

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\
 Data File : VL033548.D
 Acq On : 5 Apr 2019 00:53
 Operator : SY/AP
 Sample : K2211-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA2-DUP

Manual Integrations
 APPROVED

MMDadoda
 4/8/2019 3:22:26 AM

Quant Time: Apr 05 03:30:14 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 2
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	962710	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1961368	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2375404	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1988414	10.68	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	75399	0.537	ppbv	90
3) Chlorodifluoromethane	3.01	51	33958m	0.306	ppbv	
4) Chloromethane	3.17	50	27187	0.464	ppbv	98
9) Propene	3.05	41	70324m	1.511	ppbv	
11) Trichlorofluoromethane	4.00	101	37514	0.217	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.55	101	7717	0.066	ppbv	91
13) Ethanol	3.70	45	19157253m	1590.539	ppbv	
15) Acetone	3.90	43	1021158m	8.822	ppbv	
20) Methylene Chloride	4.41	84	255196	5.194	ppbv	96
26) Hexane	5.78	57	200572	2.100	ppbv #	48
34) 2-Butanone	5.33	43	28633	0.243	ppbv	98
36) Benzene	7.00	78	32229	0.196	ppbv	96
44) 2,2,4-Trimethylpentane	7.99	57	35077m	0.122	ppbv	
52) Tetrachloroethene	11.37	164	40278m	0.649	ppbv	
53) Toluene	9.94	91	1821124	9.523	ppbv	100

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

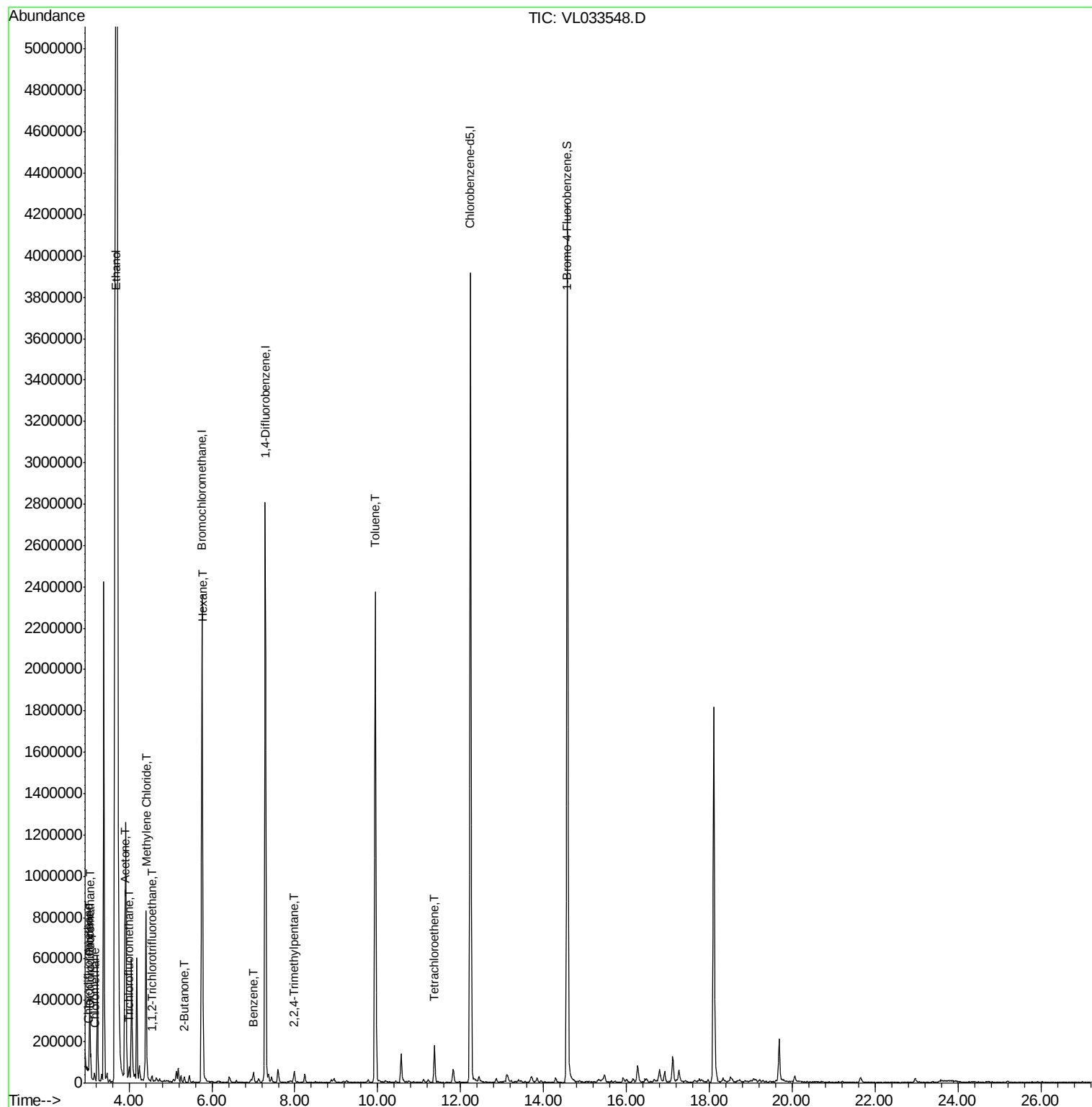
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040419\
Data File : VL033548.D
Acq On : 5 Apr 2019 00:53
Operator : SY/AP
Sample : K2211-02
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

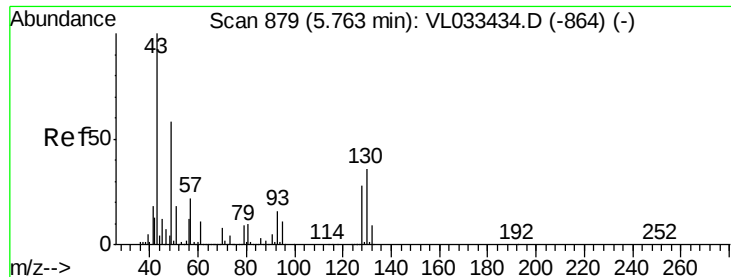
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

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4/8/2019 3:22:26 AM

Quant Time: Apr 05 03:30:14 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

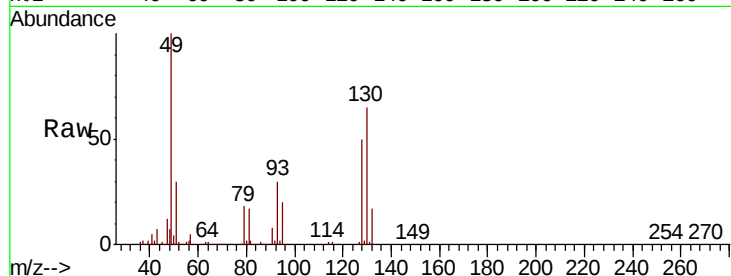
ClientSampleId :

LIHA-IA2-DUP

Tot Ion:	49	Resp:	962710
Ion	Ratio	Lower	Upper
49	100		
128	48.9	24.0	72.0
130	63.7	31.2	93.6

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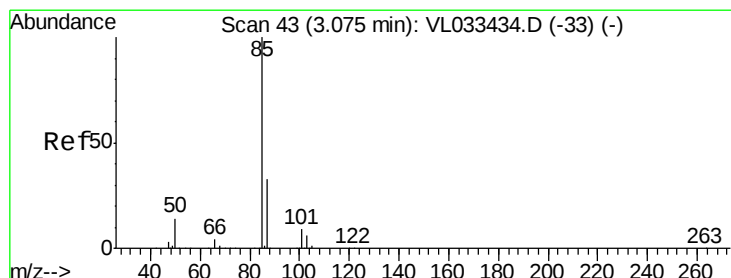
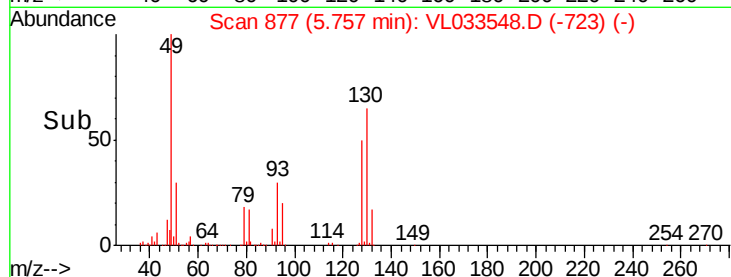
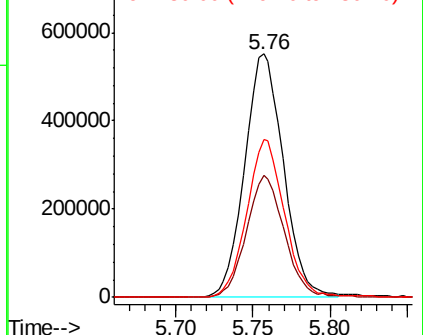
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.537 ppbv

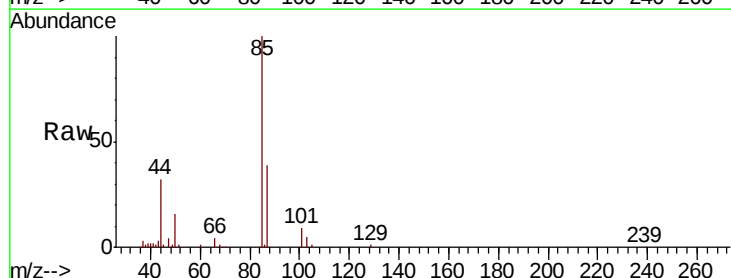
RT: 3.08 min Scan# 43

Delta R.T. 0.00 min

Lab File: VL033548.D

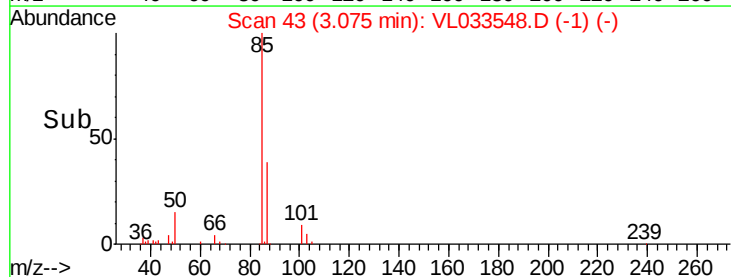
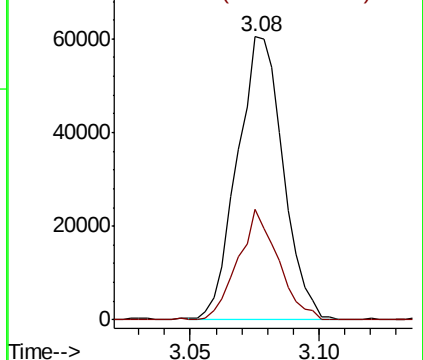
Acq: 5 Apr 2019 00:53

Tgt Ion:	85	Resp:	75399
Ion	Ratio	Lower	Upper
85	100		
87	39.1	26.7	40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.306 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tot Ion: 51 Resp: 33958

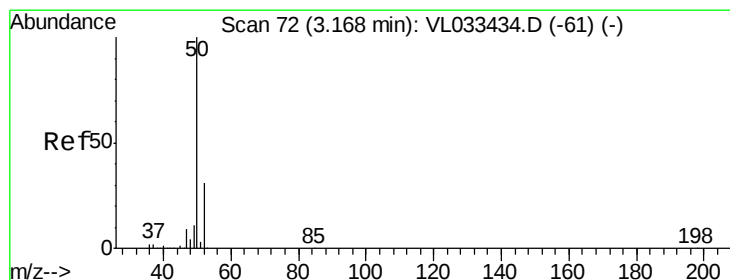
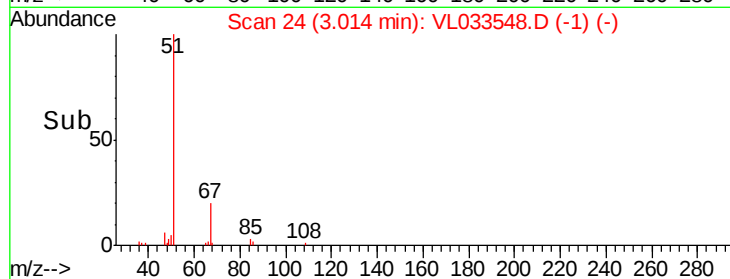
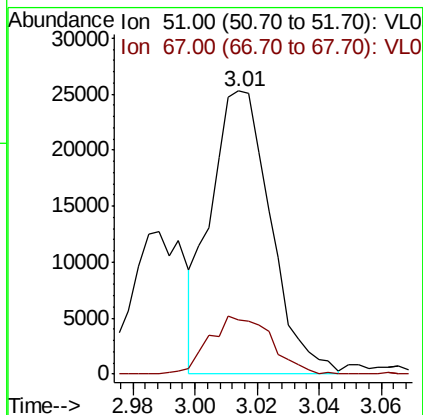
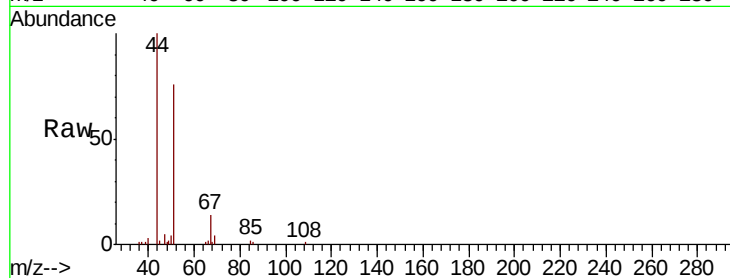
Ion Ratio Lower Upper

51 100

67 21.1 15.7 23.5

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#4

Chloromethane

Concen: 0.464 ppbv

RT: 3.17 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL033548.D

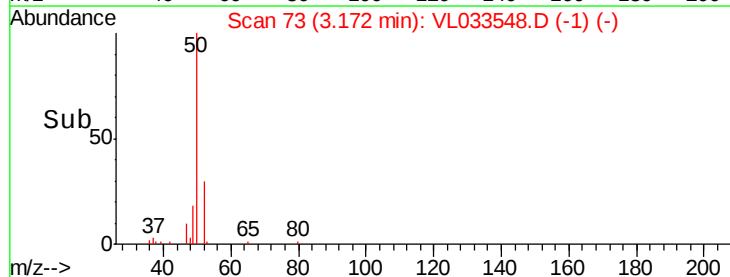
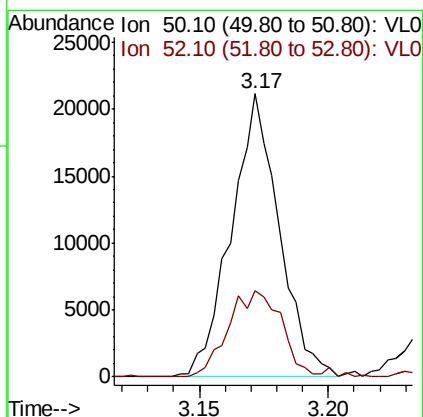
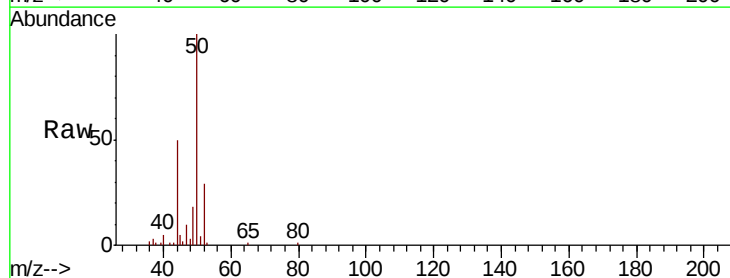
Acq: 5 Apr 2019 00:53

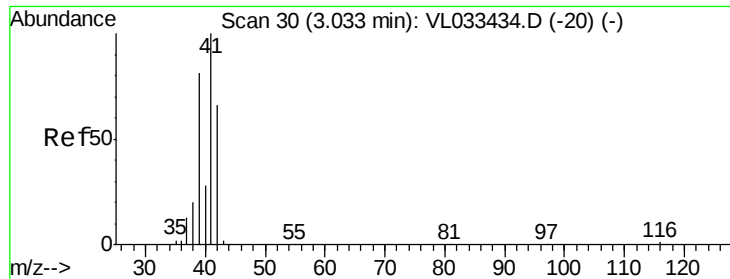
Tgt Ion: 50 Resp: 27187

Ion Ratio Lower Upper

50 100

52 30.3 25.0 37.6





#9

Propene

Concen: 1.511 ppbv m

RT: 3.05 min Scan# 35

Delta R.T. 0.02 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tot Ion: 41 Resp: 70324

Ion Ratio Lower Upper

41 100

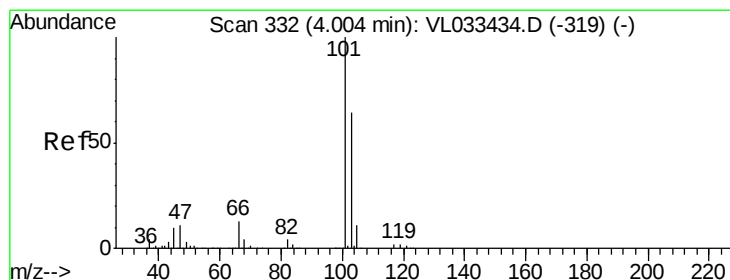
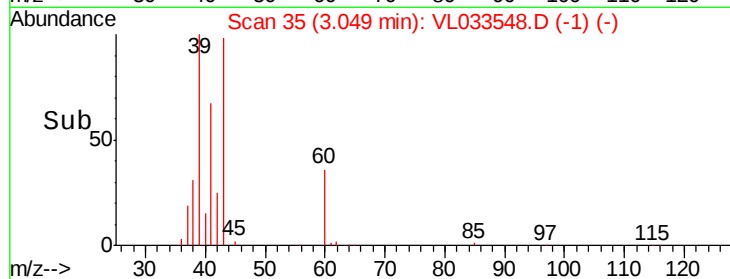
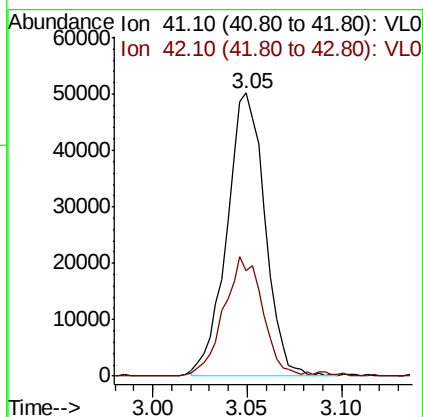
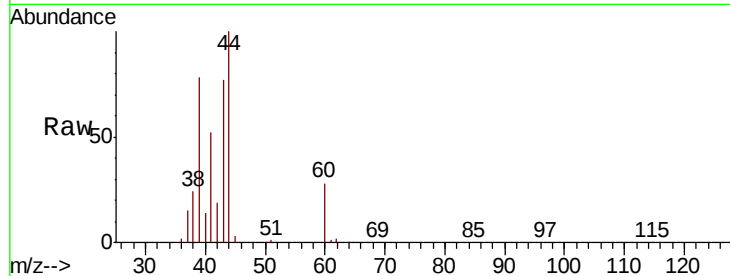
42 147.0 53.9 80.9#

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#11

Trichlorofluoromethane

Concen: 0.217 ppbv

RT: 4.00 min Scan# 332

Delta R.T. 0.00 min

Lab File: VL033548.D

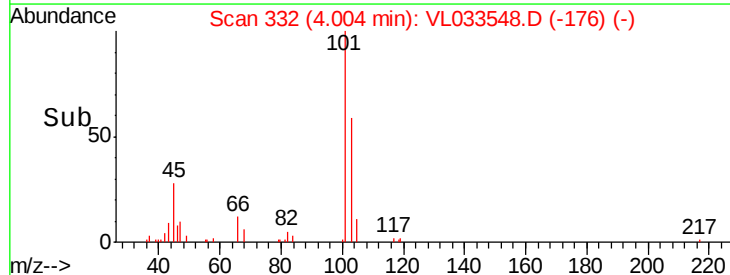
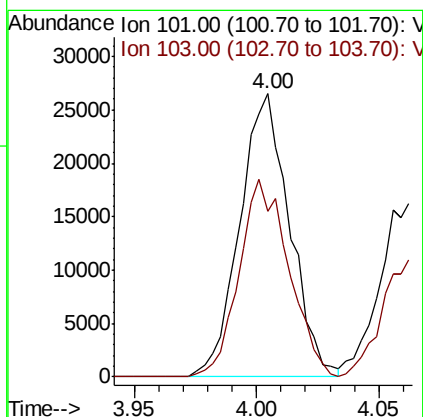
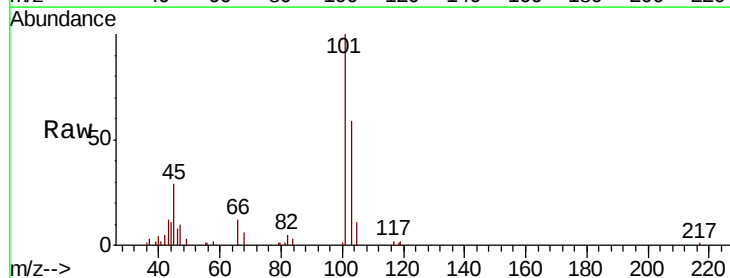
Acq: 5 Apr 2019 00:53

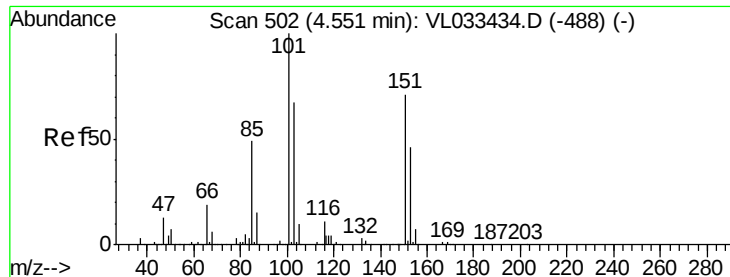
Tgt Ion: 101 Resp: 37514

Ion Ratio Lower Upper

101 100

103 58.5 51.3 76.9





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.066 ppbv

RT: 4.55 min Scan# 503

Delta R.T. 0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tot Ion:101 Resp: 7717

Ion Ratio Lower Upper

101 100

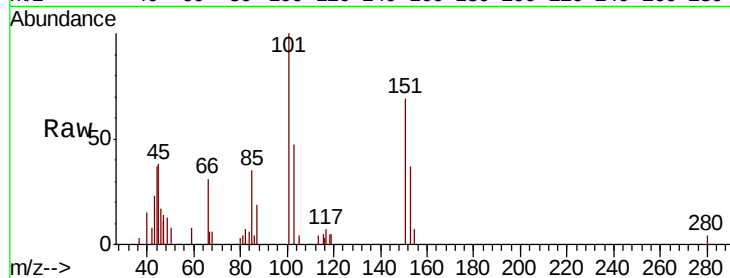
151 79.6 57.7 86.5

Manual Integrations

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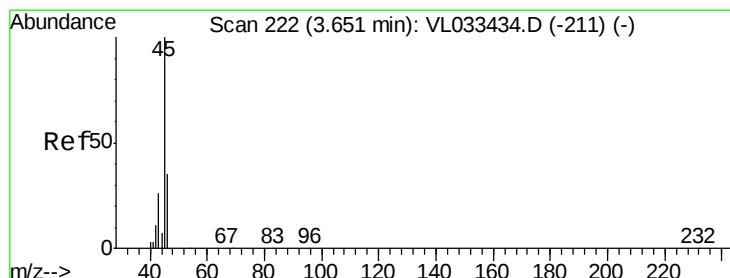
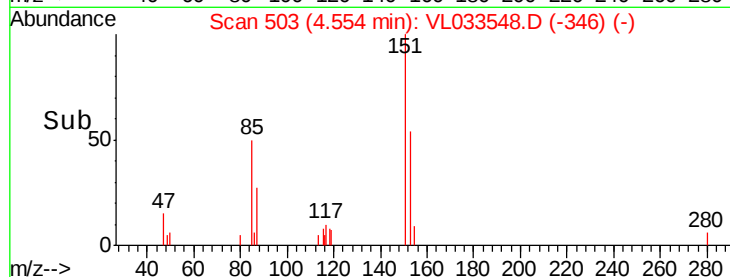
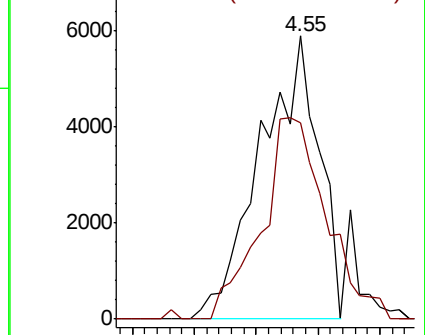
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Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 1590.539 ppbv m

RT: 3.70 min Scan# 237

Delta R.T. 0.05 min

Lab File: VL033548.D

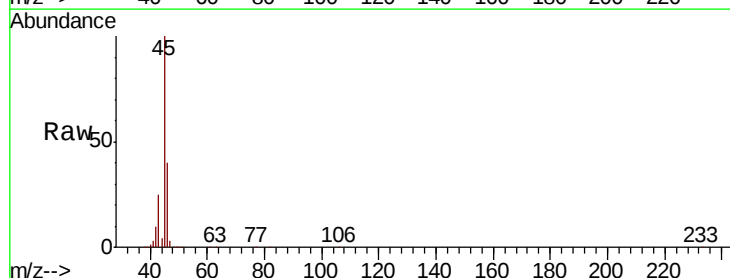
Acq: 5 Apr 2019 00:53

Tgt Ion: 45 Resp:19157253

Ion Ratio Lower Upper

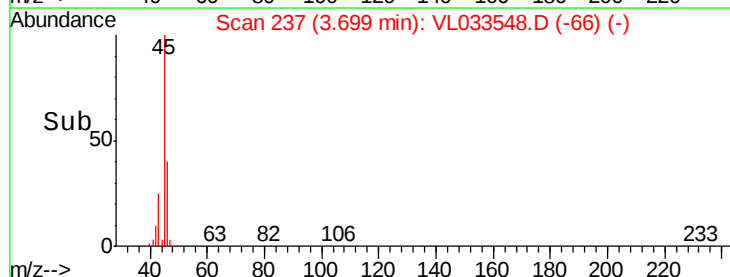
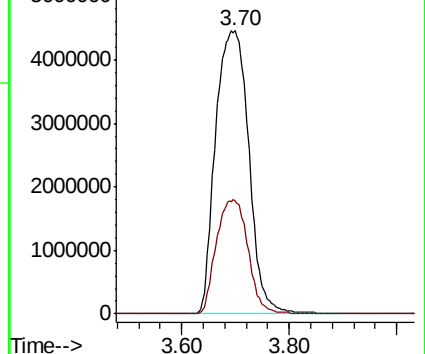
45 100

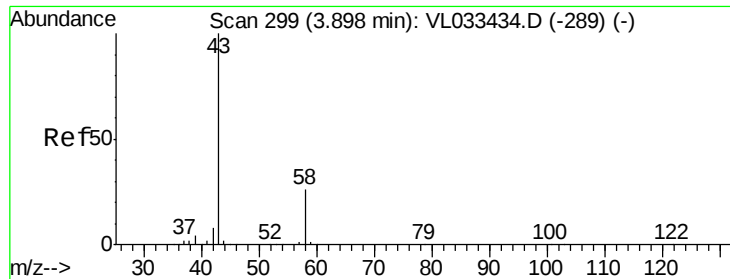
46 0.0 25.4 101.8#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 8.822 ppbv m

RT: 3.90 min Scan# 299

Delta R.T. 0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tot Ion: 43 Resp: 1021158

Ion Ratio Lower Upper

43 100

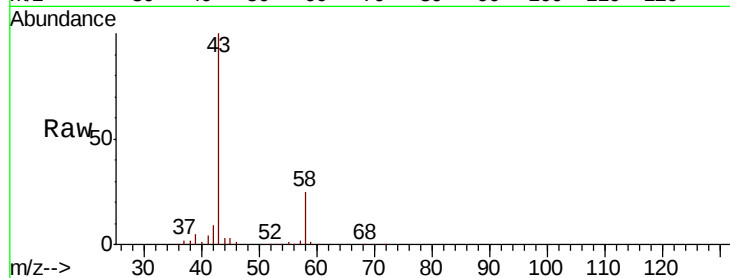
58 18.0 20.5 30.7#

Manual Integrations

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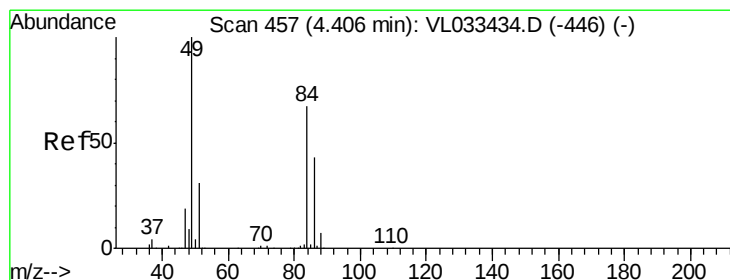
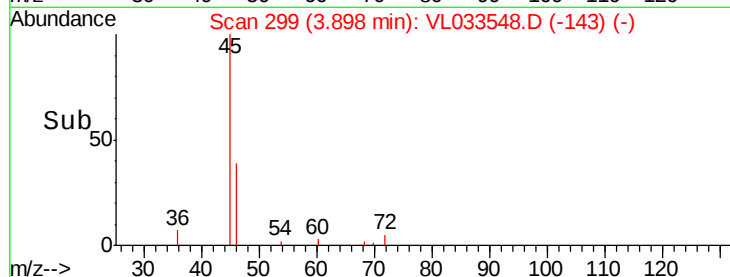
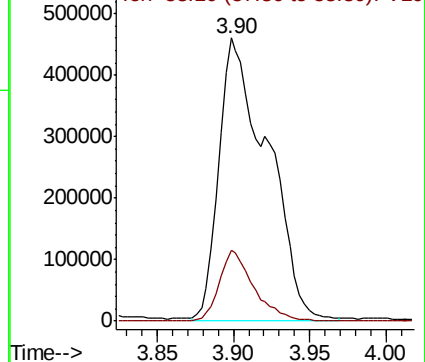
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 5.194 ppbv

RT: 4.41 min Scan# 458

Delta R.T. 0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Tgt Ion: 84 Resp: 255196

Ion Ratio Lower Upper

84 100

49 143.2 120.0 180.0

51 44.9 36.7 55.1

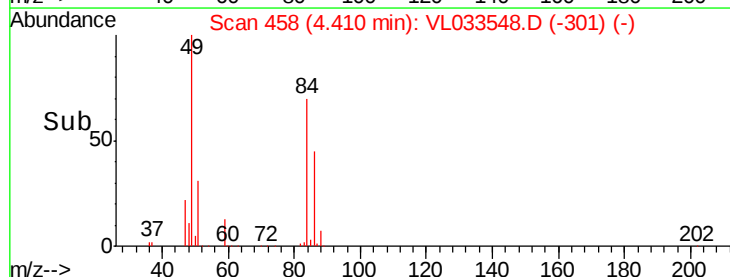
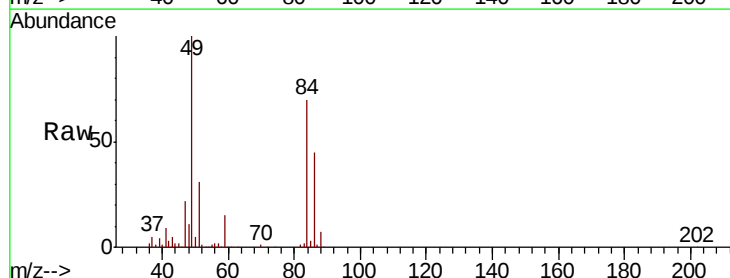
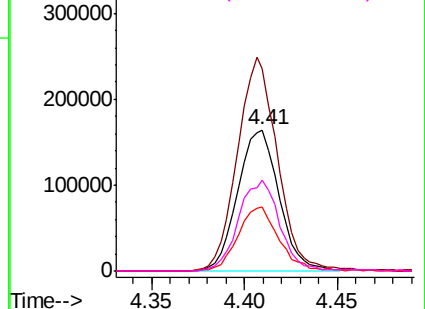
86 64.1 51.9 77.9

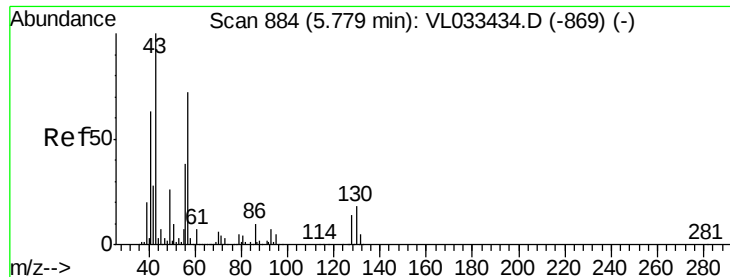
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





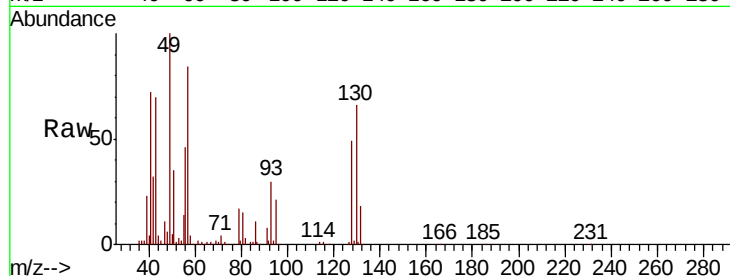
#26
Hexane
Concen: 2.100 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.00 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

Tot Ion	57	Resp	200572
Ion	Ratio	Lower	Upper
57	100		
41	91.3	70.7	106.1
43	92.4	182.6	274.0#
56	55.6	42.0	63.0

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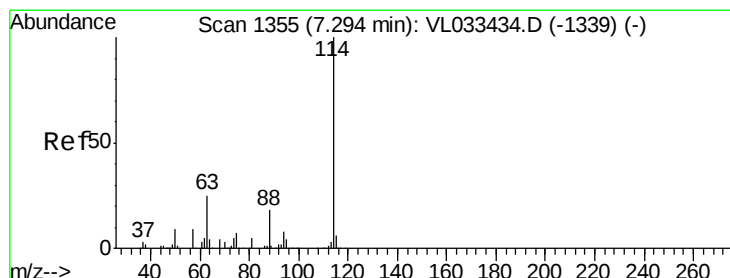
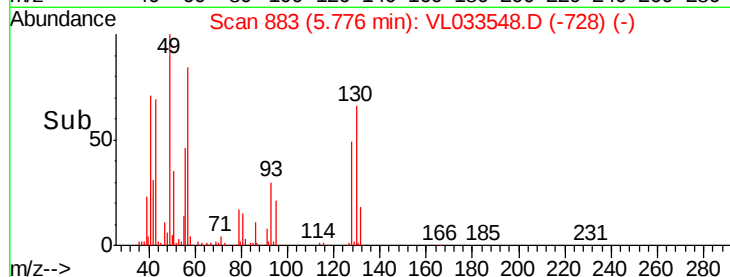
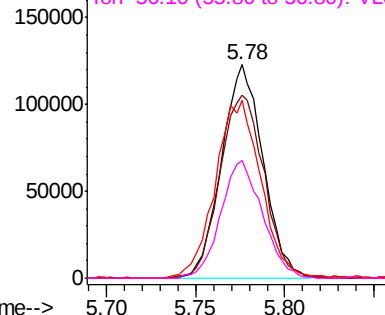
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

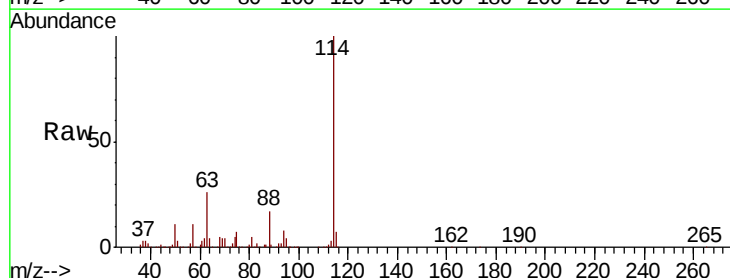
Ion 43.10 (42.80 to 43.80): VL0

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: VL033548.D
Acq: 5 Apr 2019 00:53

Tgt Ion	114	Resp	1961368
Ion	Ratio	Lower	Upper
114	100		
63	26.6	21.5	32.3
88	18.1	14.5	21.7

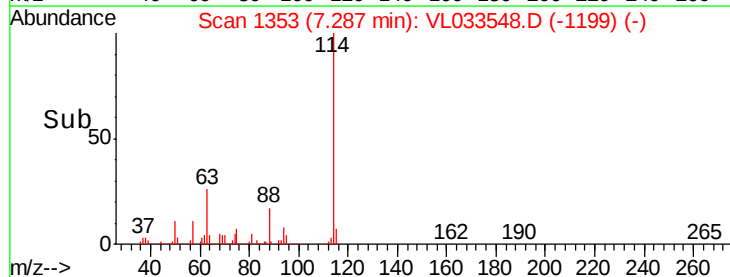
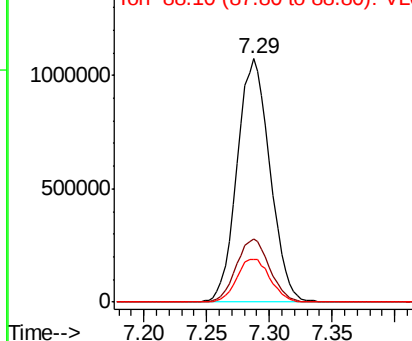


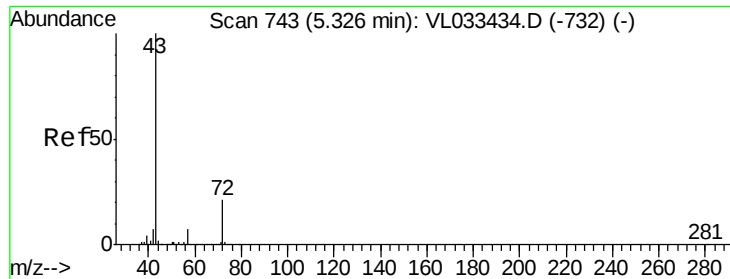
Abundance

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: 0.243 ppbv

RT: 5.33 min Scan# 745

Delta R.T. 0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Tot Ion: 43 Resp: 28633

Ion Ratio Lower Upper

43 100

72 20.6 17.4 26.2

Instrument :

MSVOA_L

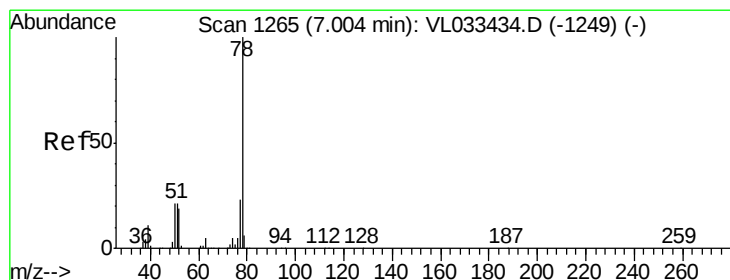
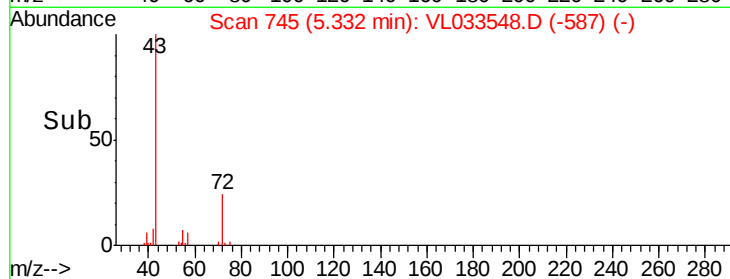
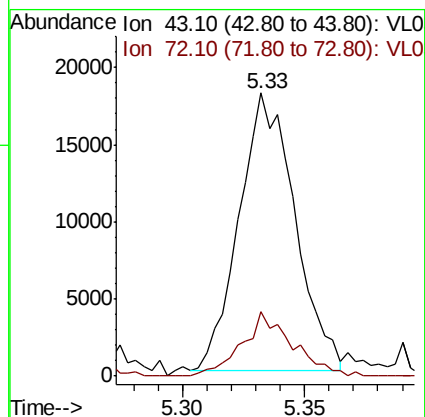
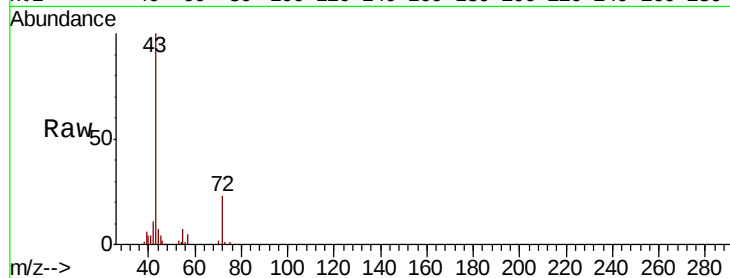
ClientSampleId :

LIHA-IA2-DUP

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#36

Benzene

Concen: 0.196 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

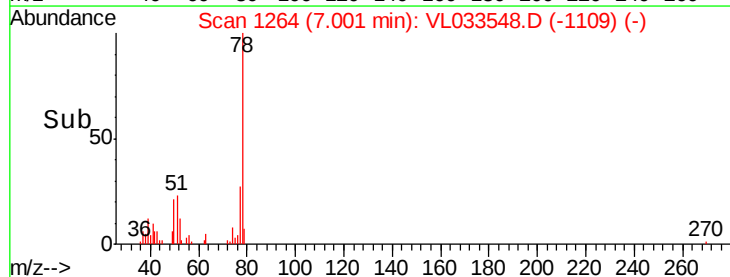
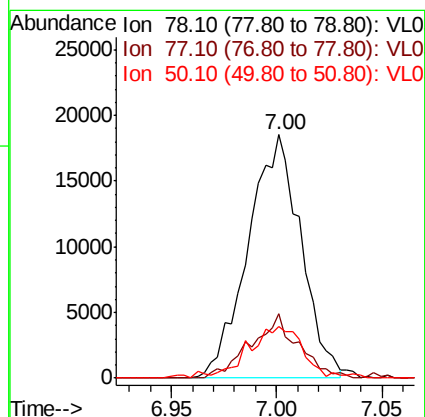
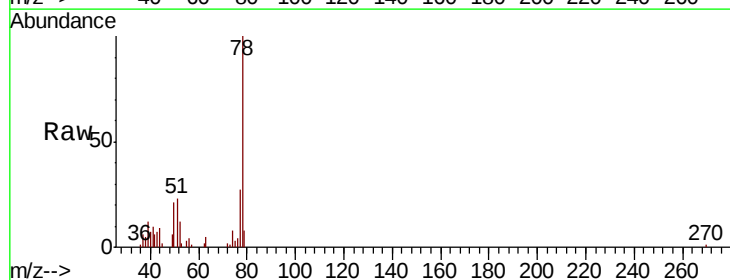
Tgt Ion: 78 Resp: 32229

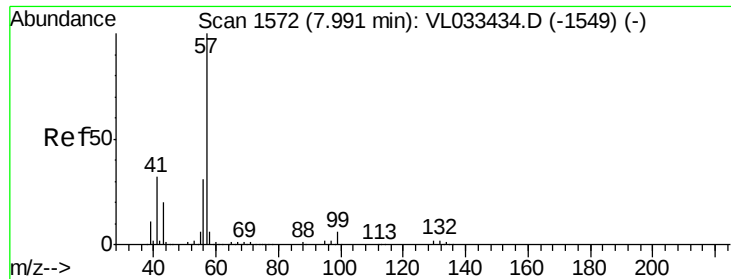
Ion Ratio Lower Upper

78 100

77 26.6 18.1 27.1

50 21.1 16.7 25.1





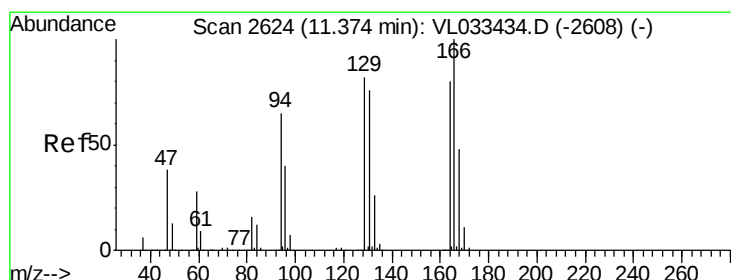
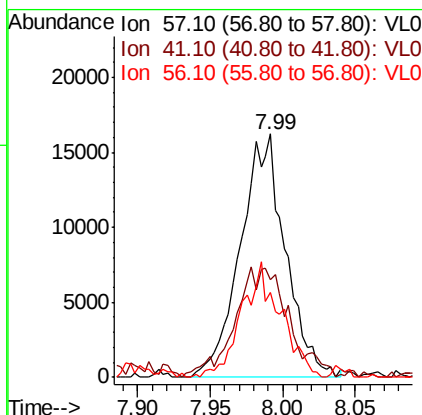
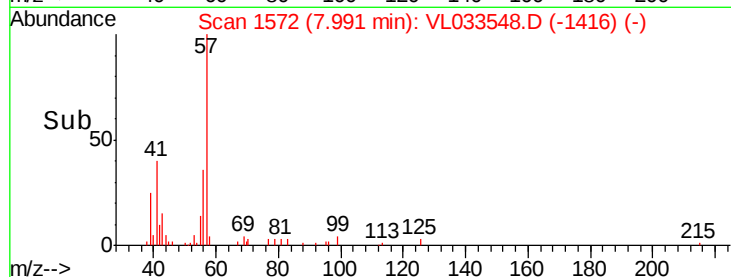
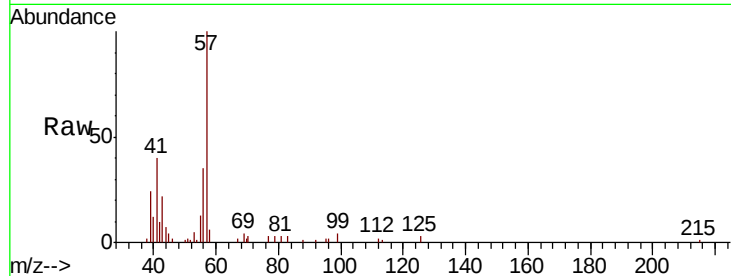
#44
2,2,4-Trimethylpentane
Concen: 0.122 ppbv m
RT: 7.99 min Scan# 1572
Delta R.T. 0.00 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

Tot Ion	Ratio	Lower	Upper
57	100		
41	54.7	26.0	39.0#
56	42.5	24.6	37.0#

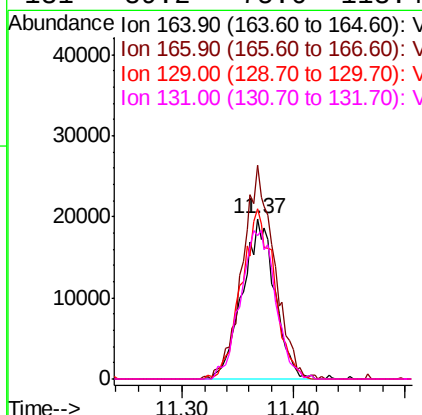
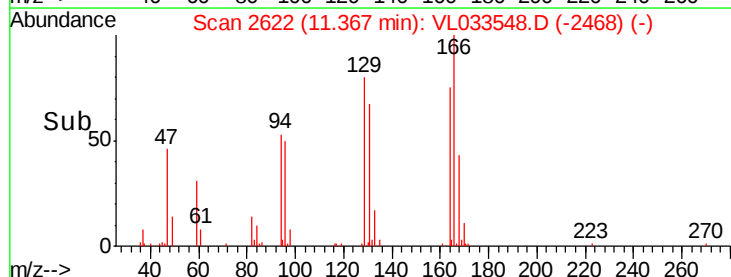
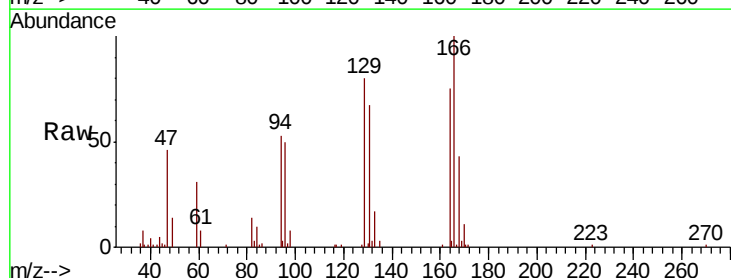
Manual Integrations
APPROVED

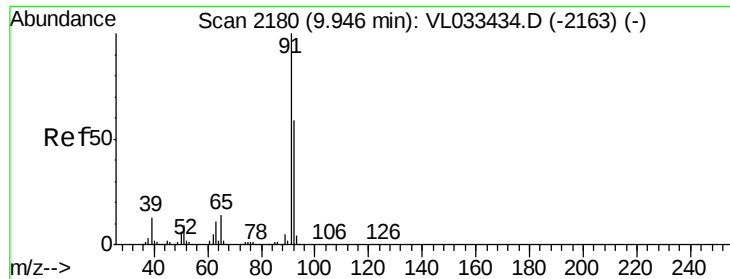
MMDadoda
4/8/2019 3:22:26 AM



#52
Tetrachloroethene
Concen: 0.649 ppbv m
RT: 11.37 min Scan# 2622
Delta R.T. -0.01 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Tgt Ion	Ratio	Lower	Upper
164	100		
166	133.2	99.5	149.3
129	106.5	81.4	122.2
131	89.2	75.6	113.4





#53

Toluene

Concen: 9.523 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tot Ion: 91 Resp: 1821124

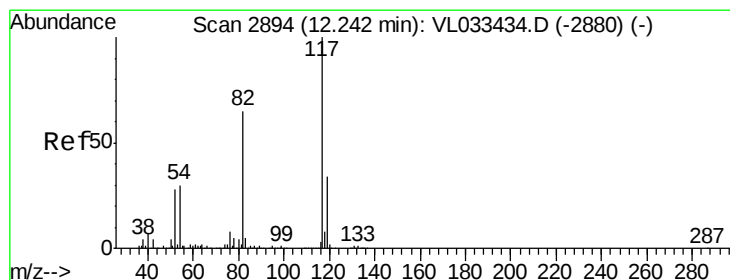
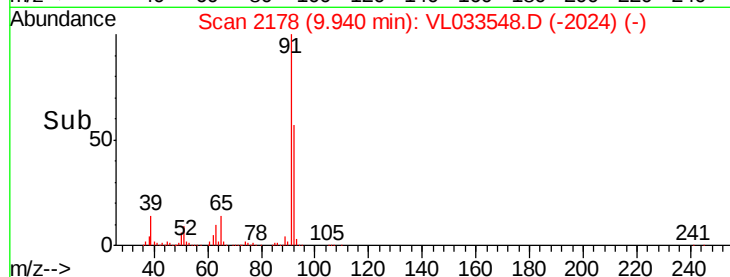
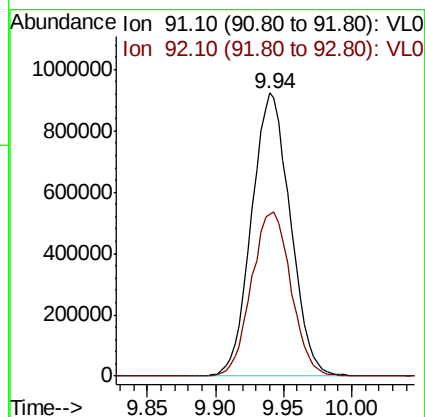
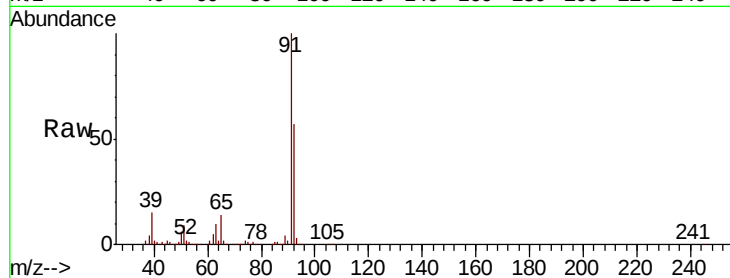
Ion Ratio Lower Upper

91 100

92 59.1 47.4 71.0

Manual Integrations
APPROVED

MMDadoda
4/8/2019 3:22:26 AM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

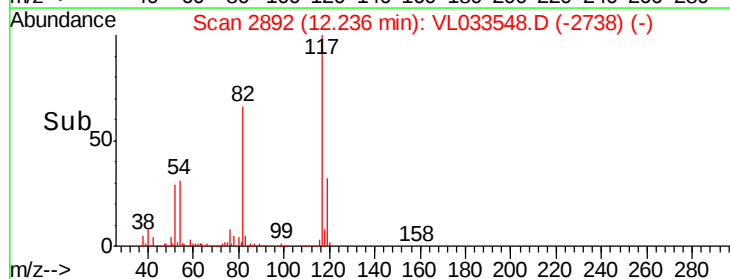
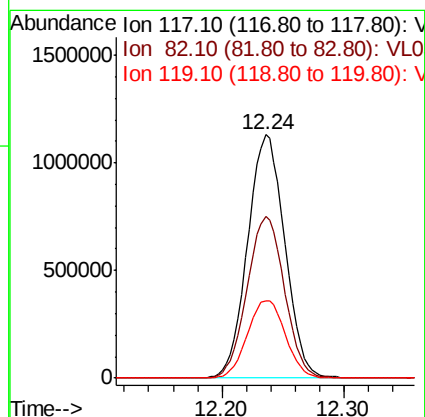
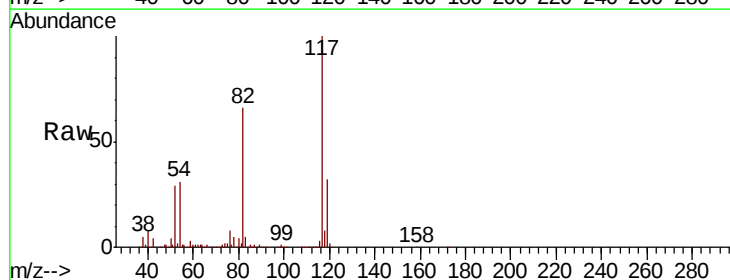
Tgt Ion: 117 Resp: 2375404

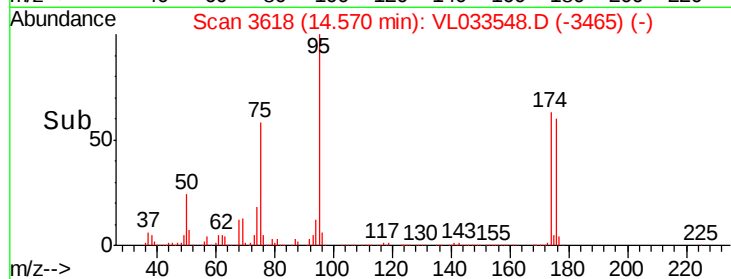
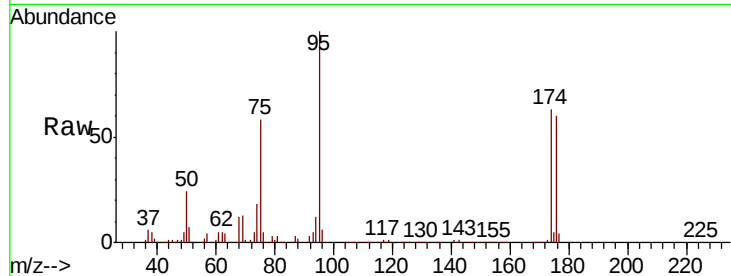
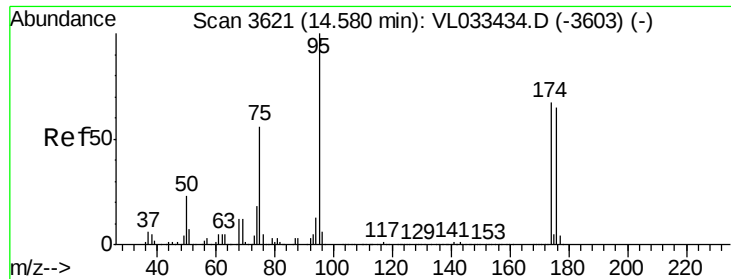
Ion Ratio Lower Upper

117 100

82 66.8 51.5 77.3

119 32.7 25.5 38.3





#68

1-Bromo-4-Fluorobenzene

Concen: 10.678 ppbv

RT: 14.57 min Scan# 3618

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Tot Ion: 95 Resp: 1988414

Ion Ratio Lower Upper

95 100

174 66.3 52.9 79.3

175 4.8 3.8 5.6

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Manual Integrations
APPROVED

MMDadoda
4/8/2019 3:22:26 AM

