

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL122017\
 Data File : VL031273.D
 Acq On : 20 Dec 2017 16:45
 Operator : SY/AP
 Sample : I7005-01
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-OUT-01

Quant Time: Dec 21 08:36:28 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	1527288	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.45	114	3664471	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.41	117	3550043	10.00	ppbv	0.00

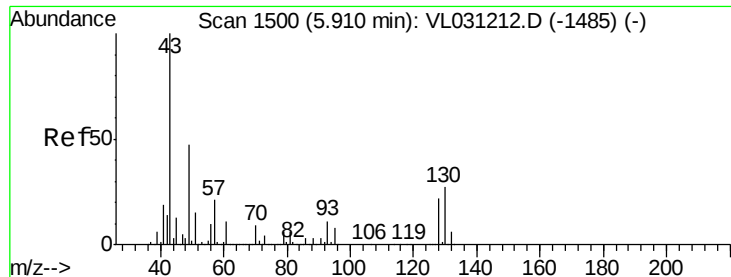
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.75	95	2711949	10.74	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.40%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.18	85	51193	0.40	ppbv	97
3) Chlorodifluoromethane	3.11	51	187698	1.08	ppbv	95
4) Chloromethane	3.27	50	46061	0.49	ppbv	90
9) Propene	3.14	41	74662	0.88	ppbv	88
10) Heptane	8.41	43	29217	0.11	ppbv	94
11) Trichlorofluoromethane	4.13	101	63035	0.30	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.68	101	6177	0.04	ppbv #	26
13) Ethanol	3.77	45	223238	9.08	ppbv	98
15) Acetone	4.03	43	678879	3.37	ppbv	91
16) 1,3-Butadiene	3.47	39	4615	0.05	ppbv #	24
19) Isopropyl Alcohol	4.17	45	106558	0.84	ppbv #	1
20) Methylene Chloride	4.54	84	558922	8.38	ppbv	94
21) Allyl Chloride	4.54	41	22218	0.19	ppbv #	38
23) Vinyl Acetate	5.28	43	34895	0.11	ppbv #	1
25) Ethyl Acetate	5.93	43	1191692	2.89	ppbv #	77
26) Hexane	5.93	57	1667320	8.54	ppbv #	44
30) Cyclohexane	7.41	84	12600	0.07	ppbv #	1
34) 2-Butanone	5.49	43	52463	0.20	ppbv	99
36) Benzene	7.16	78	115560	0.30	ppbv	95
39) 1,2-Dichloropropane	7.45	63	944810	6.88	ppbv #	27
41) Tetrahydrofuran	6.58	42	10925	0.08	ppbv #	38
44) 2,2,4-Trimethylpentane	8.16	57	103489	0.18	ppbv #	85
52) Tetrachloroethene	11.54	164	5171	0.04	ppbv #	78
53) Toluene	10.12	91	221685	0.53	ppbv	97
58) Ethyl Benzene	13.03	91	45211	0.08	ppbv	91
59) m/p-Xylene	13.33	91	16589	0.04	ppbv #	29
60) o-Xylene	14.02	91	41484	0.09	ppbv	100
73) 1,3,5-Trimethylbenzene	16.33	105	21399	0.05	ppbv #	82
74) 1,2,4-Trimethylbenzene	17.10	105	36001	0.07	ppbv #	75

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

```
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Data File : VL031273.D  
Acq On    : 20 Dec 2017  16:45  
Operator  : SY/AP  
Sample    : I7005-01  
Misc      : 400ml/MSVOA_L  
ALS Vial  : 1      Sample Multiplier: 1
```



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.91 min Scan# 1500

Delta R.T. 0.00 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01

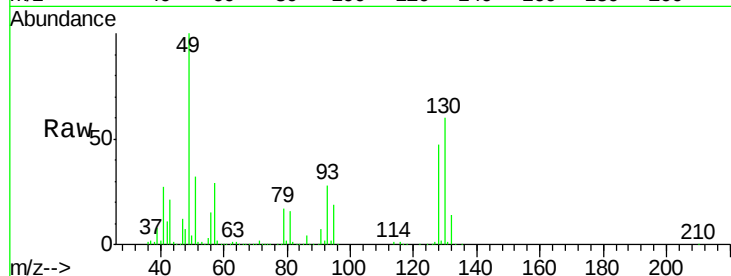
Tgt Ion: 49 Resp: 1527288

Ion Ratio Lower Upper

49 100

128 47.2 23.2 69.5

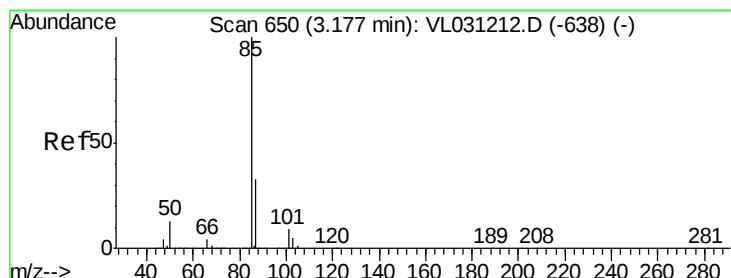
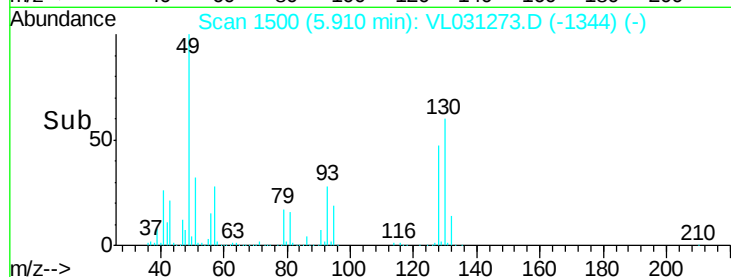
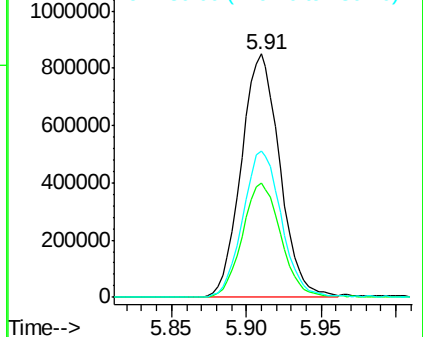
130 60.6 29.6 88.8



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: 0.40 ppbv

RT: 3.18 min Scan# 650

Delta R.T. 0.00 min

Lab File: VL031273.D

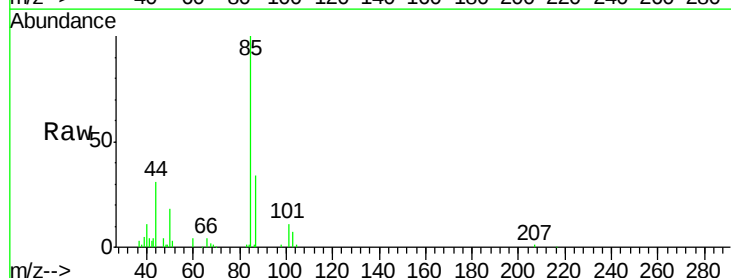
Acq: 20 Dec 2017 16:45

Tgt Ion: 85 Resp: 51193

Ion Ratio Lower Upper

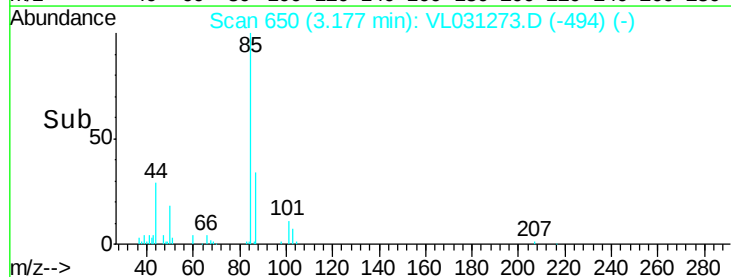
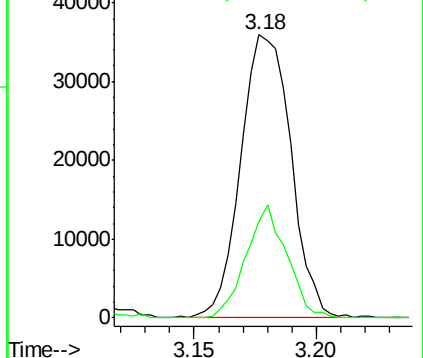
85 100

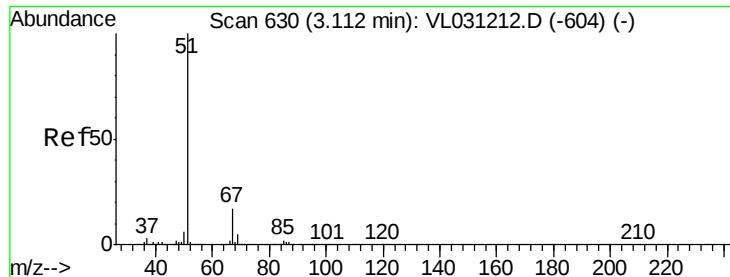
87 34.3 26.2 39.2



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: 3.11 min Scan# 630

Delta R.T. 0.00 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

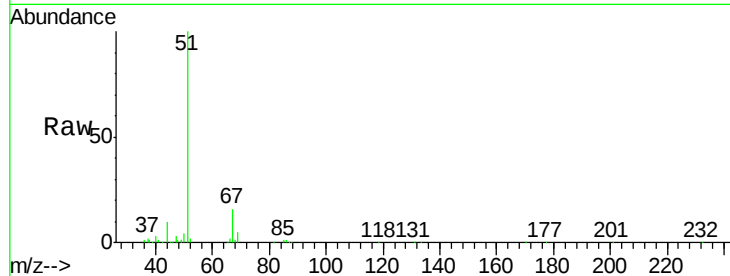
EP1-OUT-01

Tgt Ion: 51 Resp: 187698

Ion Ratio Lower Upper

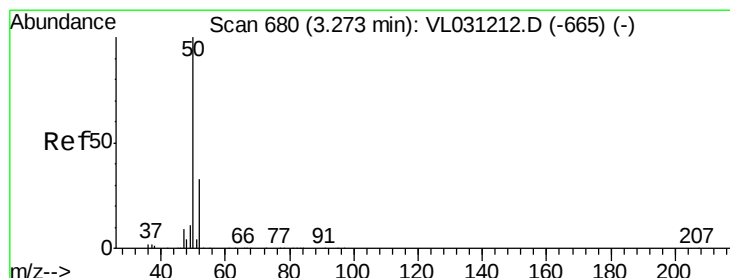
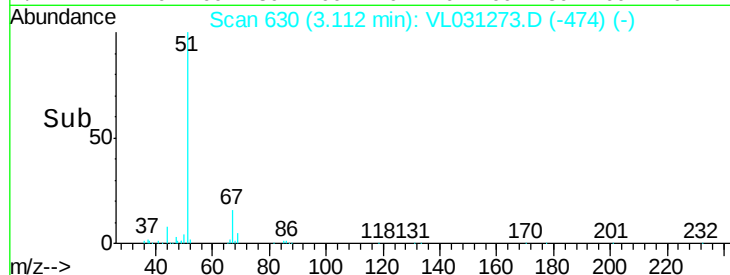
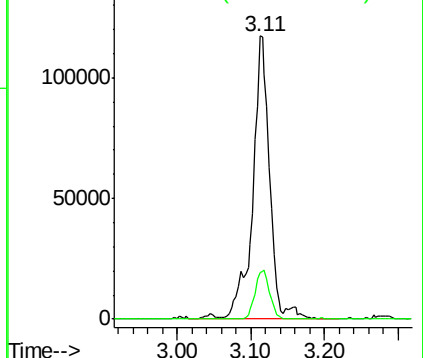
51 100

67 15.1 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: VL031273.D

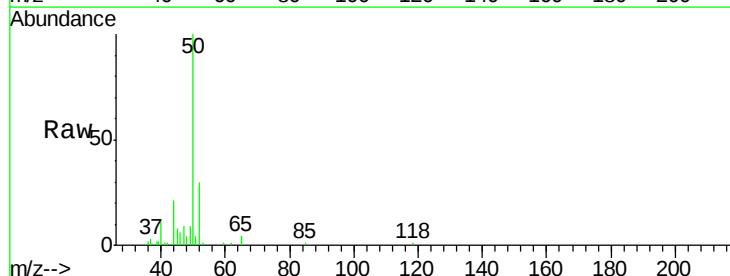
Acq: 20 Dec 2017 16:45

Tgt Ion: 50 Resp: 46061

Ion Ratio Lower Upper

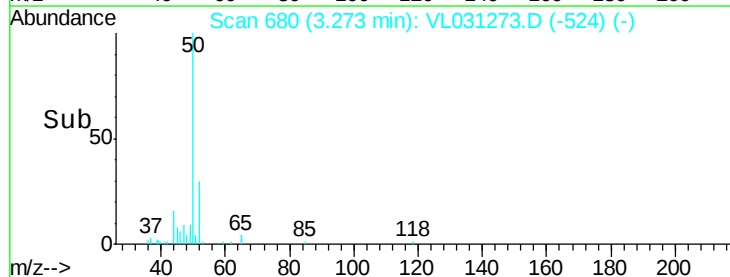
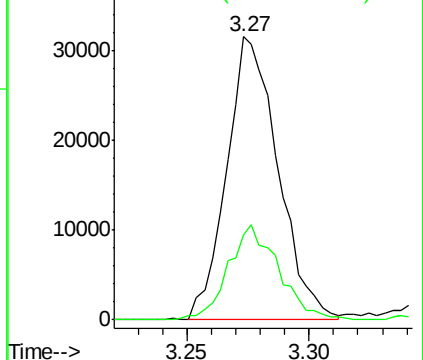
50 100

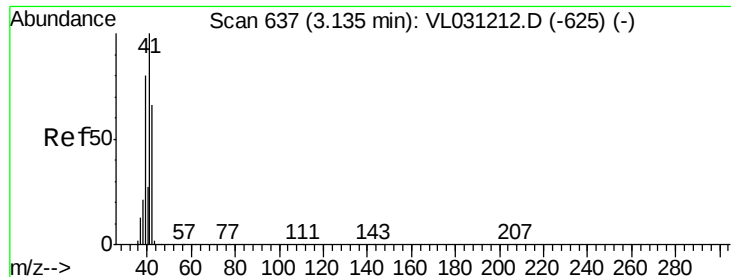
52 27.6 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.88 ppbv

RT: 3.14 min Scan# 640

Delta R.T. 0.01 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

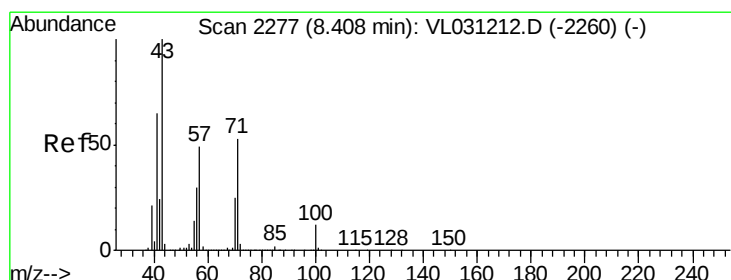
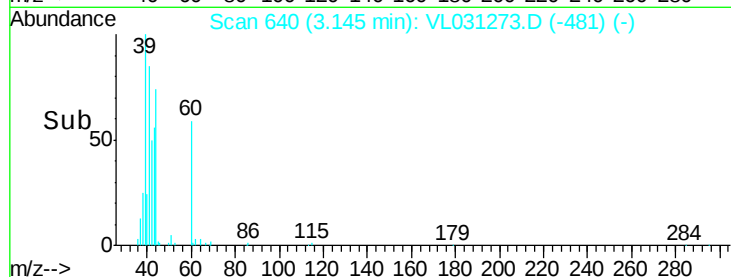
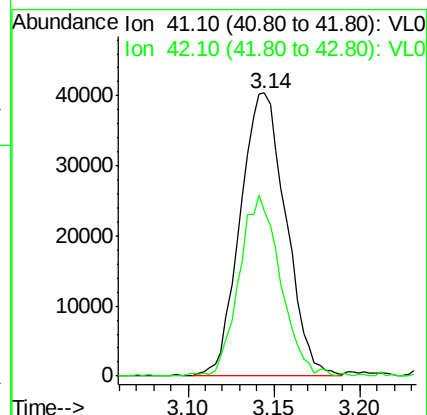
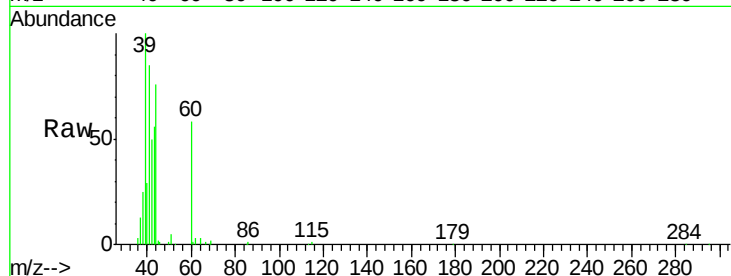
EP1-OUT-01

Tgt Ion: 41 Resp: 74662

Ion Ratio Lower Upper

41 100

42 58.1 54.3 81.5



#10

Heptane

Concen: 0.11 ppbv

RT: 8.41 min Scan# 2277

Delta R.T. 0.00 min

Lab File: VL031273.D

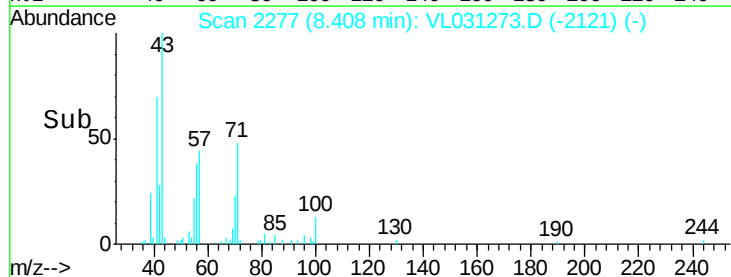
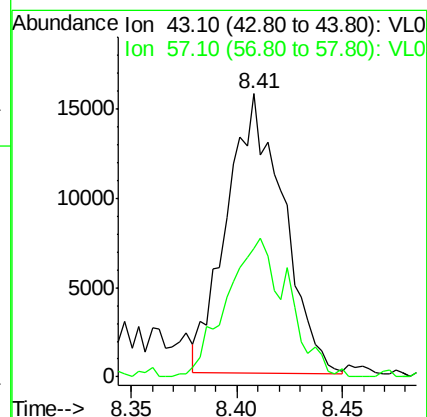
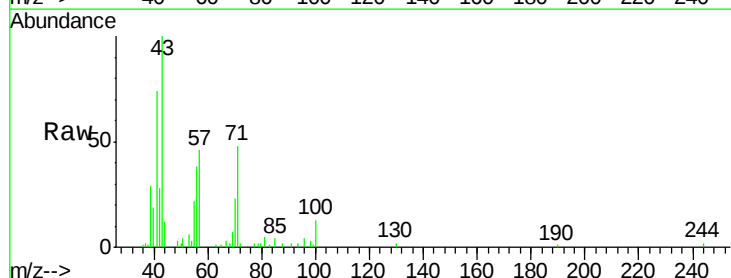
Acq: 20 Dec 2017 16:45

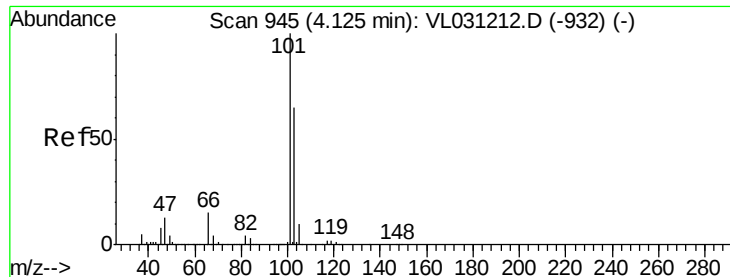
Tgt Ion: 43 Resp: 29217

Ion Ratio Lower Upper

43 100

57 54.1 39.8 59.8





#11

Trichlorofluoromethane

Concen: 0.30 ppbv

RT: 4.13 min Scan# 946

Delta R.T. 0.00 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

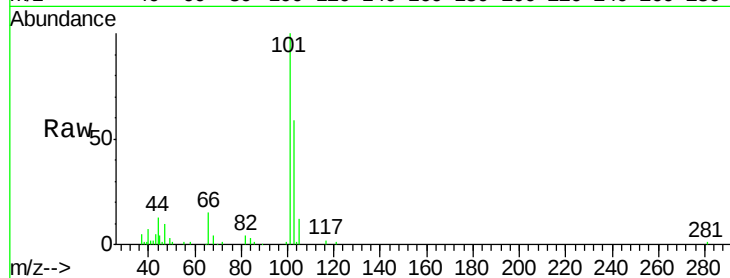
EP1-OUT-01

Tgt Ion:101 Resp: 63035

Ion Ratio Lower Upper

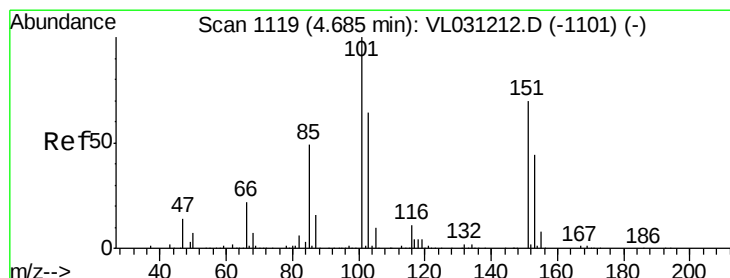
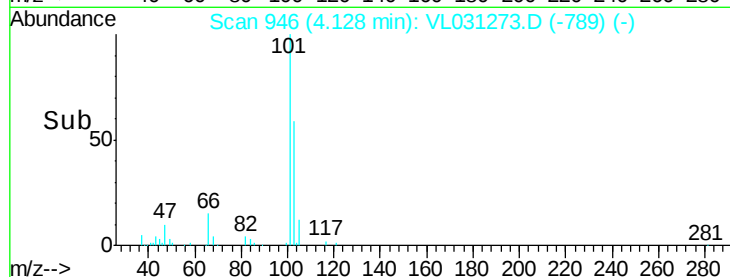
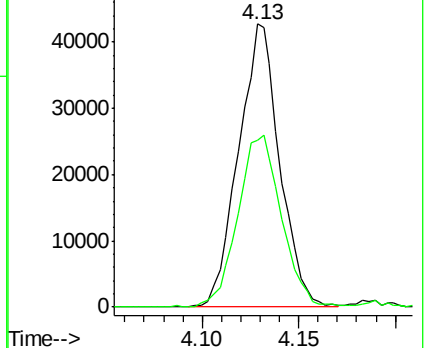
101 100

103 58.9 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: 0.04 ppbv

RT: 4.68 min Scan# 1119

Delta R.T. 0.00 min

Lab File: VL031273.D

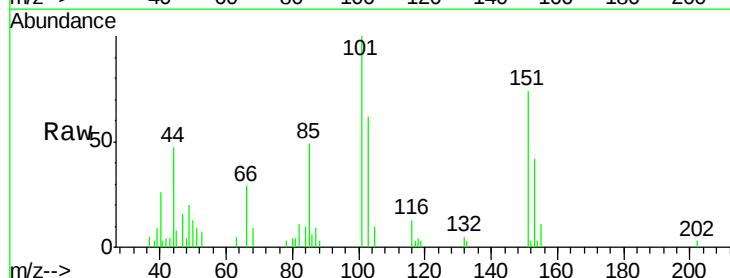
Acq: 20 Dec 2017 16:45

Tgt Ion:101 Resp: 6177

Ion Ratio Lower Upper

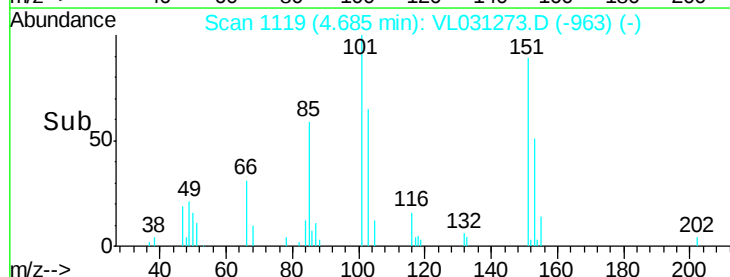
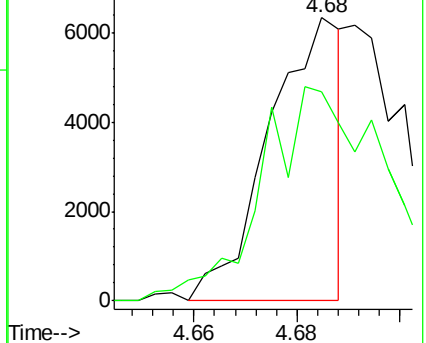
101 100

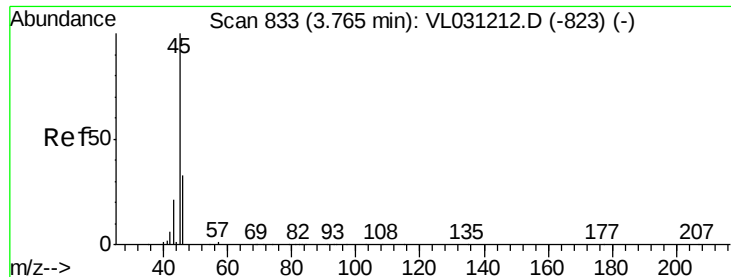
151 131.4 56.5 84.7#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 9.08 ppbv

RT: 3.77 min Scan# 834

Delta R.T. 0.00 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

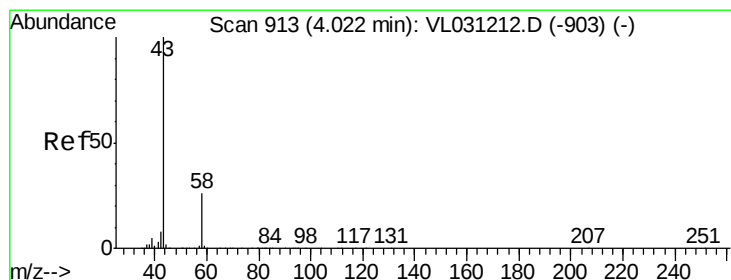
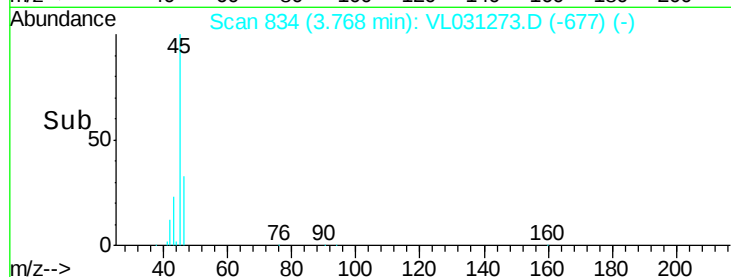
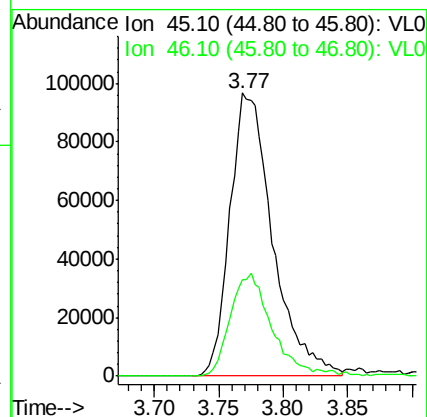
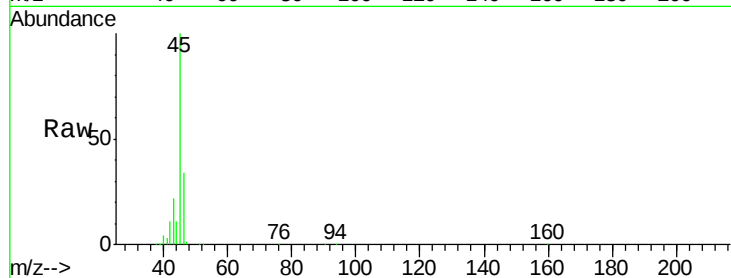
EP1-OUT-01

Tgt Ion: 45 Resp: 223238

Ion Ratio Lower Upper

45 100

46 35.5 14.6 58.4



#15

Acetone

Concen: 3.37 ppbv

RT: 4.03 min Scan# 914

Delta R.T. 0.00 min

Lab File: VL031273.D

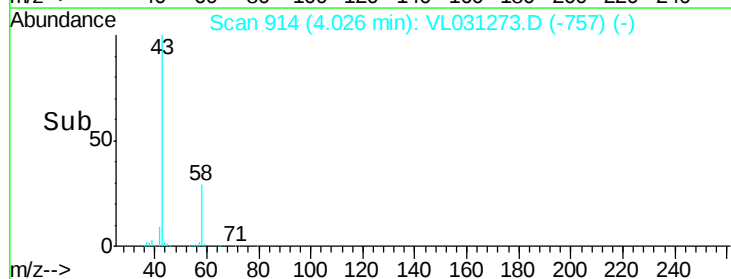
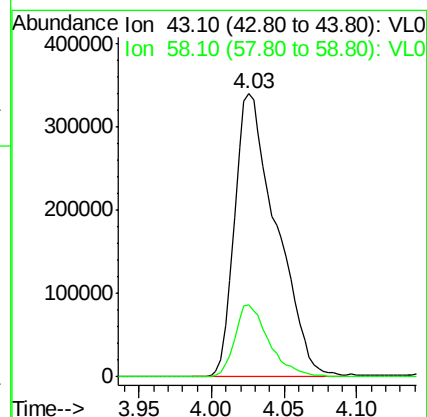
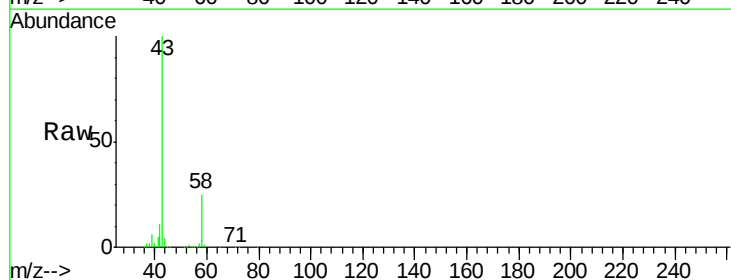
Acq: 20 Dec 2017 16:45

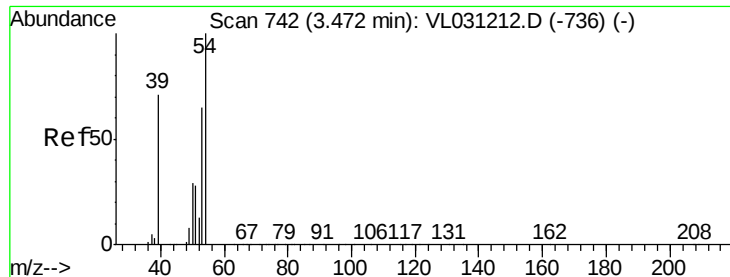
Tgt Ion: 43 Resp: 678879

Ion Ratio Lower Upper

43 100

58 20.9 20.3 30.5

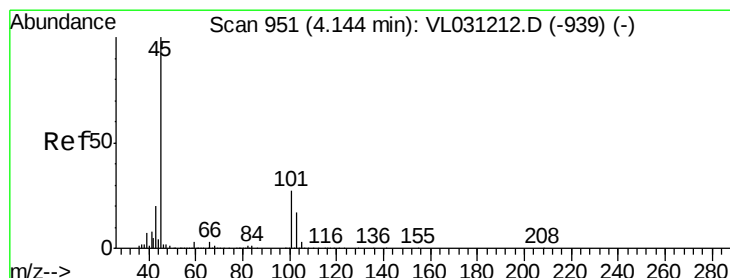
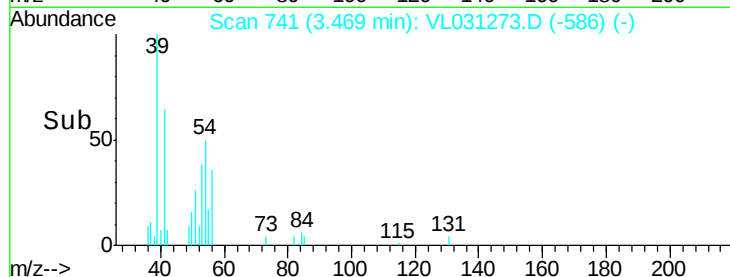
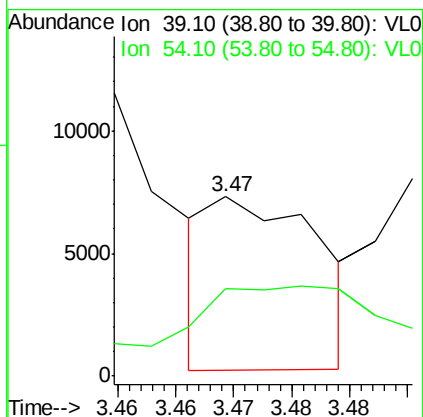
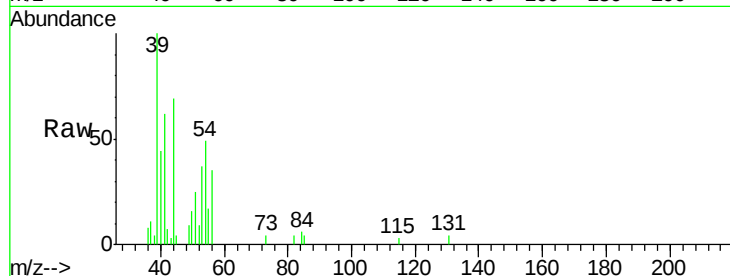




#16
 1,3-Butadiene
 Concen: 0.05 ppbv
 RT: 3.47 min Scan# 741
 Delta R.T. -0.00 min
 Lab File: VL031273.D
 Acq: 20 Dec 2017 16:45

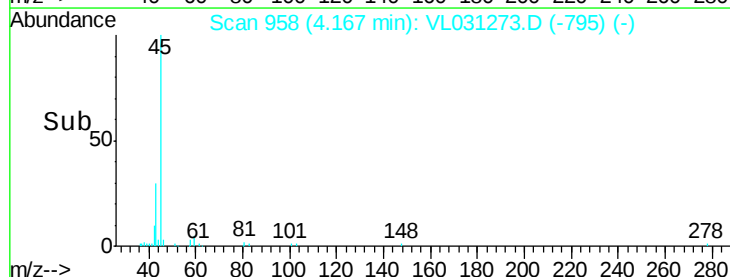
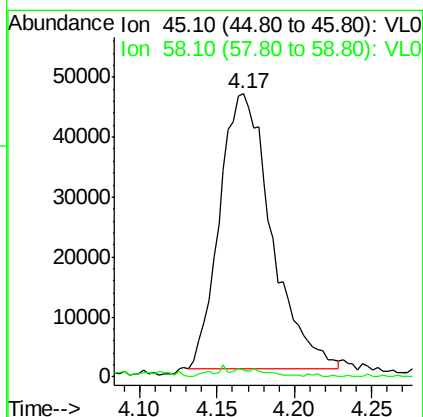
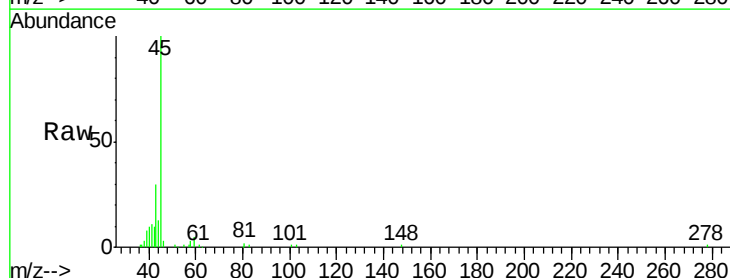
Instrument :
 MSVOA_L
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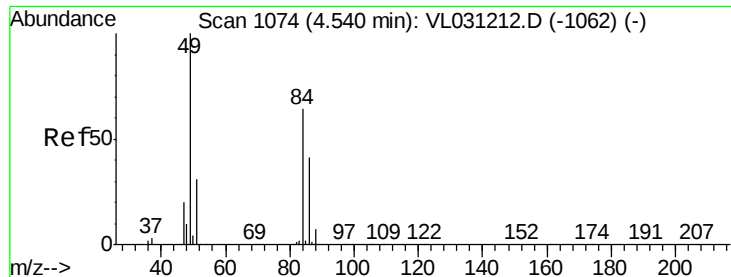
Tgt Ion: 39 Resp: 4615
 Ion Ratio Lower Upper
 39 100
 54 151.4 66.4 99.6#



#19
 Isopropyl Alcohol
 Concen: 0.84 ppbv
 RT: 4.17 min Scan# 958
 Delta R.T. 0.02 min
 Lab File: VL031273.D
 Acq: 20 Dec 2017 16:45

Tgt Ion: 45 Resp: 106558
 Ion Ratio Lower Upper
 45 100
 58 132.8 27.2 40.8#

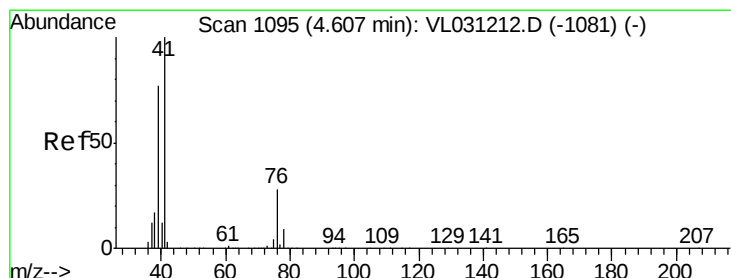
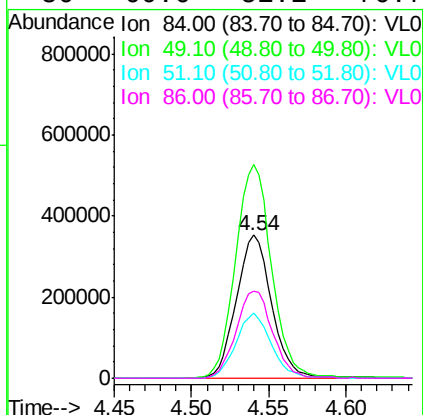
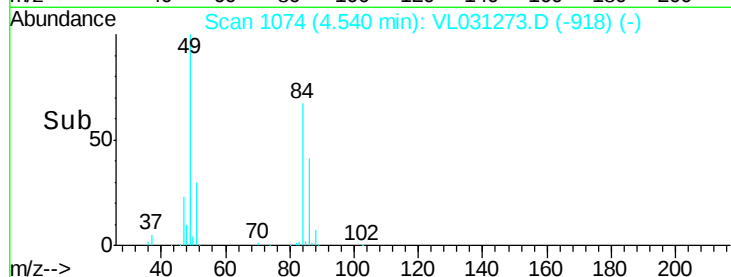
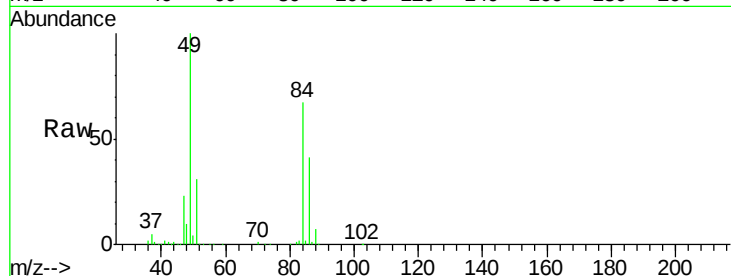




#20
Methylene Chloride
Concen: 8.38 ppbv
RT: 4.54 min Scan# 1074
Delta R.T. 0.00 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

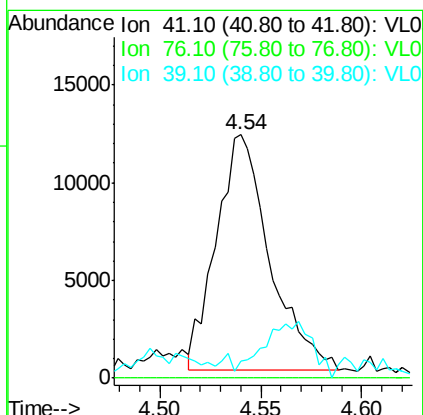
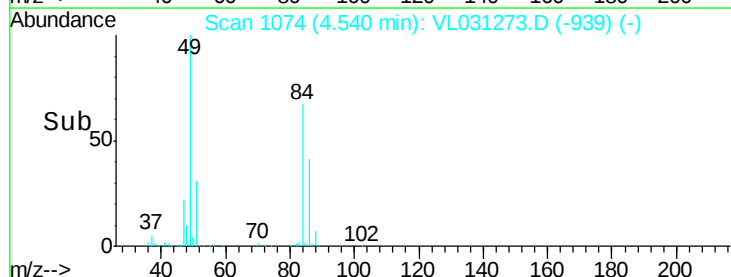
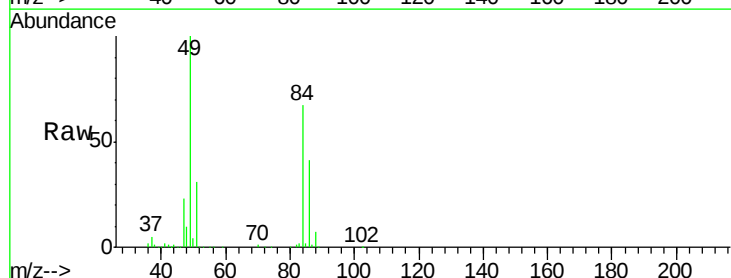
Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01

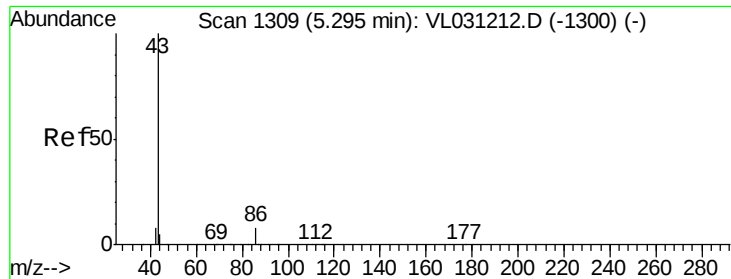
Tgt Ion:	84	Resp:	558922
Ion	Ratio	Lower	Upper
84	100		
49	148.9	125.8	188.6
51	45.6	39.3	58.9
86	60.6	51.1	76.7



#21
Allyl Chloride
Concen: 0.19 ppbv
RT: 4.54 min Scan# 1074
Delta R.T. -0.07 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

Tgt Ion:	41	Resp:	22218
Ion	Ratio	Lower	Upper
41	100		
76	0.0	22.9	34.3#
39	21.4	62.6	93.8#





#23

Vinyl Acetate

Concen: 0.11 ppbv

RT: 5.28 min Scan# 1304

Delta R.T. -0.02 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01

Tgt Ion: 43 Resp: 34895

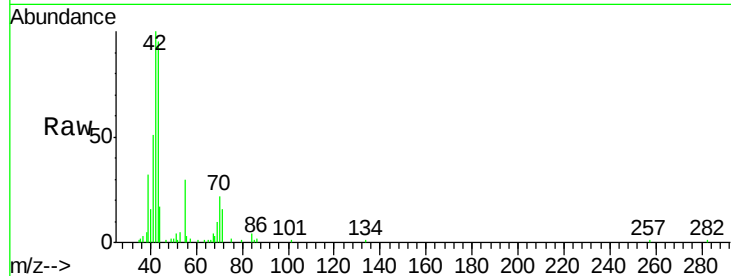
Ion Ratio Lower Upper

43 100

86 2.5 5.9 8.9#

42 105.1 7.3 10.9#

44 7.3 3.7 5.5#

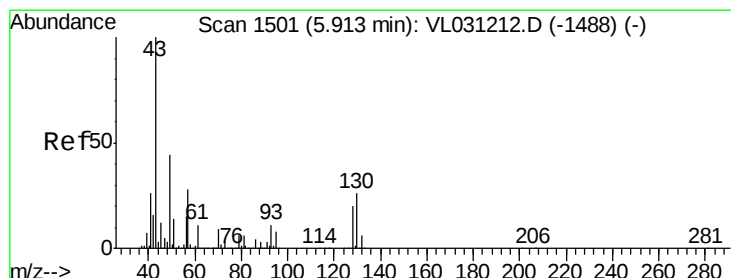
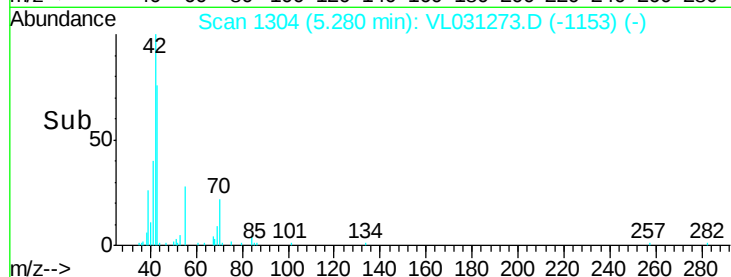
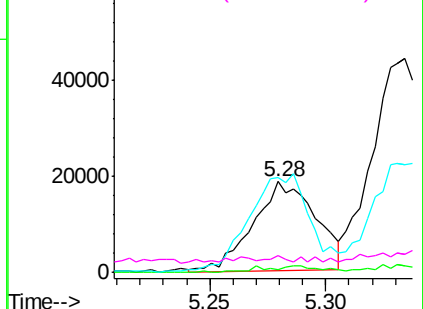


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 2.89 ppbv

RT: 5.93 min Scan# 1505

Delta R.T. 0.01 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Tgt Ion: 43 Resp: 1191692

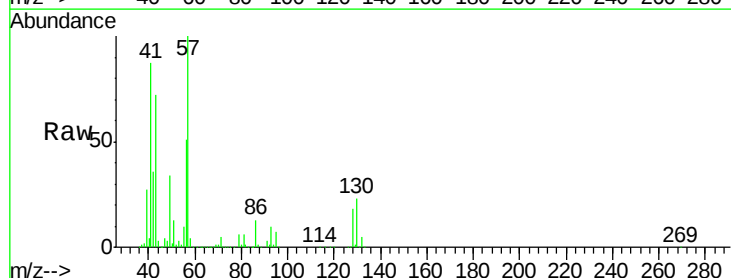
Ion Ratio Lower Upper

43 100

45 0.6 8.0 12.0#

61 0.5 7.4 11.0#

70 1.6 5.8 8.8#

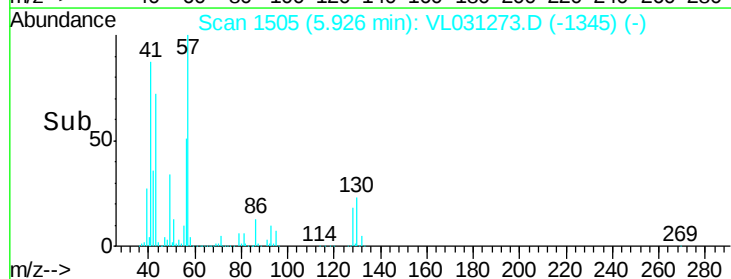
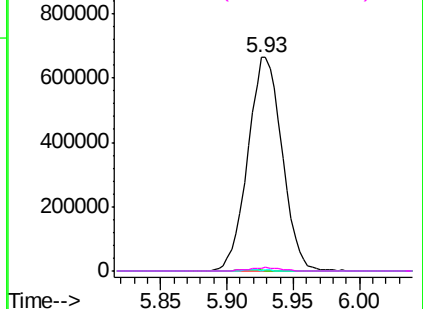


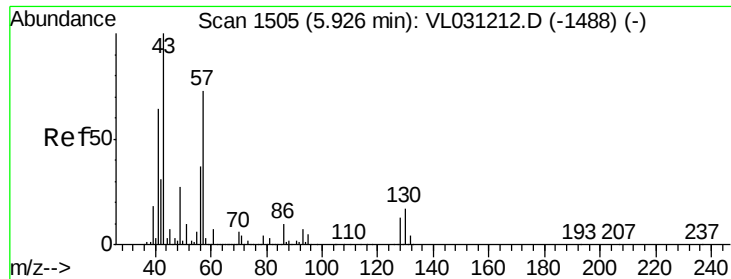
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

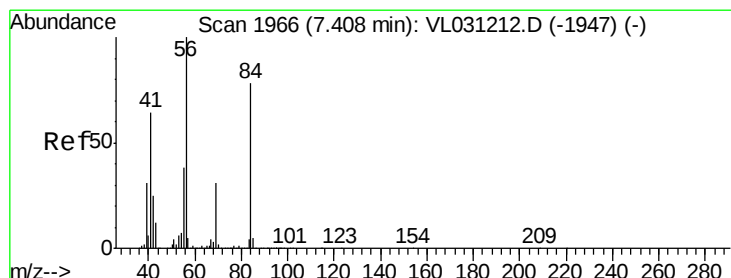
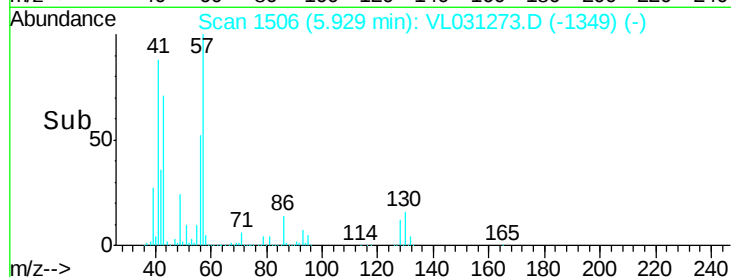
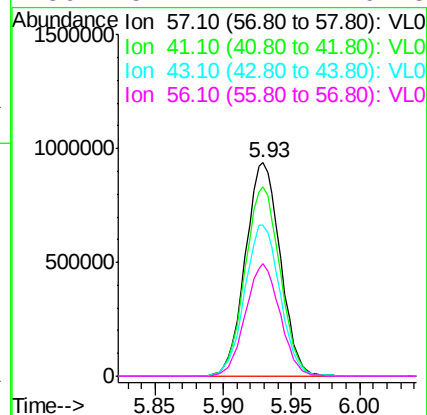
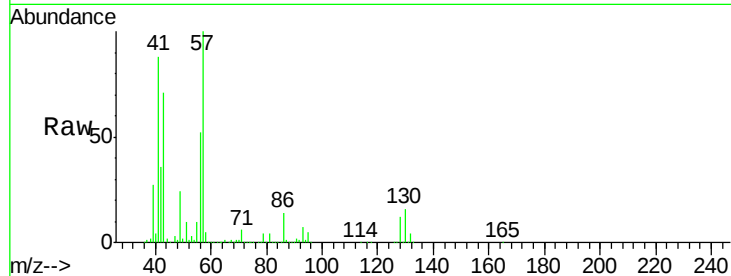




#26
Hexane
Concen: 8.54 ppbv
RT: 5.93 min Scan# 1506
Delta R.T. 0.00 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

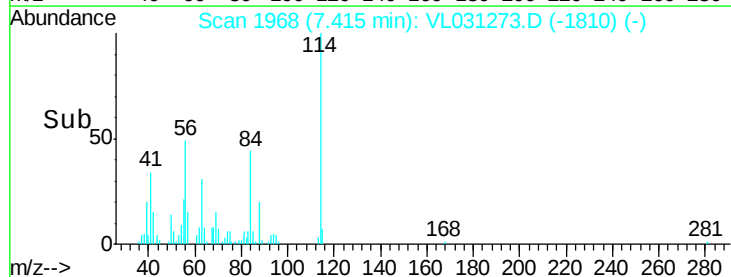
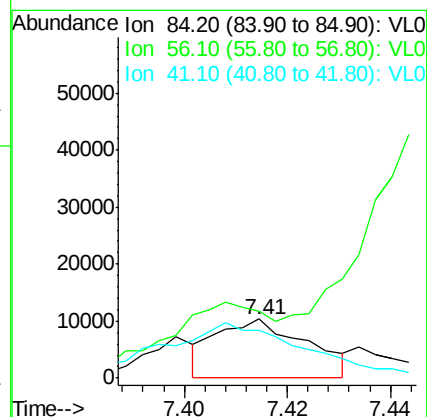
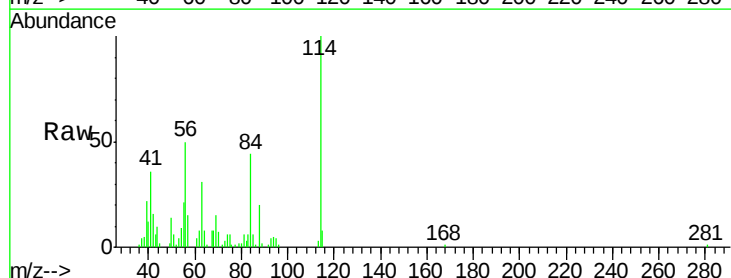
Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01

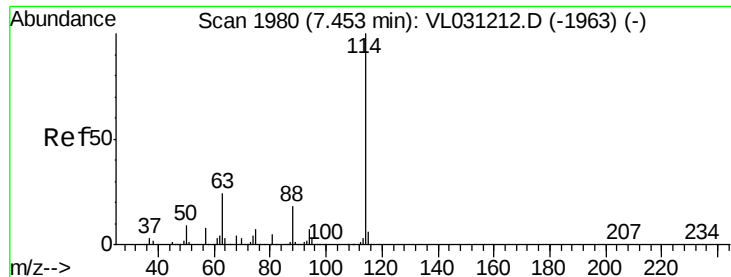
Tgt Ion: 57 Resp: 1667320
Ion Ratio Lower Upper
57 100
41 89.2 70.3 105.5
43 71.8 173.8 260.8#
56 52.2 41.7 62.5



#30
Cyclohexane
Concen: 0.07 ppbv
RT: 7.41 min Scan# 1968
Delta R.T. 0.01 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

Tgt Ion: 84 Resp: 12600
Ion Ratio Lower Upper
84 100
56 0.0 108.0 162.0#
41 164.1 66.2 99.4#

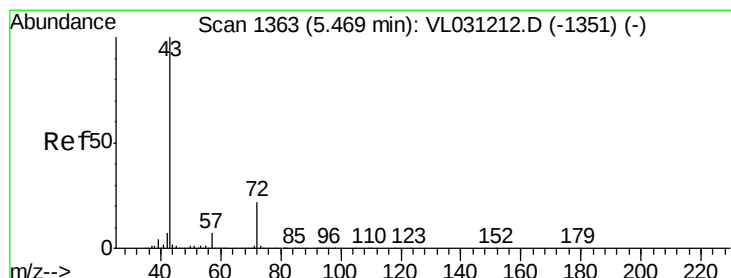
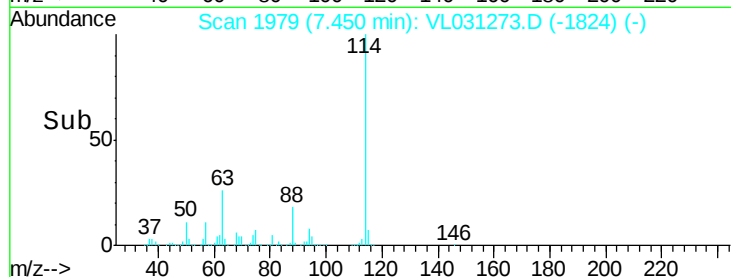
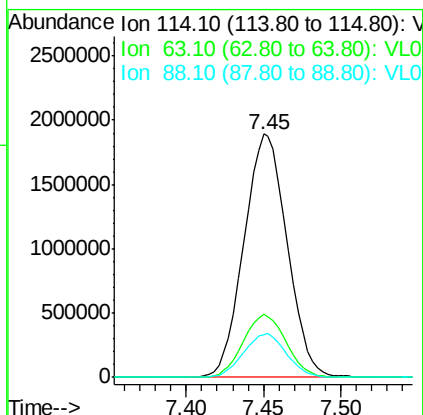
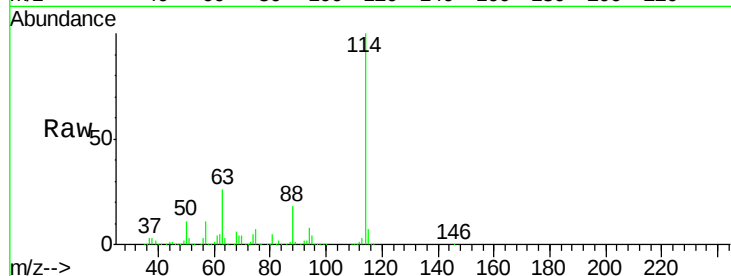




#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.45 min Scan# 1979
 Delta R.T. -0.00 min
 Lab File: VL031273.D
 Acq: 20 Dec 2017 16:45

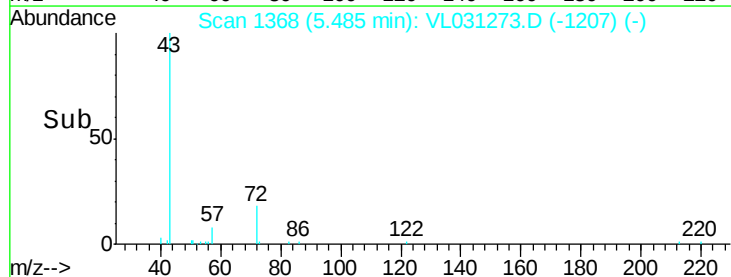
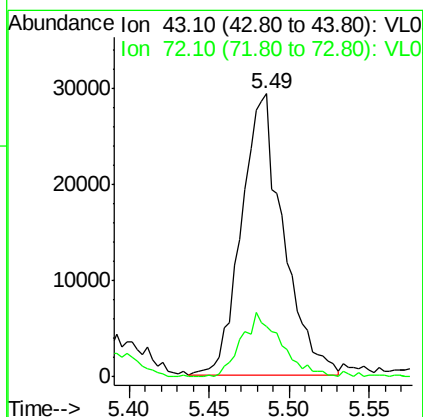
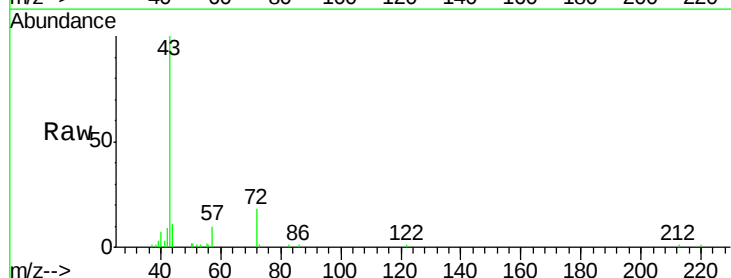
Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-OUT-01

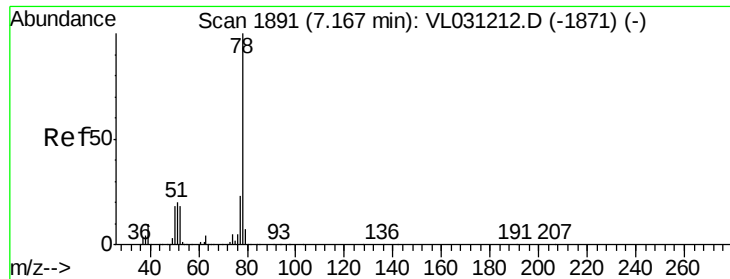
Tgt Ion:114 Resp: 3664471
 Ion Ratio Lower Upper
 114 100
 63 25.9 19.8 29.8
 88 17.9 14.2 21.4



#34
 2-Butanone
 Concen: 0.20 ppbv
 RT: 5.49 min Scan# 1368
 Delta R.T. 0.02 min
 Lab File: VL031273.D
 Acq: 20 Dec 2017 16:45

Tgt Ion: 43 Resp: 52463
 Ion Ratio Lower Upper
 43 100
 72 22.1 18.1 27.1





#36

Benzene

Concen: 0.30 ppbv

RT: 7.16 min Scan# 1890

Delta R.T. -0.00 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

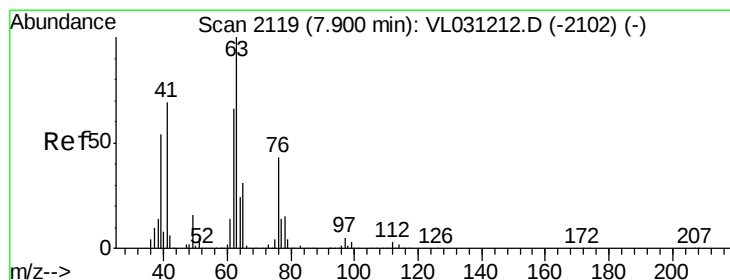
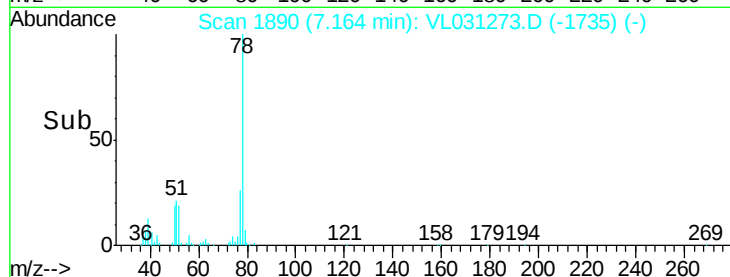
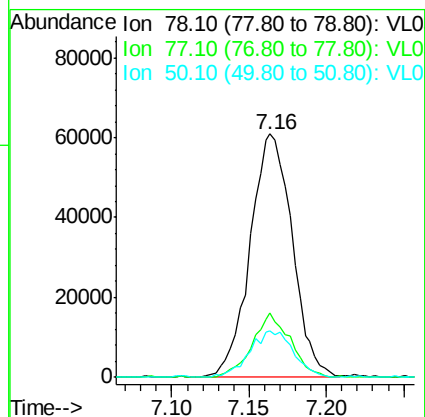
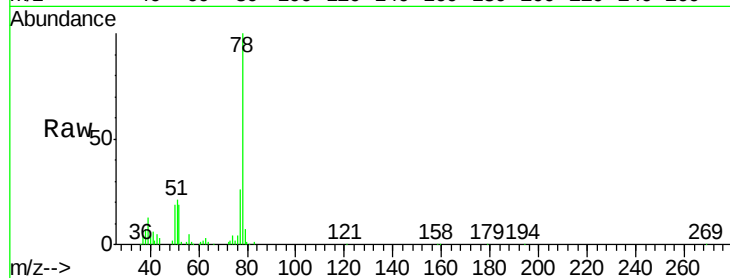
MSVOA_L

ClientSampleId :

EP1-OUT-01

Tgt Ion: 78 Resp: 115560

Ion	Ratio	Lower	Upper
78	100		
77	26.1	18.1	27.1
50	19.1	14.6	21.8



#39

1,2-Dichloropropane

Concen: 6.88 ppbv

RT: 7.45 min Scan# 1979

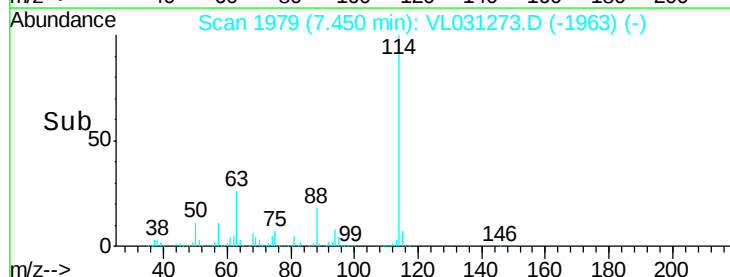
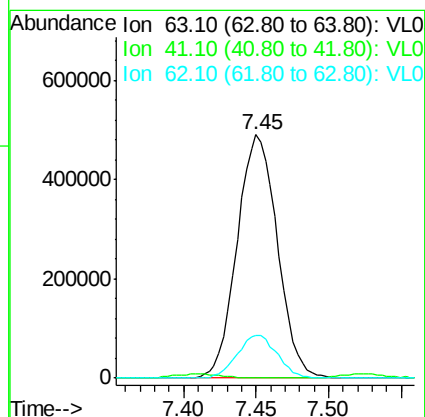
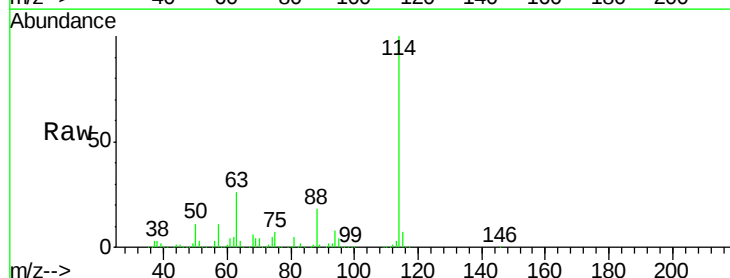
Delta R.T. -0.45 min

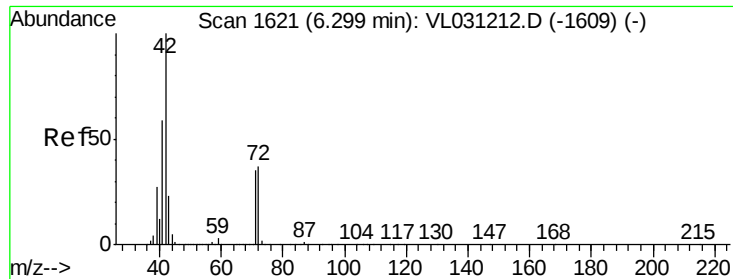
Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Tgt Ion: 63 Resp: 944810

Ion	Ratio	Lower	Upper
63	100		
41	0.0	55.2	82.8#
62	17.6	53.0	79.4#





#41

Tetrahydrofuran

Concen: 0.08 ppbv

RT: 6.58 min Scan# 1709

Delta R.T. 0.28 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01

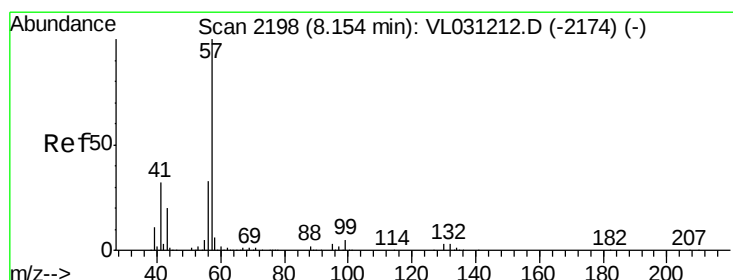
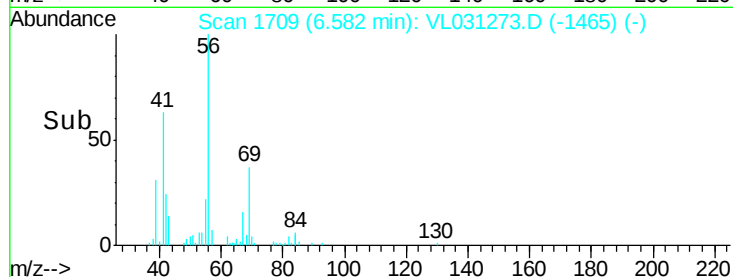
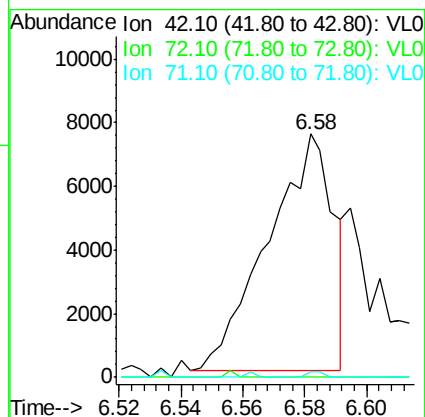
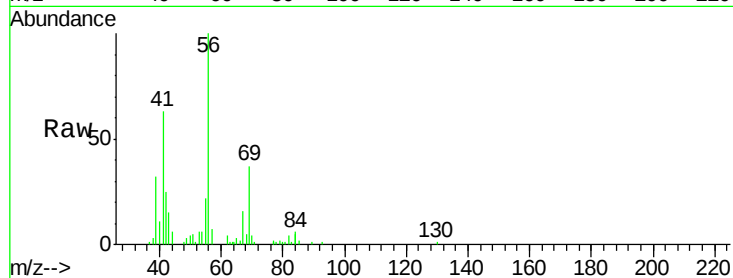
Tgt Ion: 42 Resp: 10925

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: 0.18 ppbv

RT: 8.16 min Scan# 2199

Delta R.T. 0.00 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

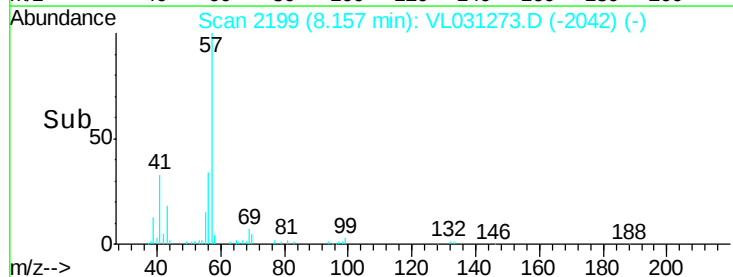
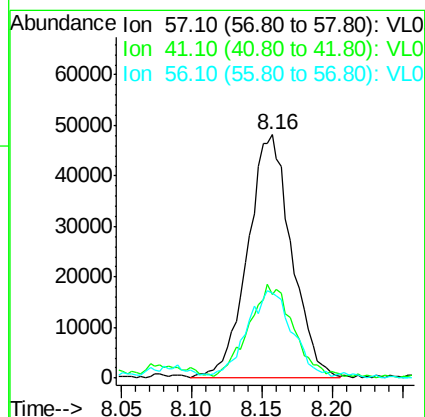
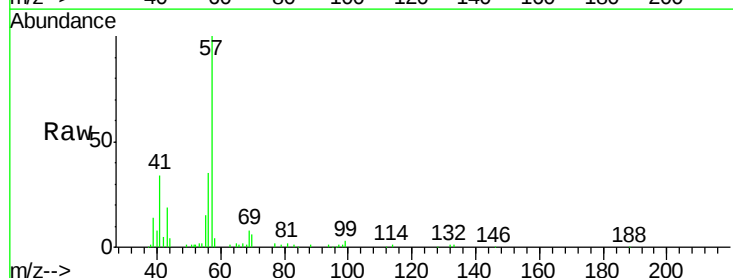
Tgt Ion: 57 Resp: 103489

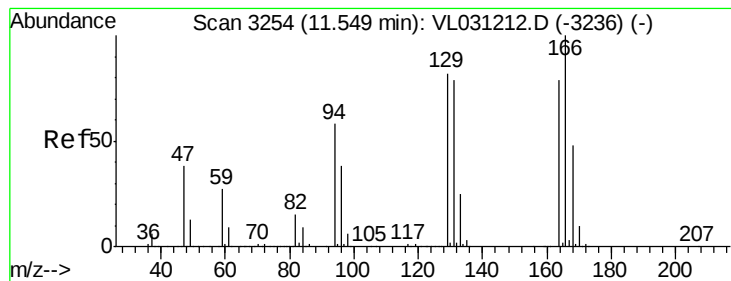
Ion Ratio Lower Upper

57 100

41 41.0 25.5 38.3#

56 39.0 25.0 37.6#





#52

Tetrachloroethene

Concen: 0.04 ppbv

RT: 11.54 min Scan# 3252

Delta R.T. -0.01 min

Lab File: VL031273.D

Acq: 20 Dec 2017 16:45

Instrument :

MSVOA_L

ClientSampleId :

EP1-OUT-01

Tgt Ion:164 Resp: 5171

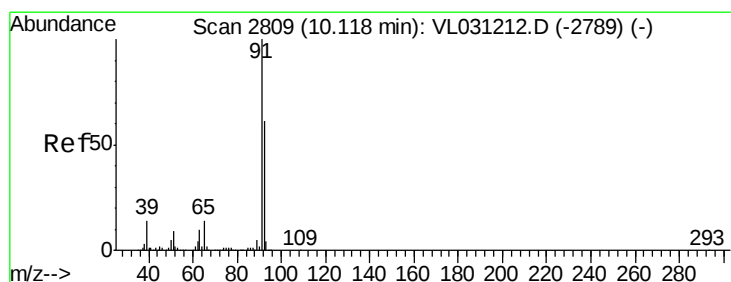
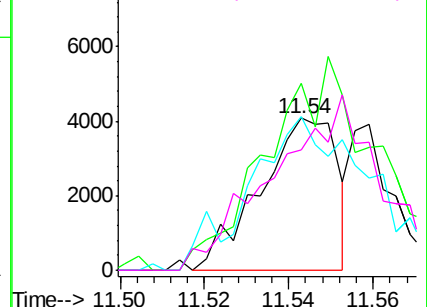
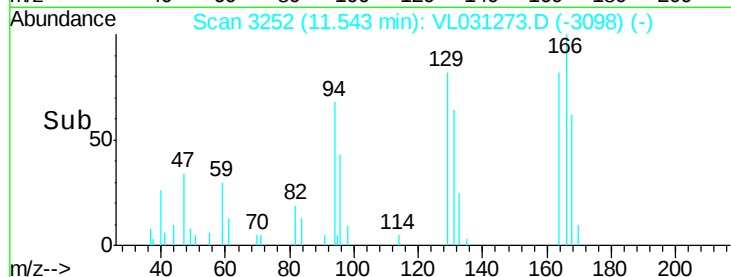
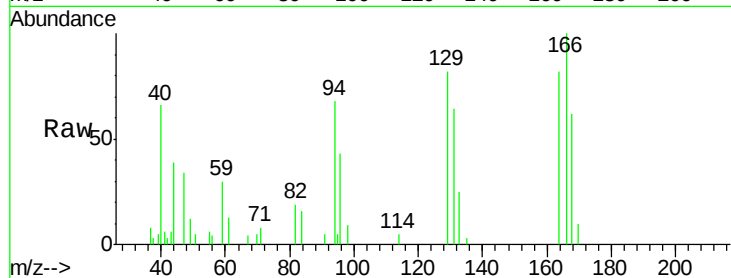
Ion Ratio Lower Upper

164 100

166 109.2 100.6 151.0

129 85.1 82.9 124.3

131 64.4 79.2 118.8#



#53

Toluene

Concen: 0.53 ppbv

RT: 10.12 min Scan# 2808

Delta R.T. -0.00 min

Lab File: VL031273.D

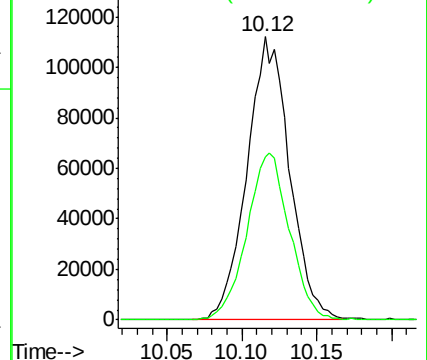
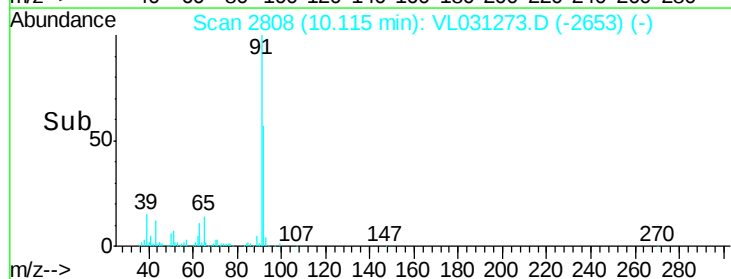
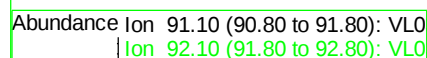
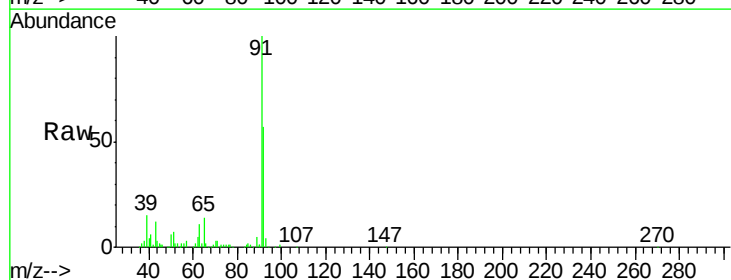
Acq: 20 Dec 2017 16:45

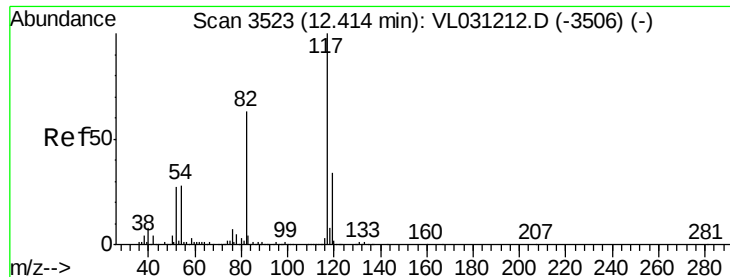
Tgt Ion: 91 Resp: 221685

Ion Ratio Lower Upper

91 100

92 59.1 49.1 73.7

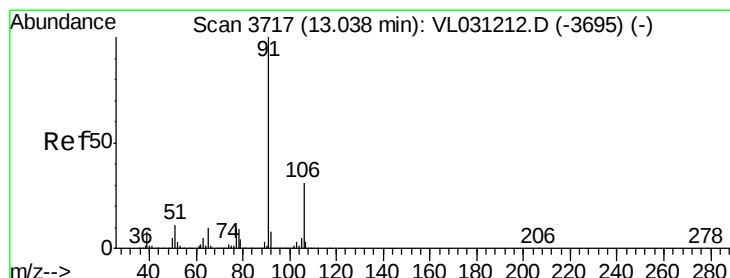
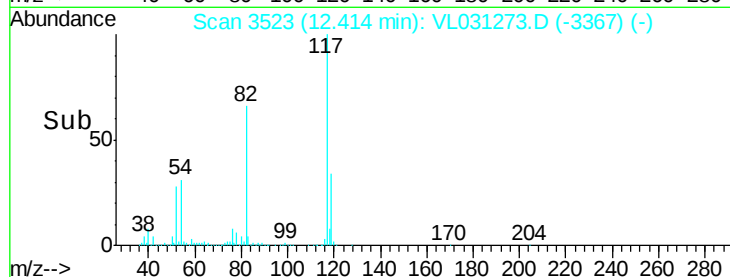
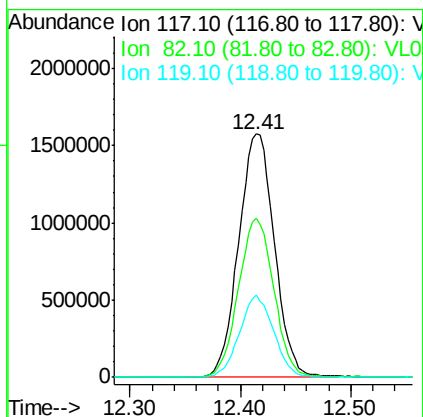
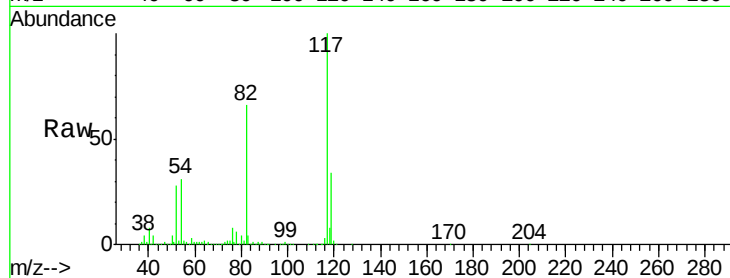




#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.41 min Scan# 3523
Delta R.T. 0.00 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

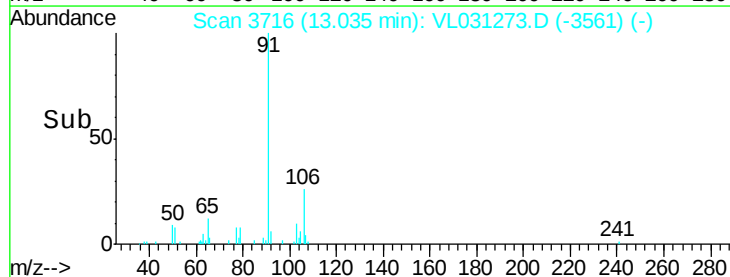
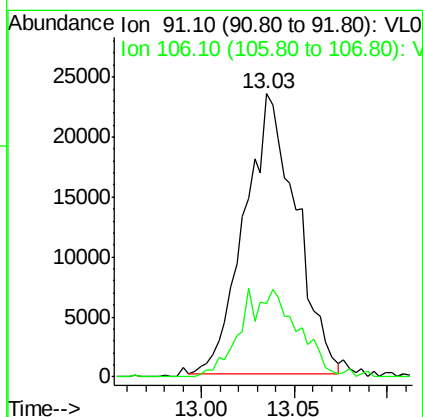
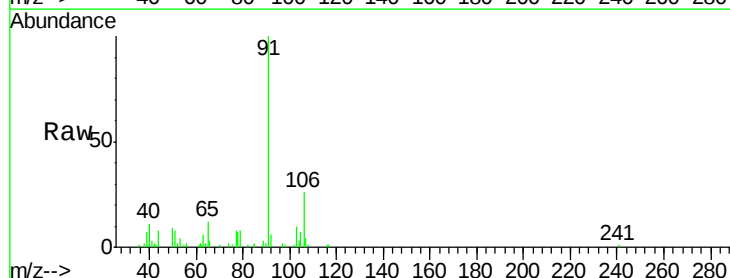
Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01

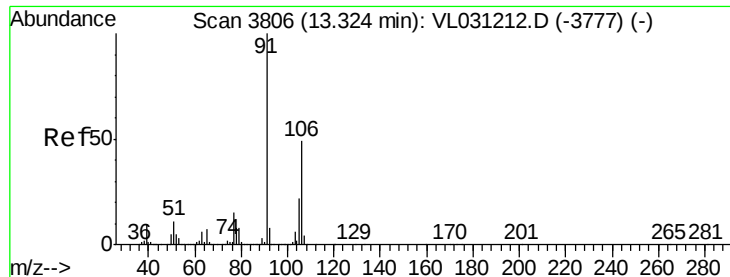
Tgt Ion: 117 Resp: 3550043
Ion Ratio Lower Upper
117 100
82 64.6 48.1 72.1
119 32.5 23.1 34.7



#58
Ethyl Benzene
Concen: 0.08 ppbv
RT: 13.03 min Scan# 3716
Delta R.T. -0.00 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

Tgt Ion: 91 Resp: 45211
Ion Ratio Lower Upper
91 100
106 26.4 25.1 37.7

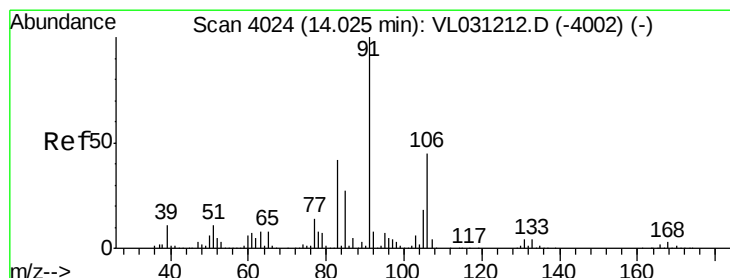
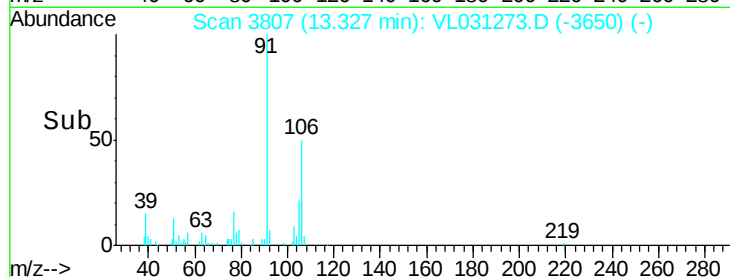
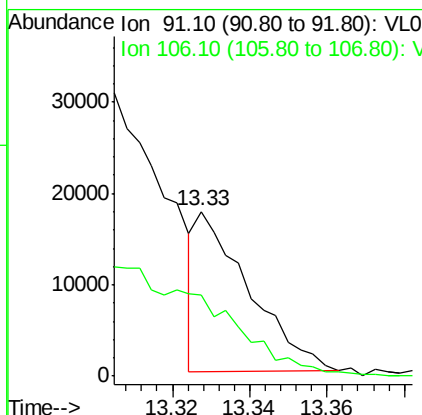
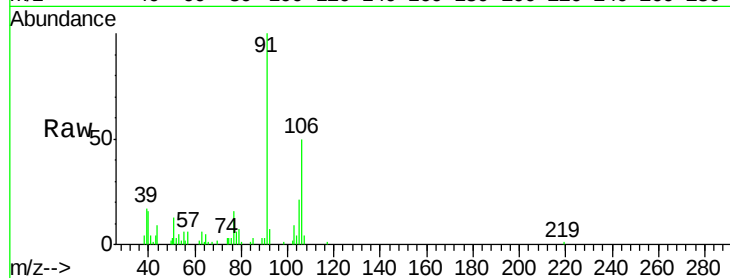




#59
m/p-Xylene
Concen: 0.04 ppbv
RT: 13.33 min Scan# 3807
Delta R.T. 0.00 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

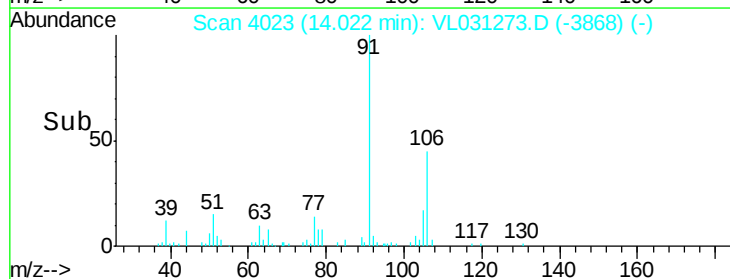
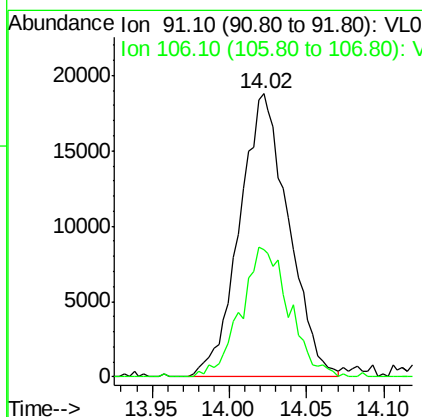
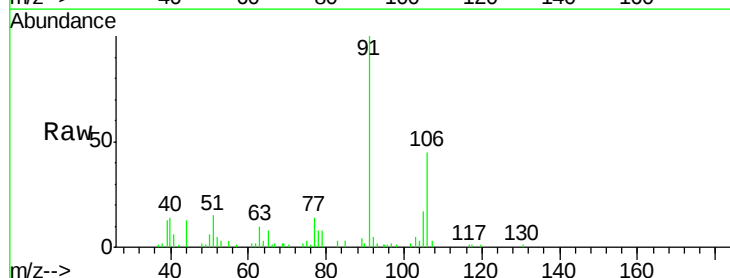
Instrument :
MSVOA_L
ClientSampleId :
EP1-OUT-01

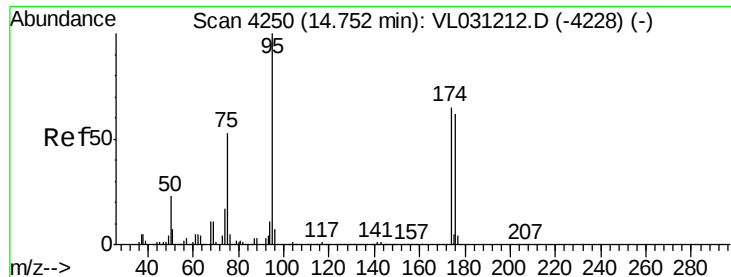
Tgt Ion: 91 Resp: 16589
Ion Ratio Lower Upper
91 100
106 0.0 38.5 57.7#



#60
o-Xylene
Concen: 0.09 ppbv
RT: 14.02 min Scan# 4023
Delta R.T. -0.00 min
Lab File: VL031273.D
Acq: 20 Dec 2017 16:45

Tgt Ion: 91 Resp: 41484
Ion Ratio Lower Upper
91 100
106 45.2 22.7 68.1

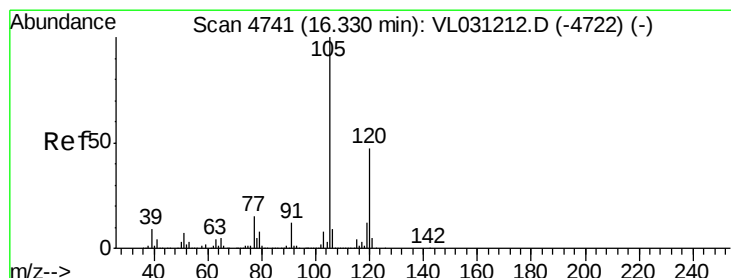
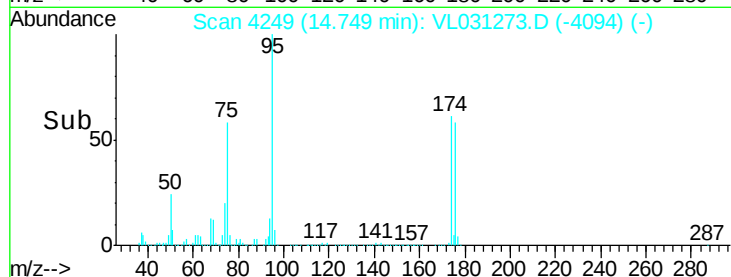
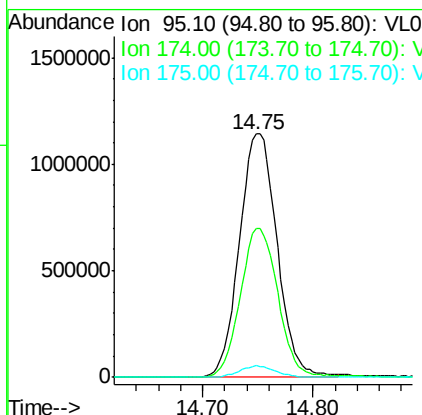
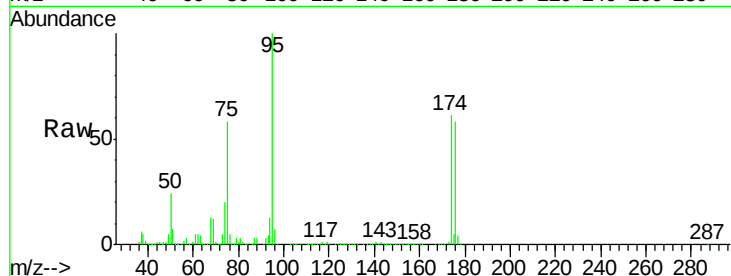




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.74 ppbv
 RT: 14.75 min Scan# 4249
 Delta R.T. -0.00 min
 Lab File: VL031273.D
 Acq: 20 Dec 2017 16:45

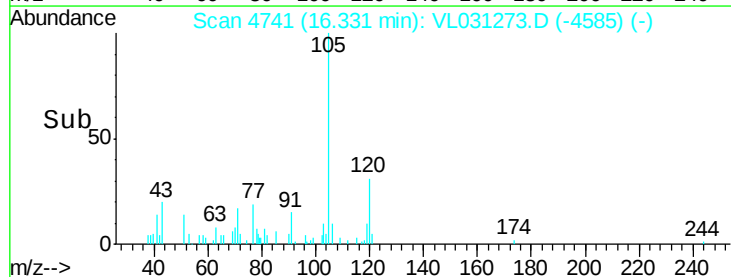
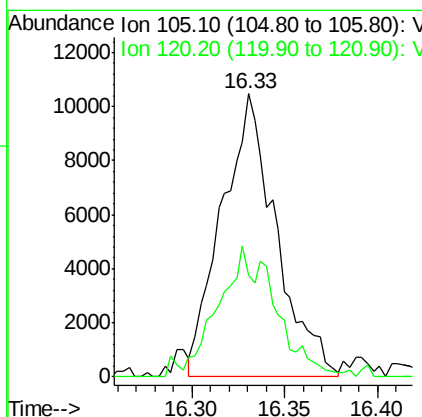
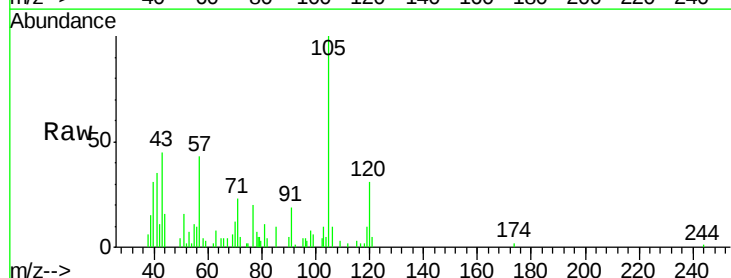
Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-OUT-01

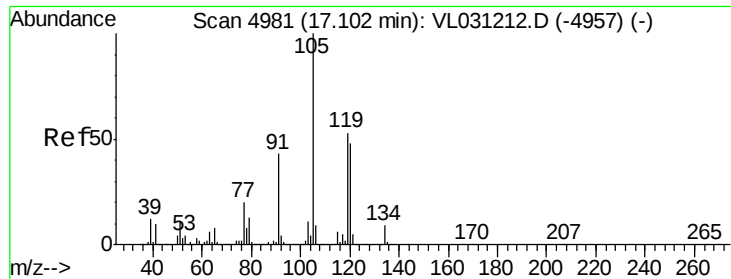
Tgt Ion: 95 Resp: 2711949
 Ion Ratio Lower Upper
 95 100
 174 61.9 52.5 78.7
 175 4.6 4.1 6.1



#73
 1,3,5-Trimethylbenzene
 Concen: 0.05 ppbv
 RT: 16.33 min Scan# 4741
 Delta R.T. 0.00 min
 Lab File: VL031273.D
 Acq: 20 Dec 2017 16:45

Tgt Ion: 105 Resp: 21399
 Ion Ratio Lower Upper
 105 100
 120 35.0 37.8 56.6#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.07 ppbv
 RT: 17.10 min Scan# 4981
 Delta R.T. 0.00 min
 Lab File: VL031273.D
 Acq: 20 Dec 2017 16:45

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-OUT-01

Tgt Ion:	105	Resp:	36001
Ion	Ratio	Lower	Upper
105	100		
120	42.4	38.6	58.0
91	13.4	34.2	51.4#
77	12.1	16.1	24.1#

