

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110420\
 Data File : VL035833.D
 Acq On : 4 Nov 2020 14:53
 Operator : SY/AP
 Sample : L4610-01 2X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Manual Integrations
 APPROVED

MMDadoda
 11/5/2020 2:16:40 PM

Quant Time: Nov 05 03:44:43 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04
 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	1096502	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.14	114	4836465	10.00	ppbv	-0.04
55) Chlorobenzene-d5	12.06	117	4439440	10.00	ppbv	-0.04

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	3181405	10.09	ppbv	-0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	50714	0.246	ppbv	92
3) Chlorodifluoromethane	2.96	51	27962	0.213	ppbv #	87
4) Chloromethane	3.12	50	10350	0.162	ppbv #	82
9) Propene	2.99	41	31091	0.647	ppbv	93
10) Heptane	8.09	43	16931m	0.128	ppbv	
11) Trichlorofluoromethane	3.92	101	28896	0.111	ppbv	97
13) Ethanol	3.59	45	56644m	5.433	ppbv	
15) Acetone	3.83	43	542133	4.625	ppbv	94
20) Methylene Chloride	4.32	84	341328	4.136	ppbv	99
26) Hexane	5.66	57	269608	2.117	ppbv #	45
34) 2-Butanone	5.23	43	37910	0.242	ppbv #	73
36) Benzene	6.86	78	58223	0.162	ppbv	97
52) Tetrachloroethene	11.19	164	42057	0.247	ppbv	92
53) Toluene	9.77	91	358273	0.826	ppbv	97
58) Ethyl Benzene	12.68	91	170738	0.316	ppbv	96
59) m/p-Xylene	12.94	91	409860	0.896	ppbv	97
60) o-Xylene	13.66	91	164106	0.369	ppbv	98
63) 1,1,2,2-Tetrachloroethane	13.66	83	41597m	0.121	ppbv	
64) n-propylbenzene	15.54	120	30520m	0.151	ppbv	
70) n-Butylbenzene	18.54	91	195469m	0.287	ppbv	
72) 4-Ethyltoluene	15.81	105	65737	0.122	ppbv #	92
74) 1,2,4-Trimethylbenzene	16.74	105	133777	0.253	ppbv #	69

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

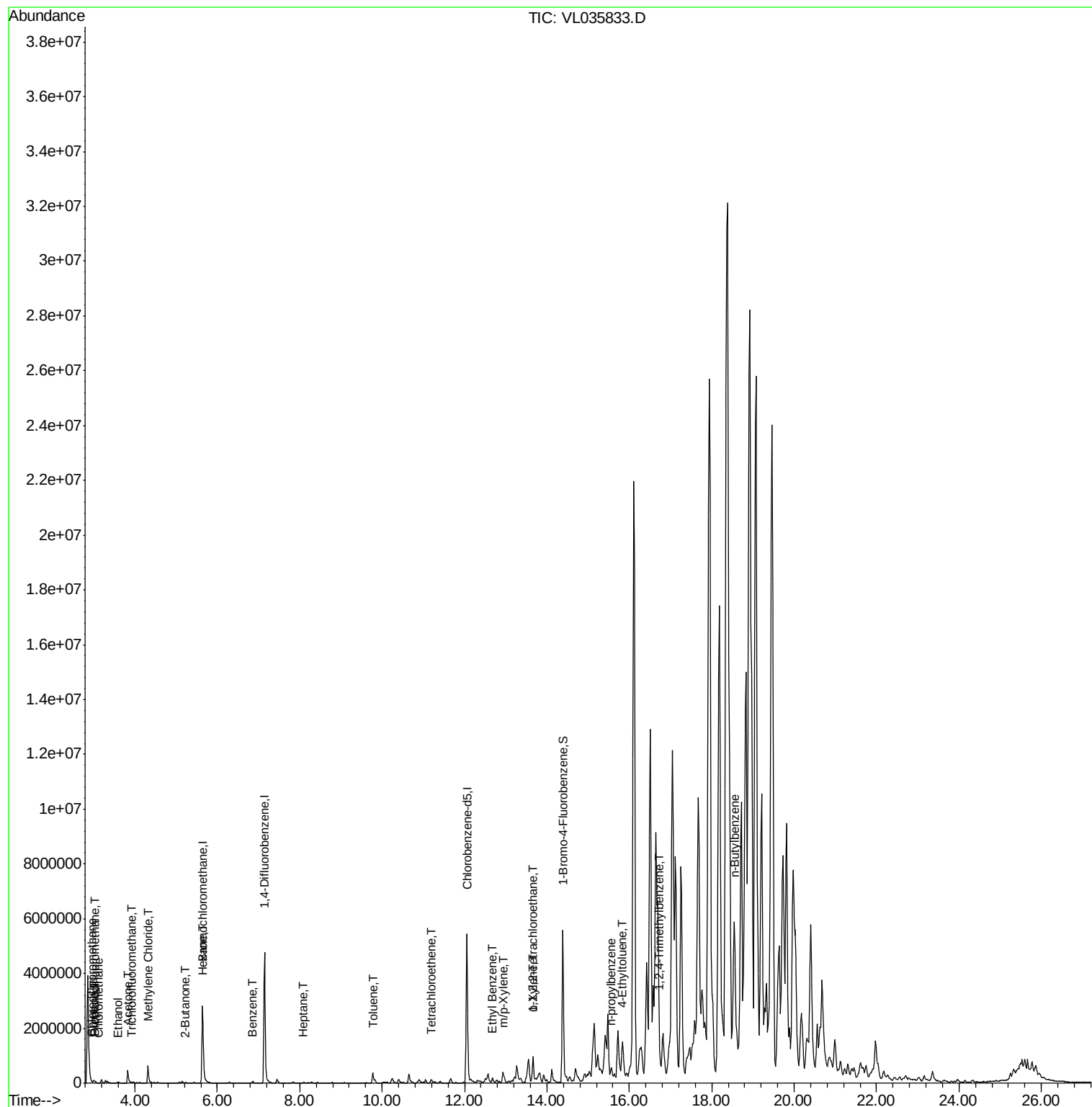
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL110420\
Data File : VL035833.D
Acq On : 4 Nov 2020 14:53
Operator : SY/AP
Sample : L4610-01 2X
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

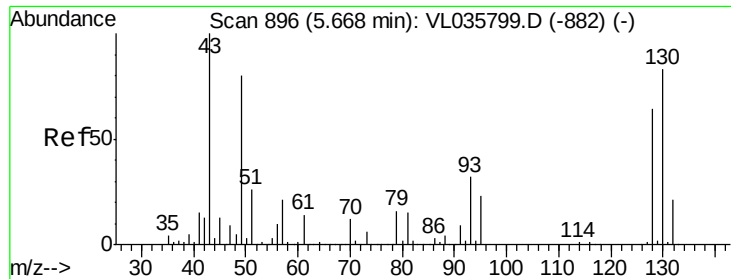
Instrument :
MSVOA_L
ClientSampleId :
SV1

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Quant Time: Nov 05 03:44:43 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov
QLast Update : Wed Nov 04 02:40:06 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 886

Delta R.T. -0.03 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tot Ion: 49 Resp: 1096502

Ion Ratio Lower Upper

49 100

128 90.7 41.5 124.6

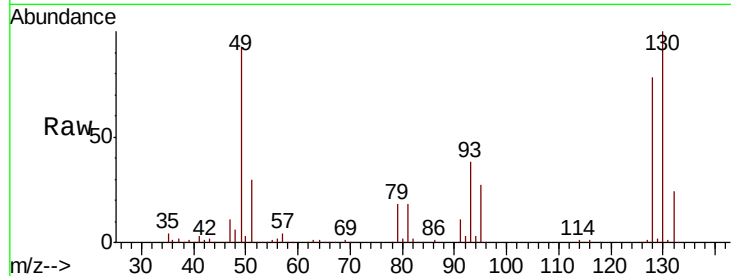
130 115.4 53.7 161.1

Manual Integrations

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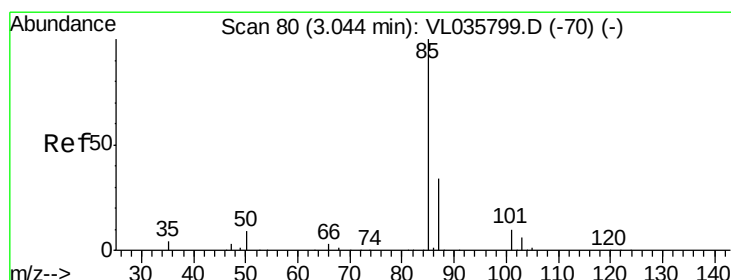
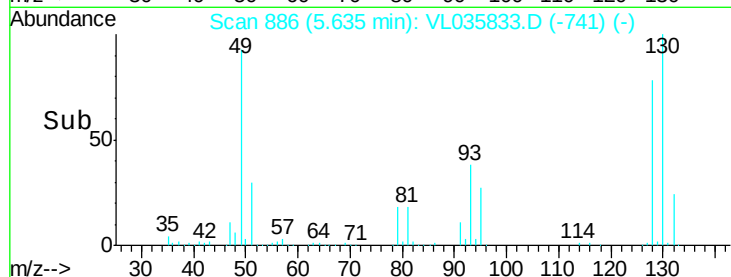
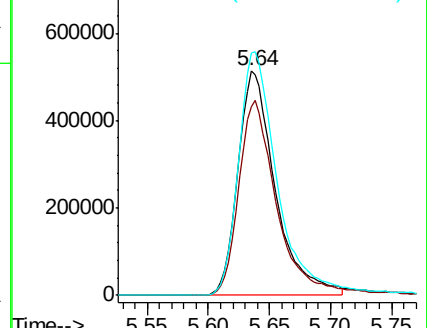
11/5/2020 2:16:40 PM



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



#2

Dichlorodifluoromethane

Concen: 0.246 ppbv

RT: 3.02 min Scan# 74

Delta R.T. -0.02 min

Lab File: VL035833.D

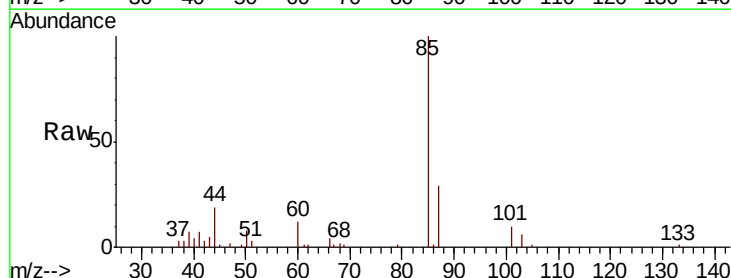
Acq: 4 Nov 2020 14:53

Tgt Ion: 85 Resp: 50714

Ion Ratio Lower Upper

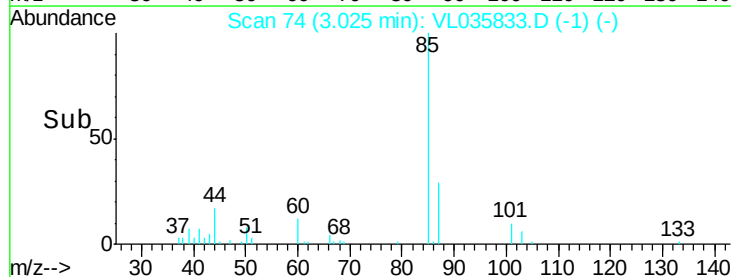
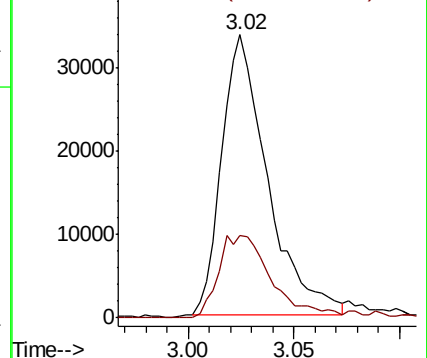
85 100

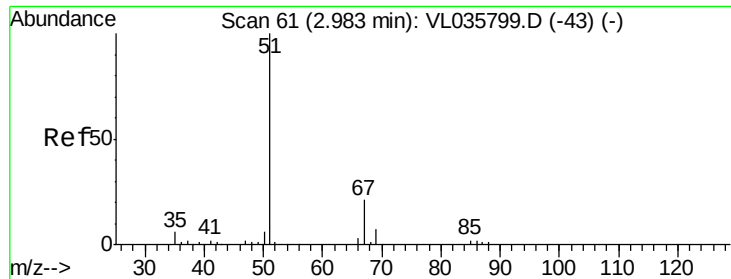
87 29.4 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.213 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.02 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tot Ion: 51 Resp: 27962

Ion Ratio Lower Upper

51 100

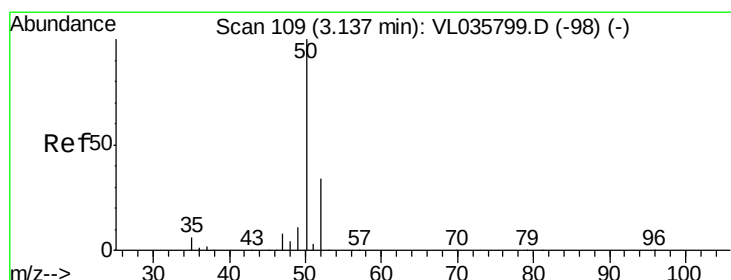
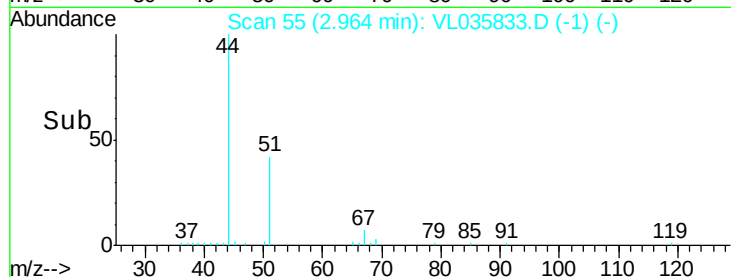
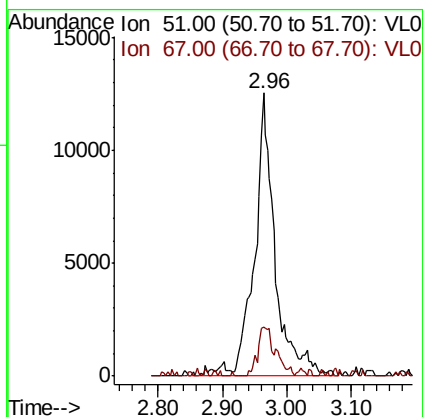
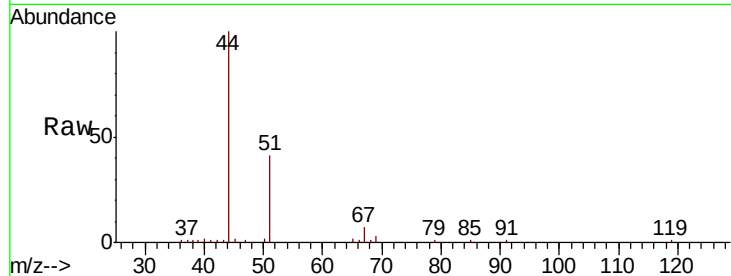
67 15.0 17.0 25.4#

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#4

Chloromethane

Concen: 0.162 ppbv

RT: 3.12 min Scan# 103

Delta R.T. -0.02 min

Lab File: VL035833.D

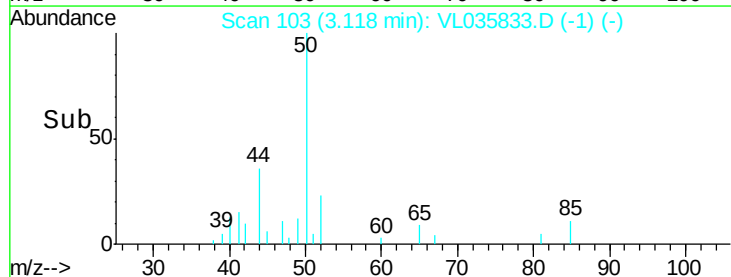
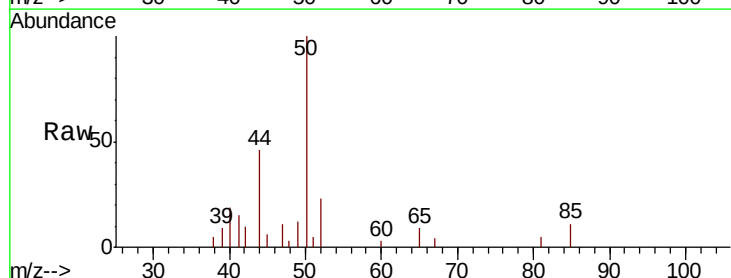
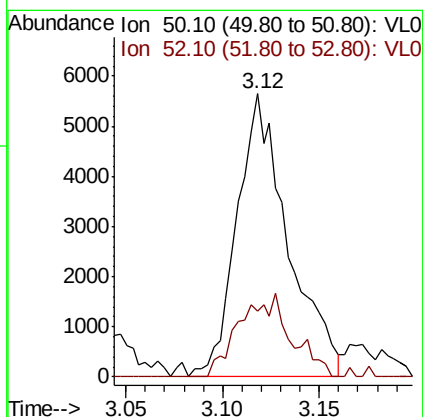
Acq: 4 Nov 2020 14:53

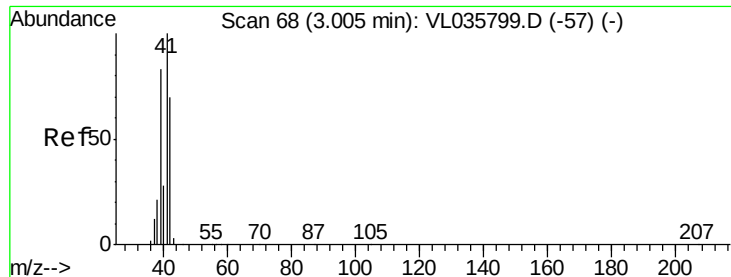
Tgt Ion: 50 Resp: 10350

Ion Ratio Lower Upper

50 100

52 23.5 27.1 40.7#





#9

Propene

Concen: 0.647 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.01 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Instrument :

MSVOA_L

ClientSampled :

SV1

Tot Ion: 41 Resp: 31091

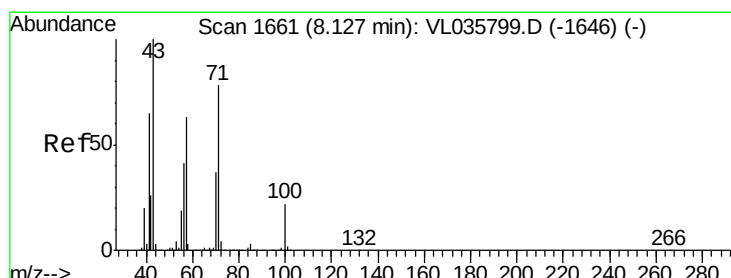
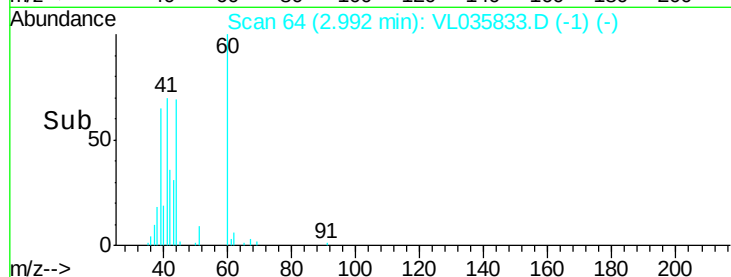
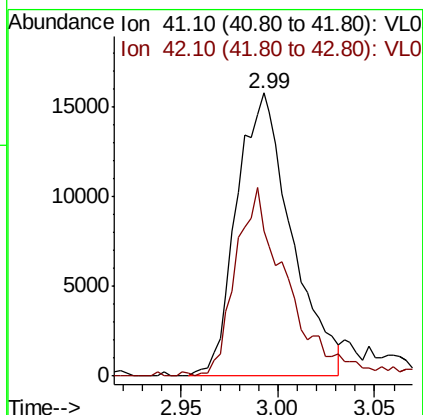
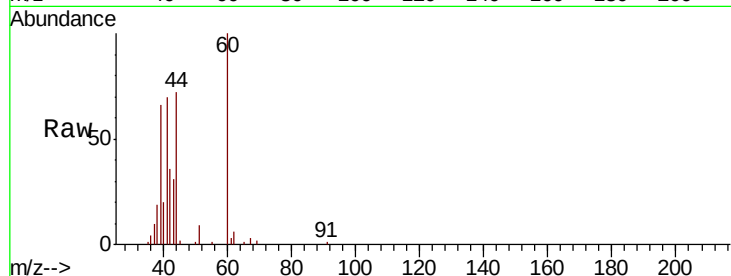
Ion Ratio Lower Upper

41 100

42 64.8 56.2 84.4

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#10

Heptane

Concen: 0.128 ppbv m

RT: 8.09 min Scan# 1650

Delta R.T. -0.04 min

Lab File: VL035833.D

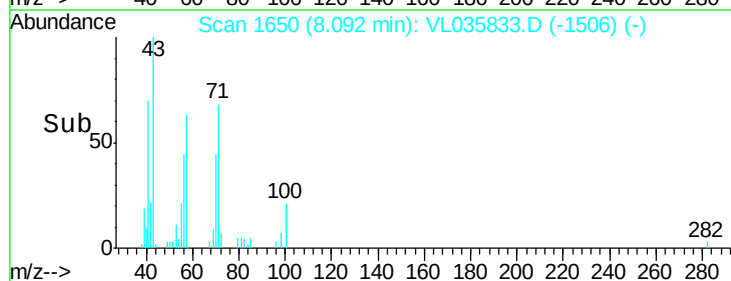
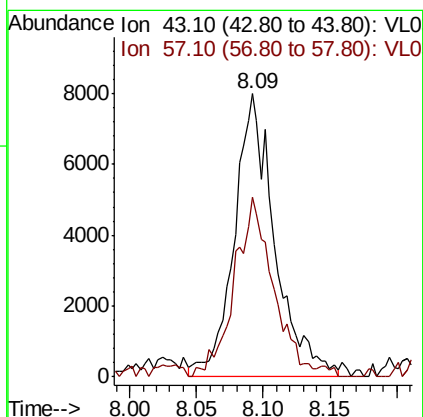
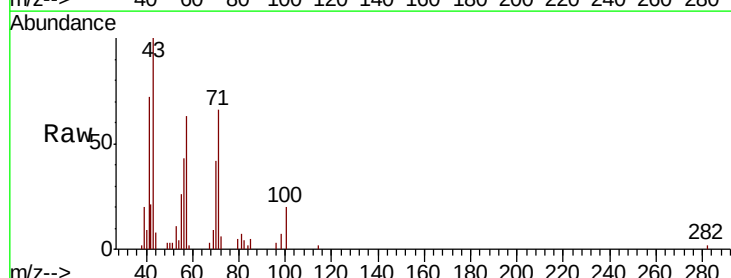
Acq: 4 Nov 2020 14:53

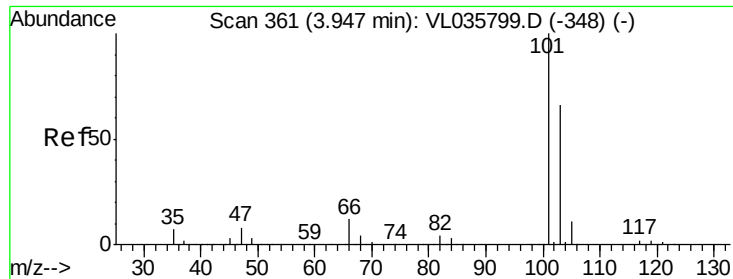
Tgt Ion: 43 Resp: 16931

Ion Ratio Lower Upper

43 100

57 62.0 50.0 75.0





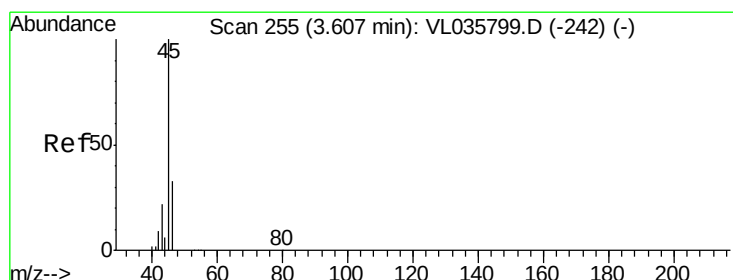
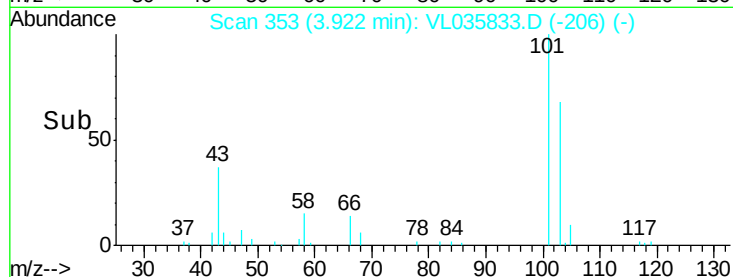
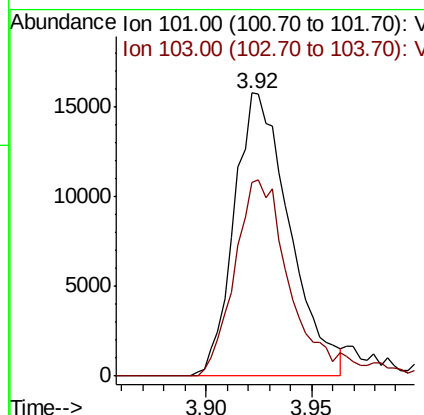
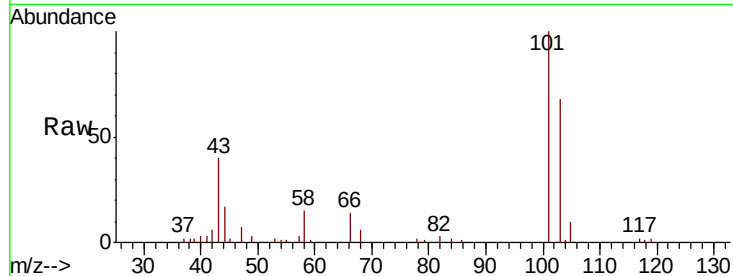
#11
 Trichlorofluoromethane
 Concen: 0.111 ppbv
 RT: 3.92 min Scan# 353
 Delta R.T. -0.03 min
 Lab File: VL035833.D
 Acq: 4 Nov 2020 14:53

Instrument :
 MSVOA_L
 ClientSampled :
 SV1

Tot Ion:101 Resp: 28896
 Ion Ratio Lower Upper
 101 100
 103 68.3 53.0 79.4

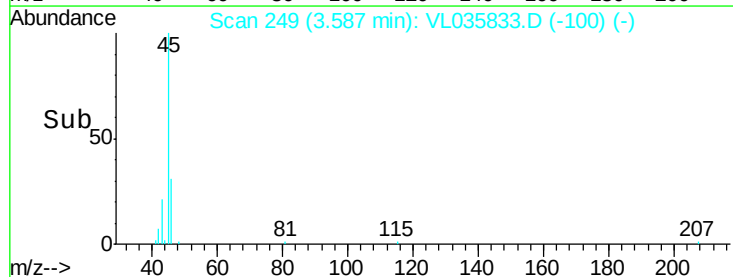
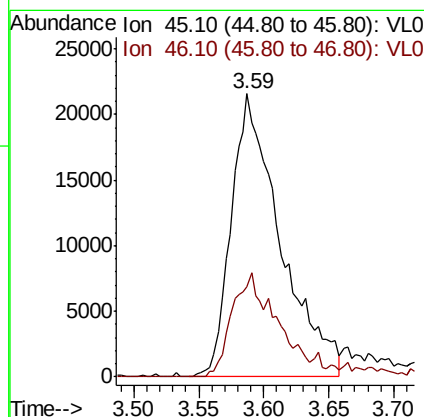
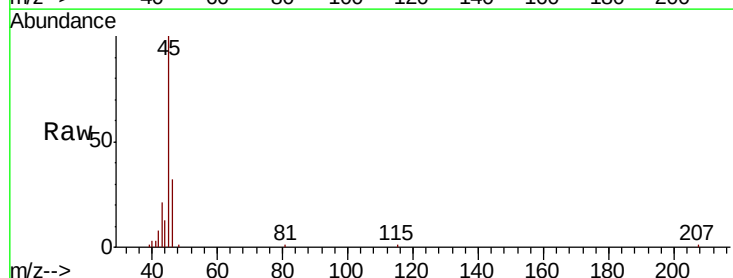
Manual Integrations
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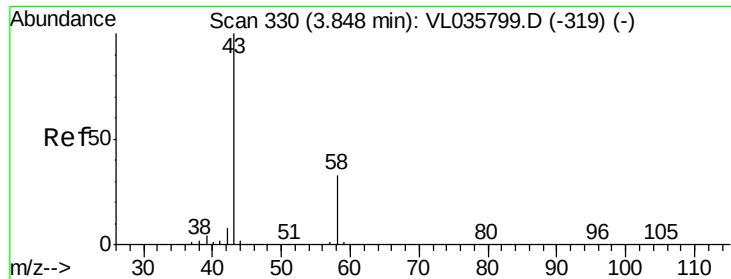
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#13
 Ethanol
 Concen: 5.433 ppbv m
 RT: 3.59 min Scan# 249
 Delta R.T. -0.02 min
 Lab File: VL035833.D
 Acq: 4 Nov 2020 14:53

Tgt Ion: 45 Resp: 56644
 Ion Ratio Lower Upper
 45 100
 46 39.6 16.1 64.5





#15

Acetone

Concen: 4.625 ppbv

RT: 3.83 min Scan# 323

Delta R.T. -0.02 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tot Ion: 43 Resp: 542133

Ion Ratio Lower Upper

43 100

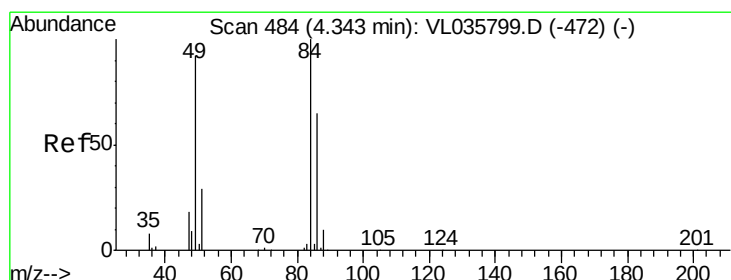
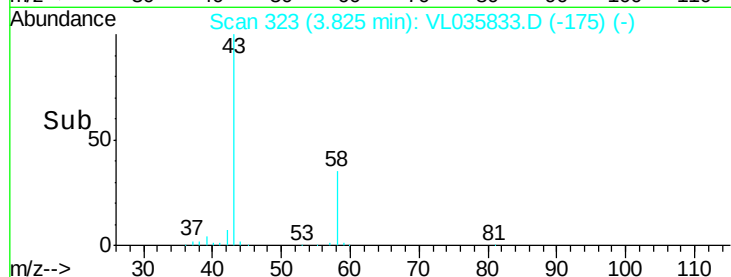
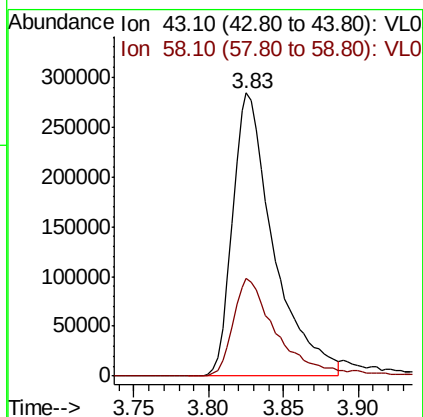
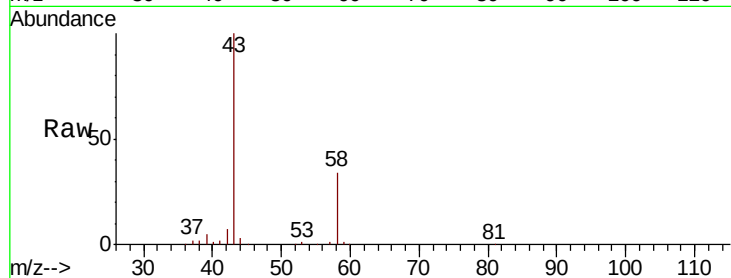
58 37.9 27.5 41.3

Manual Integrations

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#20

Methylene Chloride

Concen: 4.136 ppbv

RT: 4.32 min Scan# 476

Delta R.T. -0.03 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Tgt Ion: 84 Resp: 341328

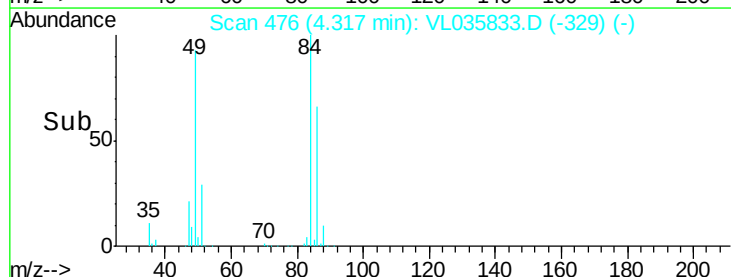
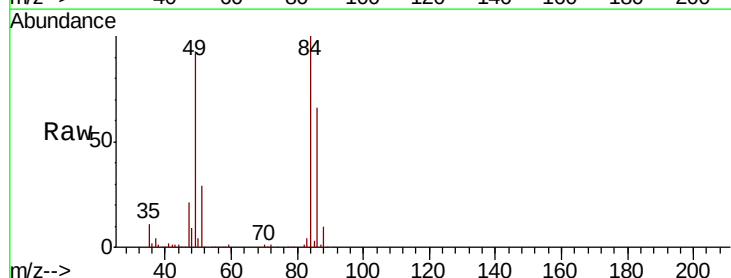
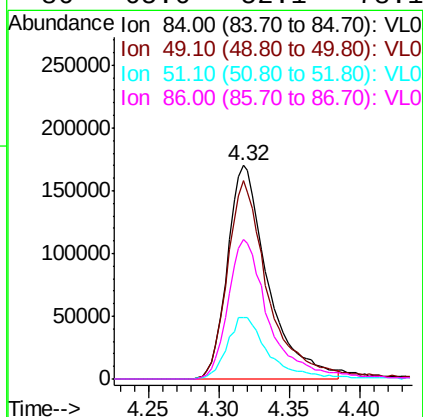
Ion Ratio Lower Upper

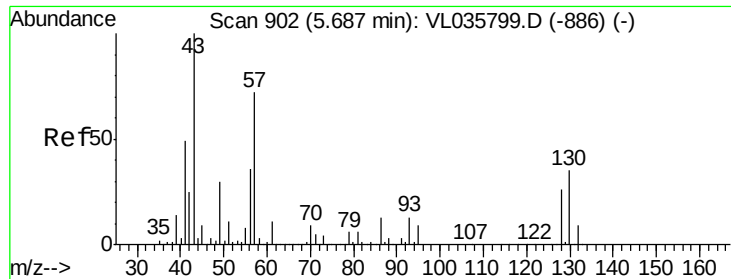
84 100

49 93.0 73.8 110.8

51 28.9 23.0 34.4

86 65.6 52.1 78.1





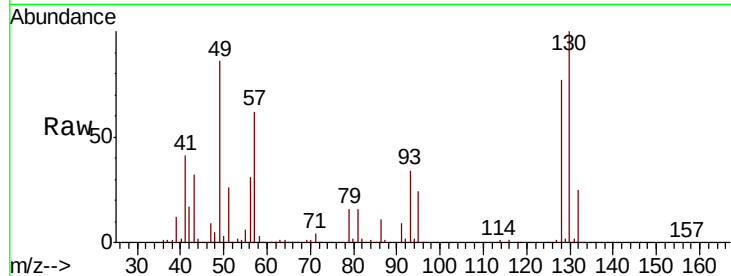
#26
Hexane
Concen: 2.117 ppbv
RT: 5.66 min Scan# 893
Delta R.T. -0.03 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion	Ion	Ratio	Lower	Upper
57	100			
41	68.7	58.9	88.3	
43	56.0	150.2	225.2	
56	52.7	42.4	63.6	

Manual Integrations
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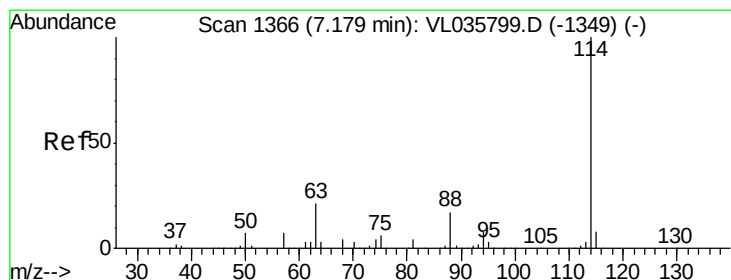
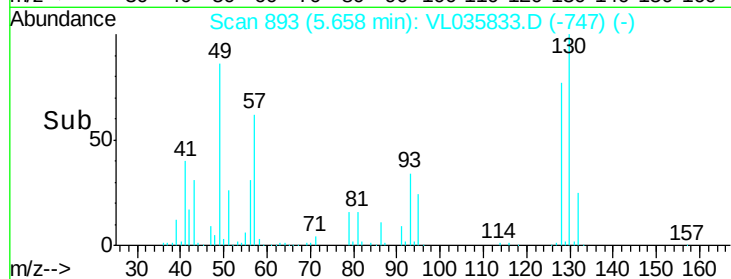
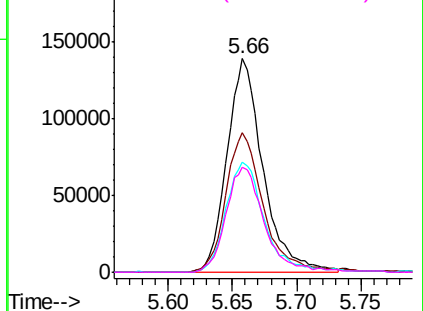
Abundance

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



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.14 min Scan# 1355
Delta R.T. -0.04 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

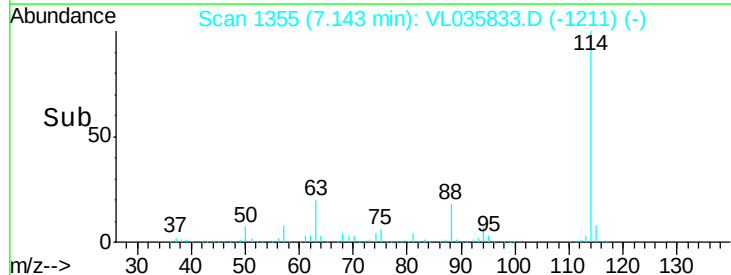
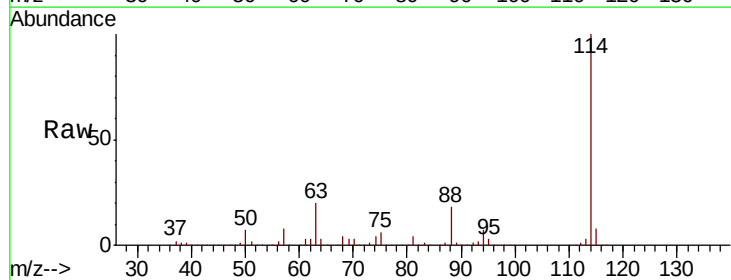
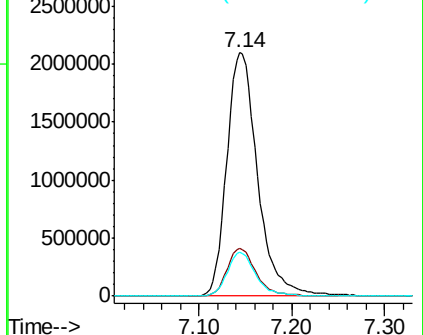
Tgt Ion	Ion	Ratio	Lower	Upper
114	100			
63	18.7	16.1	24.1	
88	16.9	13.7	20.5	

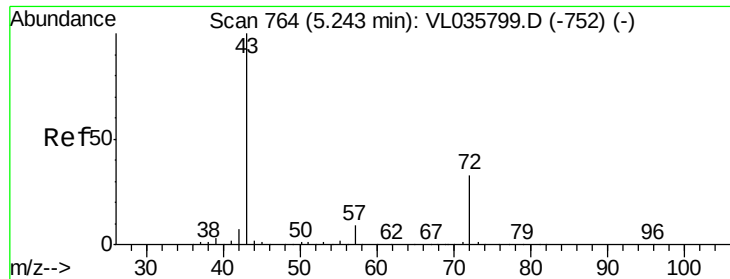
Abundance

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





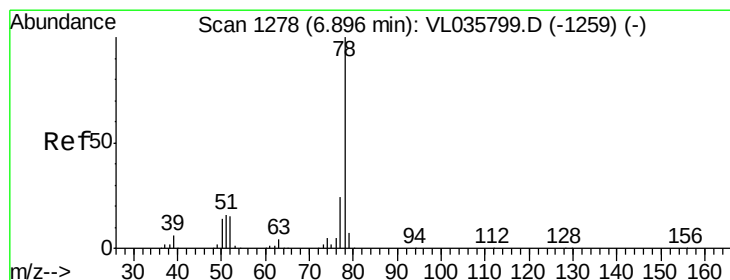
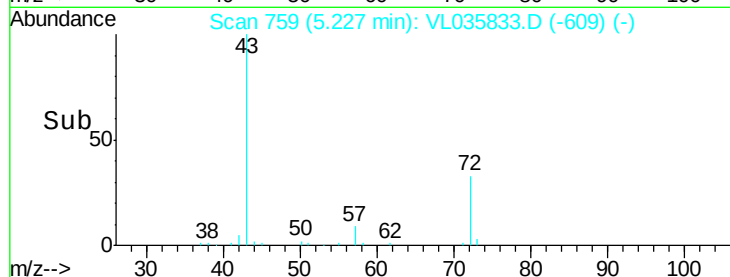
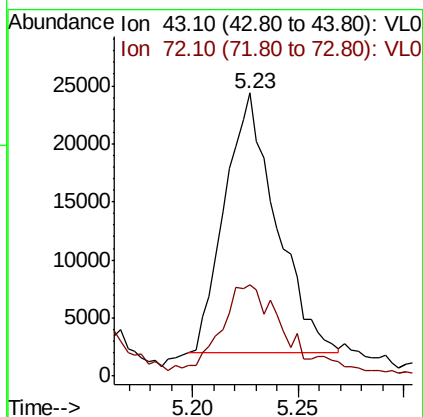
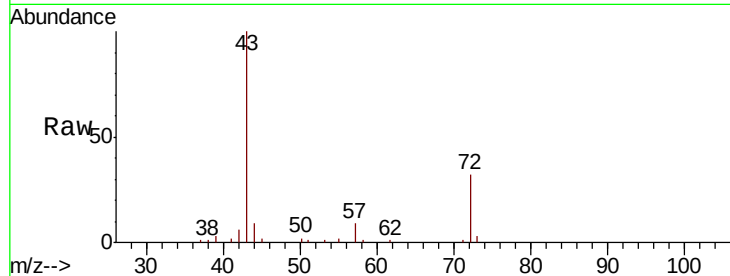
#34
2-Butanone
Concen: 0.242 ppbv
RT: 5.23 min Scan# 759
Delta R.T. -0.02 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion	43	Resp	37910
Ion Ratio	100	Lower	Upper
72	48.2	26.5	39.7#

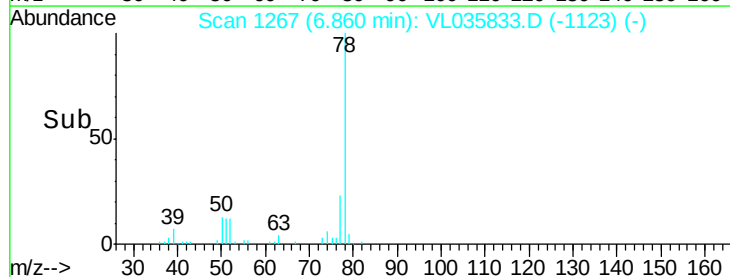
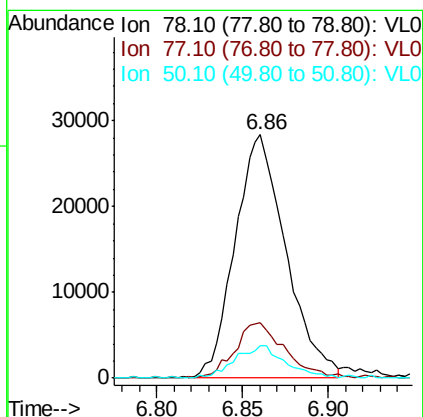
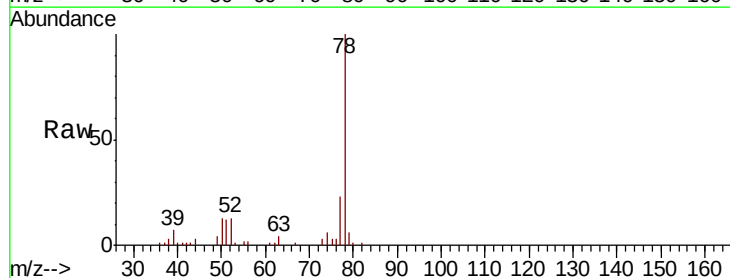
Manual Integrations
APPROVED

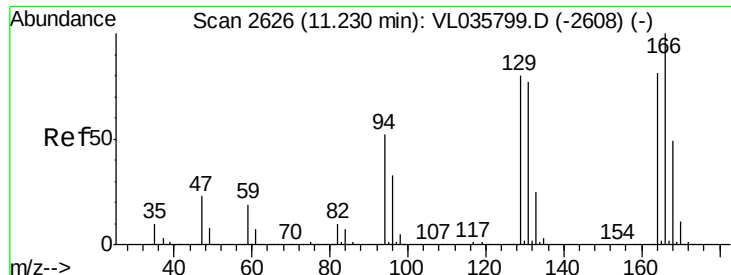
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#36
Benzene
Concen: 0.162 ppbv
RT: 6.86 min Scan# 1267
Delta R.T. -0.04 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

Tgt Ion	78	Resp	58223
Ion Ratio	100	Lower	Upper
77	22.1	19.3	28.9
50	13.5	11.4	17.2





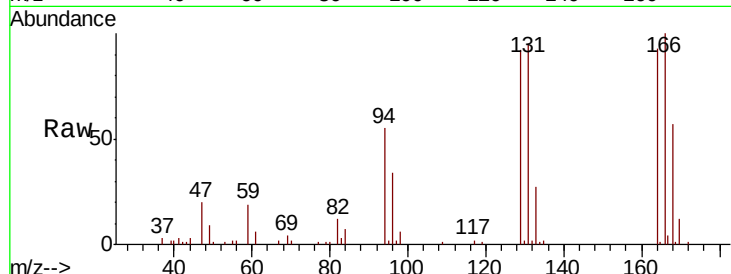
#52
Tetrachloroethene
Concen: 0.247 ppbv
RT: 11.19 min Scan# 2615
Delta R.T. -0.04 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

Instrument :
MSVOA_L
ClientSampled :
SV1

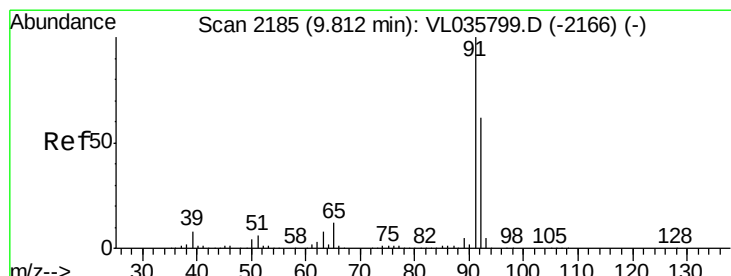
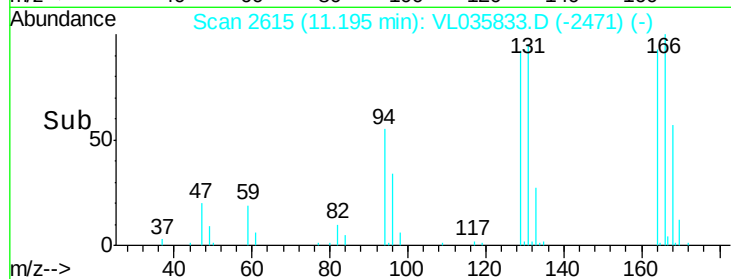
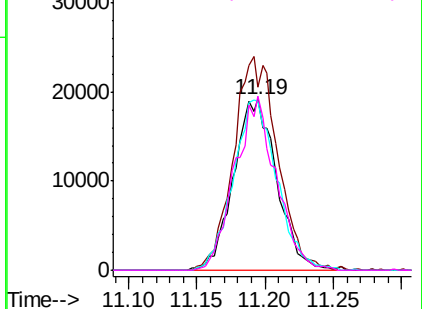
Tot Ion	Ratio	Lower	Upper
164	100		
166	107.0	99.3	148.9
129	98.7	79.3	118.9
131	102.1	76.5	114.7

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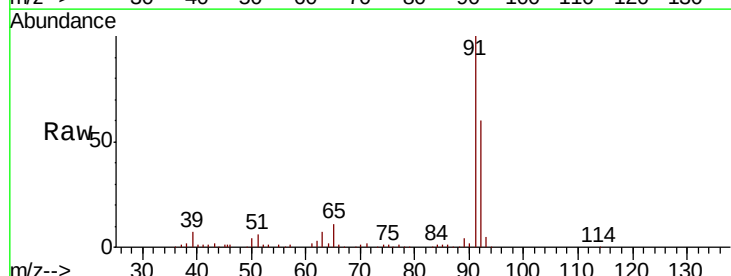


Abundance Ion 163.90 (163.60 to 164.60): V
Ion 165.90 (165.60 to 166.60): V
Ion 129.00 (128.70 to 129.70): V
Ion 131.00 (130.70 to 131.70): V

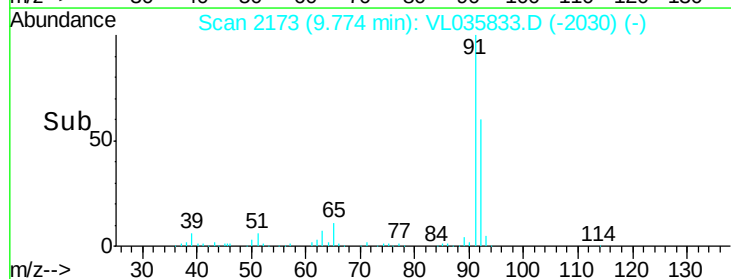
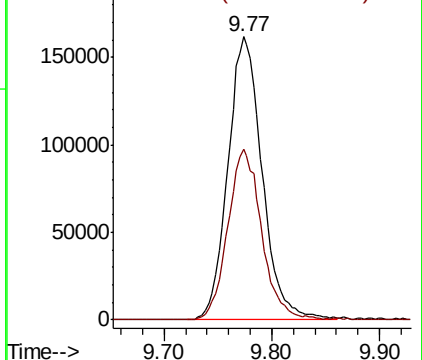


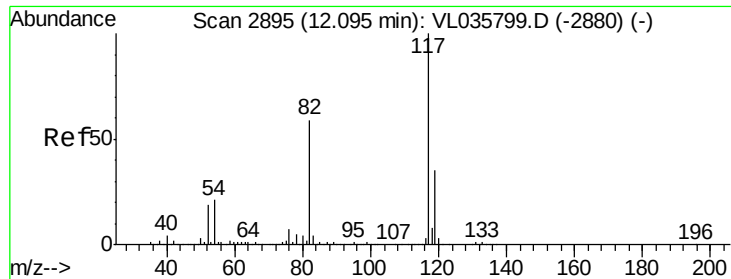
#53
Toluene
Concen: 0.826 ppbv
RT: 9.77 min Scan# 2173
Delta R.T. -0.04 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.9	49.8	74.6



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2883

Delta R.T. -0.04 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Instrument :

MSVOA_L

ClientSampled :

SV1

Tot Ion:117 Resp: 4439440

Ion Ratio Lower Upper

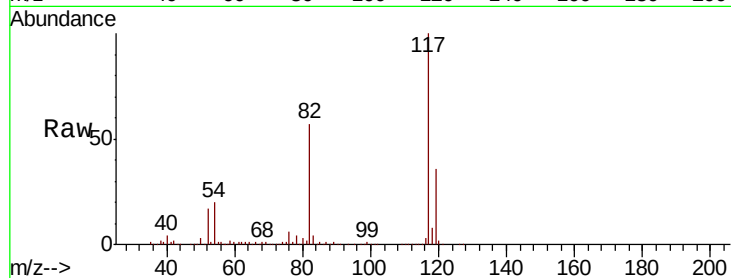
117 100

82 56.0 50.6 76.0

119 34.7 52.6 78.8#

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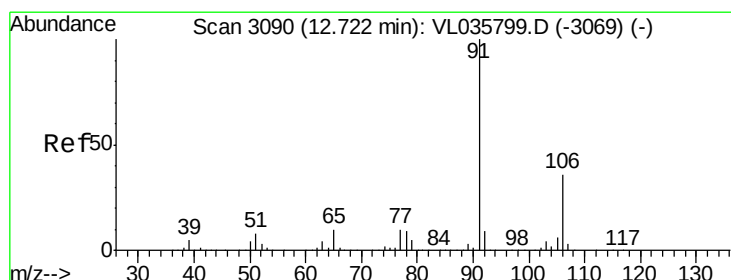
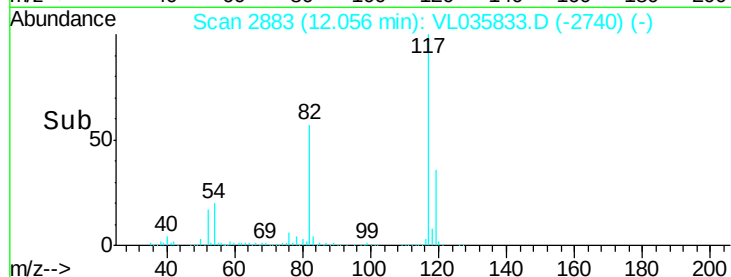
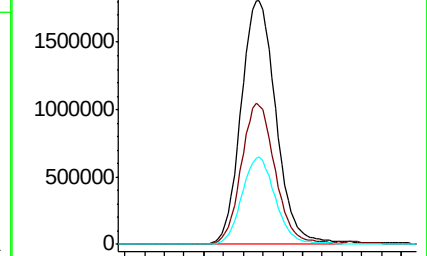
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Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.316 ppbv

RT: 12.68 min Scan# 3077

Delta R.T. -0.04 min

Lab File: VL035833.D

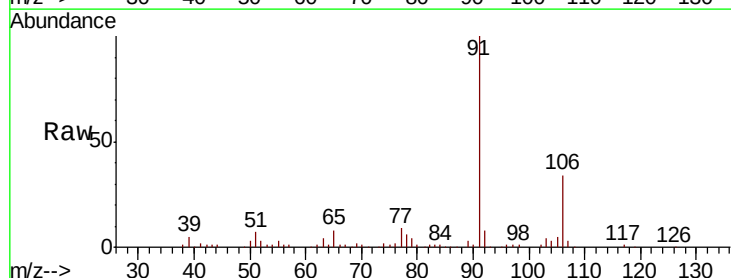
Acq: 4 Nov 2020 14:53

Tgt Ion: 91 Resp: 170738

Ion Ratio Lower Upper

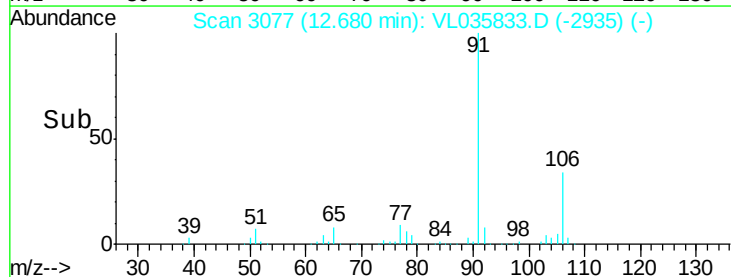
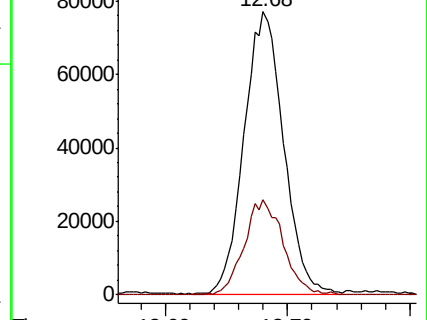
91 100

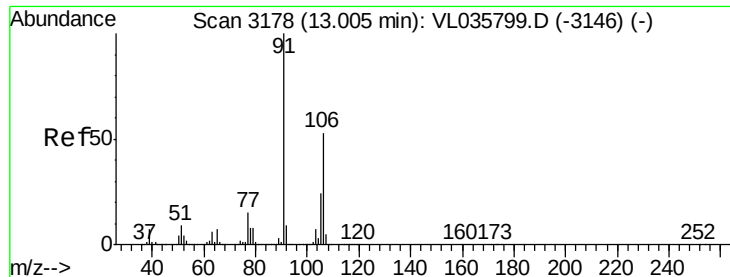
106 33.7 28.6 43.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





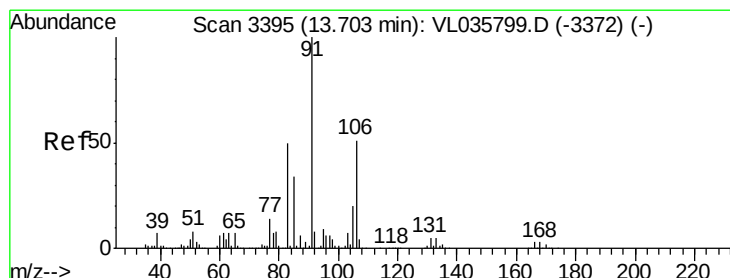
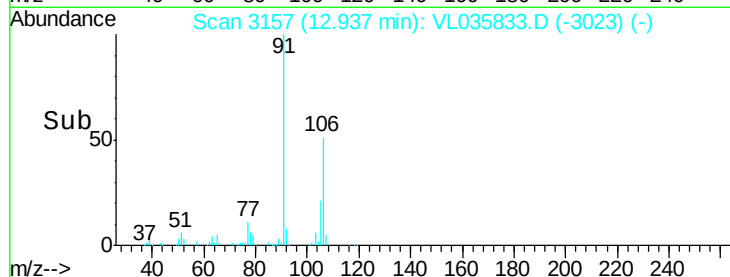
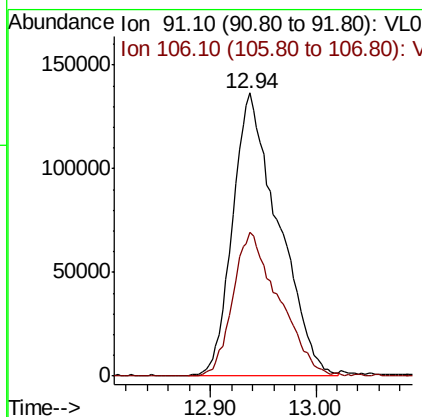
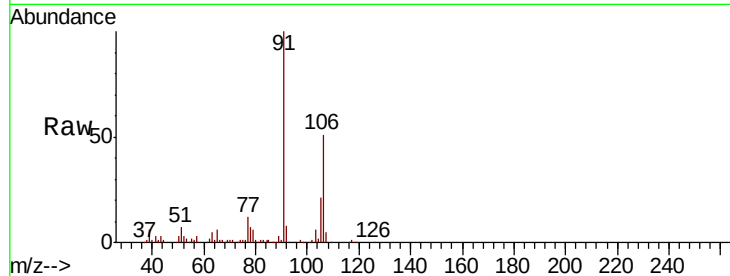
#59
m/p-Xylene
Concen: 0.896 ppbv
RT: 12.94 min Scan# 3157
Delta R.T. -0.07 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion	Ion	Ratio	Lower	Upper
91	100			
106	51.6	39.5	59.3	

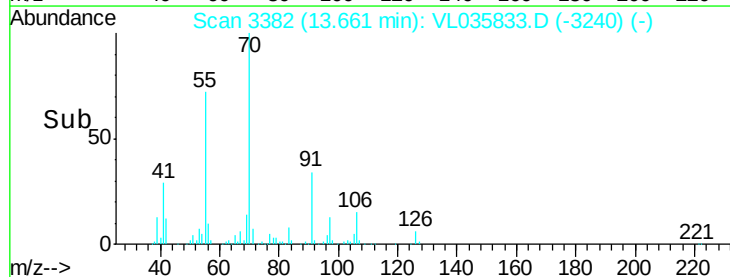
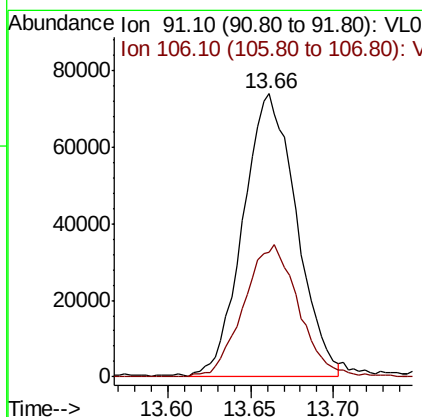
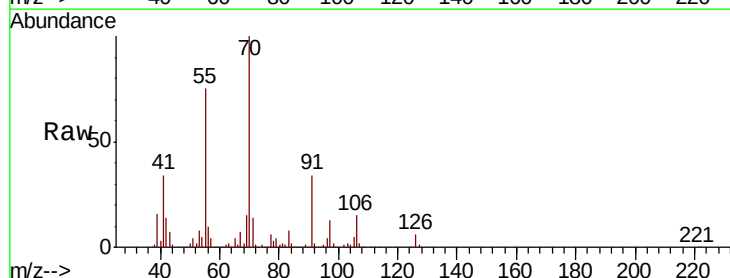
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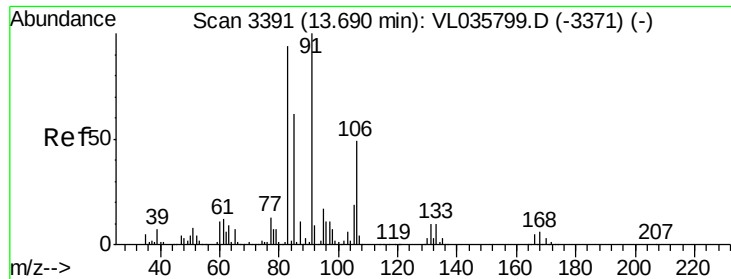
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#60
o-Xylene
Concen: 0.369 ppbv
RT: 13.66 min Scan# 3382
Delta R.T. -0.04 min
Lab File: VL035833.D
Acq: 4 Nov 2020 14:53

Tgt Ion	Ion	Ratio	Lower	Upper
91	100			
106	48.5	24.8	74.4	





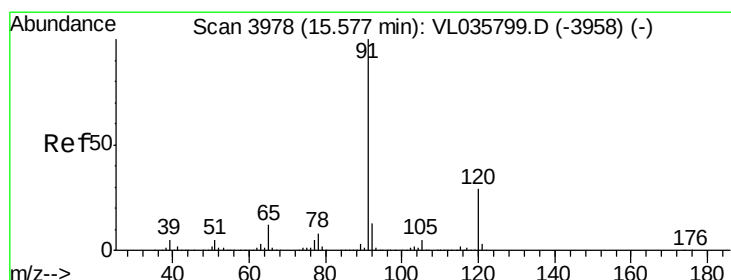
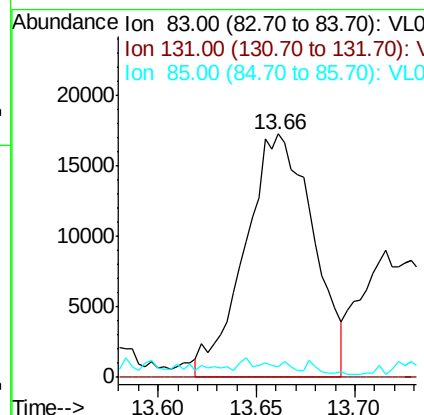
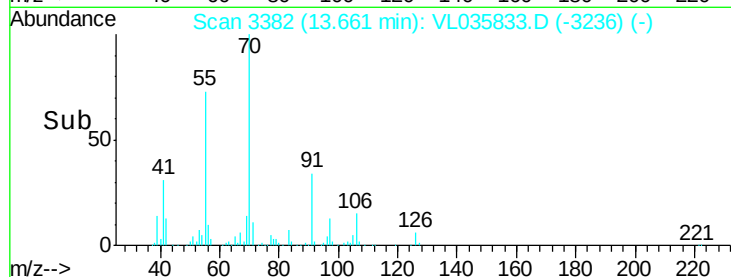
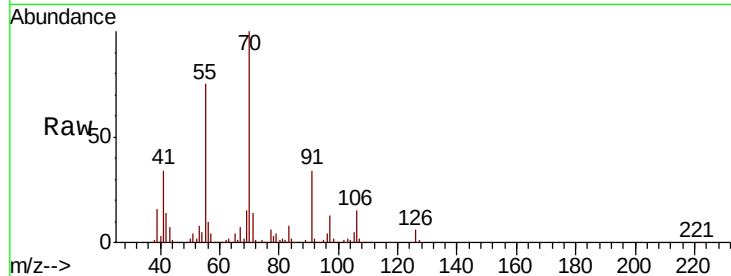
#63
 1,1,2,2-Tetrachloroethane
 Concen: 0.121 ppbv m
 RT: 13.66 min Scan# 3382
 Delta R.T. -0.03 min
 Lab File: VL035833.D
 Acq: 4 Nov 2020 14:53

Instrument :
 MSVOA_L
 ClientSampled :
 SV1

Tot Ion: 83 Resp: 41597
 Ion Ratio Lower Upper
 83 100
 131 0.0 5.3 15.8#
 85 4.5 33.5 100.4#

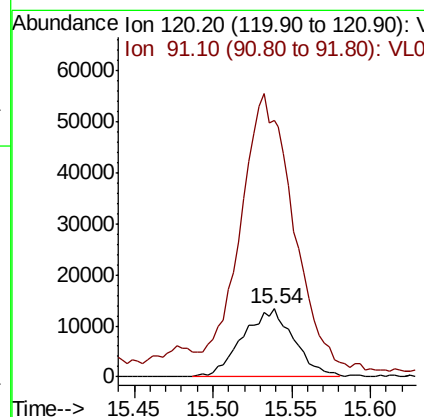
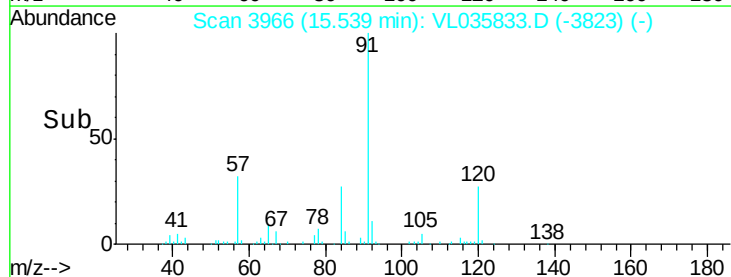
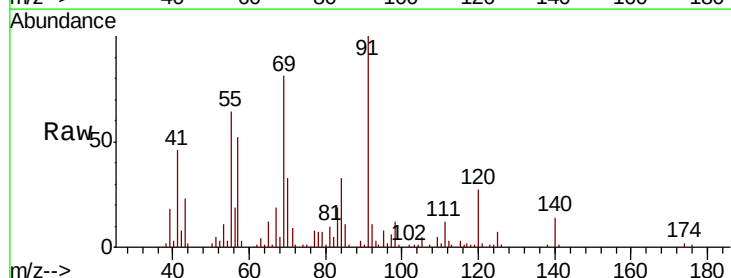
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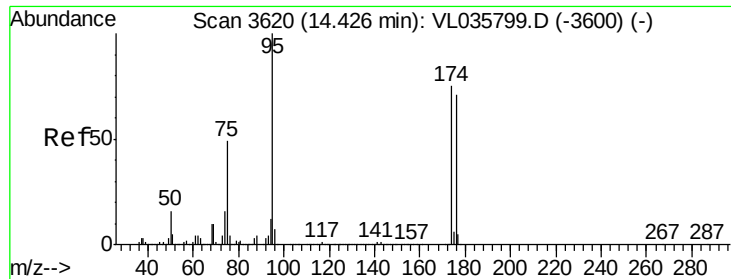
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#64
 n-propylbenzene
 Concen: 0.151 ppbv m
 RT: 15.54 min Scan# 3966
 Delta R.T. -0.04 min
 Lab File: VL035833.D
 Acq: 4 Nov 2020 14:53

Tgt Ion: 120 Resp: 30520
 Ion Ratio Lower Upper
 120 100
 91 0.0 311.1 466.7#





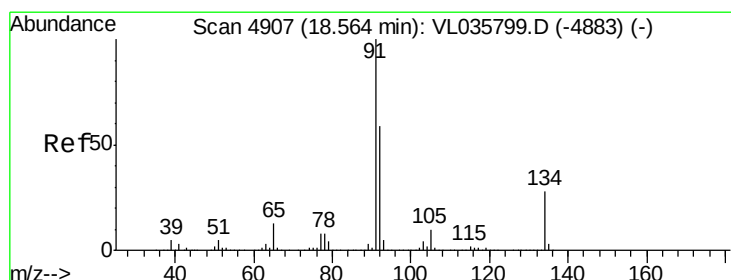
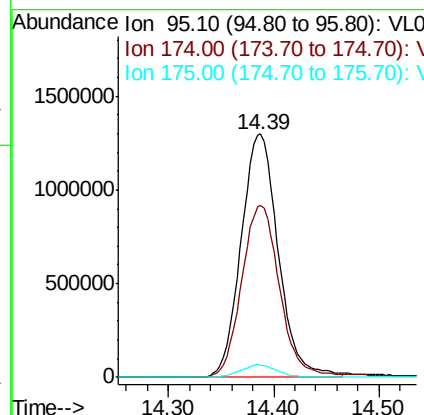
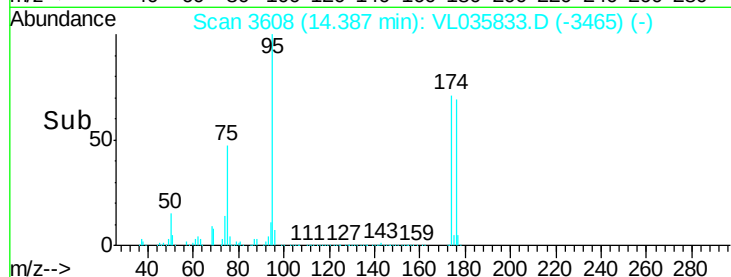
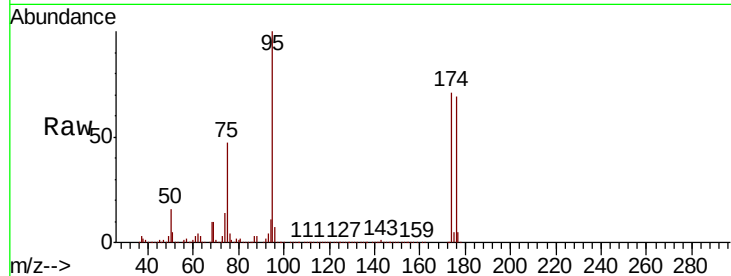
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.086 ppbv
 RT: 14.39 min Scan# 3608
 Delta R.T. -0.04 min
 Lab File: VL035833.D
 Acq: 4 Nov 2020 14:53

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tot Ion: 95 Resp: 3181405
 Ion Ratio Lower Upper
 95 100
 174 74.2 59.8 89.6
 175 5.2 4.3 6.5

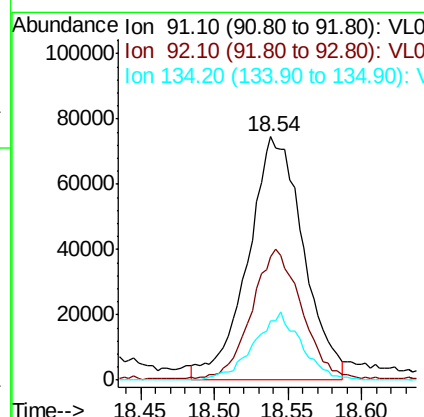
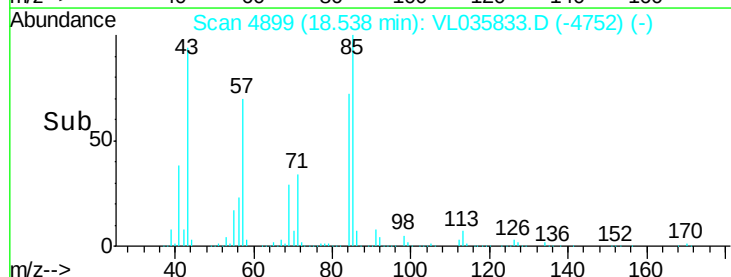
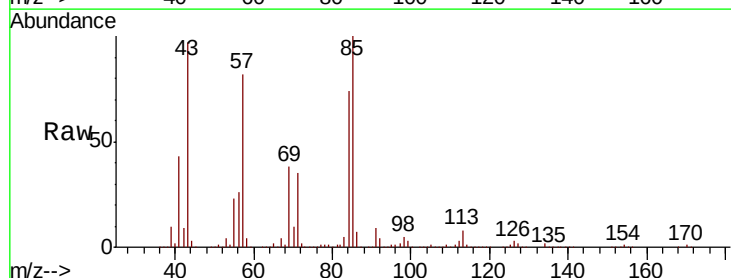
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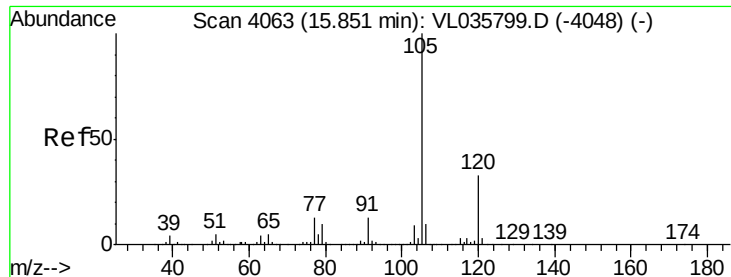
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#70
 n-Butylbenzene
 Concen: 0.287 ppbv m
 RT: 18.54 min Scan# 4899
 Delta R.T. -0.03 min
 Lab File: VL035833.D
 Acq: 4 Nov 2020 14:53

Tgt Ion: 91 Resp: 195469
 Ion Ratio Lower Upper
 91 100
 92 0.0 45.7 68.5#
 134 0.0 21.0 31.4#





#72

4-Ethyltoluene

Concen: 0.122 ppbv

RT: 15.81 min Scan# 4050

Delta R.T. -0.04 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Instrument :

MSVOA_L

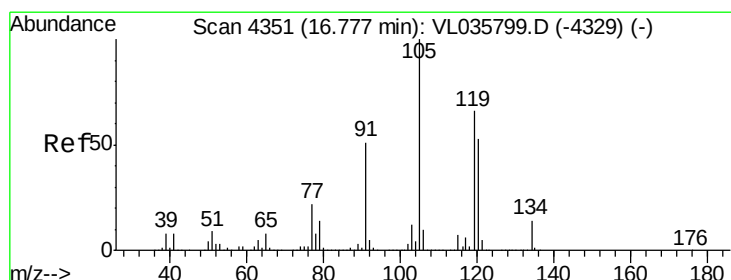
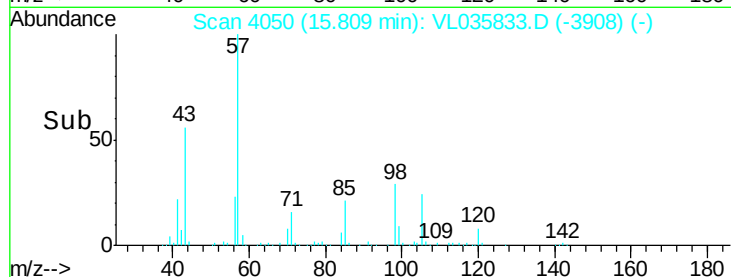
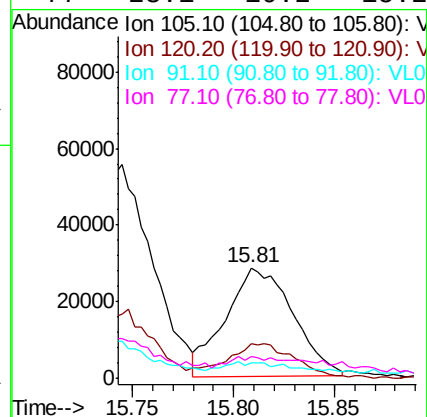
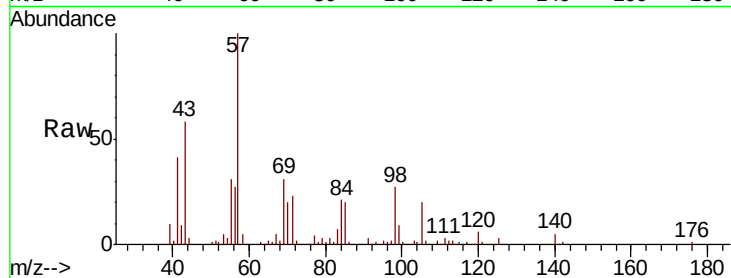
ClientSampleId :

SV1

Tot Ion:	105	Resp:	65737
Ion Ratio	Lower	Upper	
105	100		
120	32.4	25.9	38.9
91	16.3	9.9	14.9#
77	23.1	10.2	15.2#

Manual Integrations
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#74

1,2,4-Trimethylbenzene

Concen: 0.253 ppbv

RT: 16.74 min Scan# 4339

Delta R.T. -0.04 min

Lab File: VL035833.D

Acq: 4 Nov 2020 14:53

Tgt Ion:	105	Resp:	133777
Ion Ratio	Lower	Upper	
105	100		
120	44.6	42.0	63.0
91	13.4	41.0	61.6#
77	10.5	17.3	25.9#

