

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101220\
 Data File : VL035764.D
 Acq On : 12 Oct 2020 16:38
 Operator : SY/AP
 Sample : L4347-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 3

Manual Integrations
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 10/14/2020 2:11:38 PM

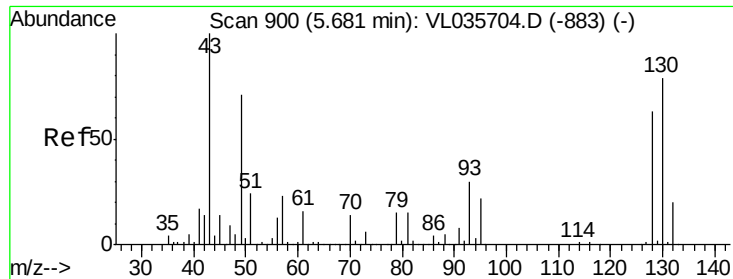
Quant Time: Oct 13 23:06:02 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 23 2020
 QLast Update : Wed Sep 23 07:38:05 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1015532	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	3961375	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.09	117	3901045	10.00	ppbv	-0.02

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.43	95	2906627	9.94	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	54767	0.329	ppbv	95
3) Chlorodifluoromethane	2.98	51	48165m	0.441	ppbv	
4) Chloromethane	3.13	50	80472	1.371	ppbv	98
9) Propene	3.01	41	40980	1.033	ppbv #	78
10) Heptane	8.12	43	22703m	0.205	ppbv	
11) Trichlorofluoromethane	3.94	101	64625	0.272	ppbv	91
13) Ethanol	3.59	45	536426	54.836	ppbv	98
15) Acetone	3.84	43	1194144	10.928	ppbv	95
19) Isopropyl Alcohol	3.96	45	282429	4.751	ppbv #	1
20) Methylene Chloride	4.34	84	429447	5.350	ppbv	97
26) Hexane	5.68	57	333549	3.096	ppbv #	62
29) Chloroform	5.74	83	27942	0.128	ppbv	99
34) 2-Butanone	5.24	43	77816	0.594	ppbv	100
35) Carbon Tetrachloride	7.01	117	16687	0.081	ppbv	99
36) Benzene	6.89	78	48254	0.187	ppbv #	95
44) 2,2,4-Trimethylpentane	7.87	57	87271	0.236	ppbv #	87
52) Tetrachloroethene	11.24	164	10581m	0.085	ppbv	
53) Toluene	9.81	91	1750241	5.750	ppbv	98
58) Ethyl Benzene	12.72	91	43922	0.112	ppbv	91
59) m/p-Xylene	12.97	91	90561m	0.265	ppbv	
60) o-Xylene	13.70	91	37052m	0.107	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.02 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

Instrument :

MSVOA_L

ClientSampled :

3

Tot Ion: 49 Resp: 1015532

Ion Ratio Lower Upper

49 100

128 85.3 43.1 129.4

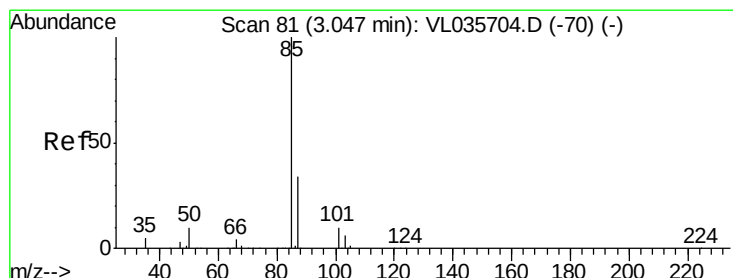
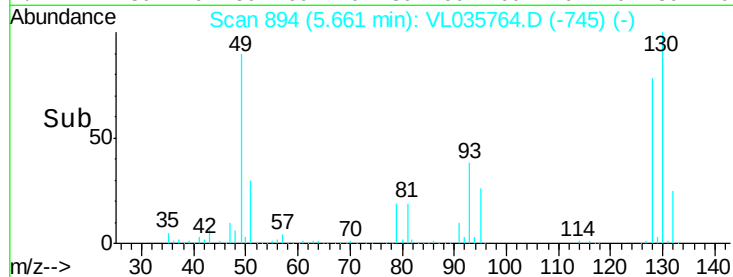
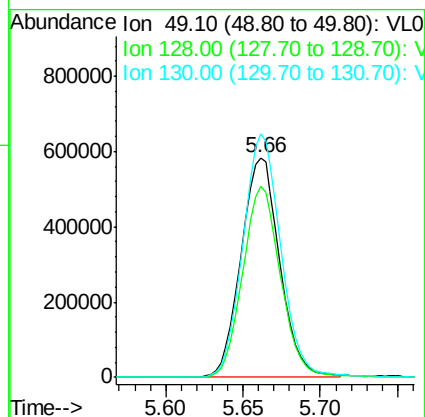
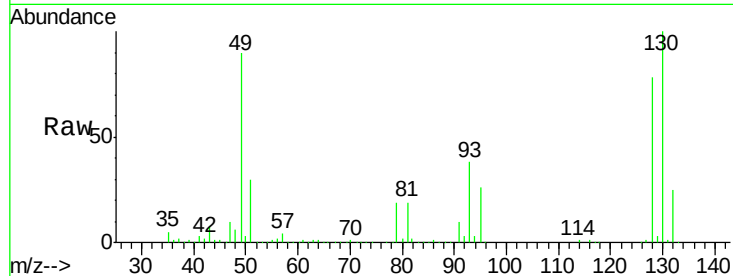
130 109.9 54.9 164.7

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#2

Dichlorodifluoromethane

Concen: 0.329 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL035764.D

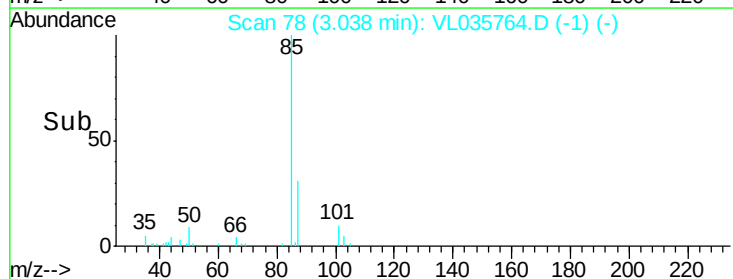
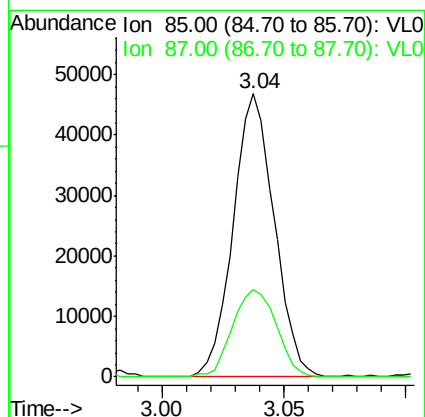
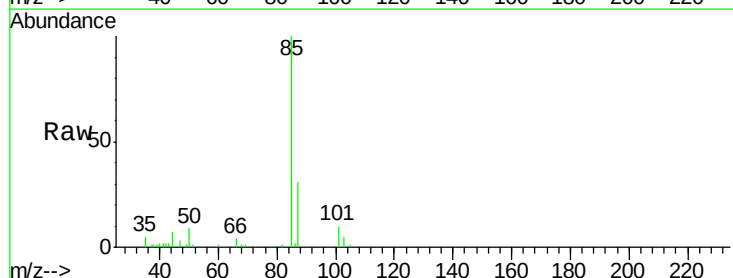
Acq: 12 Oct 2020 16:38

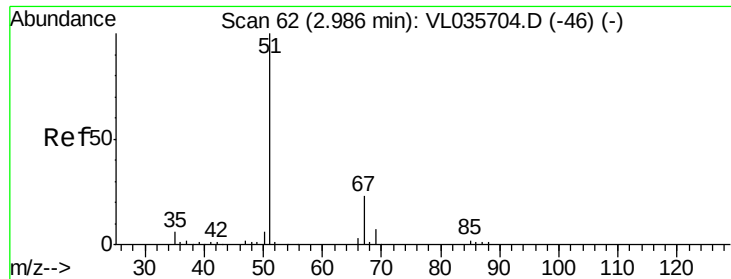
Tgt Ion: 85 Resp: 54767

Ion Ratio Lower Upper

85 100

87 31.0 27.3 40.9





#3

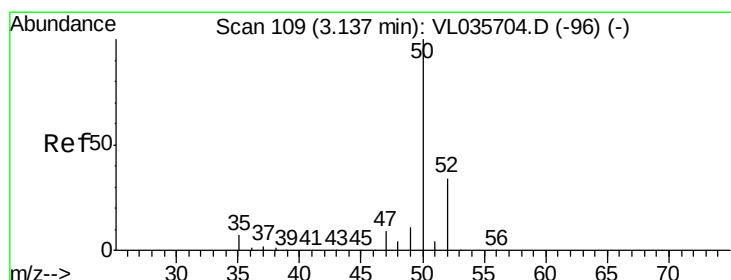
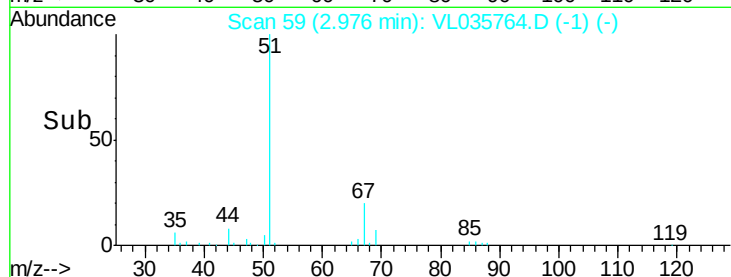
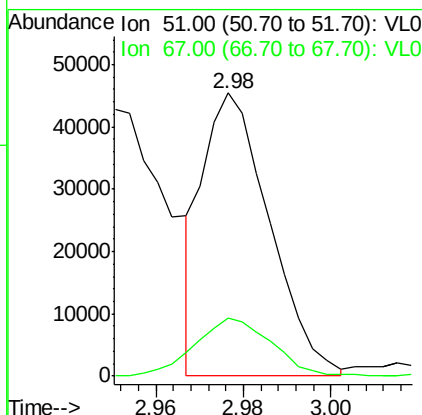
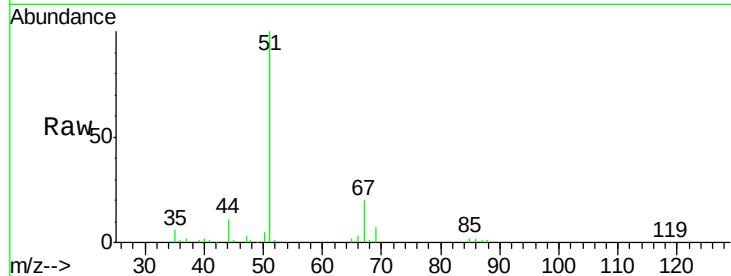
Chlorodifluoromethane
 Concen: 0.441 ppbv
 RT: 2.98 min Scan# 59
 Delta R.T. -0.01 min
 Lab File: VL035764.D
 Acq: 12 Oct 2020 16:38

Instrument :
 MSVOA_L
 ClientSampled :
 3

Tot Ion	51	Resp	48165
Ion Ratio	100	Lower	Upper
67	23.6	17.8	26.8

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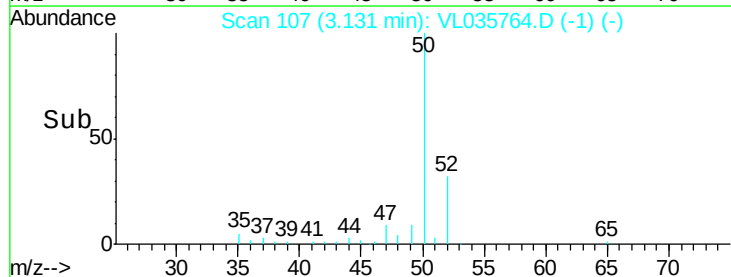
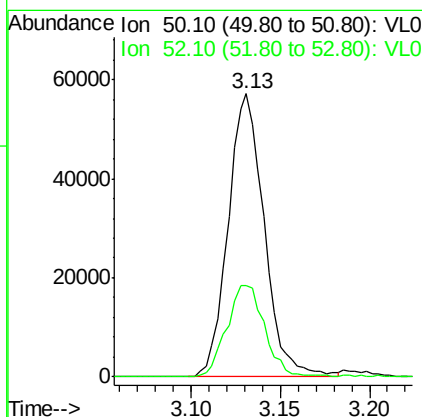
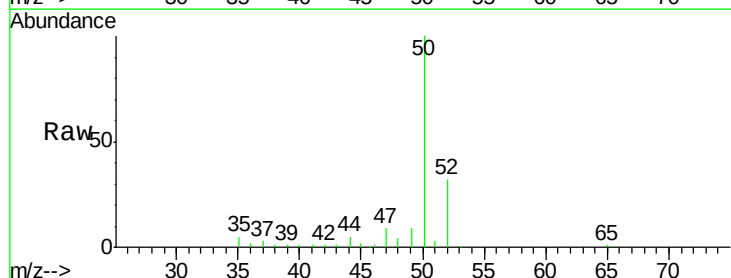
MMDadoda
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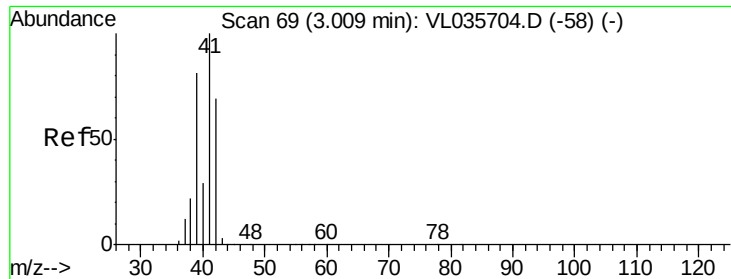


#4

Chloromethane
 Concen: 1.371 ppbv
 RT: 3.13 min Scan# 107
 Delta R.T. -0.01 min
 Lab File: VL035764.D
 Acq: 12 Oct 2020 16:38

Tgt Ion	50	Resp	80472
Ion Ratio	100	Lower	Upper
52	32.3	26.8	40.2





#9

Propene

Concen: 1.033 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

Instrument :

MSVOA_L

ClientSampled :

3

Tot Ion: 41 Resp: 40980

Ion Ratio Lower Upper

41 100

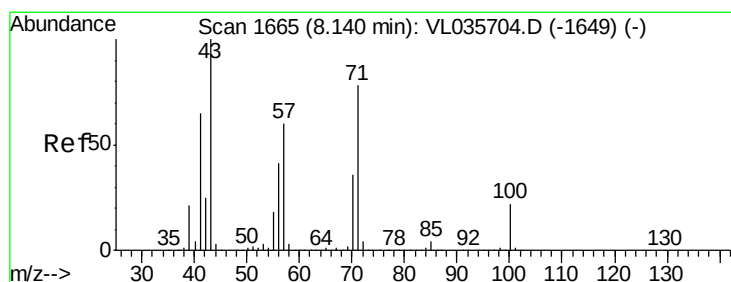
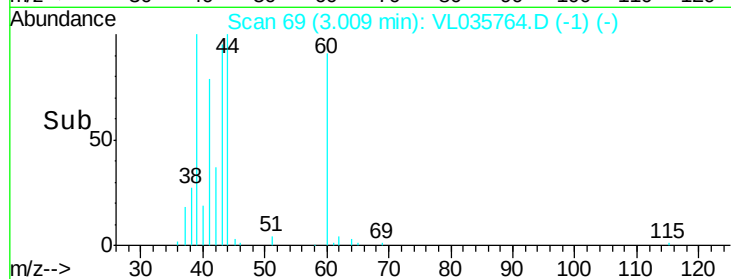
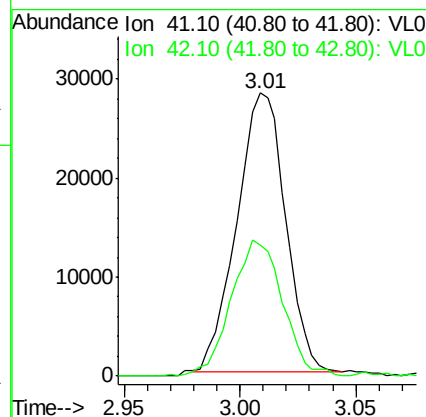
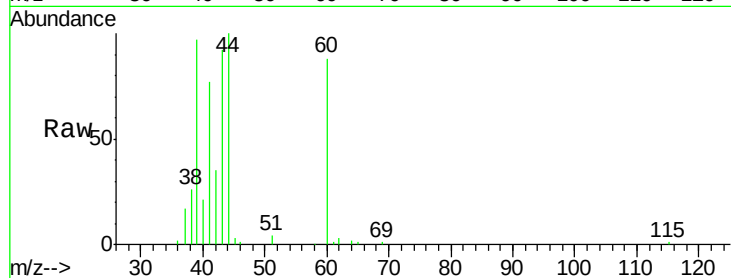
42 52.4 56.2 84.4#

Manual Integrations

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#10

Heptane

Concen: 0.205 ppbv m

RT: 8.12 min Scan# 1659

Delta R.T. -0.02 min

Lab File: VL035764.D

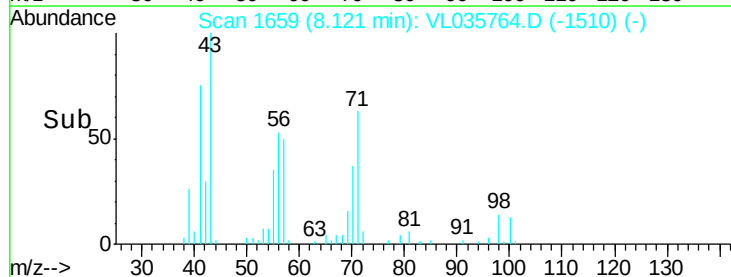
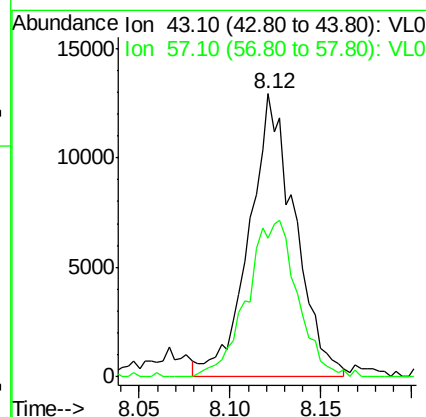
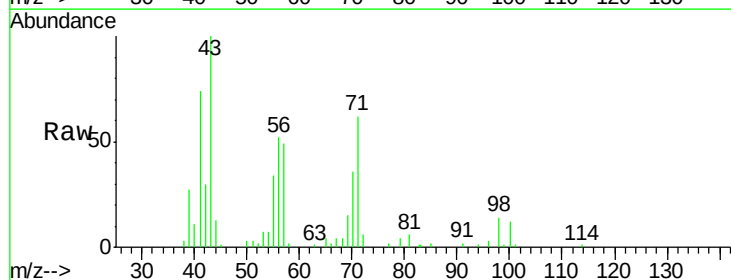
Acq: 12 Oct 2020 16:38

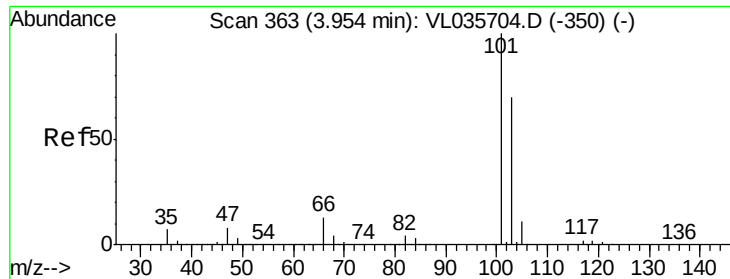
Tgt Ion: 43 Resp: 22703

Ion Ratio Lower Upper

43 100

57 0.0 50.4 75.6#





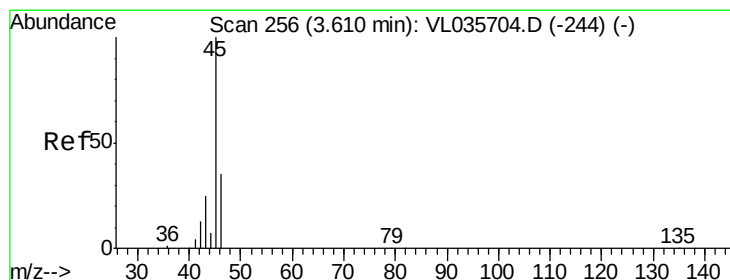
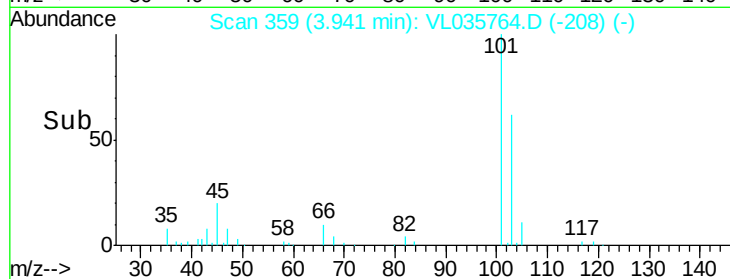
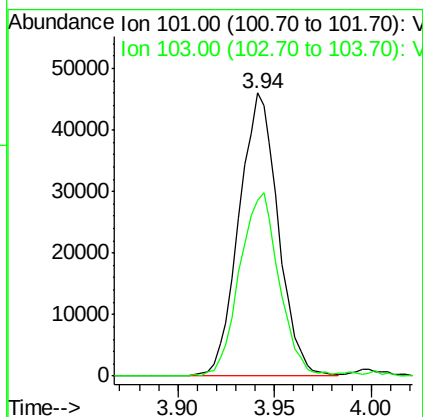
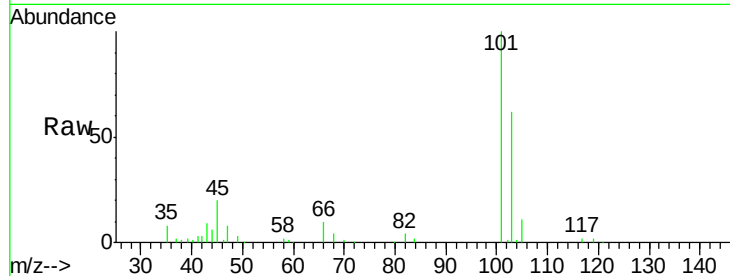
#11
 Trichlorofluoromethane
 Concen: 0.272 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. -0.01 min
 Lab File: VL035764.D
 Acq: 12 Oct 2020 16:38

Instrument :
 MSVOA_L
 ClientSampled :
 3

Tot Ion:101 Resp: 64625
 Ion Ratio Lower Upper
 101 100
 103 62.0 55.6 83.4

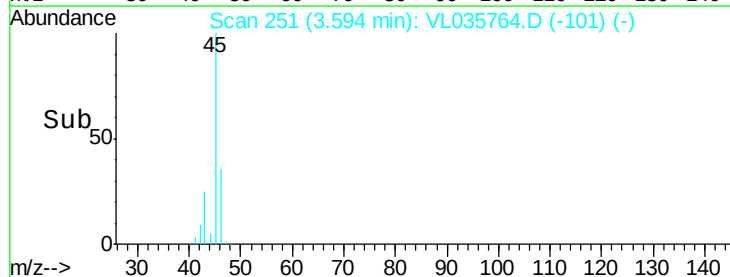
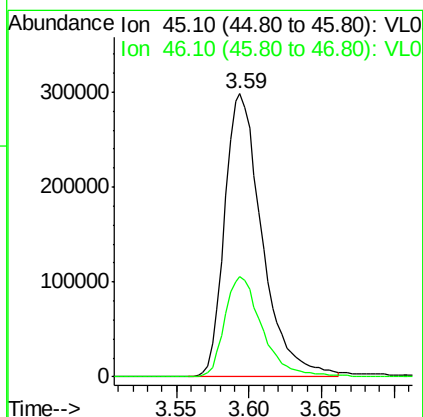
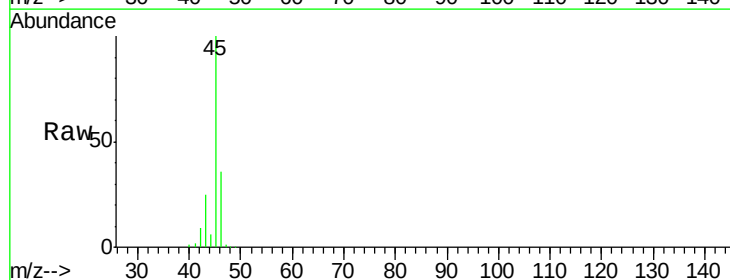
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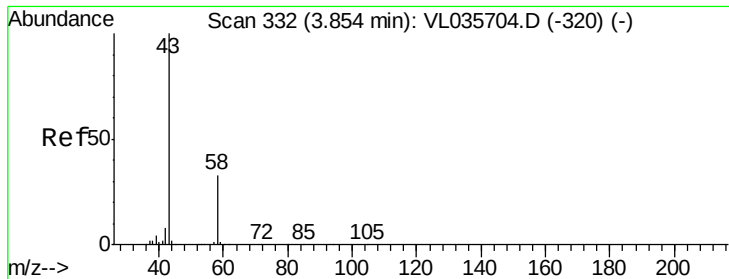
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#13
 Ethanol
 Concen: 54.836 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. -0.02 min
 Lab File: VL035764.D
 Acq: 12 Oct 2020 16:38

Tgt Ion: 45 Resp: 536426
 Ion Ratio Lower Upper
 45 100
 46 35.7 14.7 58.7





#15

Acetone

Concen: 10.928 ppbv

RT: 3.84 min Scan# 327

Delta R.T. -0.02 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

Instrument :

MSVOA_L

ClientSampled :

3

Tot Ion: 43 Resp: 1194144

Ion Ratio Lower Upper

43 100

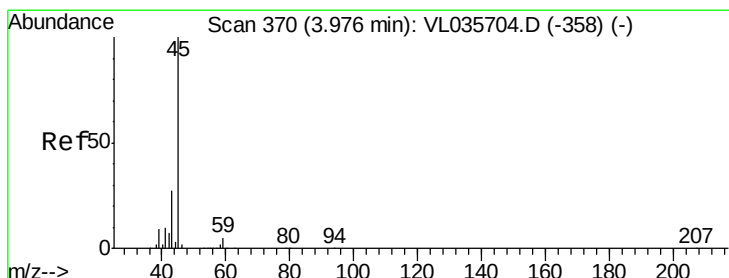
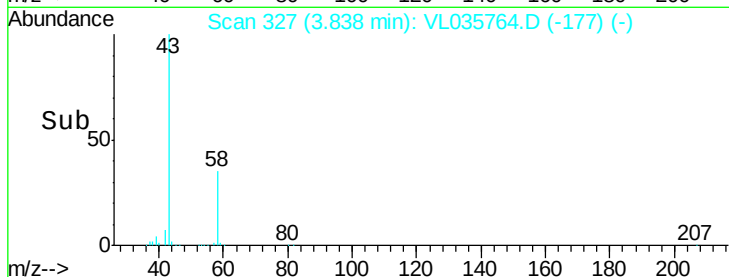
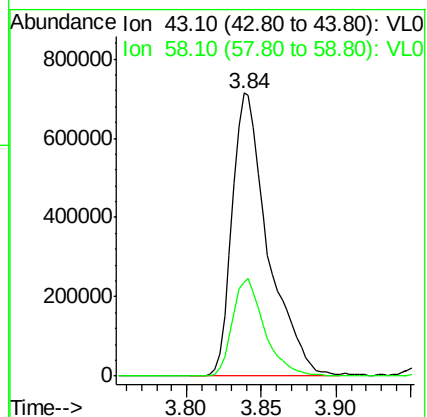
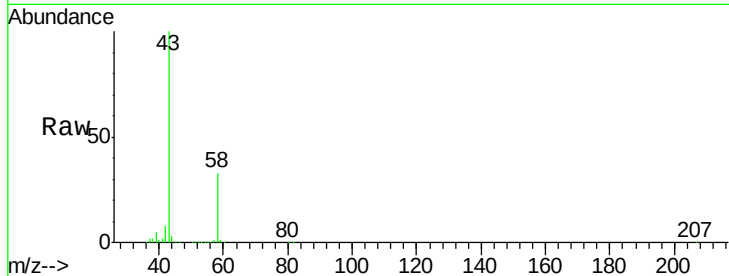
58 31.0 27.3 40.9

Manual Integrations

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#19

Isopropyl Alcohol

Concen: 4.751 ppbv

RT: 3.96 min Scan# 366

Delta R.T. -0.01 min

Lab File: VL035764.D

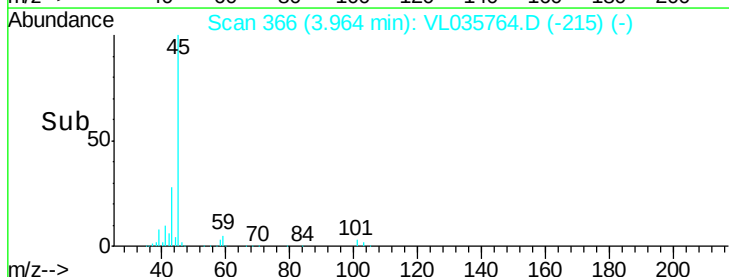
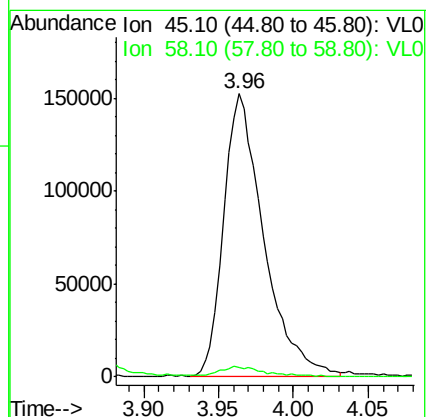
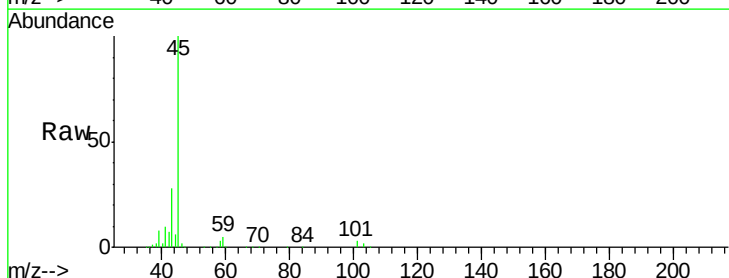
Acq: 12 Oct 2020 16:38

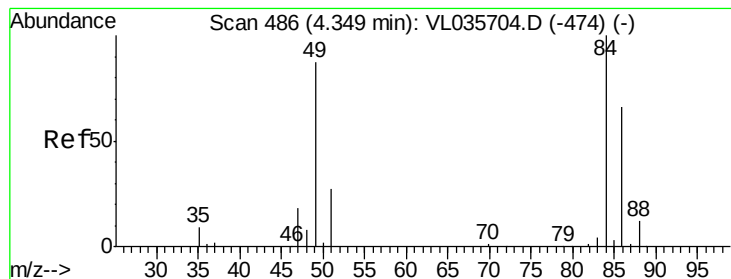
Tgt Ion: 45 Resp: 282429

Ion Ratio Lower Upper

45 100

58 131.3 2.8 4.2#





#20

Methylene Chloride

Concen: 5.350 ppbv

RT: 4.34 min Scan# 482

Delta R.T. -0.01 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

Instrument :

MSVOA_L

ClientSampled :

3

Tot Ion: 84 Resp: 429447

Ion Ratio Lower Upper

84 100

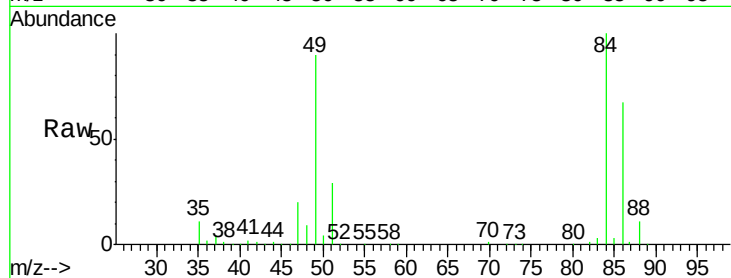
49 89.8 69.8 104.6

51 28.7 21.8 32.8

86 67.4 52.6 78.8

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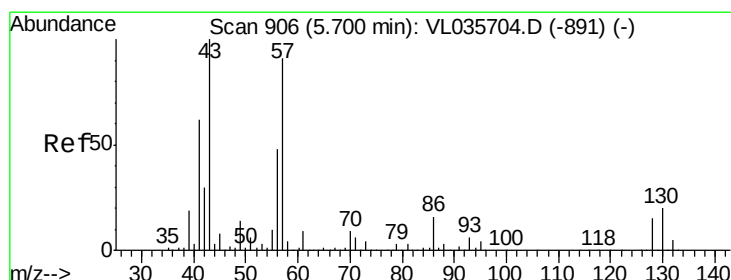
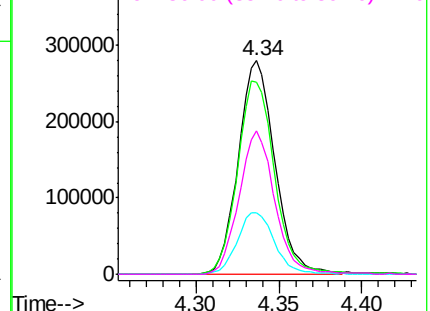
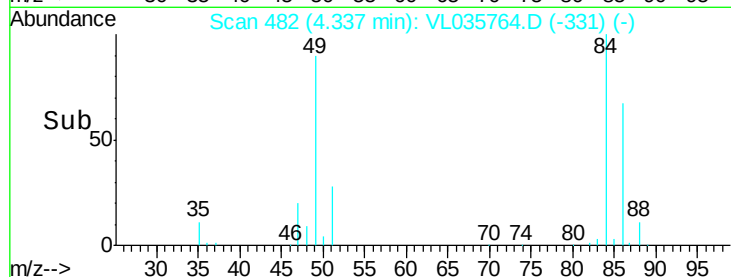
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#26

Hexane

Concen: 3.096 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.02 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

Tgt Ion: 57 Resp: 333549

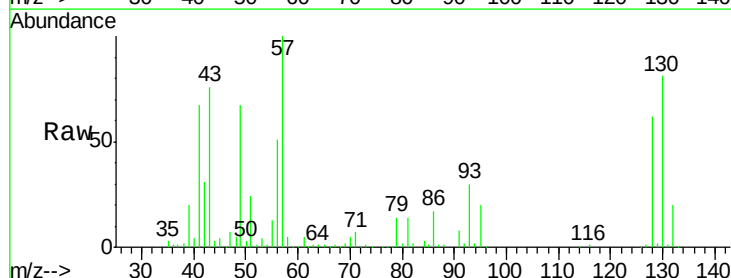
Ion Ratio Lower Upper

57 100

41 71.5 57.9 86.9

43 87.6 143.8 215.6

56 54.0 43.0 64.6



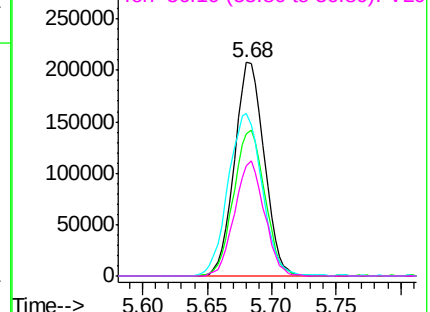
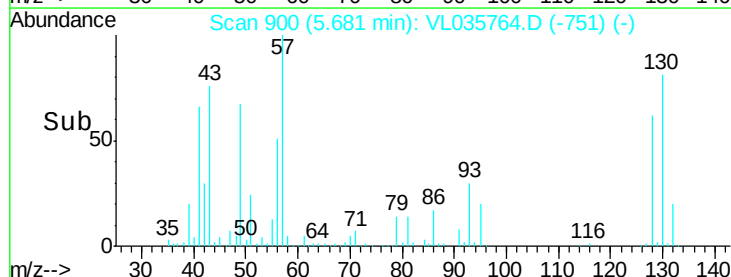
Abundance

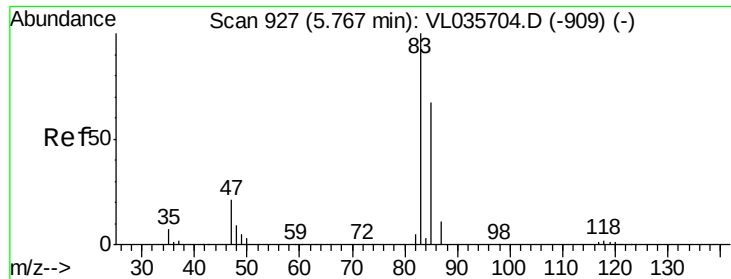
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





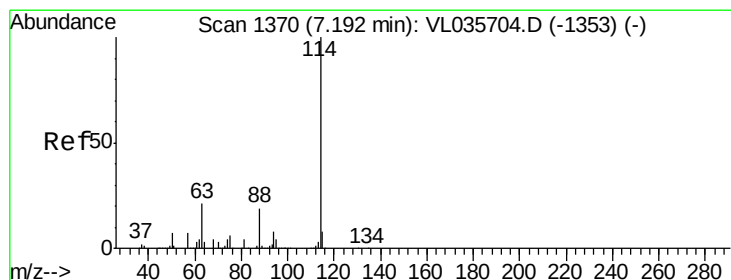
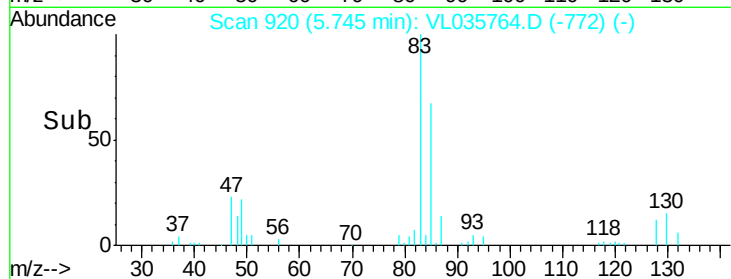
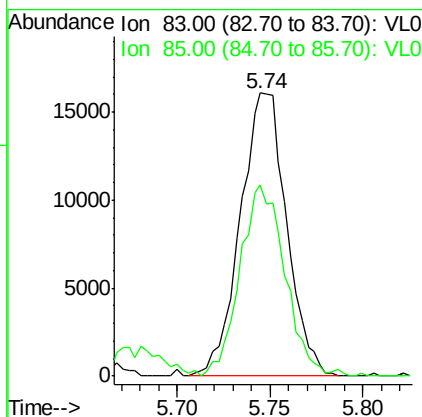
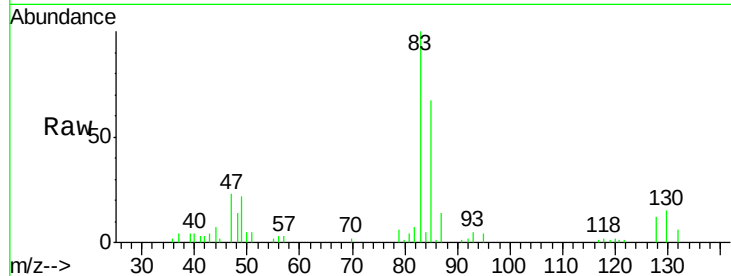
#29
Chloroform
Concen: 0.128 ppbv
RT: 5.74 min Scan# 920
Delta R.T. -0.02 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Instrument :
MSVOA_L
ClientSampled :
3

Tot Ion	83	Resp	27942
Ion Ratio	100	Lower	Upper
85	66.3	54.0	81.0

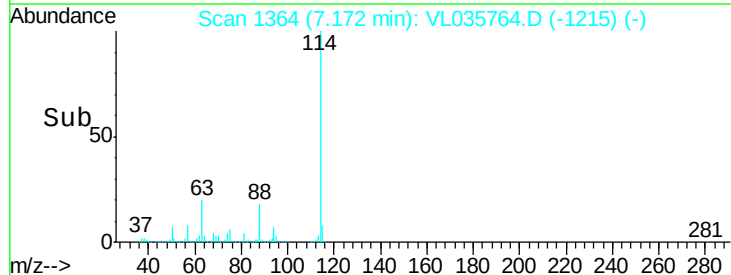
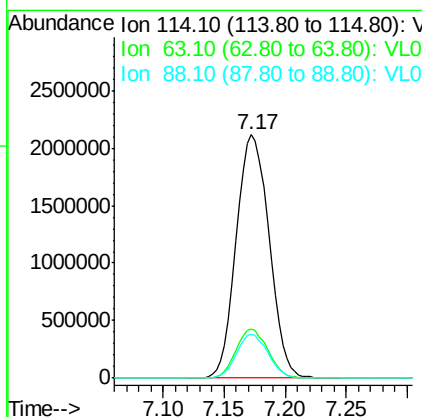
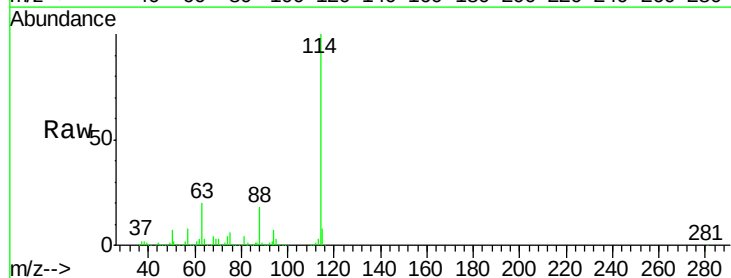
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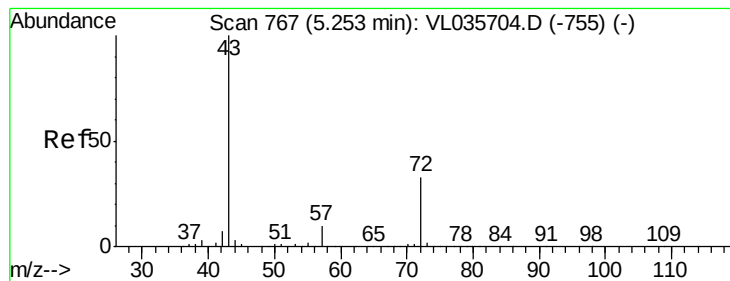
MMDadoda
10/14/2020 2:11:38 PM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1364
Delta R.T. -0.02 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Tgt Ion	114	Resp	3961375
Ion Ratio	100	Lower	Upper
63	19.6	16.1	24.1
88	17.1	14.1	21.1





#34

2-Butanone

Concen: 0.594 ppbv

RT: 5.24 min Scan# 764

Delta R.T. -0.01 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

Instrument :

MSVOA_L

ClientSampled :

3

Tot Ion: 43 Resp: 77816

Ion Ratio Lower Upper

43 100

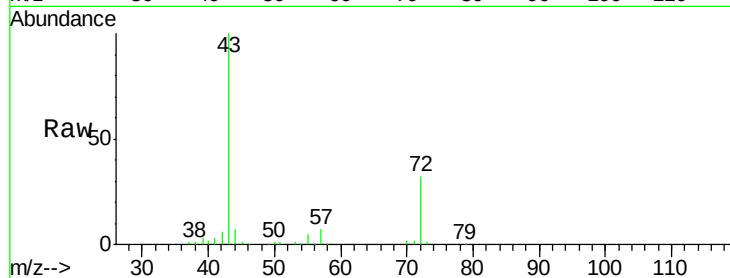
72 32.8 26.1 39.1

Manual Integrations

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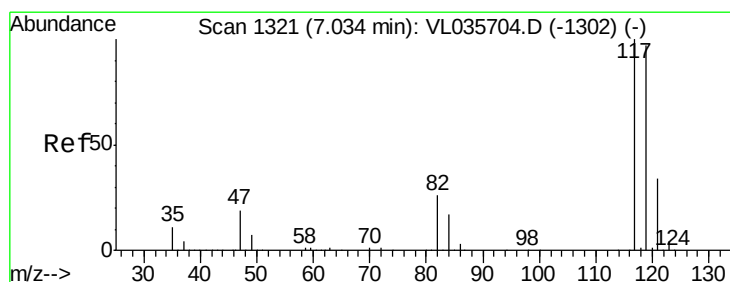
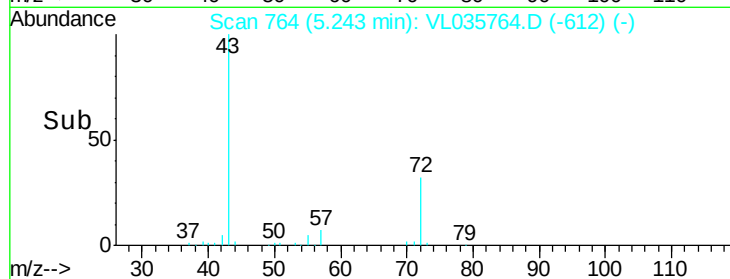
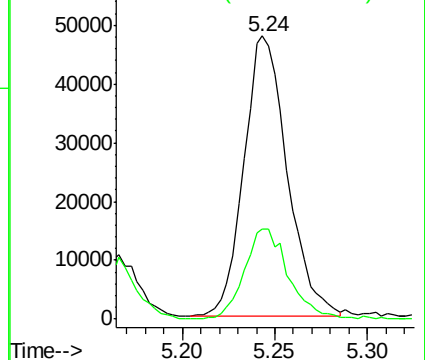
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.081 ppbv

RT: 7.01 min Scan# 1315

Delta R.T. -0.02 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

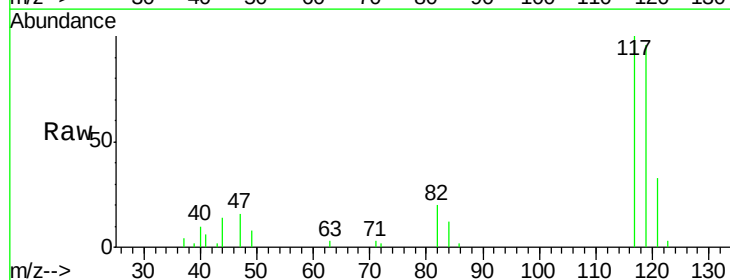
Tgt Ion: 117 Resp: 16687

Ion Ratio Lower Upper

117 100

119 96.5 77.7 116.5

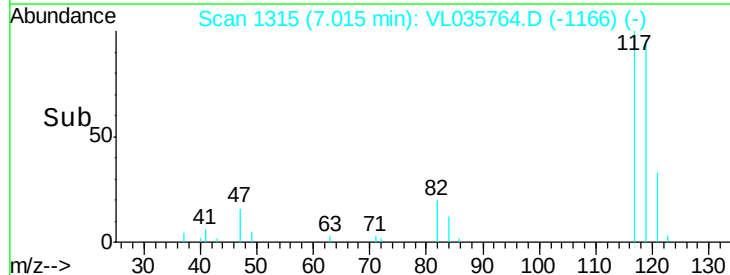
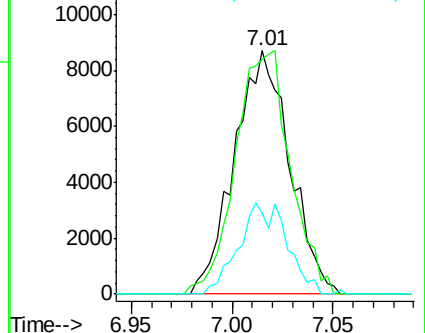
121 33.3 26.9 40.3

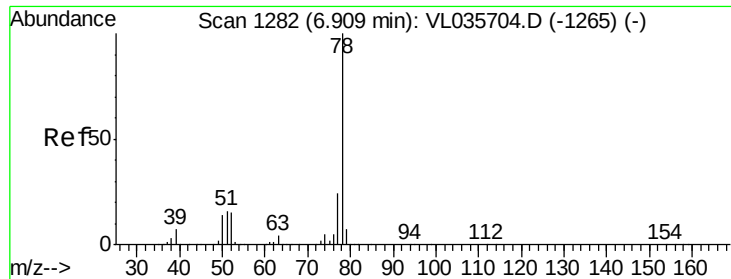


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





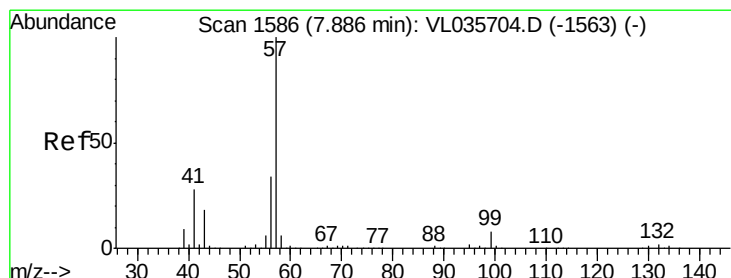
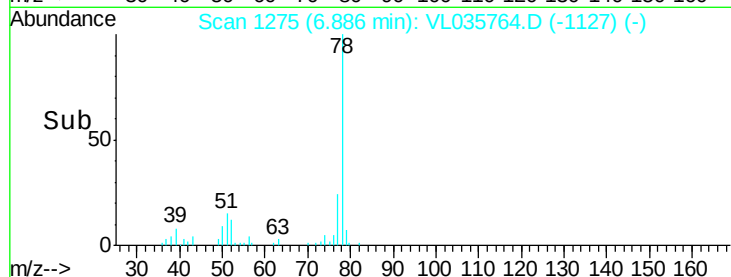
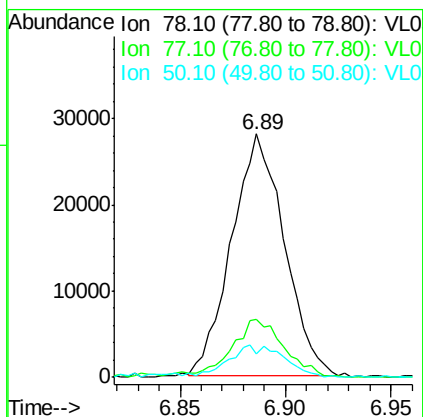
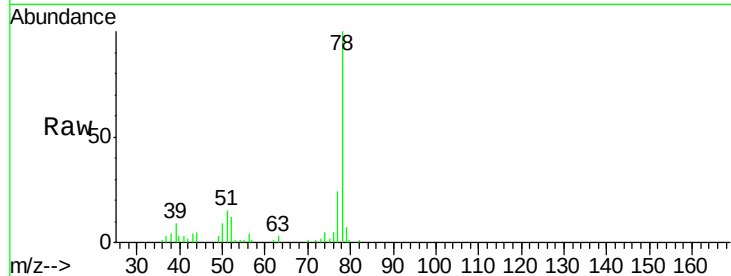
#36
Benzene
Concen: 0.187 ppbv
RT: 6.89 min Scan# 1275
Delta R.T. -0.02 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Instrument :
MSVOA_L
ClientSampled :
3

Tot Ion	Ratio	Lower	Upper
78	100		
77	23.7	19.3	28.9
50	9.6	11.6	17.4#

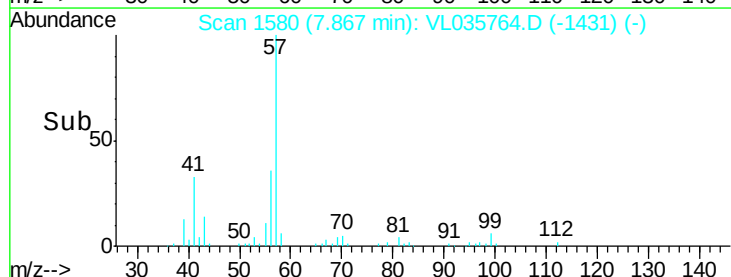
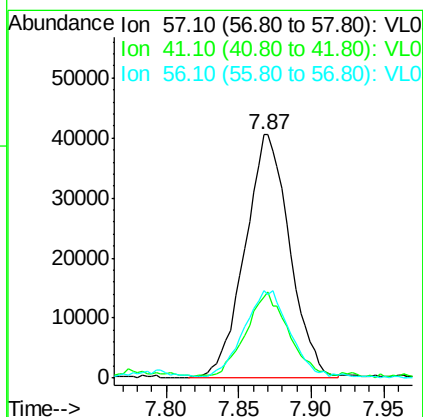
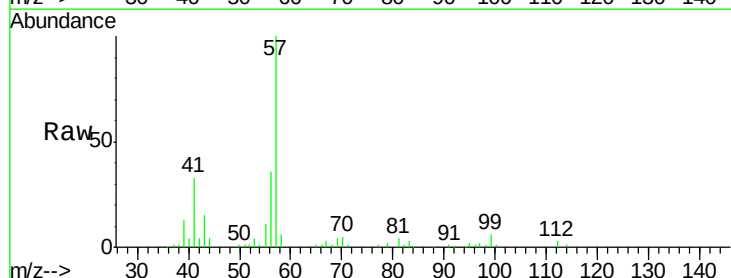
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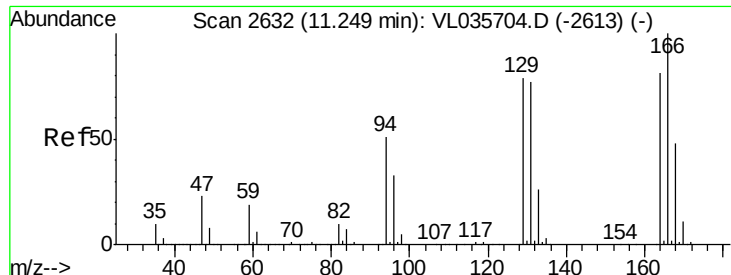
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#44
2,2,4-Trimethylpentane
Concen: 0.236 ppbv
RT: 7.87 min Scan# 1580
Delta R.T. -0.02 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Tgt Ion	Ratio	Lower	Upper
57	100		
41	35.6	21.2	31.8#
56	37.6	25.8	38.8





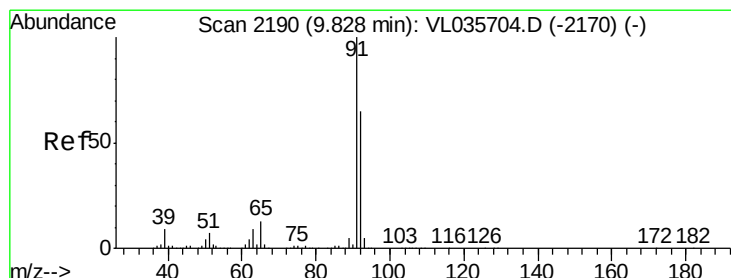
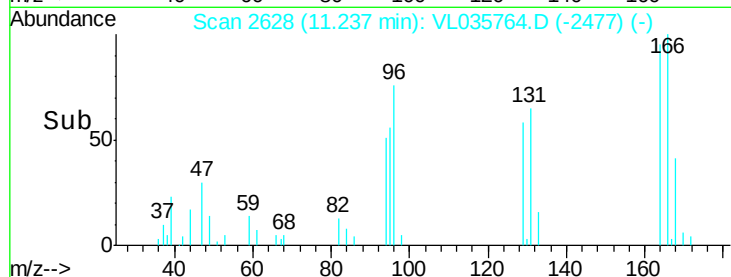
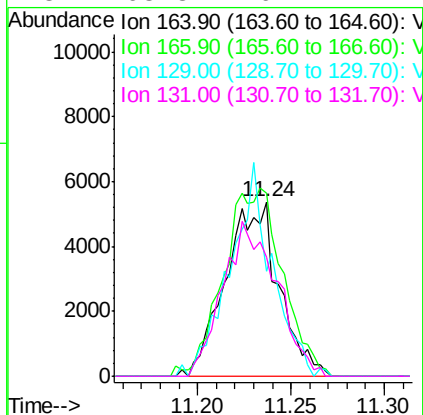
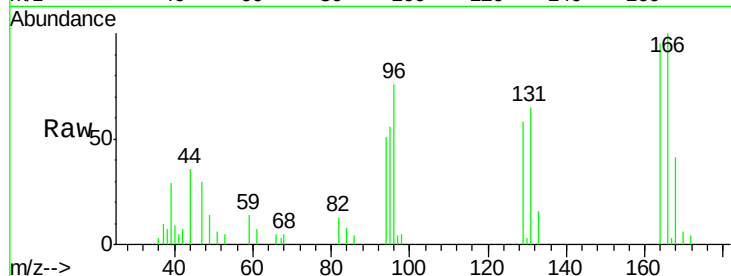
#52
Tetrachloroethene
Concen: 0.085 ppbv m
RT: 11.24 min Scan# 2628
Delta R.T. -0.01 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Instrument :
MSVOA_L
ClientSampled :
3

Tot Ion	Ratio	Lower	Upper
164	100		
166	104.9	98.7	148.1
129	60.5	78.4	117.6#
131	68.3	76.2	114.2#

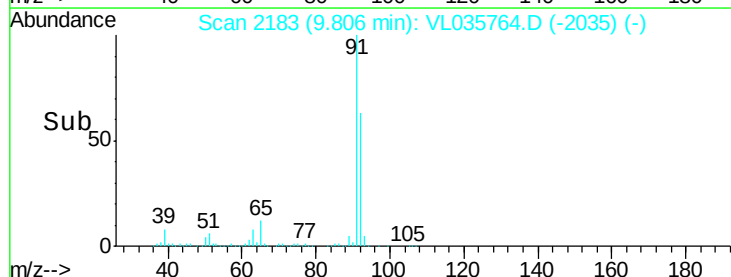
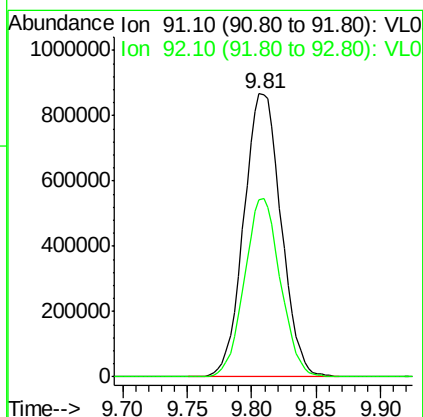
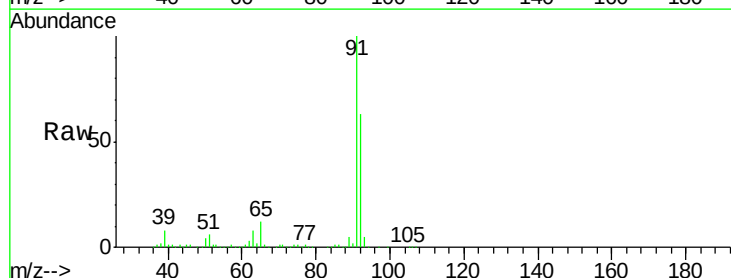
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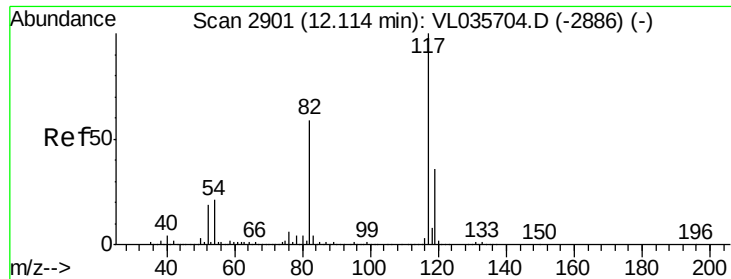
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#53
Toluene
Concen: 5.750 ppbv
RT: 9.81 min Scan# 2183
Delta R.T. -0.02 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Tgt Ion	Ratio	Lower	Upper
91	100		
92	60.9	50.0	75.0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. -0.02 min

Lab File: VL035764.D

Acq: 12 Oct 2020 16:38

Instrument :

MSVOA_L

ClientSampleId :

3

Tot Ion:117 Resp: 3901045

Ion Ratio Lower Upper

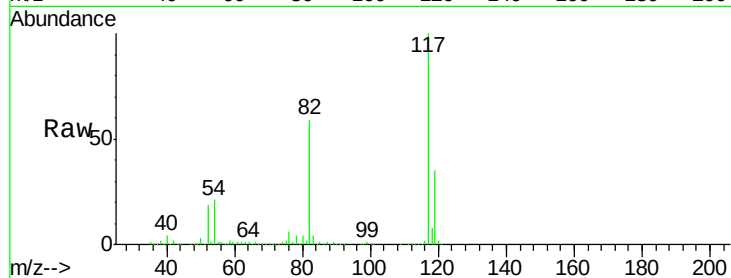
117 100

82 57.7 46.1 69.1

119 34.2 28.0 42.0

Manual Integrations
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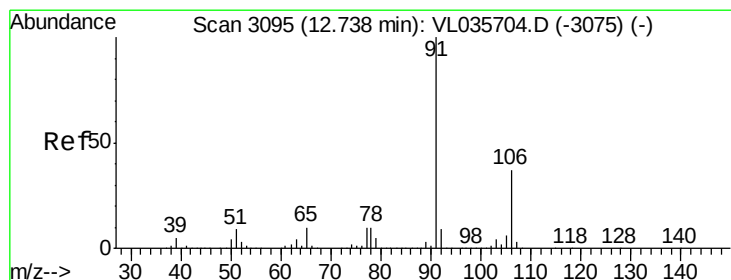
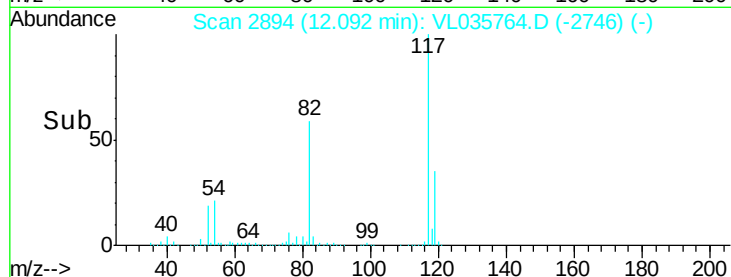
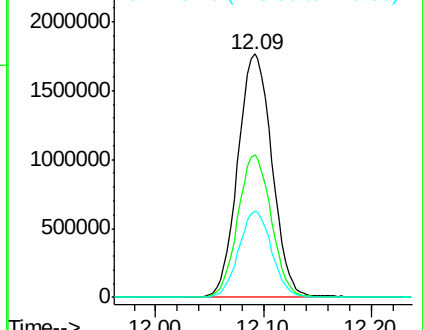
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Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.112 ppbv

RT: 12.72 min Scan# 3089

Delta R.T. -0.02 min

Lab File: VL035764.D

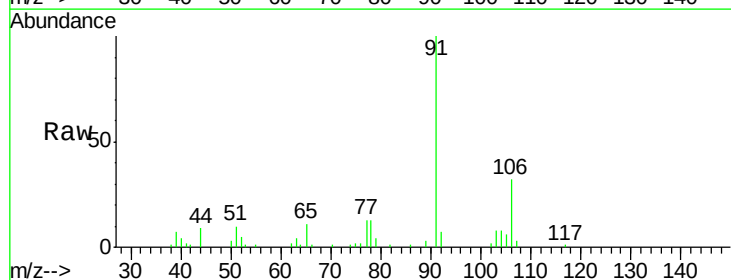
Acq: 12 Oct 2020 16:38

Tgt Ion: 91 Resp: 43922

Ion Ratio Lower Upper

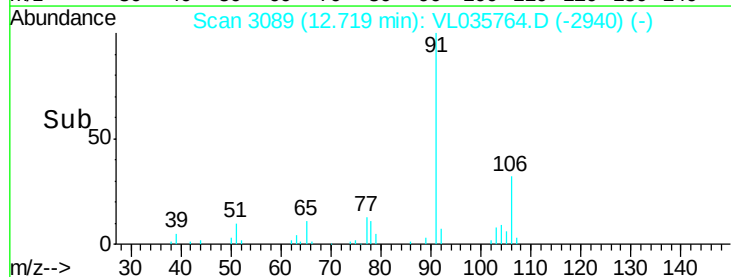
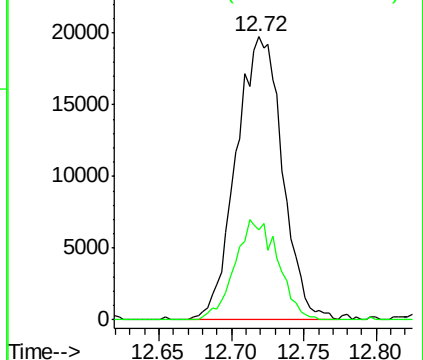
91 100

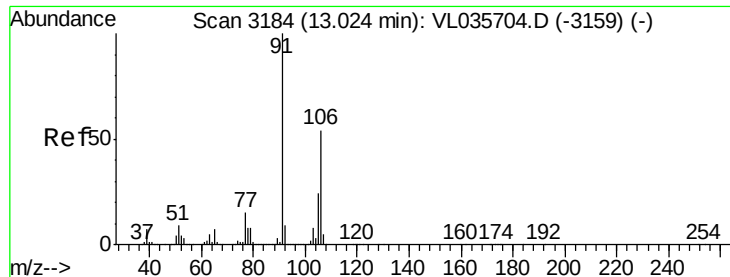
106 32.0 29.7 44.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





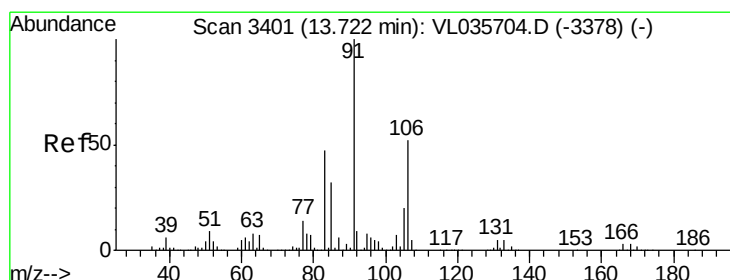
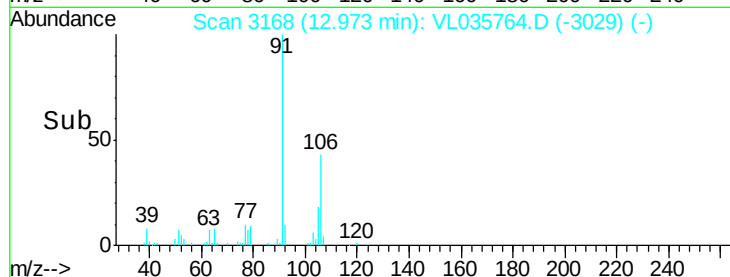
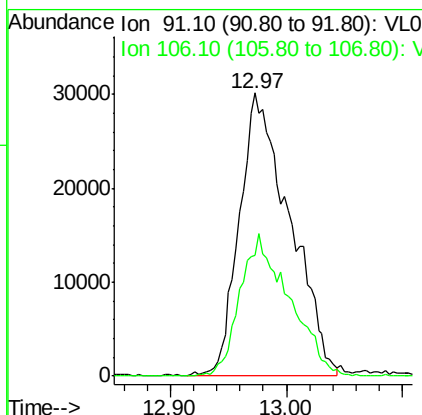
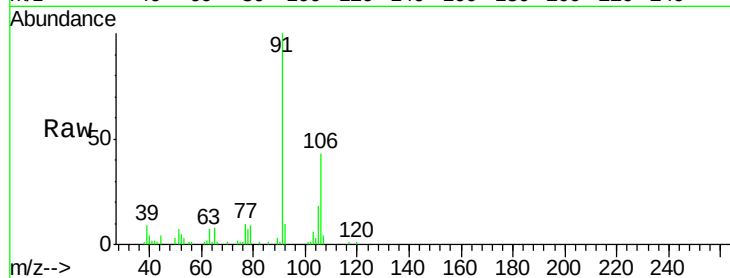
#59
m/p-Xylene
Concen: 0.265 ppbv m
RT: 12.97 min Scan# 3168
Delta R.T. -0.05 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Instrument :
MSVOA_L
ClientSampled :
3

Tot Ion: 91 Resp: 90561
Ion Ratio Lower Upper
91 100
106 0.0 41.4 62.0#

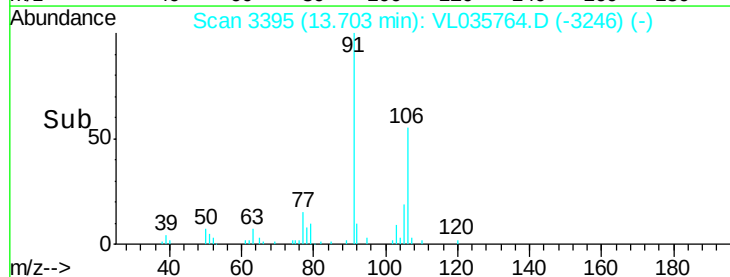
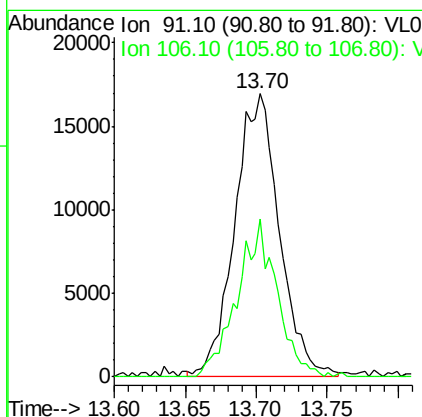
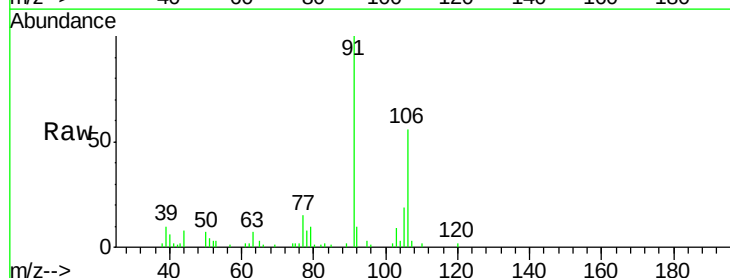
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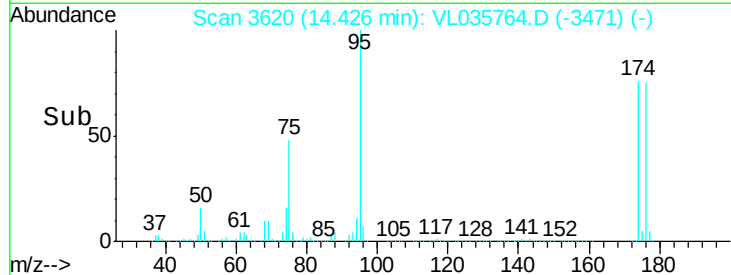
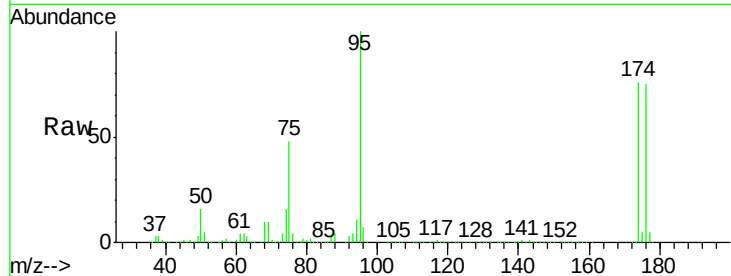
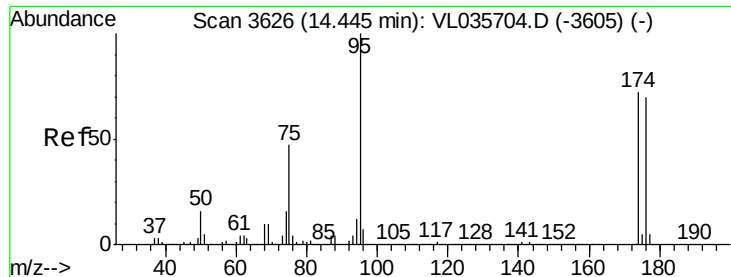
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#60
o-Xylene
Concen: 0.107 ppbv m
RT: 13.70 min Scan# 3395
Delta R.T. -0.02 min
Lab File: VL035764.D
Acq: 12 Oct 2020 16:38

Tgt Ion: 91 Resp: 37052
Ion Ratio Lower Upper
91 100
106 0.0 25.0 75.0#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.943 ppbv
 RT: 14.43 min Scan# 3620
 Delta R.T. -0.02 min
 Lab File: VL035764.D
 Acq: 12 Oct 2020 16:38

Tot Ion:	95	Resp:	2906627
Ion Ratio	Lower	Upper	
95	100		
174	76.6	59.6	89.4
175	5.5	4.2	6.4

Instrument :
 MSVOA_L
 ClientSampleId :
 3

Manual Integrations
 APPROVED

MMDadoda
 10/14/2020 2:11:38 PM

