

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101220\
 Data File : VL035761.D
 Acq On : 12 Oct 2020 14:38
 Operator : SY/AP
 Sample : L4347-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 2

Manual Integrations
 APPROVED

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 10/14/2020 2:11:31 PM

Quant Time: Oct 13 23:01:12 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Sep 23 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	5.66	49	1089184	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	4395146	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.09	117	4263677	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	3212676	10.06	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	59349m	0.332	ppbv	
3) Chlorodifluoromethane	2.98	51	64354m	0.549	ppbv	
4) Chloromethane	3.13	50	34063	0.541	ppbv	96
9) Propene	3.01	41	68594	1.612	ppbv #	72
10) Heptane	8.12	43	61452	0.518	ppbv	94
11) Trichlorofluoromethane	3.94	101	65409	0.257	ppbv	93
13) Ethanol	3.59	45	1696052	161.655	ppbv	98
15) Acetone	3.83	43	3196571m	27.275	ppbv	
17) tert-Butyl alcohol	4.30	59	28946	0.227	ppbv #	72
19) Isopropyl Alcohol	3.96	45	736181	11.547	ppbv #	1
20) Methylene Chloride	4.33	84	300102	3.486	ppbv	96
26) Hexane	5.68	57	177641	1.537	ppbv #	51
30) Cyclohexane	7.13	84	13748	0.121	ppbv #	21
34) 2-Butanone	5.24	43	155757	1.071	ppbv	98
35) Carbon Tetrachloride	7.01	117	16510m	0.072	ppbv	
36) Benzene	6.89	78	65227	0.228	ppbv	94
44) 2,2,4-Trimethylpentane	7.87	57	111061	0.270	ppbv #	89
52) Tetrachloroethene	11.23	164	13989	0.102	ppbv	94
53) Toluene	9.81	91	4190545	12.409	ppbv	100
58) Ethyl Benzene	12.72	91	146365	0.342	ppbv	92
59) m/p-Xylene	12.97	91	312936	0.837	ppbv	98
60) o-Xylene	13.70	91	131525m	0.348	ppbv	
61) Styrene	13.54	104	100264	0.384	ppbv	98
62) Isopropylbenzene	14.67	105	76758m	0.131	ppbv	
69) p-Isopropyltoluene	17.67	119	72562m	0.121	ppbv	
74) 1,2,4-Trimethylbenzene	16.77	105	99743	0.209	ppbv #	72

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

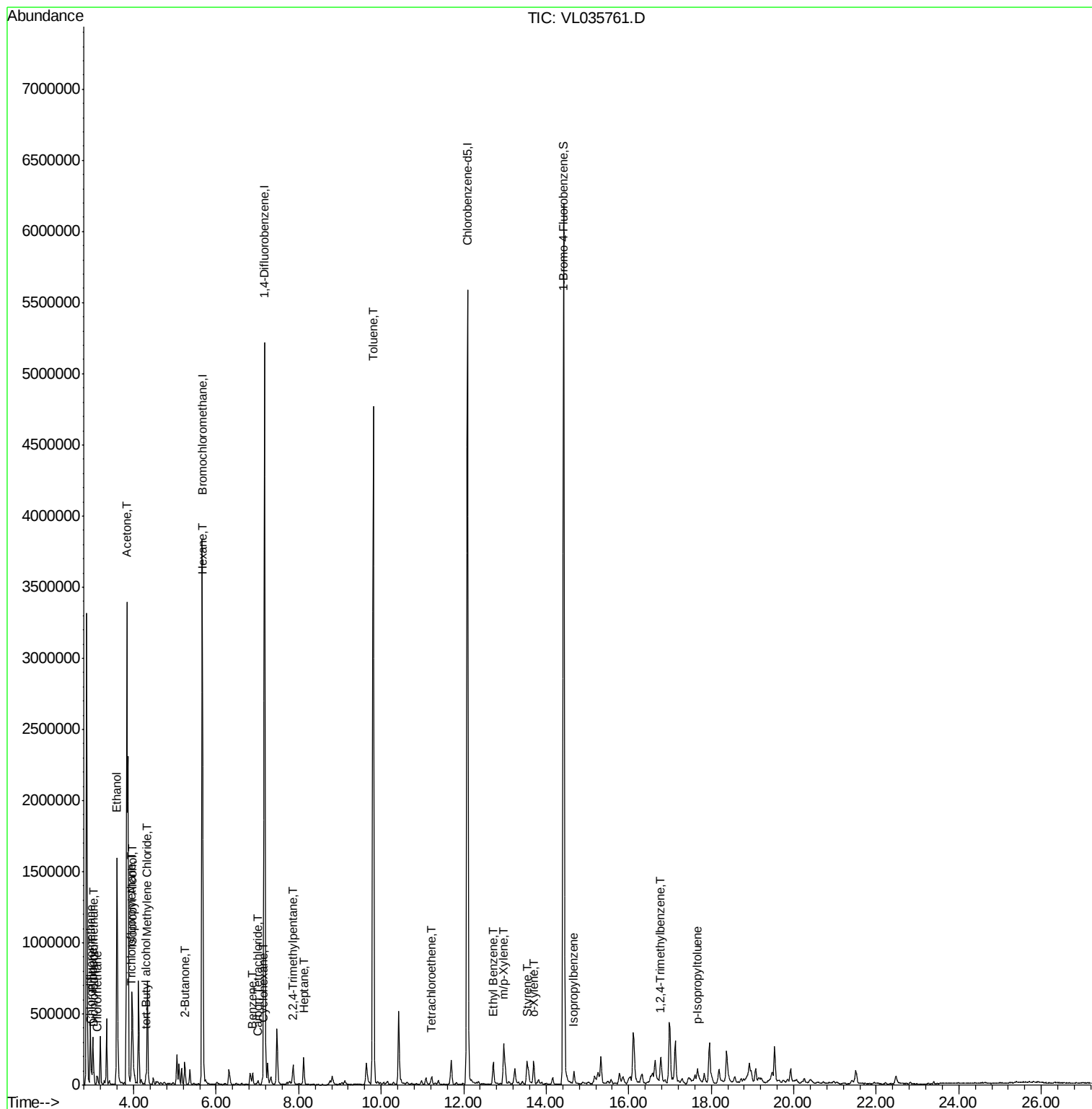
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL101220\
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Quant Time: Oct 13 23:01:12 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep
QLast Update : Wed Sep 23 07:38:05 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

ClientSampled :

2

Tot Ion: 49 Resp: 1089184

Ion Ratio Lower Upper

49 100

128 85.3 43.1 129.4

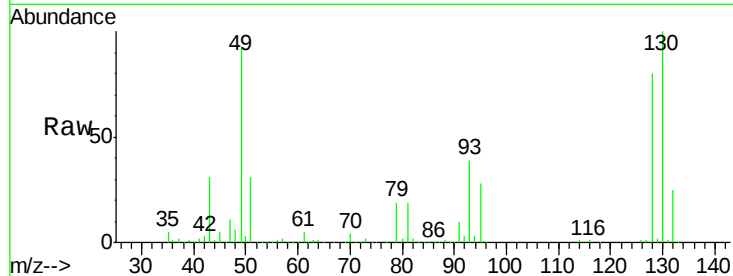
130 110.2 54.9 164.7

Manual Integrations

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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.66

800000

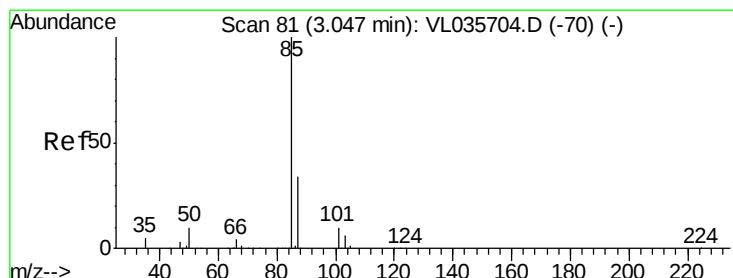
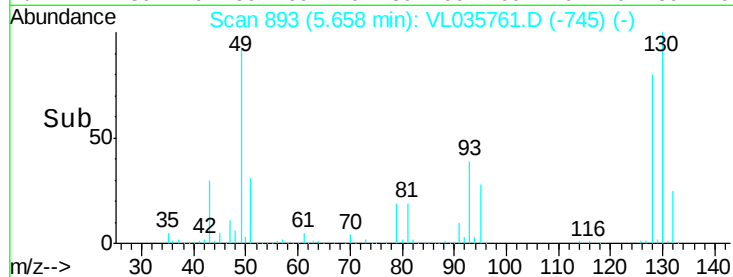
600000

400000

200000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.332 ppbv m

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL035761.D

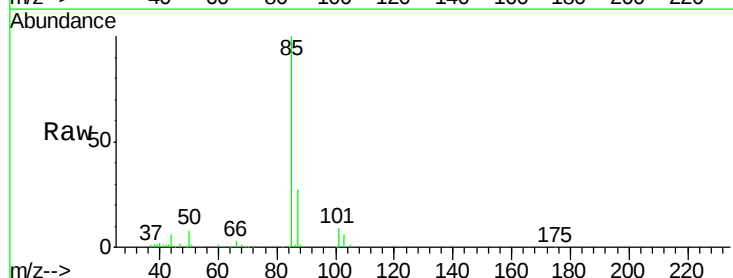
Acq: 12 Oct 2020 14:38

Tgt Ion: 85 Resp: 59349

Ion Ratio Lower Upper

85 100

87 27.1 27.3 40.9#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

60000

50000

40000

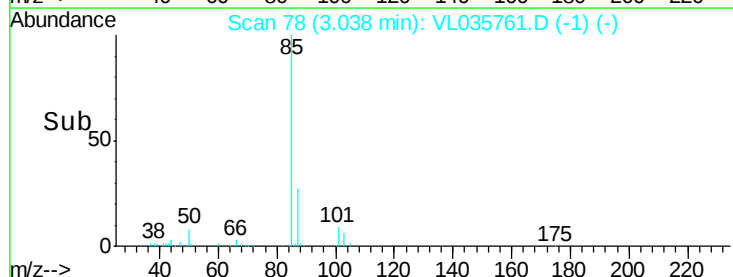
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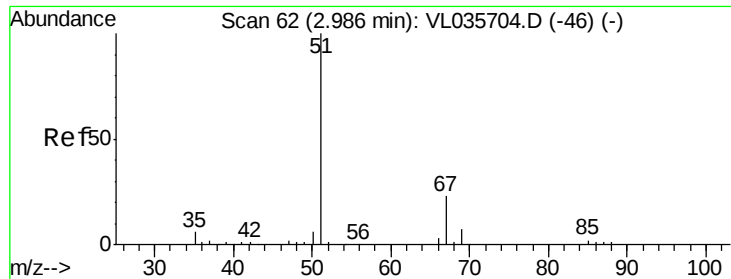
20000

10000

0

Time-->





#3

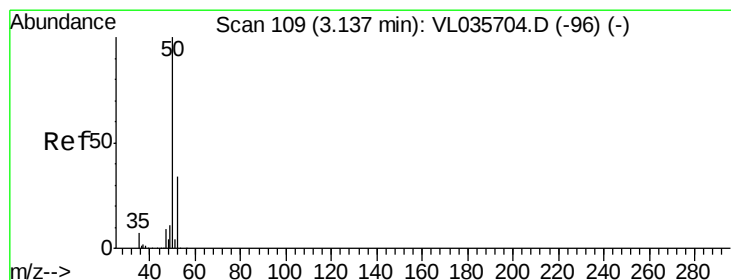
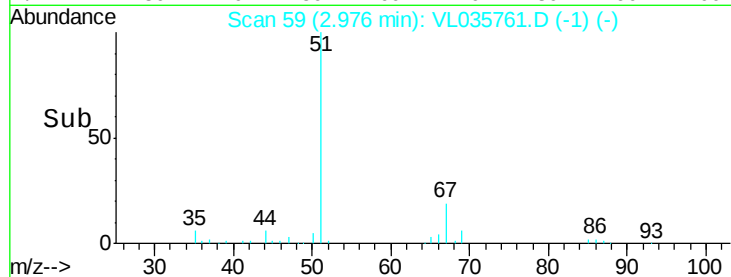
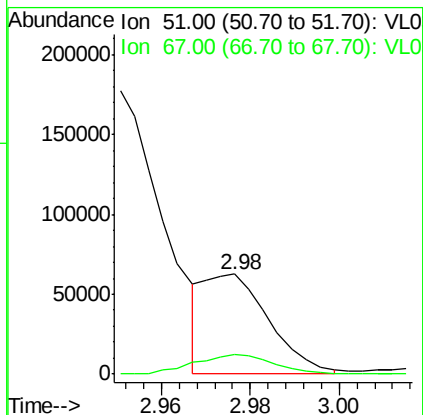
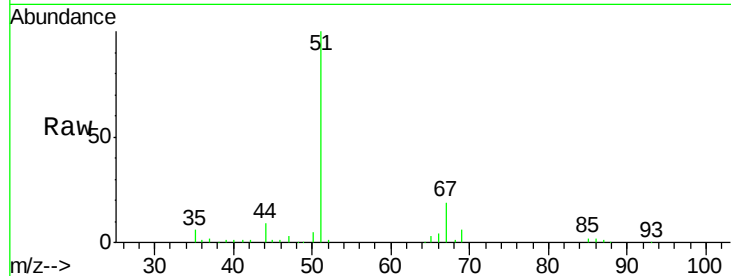
Chlorodifluoromethane
Concen: 0.549 ppbv
RT: 2.98 min Scan# 59
Delta R.T. -0.01 min
Lab File: VL035761.D
Acq: 12 Oct 2020 14:38

Instrument :
MSVOA_L
ClientSampled :
2

Tot Ion	Ratio	Lower	Upper
51	100		
67	24.4	17.8	26.8

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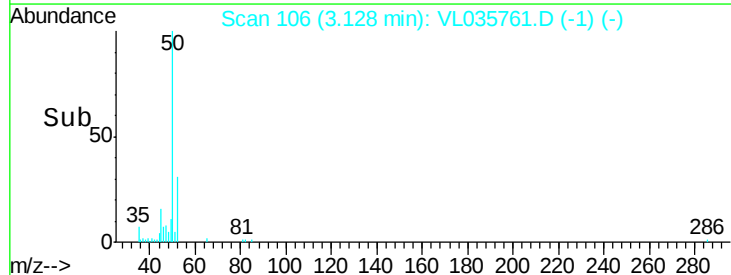
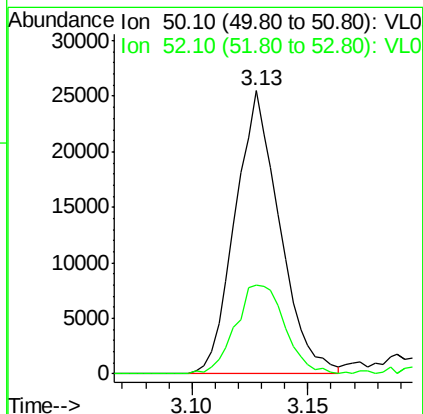
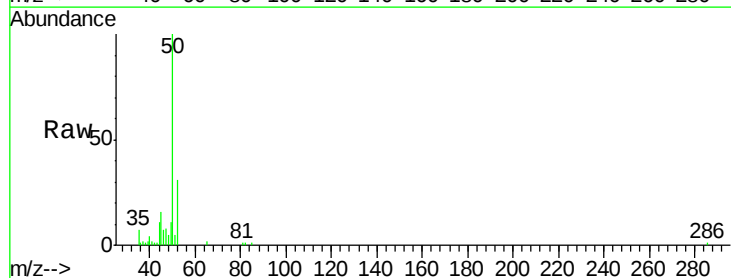
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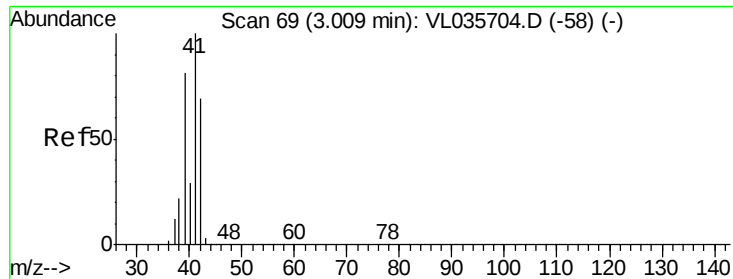


#4

Chloromethane
Concen: 0.541 ppbv
RT: 3.13 min Scan# 106
Delta R.T. -0.01 min
Lab File: VL035761.D
Acq: 12 Oct 2020 14:38

Tgt Ion	Ratio	Lower	Upper
50	100		
52	31.3	26.8	40.2





#9

Propene

Concen: 1.612 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

ClientSampled :

2

Tot Ion: 41 Resp: 68594

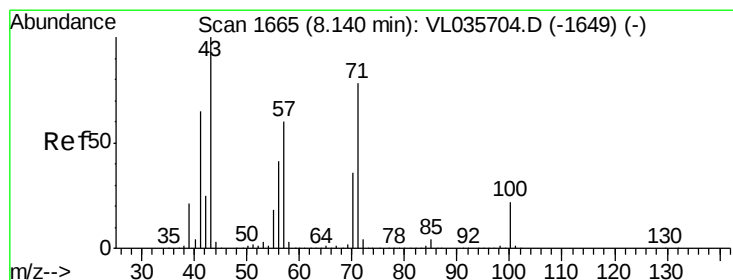
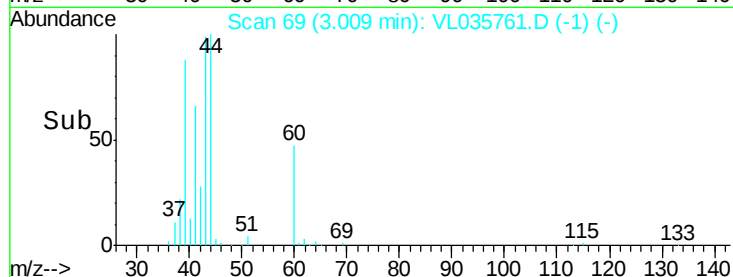
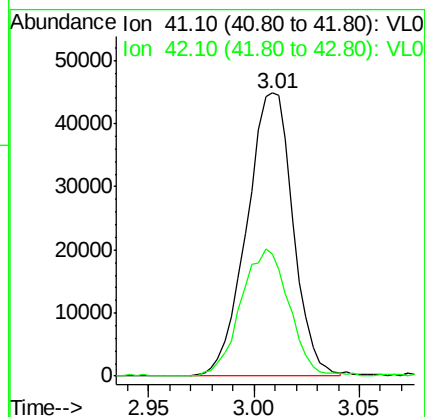
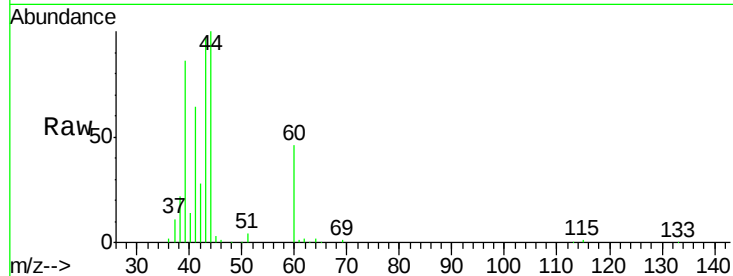
Ion Ratio Lower Upper

41 100

42 47.0 56.2 84.4#

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#10

Heptane

Concen: 0.518 ppbv

RT: 8.12 min Scan# 1659

Delta R.T. -0.02 min

Lab File: VL035761.D

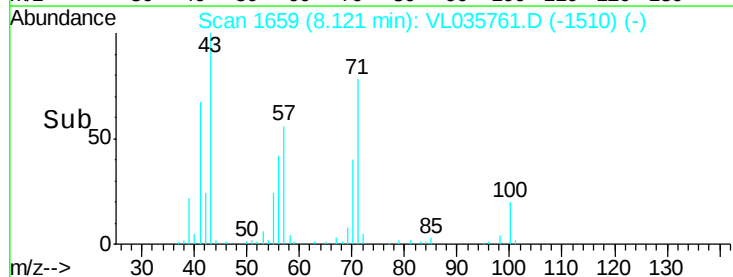
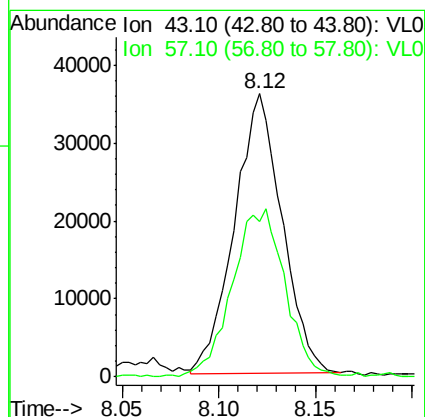
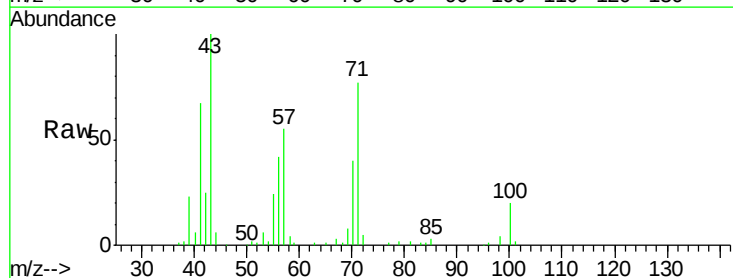
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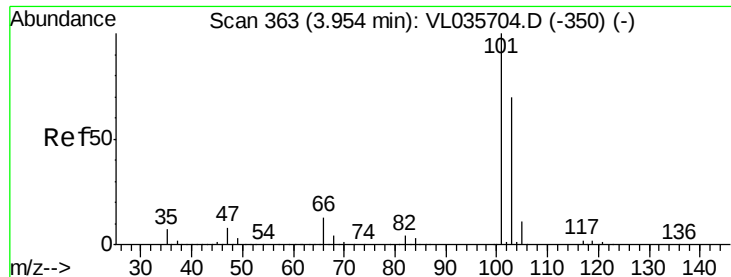
Tgt Ion: 43 Resp: 61452

Ion Ratio Lower Upper

43 100

57 67.7 50.4 75.6





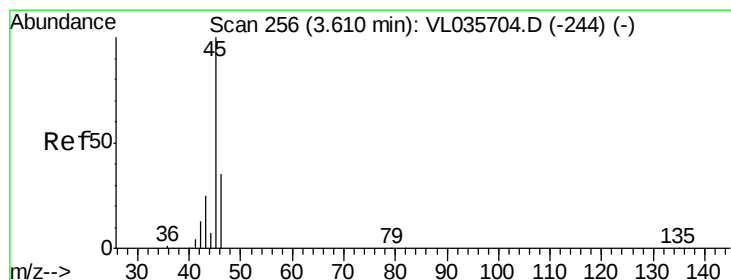
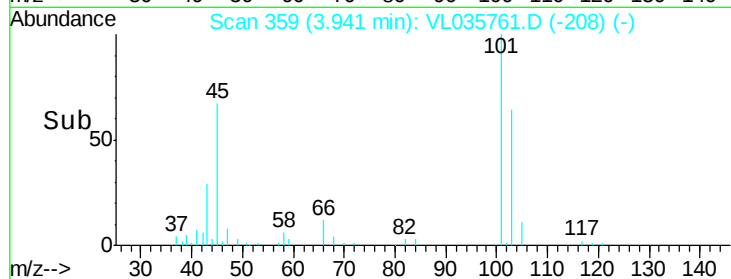
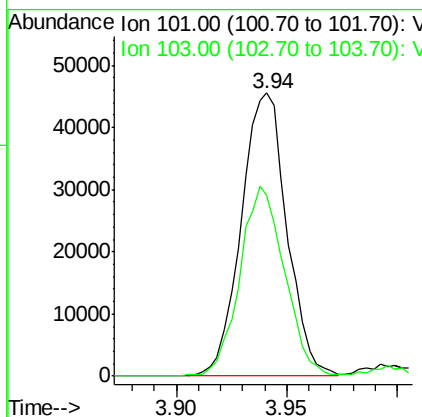
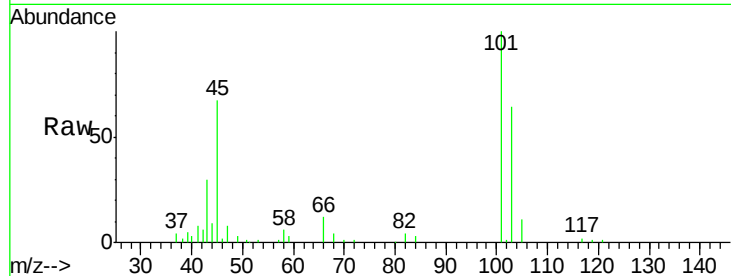
#11
 Trichlorofluoromethane
 Concen: 0.257 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. -0.01 min
 Lab File: VL035761.D
 Acq: 12 Oct 2020 14:38

Instrument :
 MSVOA_L
 ClientSampled :
 2

Tot Ion:101 Resp: 65409
 Ion Ratio Lower Upper
 101 100
 103 63.4 55.6 83.4

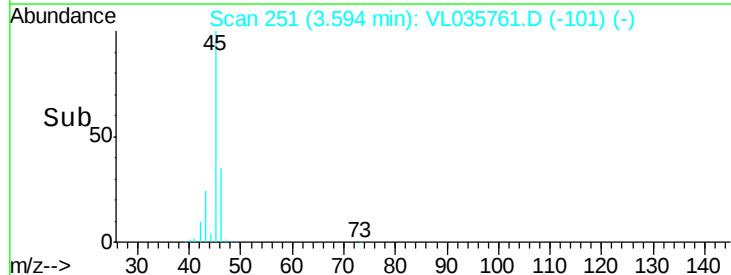
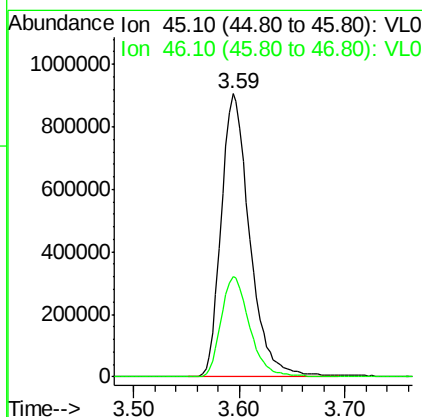
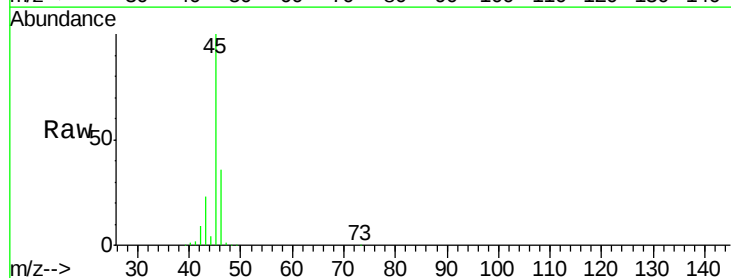
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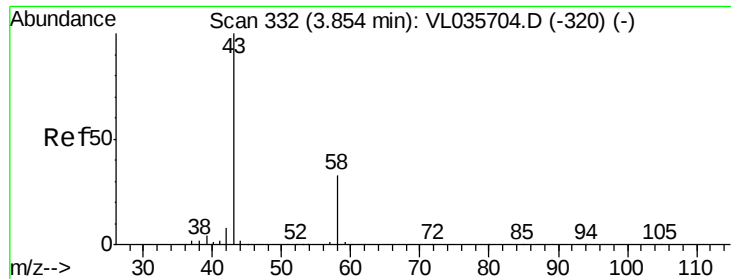
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#13
 Ethanol
 Concen: 161.655 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. -0.02 min
 Lab File: VL035761.D
 Acq: 12 Oct 2020 14:38

Tgt Ion: 45 Resp: 1696052
 Ion Ratio Lower Upper
 45 100
 46 35.8 14.7 58.7





#15

Acetone

Concen: 27.275 ppbv m

RT: 3.83 min Scan# 326

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

ClientSampled :

2

Tot Ion: 43 Resp: 3196571

Ion Ratio Lower Upper

43 100

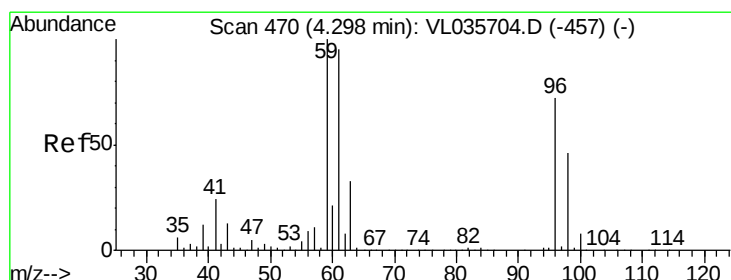
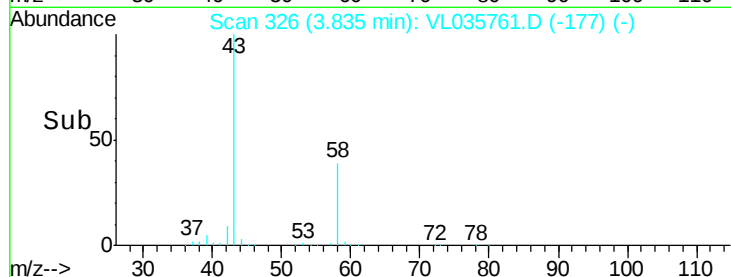
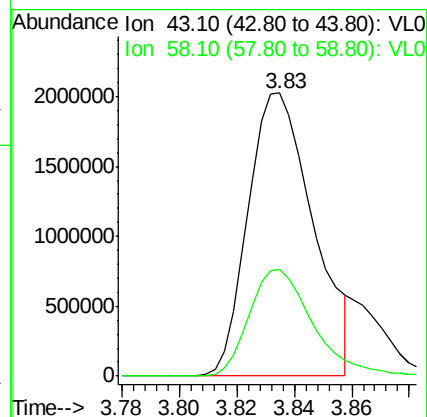
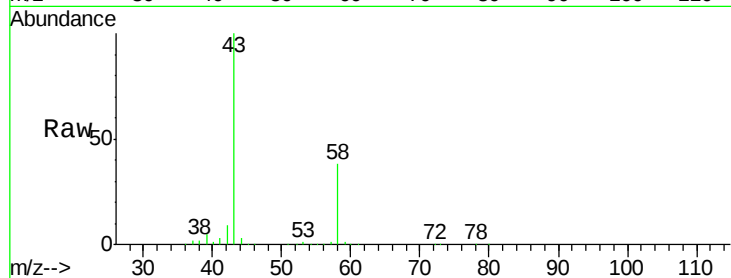
58 37.1 27.3 40.9

Manual Integrations

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#17

tert-Butyl alcohol

Concen: 0.227 ppbv

RT: 4.30 min Scan# 470

Delta R.T. -0.00 min

Lab File: VL035761.D

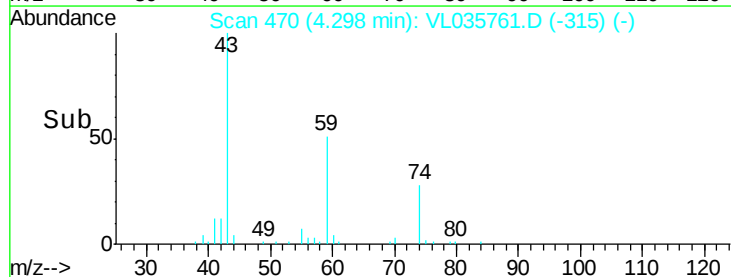
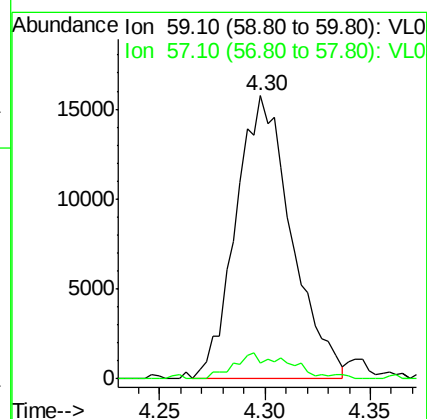
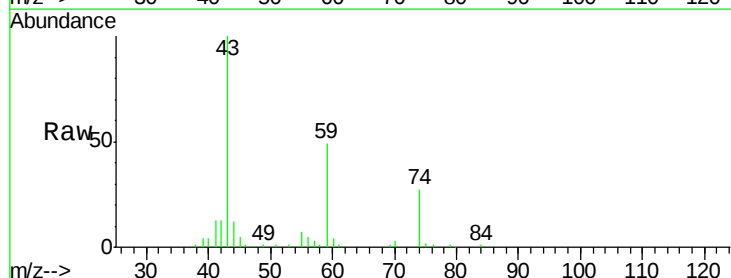
Acq: 12 Oct 2020 14:38

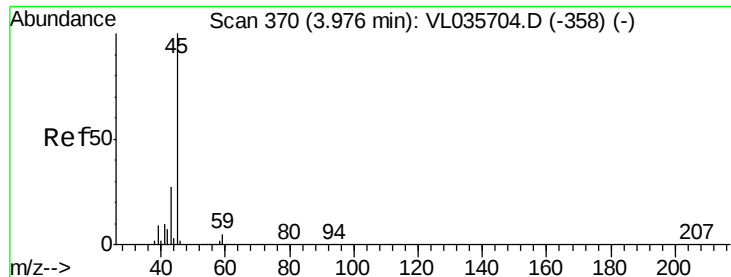
Tgt Ion: 59 Resp: 28946

Ion Ratio Lower Upper

59 100

57 0.0 8.5 12.7#





#19

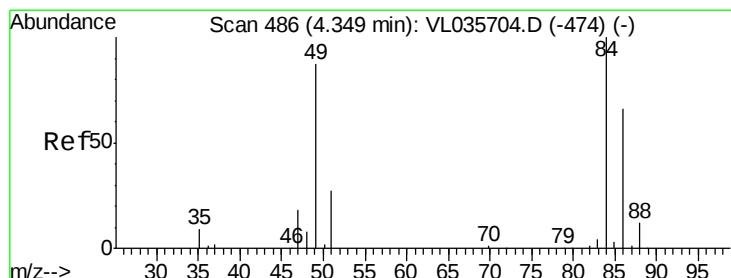
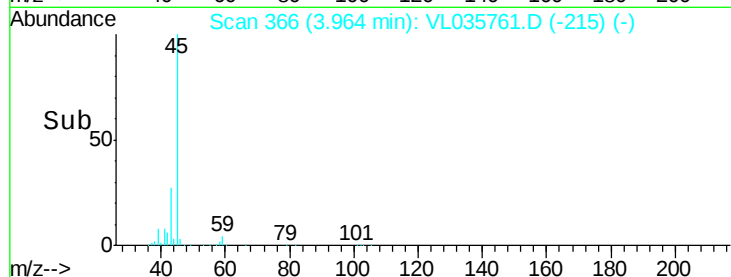
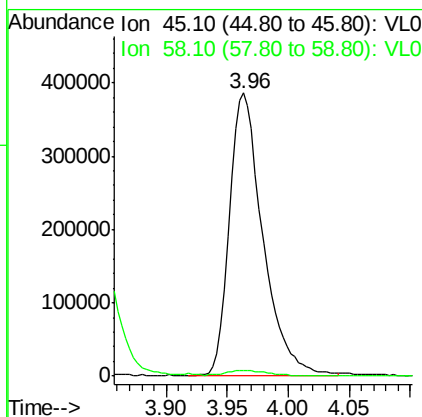
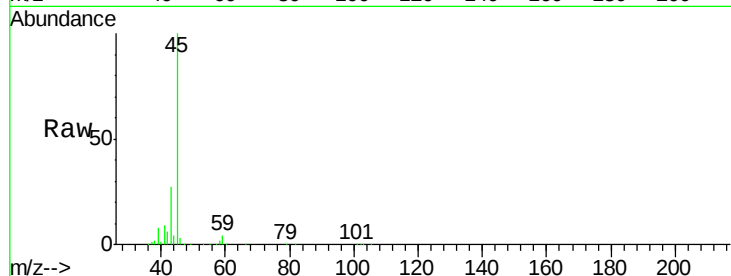
Isopropyl Alcohol
 Concen: 11.547 ppbv
 RT: 3.96 min Scan# 366
 Delta R.T. -0.01 min
 Lab File: VL035761.D
 Acq: 12 Oct 2020 14:38

Instrument :
 MSVOA_L
 ClientSampled :
 2

Tot Ion	Ratio	Lower	Upper
45	100		
58	161.1	2.8	4.2#

Manual Integrations
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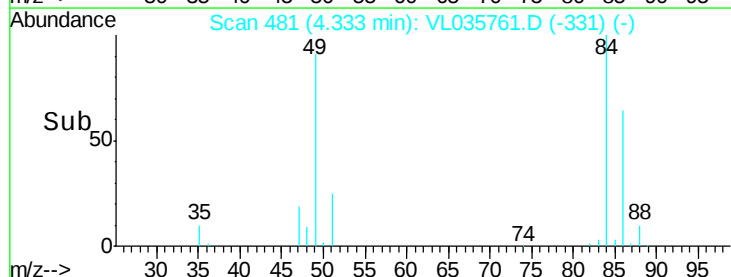
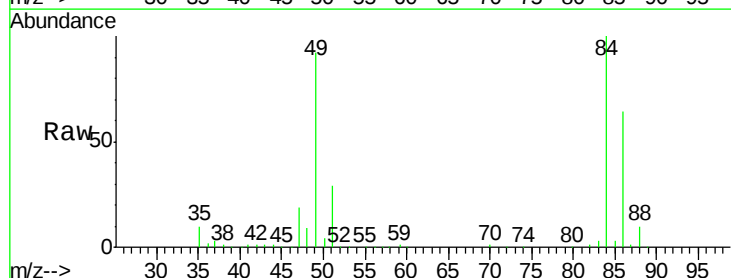
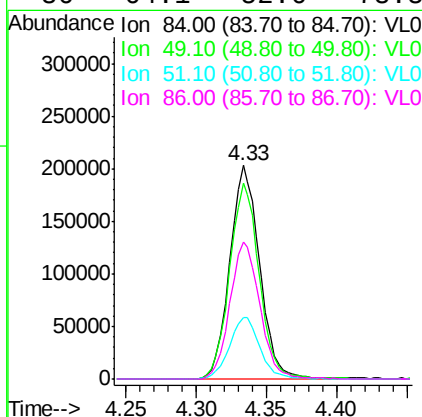
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 10/14/2020 2:11:31 PM

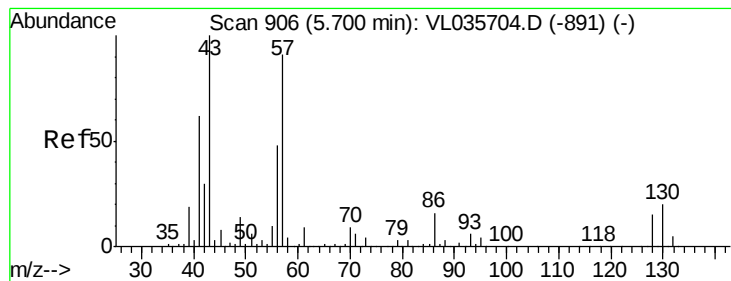


#20

Methylene Chloride
 Concen: 3.486 ppbv
 RT: 4.33 min Scan# 481
 Delta R.T. -0.02 min
 Lab File: VL035761.D
 Acq: 12 Oct 2020 14:38

Tgt Ion	Ratio	Lower	Upper
84	100		
49	92.0	69.8	104.6
51	28.4	21.8	32.8
86	64.1	52.6	78.8





#26

Hexane

Concen: 1.537 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

ClientSampled :

2

Tot Ion: 57 Resp: 177641

Ion Ratio Lower Upper

57 100

41 71.6 57.9 86.9

43 297.3 143.8 215.6#

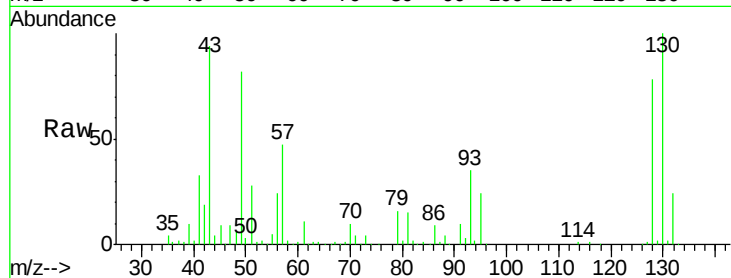
56 53.3 43.0 64.6

Manual Integrations

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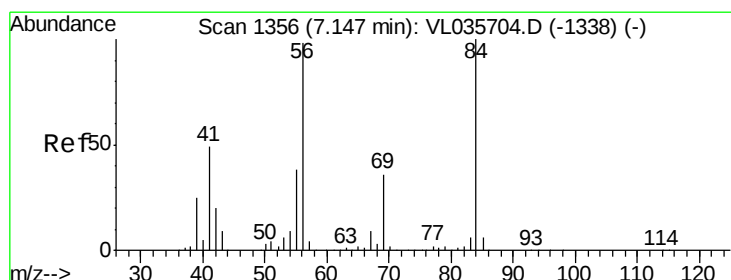
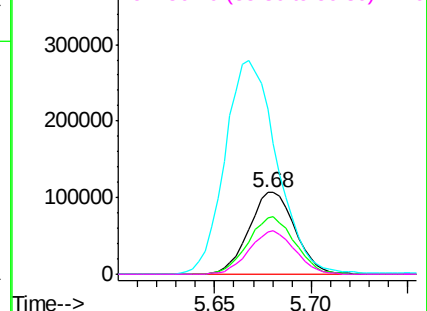
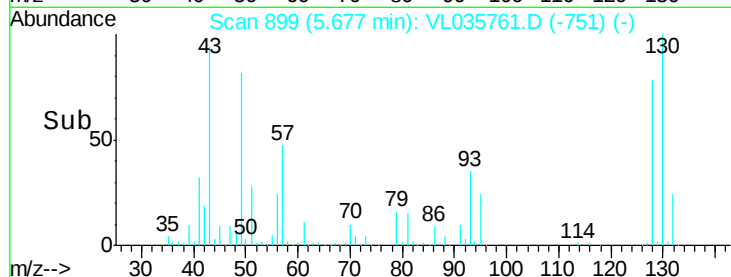


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#30

Cyclohexane

Concen: 0.121 ppbv

RT: 7.13 min Scan# 1350

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

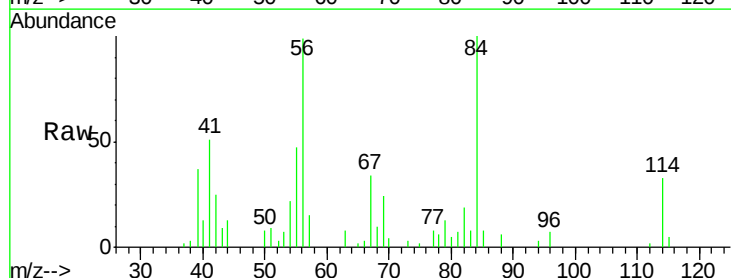
Tgt Ion: 84 Resp: 13748

Ion Ratio Lower Upper

84 100

56 0.0 84.6 127.0#

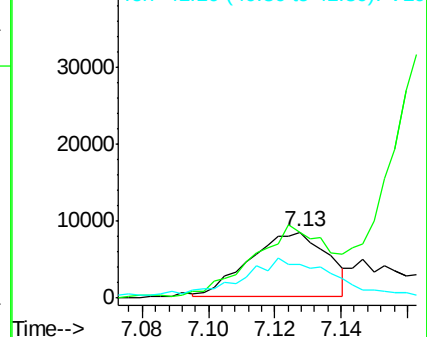
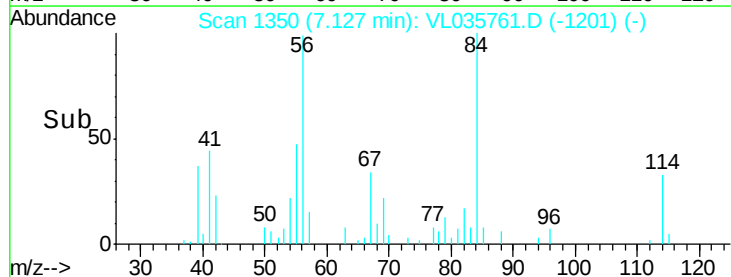
41 72.0 41.1 61.7#

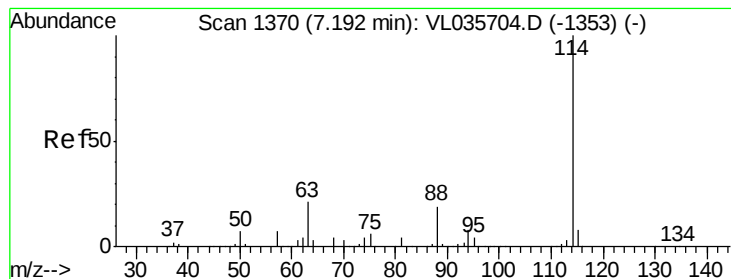


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

ClientSampleId :

2

Tot Ion:114 Resp: 4395146

Ion Ratio Lower Upper

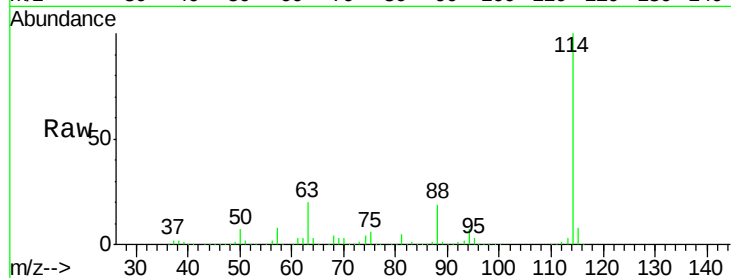
114 100

63 19.3 16.1 24.1

88 17.3 14.1 21.1

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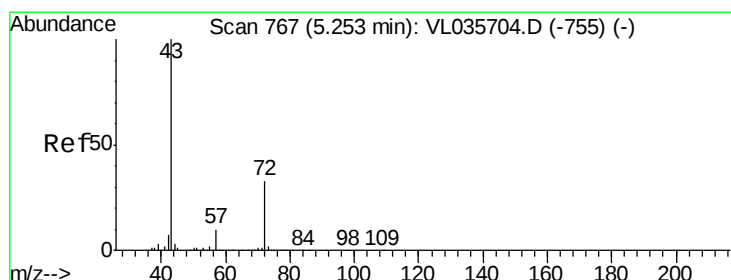
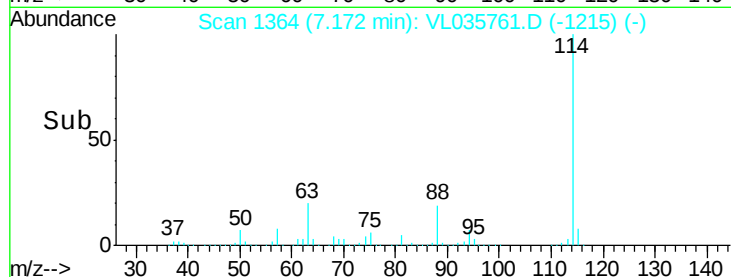
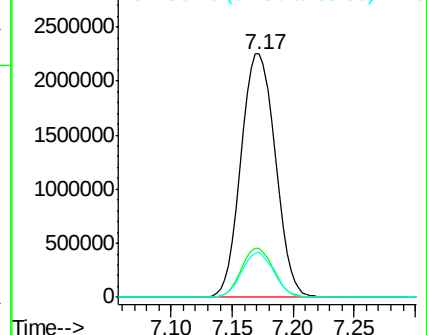
MMDadoda
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Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.071 ppbv

RT: 5.24 min Scan# 763

Delta R.T. -0.01 min

Lab File: VL035761.D

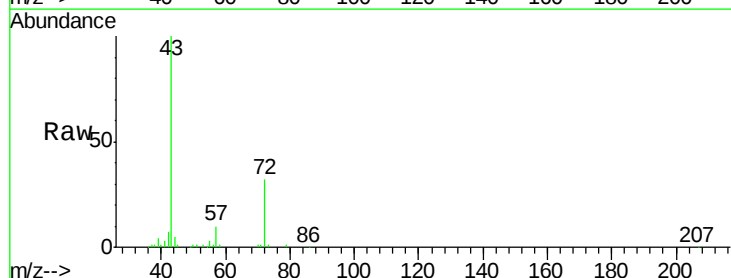
Acq: 12 Oct 2020 14:38

Tgt Ion: 43 Resp: 155757

Ion Ratio Lower Upper

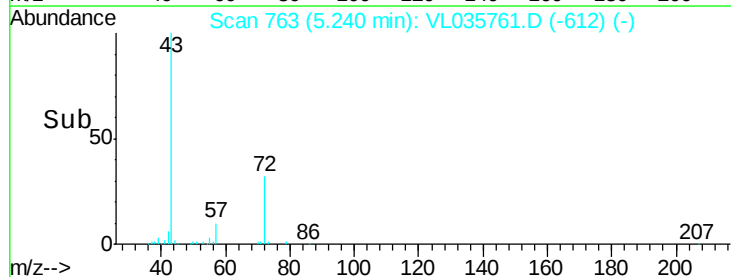
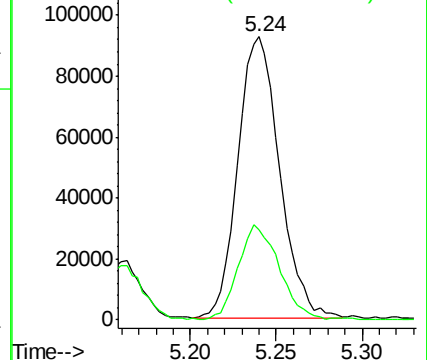
43 100

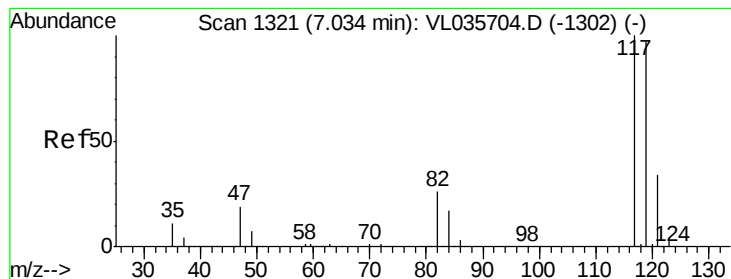
72 33.6 26.1 39.1



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.072 ppbv

RT: 7.01 min Scan# 1314

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

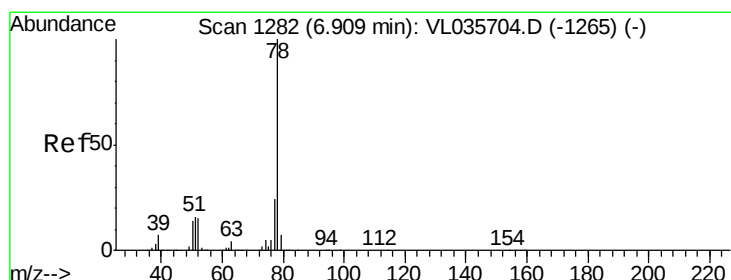
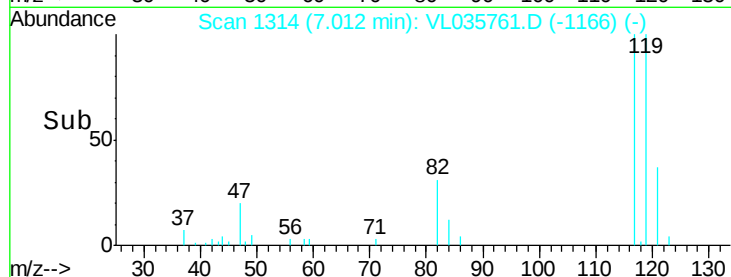
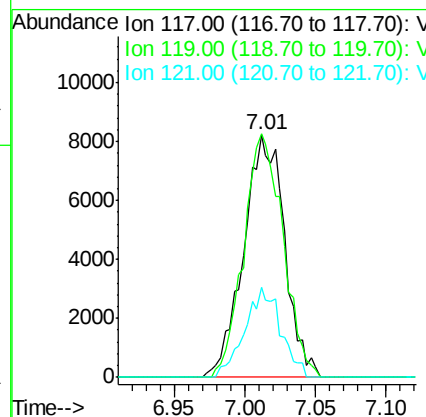
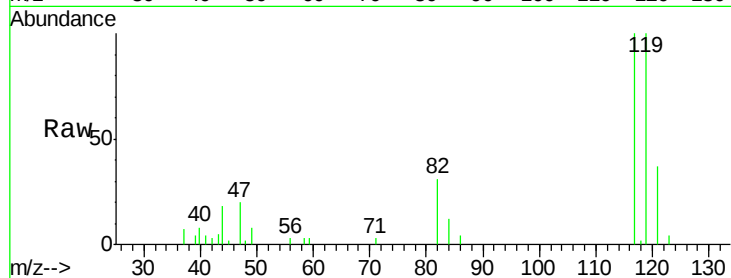
ClientSampled :

2

Tot Ion	Ratio	Lower	Upper
117	100		
119	100.4	77.7	116.5
121	36.9	26.9	40.3

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#36

Benzene

Concen: 0.228 ppbv

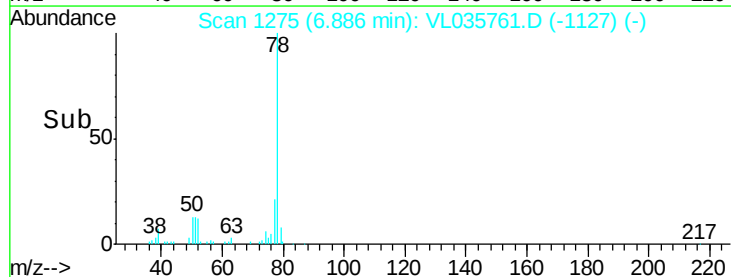
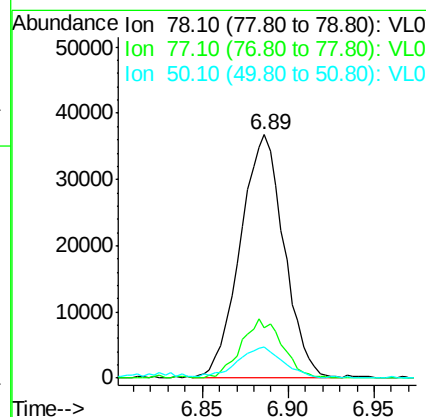
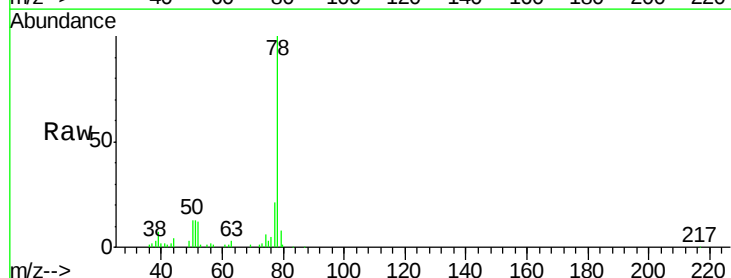
RT: 6.89 min Scan# 1275

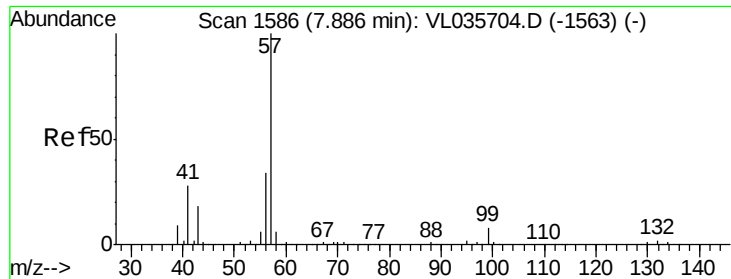
Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Tgt Ion	Ratio	Lower	Upper
78	100		
77	20.8	19.3	28.9
50	13.0	11.6	17.4





#44

2,2,4-Trimethylpentane

Concen: 0.270 ppbv

RT: 7.87 min Scan# 1581

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

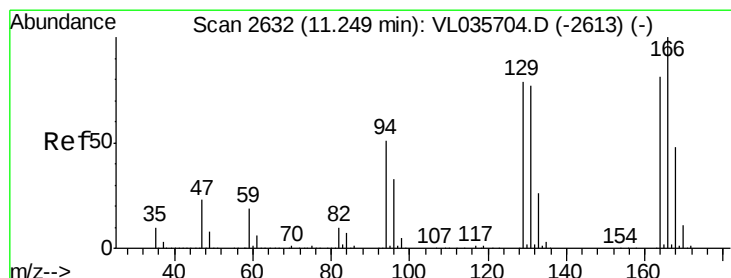
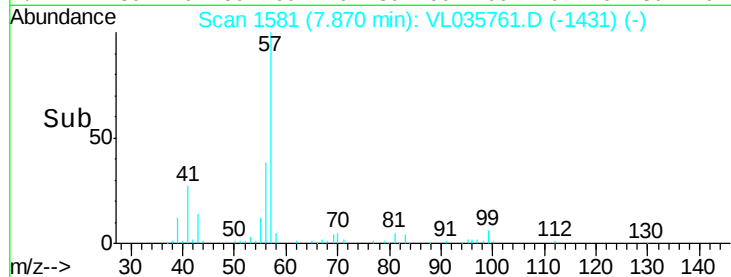
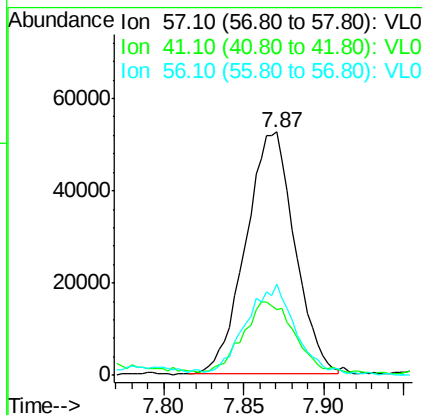
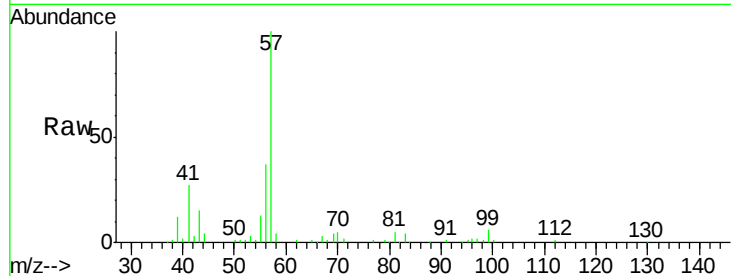
ClientSampled :

2

Tot Ion:	57	Resp:	111061
Ion Ratio	Lower	Upper	
57	100		
41	32.0	21.2	31.8#
56	38.9	25.8	38.8#

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#52

Tetrachloroethene

Concen: 0.102 ppbv

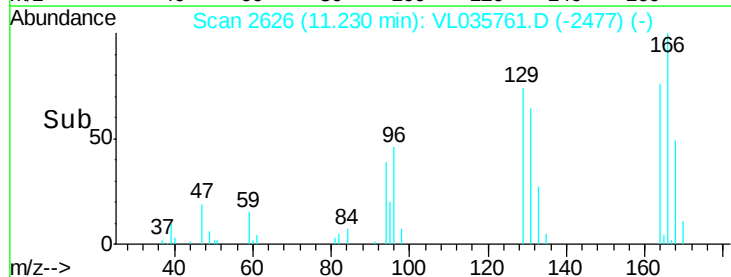
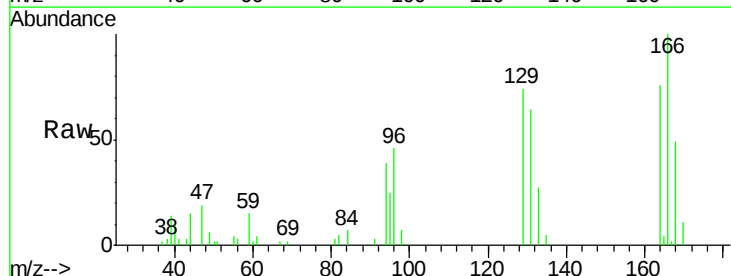
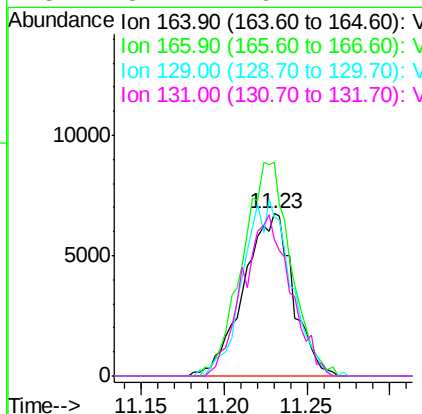
RT: 11.23 min Scan# 2626

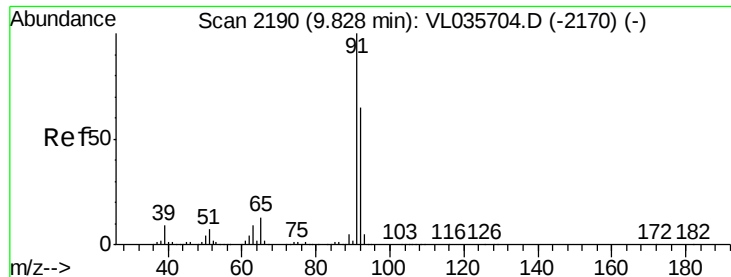
Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Tgt Ion:	164	Resp:	13989
Ion Ratio	Lower	Upper	
164	100		
166	131.6	98.7	148.1
129	97.7	78.4	117.6
131	84.2	76.2	114.2





#53

Toluene

Concen: 12.409 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

ClientSampled :

2

Tot Ion: 91 Resp: 4190545

Ion Ratio Lower Upper

91 100

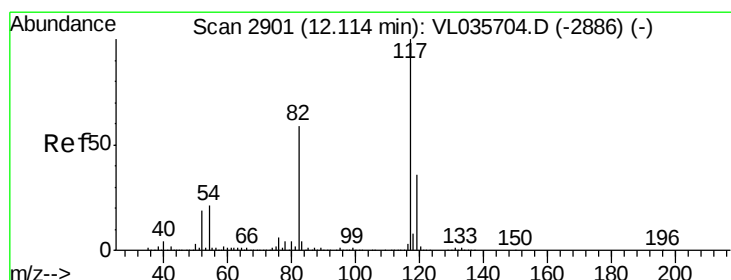
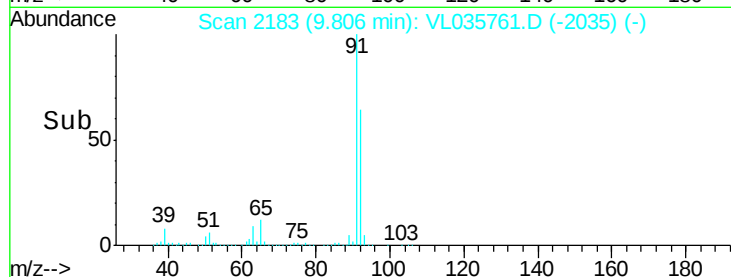
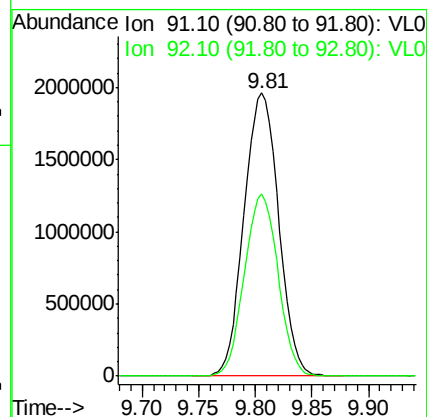
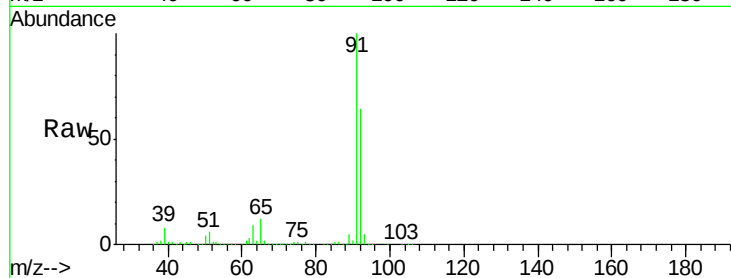
92 62.7 50.0 75.0

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

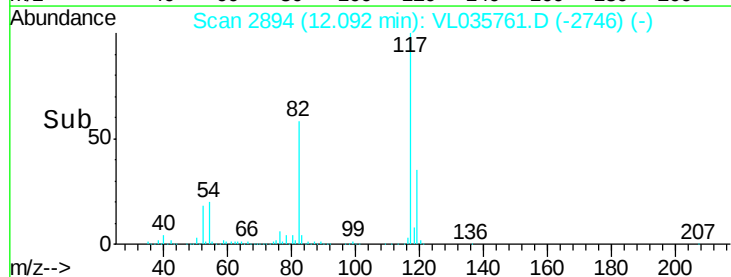
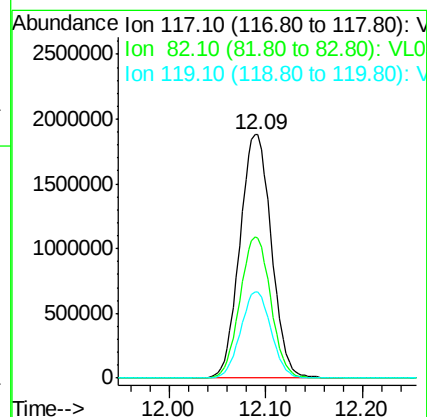
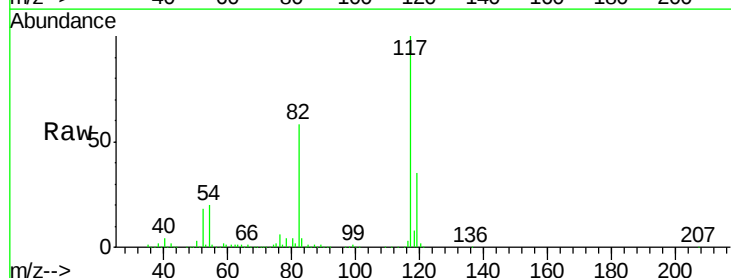
Tgt Ion: 117 Resp: 4263677

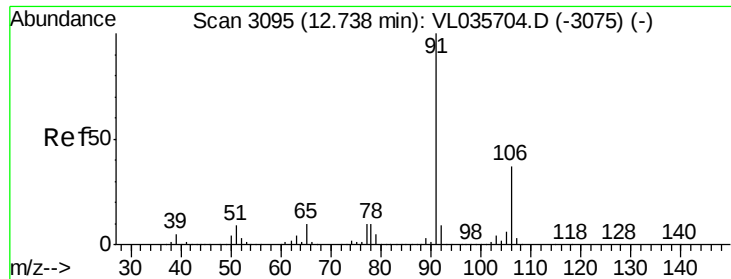
Ion Ratio Lower Upper

117 100

82 56.9 46.1 69.1

119 34.3 28.0 42.0





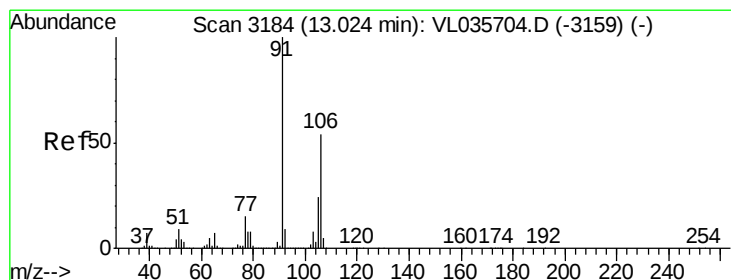
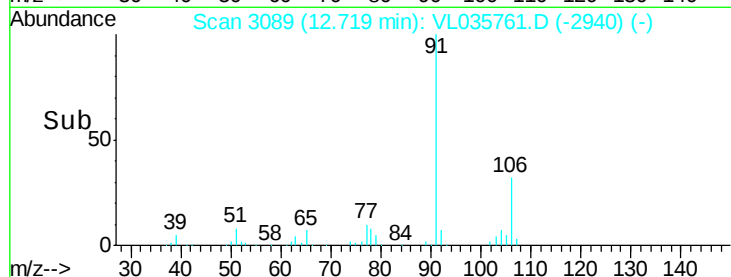
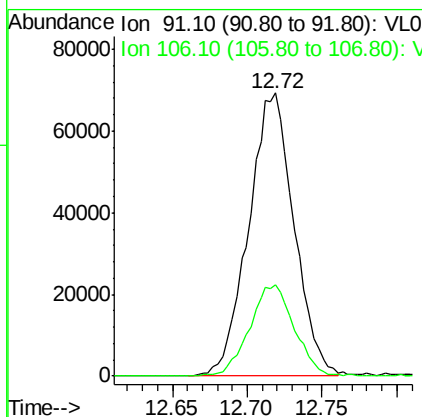
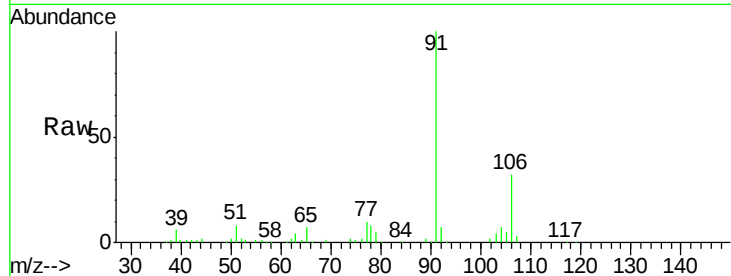
#58
Ethyl Benzene
Concen: 0.342 ppbv
RT: 12.72 min Scan# 3089
Delta R.T. -0.02 min
Lab File: VL035761.D
Acq: 12 Oct 2020 14:38

Instrument :
MSVOA_L
ClientSampled :
2

Tot Ion: 91 Resp: 146365
Ion Ratio Lower Upper
91 100
106 32.1 29.7 44.5

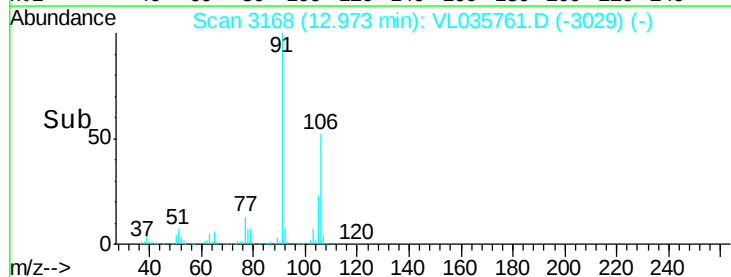
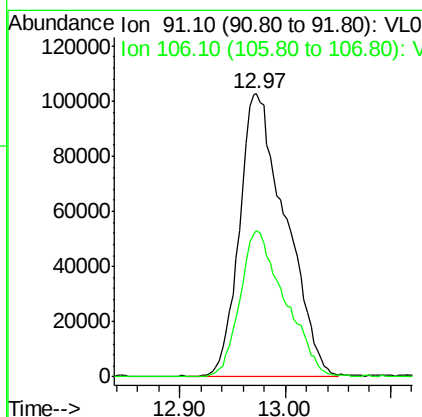
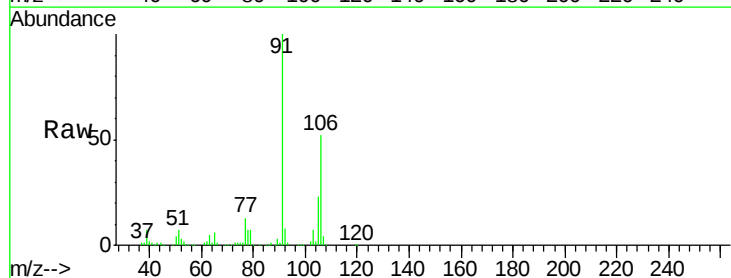
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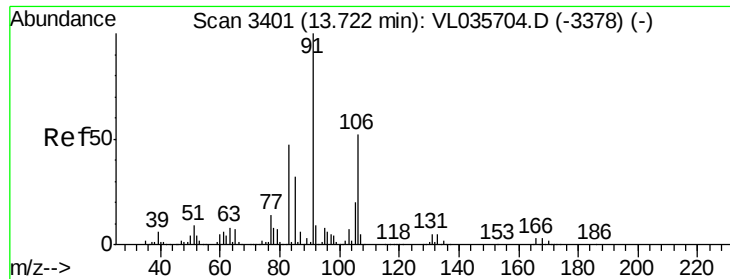
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#59
m/p-Xylene
Concen: 0.837 ppbv
RT: 12.97 min Scan# 3168
Delta R.T. -0.05 min
Lab File: VL035761.D
Acq: 12 Oct 2020 14:38

Tgt Ion: 91 Resp: 312936
Ion Ratio Lower Upper
91 100
106 50.2 41.4 62.0





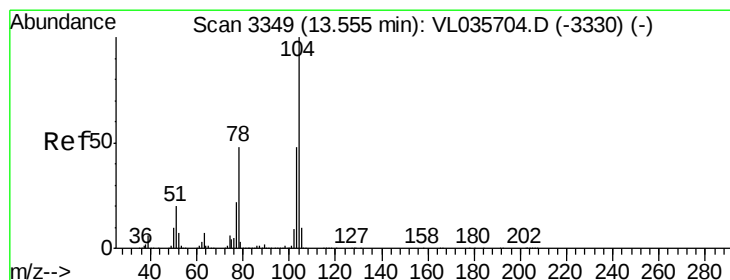
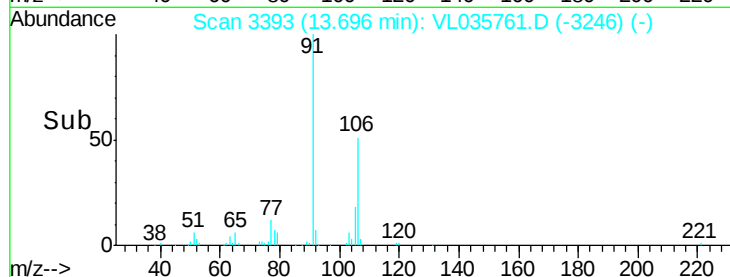
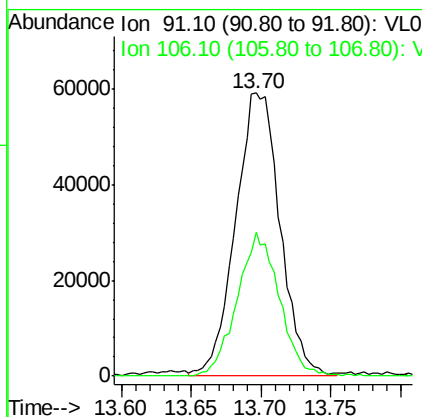
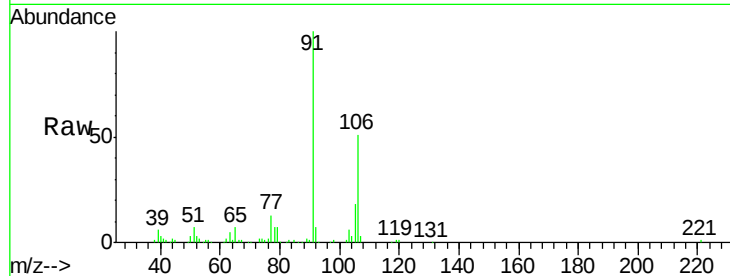
#60
o-Xylene
Concen: 0.348 ppbv m
RT: 13.70 min Scan# 3393
Delta R.T. -0.03 min
Lab File: VL035761.D
Acq: 12 Oct 2020 14:38

Instrument :
MSVOA_L
ClientSampled :
2

Tot Ion: 91 Resp: 131525
Ion Ratio Lower Upper
91 100
106 47.7 25.0 75.0

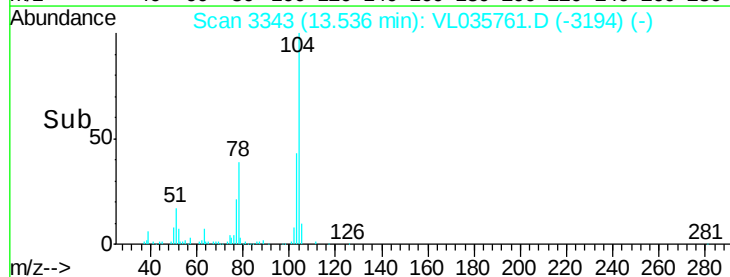
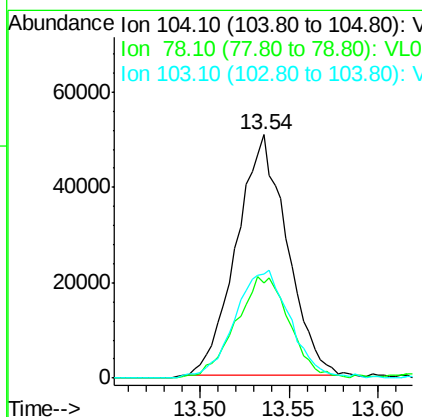
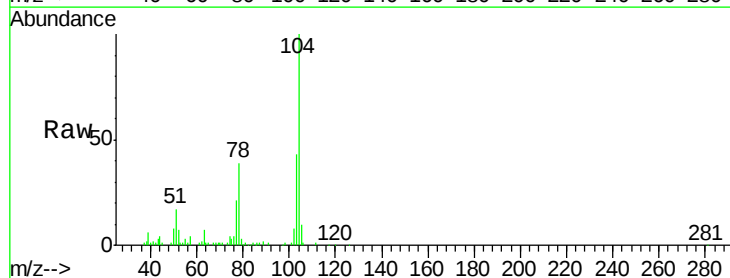
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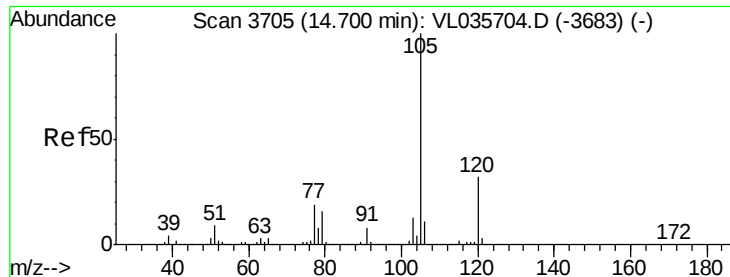
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#61
Styrene
Concen: 0.384 ppbv
RT: 13.54 min Scan# 3343
Delta R.T. -0.02 min
Lab File: VL035761.D
Acq: 12 Oct 2020 14:38

Tgt Ion: 104 Resp: 100264
Ion Ratio Lower Upper
104 100
78 44.9 37.2 55.8
103 49.2 38.2 57.2





#62

Isopropylbenzene

Concen: 0.131 ppbv

RT: 14.67 min Scan# 3696

Delta R.T. -0.03 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

Instrument :

MSVOA_L

ClientSampled :

2

Tot Ion: 105 Resp: 76758

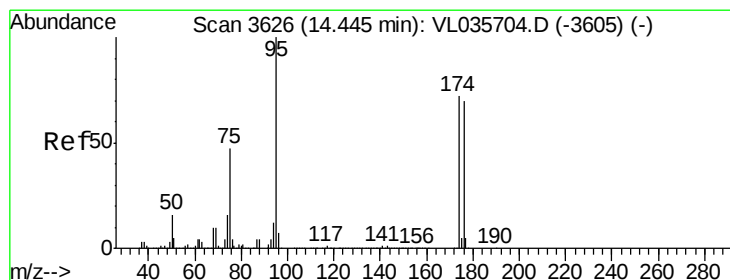
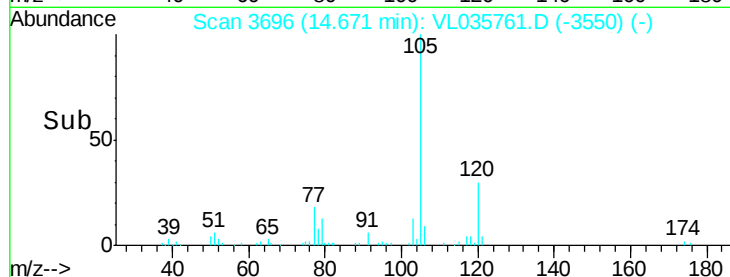
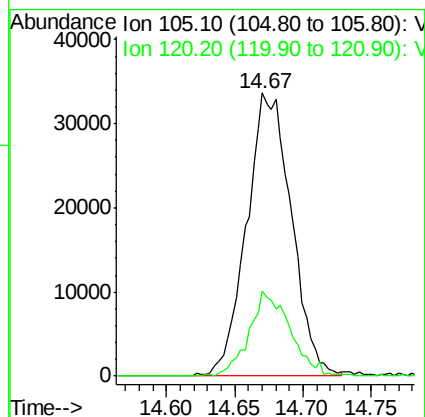
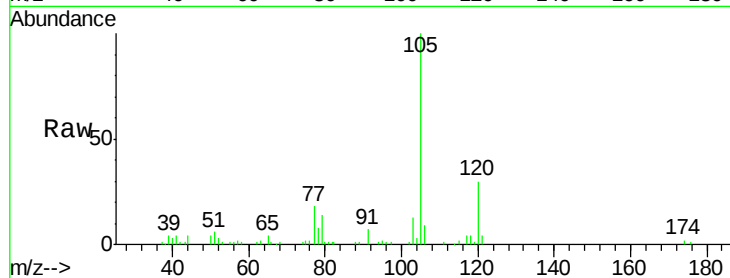
Ion Ratio Lower Upper

105 100

120 27.6 24.1 36.1

Manual Integrations
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#68

1-Bromo-4-Fluorobenzene

Concen: 10.055 ppbv

RT: 14.42 min Scan# 3619

Delta R.T. -0.02 min

Lab File: VL035761.D

Acq: 12 Oct 2020 14:38

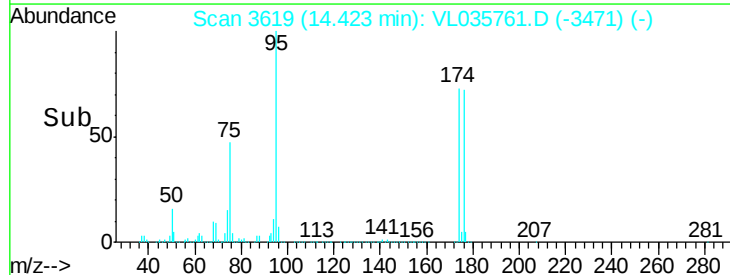
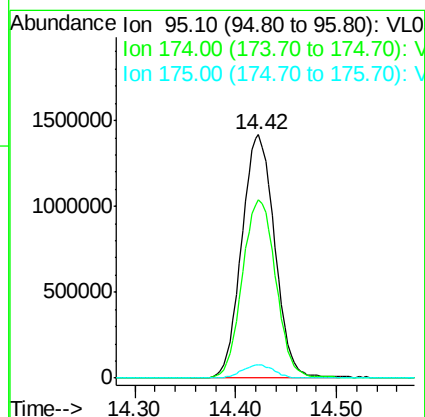
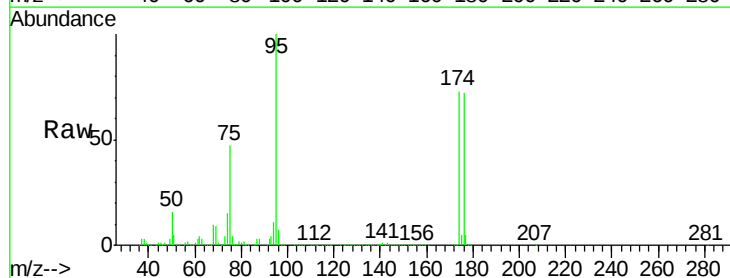
Tgt Ion: 95 Resp: 3212676

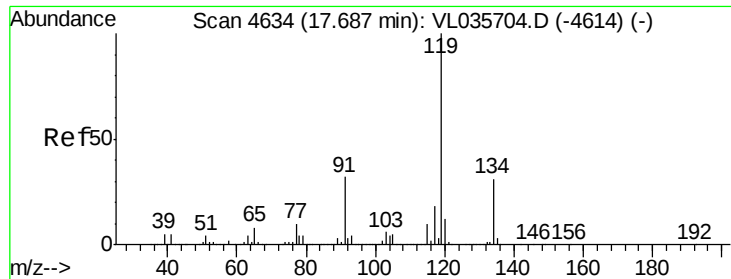
Ion Ratio Lower Upper

95 100

174 75.0 59.6 89.4

175 5.4 4.2 6.4





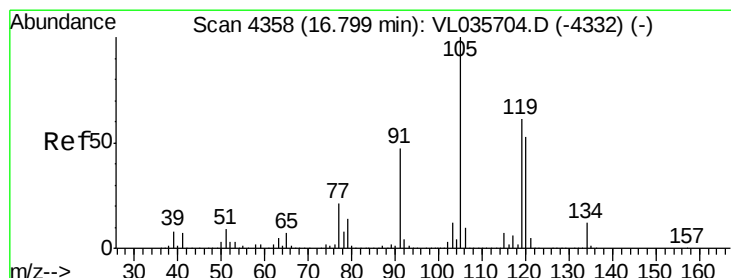
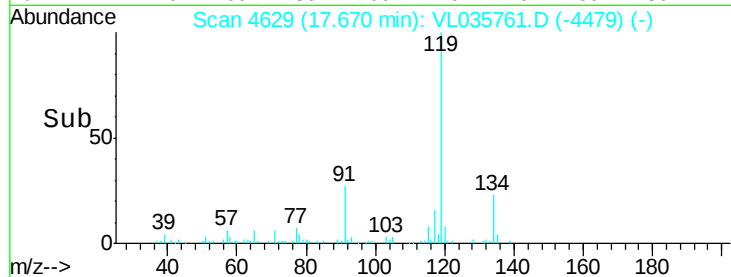
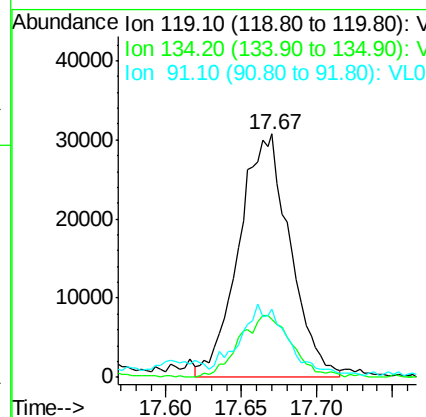
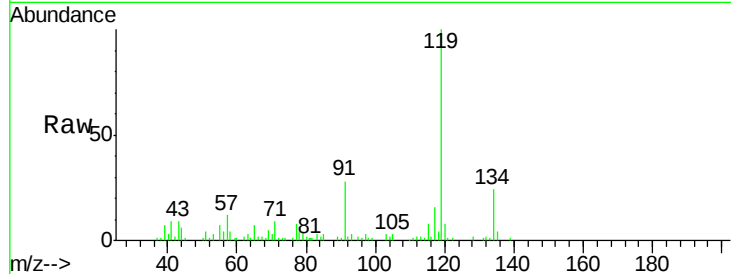
#69
 p-Isopropyltoluene
 Concen: 0.121 ppbv
 RT: 17.67 min Scan# 4629
 Delta R.T. -0.02 min
 Lab File: VL035761.D
 Acq: 12 Oct 2020 14:38

Instrument :
 MSVOA_L
 ClientSampled :
 2

Tot Ion:	119	Resp:	72562
Ion Ratio	Lower	Upper	
119	100		
134	26.4	23.9	35.9
91	26.6	23.8	35.6

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#74
 1,2,4-Trimethylbenzene
 Concen: 0.209 ppbv
 RT: 16.77 min Scan# 4349
 Delta R.T. -0.03 min
 Lab File: VL035761.D
 Acq: 12 Oct 2020 14:38

Tgt Ion:	105	Resp:	99743
Ion Ratio	Lower	Upper	
105	100		
120	43.4	42.5	63.7
91	14.3	37.7	56.5#
77	12.4	16.7	25.1#

