

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081221\
 Data File : VL037421.D
 Acq On : 12 Aug 2021 20:05
 Operator : SY/AP
 Sample : M3239-02RE
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1RE

Manual Integrations
 APPROVED

apatel
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Quant Time: Aug 13 10:47:12 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081221AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 13 2021
 QLast Update : Fri Aug 13 01:37:35 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1372963	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4010652	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3363073	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2427969	10.06	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	52948	0.252	ppbv	95
3) Chlorodifluoromethane	2.99	51	219919	0.816	ppbv #	90
4) Chloromethane	3.14	50	49819m	0.514	ppbv	
9) Propene	3.02	41	91726m	1.013	ppbv	
10) Heptane	8.14	43	43368m	0.197	ppbv	
11) Trichlorofluoromethane	3.95	101	47896	0.211	ppbv	96
13) Ethanol	3.61	45	330146m	34.169	ppbv	
15) Acetone	3.85	43	1437281	9.871	ppbv	97
17) tert-Butyl alcohol	4.31	59	17337m	0.125	ppbv	
19) Isopropyl Alcohol	3.98	45	198406	2.341	ppbv #	92
20) Methylene Chloride	4.35	84	2866510	37.231	ppbv	98
26) Hexane	5.69	57	2614101	14.597	ppbv #	47
29) Chloroform	5.75	83	114324m	0.453	ppbv	
30) Cyclohexane	7.13	84	23212m	0.157	ppbv	
34) 2-Butanone	5.25	43	122564	0.740	ppbv #	89
35) Carbon Tetrachloride	7.02	117	12464m	0.050	ppbv	
36) Benzene	6.89	78	155396	0.460	ppbv #	94
44) 2,2,4-Trimethylpentane	7.88	57	143253m	0.253	ppbv	
50) 4-Methyl-2-Pentanone	8.75	43	20904m	0.100	ppbv	
51) 2-Hexanone	10.16	43	32024m	0.327	ppbv	
52) Tetrachloroethene	11.21	164	8400m	0.059	ppbv	
53) Toluene	9.80	91	610970	1.582	ppbv	98
58) Ethyl Benzene	12.71	91	61367	0.135	ppbv	94
59) m/p-Xylene	12.97	91	128673m	0.321	ppbv	
60) o-Xylene	13.69	91	40735m	0.109	ppbv	
61) Styrene	13.53	104	263581	1.401	ppbv	98
69) p-Isopropyltoluene	17.65	119	60400m	0.113	ppbv	
74) 1,2,4-Trimethylbenzene	16.75	105	84678m	0.202	ppbv	

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

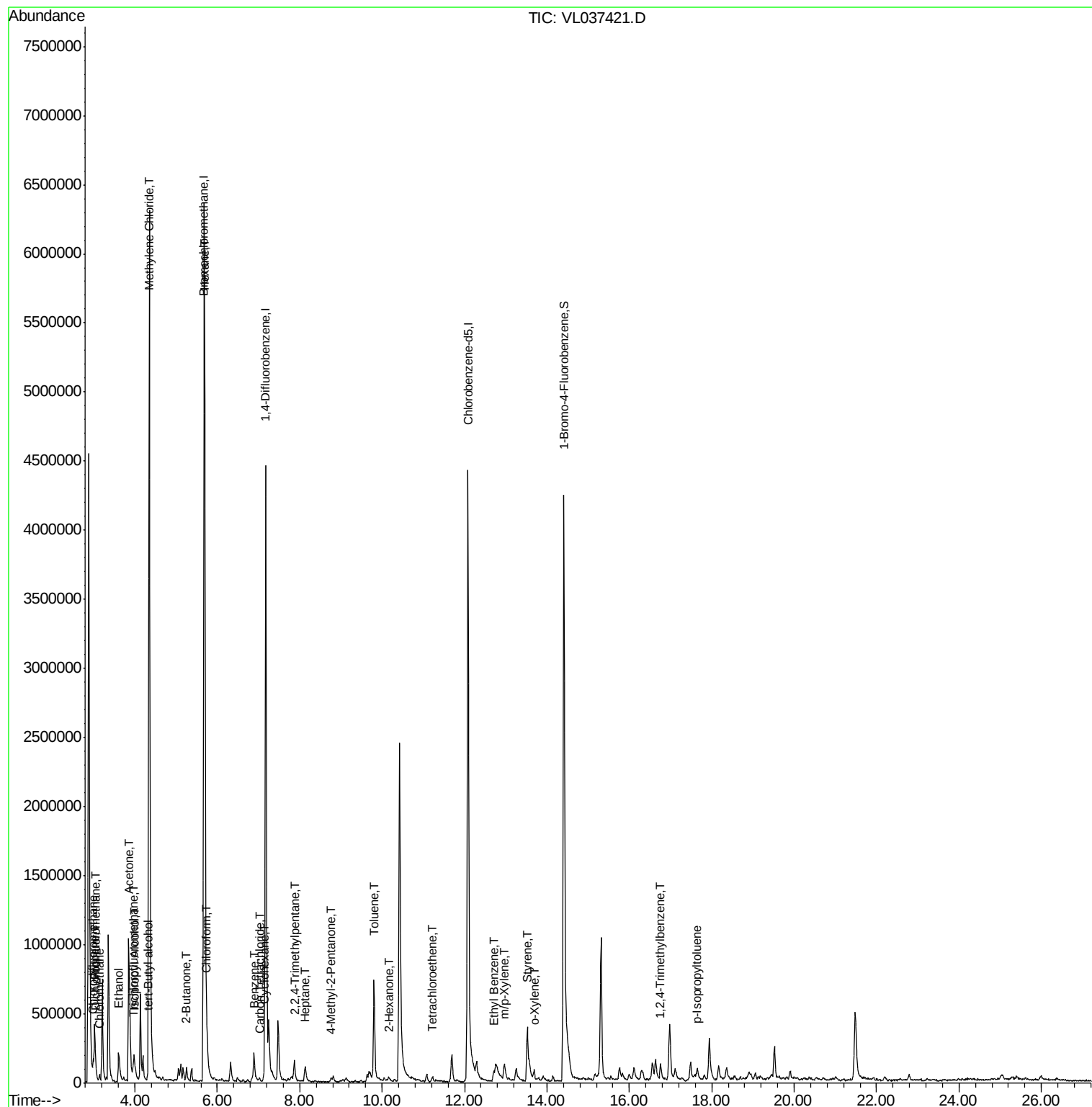
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL081221\
Data File : VL037421.D
Acq On : 12 Aug 2021 20:05
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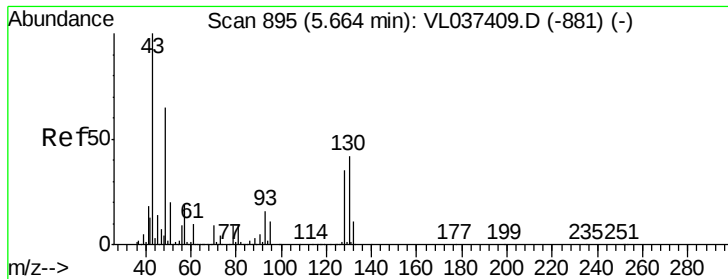
Instrument :
MSVOA_L
ClientSampleId :
IA1RE

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Quant Time: Aug 13 10:47:12 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL081221AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Fri Aug 13 01:37:35 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.00 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Instrument :

MSVOA_L

ClientSampled :

IA1RE

Tot Ion: 49 Resp: 1372963

Ion Ratio Lower Upper

49 100

128 52.9 27.9 83.6

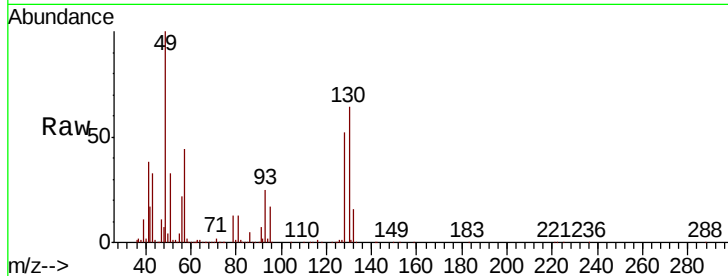
130 66.4 34.6 103.8

Manual Integrations

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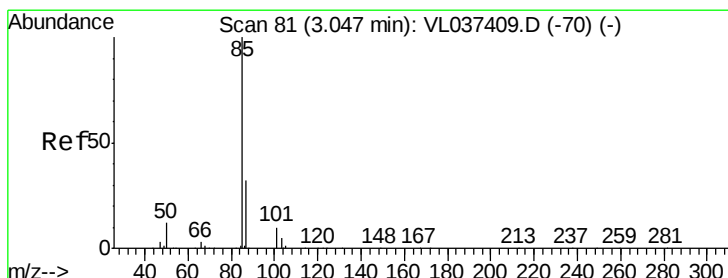
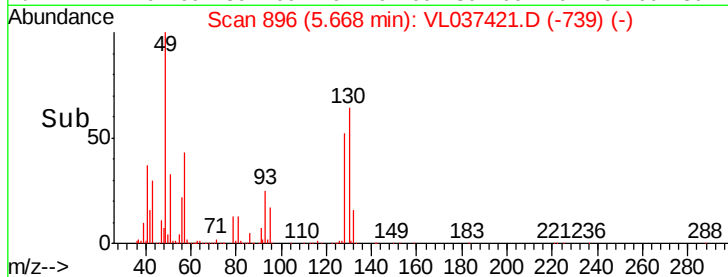
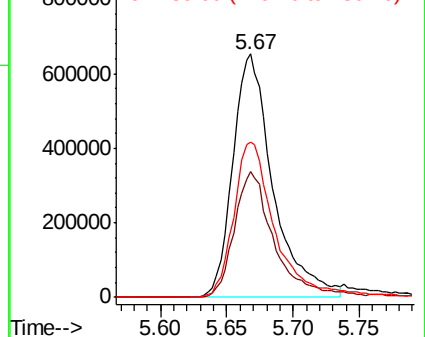
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.252 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.00 min

Lab File: VL037421.D

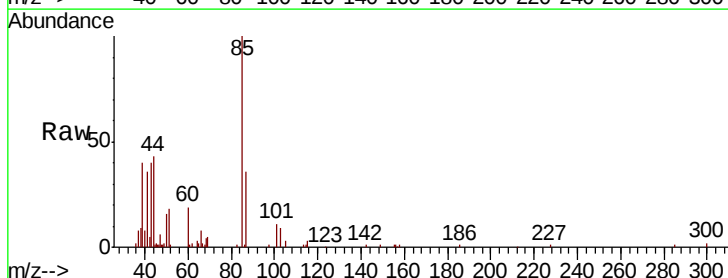
Acq: 12 Aug 2021 20:05

Tgt Ion: 85 Resp: 52948

Ion Ratio Lower Upper

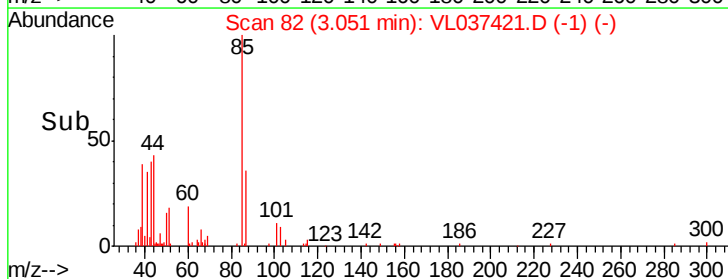
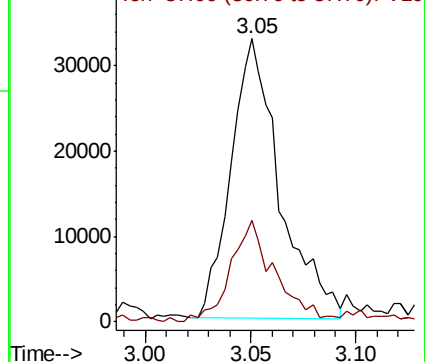
85 100

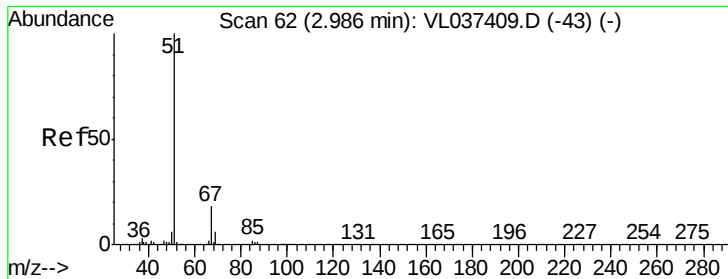
87 35.1 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.816 ppbv

RT: 2.99 min Scan# 63

Delta R.T. 0.00 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Instrument :

MSVOA_L

ClientSampled :

IA1RE

Tot Ion: 51 Resp: 219919

Ion Ratio Lower Upper

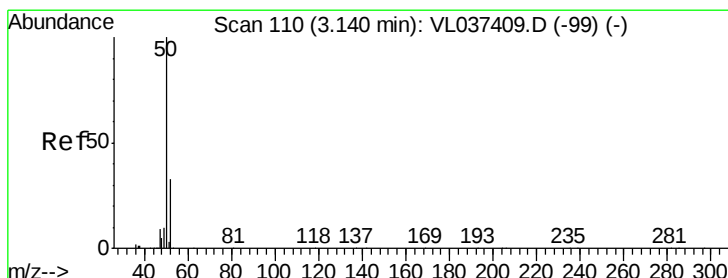
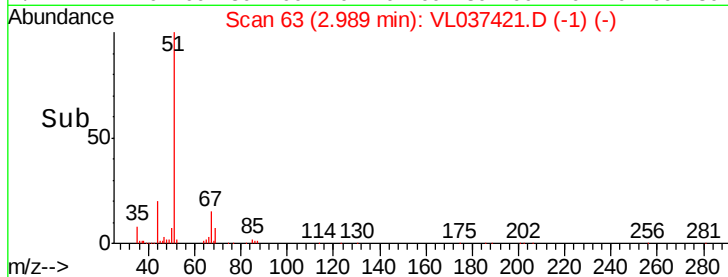
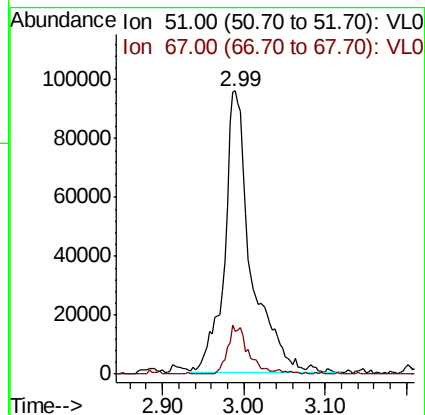
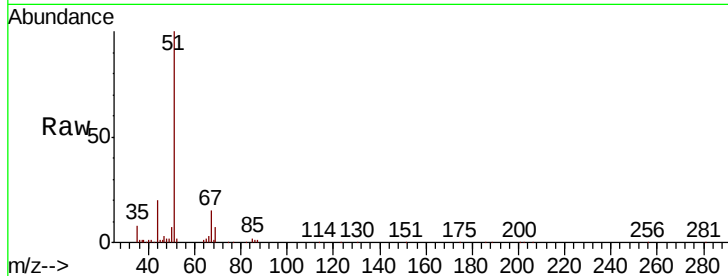
51 100

67 13.9 14.7 22.1#

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#4

Chloromethane

Concen: 0.514 ppbv m

RT: 3.14 min Scan# 110

Delta R.T. 0.00 min

Lab File: VL037421.D

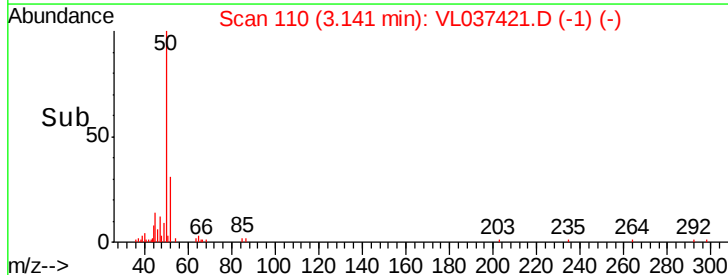
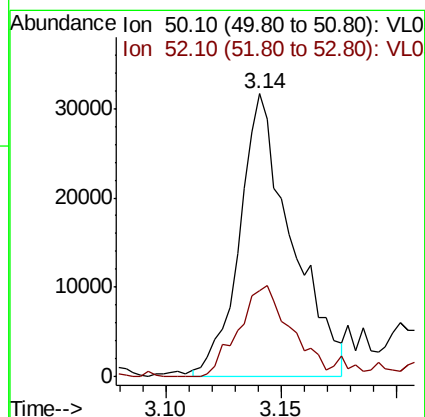
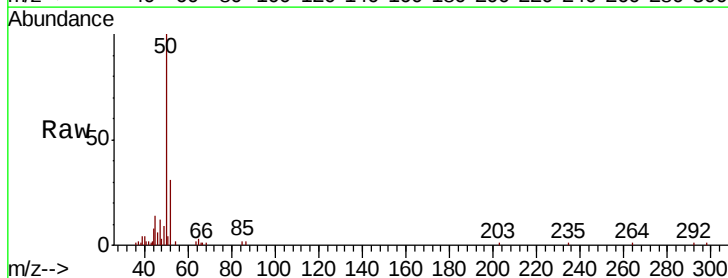
Acq: 12 Aug 2021 20:05

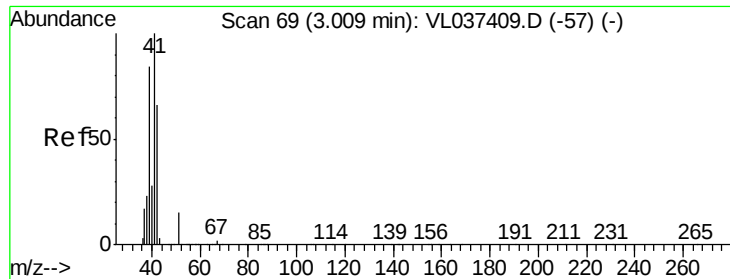
Tgt Ion: 50 Resp: 49819

Ion Ratio Lower Upper

50 100

52 30.6 26.2 39.4





#9

Propene

Concen: 1.013 ppbv m

RT: 3.02 min Scan# 74

Delta R.T. 0.02 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Instrument :

MSVOA_L

ClientSampled :

IA1RE

Tot Ion: 41 Resp: 91726

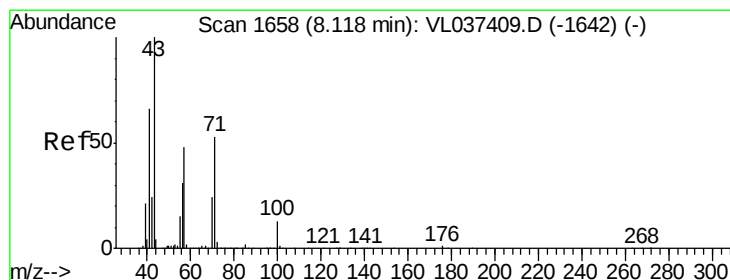
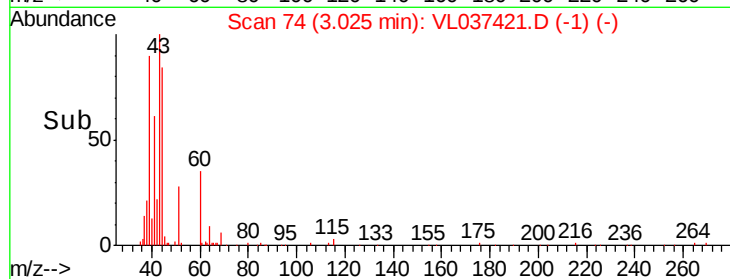
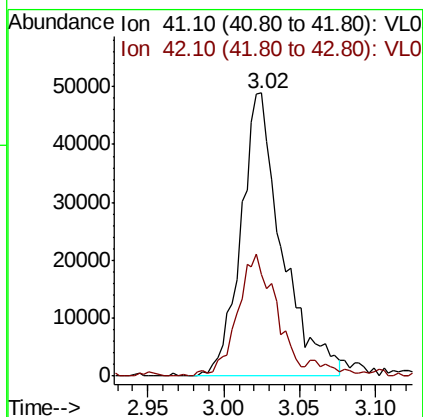
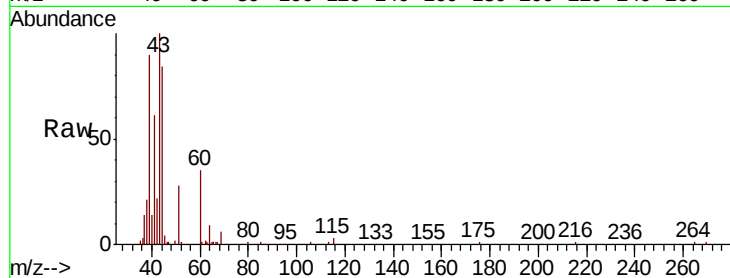
Ion Ratio Lower Upper

41 100

42 196.0 53.8 80.8#

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#10

Heptane

Concen: 0.197 ppbv m

RT: 8.14 min Scan# 1664

Delta R.T. 0.02 min

Lab File: VL037421.D

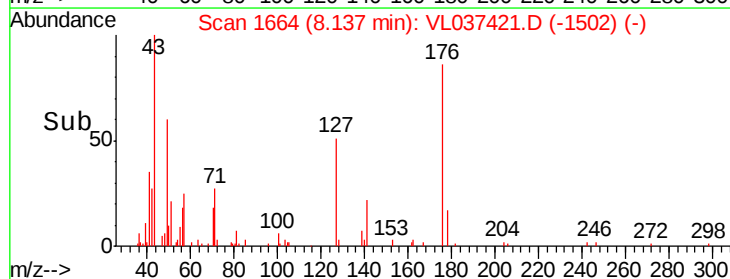
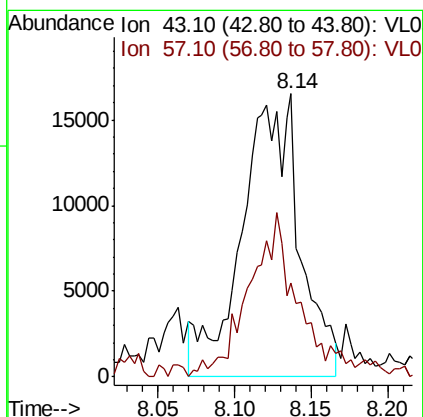
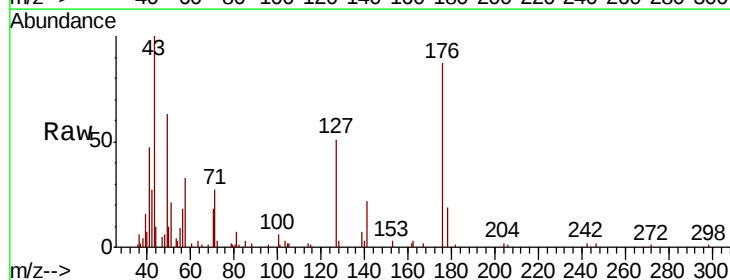
Acq: 12 Aug 2021 20:05

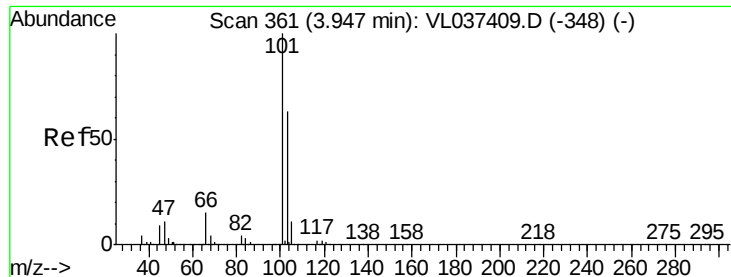
Tgt Ion: 43 Resp: 43368

Ion Ratio Lower Upper

43 100

57 0.0 40.3 60.5#





#11

Trichlorofluoromethane

Concen: 0.211 ppbv

RT: 3.95 min Scan# 363

Delta R.T. 0.01 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Instrument :

MSVOA_L

ClientSampleId :

IA1RE

Tot Ion:101 Resp: 47896

Ion Ratio Lower Upper

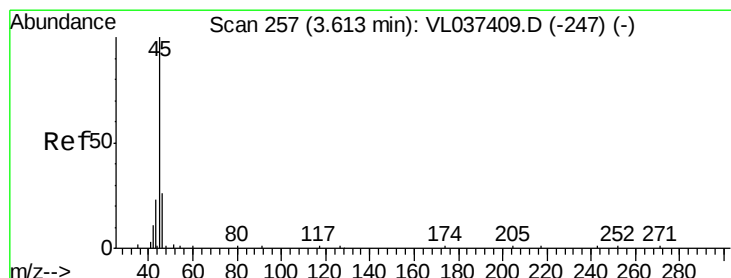
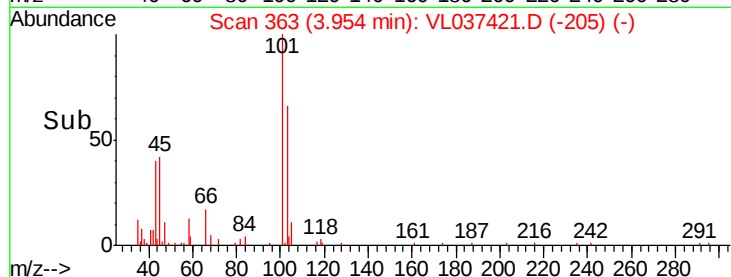
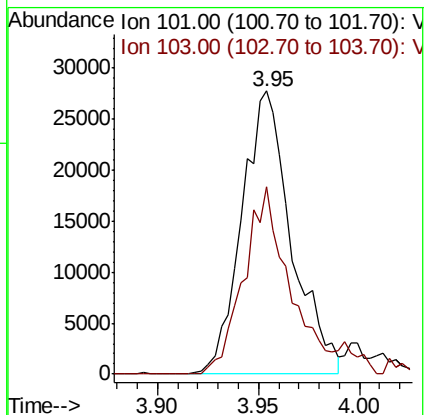
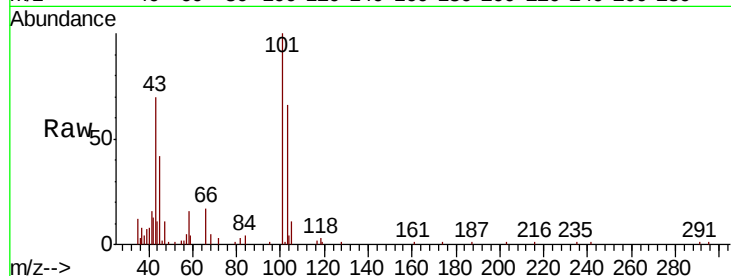
101 100

103 66.1 50.2 75.4

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#13

Ethanol

Concen: 34.169 ppbv m

RT: 3.61 min Scan# 255

Delta R.T. -0.01 min

Lab File: VL037421.D

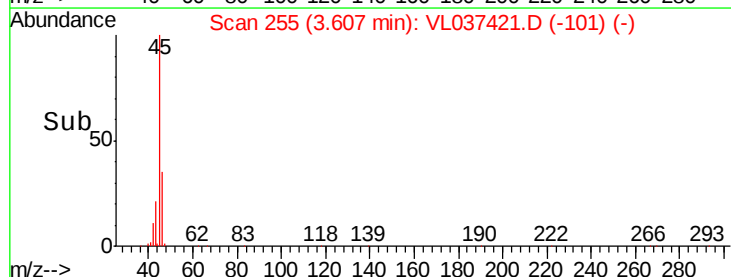
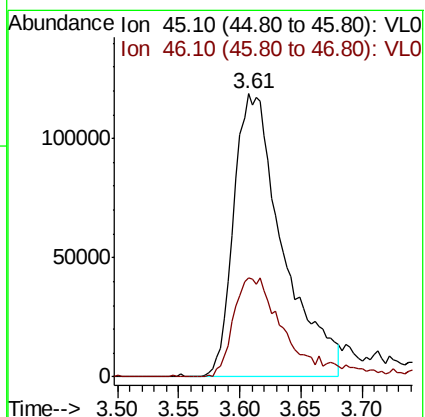
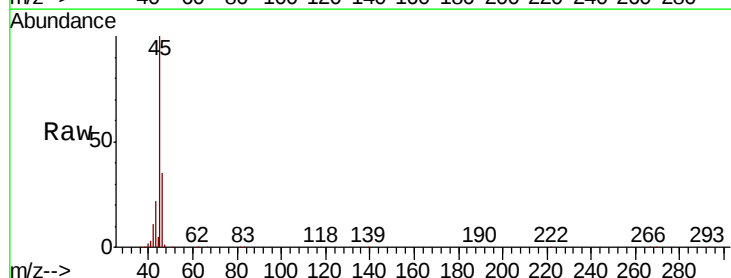
Acq: 12 Aug 2021 20:05

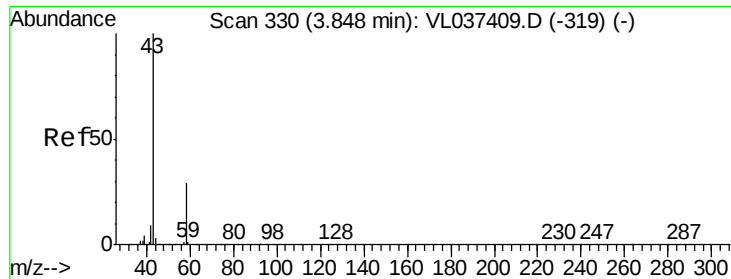
Tgt Ion: 45 Resp: 330146

Ion Ratio Lower Upper

45 100

46 0.0 18.0 72.2#





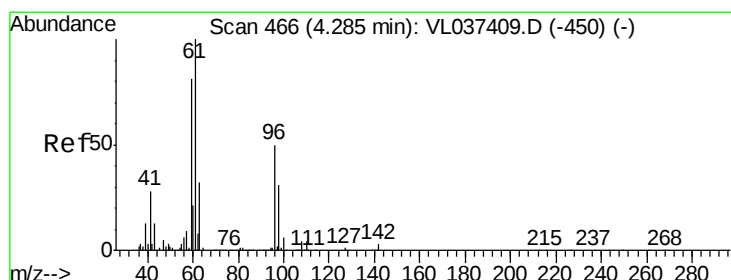
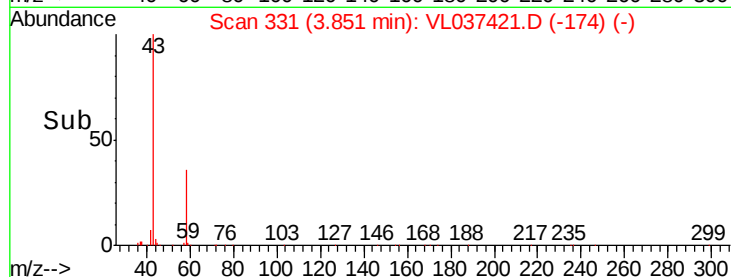
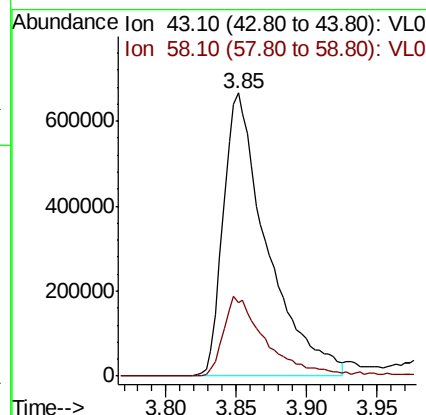
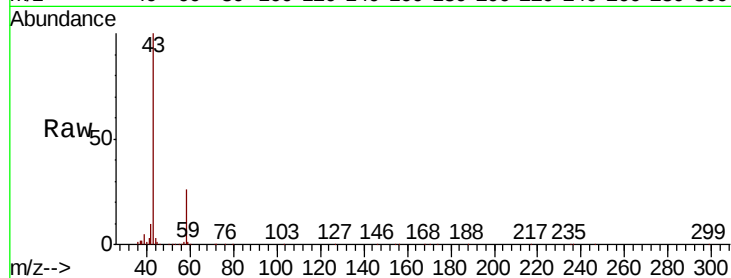
#15
Acetone
Concen: 9.871 ppbv
RT: 3.85 min Scan# 331
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampleId :
IA1RE

Tot Ion: 43 Resp: 1437281
Ion Ratio Lower Upper
43 100
58 28.6 24.4 36.6

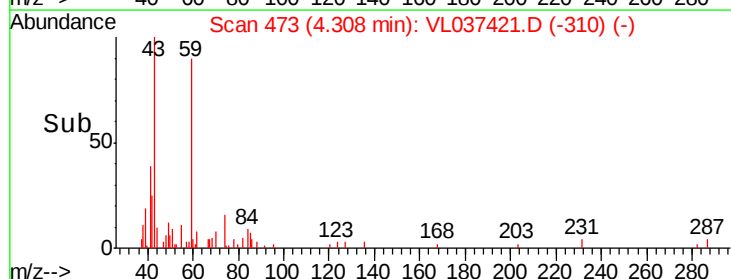
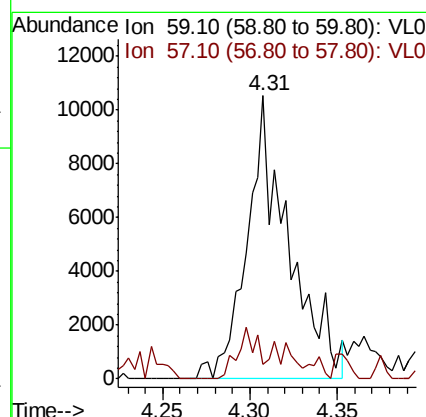
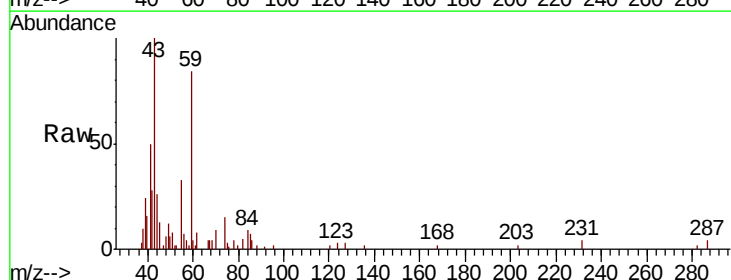
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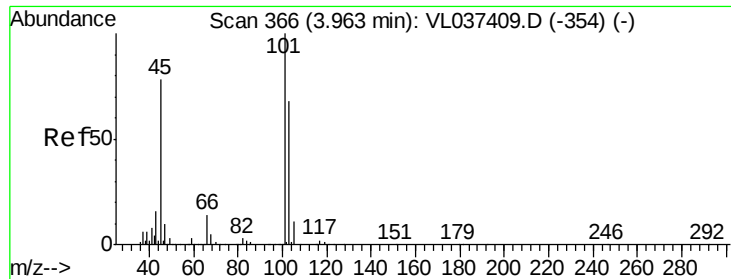
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#17
tert-Butyl alcohol
Concen: 0.125 ppbv m
RT: 4.31 min Scan# 473
Delta R.T. 0.02 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion: 59 Resp: 17337
Ion Ratio Lower Upper
59 100
57 0.0 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 2.341 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.01 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Instrument :

MSVOA_L

ClientSampled :

IA1RE

Tot Ion: 45 Resp: 198406

Ion Ratio Lower Upper

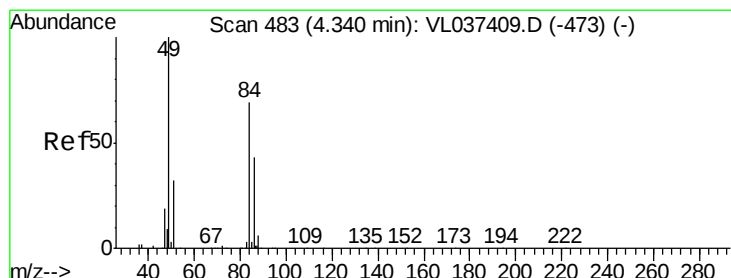
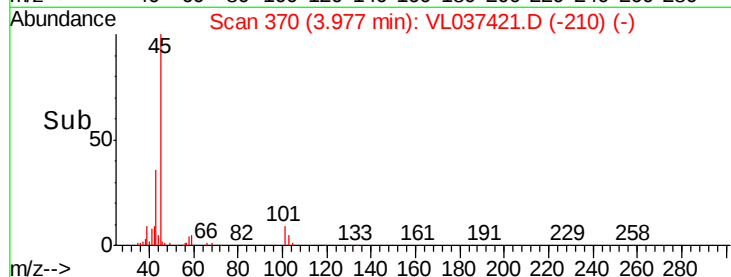
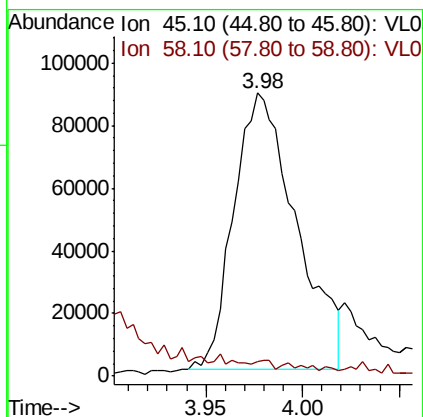
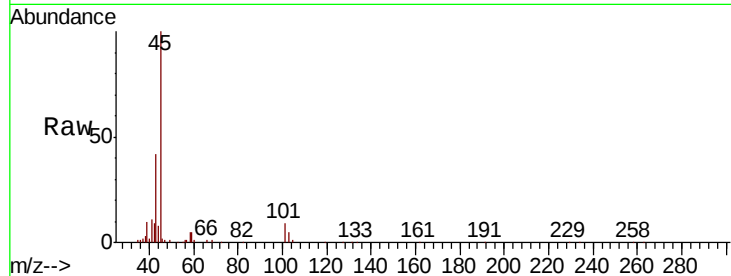
45 100

58 0.0 2.2 3.4#

Manual Integrations
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#20

Methylene Chloride

Concen: 37.231 ppbv

RT: 4.35 min Scan# 485

Delta R.T. 0.01 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Tgt Ion: 84 Resp: 2866510

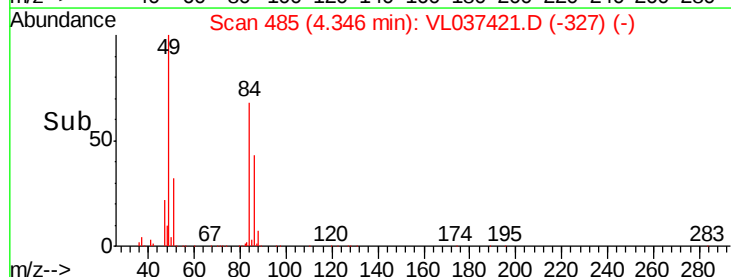
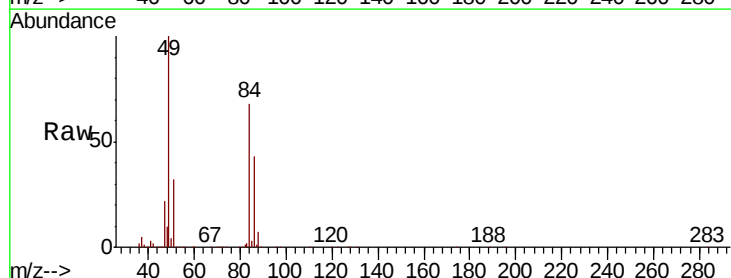
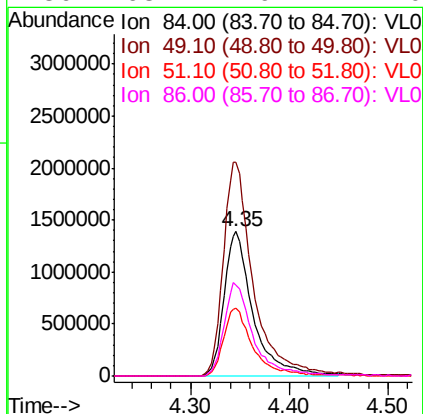
Ion Ratio Lower Upper

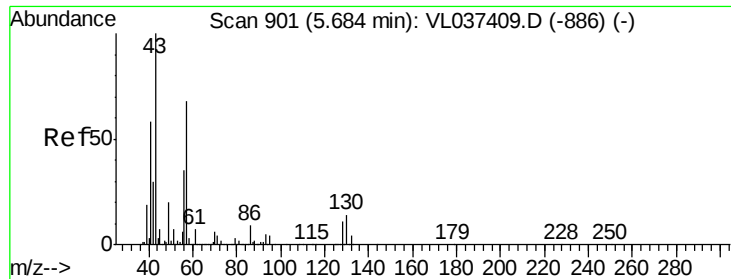
84 100

49 147.5 116.0 174.0

51 47.3 37.1 55.7

86 63.1 49.4 74.0





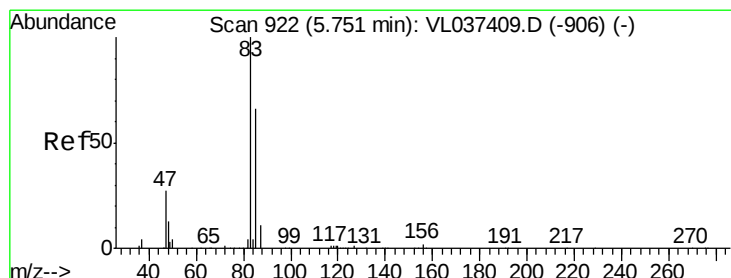
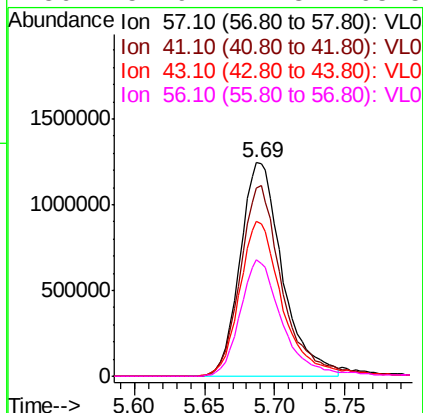
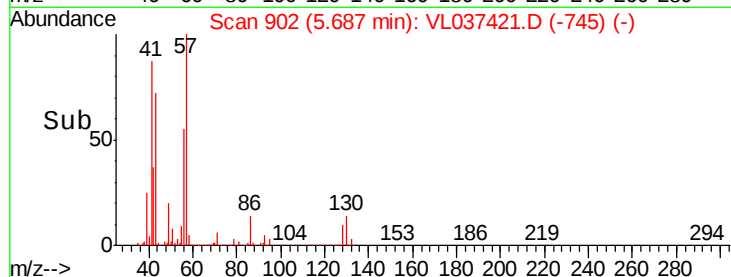
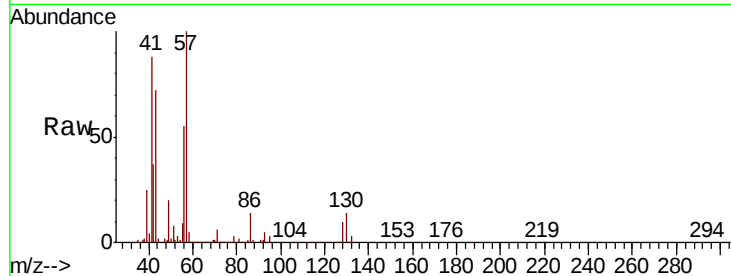
#26
Hexane
Concen: 14.597 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampled :
IA1RE

Tot Ion	Ratio	Lower	Upper
57	100		
41	90.1	72.5	108.7
43	74.1	169.3	253.9#
56	54.9	42.3	63.5

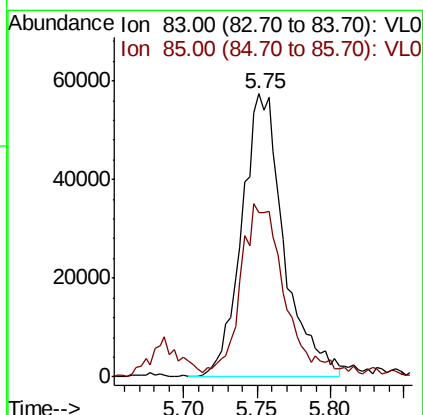
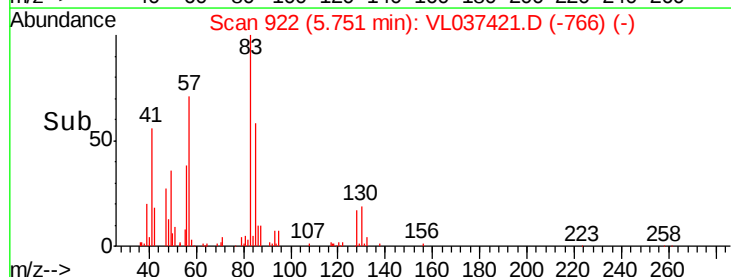
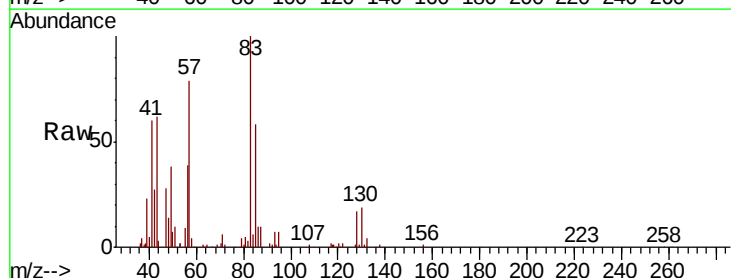
Manual Integrations
APPROVED

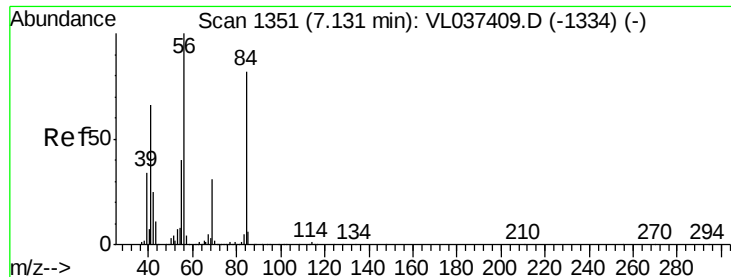
apatel
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#29
Chloroform
Concen: 0.453 ppbv m
RT: 5.75 min Scan# 922
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	Ratio	Lower	Upper
83	100		
85	58.3	52.4	78.6





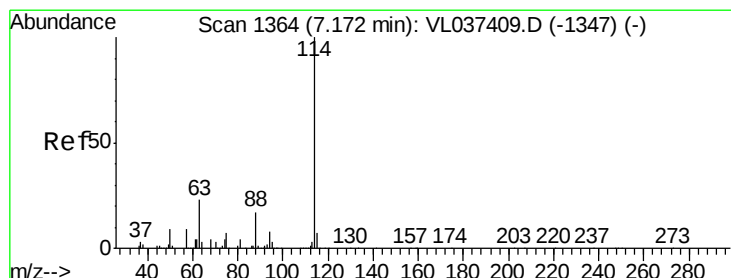
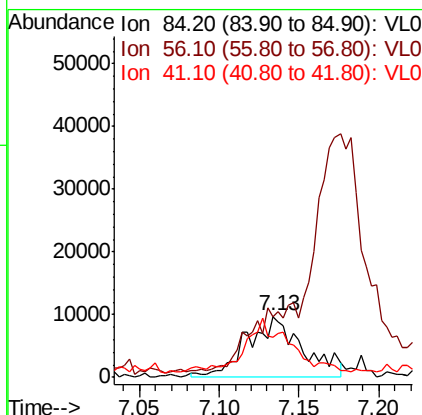
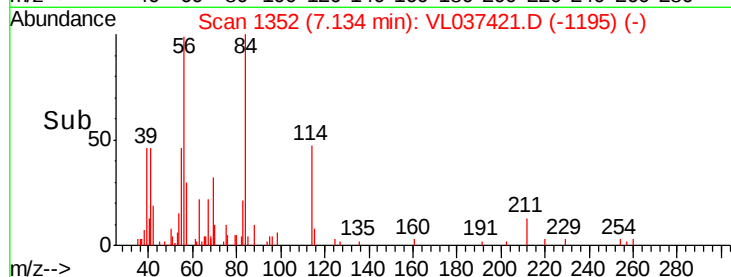
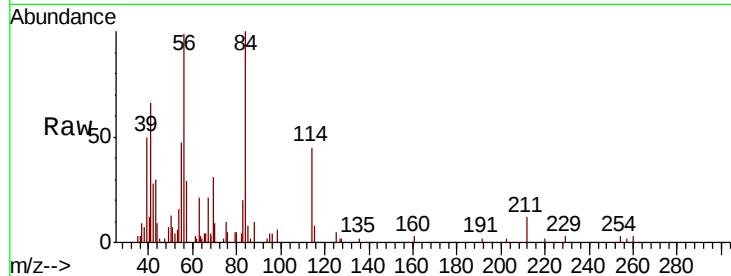
#30
Cvclohexane
Concen: 0.157 ppbv m
RT: 7.13 min Scan# 1352
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampled :
IA1RE

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	109.6	164.4#
41	0.0	66.6	99.8#

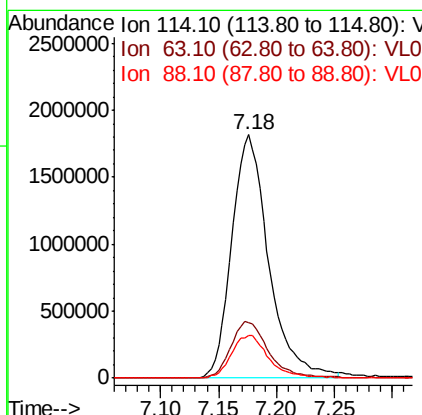
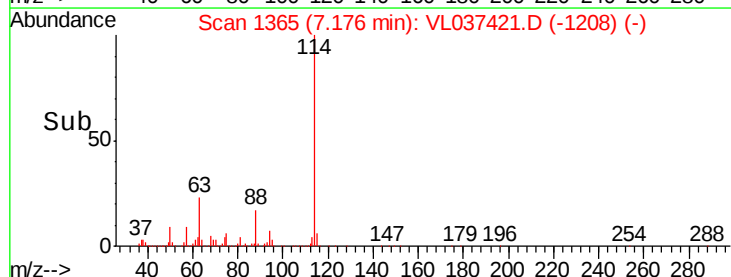
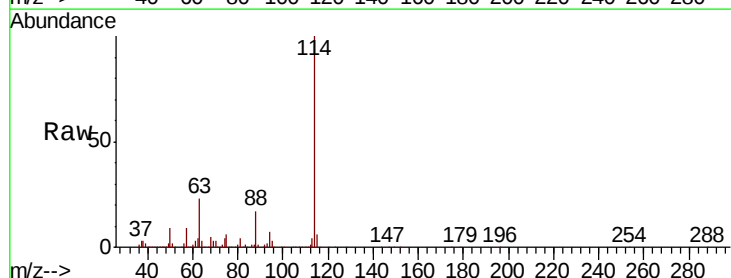
Manual Integrations
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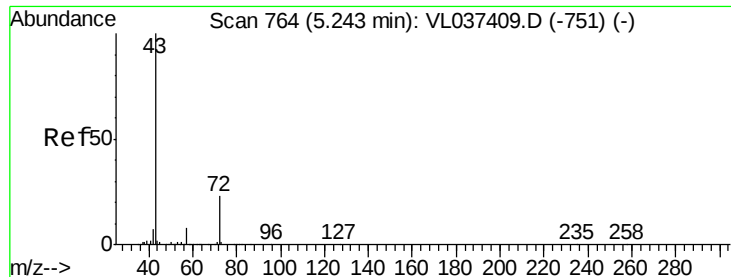
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	Ratio	Lower	Upper
114	100		
63	24.1	19.4	29.2
88	18.3	14.2	21.4





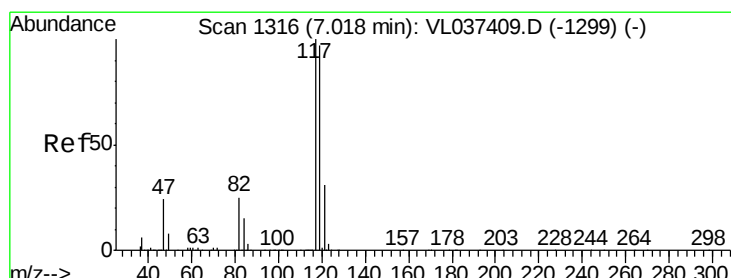
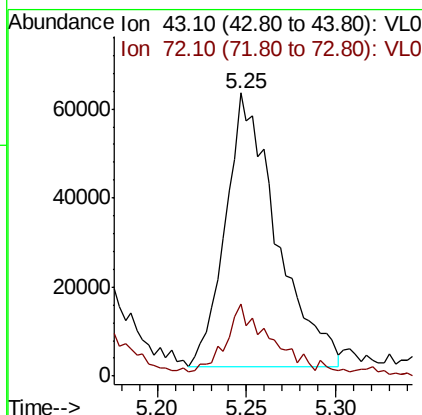
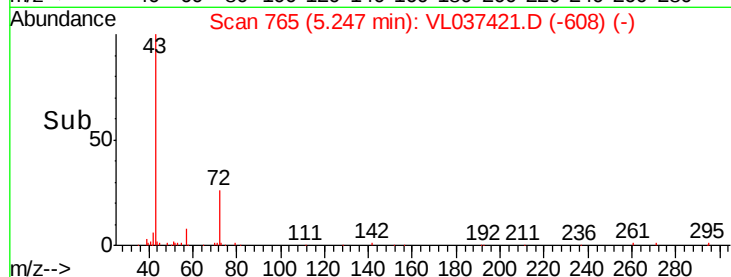
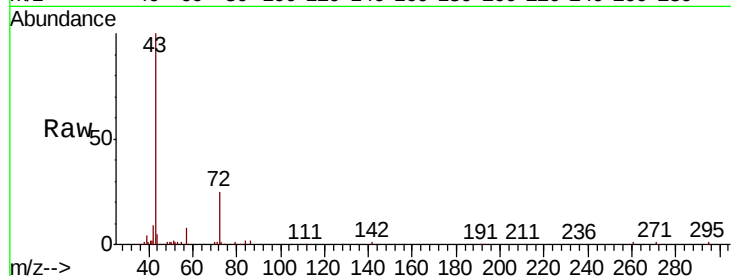
#34
2-Butanone
Concen: 0.740 ppbv
RT: 5.25 min Scan# 765
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampleId :
IA1RE

Tot Ion	43	Resp	122564
Ion Ratio	Lower	Upper	
43	100		
72	27.2	17.7	26.5#

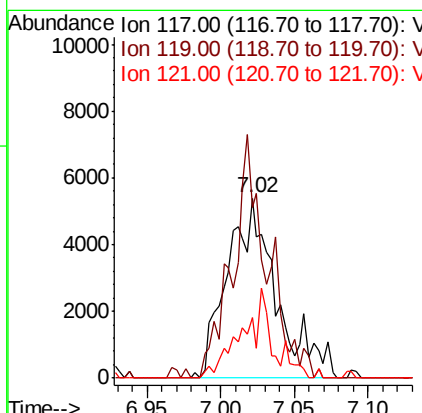
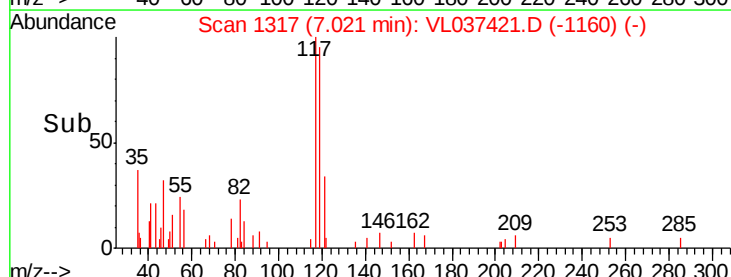
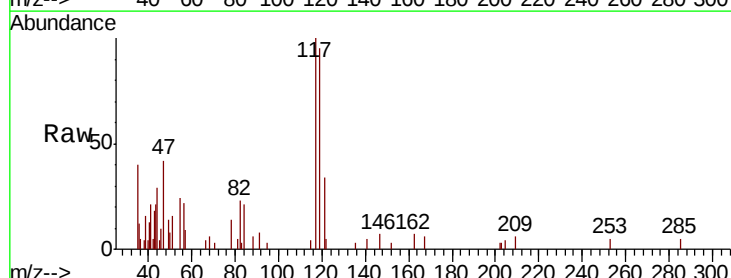
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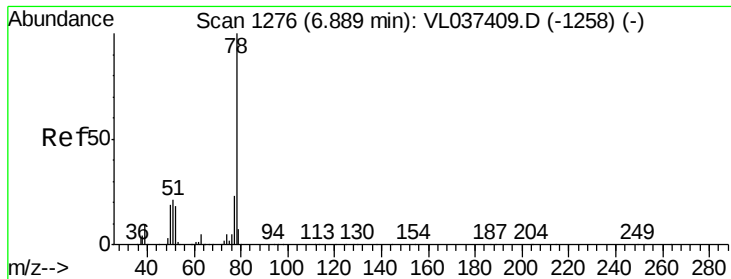
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#35
Carbon Tetrachloride
Concen: 0.050 ppbv m
RT: 7.02 min Scan# 1317
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	117	Resp	12464
Ion Ratio	Lower	Upper	
117	100		
119	95.3	77.5	116.3
121	33.8	24.7	37.1





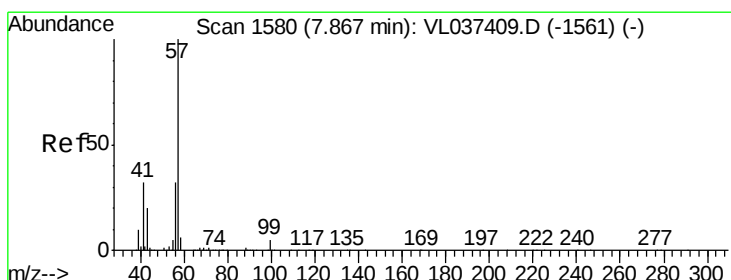
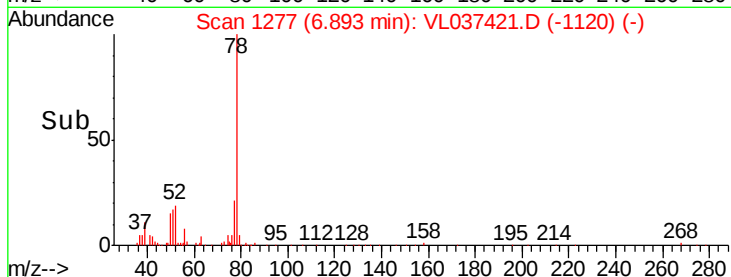
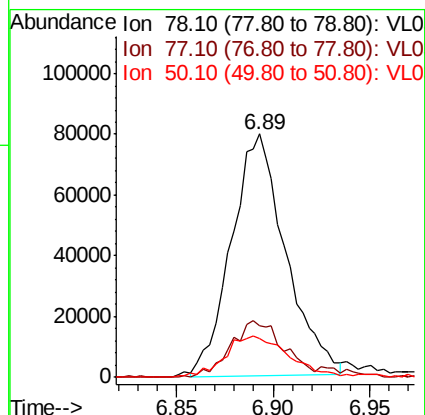
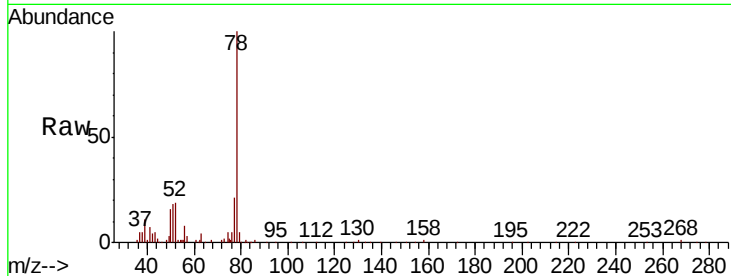
#36
Benzene
Concen: 0.460 ppbv
RT: 6.89 min Scan# 1277
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampled :
IA1RE

Tot Ion	Ratio	Lower	Upper
78	100		
77	21.3	18.6	27.8
50	14.5	14.9	22.3#

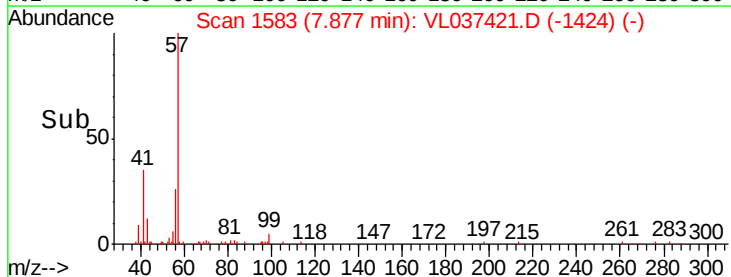
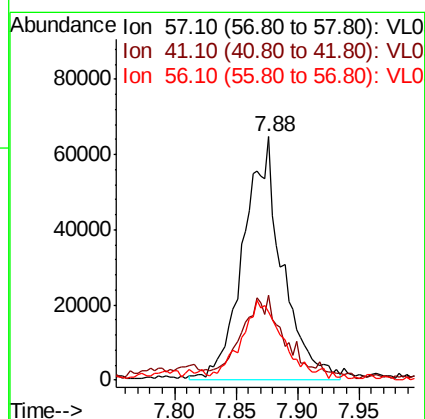
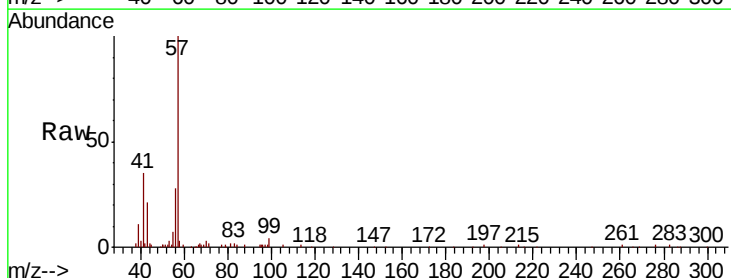
Manual Integrations
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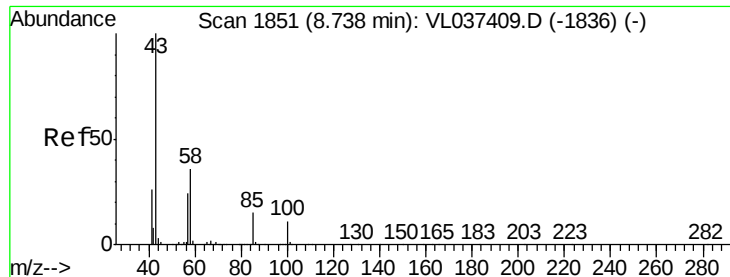
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#44
2,2,4-Trimethylpentane
Concen: 0.253 ppbv m
RT: 7.88 min Scan# 1583
Delta R.T. 0.01 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	Ratio	Lower	Upper
57	100		
41	0.0	26.4	39.6#
56	37.9	25.0	37.4#





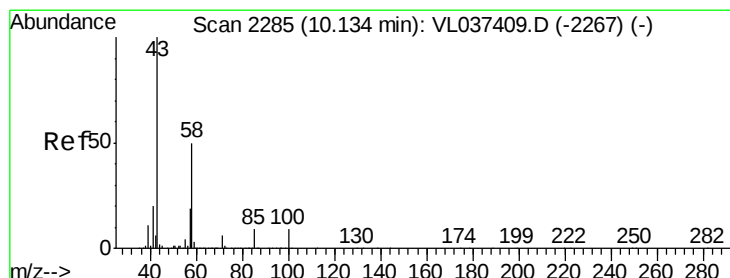
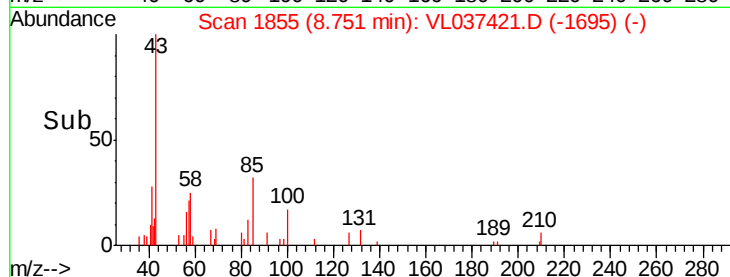
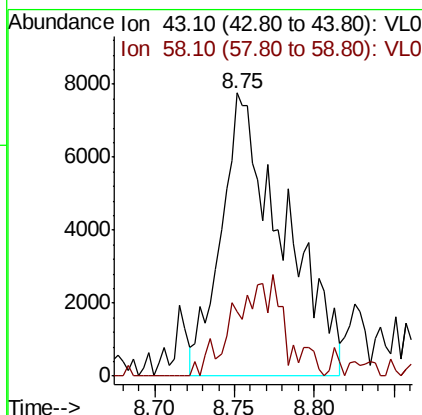
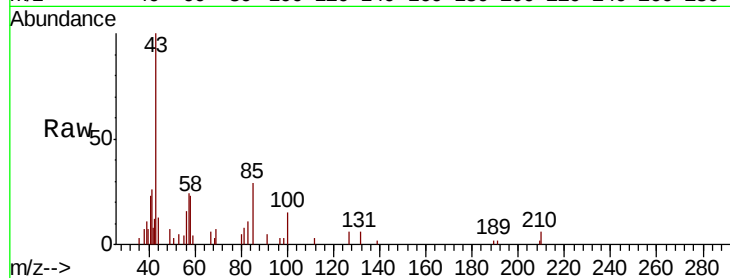
#50
4-Methyl-2-Pentanone
Concen: 0.100 ppbv m
RT: 8.75 min Scan# 1855
Delta R.T. 0.01 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampled :
IA1RE

Tot Ion	Ratio	Lower	Upper
43	100		
58	0.0	29.9	44.9#

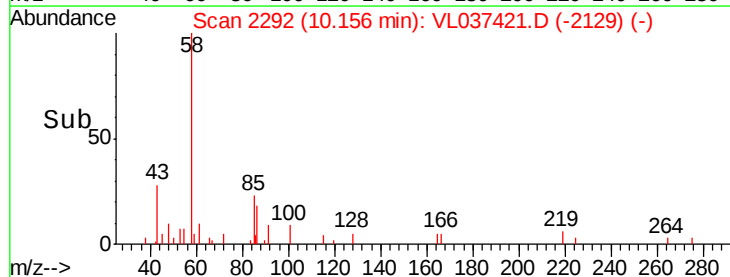
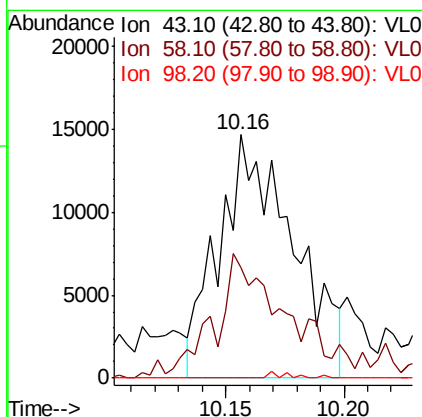
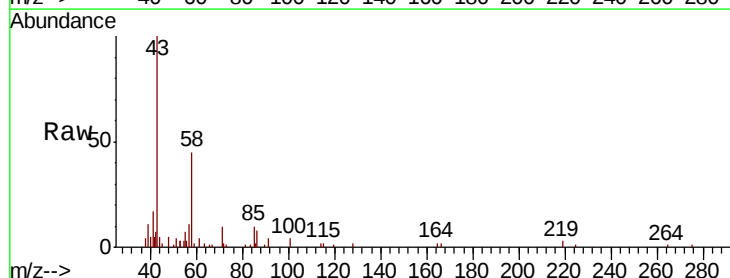
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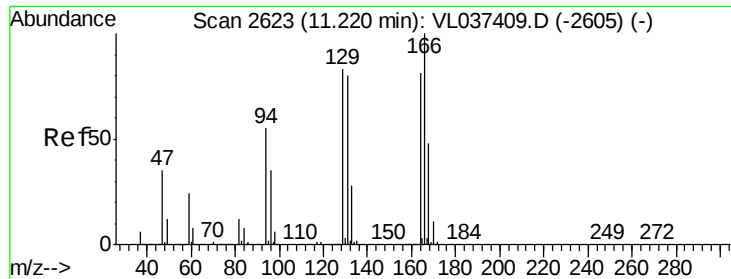
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#51
2-Hexanone
Concen: 0.327 ppbv m
RT: 10.16 min Scan# 2292
Delta R.T. 0.02 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	39.9	59.9#
98	0.0	0.2	0.2#





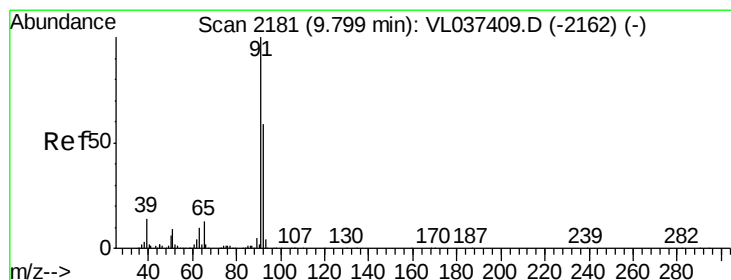
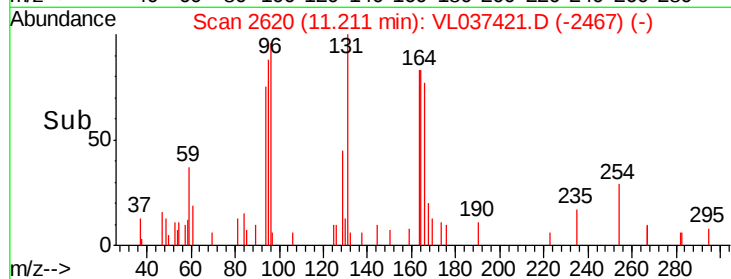
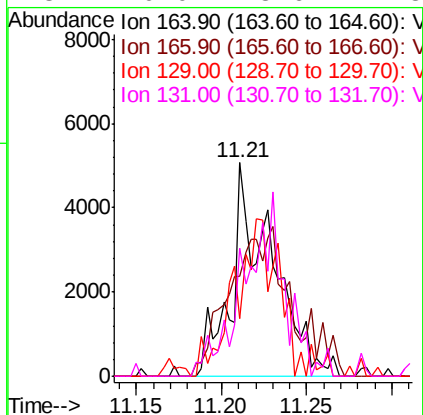
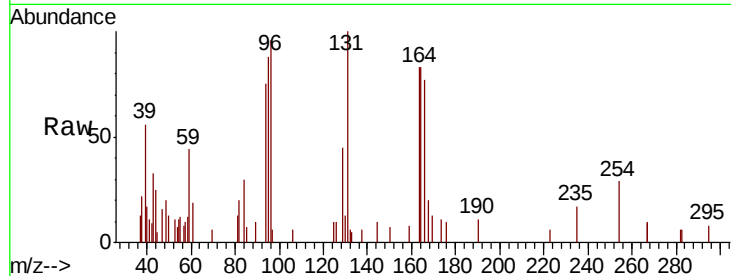
#52
Tetrachloroethene
Concen: 0.059 ppbv m
RT: 11.21 min Scan# 2620
Delta R.T. -0.01 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampleId :
IA1RE

Tot Ion	Ratio	Lower	Upper
164	100		
166	93.0	98.6	147.8#
129	54.1	82.0	123.0#
131	120.0	78.6	117.8#

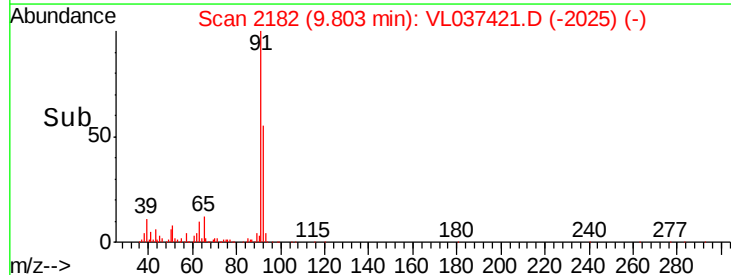
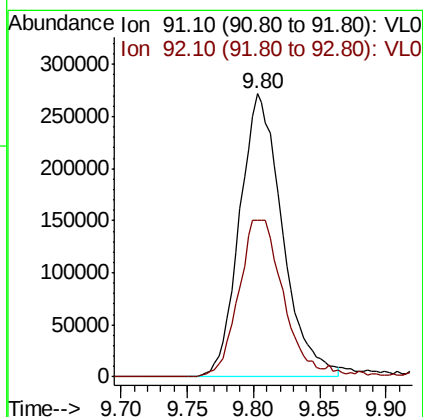
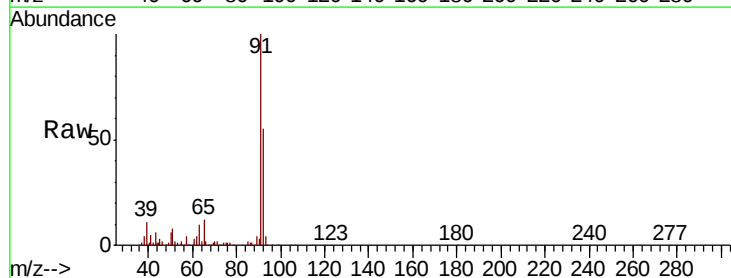
Manual Integrations
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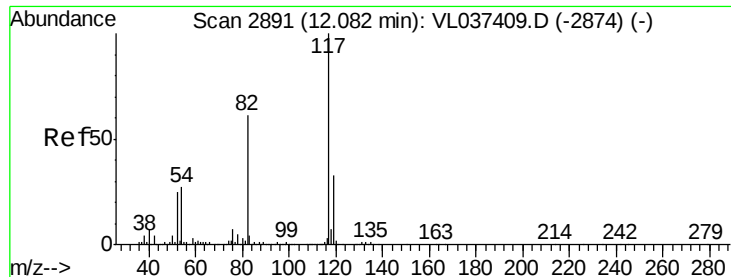
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#53
Toluene
Concen: 1.582 ppbv
RT: 9.80 min Scan# 2182
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.7	49.0	73.6





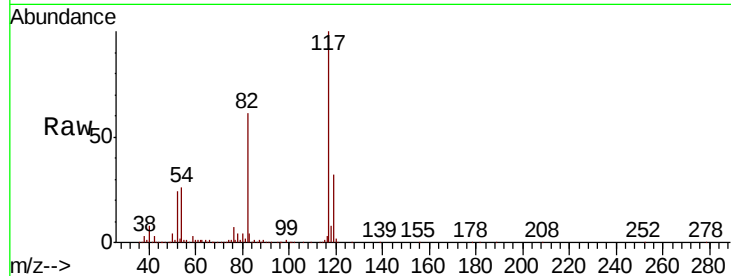
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min Scan# 2892
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampled :
IA1RE

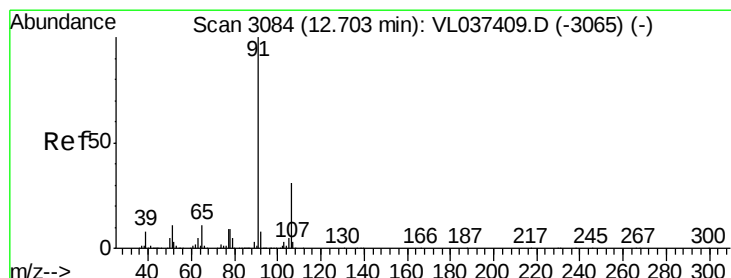
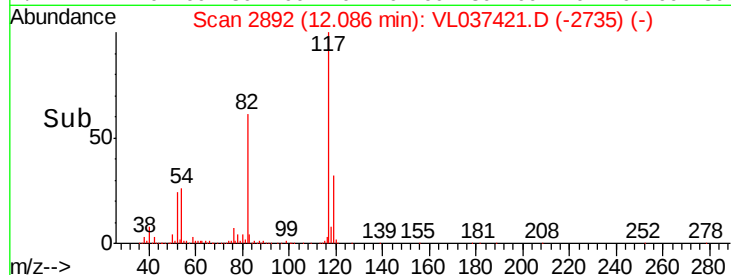
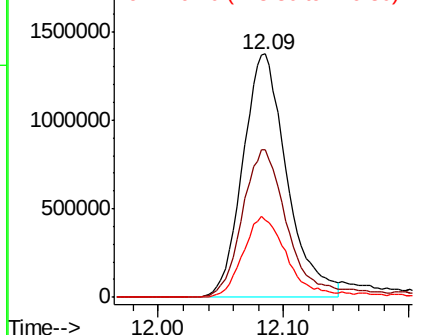
Tot Ion	Ratio	Lower	Upper
117	100		
82	67.1	53.1	79.7
119	36.4	28.0	42.0

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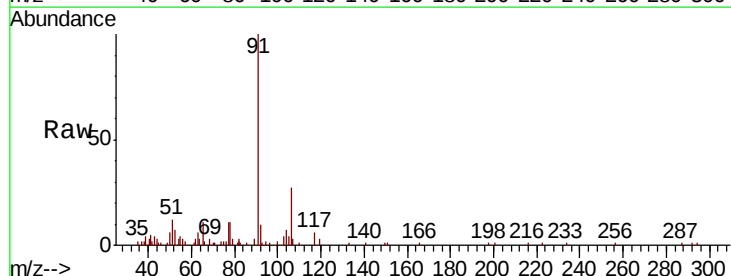


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

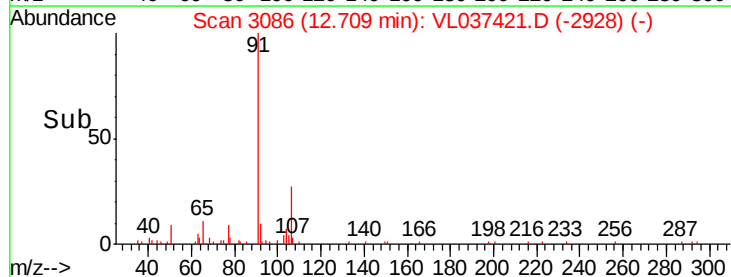
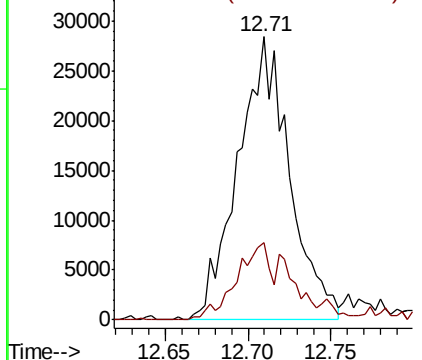


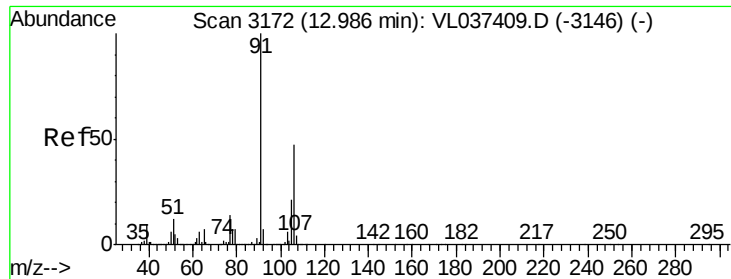
#58
Ethyl Benzene
Concen: 0.135 ppbv
RT: 12.71 min Scan# 3086
Delta R.T. 0.01 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.5	24.7	37.1



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





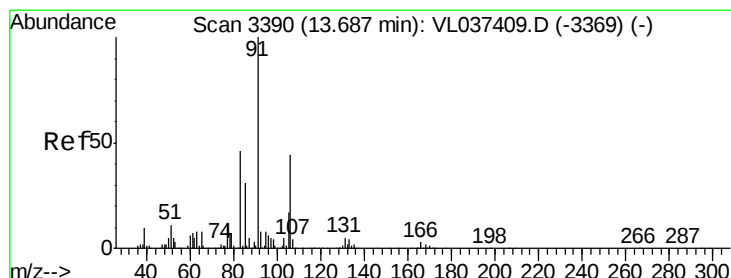
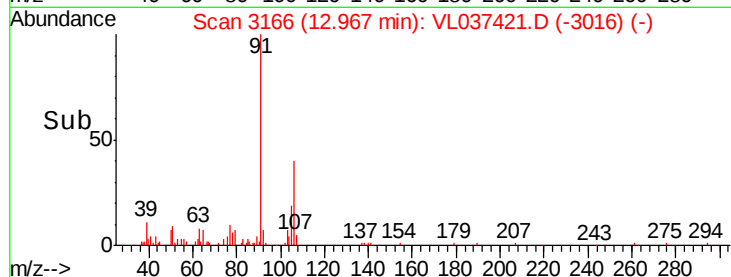
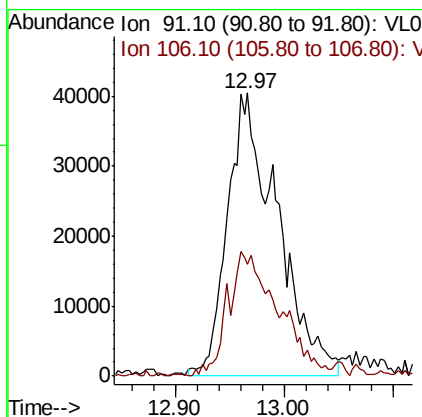
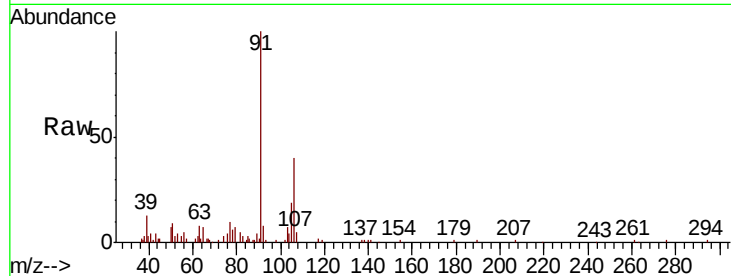
#59
m/p-Xylene
Concen: 0.321 ppbv m
RT: 12.97 min Scan# 3166
Delta R.T. -0.02 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampleId :
IA1RE

Tot Ion: 91 Resp: 128673
Ion Ratio Lower Upper
91 100
106 0.0 36.6 54.8#

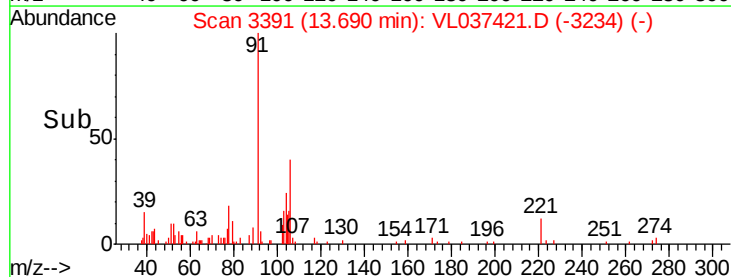
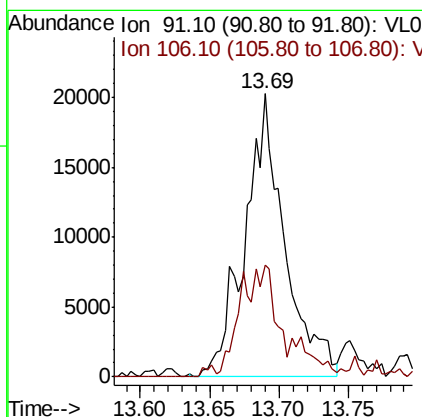
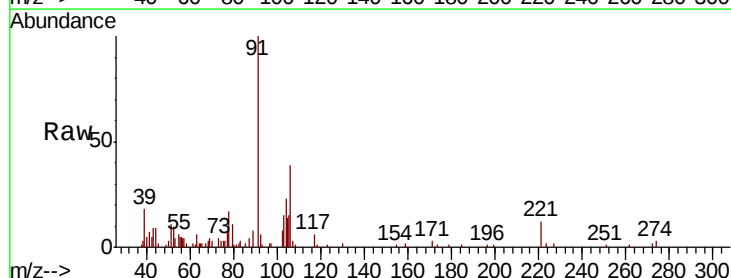
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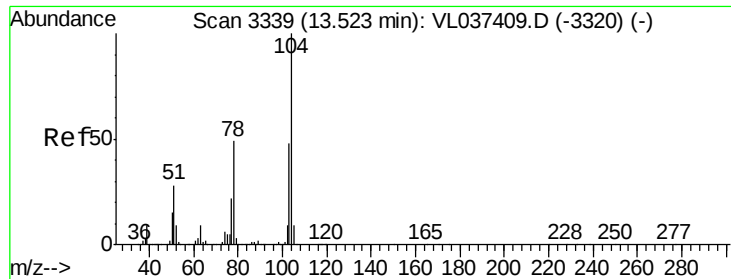
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#60
o-Xylene
Concen: 0.109 ppbv m
RT: 13.69 min Scan# 3391
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion: 91 Resp: 40735
Ion Ratio Lower Upper
91 100
106 45.3 24.1 72.2





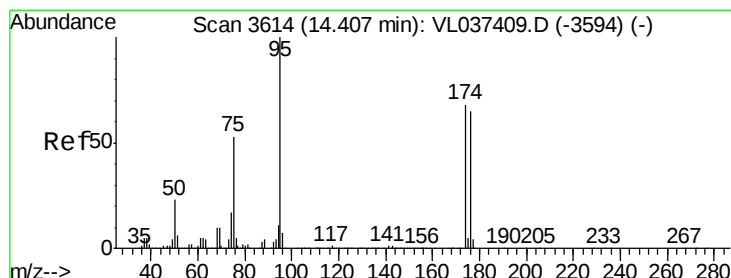
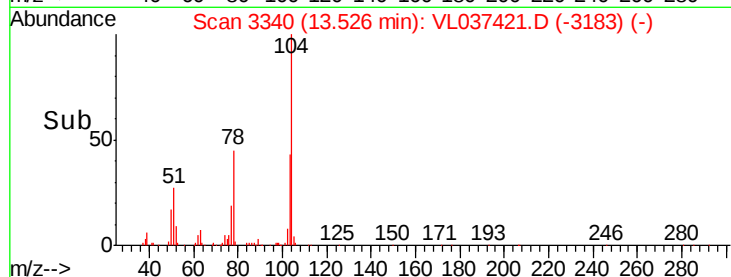
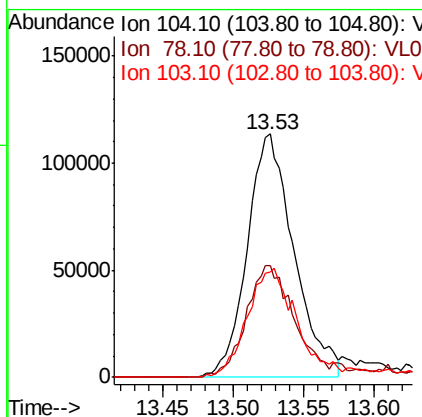
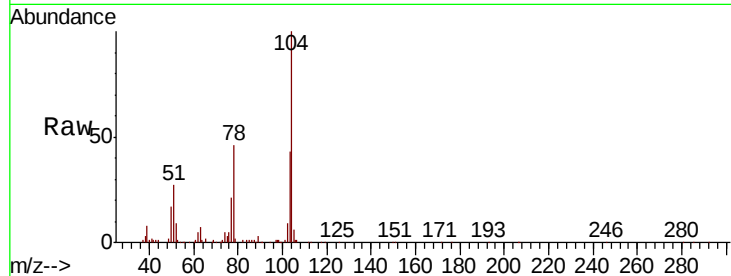
#61
Stvrene
Concen: 1.401 ppbv
RT: 13.53 min Scan# 3340
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Instrument :
MSVOA_L
ClientSampleId :
IA1RE

Tot Ion	Ratio	Lower	Upper
104	100		
78	52.4	41.5	62.3
103	52.0	40.2	60.2

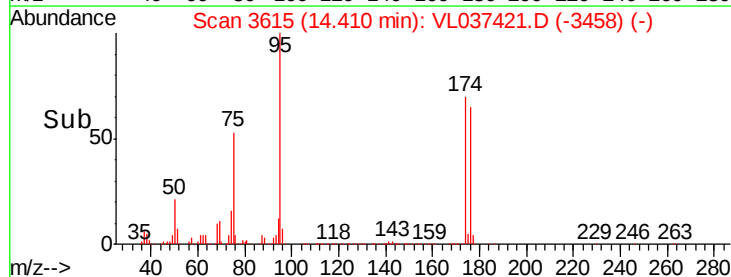
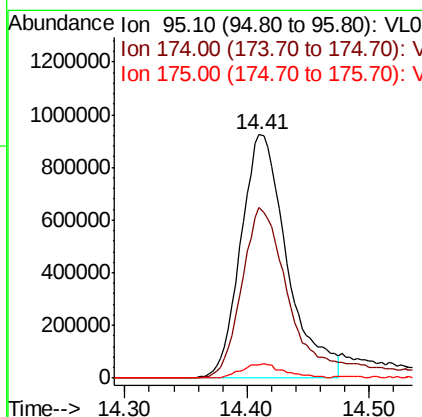
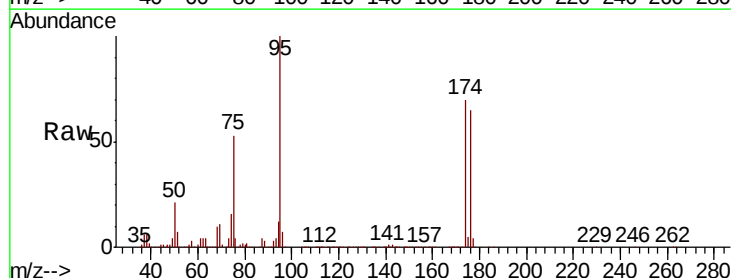
Manual Integrations
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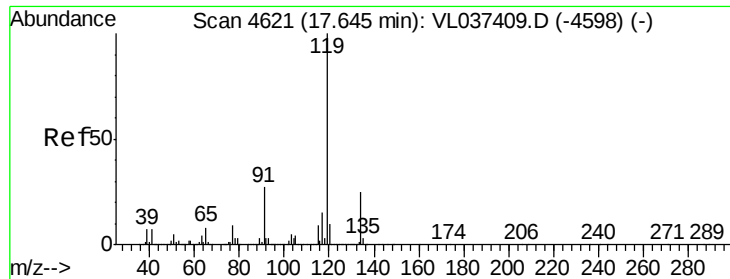
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#68
1-Bromo-4-Fluorobenzene
Concen: 10.064 ppbv
RT: 14.41 min Scan# 3615
Delta R.T. 0.00 min
Lab File: VL037421.D
Acq: 12 Aug 2021 20:05

Tgt Ion	Ratio	Lower	Upper
95	100		
174	78.9	59.6	89.4
175	6.2	4.3	6.5





#69

p-Isopropyltoluene

Concen: 0.113 ppbv m

RT: 17.65 min Scan# 4622

Delta R.T. 0.00 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Instrument :

MSVOA_L

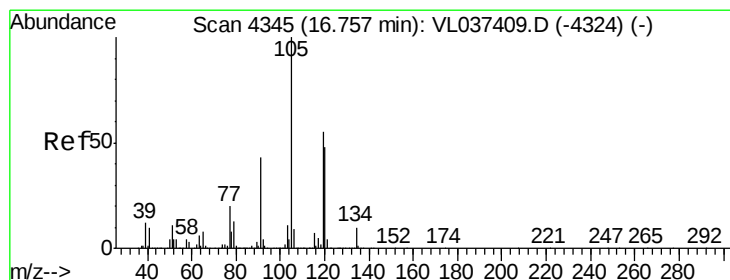
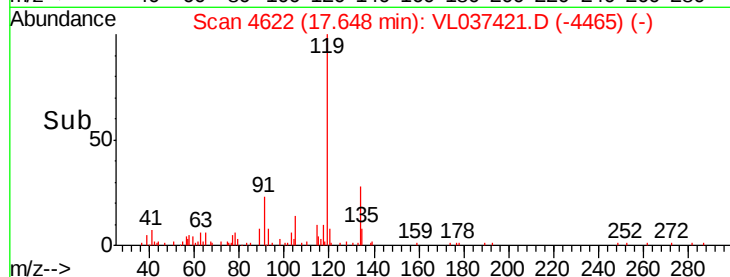
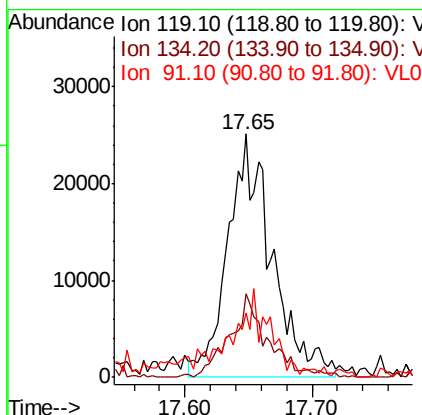
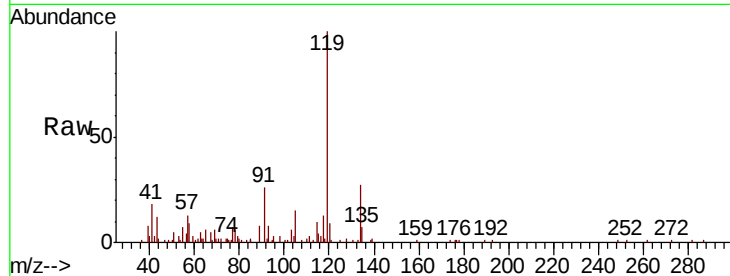
ClientSampleId :

IA1RE

Tot Ion:	119	Resp:	60400
Ion Ratio	Lower	Upper	
119	100		
134	29.6	20.6	31.0
91	0.0	22.4	33.6#

Manual Integrations
APPROVED

apatel
8/13/2021 3:03:07 PM



#74

1,2,4-Trimethylbenzene

Concen: 0.202 ppbv m

RT: 16.75 min Scan# 4343

Delta R.T. -0.01 min

Lab File: VL037421.D

Acq: 12 Aug 2021 20:05

Tgt Ion:	105	Resp:	84678
Ion Ratio	Lower	Upper	
105	100		
120	33.2	38.2	57.2#
91	11.8	35.4	53.2#
77	10.3	16.2	24.2#

