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

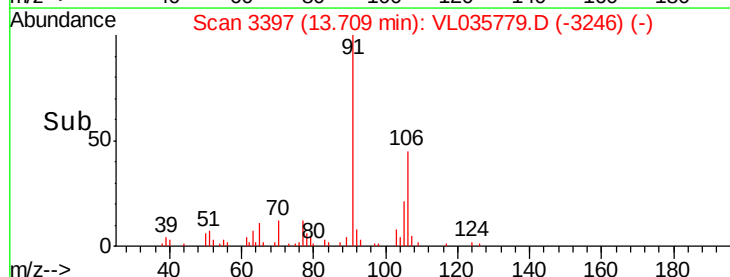
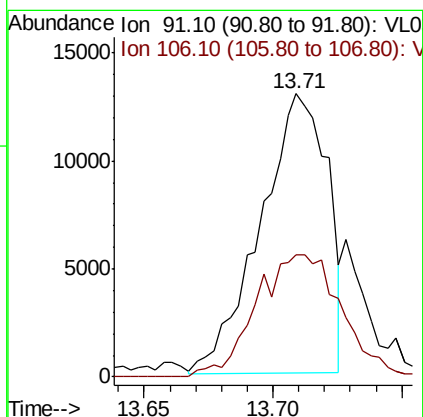
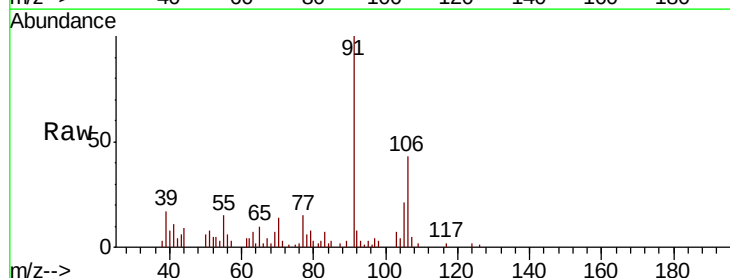
Instrument :
MSVOA_L
ClientSampled :
4DL2

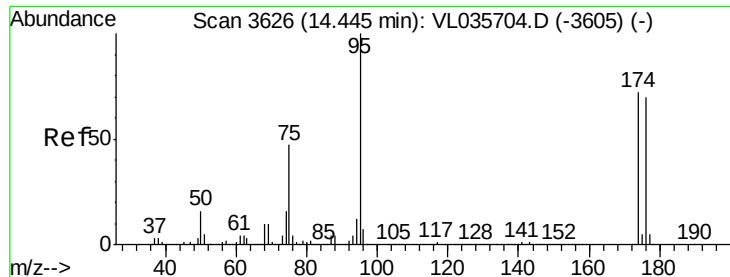
Tot Ion: 91 Resp: 14338
Ion Ratio Lower Upper
91 100
106 0.0 41.4 62.0#



#60
o-Xylene
Concen: 0.066 ppbv
RT: 13.71 min Scan# 3397
Delta R.T. -0.01 min
Lab File: VL035779.D
Acq: 13 Oct 2020 2:07

Tgt Ion: 91 Resp: 23389
Ion Ratio Lower Upper
91 100
106 55.9 25.0 75.0





#68

1-Bromo-4-Fluorobenzene

Concen: 9.990 ppbv

RT: 14.44 min Scan# 3623

Delta R.T. -0.01 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Instrument :

MSVOA_L

ClientSampleId :

4DL2

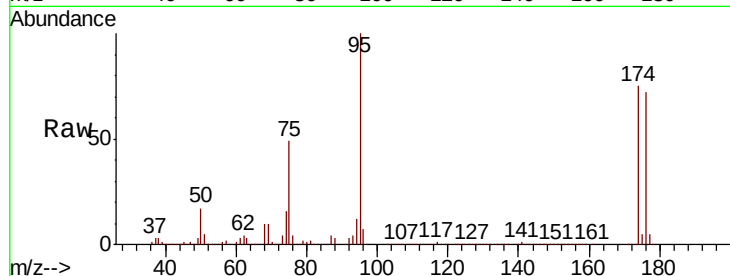
Tot Ion: 95 Resp: 2988298

Ion Ratio Lower Upper

95 100

174 74.3 59.6 89.4

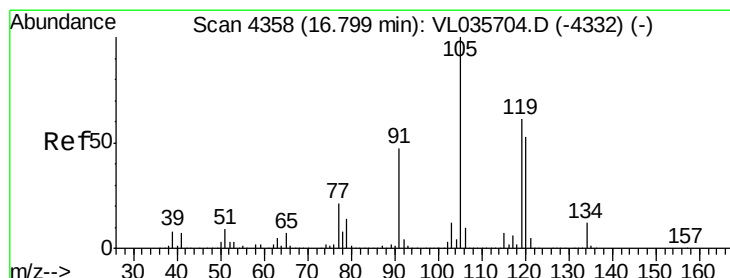
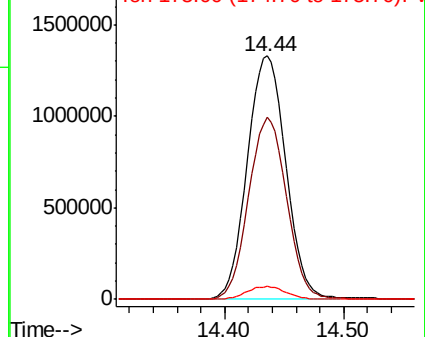
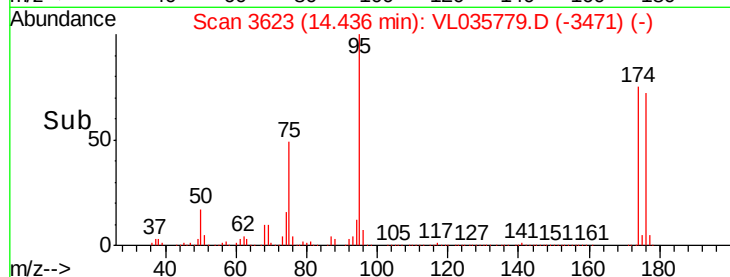
175 5.3 4.2 6.4



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



#74

1,2,4-Trimethylbenzene

Concen: 0.075 ppbv

RT: 16.78 min Scan# 4353

Delta R.T. -0.02 min

Lab File: VL035779.D

Acq: 13 Oct 2020 2:07

Tgt Ion: 105 Resp: 33620

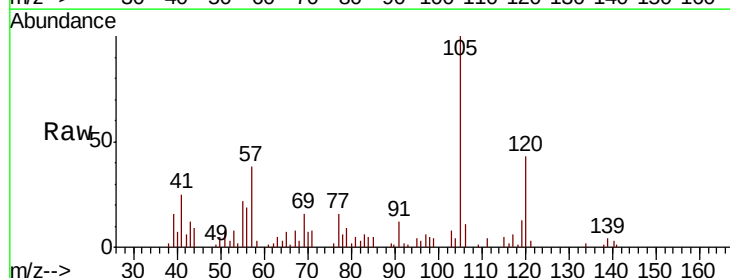
Ion Ratio Lower Upper

105 100

120 44.1 42.5 63.7

91 8.3 37.7 56.5#

77 13.4 16.7 25.1#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

