

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032719\
 Data File : VL033491.D
 Acq On : 28 Mar 2019 6:15
 Operator : SY/AP
 Sample : K1991-09
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VMP-5

Manual Integrations
 APPROVED

MMDadoda
 4/1/2019 1:56:10 AM

Quant Time: Mar 31 11:35:56 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	5.75	49	755181	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1923835	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1884023	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1426577	9.66	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.60%

Target Compounds						Ovalue
2) Dichlorodifluoromethane	3.07	85	30996	0.281	ppbv	91
3) Chlorodifluoromethane	3.01	51	24215m	0.279	ppbv	
4) Chloromethane	3.17	50	9561	0.208	ppbv	96
9) Propene	3.04	41	199812m	5.473	ppbv	
11) Trichlorofluoromethane	4.00	101	174236	1.284	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.54	101	13961m	0.153	ppbv	
13) Ethanol	3.65	45	72767	7.702	ppbv	68
15) Acetone	3.90	43	200177m	2.205	ppbv	
17) tert-Butyl alcohol	4.37	59	20627m	1.235	ppbv	
20) Methylene Chloride	4.41	84	19280	0.500	ppbv #	82
24) 1,1-Dichloroethane	5.08	63	1165169	11.868	ppbv	99
26) Hexane	5.78	57	45075	0.602	ppbv #	42
27) Carbon Disulfide	4.62	76	84606	0.950	ppbv #	92
29) Chloroform	5.84	83	128073	0.997	ppbv	96
32) 1,1,1-Trichloroethane	6.61	97	3338672	27.305	ppbv	98
34) 2-Butanone	5.34	43	40828	0.353	ppbv	99
35) Carbon Tetrachloride	7.13	117	55098	0.404	ppbv	91
36) Benzene	7.00	78	16937	0.105	ppbv #	91
38) Trichloroethene	7.96	130	2471091	40.676	ppbv	98
41) Tetrahydrofuran	6.17	42	14504m	0.228	ppbv	
52) Tetrachloroethene	11.36	164	160015	2.627	ppbv	96
53) Toluene	9.94	91	225744	1.203	ppbv	99
76) 1,4-Dichlorobenzene	17.30	146	72819	0.483	ppbv	92

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

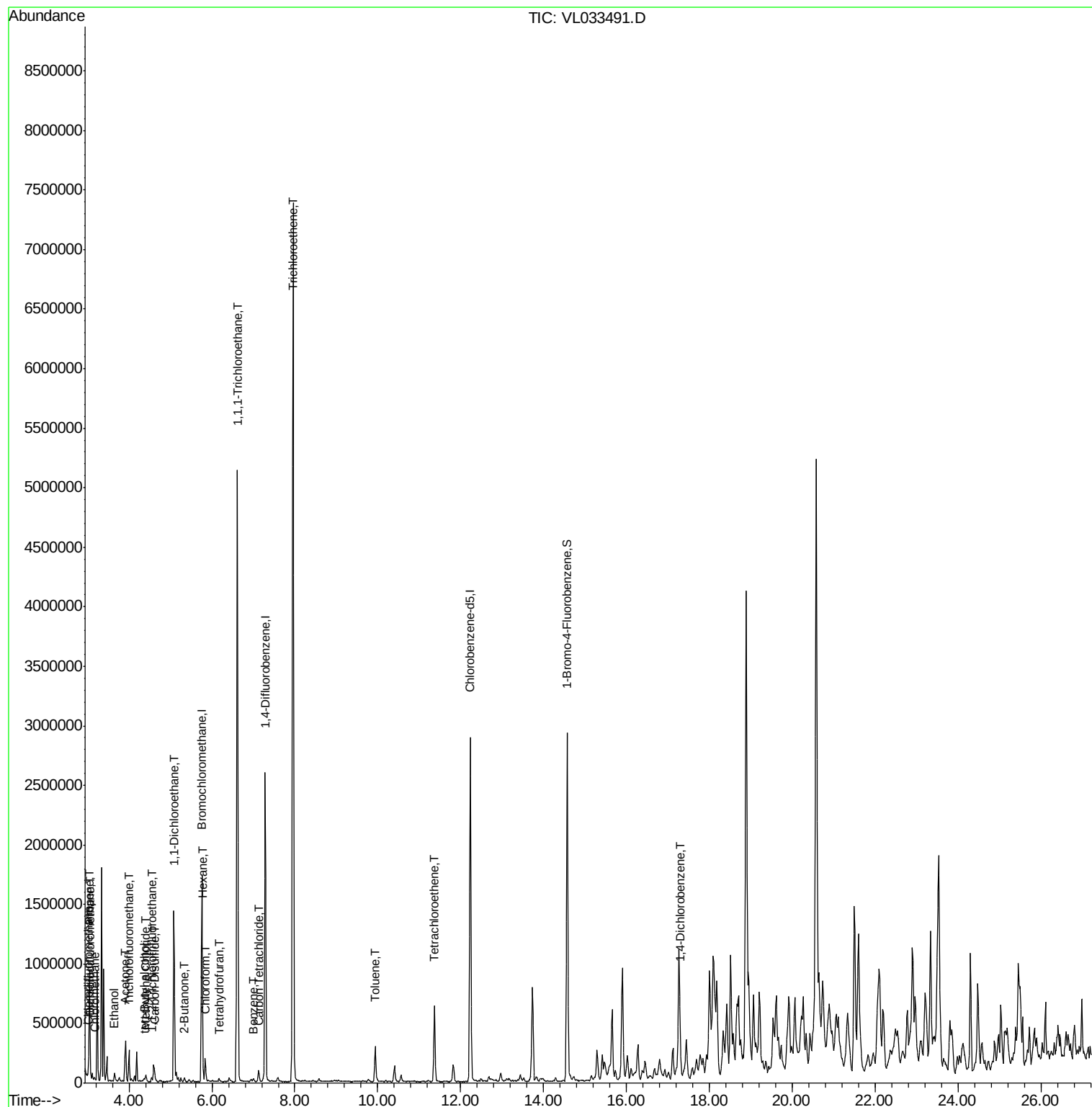
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL032719\
Data File : VL033491.D
Acq On : 28 Mar 2019 6:15
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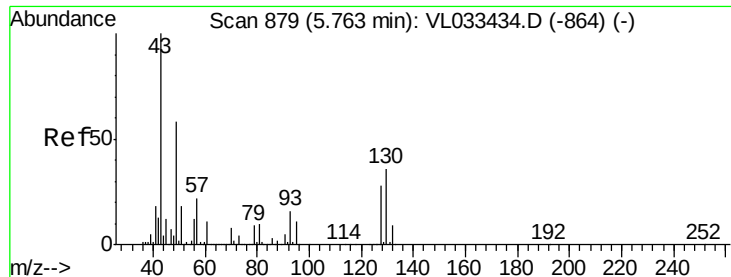
Instrument :
MSVOA_L
ClientSampleId :
VMP-5

Manual Integrations
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Quant Time: Mar 31 11:35:56 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: 5.75 min Scan# 876

Delta R.T. -0.01 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Instrument :

MSVOA_L

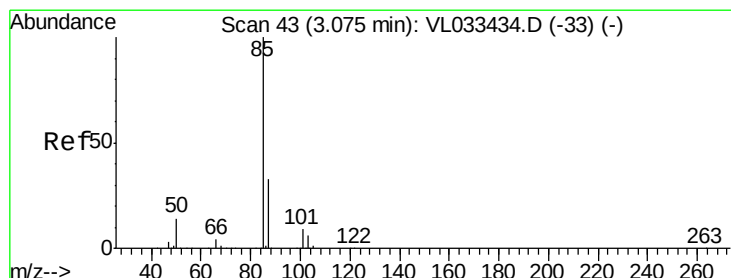
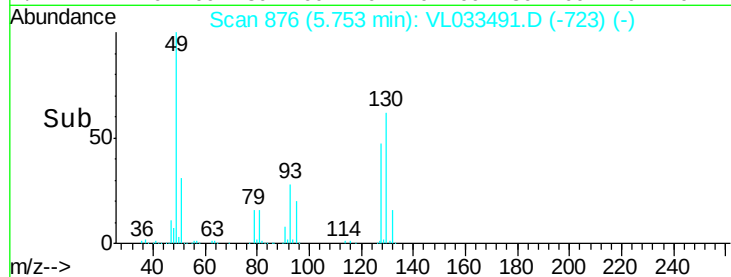
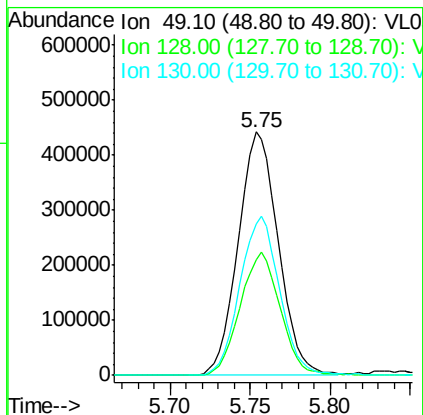
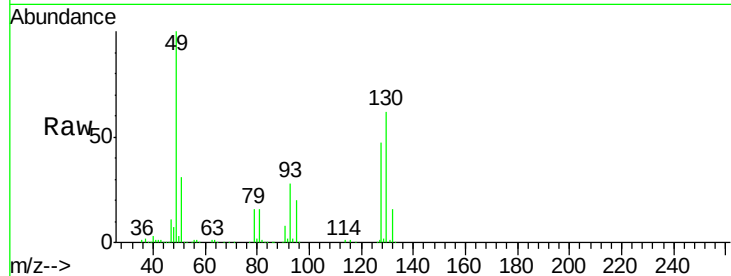
ClientSampled :

VMP-5

Tot Ion:	49	Resp:	755181
Ion	Ratio	Lower	Upper
49	100		
128	50.7	24.0	72.0
130	65.6	31.2	93.6

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#2

Dichlorodifluoromethane

Concen: 0.281 ppbv

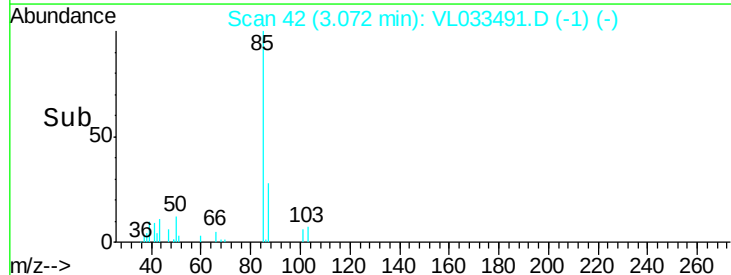
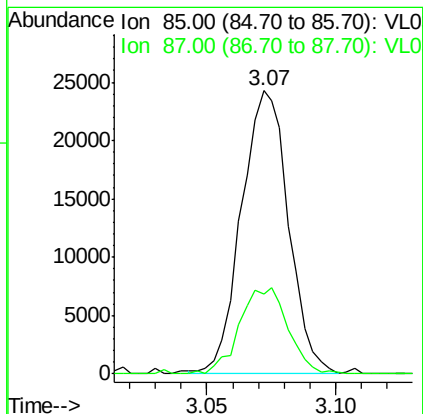
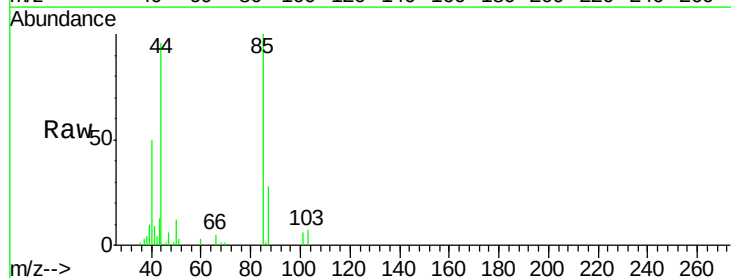
RT: 3.07 min Scan# 42

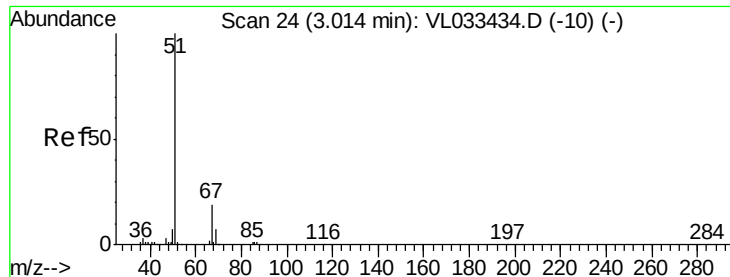
Delta R.T. -0.00 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Tgt Ion:	85	Resp:	30996
Ion	Ratio	Lower	Upper
85	100		
87	28.4	26.7	40.1





#3

Chlorodifluoromethane

Concen: 0.279 ppbv

RT: 3.01 min Scan# 23

Delta R.T. -0.00 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Instrument :

MSVOA_L

ClientSampleId :

VMP-5

Tot Ion: 51 Resp: 24215

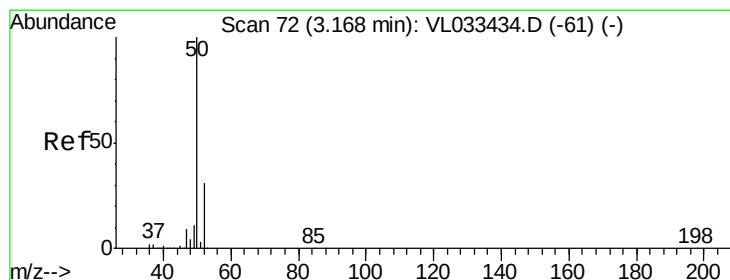
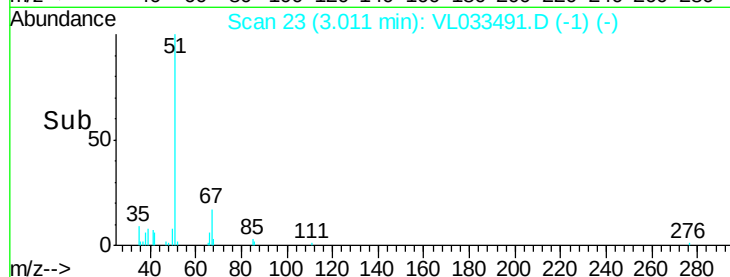
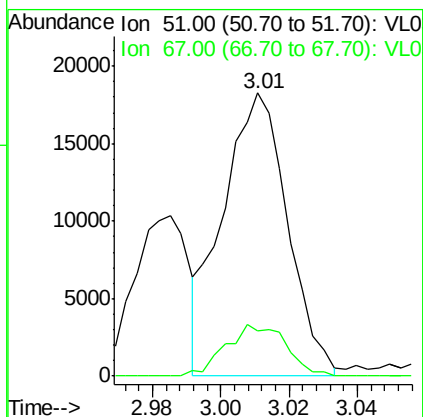
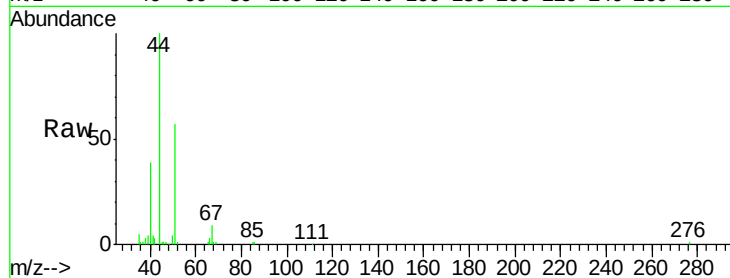
Ion Ratio Lower Upper

51 100

67 17.0 15.7 23.5

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#4

Chloromethane

Concen: 0.208 ppbv

RT: 3.17 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL033491.D

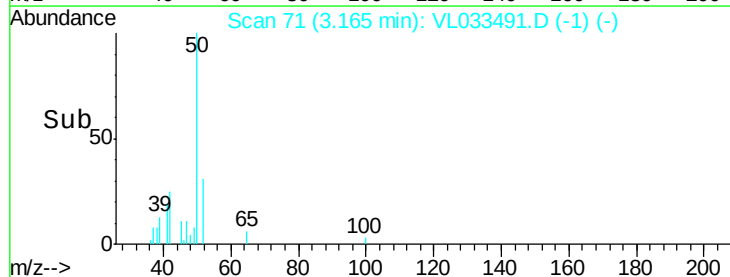
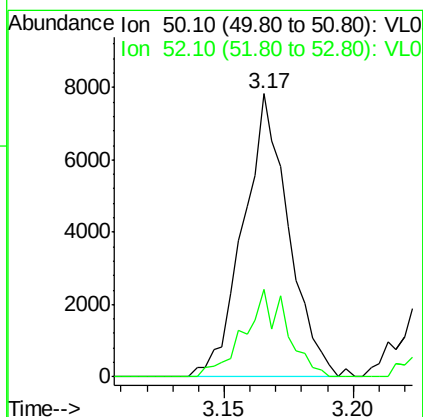
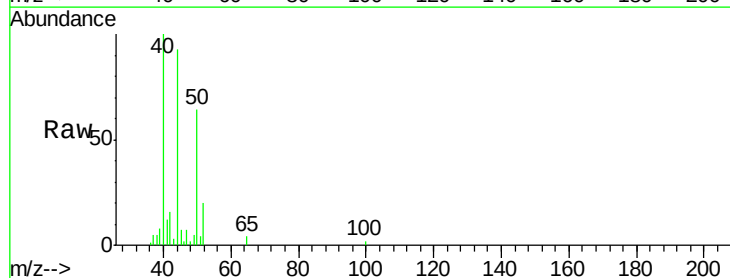
Acq: 28 Mar 2019 6:15

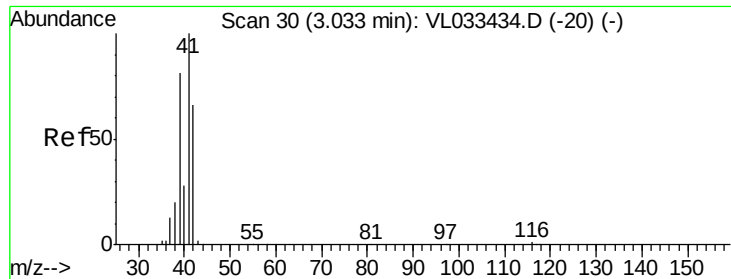
Tgt Ion: 50 Resp: 9561

Ion Ratio Lower Upper

50 100

52 29.0 25.0 37.6





#9

Propene

Concen: 5.473 ppbv m

RT: 3.04 min Scan# 33

Delta R.T. 0.01 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Instrument :

MSVOA_L

ClientSampled :

VMP-5

Tot Ion: 41 Resp: 199812

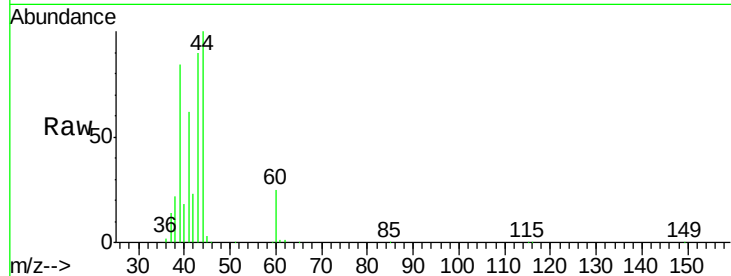
Ion Ratio Lower Upper

41 100

42 78.7 53.9 80.9

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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

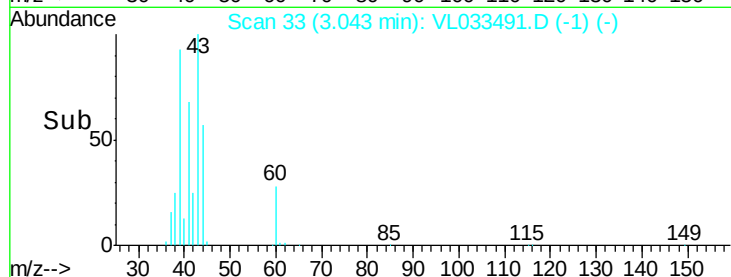
150000

100000

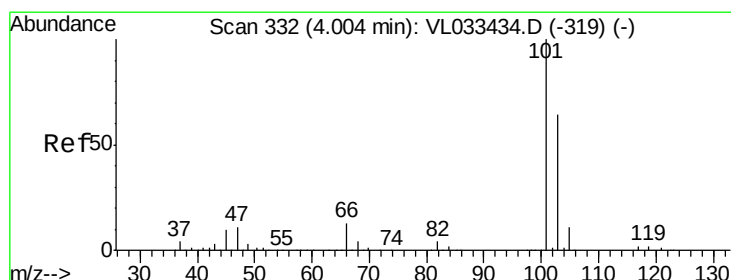
50000

0

Time-->



Time-->



#11

Trichlorofluoromethane

Concen: 1.284 ppbv

RT: 4.00 min Scan# 330

Delta R.T. -0.01 min

Lab File: VL033491.D

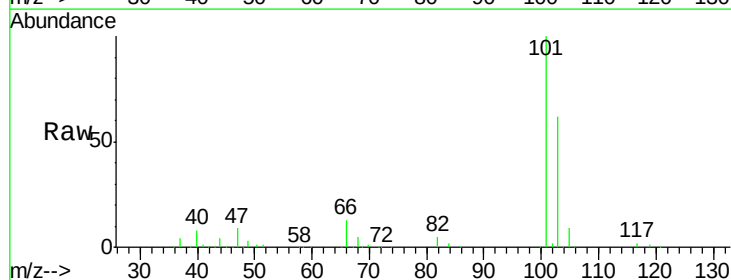
Acq: 28 Mar 2019 6:15

Tgt Ion: 101 Resp: 174236

Ion Ratio Lower Upper

101 100

103 61.8 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): V

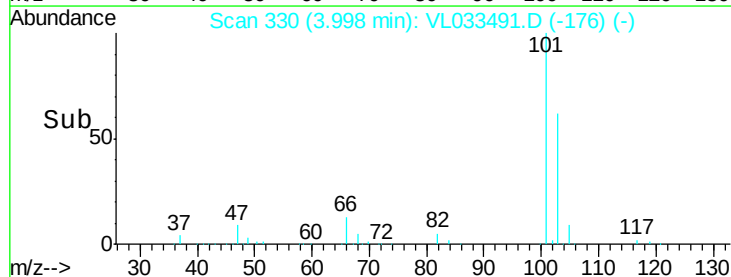
Ion 103.00 (102.70 to 103.70): V

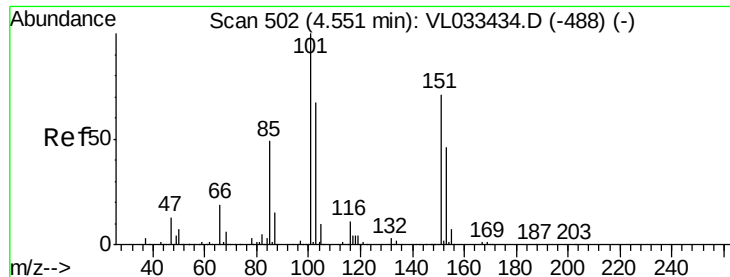
100000

50000

0

Time-->





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.153 ppbv m

RT: 4.54 min Scan# 500

Delta R.T. -0.01 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Instrument :

MSVOA_L

ClientSampled :

VMP-5

Tot Ion:101 Resp: 13961

Ion Ratio Lower Upper

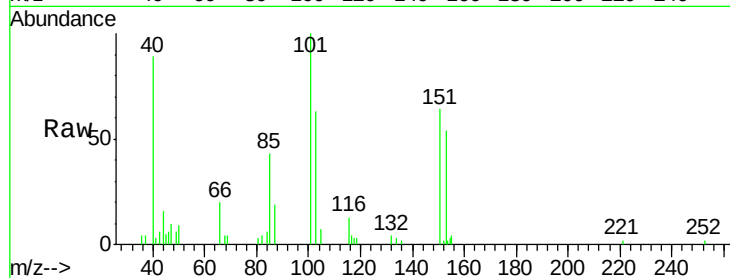
101 100

151 0.0 57.7 86.5#

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Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

4.54

8000

6000

4000

2000

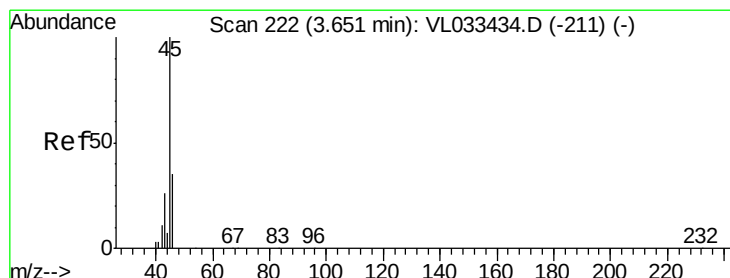
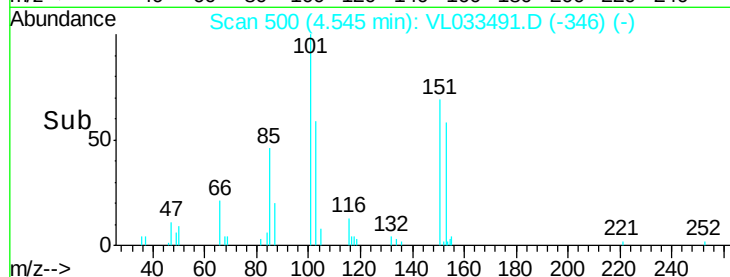
0

Time-->

4.50

4.55

4.60



#13

Ethanol

Concen: 7.702 ppbv

RT: 3.65 min Scan# 221

Delta R.T. -0.00 min

Lab File: VL033491.D

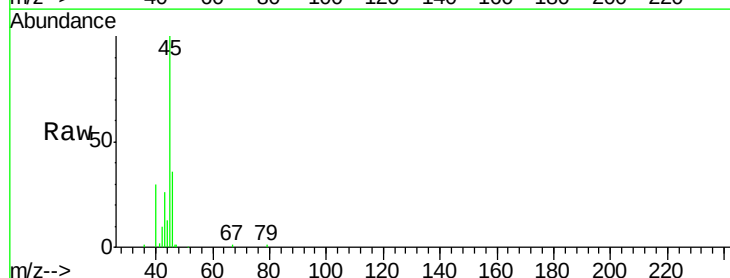
Acq: 28 Mar 2019 6:15

Tgt Ion: 45 Resp: 72767

Ion Ratio Lower Upper

45 100

46 38.4 25.4 101.8



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

3.65

40000

30000

20000

10000

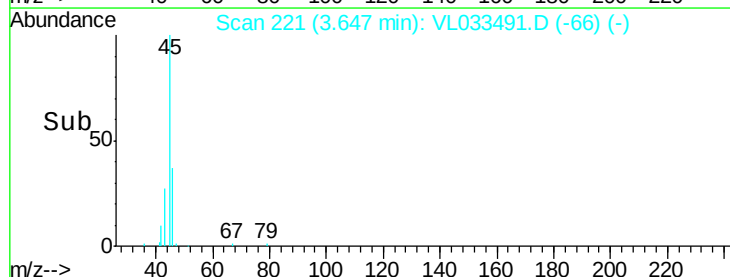
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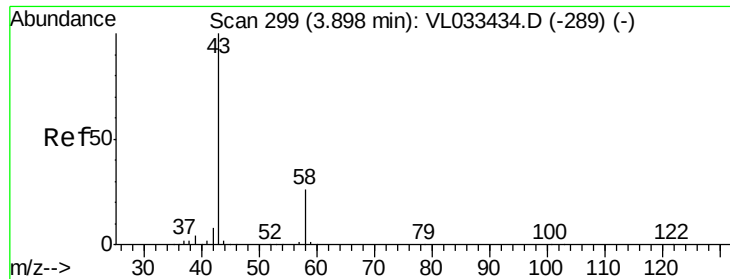
Time-->

3.60

3.65

3.70





#15

Acetone

Concen: 2.205 ppbv m

RT: 3.90 min Scan# 300

Delta R.T. 0.00 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Instrument :

MSVOA_L

ClientSampleId :

VMP-5

Tot Ion: 43 Resp: 200177

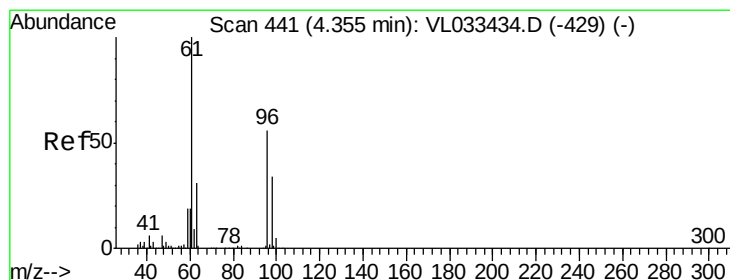
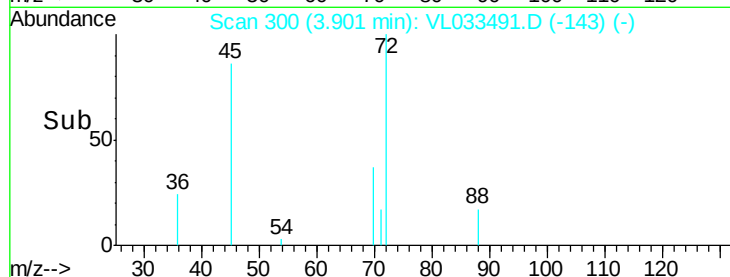
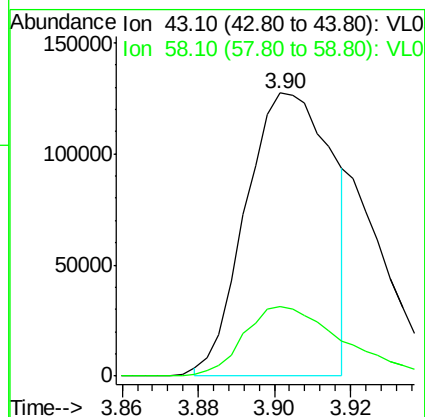
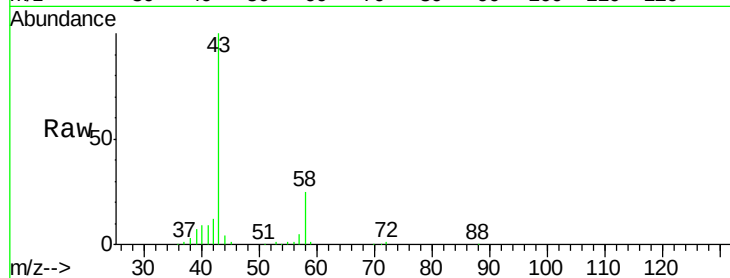
Ion Ratio Lower Upper

43 100

58 28.6 20.5 30.7

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#17

tert-Butyl alcohol

Concen: 1.235 ppbv m

RT: 4.37 min Scan# 445

Delta R.T. 0.01 min

Lab File: VL033491.D

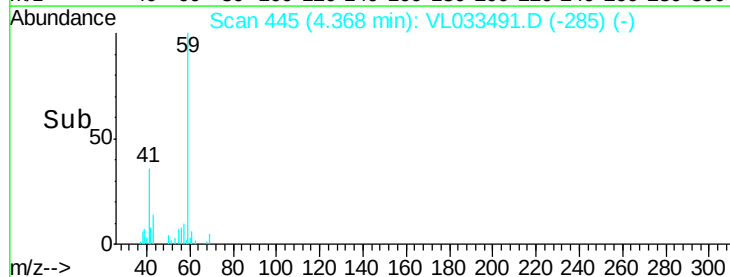
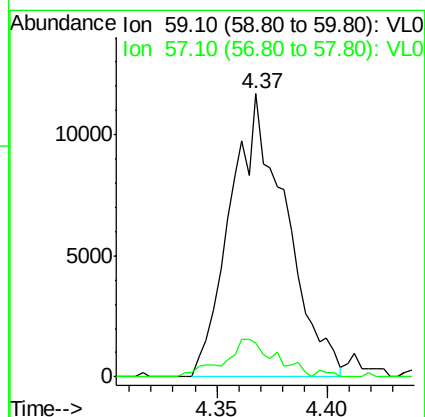
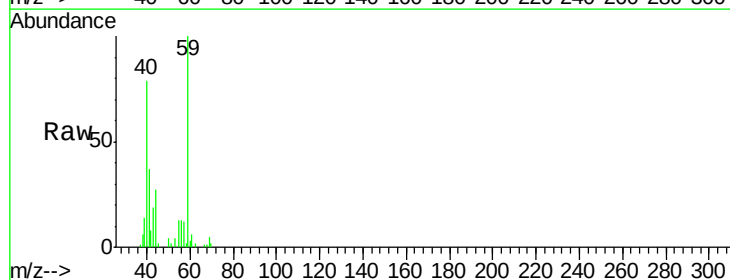
Acq: 28 Mar 2019 6:15

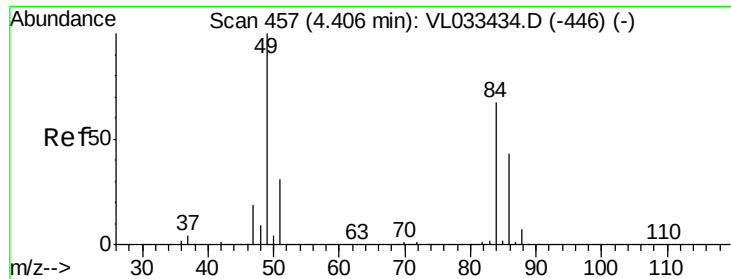
Tgt Ion: 59 Resp: 20627

Ion Ratio Lower Upper

59 100

57 12.5 7.8 11.8#





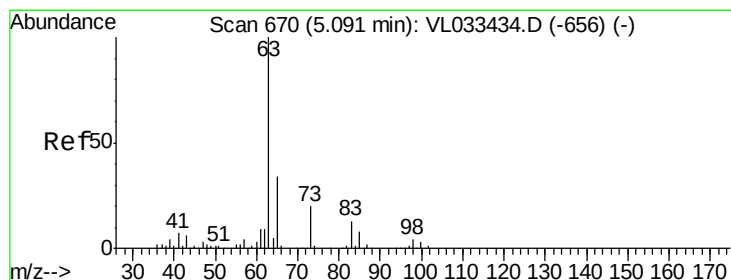
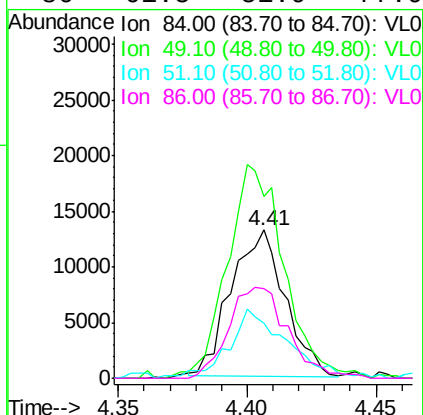
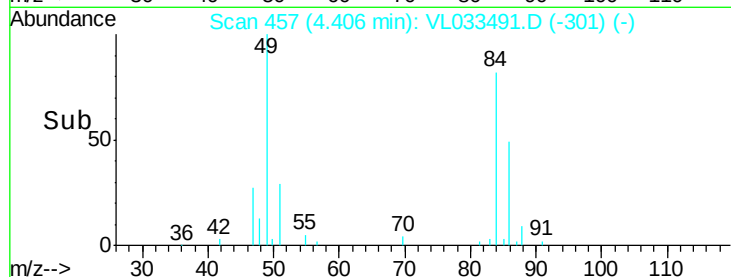
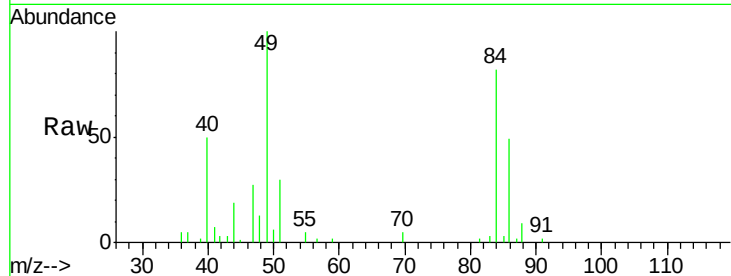
#20
Methylene Chloride
Concen: 0.500 ppbv
RT: 4.41 min Scan# 457
Delta R.T. 0.00 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Instrument :
MSVOA_L
ClientSampled :
VMP-5

Tot Ion	Ion	Ratio	Lower	Upper
84	100			
49	120.0	120.0	180.0#	
51	33.9	36.7	55.1#	
86	61.5	51.9	77.9	

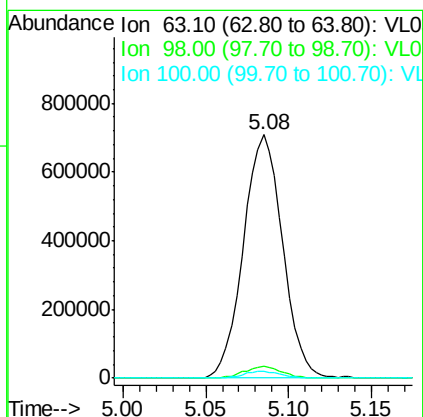
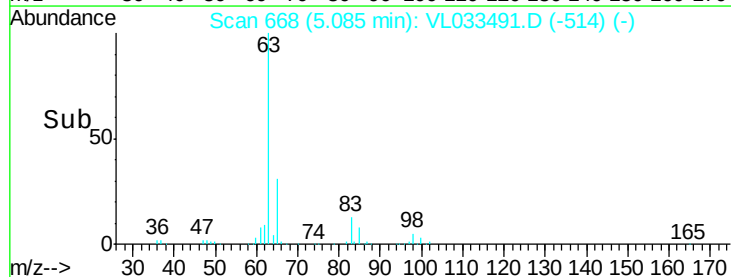
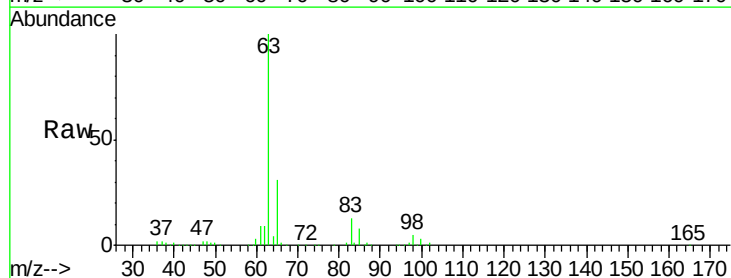
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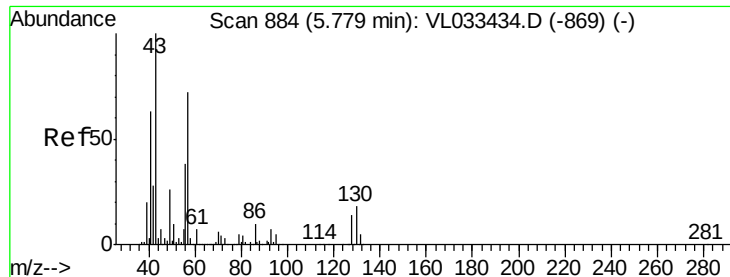
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#24
1,1-Dichloroethane
Concen: 11.868 ppbv
RT: 5.08 min Scan# 668
Delta R.T. -0.01 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Tgt Ion	Ion	Ratio	Lower	Upper
63	100			
98	4.6	2.2	6.6	
100	3.0	1.5	4.4	





#26

Hexane

Concen: 0.602 ppbv

RT: 5.78 min Scan# 883

Delta R.T. -0.00 min

Lab File: VL033491.D

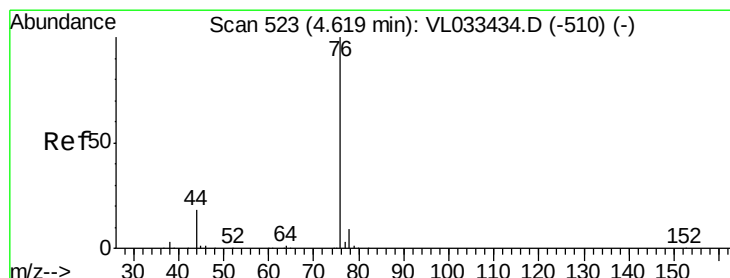
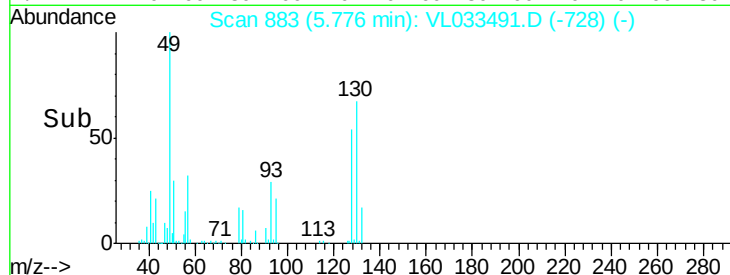
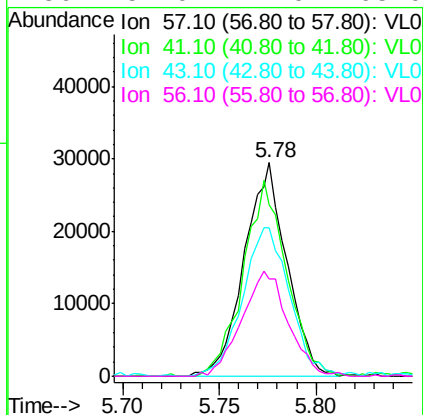
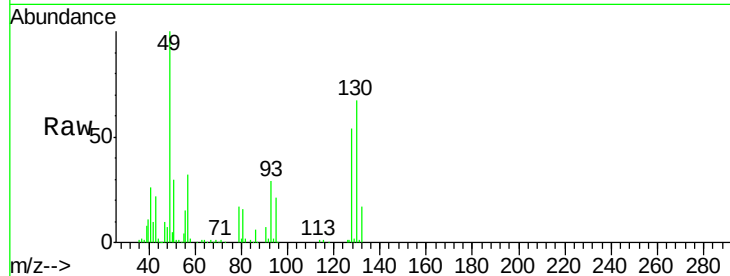
Acq: 28 Mar 2019 6:15

Instrument :
MSVOA_L
ClientSampleId :
VMP-5

Tot Ion	57	Resp	45075
Ion	Ratio	Lower	Upper
57	100		
41	94.2	70.7	106.1
43	78.8	182.6	274.0#
56	54.0	42.0	63.0

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4/1/2019 1:56:10 AM



#27

Carbon Disulfide

Concen: 0.950 ppbv

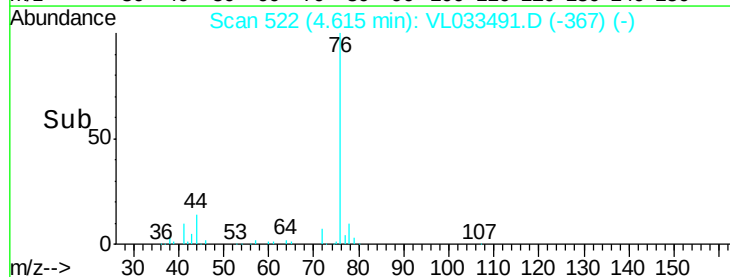
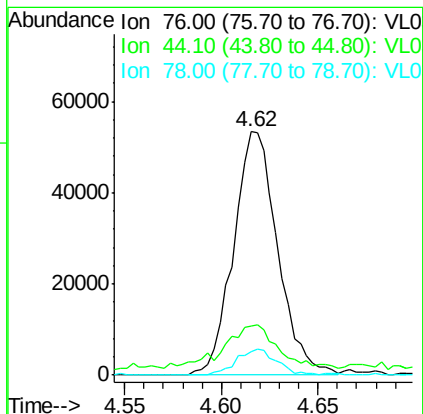
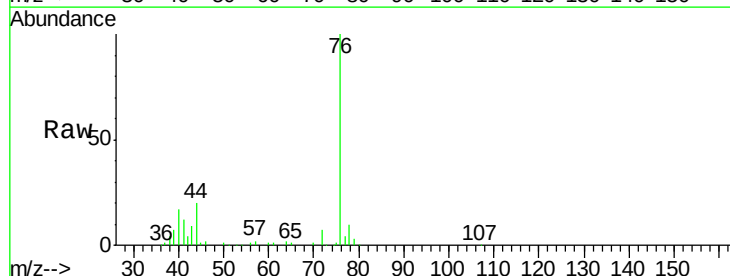
RT: 4.62 min Scan# 522

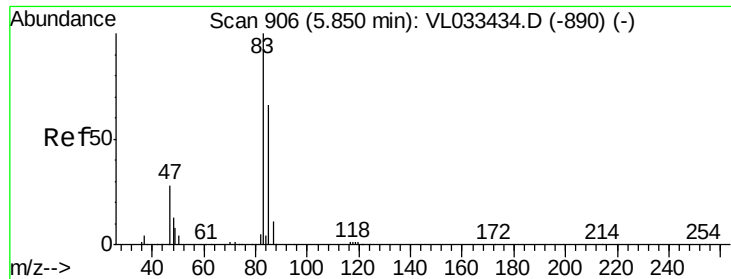
Delta R.T. -0.00 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Tgt Ion	76	Resp	84606
Ion	Ratio	Lower	Upper
76	100		
44	23.8	14.8	22.2#
78	10.0	7.6	11.4





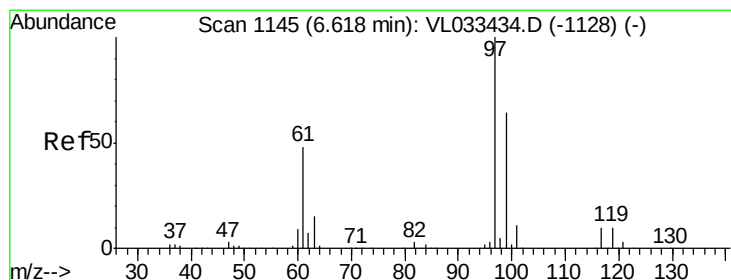
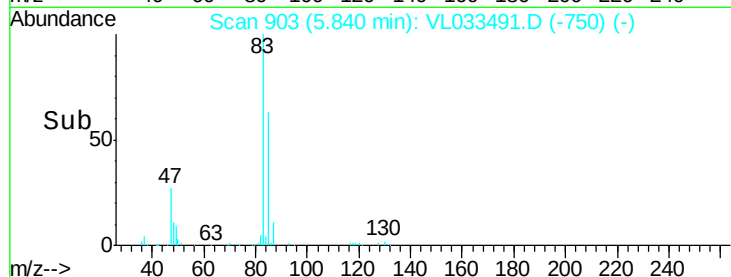
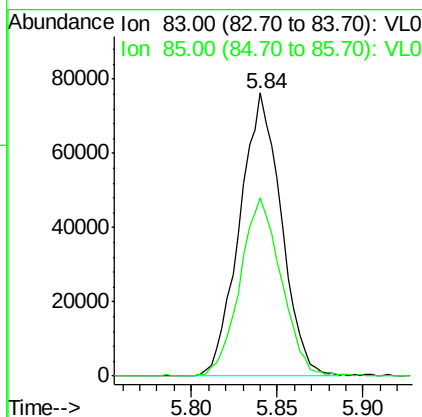
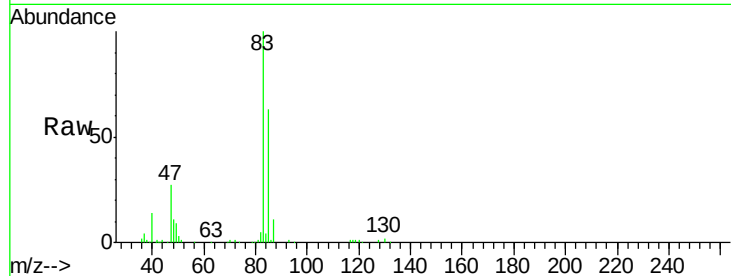
#29
Chloroform
Concen: 0.997 ppbv
RT: 5.84 min Scan# 903
Delta R.T. -0.01 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Instrument :
MSVOA_L
ClientSampleId :
VMP-5

Tot Ion: 83 Resp: 128073
Ion Ratio Lower Upper
83 100
85 63.0 52.6 79.0

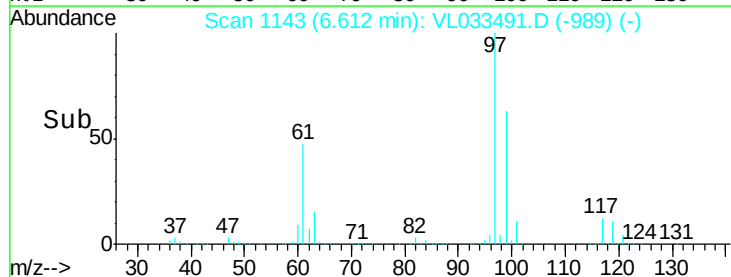
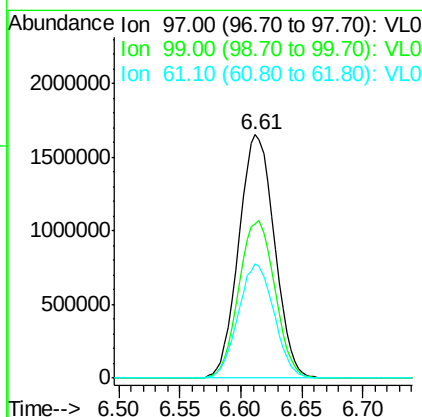
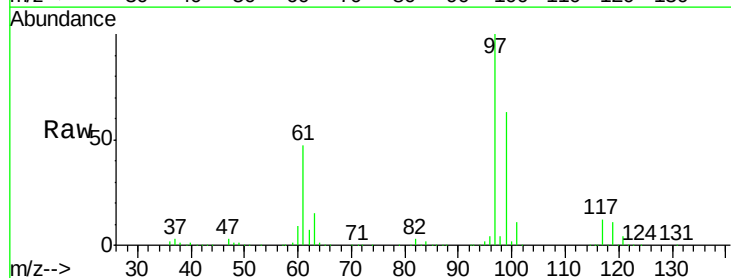
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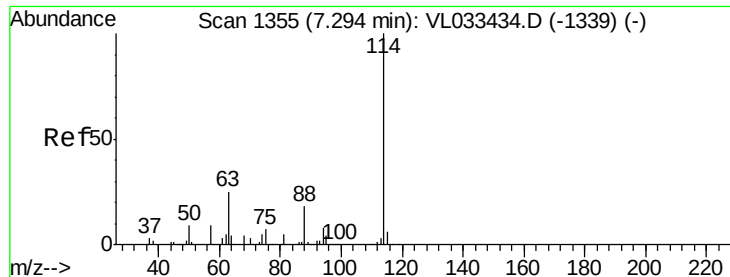
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#32
1,1,1-Trichloroethane
Concen: 27.305 ppbv
RT: 6.61 min Scan# 1143
Delta R.T. -0.01 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Tgt Ion: 97 Resp: 3338672
Ion Ratio Lower Upper
97 100
99 65.5 51.5 77.3
61 47.1 38.8 58.2





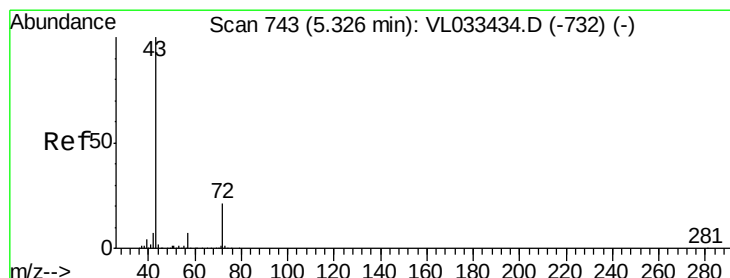
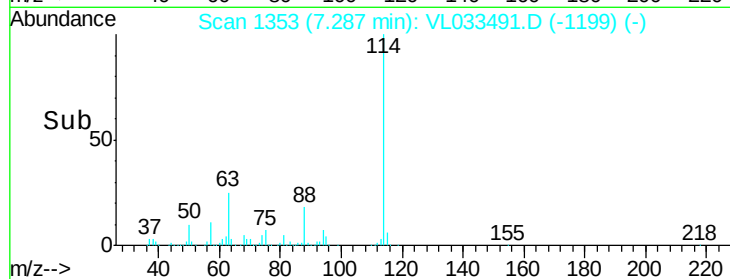
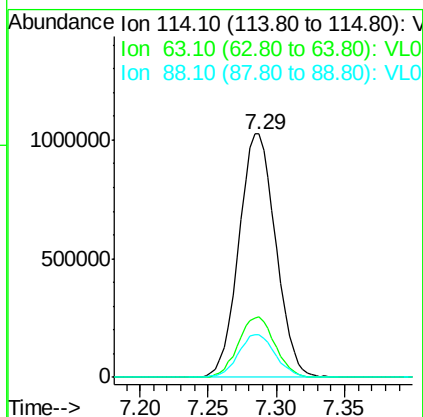
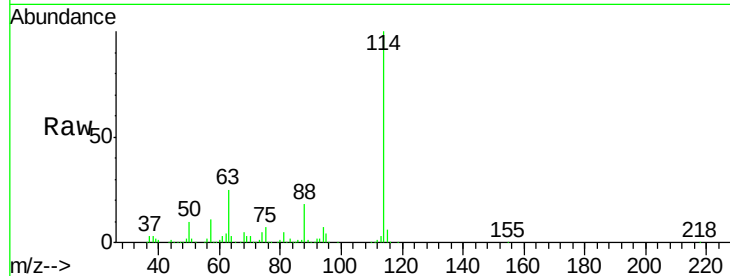
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033491.D
 Acq: 28 Mar 2019 6:15

Instrument :
 MSVOA_L
 ClientSampleId :
 VMP-5

Tot Ion	Ratio	Lower	Upper
114	100		
63	24.6	21.5	32.3
88	17.7	14.5	21.7

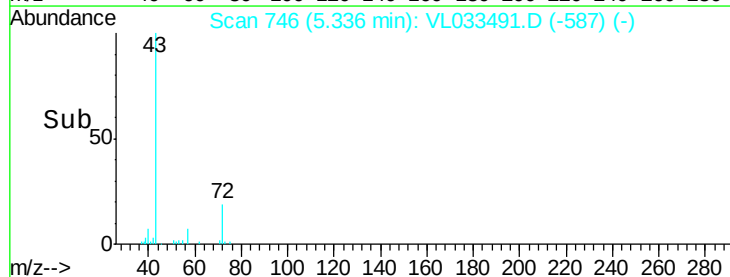
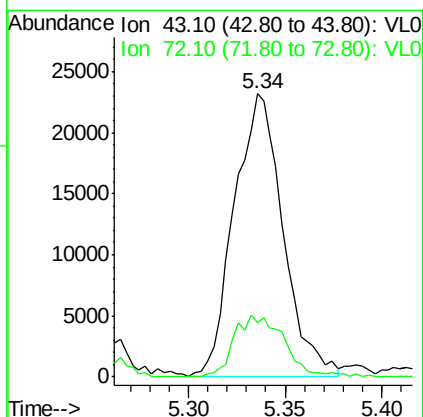
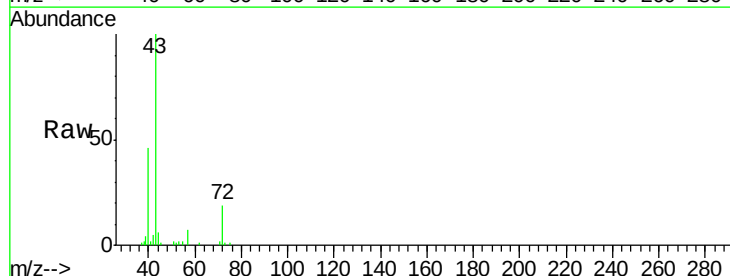
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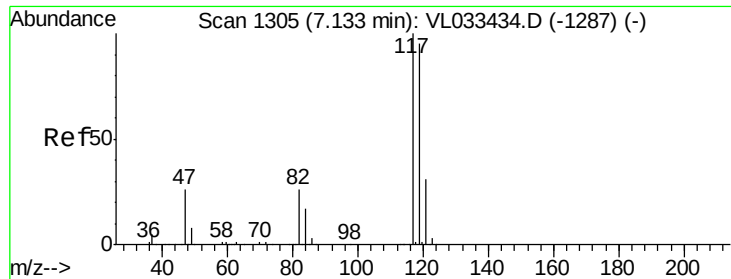
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#34
 2-Butanone
 Concen: 0.353 ppbv
 RT: 5.34 min Scan# 746
 Delta R.T. 0.01 min
 Lab File: VL033491.D
 Acq: 28 Mar 2019 6:15

Tgt Ion	Ratio	Lower	Upper
43	100		
72	22.1	17.4	26.2





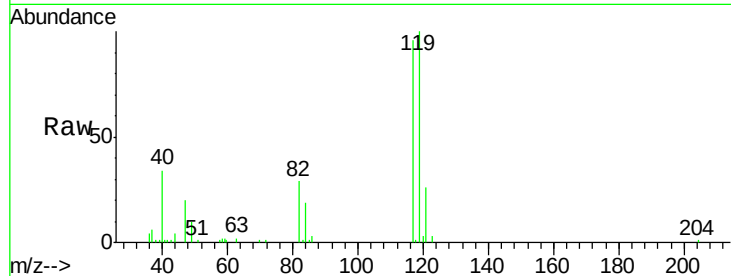
#35
Carbon Tetrachloride
Concen: 0.404 ppbv
RT: 7.13 min Scan# 1304
Delta R.T. -0.00 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Instrument :
MSVOA_L
ClientSampleId :
VMP-5

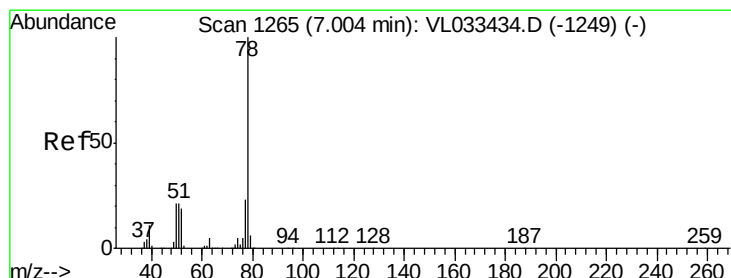
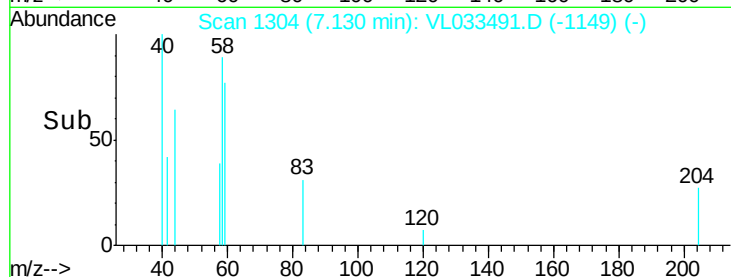
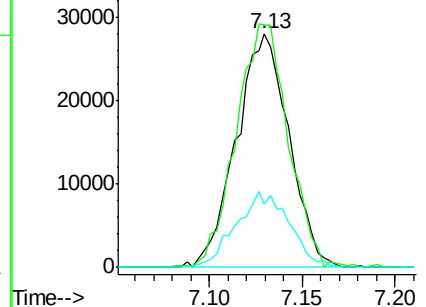
Tot Ion	Ratio	Lower	Upper
117	100		
119	103.8	75.8	113.8
121	26.9	24.7	37.1

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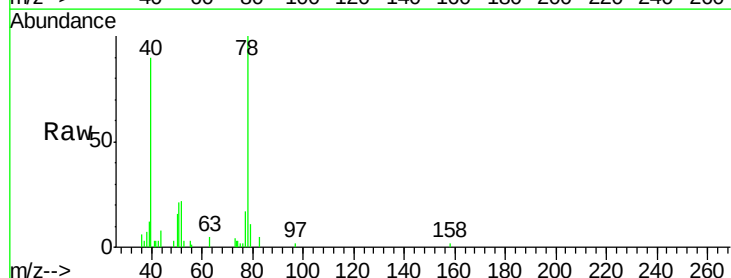


Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V

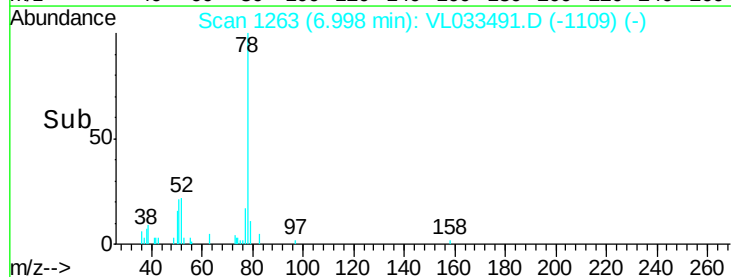
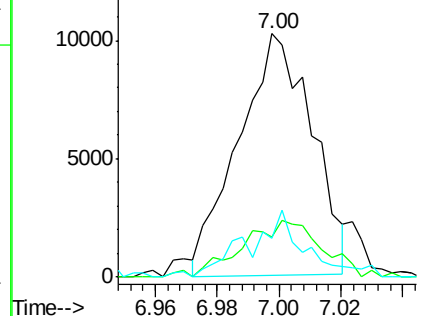


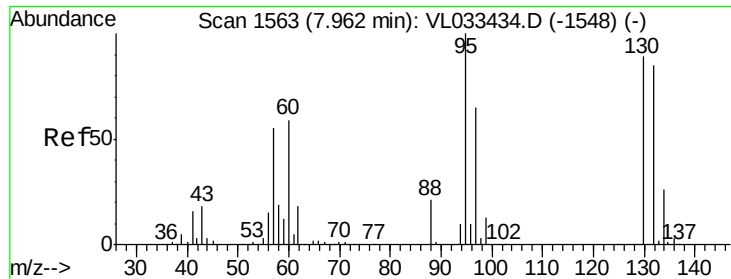
#36
Benzene
Concen: 0.105 ppbv
RT: 7.00 min Scan# 1263
Delta R.T. -0.01 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Tgt Ion	Ratio	Lower	Upper
78	100		
77	17.8	18.1	27.1#
50	17.2	16.7	25.1



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





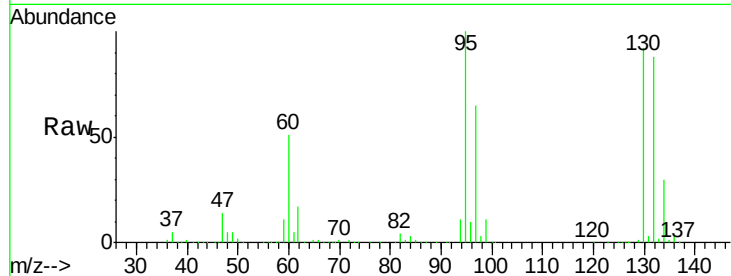
#38
 Trichloroethene
 Concen: 40.676 ppbv
 RT: 7.96 min Scan# 1561
 Delta R.T. -0.01 min
 Lab File: VL033491.D
 Acq: 28 Mar 2019 6:15

Instrument :
 MSVOA_L
 ClientSampleId :
 VMP-5

Tot Ion	Ion	Ratio	Lower	Upper
130	100			
95	108.6	89.8	134.8	
132	95.7	76.6	115.0	
97	70.9	58.6	88.0	

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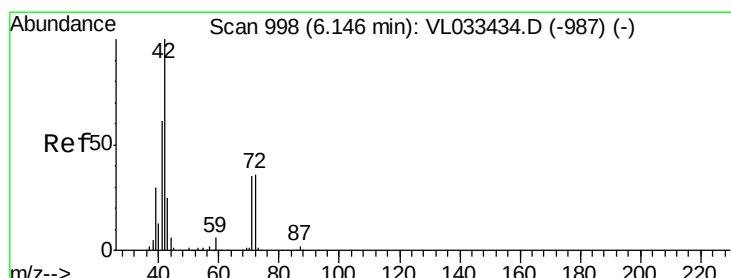
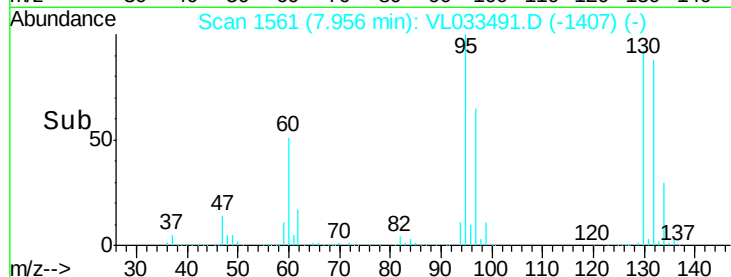
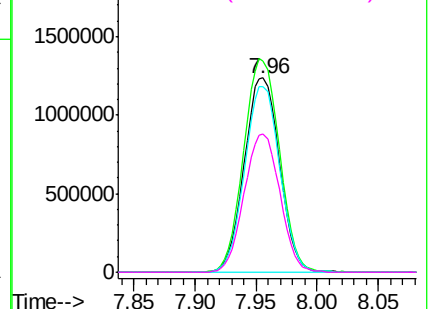
Abundance

Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

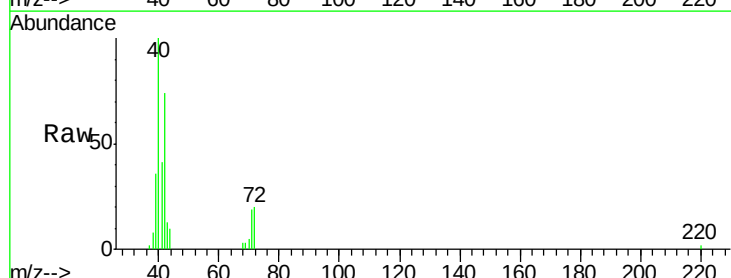
Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#41
 Tetrahydrofuran
 Concen: 0.228 ppbv m
 RT: 6.17 min Scan# 1005
 Delta R.T. 0.02 min
 Lab File: VL033491.D
 Acq: 28 Mar 2019 6:15

Tgt Ion	Ion	Ratio	Lower	Upper
42	100			
72	0.0	30.2	45.2#	
71	0.0	29.4	44.2#	

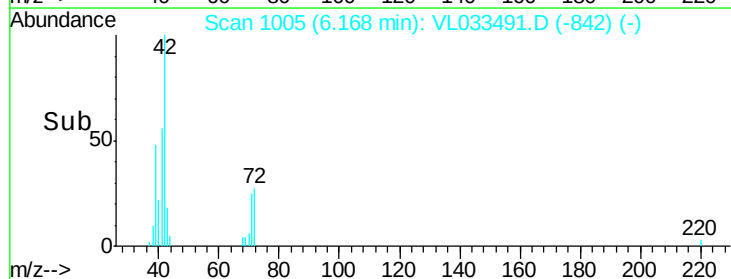
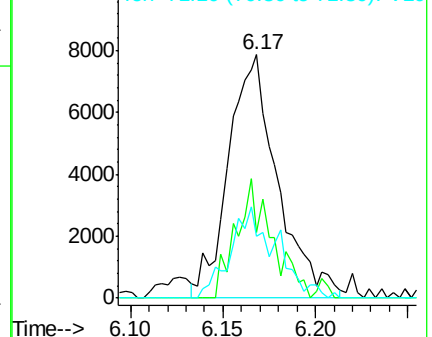


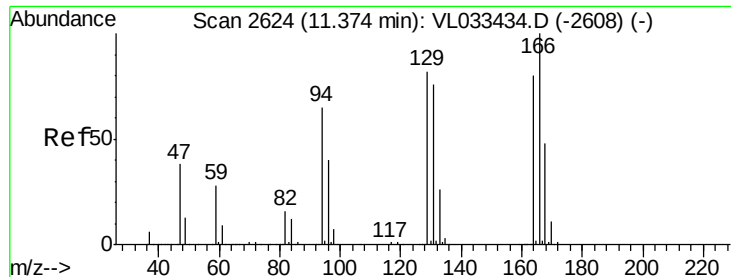
Abundance

Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





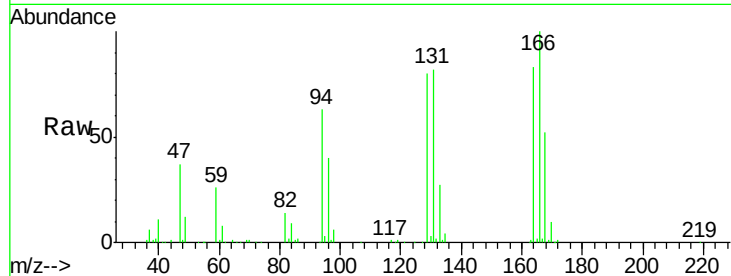
#52
Tetrachloroethene
Concen: 2.627 ppbv
RT: 11.36 min Scan# 2621
Delta R.T. -0.01 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Instrument :
MSVOA_L
ClientSampleId :
VMP-5

Tot Ion	Ratio	Resp	Lower	Upper
164	100	160015		
166	121.0	99.5	149.3	
129	97.0	81.4	122.2	
131	99.0	75.6	113.4	

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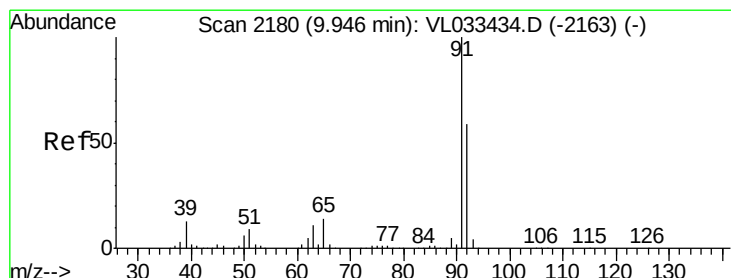
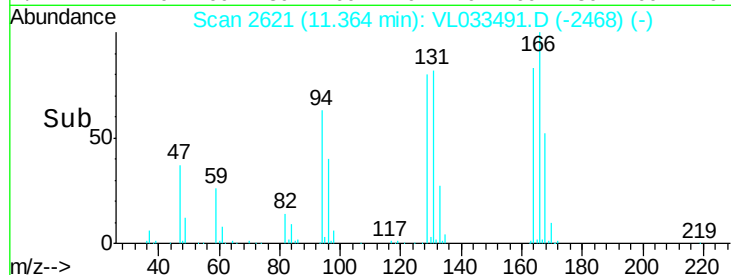
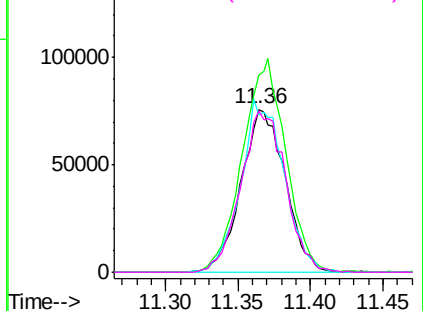
Abundance

Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

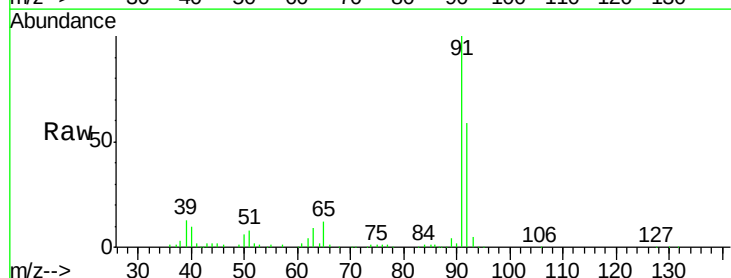
Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53
Toluene
Concen: 1.203 ppbv
RT: 9.94 min Scan# 2179
Delta R.T. -0.00 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

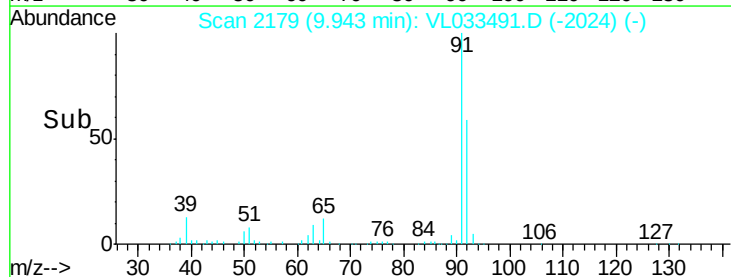
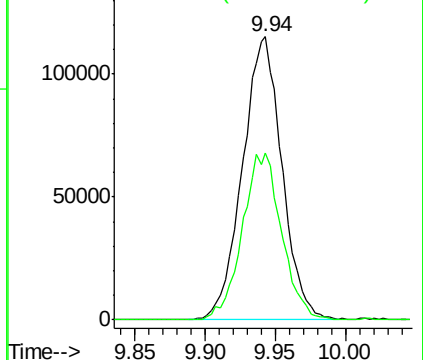
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	225744		
92	58.7	47.4	71.0	

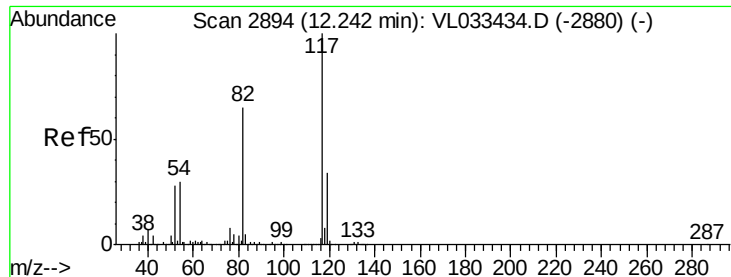


Abundance

Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





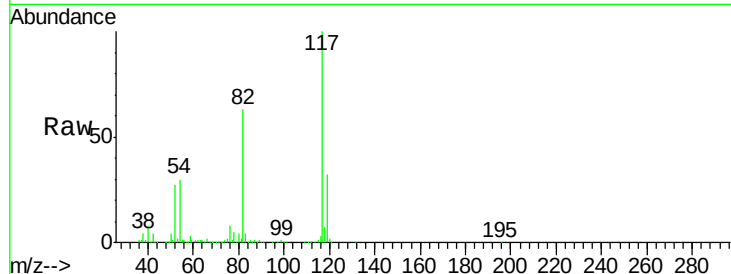
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Instrument :
MSVOA_L
ClientSampleId :
VMP-5

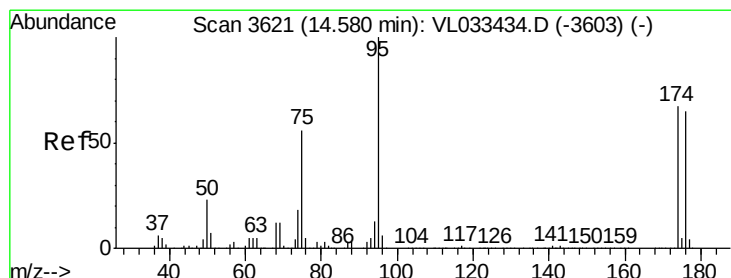
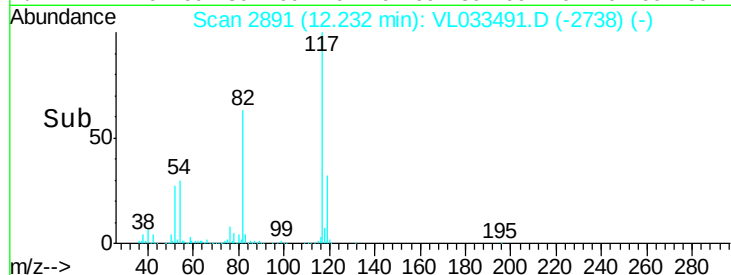
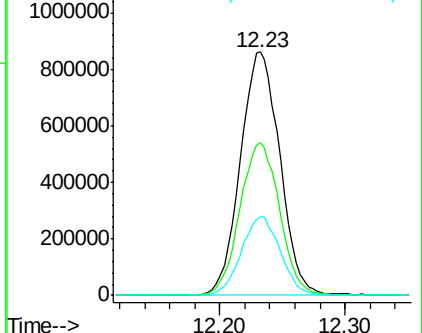
Tot Ion:117 Resp: 1884023
Ion Ratio Lower Upper
117 100
82 63.7 51.5 77.3
119 32.1 25.5 38.3

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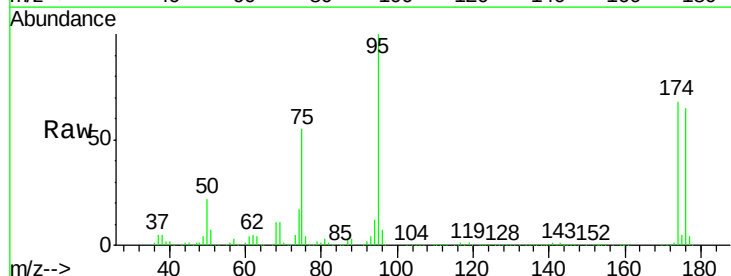


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): V
Ion 119.10 (118.80 to 119.80): V

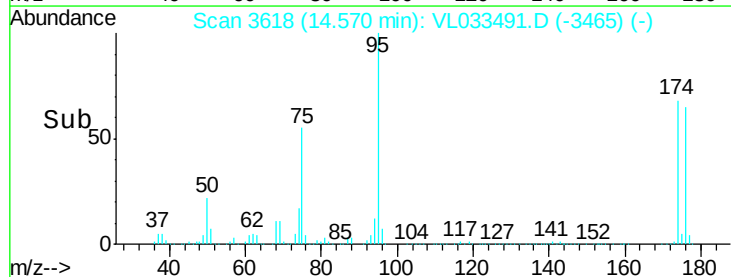
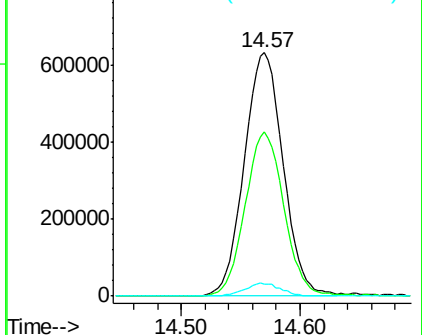


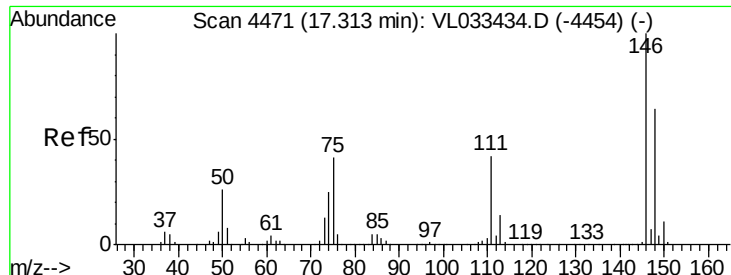
#68
1-Bromo-4-Fluorobenzene
Concen: 9.659 ppbv
RT: 14.57 min Scan# 3618
Delta R.T. -0.01 min
Lab File: VL033491.D
Acq: 28 Mar 2019 6:15

Tgt Ion: 95 Resp: 1426577
Ion Ratio Lower Upper
95 100
174 67.8 52.9 79.3
175 5.0 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): V
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V





#76

1,4-Dichlorobenzene

Concen: 0.483 ppbv

RT: 17.30 min Scan# 4466

Delta R.T. -0.02 min

Lab File: VL033491.D

Acq: 28 Mar 2019 6:15

Instrument :

MSVOA_L

ClientSampleId :

VMP-5

Tot Ion:146 Resp: 72819

Ion Ratio Lower Upper

146 100

111 50.9 21.7 65.1

148 68.4 32.0 96.2

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