

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122018\
 Data File : VL033047.D
 Acq On : 21 Dec 2018 9:31
 Operator : SY/AP
 Sample : J6522-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AIR-01

Manual Integrations
 APPROVED

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 12/24/2018 8:26:34 AM

Quant Time: Dec 22 05:44:17 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 0
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

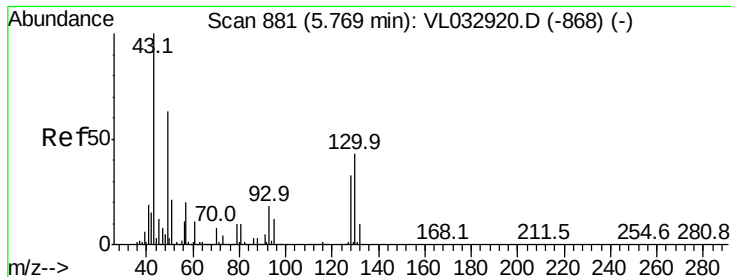
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	999472	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	2319800	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	2284052	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.59	95	1748197	10.36	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	81974	0.614	ppbv	100
3) Chlorodifluoromethane	3.01	51	210448m	2.780	ppbv	
4) Chloromethane	3.17	50	27676	0.628	ppbv	91
9) Propene	3.06	41	501478m	16.755	ppbv	
11) Trichlorofluoromethane	4.01	101	171825	1.367	ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.57	101	10680	0.100	ppbv	96
13) Ethanol	3.67	45	3613670	350.664	ppbv	96
15) Acetone	3.90	43	6569968	76.584	ppbv	98
17) tert-Butyl alcohol	4.37	59	1550365	70.982	ppbv #	79
19) Isopropyl Alcohol	4.04	45	354244	6.575	ppbv #	1
20) Methylene Chloride	4.42	84	1398249	33.348	ppbv	96
26) Hexane	5.79	57	1425657	15.237	ppbv #	44
27) Carbon Disulfide	4.63	76	490043	4.189	ppbv	99
29) Chloroform	5.86	83	2209401	13.234	ppbv	95
31) cis-1,2-Dichloroethene	5.65	61	140896	1.641	ppbv	95
32) 1,1,1-Trichloroethane	6.64	97	16441m	0.093	ppbv	
34) 2-Butanone	5.34	43	170647m	1.689	ppbv	
36) Benzene	7.02	78	11167	0.065	ppbv #	83
42) Bromodichloromethane	7.92	83	25031m	0.156	ppbv	
47) 1,1,2-Trichloroethane	9.62	97	6699m	0.094	ppbv	
52) Tetrachloroethene	11.39	164	18780m	0.303	ppbv	
53) Toluene	9.96	91	93586	0.517	ppbv	97
58) Ethyl Benzene	12.88	91	33532m	0.138	ppbv	
59) m/p-Xylene	13.13	91	144493m	0.654	ppbv	
60) o-Xylene	13.86	91	39346m	0.176	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 882

Delta R.T. 0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

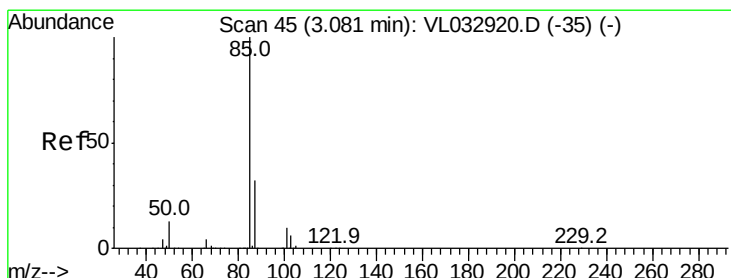
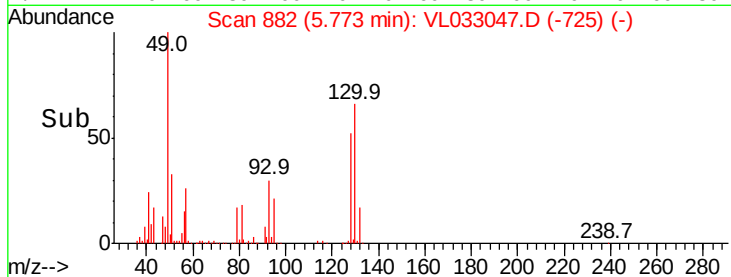
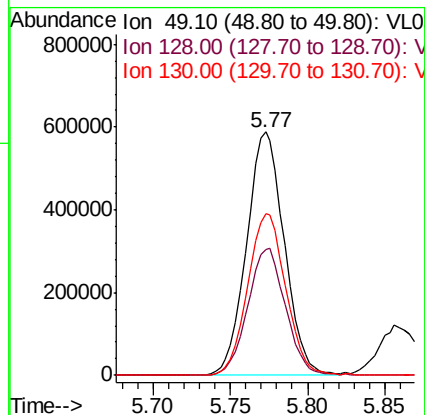
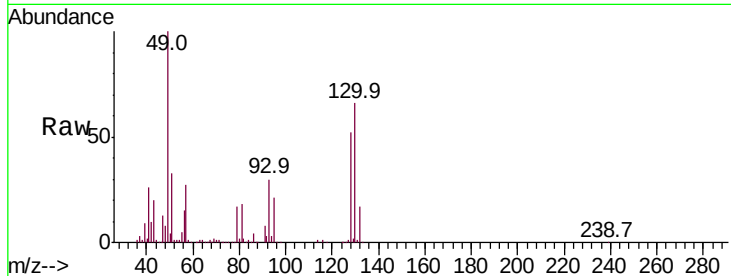
ClientSampleId :

AIR-01

Tot Ion	Ratio	Lower	Upper
49	100		
128	52.6	26.3	78.8
130	67.3	33.9	101.7

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#2

Dichlorodifluoromethane

Concen: 0.614 ppbv

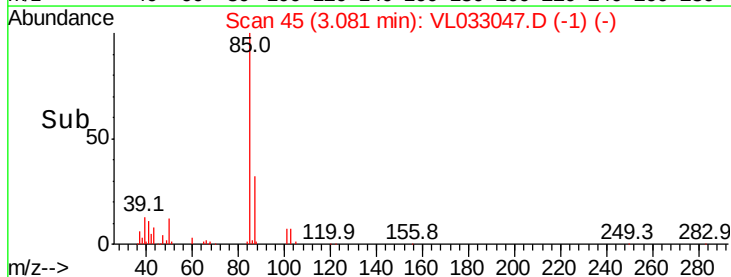
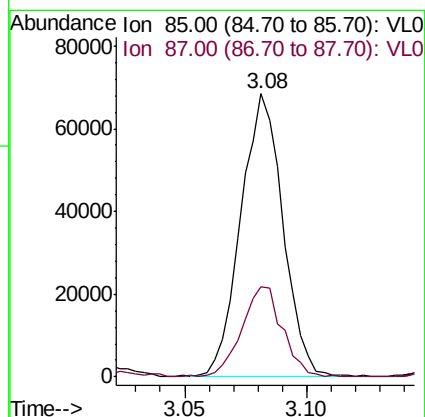
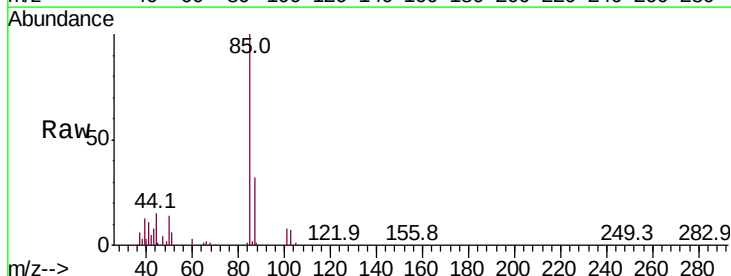
RT: 3.08 min Scan# 45

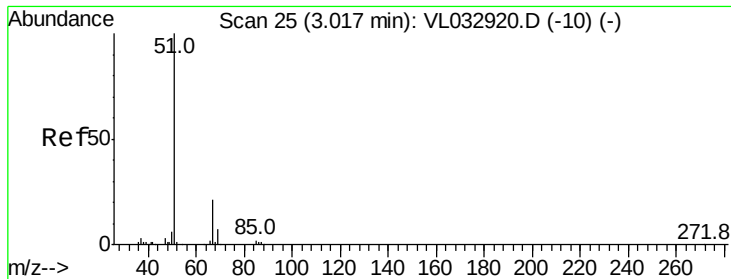
Delta R.T. 0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Tgt Ion	Ratio	Lower	Upper
85	100		
87	32.0	25.7	38.5





#3

Chlorodifluoromethane

Concen: 2.780 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion: 51 Resp: 210448

Ion Ratio Lower Upper

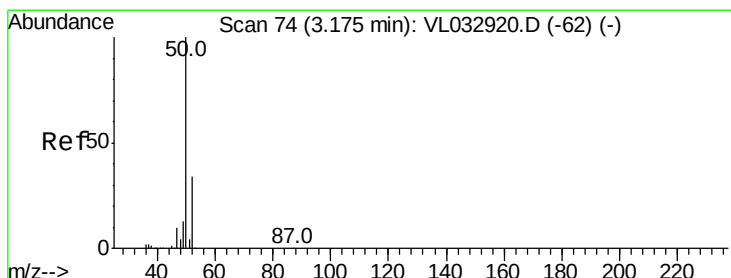
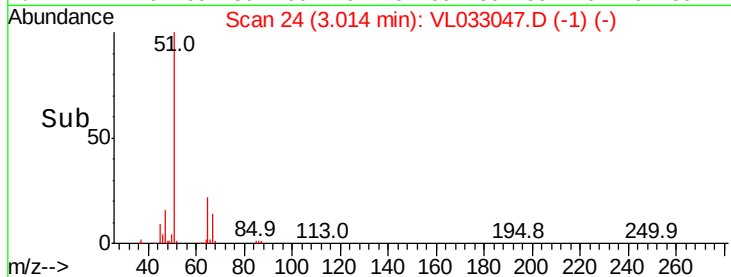
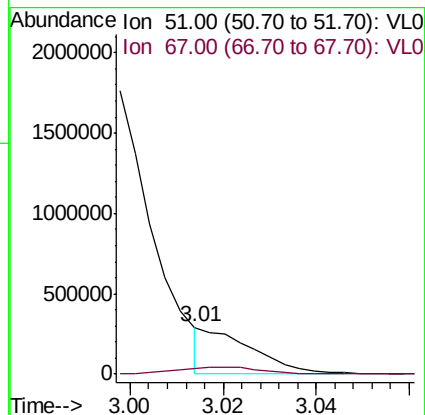
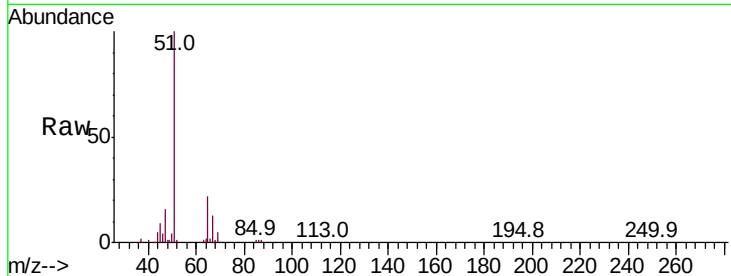
51 100

67 27.3 16.8 25.2#

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#4

Chloromethane

Concen: 0.628 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL033047.D

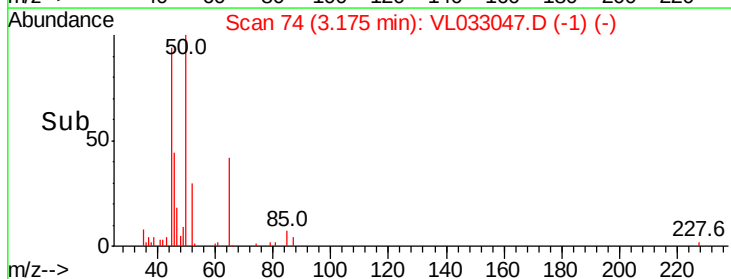
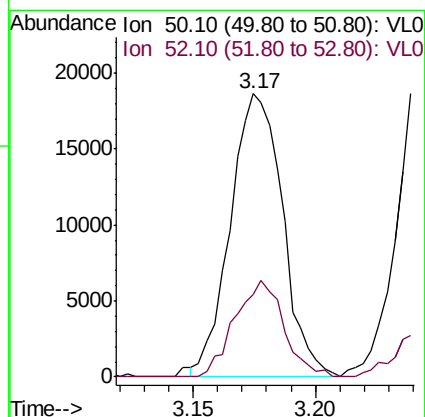
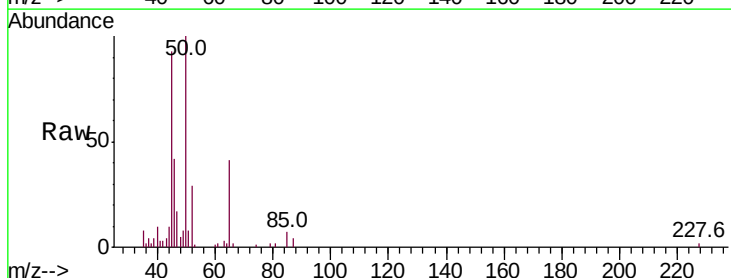
Acq: 21 Dec 2018 9:31

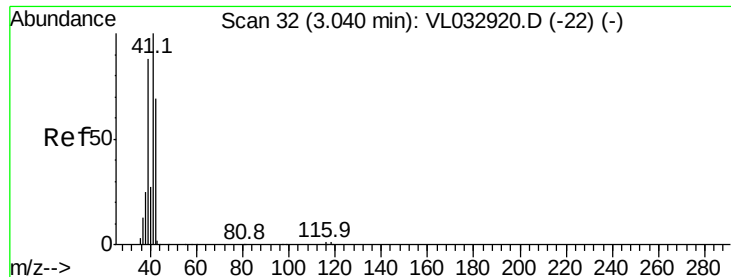
Tgt Ion: 50 Resp: 27676

Ion Ratio Lower Upper

50 100

52 29.1 27.3 40.9





#9

Propene

Concen: 16.755 ppbv m

RT: 3.06 min Scan# 37

Delta R.T. 0.02 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion: 41 Resp: 501478

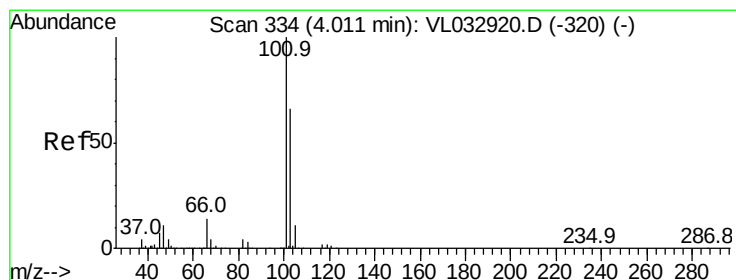
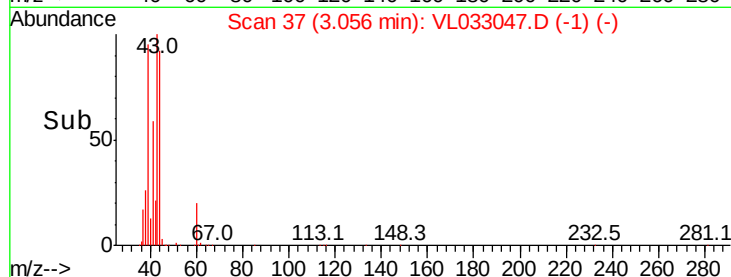
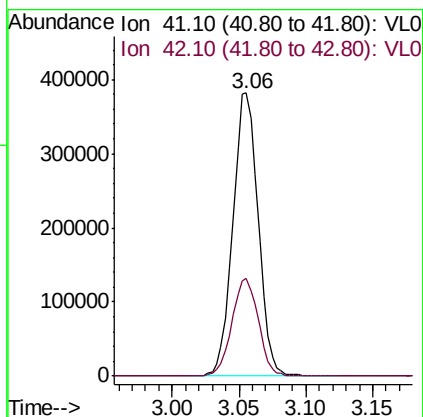
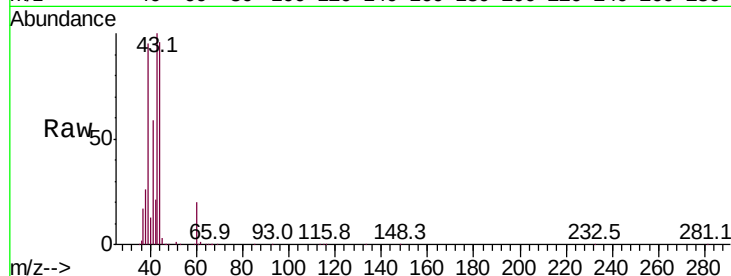
Ion Ratio Lower Upper

41 100

42 114.4 56.2 84.2#

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#11

Trichlorofluoromethane

Concen: 1.367 ppbv

RT: 4.01 min Scan# 335

Delta R.T. 0.00 min

Lab File: VL033047.D

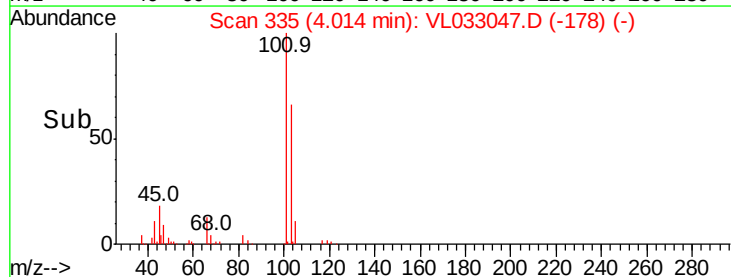
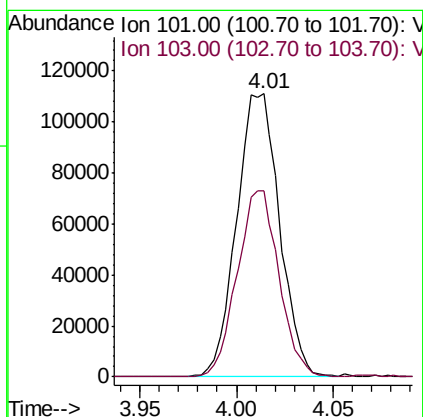
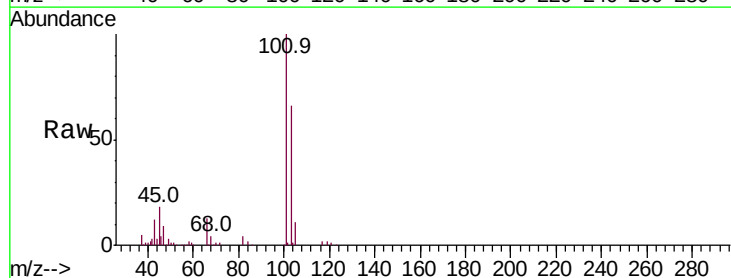
Acq: 21 Dec 2018 9:31

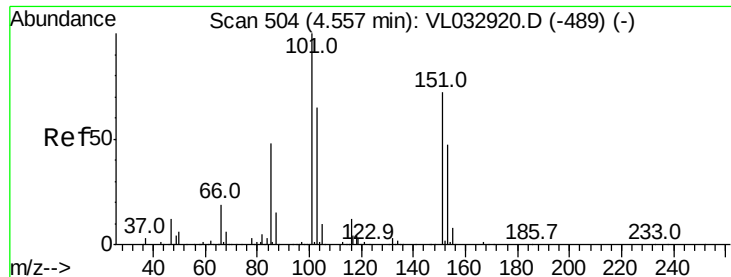
Tgt Ion: 101 Resp: 171825

Ion Ratio Lower Upper

101 100

103 65.7 52.7 79.1





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.100 ppbv

RT: 4.57 min Scan# 507

Delta R.T. 0.01 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion:101 Resp: 10680

Ion Ratio Lower Upper

101 100

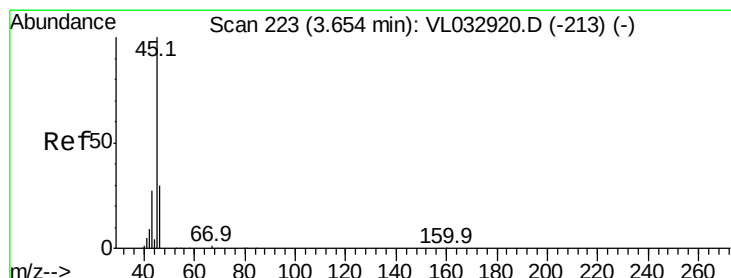
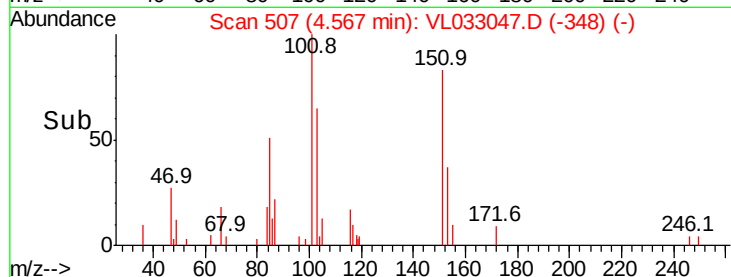
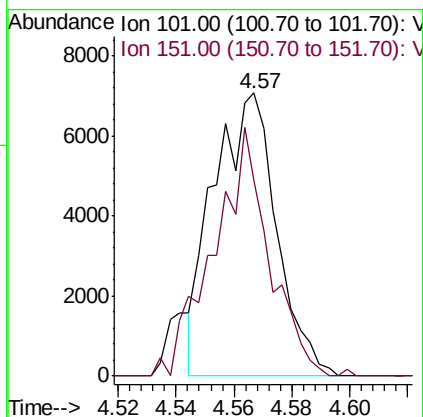
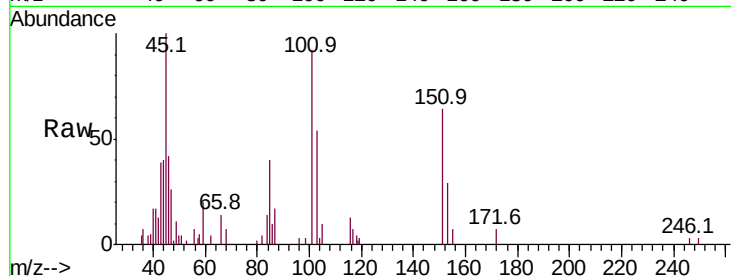
151 77.2 59.3 88.9

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#13

Ethanol

Concen: 350.664 ppbv

RT: 3.67 min Scan# 227

Delta R.T. 0.01 min

Lab File: VL033047.D

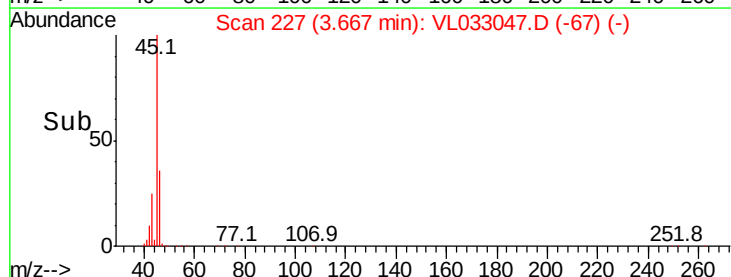
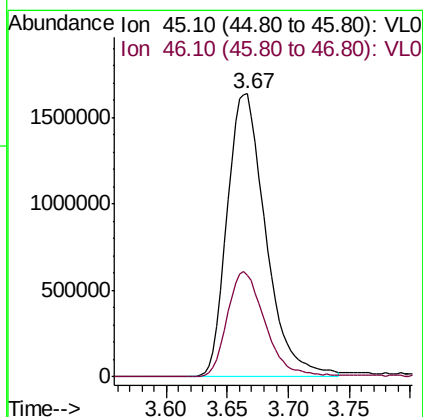
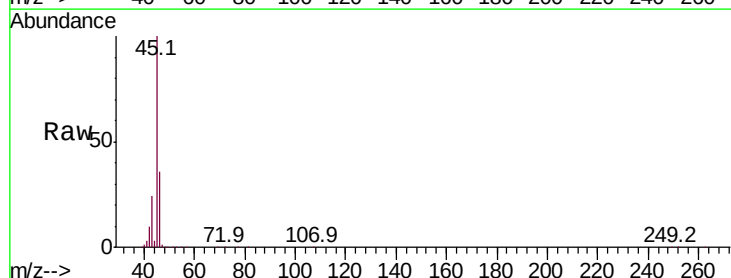
Acq: 21 Dec 2018 9:31

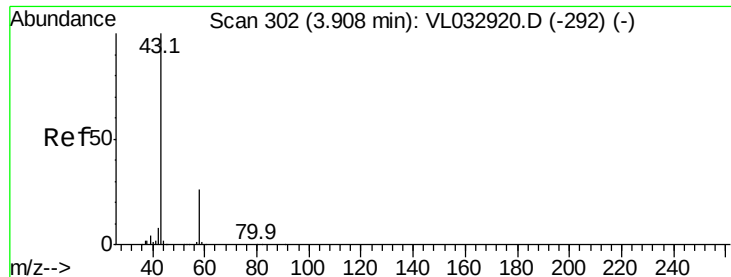
Tgt Ion: 45 Resp: 3613670

Ion Ratio Lower Upper

45 100

46 37.1 13.8 55.4





#15

Acetone

Concen: 76.584 ppbv

RT: 3.90 min Scan# 301

Delta R.T. -0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion: 43 Resp: 6569968

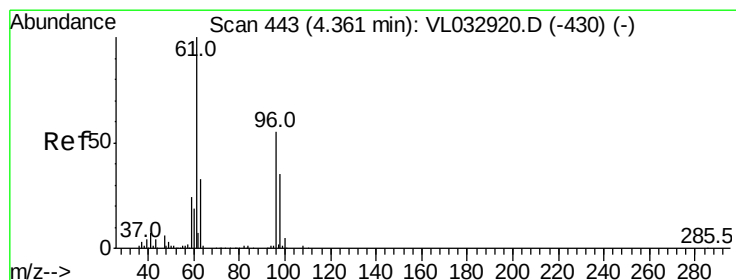
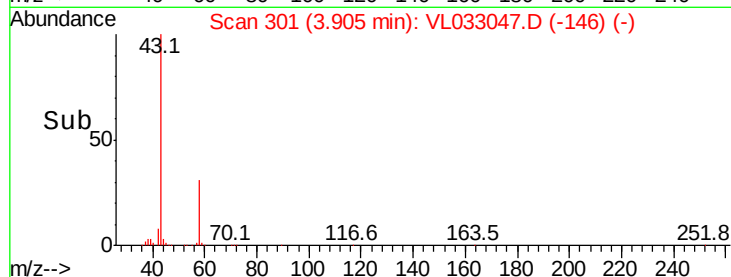
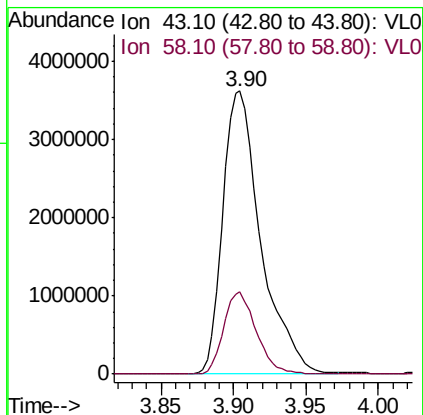
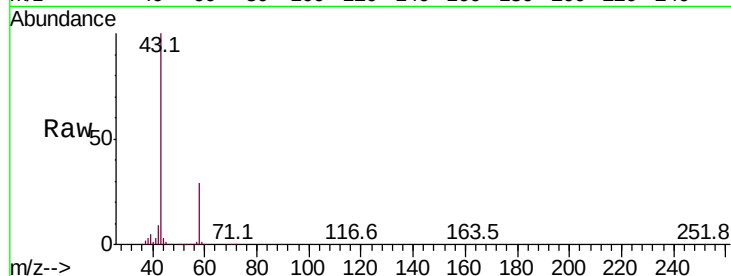
Ion Ratio Lower Upper

43 100

58 24.9 20.6 30.8

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#17

tert-Butyl alcohol

Concen: 70.982 ppbv

RT: 4.37 min Scan# 447

Delta R.T. 0.01 min

Lab File: VL033047.D

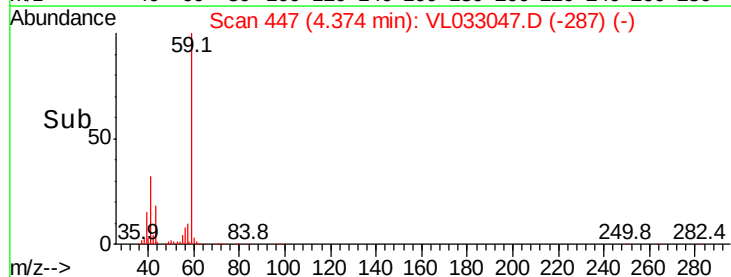
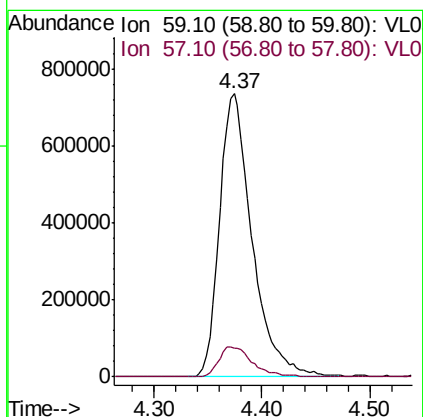
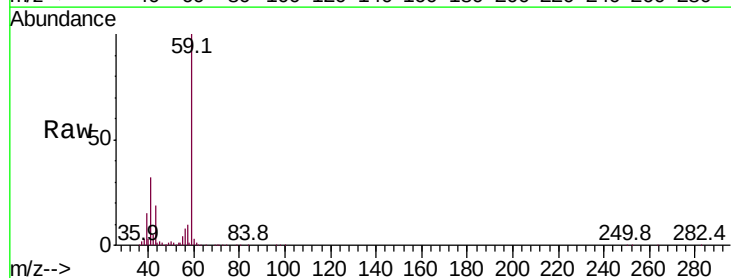
Acq: 21 Dec 2018 9:31

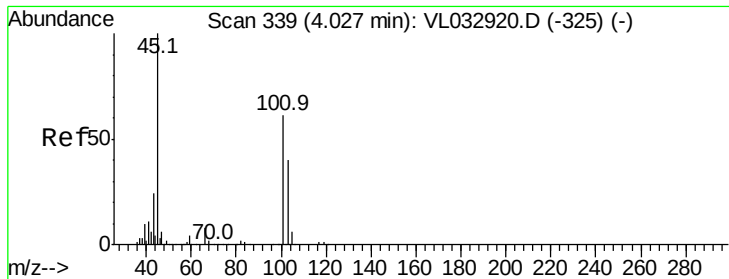
Tgt Ion: 59 Resp: 1550365

Ion Ratio Lower Upper

59 100

57 11.2 0.6 1.0#





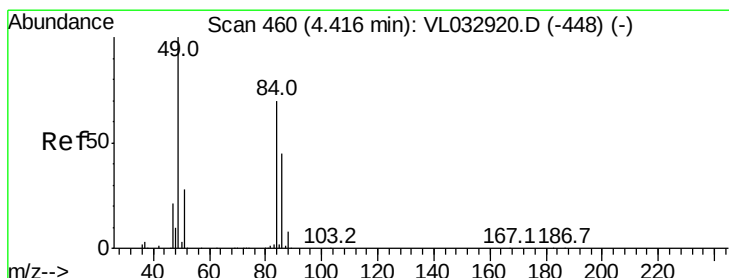
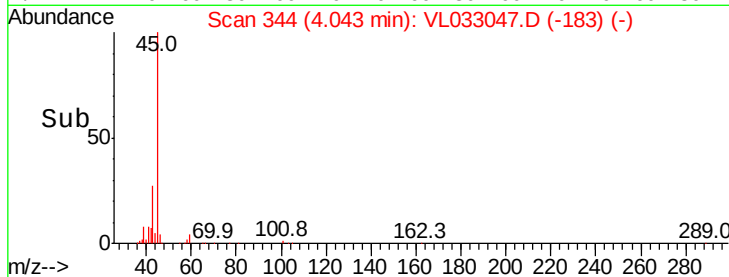
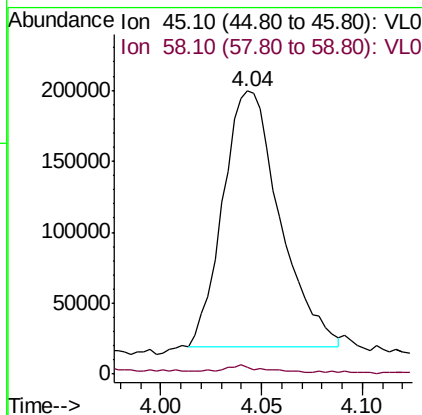
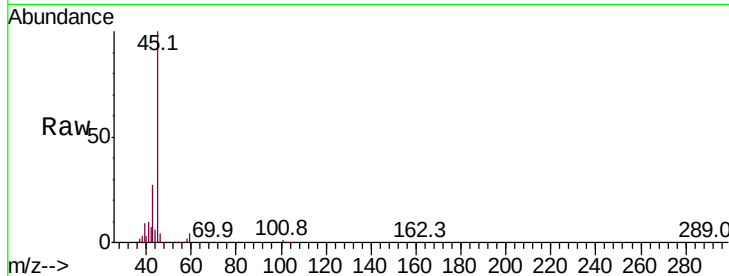
#19
Isopropyl Alcohol
Concen: 6.575 ppbv
RT: 4.04 min Scan# 344
Delta R.T. 0.02 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Instrument :
MSVOA_L
ClientSampleId :
AIR-01

Tot Ion: 45 Resp: 354244
Ion Ratio Lower Upper
45 100
58 462.1 1.4 2.2#

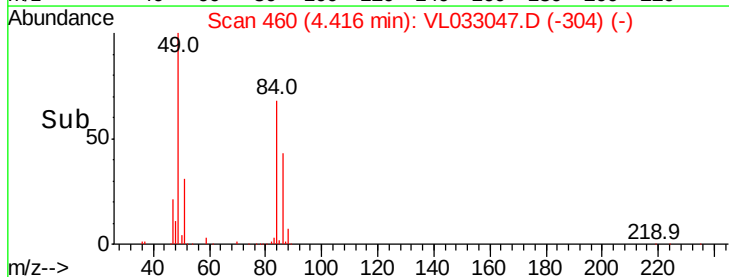
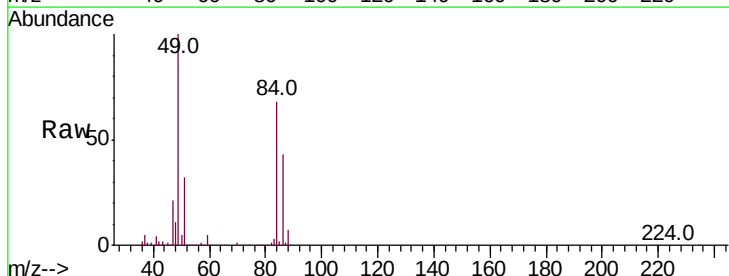
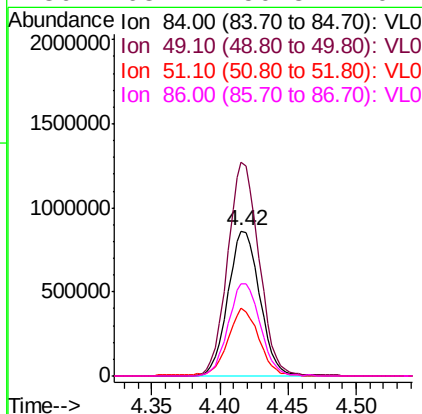
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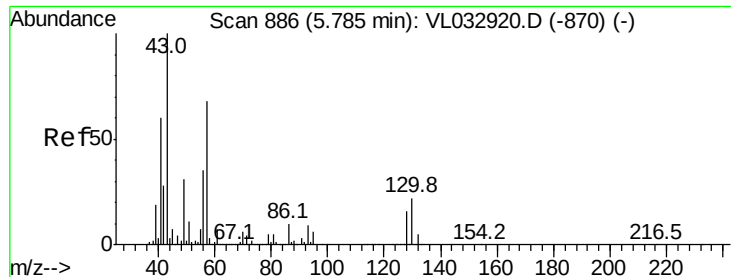
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#20
Methylene Chloride
Concen: 33.348 ppbv
RT: 4.42 min Scan# 460
Delta R.T. 0.00 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Tgt Ion: 84 Resp: 1398249
Ion Ratio Lower Upper
84 100
49 147.2 113.8 170.8
51 46.5 31.8 47.8
86 63.7 50.8 76.2





#26

Hexane

Concen: 15.237 ppbv

RT: 5.79 min Scan# 888

Delta R.T. 0.01 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion: 57 Resp: 1425657

Ion Ratio Lower Upper

57 100

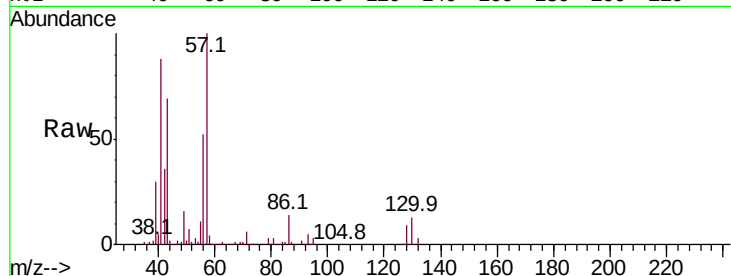
41 89.8 72.2 108.2

43 68.9 171.9 257.9#

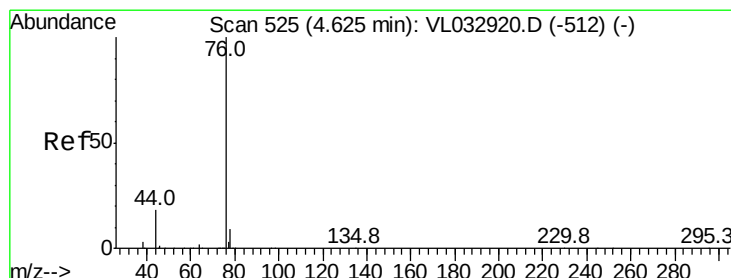
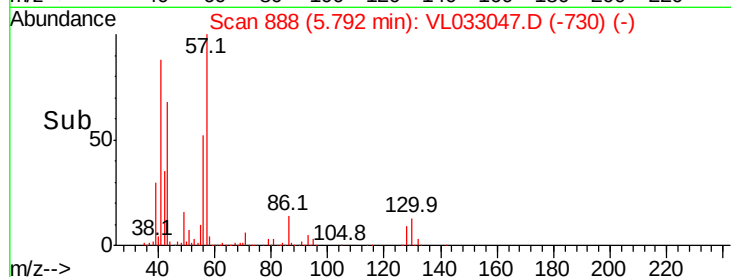
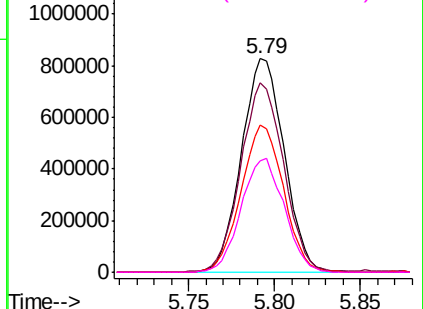
56 53.9 42.2 63.2

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Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 4.189 ppbv

RT: 4.63 min Scan# 526

Delta R.T. 0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

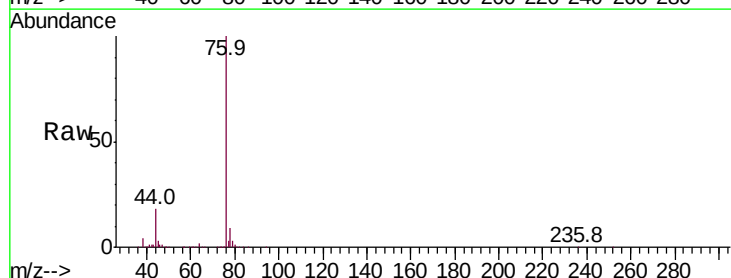
Tgt Ion: 76 Resp: 490043

Ion Ratio Lower Upper

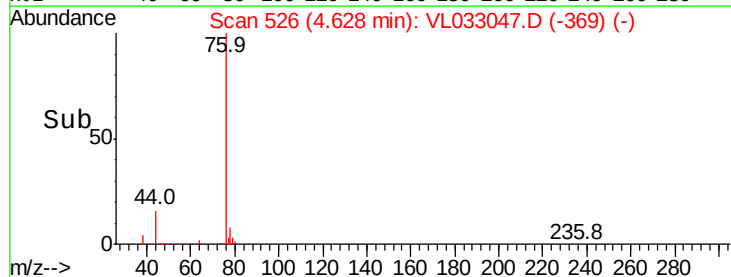
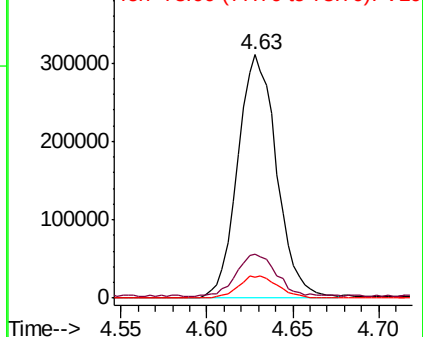
76 100

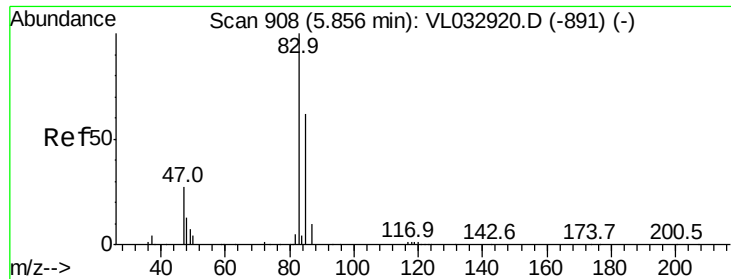
44 18.6 14.7 22.1

78 9.5 7.4 11.2



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0





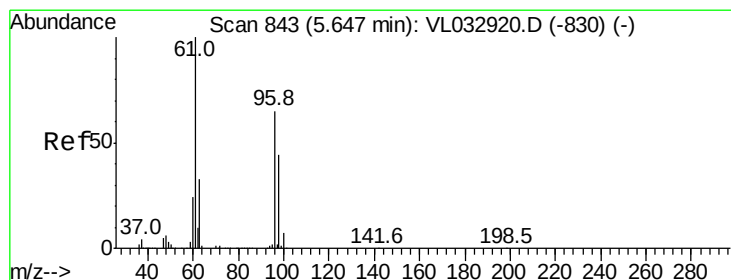
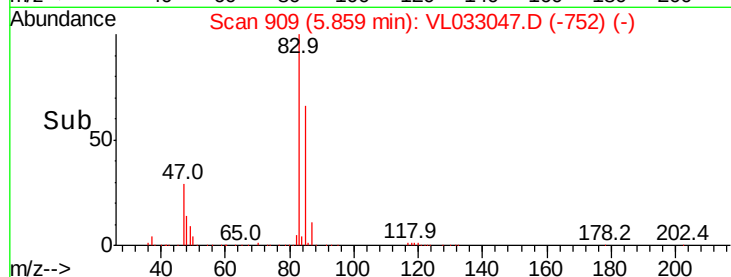
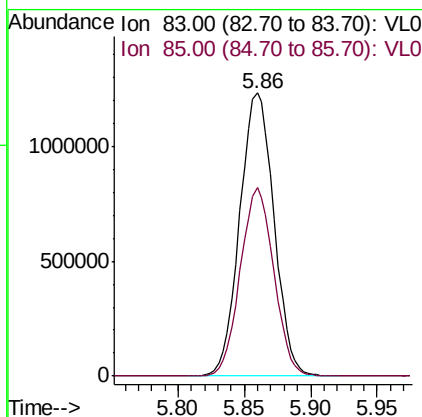
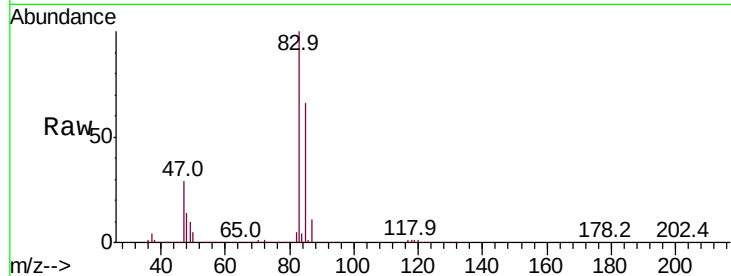
#29
Chloroform
Concen: 13.234 ppbv
RT: 5.86 min Scan# 909
Delta R.T. 0.00 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Instrument :
MSVOA_L
ClientSampleId :
AIR-01

Tot Ion: 83 Resp: 2209401
Ion Ratio Lower Upper
83 100
85 66.3 49.8 74.8

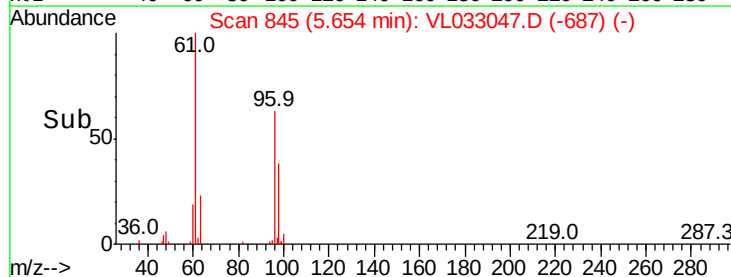
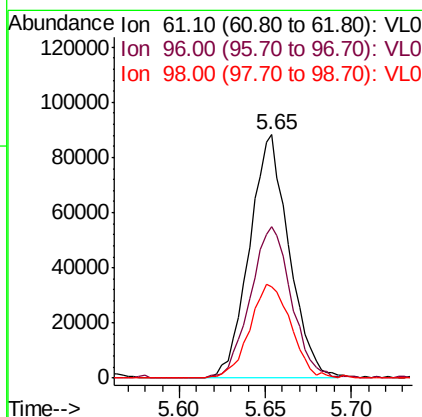
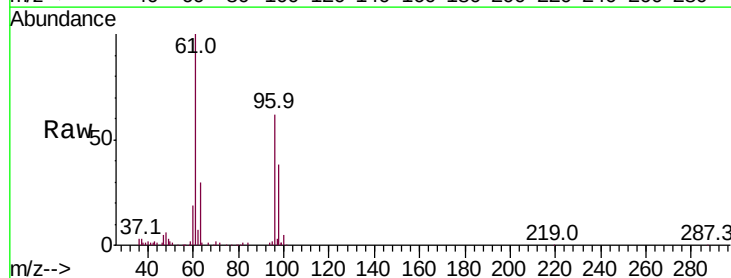
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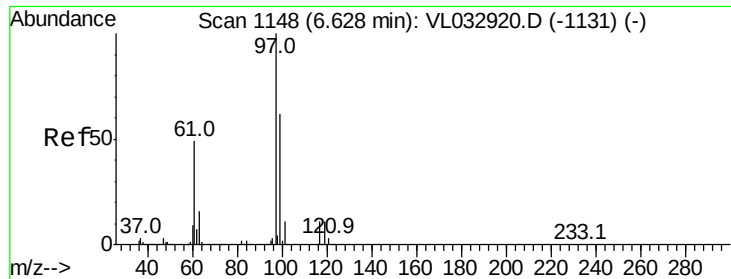
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#31
cis-1,2-Dichloroethene
Concen: 1.641 ppbv
RT: 5.65 min Scan# 845
Delta R.T. 0.01 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Tgt Ion: 61 Resp: 140896
Ion Ratio Lower Upper
61 100
96 62.0 51.9 77.9
98 38.4 35.0 52.4





#32

1,1,1-Trichloroethane

Concen: 0.093 ppbv m

RT: 6.64 min Scan# 1151

Delta R.T. 0.01 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

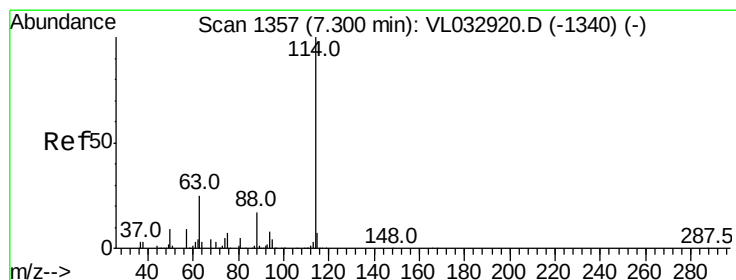
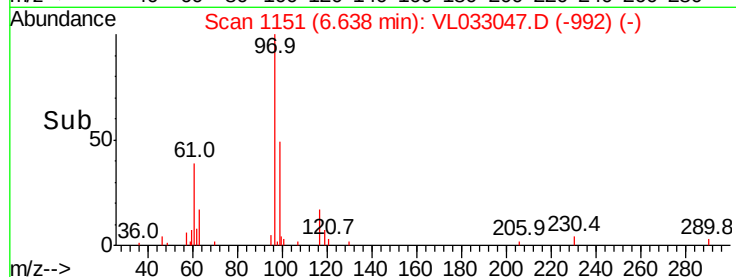
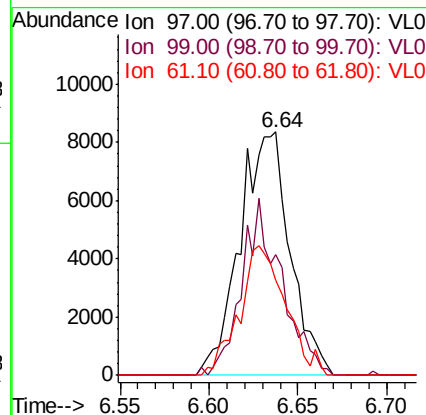
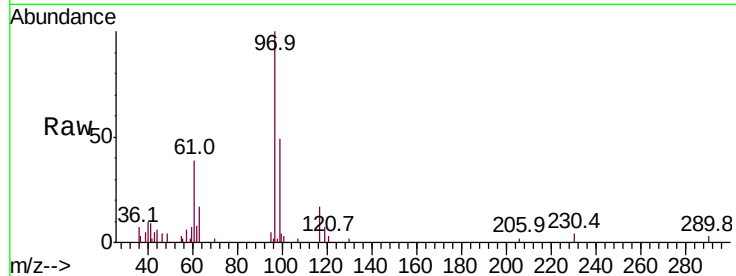
ClientSampled :

AIR-01

Tot Ion:	97	Resp:	16441
Ion Ratio	Lower	Upper	
97	100		
99	57.0	51.1	76.7
61	49.0	39.3	58.9

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

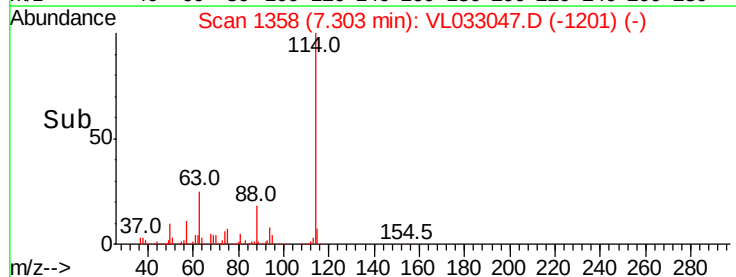
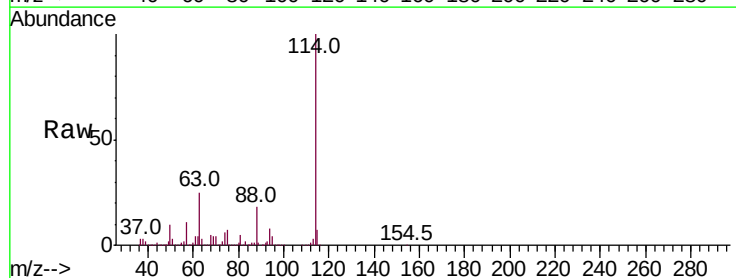
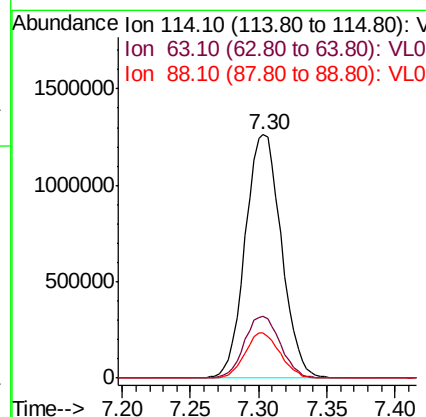
RT: 7.30 min Scan# 1358

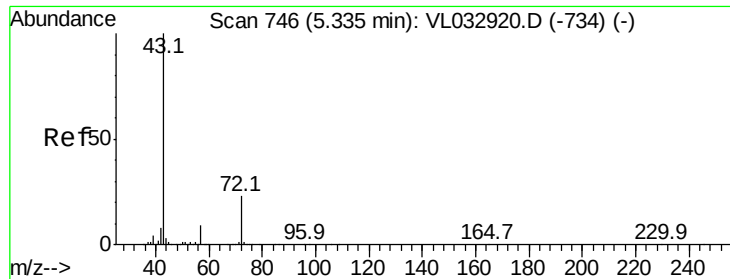
Delta R.T. 0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Tgt Ion:	114	Resp:	2319800
Ion Ratio	Lower	Upper	
114	100		
63	25.3	20.1	30.1
88	18.1	14.2	21.4





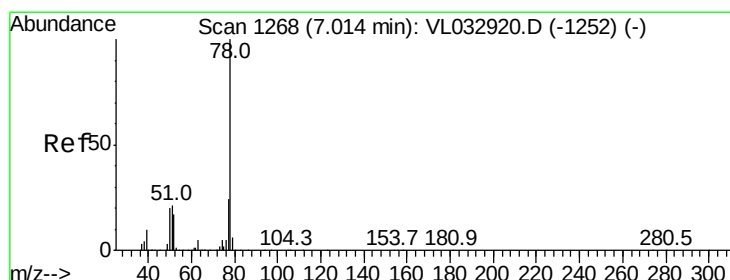
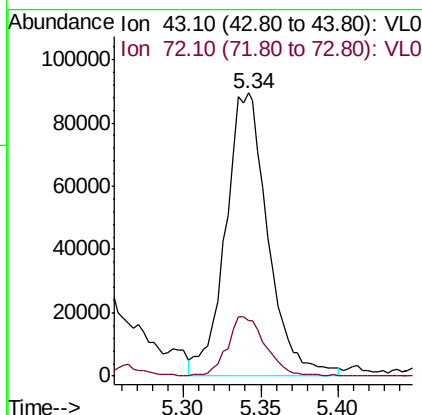
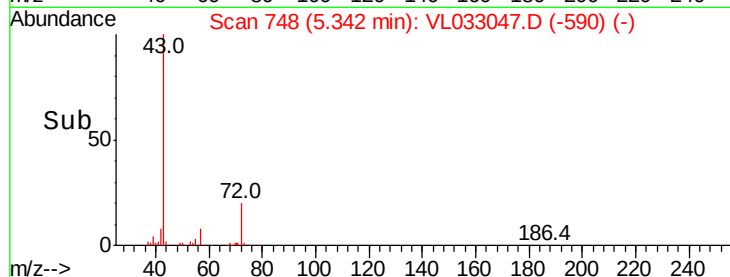
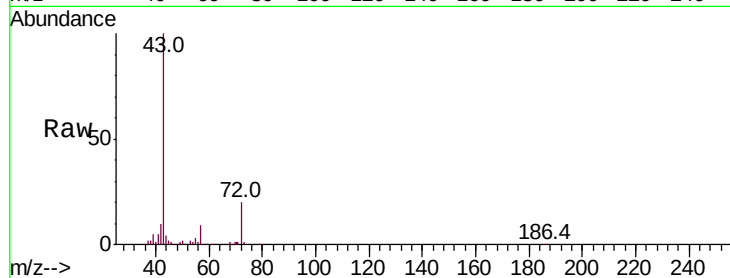
#34
2-Butanone
Concen: 1.689 ppbv m
RT: 5.34 min Scan# 748
Delta R.T. 0.01 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Instrument :
MSVOA_L
ClientSampled :
AIR-01

Tot Ion: 43 Resp: 170647
Ion Ratio Lower Upper
43 100
72 192.9 18.8 28.2#

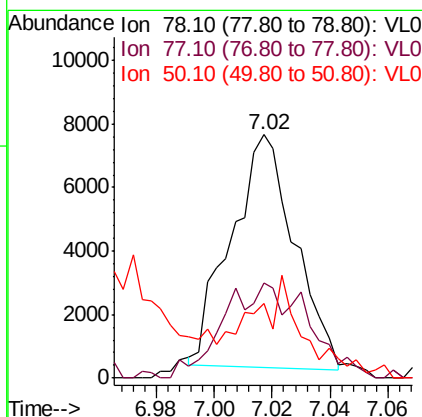
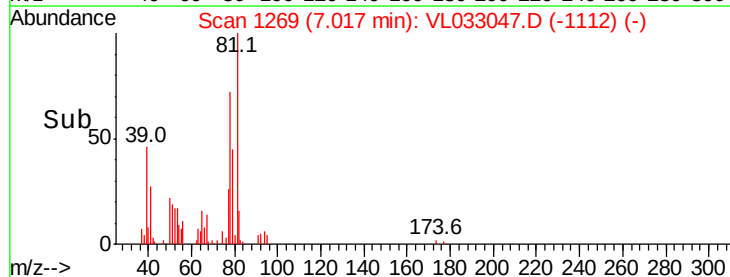
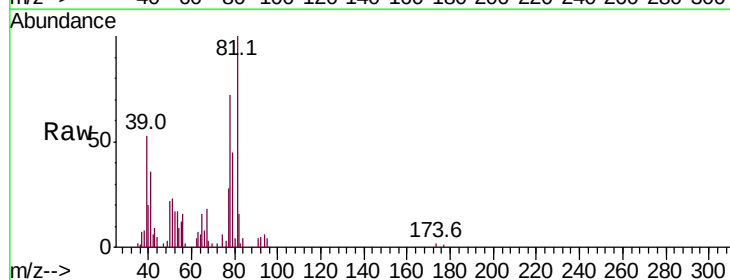
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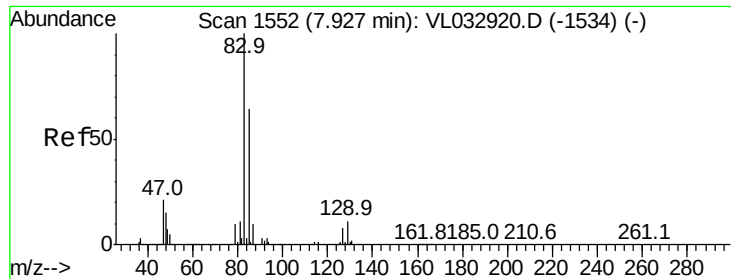
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#36
Benzene
Concen: 0.065 ppbv
RT: 7.02 min Scan# 1269
Delta R.T. 0.00 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Tgt Ion: 78 Resp: 11167
Ion Ratio Lower Upper
78 100
77 35.6 18.9 28.3#
50 23.8 16.1 24.1





#42

Bromodichloromethane

Concen: 0.156 ppbv m

RT: 7.92 min Scan# 1551

Delta R.T. -0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

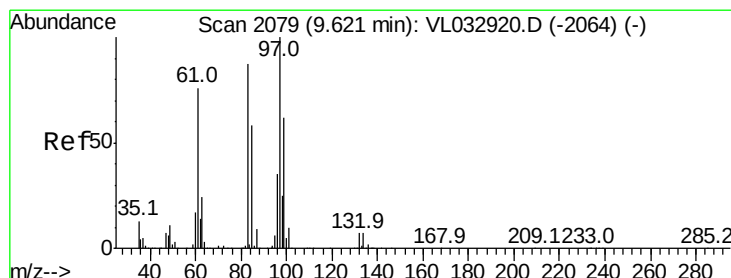
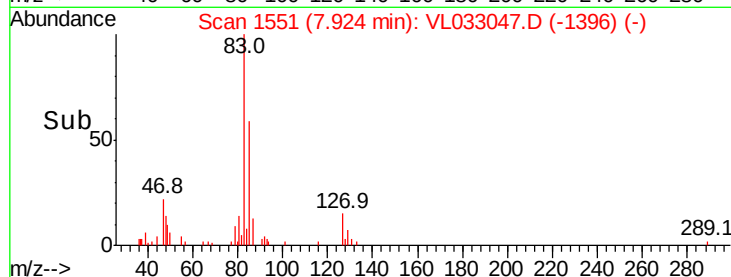
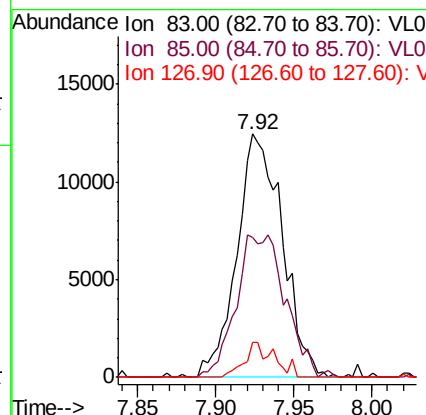
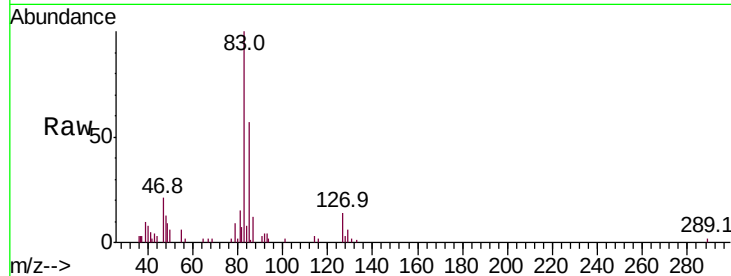
ClientSampled :

AIR-01

Tot Ion:	83	Resp:	25031
Ion Ratio	Lower	Upper	
83	100		
85	57.2	50.9	76.3
127	14.5	6.7	10.1#

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#47

1,1,2-Trichloroethane

Concen: 0.094 ppbv m

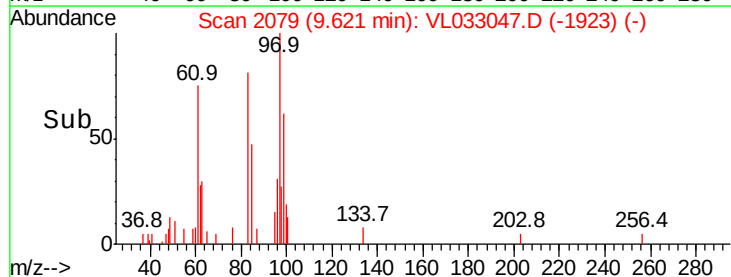
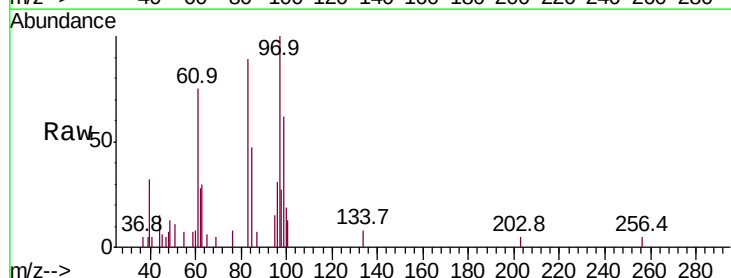
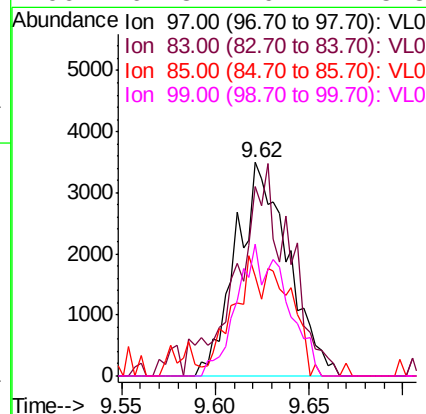
RT: 9.62 min Scan# 2079

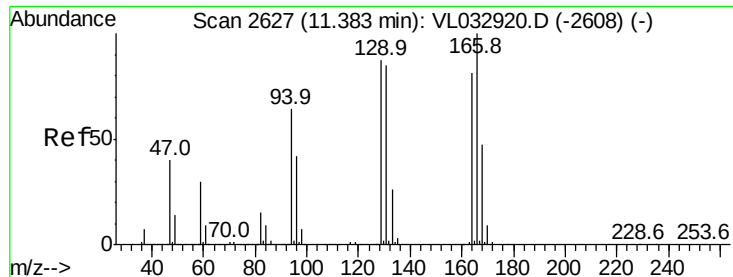
Delta R.T. 0.00 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Tgt Ion:	97	Resp:	6699
Ion Ratio	Lower	Upper	
97	100		
83	88.6	69.8	104.8
85	47.0	46.7	70.1
99	61.8	49.2	73.8





#52

Tetrachloroethene

Concen: 0.303 ppbv m

RT: 11.39 min Scan# 2629

Delta R.T. 0.01 min

Lab File: VL033047.D

Acq: 21 Dec 2018 9:31

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion:164 Resp: 18780

Ion Ratio Lower Upper

164 100

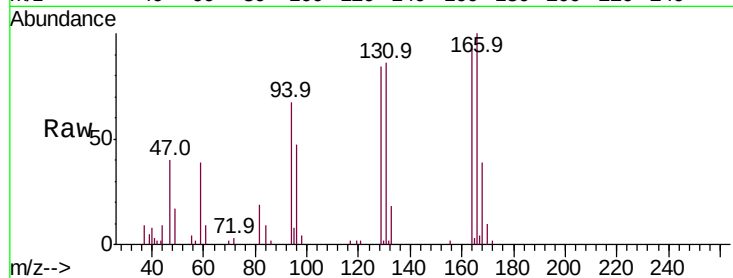
166 108.0 98.8 148.2

129 91.0 85.5 128.3

131 93.1 84.4 126.6

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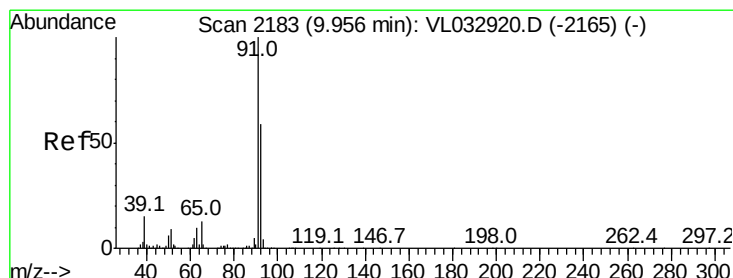
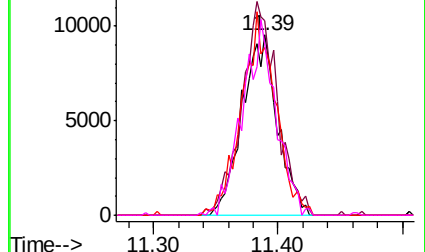
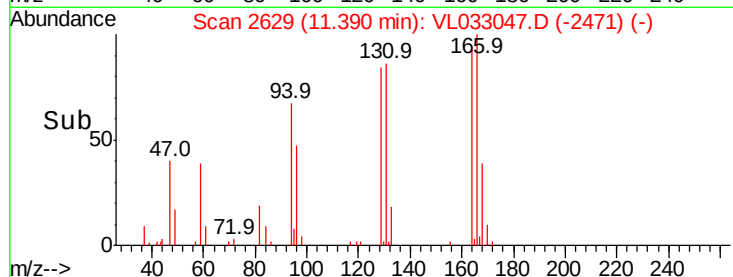


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.517 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. 0.00 min

Lab File: VL033047.D

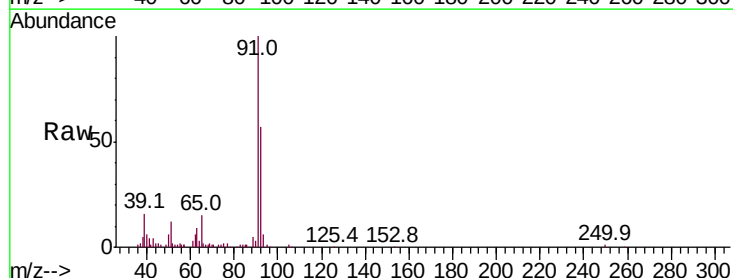
Acq: 21 Dec 2018 9:31

Tgt Ion: 91 Resp: 93586

Ion Ratio Lower Upper

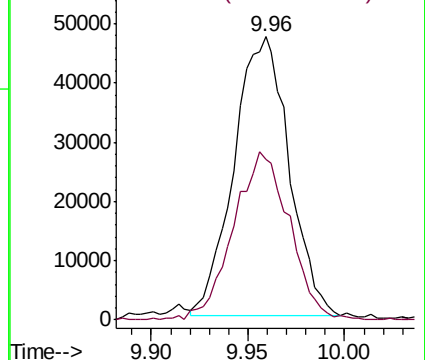
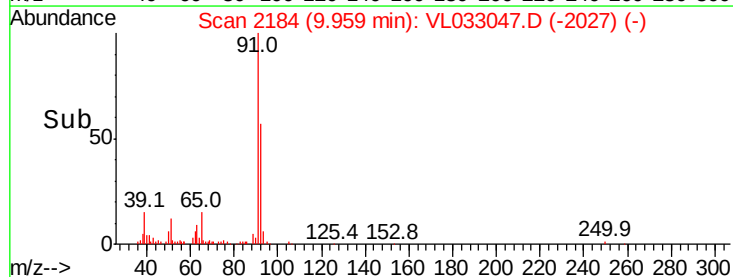
91 100

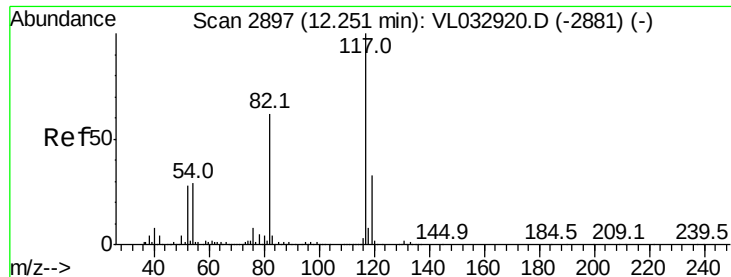
92 61.3 47.4 71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





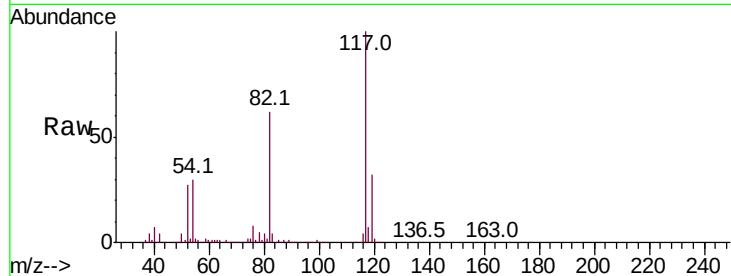
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2898
Delta R.T. 0.00 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Instrument :
MSVOA_L
ClientSampleId :
AIR-01

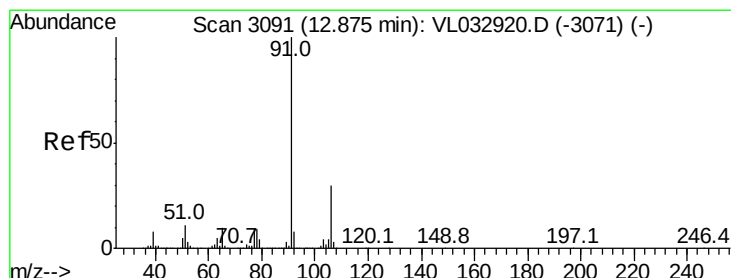
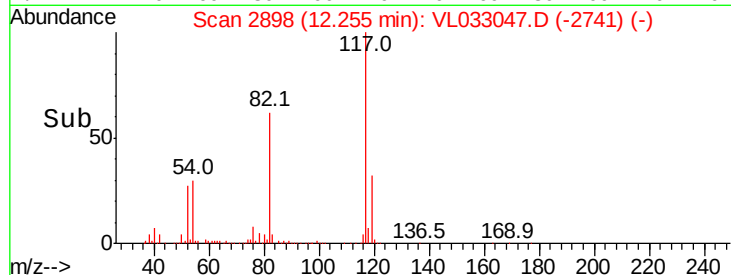
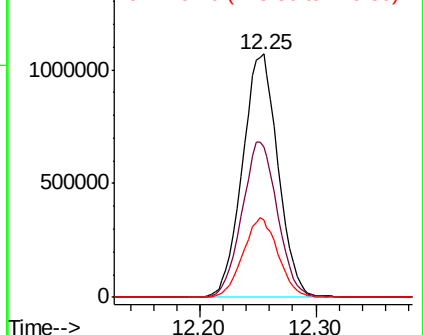
Tot Ion	Ratio	Lower	Upper
117	100		
82	64.0	47.8	71.8
119	32.5	43.1	64.7#

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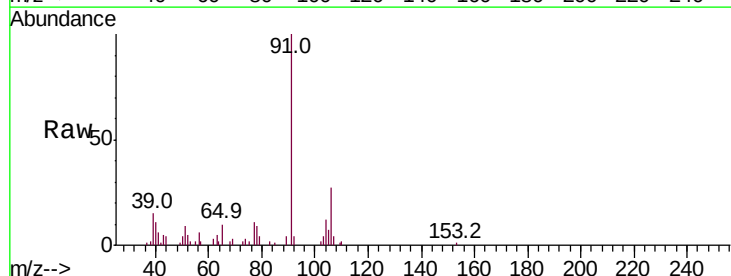


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

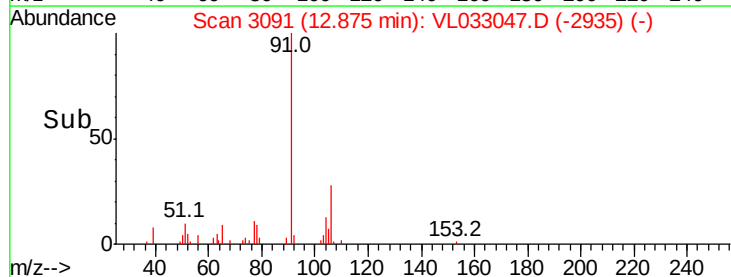
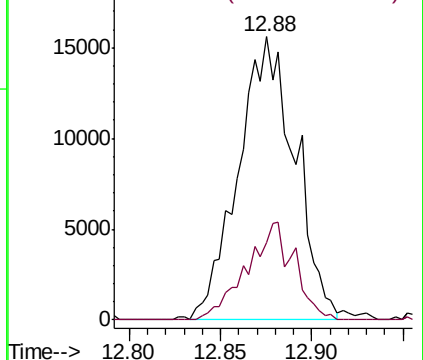


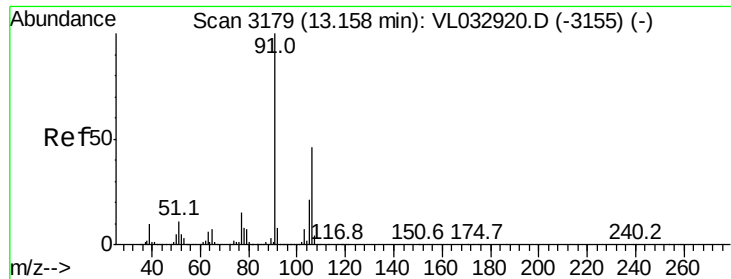
#58
Ethyl Benzene
Concen: 0.138 ppbv m
RT: 12.88 min Scan# 3091
Delta R.T. 0.00 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.2	23.9	35.9



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





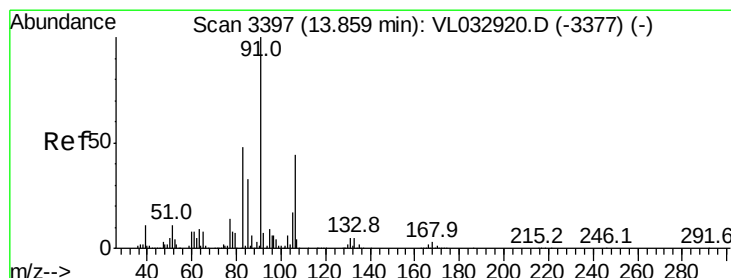
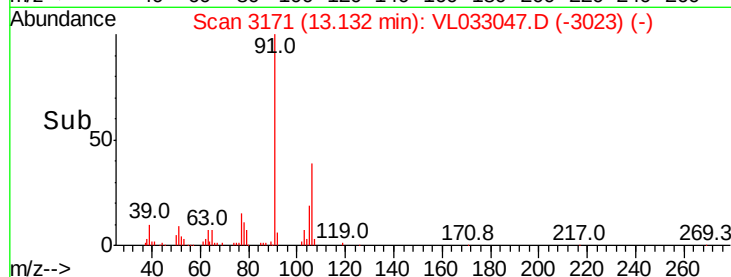
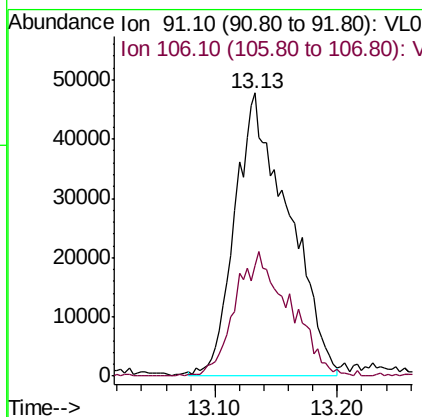
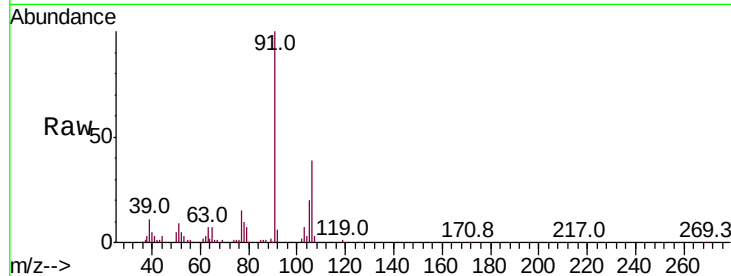
#59
m/p-Xylene
Concen: 0.654 ppbv m
RT: 13.13 min Scan# 3171
Delta R.T. -0.03 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Instrument :
MSVOA_L
ClientSampleId :
AIR-01

Tot Ion: 91 Resp: 144493
Ion Ratio Lower Upper
91 100
106 44.9 0.0 0.0#

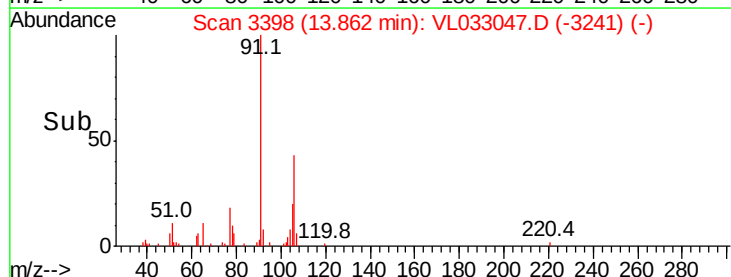
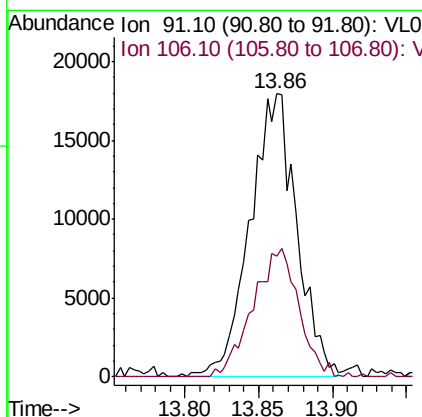
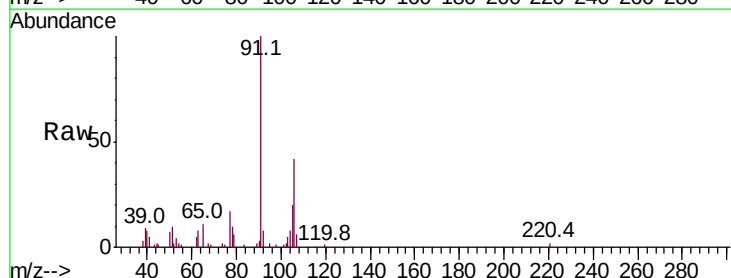
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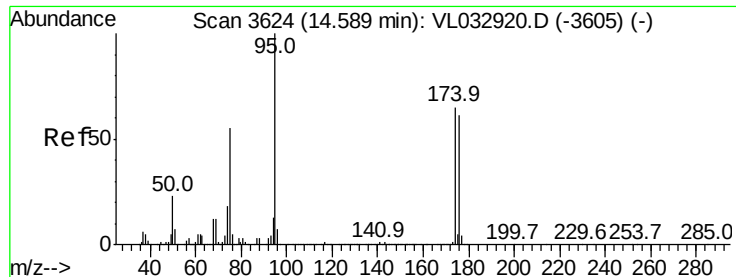
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#60
o-Xylene
Concen: 0.176 ppbv m
RT: 13.86 min Scan# 3398
Delta R.T. 0.00 min
Lab File: VL033047.D
Acq: 21 Dec 2018 9:31

Tgt Ion: 91 Resp: 39346
Ion Ratio Lower Upper
91 100
106 44.8 21.9 65.8





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.360 ppbv
 RT: 14.59 min Scan# 3623
 Delta R.T. -0.00 min
 Lab File: VL033047.D
 Acq: 21 Dec 2018 9:31

Instrument :
 MSVOA_L
 ClientSampleId :
 AIR-01

Tot Ion: 95 Resp: 1748197
 Ion Ratio Lower Upper
 95 100
 174 65.3 51.4 77.0
 175 4.8 3.8 5.6

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