

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051920\
 Data File : VL035050.D
 Acq On : 19 May 2020 18:59
 Operator : SY/AP
 Sample : L2683-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: May 20 04:46:14 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 06 14:49:39 2020
 QLast Update : Wed May 06 14:49:39 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1131056	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	2538436	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.10	117	2413448	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.43	95	2134951	10.93	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	109.30%

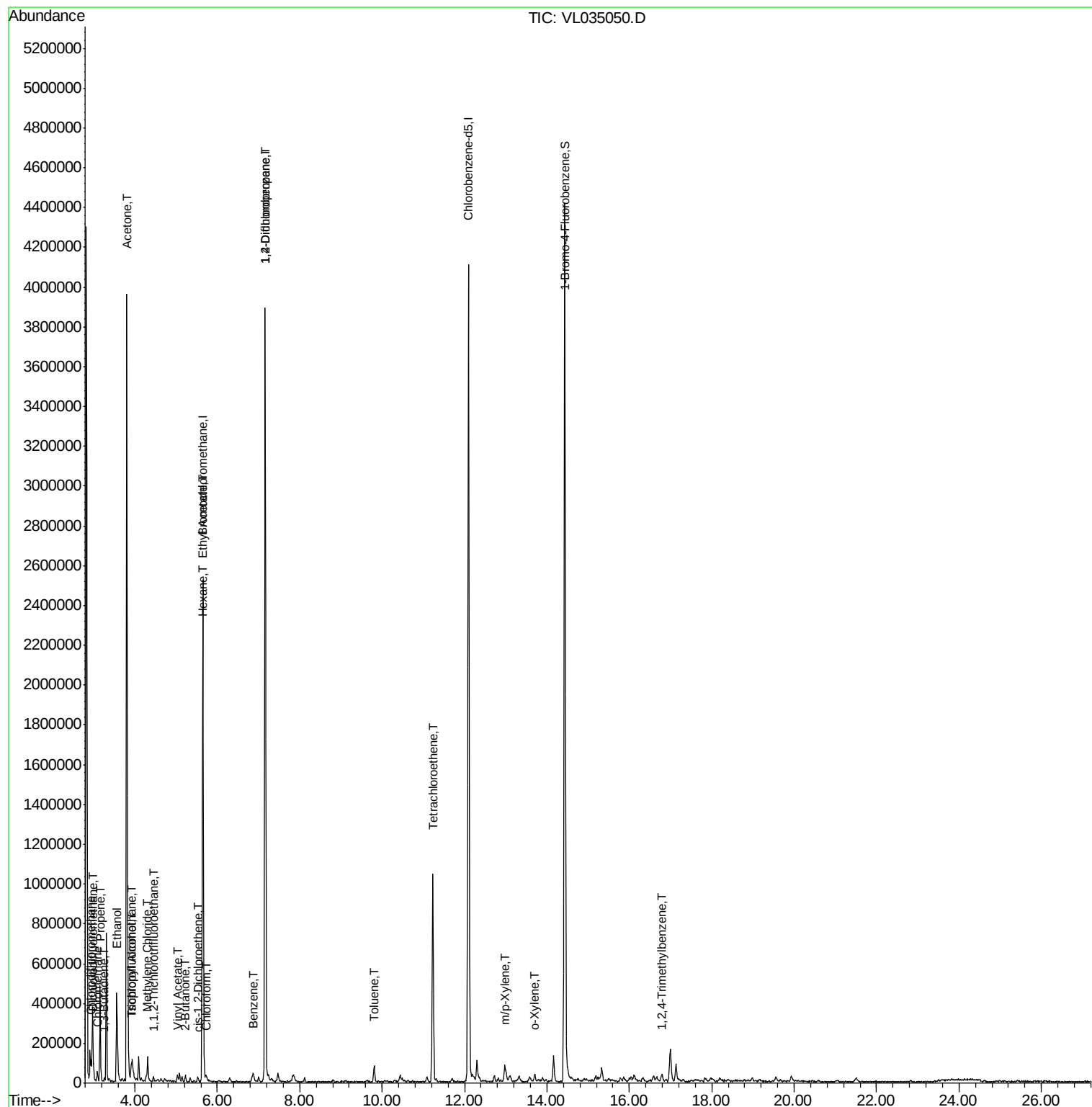
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.00	85	50673	0.316 ppbv	100
3) Chlorodifluoromethane	2.94	51	163971	1.270 ppbv #	79
4) Chloromethane	3.09	50	35449	0.479 ppbv	94
9) Propene	3.16	41	105173	1.877 ppbv	92
11) Trichlorofluoromethane	3.92	101	43783	0.265 ppbv	84
12) 1,1,2-Trichlorotrifluoroet	4.45	101	6995	0.059 ppbv	88
13) Ethanol	3.56	45	465447	25.172 ppbv	100
15) Acetone	3.80	43	3990480	26.687 ppbv	99
16) 1,3-Butadiene	3.27	39	3241	0.050 ppbv #	8
19) Isopropyl Alcohol	3.93	45	95301	0.956 ppbv #	94
20) Methylene Chloride	4.32	84	8960	0.181 ppbv	84
23) Vinyl Acetate	5.04	43	8500	0.045 ppbv #	55
25) Ethyl Acetate	5.66	43	15399	0.061 ppbv #	89
26) Hexane	5.66	57	18035	0.166 ppbv #	45
29) Chloroform	5.73	83	11705	0.066 ppbv	89
31) cis-1,2-Dichloroethene	5.53	61	9807	0.092 ppbv #	67
34) 2-Butanone	5.22	43	31732	0.201 ppbv	93
36) Benzene	6.87	78	18069	0.086 ppbv #	85
39) 1,2-Dichloropropane	7.16	63	723896	8.628 ppbv #	26
52) Tetrachloroethene	11.23	164	243600	3.273 ppbv	93
53) Toluene	9.81	91	53821	0.243 ppbv	96
59) m/p-Xylene	13.01	91	21020	0.080 ppbv #	8
60) o-Xylene	13.71	91	12292	0.047 ppbv #	32
74) 1,2,4-Trimethylbenzene	16.78	105	12125	0.039 ppbv #	82

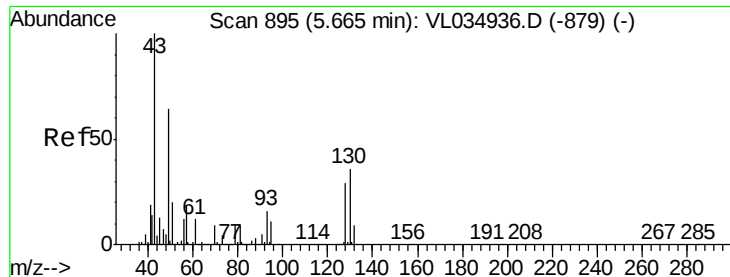
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed May 06 14:49:39 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 889

Delta R.T. -0.02 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :

MSVOA_L

ClientSampleId :

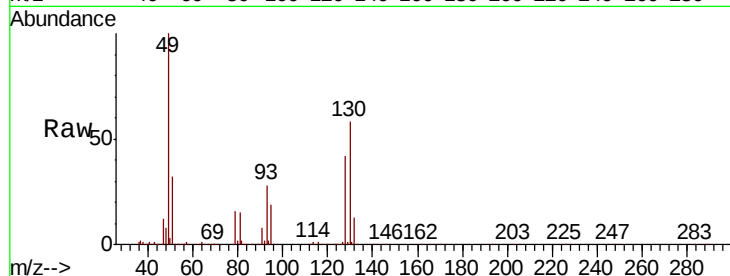
Tot Ion: 49 Resp: 1131056

Ion Ratio Lower Upper

49 100

128 44.6 22.1 66.5

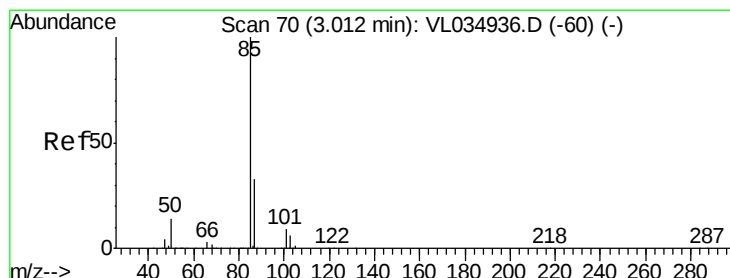
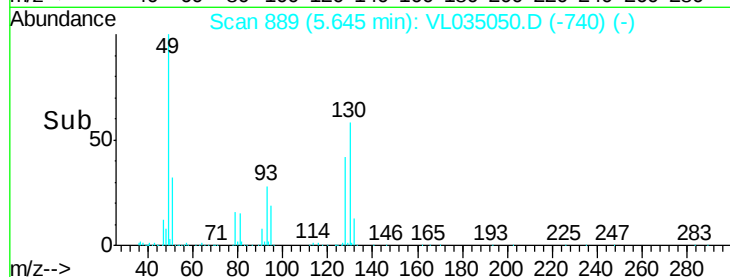
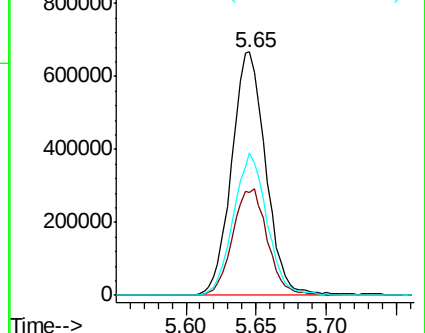
130 57.6 29.1 87.3



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



#2

Dichlorodifluoromethane

Concen: 0.316 ppbv

RT: 3.00 min Scan# 65

Delta R.T. -0.02 min

Lab File: VL035050.D

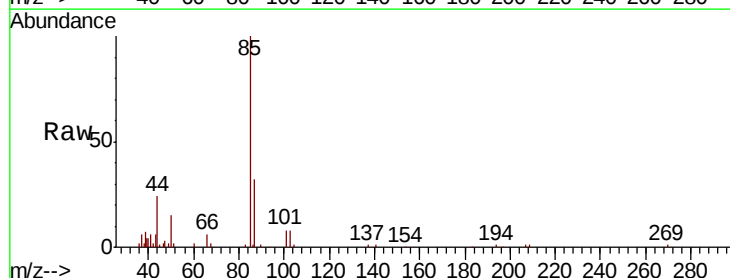
Acq: 19 May 2020 18:59

Tgt Ion: 85 Resp: 50673

Ion Ratio Lower Upper

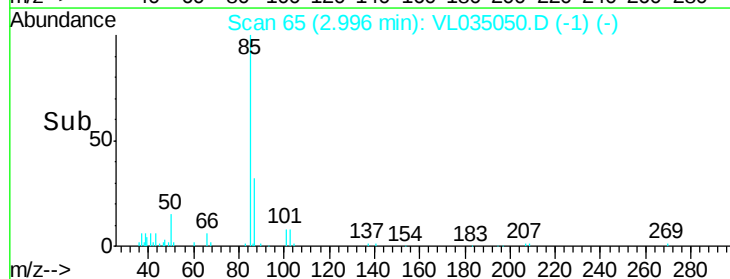
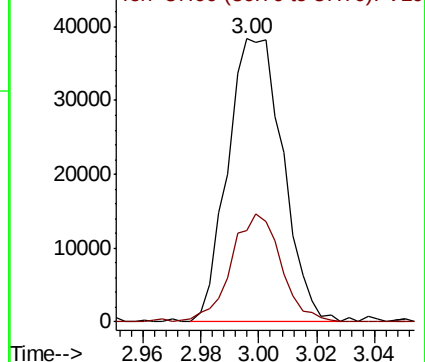
85 100

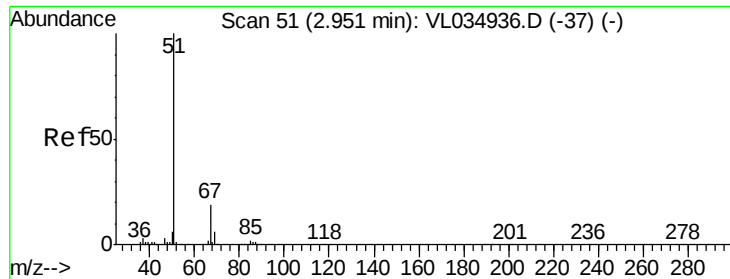
87 32.4 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

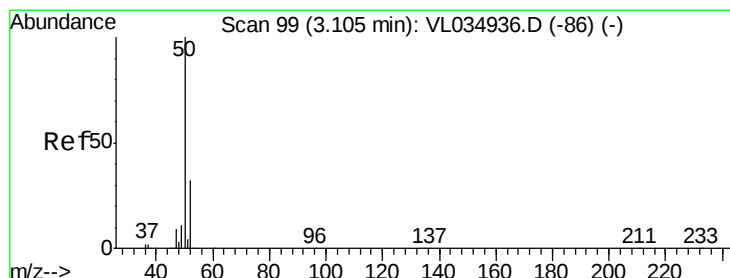
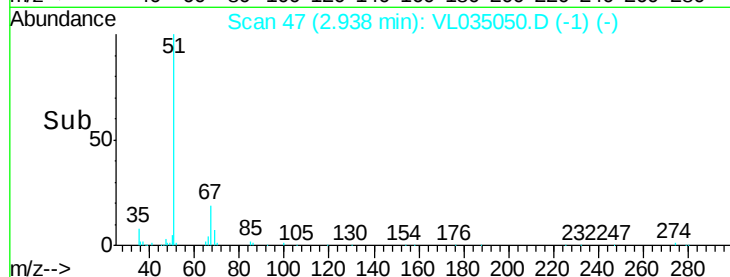
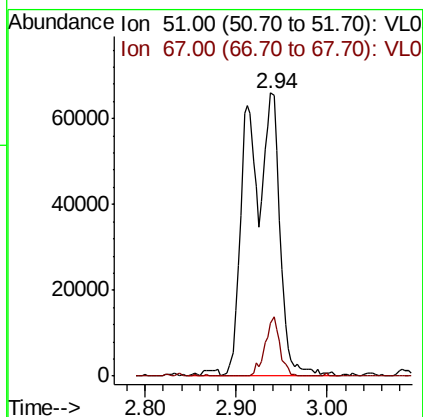
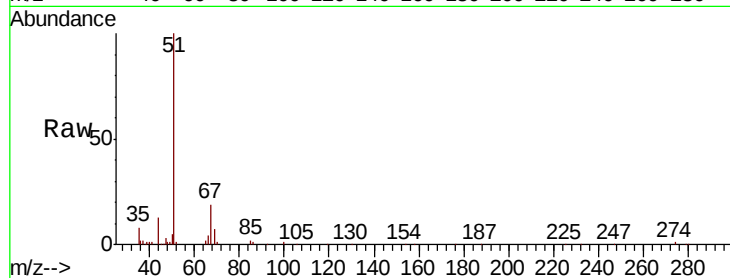




#3
Chlorodifluoromethane
Concen: 1.270 ppbv
RT: 2.94 min Scan# 47
Delta R.T. -0.01 min
Lab File: VL035050.D
Acq: 19 May 2020 18:59

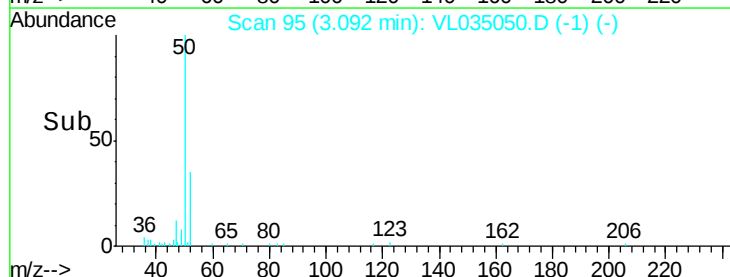
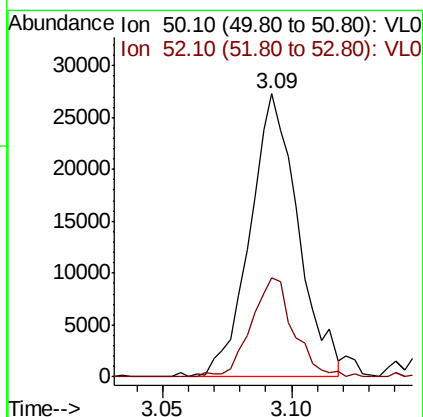
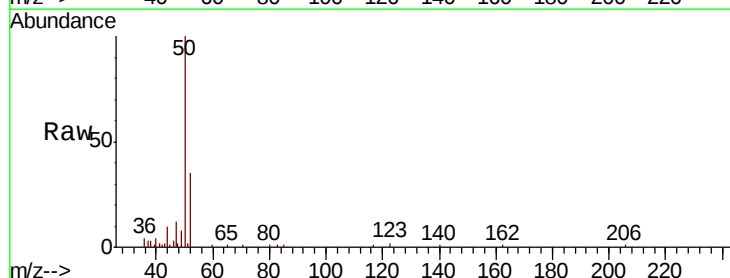
Instrument :
MSVOA_L
ClientSampled :

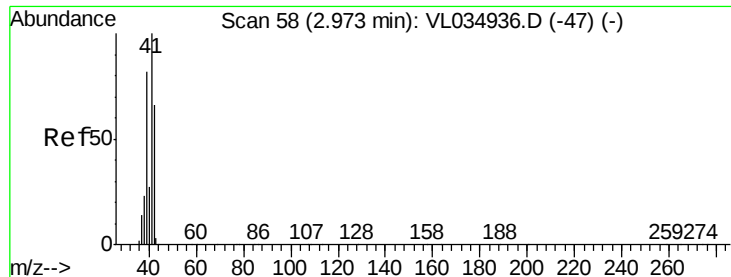
Tot Ion: 51 Resp: 163971
Ion Ratio Lower Upper
51 100
67 9.6 15.0 22.6#



#4
Chloromethane
Concen: 0.479 ppbv
RT: 3.09 min Scan# 95
Delta R.T. -0.01 min
Lab File: VL035050.D
Acq: 19 May 2020 18:59

Tgt Ion: 50 Resp: 35449
Ion Ratio Lower Upper
50 100
52 35.1 25.4 38.2





#9

Propene

Concen: 1.877 ppbv

RT: 3.16 min Scan# 115

Delta R.T. 0.18 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :

MSVOA_L

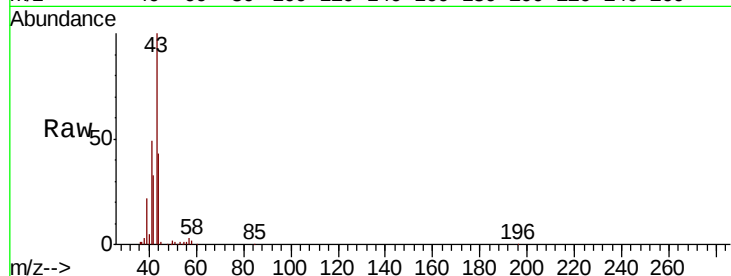
ClientSampleId :

Tot Ion: 41 Resp: 105173

Ion Ratio Lower Upper

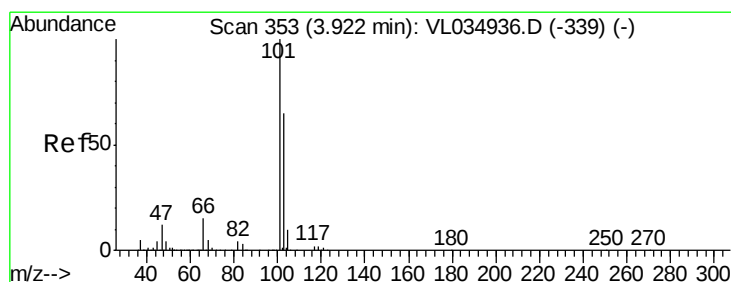
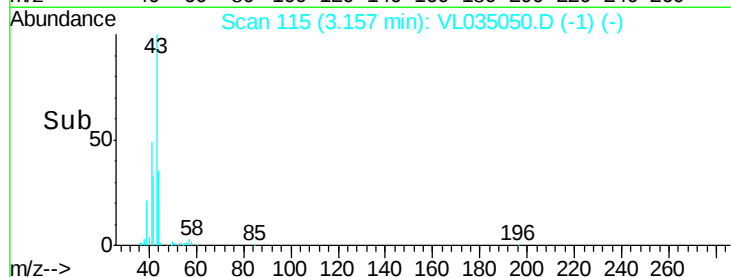
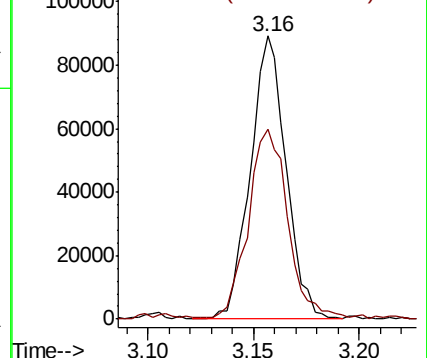
41 100

42 75.0 54.5 81.7



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.265 ppbv

RT: 3.92 min Scan# 351

Delta R.T. -0.01 min

Lab File: VL035050.D

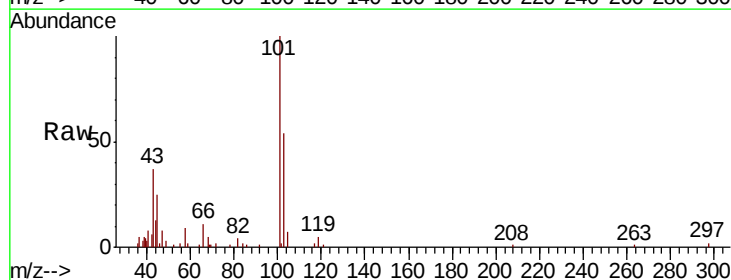
Acq: 19 May 2020 18:59

Tgt Ion: 101 Resp: 43783

Ion Ratio Lower Upper

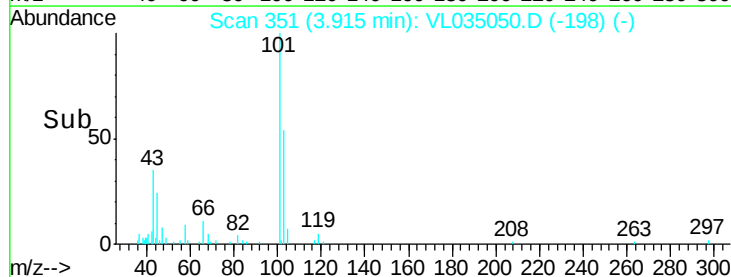
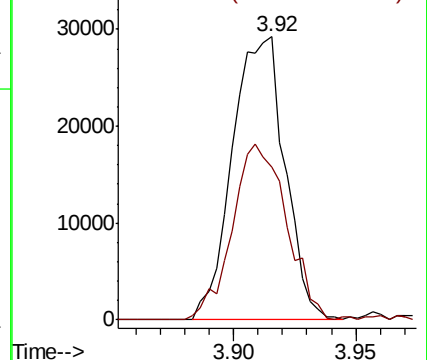
101 100

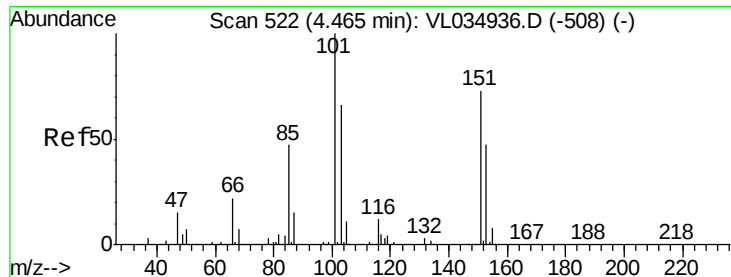
103 52.2 51.9 77.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.059 ppbv

RT: 4.45 min Scan# 518

Delta R.T. -0.01 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :

MSVOA_L

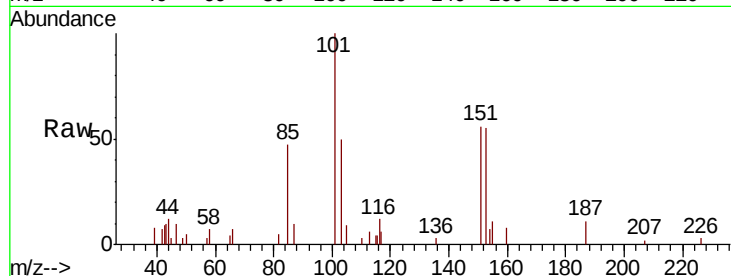
ClientSampleId :

Tot Ion:101 Resp: 6995

Ion Ratio Lower Upper

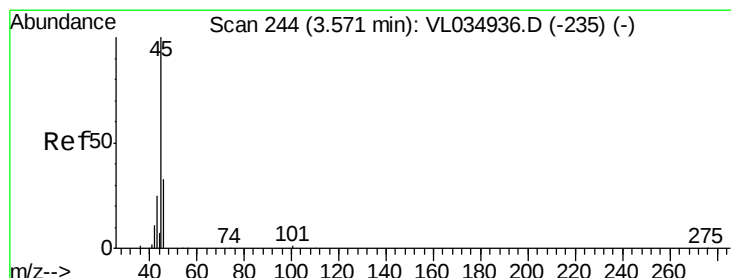
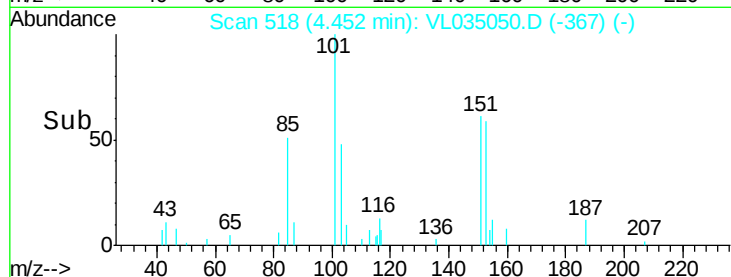
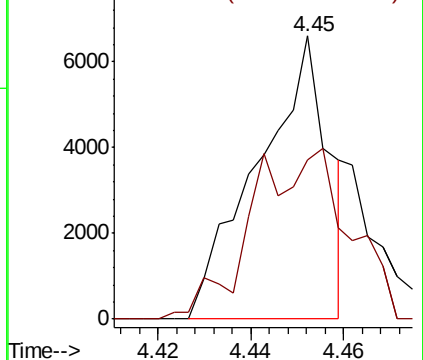
101 100

151 82.0 57.6 86.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 25.172 ppbv

RT: 3.56 min Scan# 239

Delta R.T. -0.02 min

Lab File: VL035050.D

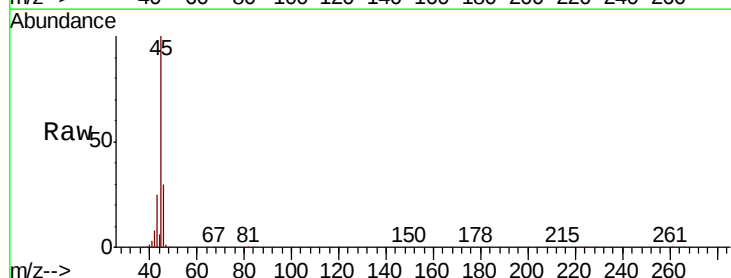
Acq: 19 May 2020 18:59

Tgt Ion: 45 Resp: 465447

Ion Ratio Lower Upper

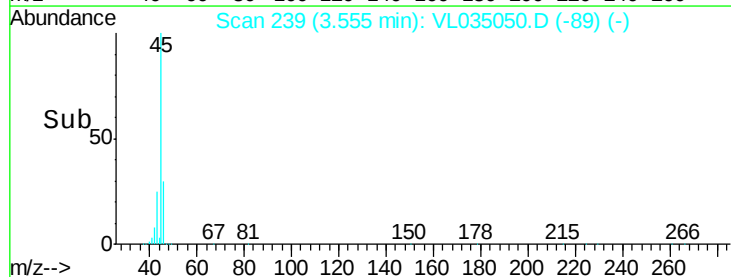
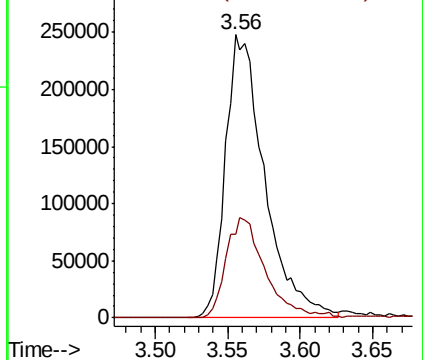
45 100

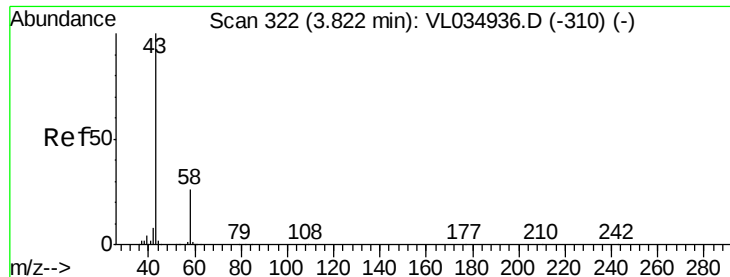
46 35.8 14.3 57.3



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 26.687 ppbv

RT: 3.80 min Scan# 316

Delta R.T. -0.02 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

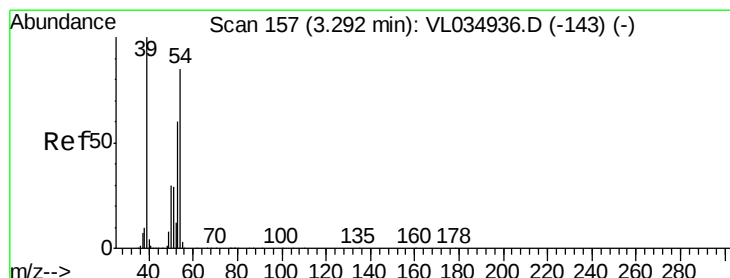
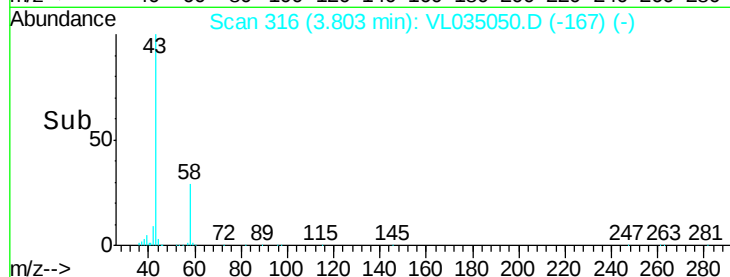
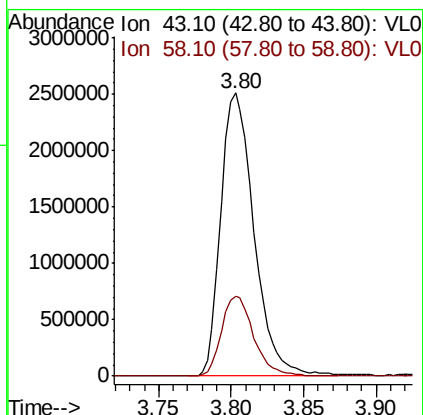
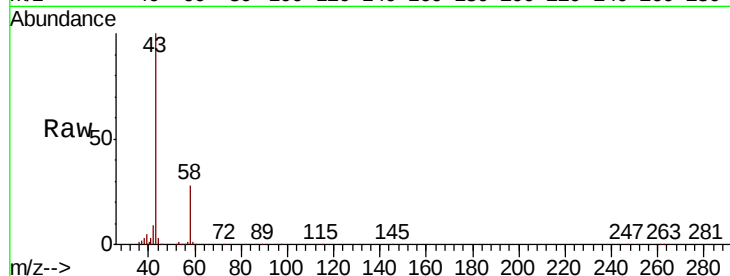
Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 43 Resp: 3990480

Ion Ratio Lower Upper

43 100

58 27.5 21.7 32.5



#16

1,3-Butadiene

Concen: 0.050 ppbv

RT: 3.27 min Scan# 149

Delta R.T. -0.03 min

Lab File: VL035050.D

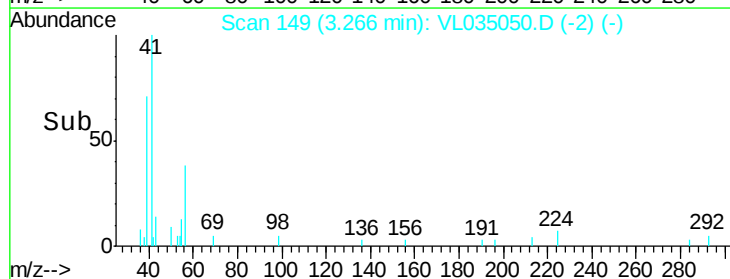
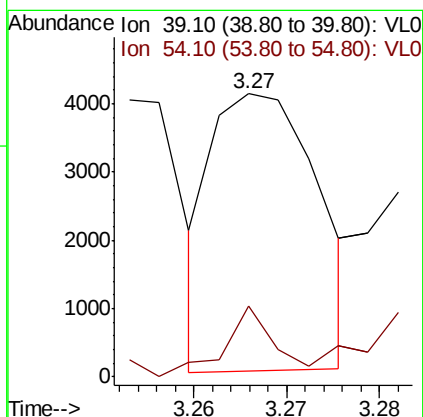
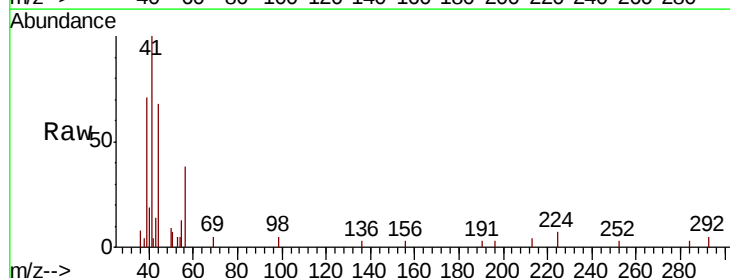
Acq: 19 May 2020 18:59

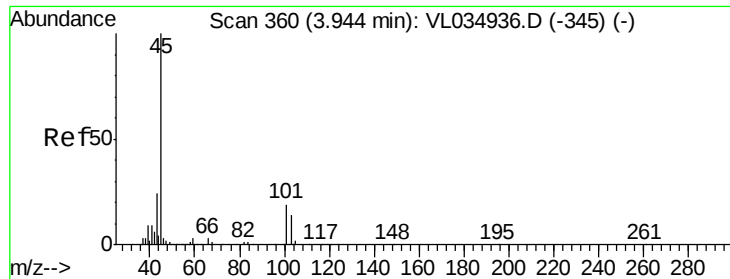
Tgt Ion: 39 Resp: 3241

Ion Ratio Lower Upper

39 100

54 0.0 66.6 100.0#





#19

Isopropyl Alcohol

Concen: 0.956 ppbv

RT: 3.93 min Scan# 357

Delta R.T. -0.01 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :

MSVOA_L

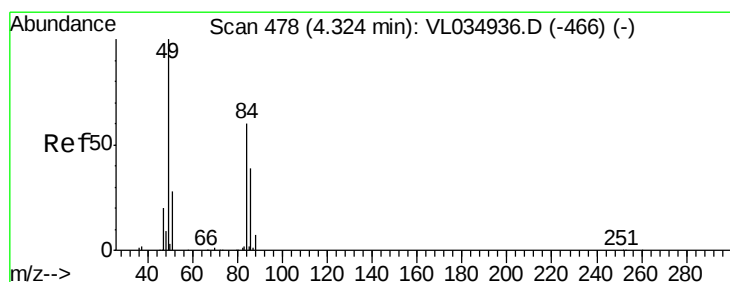
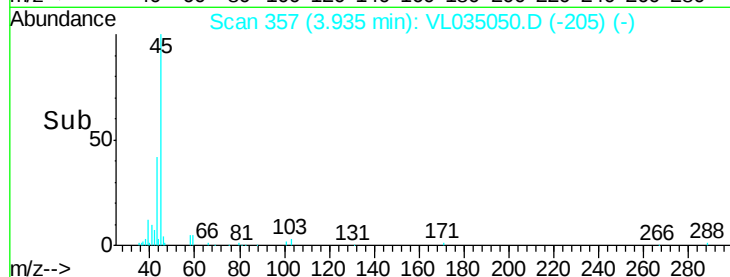
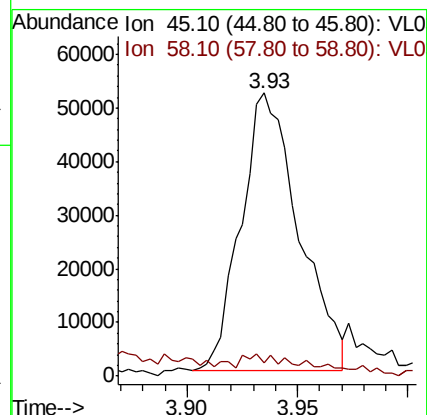
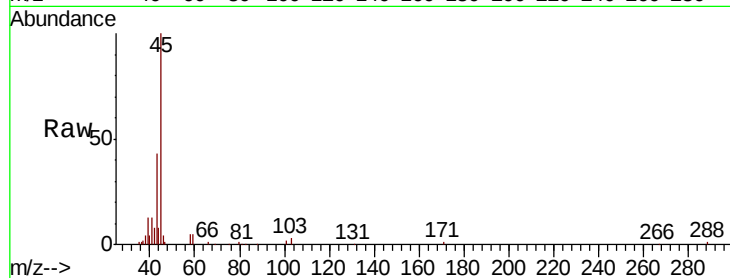
ClientSampled :

Tot Ion: 45 Resp: 95301

Ion Ratio Lower Upper

45 100

58 0.0 1.7 2.5#



#20

Methylene Chloride

Concen: 0.181 ppbv

RT: 4.32 min Scan# 476

Delta R.T. -0.01 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Tgt Ion: 84 Resp: 8960

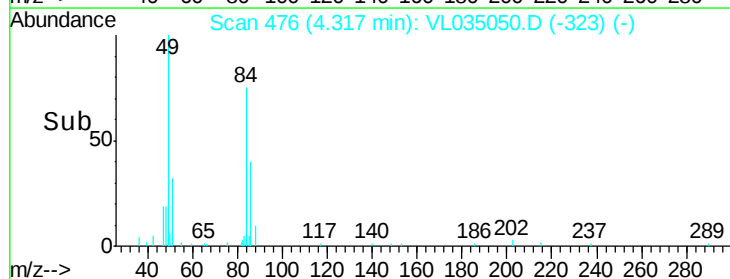
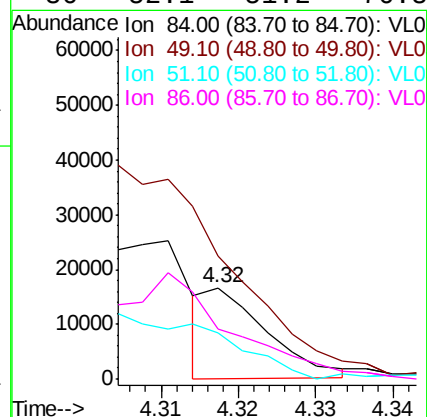
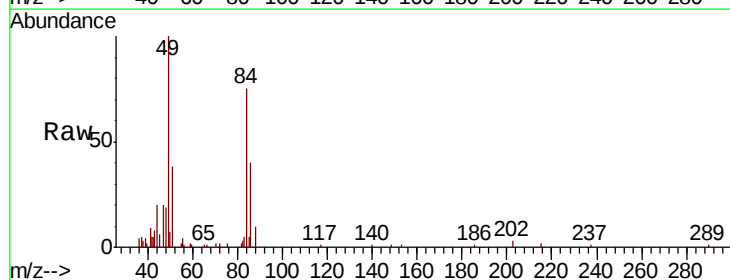
Ion Ratio Lower Upper

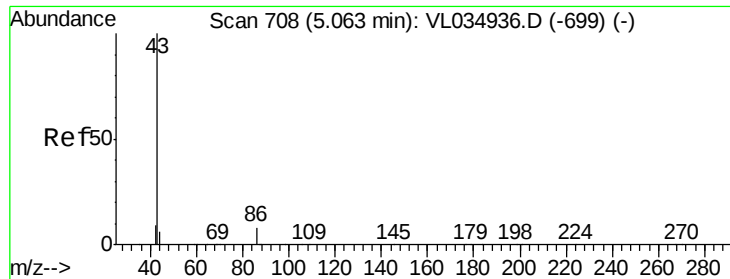
84 100

49 139.3 132.5 198.7

51 49.7 38.4 57.6

86 52.1 51.2 76.8





#23

Vinyl Acetate

Concen: 0.045 ppbv

RT: 5.04 min Scan# 701

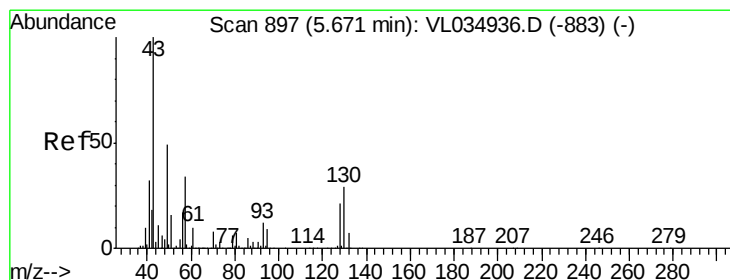
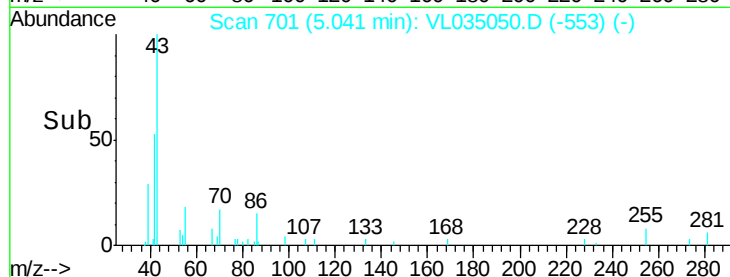
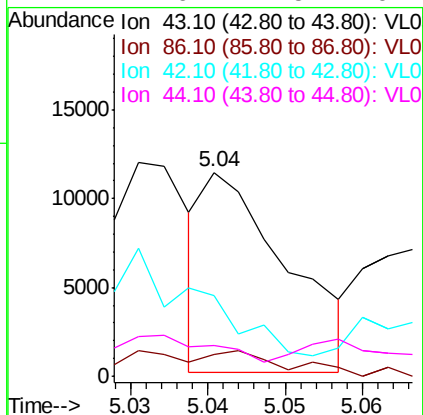
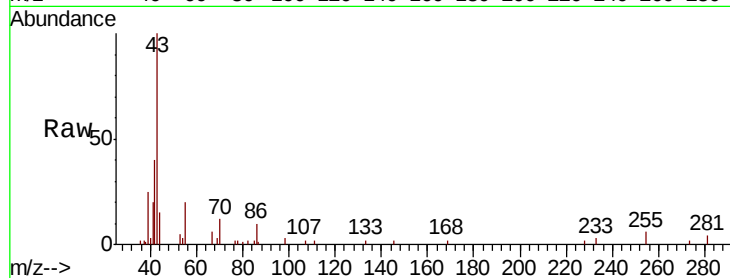
Delta R.T. -0.02 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :
MSVOA_L
ClientSampled :

Tot Ion:	43	Resp:	8500
Ion	Ratio	Lower	Upper
43	100		
86	11.7	5.5	8.3#
42	41.5	8.0	12.0#
44	1.6	4.5	6.7#



#25

Ethyl Acetate

Concen: 0.061 ppbv

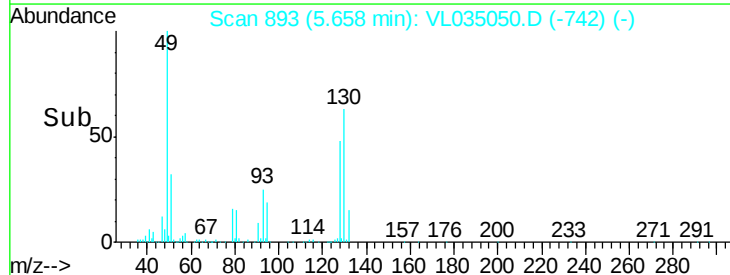
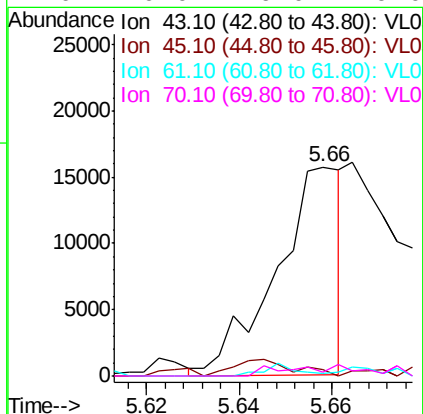
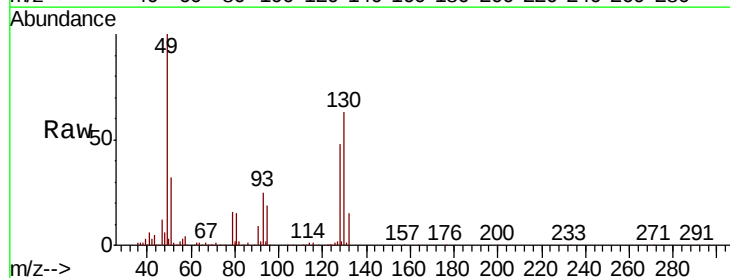
RT: 5.66 min Scan# 893

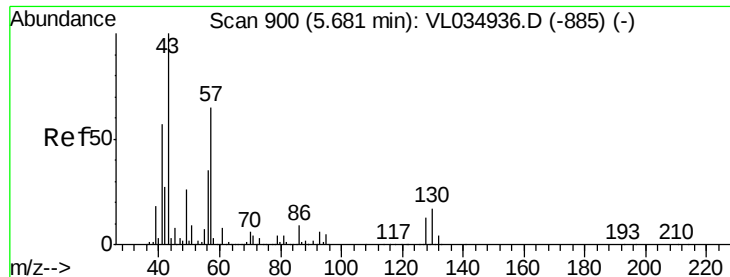
Delta R.T. -0.01 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Tgt Ion:	43	Resp:	15399
Ion	Ratio	Lower	Upper
43	100		
45	11.8	8.1	12.1
61	5.9	7.8	11.8#
70	0.0	6.0	9.0#





#26

Hexane

Concen: 0.166 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.02 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 57 Resp: 18035

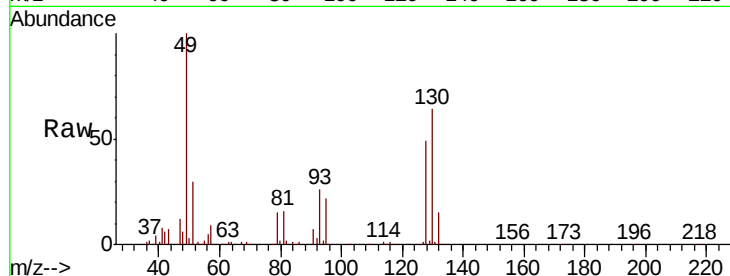
Ion Ratio Lower Upper

57 100

41 180.3 72.7 109.1#

43 177.1 182.1 273.1#

56 120.0 42.2 63.2#

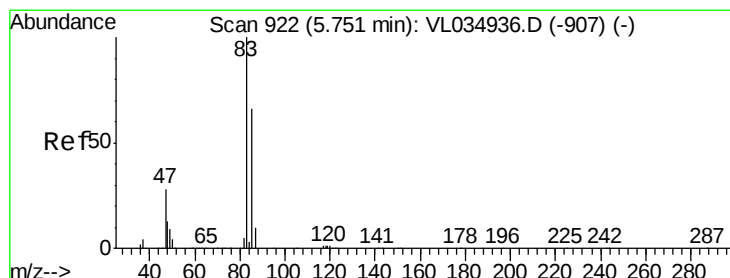
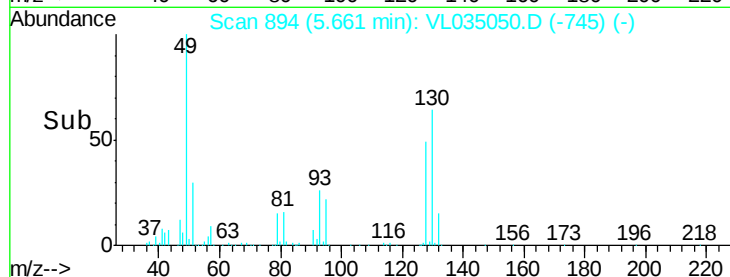
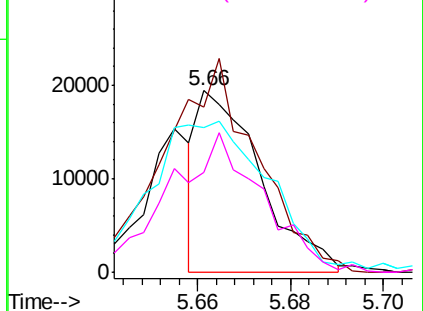


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#29

Chloroform

Concen: 0.066 ppbv

RT: 5.73 min Scan# 916

Delta R.T. -0.02 min

Lab File: VL035050.D

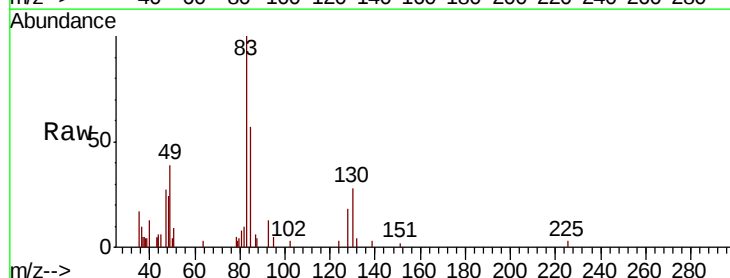
Acq: 19 May 2020 18:59

Tgt Ion: 83 Resp: 11705

Ion Ratio Lower Upper

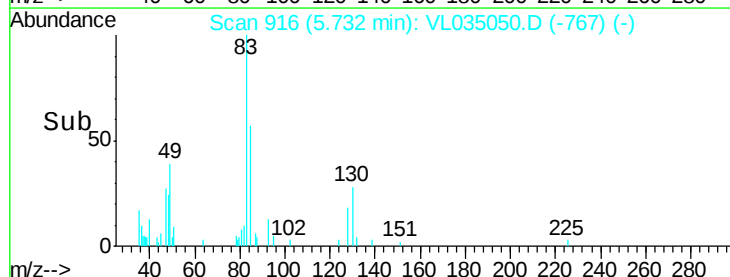
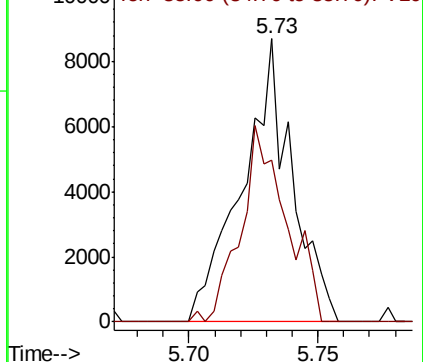
83 100

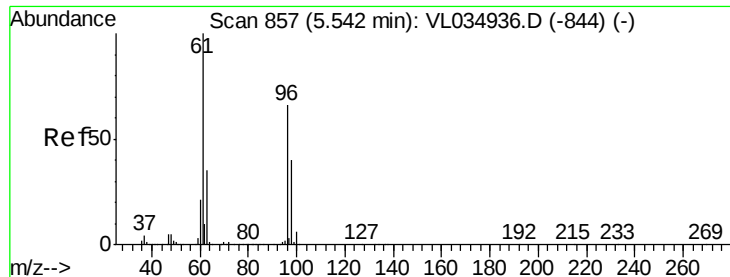
85 57.2 53.0 79.6



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



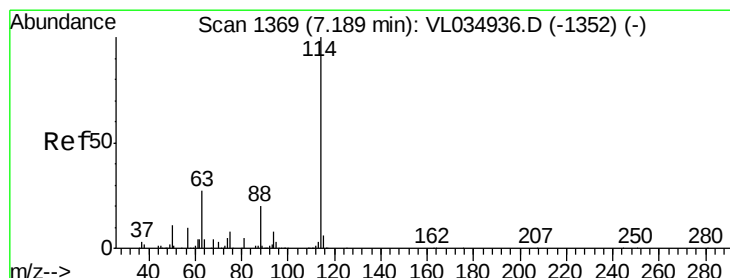
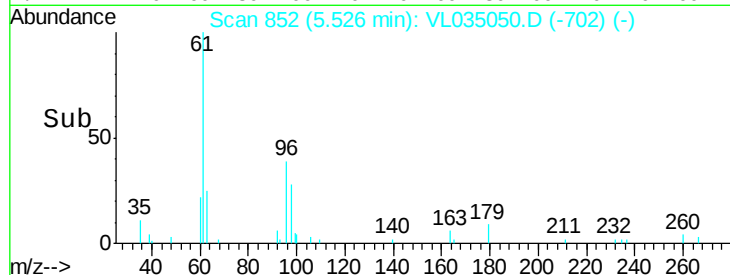
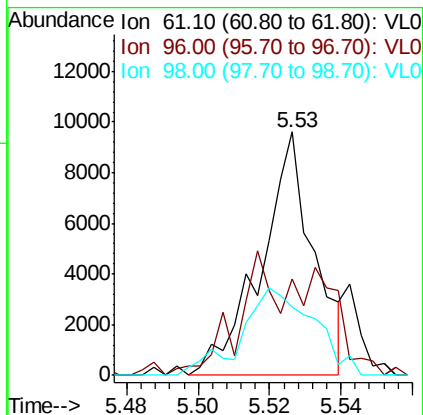
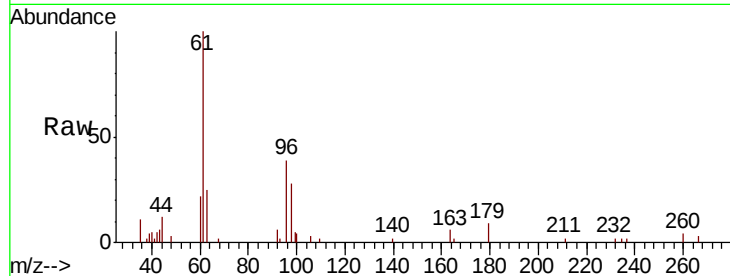


#31

cis-1,2-Dichloroethene
 Concen: 0.092 ppbv
 RT: 5.53 min Scan# 852
 Delta R.T. -0.02 min
 Lab File: VL035050.D
 Acq: 19 May 2020 18:59

Instrument :
 MSVOA_L
 ClientSampleId :

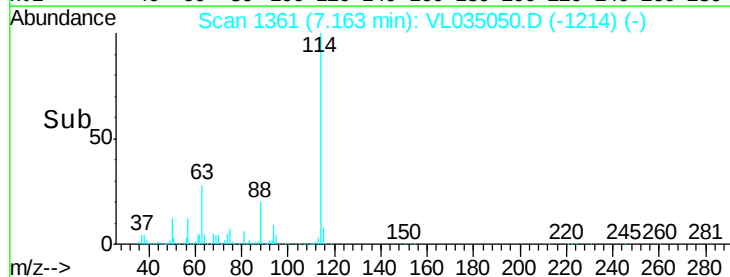
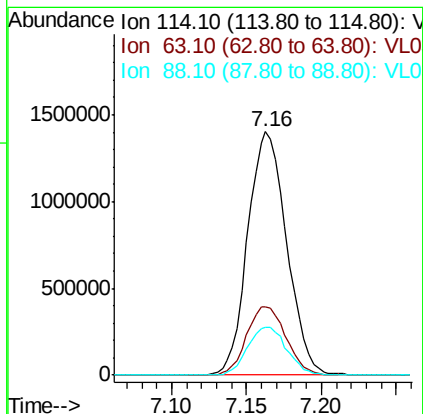
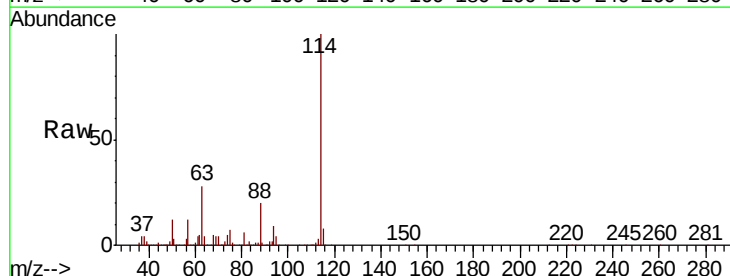
Tot Ion	61.10	Resp	9807
Ion	Ratio	Lower	Upper
61	100		
96	35.7	53.0	79.6#
98	25.0	32.2	48.2#

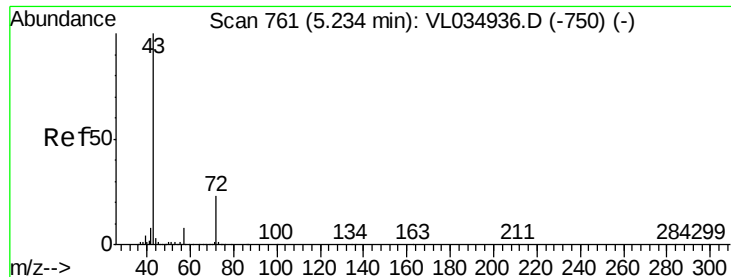


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1361
 Delta R.T. -0.03 min
 Lab File: VL035050.D
 Acq: 19 May 2020 18:59

Tgt Ion	114	Resp	2538436
Ion	Ratio	Lower	Upper
114	100		
63	28.7	22.2	33.4
88	19.9	15.5	23.3

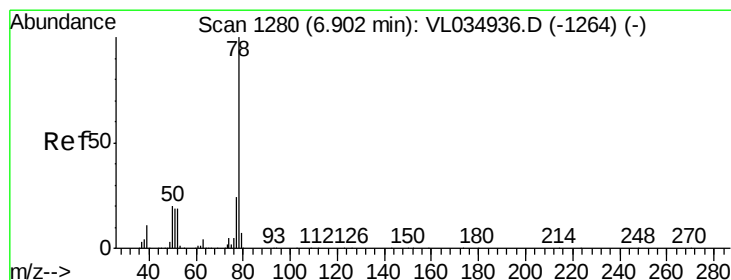
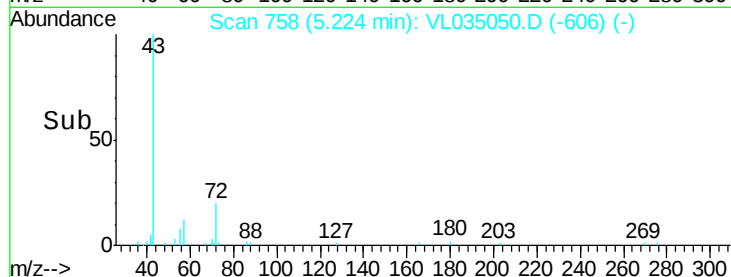
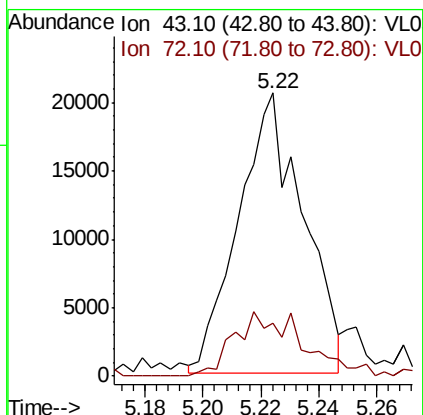
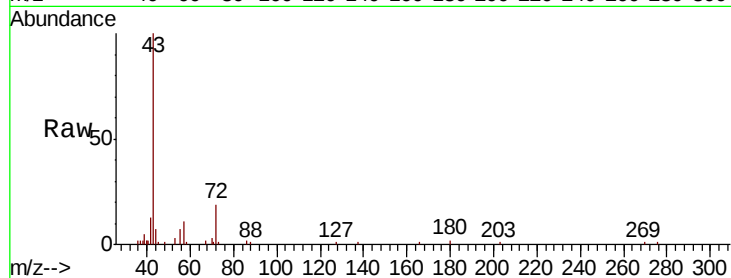




#34
2-Butanone
Concen: 0.201 ppbv
RT: 5.22 min Scan# 758
Delta R.T. -0.01 min
Lab File: VL035050.D
Acq: 19 May 2020 18:59

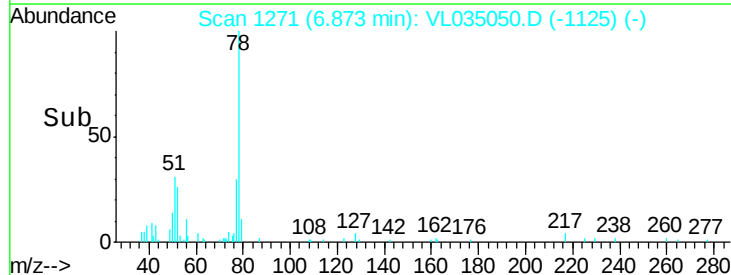
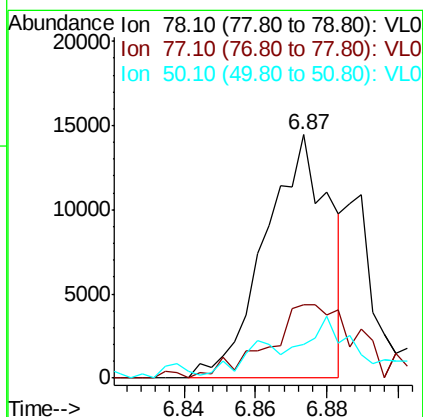
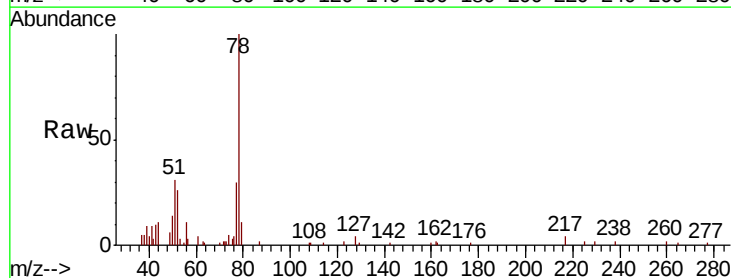
Instrument :
MSVOA_L
ClientSampleId :

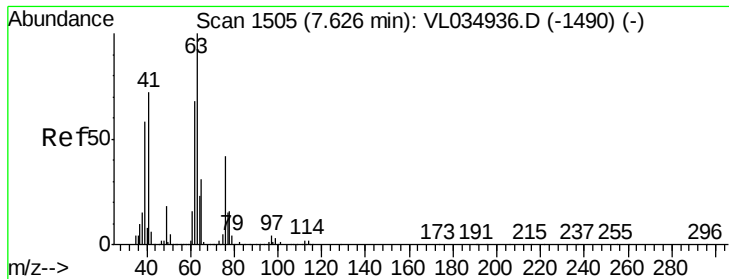
Tot Ion: 43 Resp: 31732
Ion Ratio Lower Upper
43 100
72 25.6 18.0 27.0



#36
Benzene
Concen: 0.086 ppbv
RT: 6.87 min Scan# 1271
Delta R.T. -0.03 min
Lab File: VL035050.D
Acq: 19 May 2020 18:59

Tgt Ion: 78 Resp: 18069
Ion Ratio Lower Upper
78 100
77 29.9 19.0 28.6#
50 11.3 15.8 23.8#





#39

1,2-Dichloropropane

Concen: 8.628 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.47 min

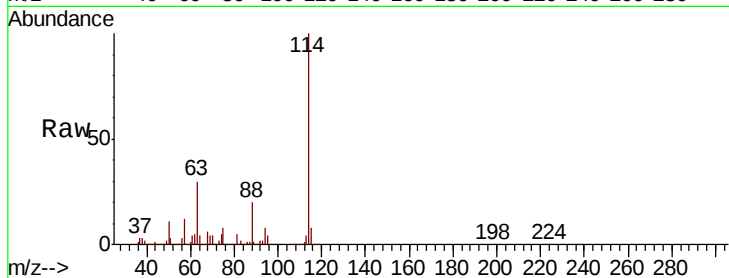
Lab File: VL035050.D

Acq: 19 May 2020 18:59

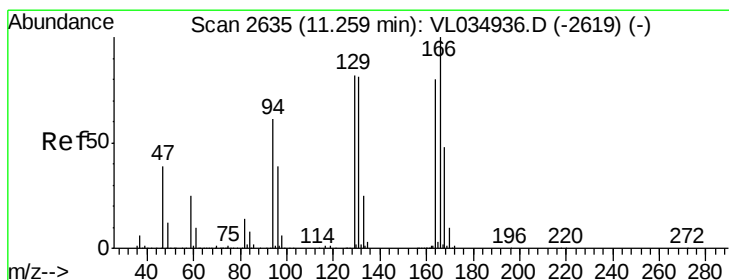
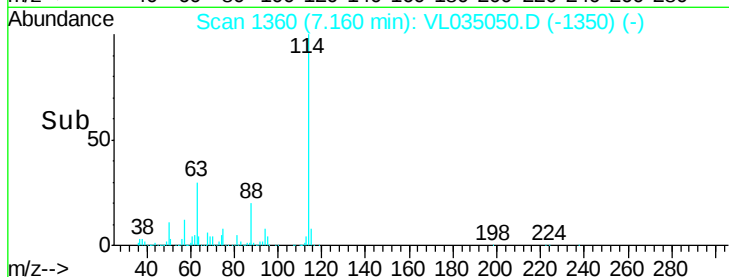
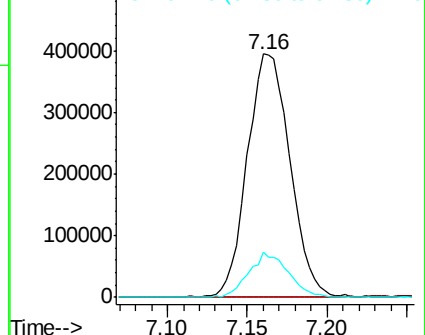
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 63 Resp: 723896

Ion	Ratio	Lower	Upper
63	100		
41	0.0	57.8	86.8#
62	18.4	54.2	81.2#



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



#52

Tetrachloroethene

Concen: 3.273 ppbv

RT: 11.23 min Scan# 2626

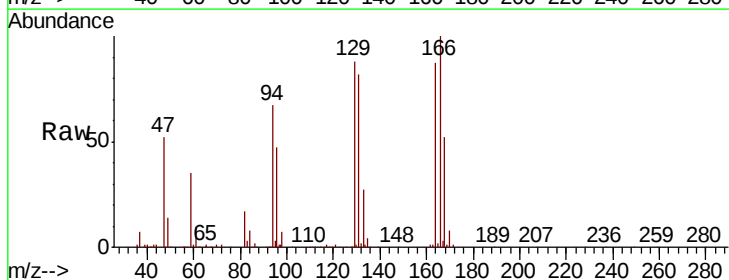
Delta R.T. -0.03 min

Lab File: VL035050.D

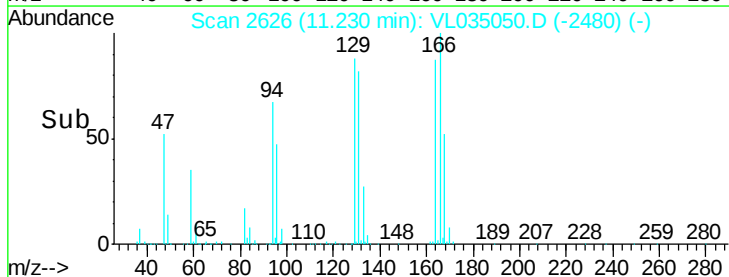
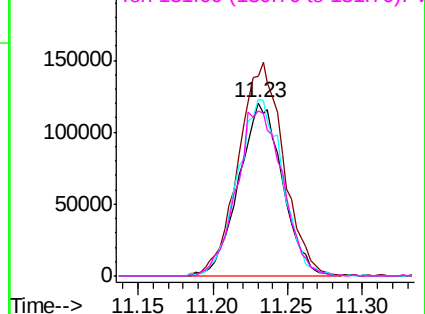
Acq: 19 May 2020 18:59

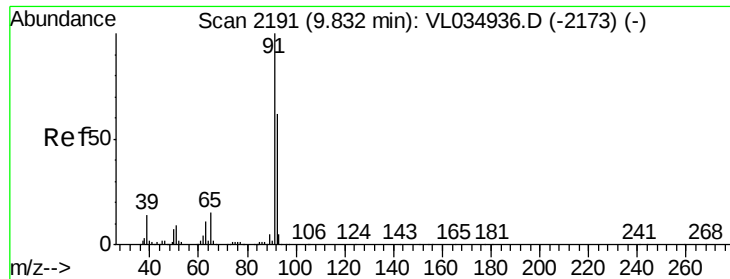
Tgt Ion: 164 Resp: 243600

Ion	Ratio	Lower	Upper
164	100		
166	114.3	100.7	151.1
129	100.7	83.0	124.4
131	94.5	81.0	121.4



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: 0.243 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.03 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :

MSVOA_L

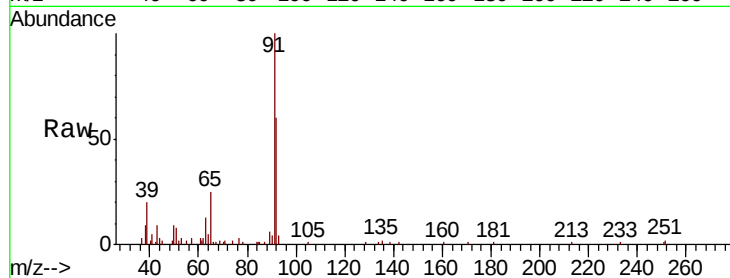
ClientSampleId :

Tot Ion: 91 Resp: 53821

Ion Ratio Lower Upper

91 100

92 57.5 48.6 73.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

30000

25000

20000

15000

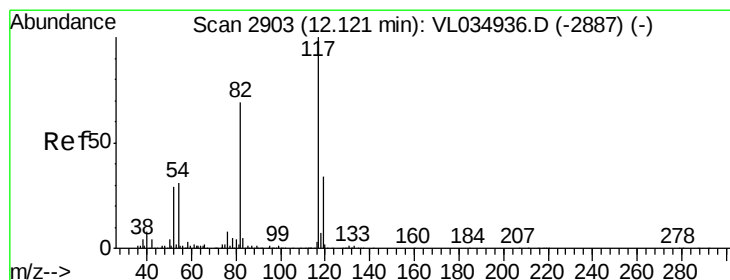
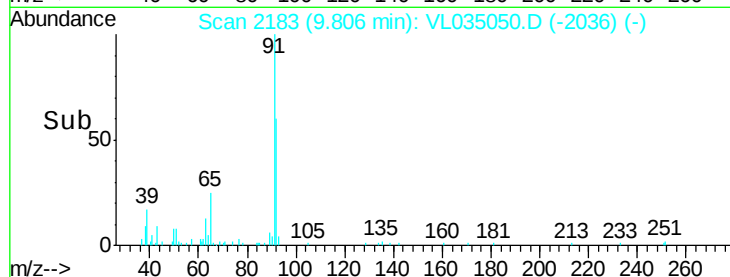
10000

5000

0

9.75 9.80 9.85

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2896

Delta R.T. -0.02 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

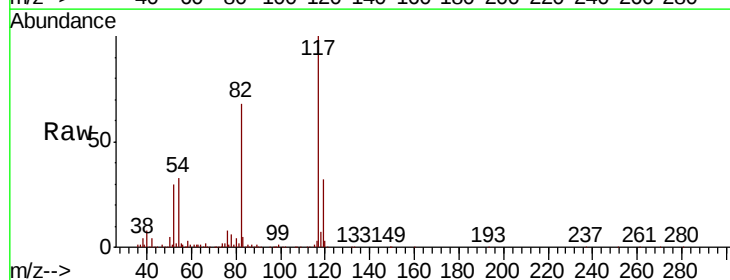
Tgt Ion: 117 Resp: 2413448

Ion Ratio Lower Upper

117 100

82 69.7 53.1 79.7

119 33.1 26.7 40.1



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

1500000

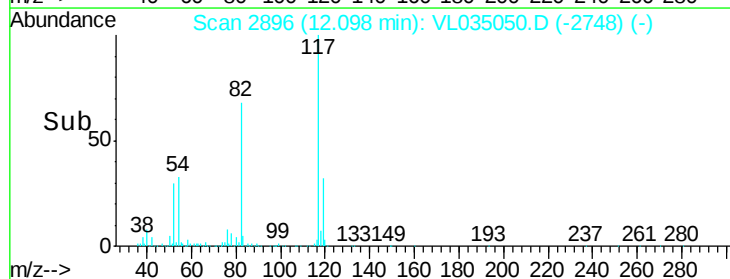
1000000

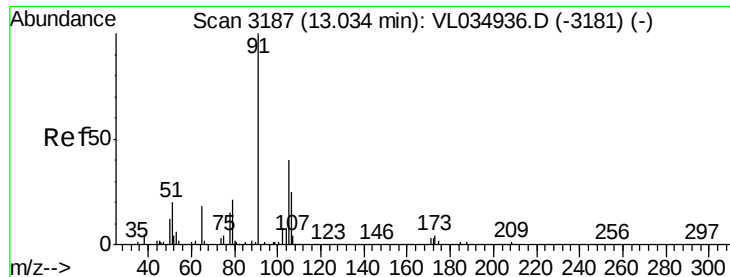
500000

0

12.00 12.10

Time-->

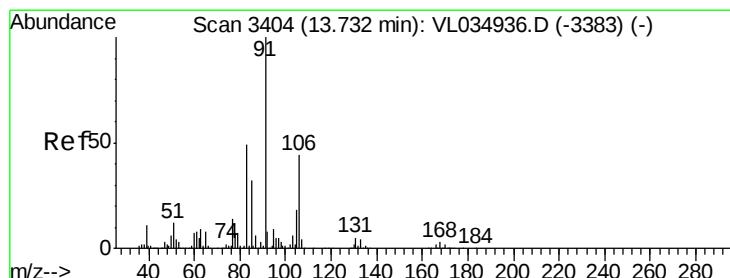
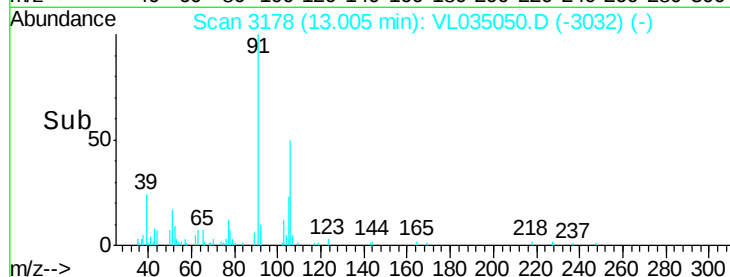
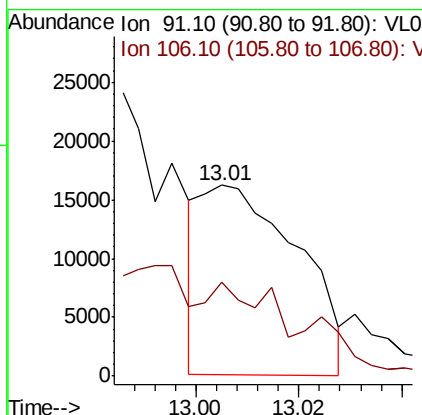
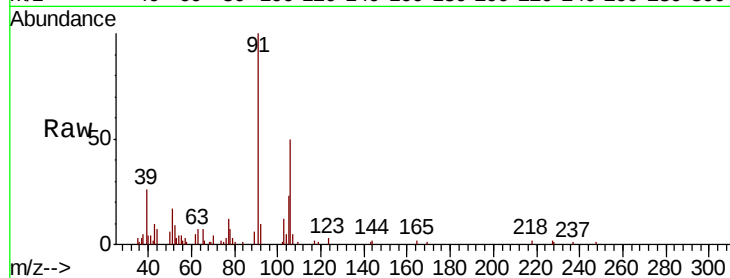




#59
m/p-Xylene
Concen: 0.080 ppbv
RT: 13.01 min Scan# 3178
Delta R.T. -0.03 min
Lab File: VL035050.D
Acq: 19 May 2020 18:59

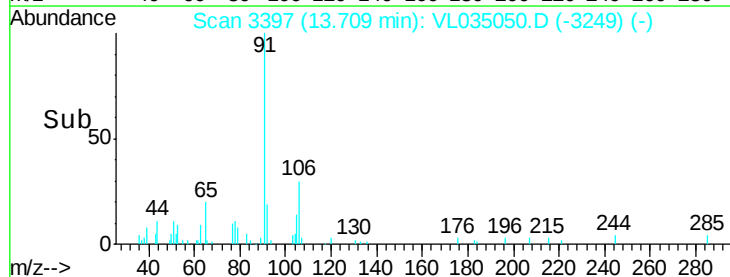
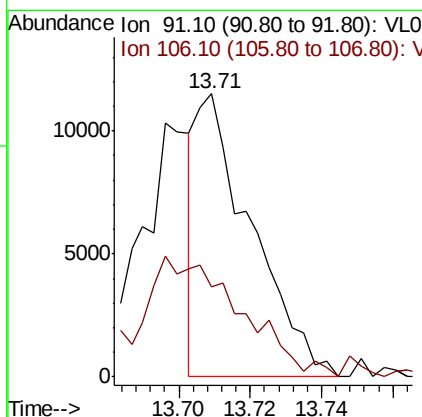
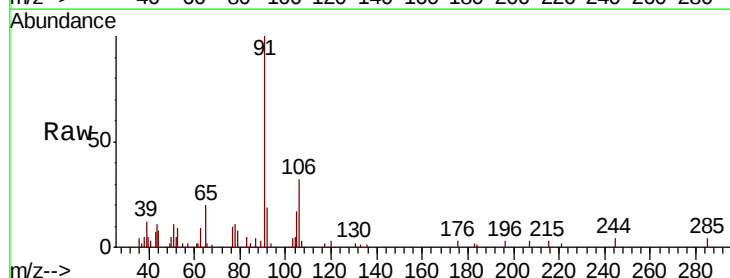
Instrument :
MSVOA_L
ClientSampleId :

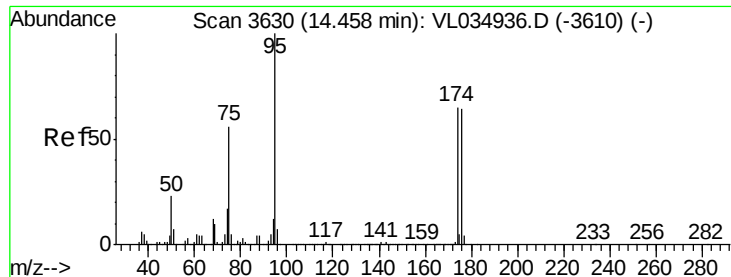
Tot Ion: 91 Resp: 21020
Ion Ratio Lower Upper
91 100
106 0.0 66.0 99.0#



#60
o-Xylene
Concen: 0.047 ppbv
RT: 13.71 min Scan# 3397
Delta R.T. -0.02 min
Lab File: VL035050.D
Acq: 19 May 2020 18:59

Tgt Ion: 91 Resp: 12292
Ion Ratio Lower Upper
91 100
106 0.0 21.9 65.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.929 ppbv

RT: 14.43 min Scan# 3622

Delta R.T. -0.03 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Instrument :

MSVOA_L

ClientSampleId :

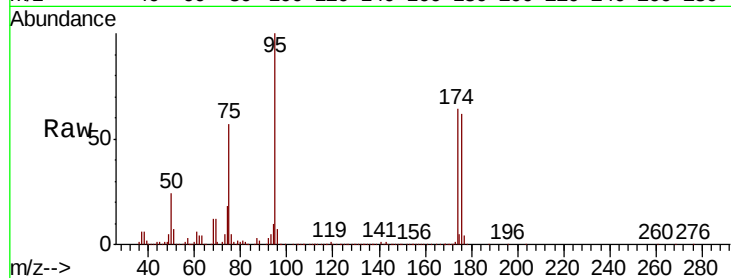
Tot Ion: 95 Resp: 2134951

Ion Ratio Lower Upper

95 100

174 63.5 51.5 77.3

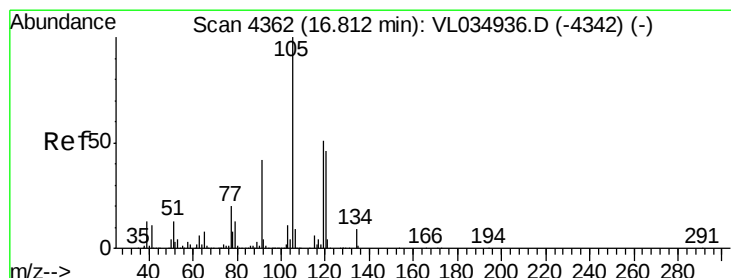
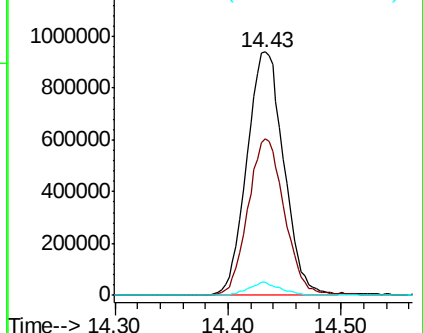
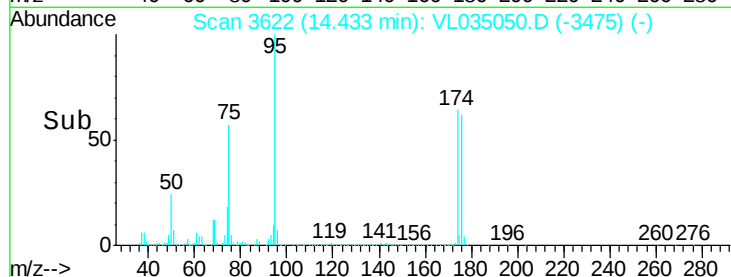
175 4.8 3.8 5.8



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: 0.039 ppbv

RT: 16.78 min Scan# 4352

Delta R.T. -0.03 min

Lab File: VL035050.D

Acq: 19 May 2020 18:59

Tgt Ion: 105 Resp: 12125

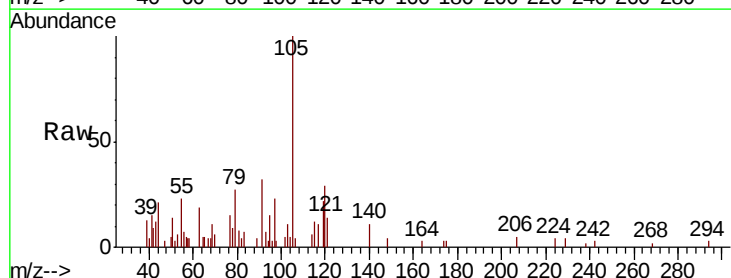
Ion Ratio Lower Upper

105 100

120 41.6 36.8 55.2

91 24.2 35.4 53.0#

77 12.0 16.2 24.2#



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

