

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111220\
 Data File : VL035928.D
 Acq On : 13 Nov 2020 00:38
 Operator : SY/AP
 Sample : L4721-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Quant Time: Nov 13 03:40:53 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1128354	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3977789	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3608401	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	2703207	10.54	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	45979	0.216	ppbv	96
3) Chlorodifluoromethane	2.98	51	85430	0.632	ppbv #	84
4) Chloromethane	3.13	50	35717	0.544	ppbv #	88
9) Propene	3.01	41	65135	1.317	ppbv #	79
10) Heptane	8.12	43	16205	0.119	ppbv	97
11) Trichlorofluoromethane	3.94	101	67651	0.254	ppbv	92
12) 1,1,2-Trichlorotrifluoroet	4.48	101	6343	0.032	ppbv #	13
13) Ethanol	3.63	45	17746254	1653.981	ppbv	96
15) Acetone	3.84	43	1561546	12.945	ppbv	94
16) 1,3-Butadiene	3.34	39	83905	1.616	ppbv #	4
17) tert-Butyl alcohol	4.01	59	323964	2.026	ppbv	100
19) Isopropyl Alcohol	4.01	45	6834275	92.191	ppbv #	97
20) Methylene Chloride	4.34	84	102538	1.207	ppbv	96
21) Allyl Chloride	4.30	41	14621	0.224	ppbv #	5
23) Vinyl Acetate	5.06	43	39041	0.231	ppbv #	50
25) Ethyl Acetate	5.68	43	286009	1.204	ppbv #	76
26) Hexane	5.68	57	424584	3.240	ppbv #	47
29) Chloroform	5.74	83	50197	0.195	ppbv	88
30) Cyclohexane	7.12	84	12594	0.088	ppbv #	6
34) 2-Butanone	5.24	43	55923	0.433	ppbv	92
36) Benzene	6.88	78	109965	0.372	ppbv	95
39) 1,2-Dichloropropane	7.17	63	825682	8.293	ppbv #	29
44) 2,2,4-Trimethylpentane	7.86	57	99204	0.254	ppbv #	73
53) Toluene	9.80	91	962907	2.699	ppbv	97
58) Ethyl Benzene	12.71	91	40349	0.092	ppbv #	80
59) m/p-Xylene	12.97	91	126829	0.341	ppbv	99
60) o-Xylene	13.69	91	49762	0.138	ppbv	98
72) 4-Ethyltoluene	15.84	105	16010	0.036	ppbv #	83
74) 1,2,4-Trimethylbenzene	16.76	105	61590	0.143	ppbv #	67
76) 1,4-Dichlorobenzene	17.14	146	8160	0.031	ppbv #	49

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL035928.D

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ClientSampleId :

BFB

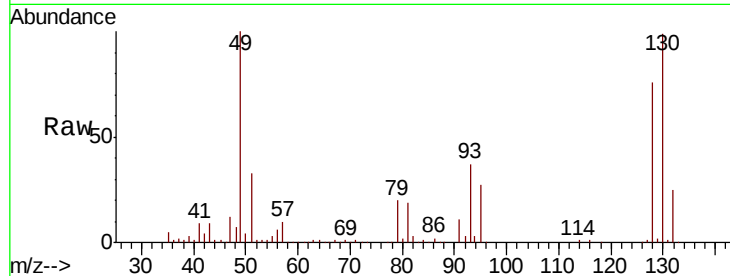
Tot Ion: 49 Resp: 1128354

Ion Ratio Lower Upper

49 100

128 75.9 41.5 124.6

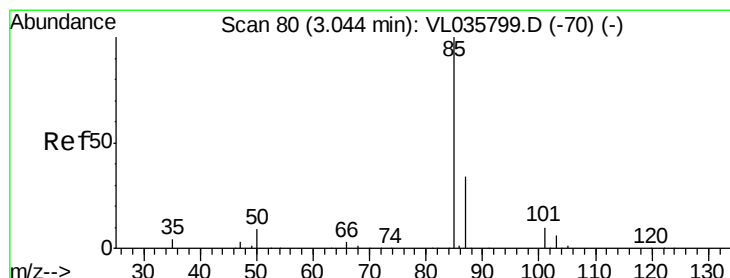
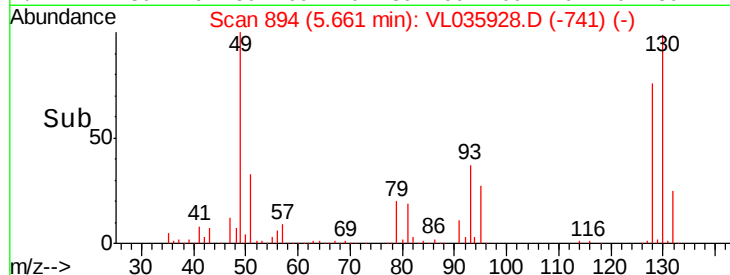
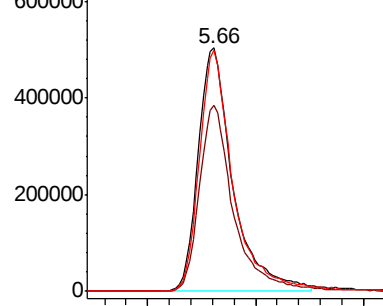
130 98.2 53.7 161.1



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: 0.216 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL035928.D

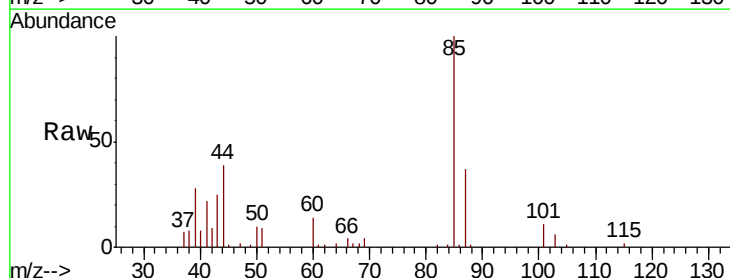
Acq: 13 Nov 2020 00:38

Tgt Ion: 85 Resp: 45979

Ion Ratio Lower Upper

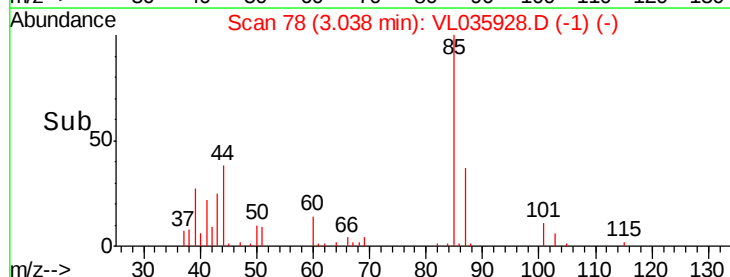
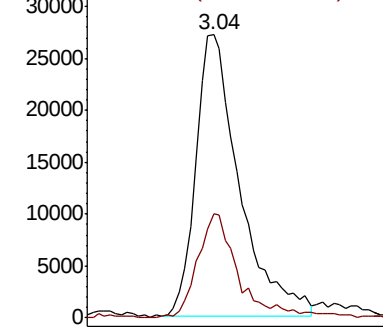
85 100

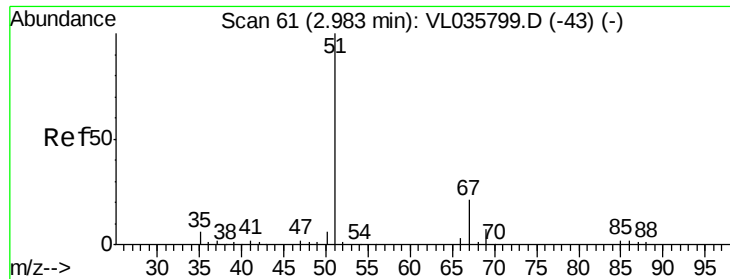
87 36.2 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.632 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampleId :

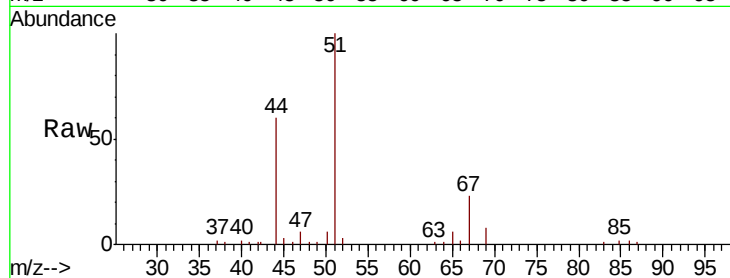
BFB

Tot Ion: 51 Resp: 85430

Ion Ratio Lower Upper

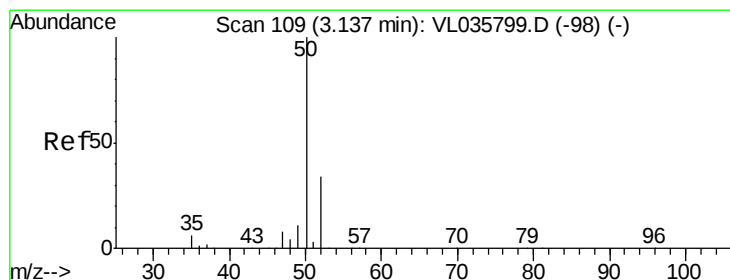
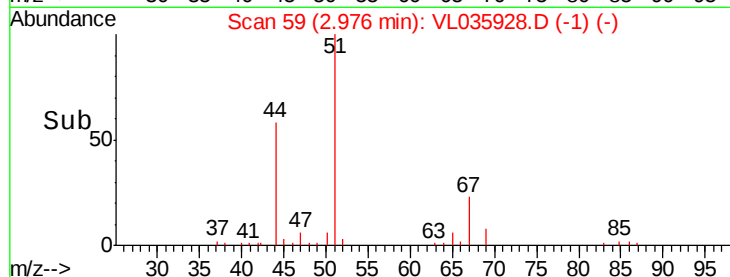
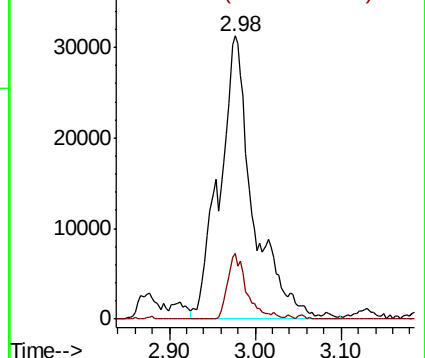
51 100

67 13.7 17.0 25.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.544 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.01 min

Lab File: VL035928.D

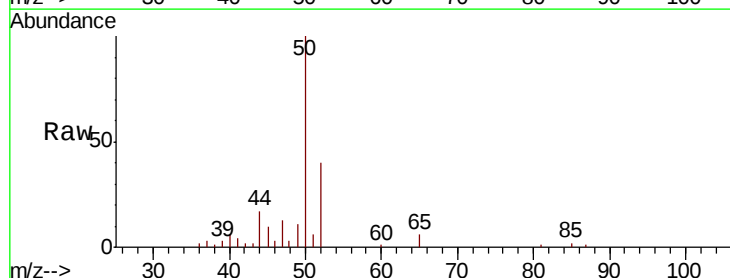
Acq: 13 Nov 2020 00:38

Tgt Ion: 50 Resp: 35717

Ion Ratio Lower Upper

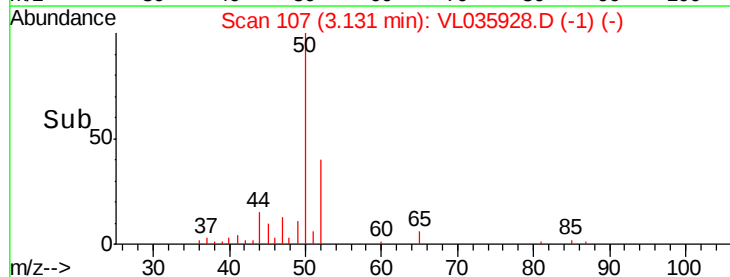
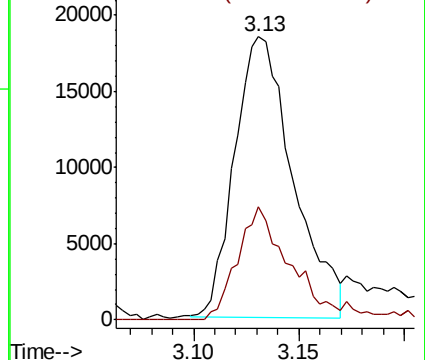
50 100

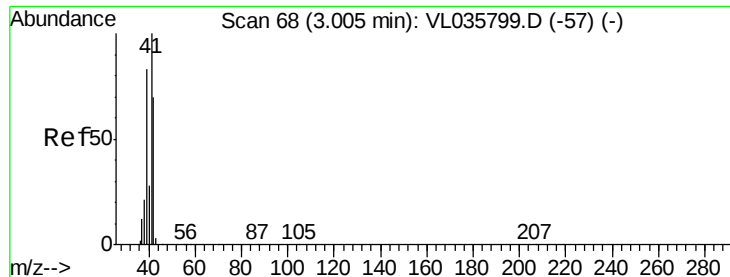
52 40.7 27.1 40.7#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.317 ppbv

RT: 3.01 min Scan# 70

Delta R.T. 0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampleId :

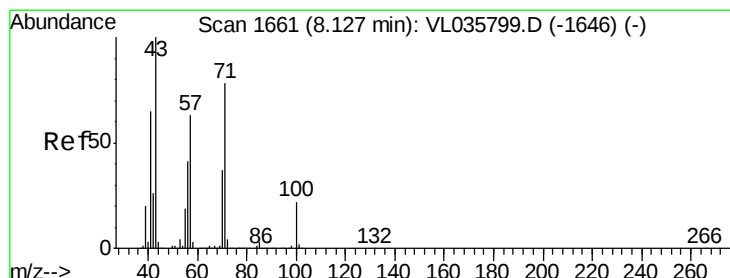
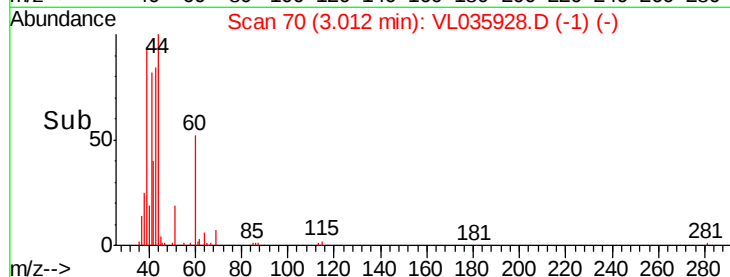
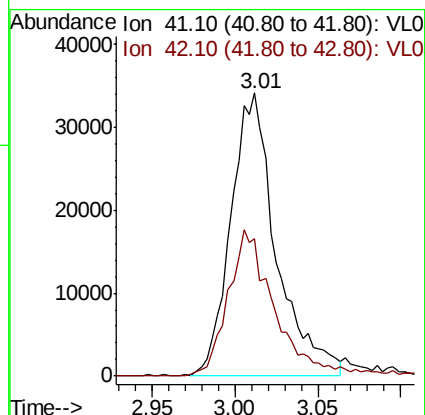
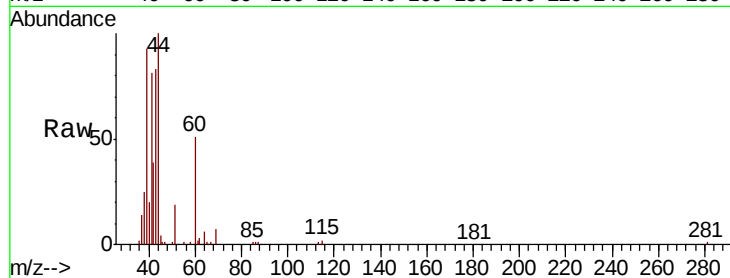
BFB

Tot Ion: 41 Resp: 65135

Ion Ratio Lower Upper

41 100

42 53.2 56.2 84.4#



#10

Heptane

Concen: 0.119 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL035928.D

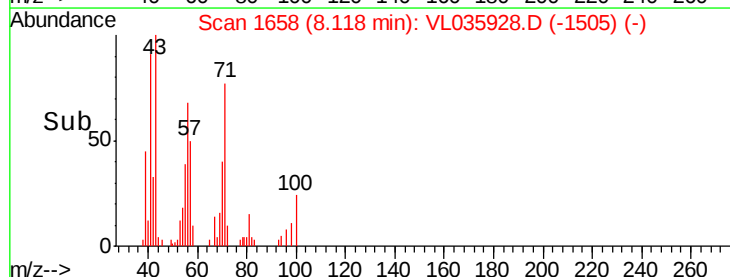
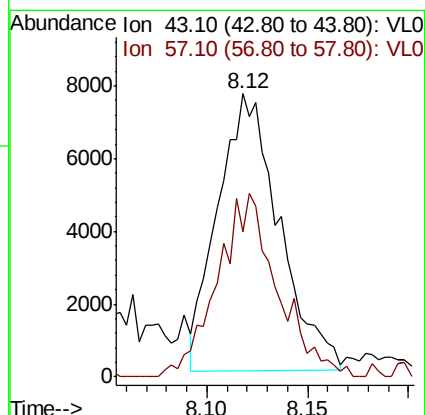
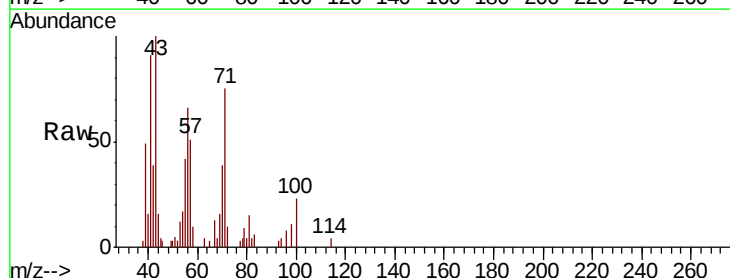
Acq: 13 Nov 2020 00:38

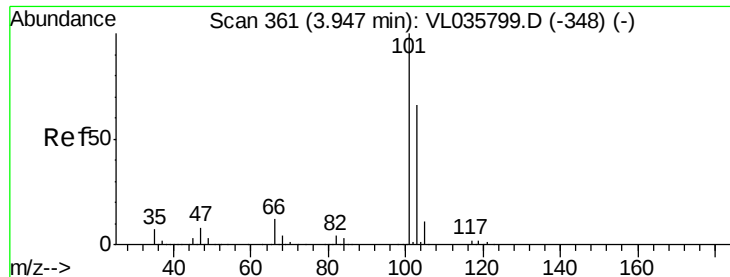
Tgt Ion: 43 Resp: 16205

Ion Ratio Lower Upper

43 100

57 64.5 50.0 75.0





#11

Trichlorofluoromethane

Concen: 0.254 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampleId :

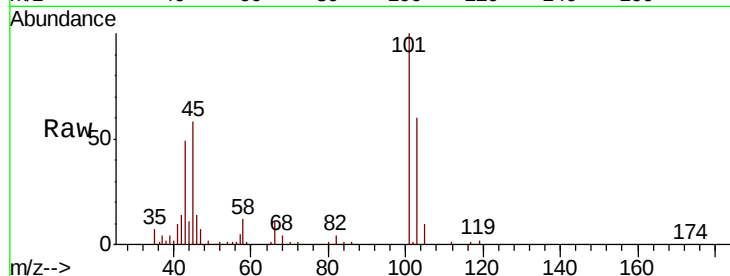
BFB

Tot Ion:101 Resp: 67651

Ion Ratio Lower Upper

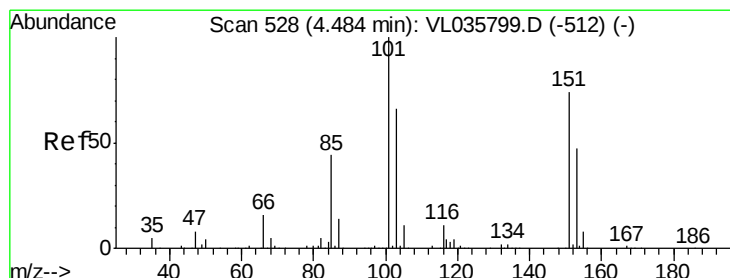
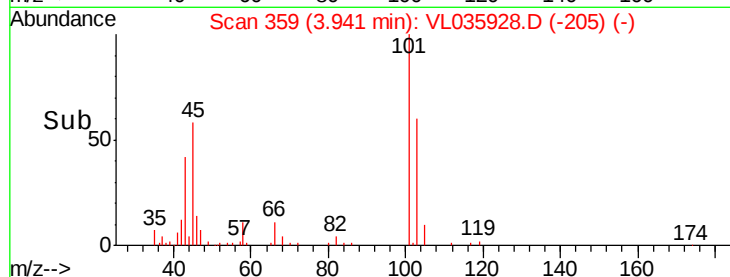
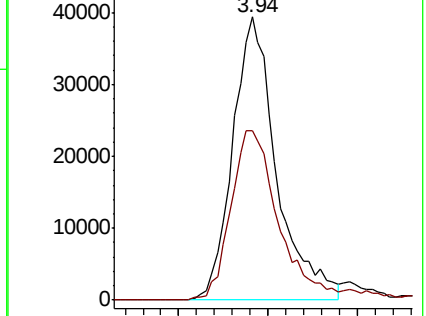
101 100

103 60.1 53.0 79.4



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: 0.032 ppbv

RT: 4.48 min Scan# 527

Delta R.T. -0.00 min

Lab File: VL035928.D

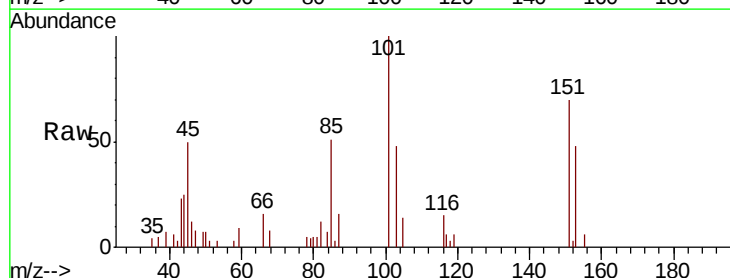
Acq: 13 Nov 2020 00:38

Tgt Ion:101 Resp: 6343

Ion Ratio Lower Upper

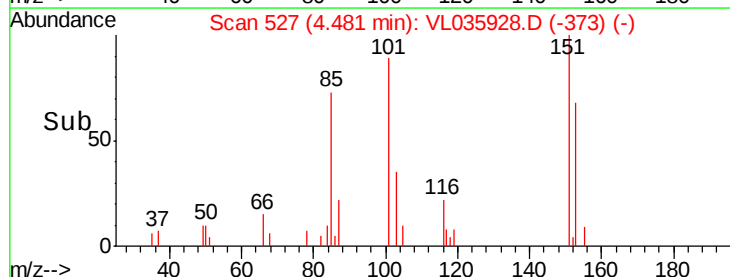
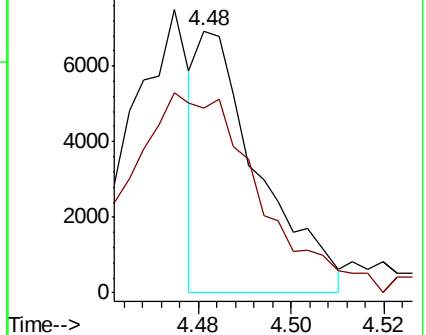
101 100

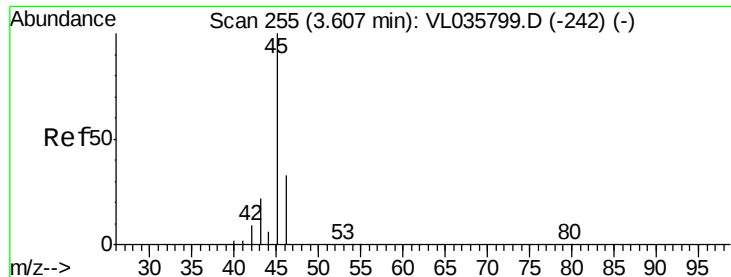
151 0.0 58.9 88.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

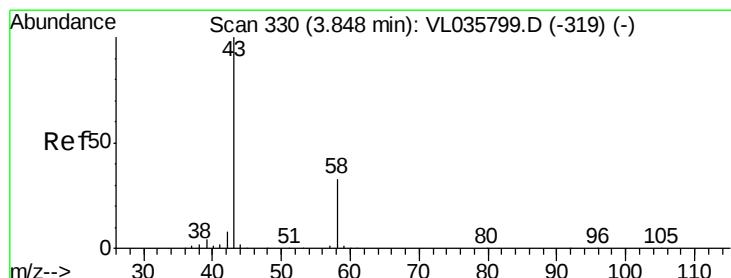
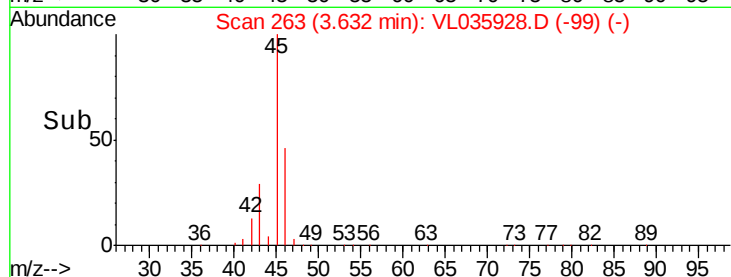
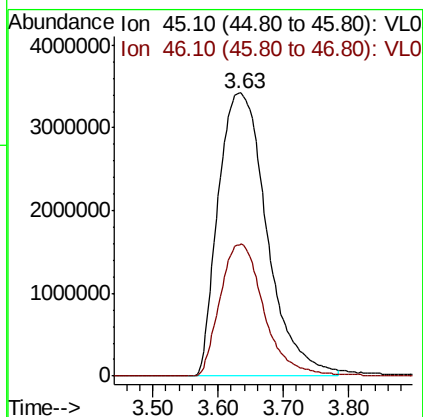
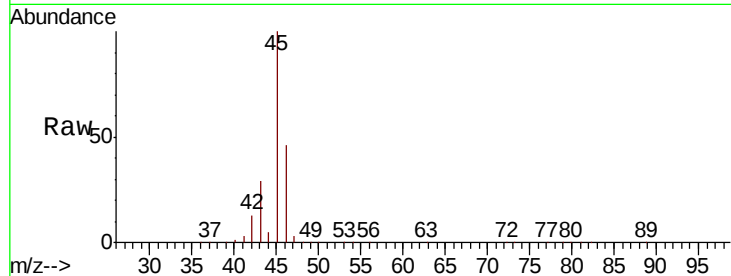




#13
Ethanol
Concen: 1653.981 ppbv
RT: 3.63 min Scan# 263
Delta R.T. 0.03 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

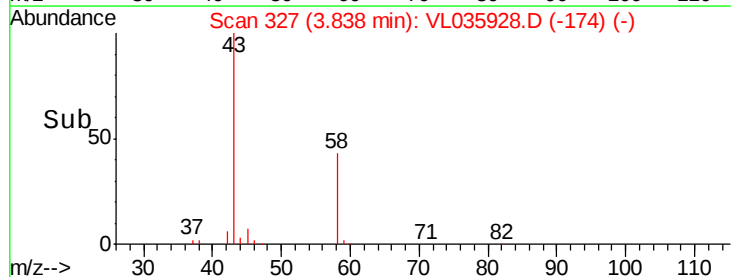
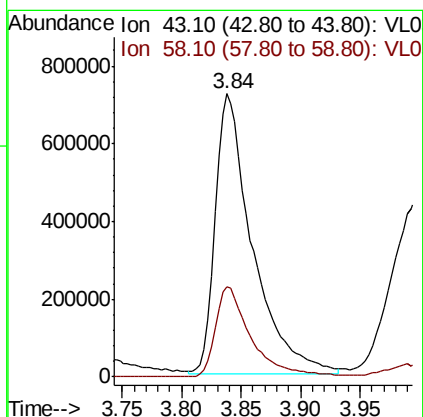
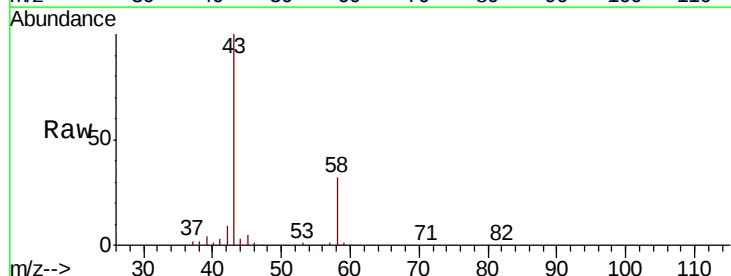
Instrument :
MSVOA_L
ClientSampleId :
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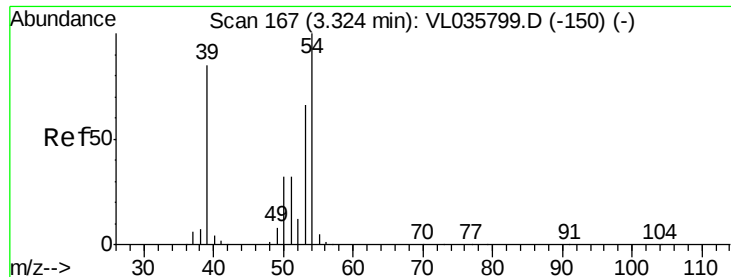
Tot Ion: 45 Resp:17746254
Ion Ratio Lower Upper
45 100
46 42.5 16.1 64.5



#15
Acetone
Concen: 12.945 ppbv
RT: 3.84 min Scan# 327
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion: 43 Resp: 1561546
Ion Ratio Lower Upper
43 100
58 30.8 27.5 41.3

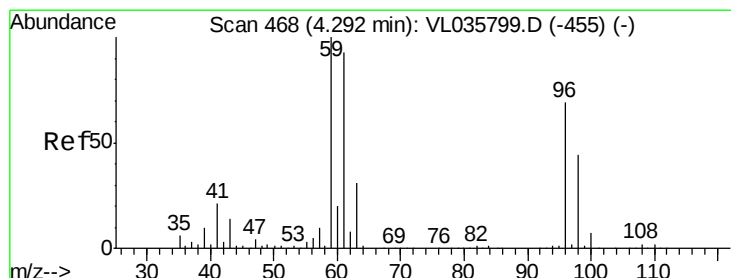
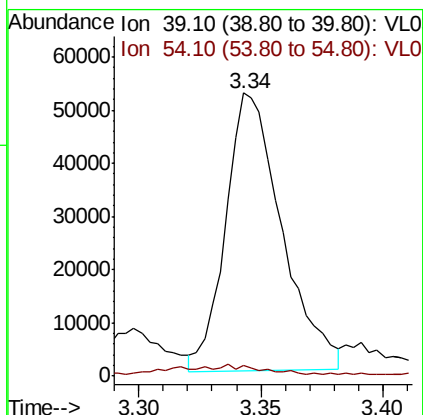
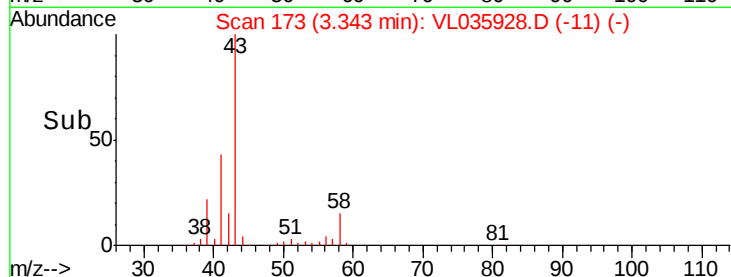
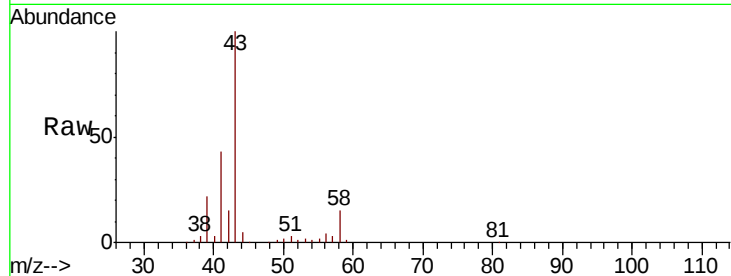




#16
 1,3-Butadiene
 Concen: 1.616 ppbv
 RT: 3.34 min Scan# 173
 Delta R.T. 0.02 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

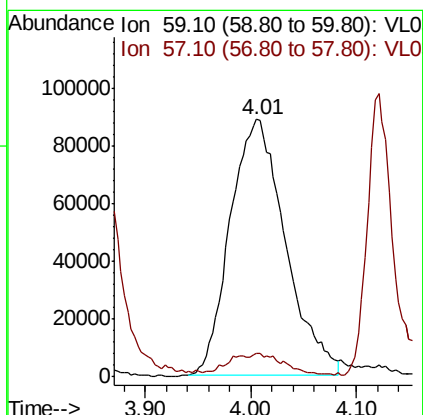
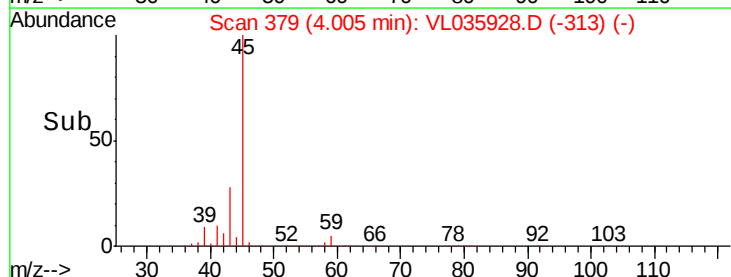
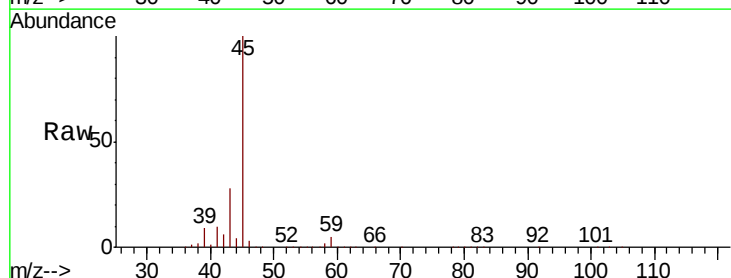
Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

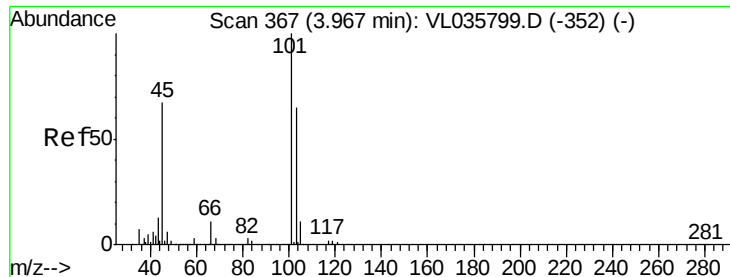
Tot Ion: 39 Resp: 83905
 Ion Ratio Lower Upper
 39 100
 54 8.5 87.1 130.7#



#17
 tert-Butyl alcohol
 Concen: 2.026 ppbv
 RT: 4.01 min Scan# 379
 Delta R.T. -0.29 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Tgt Ion: 59 Resp: 323964
 Ion Ratio Lower Upper
 59 100
 57 10.1 8.2 12.4





#19

Isopropyl Alcohol

Concen: 92.191 ppbv

RT: 4.01 min Scan# 379

Delta R.T. 0.04 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampled :

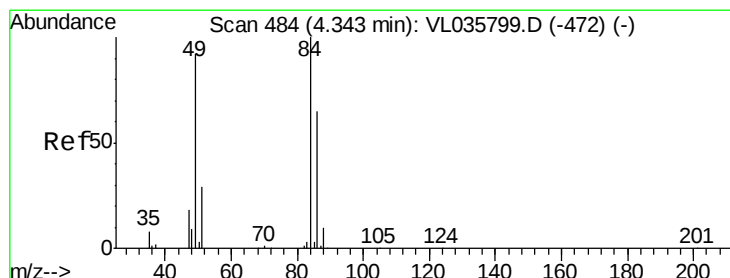
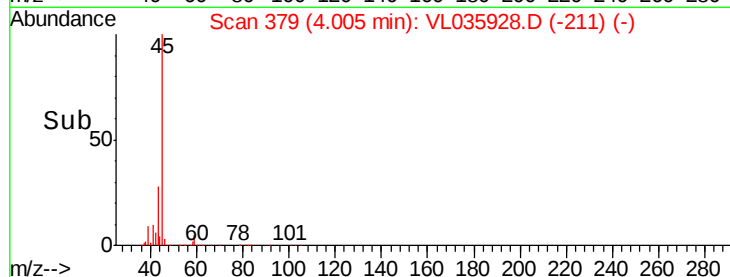
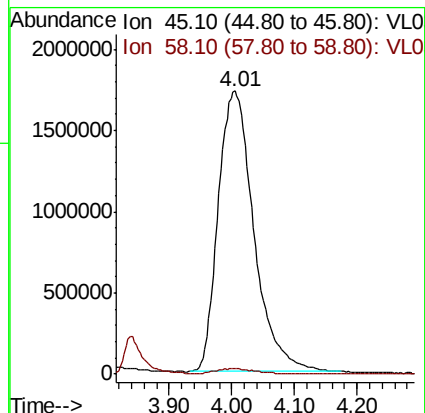
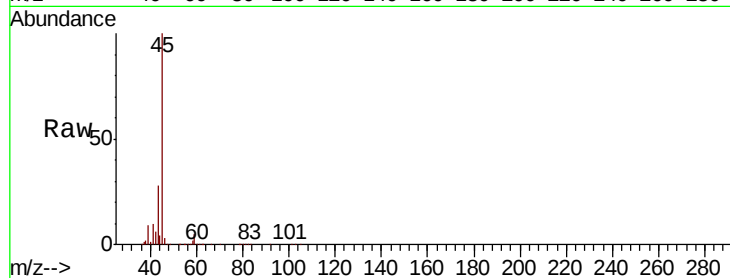
BFB

Tot Ion: 45 Resp: 6834275

Ion Ratio Lower Upper

45 100

58 2.3 2.6 3.8#



#20

Methylene Chloride

Concen: 1.207 ppbv

RT: 4.34 min Scan# 482

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Tgt Ion: 84 Resp: 102538

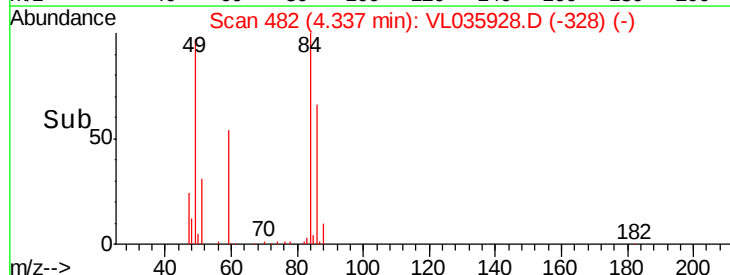
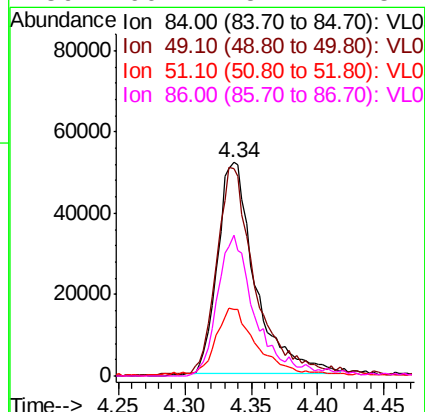
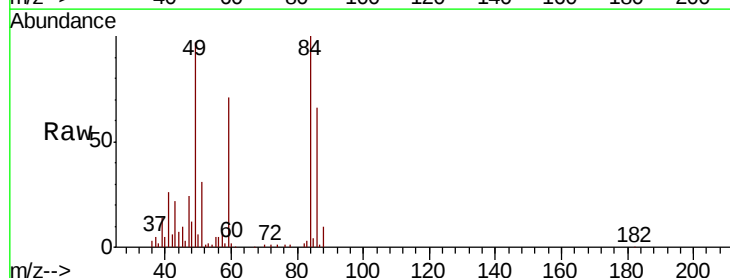
Ion Ratio Lower Upper

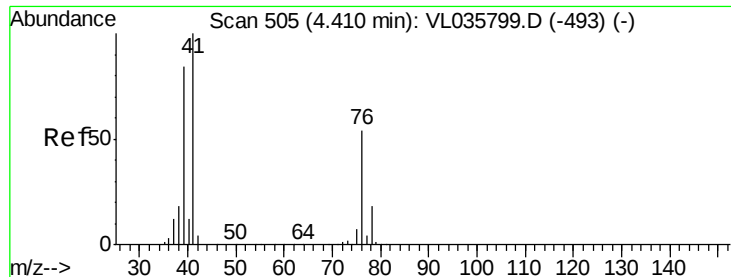
84 100

49 97.1 73.8 110.8

51 30.6 23.0 34.4

86 66.2 52.1 78.1

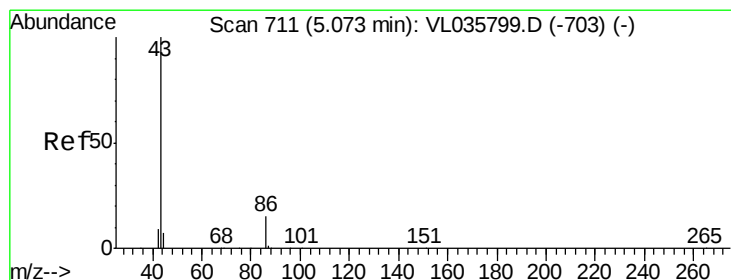
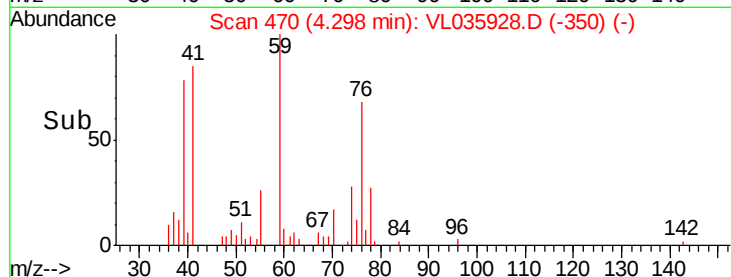
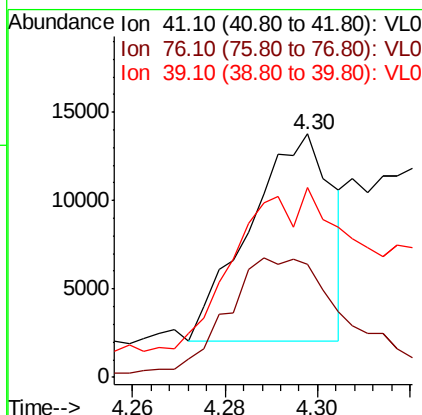
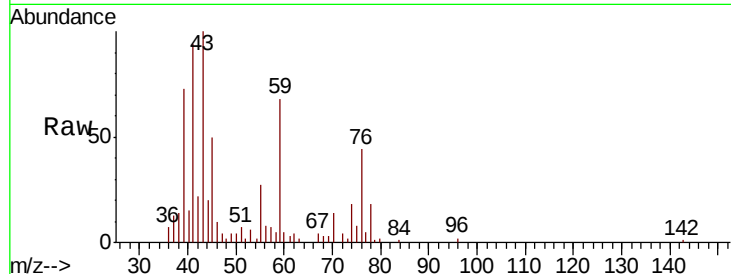




#21
Allvl Chloride
Concen: 0.224 ppbv
RT: 4.30 min Scan# 470
Delta R.T. -0.11 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

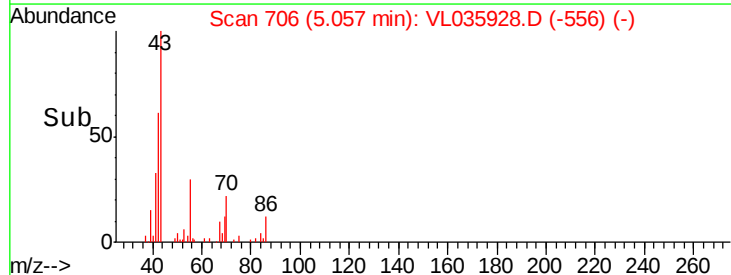
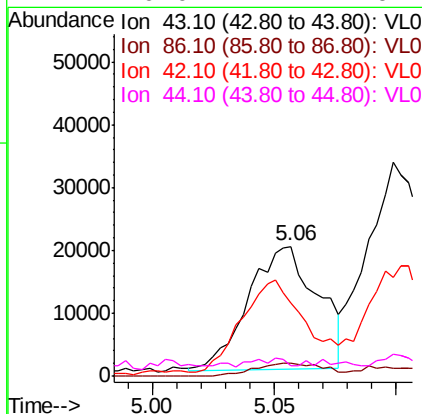
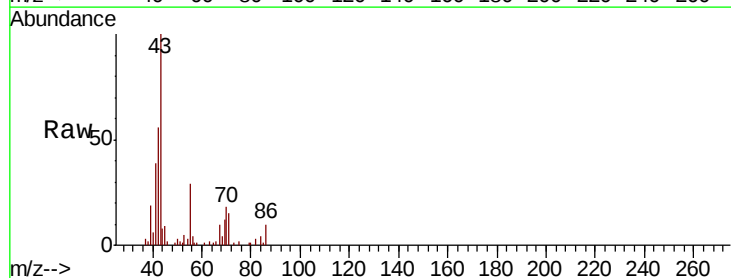
Instrument :
MSVOA_L
ClientSampleId :
BFB

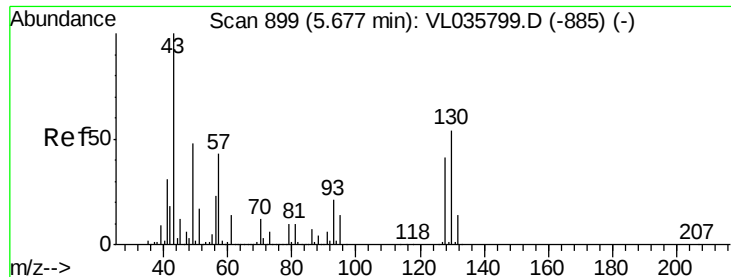
Tot Ion: 41 Resp: 14621
Ion Ratio Lower Upper
41 100
76 93.0 42.6 63.8#
39 192.3 67.0 100.4#



#23
Vinyl Acetate
Concen: 0.231 ppbv
RT: 5.06 min Scan# 706
Delta R.T. -0.02 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion: 43 Resp: 39041
Ion Ratio Lower Upper
43 100
86 10.2 9.8 14.6
42 55.7 8.1 12.1#
44 0.0 4.2 6.4#

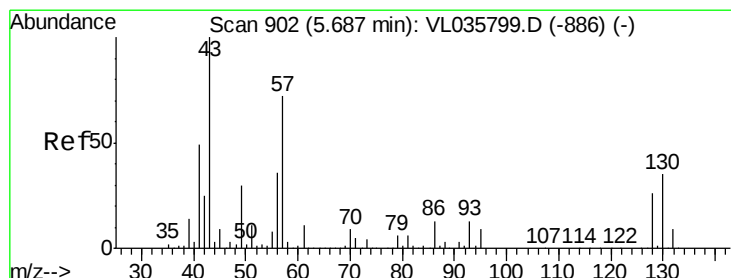
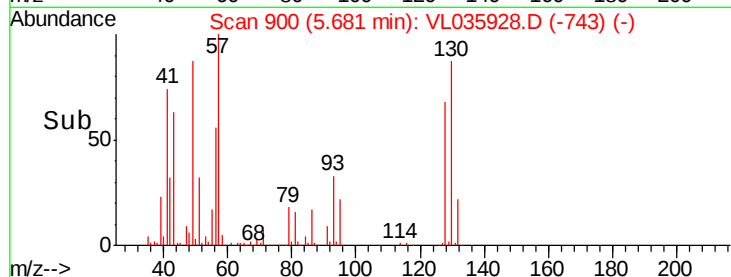
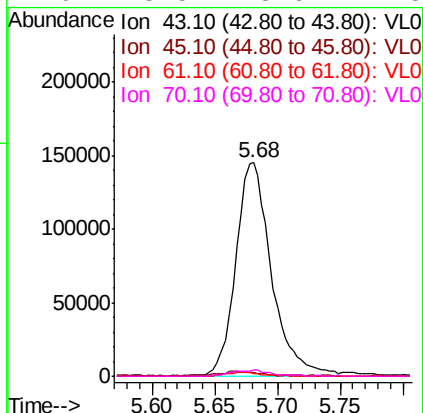
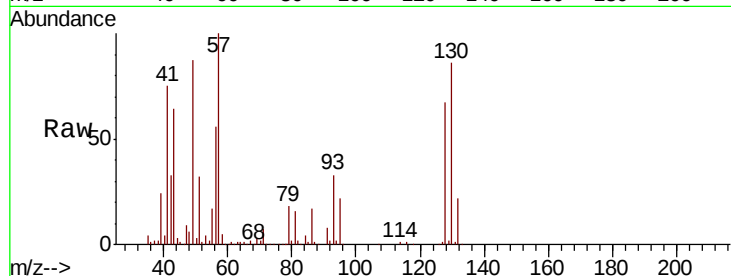




#25
Ethyl Acetate
Concen: 1.204 ppbv
RT: 5.68 min Scan# 900
Delta R.T. 0.00 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

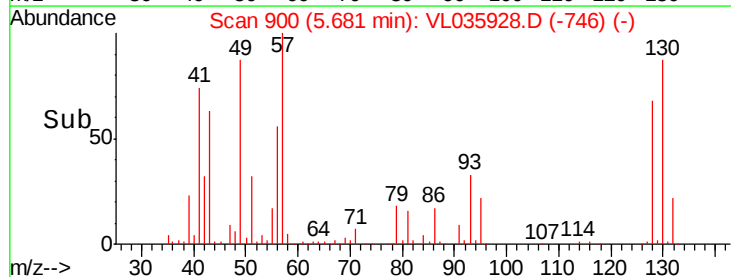
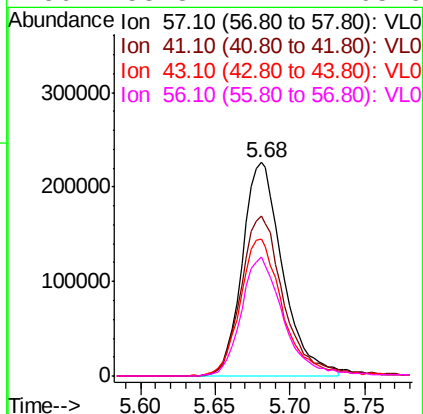
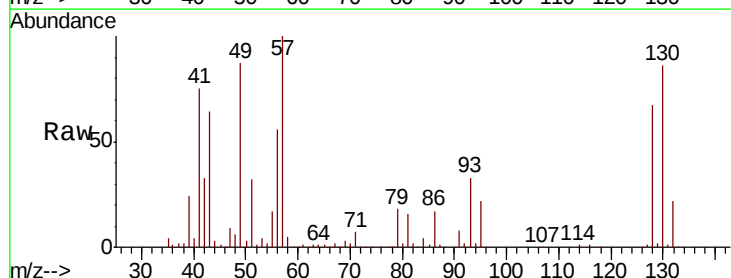
Instrument :
MSVOA_L
ClientSampleId :
BFB

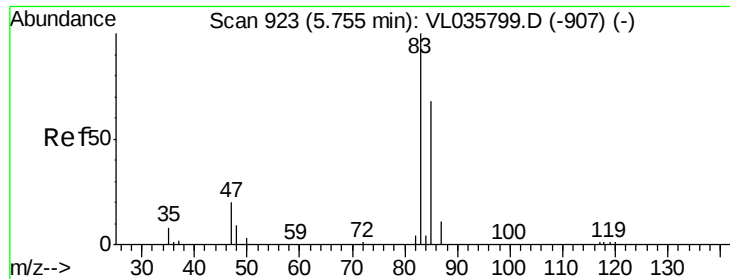
Tot Ion:	43	Resp:	286009
Ion	Ratio	Lower	Upper
43	100		
45	2.4	8.5	12.7#
61	1.9	10.7	16.1#
70	3.5	8.6	12.8#



#26
Hexane
Concen: 3.240 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion:	57	Resp:	424584
Ion	Ratio	Lower	Upper
57	100		
41	81.2	58.9	88.3
43	67.9	150.2	225.2#
56	58.8	42.4	63.6

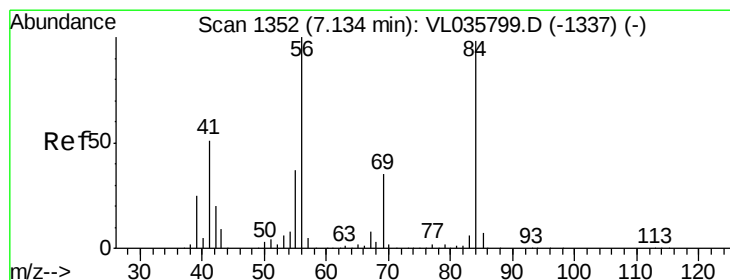
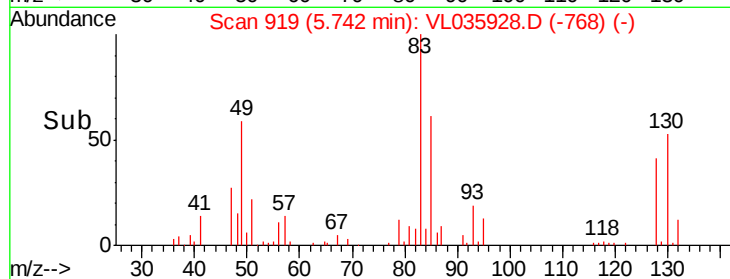
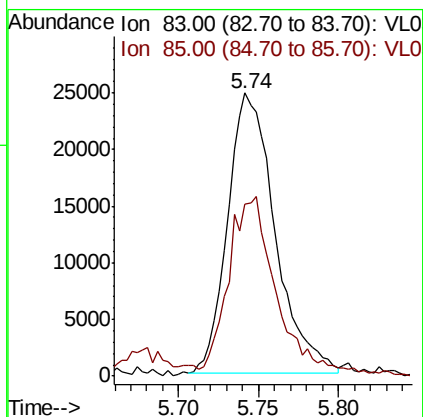
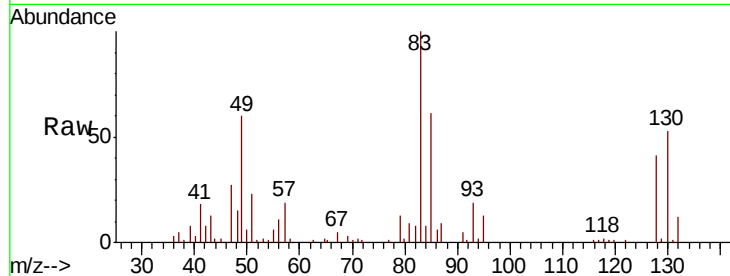




#29
Chloroform
Concen: 0.195 ppbv
RT: 5.74 min Scan# 919
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

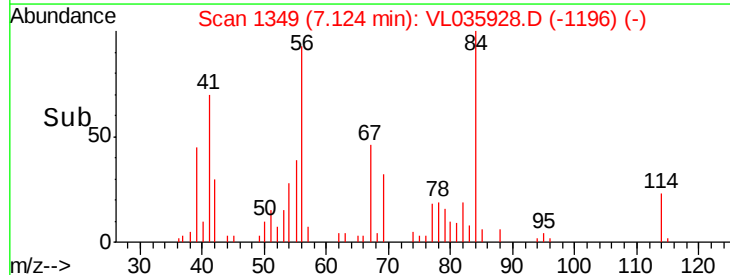
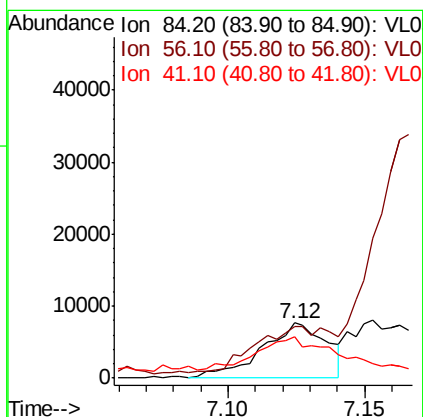
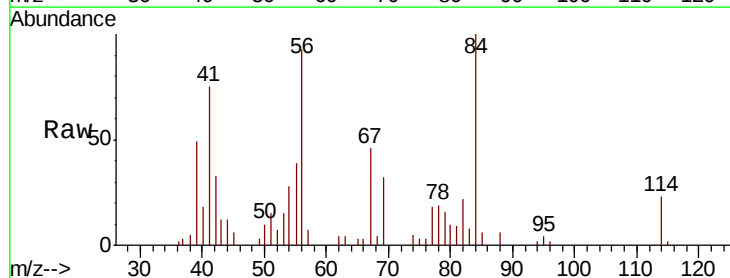
Instrument :
MSVOA_L
ClientSampleId :
BFB

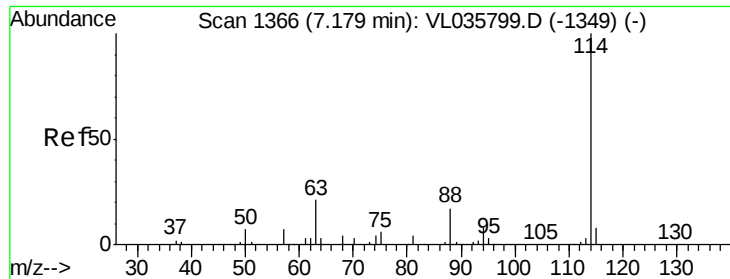
Tot Ion: 83 Resp: 50197
Ion Ratio Lower Upper
83 100
85 58.6 54.6 81.8



#30
Cyclohexane
Concen: 0.088 ppbv
RT: 7.12 min Scan# 1349
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion: 84 Resp: 12594
Ion Ratio Lower Upper
84 100
56 0.0 86.4 129.6#
41 104.6 42.1 63.1#

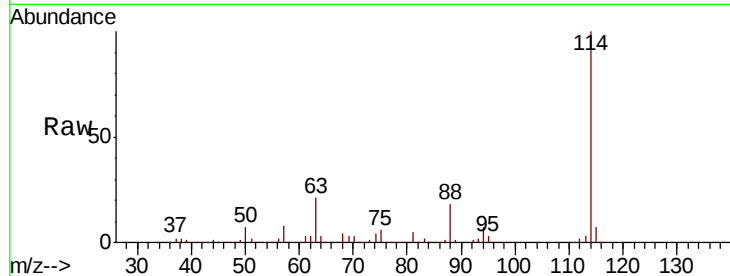




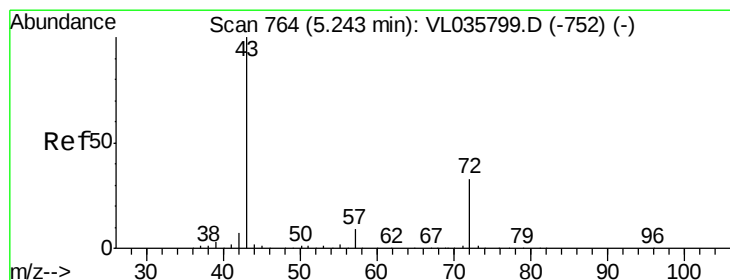
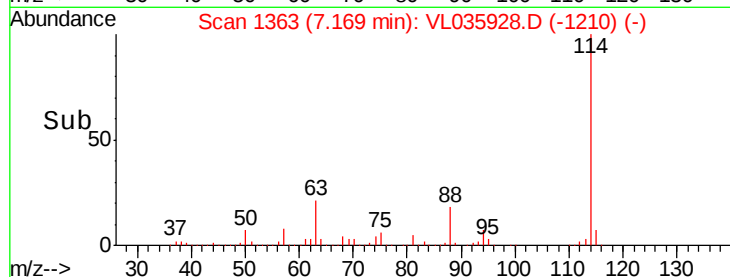
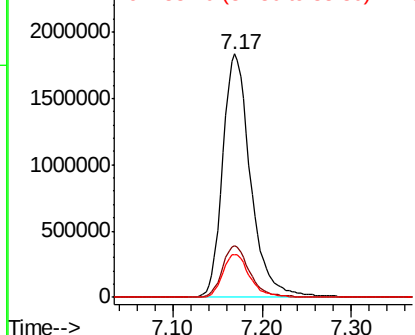
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Tot Ion:114 Resp: 3977789
 Ion Ratio Lower Upper
 114 100
 63 20.9 16.1 24.1
 88 17.4 13.7 20.5

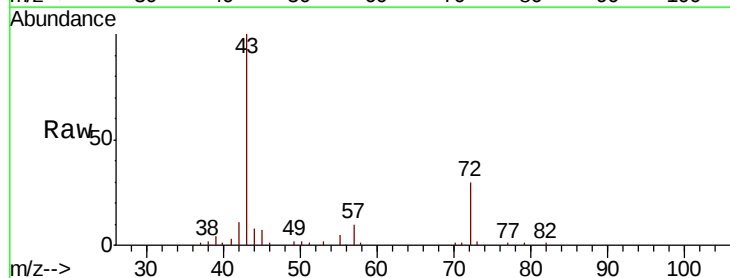


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

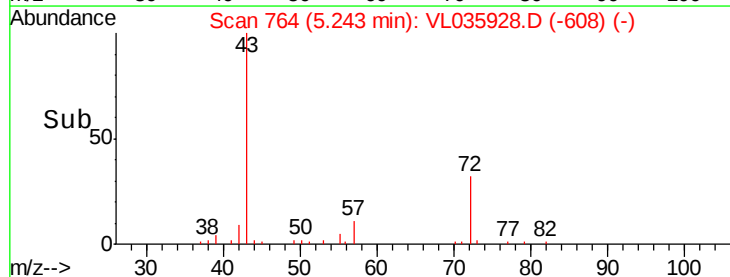
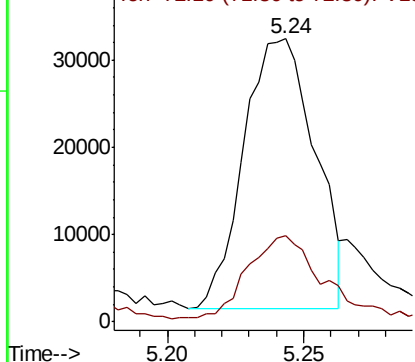


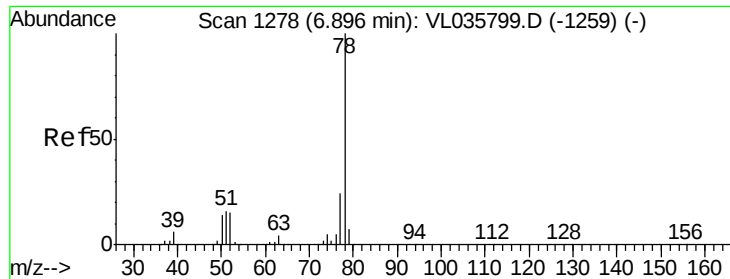
#34
 2-Butanone
 Concen: 0.433 ppbv
 RT: 5.24 min Scan# 764
 Delta R.T. -0.00 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Tgt Ion: 43 Resp: 55923
 Ion Ratio Lower Upper
 43 100
 72 37.9 26.5 39.7



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





#36

Benzene

Concen: 0.372 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampleId :

BFB

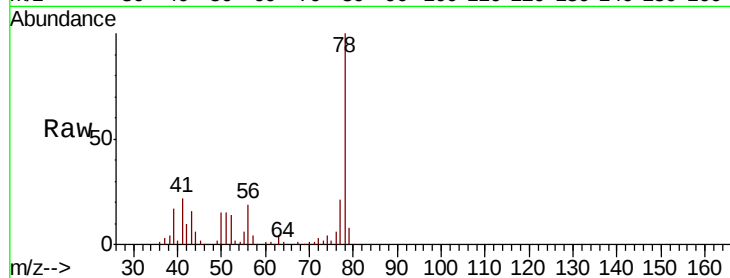
Tot Ion: 78 Resp: 109965

Ion Ratio Lower Upper

78 100

77 20.5 19.3 28.9

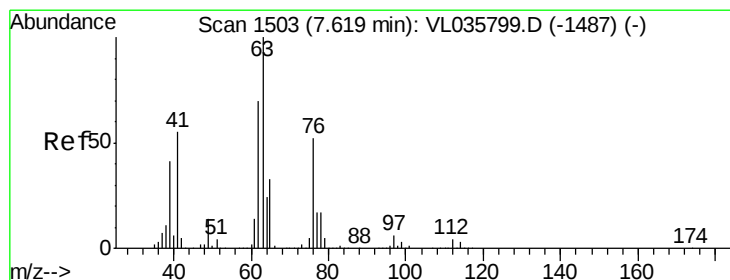
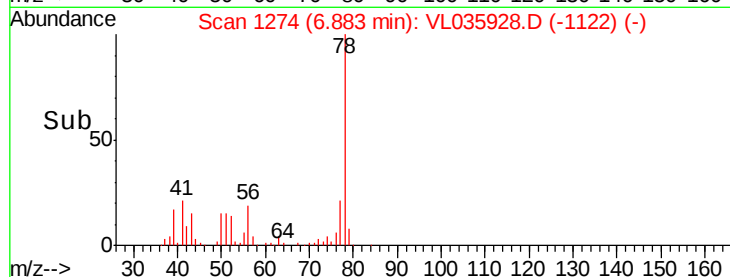
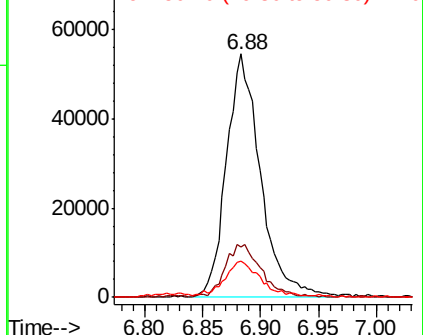
50 14.4 11.4 17.2



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 8.293 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.45 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

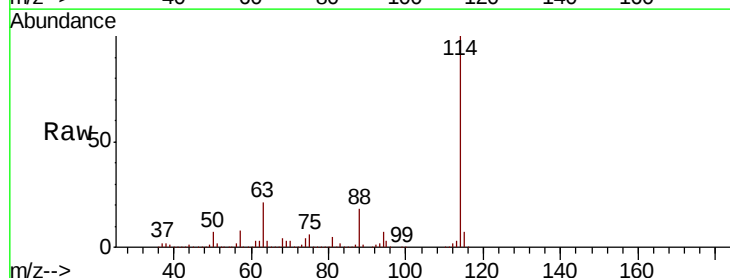
Tgt Ion: 63 Resp: 825682

Ion Ratio Lower Upper

63 100

41 0.0 43.8 65.6#

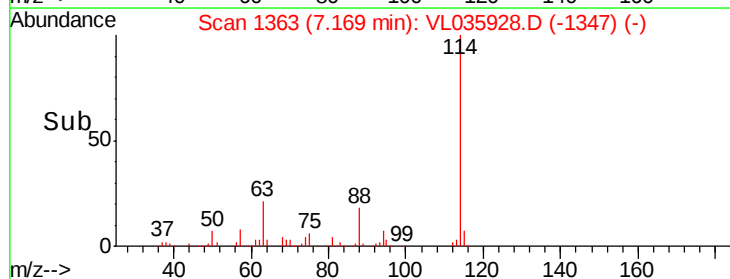
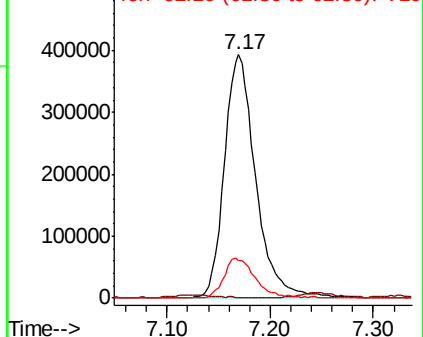
62 15.6 56.2 84.2#

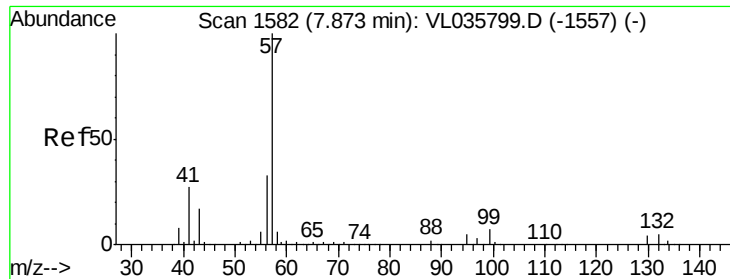


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

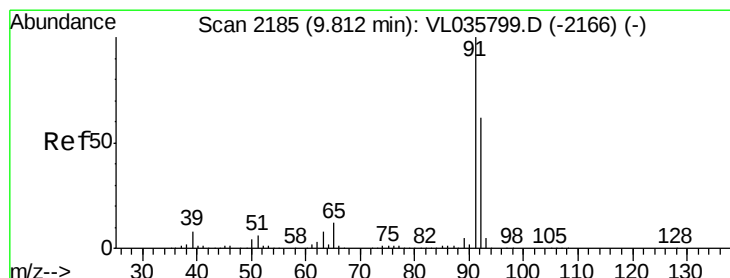
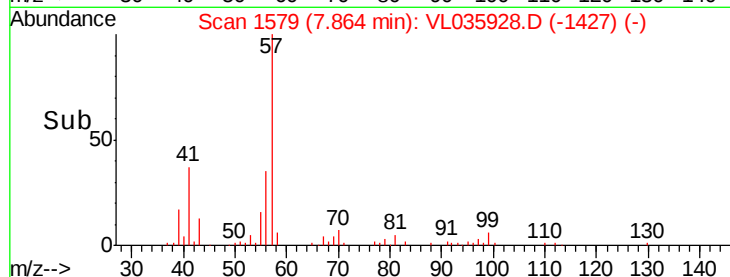
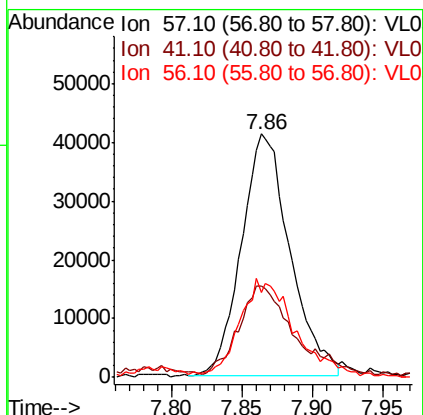
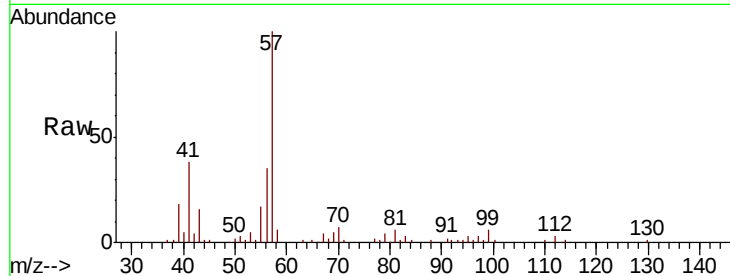




#44
 2,2,4-Trimethylpentane
 Concen: 0.254 ppbv
 RT: 7.86 min Scan# 1579
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

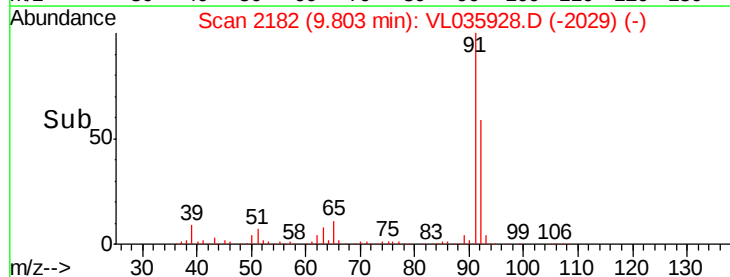
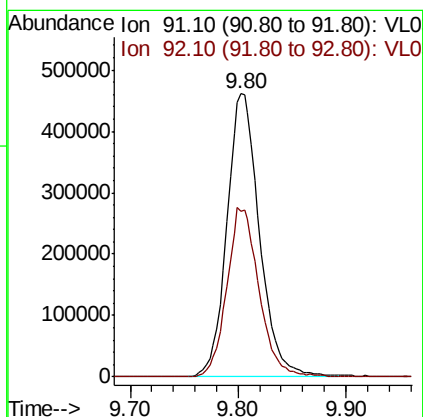
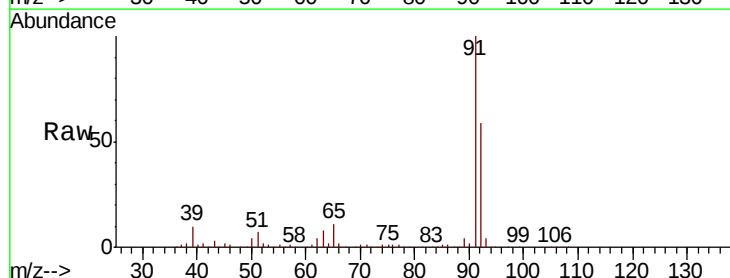
Instrument :
 MSVOA_L
 ClientSampled :
 BFB

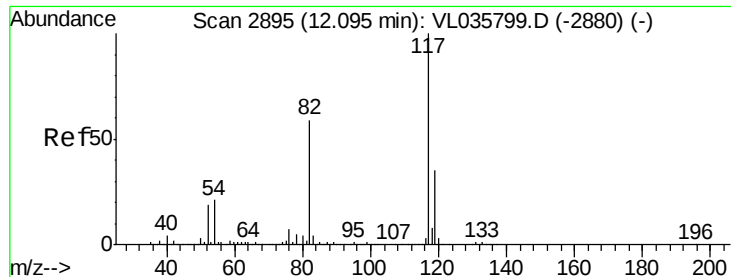
Tot Ion: 57 Resp: 99204
 Ion Ratio Lower Upper
 57 100
 41 41.6 21.0 31.4#
 56 45.2 25.4 38.0#



#53
 Toluene
 Concen: 2.699 ppbv
 RT: 9.80 min Scan# 2182
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Tgt Ion: 91 Resp: 962907
 Ion Ratio Lower Upper
 91 100
 92 59.9 49.8 74.6

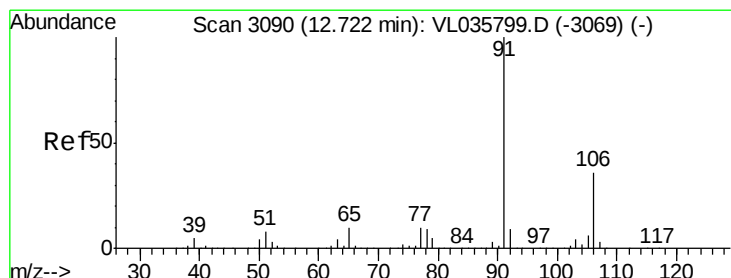
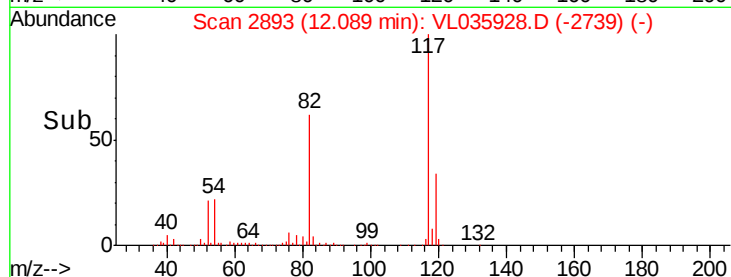
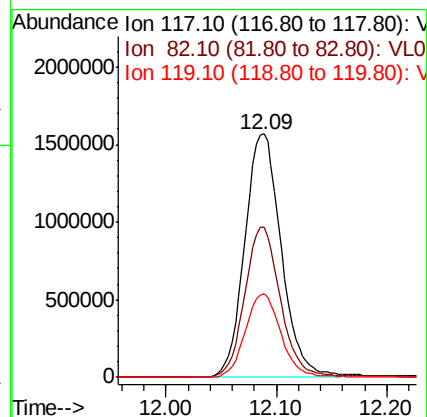
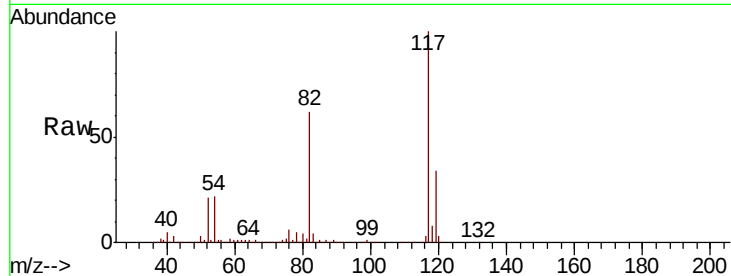




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min Scan# 2893
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

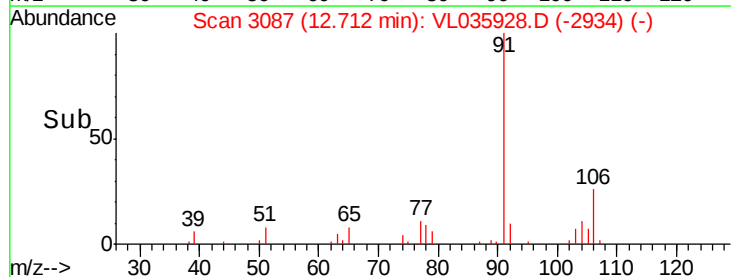
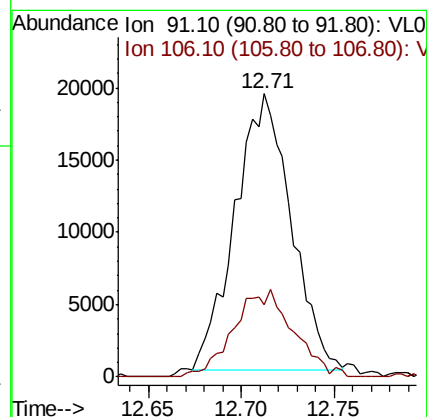
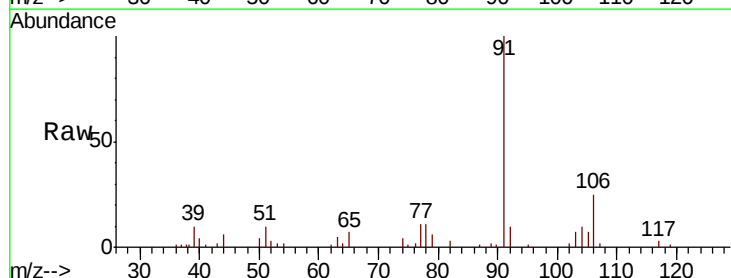
Instrument :
MSVOA_L
ClientSampleId :
BFB

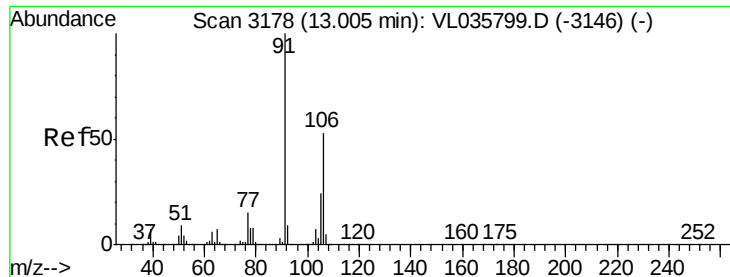
Tot Ion:117 Resp: 3608401
Ion Ratio Lower Upper
117 100
82 61.4 50.6 76.0
119 33.8 52.6 78.8#



#58
Ethyl Benzene
Concen: 0.092 ppbv
RT: 12.71 min Scan# 3087
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion: 91 Resp: 40349
Ion Ratio Lower Upper
91 100
106 24.0 28.6 43.0#

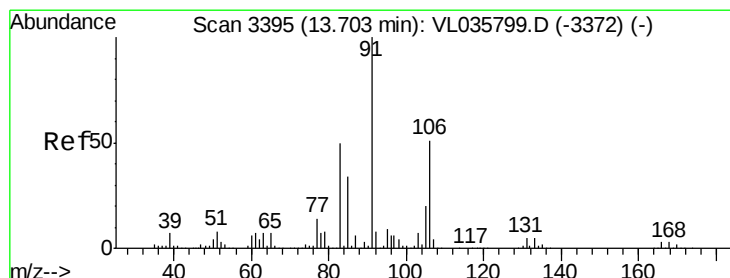
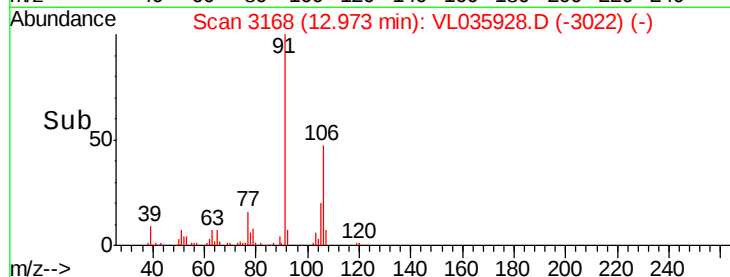
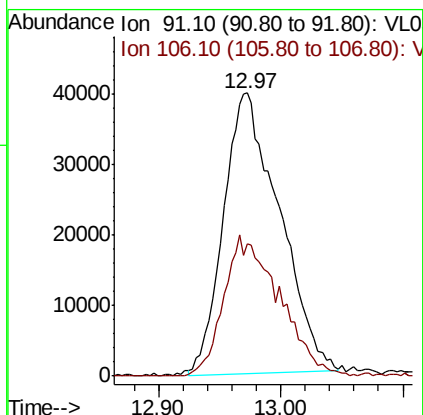
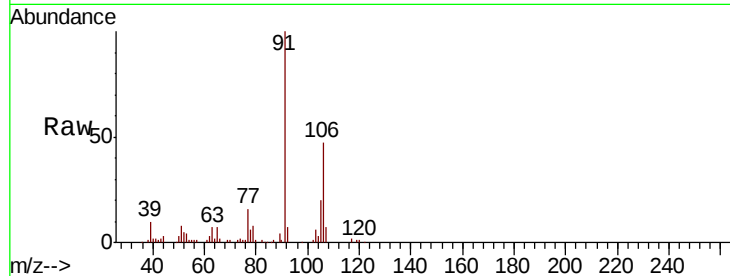




#59
m/p-Xylene
Concen: 0.341 ppbv
RT: 12.97 min Scan# 3168
Delta R.T. -0.03 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

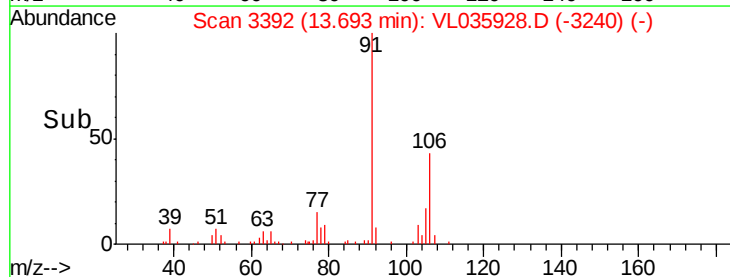
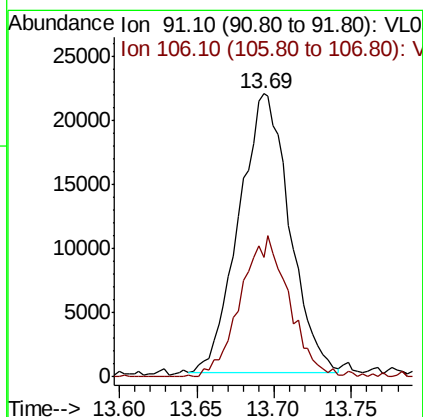
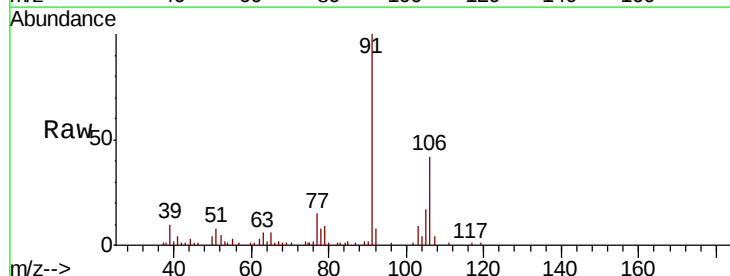
Instrument :
MSVOA_L
ClientSampleId :
BFB

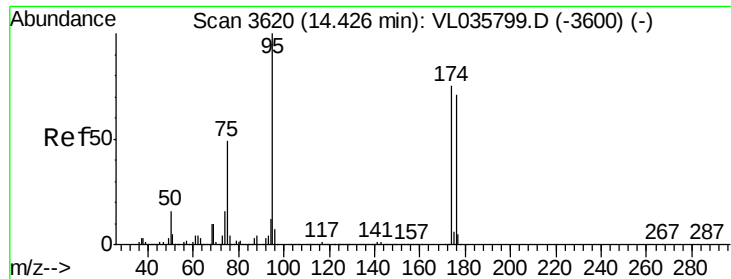
Tot Ion: 91 Resp: 126829
Ion Ratio Lower Upper
91 100
106 50.0 39.5 59.3



#60
o-Xylene
Concen: 0.138 ppbv
RT: 13.69 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion: 91 Resp: 49762
Ion Ratio Lower Upper
91 100
106 48.3 24.8 74.4

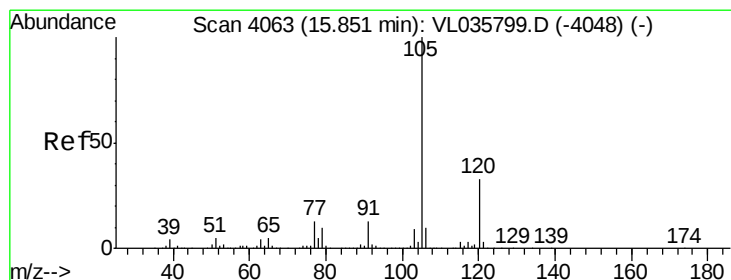
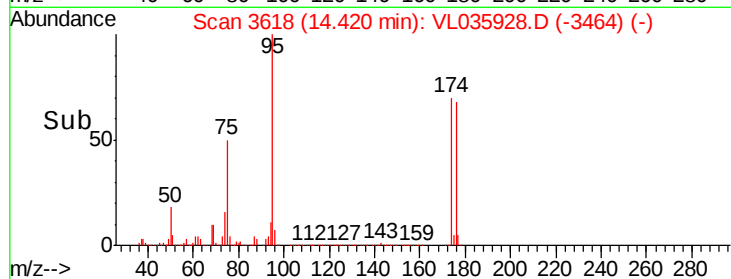
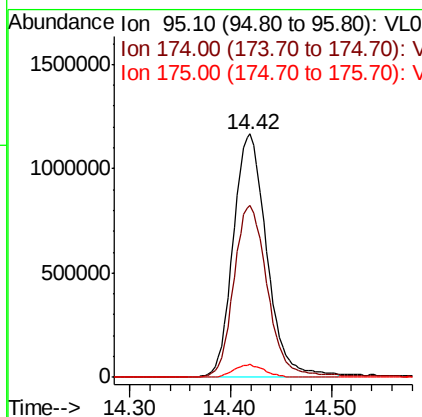
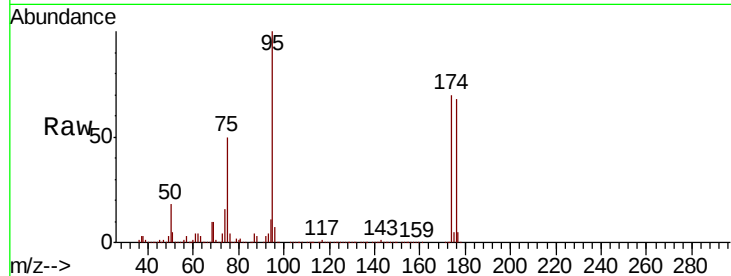




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.544 ppbv
 RT: 14.42 min Scan# 3618
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

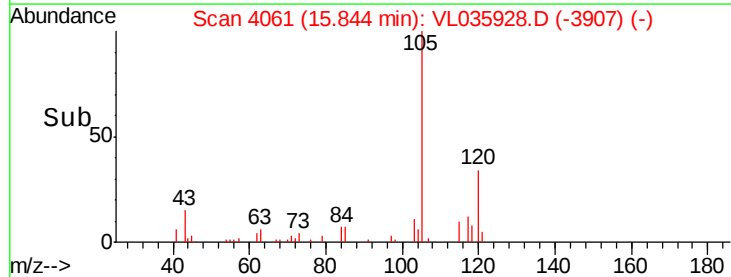
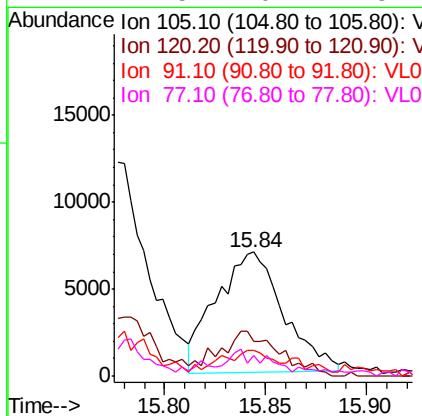
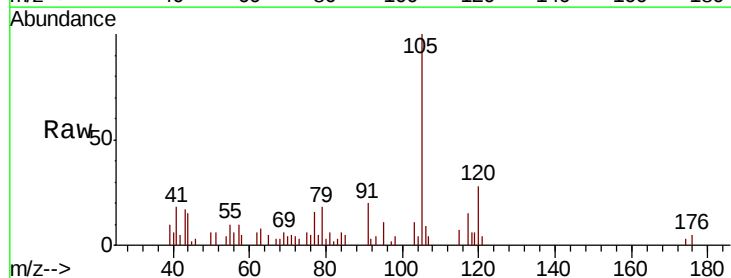
Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

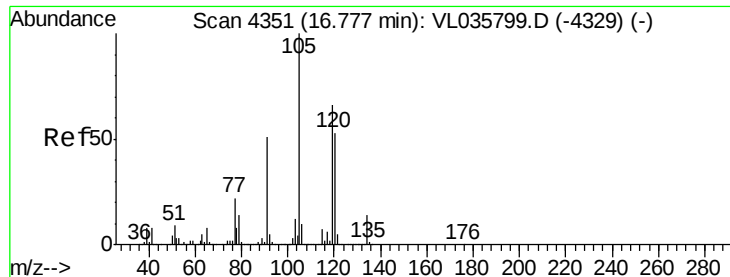
Tot Ion: 95 Resp: 2703207
 Ion Ratio Lower Upper
 95 100
 174 72.1 59.8 89.6
 175 5.1 4.3 6.5



#72
 4-Ethyltoluene
 Concen: 0.036 ppbv
 RT: 15.84 min Scan# 4061
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Tgt Ion: 105 Resp: 16010
 Ion Ratio Lower Upper
 105 100
 120 35.4 25.9 38.9
 91 27.0 9.9 14.9#
 77 22.5 10.2 15.2#





#74

1,2,4-Trimethylbenzene

Concen: 0.143 ppbv

RT: 16.76 min Scan# 4347

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampleId :

BFB

Tot Ion:105 Resp: 61590

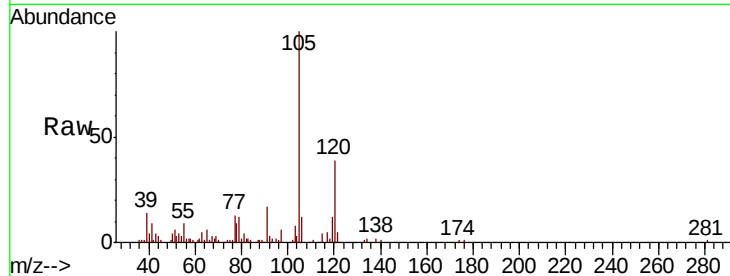
Ion Ratio Lower Upper

105 100

120 39.1 42.0 63.0#

91 14.9 41.0 61.6#

77 12.3 17.3 25.9#

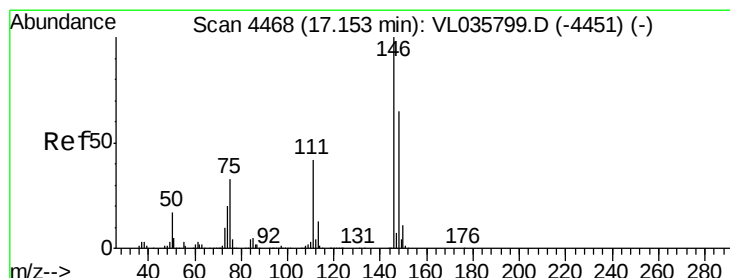
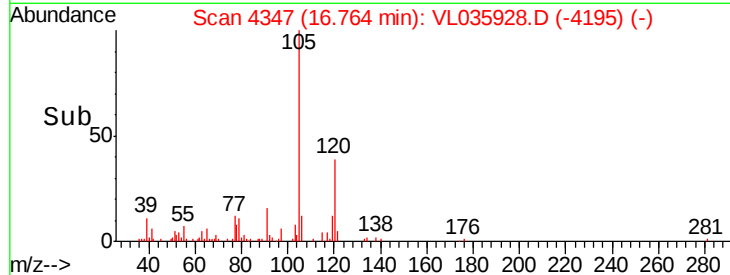
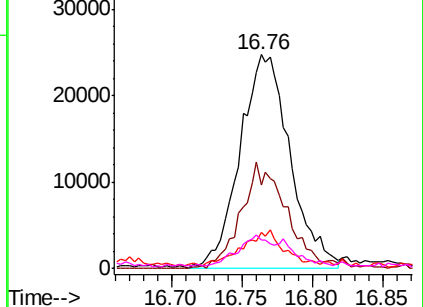


Abundance Ion 105.10 (104.80 to 105.80): V

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



#76

1,4-Dichlorobenzene

Concen: 0.031 ppbv

RT: 17.14 min Scan# 4465

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

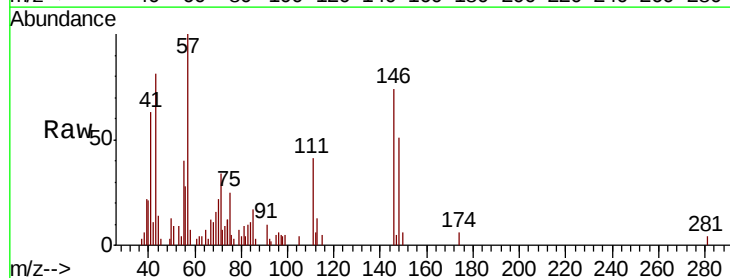
Tgt Ion:146 Resp: 8160

Ion Ratio Lower Upper

146 100

111 0.0 21.3 63.7#

148 99.0 33.0 99.0#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

