

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101118\
 Data File : VL032612.D
 Acq On : 11 Oct 2018 20:06
 Operator : SY/AP
 Sample : J5370-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 Q1-SVI-100518

Manual Integrations
 APPROVED

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 10/12/2018 2:07:36 PM

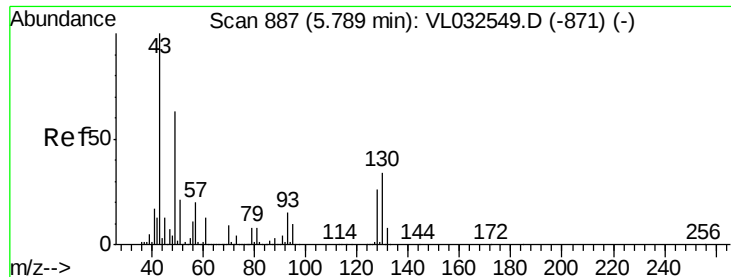
Quant Time: Oct 12 12:12:38 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Oct 08 2018
 QLast Update : Mon Oct 01 06:49:26 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.80	49	1422134	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.33	114	3120732	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.27	117	3249914	10.00	ppbv	-0.02

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.61	95	2269823	9.26	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	92.60%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.09	85	24847	0.189	ppbv	100
3) Chlorodifluoromethane	3.03	51	98139m	0.830	ppbv	
4) Chloromethane	3.18	50	24950	0.362	ppbv	89
9) Propene	3.05	41	2675349	52.139	ppbv	98
10) Heptane	8.27	43	168563	0.896	ppbv	99
11) Trichlorofluoromethane	4.03	101	32723m	0.209	ppbv	
13) Ethanol	3.68	45	986001	63.928	ppbv	98
15) Acetone	3.92	43	19955332	159.858	ppbv #	64
17) tert-Butyl alcohol	4.39	59	847361	54.018	ppbv #	100
19) Isopropyl Alcohol	4.06	45	781059	8.983	ppbv #	93
20) Methylene Chloride	4.44	84	1104371	18.269	ppbv	99
26) Hexane	5.80	57	323169	2.362	ppbv #	49
27) Carbon Disulfide	4.64	76	398276	2.708	ppbv	96
34) 2-Butanone	5.35	43	15010842	80.773	ppbv #	88
35) Carbon Tetrachloride	7.17	117	11956m	0.055	ppbv	
36) Benzene	7.04	78	215633	0.855	ppbv	94
50) 4-Methyl-2-Pentanone	8.90	43	98969m	0.339	ppbv	
51) 2-Hexanone	10.29	43	4044664	16.742	ppbv #	96
52) Tetrachloroethene	11.41	164	113460m	1.292	ppbv	
53) Toluene	9.98	91	1539965	5.011	ppbv	99
58) Ethyl Benzene	12.90	91	79061	0.201	ppbv	95
59) m/p-Xylene	13.15	91	167742	0.478	ppbv	98
60) o-Xylene	13.88	91	63688m	0.186	ppbv	
61) Styrene	13.71	104	41623m	0.186	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.80 min Scan# 891

Delta R.T. -0.01 min

Lab File: VL032612.D

Acq: 11 Oct 2018 20:06

Instrument :

MSVOA_L

ClientSampleId :

Q1-SVI-100518

Tot Ion: 49 Resp: 1422134

Ion Ratio Lower Upper

49 100

128 42.5 20.7 62.1

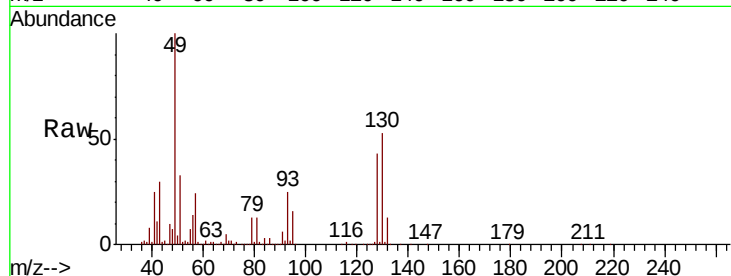
130 54.3 26.6 79.7

Manual Integrations

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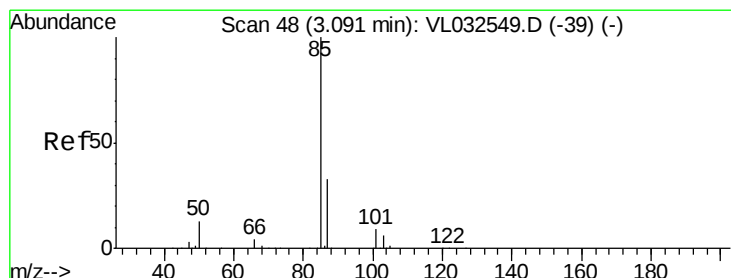
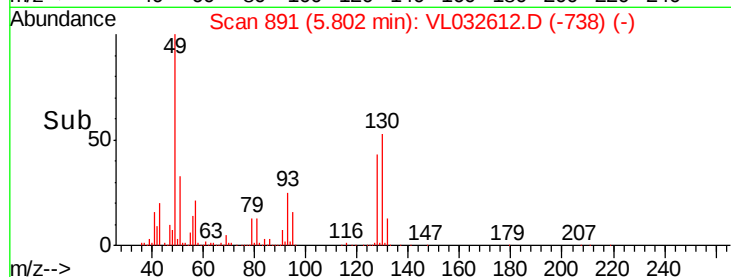
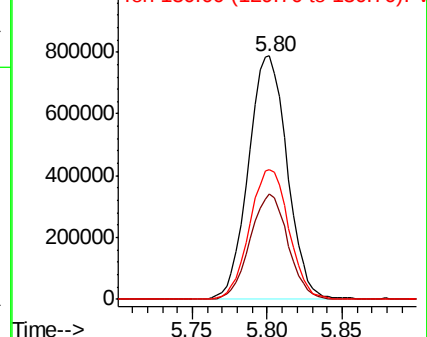
10/12/2018 2:07:36 PM



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: 0.189 ppbv

RT: 3.09 min Scan# 47

Delta R.T. -0.02 min

Lab File: VL032612.D

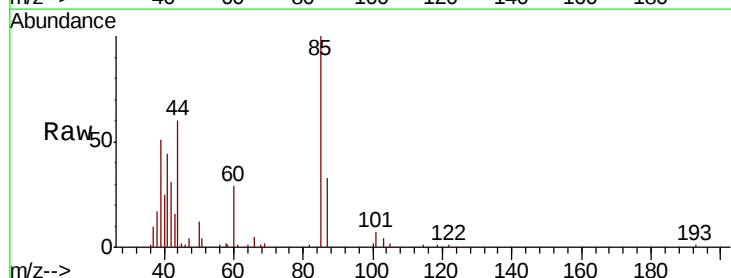
Acq: 11 Oct 2018 20:06

Tgt Ion: 85 Resp: 24847

Ion Ratio Lower Upper

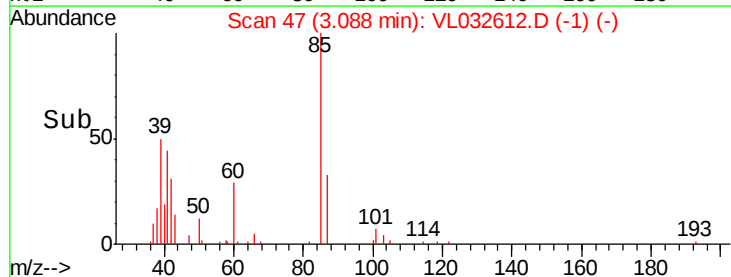
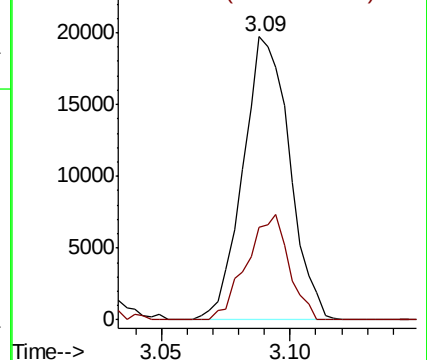
85 100

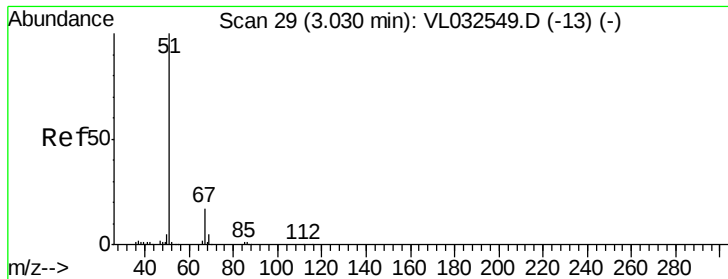
87 32.6 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.830 ppbv

RT: 3.03 min Scan# 29

Delta R.T. -0.01 min

Lab File: VL032612.D

Acq: 11 Oct 2018 20:06

Instrument :

MSVOA_L

ClientSampleId :

Q1-SVI-100518

Tot Ion: 51 Resp: 98139

Ion Ratio Lower Upper

51 100

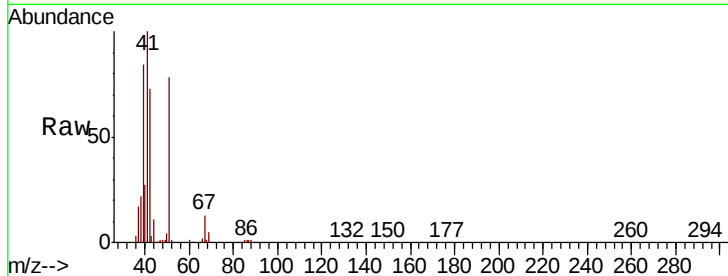
67 18.3 13.8 20.8

Manual Integrations

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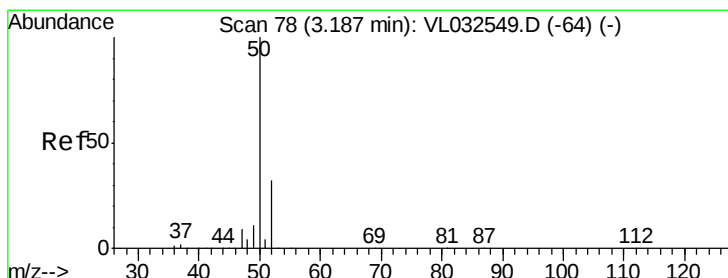
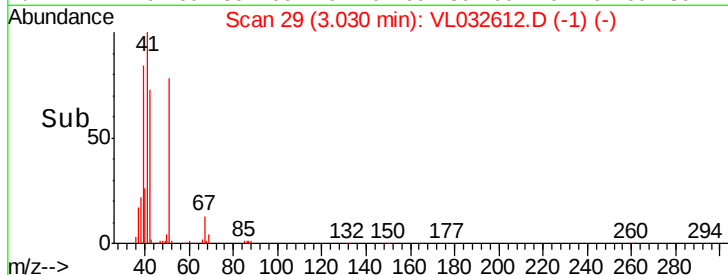
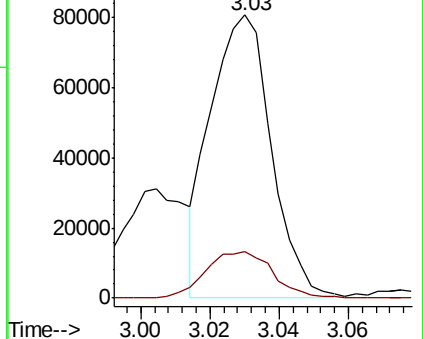
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.362 ppbv

RT: 3.18 min Scan# 77

Delta R.T. -0.02 min

Lab File: VL032612.D

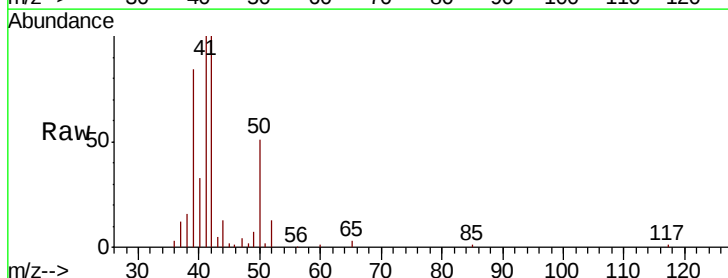
Acq: 11 Oct 2018 20:06

Tgt Ion: 50 Resp: 24950

Ion Ratio Lower Upper

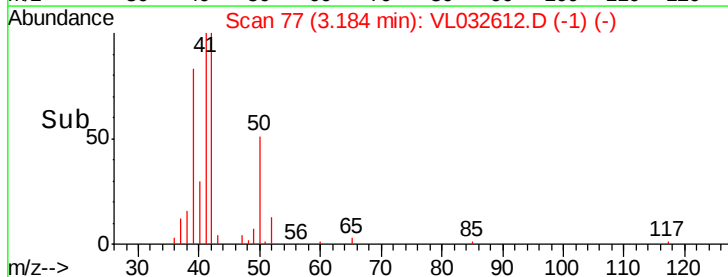
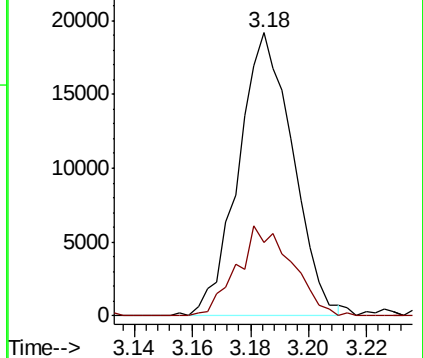
50 100

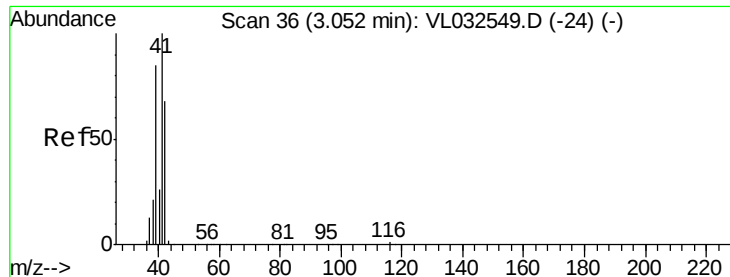
52 25.7 25.6 38.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 52.139 ppbv

RT: 3.05 min Scan# 35

Delta R.T. -0.02 min

Lab File: VL032612.D

Acq: 11 Oct 2018 20:06

Instrument :

MSVOA_L

ClientSampleId :

Q1-SVI-100518

Tot Ion: 41 Resp: 2675349

Ion Ratio Lower Upper

41 100

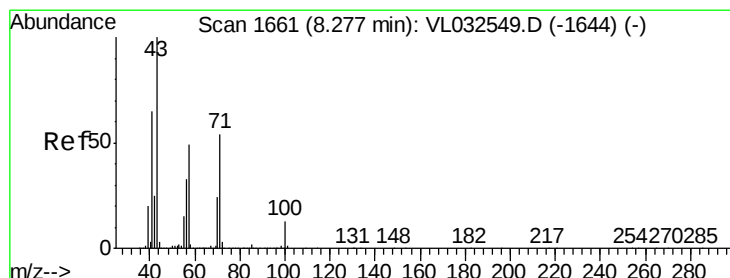
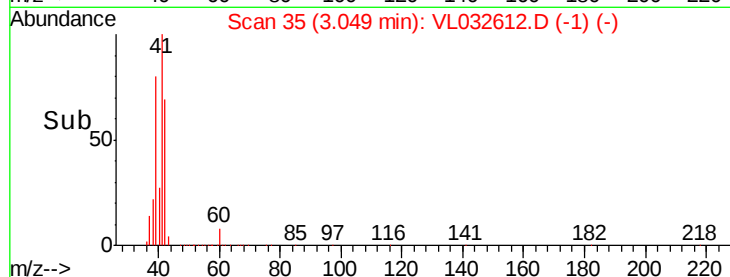
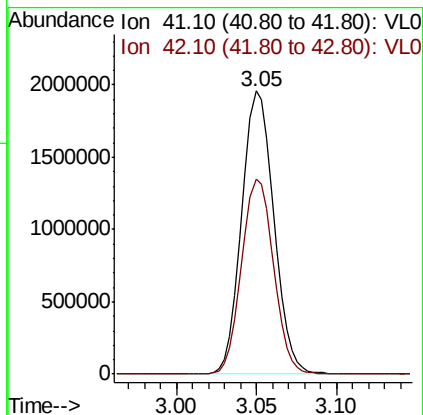
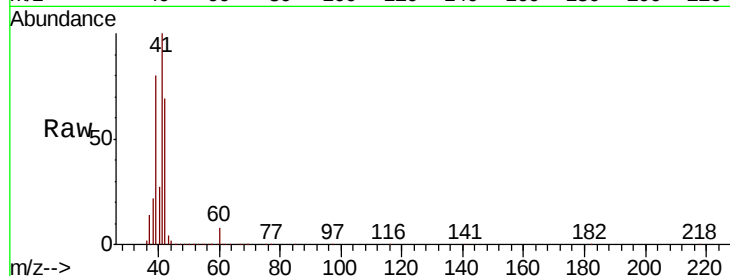
42 68.6 56.6 84.8

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#10

Heptane

Concen: 0.896 ppbv

RT: 8.27 min Scan# 1660

Delta R.T. -0.02 min

Lab File: VL032612.D

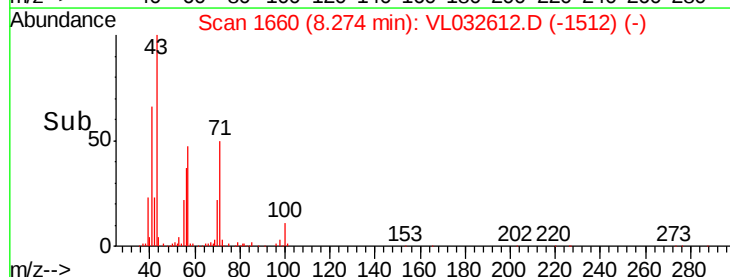
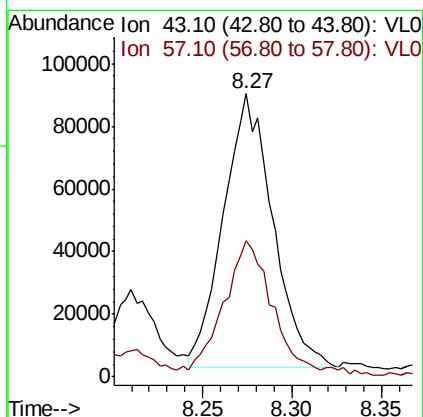
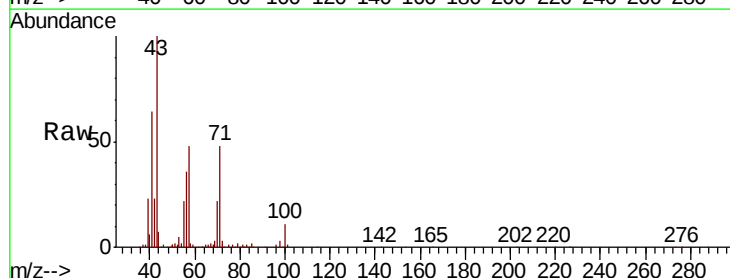
Acq: 11 Oct 2018 20:06

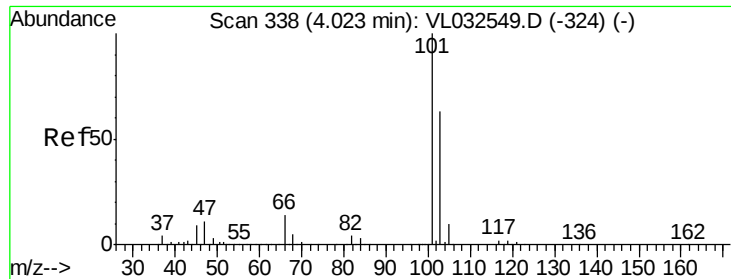
Tgt Ion: 43 Resp: 168563

Ion Ratio Lower Upper

43 100

57 49.0 39.6 59.4





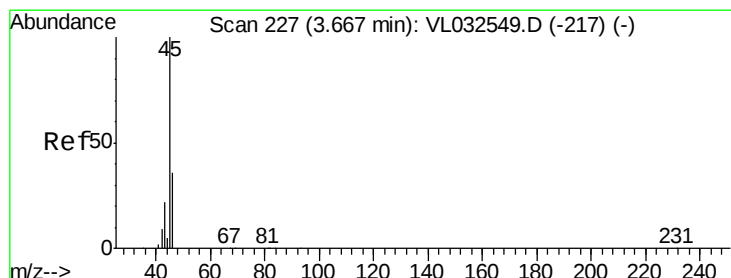
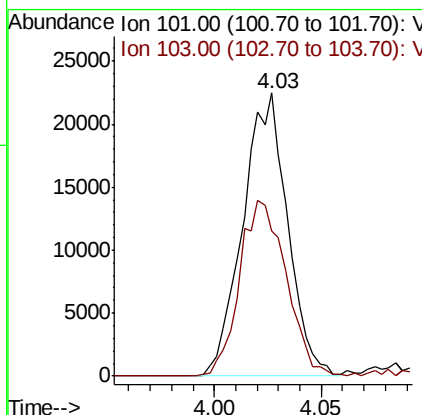
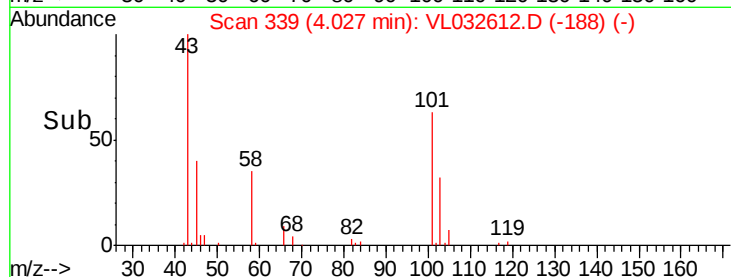
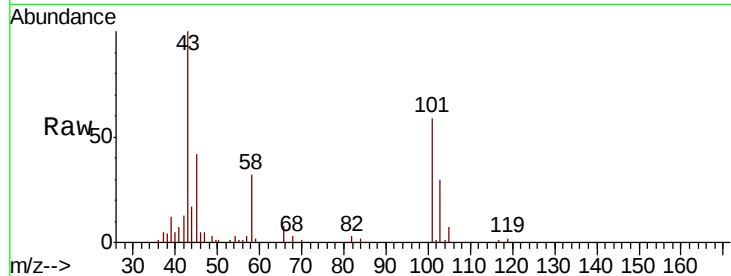
#11
Trichlorofluoromethane
Concen: 0.209 ppbv m
RT: 4.03 min Scan# 339
Delta R.T. -0.01 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Instrument :
MSVOA_L
ClientSampleId :
Q1-SVI-100518

Tot Ion:101 Resp: 32723
Ion Ratio Lower Upper
101 100
103 51.1 52.8 79.2#

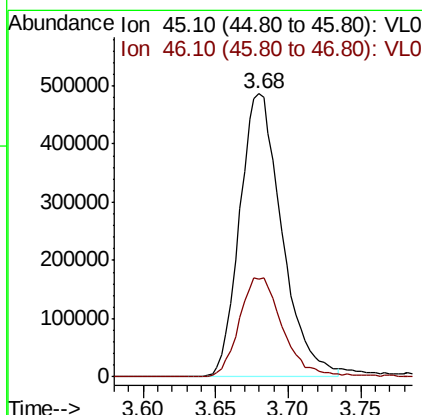
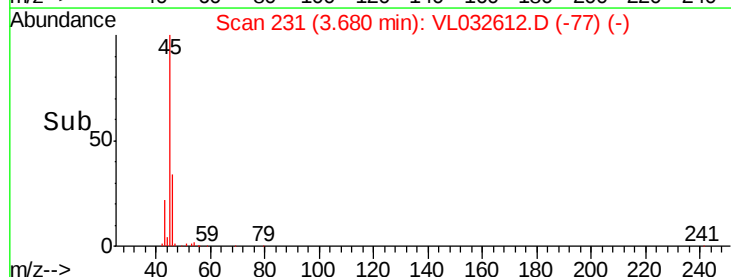
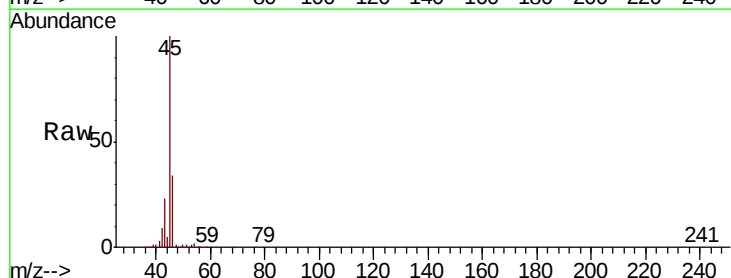
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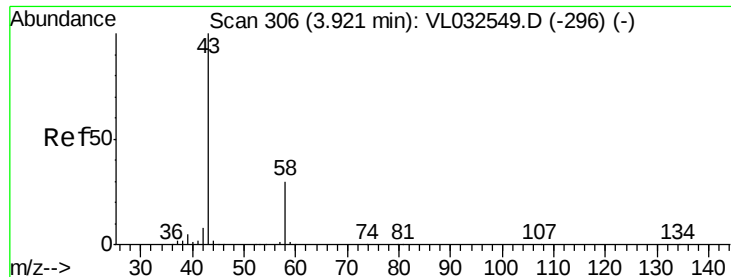
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#13
Ethanol
Concen: 63.928 ppbv
RT: 3.68 min Scan# 231
Delta R.T. -0.01 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Tgt Ion: 45 Resp: 986001
Ion Ratio Lower Upper
45 100
46 36.4 14.2 56.8





#15

Acetone

Concen: 159.858 ppbv

RT: 3.92 min Scan# 307

Delta R.T. -0.01 min

Lab File: VL032612.D

Acq: 11 Oct 2018 20:06

Instrument :

MSVOA_L

ClientSampleId :

Q1-SVI-100518

Tot Ion: 43 Resp:19955332

Ion Ratio Lower Upper

43 100

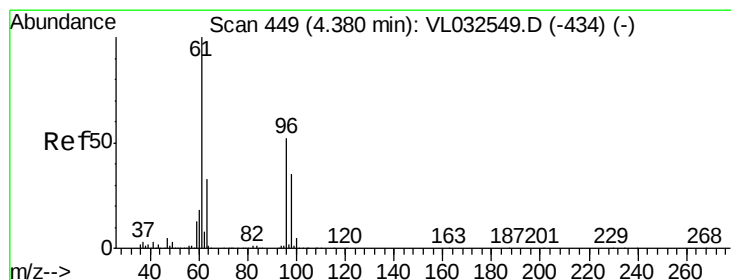
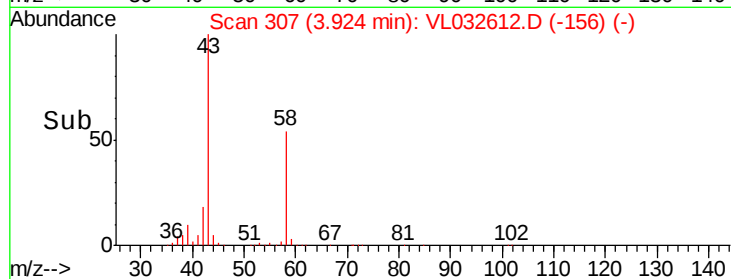
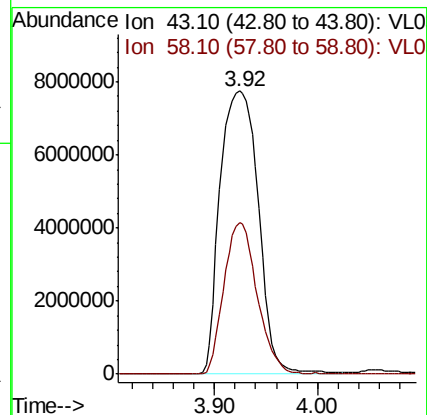
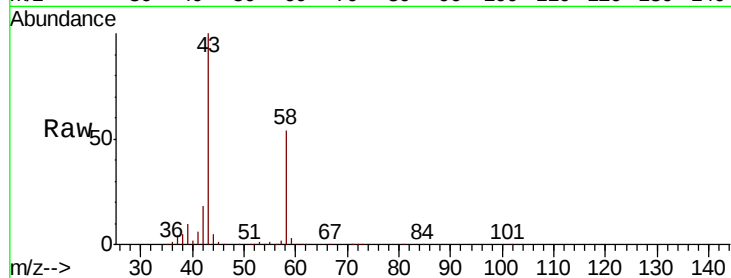
58 47.1 22.6 33.8#

Manual Integrations

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#17

tert-Butyl alcohol

Concen: 54.018 ppbv

RT: 4.39 min Scan# 451

Delta R.T. -0.02 min

Lab File: VL032612.D

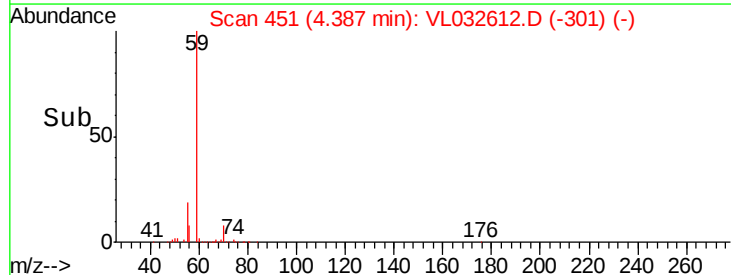
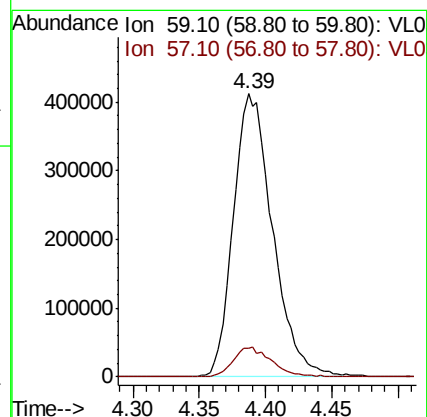
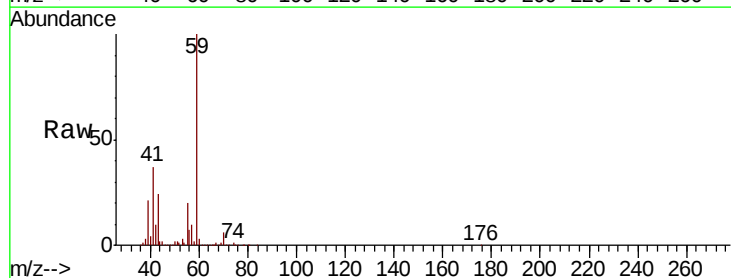
Acq: 11 Oct 2018 20:06

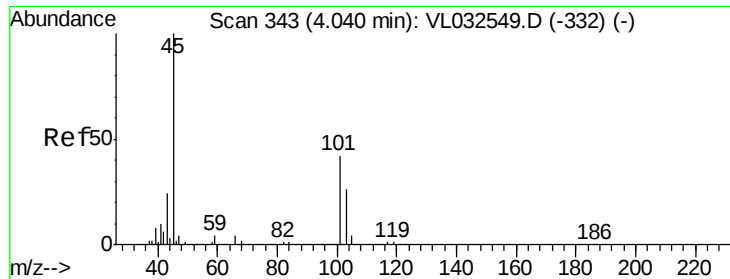
Tgt Ion: 59 Resp: 847361

Ion Ratio Lower Upper

59 100

57 10.5 0.0 0.0#





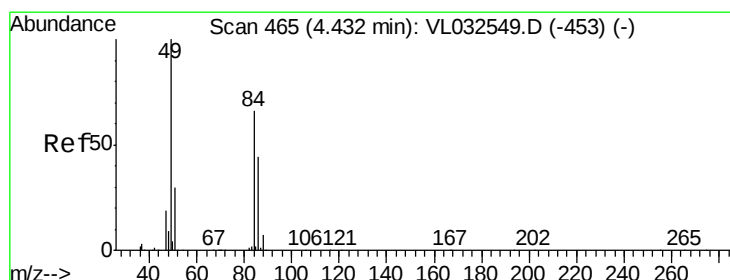
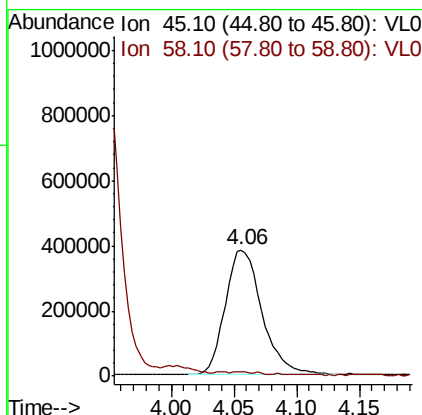
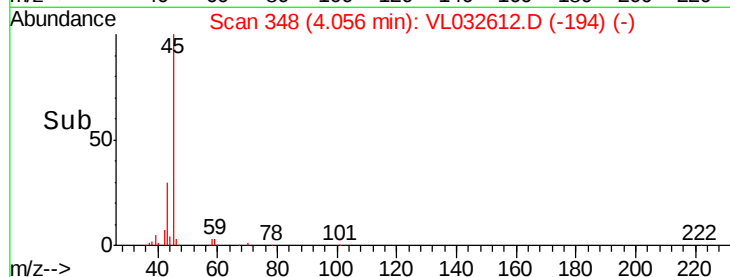
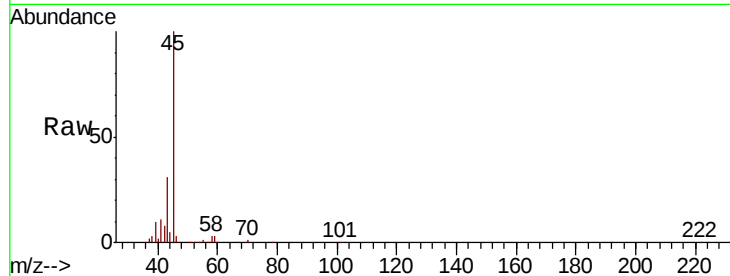
#19
Isopropyl Alcohol
Concen: 8.983 ppbv
RT: 4.06 min Scan# 348
Delta R.T. -0.01 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Instrument :
MSVOA_L
ClientSampleId :
Q1-SVI-100518

Tot Ion: 45 Resp: 781059
Ion Ratio Lower Upper
45 100
58 0.0 2.0 3.0#

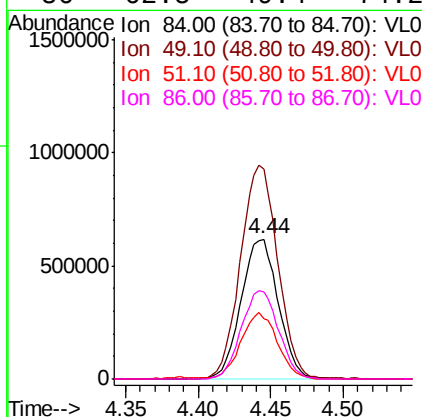
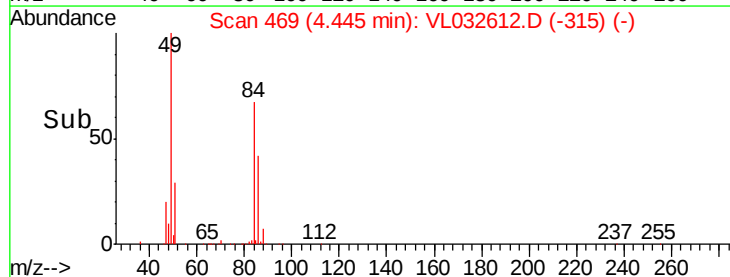
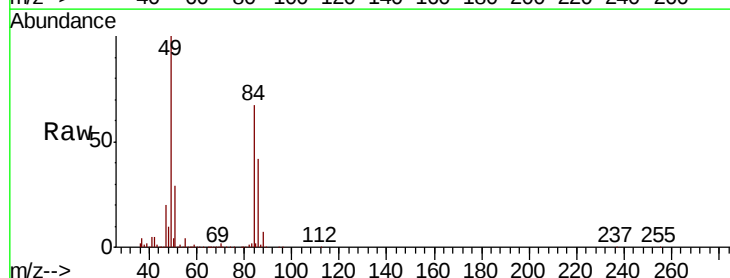
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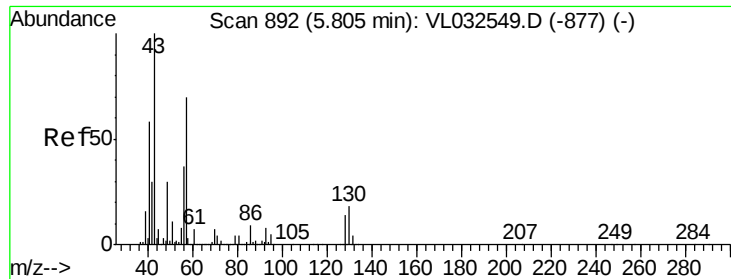
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#20
Methylene Chloride
Concen: 18.269 ppbv
RT: 4.44 min Scan# 469
Delta R.T. -0.01 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Tgt Ion: 84 Resp: 1104371
Ion Ratio Lower Upper
84 100
49 149.3 119.1 178.7
51 43.0 35.2 52.8
86 62.5 49.4 74.2





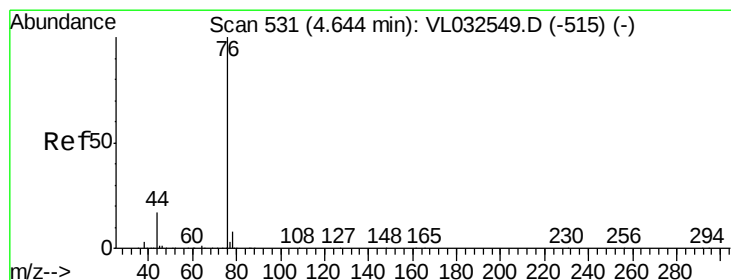
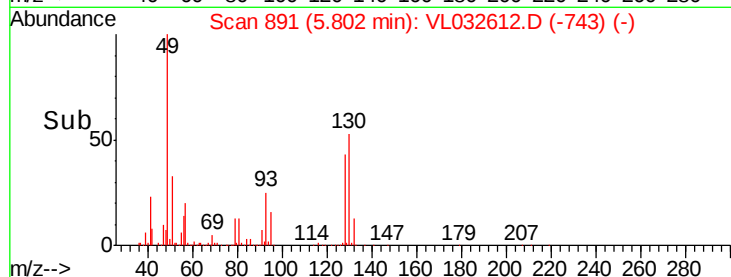
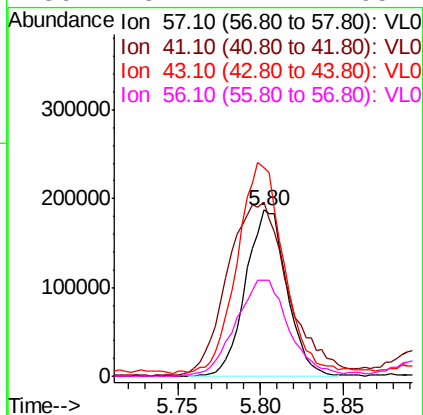
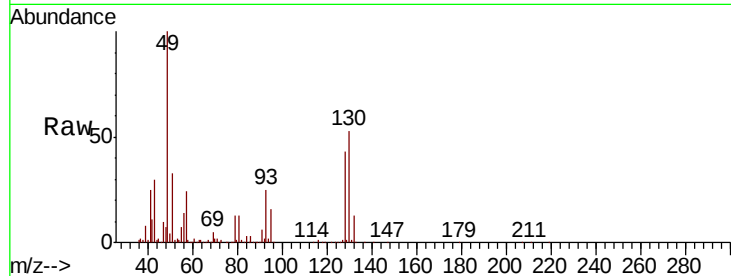
#26
Hexane
Concen: 2.362 ppbv
RT: 5.80 min Scan# 891
Delta R.T. -0.02 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Instrument :
MSVOA_L
ClientSampleId :
Q1-SVI-100518

Tot Ion	Ratio	Lower	Upper
57	100		
41	156.1	69.0	103.4#
43	141.7	172.1	258.1#
56	75.2	42.2	63.2#

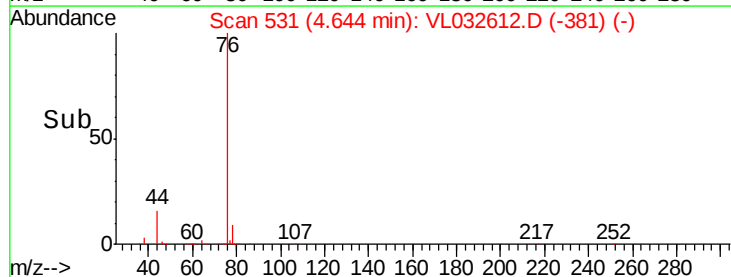
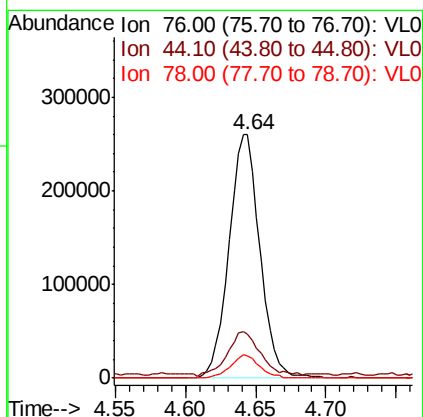
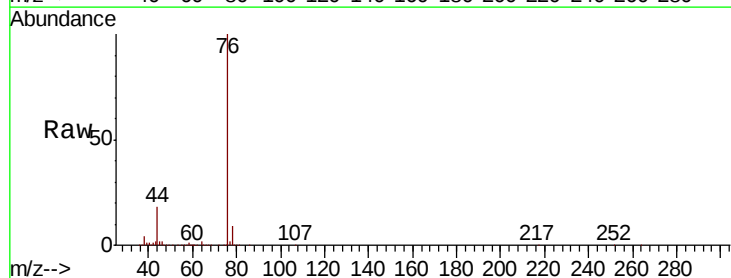
Manual Integrations
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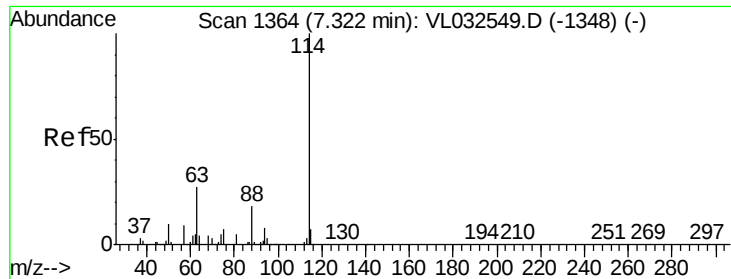
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#27
Carbon Disulfide
Concen: 2.708 ppbv
RT: 4.64 min Scan# 531
Delta R.T. -0.02 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Tgt Ion	Ratio	Lower	Upper
76	100		
44	20.1	14.0	21.0
78	9.1	7.5	11.3





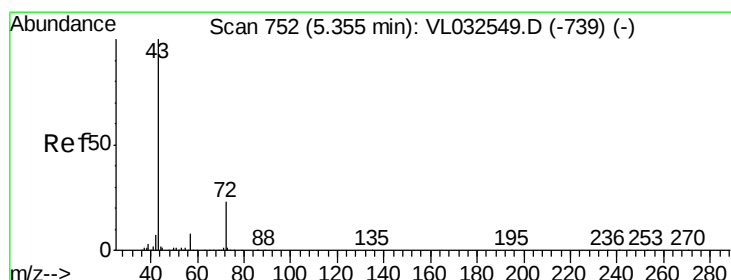
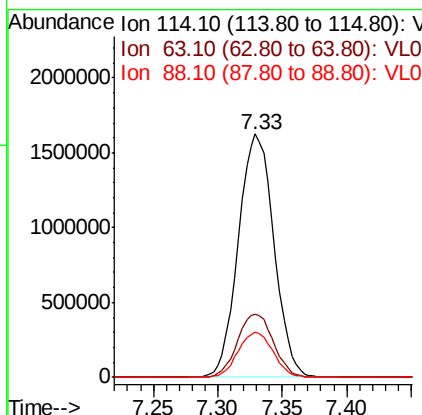
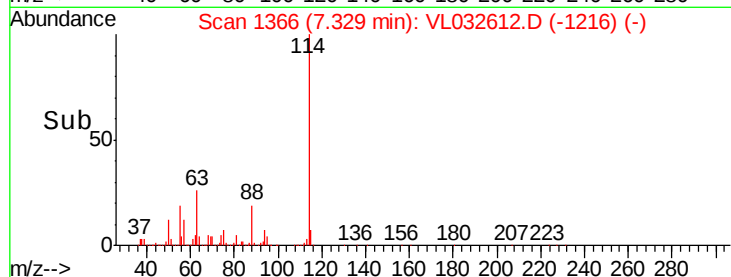
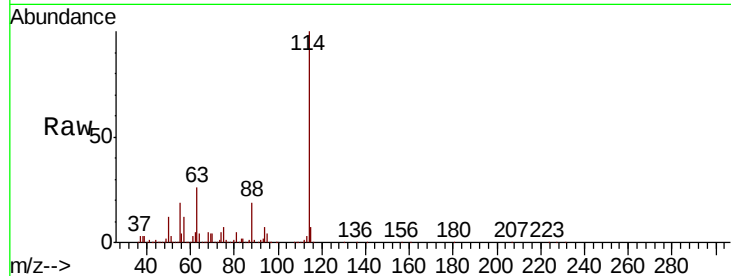
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.33 min Scan# 1366
 Delta R.T. -0.02 min
 Lab File: VL032612.D
 Acq: 11 Oct 2018 20:06

Instrument :
 MSVOA_L
 ClientSampleId :
 Q1-SVI-100518

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.6	22.2	33.4
88	18.4	15.0	22.4

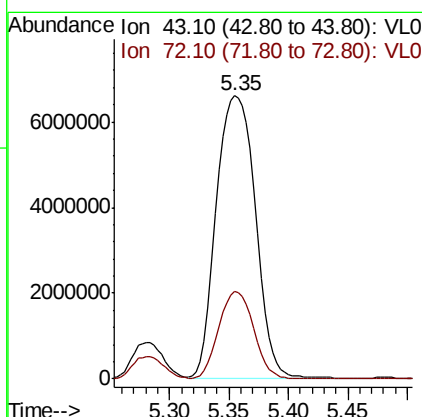
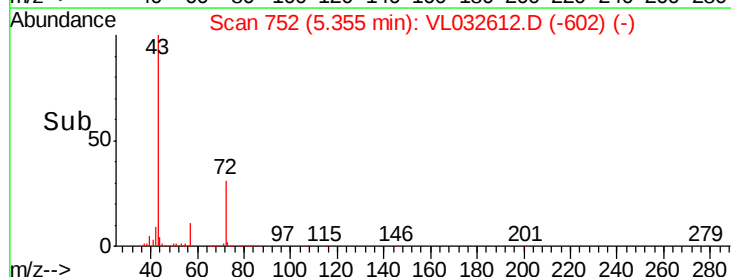
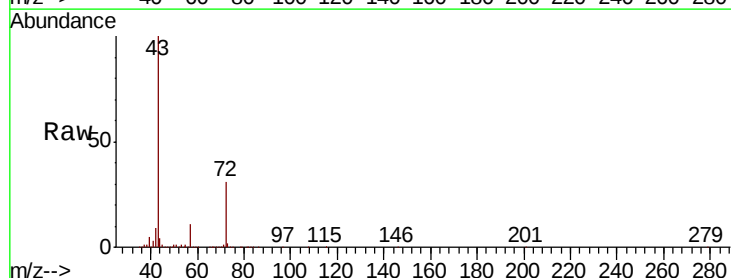
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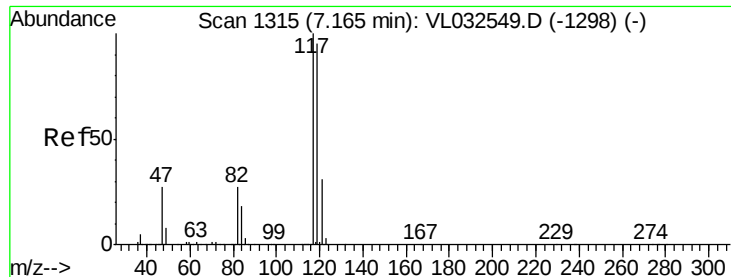
MMDadoda
 10/12/2018 2:07:36 PM



#34
 2-Butanone
 Concen: 80.773 ppbv
 RT: 5.35 min Scan# 752
 Delta R.T. -0.02 min
 Lab File: VL032612.D
 Acq: 11 Oct 2018 20:06

Tgt Ion	Ratio	Lower	Upper
43	100		
72	27.7	17.8	26.6#





#35

Carbon Tetrachloride

Concen: 0.055 ppbv m

RT: 7.17 min Scan# 1316

Delta R.T. -0.02 min

Lab File: VL032612.D

Acq: 11 Oct 2018 20:06

Instrument :

MSVOA_L

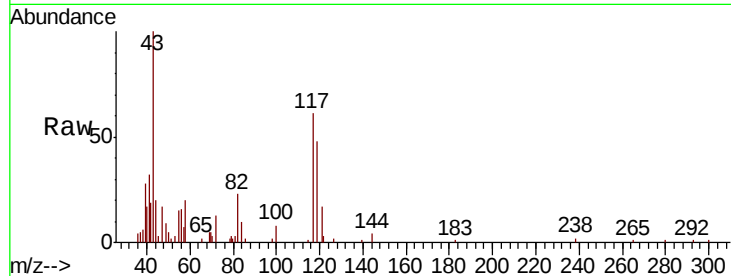
ClientSampleId :

Q1-SVI-100518

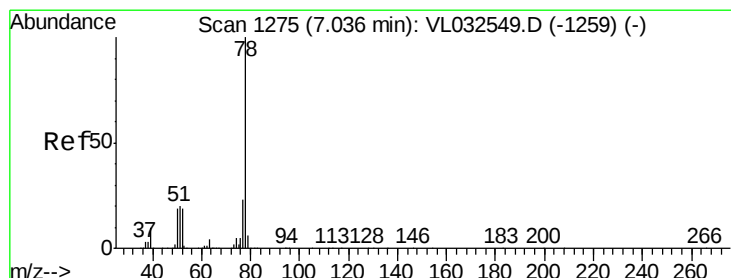
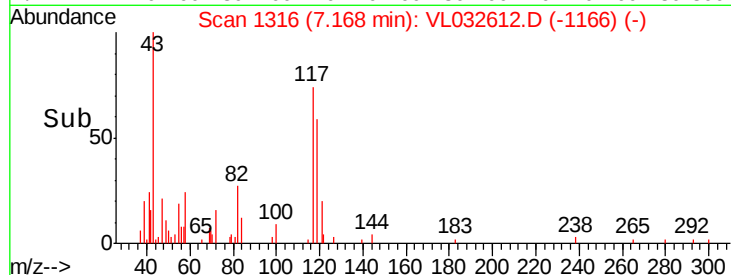
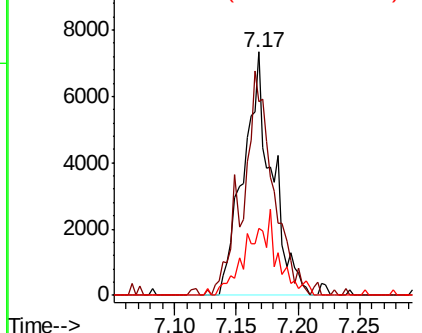
Tot Ion:	117	Resp:	11956
Ion	Ratio	Lower	Upper
117	100		
119	79.5	76.6	115.0
121	27.5	24.6	36.8

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Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.855 ppbv

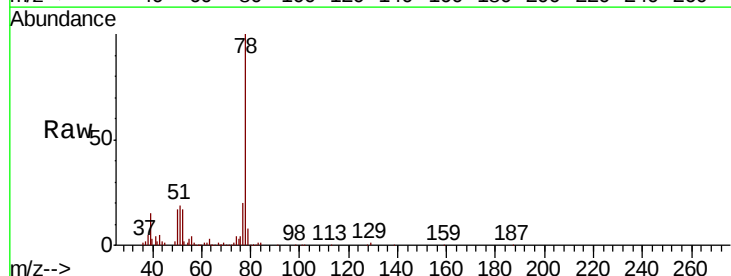
RT: 7.04 min Scan# 1276

Delta R.T. -0.02 min

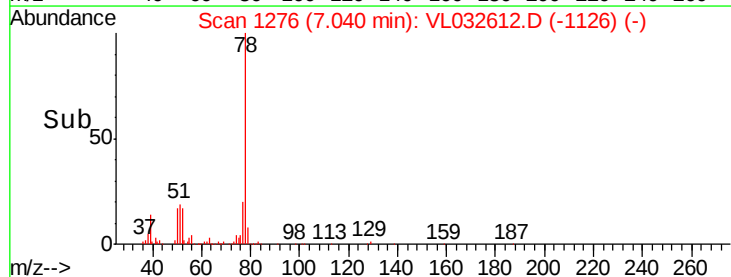
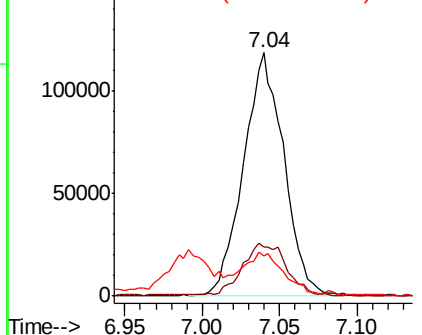
Lab File: VL032612.D

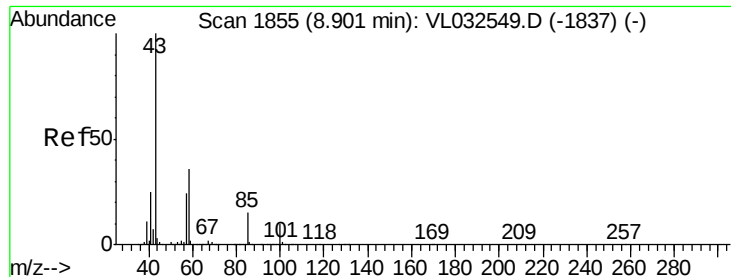
Acq: 11 Oct 2018 20:06

Tgt Ion:	78	Resp:	215633
Ion	Ratio	Lower	Upper
78	100		
77	19.7	18.4	27.6
50	15.7	14.4	21.6



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0





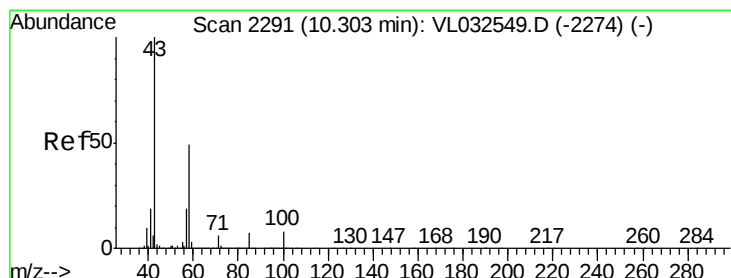
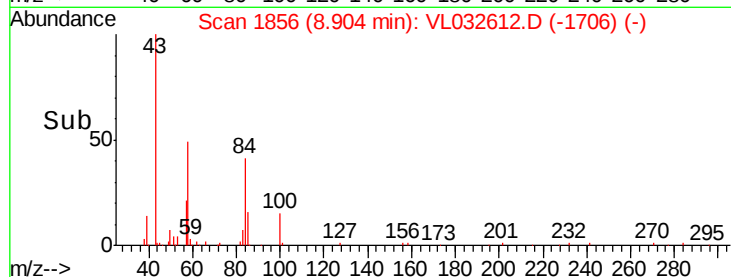
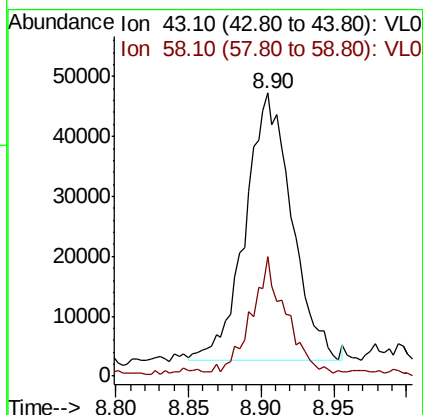
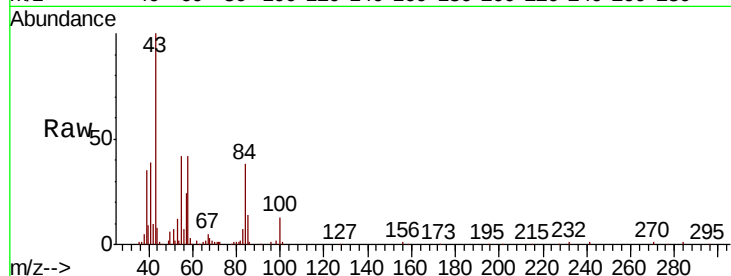
#50
4-Methyl-2-Pentanone
Concen: 0.339 ppbv m
RT: 8.90 min Scan# 1856
Delta R.T. -0.02 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Instrument :
MSVOA_L
ClientSampleId :
Q1-SVI-100518

Tot Ion	Ratio	Lower	Upper
43	100		
58	0.0	29.0	43.4#

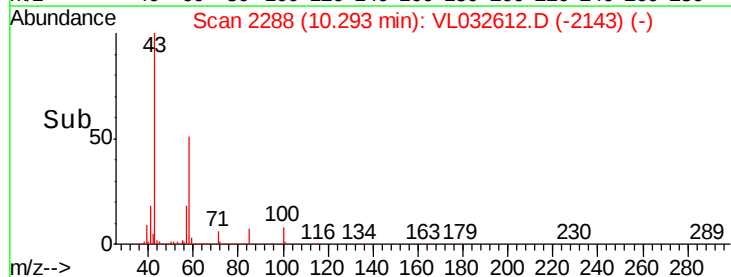
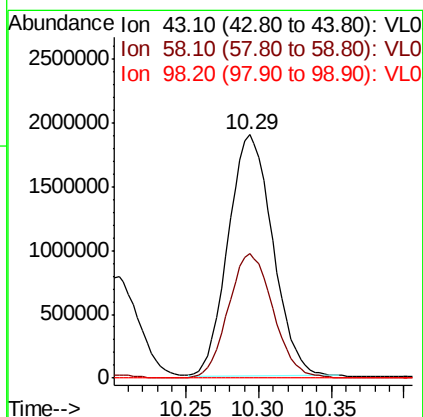
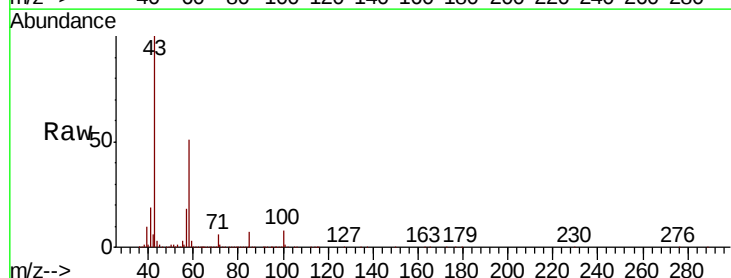
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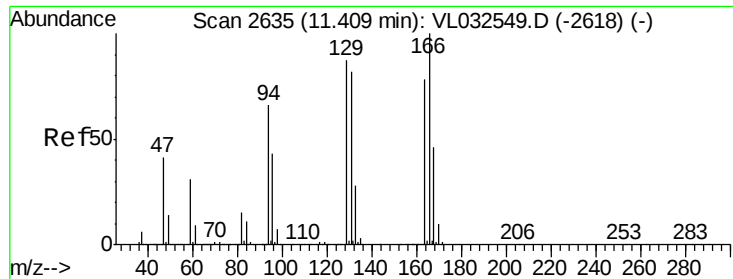
MMDadoda
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#51
2-Hexanone
Concen: 16.742 ppbv
RT: 10.29 min Scan# 2288
Delta R.T. -0.03 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Tgt Ion	Ratio	Lower	Upper
43	100		
58	51.8	39.2	58.8
98	0.2	0.4	0.6#





#52

Tetrachloroethene

Concen: 1.292 ppbv m

RT: 11.41 min Scan# 2635

Delta R.T. -0.02 min

Lab File: VL032612.D

Acq: 11 Oct 2018 20:06

Instrument :

MSVOA_L

ClientSampleId :

Q1-SVI-100518

Tot Ion:164 Resp: 113460

Ion Ratio Lower Upper

164 100

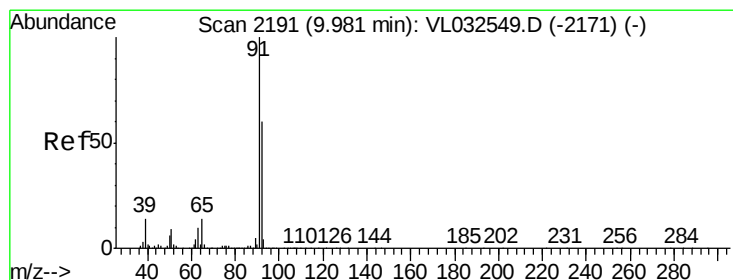
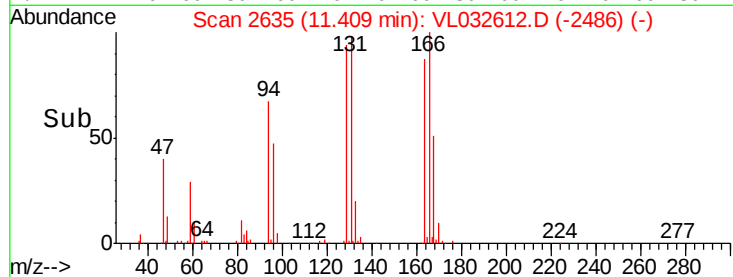
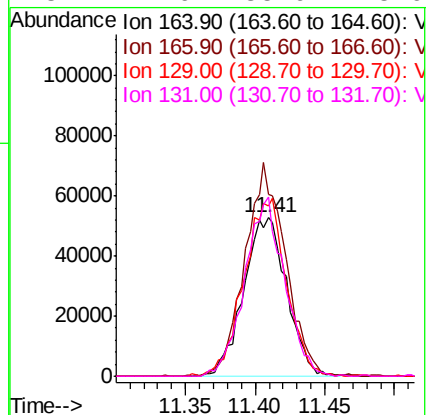
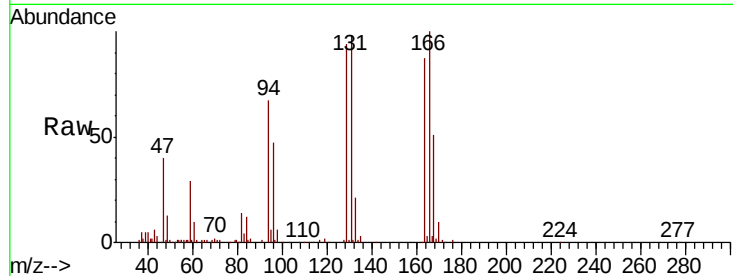
166 114.5 100.6 150.8

129 107.6 89.9 134.9

131 112.6 85.9 128.9

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#53

Toluene

Concen: 5.011 ppbv

RT: 9.98 min Scan# 2190

Delta R.T. -0.03 min

Lab File: VL032612.D

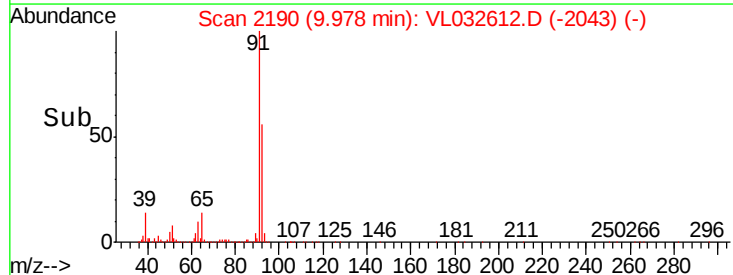
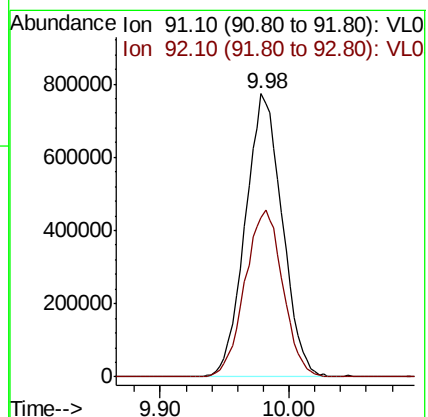
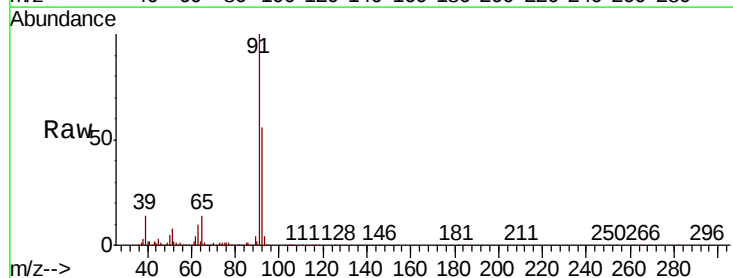
Acq: 11 Oct 2018 20:06

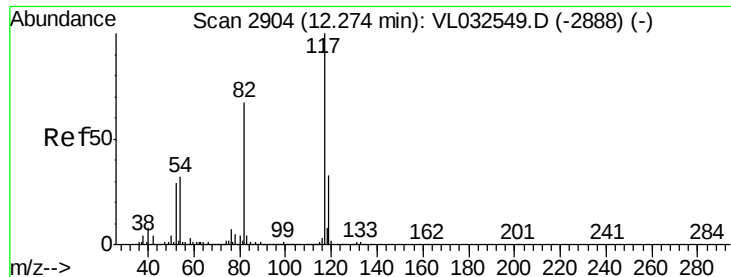
Tgt Ion: 91 Resp: 1539965

Ion Ratio Lower Upper

91 100

92 60.6 48.1 72.1





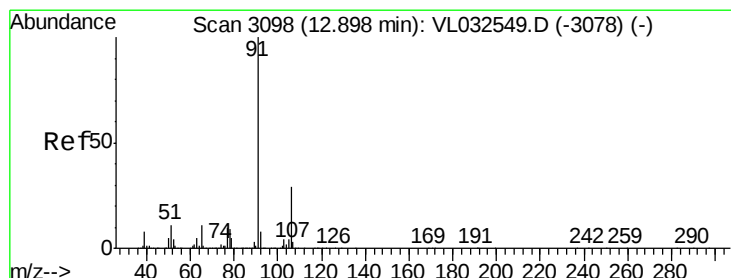
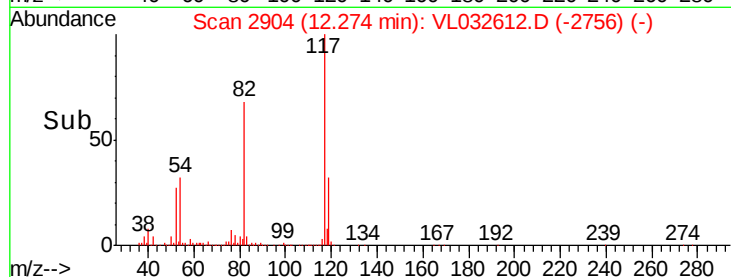
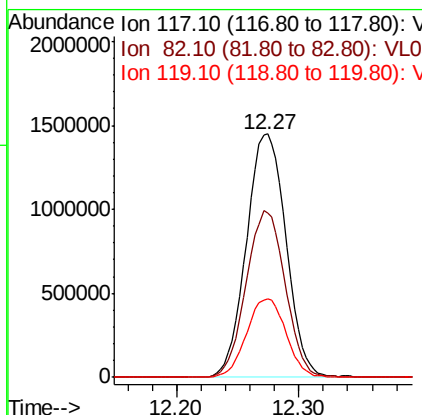
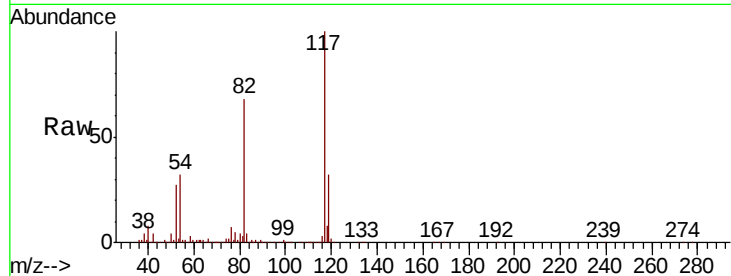
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.27 min Scan# 2904
Delta R.T. -0.02 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Instrument :
MSVOA_L
ClientSampleId :
Q1-SVI-100518

Tot Ion	Ratio	Lower	Upper
117	100		
82	68.2	53.0	79.6
119	32.2	45.9	68.9#

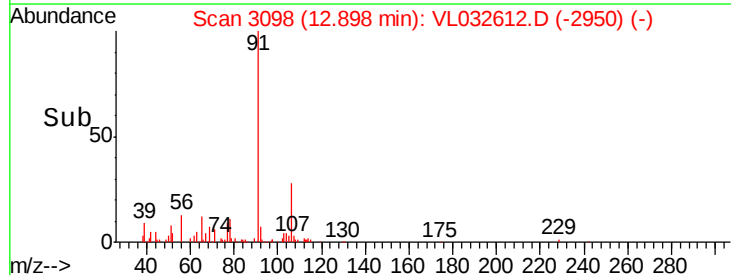
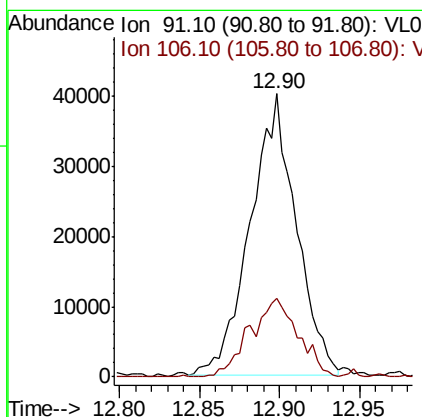
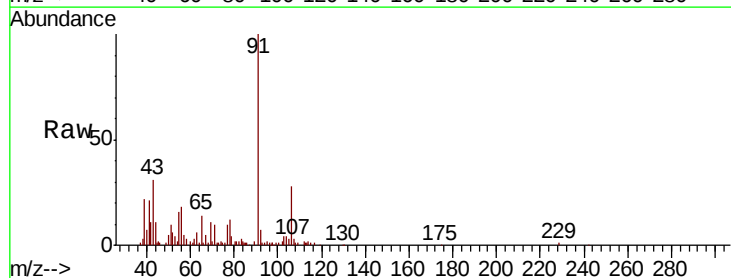
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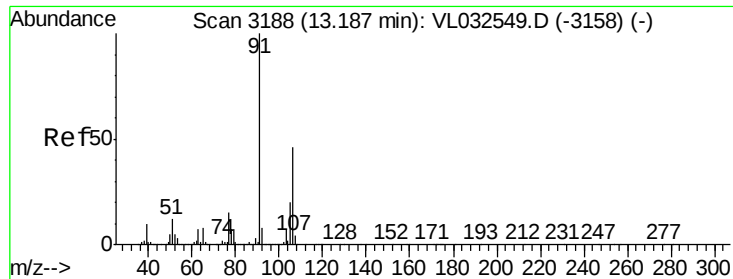
MMDadoda
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#58
Ethyl Benzene
Concen: 0.201 ppbv
RT: 12.90 min Scan# 3098
Delta R.T. -0.02 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Tgt Ion	Ratio	Lower	Upper
91	100		
106	28.0	24.8	37.2





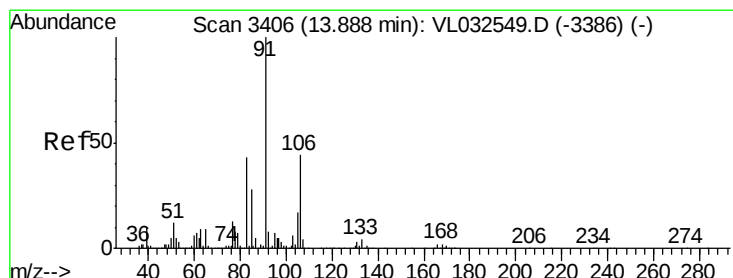
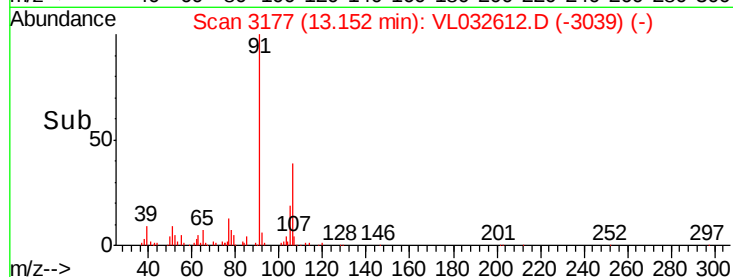
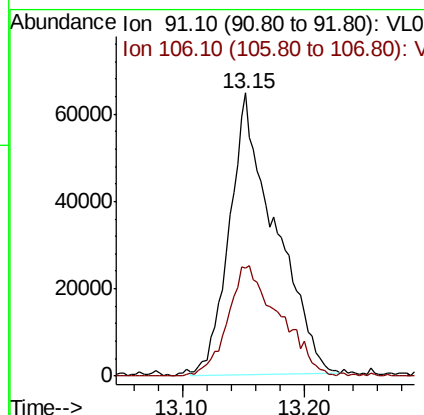
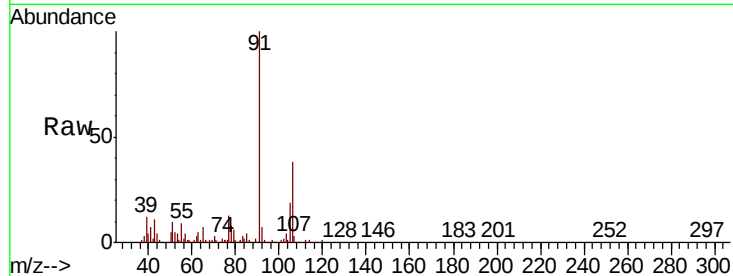
#59
m/p-Xylene
Concen: 0.478 ppbv
RT: 13.15 min Scan# 3177
Delta R.T. -0.06 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Instrument :
MSVOA_L
ClientSampleId :
Q1-SVI-100518

Tot Ion: 91 Resp: 167742
Ion Ratio Lower Upper
91 100
106 44.6 36.6 55.0

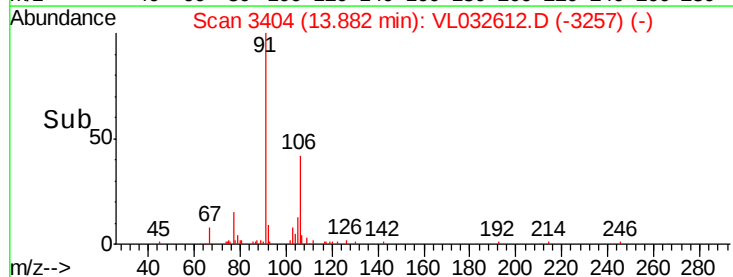
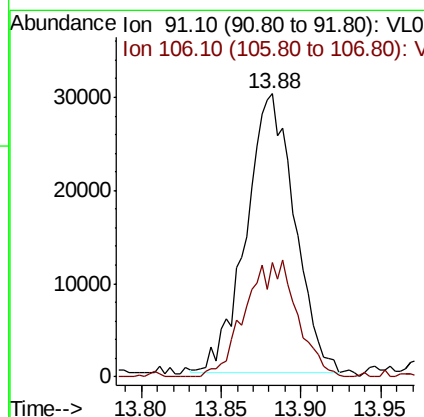
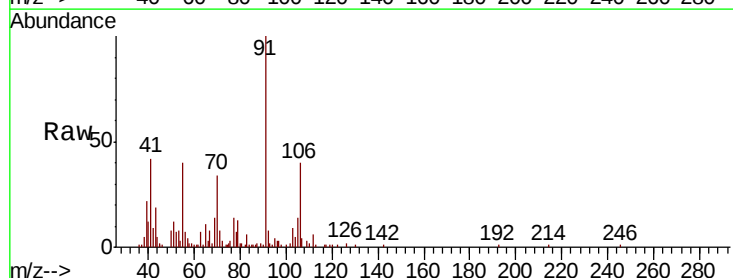
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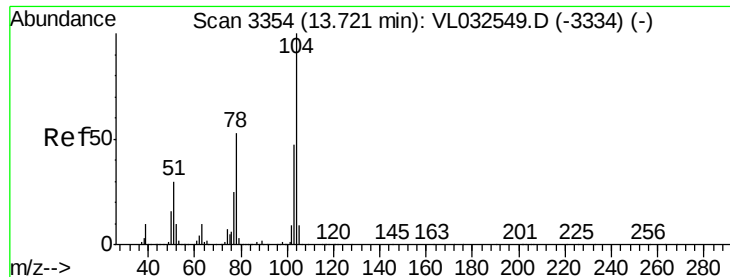
MMDadoda
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#60
o-Xylene
Concen: 0.186 ppbv m
RT: 13.88 min Scan# 3404
Delta R.T. -0.03 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Tgt Ion: 91 Resp: 63688
Ion Ratio Lower Upper
91 100
106 44.2 21.9 65.7





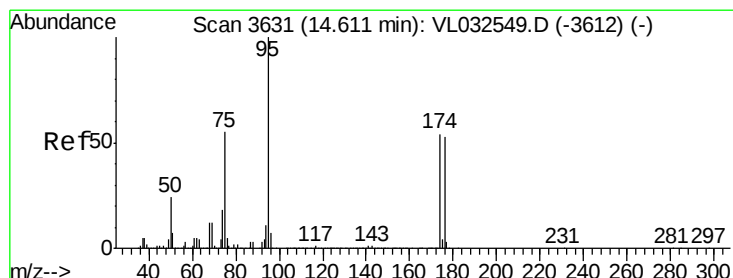
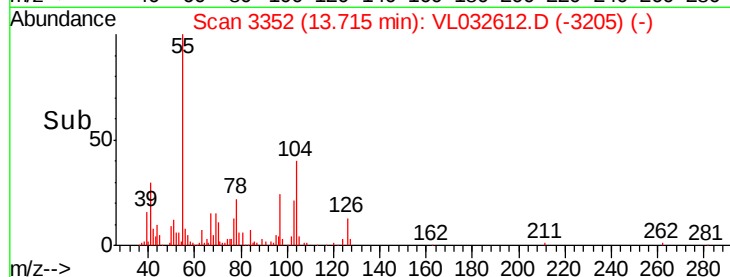
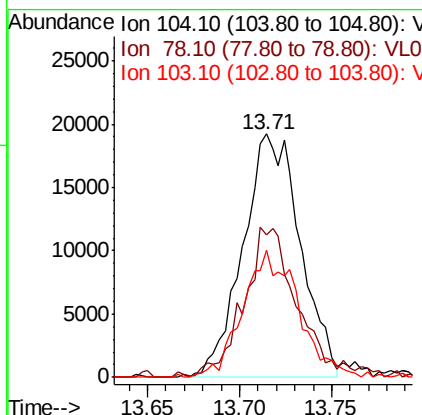
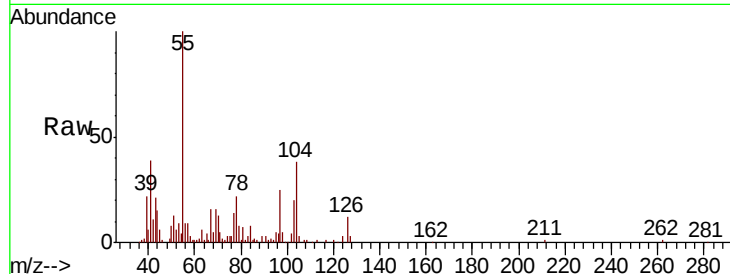
#61
Stvrene
Concen: 0.186 ppbv m
RT: 13.71 min Scan# 3352
Delta R.T. -0.03 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Instrument :
MSVOA_L
ClientSampleId :
Q1-SVI-100518

Tot Ion	Ratio	Lower	Upper
104	100		
78	59.7	41.8	62.8
103	51.3	38.0	57.0

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#68
1-Bromo-4-Fluorobenzene
Concen: 9.262 ppbv
RT: 14.61 min Scan# 3631
Delta R.T. -0.02 min
Lab File: VL032612.D
Acq: 11 Oct 2018 20:06

Tgt Ion	Ratio	Lower	Upper
95	100		
174	58.2	46.3	69.5
175	4.2	3.4	5.0

