

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL083118\
 Data File : VL032443.D
 Acq On : 31 Aug 2018 16:23
 Operator : SY/AP
 Sample : J4472-02
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-2

Manual Integrations
 APPROVED

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 9/4/2018 8:26:20 AM

Quant Time: Sep 02 22:20:29 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	1837758	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.34	114	3455637	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.29	117	3498106	10.00	ppbv	0.00

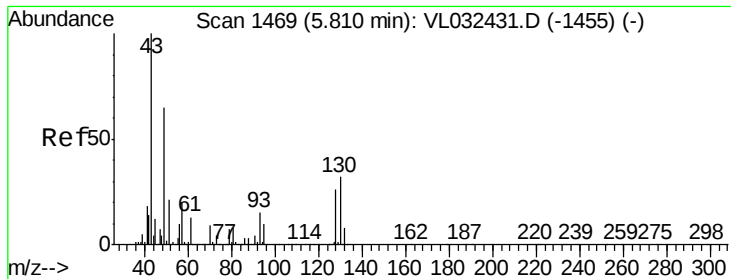
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.63	95	2678040	10.31	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.10%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.11	85	115254	0.490	ppbv	96
3) Chlorodifluoromethane	3.04	51	97783m	0.588	ppbv	
4) Chloromethane	3.20	50	123141	1.222	ppbv	93
6) Bromomethane	3.55	94	6563m	0.126	ppbv	
9) Propene	3.06	41	596384	8.887	ppbv	98
11) Trichlorofluoromethane	4.04	101	706571	3.333	ppbv	96
13) Ethanol	3.68	45	588280	28.124	ppbv	96
15) Acetone	3.93	43	3054624	18.458	ppbv	98
17) tert-Butyl alcohol	4.40	59	40681m	1.597	ppbv	
19) Isopropyl Alcohol	4.07	45	1780486	16.400	ppbv #	98
20) Methylene Chloride	4.44	84	433473	6.869	ppbv	95
26) Hexane	5.82	57	487256	2.784	ppbv #	63
29) Chloroform	5.89	83	59248	0.222	ppbv	93
30) Cyclohexane	7.29	84	25453m	0.199	ppbv	
34) 2-Butanone	5.37	43	1043672	4.547	ppbv	100
35) Carbon Tetrachloride	7.18	117	18942m	0.082	ppbv	
36) Benzene	7.05	78	235620	0.801	ppbv	97
38) Trichloroethene	8.01	130	50710m	0.454	ppbv	
44) 2,2,4-Trimethylpentane	8.03	57	84305	0.148	ppbv #	71
50) 4-Methyl-2-Pentanone	8.93	43	138199m	0.400	ppbv	
51) 2-Hexanone	10.32	43	137207	0.616	ppbv #	97
52) Tetrachloroethene	11.43	164	101650m	1.115	ppbv	
53) Toluene	10.00	91	1045353	3.401	ppbv	100
58) Ethyl Benzene	12.91	91	85011m	0.203	ppbv	
59) m/p-Xylene	13.17	91	230812m	0.618	ppbv	
60) o-Xylene	13.90	91	111063	0.303	ppbv	99
61) Styrene	13.74	104	49270	0.208	ppbv	93
74) 1,2,4-Trimethylbenzene	16.98	105	89080	0.203	ppbv #	69
76) 1,4-Dichlorobenzene	17.36	146	8232460	34.109	ppbv	98
79) Naphthalene	22.47	128	92573m	0.260	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.80 min Scan# 1467

Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

ClientSampled :

SS-2

Tgt Ion: 49 Resp: 1837758

Ion Ratio Lower Upper

49 100

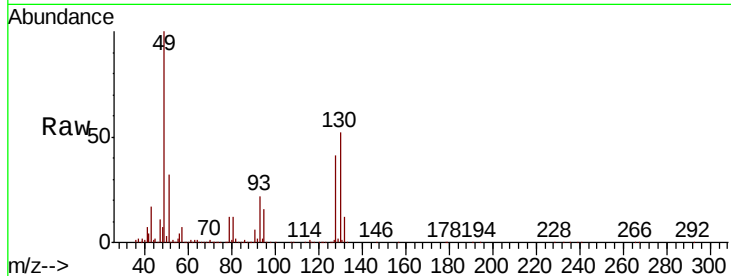
128 41.2 20.7 62.1

130 52.5 26.6 79.7

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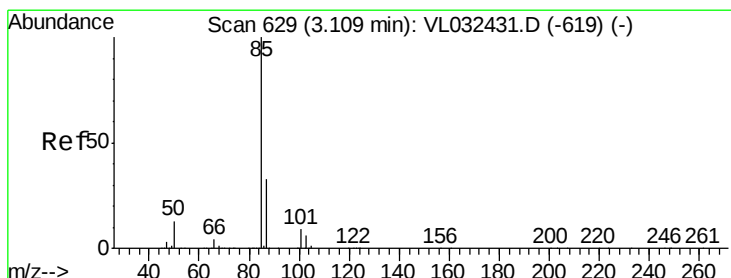
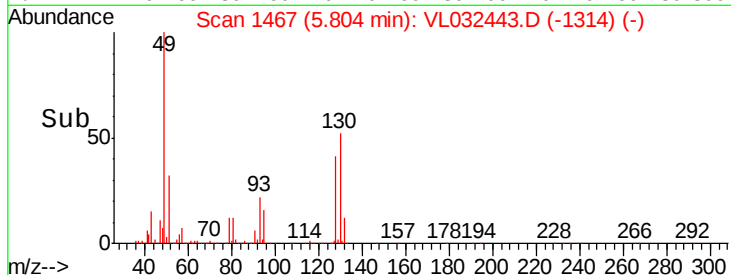
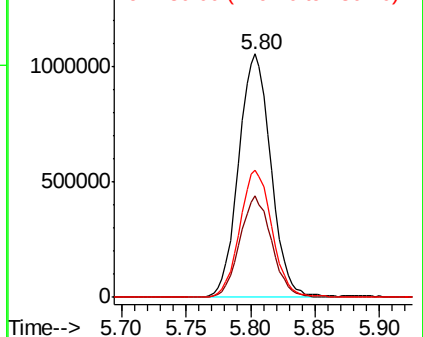
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.490 ppbv

RT: 3.11 min Scan# 628

Delta R.T. -0.00 min

Lab File: VL032443.D

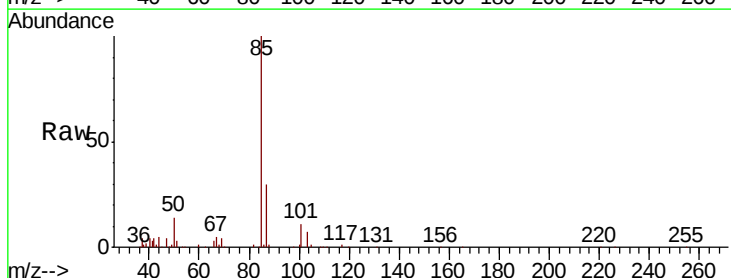
Acq: 31 Aug 2018 16:23

Tgt Ion: 85 Resp: 115254

Ion Ratio Lower Upper

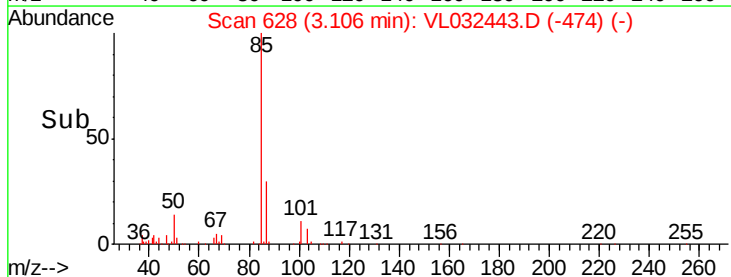
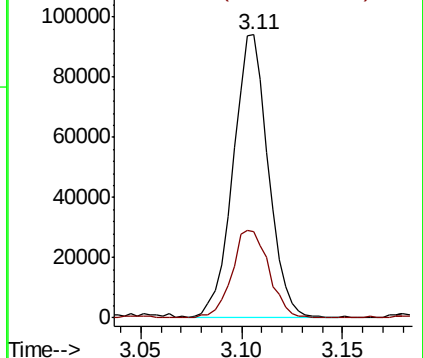
85 100

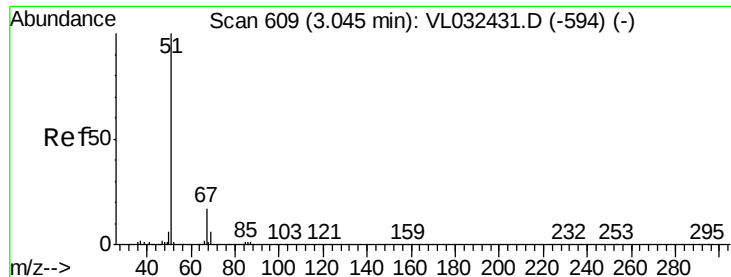
87 30.3 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.588 ppbv m

RT: 3.04 min Scan# 608

Delta R.T. -0.00 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

ClientSampleId :

SS-2

Tgt Ion: 51 Resp: 97783

Ion Ratio Lower Upper

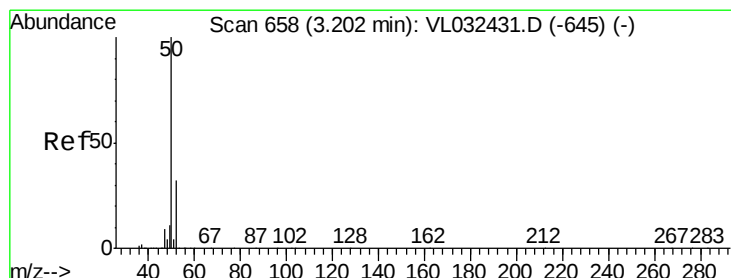
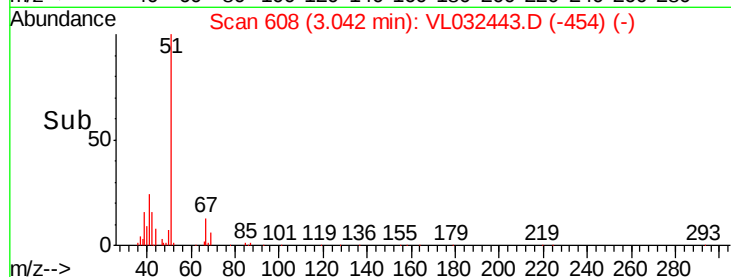
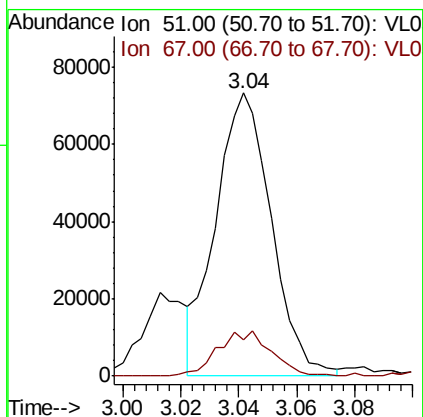
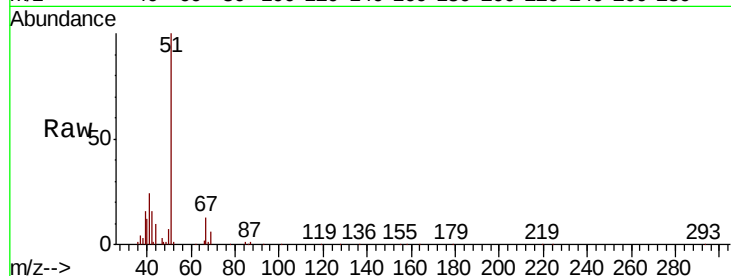
51 100

67 15.4 13.8 20.8

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#4

Chloromethane

Concen: 1.222 ppbv

RT: 3.20 min Scan# 656

Delta R.T. -0.01 min

Lab File: VL032443.D

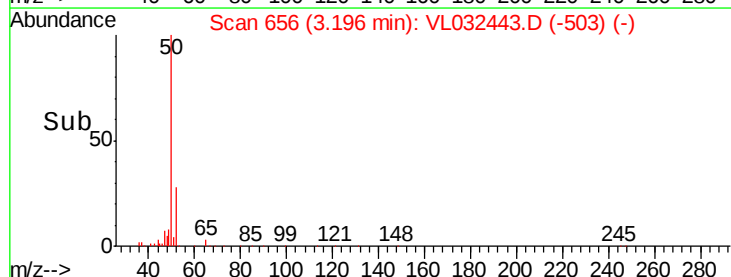
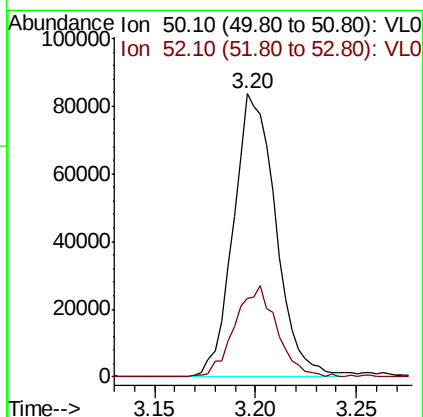
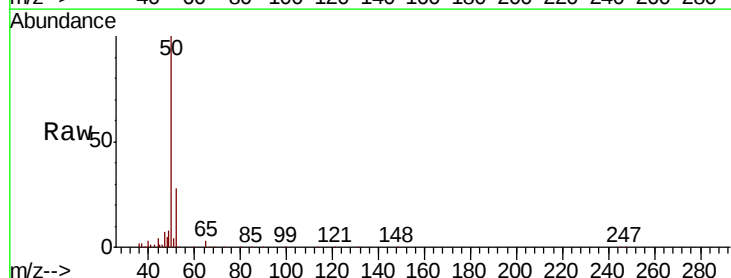
Acq: 31 Aug 2018 16:23

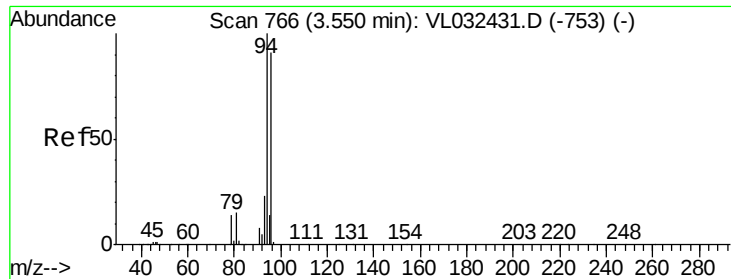
Tgt Ion: 50 Resp: 123141

Ion Ratio Lower Upper

50 100

52 28.0 25.6 38.4





#6

Bromomethane

Concen: 0.126 ppbv m

RT: 3.55 min Scan# 767

Delta R.T. 0.00 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

ClientSampleId :

SS-2

Tgt Ion: 94 Resp: 6563

Ion Ratio Lower Upper

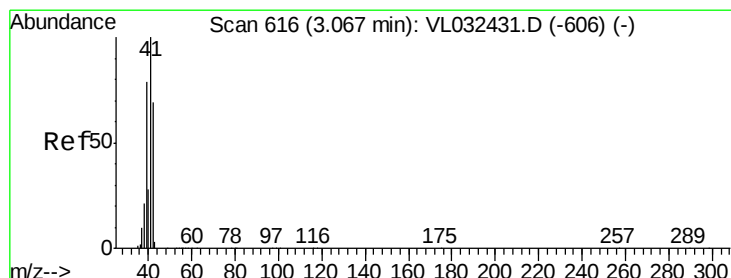
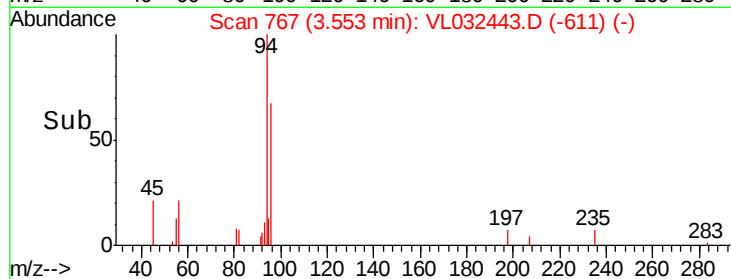
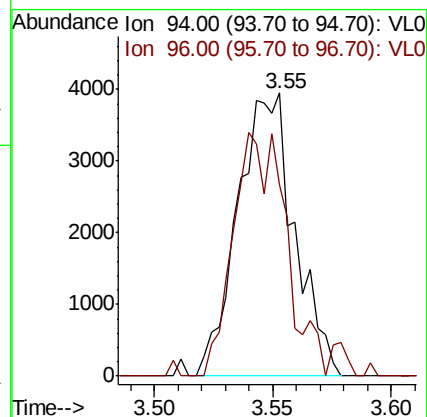
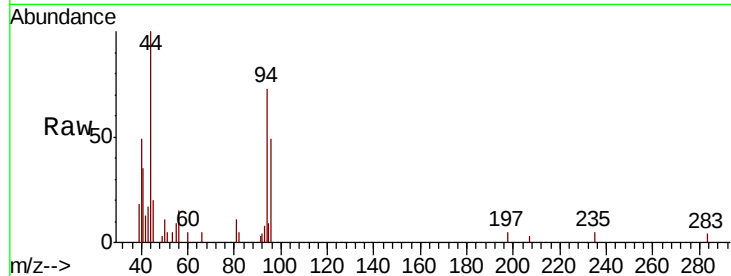
94 100

96 67.5 72.8 109.2#

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#9

Propene

Concen: 8.887 ppbv

RT: 3.06 min Scan# 614

Delta R.T. -0.01 min

Lab File: VL032443.D

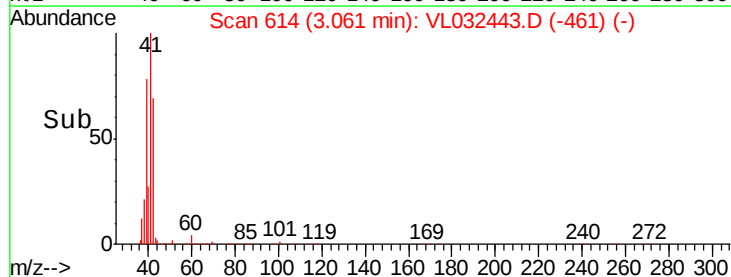
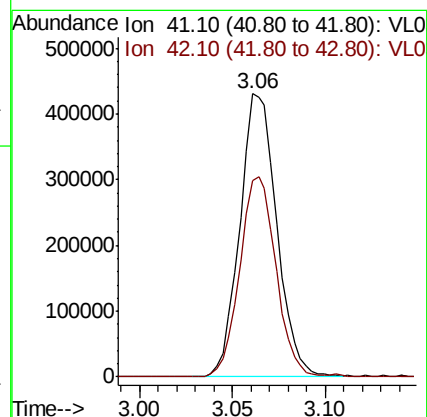
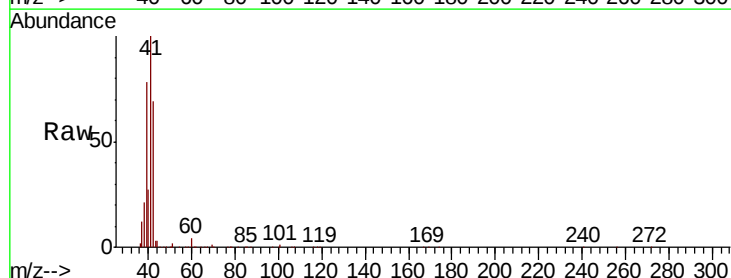
Acq: 31 Aug 2018 16:23

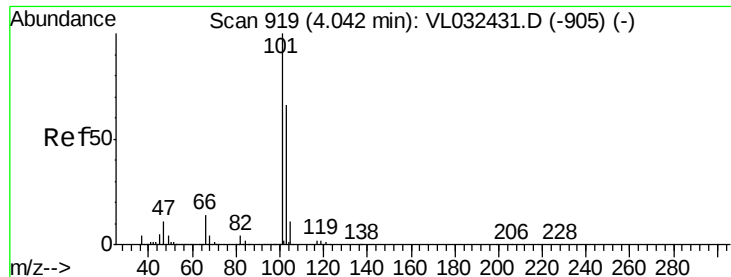
Tgt Ion: 41 Resp: 596384

Ion Ratio Lower Upper

41 100

42 69.3 56.6 84.8





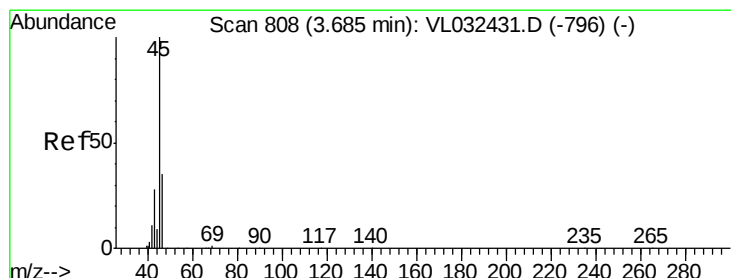
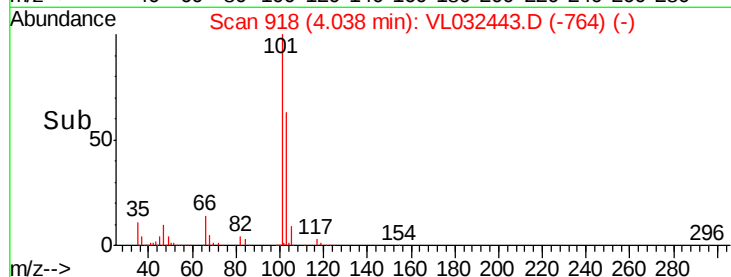
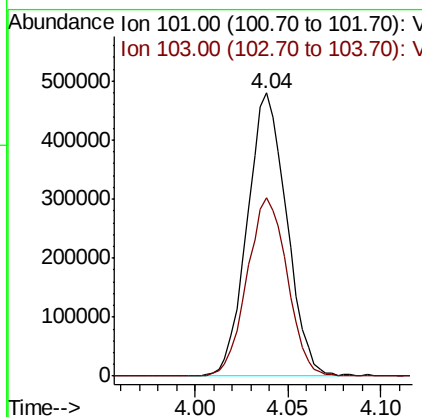
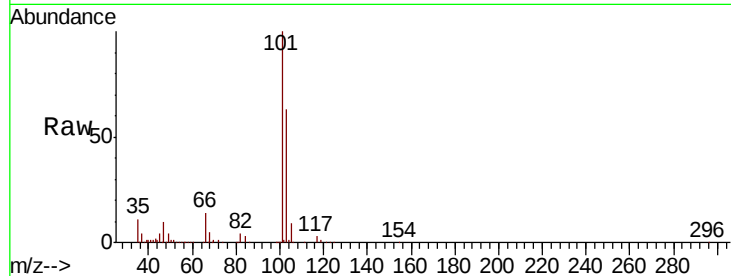
#11
 Trichlorofluoromethane
 Concen: 3.333 ppbv
 RT: 4.04 min Scan# 918
 Delta R.T. -0.00 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Instrument :
 MSVOA_L
 ClientSampled :
 SS-2

Tgt Ion	Ratio	Lower	Upper
101	100		
103	63.0	52.8	79.2

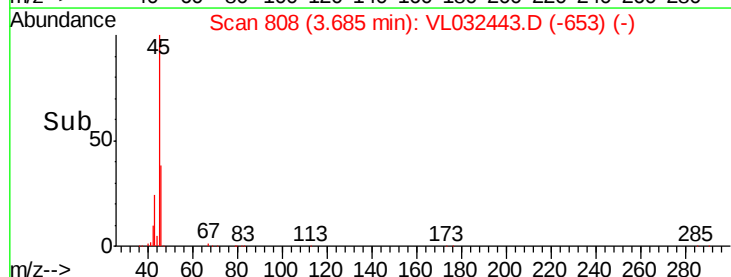
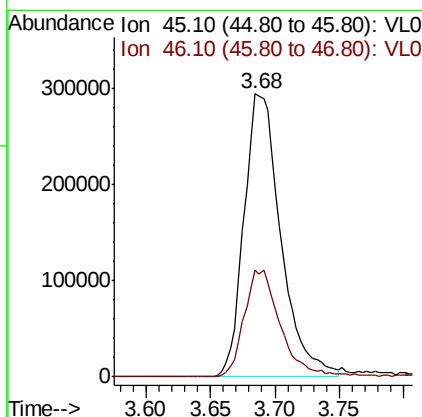
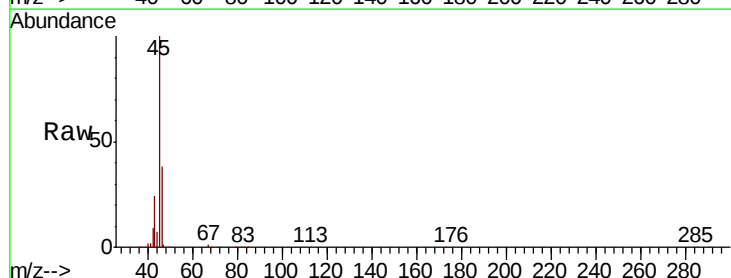
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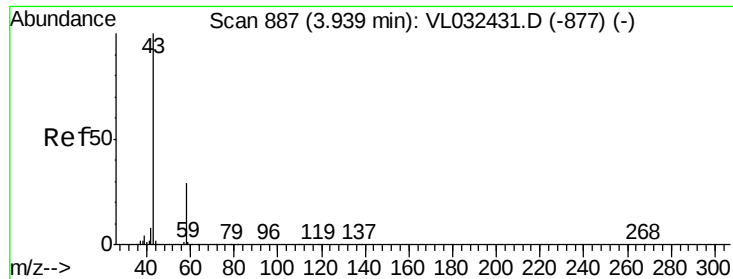
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#13
 Ethanol
 Concen: 28.124 ppbv
 RT: 3.68 min Scan# 808
 Delta R.T. -0.00 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Tgt Ion	Ratio	Lower	Upper
45	100		
46	37.9	14.2	56.8





#15

Acetone

Concen: 18.458 ppbv

RT: 3.93 min Scan# 884

Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

ClientSampleId :

SS-2

Tgt Ion: 43 Resp: 3054624

Ion Ratio Lower Upper

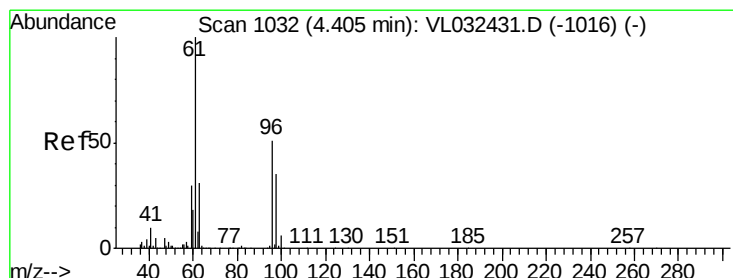
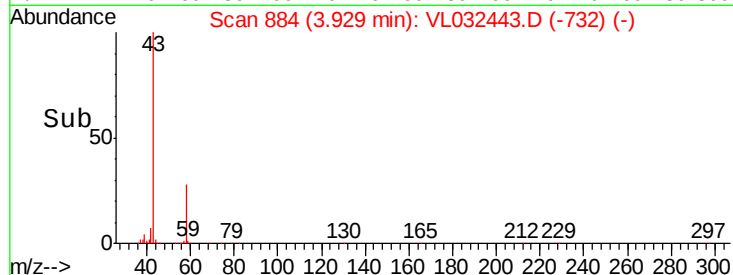
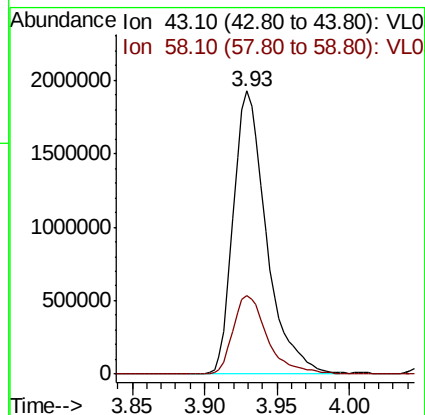
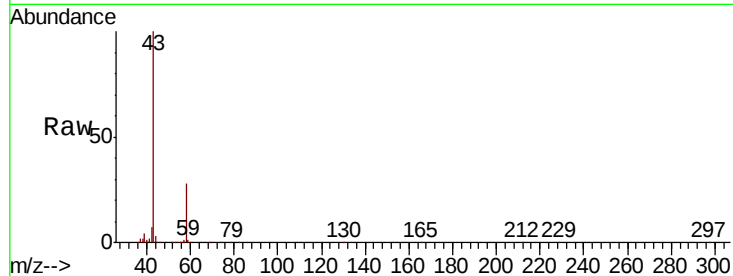
43 100

58 29.0 22.6 33.8

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#17

tert-Butyl alcohol

Concen: 1.597 ppbv m

RT: 4.40 min Scan# 1032

Delta R.T. -0.00 min

Lab File: VL032443.D

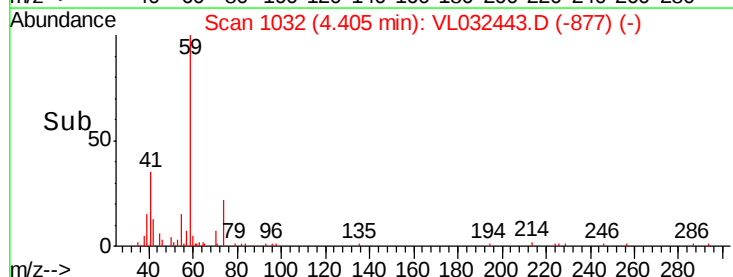
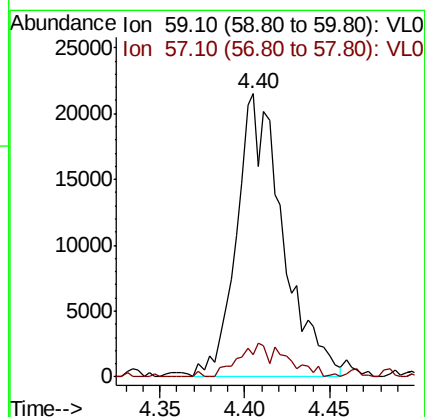
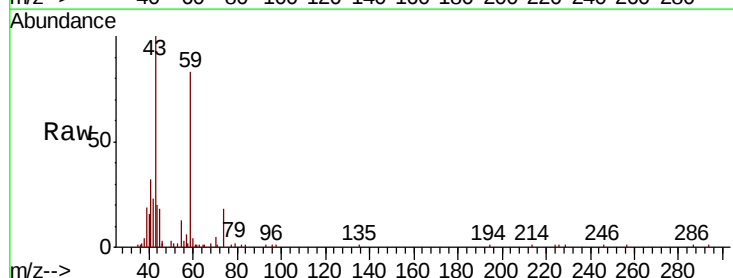
Acq: 31 Aug 2018 16:23

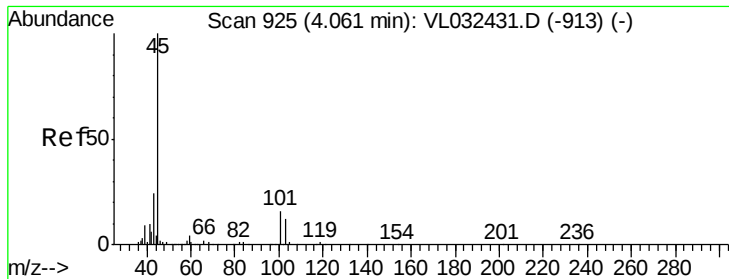
Tgt Ion: 59 Resp: 40681

Ion Ratio Lower Upper

59 100

57 0.0 0.0 0.0





#19

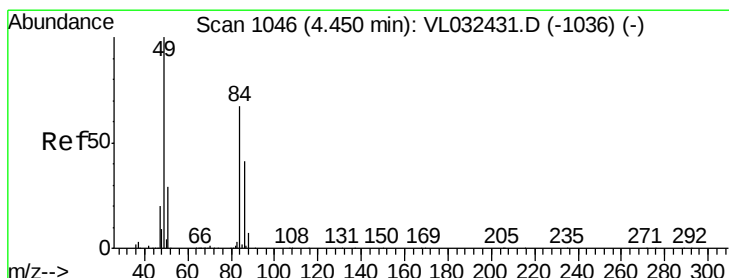
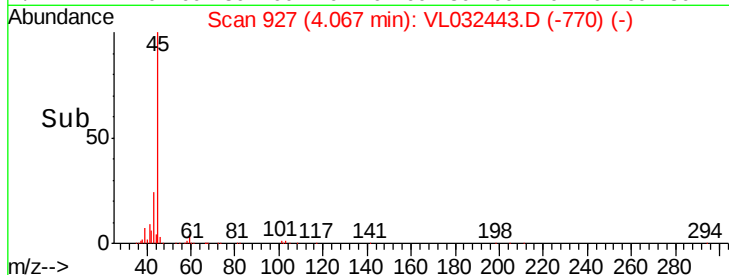
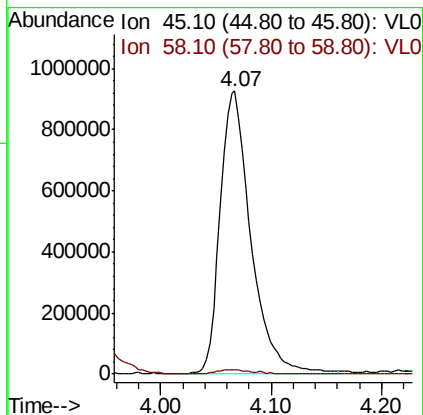
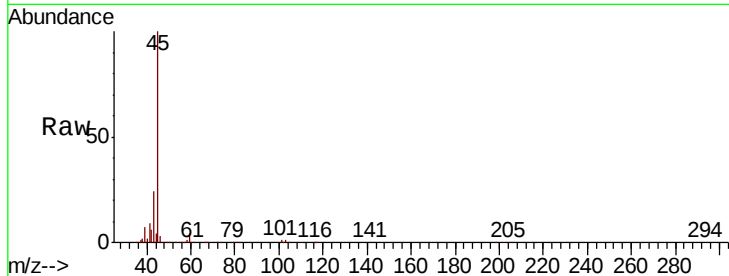
Isopropyl Alcohol
 Concen: 16.400 ppbv
 RT: 4.07 min Scan# 927
 Delta R.T. 0.01 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Instrument :
 MSVOA_L
 ClientSampled :
 SS-2

Tgt Ion: 45 Resp: 1780486
 Ion Ratio Lower Upper
 45 100
 58 2.0 2.0 3.0#

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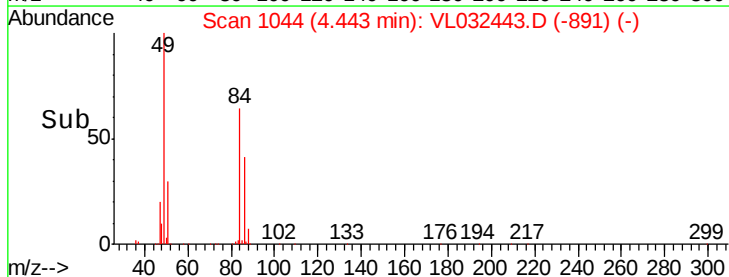
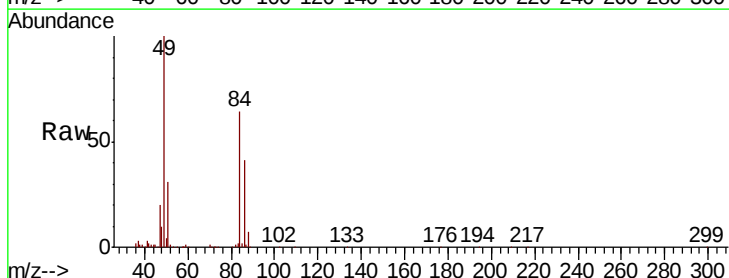
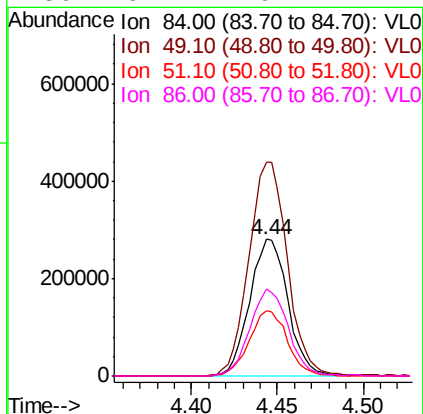
apatel
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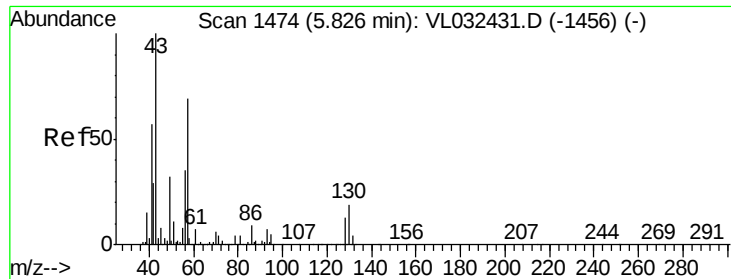


#20

Methylene Chloride
 Concen: 6.869 ppbv
 RT: 4.44 min Scan# 1044
 Delta R.T. -0.01 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Tgt Ion: 84 Resp: 433473
 Ion Ratio Lower Upper
 84 100
 49 156.5 119.1 178.7
 51 47.9 35.2 52.8
 86 64.1 49.4 74.2





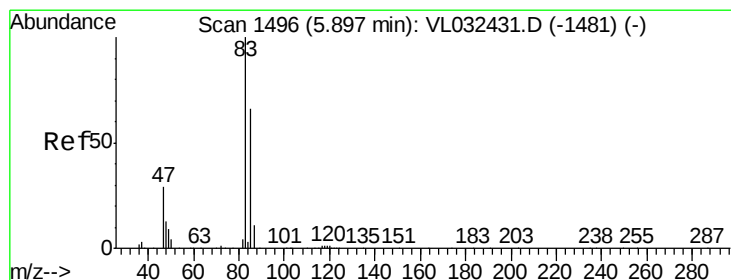
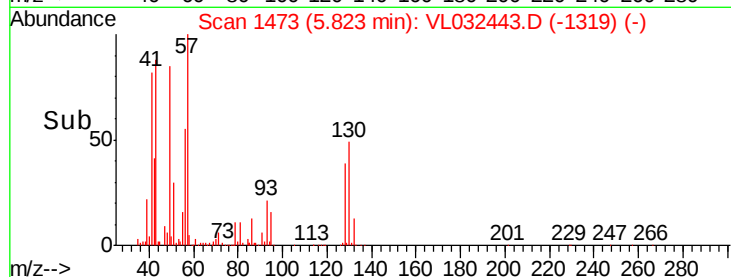
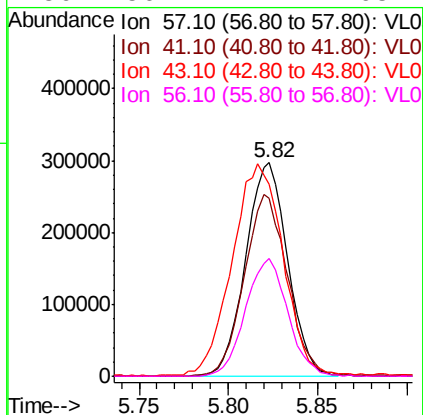
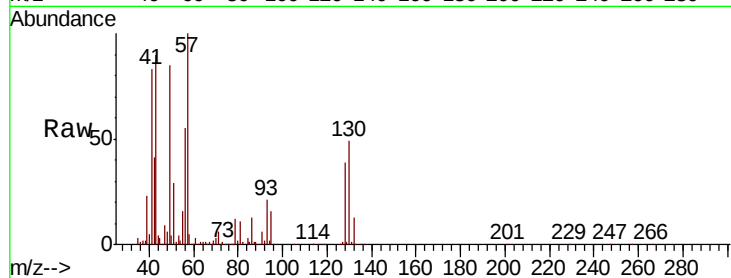
#26
Hexane
Concen: 2.784 ppbv
RT: 5.82 min Scan# 1473
Delta R.T. -0.00 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Instrument :
MSVOA_L
ClientSampled :
SS-2

Tgt Ion	Ratio	Resp	Lower	Upper
57	100	487256		
41	88.0	69.0	103.4	
43	122.2	172.1	258.1	
56	56.1	42.2	63.2	

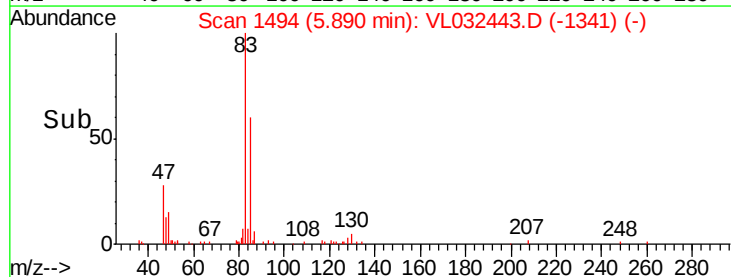
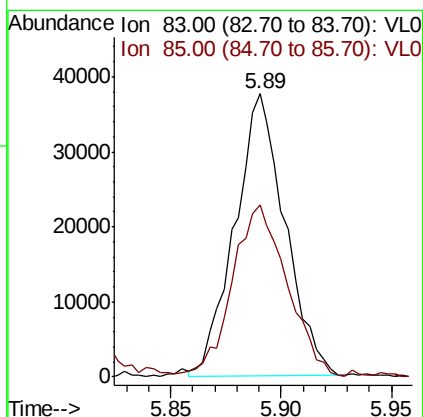
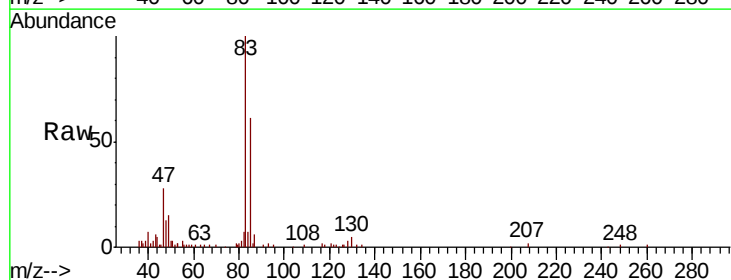
Manual Integrations
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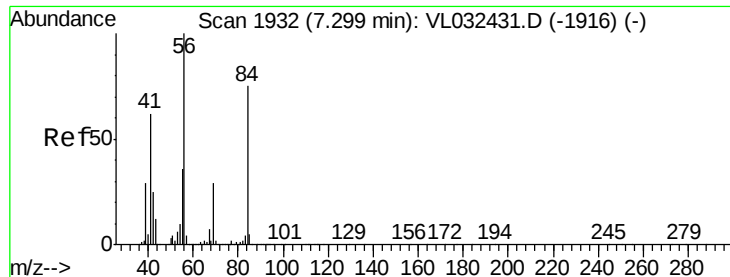
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9/4/2018 8:26:20 AM



#29
Chloroform
Concen: 0.222 ppbv
RT: 5.89 min Scan# 1494
Delta R.T. -0.01 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Tgt Ion	Ratio	Resp	Lower	Upper
83	100	59248		
85	60.4	52.5	78.7	





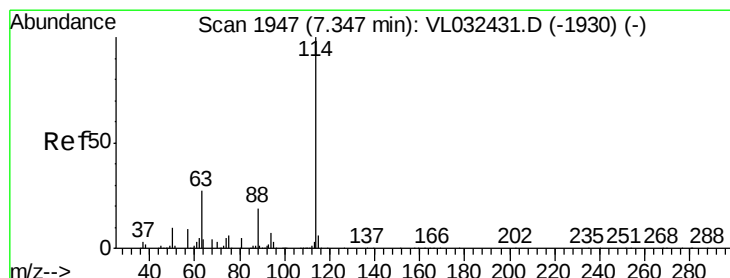
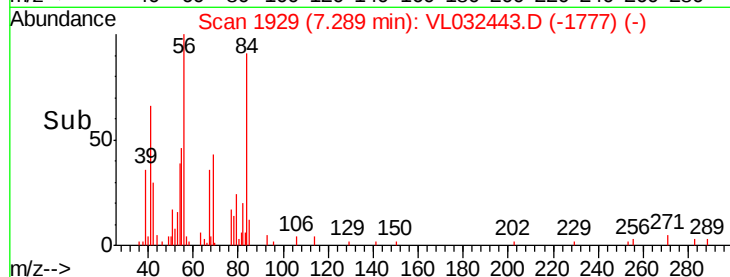
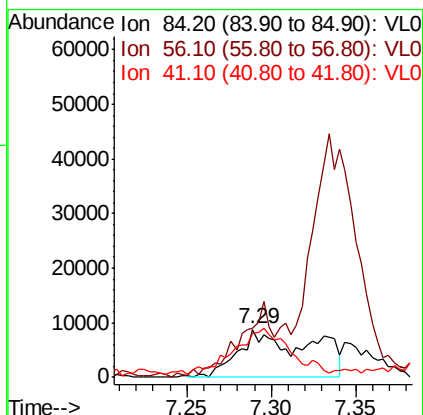
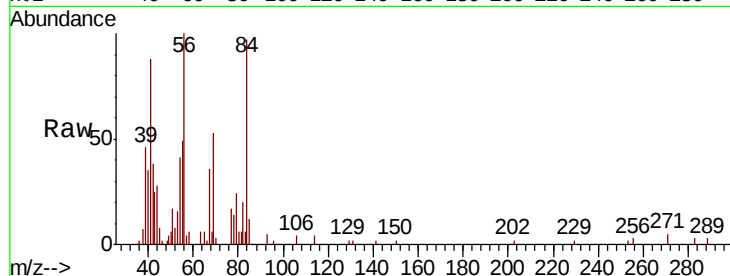
#30
Cyclohexane
Concen: 0.199 ppbv m
RT: 7.29 min Scan# 1929
Delta R.T. -0.01 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Instrument :
MSVOA_L
ClientSampled :
SS-2

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	113.5	170.3#
41	0.0	68.1	102.1#

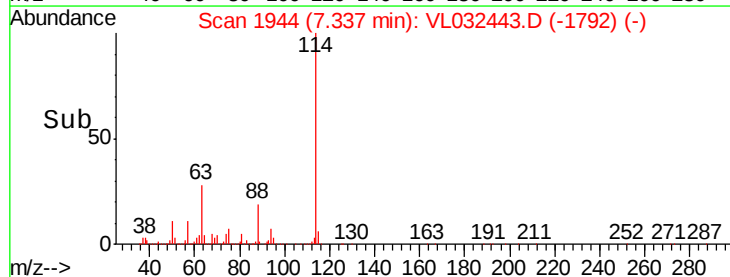
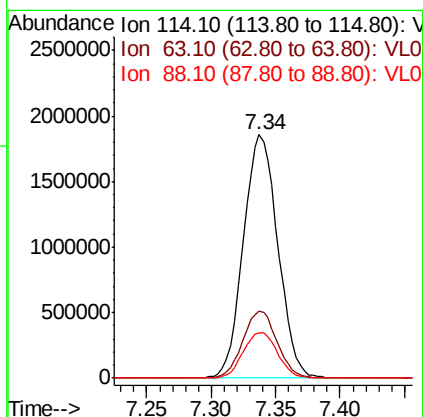
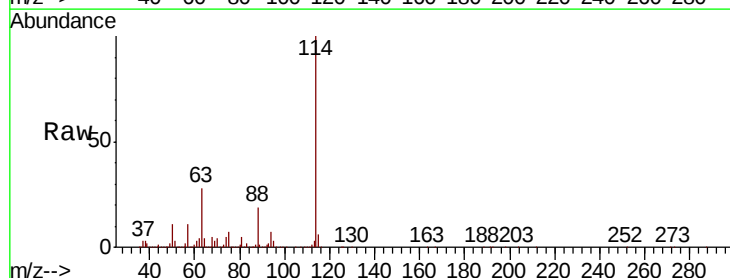
Manual Integrations
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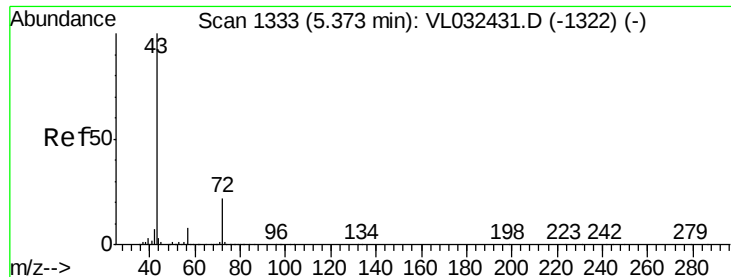
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.34 min Scan# 1944
Delta R.T. -0.01 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.4	22.2	33.4
88	18.8	15.0	22.4





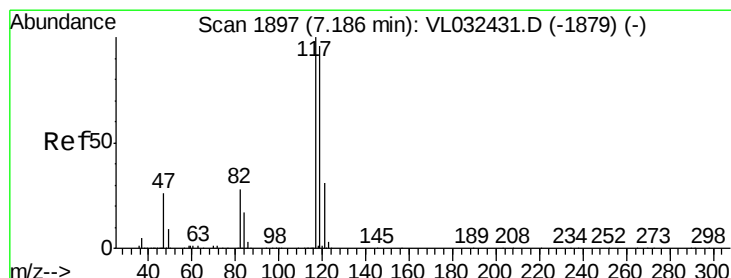
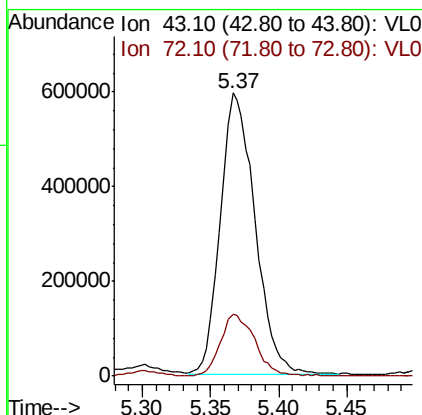
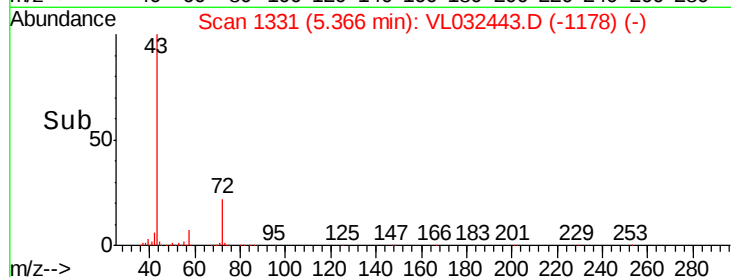
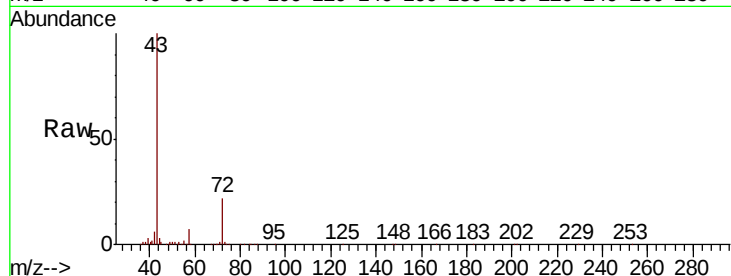
#34
2-Butanone
Concen: 4.547 ppbv
RT: 5.37 min Scan# 1331
Delta R.T. -0.01 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Instrument :
MSVOA_L
ClientSampleId :
SS-2

Tgt Ion: 43 Resp: 1043672
Ion Ratio Lower Upper
43 100
72 22.0 17.8 26.6

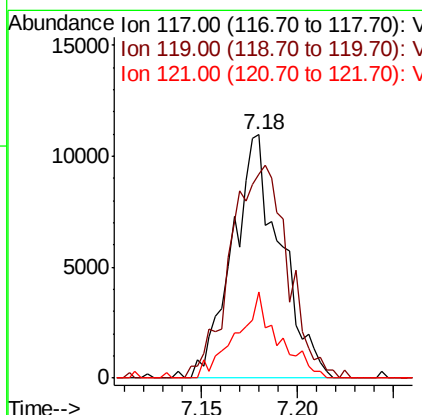
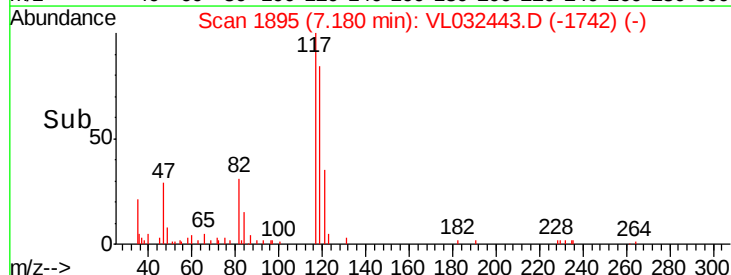
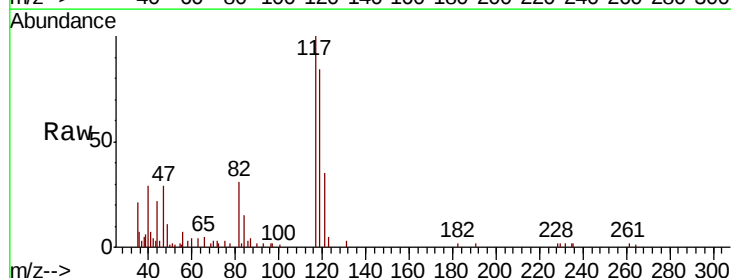
Manual Integrations
APPROVED

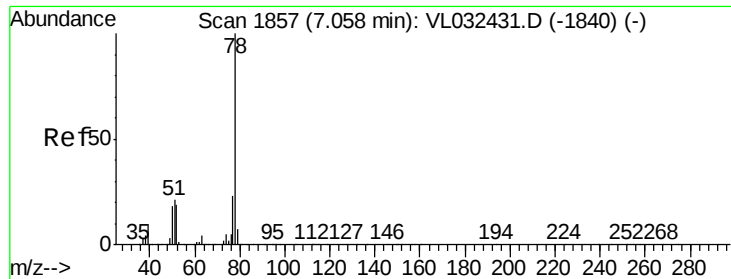
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#35
Carbon Tetrachloride
Concen: 0.082 ppbv m
RT: 7.18 min Scan# 1895
Delta R.T. -0.01 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Tgt Ion: 117 Resp: 18942
Ion Ratio Lower Upper
117 100
119 83.7 76.6 115.0
121 35.2 24.6 36.8





#36

Benzene

Concen: 0.801 ppbv

RT: 7.05 min Scan# 1855

Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

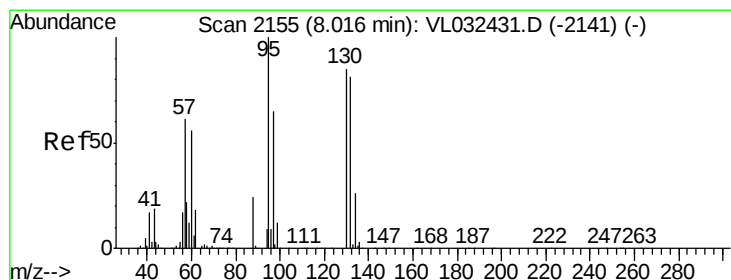
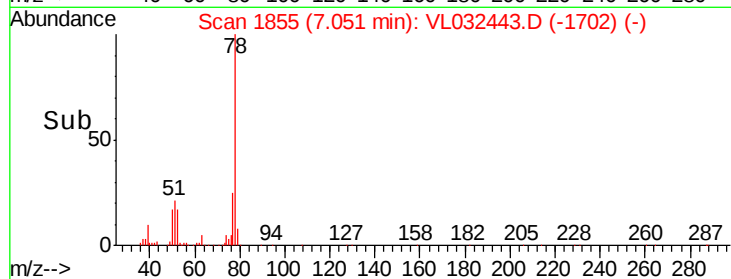
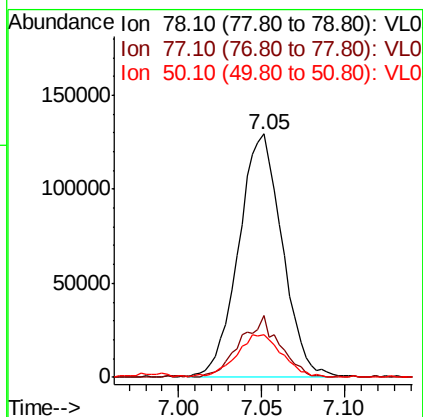
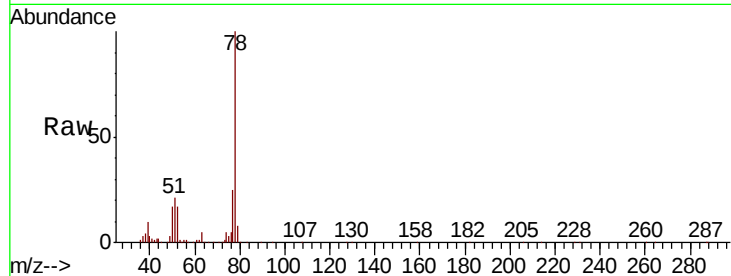
ClientSampled :

SS-2

Tgt Ion:	78	Resp:	235620
Ion	Ratio	Lower	Upper
78	100		
77	25.1	18.4	27.6
50	16.9	14.4	21.6

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#38

Trichloroethene

Concen: 0.454 ppbv m

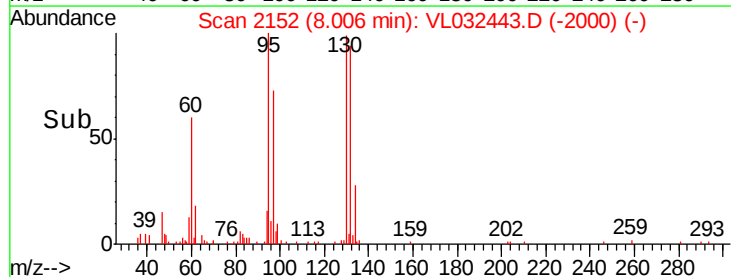
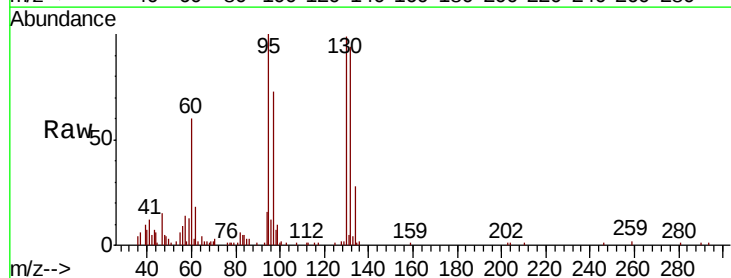
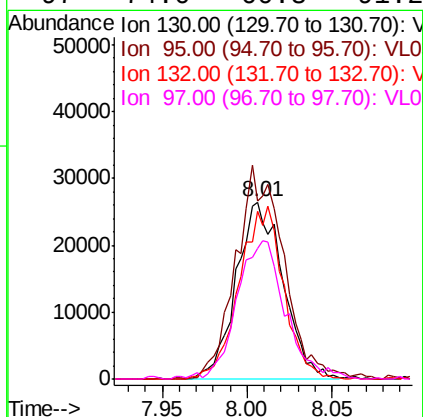
RT: 8.01 min Scan# 2152

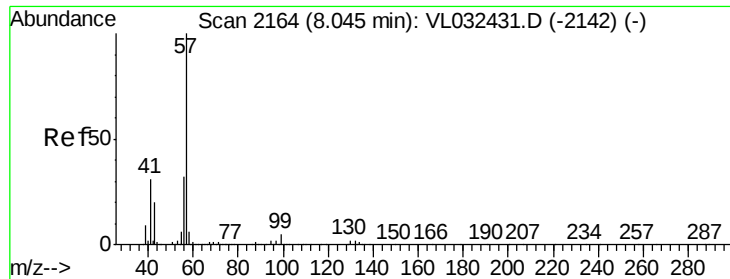
Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Tgt Ion:	130	Resp:	50710
Ion	Ratio	Lower	Upper
130	100		
95	100.8	94.2	141.4
132	94.8	76.2	114.4
97	74.0	60.8	91.2





#44

2,2,4-Trimethylpentane

Concen: 0.148 ppbv

RT: 8.03 min Scan# 2161

Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

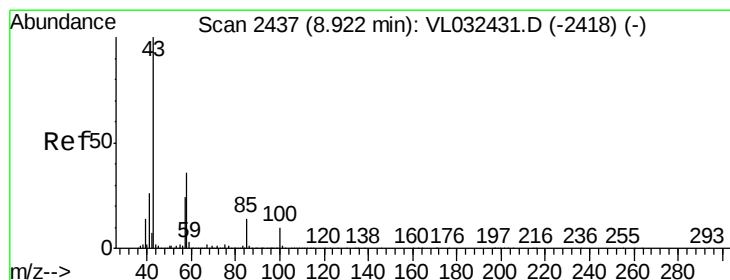
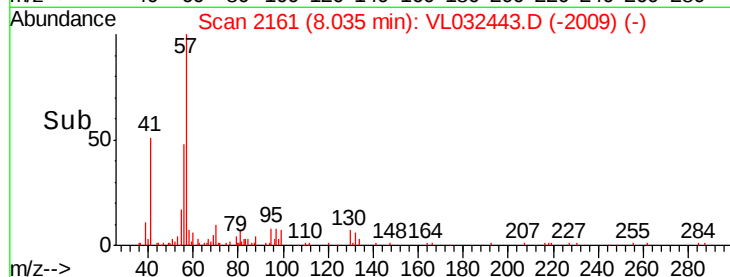
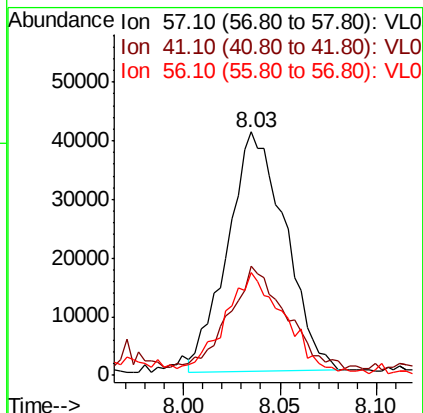
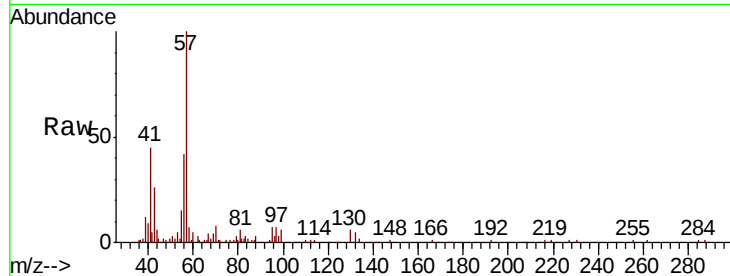
ClientSampled :

SS-2

Tgt Ion:	57	Resp:	84305
Ion Ratio	Lower	Upper	
57	100		
41	43.5	24.4	36.6#
56	50.6	25.7	38.5#

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#50

4-Methyl-2-Pentanone

Concen: 0.400 ppbv m

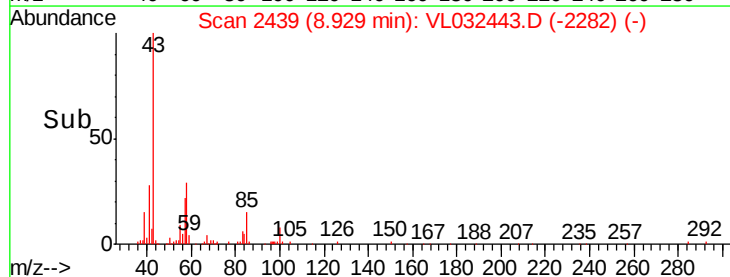
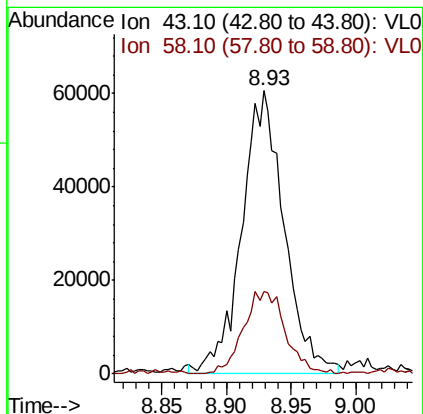
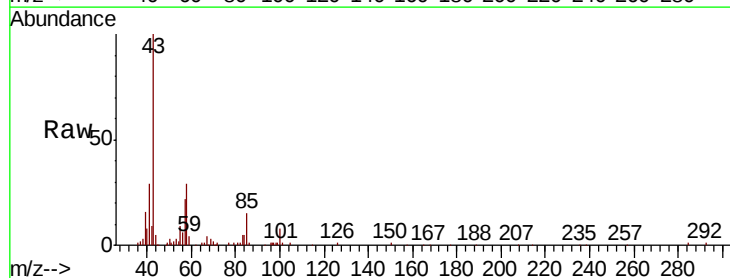
RT: 8.93 min Scan# 2439

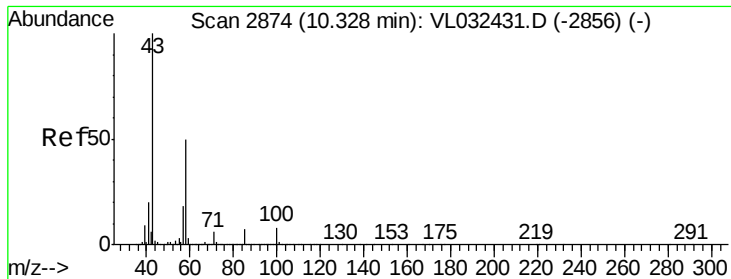
Delta R.T. 0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Tgt Ion:	43	Resp:	138199
Ion Ratio	Lower	Upper	
43	100		
58	29.1	29.0	43.4





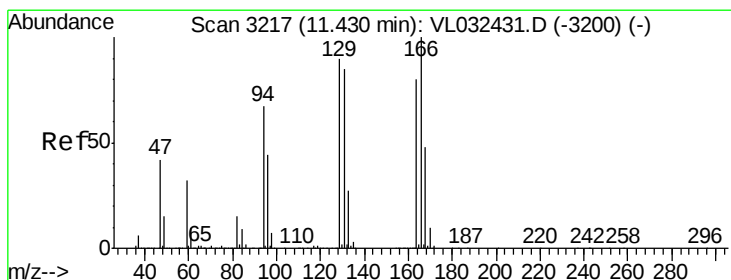
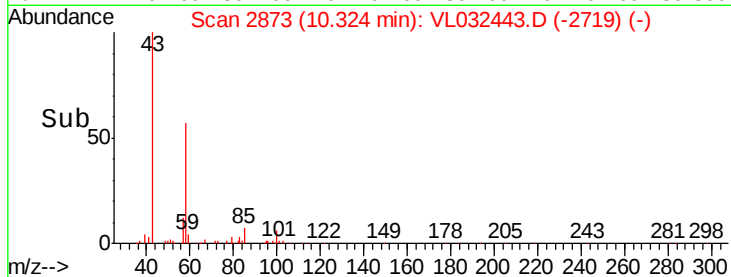
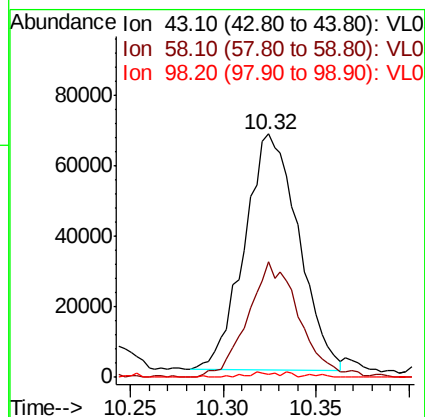
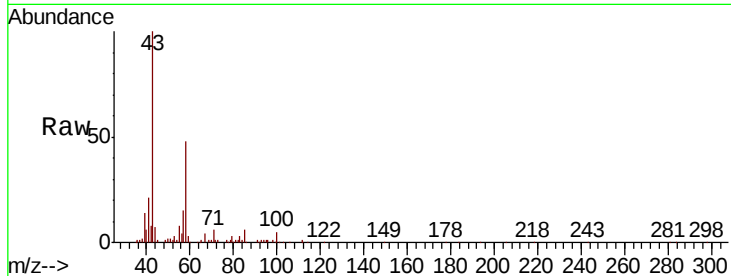
#51
2-Hexanone
Concen: 0.616 ppbv
RT: 10.32 min Scan# 2873
Delta R.T. -0.00 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Instrument :
MSVOA_L
ClientSampleId :
SS-2

Tgt Ion	Ratio	Lower	Upper
43	100		
58	46.9	39.2	58.8
98	2.1	0.4	0.6

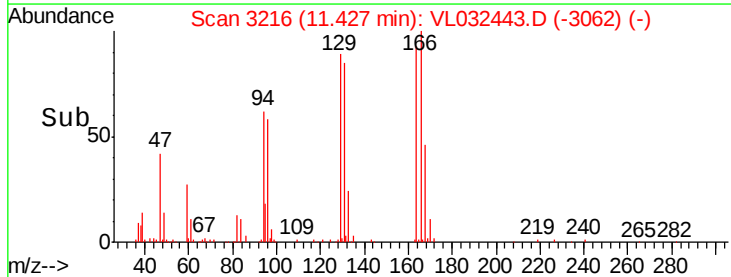
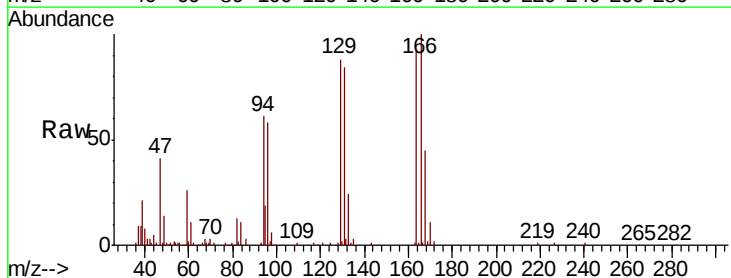
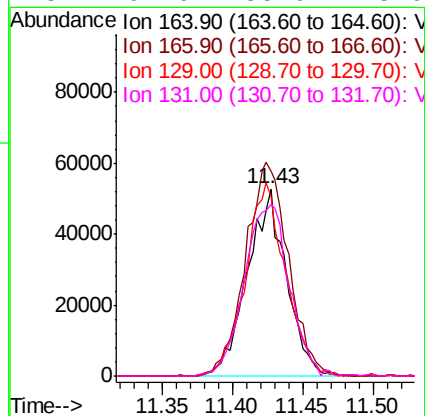
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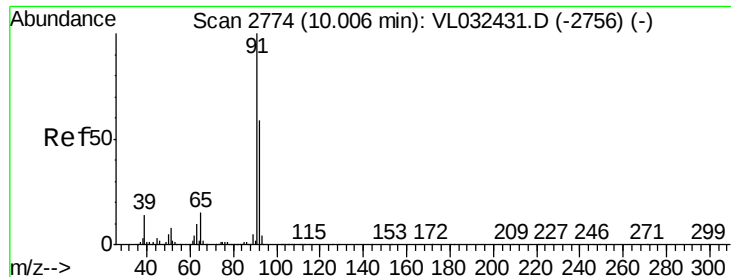
apatel
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#52
Tetrachloroethene
Concen: 1.115 ppbv m
RT: 11.43 min Scan# 3216
Delta R.T. -0.00 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Tgt Ion	Ratio	Lower	Upper
164	100		
166	109.2	100.6	150.8
129	95.6	89.9	134.9
131	91.9	85.9	128.9





#53

Toluene

Concen: 3.401 ppbv

RT: 10.00 min Scan# 2772

Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

ClientSampled :

SS-2

Tgt Ion: 91 Resp: 1045353

Ion Ratio Lower Upper

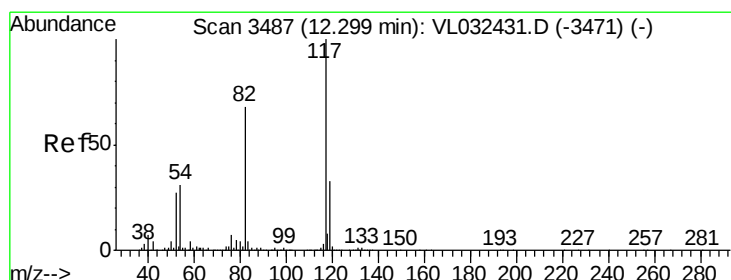
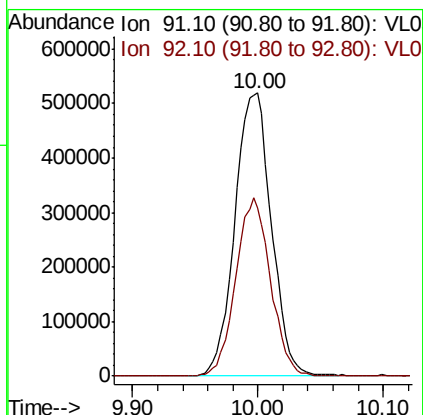
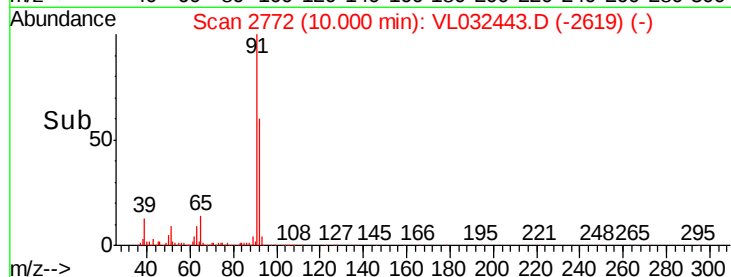
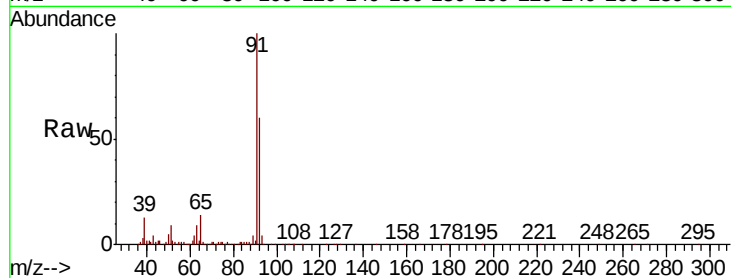
91 100

92 60.3 48.1 72.1

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.29 min Scan# 3485

Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

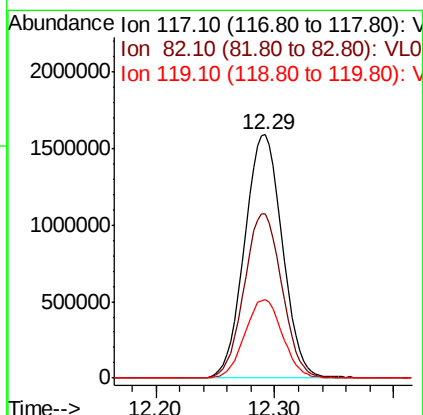
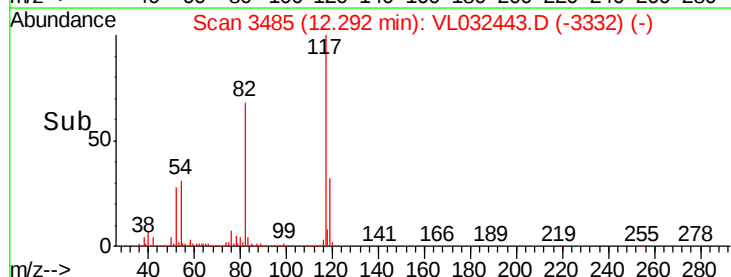
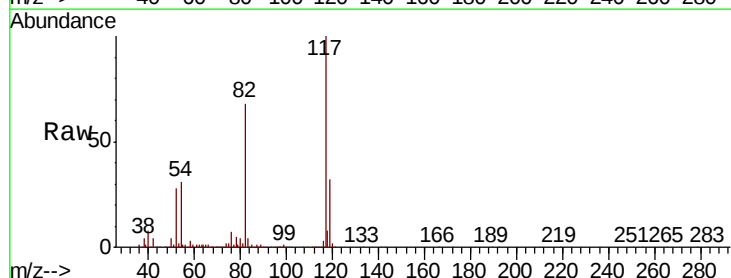
Tgt Ion: 117 Resp: 3498106

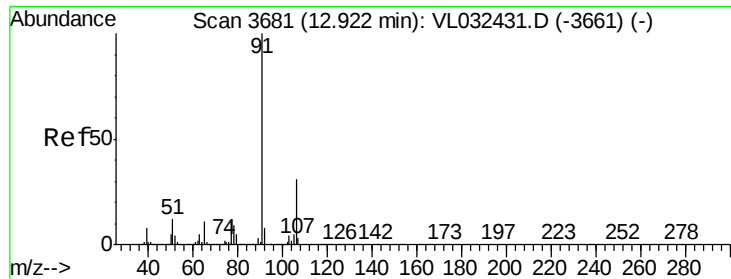
Ion Ratio Lower Upper

117 100

82 67.6 53.0 79.6

119 32.3 45.9 68.9#





#58

Ethyl Benzene

Concen: 0.203 ppbv m

RT: 12.91 min Scan# 3678

Delta R.T. -0.01 min

Lab File: VL032443.D

Acq: 31 Aug 2018 16:23

Instrument :

MSVOA_L

ClientSampleId :

SS-2

Tgt Ion: 91 Resp: 85011

Ion Ratio Lower Upper

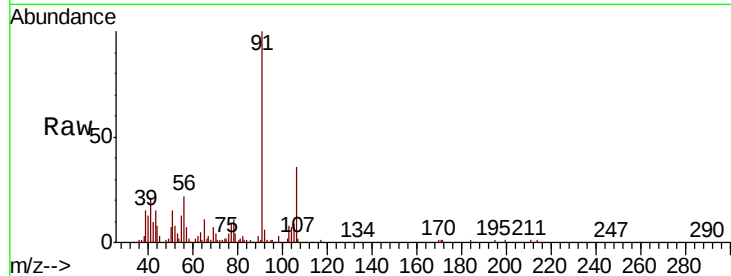
91 100

106 36.3 24.8 37.2

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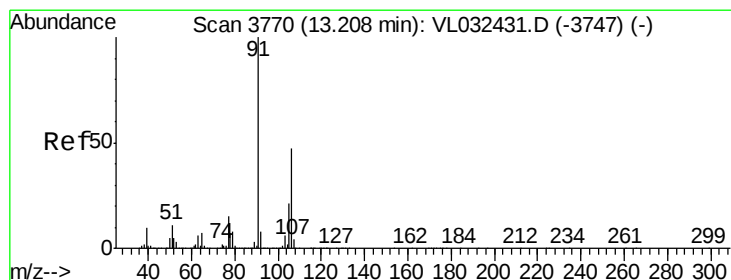
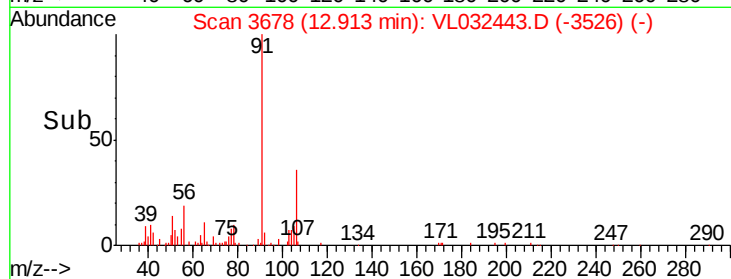
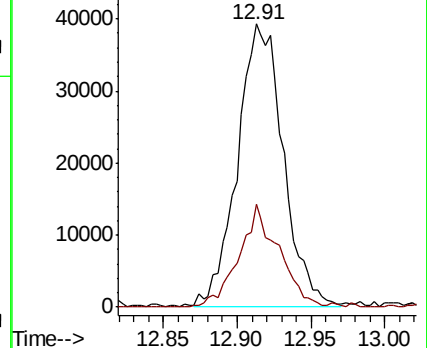
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.618 ppbv m

RT: 13.17 min Scan# 3759

Delta R.T. -0.04 min

Lab File: VL032443.D

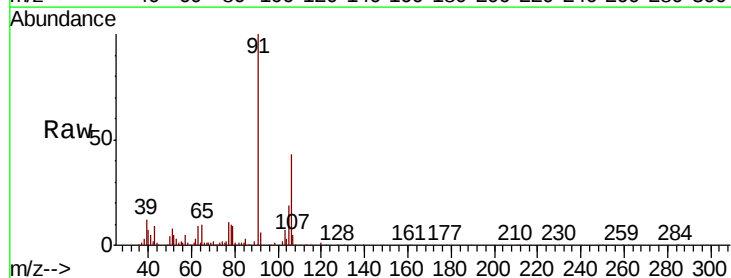
Acq: 31 Aug 2018 16:23

Tgt Ion: 91 Resp: 230812

Ion Ratio Lower Upper

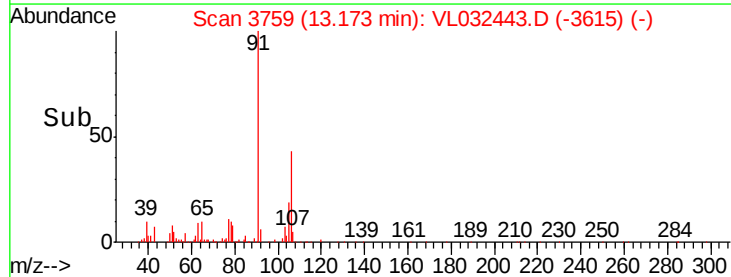
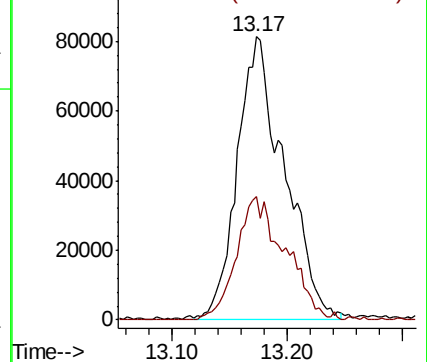
91 100

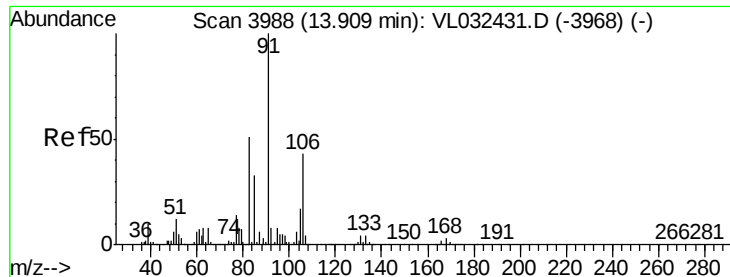
106 0.0 36.6 55.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





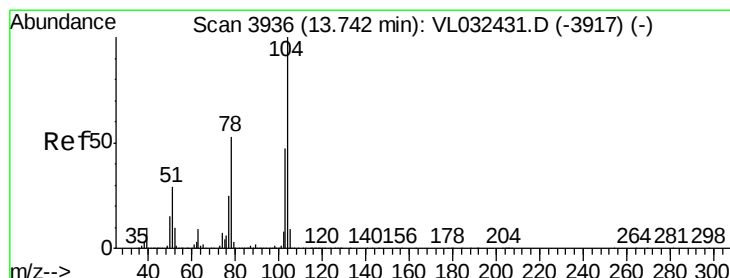
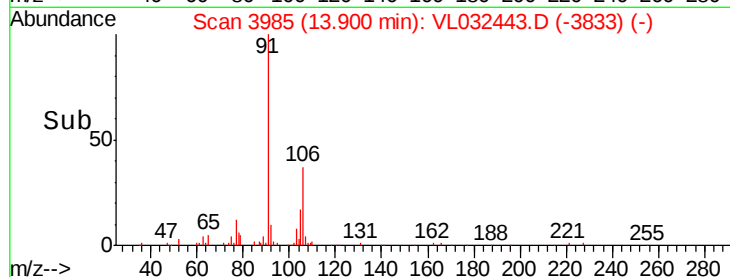
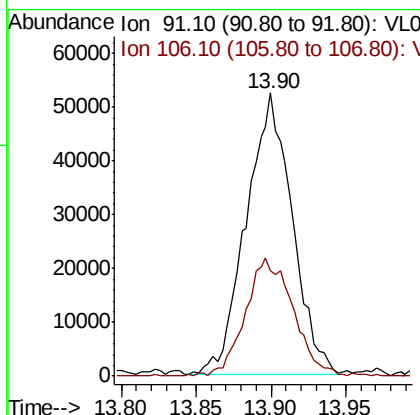
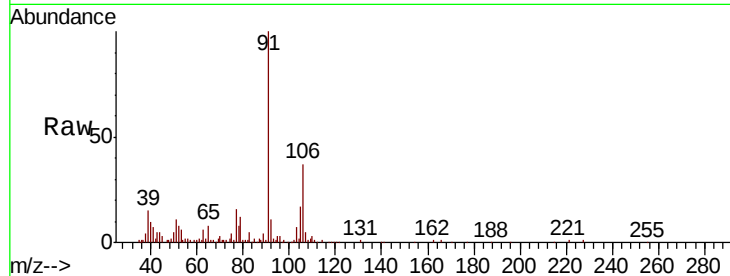
#60
o-Xylene
Concen: 0.303 ppbv
RT: 13.90 min Scan# 3985
Delta R.T. -0.01 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Instrument :
MSVOA_L
ClientSampled :
SS-2

Tgt Ion: 91 Resp: 111063
Ion Ratio Lower Upper
91 100
106 44.4 21.9 65.7

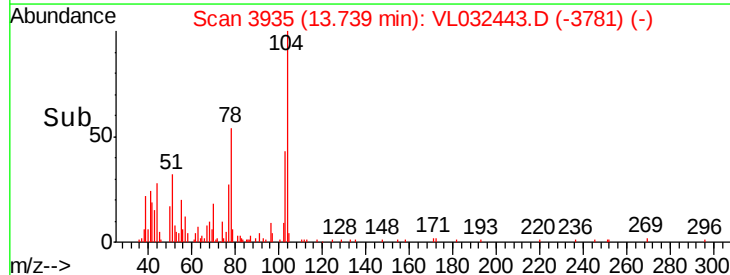
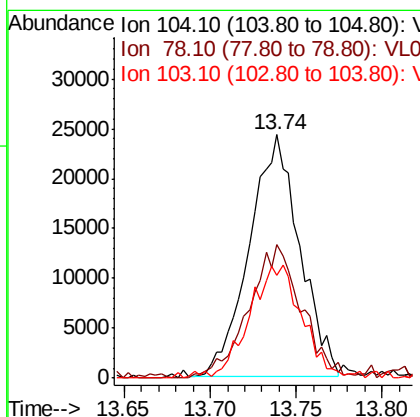
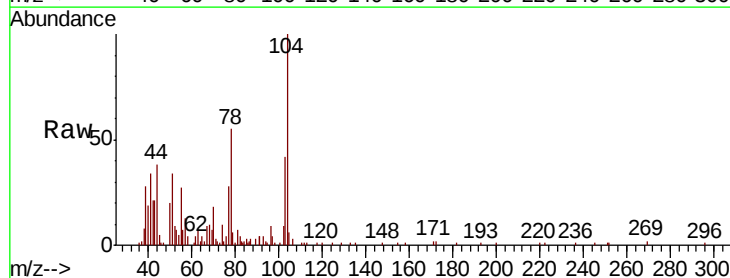
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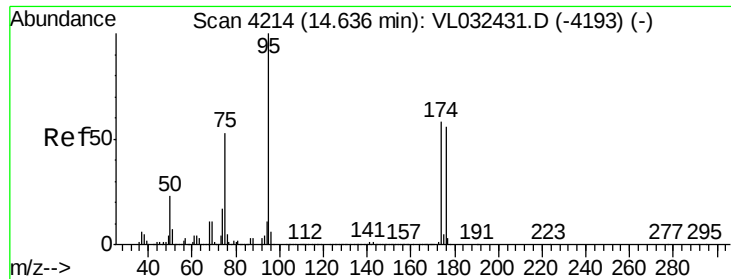
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#61
Styrene
Concen: 0.208 ppbv
RT: 13.74 min Scan# 3935
Delta R.T. -0.00 min
Lab File: VL032443.D
Acq: 31 Aug 2018 16:23

Tgt Ion: 104 Resp: 49270
Ion Ratio Lower Upper
104 100
78 58.0 41.8 62.8
103 50.8 38.0 57.0





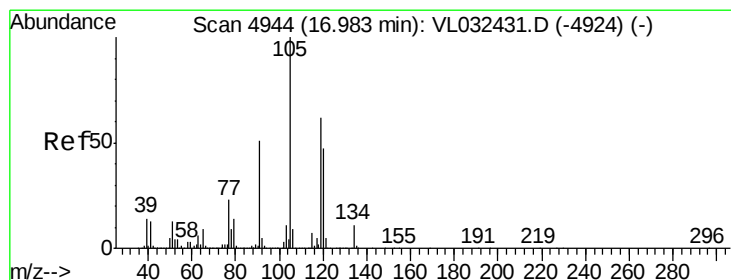
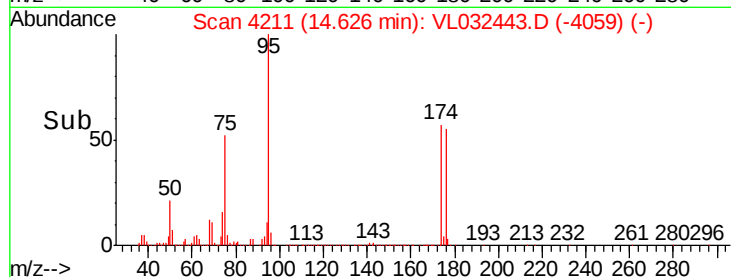
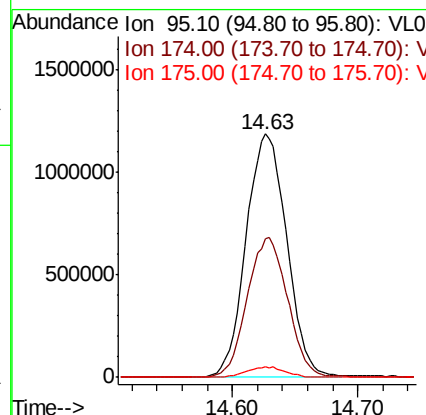
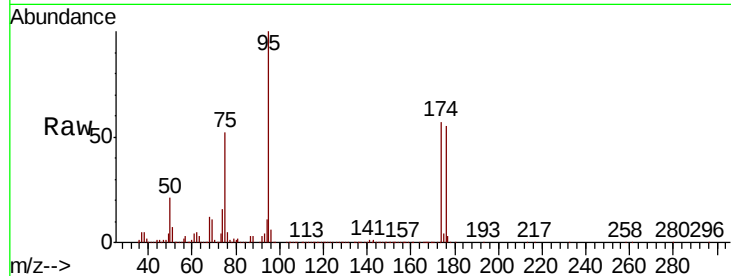
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.312 ppbv
 RT: 14.63 min Scan# 4211
 Delta R.T. -0.01 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Instrument :
 MSVOA_L
 ClientSampled :
 SS-2

Tgt Ion: 95 Resp: 2678040
 Ion Ratio Lower Upper
 95 100
 174 57.3 46.3 69.5
 175 4.2 3.4 5.0

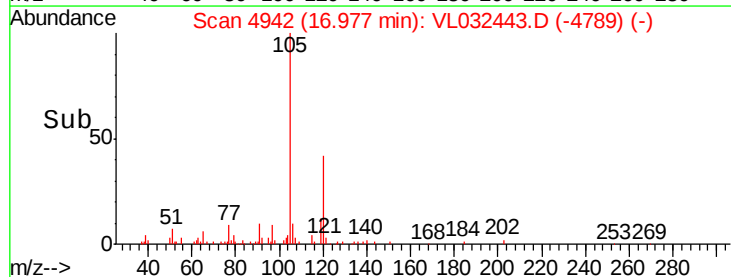
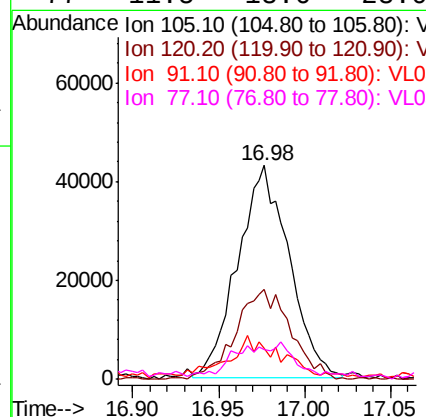
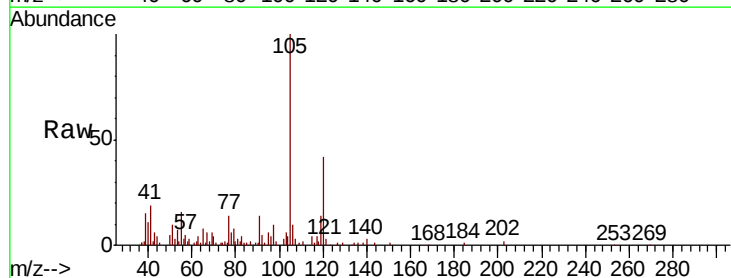
Manual Integrations
 APPROVED

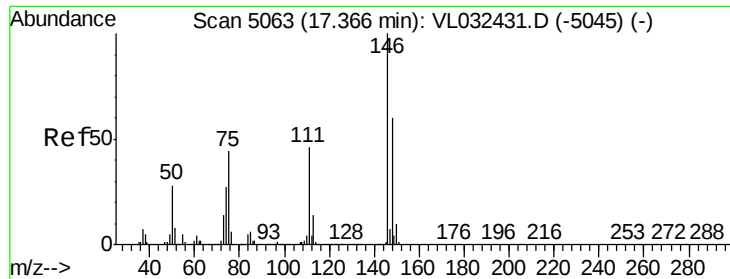
apatel
 9/4/2018 8:26:20 AM



#74
 1,2,4-Trimethylbenzene
 Concen: 0.203 ppbv
 RT: 16.98 min Scan# 4942
 Delta R.T. -0.01 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Tgt Ion: 105 Resp: 89080
 Ion Ratio Lower Upper
 105 100
 120 42.1 37.8 56.8
 91 12.5 41.4 62.0#
 77 11.5 18.6 28.0#





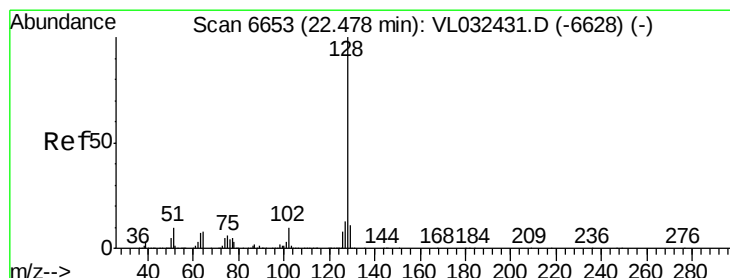
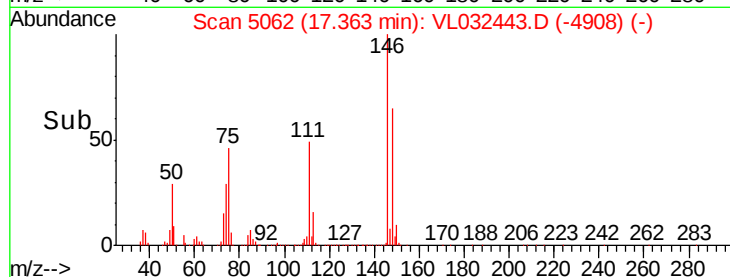
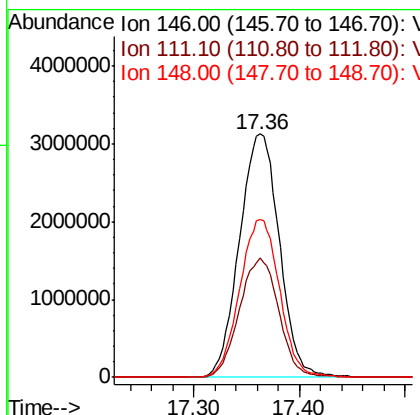
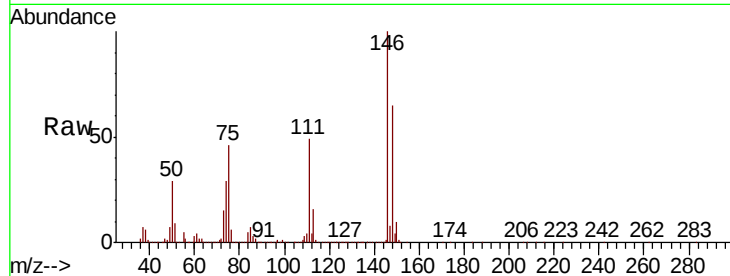
#76
 1,4-Dichlorobenzene
 Concen: 34.109 ppbv
 RT: 17.36 min Scan# 5062
 Delta R.T. -0.00 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Instrument :
 MSVOA_L
 ClientSampled :
 SS-2

Tgt Ion:146 Resp: 8232460
 Ion Ratio Lower Upper
 146 100
 111 48.4 23.4 70.2
 148 64.9 32.0 96.2

Manual Integrations
 APPROVED

apatel
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#79
 Naphthalene
 Concen: 0.260 ppbv m
 RT: 22.47 min Scan# 6651
 Delta R.T. -0.01 min
 Lab File: VL032443.D
 Acq: 31 Aug 2018 16:23

Tgt Ion:128 Resp: 92573
 Ion Ratio Lower Upper
 128 100
 127 14.1 10.2 15.2
 129 13.8 8.5 12.7#

