

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL070518\
 Data File : VL032208.D
 Acq On : 5 Jul 2018 18:06
 Operator : SY/AP
 Sample : J3867-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 539B

Manual Integrations
 APPROVED

MMDadoda
 7/9/2018 10:47:32 AM

Quant Time: Jul 06 05:15:27 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062918AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 28
 QLast Update : Fri Jun 29 22:27:58 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.84	49	1519972	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.38	114	3991850	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.34	117	4032210	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.67	95	3214817	10.43	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.13	85	43837	0.22	ppbv	96
3) Chlorodifluoromethane	3.07	51	143642	0.77	ppbv	94
4) Chloromethane	3.23	50	55349	0.56	ppbv	93
9) Propene	3.10	41	126849	1.47	ppbv #	83
10) Heptane	8.34	43	72405m	0.29	ppbv	
11) Trichlorofluoromethane	4.07	101	59576	0.28	ppbv	88
13) Ethanol	3.73	45	719667	27.43	ppbv	100
15) Acetone	3.96	43	3488282	19.63	ppbv	98
20) Methylene Chloride	4.48	84	1303225	20.07	ppbv	96
26) Hexane	5.86	57	4119632	24.33	ppbv #	45
27) Carbon Disulfide	4.69	76	117431	0.70	ppbv #	86
29) Chloroform	5.94	83	23837m	0.10	ppbv	
30) Cyclohexane	7.34	84	55006m	0.34	ppbv	
34) 2-Butanone	5.41	43	263031	1.04	ppbv	99
35) Carbon Tetrachloride	7.22	117	20206m	0.07	ppbv	
36) Benzene	7.09	78	148062	0.38	ppbv	99
38) Trichloroethene	8.05	130	54939	0.36	ppbv	99
44) 2,2,4-Trimethylpentane	8.08	57	282516	0.42	ppbv #	82
52) Tetrachloroethene	11.47	164	10135m	0.07	ppbv	
53) Toluene	10.04	91	432676	0.93	ppbv	97
58) Ethyl Benzene	12.97	91	121025m	0.19	ppbv	
59) m/p-Xylene	13.21	91	313416m	0.60	ppbv	
60) o-Xylene	13.95	91	115564	0.22	ppbv	99
73) 1,3,5-Trimethylbenzene	16.25	105	146449	0.23	ppbv	90
74) 1,2,4-Trimethylbenzene	17.02	105	319782	0.50	ppbv #	77

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

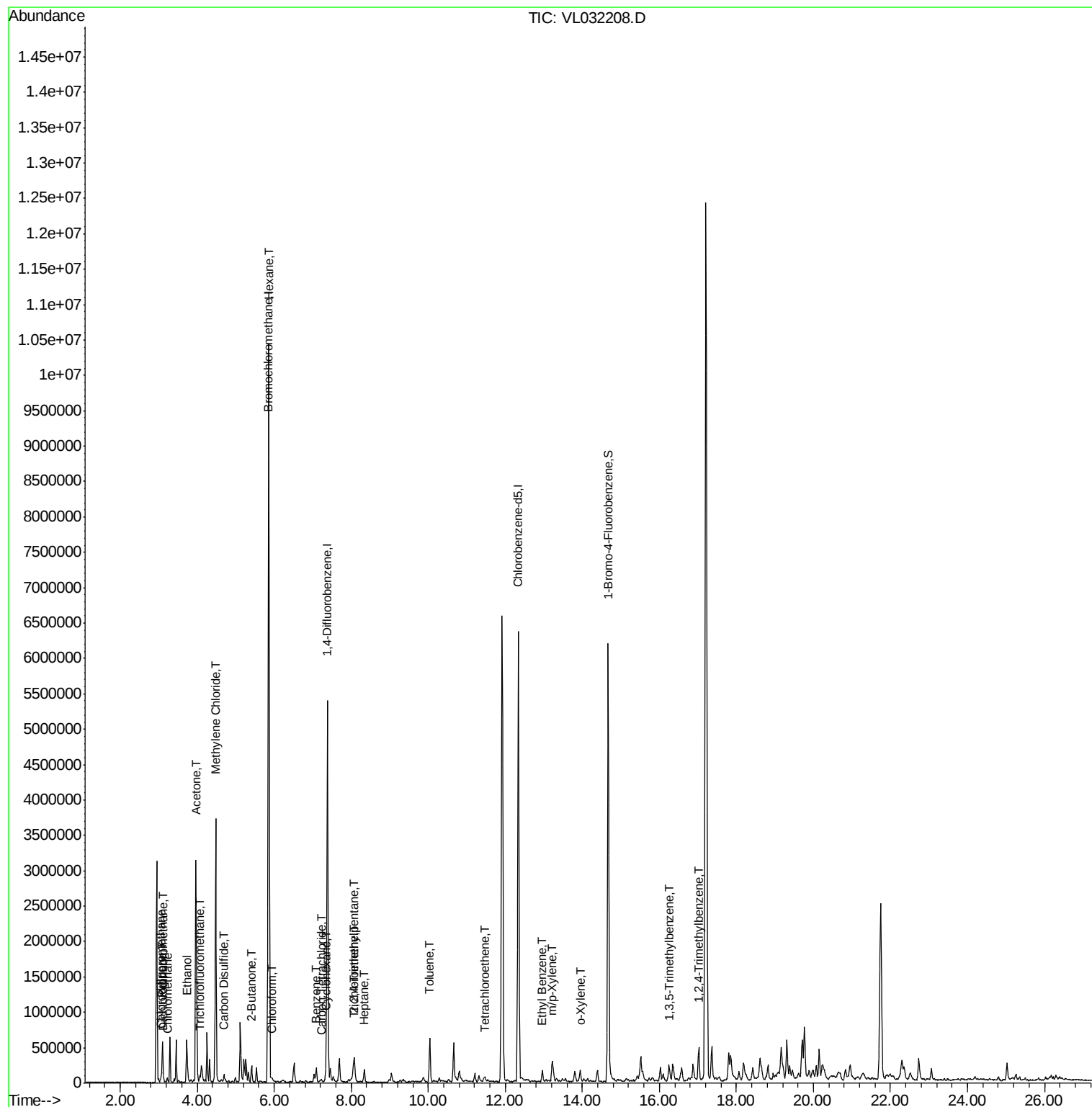
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL070518\
Data File : VL032208.D
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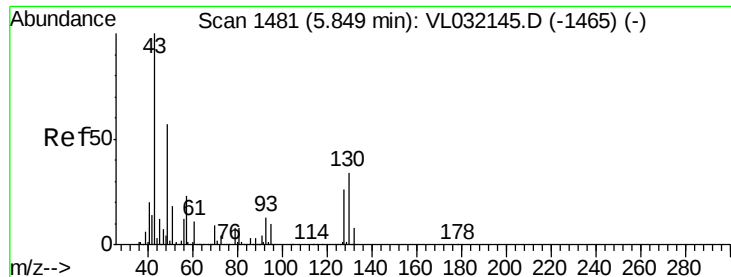
Instrument :
MSVOA_L
ClientSampleId :
539B

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7/9/2018 10:47:32 AM

Quant Time: Jul 06 05:15:27 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062918AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun
QLast Update : Fri Jun 29 22:27:58 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.84 min Scan# 1479

Delta R.T. -0.02 min

Lab File: VL032208.D

Acq: 5 Jul 2018 18:06

Instrument :

MSVOA_L

ClientSampled :

539B

Tot Ion: 49 Resp: 1519972

Ion Ratio Lower Upper

49 100

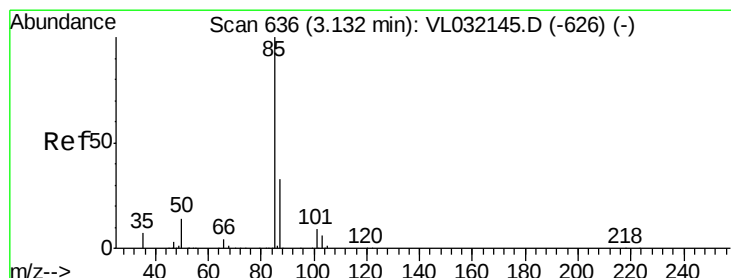
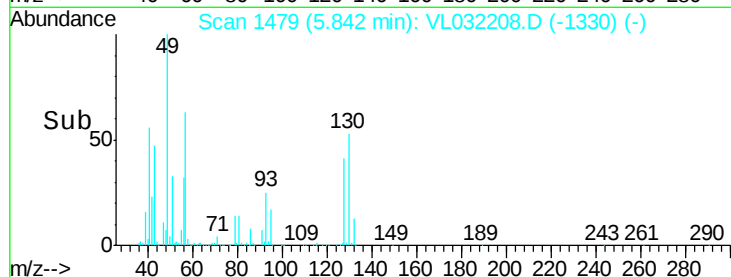
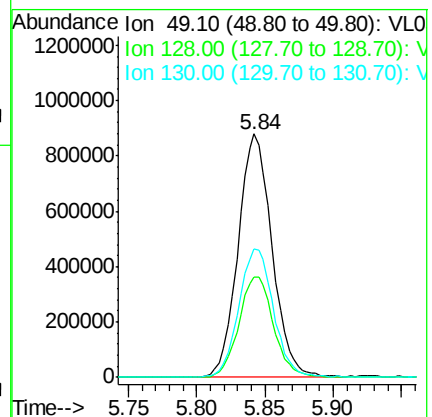
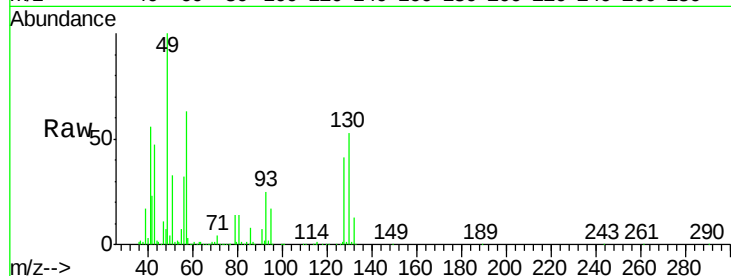
128 42.3 23.4 70.0

130 54.2 30.3 90.9

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#2

Dichlorodifluoromethane

Concen: 0.22 ppbv

RT: 3.13 min Scan# 636

Delta R.T. -0.01 min

Lab File: VL032208.D

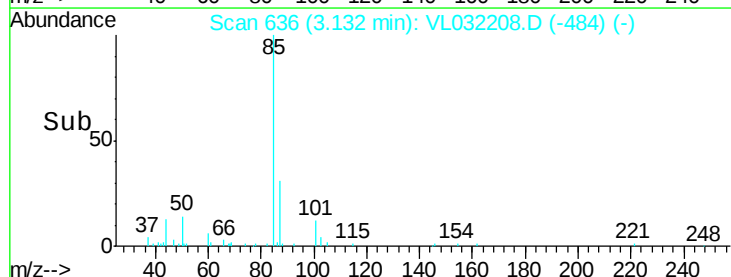
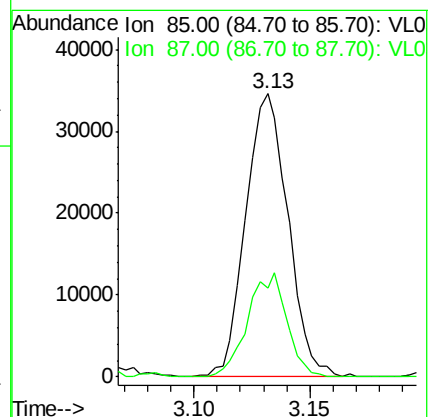
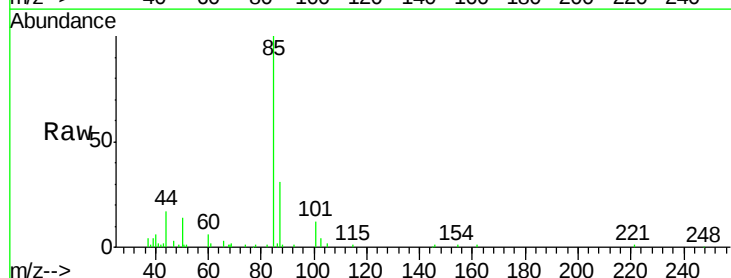
Acq: 5 Jul 2018 18:06

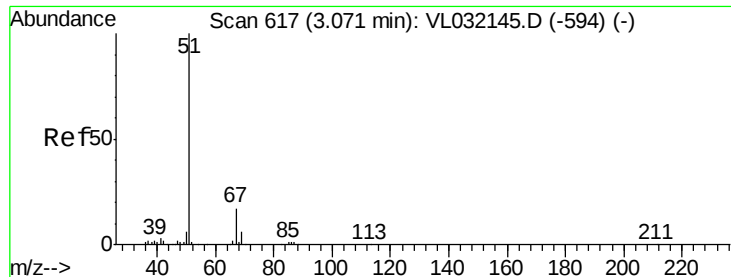
Tgt Ion: 85 Resp: 43837

Ion Ratio Lower Upper

85 100

87 31.2 26.7 40.1





#3

Chlorodifluoromethane

Concen: 0.77 ppbv

RT: 3.07 min Scan# 616

Delta R.T. -0.01 min

Lab File: VL032208.D

Acq: 5 Jul 2018 18:06

Instrument :

MSVOA_L

ClientSampled :

539B

Tot Ion: 51 Resp: 143642

Ion Ratio Lower Upper

51 100

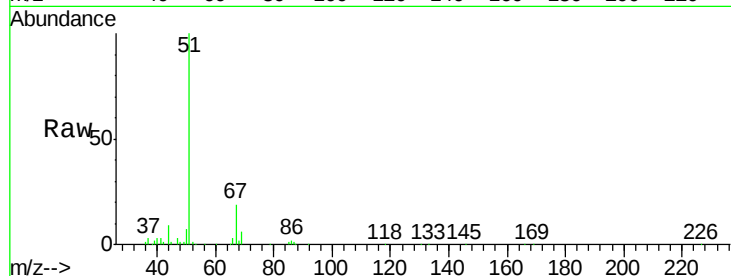
67 13.7 13.2 19.8

Manual Integrations

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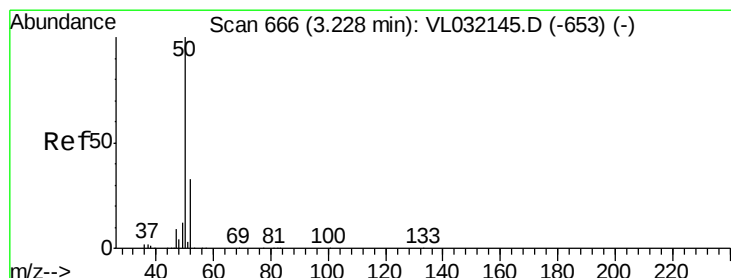
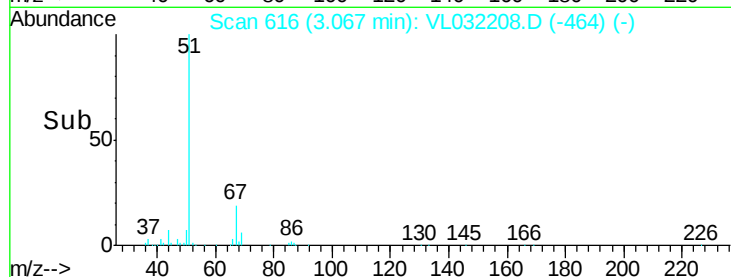
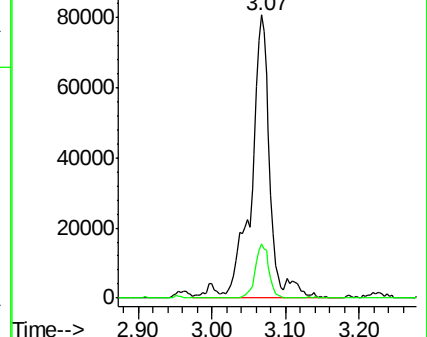
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.56 ppbv

RT: 3.23 min Scan# 666

Delta R.T. -0.01 min

Lab File: VL032208.D

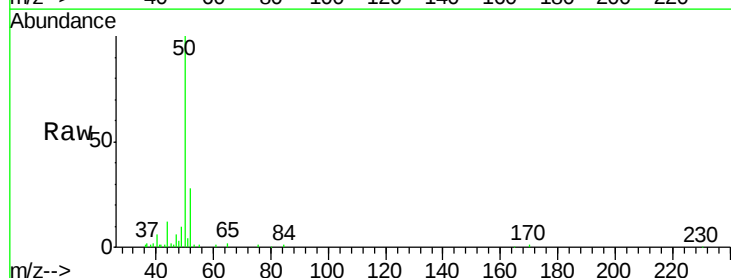
Acq: 5 Jul 2018 18:06

Tgt Ion: 50 Resp: 55349

Ion Ratio Lower Upper

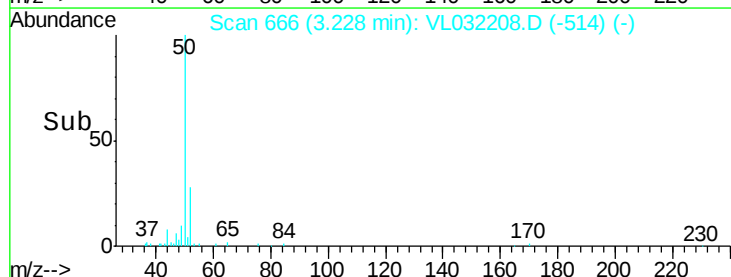
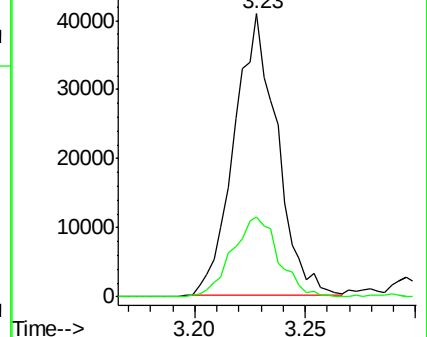
50 100

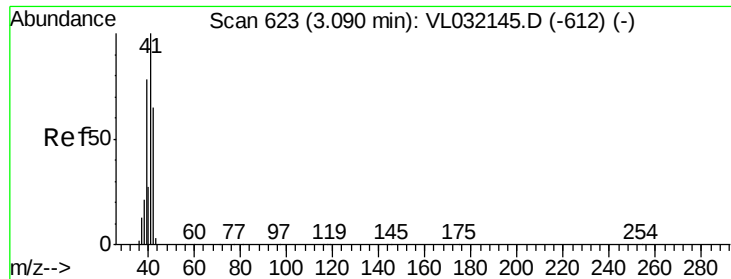
52 28.4 26.0 39.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.47 ppbv

RT: 3.10 min Scan# 625

Delta R.T. -0.00 min

Lab File: VL032208.D

Acq: 5 Jul 2018 18:06

Instrument :

MSVOA_L

ClientSampleId :

539B

Tot Ion: 41 Resp: 126849

Ion Ratio Lower Upper

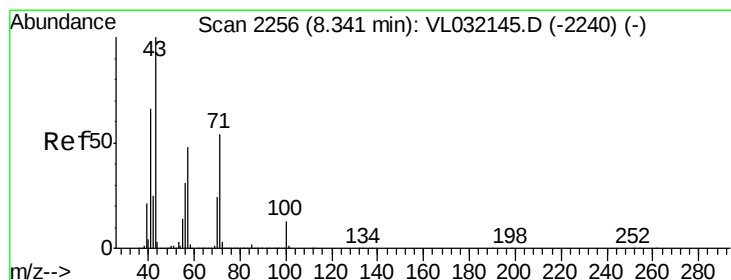
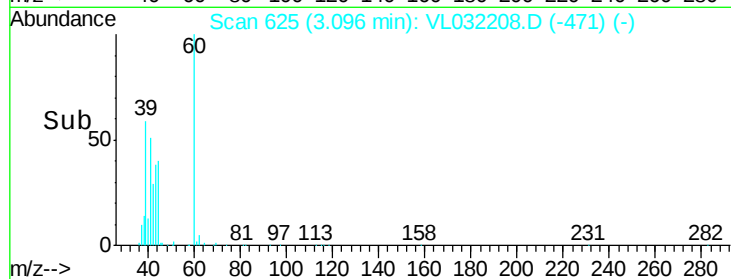
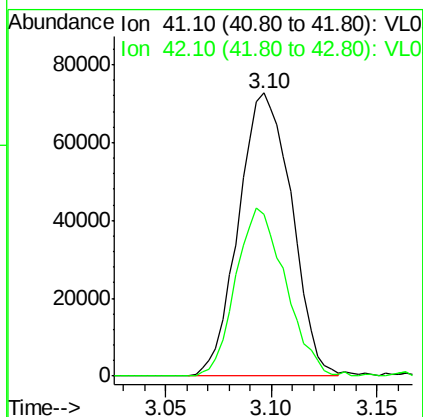
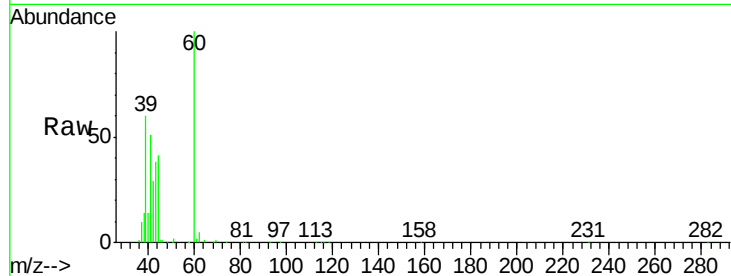
41 100

42 55.9 56.2 84.4#

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#10

Heptane

Concen: 0.29 ppbv m

RT: 8.34 min Scan# 2255

Delta R.T. -0.02 min

Lab File: VL032208.D

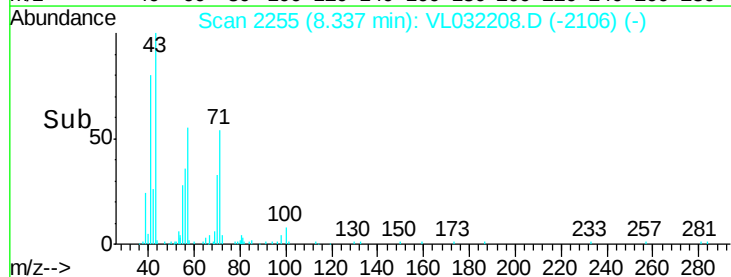
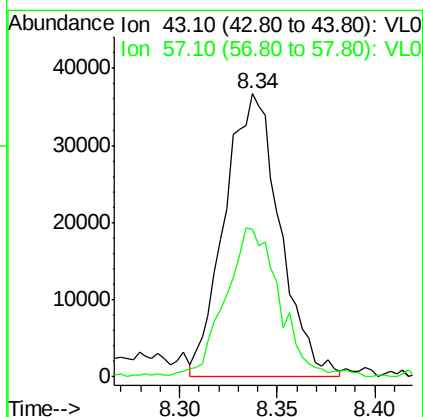
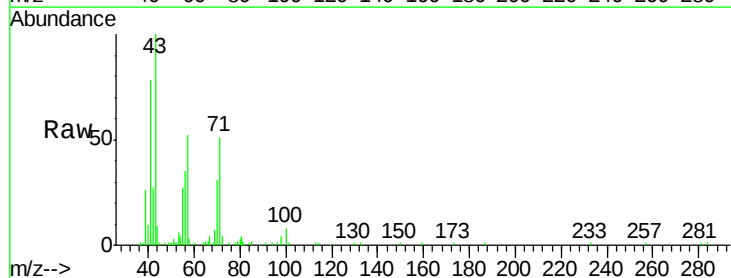
Acq: 5 Jul 2018 18:06

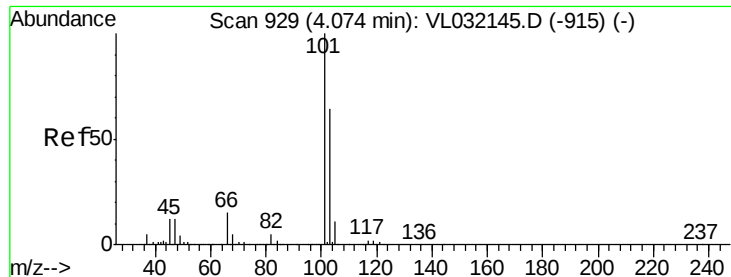
Tgt Ion: 43 Resp: 72405

Ion Ratio Lower Upper

43 100

57 52.2 39.8 59.8





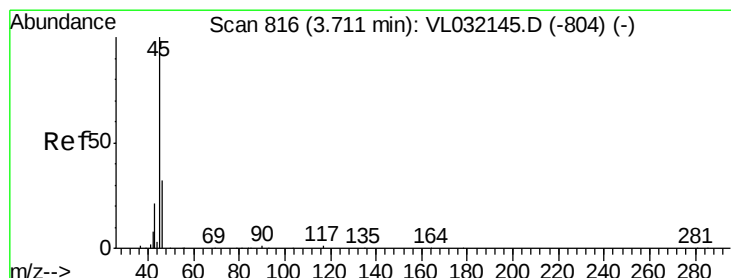
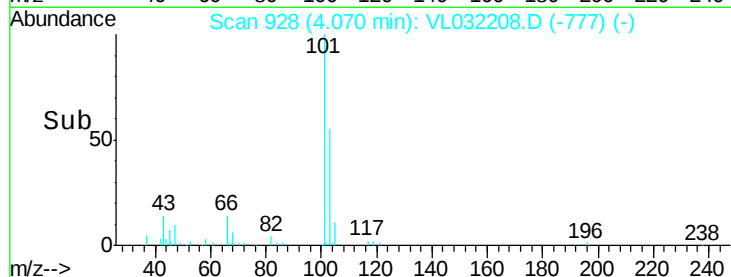
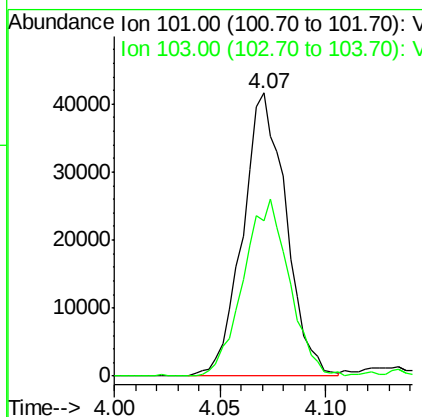
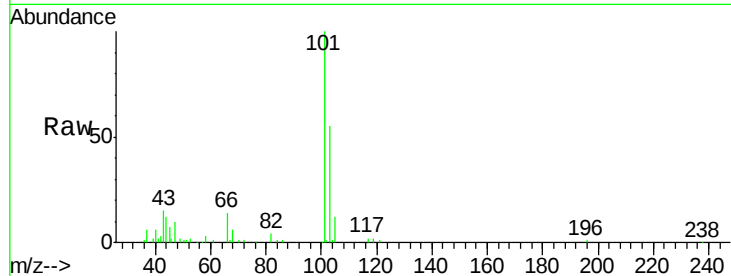
#11
 Trichlorofluoromethane
 Concen: 0.28 ppbv
 RT: 4.07 min Scan# 928
 Delta R.T. -0.01 min
 Lab File: VL032208.D
 Acq: 5 Jul 2018 18:06

Instrument :
 MSVOA_L
 ClientSampleId :
 539B

Tot Ion:101 Resp: 59576
 Ion Ratio Lower Upper
 101 100
 103 54.7 51.4 77.0

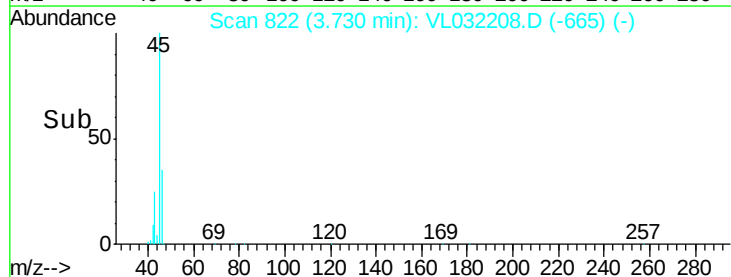
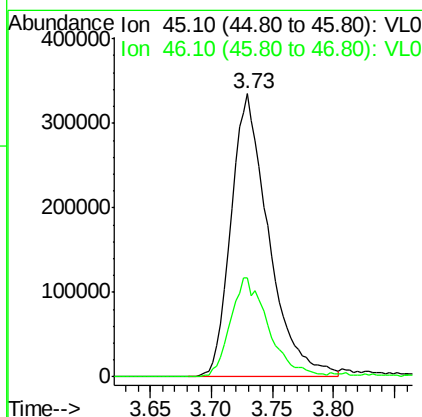
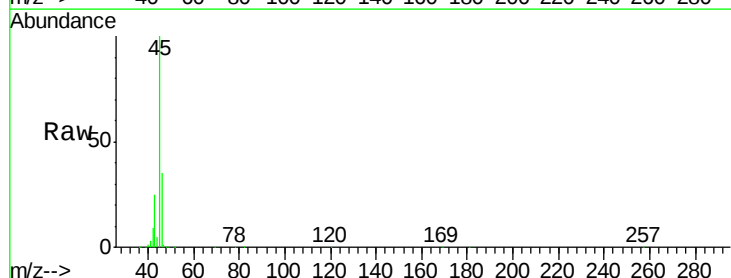
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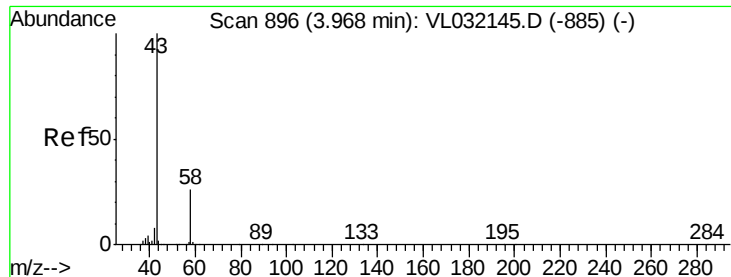
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#13
 Ethanol
 Concen: 27.43 ppbv
 RT: 3.73 min Scan# 822
 Delta R.T. 0.01 min
 Lab File: VL032208.D
 Acq: 5 Jul 2018 18:06

Tgt Ion: 45 Resp: 719667
 Ion Ratio Lower Upper
 45 100
 46 36.5 14.6 58.4





#15

Acetone

Concen: 19.63 ppbv

RT: 3.96 min Scan# 894

Delta R.T. -0.02 min

Lab File: VL032208.D

Acq: 5 Jul 2018 18:06

Instrument :

MSVOA_L

ClientSampleId :

539B

Tot Ion: 43 Resp: 3488282

Ion Ratio Lower Upper

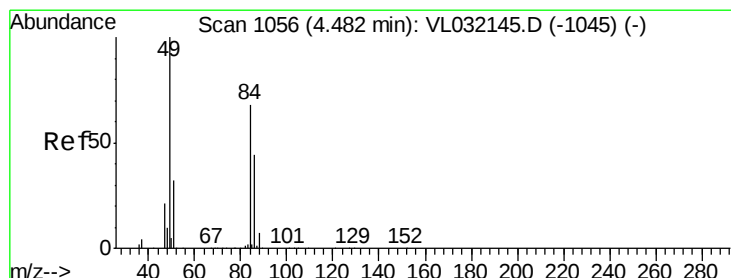
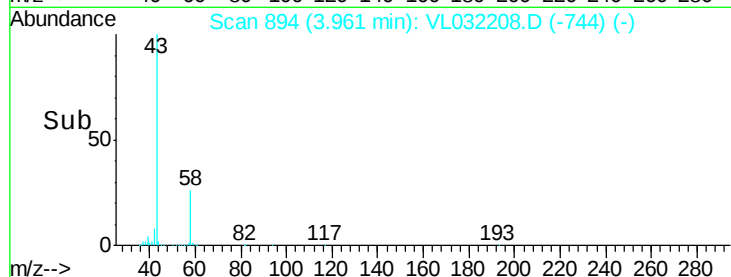
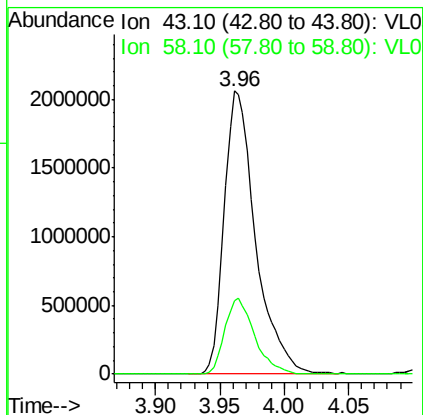
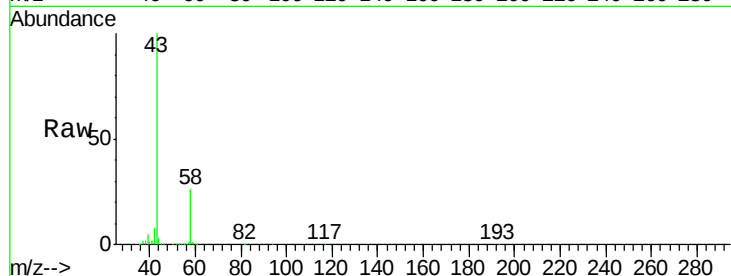
43 100

58 25.7 21.4 32.0

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#20

Methylene Chloride

Concen: 20.07 ppbv

RT: 4.48 min Scan# 1055

Delta R.T. -0.01 min

Lab File: VL032208.D

Acq: 5 Jul 2018 18:06

Tgt Ion: 84 Resp: 1303225

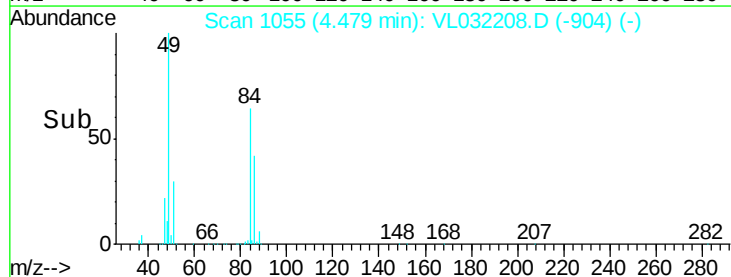
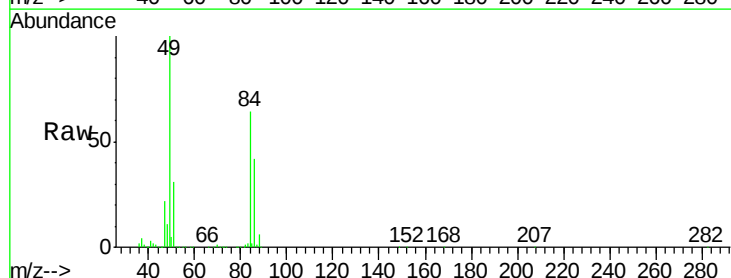
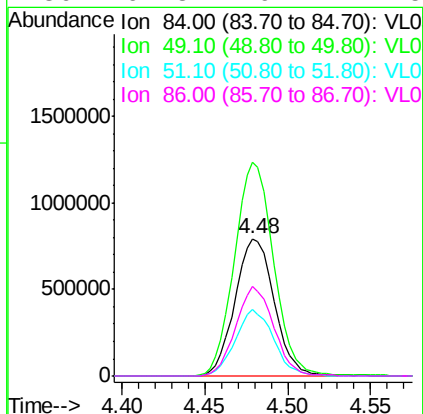
Ion Ratio Lower Upper

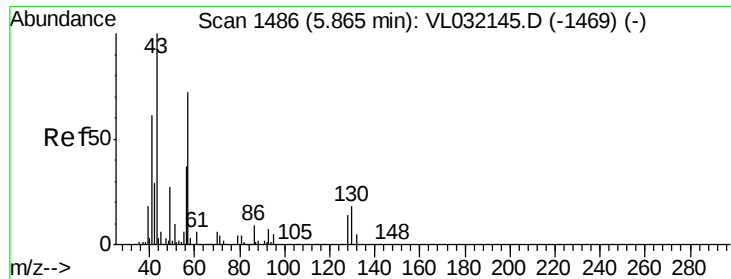
84 100

49 155.5 119.6 179.4

51 48.1 36.3 54.5

86 64.8 49.7 74.5





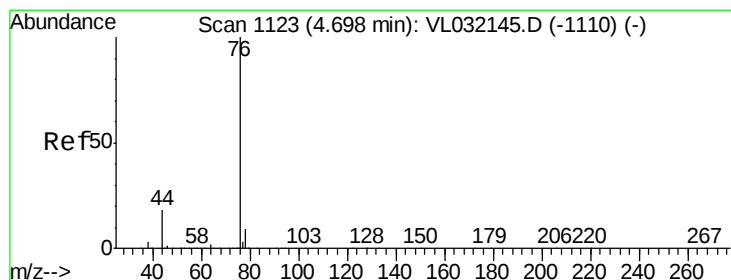
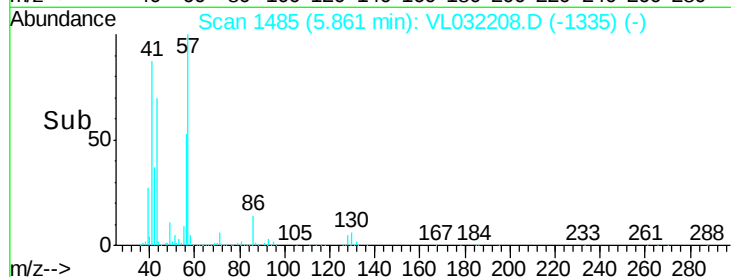
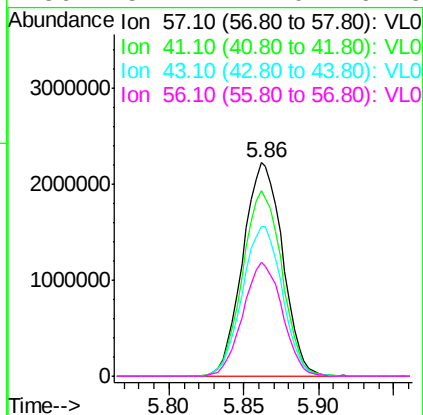
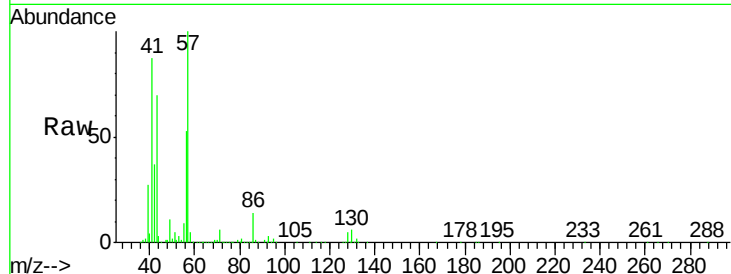
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Hexane
Concen: 24.33 ppbv
RT: 5.86 min Scan# 1485
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Instrument :
MSVOA_L
ClientSampleId :
539B

Tot Ion	Ratio	Lower	Upper
57	100		
41	86.2	68.6	103.0
43	70.6	168.6	252.8#
56	52.7	41.0	61.6

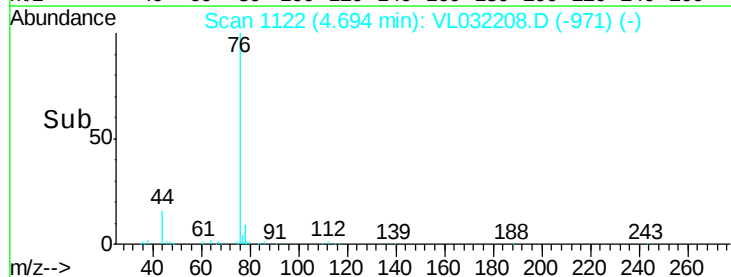
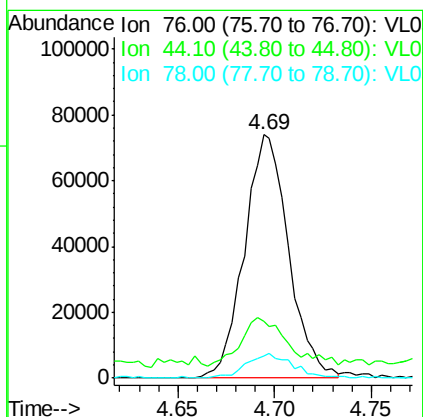
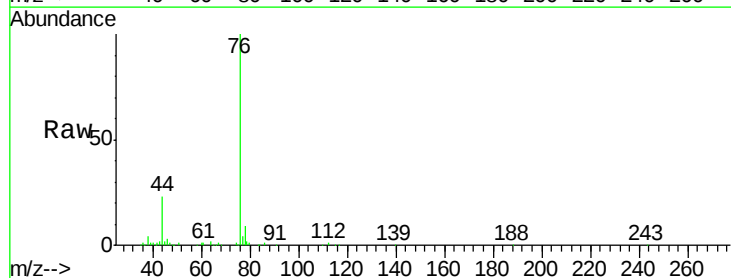
Manual Integrations
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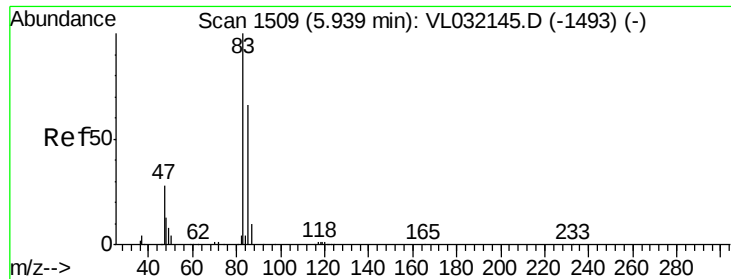
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#27
Carbon Disulfide
Concen: 0.70 ppbv
RT: 4.69 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Tgt Ion	Ratio	Lower	Upper
76	100		
44	27.4	15.1	22.7#
78	10.8	7.2	10.8





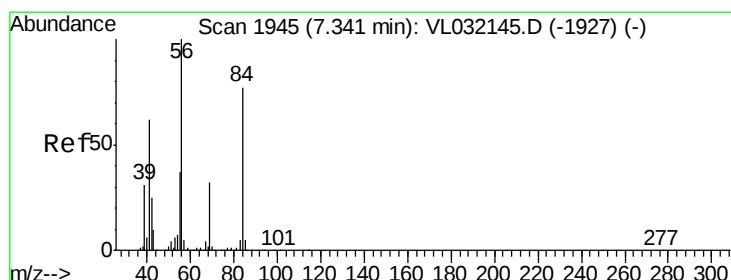
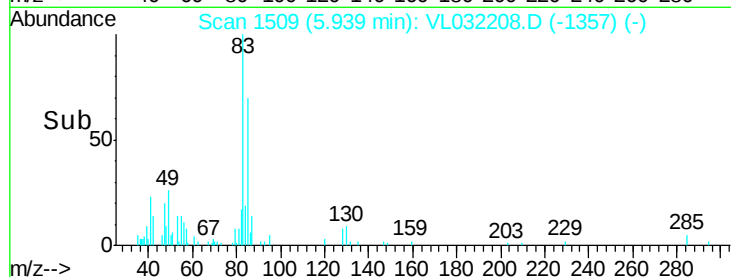
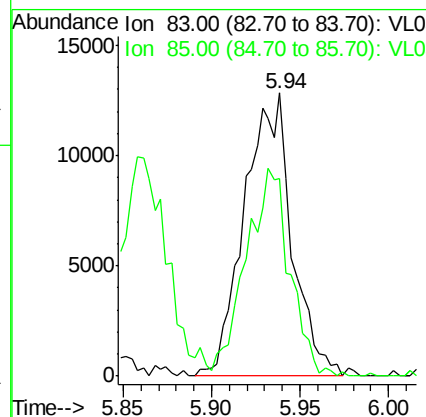
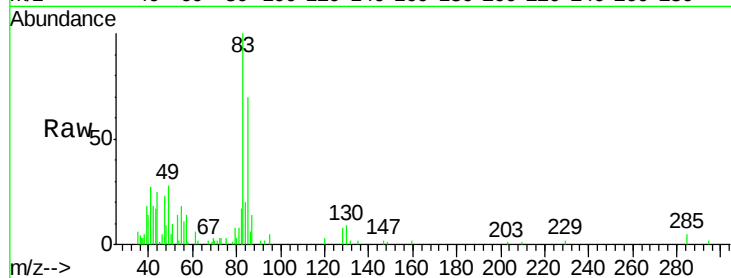
#29
Chloroform
Concen: 0.10 ppbv m
RT: 5.94 min Scan# 1509
Delta R.T. -0.01 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Instrument :
MSVOA_L
ClientSampled :
539B

Tot Ion	83	Resp	23837
Ion Ratio	100	Lower	Upper
85	69.8	51.6	77.4

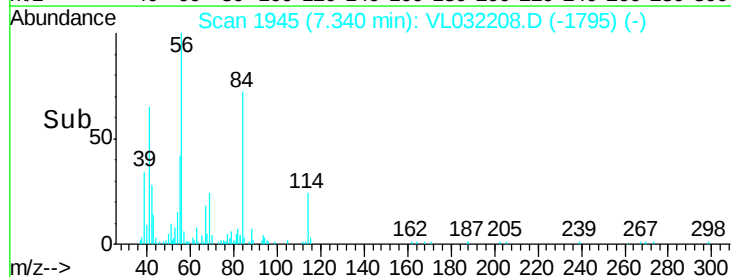
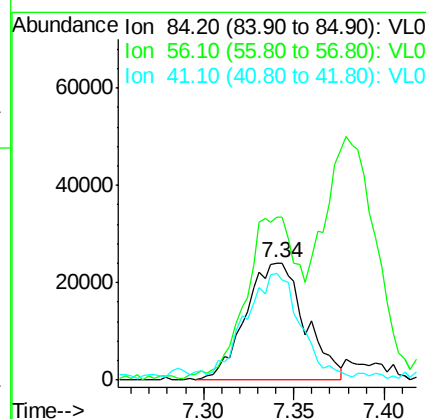
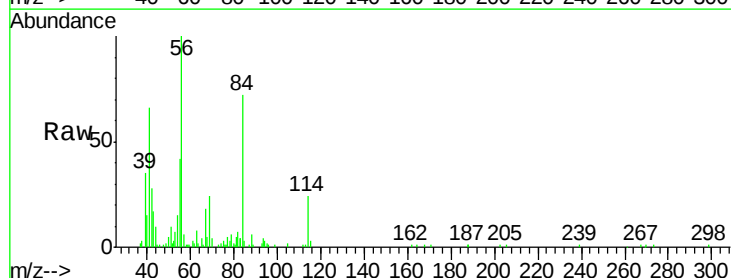
Manual Integrations
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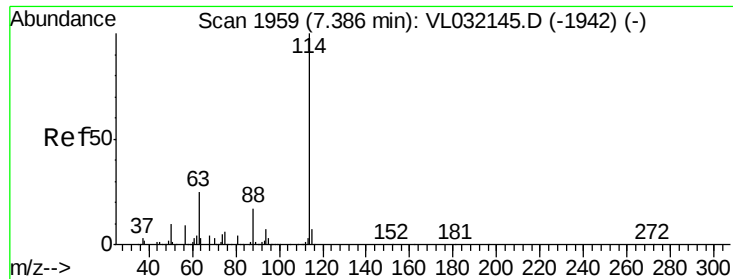
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#30
Cyclohexane
Concen: 0.34 ppbv m
RT: 7.34 min Scan# 1945
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Tgt Ion	84	Resp	55006
Ion Ratio	100	Lower	Upper
56	117.9	109.1	163.7
41	98.0	64.6	96.8#





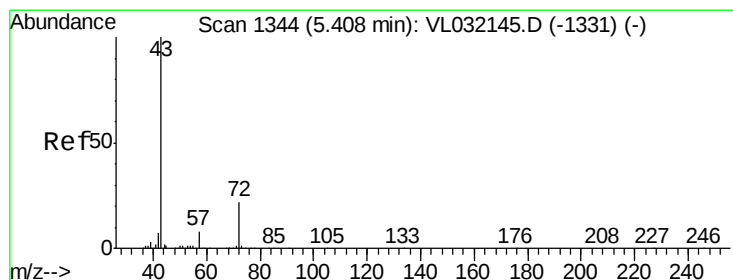
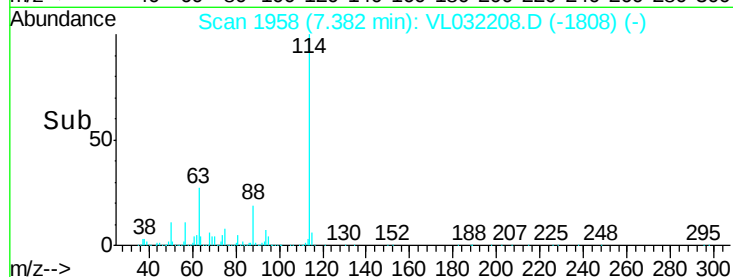
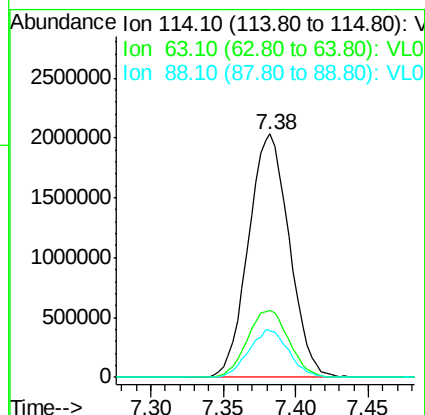
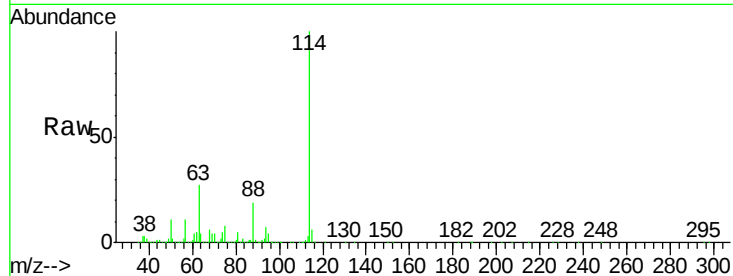
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.38 min Scan# 1958
 Delta R.T. -0.02 min
 Lab File: VL032208.D
 Acq: 5 Jul 2018 18:06

Instrument :
 MSVOA_L
 ClientSampleId :
 539B

Tot Ion:114 Resp: 3991850
 Ion Ratio Lower Upper
 114 100
 63 28.1 19.1 28.7
 88 19.2 13.9 20.9

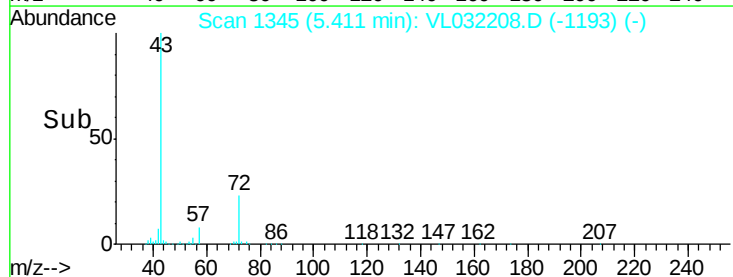
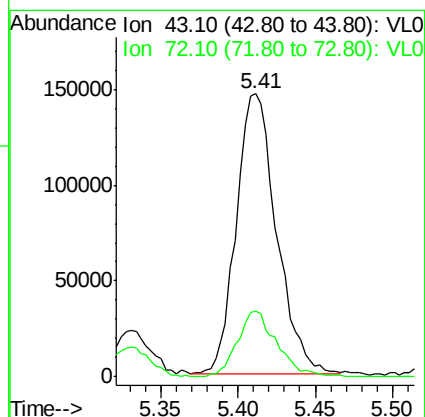
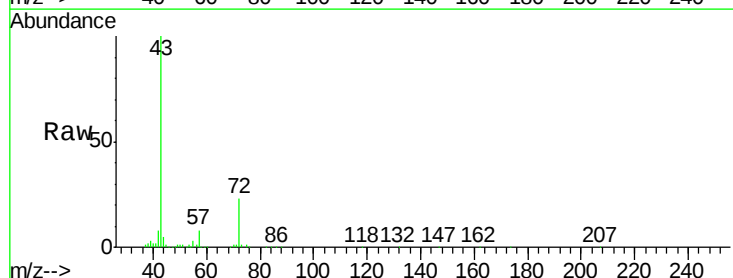
Manual Integrations
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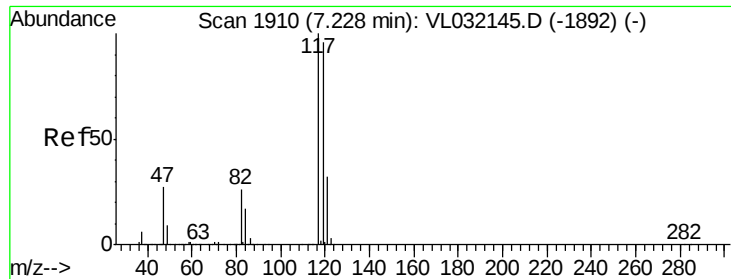
MMDadoda
 7/9/2018 10:47:32 AM



#34
 2-Butanone
 Concen: 1.04 ppbv
 RT: 5.41 min Scan# 1345
 Delta R.T. -0.01 min
 Lab File: VL032208.D
 Acq: 5 Jul 2018 18:06

Tgt Ion: 43 Resp: 263031
 Ion Ratio Lower Upper
 43 100
 72 23.4 18.4 27.6





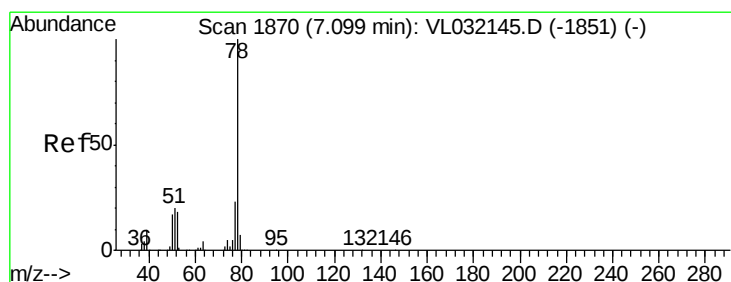
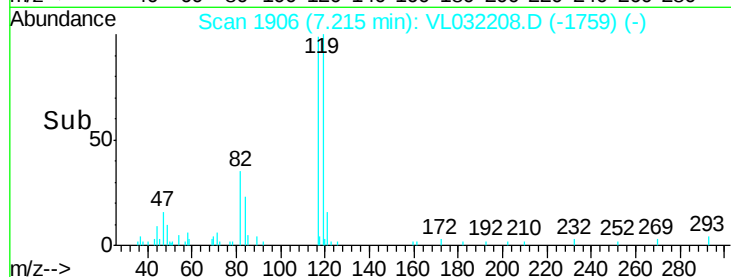
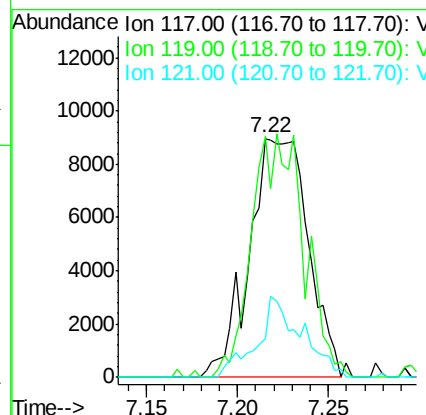
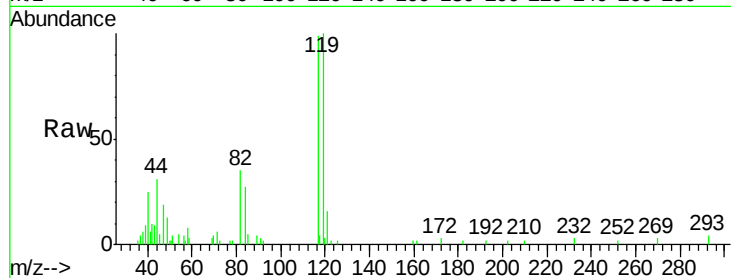
#35
Carbon Tetrachloride
Concen: 0.07 ppbv m
RT: 7.22 min Scan# 1906
Delta R.T. -0.03 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Instrument :
MSVOA_L
ClientSampleId :
539B

Tot Ion	Ratio	Lower	Upper
117	100		
119	101.0	74.8	112.2
121	16.0	24.0	36.0

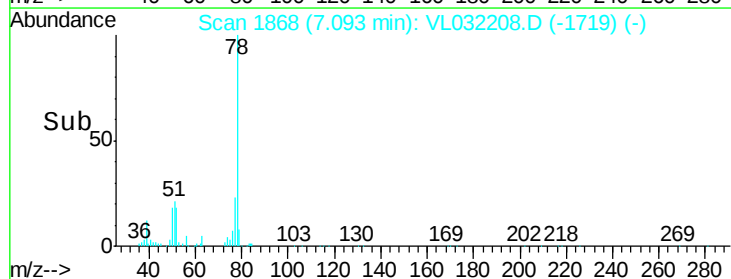
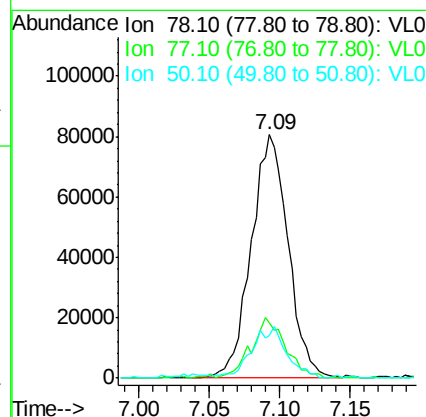
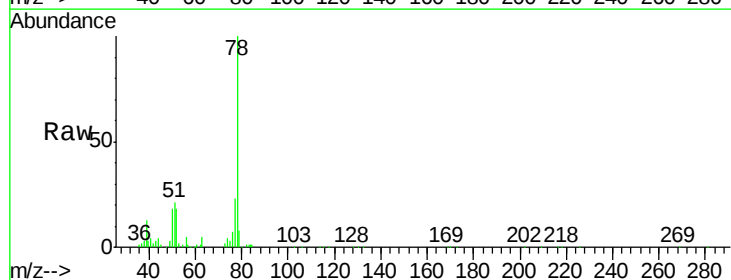
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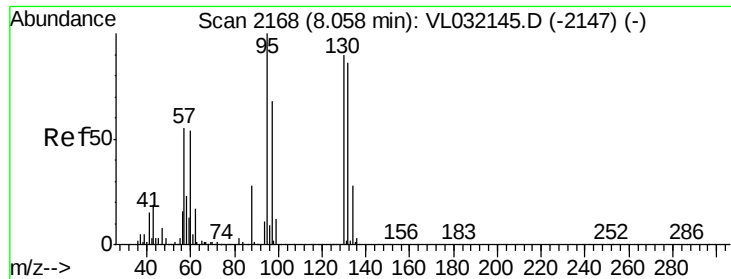
MMDadoda
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#36
Benzene
Concen: 0.38 ppbv
RT: 7.09 min Scan# 1868
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.8	17.7	26.5
50	17.2	14.0	21.0





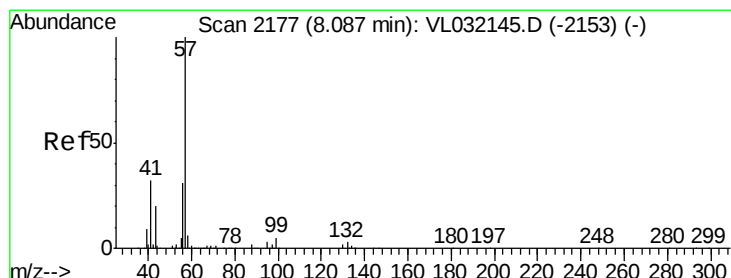
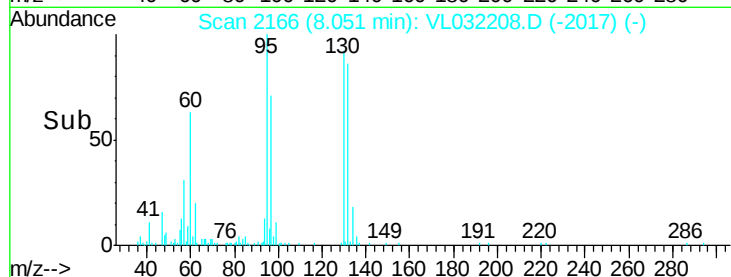
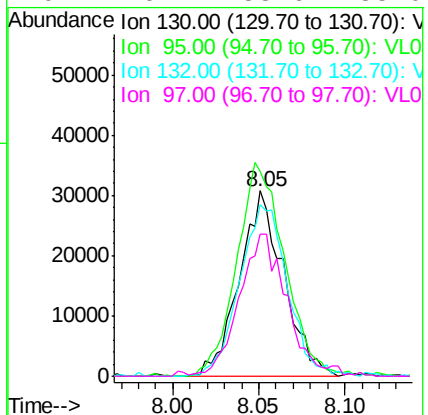
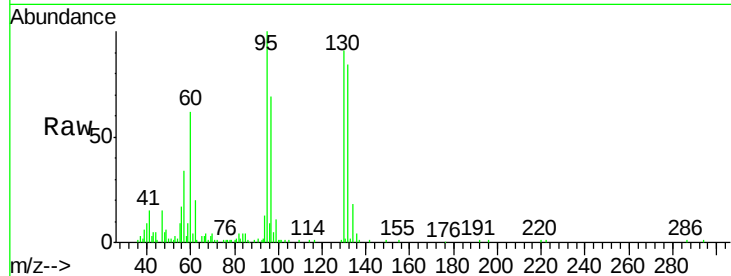
#38
 Trichloroethene
 Concen: 0.36 ppbv
 RT: 8.05 min Scan# 2166
 Delta R.T. -0.02 min
 Lab File: VL032208.D
 Acq: 5 Jul 2018 18:06

Instrument :
 MSVOA_L
 ClientSampled :
 539B

Tot Ion	Ion	Ratio	Resp	Lower	Upper
130	100		54939		
95	110.5	88.1	132.1		
132	92.0	74.6	112.0		
97	76.2	58.6	88.0		

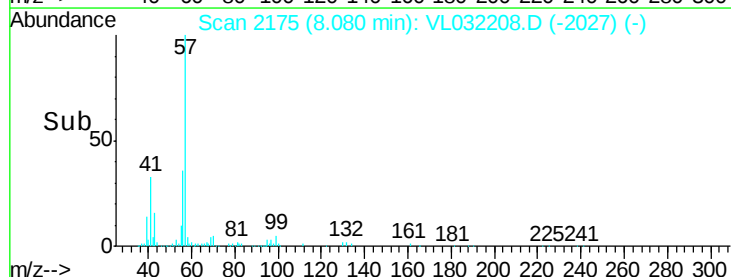
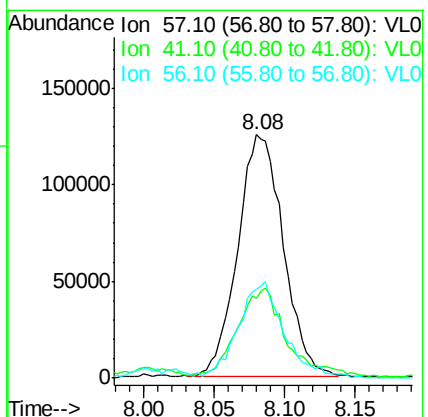
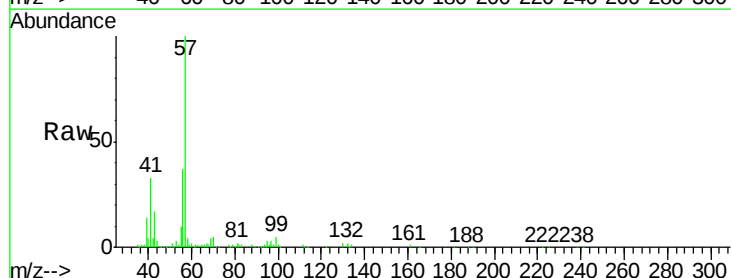
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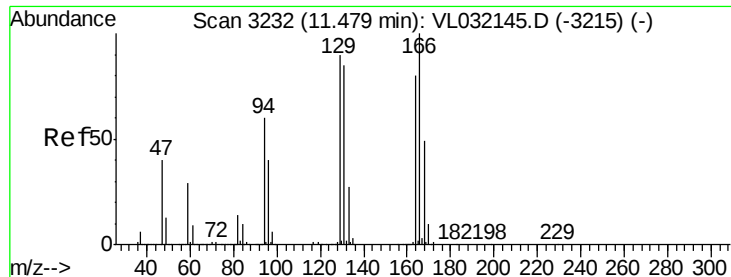
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#44
 2,2,4-Trimethylpentane
 Concen: 0.42 ppbv
 RT: 8.08 min Scan# 2175
 Delta R.T. -0.02 min
 Lab File: VL032208.D
 Acq: 5 Jul 2018 18:06

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
57	100		282516		
41	40.8	24.3	36.5#		
56	40.6	25.1	37.7#		





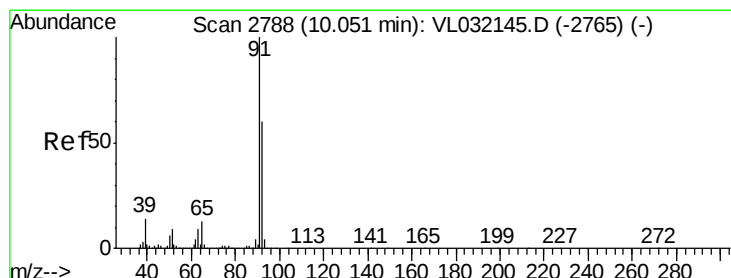
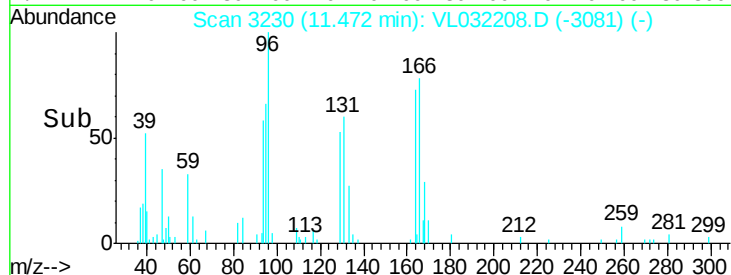
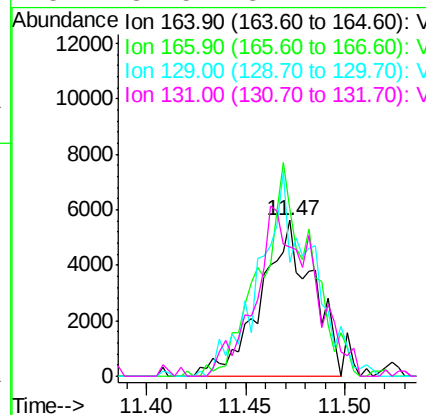
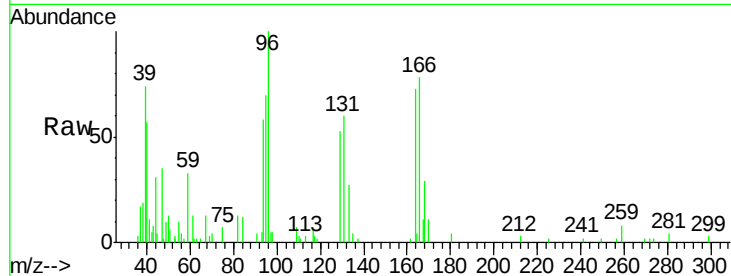
#52
Tetrachloroethene
Concen: 0.07 ppbv m
RT: 11.47 min Scan# 3230
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Instrument :
MSVOA_L
ClientSampled :
539B

Tot Ion	Ratio	Lower	Upper
164	100		
166	107.9	100.6	151.0
129	73.2	84.0	126.0
131	82.5	82.7	124.1

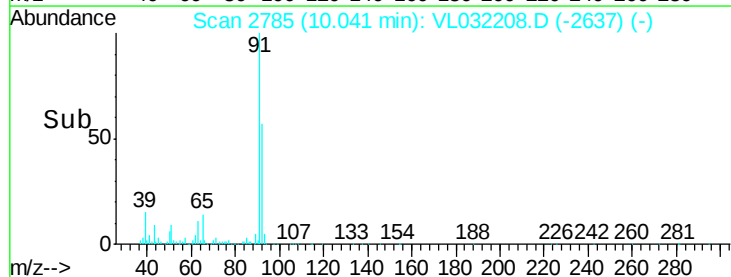
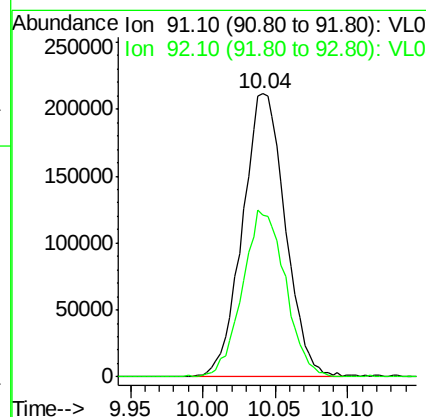
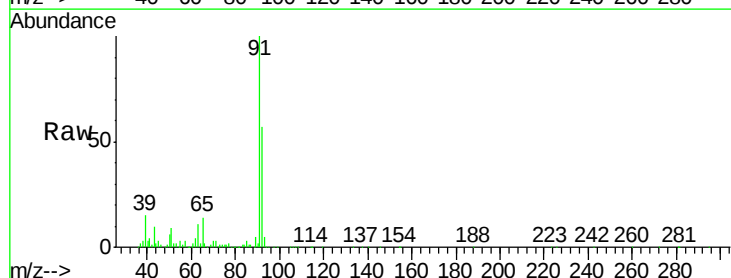
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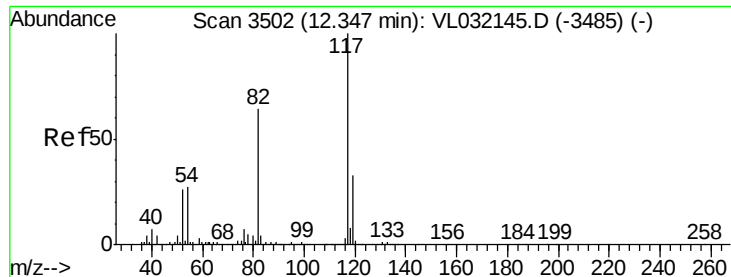
MMDadoda
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#53
Toluene
Concen: 0.93 ppbv
RT: 10.04 min Scan# 2785
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.2	49.2	73.8





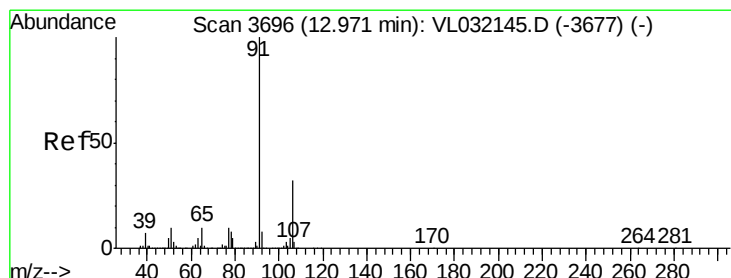
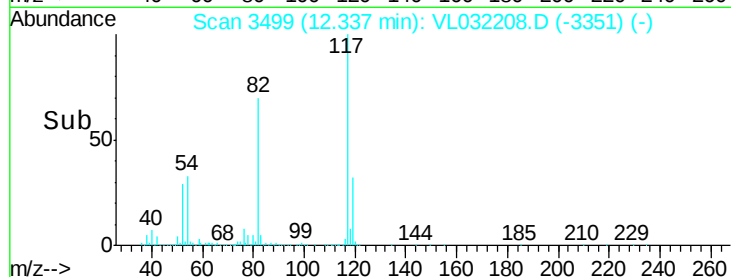
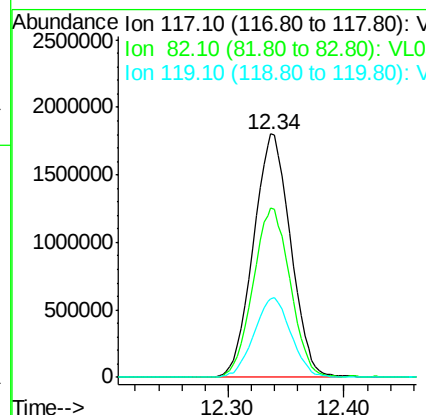
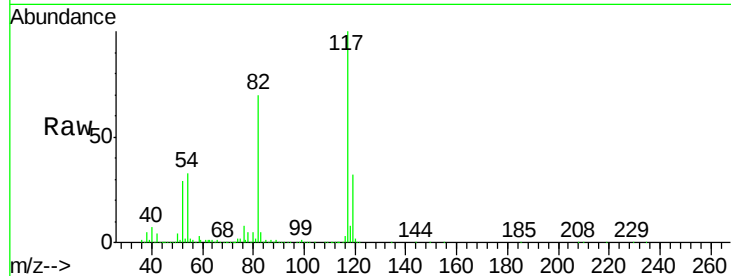
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.34 min Scan# 3499
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Instrument :
MSVOA_L
ClientSampled :
539B

Tot Ion	Ratio	Lower	Upper
117	100		
82	70.1	47.8	71.8
119	32.5	43.3	64.9

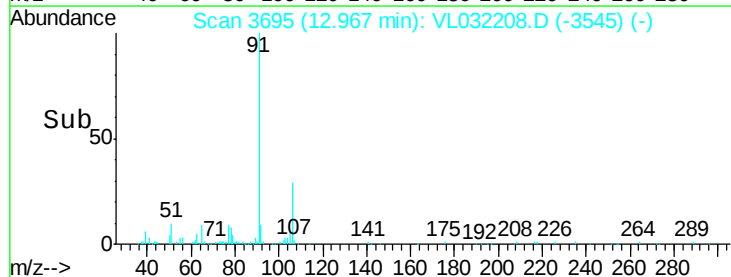
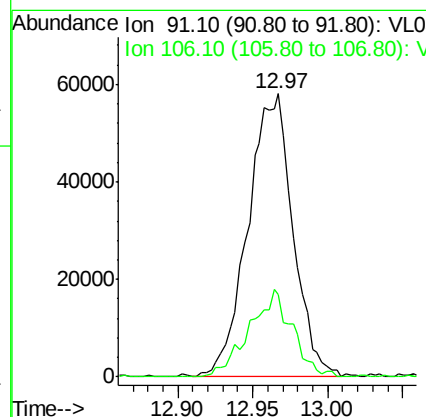
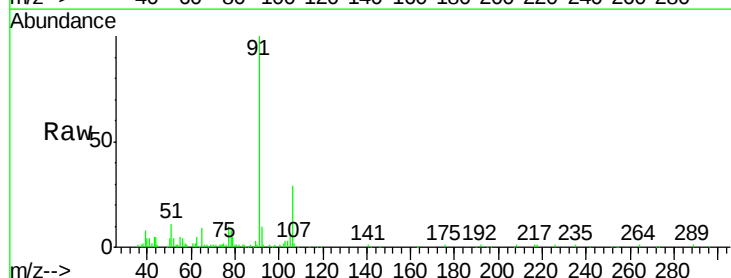
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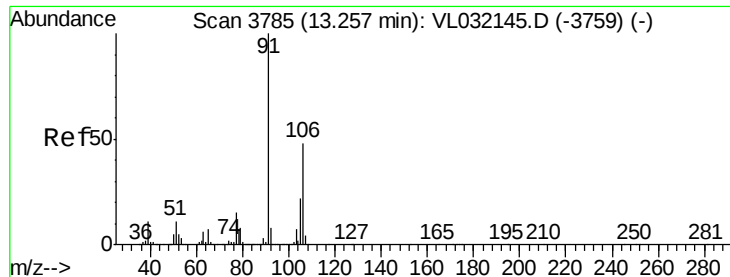
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#58
Ethyl Benzene
Concen: 0.19 ppbv m
RT: 12.97 min Scan# 3695
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Tgt Ion	Ratio	Lower	Upper
91	100		
106	29.2	26.5	39.7





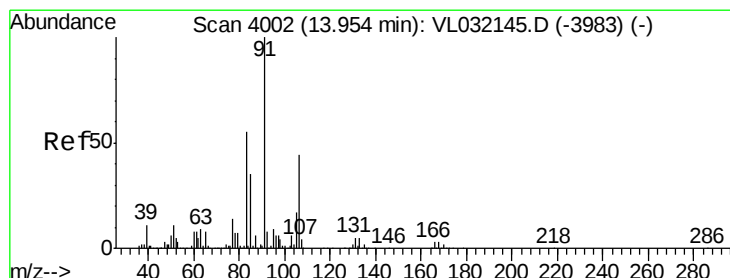
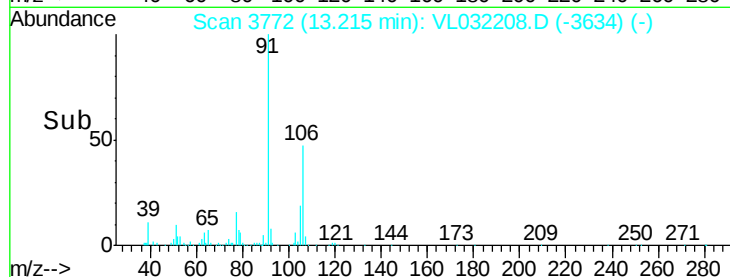
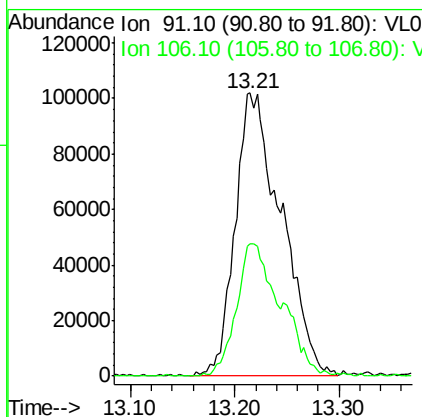
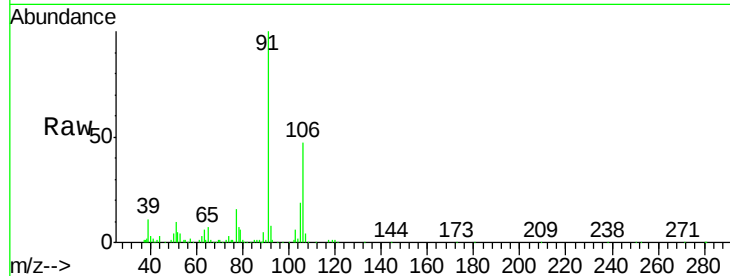
#59
m/p-Xylene
Concen: 0.60 ppbv m
RT: 13.21 min Scan# 3772
Delta R.T. -0.05 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Instrument :
MSVOA_L
ClientSampled :
539B

Tot Ion: 91 Resp: 313416
Ion Ratio Lower Upper
91 100
106 0.0 38.6 58.0#

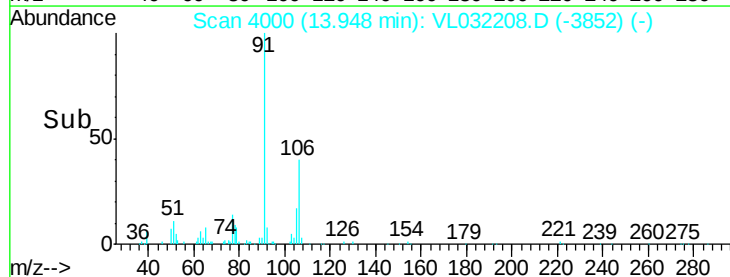
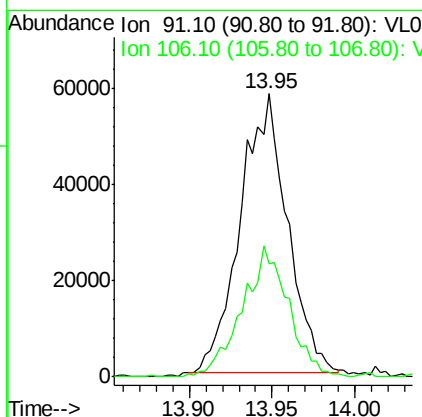
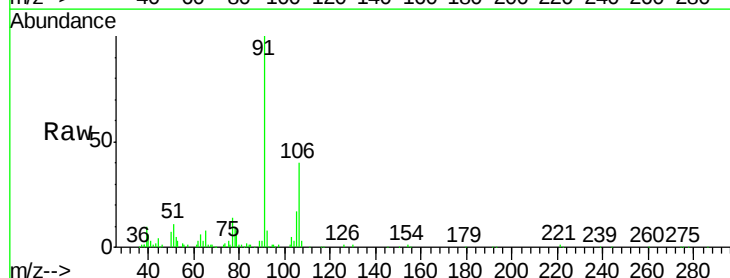
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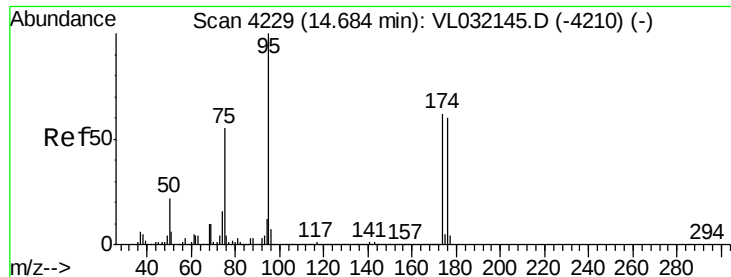
MMDadoda
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#60
o-Xylene
Concen: 0.22 ppbv
RT: 13.95 min Scan# 4000
Delta R.T. -0.02 min
Lab File: VL032208.D
Acq: 5 Jul 2018 18:06

Tgt Ion: 91 Resp: 115564
Ion Ratio Lower Upper
91 100
106 46.1 23.3 69.8





#68

1-Bromo-4-Fluorobenzene

Concen: 10.43 ppbv

RT: 14.67 min Scan# 4225

Delta R.T. -0.03 min

Lab File: VL032208.D

Acq: 5 Jul 2018 18:06

Instrument :

MSVOA_L

ClientSampled :

539B

Tot Ion: 95 Resp: 3214817

Ion Ratio Lower Upper

95 100

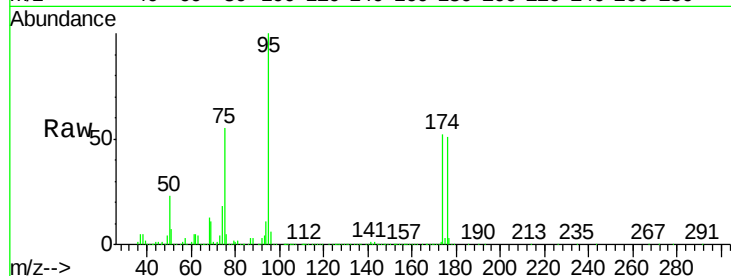
174 55.9 52.1 78.1

175 3.9 4.0 6.0#

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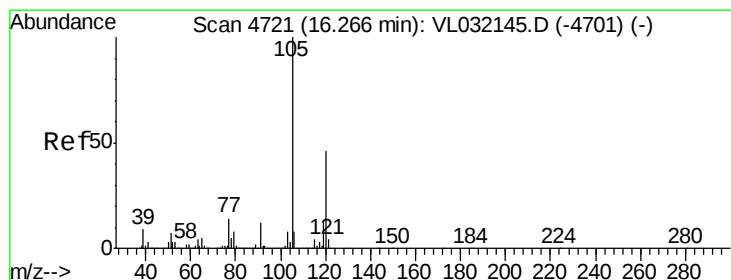
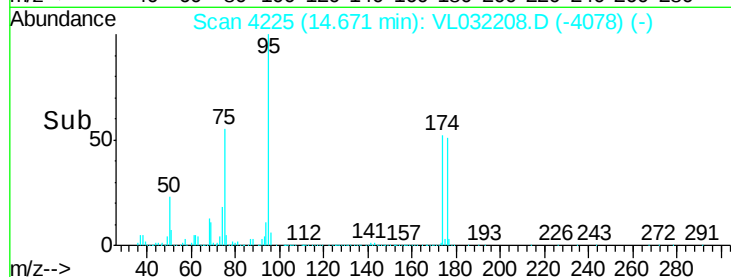
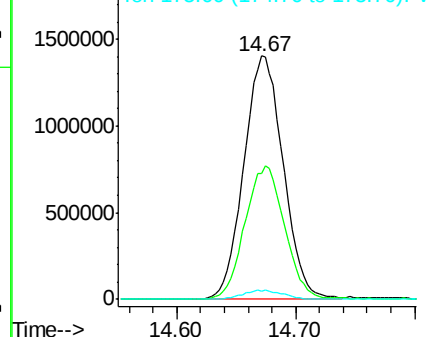
7/9/2018 10:47:32 AM



Abundance Ion 95.10 (94.80 to 95.80): VL032208.D (-4078) (-)

Ion 174.00 (173.70 to 174.70): VL032208.D (-4078) (-)

Ion 175.00 (174.70 to 175.70): VL032208.D (-4078) (-)



#73

1,3,5-Trimethylbenzene

Concen: 0.23 ppbv

RT: 16.25 min Scan# 4717

Delta R.T. -0.03 min

Lab File: VL032208.D

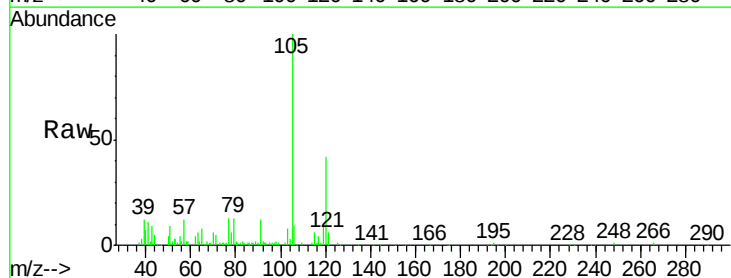
Acq: 5 Jul 2018 18:06

Tgt Ion: 105 Resp: 146449

Ion Ratio Lower Upper

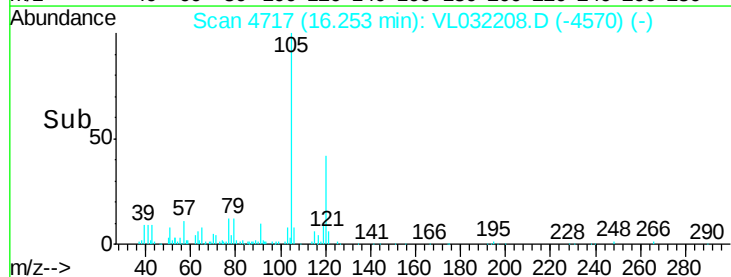
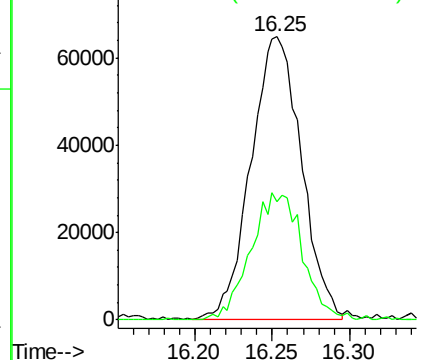
105 100

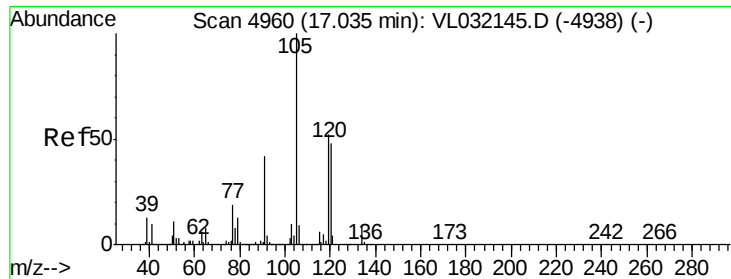
120 41.7 38.6 57.8



Abundance Ion 105.10 (104.80 to 105.80): VL032208.D (-4570) (-)

Ion 120.20 (119.90 to 120.90): VL032208.D (-4570) (-)





#74

1,2,4-Trimethylbenzene

Concen: 0.50 ppbv

RT: 17.02 min Scan# 4956

Delta R.T. -0.03 min

Lab File: VL032208.D

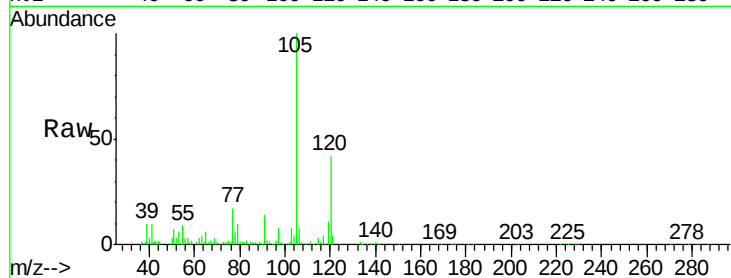
Acq: 5 Jul 2018 18:06

Instrument :

MSVOA_L

ClientSampleId :

539B



Tot Ion	Ratio	Resp Lower	Resp Upper
105	100		
120	41.5	38.8	58.2
91	13.5	33.6	50.4
77	16.8	16.0	24.0

Manual Integrations
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MMDadoda
7/9/2018 10:47:32 AM

