

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL090518\
 Data File : VL032472.D
 Acq On : 6 Sep 2018 1:51
 Operator : SY/AP
 Sample : J4805-01 4X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VP-1

Manual Integrations
 APPROVED

MMDadoda
 9/7/2018 10:46:07 AM

Quant Time: Sep 06 05:47:06 2018

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL083118AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 31

QLast Update : Fri Aug 31 21:33:46 2018

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.80	49	1511458	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.34	114	3103413	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.29	117	3100157	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.63	95	3989681	17.33	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	173.30%#

Target Compounds

						Ovalue
3) Chlorodifluoromethane	3.04	51	21018	0.15	ppbv	# 92
4) Chloromethane	3.20	50	12834m	0.15	ppbv	
9) Propene	3.06	41	650111	11.78	ppbv	89
10) Heptane	8.30	43	1977661	9.99	ppbv	98
13) Ethanol	3.68	45	304883	17.72	ppbv	98
15) Acetone	3.93	43	954920	7.02	ppbv	# 53
16) 1,3-Butadiene	3.38	39	129663m	2.02	ppbv	
17) tert-Butyl alcohol	4.40	59	110851	5.29	ppbv	# 100
20) Methylene Chloride	4.44	84	21024	0.41	ppbv	99
26) Hexane	5.82	57	3130310	21.75	ppbv	# 45
27) Carbon Disulfide	4.66	76	64208	0.48	ppbv	99
29) Chloroform	5.89	83	295866	1.35	ppbv	98
32) 1,1,1-Trichloroethane	6.67	97	21635	0.11	ppbv	93
34) 2-Butanone	5.36	43	3244073	15.74	ppbv	100
36) Benzene	7.05	78	377242	1.43	ppbv	96
38) Trichloroethene	8.01	130	341928	3.41	ppbv	93
51) 2-Hexanone	10.31	43	828241	4.14	ppbv	# 81
52) Tetrachloroethene	11.42	164	15685m	0.19	ppbv	
53) Toluene	10.00	91	451781	1.64	ppbv	99
58) Ethyl Benzene	12.92	91	69592	0.19	ppbv	95
59) m/p-Xylene	13.17	91	233938m	0.71	ppbv	
67) sec-Butylbenzene	17.51	105	121032m	0.20	ppbv	
79) Naphthalene	22.47	128	137439m	0.44	ppbv	

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

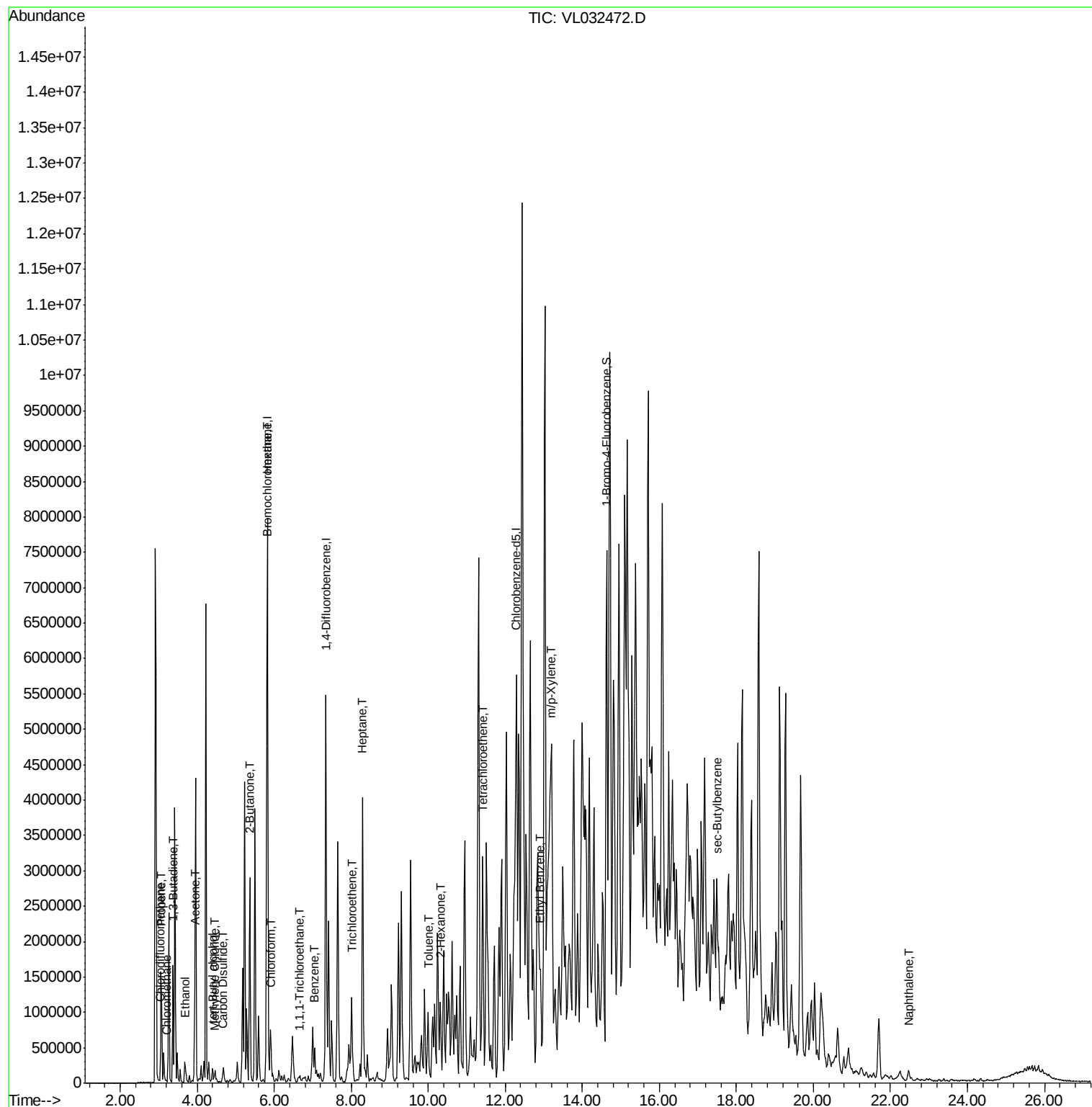
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL090518\
Data File : VL032472.D
Acq On : 6 Sep 2018 1:51
Operator : SY/AP
Sample : J4805-01 4X
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

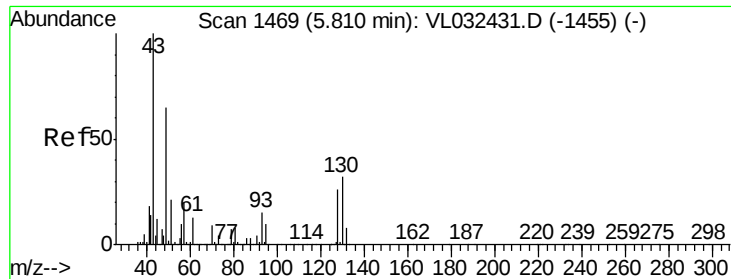
Instrument :
MSVOA_L
ClientSampleId :
VP-1

Manual Integrations
APPROVED

MMDadoda
9/7/2018 10:46:07 AM

Quant Time: Sep 06 05:47:06 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL083118AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Fri Aug 31 21:33:46 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.80 min Scan# 1467

Delta R.T. -0.01 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

ClientSampleId :

VP-1

Tot Ion: 49 Resp: 1511458

Ion Ratio Lower Upper

49 100

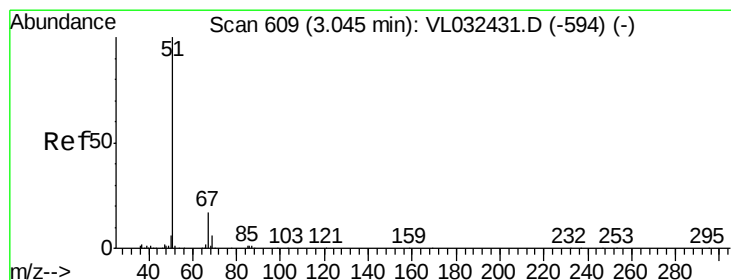
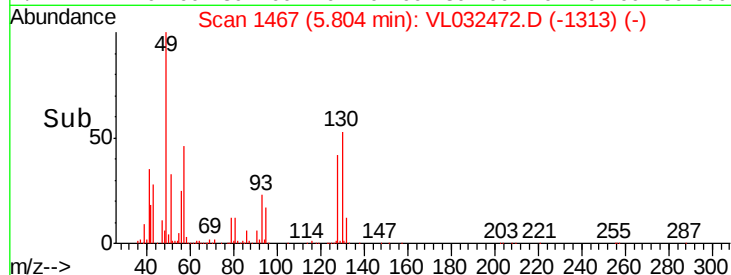
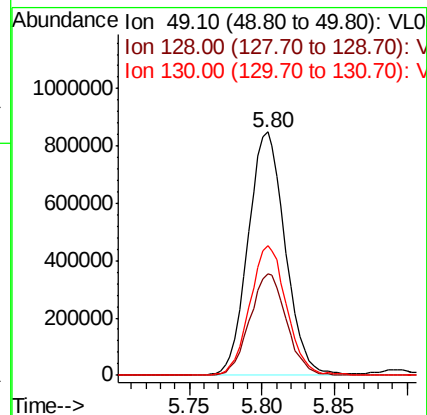
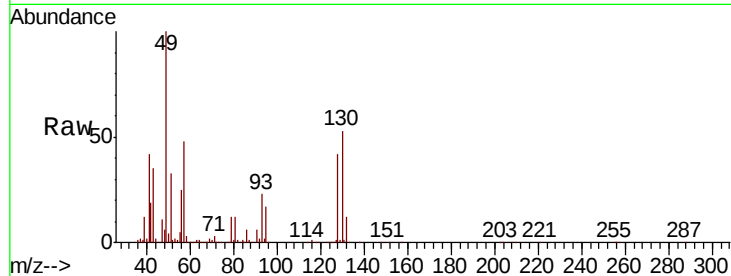
128 41.8 20.7 62.1

130 52.9 26.6 79.7

Manual Integrations
APPROVED

MMDadoda

9/7/2018 10:46:07 AM



#3

Chlorodifluoromethane

Concen: 0.15 ppbv

RT: 3.04 min Scan# 608

Delta R.T. -0.00 min

Lab File: VL032472.D

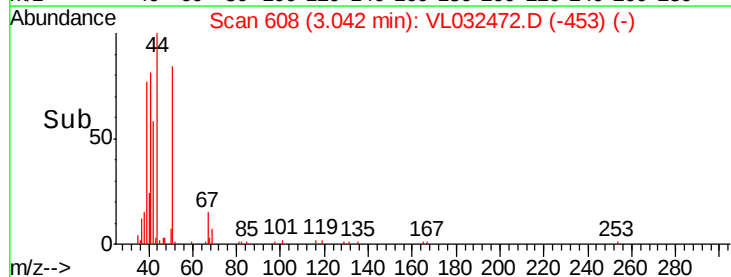
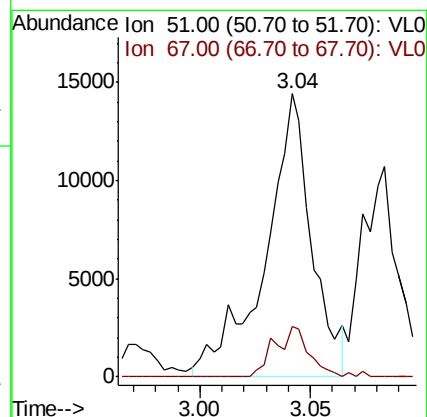
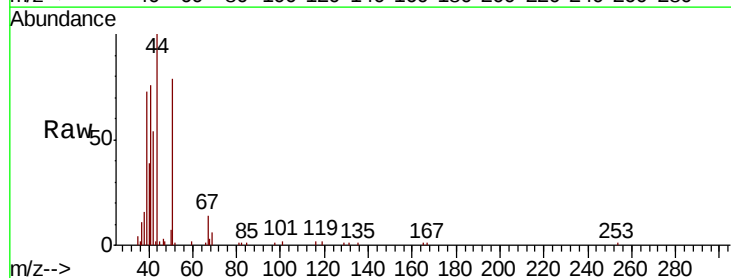
Acq: 6 Sep 2018 1:51

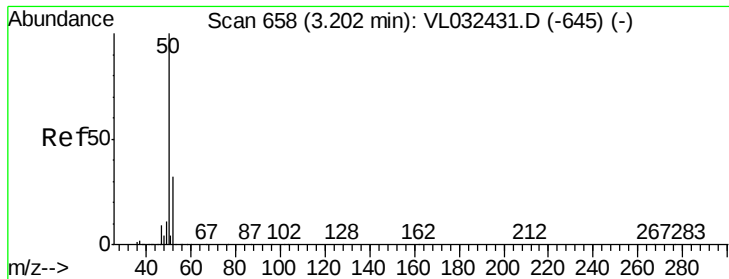
Tgt Ion: 51 Resp: 21018

Ion Ratio Lower Upper

51 100

67 13.6 13.8 20.8#





#4

Chloromethane

Concen: 0.15 ppbv m

RT: 3.20 min Scan# 657

Delta R.T. -0.00 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

ClientSampled :

VP-1

Tot Ion: 50 Resp: 12834

Ion Ratio Lower Upper

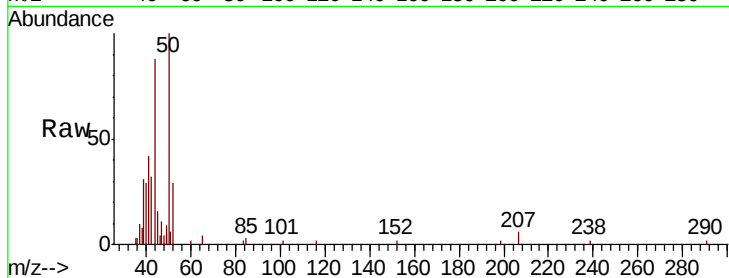
50 100

52 29.5 25.6 38.4

Manual Integrations
APPROVED

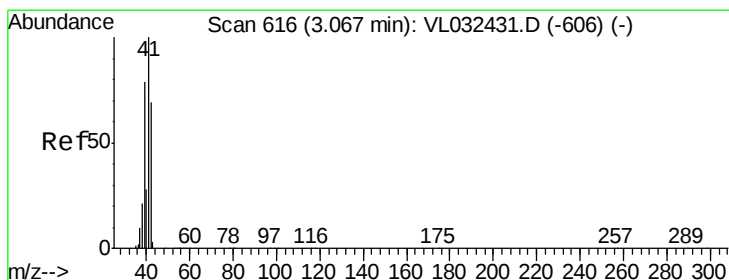
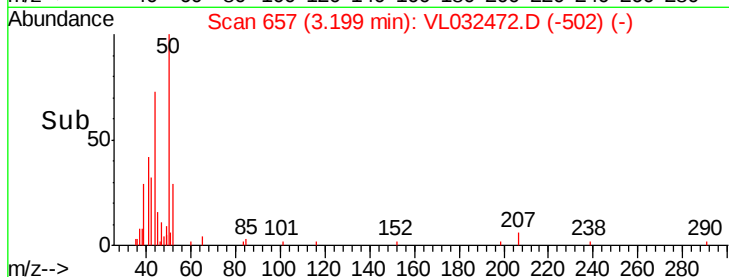
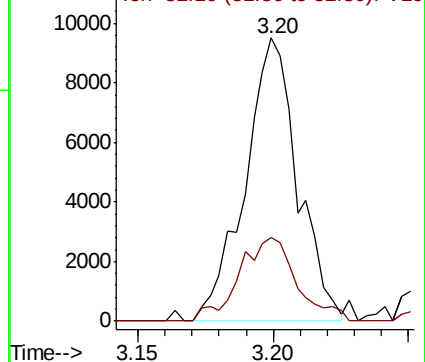
MMDadoda

9/7/2018 10:46:07 AM



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 11.78 ppbv

RT: 3.06 min Scan# 615

Delta R.T. -0.00 min

Lab File: VL032472.D

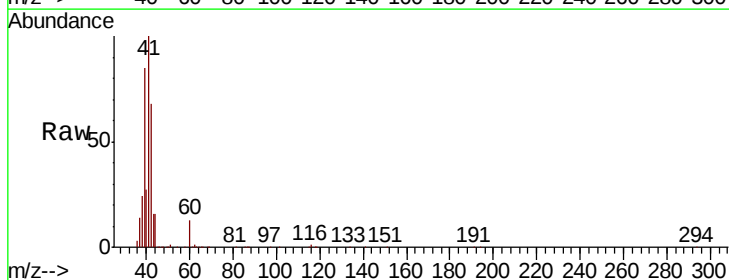
Acq: 6 Sep 2018 1:51

Tgt Ion: 41 Resp: 650111

Ion Ratio Lower Upper

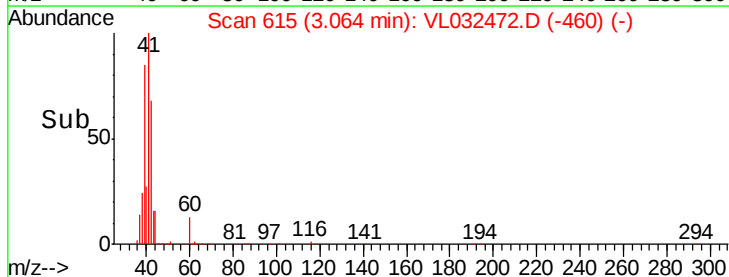
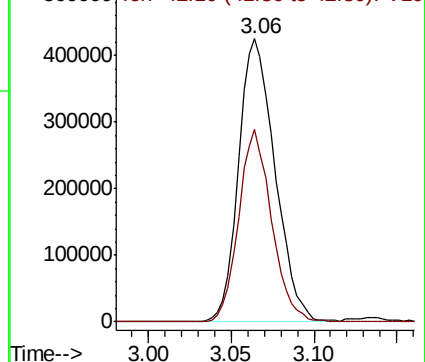
41 100

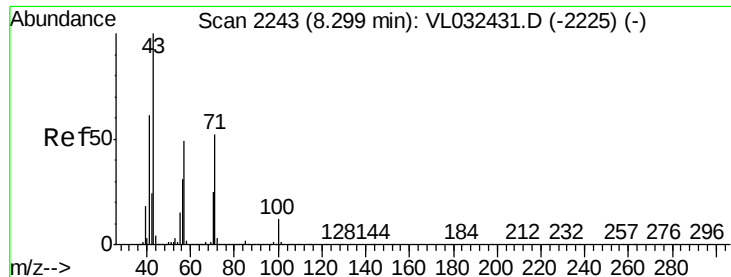
42 61.7 56.6 84.8



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





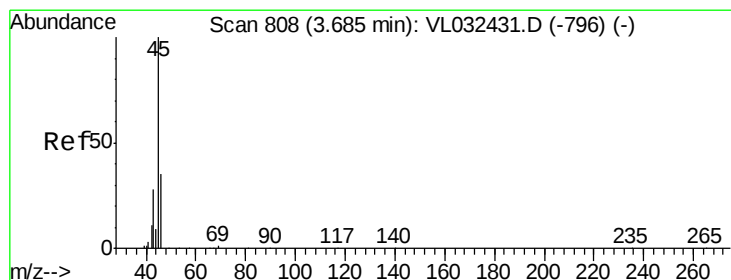
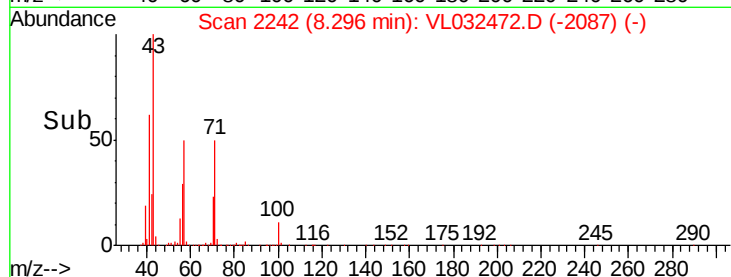
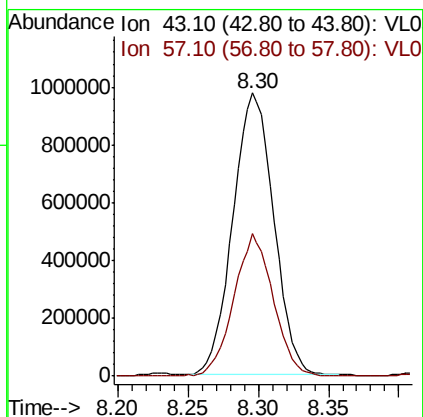
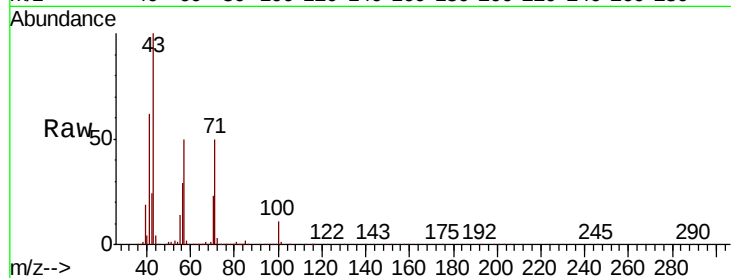
#10
Heptane
Concen: 9.99 ppbv
RT: 8.30 min Scan# 2242
Delta R.T. -0.00 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Instrument :
MSVOA_L
ClientSampled :
VP-1

Tot Ion: 43 Resp: 1977661
Ion Ratio Lower Upper
43 100
57 48.4 39.6 59.4

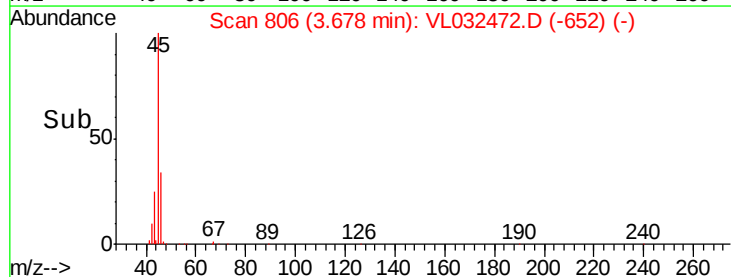
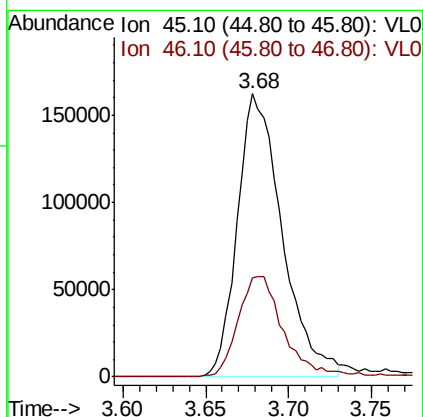
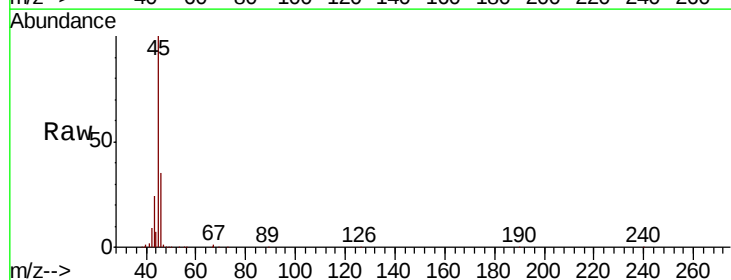
Manual Integrations
APPROVED

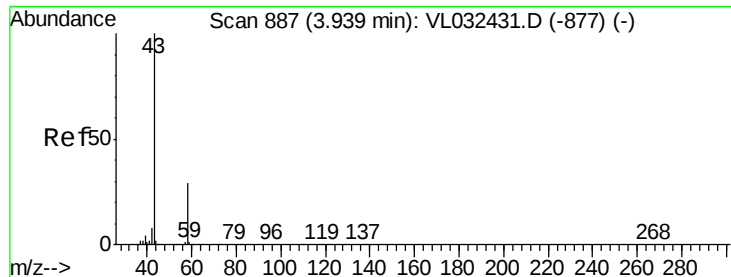
MMDadoda
9/7/2018 10:46:07 AM



#13
Ethanol
Concen: 17.72 ppbv
RT: 3.68 min Scan# 806
Delta R.T. -0.01 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Tgt Ion: 45 Resp: 304883
Ion Ratio Lower Upper
45 100
46 36.4 14.2 56.8





#15

Acetone

Concen: 7.02 ppbv

RT: 3.93 min Scan# 885

Delta R.T. -0.01 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

ClientSampled :

VP-1

Tot Ion: 43 Resp: 954920

Ion Ratio Lower Upper

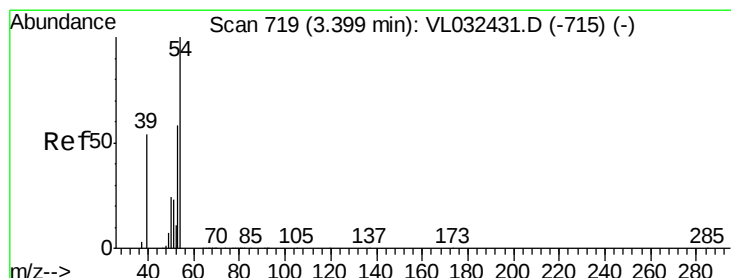
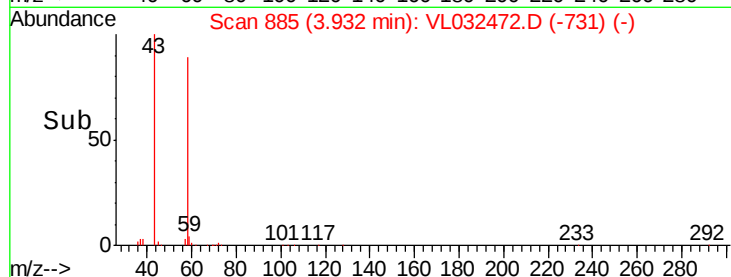
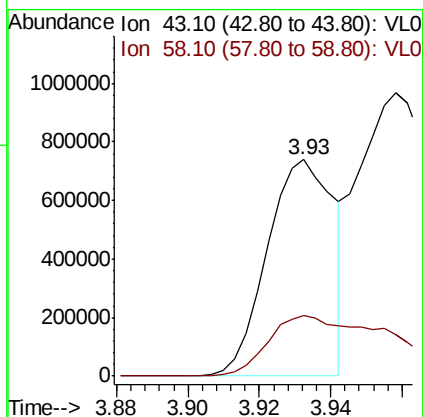
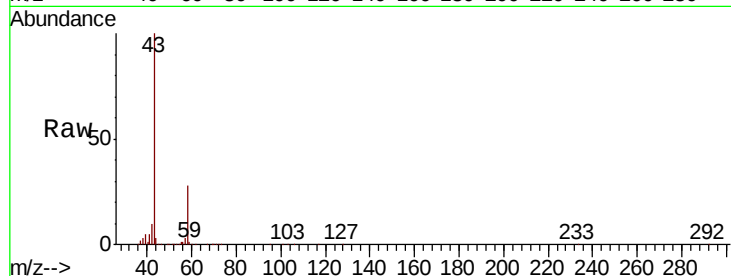
43 100

58 52.7 22.6 33.8#

Manual Integrations
APPROVED

MMDadoda

9/7/2018 10:46:07 AM



#16

1,3-Butadiene

Concen: 2.02 ppbv m

RT: 3.38 min Scan# 713

Delta R.T. -0.02 min

Lab File: VL032472.D

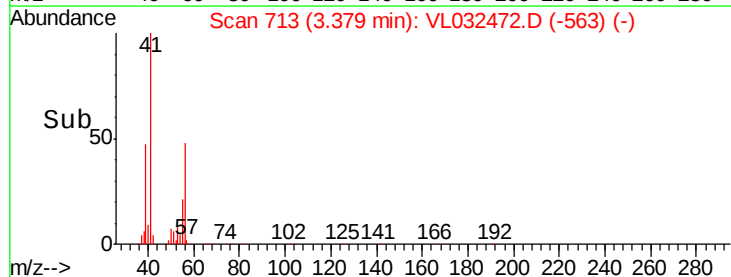
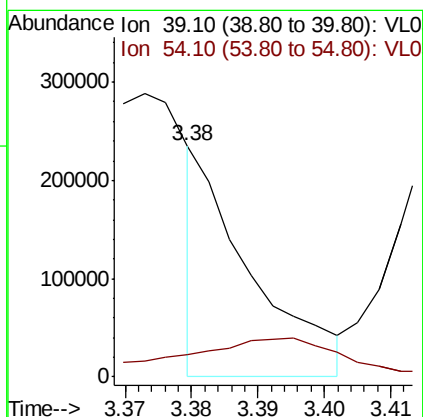
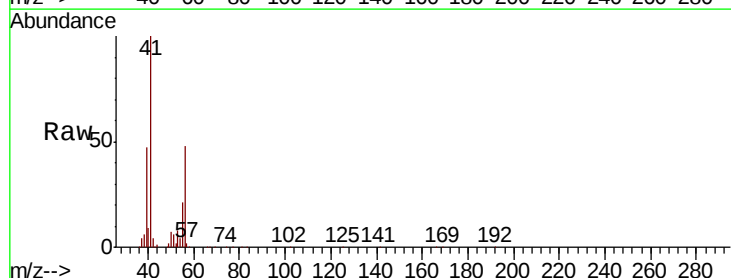
Acq: 6 Sep 2018 1:51

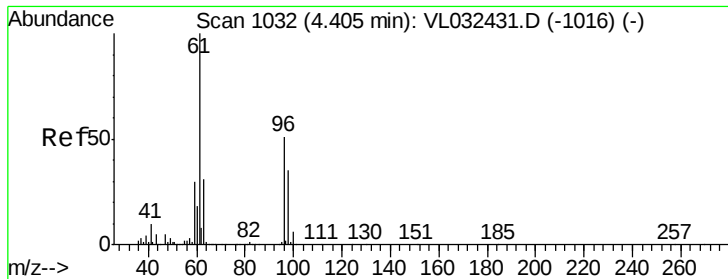
Tgt Ion: 39 Resp: 129663

Ion Ratio Lower Upper

39 100

54 58.9 80.8 121.2#





#17

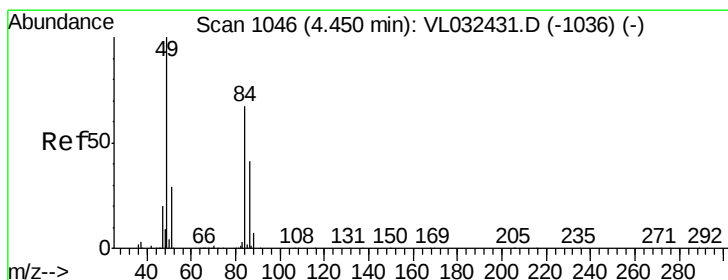
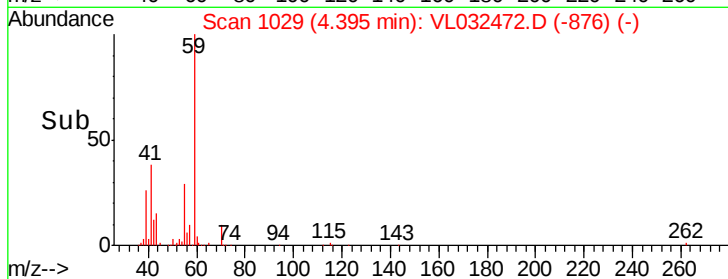
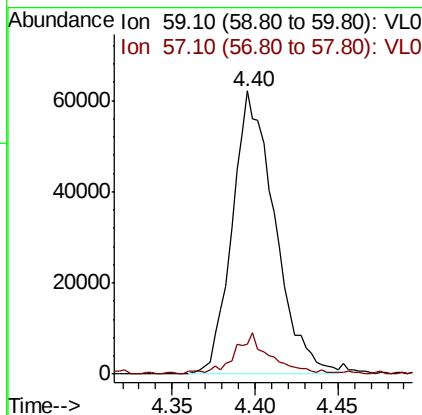
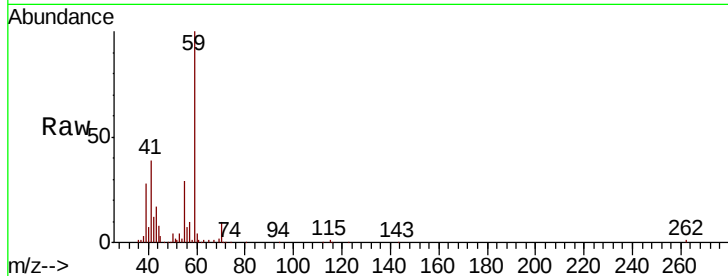
tert-Butyl alcohol
 Concen: 5.29 ppbv
 RT: 4.40 min Scan# 1029
 Delta R.T. -0.01 min
 Lab File: VL032472.D
 Acq: 6 Sep 2018 1:51

Instrument :
 MSVOA_L
 ClientSampleId :
 VP-1

Tot Ion	Ratio	Lower	Upper
59	100		
57	474.4	0.0	0.0#

Manual Integrations
 APPROVED

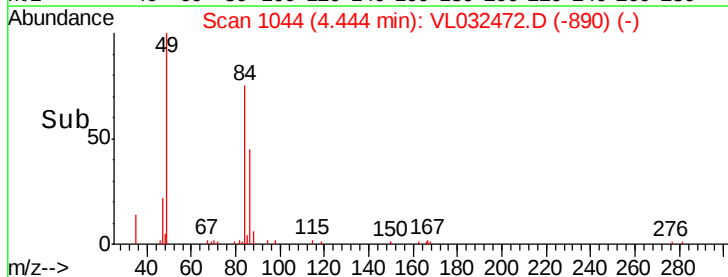
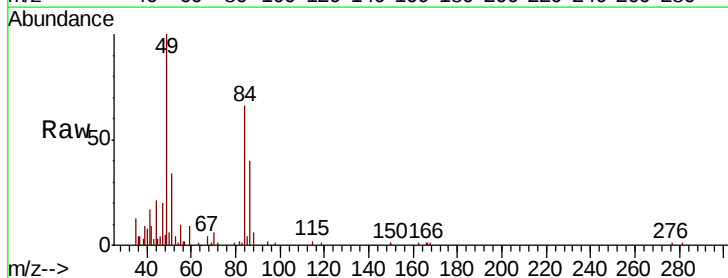
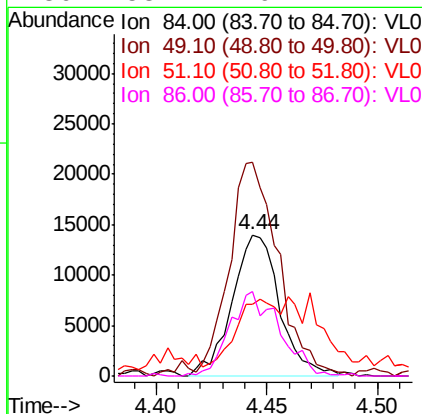
MMDadoda
 9/7/2018 10:46:07 AM

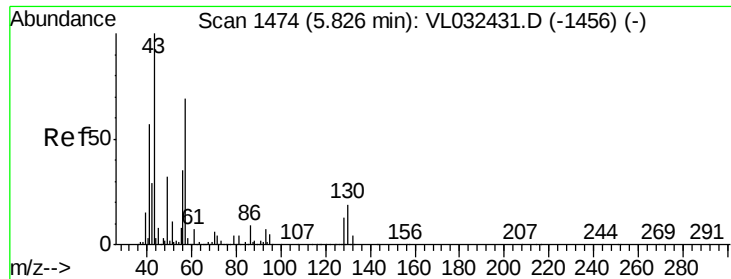


#20

Methylene Chloride
 Concen: 0.41 ppbv
 RT: 4.44 min Scan# 1044
 Delta R.T. -0.01 min
 Lab File: VL032472.D
 Acq: 6 Sep 2018 1:51

Tgt Ion	Ratio	Lower	Upper
84	100		
49	148.6	119.1	178.7
51	42.8	35.2	52.8
86	58.7	49.4	74.2





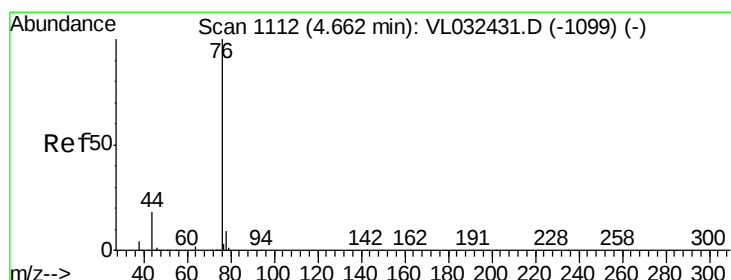
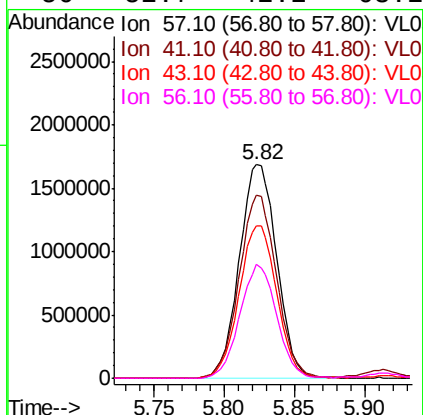
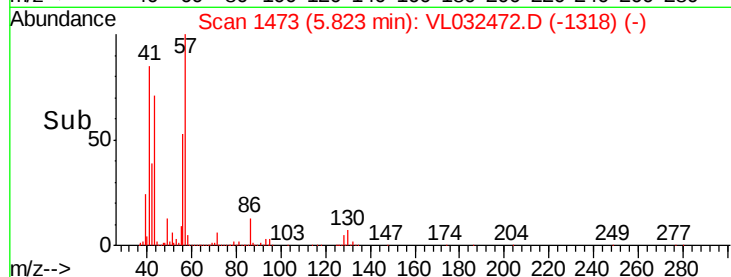
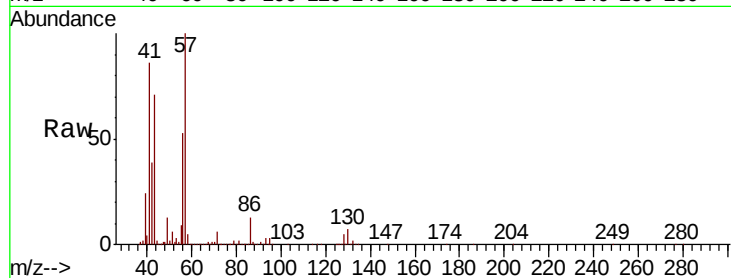
#26
Hexane
Concen: 21.75 ppbv
RT: 5.82 min Scan# 1473
Delta R.T. -0.00 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Instrument :
MSVOA_L
ClientSampled :
VP-1

Tot Ion	57	Resp	3130310
Ion	Ratio	Lower	Upper
57	100		
41	86.1	69.0	103.4
43	71.7	172.1	258.1#
56	52.7	42.2	63.2

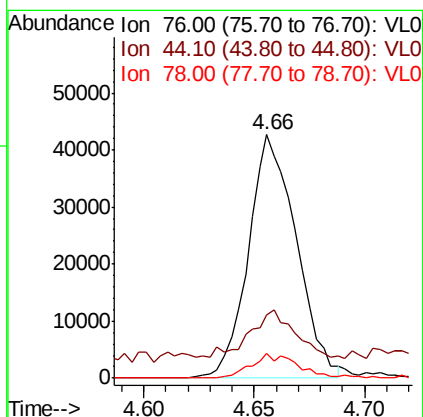
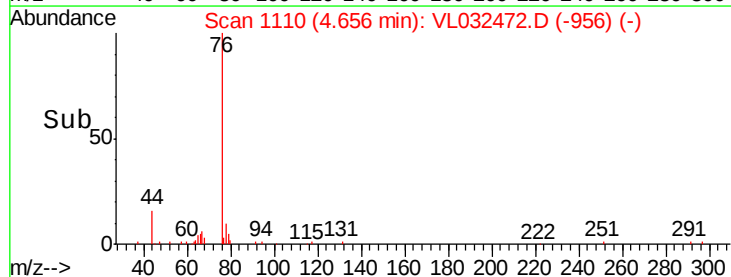
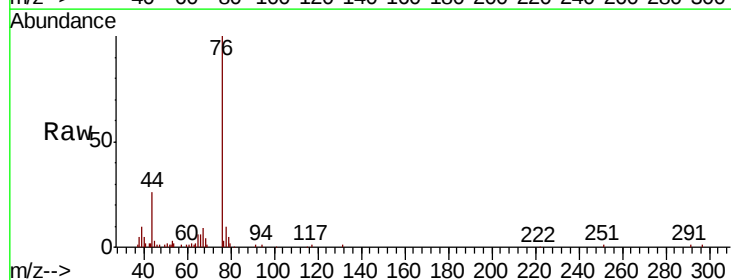
Manual Integrations
APPROVED

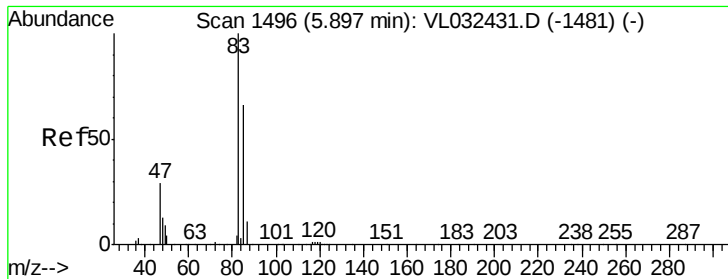
MMDadoda
9/7/2018 10:46:07 AM



#27
Carbon Disulfide
Concen: 0.48 ppbv
RT: 4.66 min Scan# 1110
Delta R.T. -0.01 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Tgt Ion	76	Resp	64208
Ion	Ratio	Lower	Upper
76	100		
44	17.2	14.0	21.0
78	9.9	7.5	11.3





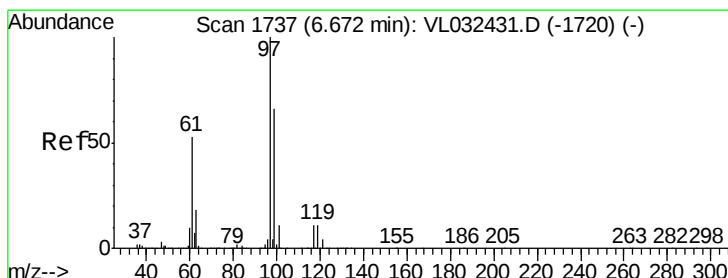
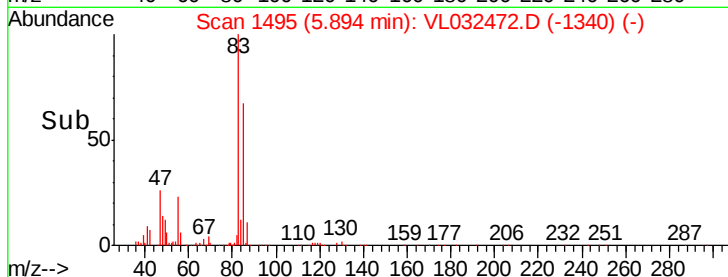
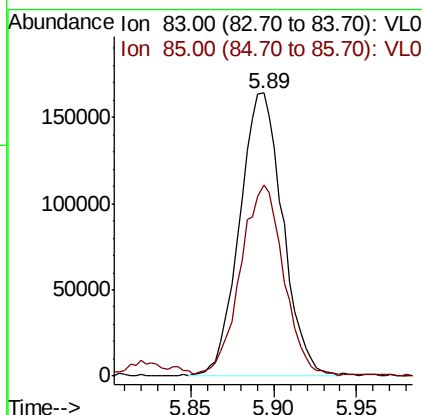
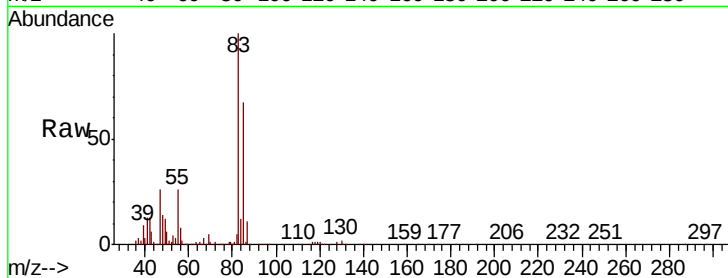
#29
Chloroform
Concen: 1.35 ppbv
RT: 5.89 min Scan# 1495
Delta R.T. -0.00 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Instrument :
MSVOA_L
ClientSampleId :
VP-1

Tot Ion	Ratio	Lower	Upper
83	100		
85	67.3	52.5	78.7

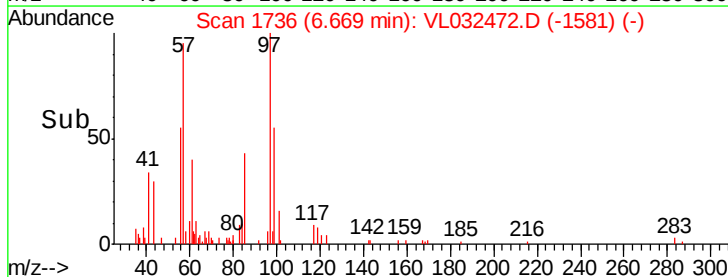
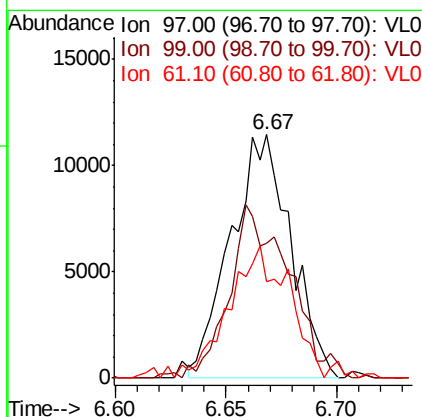
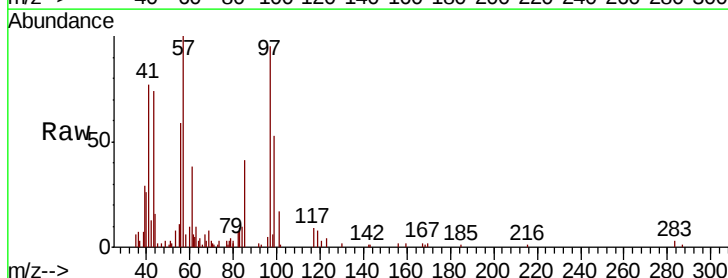
Manual Integrations
APPROVED

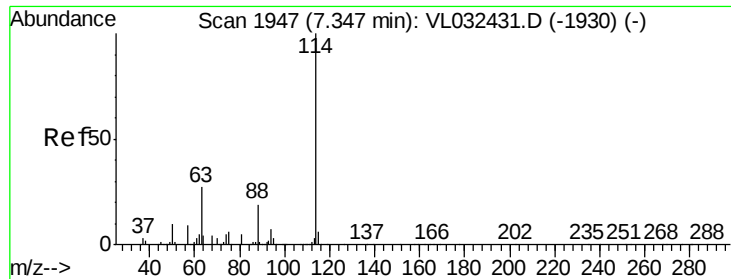
MMDadoda
9/7/2018 10:46:07 AM



#32
1,1,1-Trichloroethane
Concen: 0.11 ppbv
RT: 6.67 min Scan# 1736
Delta R.T. -0.00 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Tgt Ion	Ratio	Lower	Upper
97	100		
99	71.0	52.1	78.1
61	57.3	42.5	63.7





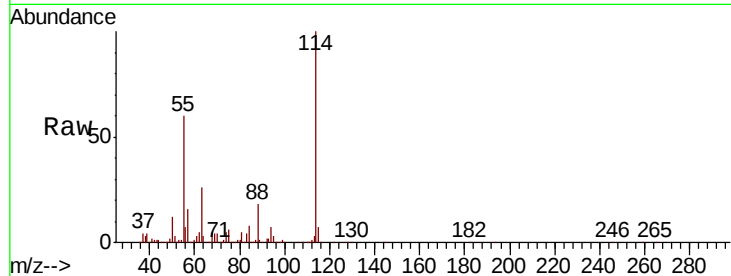
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.34 min Scan# 1945
 Delta R.T. -0.01 min
 Lab File: VL032472.D
 Acq: 6 Sep 2018 1:51

Instrument :
 MSVOA_L
 ClientSampleId :
 VP-1

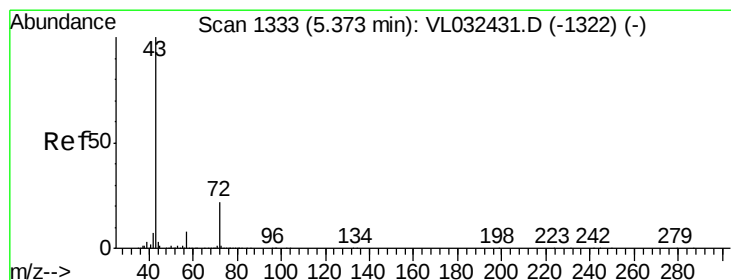
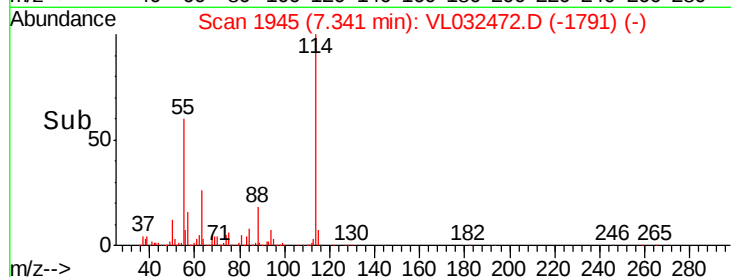
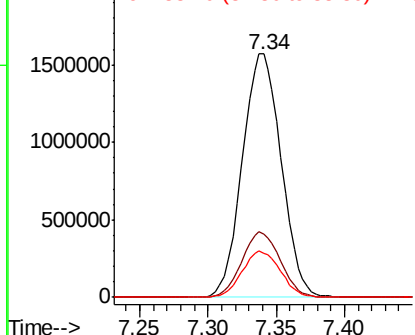
Tot Ion	Ratio	Lower	Upper
114	100		
63	26.7	22.2	33.4
88	18.8	15.0	22.4

Manual Integrations
 APPROVED

MMDadoda
 9/7/2018 10:46:07 AM

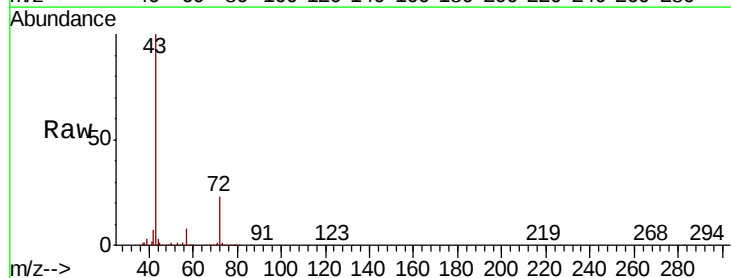


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

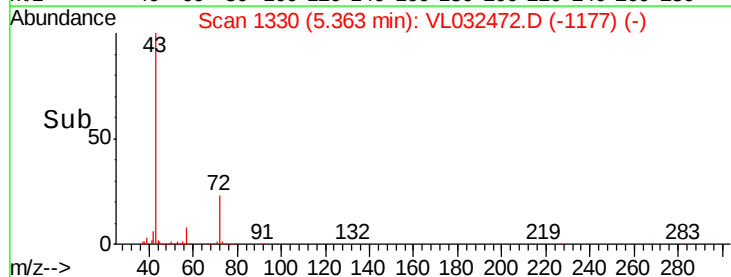
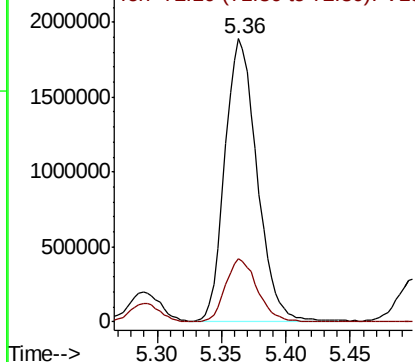


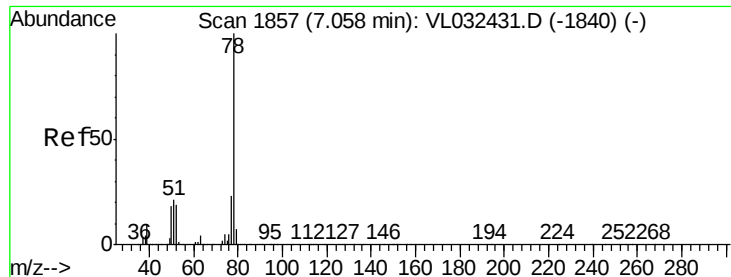
#34
 2-Butanone
 Concen: 15.74 ppbv
 RT: 5.36 min Scan# 1330
 Delta R.T. -0.01 min
 Lab File: VL032472.D
 Acq: 6 Sep 2018 1:51

Tgt Ion	Ratio	Lower	Upper
43	100		
72	22.2	17.8	26.6



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 1.43 ppbv

RT: 7.05 min Scan# 1856

Delta R.T. -0.00 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

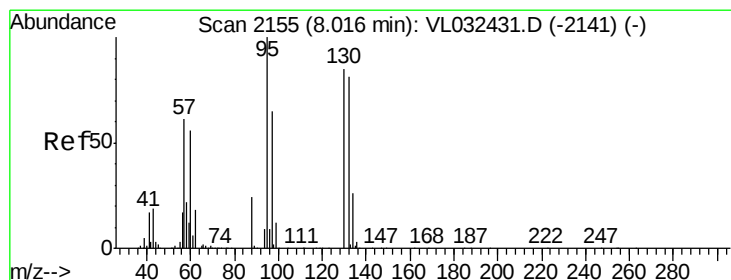
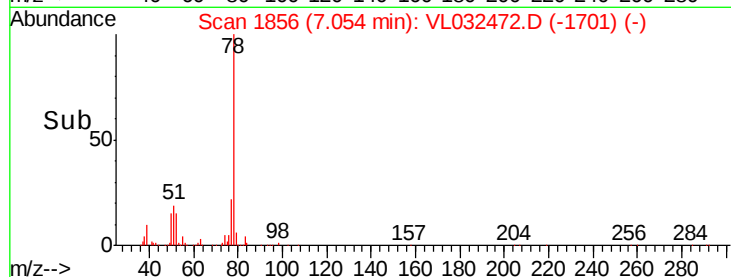
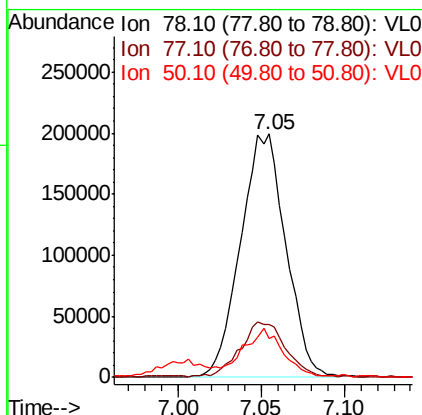
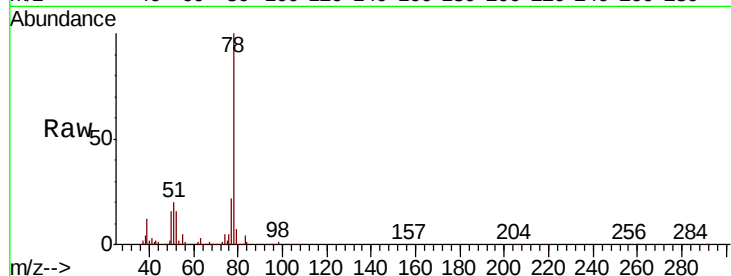
ClientSampleId :

VP-1

Tot Ion:	78	Resp:	377242
Ion	Ratio	Lower	Upper
78	100		
77	21.5	18.4	27.6
50	15.4	14.4	21.6

Manual Integrations
APPROVED

MMDadoda
9/7/2018 10:46:07 AM



#38

Trichloroethene

Concen: 3.41 ppbv

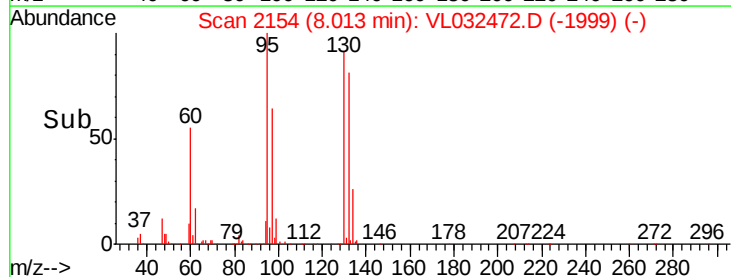
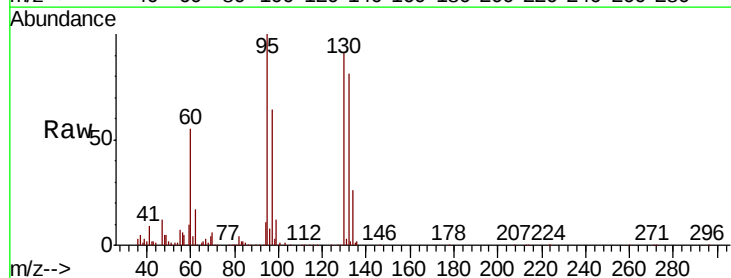
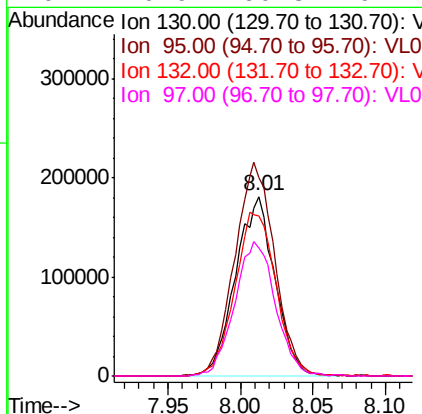
RT: 8.01 min Scan# 2154

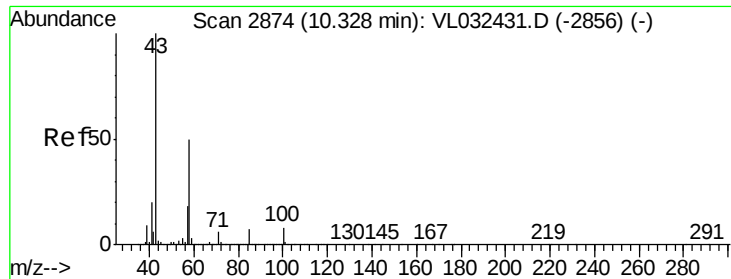
Delta R.T. -0.00 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Tgt Ion:	130	Resp:	341928
Ion	Ratio	Lower	Upper
130	100		
95	110.1	94.2	141.4
132	88.8	76.2	114.4
97	70.9	60.8	91.2





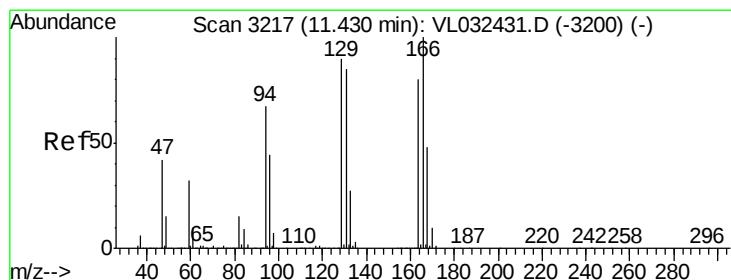
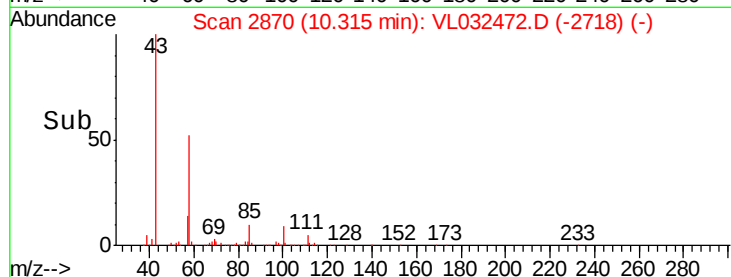
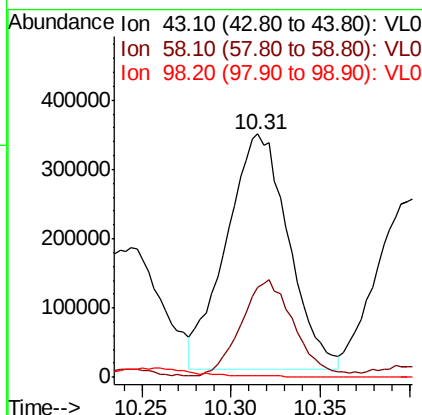
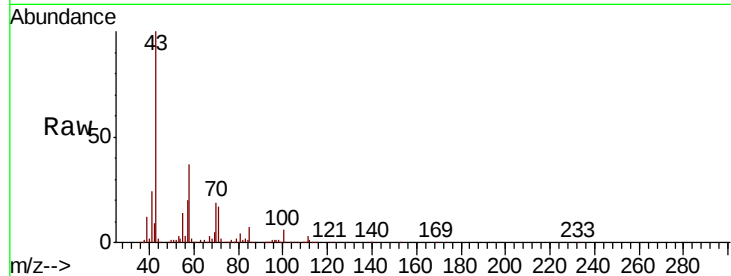
#51
2-Hexanone
Concen: 4.14 ppbv
RT: 10.31 min Scan# 2870
Delta R.T. -0.01 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Instrument :
MSVOA_L
ClientSampleId :
VP-1

Tot Ion	Ratio	Lower	Upper
43	100		
58	35.6	39.2	58.8#
98	0.0	0.4	0.6#

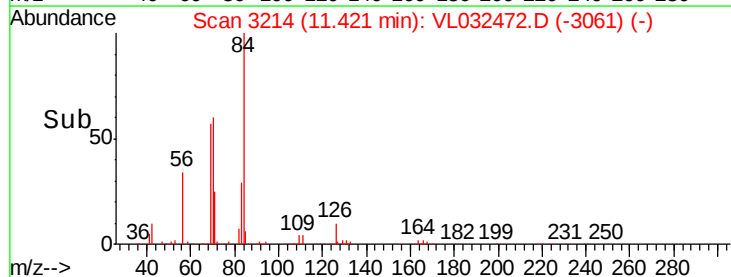
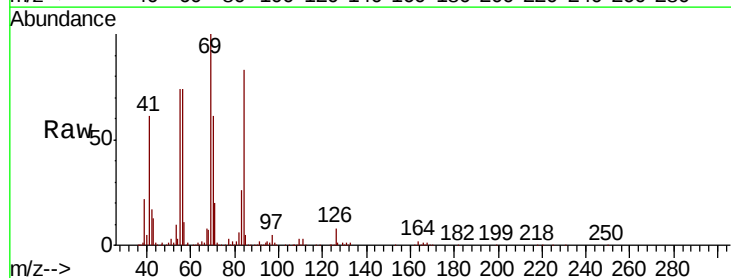
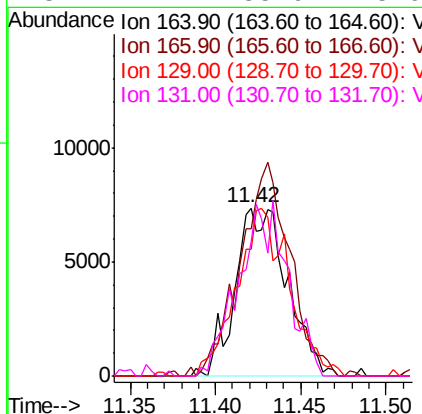
Manual Integrations
APPROVED

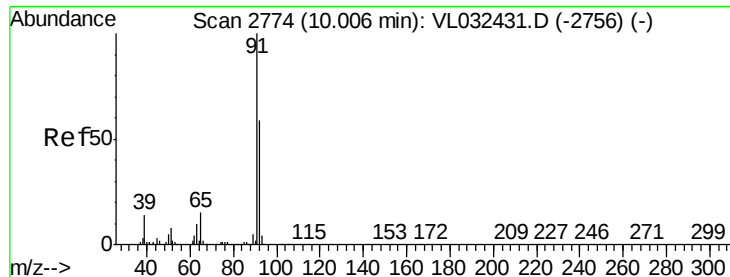
MMDadoda
9/7/2018 10:46:07 AM



#52
Tetrachloroethene
Concen: 0.19 ppbv m
RT: 11.42 min Scan# 3214
Delta R.T. -0.01 min
Lab File: VL032472.D
Acq: 6 Sep 2018 1:51

Tgt Ion	Ratio	Lower	Upper
164	100		
166	87.8	100.6	150.8#
129	75.0	89.9	134.9#
131	77.2	85.9	128.9#





#53

Toluene

Concen: 1.64 ppbv

RT: 10.00 min Scan# 2772

Delta R.T. -0.01 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

ClientSampleId :

VP-1

Tot Ion: 91 Resp: 451781

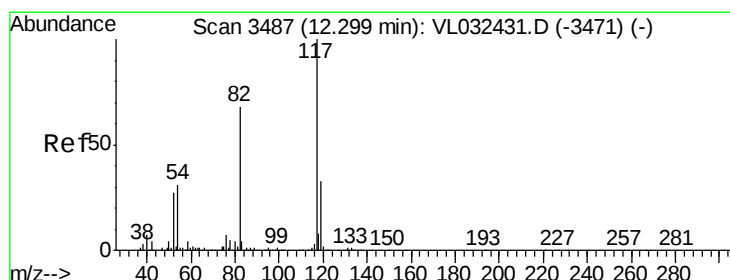
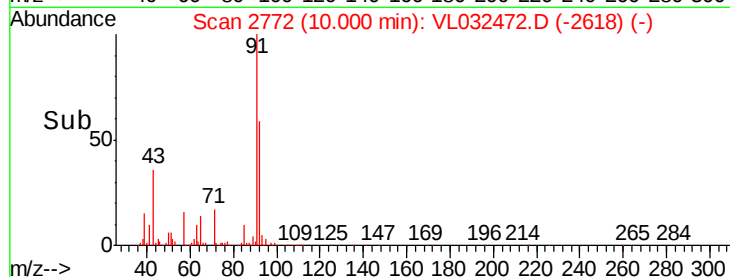
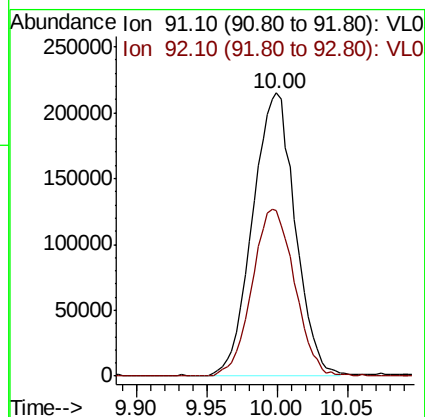
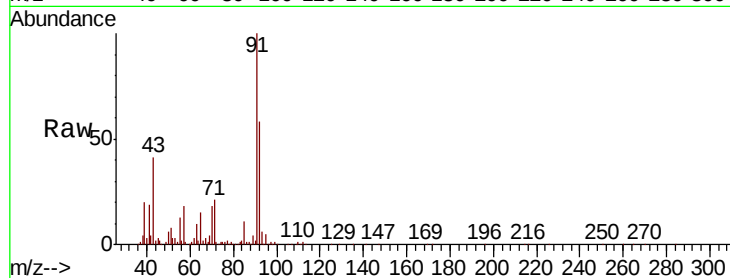
Ion Ratio Lower Upper

91 100

92 59.4 48.1 72.1

Manual Integrations
APPROVED

MMDadoda
9/7/2018 10:46:07 AM



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.29 min Scan# 3485

Delta R.T. -0.01 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

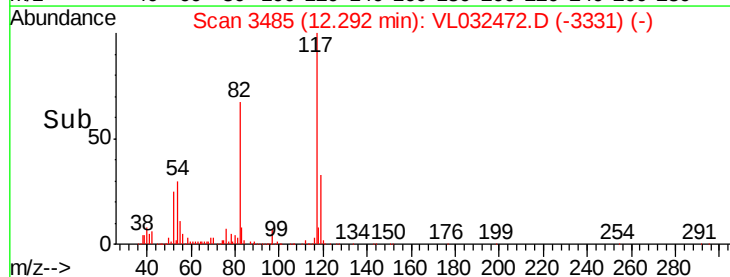
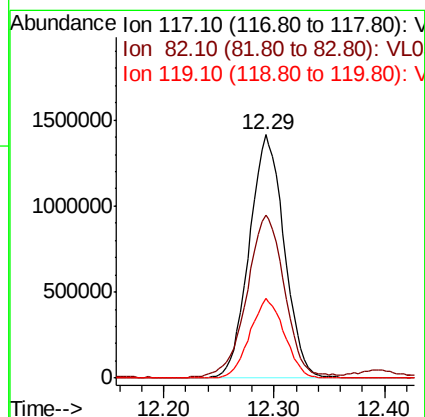
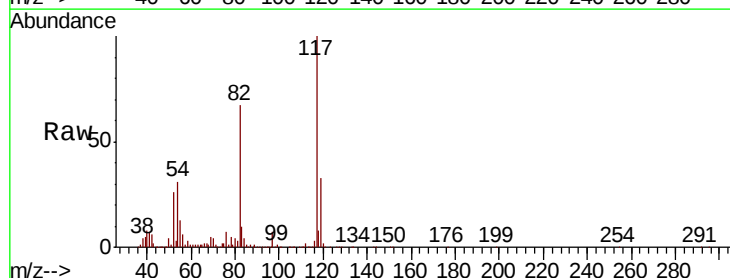
Tgt Ion: 117 Resp: 3100157

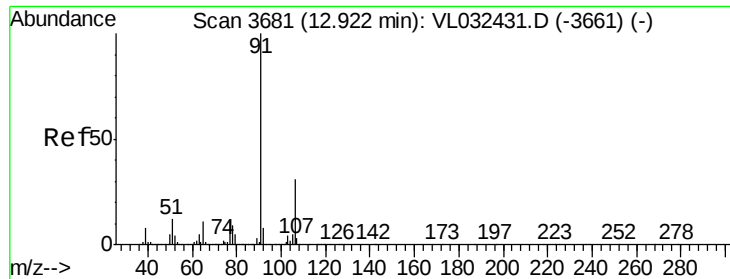
Ion Ratio Lower Upper

117 100

82 72.2 53.0 79.6

119 32.5 45.9 68.9#





#58

Ethyl Benzene

Concen: 0.19 ppbv

RT: 12.92 min Scan# 3680

Delta R.T. -0.00 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

ClientSampled :

VP-1

Tot Ion: 91 Resp: 69592

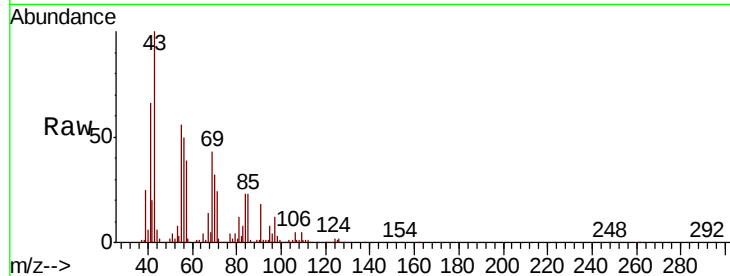
Ion Ratio Lower Upper

91 100

106 28.3 24.8 37.2

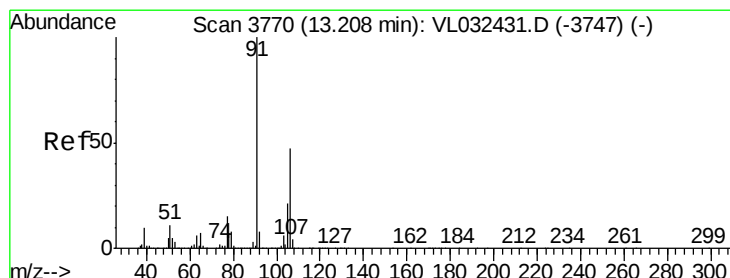
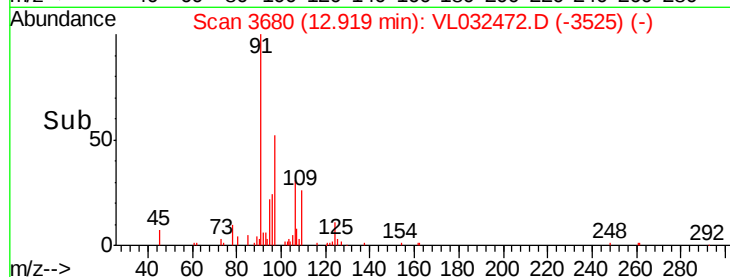
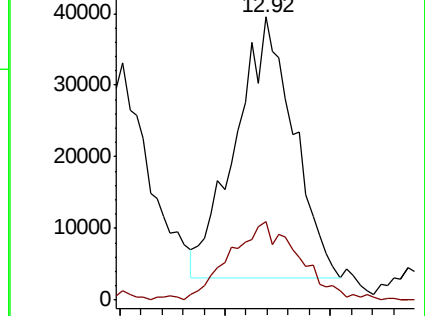
Manual Integrations
APPROVED

MMDadoda
9/7/2018 10:46:07 AM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.71 ppbv m

RT: 13.17 min Scan# 3759

Delta R.T. -0.04 min

Lab File: VL032472.D

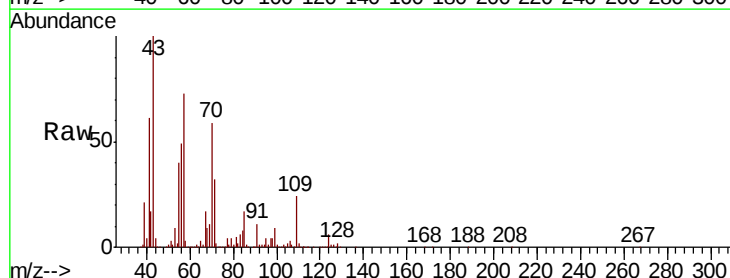
Acq: 6 Sep 2018 1:51

Tgt Ion: 91 Resp: 233938

Ion Ratio Lower Upper

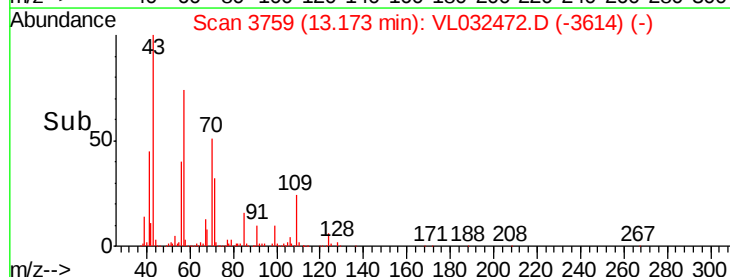
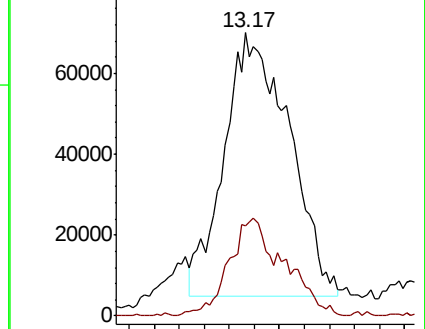
91 100

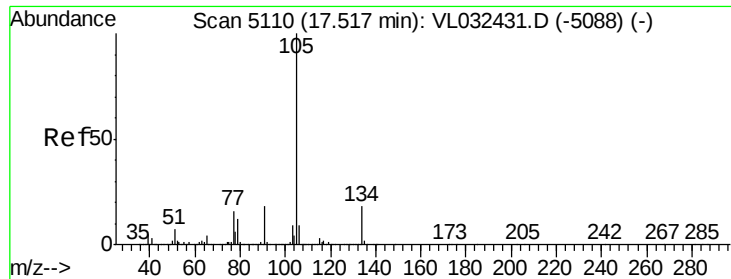
106 0.0 36.6 55.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#67

sec-Butylbenzene

Concen: 0.20 ppbv m

RT: 17.51 min Scan# 5108

Delta R.T. -0.01 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

ClientSampled :

VP-1

Tot Ion: 105 Resp: 121032

Ion Ratio Lower Upper

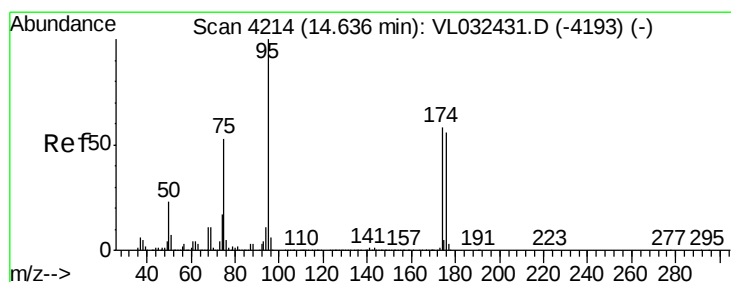
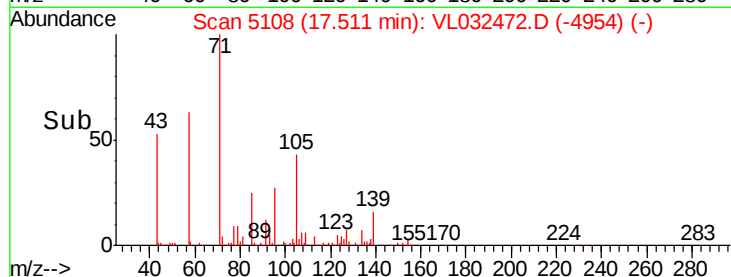
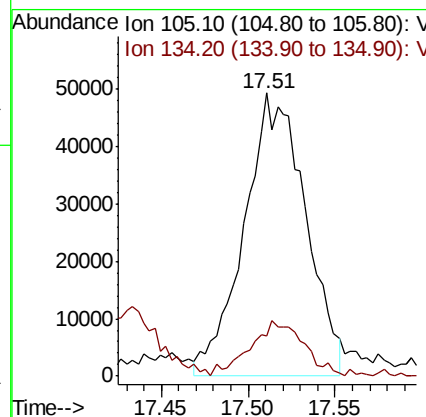
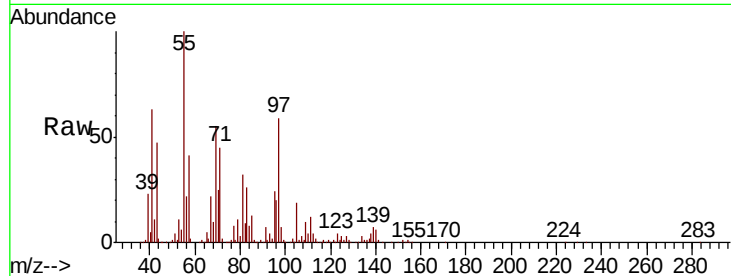
105 100

134 0.0 14.4 21.6#

Manual Integrations
APPROVED

MMDadoda

9/7/2018 10:46:07 AM



#68

1-Bromo-4-Fluorobenzene

Concen: 17.33 ppbv

RT: 14.63 min Scan# 4212

Delta R.T. -0.01 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

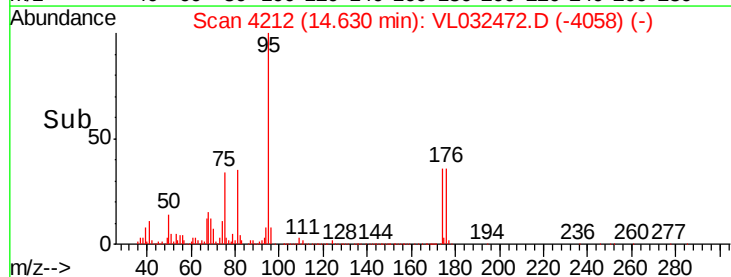
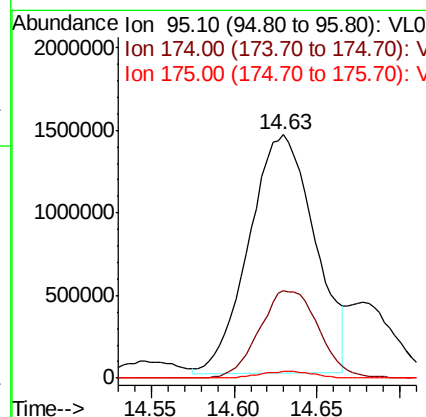
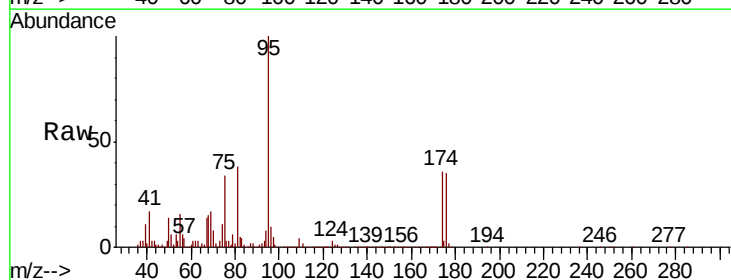
Tgt Ion: 95 Resp: 3989681

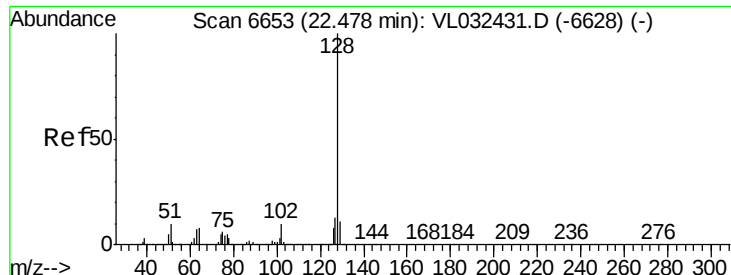
Ion Ratio Lower Upper

95 100

174 33.2 46.3 69.5#

175 2.4 3.4 5.0#





#79

Naphthalene

Concen: 0.44 ppbv m

RT: 22.47 min Scan# 6651

Delta R.T. -0.01 min

Lab File: VL032472.D

Acq: 6 Sep 2018 1:51

Instrument :

MSVOA_L

ClientSampleId :

VP-1

Tot Ion:	128	Resp:	137439
Ion Ratio	Lower	Upper	
128	100		
127	11.7	10.2	15.2
129	7.6	8.5	12.7#

Manual Integrations
APPROVED

MMDadoda
9/7/2018 10:46:07 AM

