

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031819\
 Data File : VL033368.D
 Acq On : 18 Mar 2019 21:22
 Operator : SY/AP
 Sample : K1827-10
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-10

Manual Integrations
 APPROVED

MMDadoda
 3/21/2019 12:14:55 PM

Quant Time: Mar 20 11:06:14 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar 16 11:06:14 2019
 QLast Update : Fri Mar 15 14:52:14 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	706710	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1584432	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.24	117	1630347	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1312341	10.86	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	108.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	65802	0.529	ppbv	92
3) Chlorodifluoromethane	3.01	51	117962m	1.454	ppbv	
4) Chloromethane	3.17	50	23439	0.534	ppbv	95
9) Propene	3.05	41	39313m	1.086	ppbv	
10) Heptane	8.24	43	77143	0.859	ppbv	100
11) Trichlorofluoromethane	4.01	101	32159	0.260	ppbv	87
13) Ethanol	3.65	45	2005896	116.203	ppbv	98
15) Acetone	3.90	43	533096	4.853	ppbv	99
17) tert-Butyl alcohol	4.38	59	11060	0.715	ppbv	98
19) Isopropyl Alcohol	4.03	45	720232	13.783	ppbv	100
20) Methylene Chloride	4.41	84	53933m	1.505	ppbv	
26) Hexane	5.78	57	108831	1.524	ppbv	83
34) 2-Butanone	5.33	43	66128	0.636	ppbv	97
35) Carbon Tetrachloride	7.13	117	8346	0.075	ppbv #	75
36) Benzene	7.00	78	36459	0.257	ppbv #	91
38) Trichloroethene	7.96	130	2253m	0.042	ppbv	
50) 4-Methyl-2-Pentanone	8.88	43	77370	0.526	ppbv	97
52) Tetrachloroethene	11.38	164	6729m	0.114	ppbv	
53) Toluene	9.94	91	2899133	17.993	ppbv	100
58) Ethyl Benzene	12.87	91	93274m	0.404	ppbv	
59) m/p-Xylene	13.11	91	80592m	0.407	ppbv	
60) o-Xylene	13.85	91	27487	0.142	ppbv	92

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

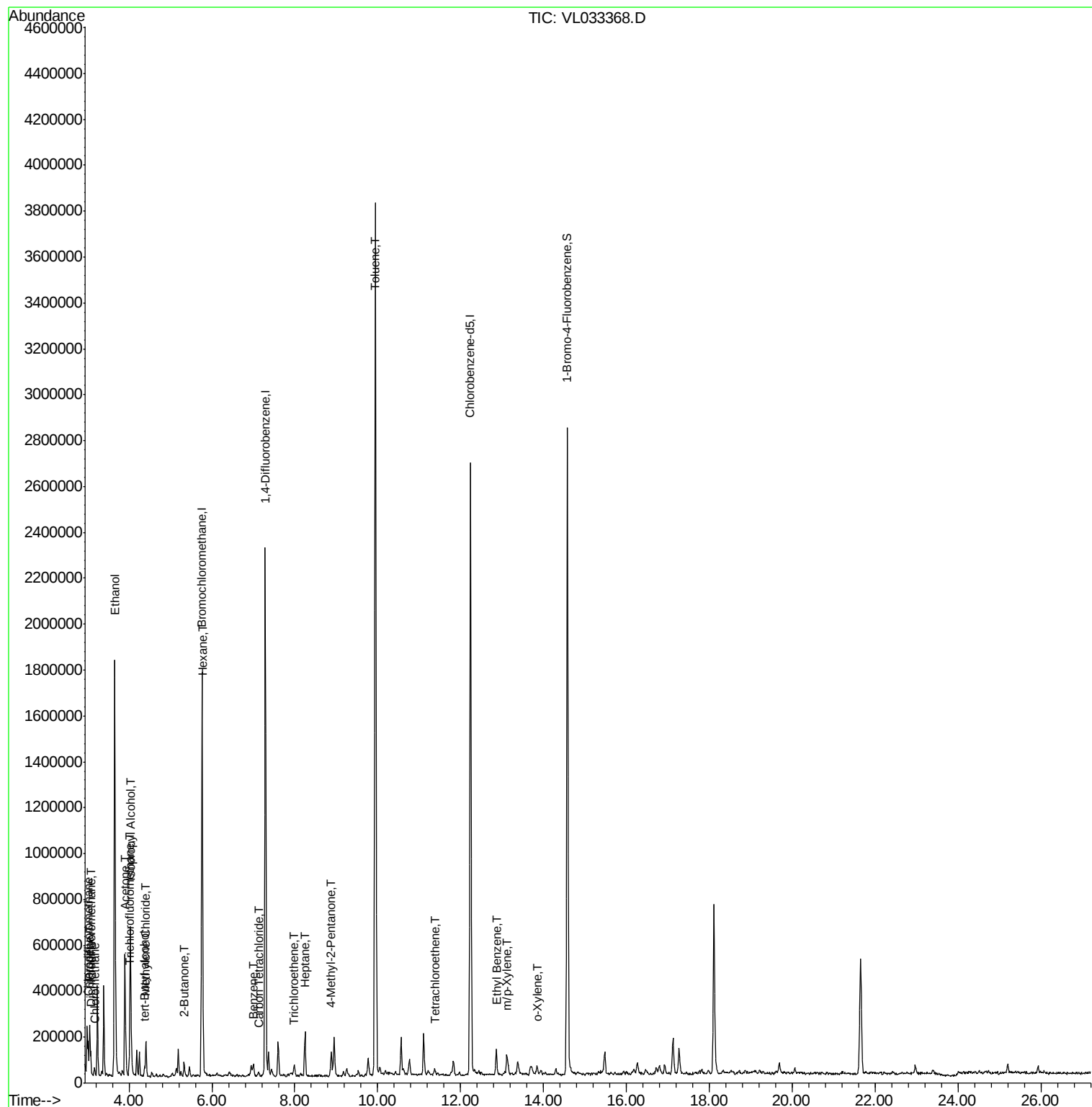
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031819\
Data File : VL033368.D
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Misc : 400ml/MSVOA L
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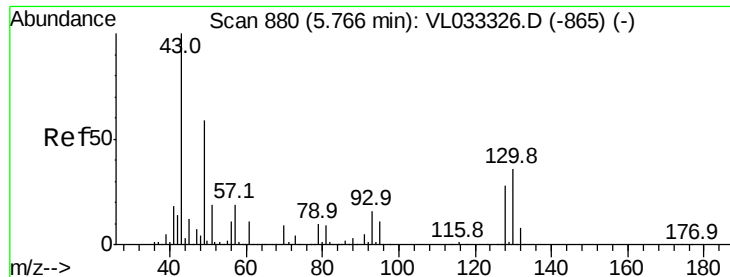
Instrument :
MSVOA_L
ClientSampleId :
A-10

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Quant Time: Mar 20 11:06:14 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar
QLast Update : Fri Mar 15 14:52:14 2019
Response via : Initial Calibration





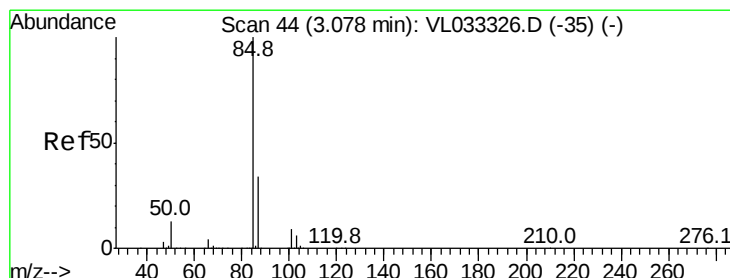
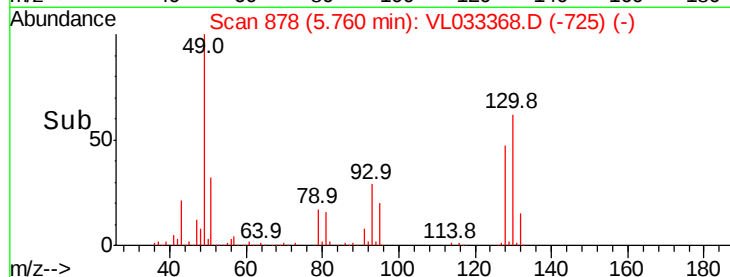
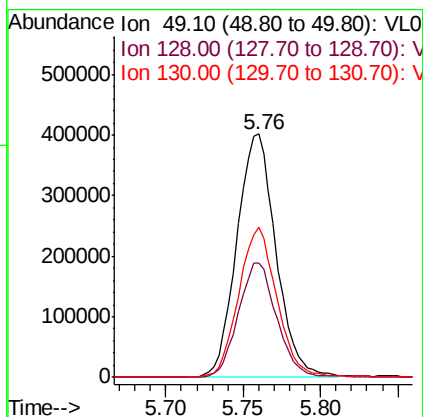
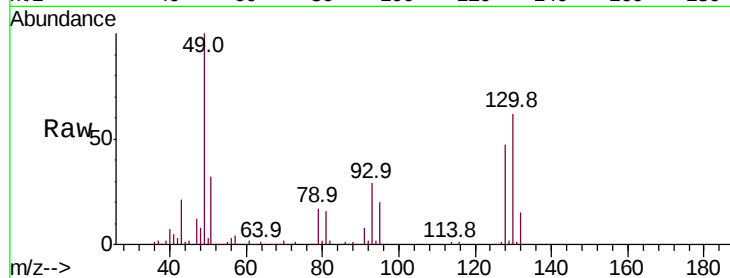
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.76 min Scan# 878
Delta R.T. -0.01 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Instrument :
MSVOA_L
ClientSampled :
A-10

Tot Ion	Ratio	Lower	Upper
49	100		
128	46.4	23.5	70.6
130	60.6	30.1	90.3

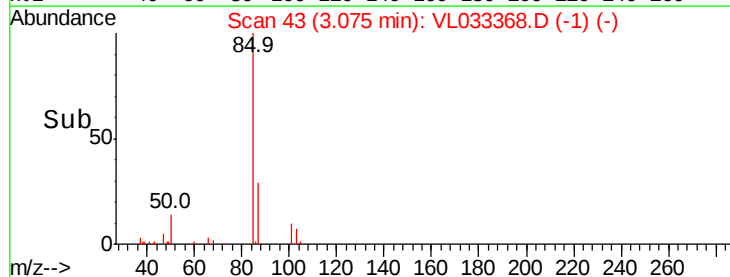
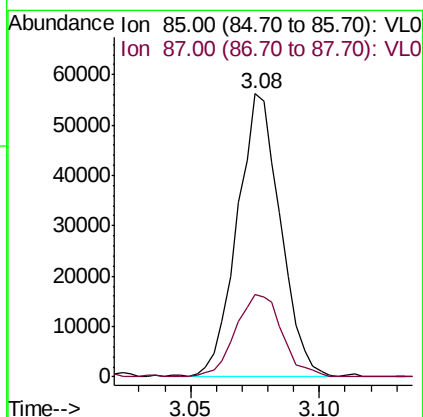
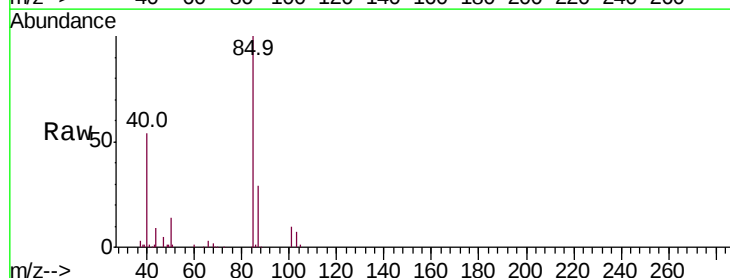
Manual Integrations
APPROVED

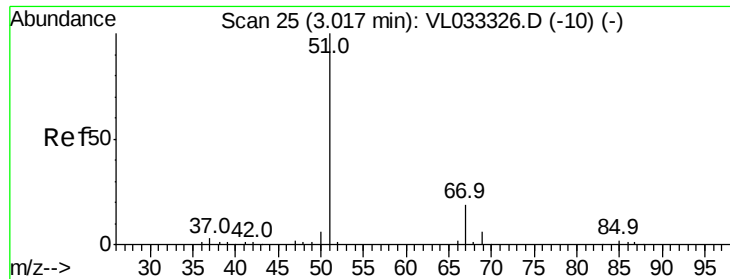
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#2
Dichlorodifluoromethane
Concen: 0.529 ppbv
RT: 3.08 min Scan# 43
Delta R.T. -0.00 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Tgt Ion	Ratio	Lower	Upper
85	100		
87	29.1	26.9	40.3





#3

Chlorodifluoromethane

Concen: 1.454 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Instrument :

MSVOA_L

ClientSampled :

A-10

Tot Ion: 51 Resp: 117962

Ion Ratio Lower Upper

51 100

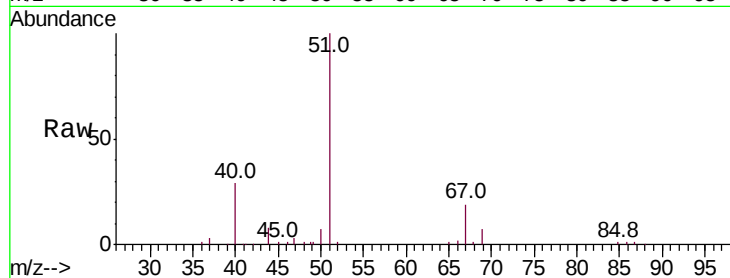
67 20.6 14.9 22.3

Manual Integrations

APPROVED

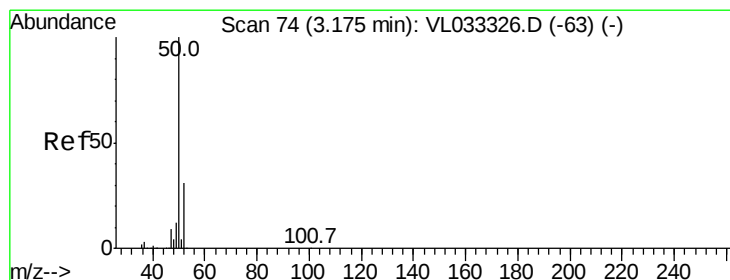
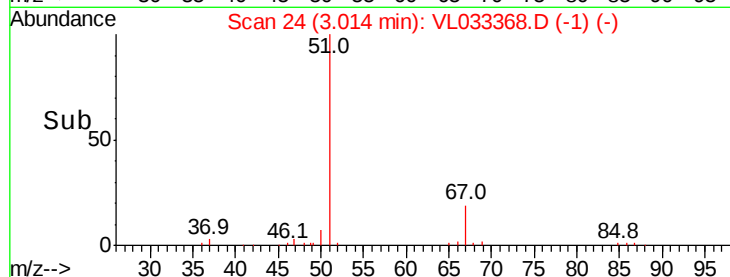
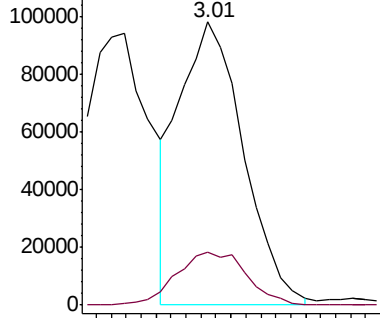
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.534 ppbv

RT: 3.17 min Scan# 73

Delta R.T. -0.00 min

Lab File: VL033368.D

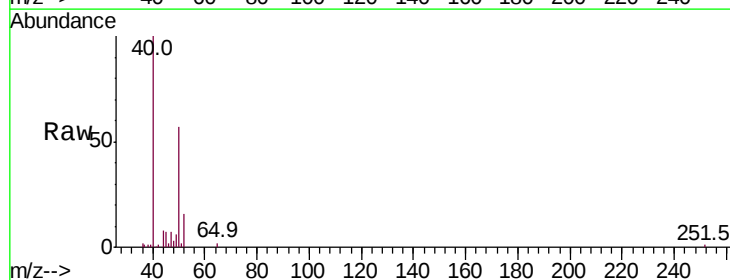
Acq: 18 Mar 2019 21:22

Tgt Ion: 50 Resp: 23439

Ion Ratio Lower Upper

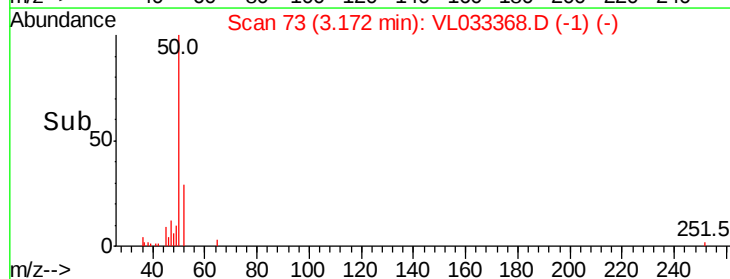
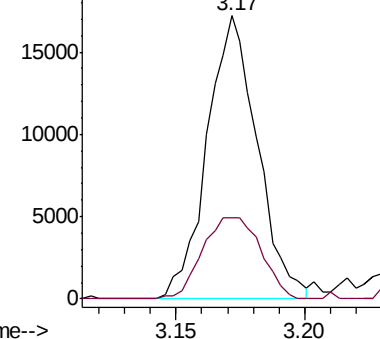
50 100

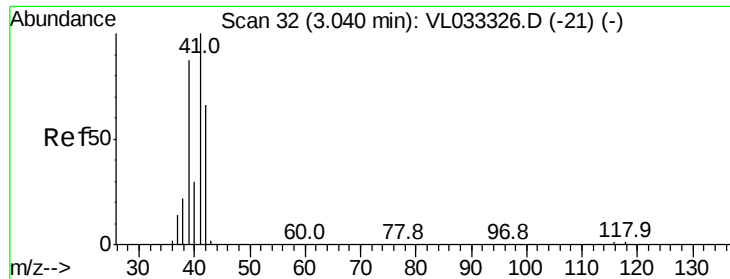
52 28.7 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.086 ppbv m

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Instrument :

MSVOA_L

ClientSampled :

A-10

Tot Ion: 41 Resp: 39313

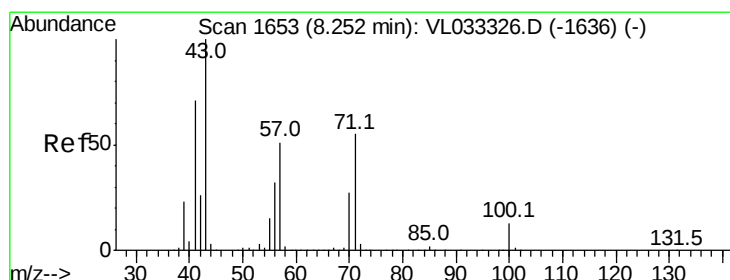
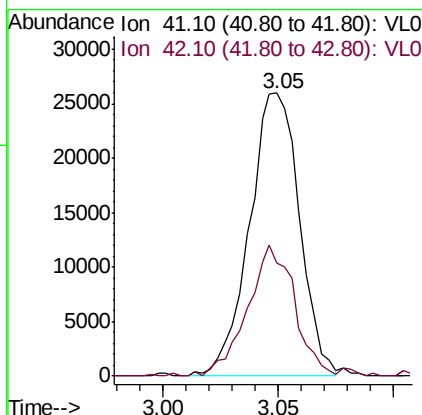
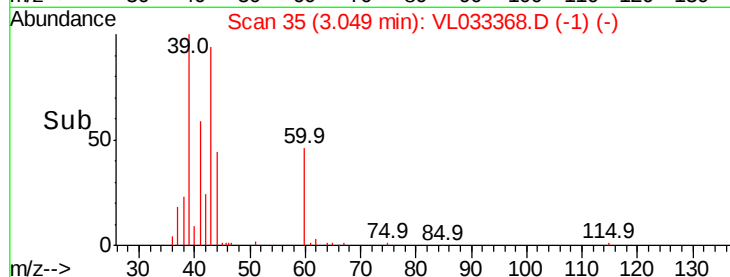
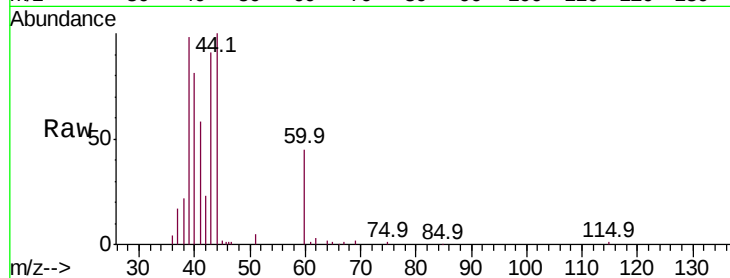
Ion Ratio Lower Upper

41 100

42 171.0 55.2 82.8#

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#10

Heptane

Concen: 0.859 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.01 min

Lab File: VL033368.D

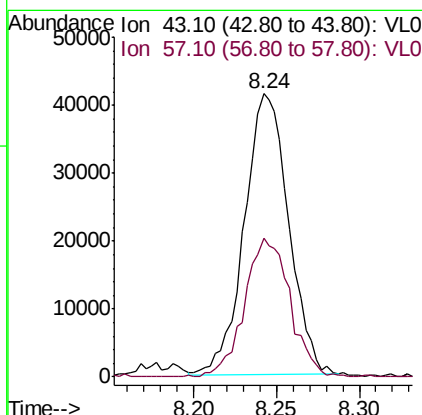
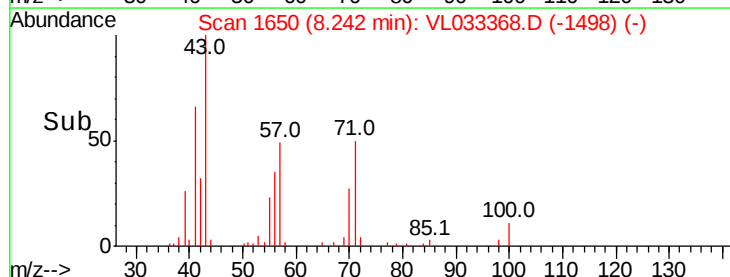
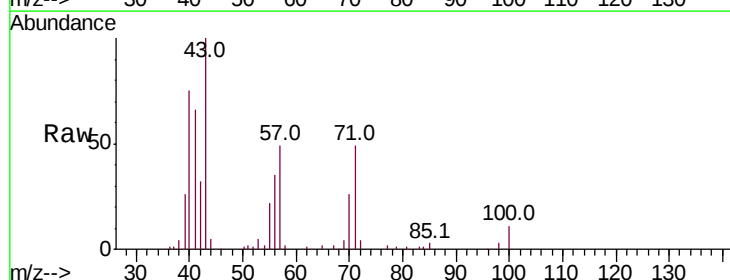
Acq: 18 Mar 2019 21:22

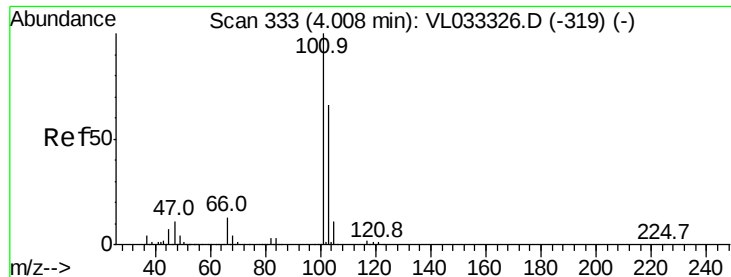
Tgt Ion: 43 Resp: 77143

Ion Ratio Lower Upper

43 100

57 50.8 40.4 60.6





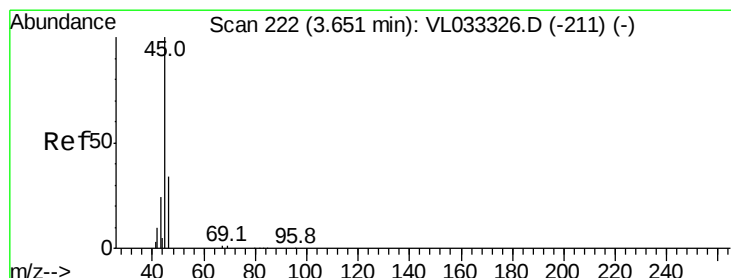
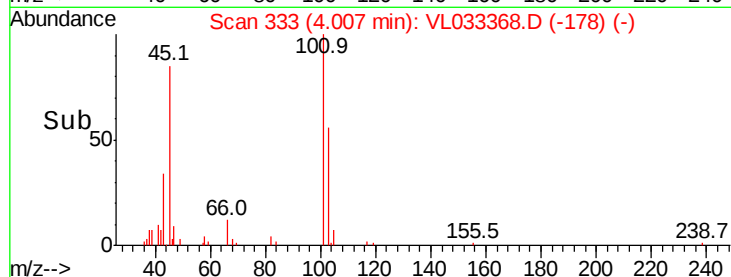
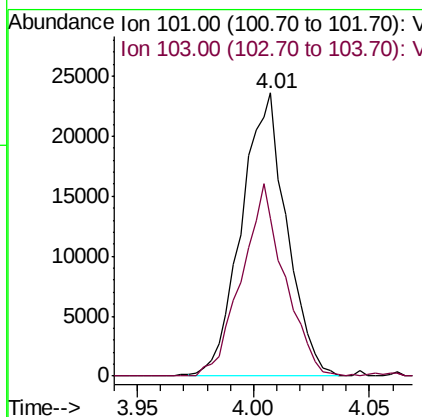
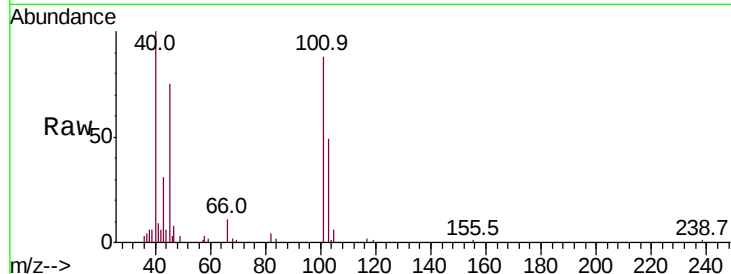
#11
 Trichlorofluoromethane
 Concen: 0.260 ppbv
 RT: 4.01 min Scan# 333
 Delta R.T. -0.00 min
 Lab File: VL033368.D
 Acq: 18 Mar 2019 21:22

Instrument :
 MSVOA_L
 ClientSampled :
 A-10

Tot Ion:101 Resp: 32159
 Ion Ratio Lower Upper
 101 100
 103 55.8 52.9 79.3

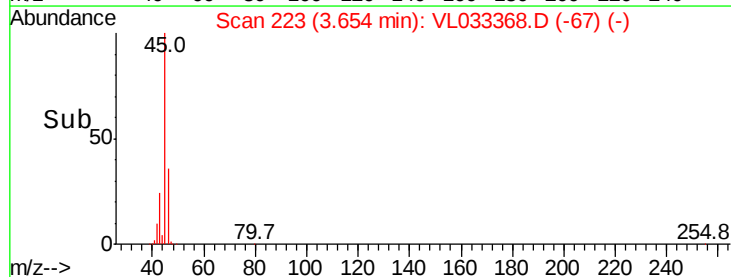
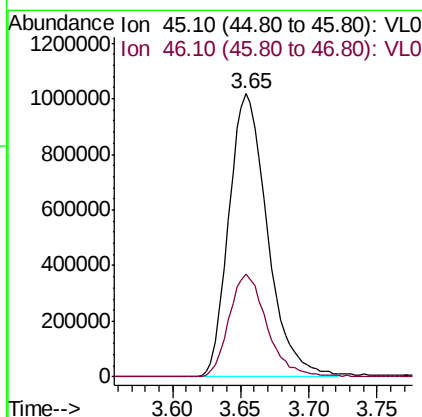
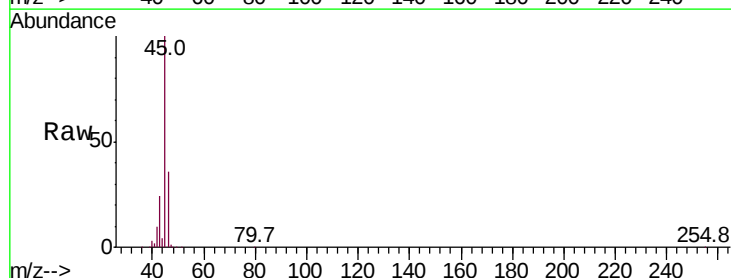
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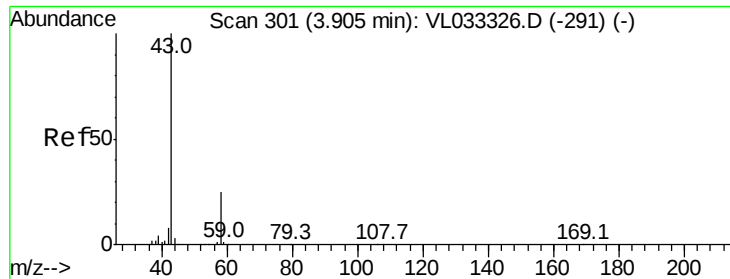
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#13
 Ethanol
 Concen: 116.203 ppbv
 RT: 3.65 min Scan# 223
 Delta R.T. 0.00 min
 Lab File: VL033368.D
 Acq: 18 Mar 2019 21:22

Tgt Ion: 45 Resp: 2005896
 Ion Ratio Lower Upper
 45 100
 46 36.1 14.9 59.7





#15

Acetone

Concen: 4.853 ppbv

RT: 3.90 min Scan# 300

Delta R.T. -0.00 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Instrument :

MSVOA_L

ClientSampleId :

A-10

Tot Ion: 43 Resp: 533096

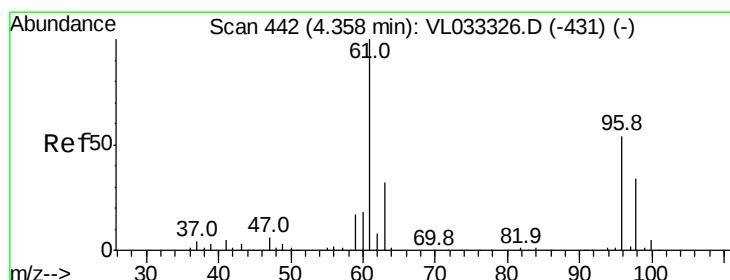
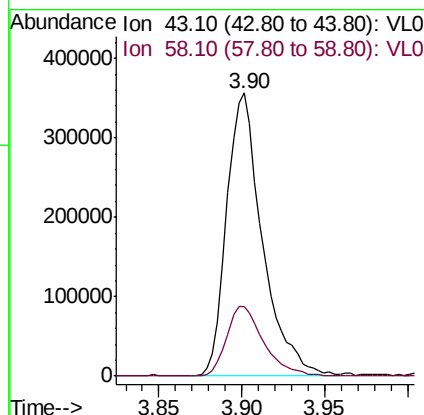
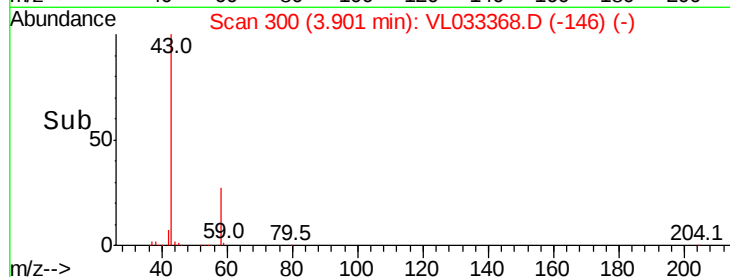
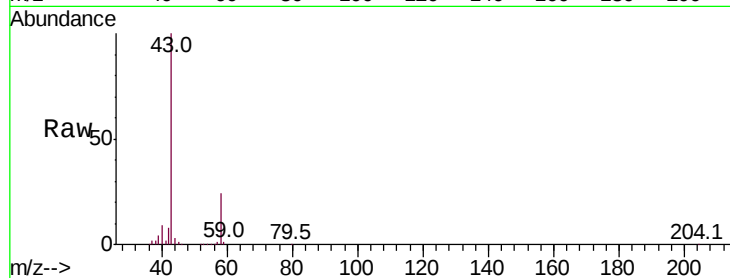
Ion Ratio Lower Upper

43 100

58 25.9 20.4 30.6

Manual Integrations
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#17

tert-Butyl alcohol

Concen: 0.715 ppbv

RT: 4.38 min Scan# 448

Delta R.T. 0.02 min

Lab File: VL033368.D

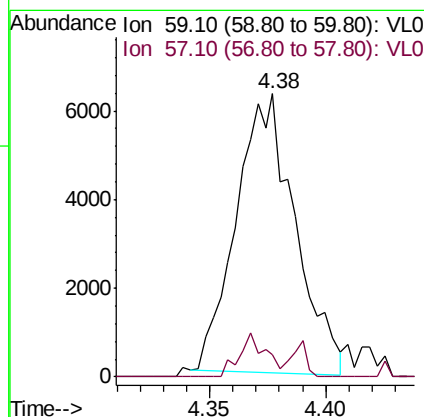
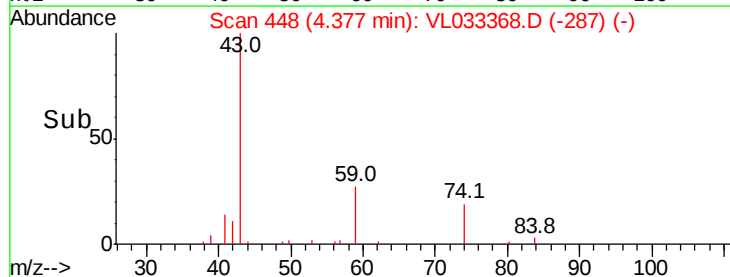
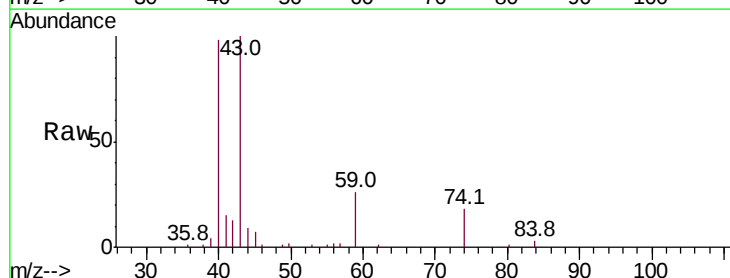
Acq: 18 Mar 2019 21:22

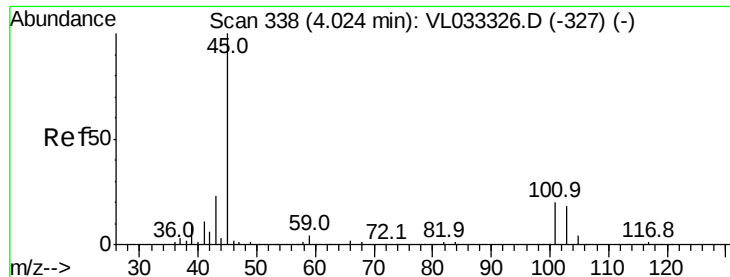
Tgt Ion: 59 Resp: 11060

Ion Ratio Lower Upper

59 100

57 10.4 7.7 11.5





#19

Isopropyl Alcohol

Concen: 13.783 ppbv

RT: 4.03 min Scan# 340

Delta R.T. 0.01 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Instrument :

MSVOA_L

ClientSampled :

A-10

Tot Ion: 45 Resp: 720232

Ion Ratio Lower Upper

45 100

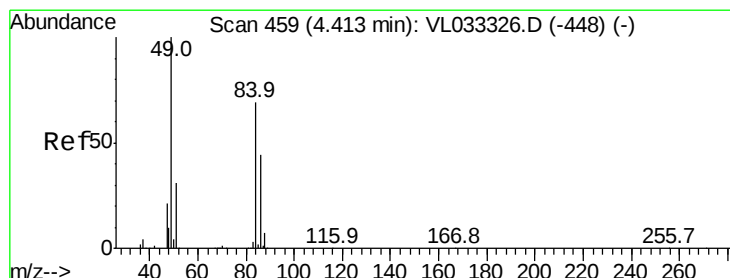
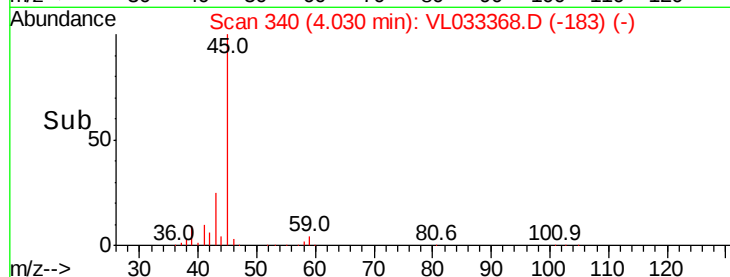
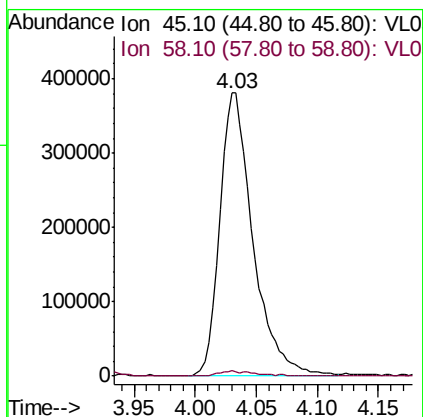
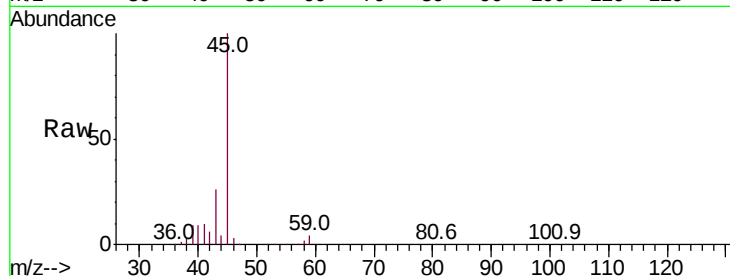
58 2.0 1.5 2.3

Manual Integrations

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#20

Methylene Chloride

Concen: 1.505 ppbv m

RT: 4.41 min Scan# 458

Delta R.T. -0.00 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Tgt Ion: 84 Resp: 53933

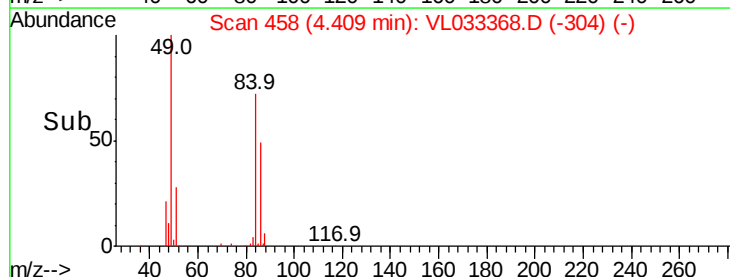
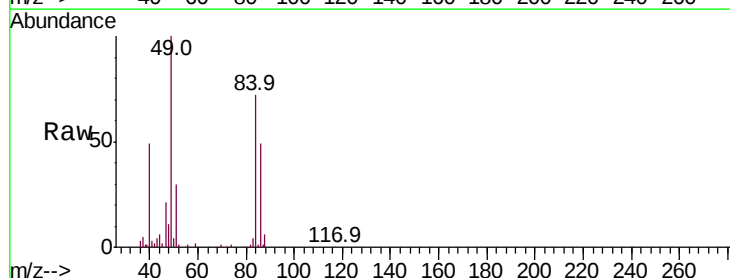
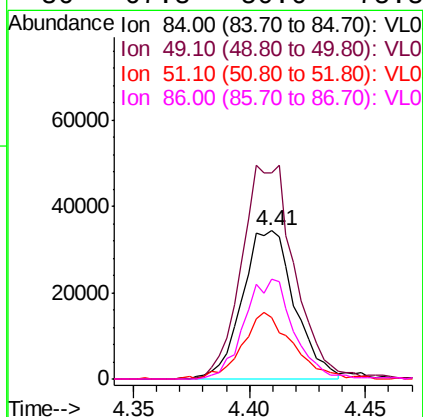
Ion Ratio Lower Upper

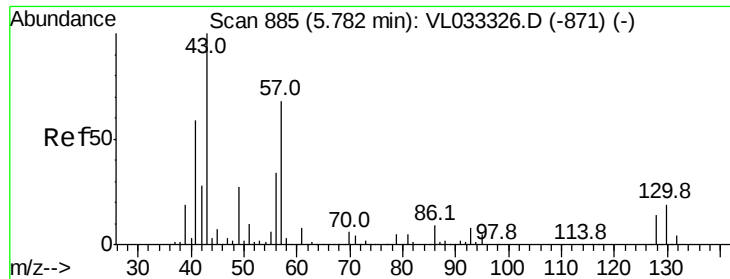
84 100

49 139.5 115.4 173.0

51 41.4 35.8 53.6

86 67.8 50.6 75.8





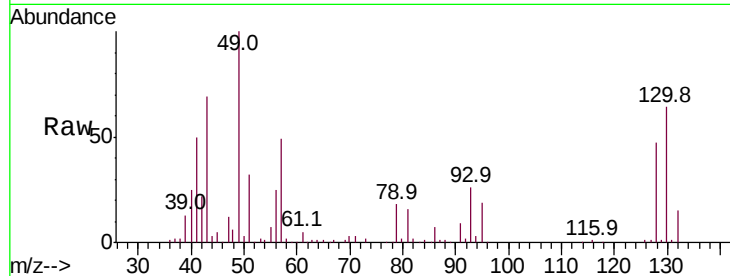
#26
Hexane
Concen: 1.524 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.01 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Instrument :
MSVOA_L
ClientSampled :
A-10

Tot Ion	Ratio	Lower	Upper
57	100		
41	100.1	70.5	105.7
43	193.1	181.8	272.8
56	59.0	42.2	63.2

Manual Integrations
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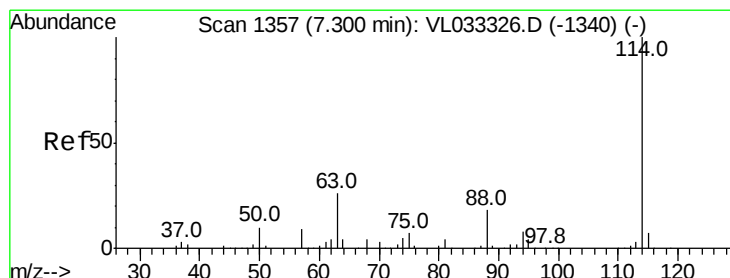
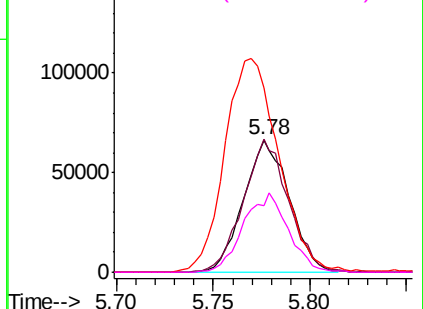
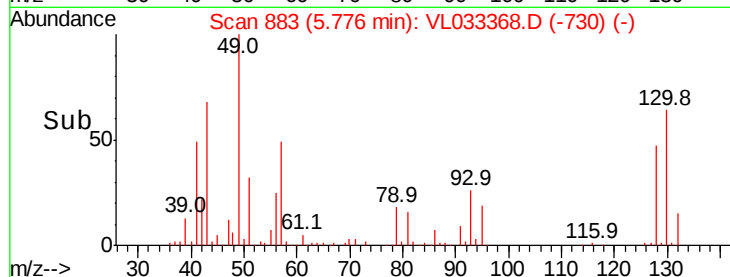
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

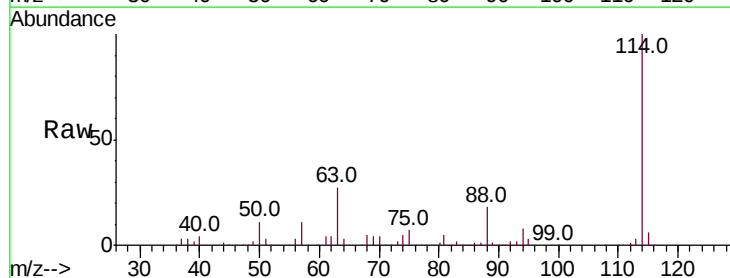
Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1353
Delta R.T. -0.01 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.1	21.4	32.2
88	18.4	14.5	21.7

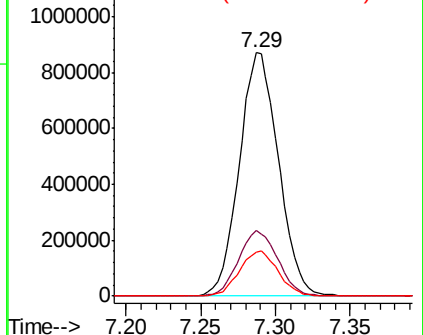
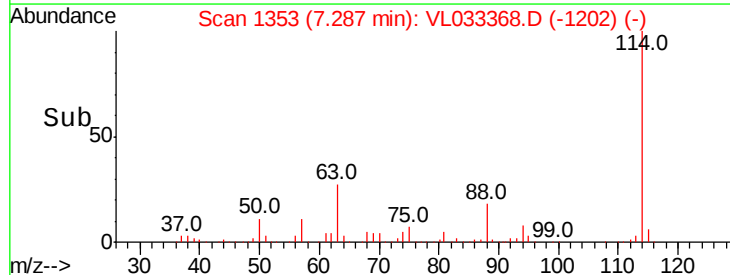


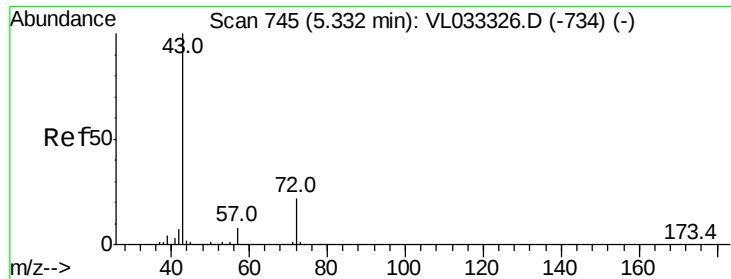
Abundance

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





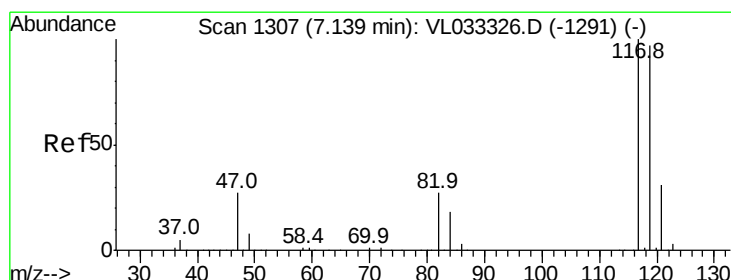
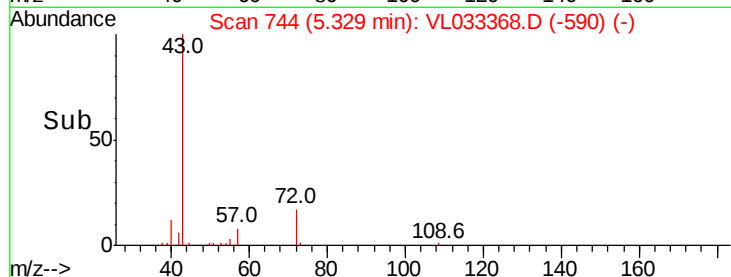
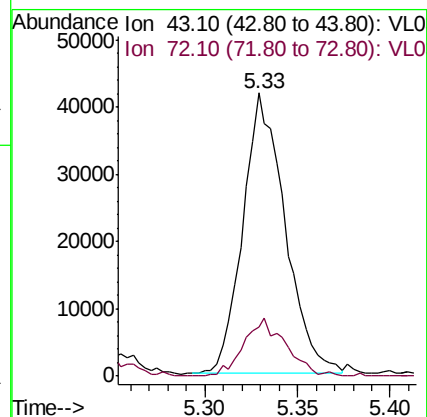
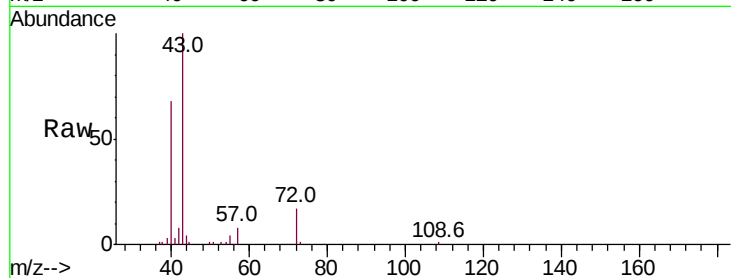
#34
2-Butanone
Concen: 0.636 ppbv
RT: 5.33 min Scan# 744
Delta R.T. -0.00 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Instrument :
MSVOA_L
ClientSampleId :
A-10

Tot Ion: 43 Resp: 66128
Ion Ratio Lower Upper
43 100
72 20.8 17.7 26.5

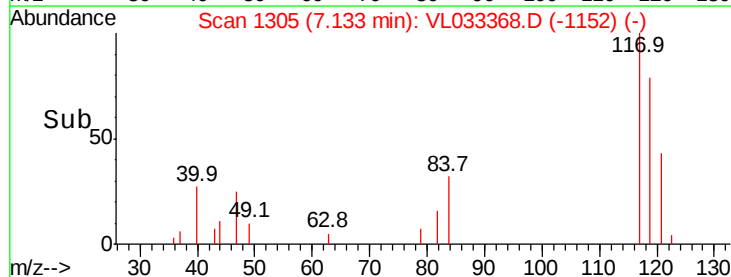
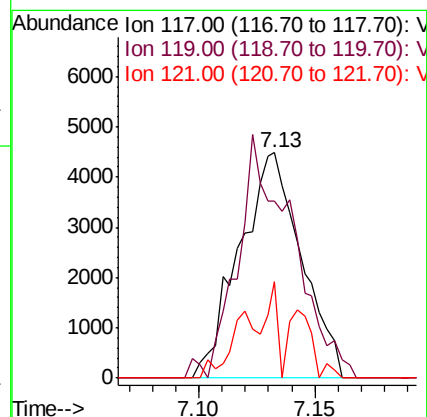
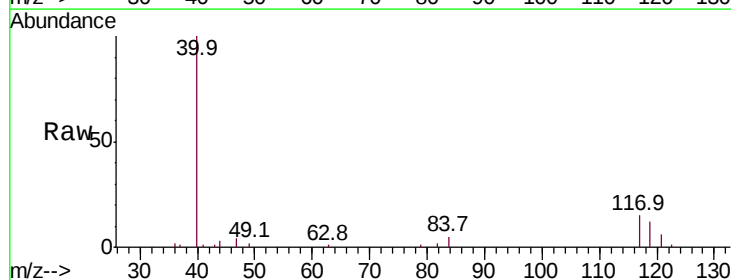
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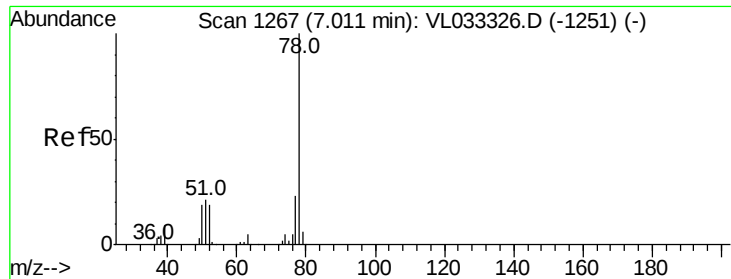
MMDadoda
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#35
Carbon Tetrachloride
Concen: 0.075 ppbv
RT: 7.13 min Scan# 1305
Delta R.T. -0.01 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Tgt Ion: 117 Resp: 8346
Ion Ratio Lower Upper
117 100
119 70.6 77.4 116.0#
121 42.6 24.9 37.3#





#36

Benzene

Concen: 0.257 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Instrument :

MSVOA_L

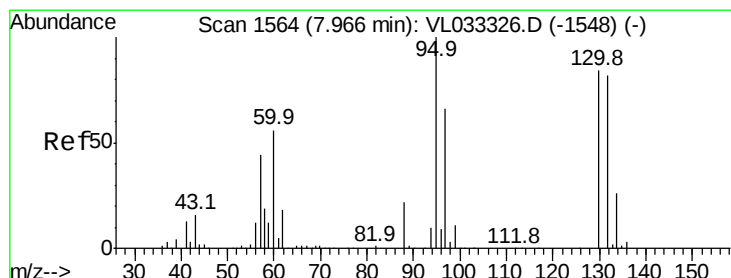
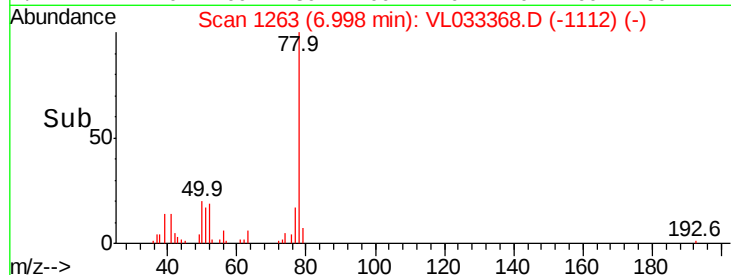
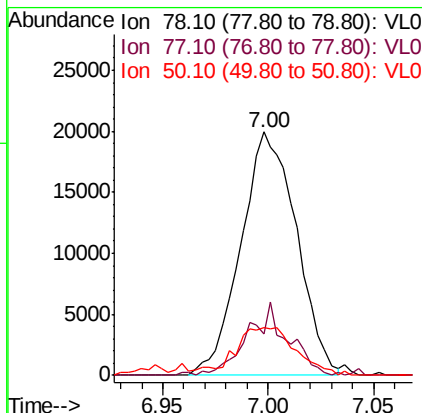
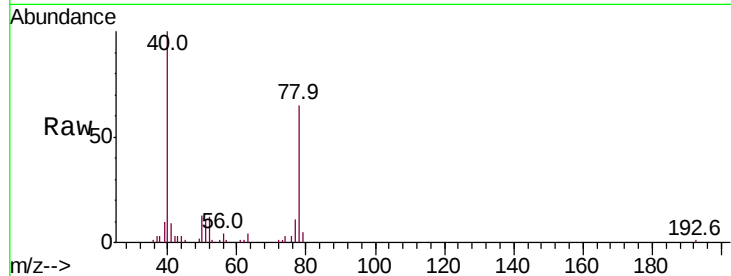
ClientSampled :

A-10

Tot Ion	Ratio	Lower	Upper
78	100		
77	15.4	18.1	27.1#
50	19.6	15.2	22.8

Manual Integrations
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#38

Trichloroethene

Concen: 0.042 ppbv m

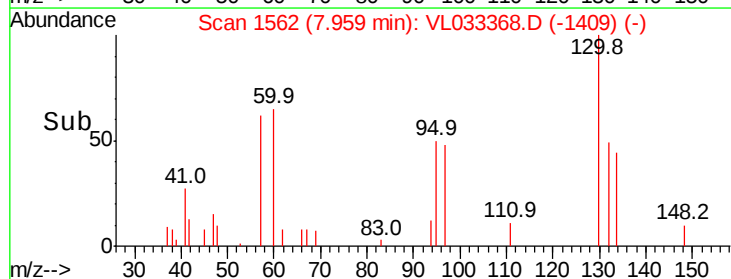
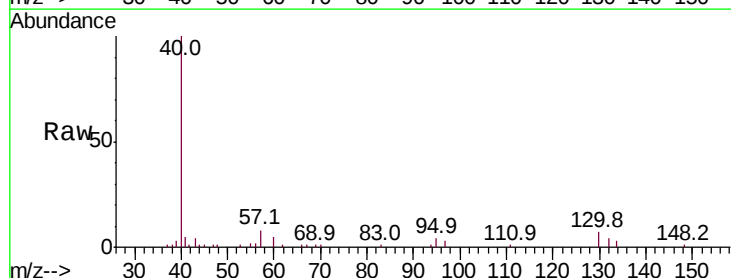
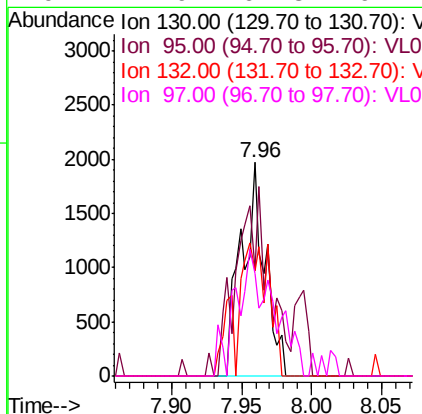
RT: 7.96 min Scan# 1562

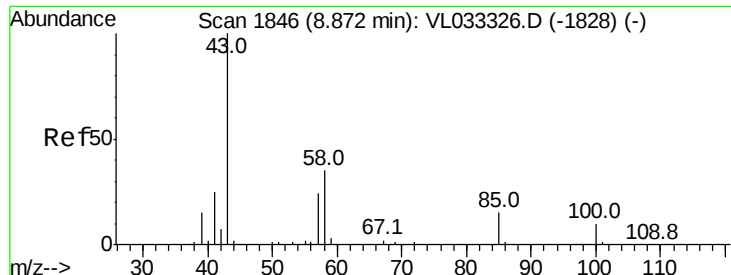
Delta R.T. -0.01 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Tgt Ion	Ratio	Lower	Upper
130	100		
95	49.8	95.2	142.8#
132	49.2	77.7	116.5#
97	47.9	62.8	94.2#





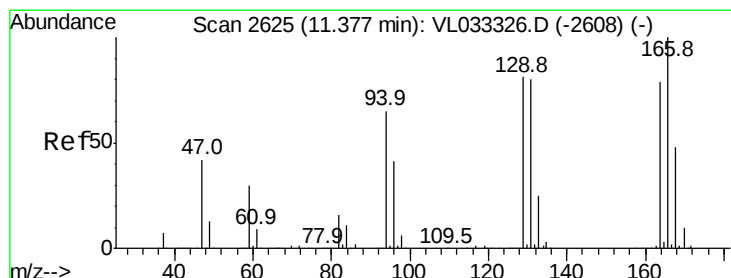
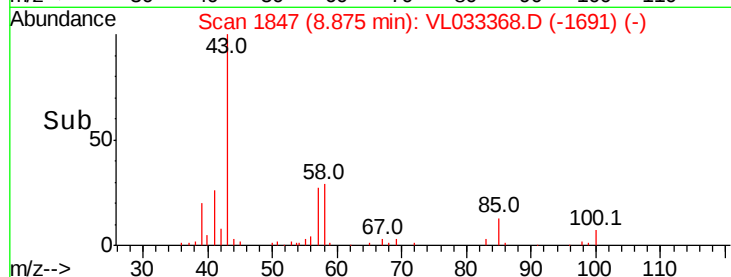
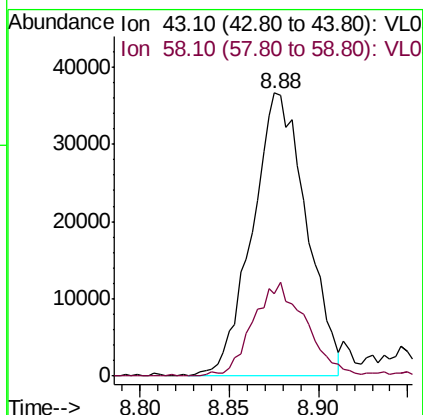
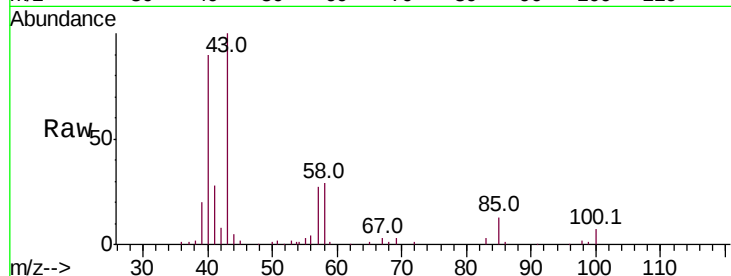
#50
4-Methyl-2-Pentanone
Concen: 0.526 ppbv
RT: 8.88 min Scan# 1847
Delta R.T. 0.00 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Instrument :
MSVOA_L
ClientSampled :
A-10

Tot Ion: 43 Resp: 77370
Ion Ratio Lower Upper
43 100
58 33.5 28.4 42.6

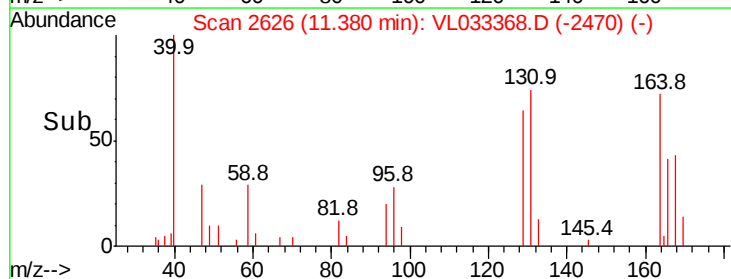
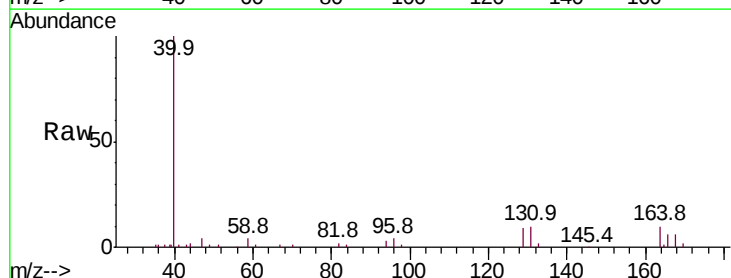
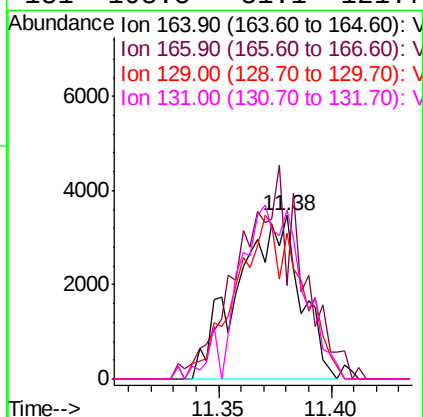
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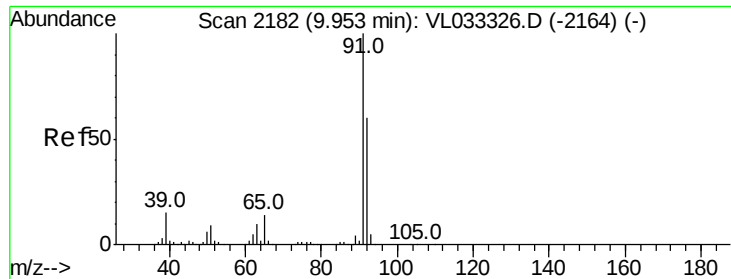
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#52
Tetrachloroethene
Concen: 0.114 ppbv m
RT: 11.38 min Scan# 2626
Delta R.T. 0.00 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Tgt Ion: 164 Resp: 6729
Ion Ratio Lower Upper
164 100
166 57.6 101.5 152.3#
129 89.6 82.2 123.2
131 103.5 81.1 121.7





#53

Toluene

Concen: 17.993 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.01 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Instrument :

MSVOA_L

ClientSampleId :

A-10

Tot Ion: 91 Resp: 2899133

Ion Ratio Lower Upper

91 100

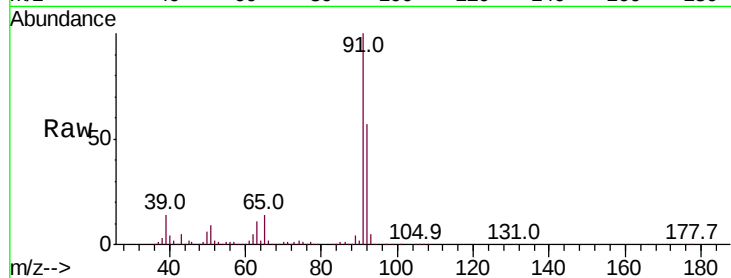
92 59.2 47.4 71.0

Manual Integrations

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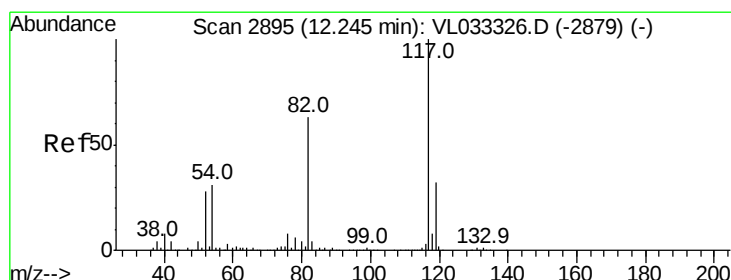
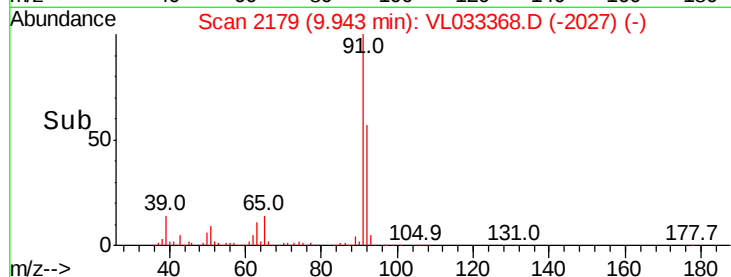
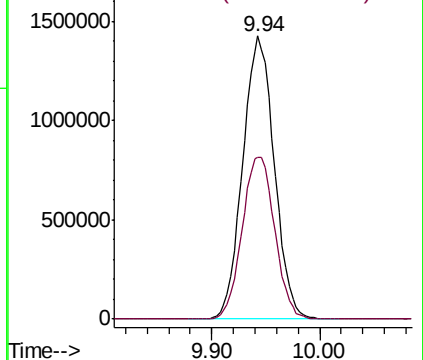
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

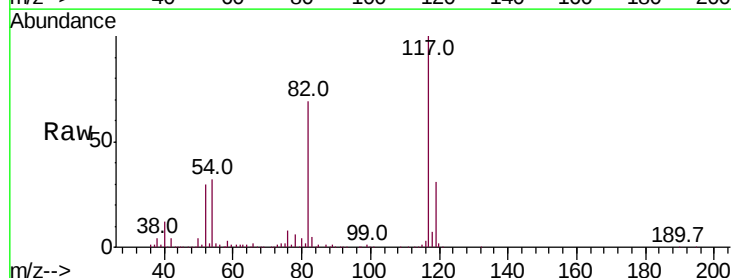
Tgt Ion: 117 Resp: 1630347

Ion Ratio Lower Upper

117 100

82 67.8 53.4 80.2

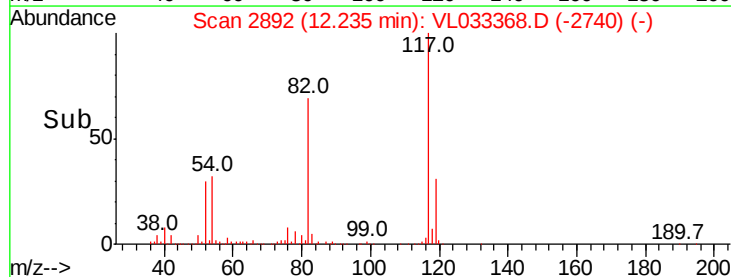
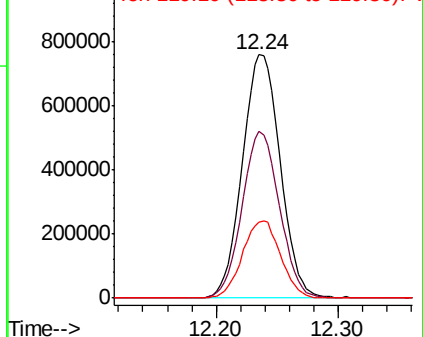
119 32.1 27.3 40.9

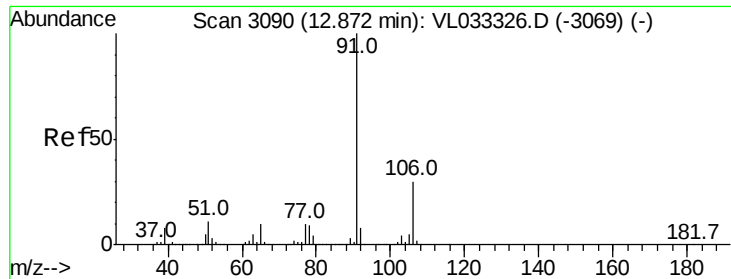


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.404 ppbv m

RT: 12.87 min Scan# 3088

Delta R.T. -0.01 min

Lab File: VL033368.D

Acq: 18 Mar 2019 21:22

Instrument :

MSVOA_L

ClientSampleId :

A-10

Tot Ion: 91 Resp: 93274

Ion Ratio Lower Upper

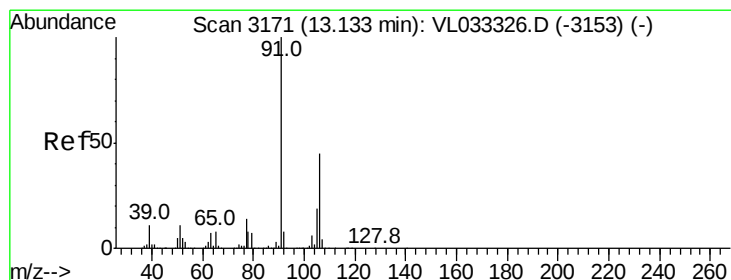
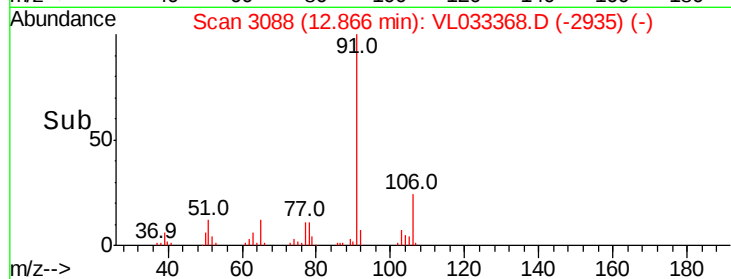
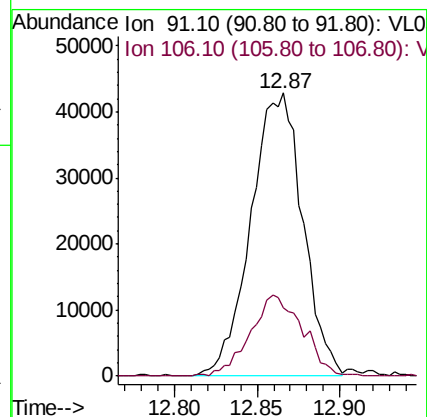
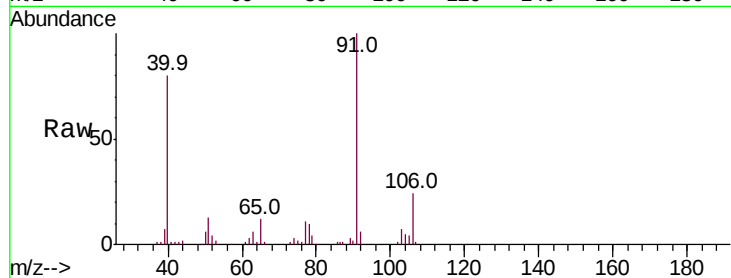
91 100

106 24.3 24.2 36.2

Manual Integrations
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#59

m/p-Xylene

Concen: 0.407 ppbv m

RT: 13.11 min Scan# 3165

Delta R.T. -0.02 min

Lab File: VL033368.D

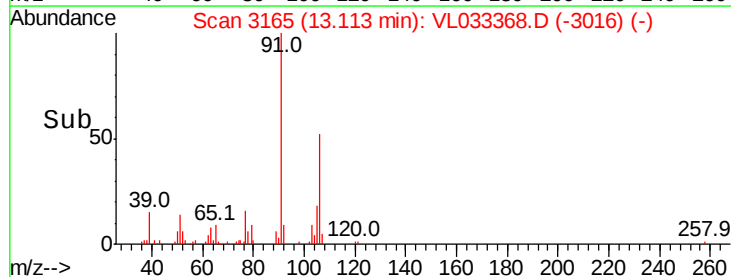
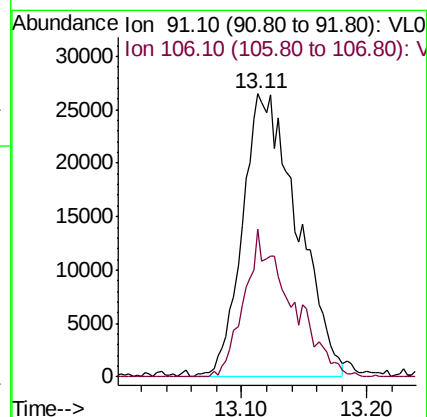
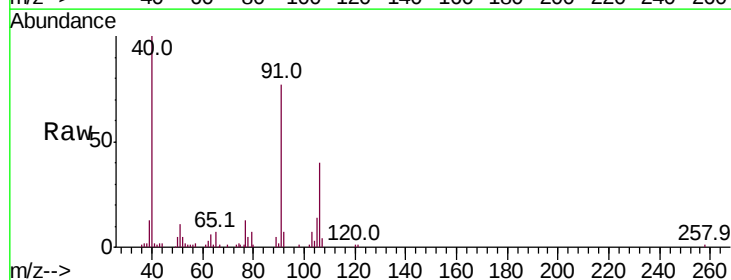
Acq: 18 Mar 2019 21:22

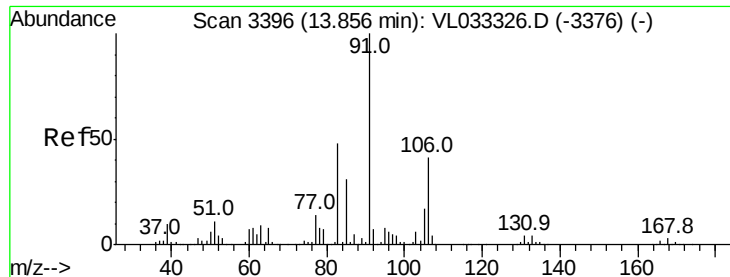
Tgt Ion: 91 Resp: 80592

Ion Ratio Lower Upper

91 100

106 0.0 0.0 0.0





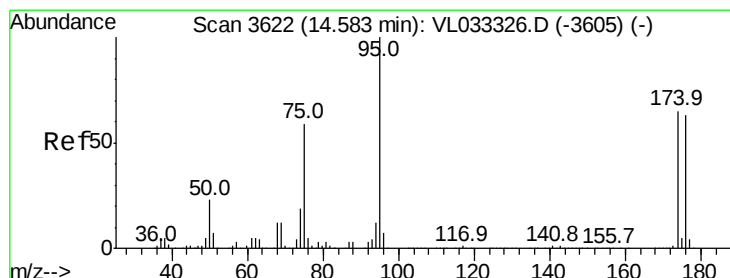
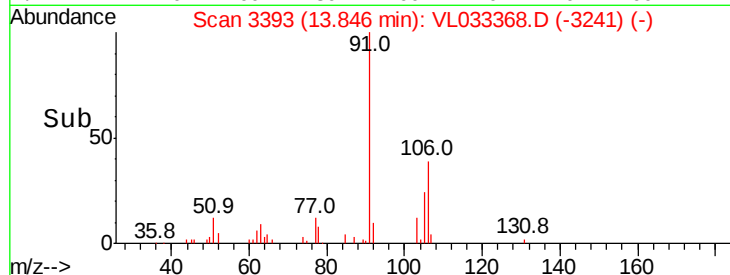
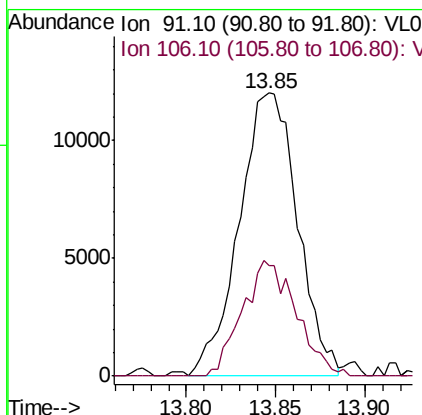
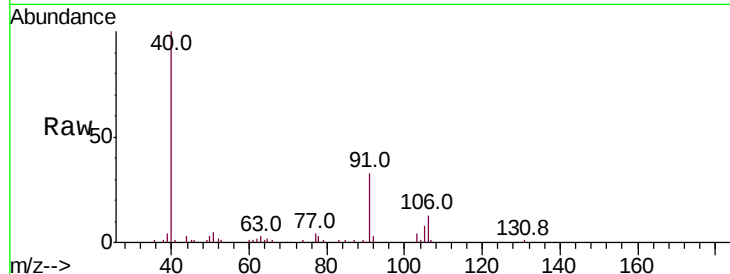
#60
o-Xylene
Concen: 0.142 ppbv
RT: 13.85 min Scan# 3393
Delta R.T. -0.01 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Instrument :
MSVOA_L
ClientSampled :
A-10

Tot Ion: 91 Resp: 27487
Ion Ratio Lower Upper
91 100
106 37.7 21.3 63.9

Manual Integrations
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#68
1-Bromo-4-Fluorobenzene
Concen: 10.863 ppbv
RT: 14.57 min Scan# 3619
Delta R.T. -0.01 min
Lab File: VL033368.D
Acq: 18 Mar 2019 21:22

Tgt Ion: 95 Resp: 1312341
Ion Ratio Lower Upper
95 100
174 64.9 51.5 77.3
175 4.5 3.8 5.6

