

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL080421\
 Data File : VL037327.D
 Acq On : 5 Aug 2021 4:03
 Operator : SY/AP
 Sample : M3211-05
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-5

Manual Integrations
 APPROVED

MMDadoda
 8/5/2021 1:40:43 PM

Quant Time: Aug 05 08:25:31 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL080421AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Aug 0
 QLast Update : Wed Aug 04 22:53:01 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1068664	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3412577	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2901995	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.40	95	2023182	10.21	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.10%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	67389	0.311	ppbv	94
3) Chlorodifluoromethane	2.99	51	72949	0.336	ppbv #	92
4) Chloromethane	3.14	50	35513	0.456	ppbv	93
9) Propene	3.02	41	50436m	0.642	ppbv	
11) Trichlorofluoromethane	3.94	101	39351	0.197	ppbv	88
13) Ethanol	3.61	45	210850	17.818	ppbv	94
15) Acetone	3.84	43	1878647	16.184	ppbv	96
19) Isopropyl Alcohol	3.99	45	132453m	2.062	ppbv	
20) Methylene Chloride	4.34	84	2279240	23.716	ppbv	99
26) Hexane	5.68	57	1299291	7.692	ppbv #	53
30) Cyclohexane	7.13	84	14607m	0.112	ppbv	
34) 2-Butanone	5.24	43	80934	0.683	ppbv #	88
35) Carbon Tetrachloride	7.01	117	9984m	0.049	ppbv	
36) Benzene	6.88	78	76302	0.248	ppbv	97
44) 2,2,4-Trimethylpentane	7.86	57	87572m	0.173	ppbv	
52) Tetrachloroethene	11.21	164	3995m	0.030	ppbv	
53) Toluene	9.79	91	218545	0.603	ppbv	99
58) Ethyl Benzene	12.70	91	129259	0.303	ppbv	98
59) m/p-Xylene	12.95	91	371458m	1.035	ppbv	
60) o-Xylene	13.68	91	90244	0.277	ppbv	91
74) 1,2,4-Trimethylbenzene	16.75	105	94151m	0.249	ppbv	

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

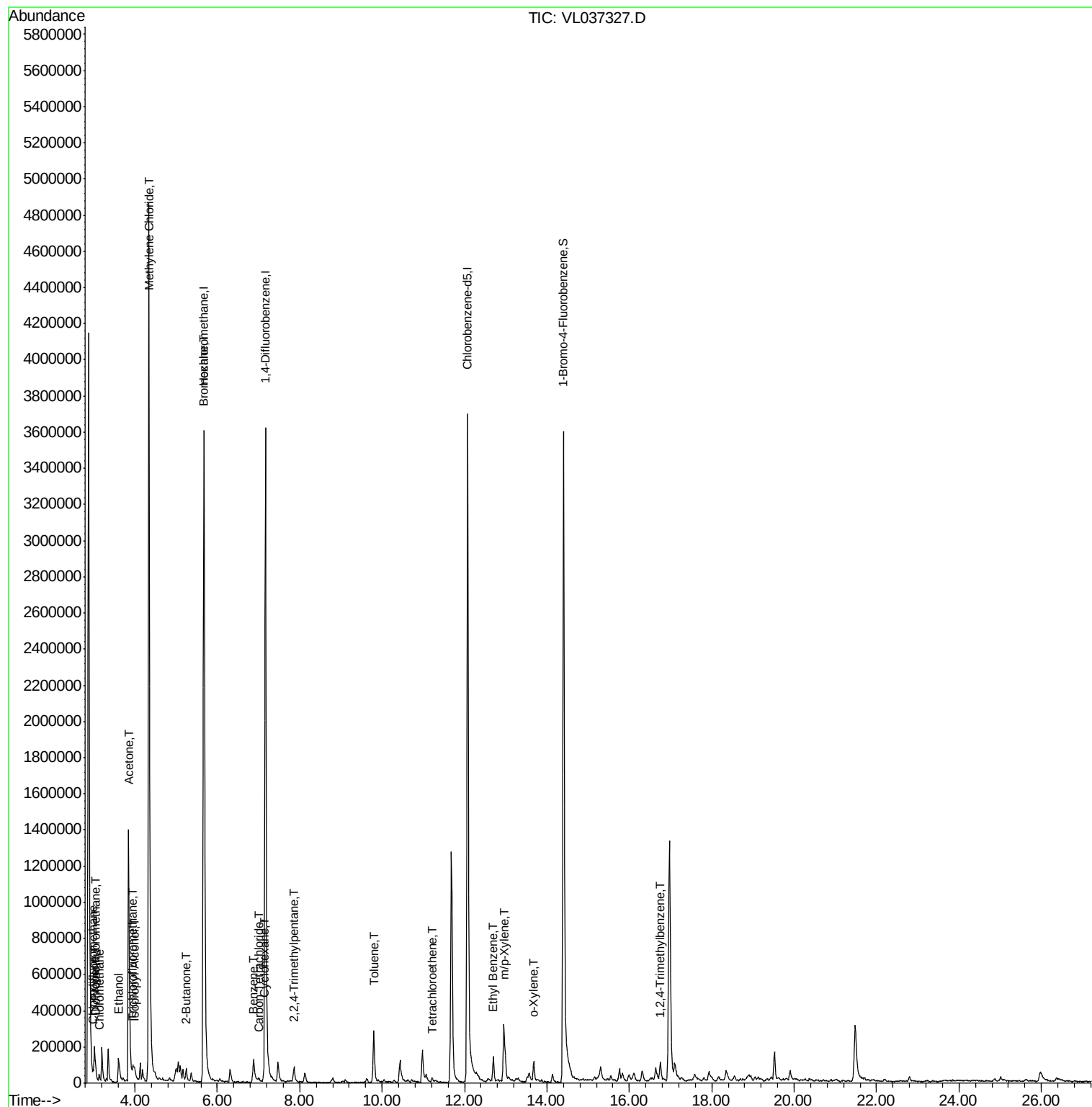
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL080421\
Data File : VL037327.D
Acq On : 5 Aug 2021 4:03
Operator : SY/AP
Sample : M3211-05
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

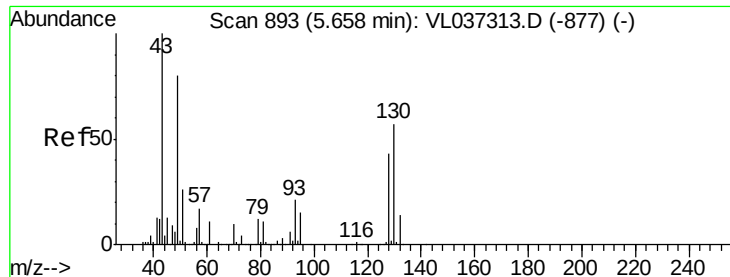
Instrument :
MSVOA_L
ClientSampleId :
SVP-5

Manual Integrations
APPROVED

MMDadoda
8/5/2021 1:40:43 PM

Quant Time: Aug 05 08:25:31 2021
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL080421AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Aug
QLast Update : Wed Aug 04 22:53:01 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. 0.00 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

Instrument :

MSVOA_L

ClientSampleId :

SVP-5

Tot Ion: 49 Resp: 1068664

Ion Ratio Lower Upper

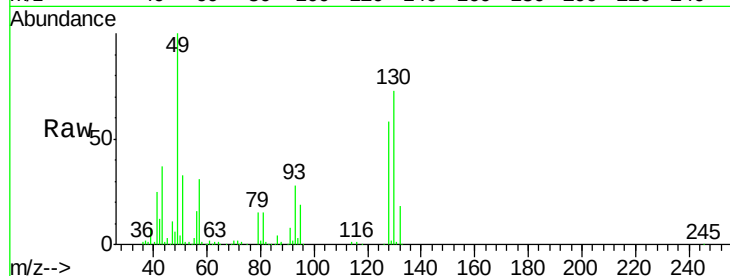
49 100

128 58.4 29.8 89.5

130 77.2 37.5 112.7

Manual Integrations
APPROVED

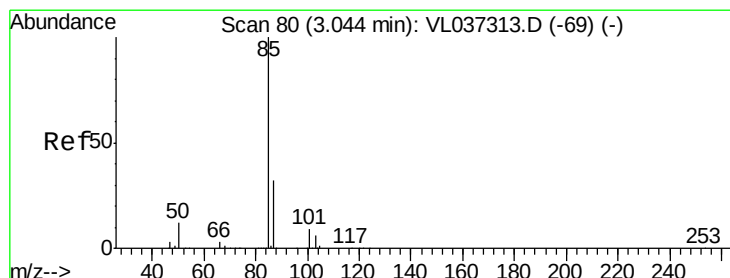
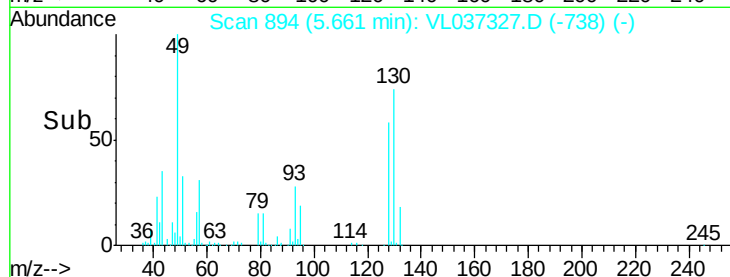
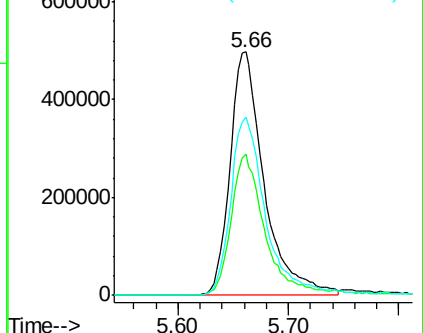
MMDadoda
8/5/2021 1:40:43 PM



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: 0.311 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL037327.D

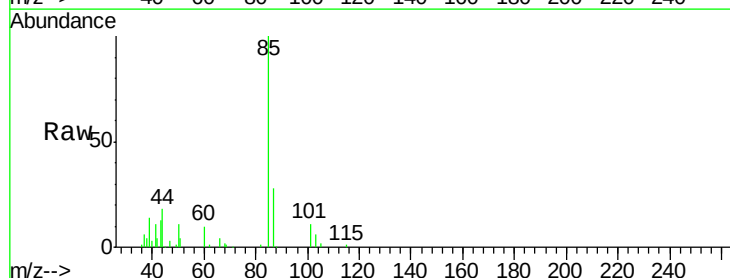
Acq: 5 Aug 2021 4:03

Tgt Ion: 85 Resp: 67389

Ion Ratio Lower Upper

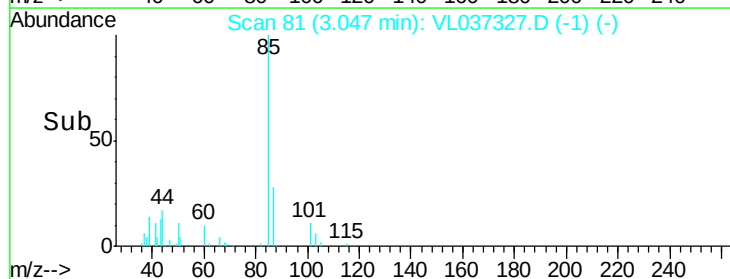
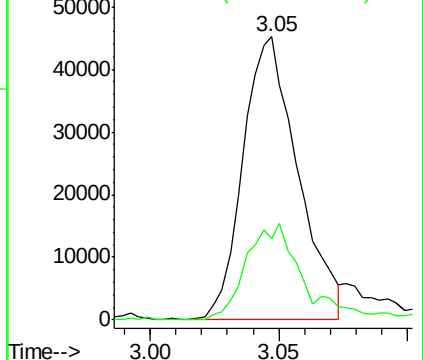
85 100

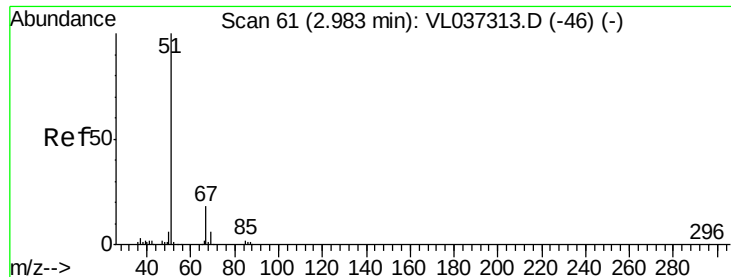
87 28.5 25.5 38.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.336 ppbv

RT: 2.99 min Scan# 62

Delta R.T. 0.00 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

Instrument :

MSVOA_L

ClientSampleId :

SVP-5

Tot Ion: 51 Resp: 72949

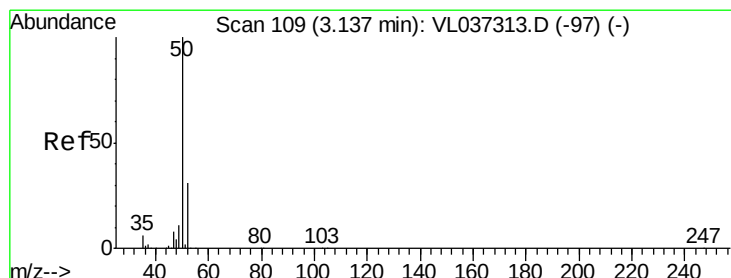
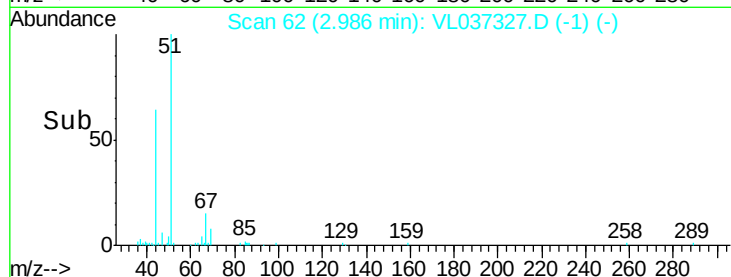
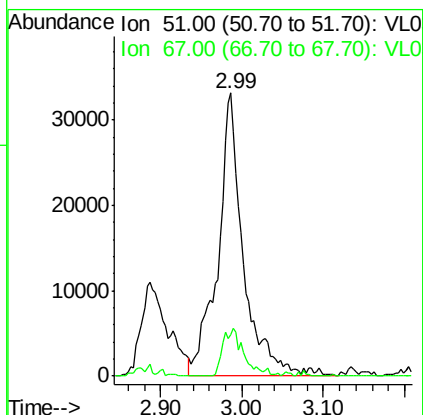
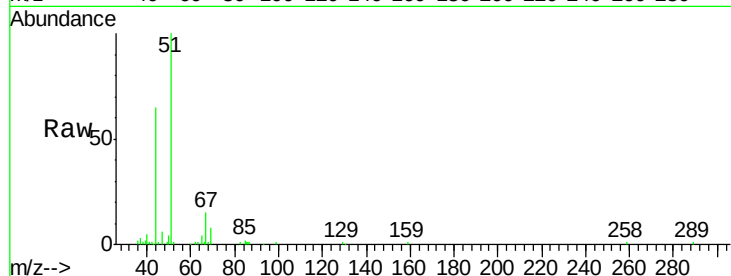
Ion Ratio Lower Upper

51 100

67 14.1 14.2 21.2#

Manual Integrations
APPROVED

MMDadoda
8/5/2021 1:40:43 PM



#4

Chloromethane

Concen: 0.456 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL037327.D

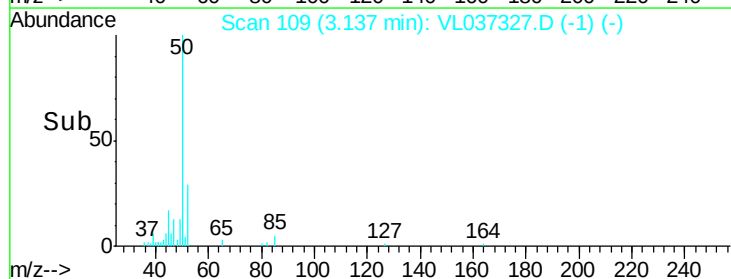
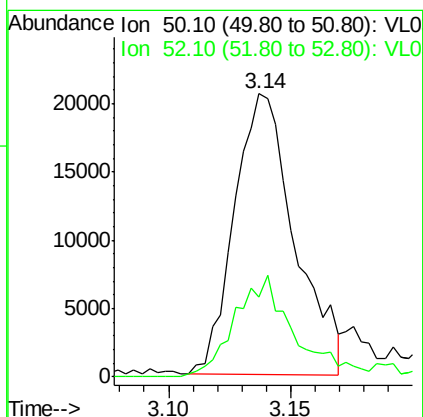
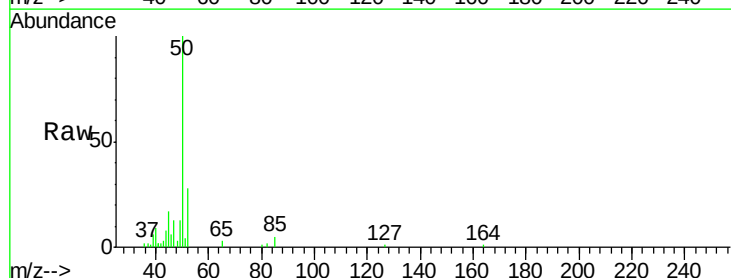
Acq: 5 Aug 2021 4:03

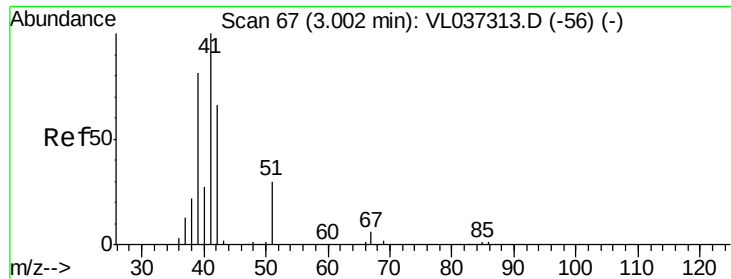
Tgt Ion: 50 Resp: 35513

Ion Ratio Lower Upper

50 100

52 27.6 25.1 37.7





#9

Propene

Concen: 0.642 ppbv m

RT: 3.02 min Scan# 71

Delta R.T. 0.01 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

Instrument :

MSVOA_L

ClientSampled :

SVP-5

Tot Ion: 41 Resp: 50436

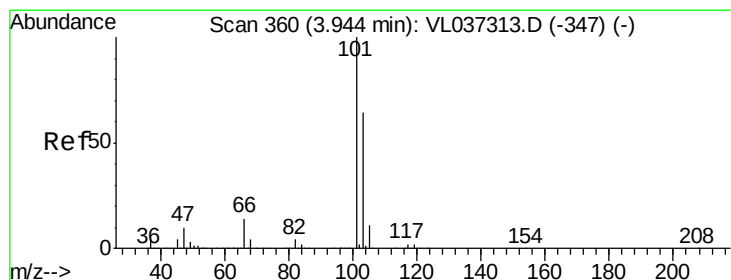
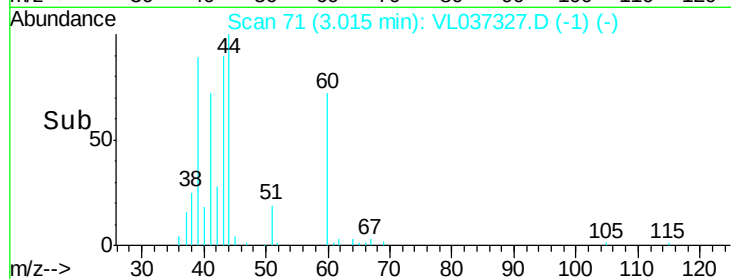
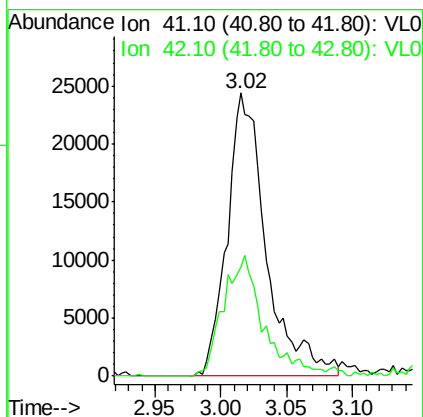
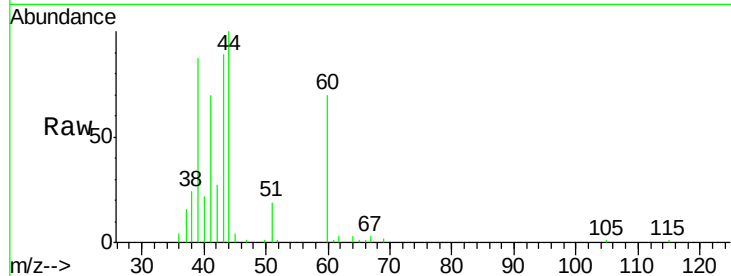
Ion Ratio Lower Upper

41 100

42 44.7 53.8 80.8#

Manual Integrations
APPROVED

MMDadoda
8/5/2021 1:40:43 PM



#11

Trichlorofluoromethane

Concen: 0.197 ppbv

RT: 3.94 min Scan# 360

Delta R.T. -0.00 min

Lab File: VL037327.D

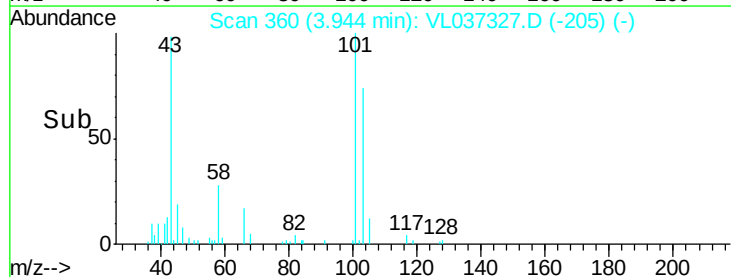
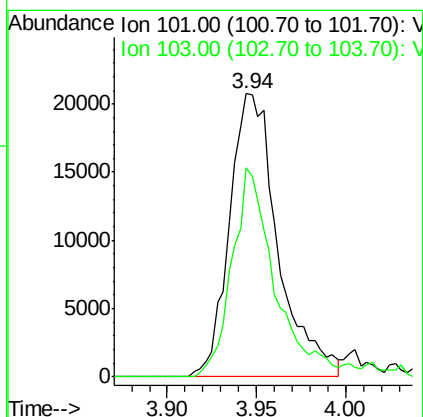
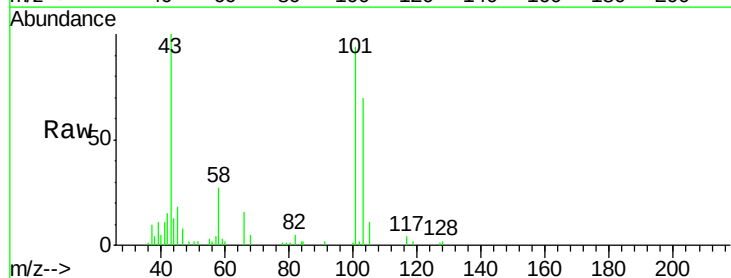
Acq: 5 Aug 2021 4:03

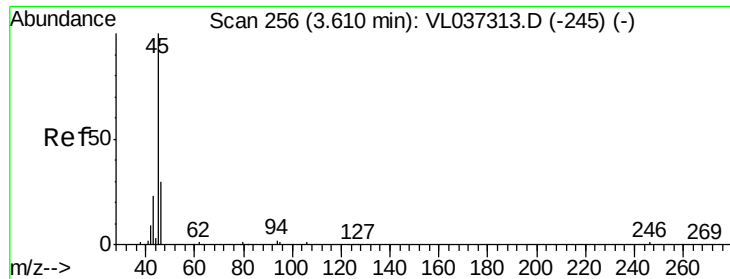
Tgt Ion: 101 Resp: 39351

Ion Ratio Lower Upper

101 100

103 73.7 51.6 77.4





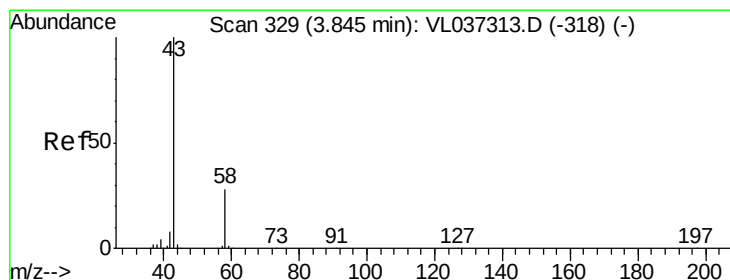
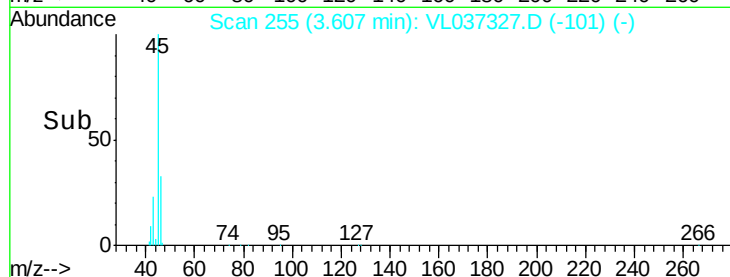
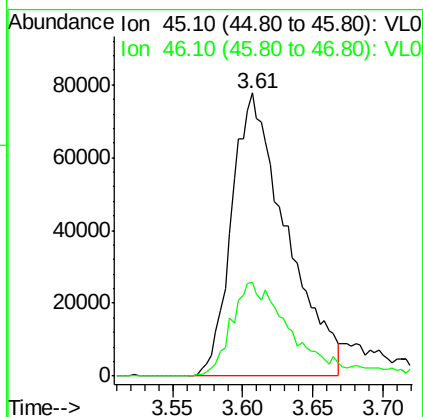
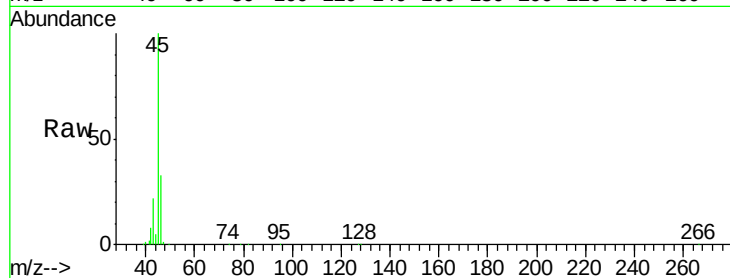
#13
Ethanol
Concen: 17.818 ppbv
RT: 3.61 min Scan# 255
Delta R.T. -0.00 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Instrument :
MSVOA_L
ClientSampleId :
SVP-5

Tot Ion: 45 Resp: 210850
Ion Ratio Lower Upper
45 100
46 38.0 16.6 66.4

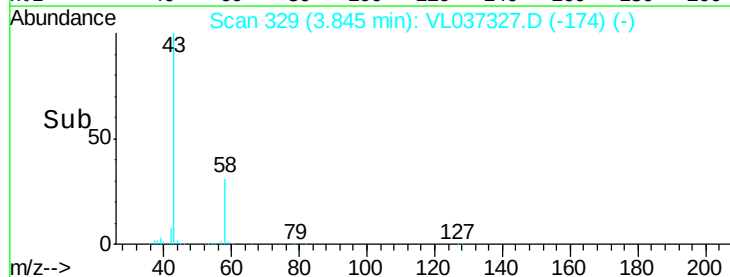
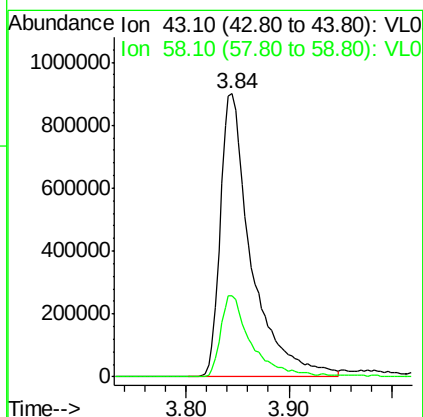
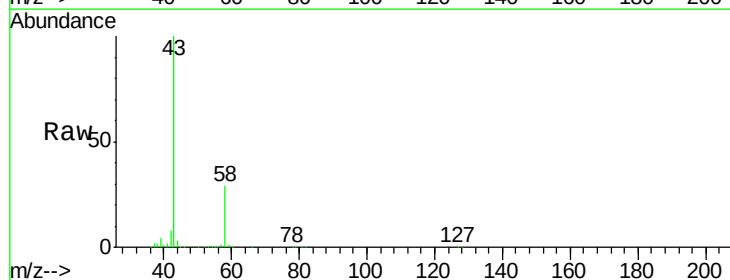
Manual Integrations
APPROVED

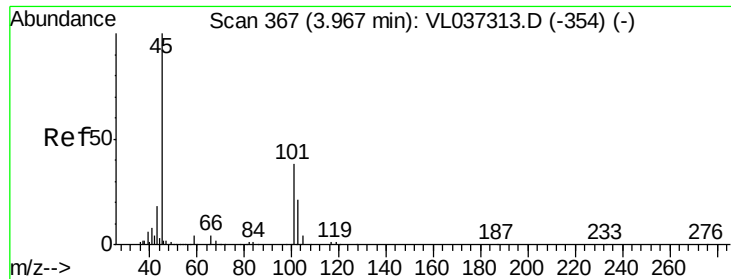
MMDadoda
8/5/2021 1:40:43 PM



#15
Acetone
Concen: 16.184 ppbv
RT: 3.84 min Scan# 329
Delta R.T. -0.00 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Tgt Ion: 43 Resp: 1878647
Ion Ratio Lower Upper
43 100
58 29.6 25.3 37.9





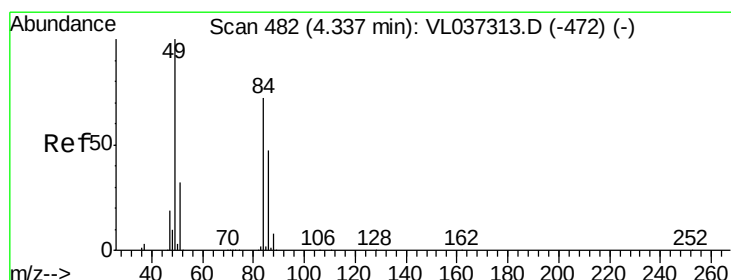
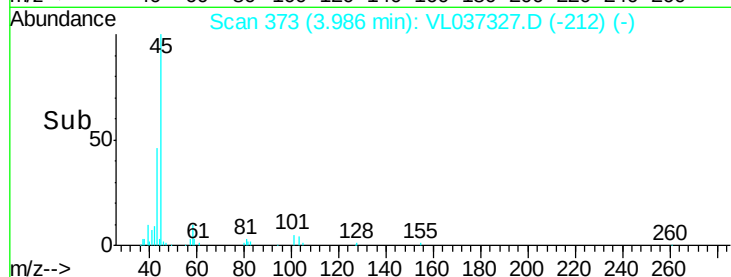
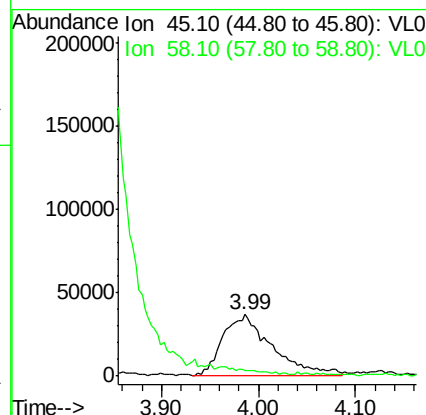
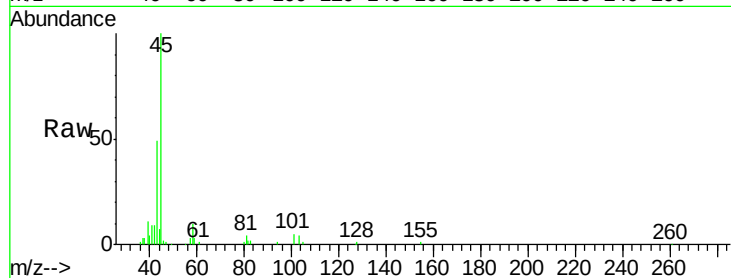
#19
Isopropyl Alcohol
Concen: 2.062 ppbv m
RT: 3.99 min Scan# 373
Delta R.T. 0.02 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Instrument :
MSVOA_L
ClientSampleId :
SVP-5

Tot Ion	Ratio	Lower	Upper
45	100		
58	0.0	1.8	2.8#

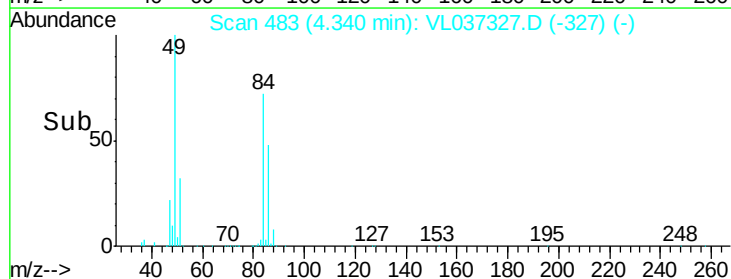
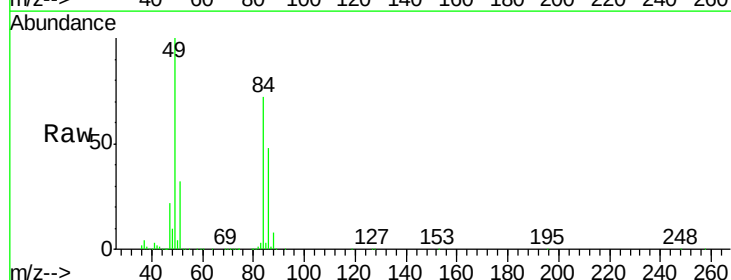
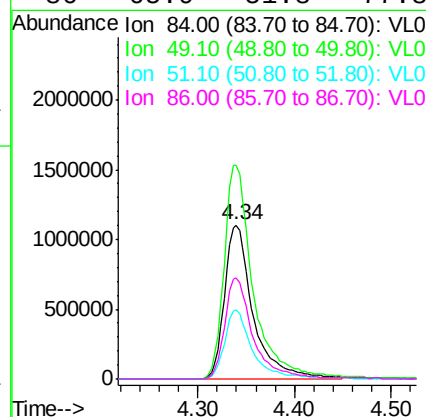
Manual Integrations
APPROVED

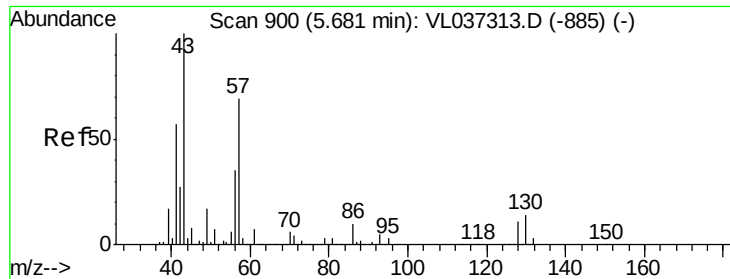
MMDadoda
8/5/2021 1:40:43 PM



#20
Methylene Chloride
Concen: 23.716 ppbv
RT: 4.34 min Scan# 483
Delta R.T. 0.00 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Tgt Ion	Ratio	Lower	Upper
84	100		
49	138.5	110.4	165.6
51	44.7	35.8	53.6
86	65.9	51.8	77.8





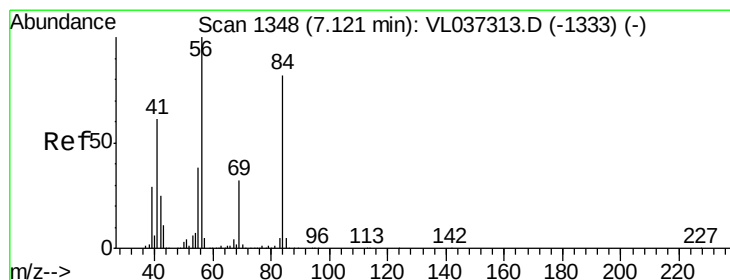
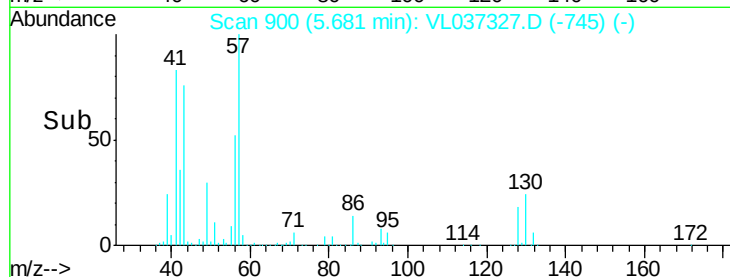
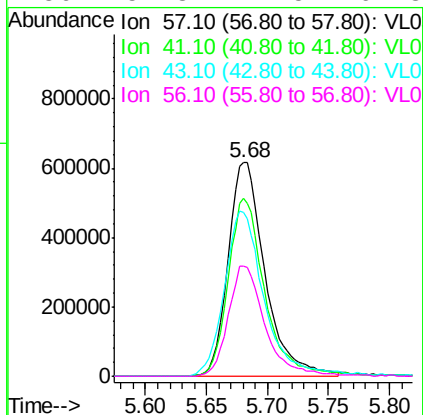
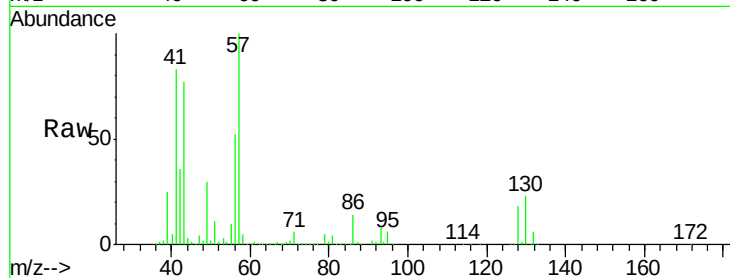
#26
Hexane
Concen: 7.692 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.00 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Instrument :
MSVOA_L
ClientSampleId :
SVP-5

Tot Ion	Ratio	Lower	Upper
57	100		
41	83.7	67.5	101.3
43	84.3	163.0	244.4#
56	51.8	41.5	62.3

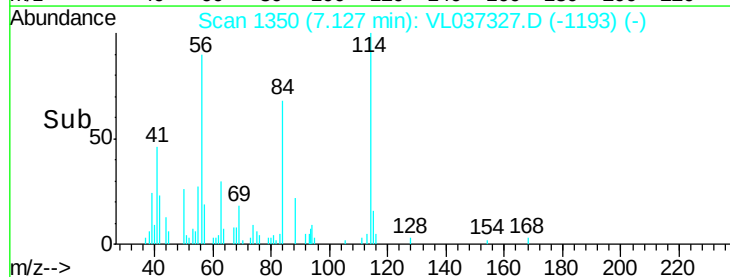
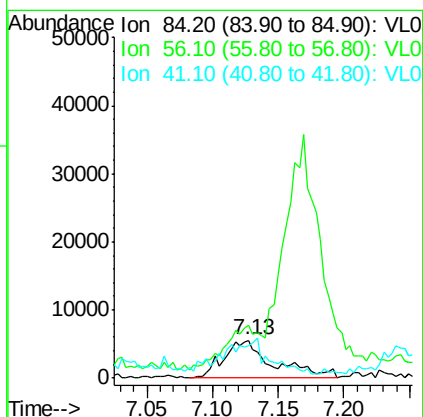
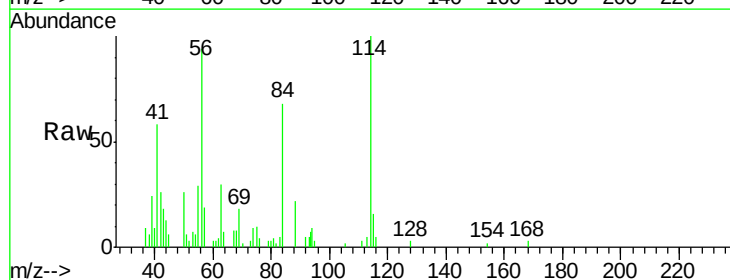
Manual Integrations
APPROVED

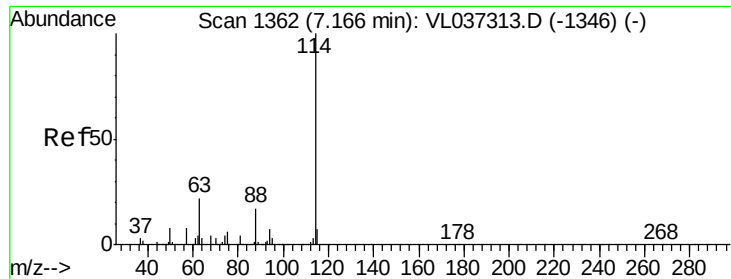
MMDadoda
8/5/2021 1:40:43 PM



#30
Cyclohexane
Concen: 0.112 ppbv m
RT: 7.13 min Scan# 1350
Delta R.T. 0.01 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	105.2	157.8#
41	100.1	61.3	91.9#





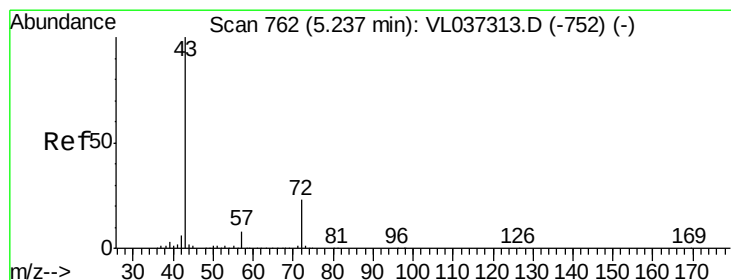
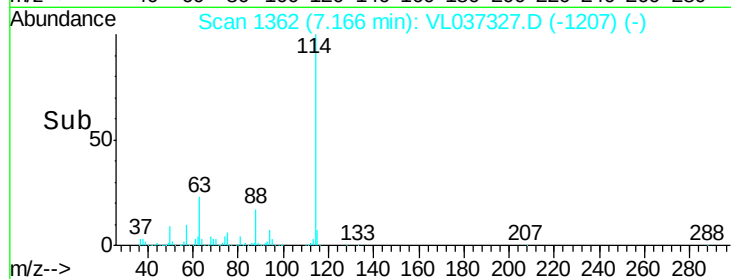
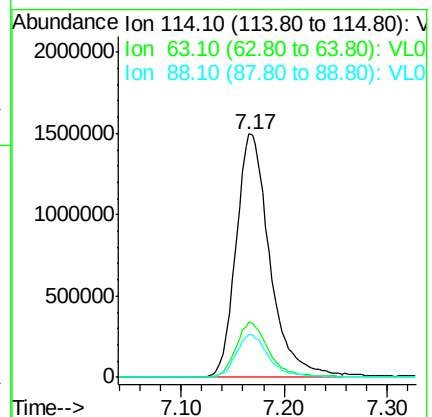
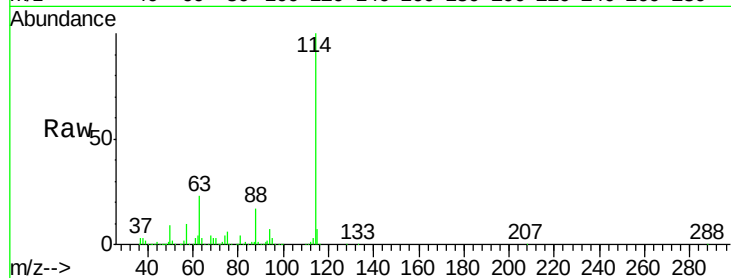
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1362
 Delta R.T. -0.00 min
 Lab File: VL037327.D
 Acq: 5 Aug 2021 4:03

Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-5

Tot Ion	Ratio	Lower	Upper
114	100		
63	22.4	18.1	27.1
88	17.4	13.8	20.8

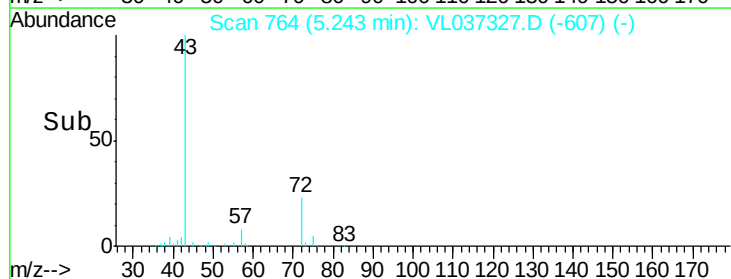
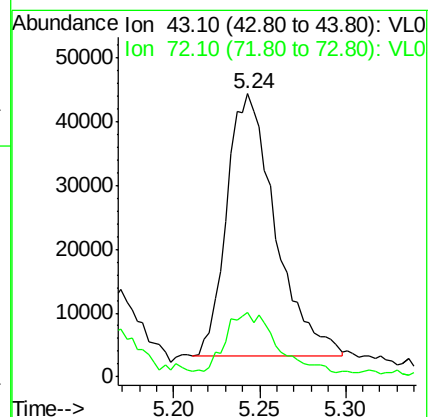
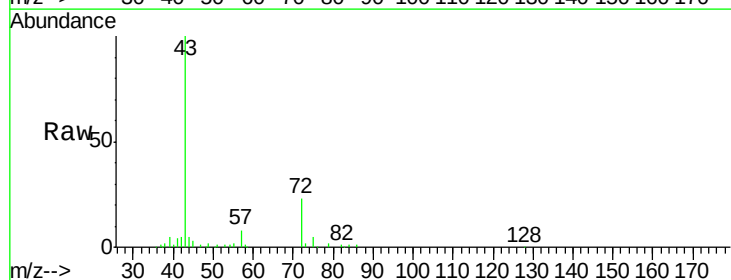
Manual Integrations
 APPROVED

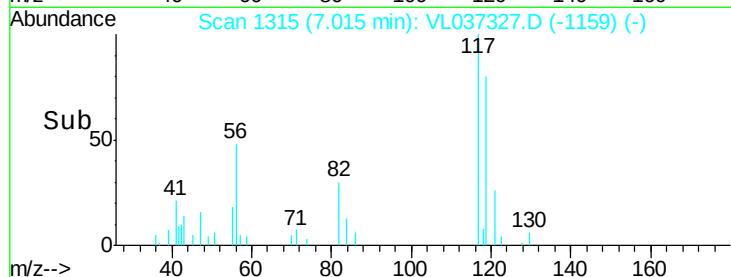
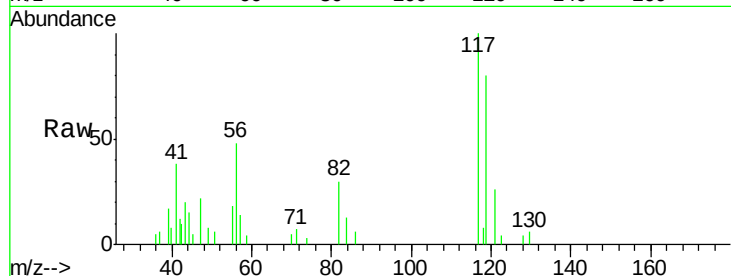
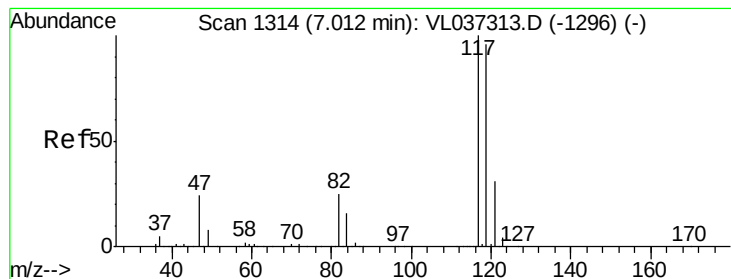
MMDadoda
 8/5/2021 1:40:43 PM



#34
 2-Butanone
 Concen: 0.683 ppbv
 RT: 5.24 min Scan# 764
 Delta R.T. 0.01 min
 Lab File: VL037327.D
 Acq: 5 Aug 2021 4:03

Tgt Ion	Ratio	Lower	Upper
43	100		
72	31.4	20.3	30.5#





#35

Carbon Tetrachloride

Concen: 0.049 ppbv m

RT: 7.01 min Scan# 1315

Delta R.T. 0.00 min

Lab File: VL037327.D

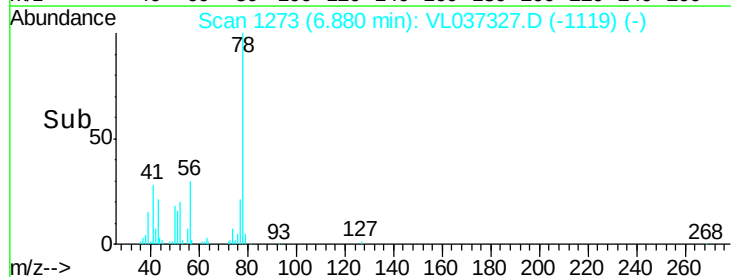
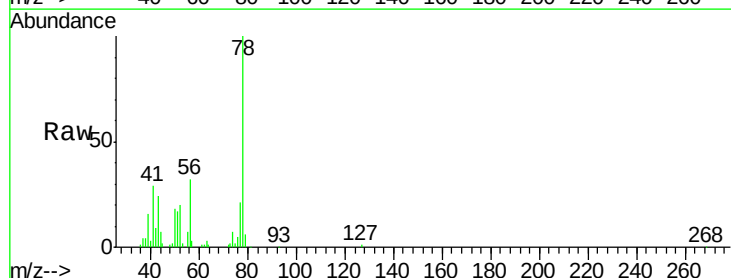
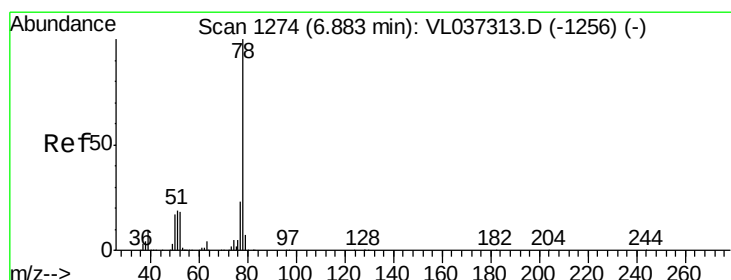
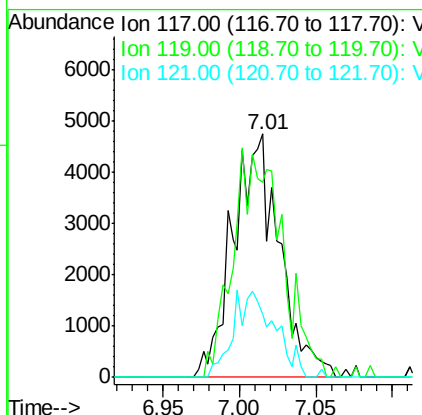
Acq: 5 Aug 2021 4:03

Tot Ion:	117	Resp:	9984
Ion	Ratio	Lower	Upper
117	100		
119	80.3	76.6	114.8
121	26.1	24.9	37.3

Instrument :
MSVOA_L
ClientSampleId :
SVP-5

Manual Integrations
APPROVED

MMDadoda
8/5/2021 1:40:43 PM



#36

Benzene

Concen: 0.248 ppbv

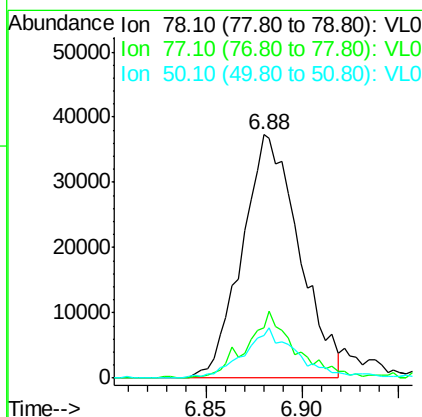
RT: 6.88 min Scan# 1273

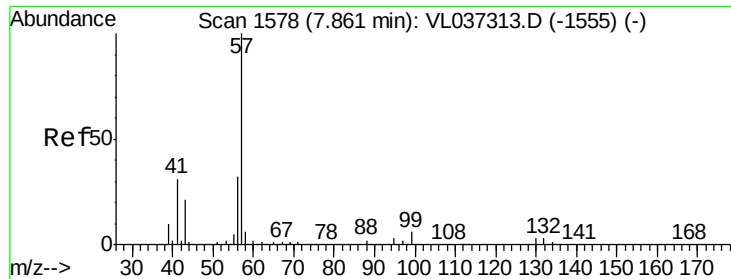
Delta R.T. -0.00 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

Tgt Ion:	78	Resp:	76302
Ion	Ratio	Lower	Upper
78	100		
77	20.6	18.7	28.1
50	17.0	13.7	20.5





#44

2,2,4-Trimethylpentane

Concen: 0.173 ppbv m

RT: 7.86 min Scan# 1579

Delta R.T. 0.00 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

Instrument :

MSVOA_L

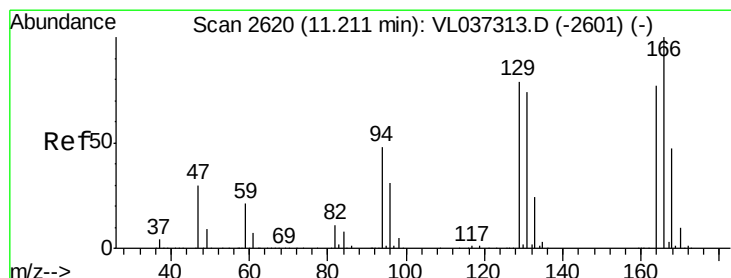
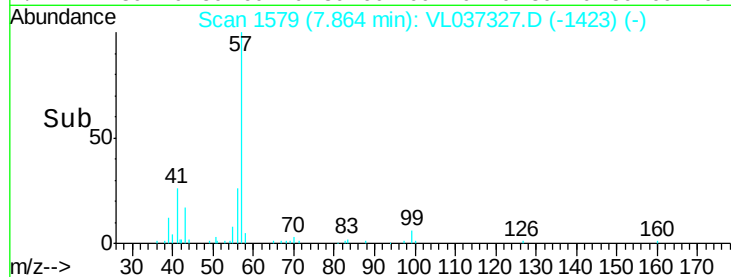
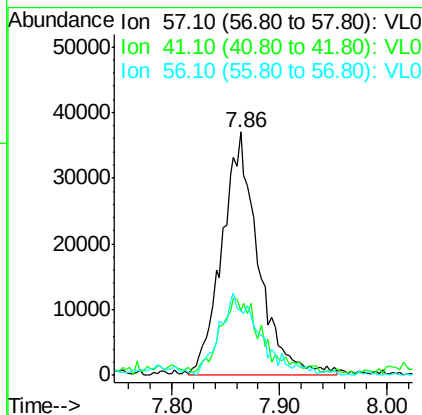
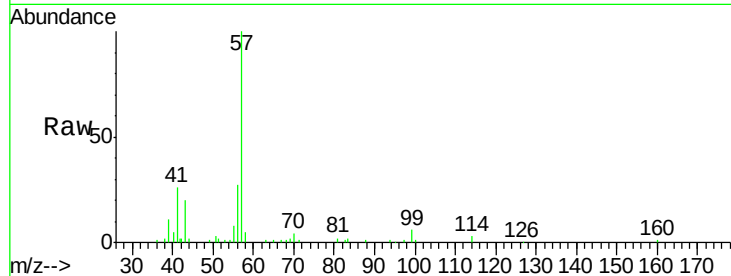
ClientSampled :

SVP-5

Tot Ion:	57	Resp:	87572
Ion Ratio	Lower	Upper	
57	100		
41	41.2	24.3	36.5#
56	37.5	25.0	37.6

Manual Integrations
APPROVED

MMDadoda
8/5/2021 1:40:43 PM



#52

Tetrachloroethene

Concen: 0.030 ppbv m

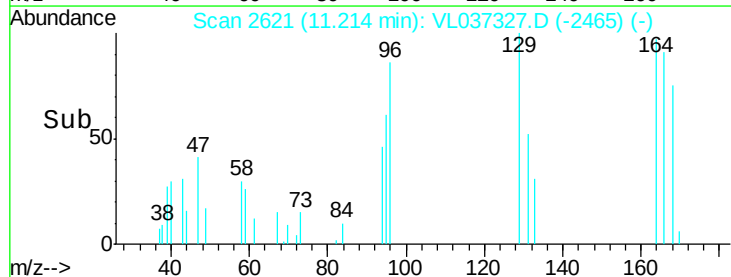
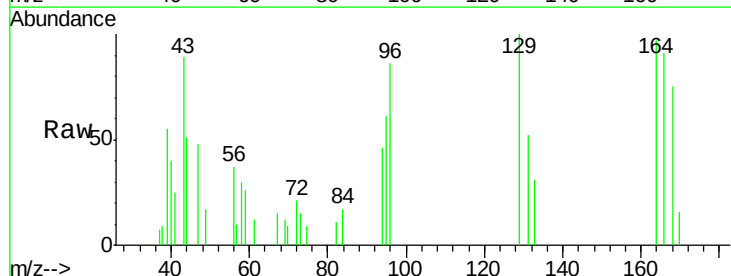
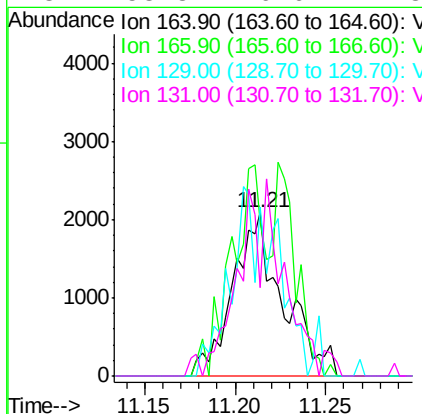
RT: 11.21 min Scan# 2621

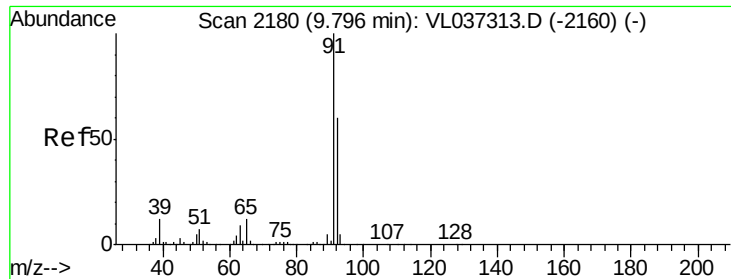
Delta R.T. 0.00 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

Tgt Ion:	164	Resp:	3995
Ion Ratio	Lower	Upper	
164	100		
166	93.9	103.4	155.2#
129	103.5	82.2	123.2
131	53.8	76.6	114.8#





#53

Toluene

Concen: 0.603 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

Instrument :

MSVOA_L

ClientSampled :

SVP-5

Tot Ion: 91 Resp: 218545

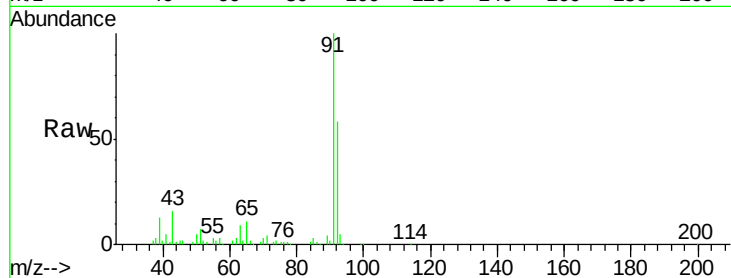
Ion Ratio Lower Upper

91 100

92 61.9 48.8 73.2

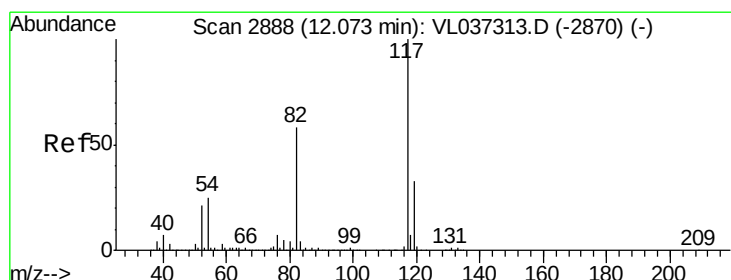
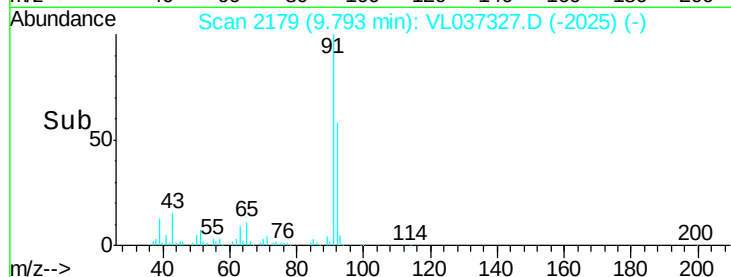
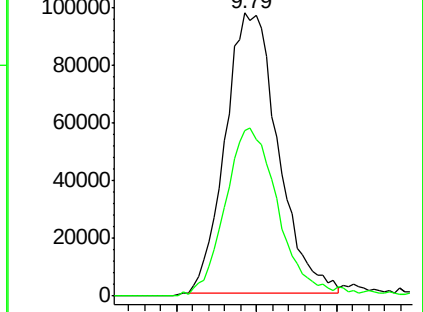
Manual Integrations
APPROVED

MMDadoda
8/5/2021 1:40:43 PM



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: 12.07 min Scan# 2888

Delta R.T. -0.00 min

Lab File: VL037327.D

Acq: 5 Aug 2021 4:03

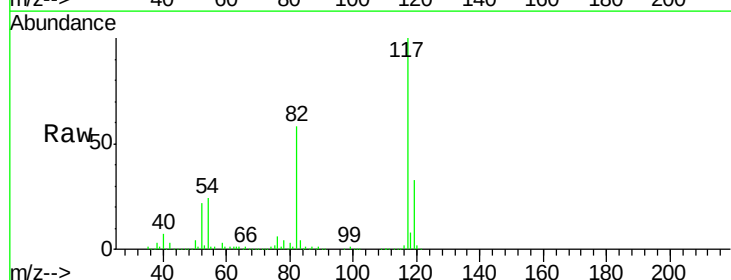
Tgt Ion: 117 Resp: 2901995

Ion Ratio Lower Upper

117 100

82 63.3 50.3 75.5

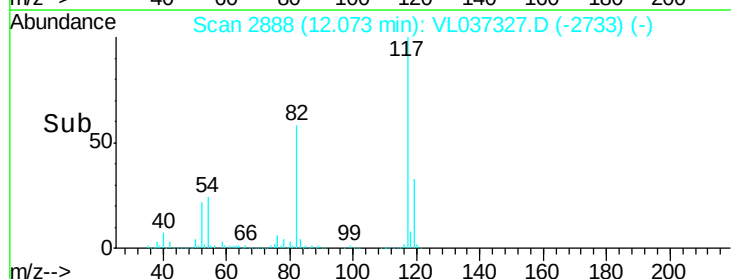
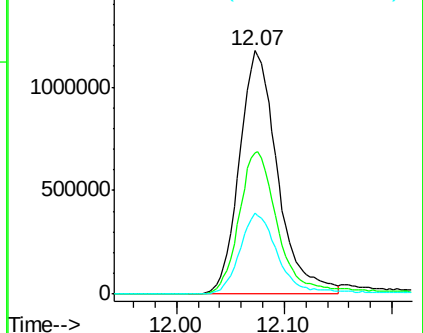
119 34.7 48.2 72.2#

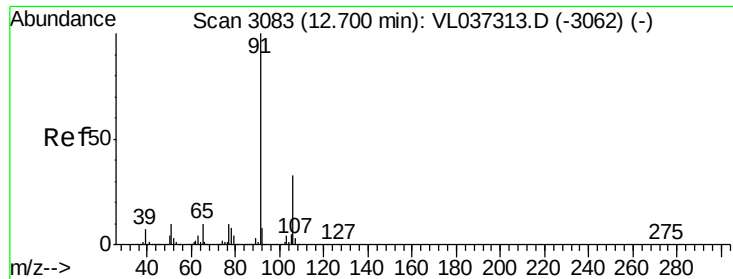


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





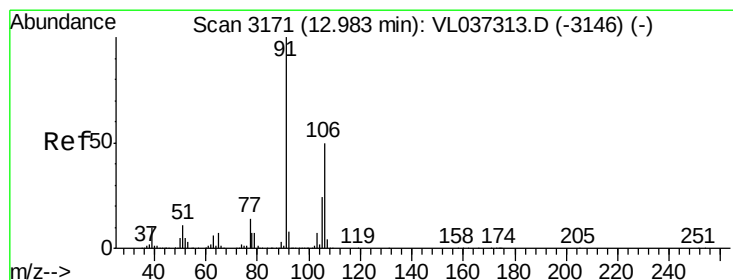
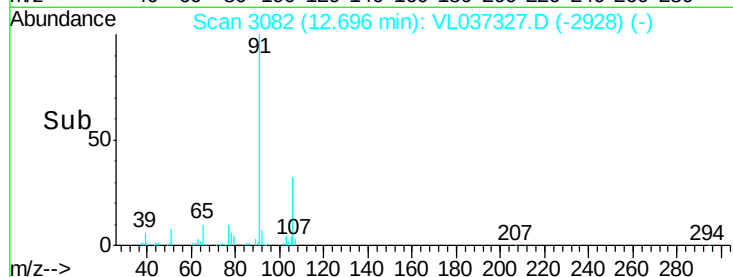
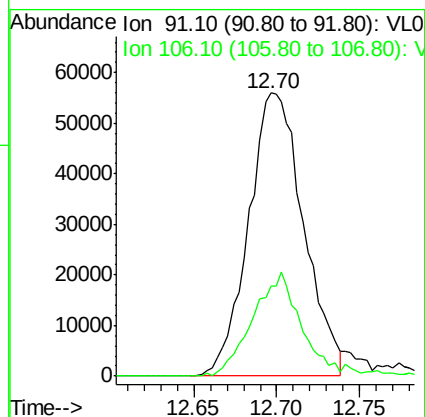
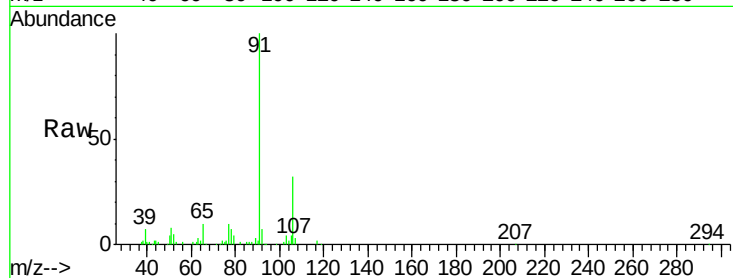
#58
Ethyl Benzene
Concen: 0.303 ppbv
RT: 12.70 min Scan# 3082
Delta R.T. -0.00 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Instrument :
MSVOA_L
ClientSampled :
SVP-5

Tot Ion	Ratio	Lower	Upper
91	100		
106	31.8	26.2	39.2

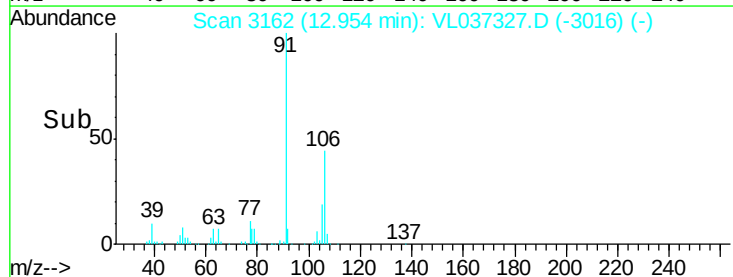
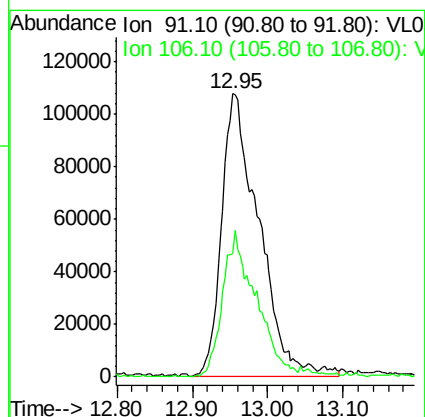
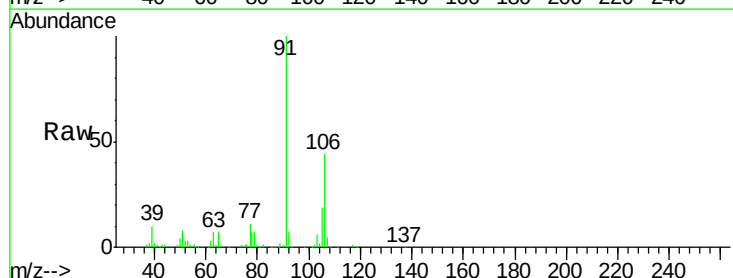
Manual Integrations
APPROVED

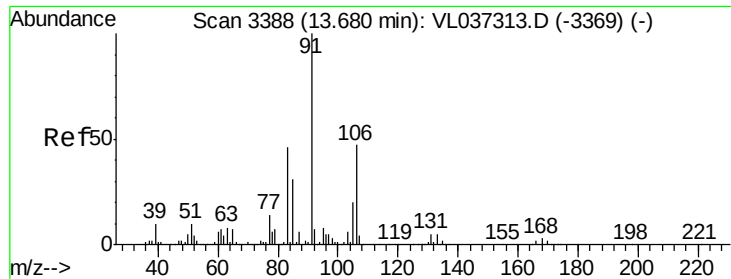
MMDadoda
8/5/2021 1:40:43 PM



#59
m/p-Xylene
Concen: 1.035 ppbv m
RT: 12.95 min Scan# 3162
Delta R.T. -0.03 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Tgt Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.8	56.8#





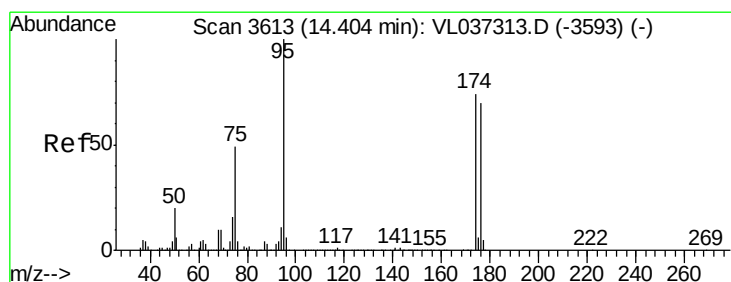
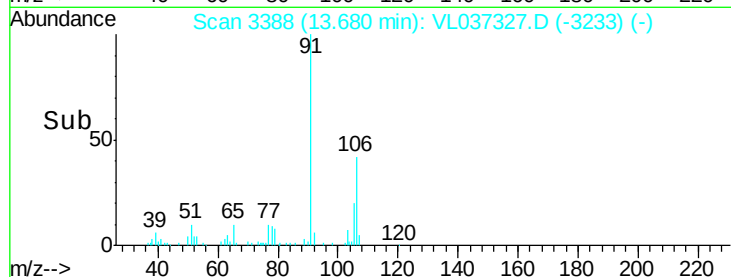
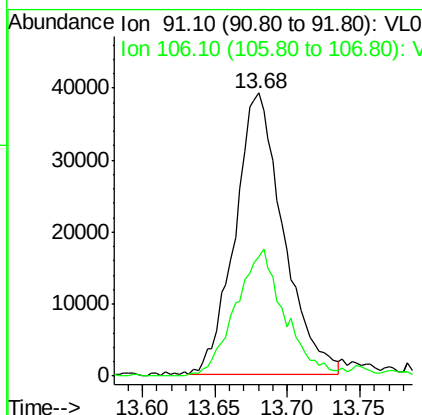
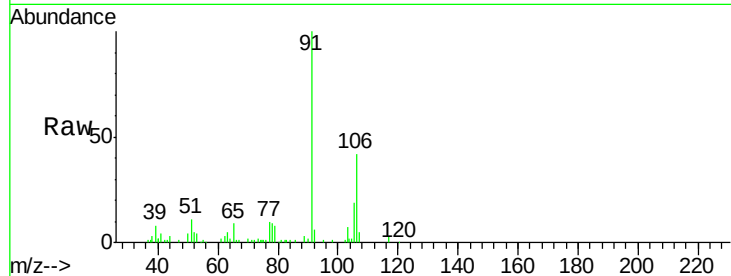
#60
o-Xylene
Concen: 0.277 ppbv
RT: 13.68 min Scan# 3388
Delta R.T. -0.00 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Instrument :
MSVOA_L
ClientSampled :
SVP-5

Tot Ion: 91 Resp: 90244
Ion Ratio Lower Upper
91 100
106 45.9 26.3 78.8

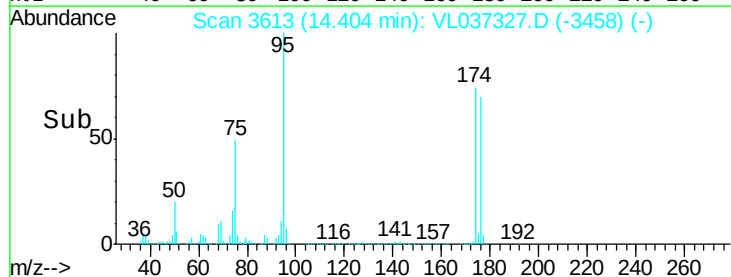
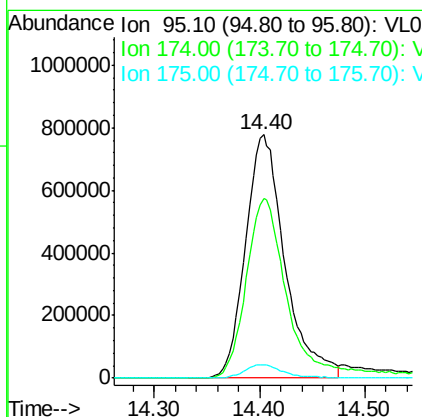
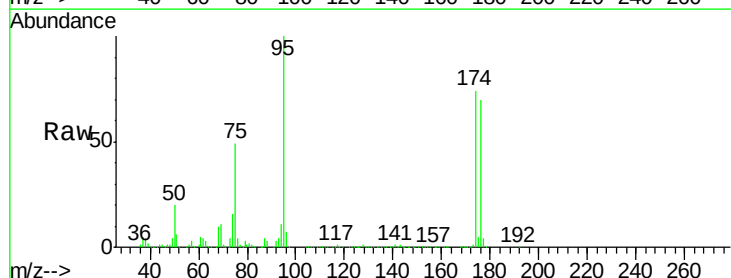
Manual Integrations
APPROVED

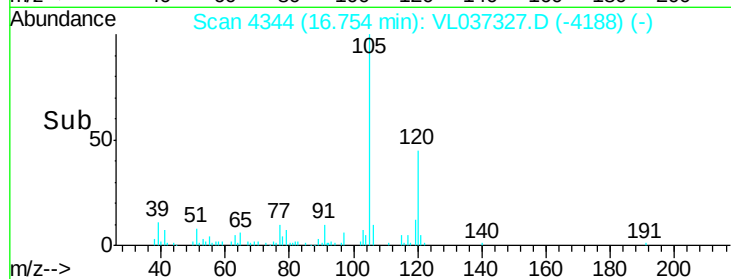
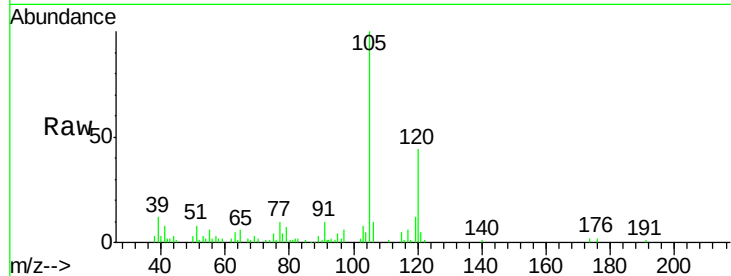
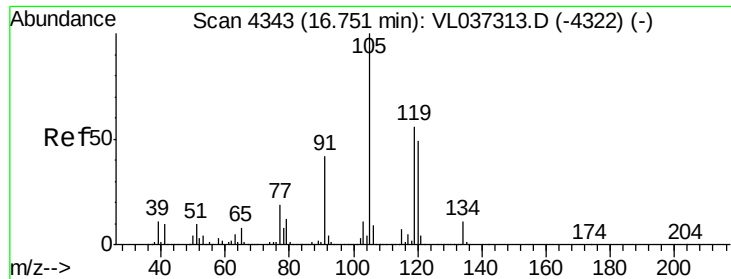
MMDadoda
8/5/2021 1:40:43 PM



#68
1-Bromo-4-Fluorobenzene
Concen: 10.206 ppbv
RT: 14.40 min Scan# 3613
Delta R.T. -0.00 min
Lab File: VL037327.D
Acq: 5 Aug 2021 4:03

Tgt Ion: 95 Resp: 2023182
Ion Ratio Lower Upper
95 100
174 80.1 66.9 100.3
175 5.8 5.1 7.7





#74
 1,2,4-Trimethylbenzene
 Concen: 0.249 ppbv m
 RT: 16.75 min Scan# 4344
 Delta R.T. 0.00 min
 Lab File: VL037327.D
 Acq: 5 Aug 2021 4:03

Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-5

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	44.4	39.6	59.4
91	10.3	34.5	51.7#
77	10.0	15.3	22.9#

Manual Integrations
 APPROVED

MMDadoda
 8/5/2021 1:40:43 PM

