

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL122017\
 Data File : VL031274.D
 Acq On : 20 Dec 2017 17:26
 Operator : SY/AP
 Sample : I7005-01DUP
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-OUT-01DUP

Quant Time: Dec 21 08:36:55 2017
 Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL121317AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Dec 14 04:29:58 2017
 QLast Update : Thu Dec 14 04:29:58 2017
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.91	49	1494873	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.45	114	3622023	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.41	117	3447469	10.00	ppbv	0.00

System Monitoring Compounds

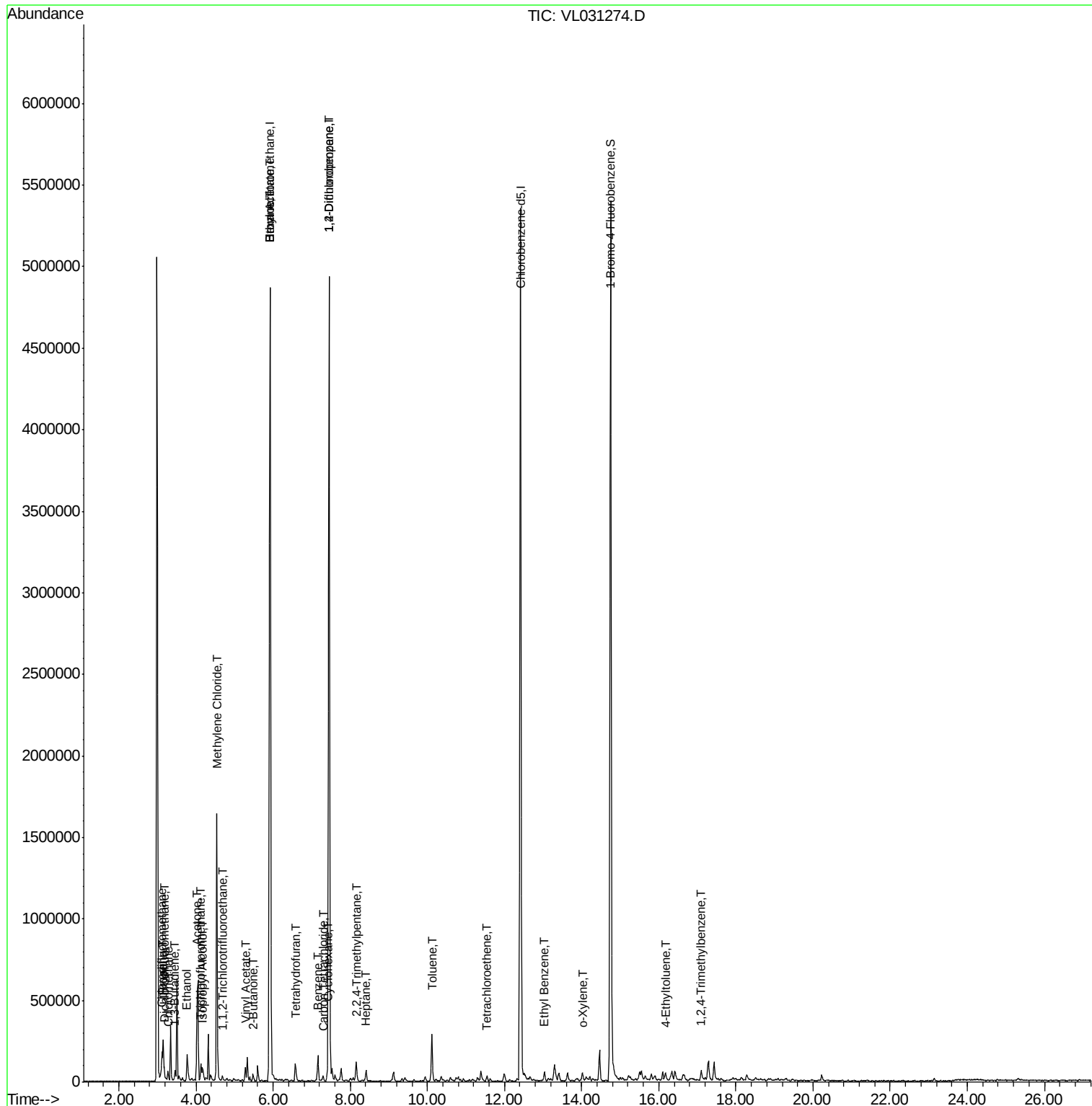
68) 1-Bromo-4-Fluorobenzene	14.75	95	2718311	11.09	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.90%

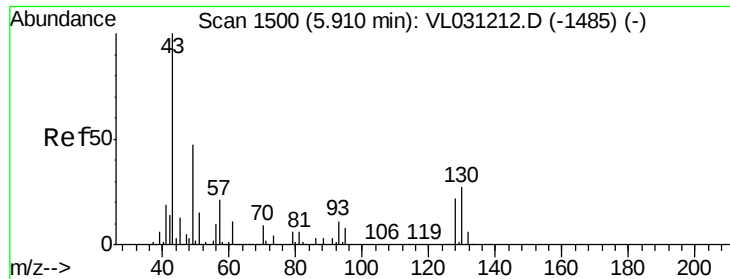
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.18	85	52300	0.41	ppbv	92
3) Chlorodifluoromethane	3.12	51	184381	1.08	ppbv	99
4) Chloromethane	3.27	50	45333	0.49	ppbv	92
9) Propene	3.14	41	74980	0.90	ppbv	85
10) Heptane	8.41	43	28388	0.11	ppbv	100
11) Trichlorofluoromethane	4.13	101	60758	0.29	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.69	101	6888	0.05	ppbv #	41
13) Ethanol	3.77	45	199098	8.27	ppbv	100
15) Acetone	4.03	43	681764	3.46	ppbv	90
16) 1,3-Butadiene	3.45	39	23608	0.28	ppbv #	40
19) Isopropyl Alcohol	4.16	45	102480	0.82	ppbv #	1
20) Methylene Chloride	4.54	84	577478	8.84	ppbv	96
23) Vinyl Acetate	5.28	43	31458	0.10	ppbv #	1
25) Ethyl Acetate	5.93	43	1036079	2.57	ppbv #	78
26) Hexane	5.93	57	1443451	7.55	ppbv #	44
30) Cyclohexane	7.41	84	10639	0.06	ppbv #	1
34) 2-Butanone	5.48	43	48440	0.19	ppbv	98
35) Carbon Tetrachloride	7.30	117	9431	0.04	ppbv	92
36) Benzene	7.16	78	111200	0.29	ppbv	98
39) 1,2-Dichloropropane	7.45	63	933311	6.88	ppbv #	27
41) Tetrahydrofuran	6.58	42	6018	0.04	ppbv #	38
44) 2,2,4-Trimethylpentane	8.15	57	94021	0.16	ppbv #	82
52) Tetrachloroethene	11.55	164	6686	0.05	ppbv #	81
53) Toluene	10.12	91	200600	0.48	ppbv	97
58) Ethyl Benzene	13.03	91	42164	0.07	ppbv	98
60) o-Xylene	14.03	91	38345	0.08	ppbv	95
72) 4-Ethyltoluene	16.17	105	21511	0.04	ppbv #	84
74) 1,2,4-Trimethylbenzene	17.10	105	28399	0.06	ppbv #	75

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

```
Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL122017\  
Data File : VL031274.D  
Acq On    : 20 Dec 2017  17:26  
Operator  : SY/AP  
Sample    : I7005-01DUP  
Misc      : 400ml/MSVOA_L  
ALS Vial  : 1      Sample Multiplier: 1
```

Quant Time: Dec 21 08:36:55 2017
Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL121317AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Dec 14 04:29:58 2017
QLast Update : Thu Dec 14 04:29:58 2017
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.91 min Scan# 1500

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01DUP

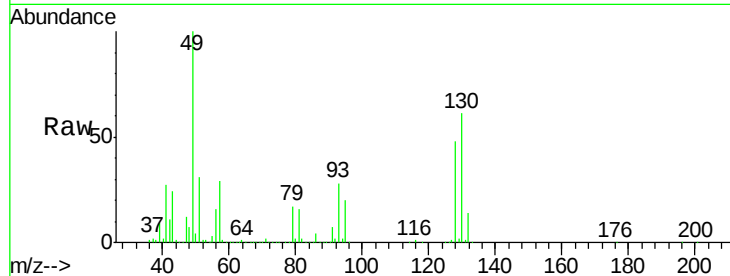
Tgt Ion: 49 Resp: 1494873

Ion Ratio Lower Upper

49 100

128 47.3 23.2 69.5

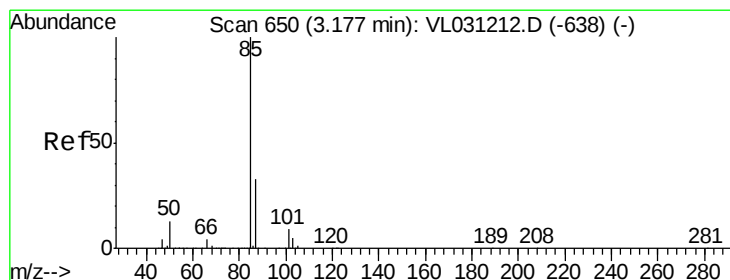
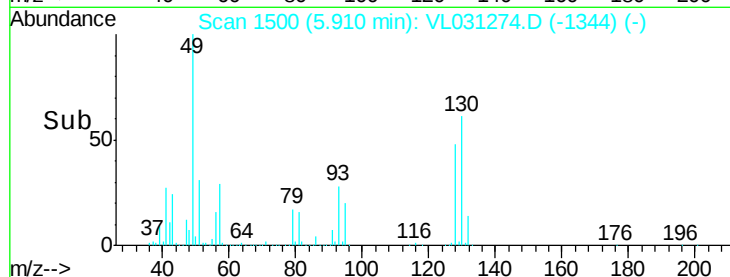
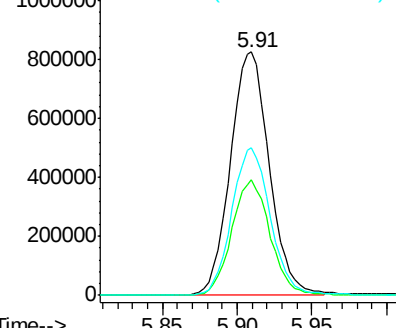
130 60.7 29.6 88.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.41 ppbv

RT: 3.18 min Scan# 651

Delta R.T. 0.00 min

Lab File: VL031274.D

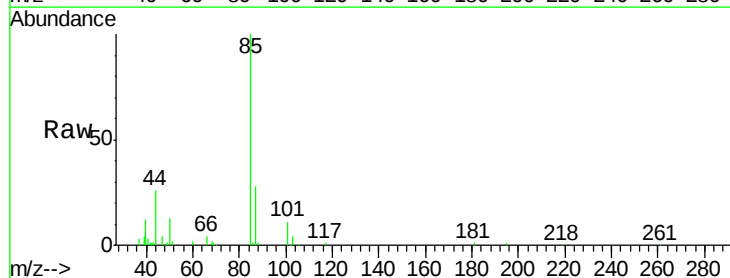
Acq: 20 Dec 2017 17:26

Tgt Ion: 85 Resp: 52300

Ion Ratio Lower Upper

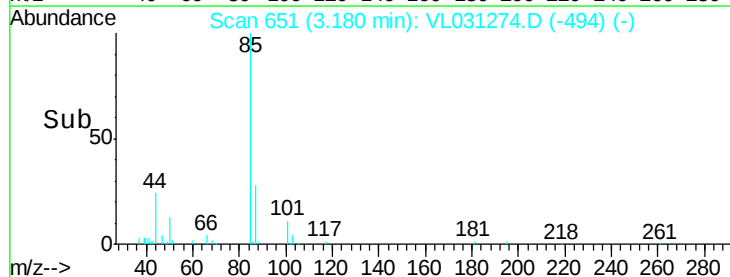
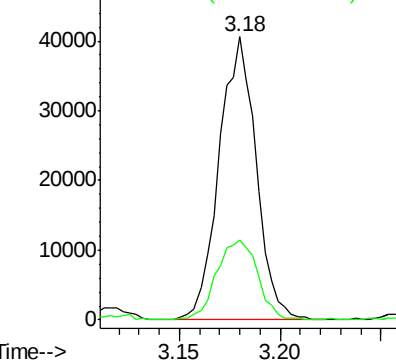
85 100

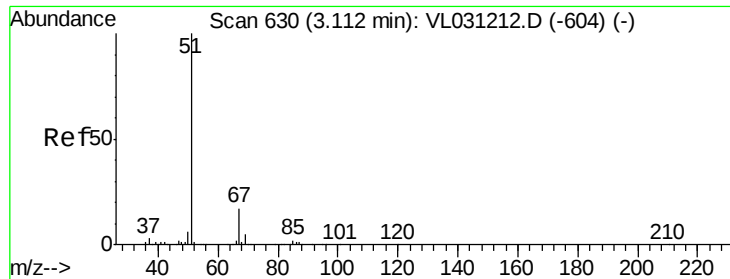
87 28.3 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.08 ppbv

RT: 3.12 min Scan# 631

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

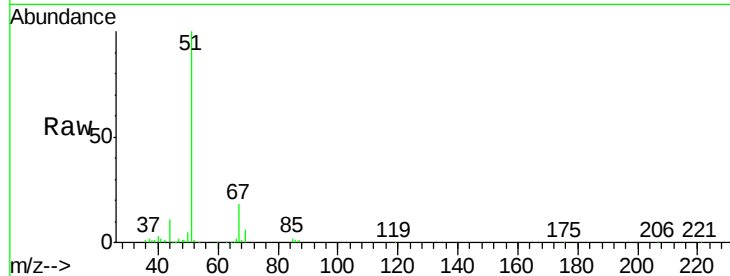
EP1-OUT-01DUP

Tgt Ion: 51 Resp: 184381

Ion Ratio Lower Upper

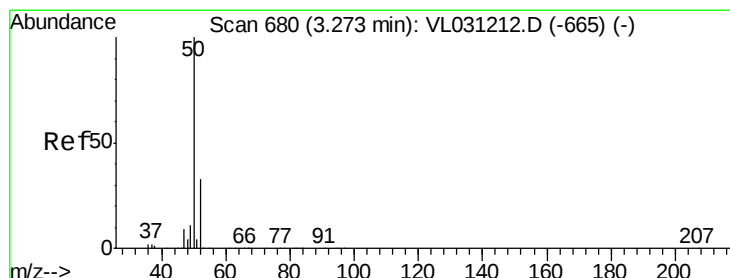
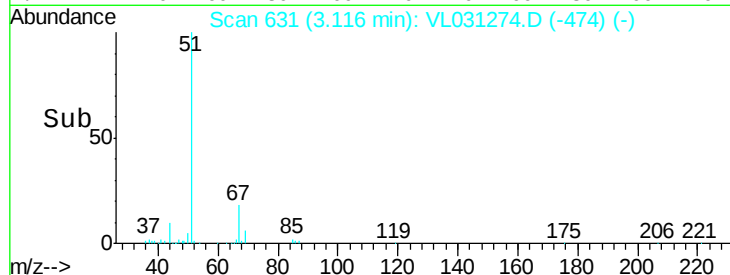
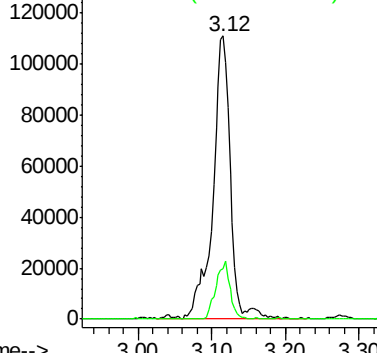
51 100

67 16.6 13.8 20.6



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.49 ppbv

RT: 3.27 min Scan# 680

Delta R.T. 0.00 min

Lab File: VL031274.D

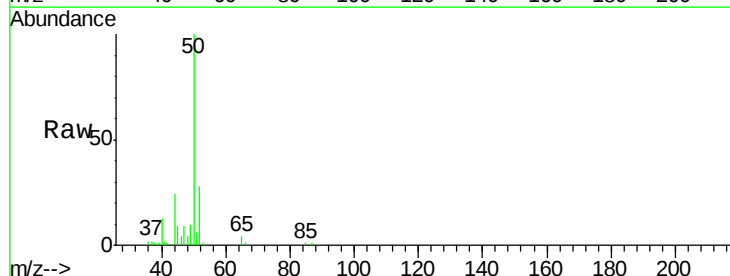
Acq: 20 Dec 2017 17:26

Tgt Ion: 50 Resp: 45333

Ion Ratio Lower Upper

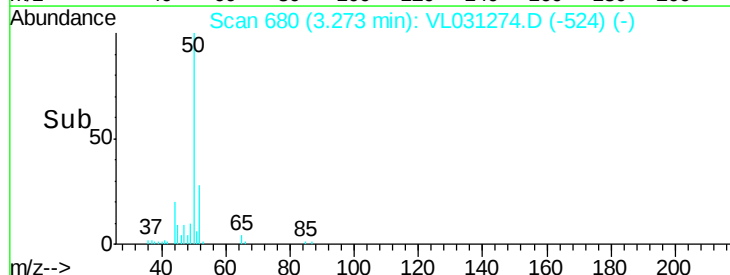
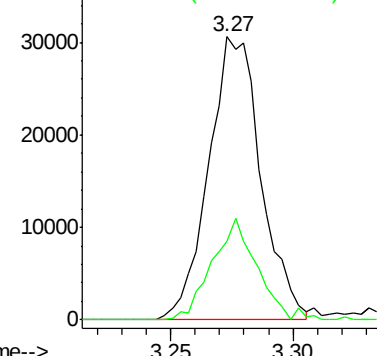
50 100

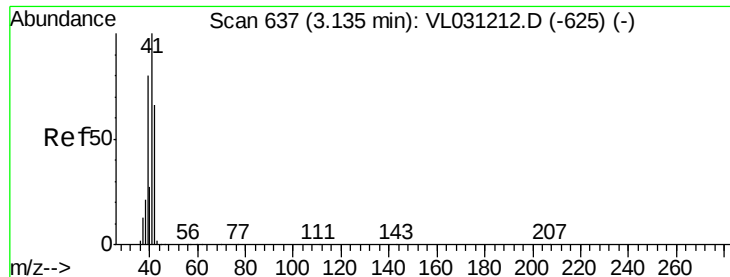
52 28.3 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.90 ppbv

RT: 3.14 min Scan# 638

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

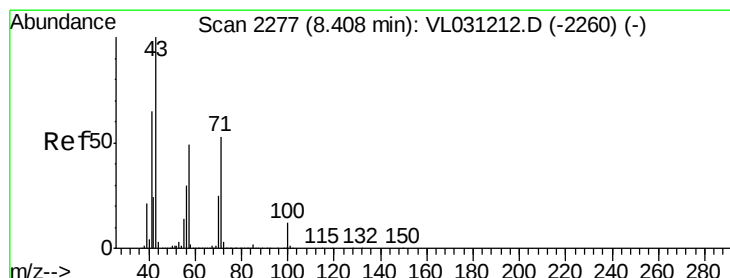
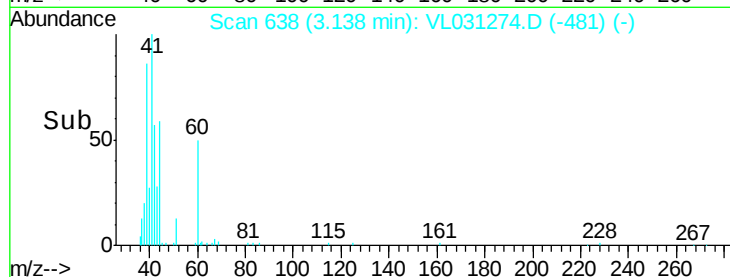
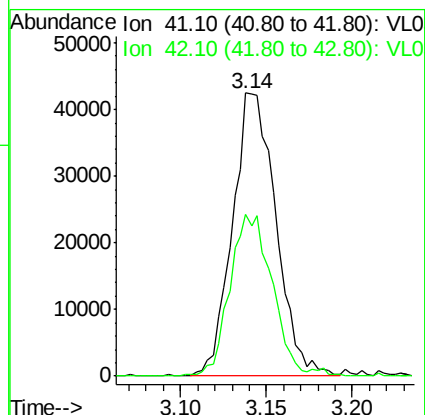
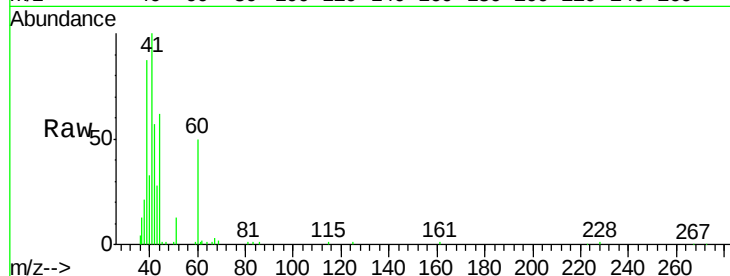
EP1-OUT-01DUP

Tgt Ion: 41 Resp: 74980

Ion Ratio Lower Upper

41 100

42 56.0 54.3 81.5



#10

Heptane

Concen: 0.11 ppbv

RT: 8.41 min Scan# 2277

Delta R.T. 0.00 min

Lab File: VL031274.D

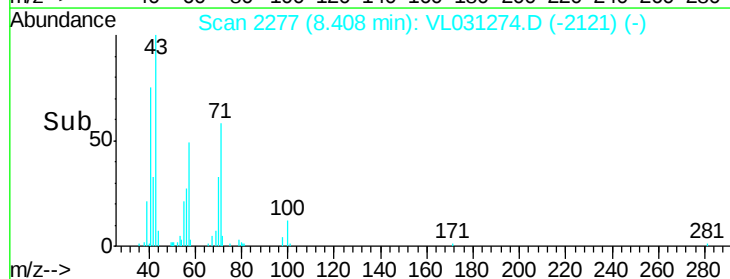
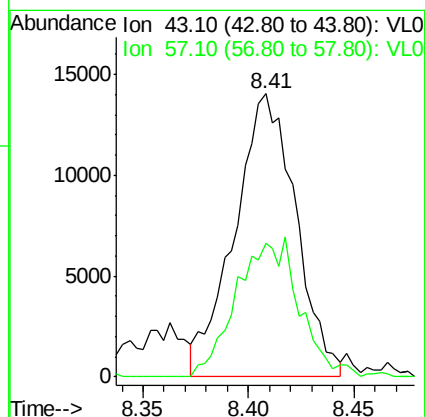
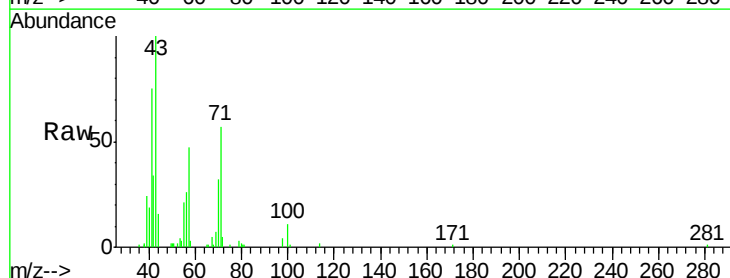
Acq: 20 Dec 2017 17:26

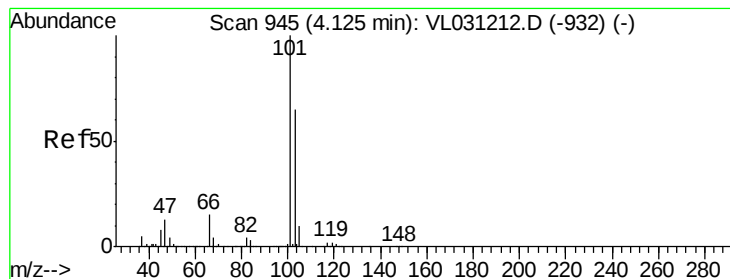
Tgt Ion: 43 Resp: 28388

Ion Ratio Lower Upper

43 100

57 50.1 39.8 59.8





#11

Trichlorofluoromethane

Concen: 0.29 ppbv

RT: 4.13 min Scan# 945

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

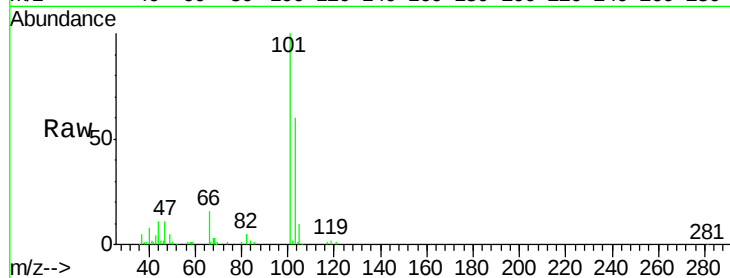
EP1-OUT-01DUP

Tgt Ion:101 Resp: 60758

Ion Ratio Lower Upper

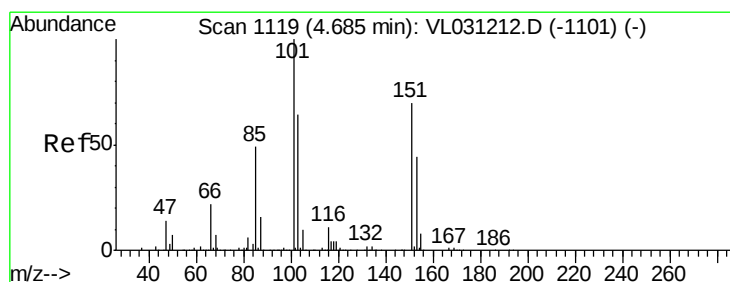
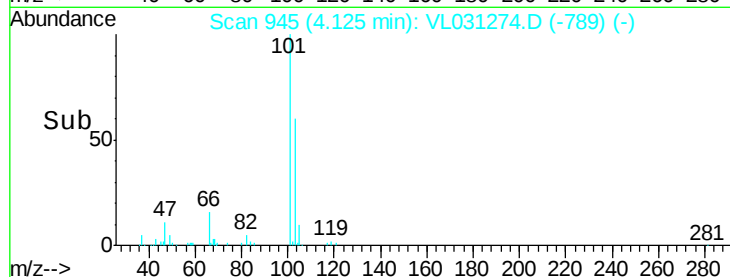
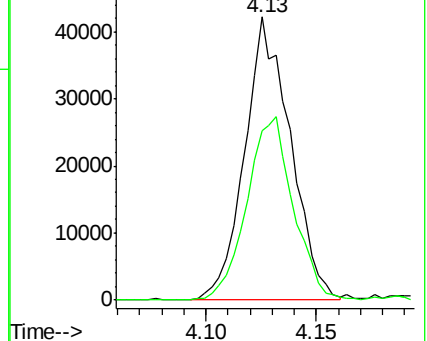
101 100

103 59.9 51.8 77.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.05 ppbv

RT: 4.69 min Scan# 1120

Delta R.T. 0.00 min

Lab File: VL031274.D

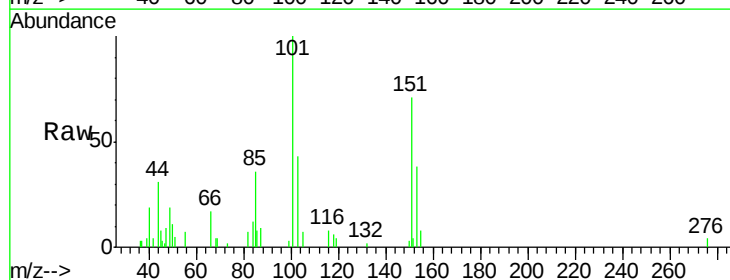
Acq: 20 Dec 2017 17:26

Tgt Ion:101 Resp: 6888

Ion Ratio Lower Upper

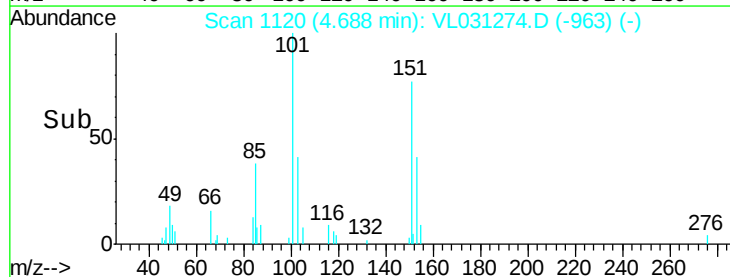
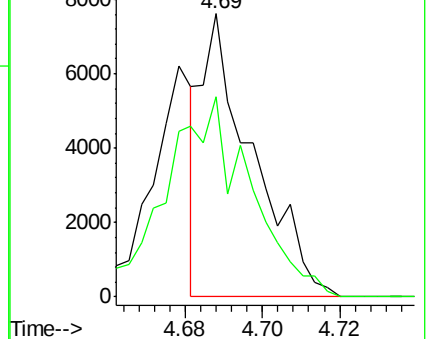
101 100

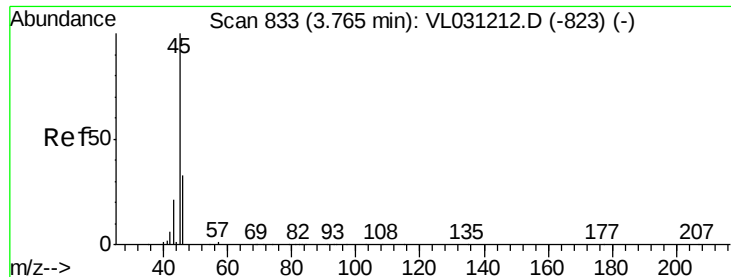
151 118.9 56.5 84.7#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 8.27 ppbv

RT: 3.77 min Scan# 834

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

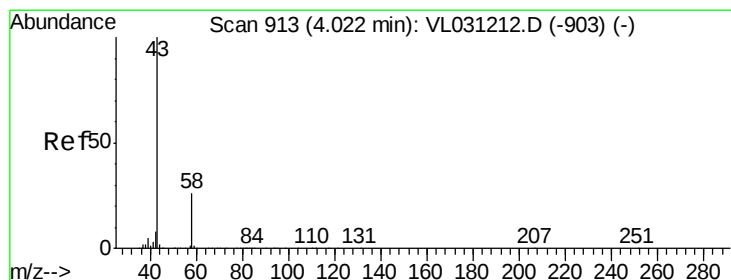
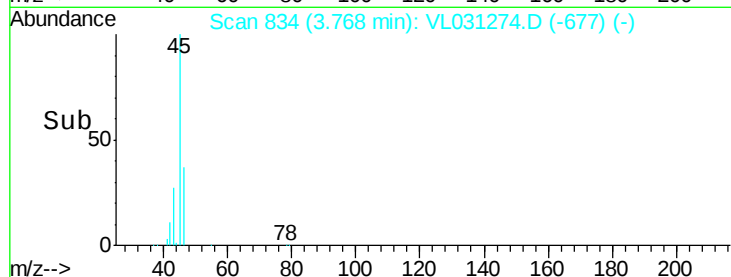
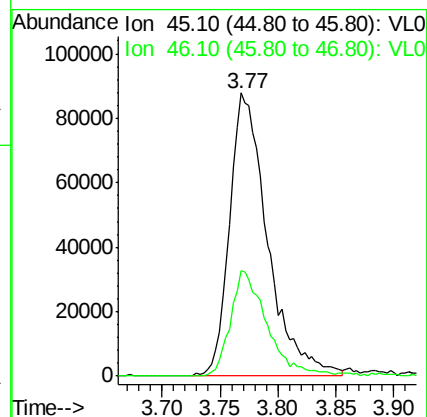
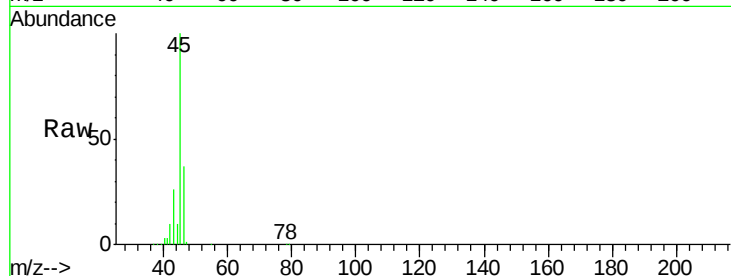
EP1-OUT-01DUP

Tgt Ion: 45 Resp: 199098

Ion Ratio Lower Upper

45 100

46 36.3 14.6 58.4



#15

Acetone

Concen: 3.46 ppbv

RT: 4.03 min Scan# 914

Delta R.T. 0.00 min

Lab File: VL031274.D

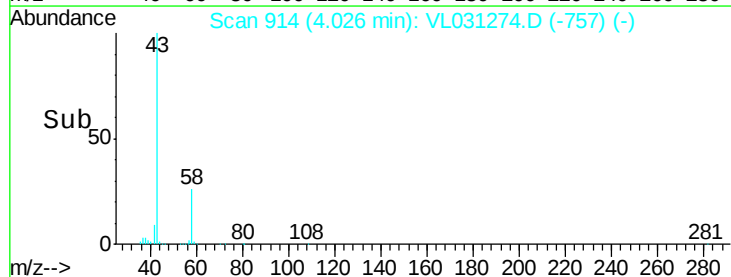
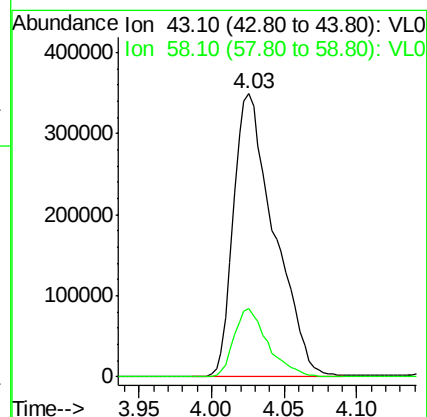
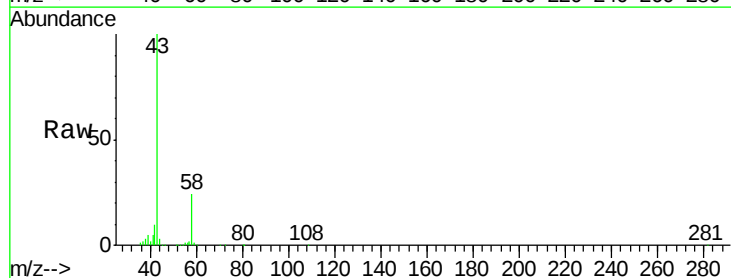
Acq: 20 Dec 2017 17:26

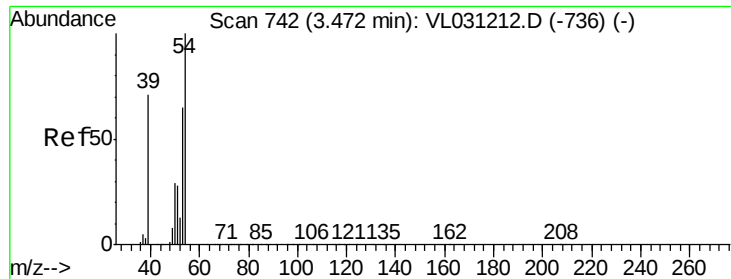
Tgt Ion: 43 Resp: 681764

Ion Ratio Lower Upper

43 100

58 20.5 20.3 30.5

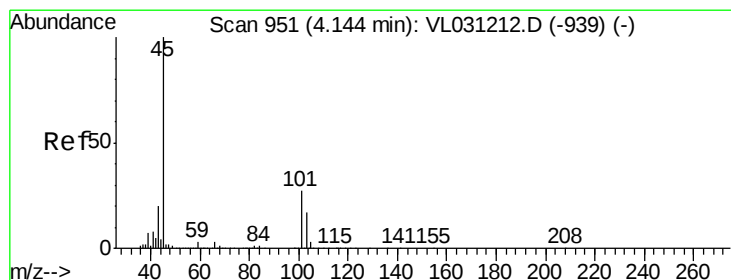
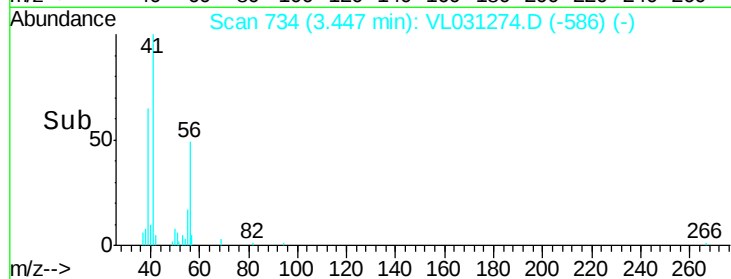
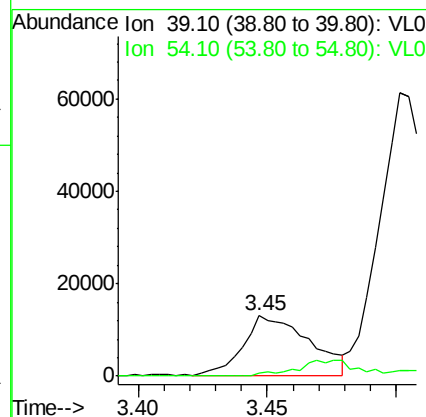
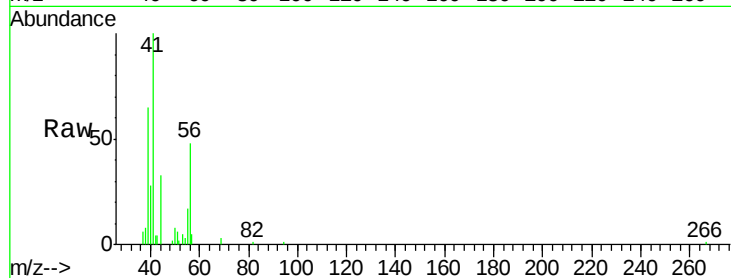




#16
 1,3-Butadiene
 Concen: 0.28 ppbv
 RT: 3.45 min Scan# 734
 Delta R.T. -0.03 min
 Lab File: VL031274.D
 Acq: 20 Dec 2017 17:26

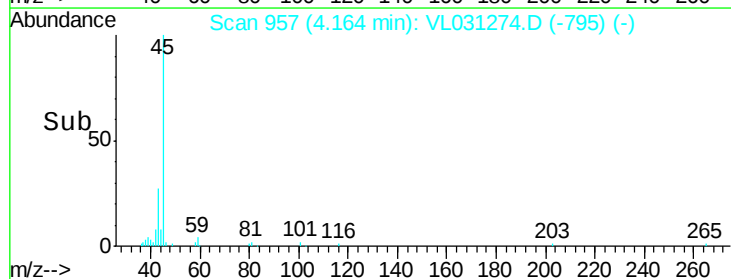
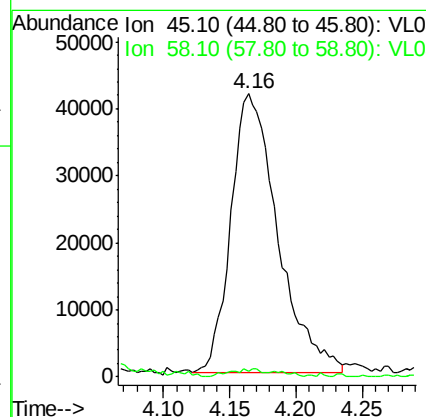
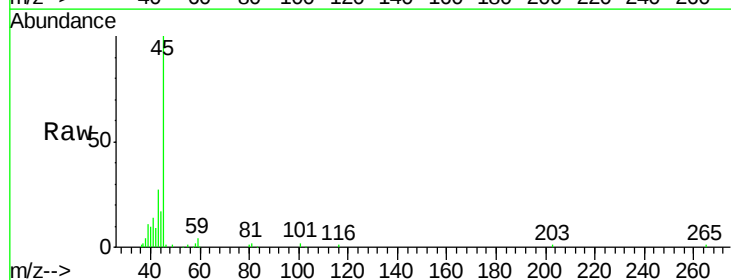
Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-OUT-01DUP

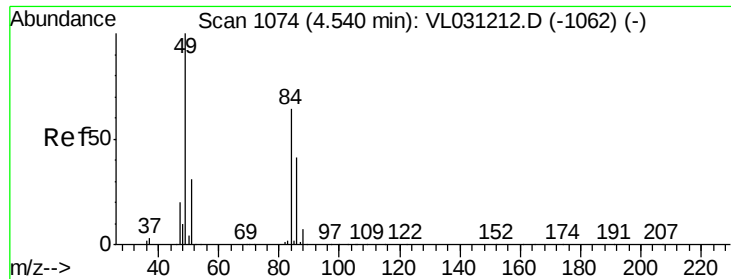
Tgt Ion: 39 Resp: 23608
 Ion Ratio Lower Upper
 39 100
 54 28.5 66.4 99.6#



#19
 Isopropyl Alcohol
 Concen: 0.82 ppbv
 RT: 4.16 min Scan# 957
 Delta R.T. 0.02 min
 Lab File: VL031274.D
 Acq: 20 Dec 2017 17:26

Tgt Ion: 45 Resp: 102480
 Ion Ratio Lower Upper
 45 100
 58 136.4 27.2 40.8#

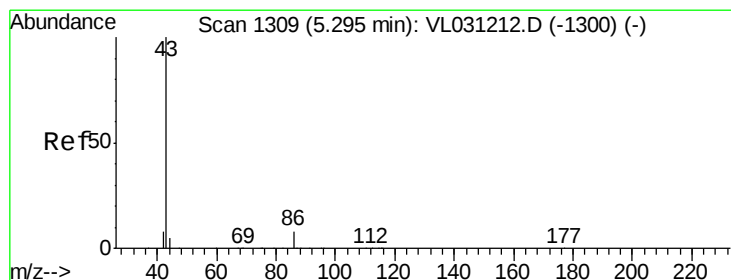
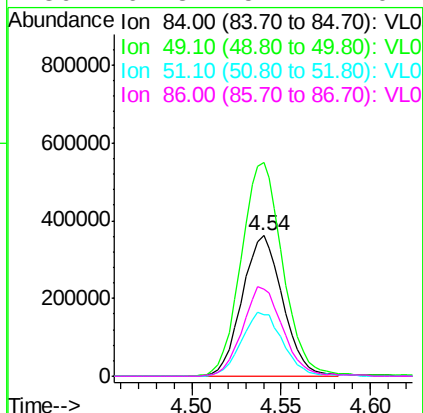
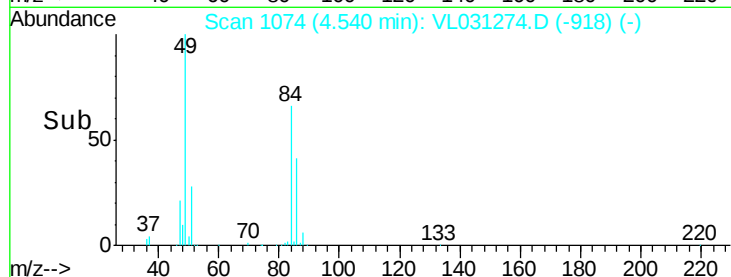
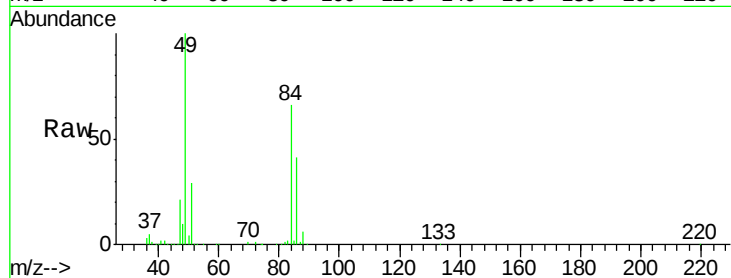




#20
Methylene Chloride
Concen: 8.84 ppbv
RT: 4.54 min Scan# 1074
Delta R.T. 0.00 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

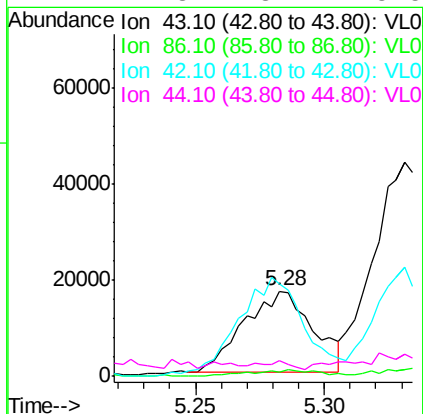
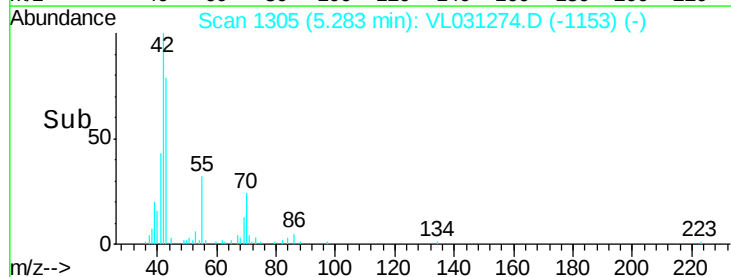
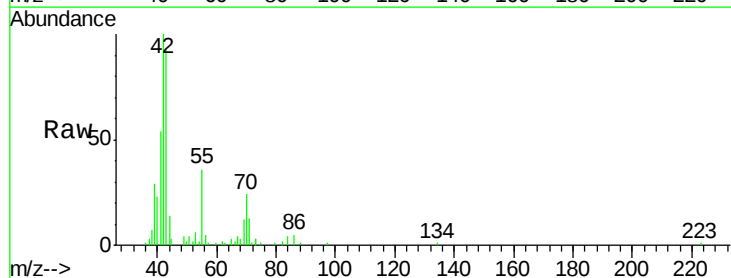
Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01DUP

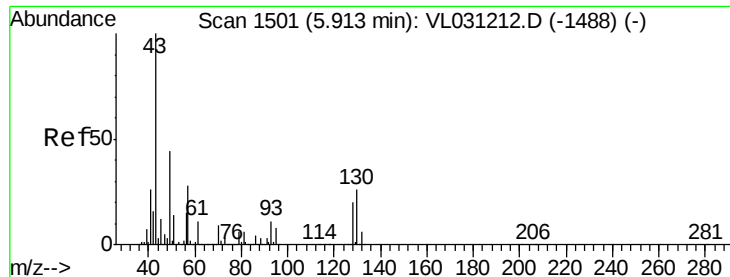
Tgt Ion:	84	Resp:	577478
Ion	Ratio	Lower	Upper
84	100		
49	151.8	125.8	188.6
51	43.7	39.3	58.9
86	62.3	51.1	76.7



#23
Vinyl Acetate
Concen: 0.10 ppbv
RT: 5.28 min Scan# 1305
Delta R.T. -0.01 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

Tgt Ion:	43	Resp:	31458
Ion	Ratio	Lower	Upper
43	100		
86	5.1	5.9	8.9#
42	106.7	7.3	10.9#
44	2.3	3.7	5.5#



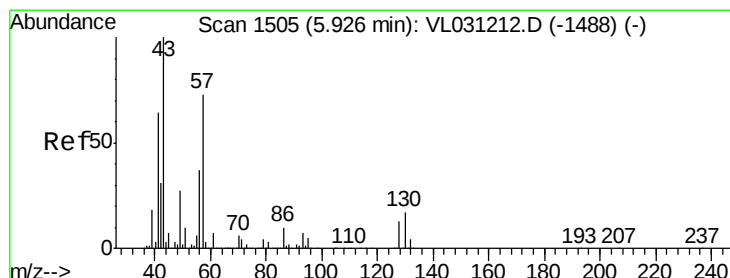
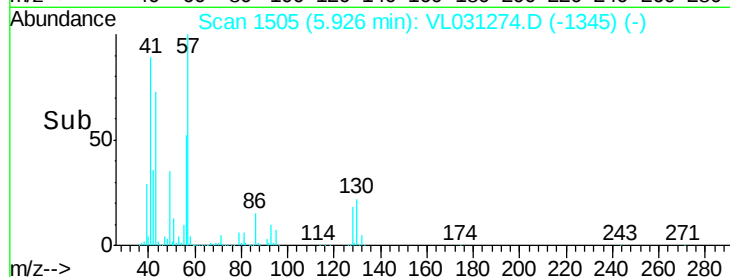
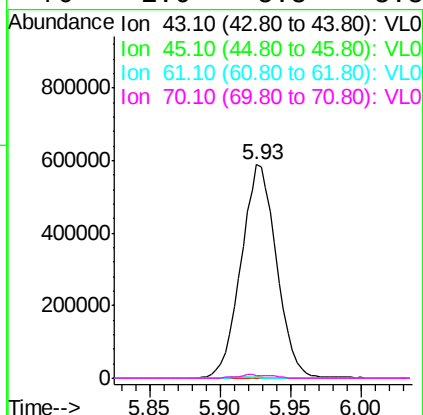
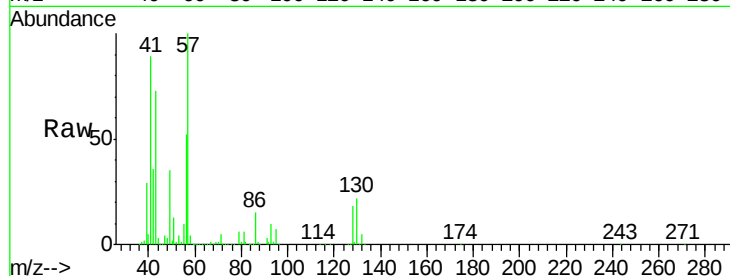


#25
Ethyl Acetate
Concen: 2.57 ppbv
RT: 5.93 min Scan# 1505
Delta R.T. 0.01 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01DUP

Tgt Ion: 43 Resp: 1036079

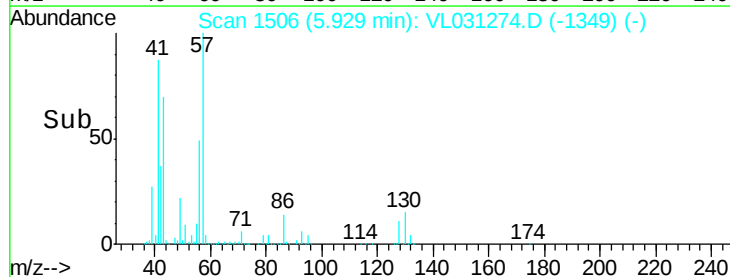
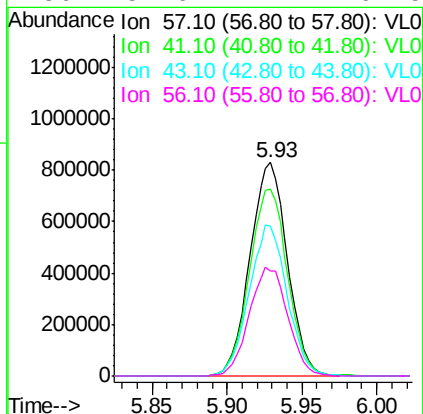
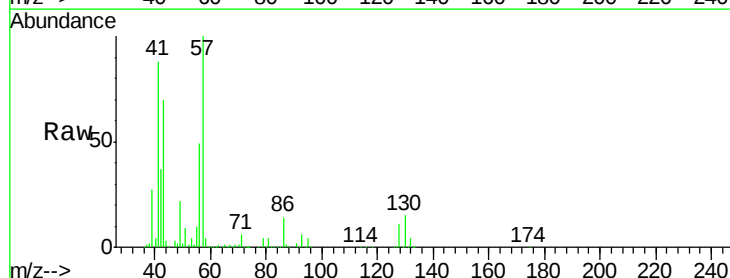
Ion	Ratio	Lower	Upper
43	100		
45	0.6	8.0	12.0#
61	0.5	7.4	11.0#
70	1.6	5.8	8.8#

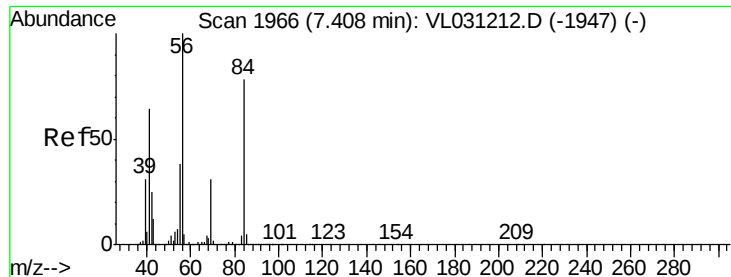


#26
Hexane
Concen: 7.55 ppbv
RT: 5.93 min Scan# 1506
Delta R.T. 0.00 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

Tgt Ion: 57 Resp: 1443451

Ion	Ratio	Lower	Upper
57	100		
41	89.9	70.3	105.5
43	72.1	173.8	260.8#
56	52.6	41.7	62.5

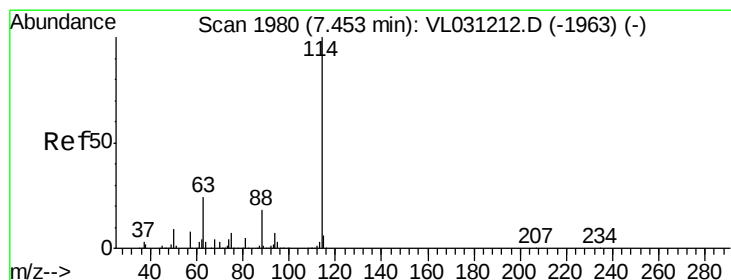
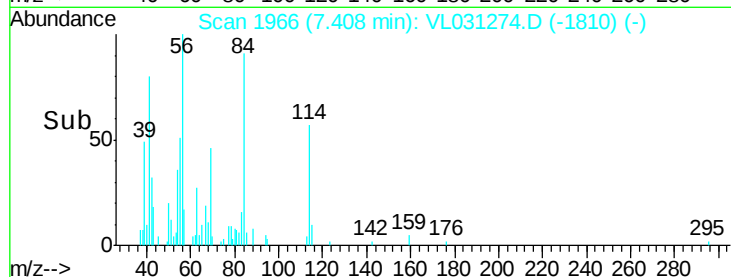
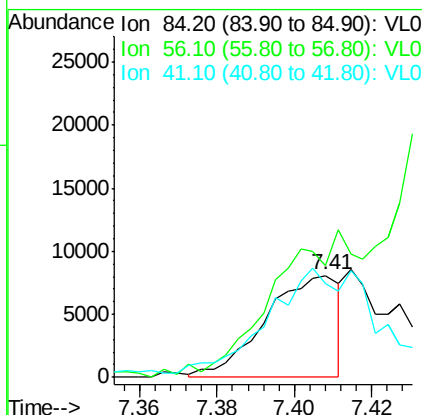
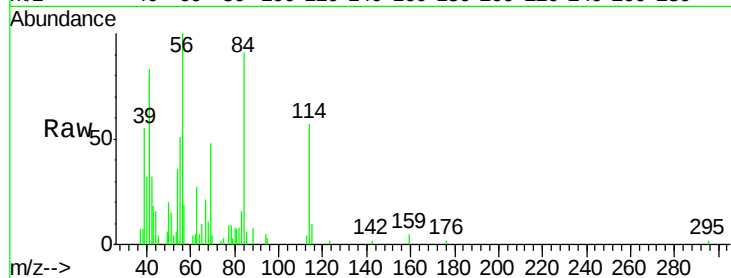




#30
Cyclohexane
Concen: 0.06 ppbv
RT: 7.41 min Scan# 1966
Delta R.T. 0.00 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

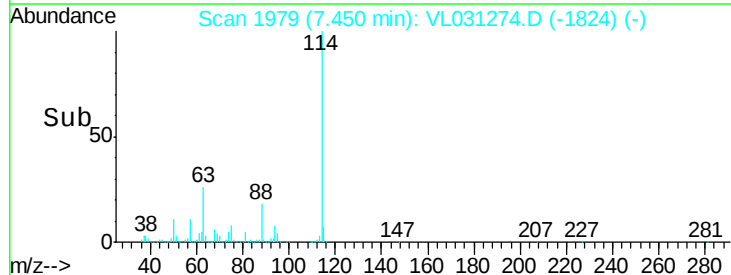
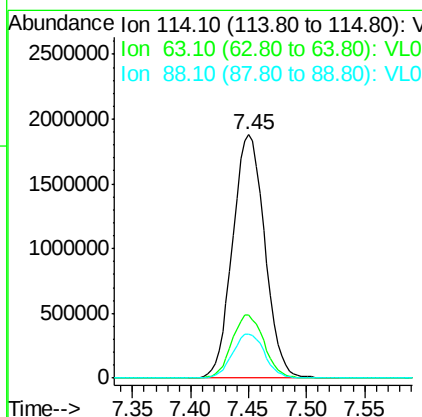
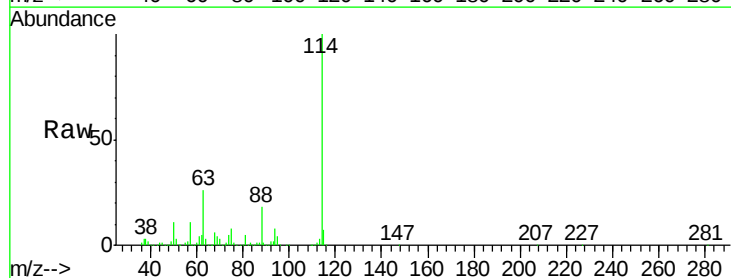
Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01DUP

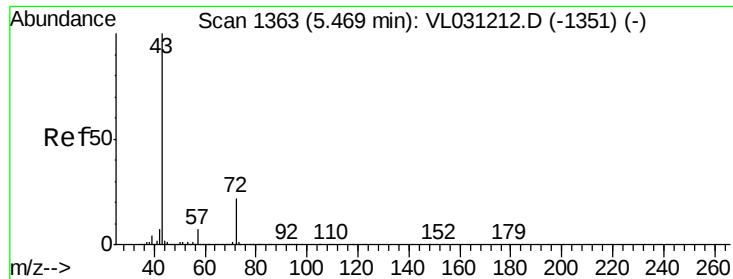
Tgt Ion: 84 Resp: 10639
Ion Ratio Lower Upper
84 100
56 0.0 108.0 162.0#
41 170.2 66.2 99.4#



#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 7.45 min Scan# 1979
Delta R.T. -0.00 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

Tgt Ion: 114 Resp: 3622023
Ion Ratio Lower Upper
114 100
63 26.1 19.8 29.8
88 18.1 14.2 21.4

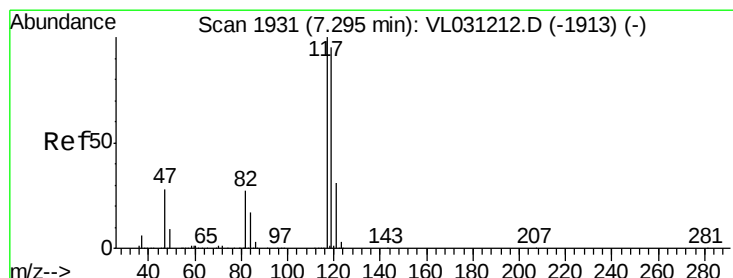
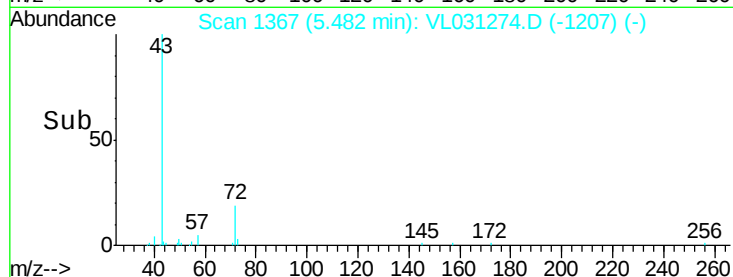
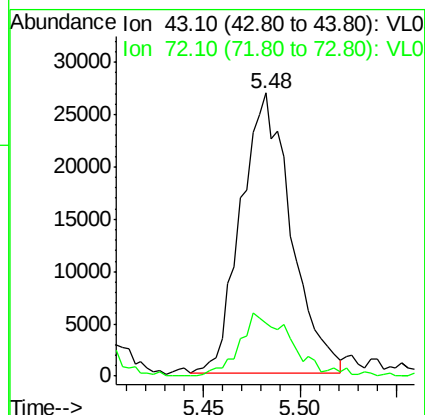
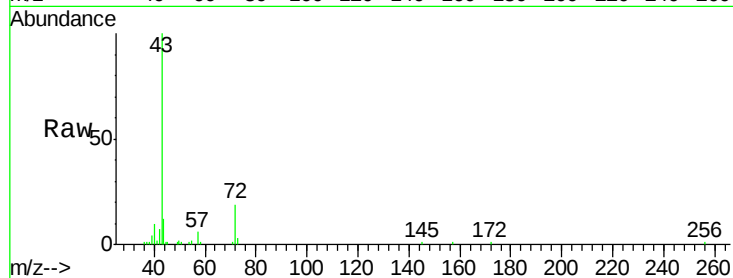




#34
2-Butanone
Concen: 0.19 ppbv
RT: 5.48 min Scan# 1367
Delta R.T. 0.01 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

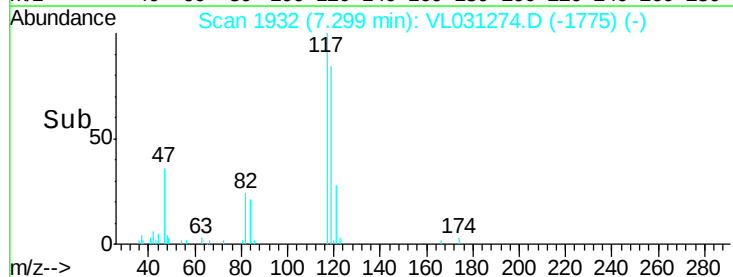
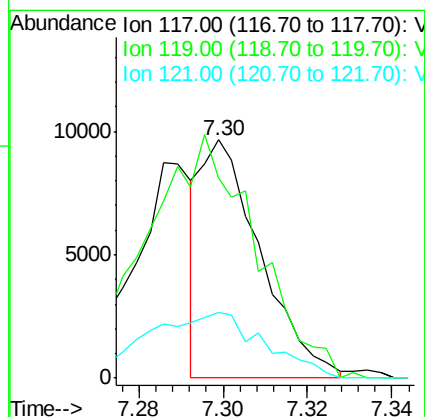
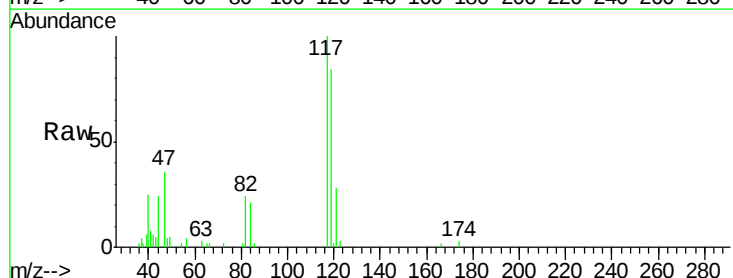
Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01DUP

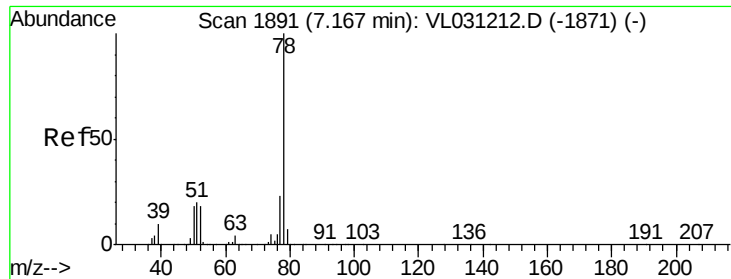
Tgt Ion: 43 Resp: 48440
Ion Ratio Lower Upper
43 100
72 23.4 18.1 27.1



#35
Carbon Tetrachloride
Concen: 0.04 ppbv
RT: 7.30 min Scan# 1932
Delta R.T. 0.00 min
Lab File: VL031274.D
Acq: 20 Dec 2017 17:26

Tgt Ion: 117 Resp: 9431
Ion Ratio Lower Upper
117 100
119 86.5 75.9 113.9
121 28.6 24.6 37.0





#36

Benzene

Concen: 0.29 ppbv

RT: 7.16 min Scan# 1889

Delta R.T. -0.01 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01DUP

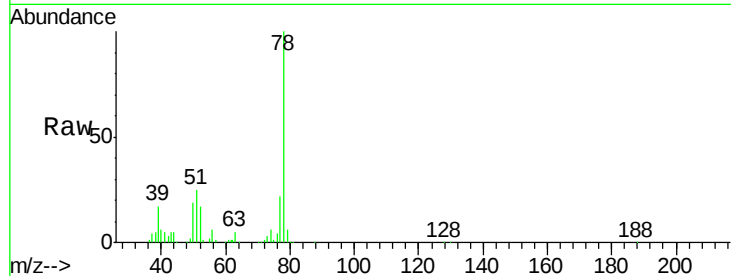
Tgt Ion: 78 Resp: 111200

Ion Ratio Lower Upper

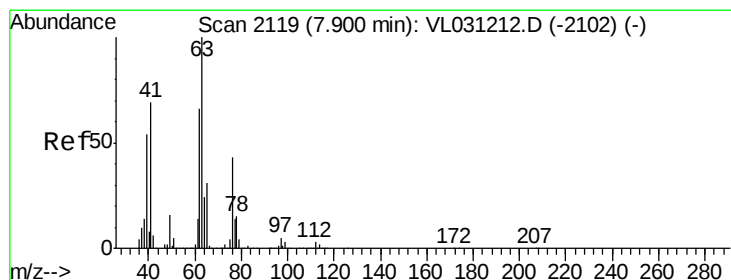
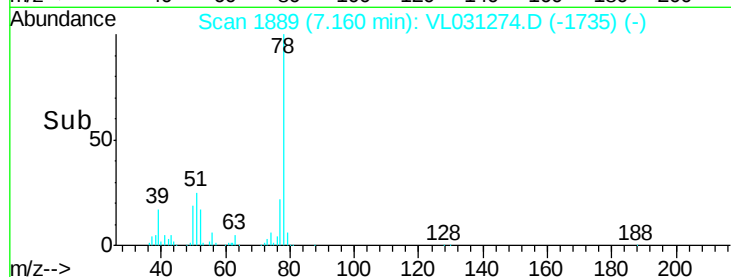
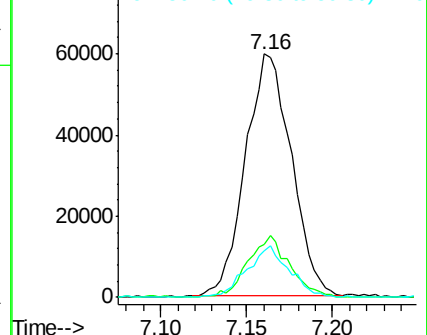
78 100

77 21.8 18.1 27.1

50 18.9 14.6 21.8



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



#39

1,2-Dichloropropane

Concen: 6.88 ppbv

RT: 7.45 min Scan# 1979

Delta R.T. -0.45 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

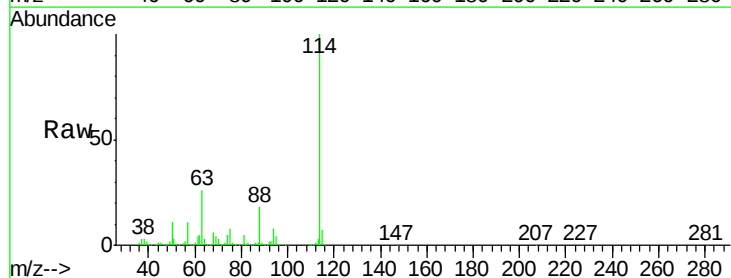
Tgt Ion: 63 Resp: 933311

Ion Ratio Lower Upper

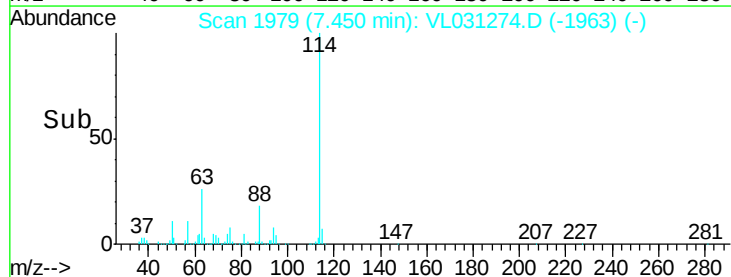
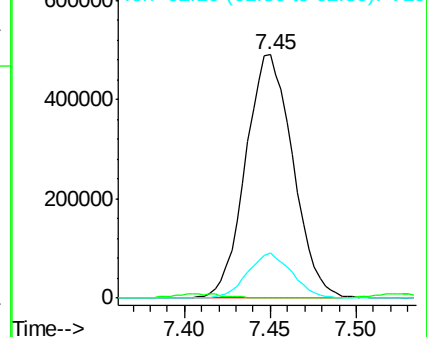
63 100

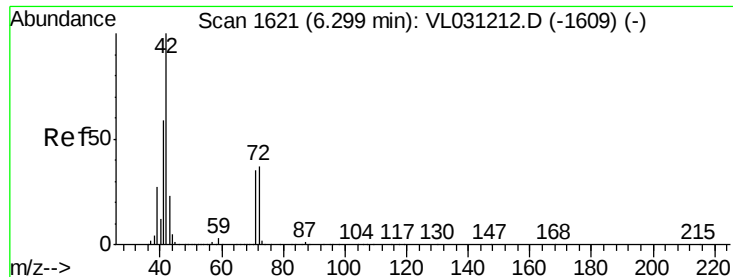
41 0.0 55.2 82.8#

62 18.4 53.0 79.4#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 0.04 ppbv

RT: 6.58 min Scan# 1707

Delta R.T. 0.28 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01DUP

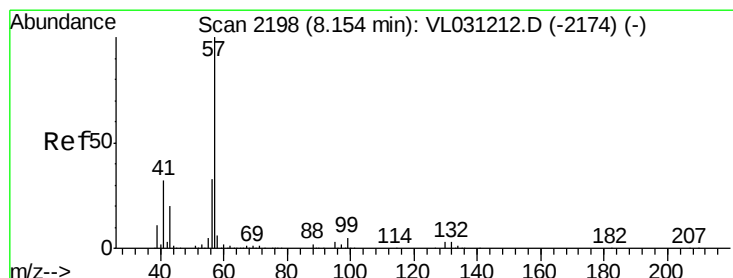
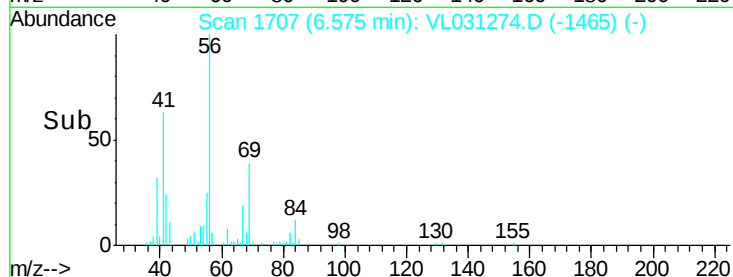
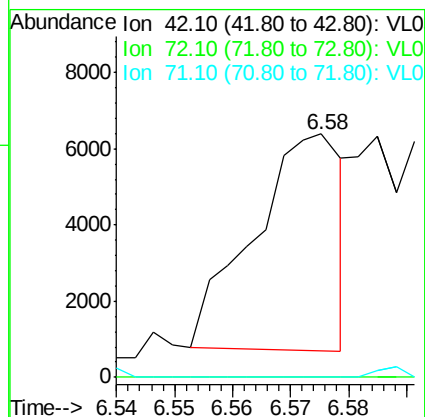
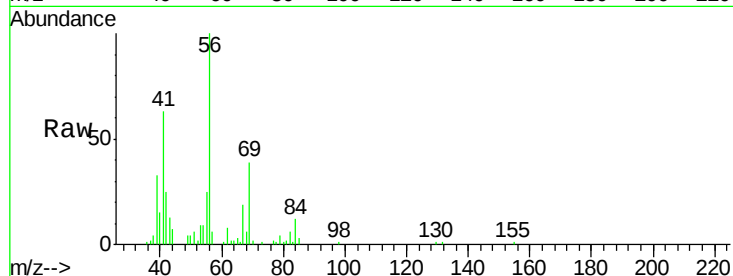
Tgt Ion: 42 Resp: 6018

Ion Ratio Lower Upper

42 100

72 0.0 30.2 45.4#

71 0.0 29.0 43.6#



#44

2,2,4-Trimethylpentane

Concen: 0.16 ppbv

RT: 8.15 min Scan# 2198

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

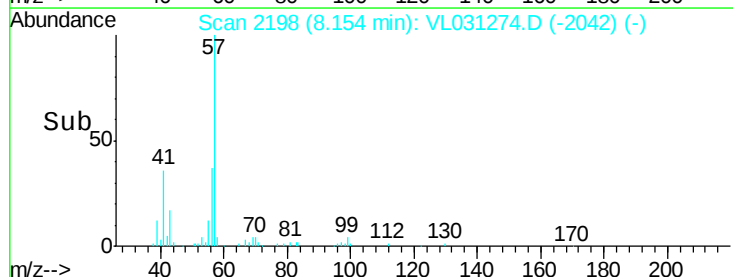
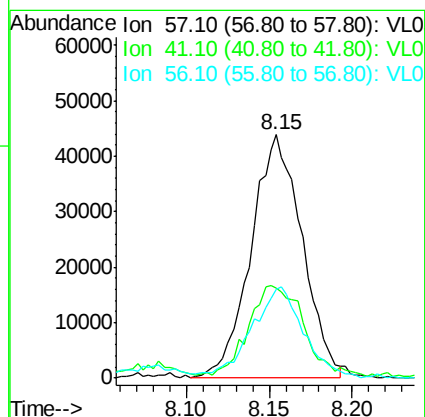
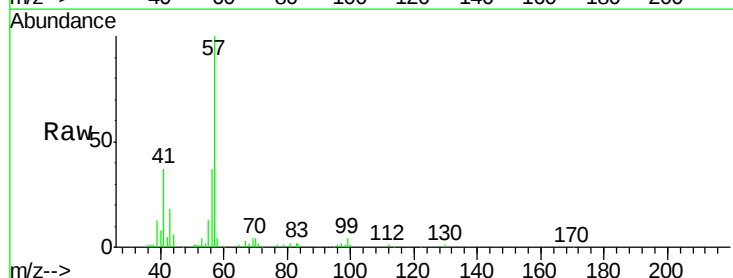
Tgt Ion: 57 Resp: 94021

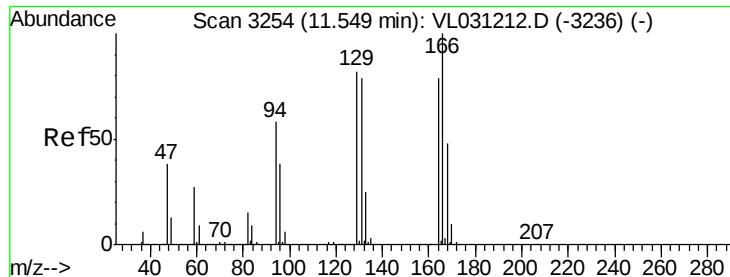
Ion Ratio Lower Upper

57 100

41 43.8 25.5 38.3#

56 38.8 25.0 37.6#





#52

Tetrachloroethene

Concen: 0.05 ppbv

RT: 11.55 min Scan# 3253

Delta R.T. -0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01DUP

Tgt Ion:164 Resp: 6686

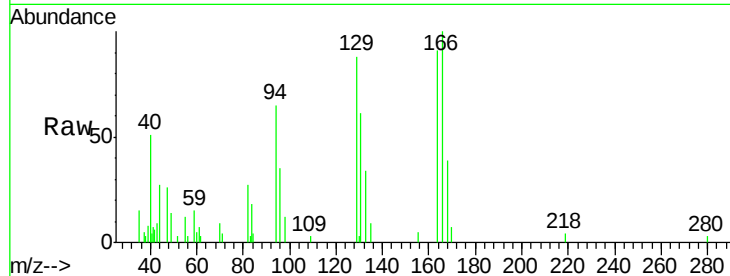
Ion Ratio Lower Upper

164 100

166 103.9 100.6 151.0

129 96.5 82.9 124.3

131 66.6 79.2 118.8#

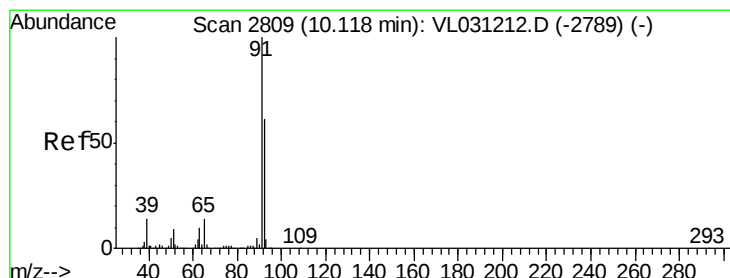
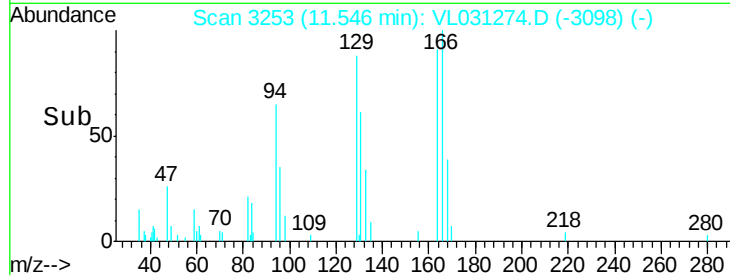
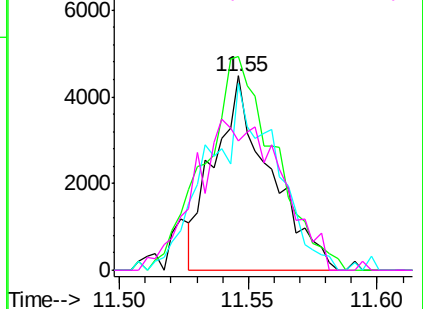


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.48 ppbv

RT: 10.12 min Scan# 2808

Delta R.T. -0.00 min

Lab File: VL031274.D

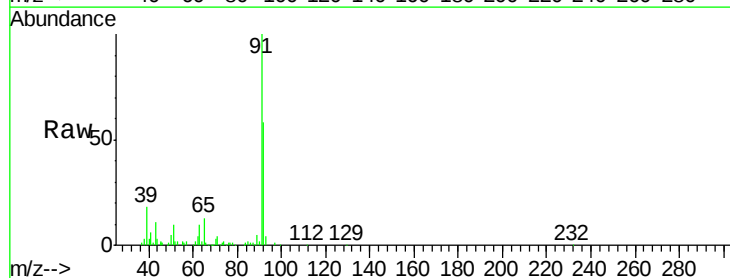
Acq: 20 Dec 2017 17:26

Tgt Ion: 91 Resp: 200600

Ion Ratio Lower Upper

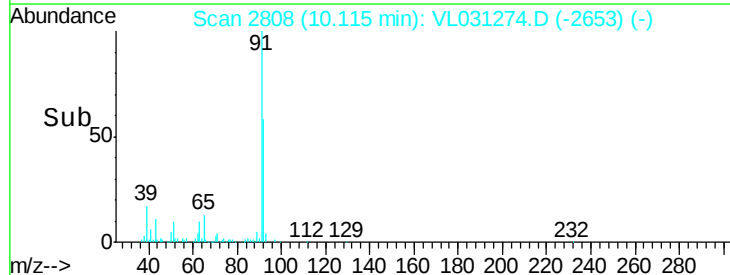
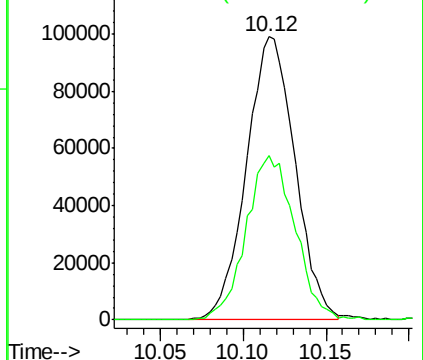
91 100

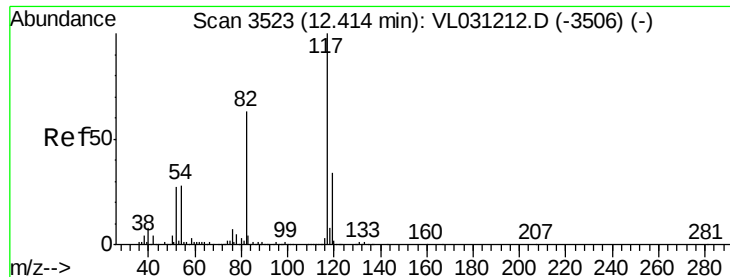
92 58.8 49.1 73.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.41 min Scan# 3523

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01DUP

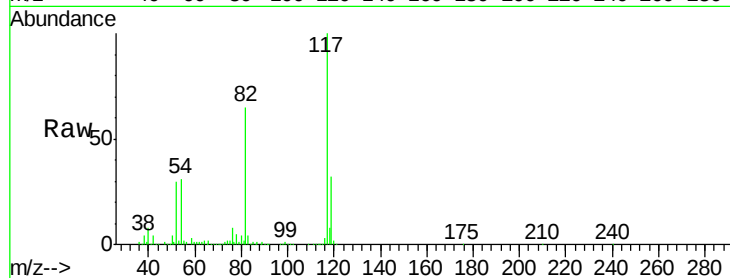
Tgt Ion:117 Resp: 3447469

Ion Ratio Lower Upper

117 100

82 65.1 48.1 72.1

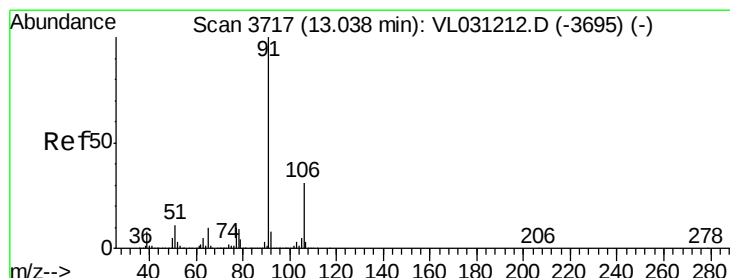
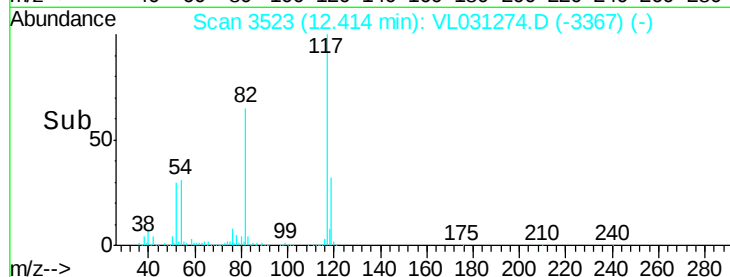
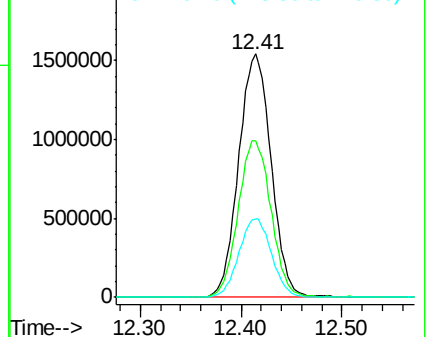
119 32.6 23.1 34.7



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.07 ppbv

RT: 13.03 min Scan# 3716

Delta R.T. -0.00 min

Lab File: VL031274.D

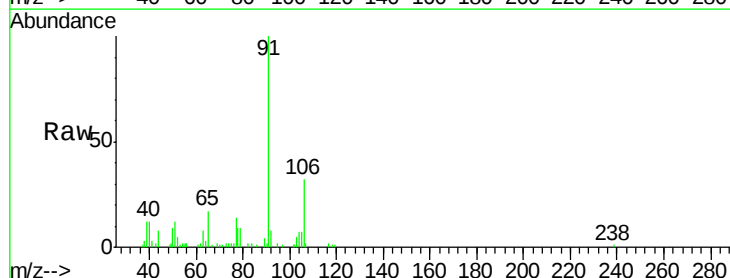
Acq: 20 Dec 2017 17:26

Tgt Ion: 91 Resp: 42164

Ion Ratio Lower Upper

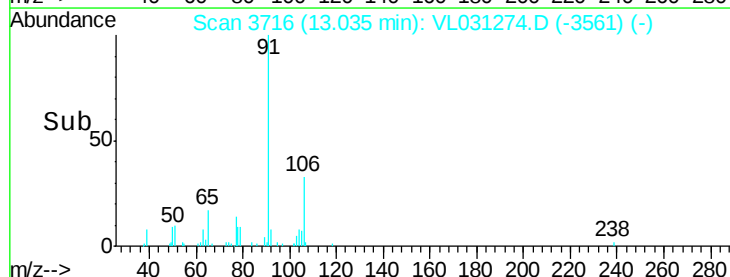
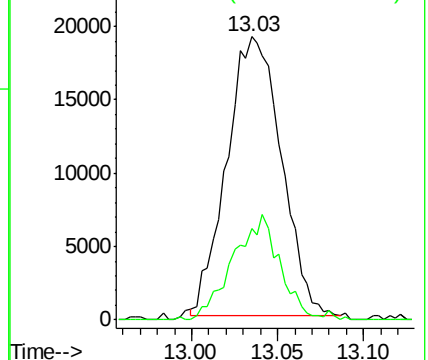
91 100

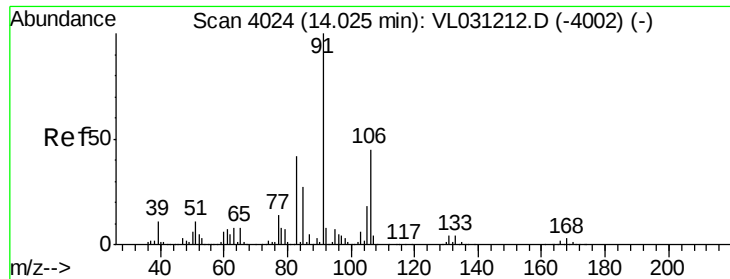
106 32.7 25.1 37.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#60

o-Xylene

Concen: 0.08 ppbv

RT: 14.03 min Scan# 4024

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Instrument :

MSVOA_L

ClientSampleId :

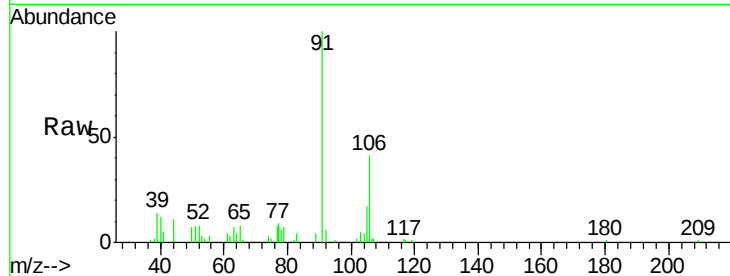
EP1-OUT-01DUP

Tgt Ion: 91 Resp: 38345

Ion Ratio Lower Upper

91 100

106 42.2 22.7 68.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

14.03

20000

15000

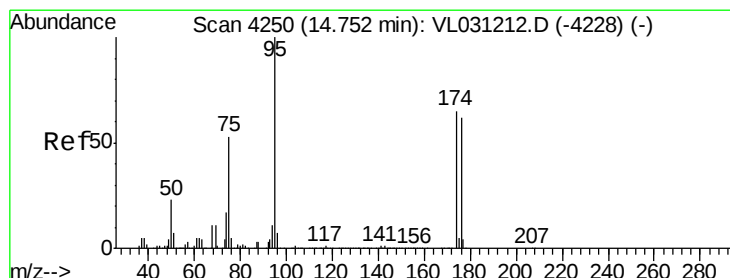
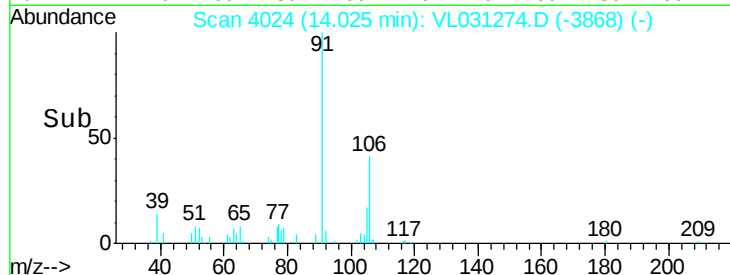
10000

5000

0

Time-->

13.95 14.00 14.05



#68

1-Bromo-4-Fluorobenzene

Concen: 11.09 ppbv

RT: 14.75 min Scan# 4250

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

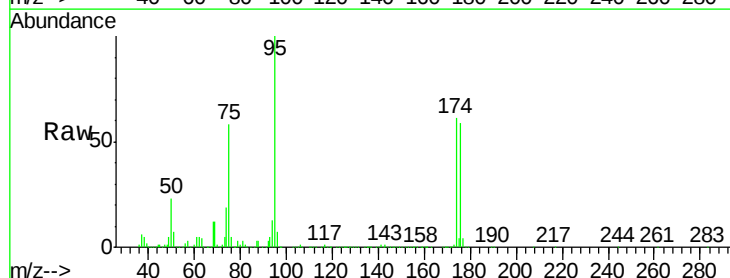
Tgt Ion: 95 Resp: 2718311

Ion Ratio Lower Upper

95 100

174 61.4 52.5 78.7

175 4.5 4.1 6.1



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

14.75

1500000

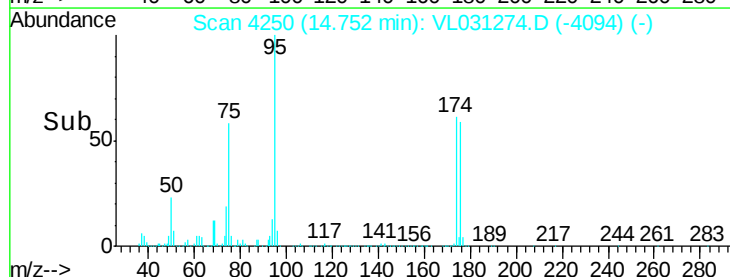
1000000

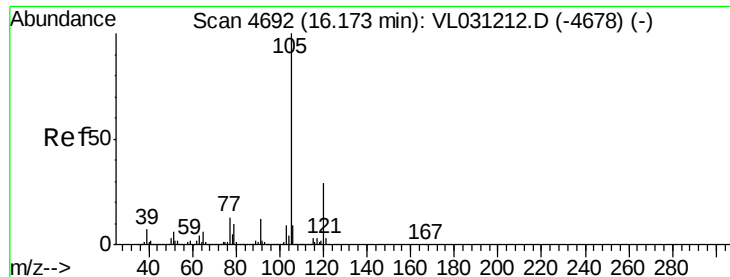
500000

0

Time-->

14.70 14.80





#72

4-Ethyltoluene

Concen: 0.04 ppbv

RT: 16.17 min Scan# 4692

Delta R.T. 0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

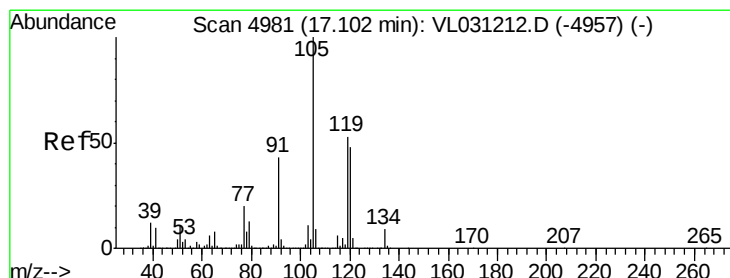
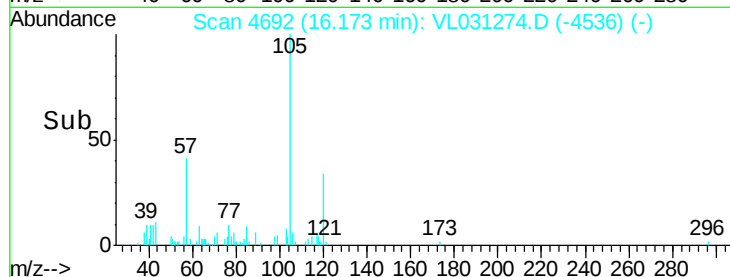
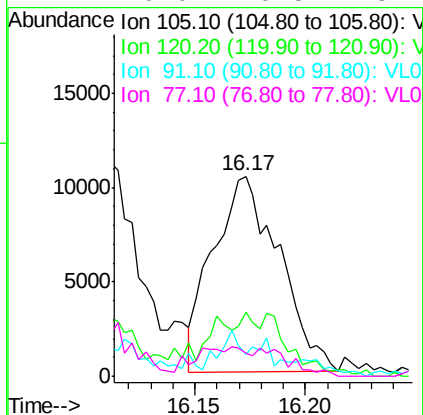
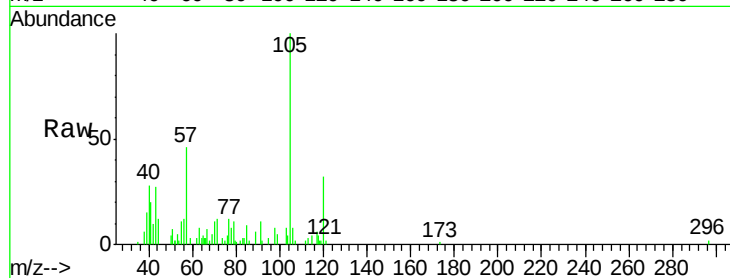
Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01DUP

Tgt Ion:	105	Resp:	21511
Ion	Ratio	Lower	Upper
105	100		
120	37.2	24.2	36.2#
91	20.5	9.8	14.8#
77	20.0	10.5	15.7#



#74

1,2,4-Trimethylbenzene

Concen: 0.06 ppbv

RT: 17.10 min Scan# 4980

Delta R.T. -0.00 min

Lab File: VL031274.D

Acq: 20 Dec 2017 17:26

Tgt Ion:	105	Resp:	28399
Ion	Ratio	Lower	Upper
105	100		
120	42.3	38.6	58.0
91	13.8	34.2	51.4#
77	11.6	16.1	24.1#

