

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112018\
 Data File : VL032788.D
 Acq On : 20 Nov 2018 21:26
 Operator : SY/AP
 Sample : J5961-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Manual Integrations
 APPROVED

MMDadoda
 11/26/2018 9:18:49 AM

Quant Time: Nov 21 05:57:33 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 14 07:00:23 2018
 QLast Update : Wed Nov 14 07:00:23 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1327182	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3343380	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3060046	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.59	95	2274531	9.94	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	86608	0.454	ppbv	96
3) Chlorodifluoromethane	3.02	51	67078m	0.638	ppbv	
4) Chloromethane	3.18	50	26236	0.450	ppbv	93
9) Propene	3.05	41	40531m	0.963	ppbv	
11) Trichlorofluoromethane	4.01	101	38693	0.215	ppbv	98
13) Ethanol	3.66	45	937437	67.971	ppbv	99
15) Acetone	3.91	43	797263	6.578	ppbv	99
19) Isopropyl Alcohol	4.04	45	137878m	1.708	ppbv	
20) Methylene Chloride	4.42	84	164771	2.626	ppbv	91
26) Hexane	5.79	57	102682	0.817	ppbv #	54
34) 2-Butanone	5.34	43	85943	0.496	ppbv	100
35) Carbon Tetrachloride	7.15	117	15975m	0.059	ppbv	
36) Benzene	7.01	78	83178	0.312	ppbv	96
52) Tetrachloroethene	11.38	164	403388	4.356	ppbv	98
53) Toluene	9.96	91	207764	0.748	ppbv	98

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

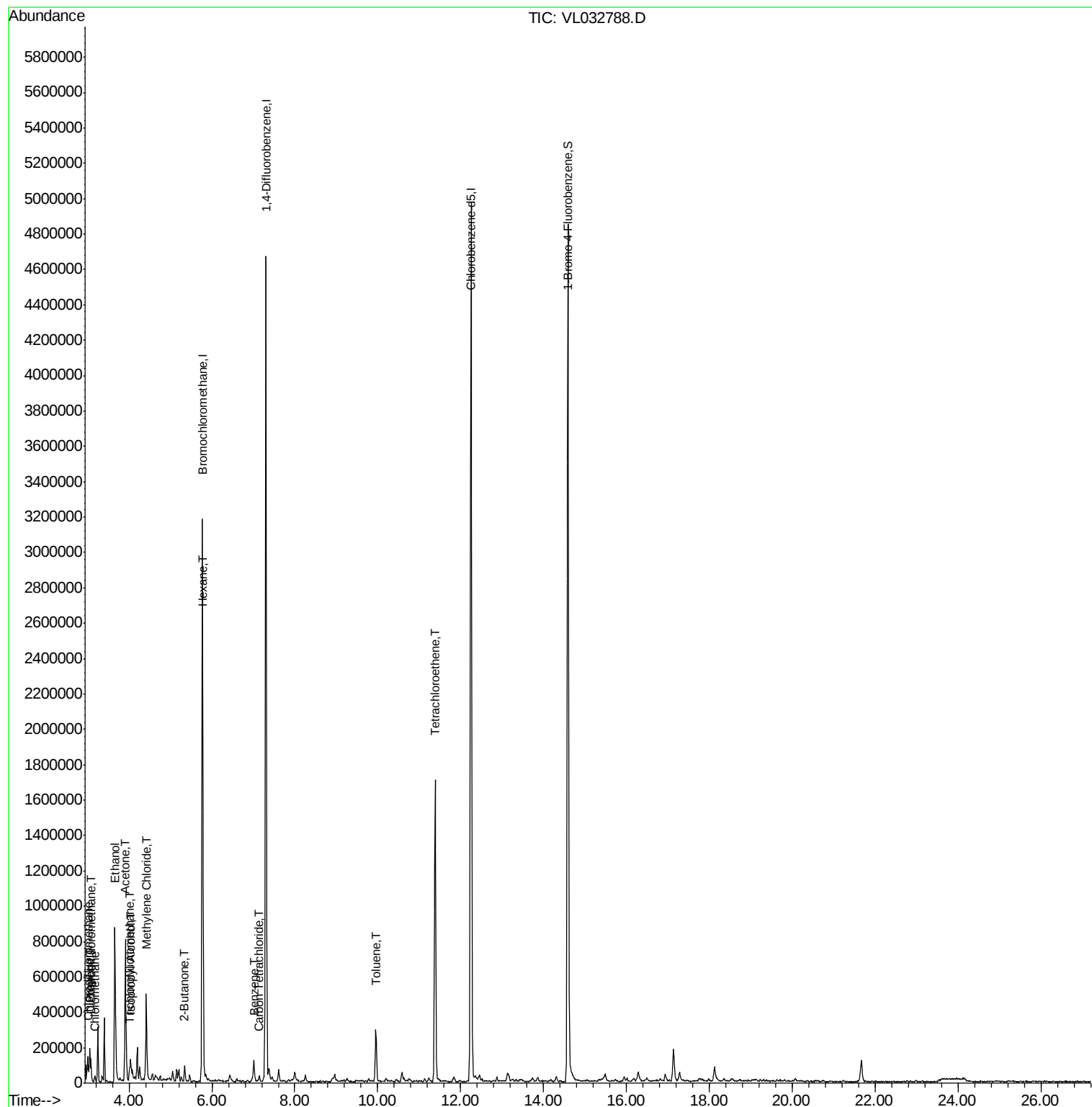
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112018\
Data File : VL032788.D
Acq On : 20 Nov 2018 21:26
Operator : SY/AP
Sample : J5961-04
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

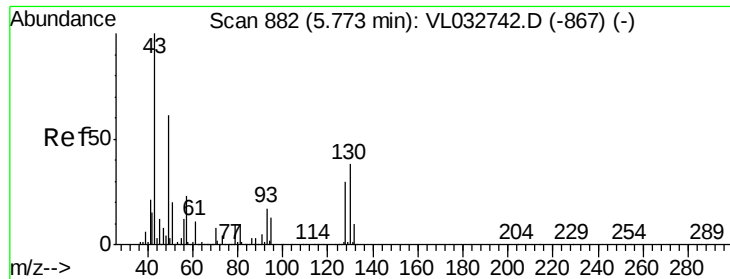
Instrument :
MSVOA_L
ClientSampleId :
OA1

Manual Integrations
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11/26/2018 9:18:49 AM

Quant Time: Nov 21 05:57:33 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov
QLast Update : Wed Nov 14 07:00:23 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampled :

QA1

Tot Ion: 49 Resp: 1327182

Ion Ratio Lower Upper

49 100

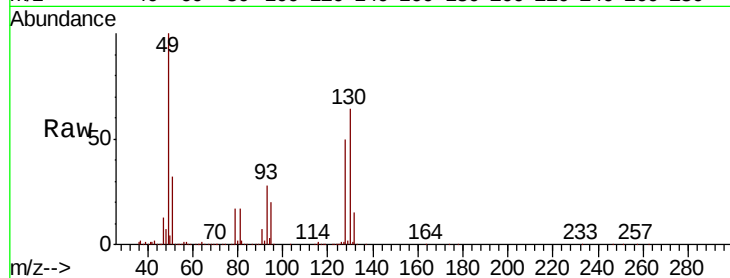
128 52.5 24.9 74.6

130 67.2 31.4 94.2

Manual Integrations
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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

800000

600000

400000

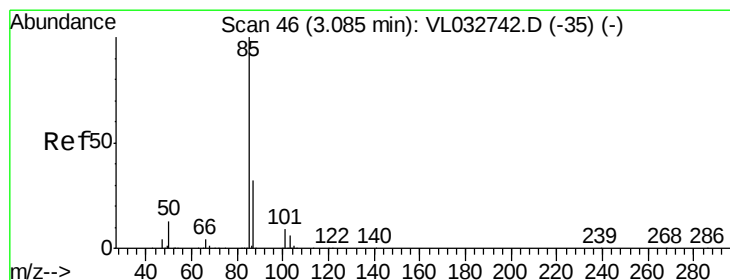
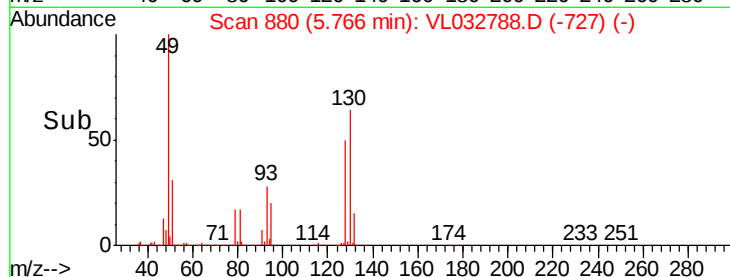
200000

0

5.77

5.70 5.75 5.80 5.85

Time-->



#2

Dichlorodifluoromethane

Concen: 0.454 ppbv

RT: 3.08 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL032788.D

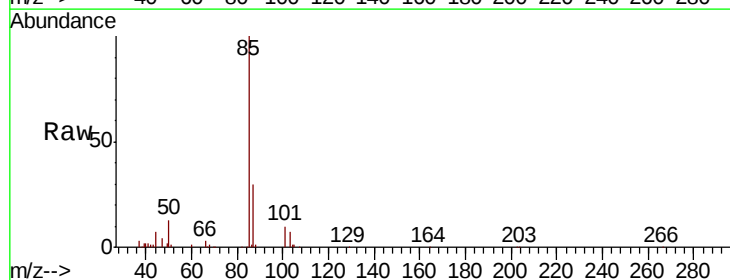
Acq: 20 Nov 2018 21:26

Tgt Ion: 85 Resp: 86608

Ion Ratio Lower Upper

85 100

87 30.0 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

80000

60000

40000

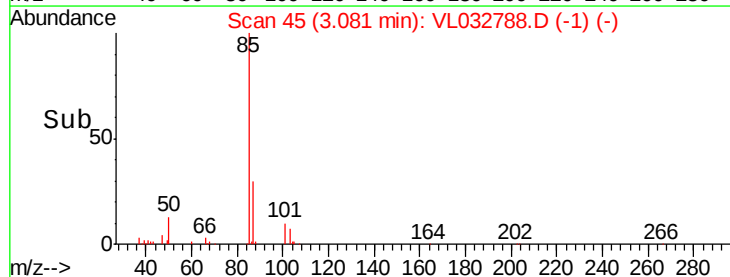
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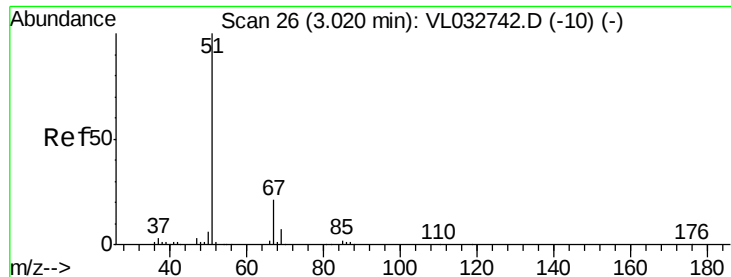
0

3.08

3.05 3.10

Time-->





#3

Chlorodifluoromethane

Concen: 0.638 ppbv

RT: 3.02 min Scan# 26

Delta R.T. -0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampleId :

QA1

Tot Ion: 51 Resp: 67078

Ion Ratio Lower Upper

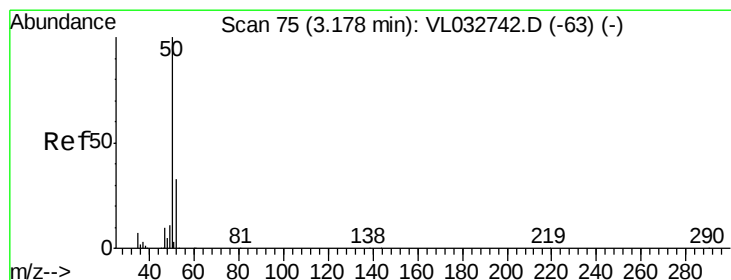
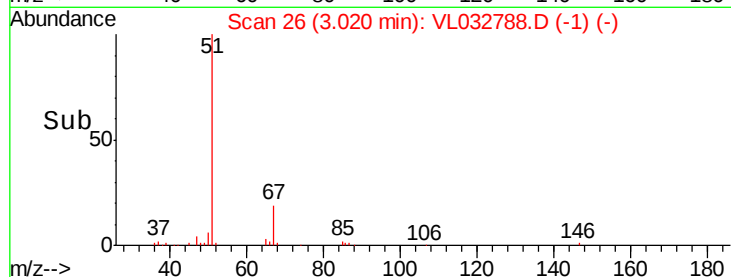
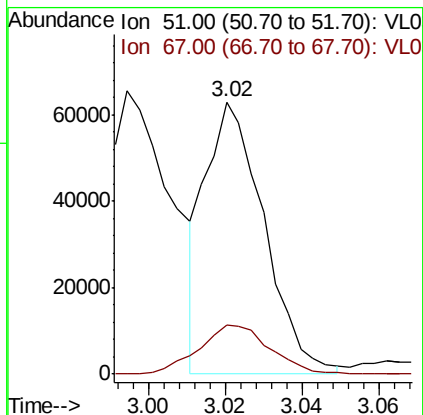
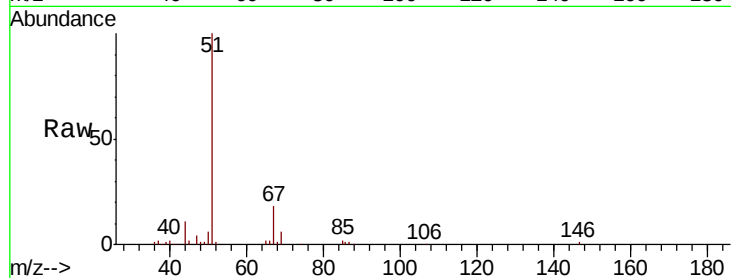
51 100

67 21.7 16.1 24.1

Manual Integrations
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#4

Chloromethane

Concen: 0.450 ppbv

RT: 3.18 min Scan# 75

Delta R.T. -0.00 min

Lab File: VL032788.D

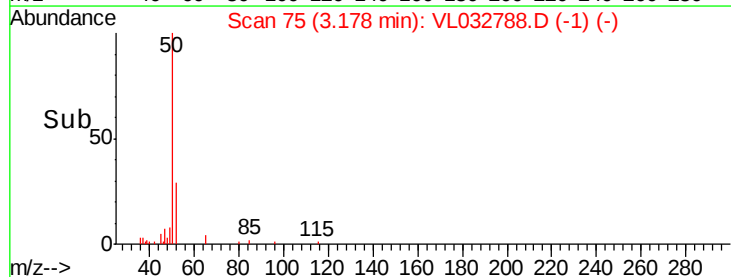
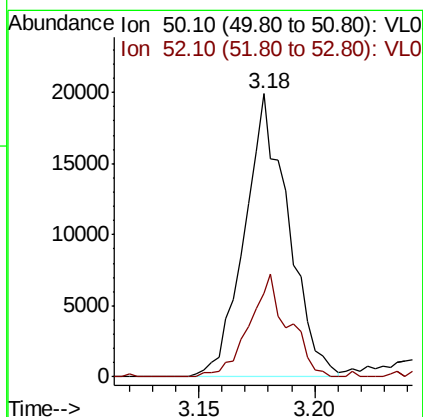
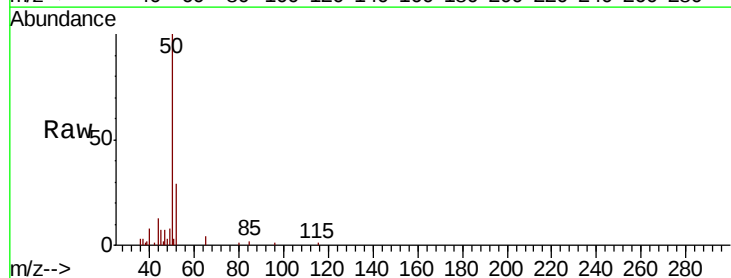
Acq: 20 Nov 2018 21:26

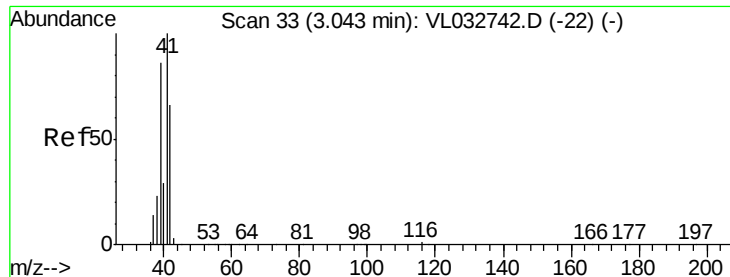
Tgt Ion: 50 Resp: 26236

Ion Ratio Lower Upper

50 100

52 29.5 26.6 40.0





#9

Propene

Concen: 0.963 ppbv m

RT: 3.05 min Scan# 36

Delta R.T. 0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampled :

QA1

Tot Ion: 41 Resp: 40531

Ion Ratio Lower Upper

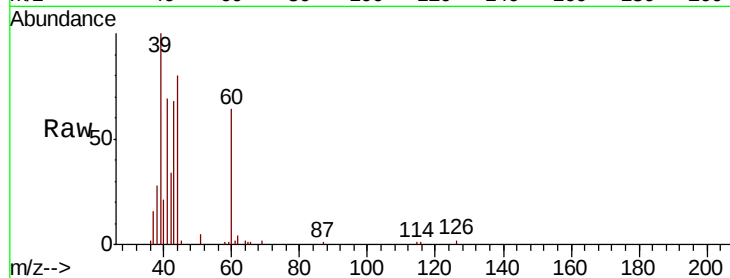
41 100

42 53.5 55.0 82.6#

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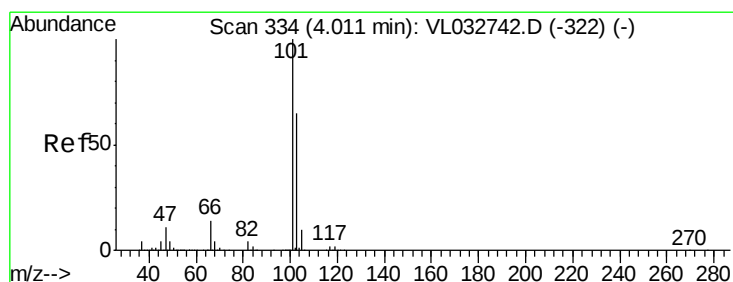
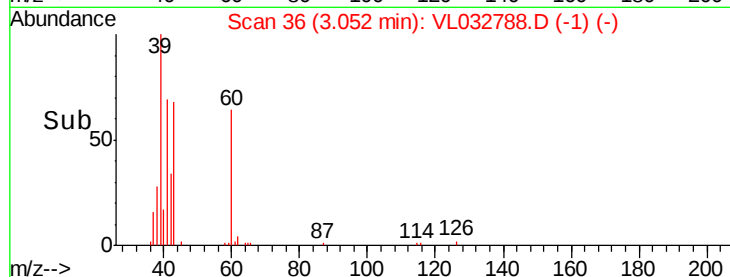
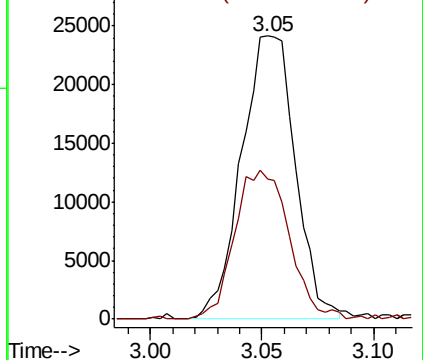
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.215 ppbv

RT: 4.01 min Scan# 335

Delta R.T. 0.00 min

Lab File: VL032788.D

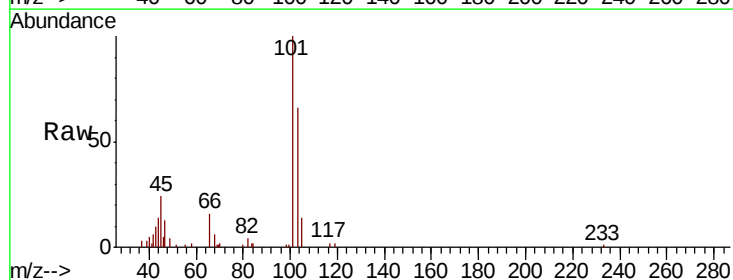
Acq: 20 Nov 2018 21:26

Tgt Ion: 101 Resp: 38693

Ion Ratio Lower Upper

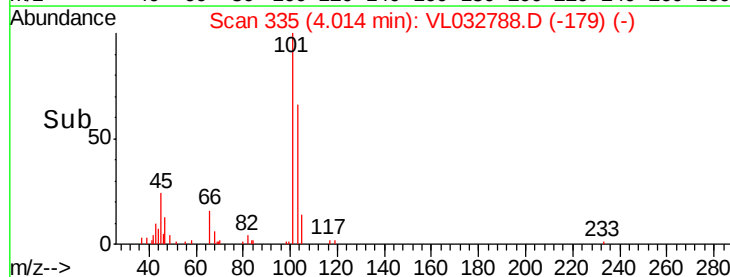
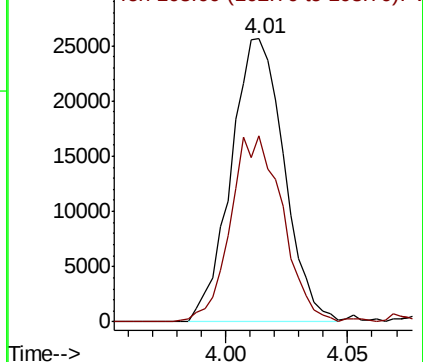
101 100

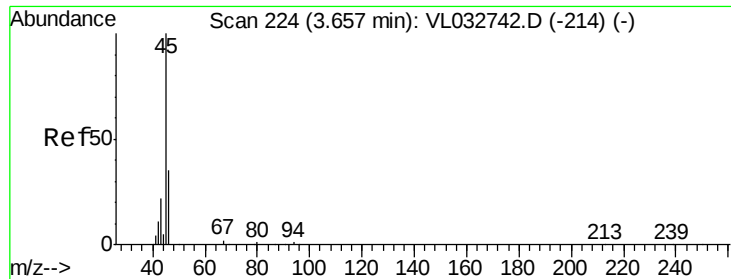
103 65.8 51.6 77.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





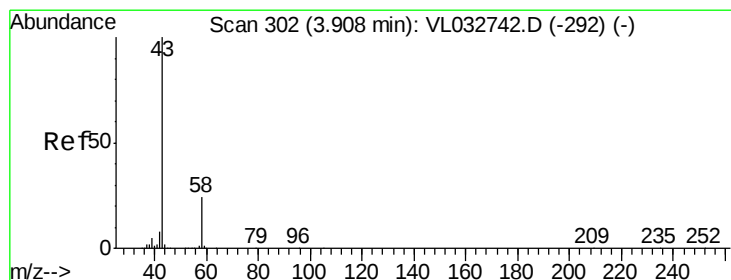
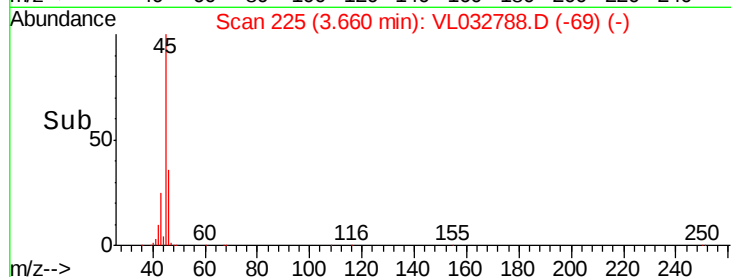
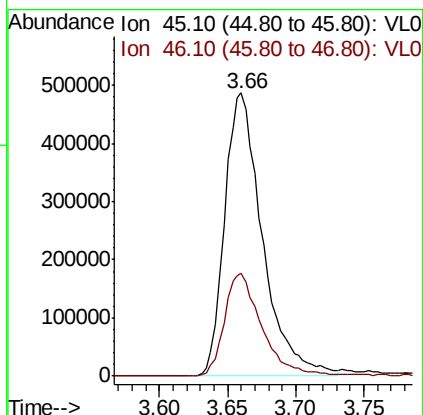
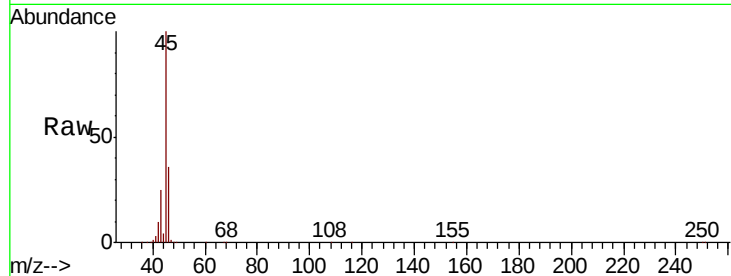
#13
Ethanol
Concen: 67.971 ppbv
RT: 3.66 min Scan# 225
Delta R.T. 0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Instrument :
MSVOA_L
ClientSampled :
QA1

Tot Ion: 45 Resp: 937437
Ion Ratio Lower Upper
45 100
46 36.9 14.5 57.9

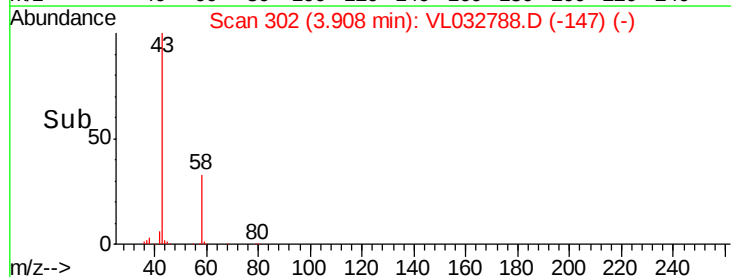
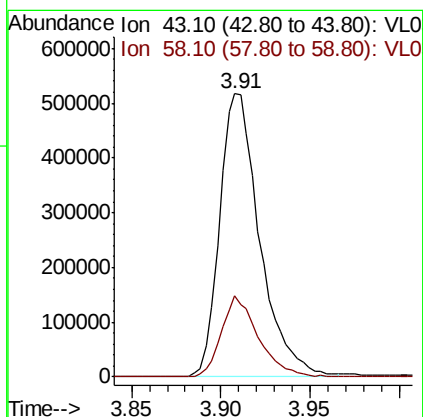
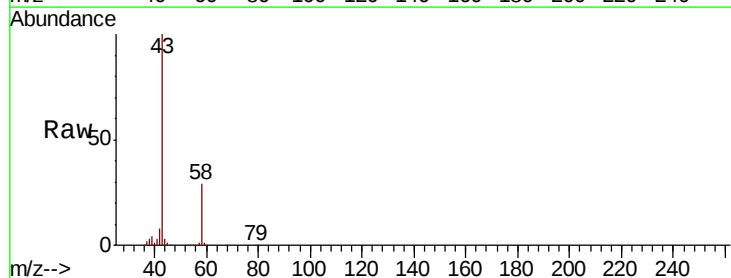
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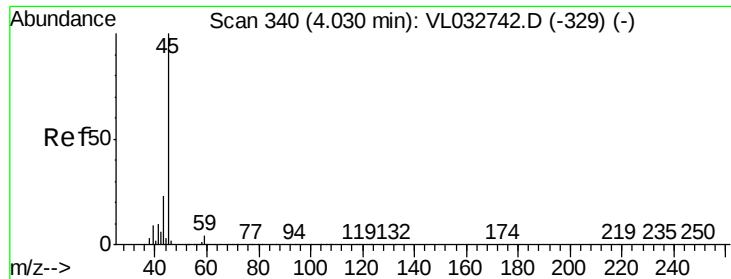
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#15
Acetone
Concen: 6.578 ppbv
RT: 3.91 min Scan# 302
Delta R.T. -0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Tgt Ion: 43 Resp: 797263
Ion Ratio Lower Upper
43 100
58 27.0 21.1 31.7





#19

Isopropyl Alcohol

Concen: 1.708 ppbv m

RT: 4.04 min Scan# 343

Delta R.T. 0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampleId :

QA1

Tot Ion: 45 Resp: 137878

Ion Ratio Lower Upper

45 100

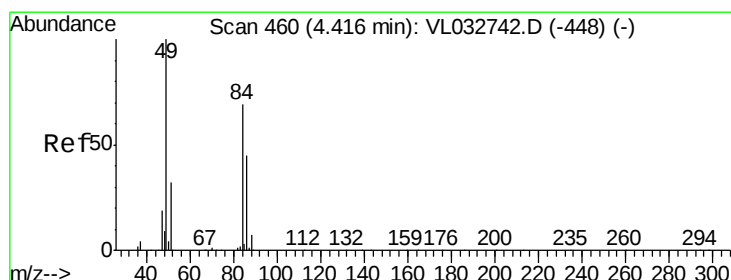
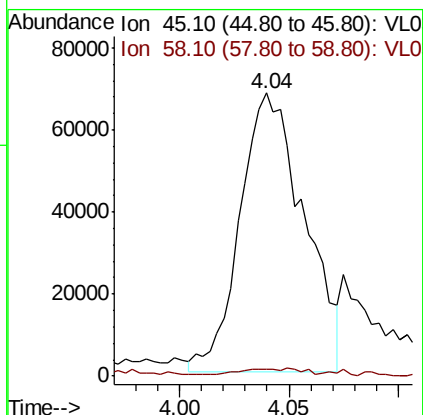
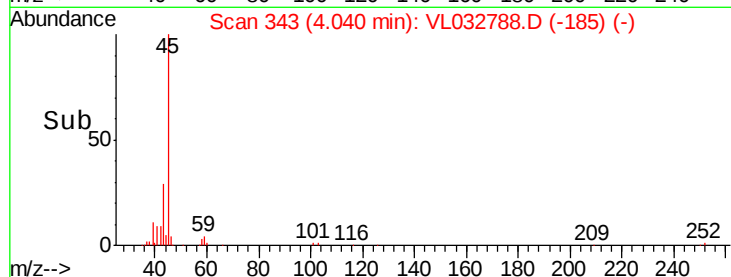
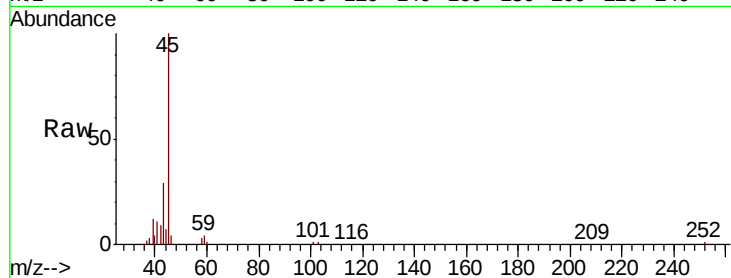
58 0.0 1.4 2.0#

Manual Integrations

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#20

Methylene Chloride

Concen: 2.626 ppbv

RT: 4.42 min Scan# 461

Delta R.T. 0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Tgt Ion: 84 Resp: 164771

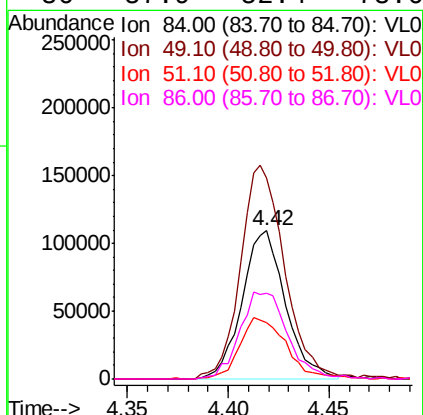
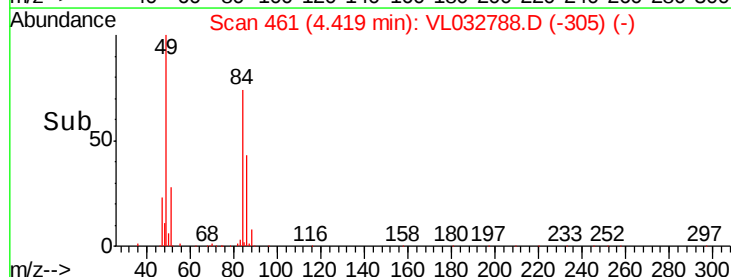
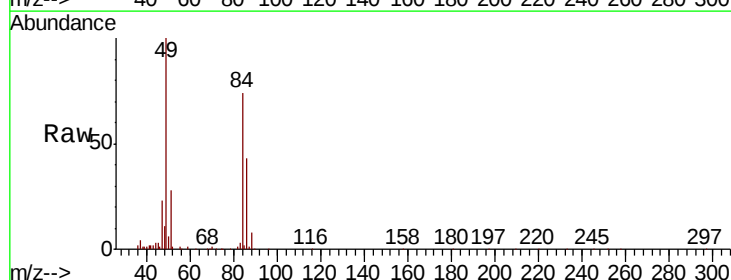
Ion Ratio Lower Upper

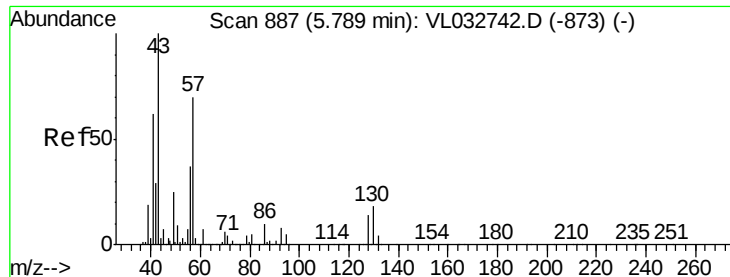
84 100

49 135.5 115.8 173.6

51 38.3 36.9 55.3

86 57.9 52.4 78.6





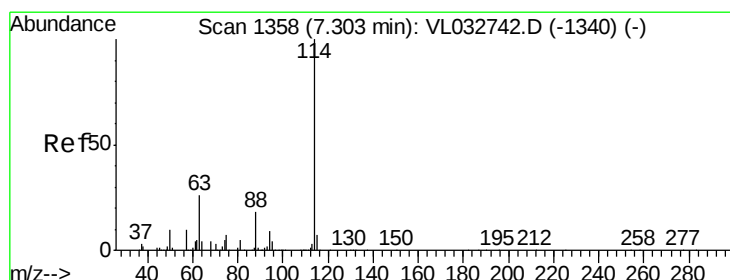
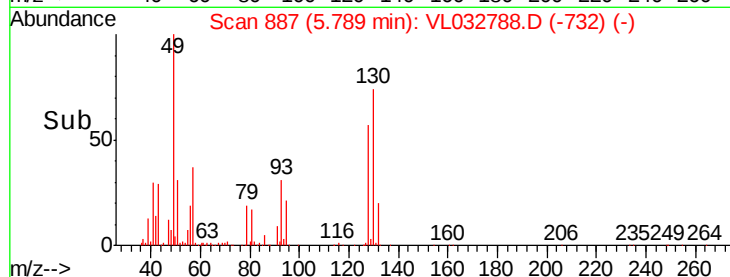
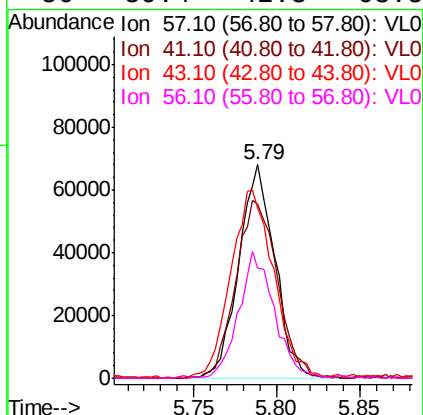
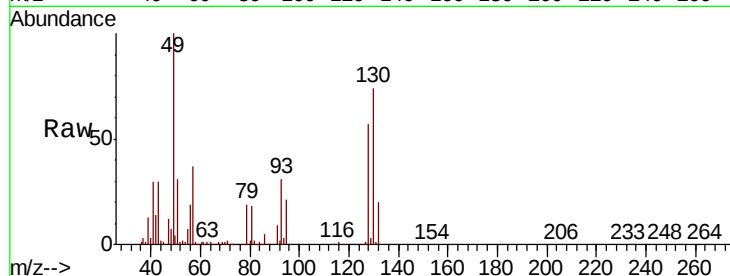
#26
Hexane
Concen: 0.817 ppbv
RT: 5.79 min Scan# 887
Delta R.T. -0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Instrument :
MSVOA_L
ClientSampleID :
QA1

Tot Ion	Ratio	Lower	Upper
57	100		
41	96.5	70.3	105.5
43	105.1	174.0	261.0#
56	59.4	42.3	63.5

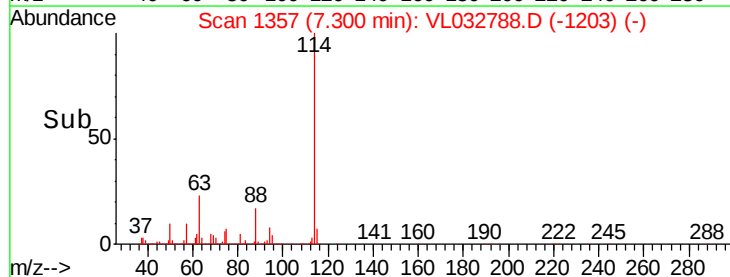
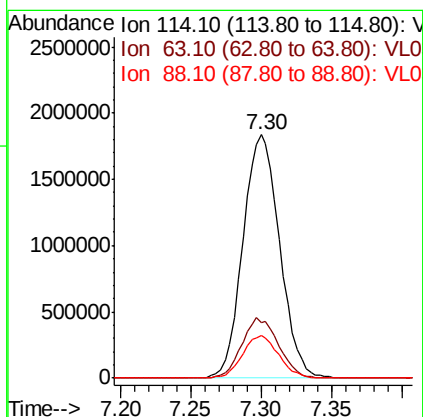
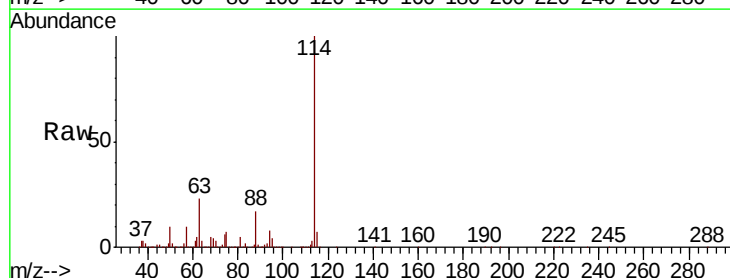
Manual Integrations
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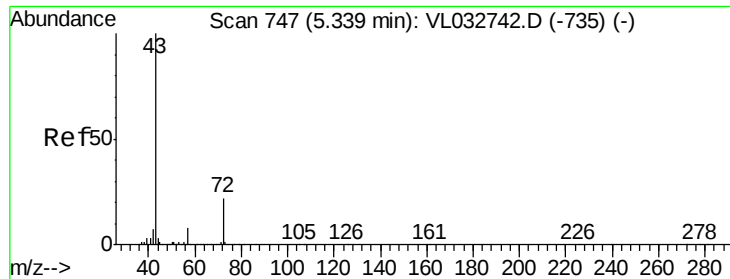
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.30 min Scan# 1357
Delta R.T. -0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Tgt Ion	Ratio	Lower	Upper
114	100		
63	24.8	20.9	31.3
88	17.3	14.4	21.6





#34

2-Butanone

Concen: 0.496 ppbv

RT: 5.34 min Scan# 748

Delta R.T. 0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampled :

QA1

Tot Ion: 43 Resp: 85943

Ion Ratio Lower Upper

43 100

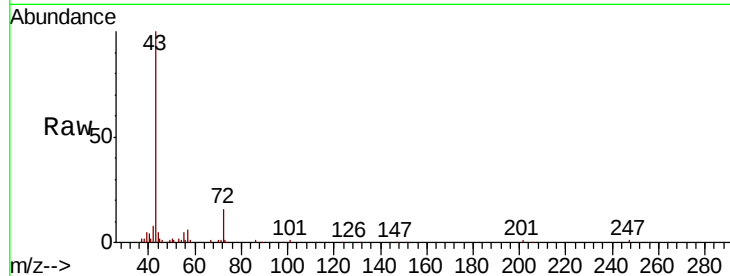
72 23.0 18.4 27.6

Manual Integrations

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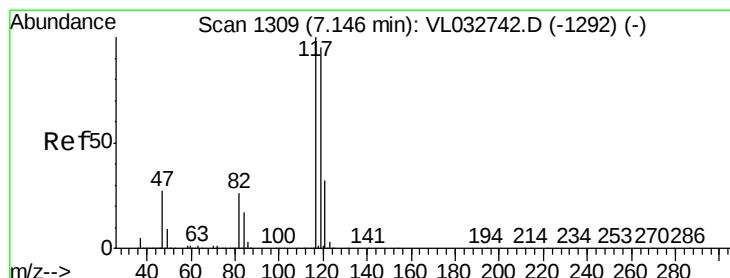
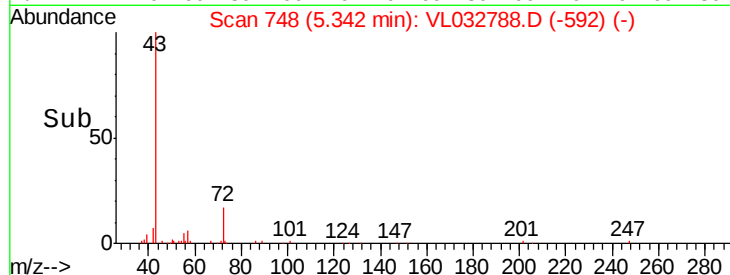
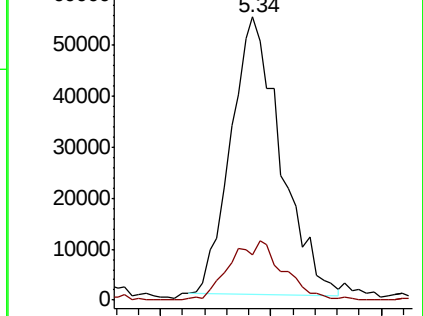
MMDadoda

11/26/2018 9:18:49 AM



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.059 ppbv m

RT: 7.15 min Scan# 1309

Delta R.T. -0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

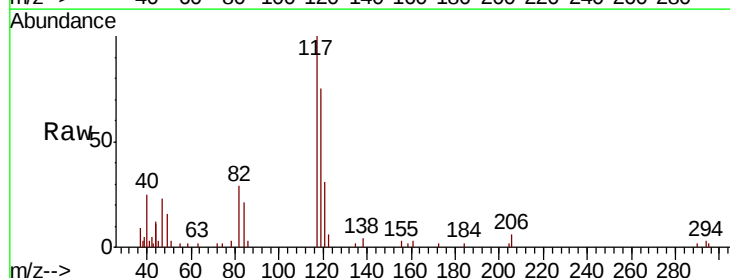
Tgt Ion: 117 Resp: 15975

Ion Ratio Lower Upper

117 100

119 75.3 76.1 114.1#

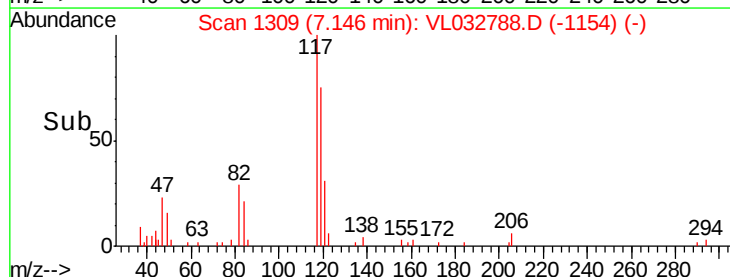
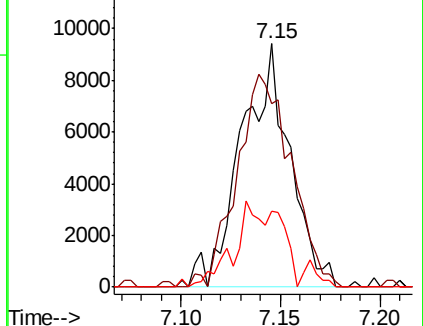
121 31.0 25.4 38.0

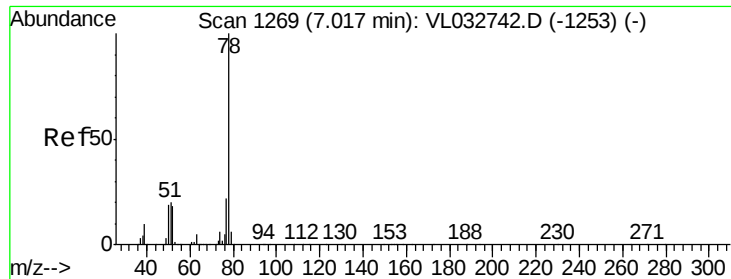


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





#36

Benzene

Concen: 0.312 ppbv

RT: 7.01 min Scan# 1266

Delta R.T. -0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

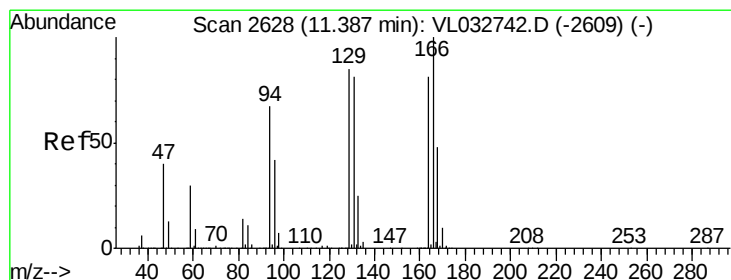
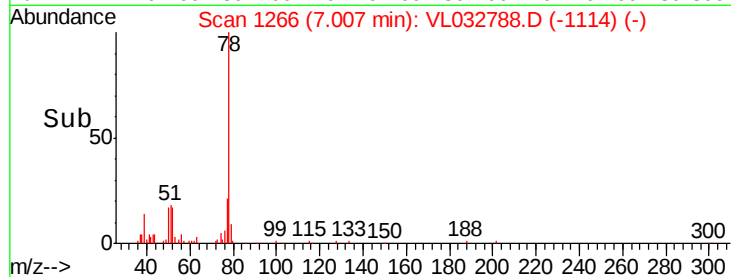
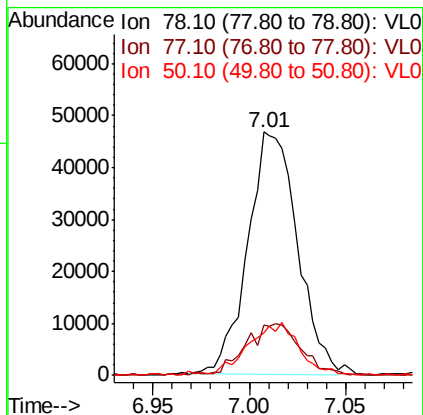
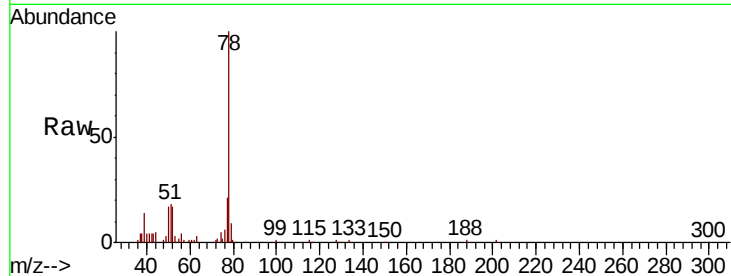
ClientSampleId :

QA1

Tot Ion:	78	Resp:	83178
Ion Ratio	Lower	Upper	
78	100		
77	21.0	17.8	26.8
50	16.4	15.4	23.0

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#52

Tetrachloroethene

Concen: 4.356 ppbv

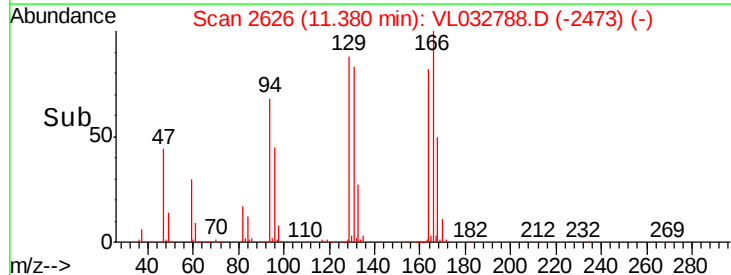
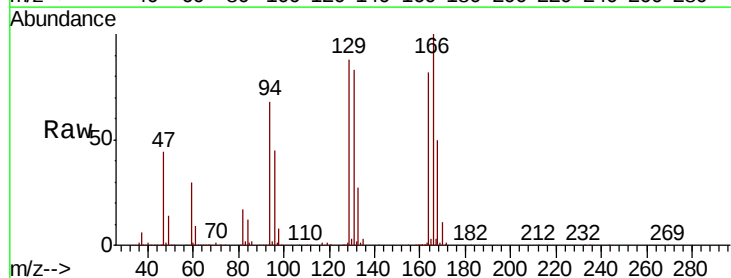
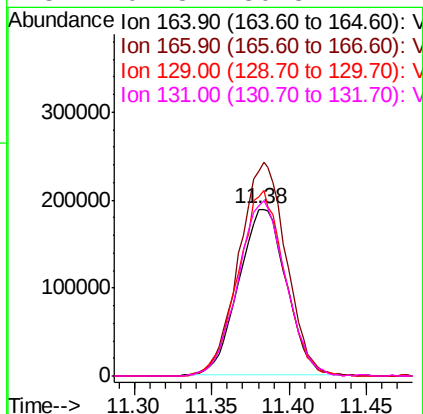
RT: 11.38 min Scan# 2626

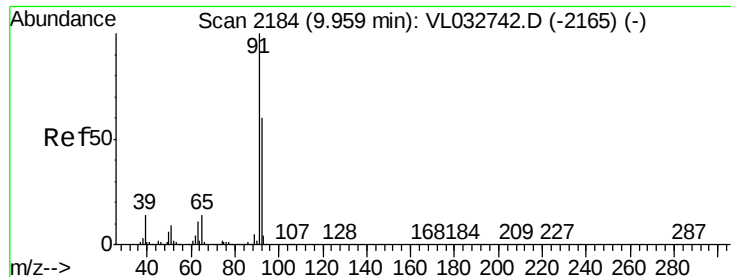
Delta R.T. -0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Tgt Ion:	164	Resp:	403388
Ion Ratio	Lower	Upper	
164	100		
166	122.6	99.3	148.9
129	107.7	83.9	125.9
131	101.8	80.8	121.2





#53

Toluene

Concen: 0.748 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. -0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampleId :

QA1

Tot Ion: 91 Resp: 207764

Ion Ratio Lower Upper

91 100

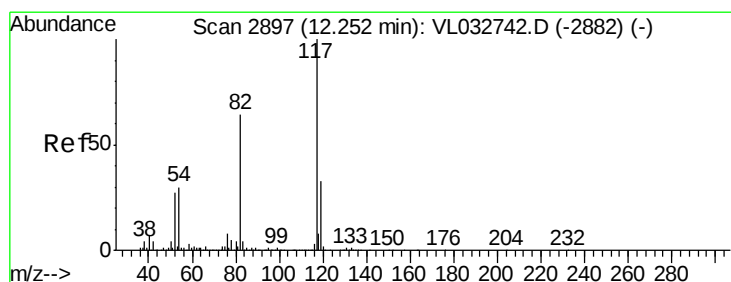
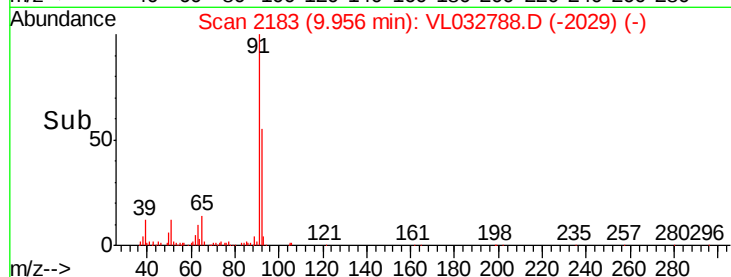
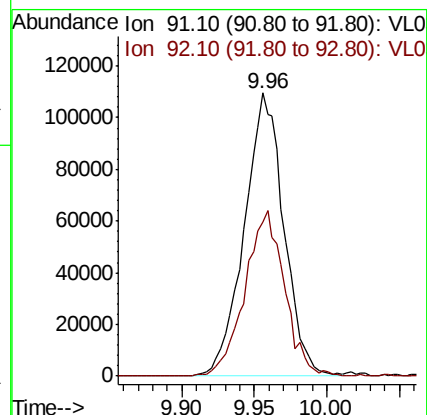
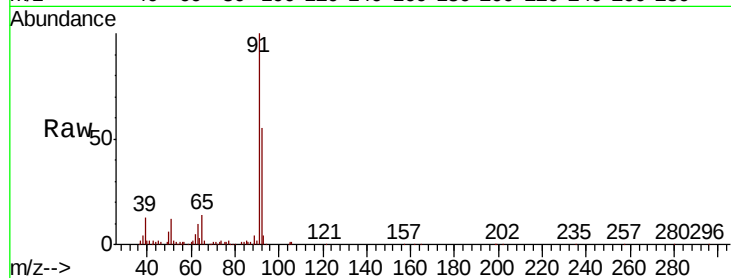
92 58.5 47.9 71.9

Manual Integrations

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2896

Delta R.T. -0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

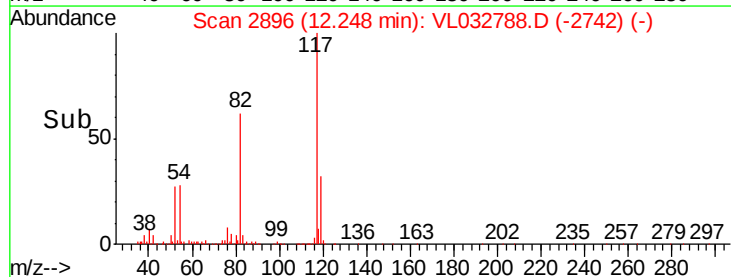
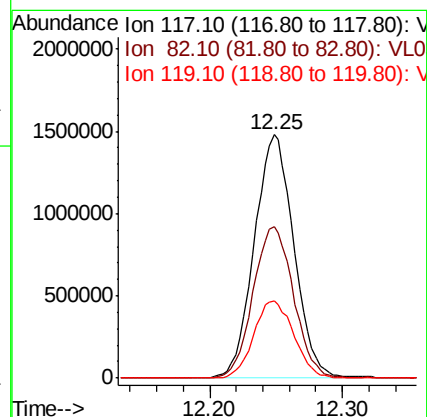
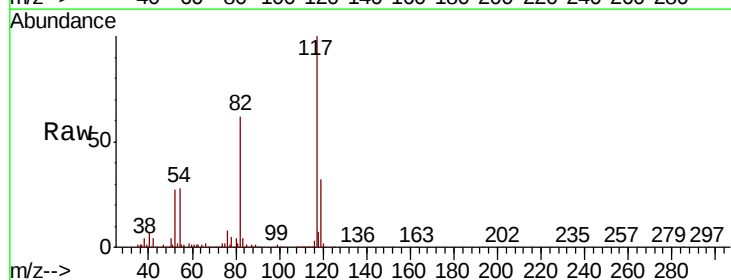
Tgt Ion: 117 Resp: 3060046

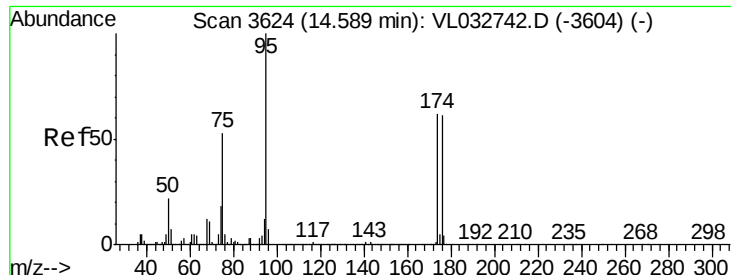
Ion Ratio Lower Upper

117 100

82 64.2 51.0 76.6

119 32.7 28.0 42.0





#68

1-Bromo-4-Fluorobenzene

Concen: 9.938 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampleId :

QA1

Tot Ion: 95 Resp: 2274531

Ion Ratio Lower Upper

95 100

174 66.9 50.7 76.1

175 4.9 3.8 5.6

Manual Integrations
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