

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112420\
 Data File : VL036009.D
 Acq On : 25 Nov 2020 00:58
 Operator : SY/AP
 Sample : L4883-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Manual Integrations
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 11/27/2020 1:16:09 PM

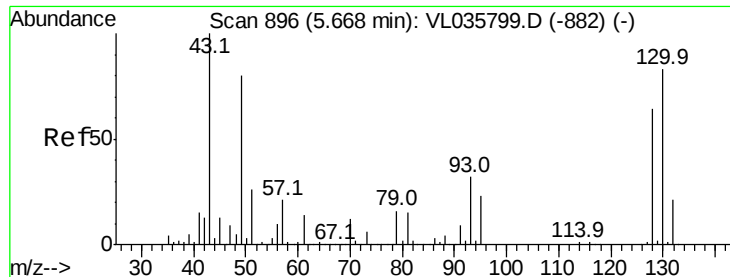
Quant Time: Nov 25 07:27:05 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 0
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1138148	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.15	114	4003100	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.06	117	3732603	10.00	ppbv	-0.04

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.39	95	2972963	11.21	ppbv	-0.04	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	112.10%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	49577	0.231	ppbv	95
4) Chloromethane	3.12	50	39472	0.596	ppbv	95
9) Propene	3.00	41	48325	0.969	ppbv	87
11) Trichlorofluoromethane	3.93	101	74913	0.278	ppbv	97
13) Ethanol	3.61	45	10850297	1002.564	ppbv	100
15) Acetone	3.82	43	2912353	23.935	ppbv	97
17) tert-Butyl alcohol	4.31	59	148296	0.920	ppbv #	94
19) Isopropyl Alcohol	3.98	45	10626262	142.109	ppbv #	96
20) Methylene Chloride	4.32	84	677849	7.913	ppbv	98
26) Hexane	5.66	57	259840	1.966	ppbv #	67
30) Cyclohexane	7.13	84	33123m	0.230	ppbv	
34) 2-Butanone	5.22	43	147836	1.138	ppbv	96
35) Carbon Tetrachloride	7.00	117	13800m	0.065	ppbv	
36) Benzene	6.86	78	78064	0.262	ppbv	94
52) Tetrachloroethene	11.19	164	7883m	0.056	ppbv	
53) Toluene	9.78	91	516864	1.439	ppbv	97
59) m/p-Xylene	12.94	91	100367	0.261	ppbv	100
60) o-Xylene	13.67	91	57700	0.154	ppbv	97
61) Styrene	13.50	104	45920m	0.168	ppbv	
65) tert-Butylbenzene	16.74	119	86162m	0.161	ppbv	
69) p-Isopropyltoluene	17.63	119	79018	0.133	ppbv	97
73) 1,3,5-Trimethylbenzene	15.97	105	146283	0.352	ppbv	88
74) 1,2,4-Trimethylbenzene	16.73	105	707301	1.590	ppbv #	68

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 887

Delta R.T. -0.03 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tot Ion: 49 Resp: 1138148

Ion Ratio Lower Upper

49 100

128 76.6 41.5 124.6

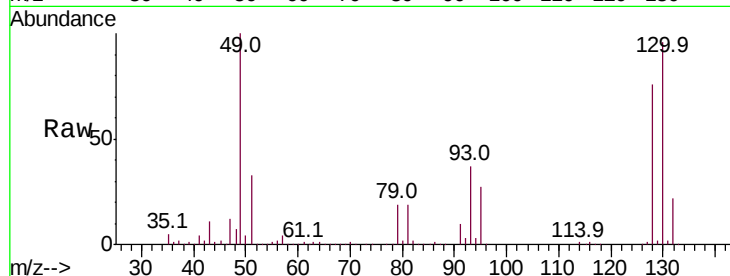
130 98.2 53.7 161.1

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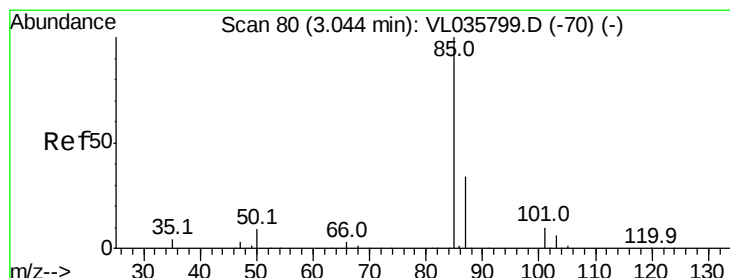
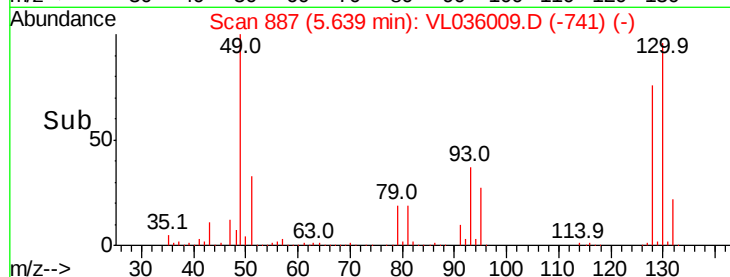
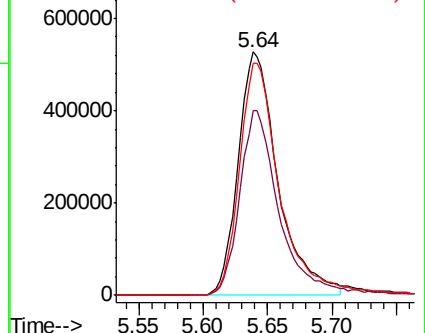
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.231 ppbv

RT: 3.02 min Scan# 74

Delta R.T. -0.02 min

Lab File: VL036009.D

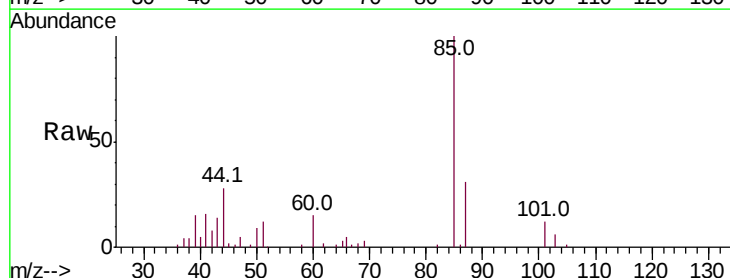
Acq: 25 Nov 2020 00:58

Tgt Ion: 85 Resp: 49577

Ion Ratio Lower Upper

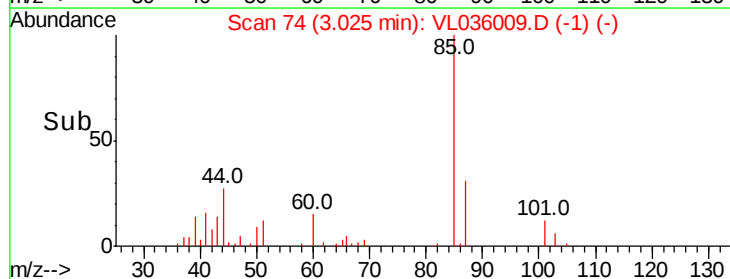
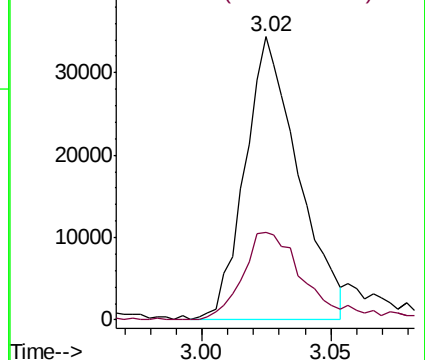
85 100

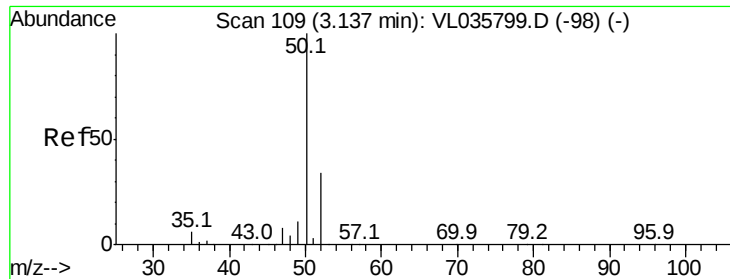
87 31.1 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.596 ppbv

RT: 3.12 min Scan# 103

Delta R.T. -0.02 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tot Ion: 50 Resp: 39472

Ion Ratio Lower Upper

50 100

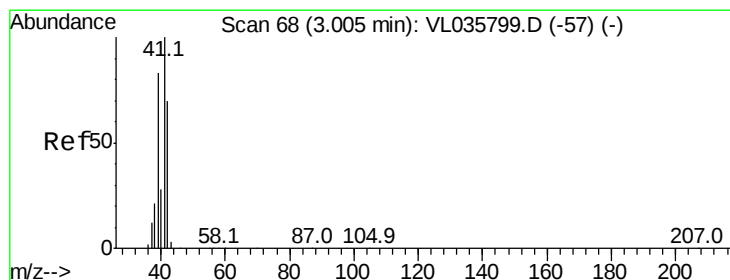
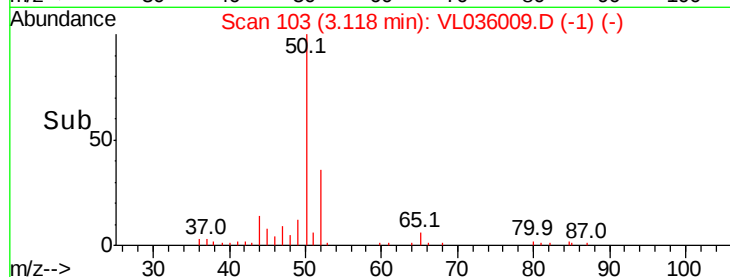
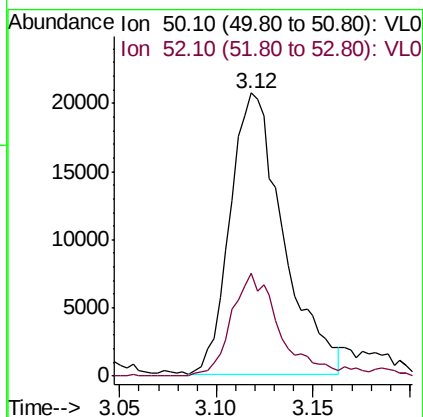
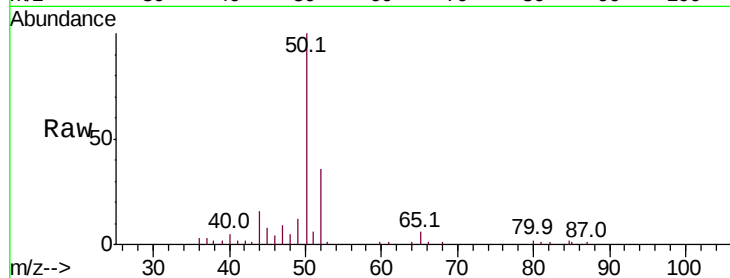
52 36.6 27.1 40.7

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#9

Propene

Concen: 0.969 ppbv

RT: 3.00 min Scan# 67

Delta R.T. -0.00 min

Lab File: VL036009.D

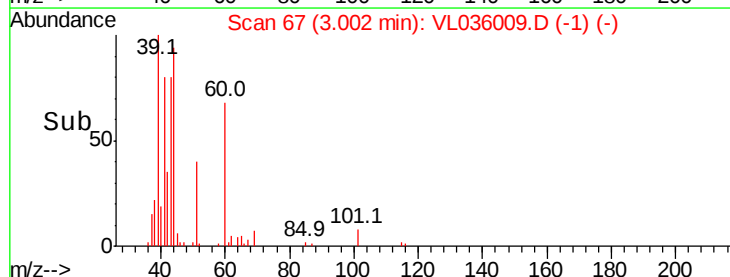
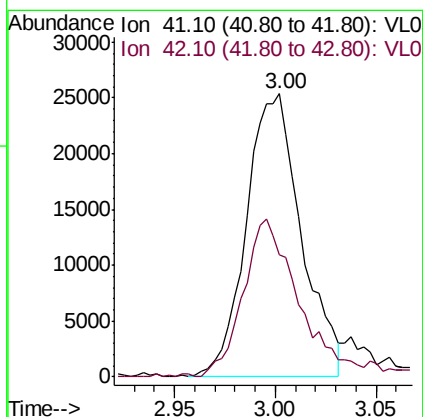
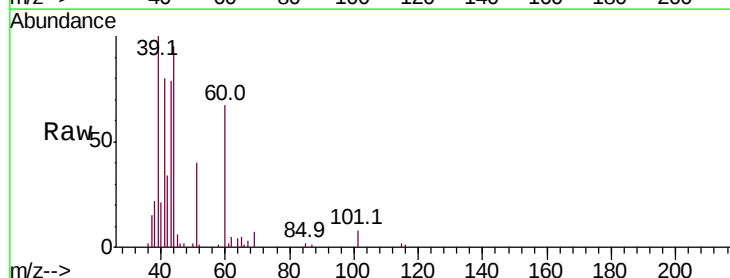
Acq: 25 Nov 2020 00:58

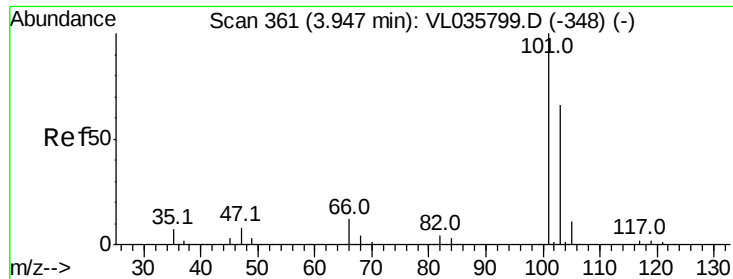
Tgt Ion: 41 Resp: 48325

Ion Ratio Lower Upper

41 100

42 59.8 56.2 84.4





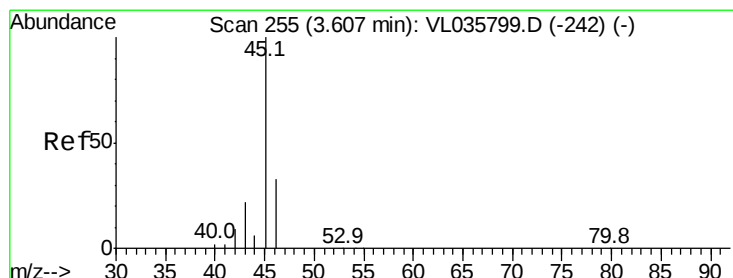
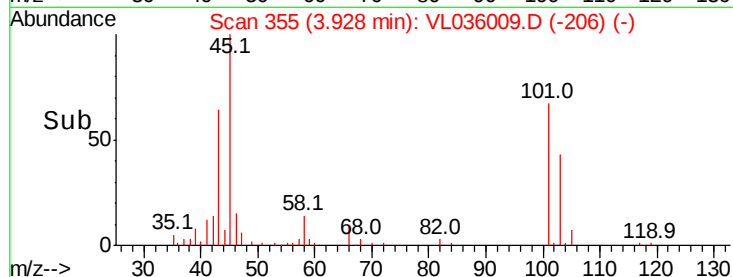
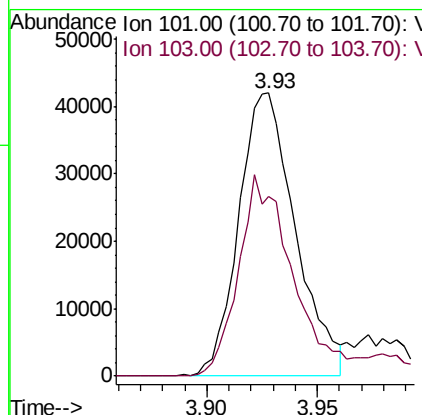
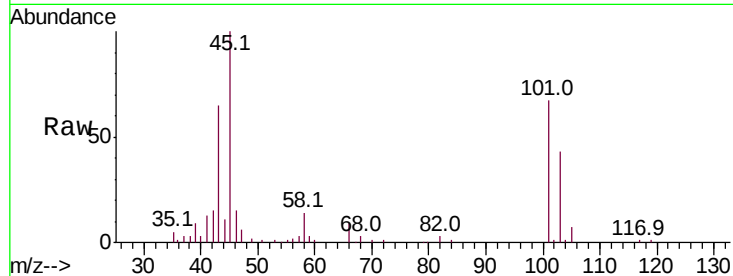
#11
Trichlorofluoromethane
Concen: 0.278 ppbv
RT: 3.93 min Scan# 355
Delta R.T. -0.02 min
Lab File: VL036009.D
Acq: 25 Nov 2020 00:58

Instrument :
MSVOA_L
ClientSampled :
IA1

Tot Ion:101 Resp: 74913
Ion Ratio Lower Upper
101 100
103 63.5 53.0 79.4

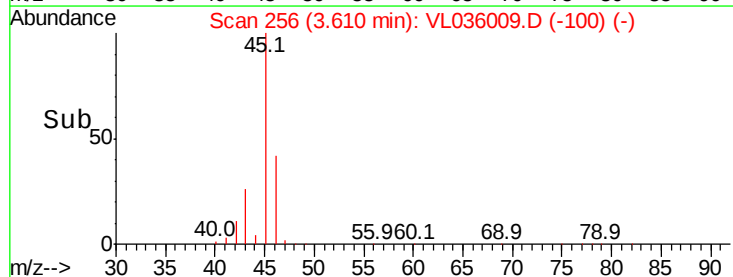
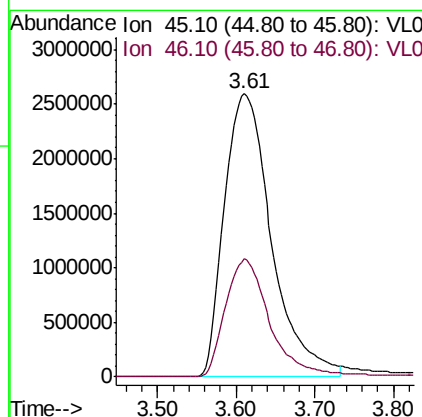
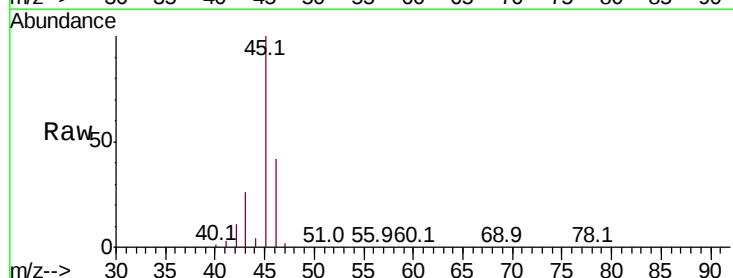
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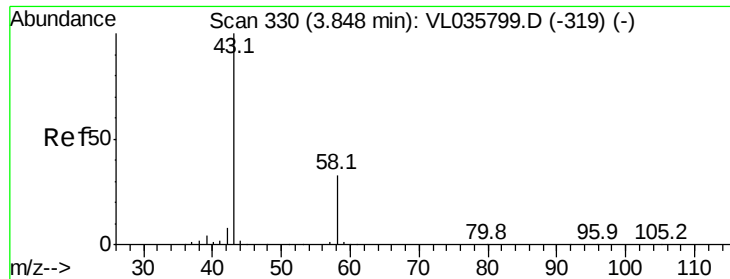
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#13
Ethanol
Concen: 1002.564 ppbv
RT: 3.61 min Scan# 256
Delta R.T. 0.00 min
Lab File: VL036009.D
Acq: 25 Nov 2020 00:58

Tgt Ion: 45 Resp:10850297
Ion Ratio Lower Upper
45 100
46 40.3 16.1 64.5





#15

Acetone

Concen: 23.935 ppbv

RT: 3.82 min Scan# 322

Delta R.T. -0.03 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

ClientSampled :

IA1

Tot Ion: 43 Resp: 2912353

Ion Ratio Lower Upper

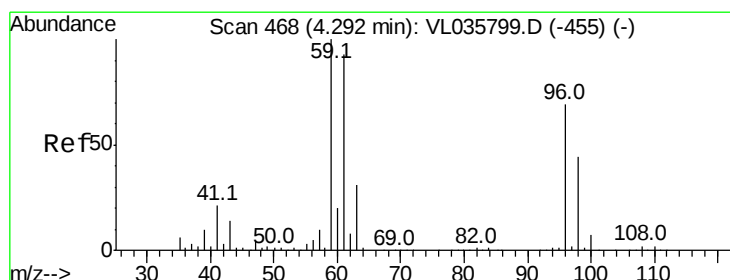
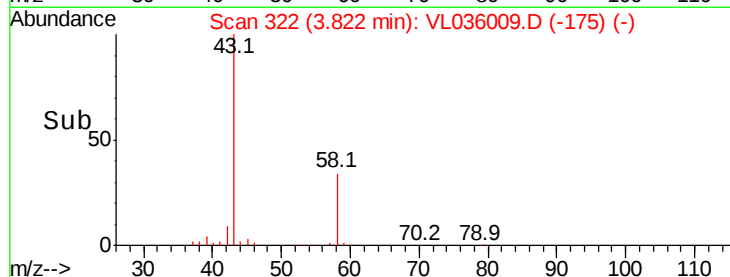
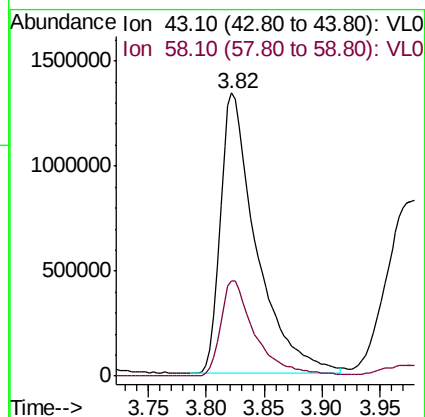
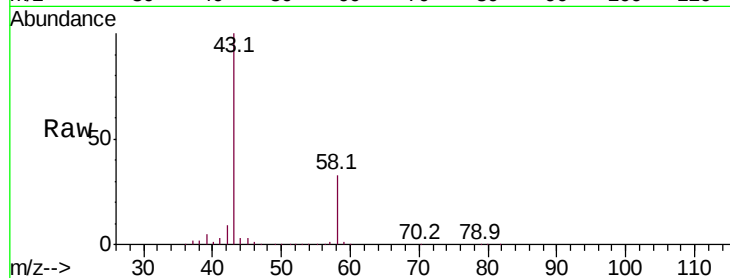
43 100

58 32.8 27.5 41.3

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#17

tert-Butyl alcohol

Concen: 0.920 ppbv

RT: 4.31 min Scan# 473

Delta R.T. 0.02 min

Lab File: VL036009.D

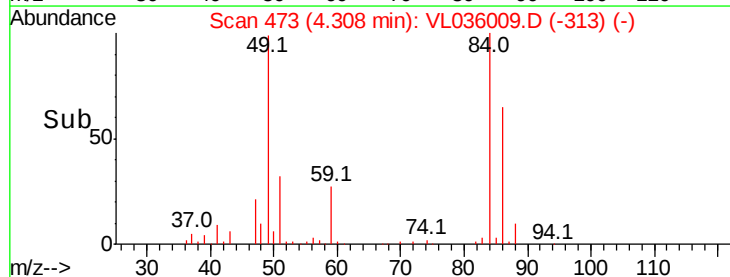
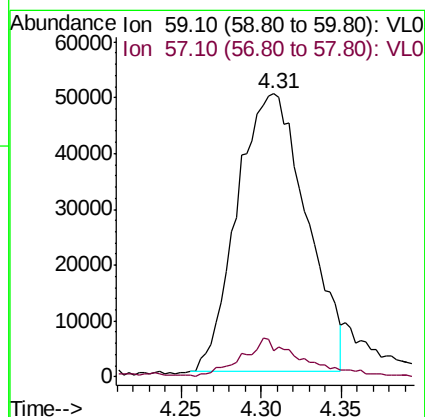
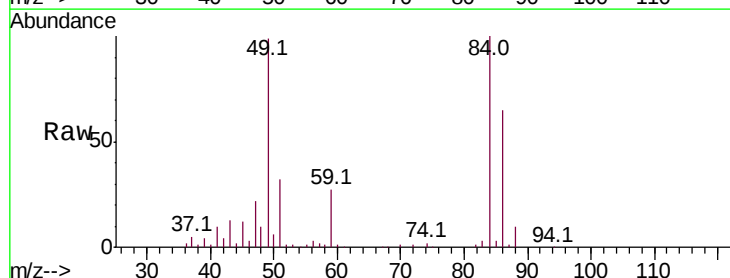
Acq: 25 Nov 2020 00:58

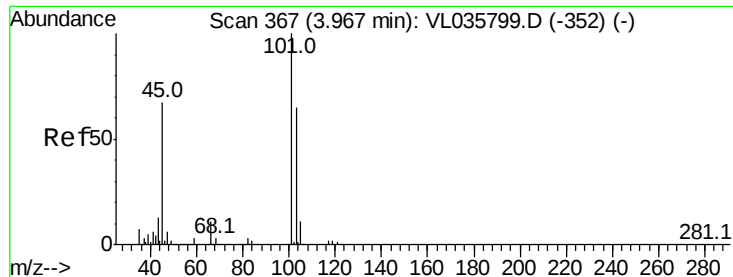
Tgt Ion: 59 Resp: 148296

Ion Ratio Lower Upper

59 100

57 12.5 8.2 12.4#





#19

Isopropyl Alcohol

Concen: 142.109 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.01 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tot Ion: 45 Resp:10626262

Ion Ratio Lower Upper

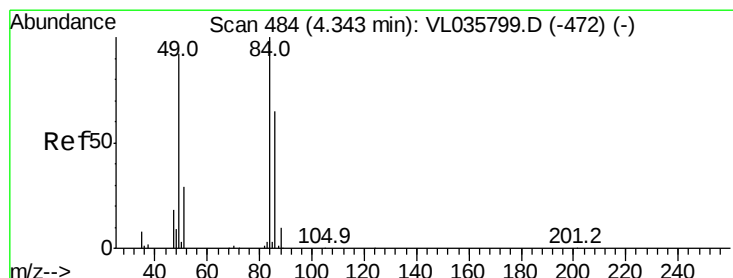
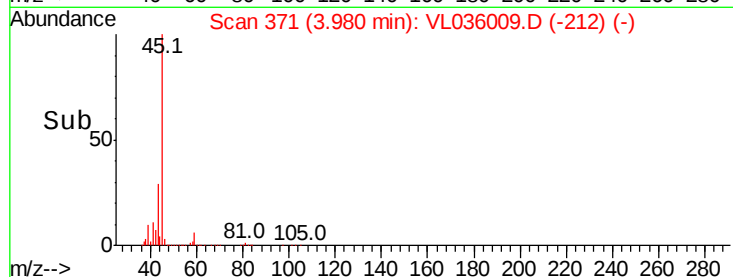
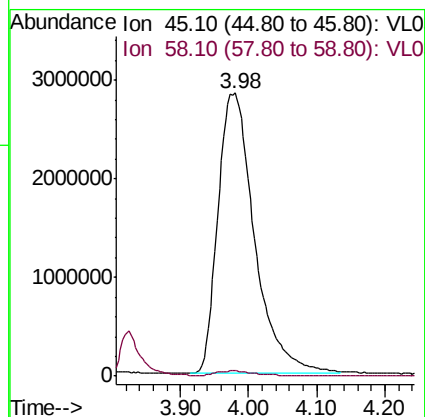
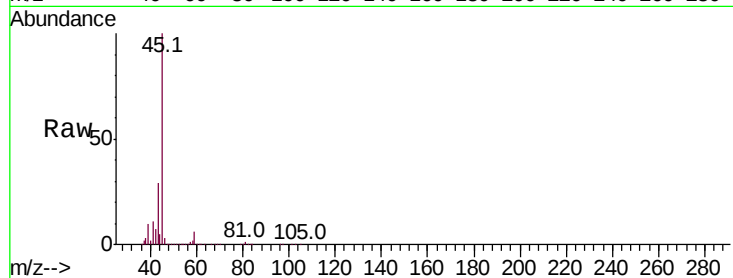
45 100

58 1.8 2.6 3.8#

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#20

Methylene Chloride

Concen: 7.913 ppbv

RT: 4.32 min Scan# 477

Delta R.T. -0.02 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Tgt Ion: 84 Resp: 677849

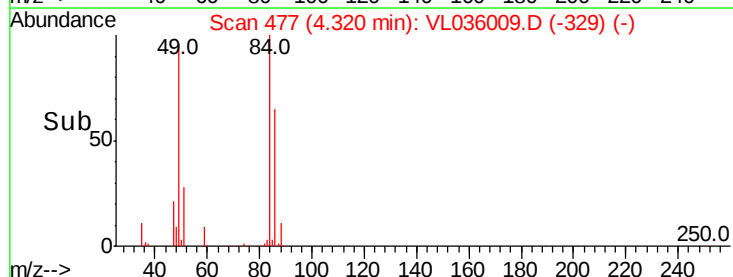
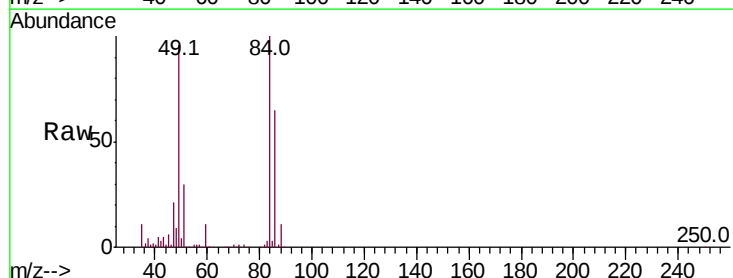
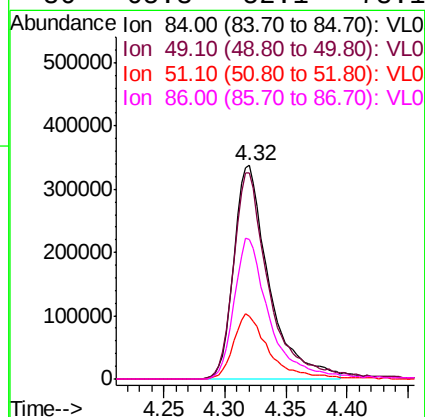
Ion Ratio Lower Upper

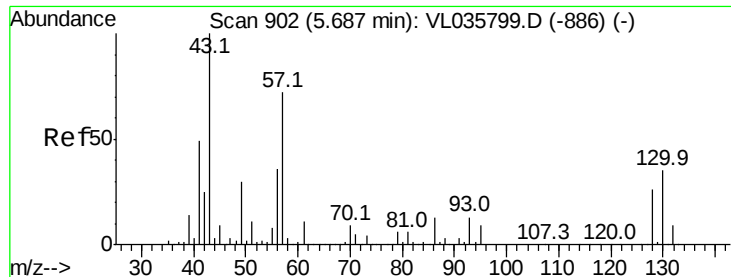
84 100

49 96.2 73.8 110.8

51 29.4 23.0 34.4

86 65.3 52.1 78.1





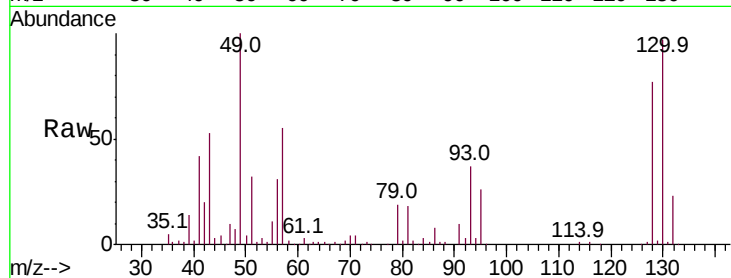
#26
Hexane
Concen: 1.966 ppbv
RT: 5.66 min Scan# 893
Delta R.T. -0.03 min
Lab File: VL036009.D
Acq: 25 Nov 2020 00:58

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tot Ion	Ratio	Lower	Upper
57	100		
41	83.3	58.9	88.3
43	117.8	150.2	225.2#
56	59.4	42.4	63.6

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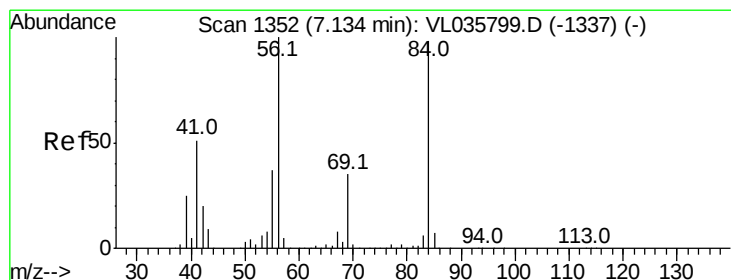
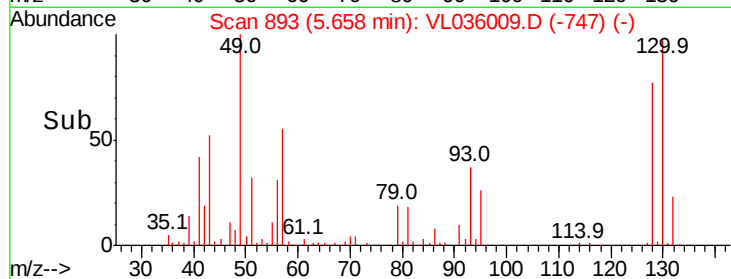
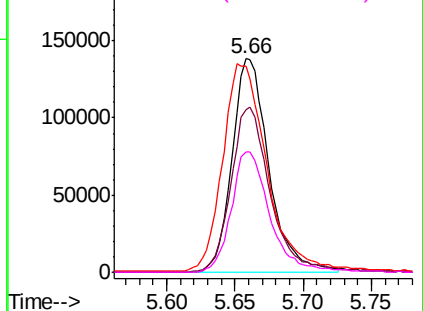
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

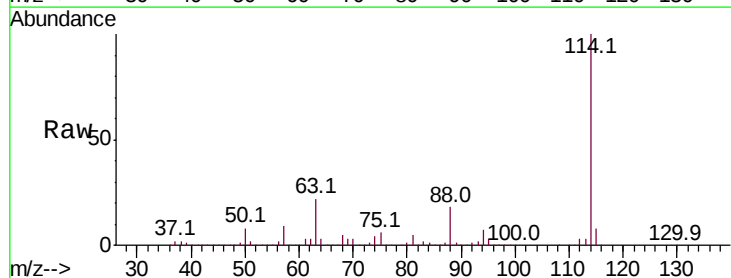
Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#30
Cyclohexane
Concen: 0.230 ppbv m
RT: 7.13 min Scan# 1352
Delta R.T. -0.00 min
Lab File: VL036009.D
Acq: 25 Nov 2020 00:58

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	86.4	129.6#
41	24.9	42.1	63.1#

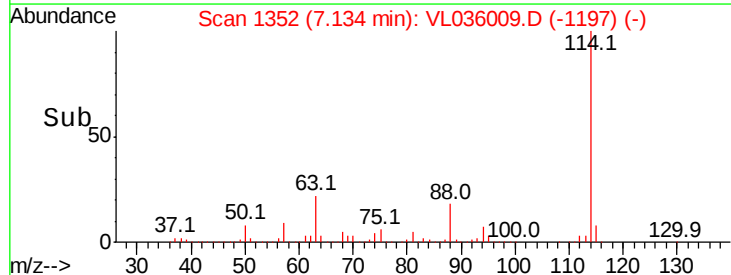
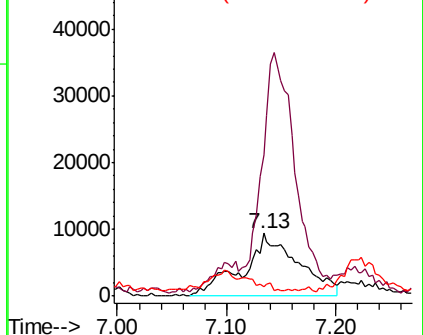


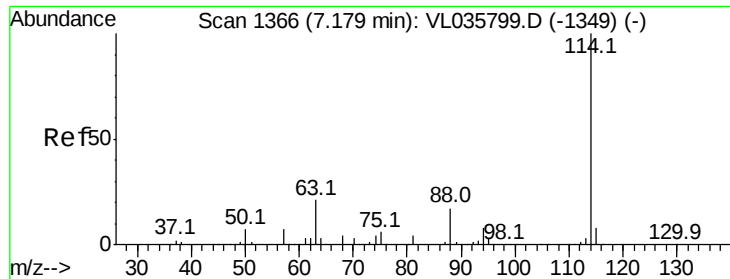
Abundance

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





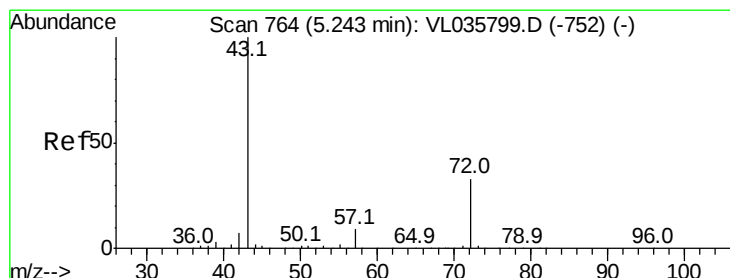
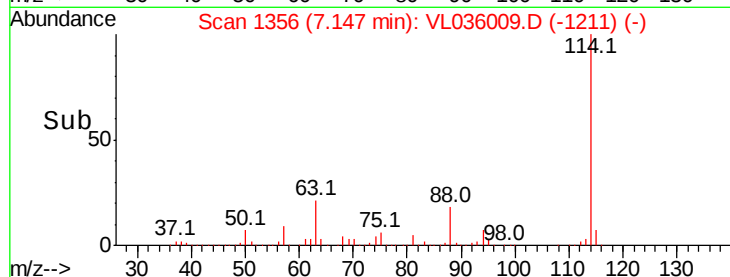
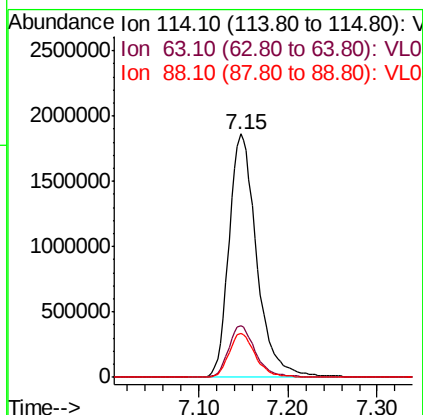
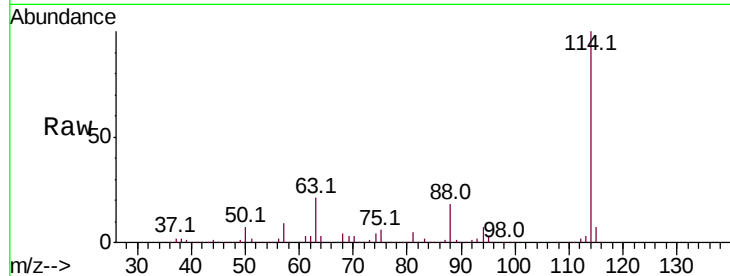
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.15 min Scan# 1356
 Delta R.T. -0.03 min
 Lab File: VL036009.D
 Acq: 25 Nov 2020 00:58

Instrument :
 MSVOA_L
 ClientSampled :
 IA1

Tot Ion:114 Resp: 4003100
 Ion Ratio Lower Upper
 114 100
 63 21.0 16.1 24.1
 88 17.4 13.7 20.5

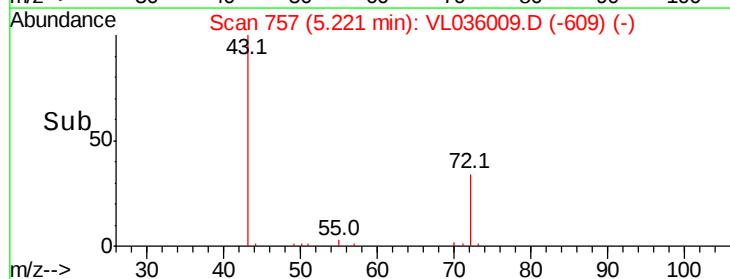
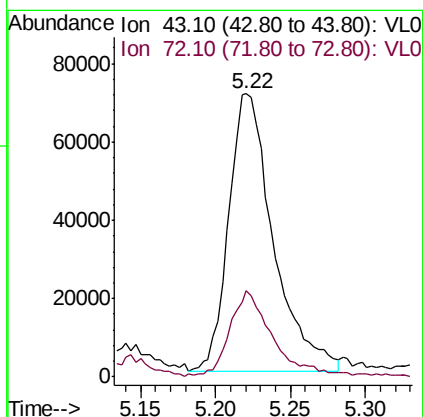
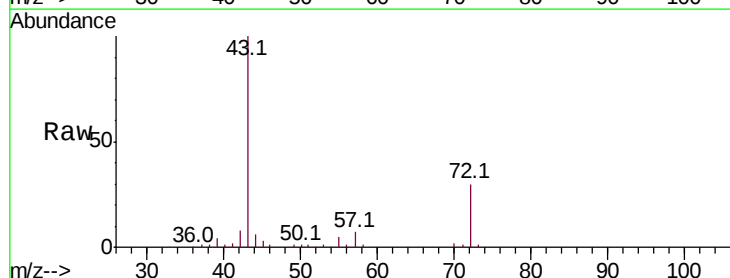
Manual Integrations
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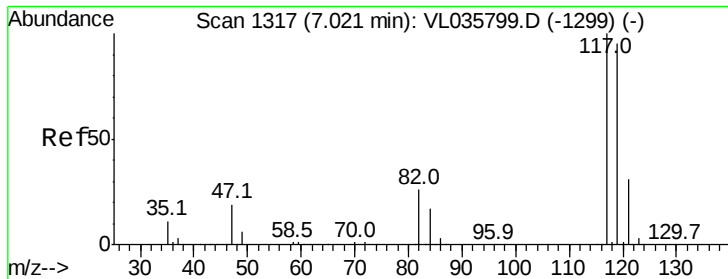
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#34
 2-Butanone
 Concen: 1.138 ppbv
 RT: 5.22 min Scan# 757
 Delta R.T. -0.02 min
 Lab File: VL036009.D
 Acq: 25 Nov 2020 00:58

Tgt Ion: 43 Resp: 147836
 Ion Ratio Lower Upper
 43 100
 72 30.7 26.5 39.7





#35

Carbon Tetrachloride

Concen: 0.065 ppbv m

RT: 7.00 min Scan# 1310

Delta R.T. -0.02 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

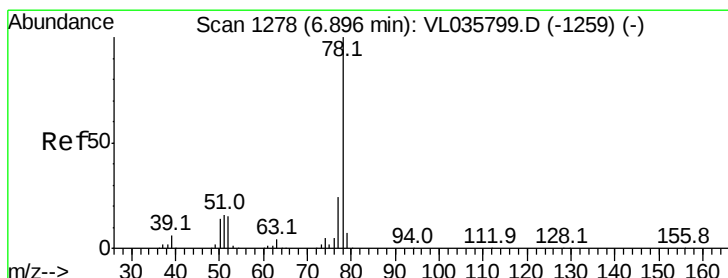
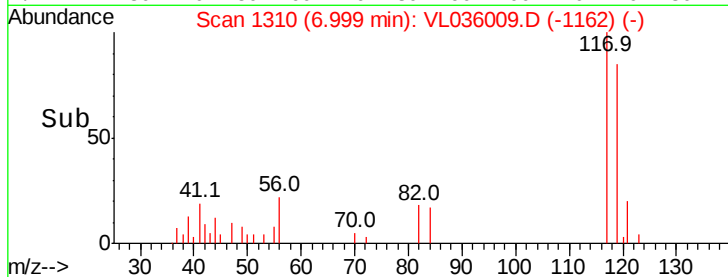
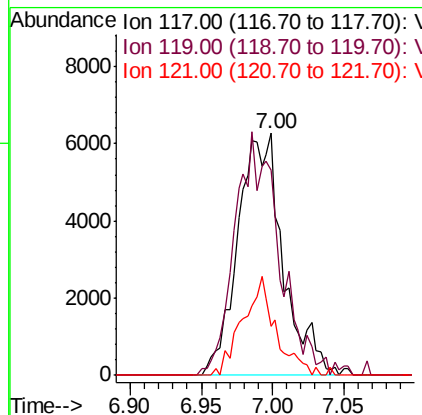
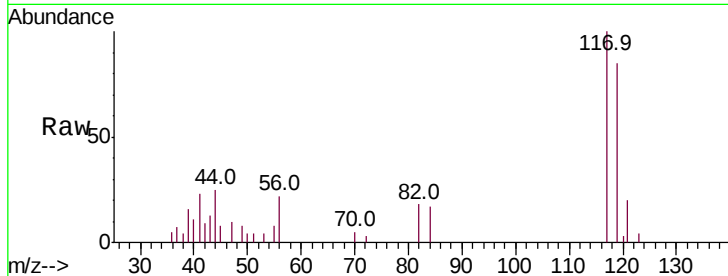
ClientSampled :

IA1

Tot Ion:117 Resp: 13800
 Ion Ratio Lower Upper
 117 100
 119 84.7 75.6 113.4
 121 20.5 25.1 37.7#

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#36

Benzene

Concen: 0.262 ppbv

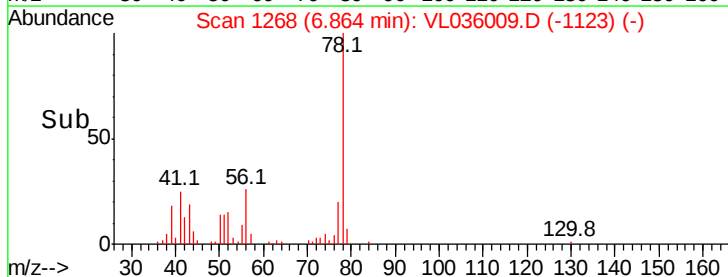
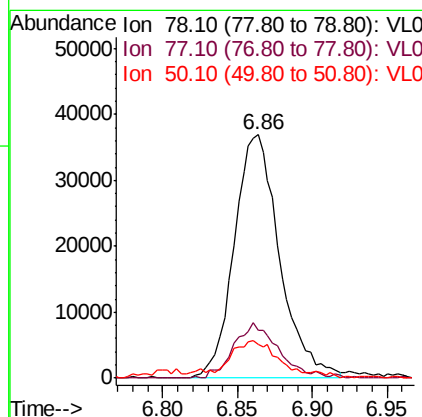
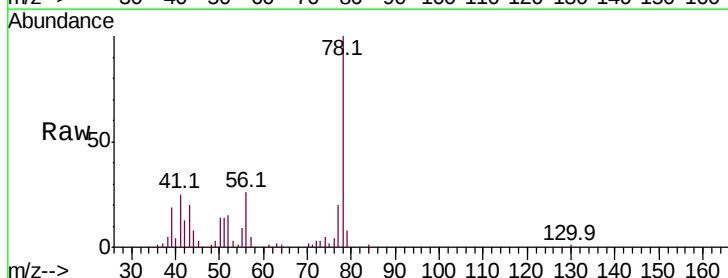
RT: 6.86 min Scan# 1268

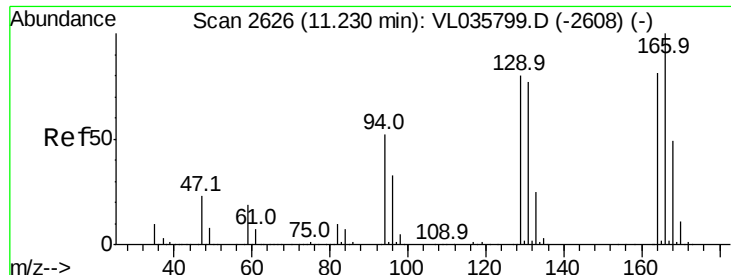
Delta R.T. -0.03 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Tgt Ion: 78 Resp: 78064
 Ion Ratio Lower Upper
 78 100
 77 19.5 19.3 28.9
 50 13.9 11.4 17.2





#52

Tetrachloroethene

Concen: 0.056 ppbv m

RT: 11.19 min Scan# 2614

Delta R.T. -0.04 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tot Ion:164 Resp: 7883

Ion Ratio Lower Upper

164 100

166 108.7 99.3 148.9

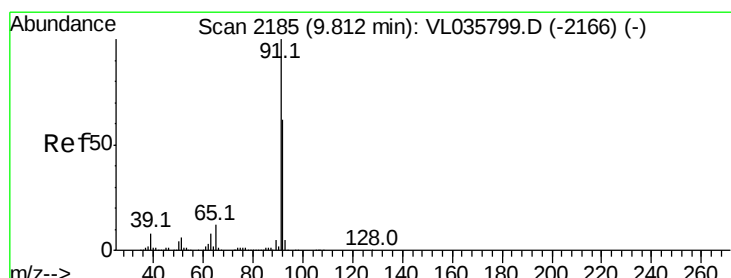
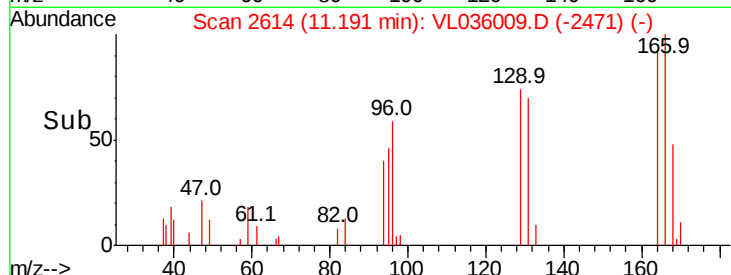
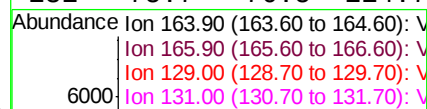
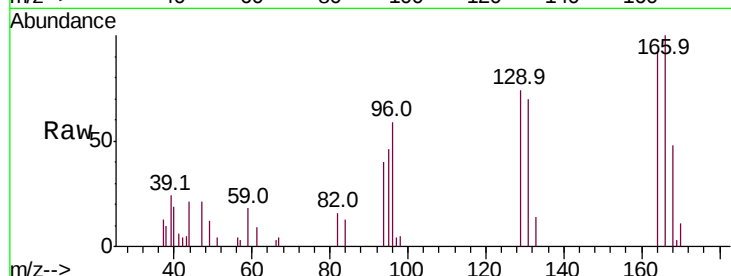
129 80.2 79.3 118.9

131 75.7 76.5 114.7#

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#53

Toluene

Concen: 1.439 ppbv

RT: 9.78 min Scan# 2175

Delta R.T. -0.03 min

Lab File: VL036009.D

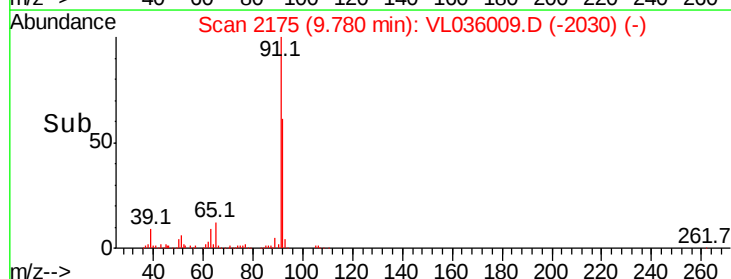
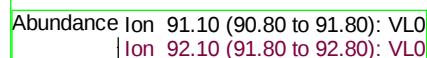
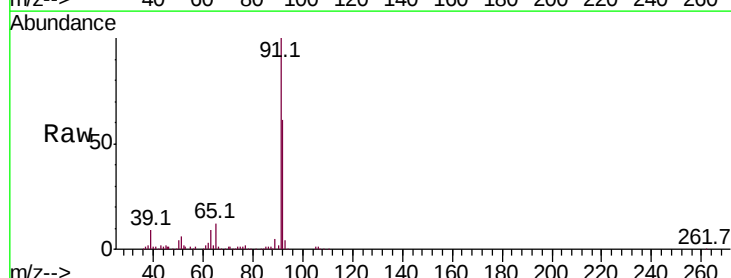
Acq: 25 Nov 2020 00:58

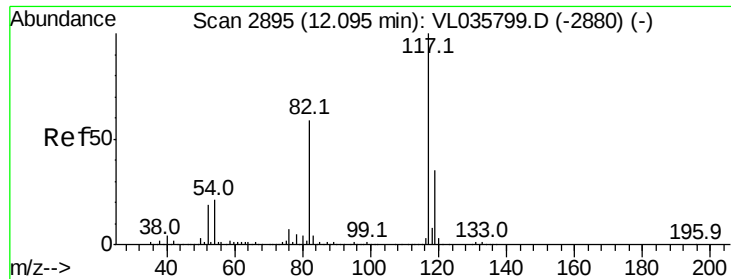
Tgt Ion: 91 Resp: 516864

Ion Ratio Lower Upper

91 100

92 60.0 49.8 74.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2884

Delta R.T. -0.04 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

ClientSampled :

IA1

Tot Ion:117 Resp: 3732603

Ion Ratio Lower Upper

117 100

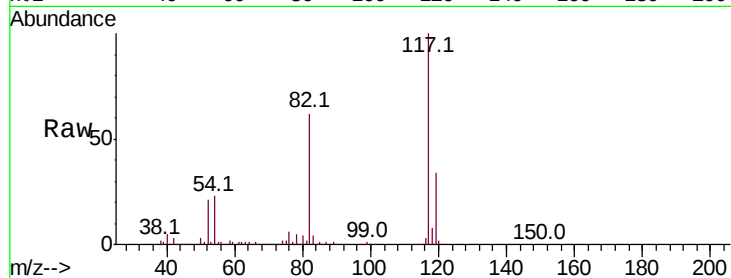
82 61.8 50.6 76.0

119 34.1 52.6 78.8#

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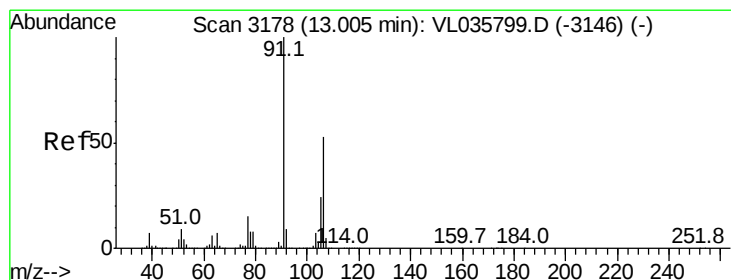
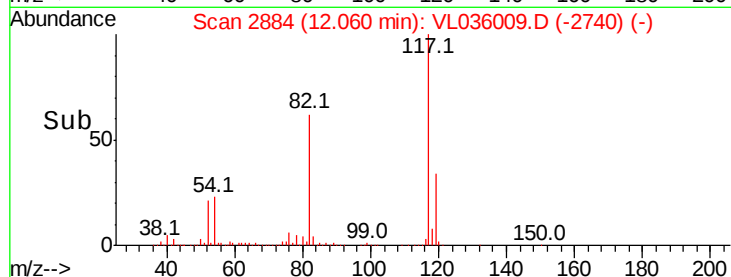
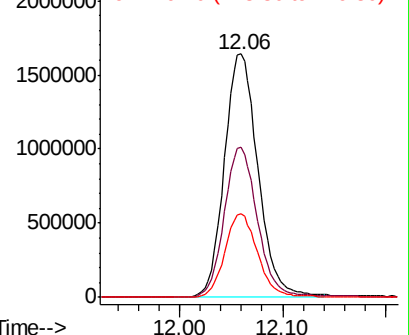
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Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#59

m/p-Xylene

Concen: 0.261 ppbv

RT: 12.94 min Scan# 3158

Delta R.T. -0.06 min

Lab File: VL036009.D

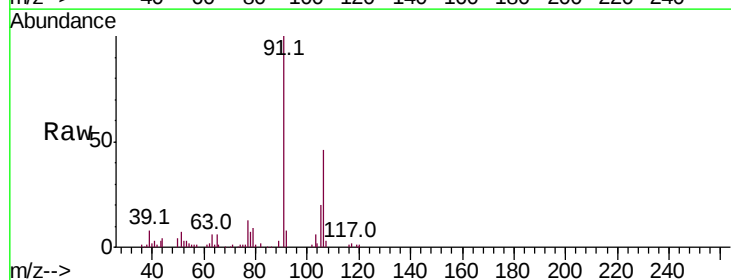
Acq: 25 Nov 2020 00:58

Tgt Ion: 91 Resp: 100367

Ion Ratio Lower Upper

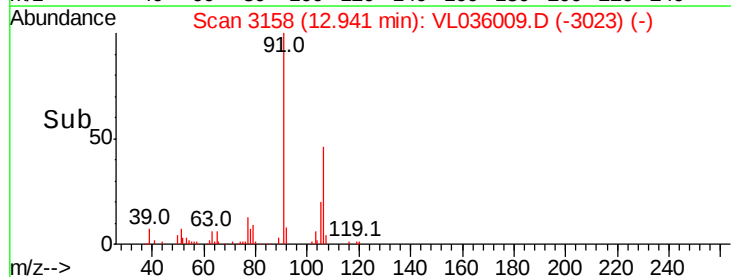
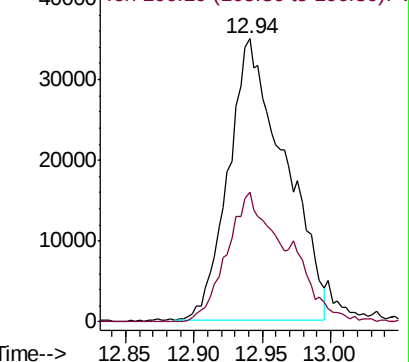
91 100

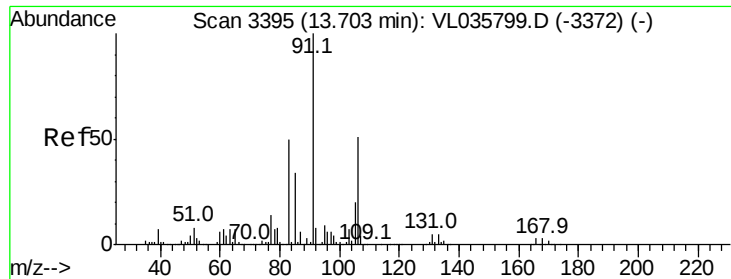
106 49.3 39.5 59.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





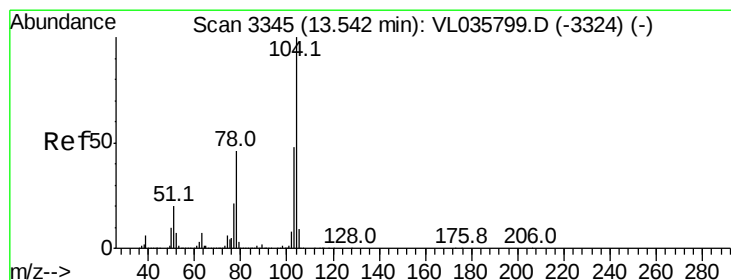
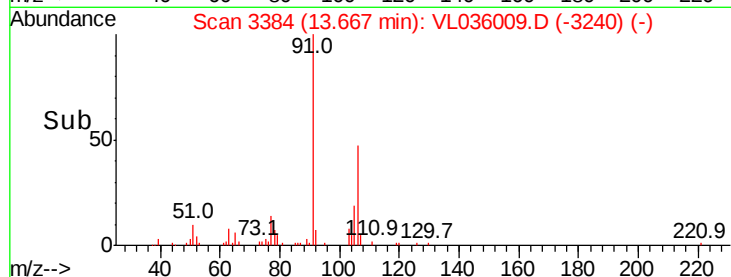
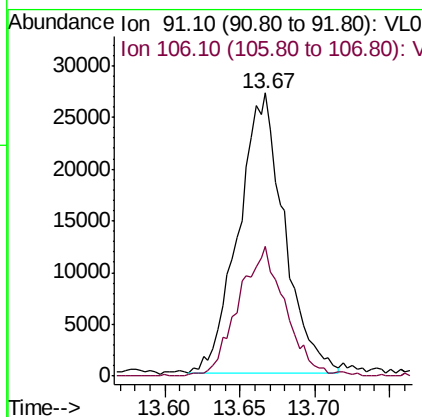
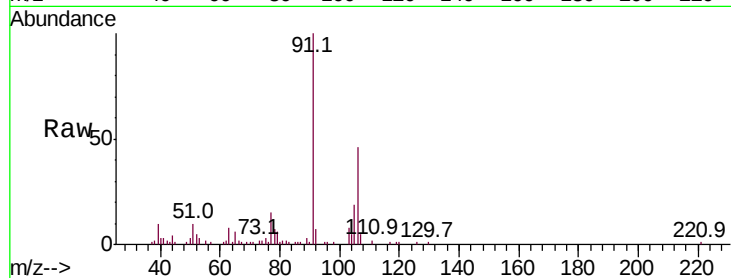
#60
o-Xylene
Concen: 0.154 ppbv
RT: 13.67 min Scan# 3384
Delta R.T. -0.04 min
Lab File: VL036009.D
Acq: 25 Nov 2020 00:58

Instrument :
MSVOA_L
ClientSampled :
IA1

Tot Ion: 91 Resp: 57700
Ion Ratio Lower Upper
91 100
106 47.8 24.8 74.4

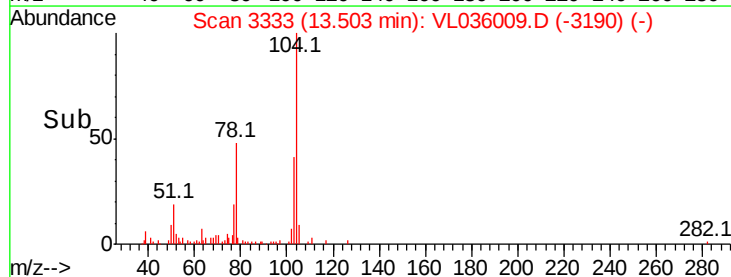
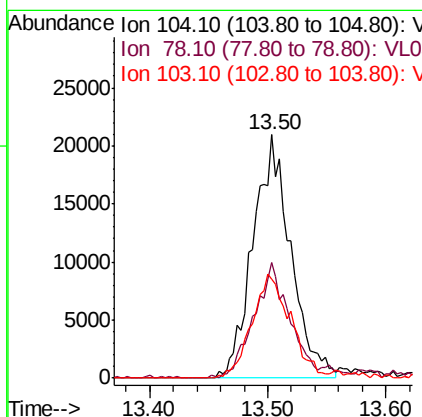
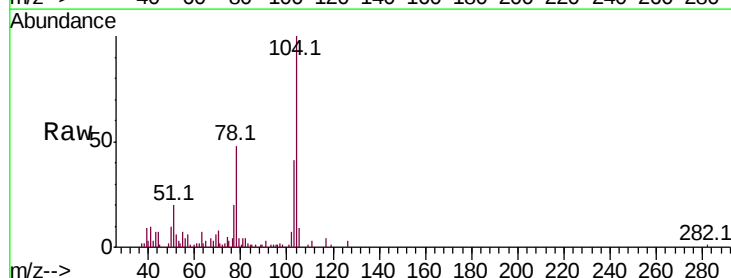
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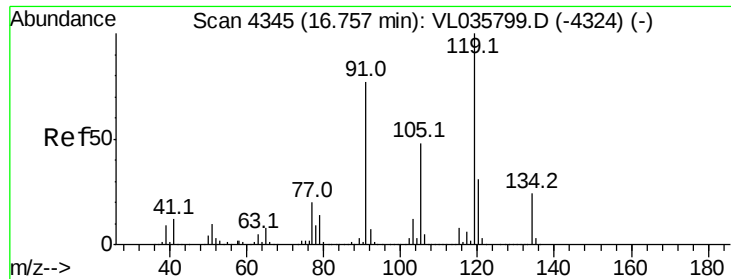
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#61
Styrene
Concen: 0.168 ppbv m
RT: 13.50 min Scan# 3333
Delta R.T. -0.04 min
Lab File: VL036009.D
Acq: 25 Nov 2020 00:58

Tgt Ion: 104 Resp: 45920
Ion Ratio Lower Upper
104 100
78 47.5 37.1 55.7
103 45.9 37.9 56.9





#65

tert-Butylbenzene

Concen: 0.161 ppbv m

RT: 16.74 min Scan# 4340

Delta R.T. -0.02 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Instrument :

MSVOA_L

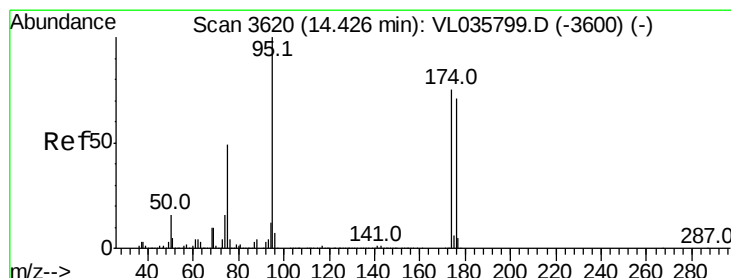
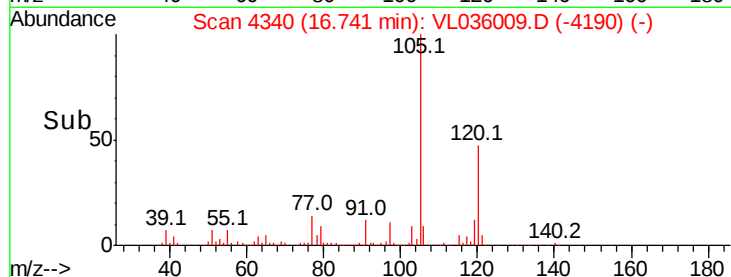
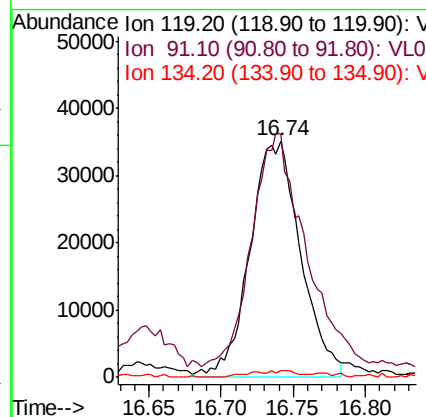
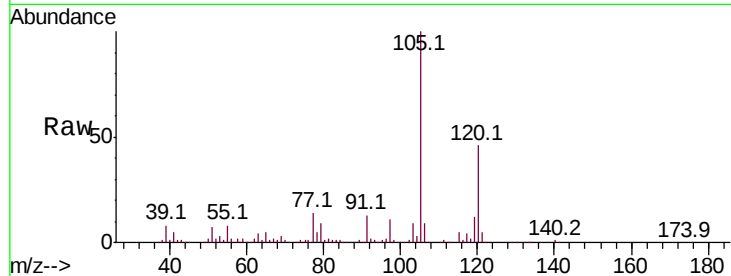
ClientSampled :

IA1

Tot Ion:	119	Resp:	86162
Ion Ratio	Lower	Upper	
119	100		
91	0.0	62.0	93.0#
134	0.0	17.8	26.8#

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#68

1-Bromo-4-Fluorobenzene

Concen: 11.211 ppbv

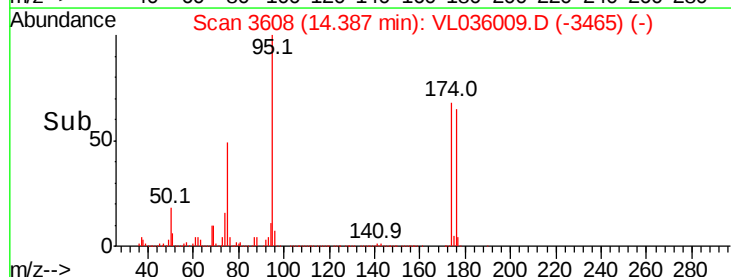
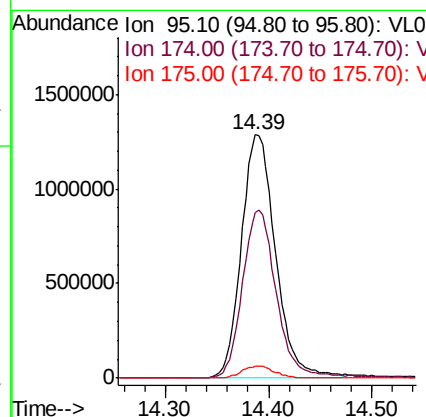
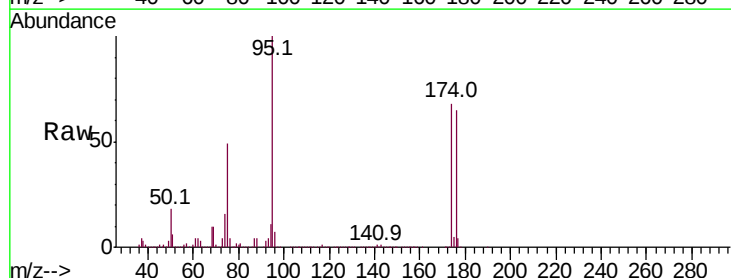
RT: 14.39 min Scan# 3608

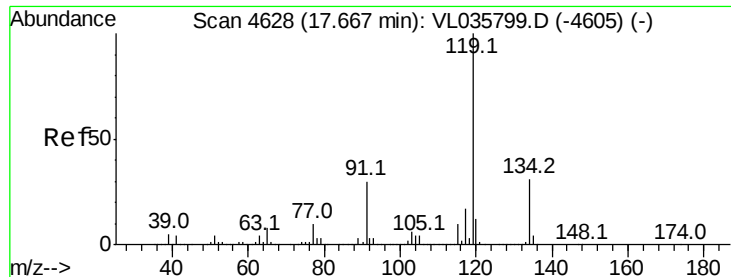
Delta R.T. -0.04 min

Lab File: VL036009.D

Acq: 25 Nov 2020 00:58

Tgt Ion:	95	Resp:	2972963
Ion Ratio	Lower	Upper	
95	100		
174	69.6	59.8	89.6
175	4.8	4.3	6.5





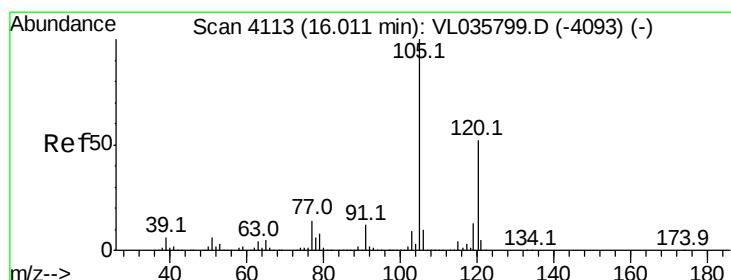
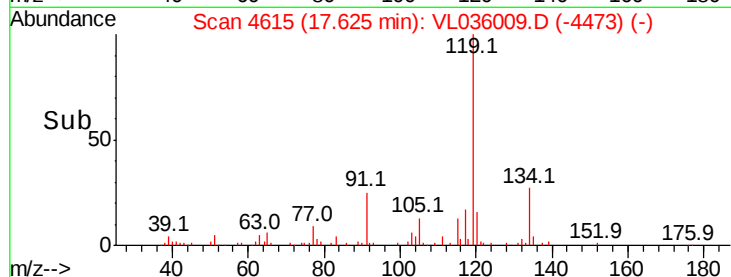
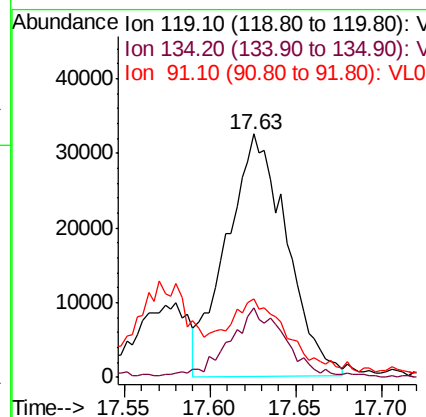
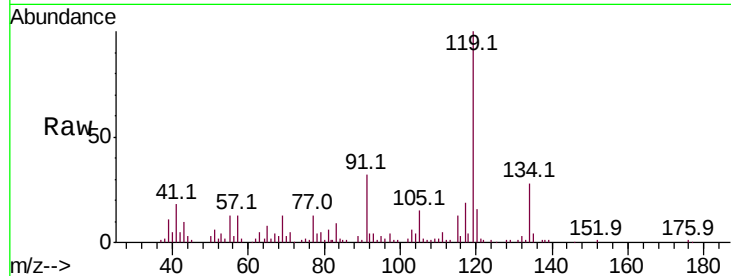
#69
 p-Isopropyltoluene
 Concen: 0.133 ppbv
 RT: 17.63 min Scan# 4615
 Delta R.T. -0.04 min
 Lab File: VL036009.D
 Acq: 25 Nov 2020 00:58

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Tot Ion	Ratio	Lower	Upper
119	100		
134	27.4	23.0	34.6
91	30.4	22.8	34.2

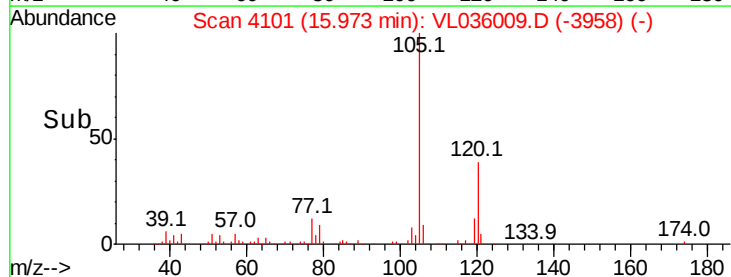
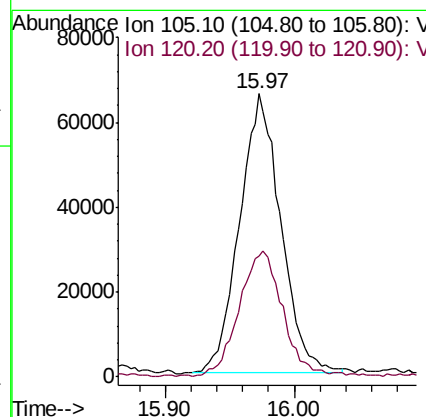
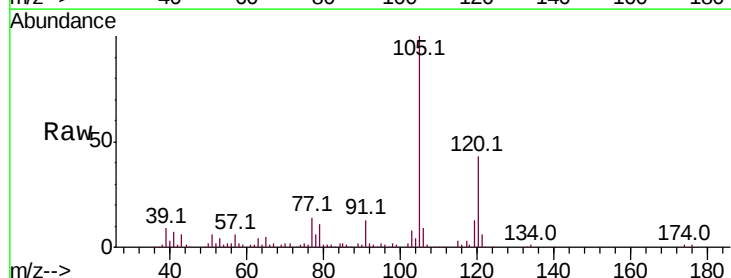
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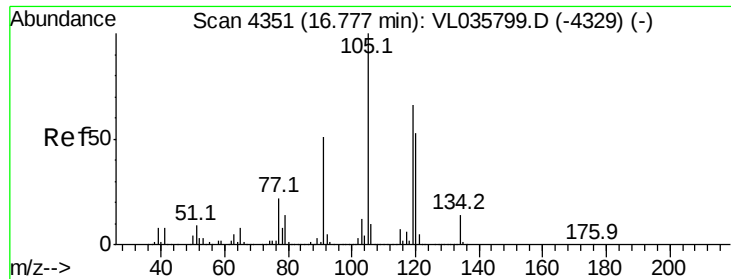
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#73
 1,3,5-Trimethylbenzene
 Concen: 0.352 ppbv
 RT: 15.97 min Scan# 4101
 Delta R.T. -0.04 min
 Lab File: VL036009.D
 Acq: 25 Nov 2020 00:58

Tgt Ion	Ratio	Lower	Upper
105	100		
120	43.5	41.4	62.2





#74
 1,2,4-Trimethylbenzene
 Concen: 1.590 ppbv
 RT: 16.73 min Scan# 4338
 Delta R.T. -0.04 min
 Lab File: VL036009.D
 Acq: 25 Nov 2020 00:58

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Tot Ion	Ratio	Resp Lower	Resp Upper
105	100		
120	43.5	42.0	63.0
91	10.2	41.0	61.6#
77	13.5	17.3	25.9#

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