

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL061319\
 Data File : VL033919.D
 Acq On : 14 Jun 2019 5:29
 Operator : SY/AP
 Sample : K3367-03
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Jun 14 09:17:21 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL060719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 07 08:53:27 2019
 QLast Update : Fri Jun 07 08:53:27 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	920397	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.27	114	2079793	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.22	117	2091237	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.56	95	1674683	9.75	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.50%

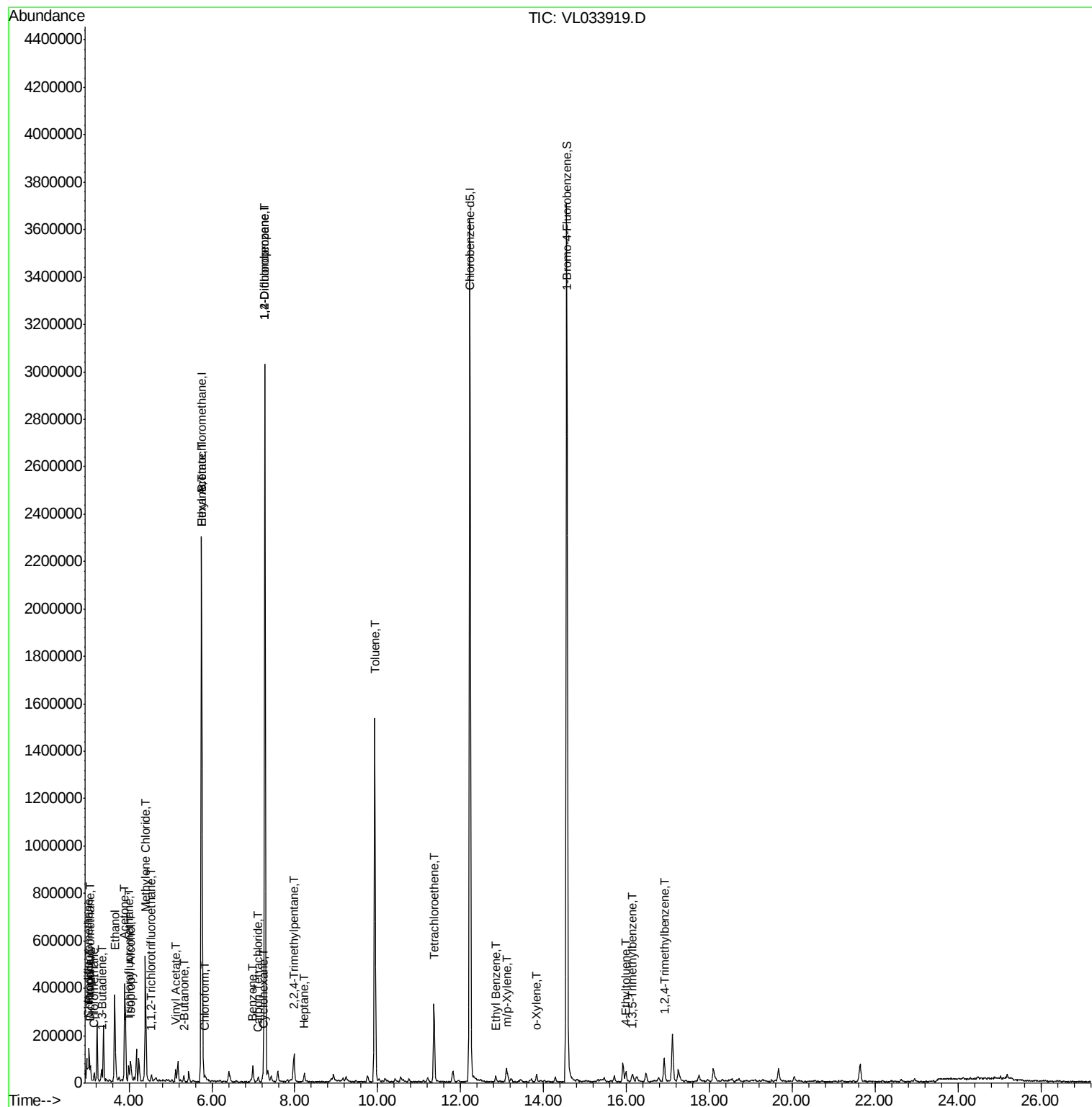
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	3.07	85	43955	0.294	ppbv #	87
3) Chlorodifluoromethane	3.00	51	113671	1.049	ppbv #	82
4) Chloromethane	3.17	50	26779	0.433	ppbv	95
9) Propene	3.03	41	35718	0.881	ppbv	89
10) Heptane	8.23	43	6015	0.059	ppbv #	45
11) Trichlorofluoromethane	3.99	101	42872	0.222	ppbv #	82
12) 1,1,2-Trichlorotrifluoroet	4.54	101	4829	0.037	ppbv #	13
13) Ethanol	3.65	45	410086	31.088	ppbv	94
15) Acetone	3.89	43	432425	3.221	ppbv	98
16) 1,3-Butadiene	3.35	39	4474	0.088	ppbv #	60
19) Isopropyl Alcohol	4.04	45	88476	1.154	ppbv #	90
20) Methylene Chloride	4.40	84	182595	3.488	ppbv	99
23) Vinyl Acetate	5.13	43	11629	0.075	ppbv #	18
25) Ethyl Acetate	5.76	43	146777	0.718	ppbv #	81
26) Hexane	5.76	57	185629	1.994	ppbv #	41
29) Chloroform	5.83	83	9351	0.059	ppbv	90
30) Cyclohexane	7.23	84	5243	0.080	ppbv #	1
34) 2-Butanone	5.32	43	25022	0.213	ppbv	94
35) Carbon Tetrachloride	7.11	117	5255	0.033	ppbv #	60
36) Benzene	6.98	78	47452	0.299	ppbv #	91
39) 1,2-Dichloropropane	7.27	63	545953	8.904	ppbv #	25
44) 2,2,4-Trimethylpentane	7.98	57	75792	0.268	ppbv #	74
52) Tetrachloroethene	11.35	164	75065	1.343	ppbv	91
53) Toluene	9.93	91	1103572	6.277	ppbv	100
58) Ethyl Benzene	12.85	91	16278	0.069	ppbv	92
59) m/p-Xylene	13.13	91	8501	0.040	ppbv #	31
60) o-Xylene	13.83	91	13180	0.060	ppbv #	55
72) 4-Ethyltoluene	15.99	105	7867	0.031	ppbv #	1
73) 1,3,5-Trimethylbenzene	16.14	105	14027	0.057	ppbv	92
74) 1,2,4-Trimethylbenzene	16.91	105	65527	0.229	ppbv #	78

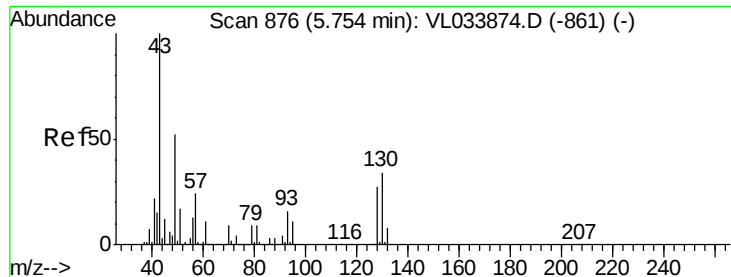
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Jun 07 08:53:27 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 874

Delta R.T. -0.01 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

OA1

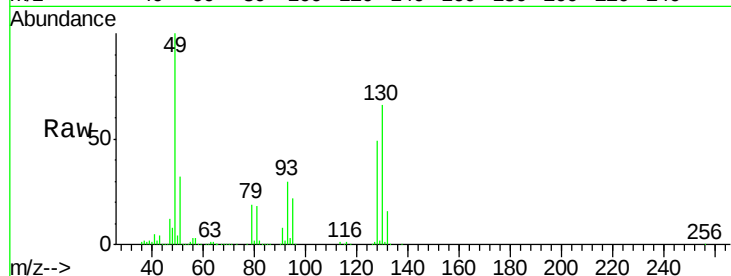
Tgt Ion: 49 Resp: 920397

Ion Ratio Lower Upper

49 100

128 49.8 25.5 76.5

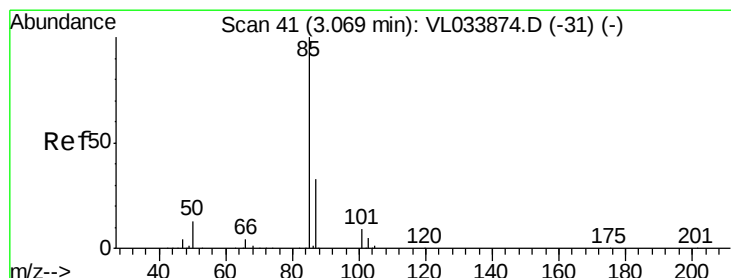
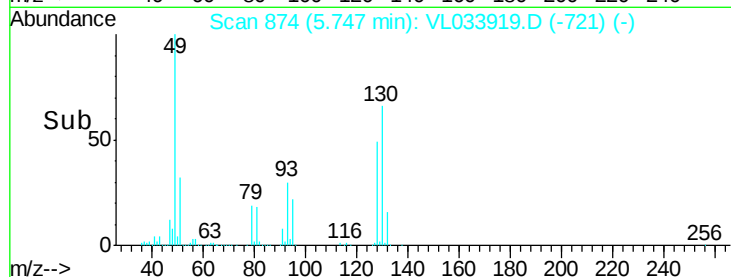
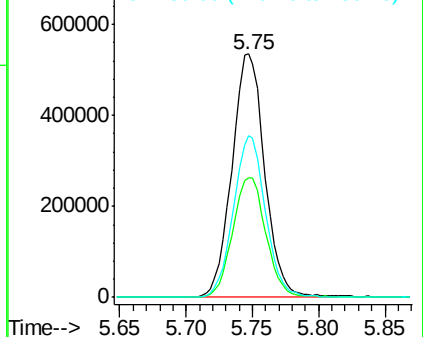
130 65.0 32.5 97.4



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: 0.294 ppbv

RT: 3.07 min Scan# 40

Delta R.T. -0.00 min

Lab File: VL033919.D

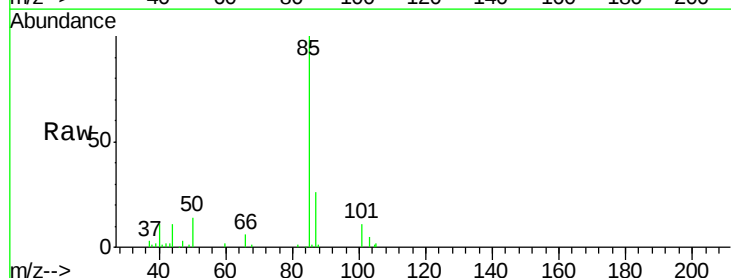
Acq: 14 Jun 2019 5:29

Tgt Ion: 85 Resp: 43955

Ion Ratio Lower Upper

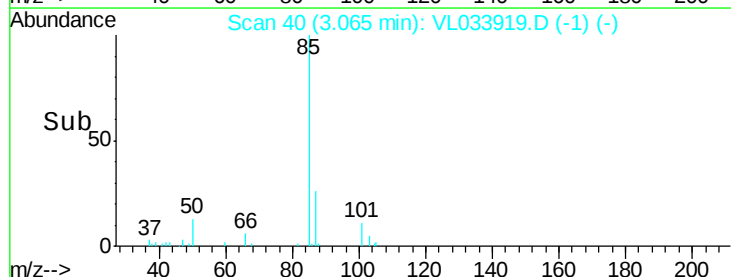
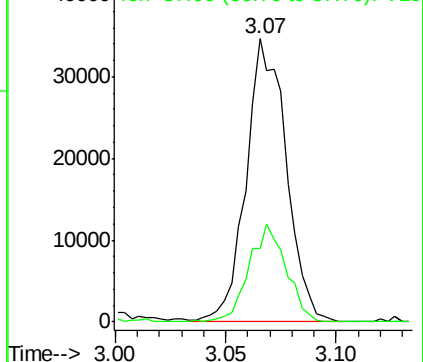
85 100

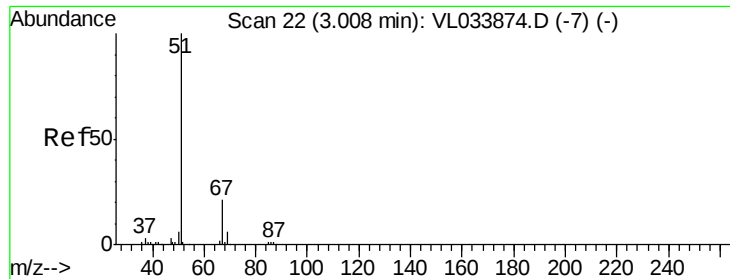
87 25.7 26.6 40.0#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

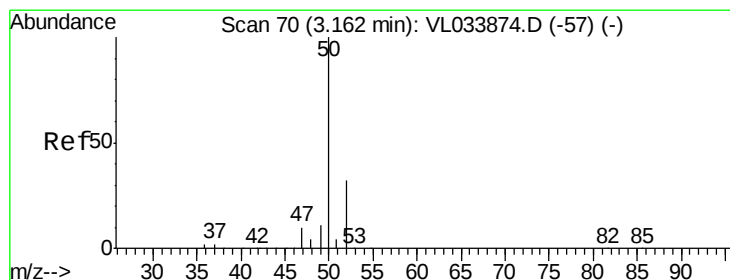
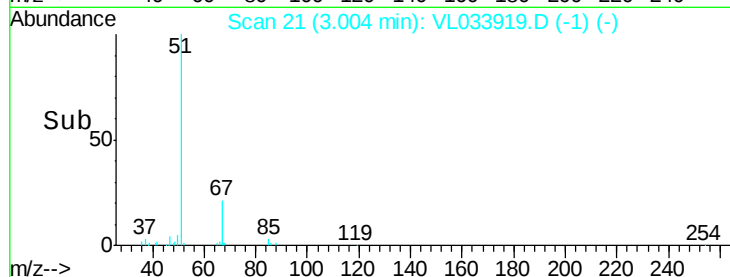
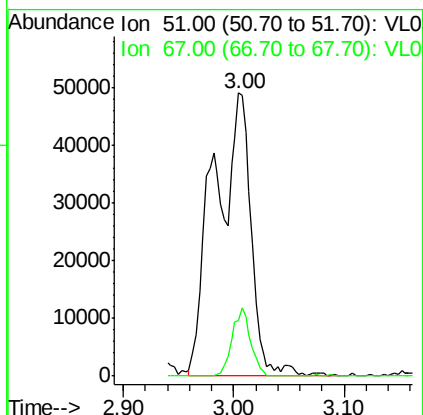
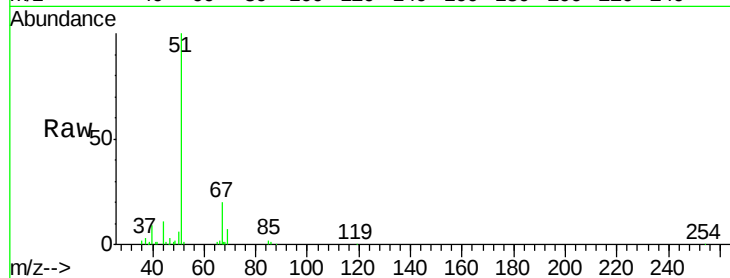




#3
 Chlorodifluoromethane
 Concen: 1.049 ppbv
 RT: 3.00 min Scan# 21
 Delta R.T. -0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

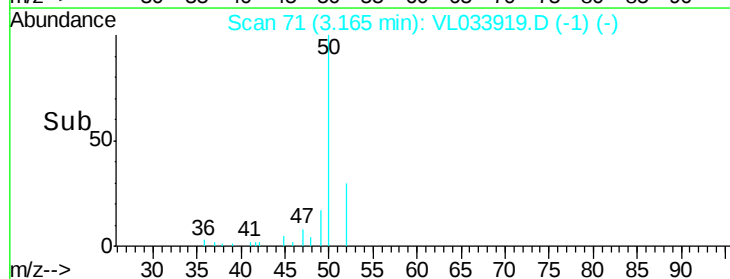
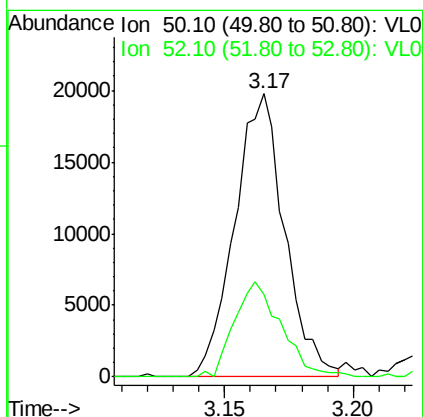
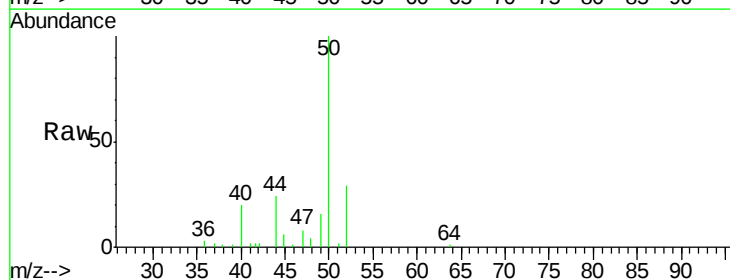
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

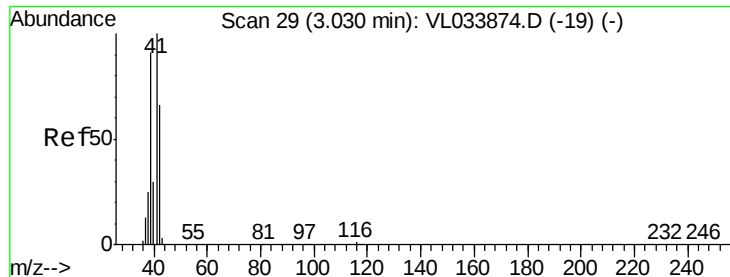
Tgt Ion: 51 Resp: 113671
 Ion Ratio Lower Upper
 51 100
 67 12.1 16.4 24.6#



#4
 Chloromethane
 Concen: 0.433 ppbv
 RT: 3.17 min Scan# 71
 Delta R.T. 0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Tgt Ion: 50 Resp: 26779
 Ion Ratio Lower Upper
 50 100
 52 29.2 25.4 38.0





#9

Propene

Concen: 0.881 ppbv

RT: 3.03 min Scan# 29

Delta R.T. -0.00 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

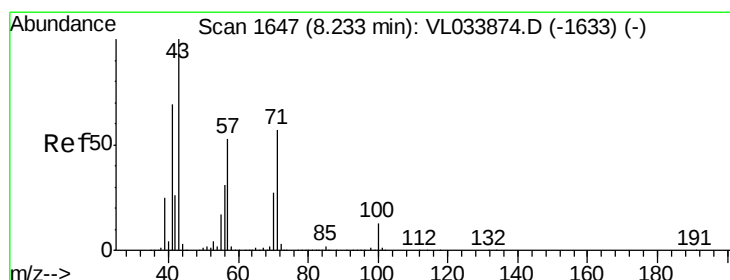
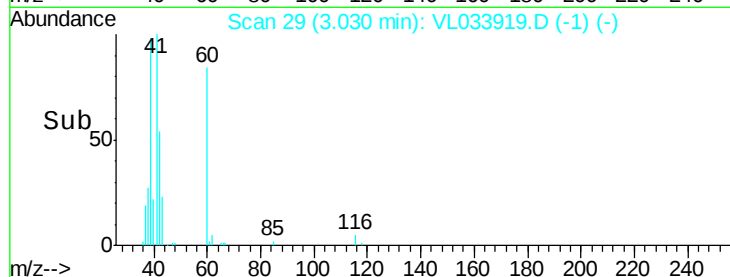
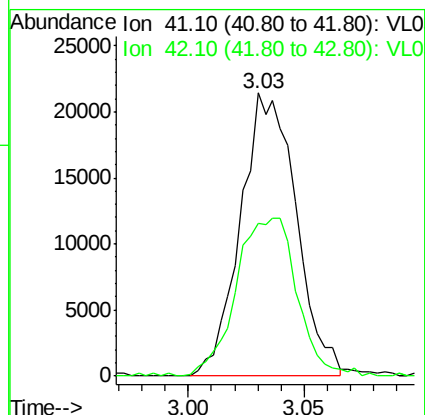
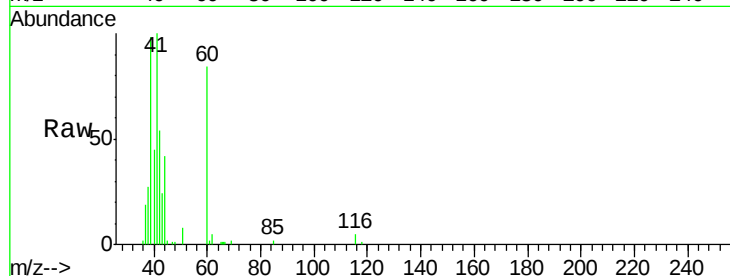
OA1

Tgt Ion: 41 Resp: 35718

Ion Ratio Lower Upper

41 100

42 61.4 56.3 84.5



#10

Heptane

Concen: 0.059 ppbv

RT: 8.23 min Scan# 1647

Delta R.T. -0.00 min

Lab File: VL033919.D

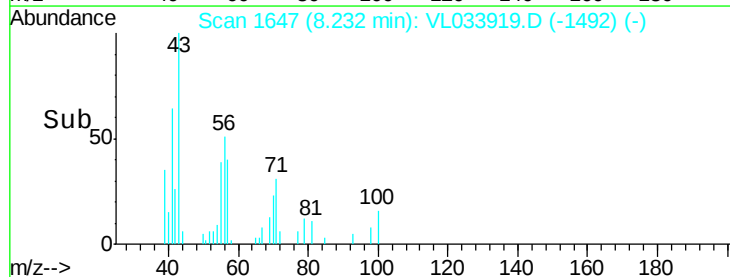
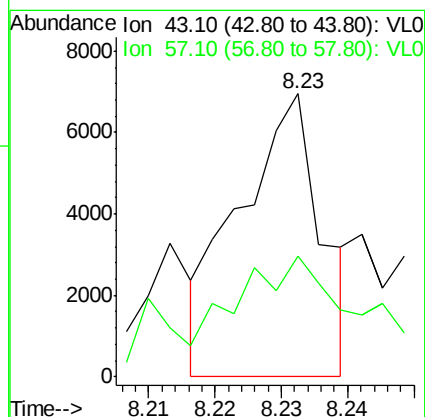
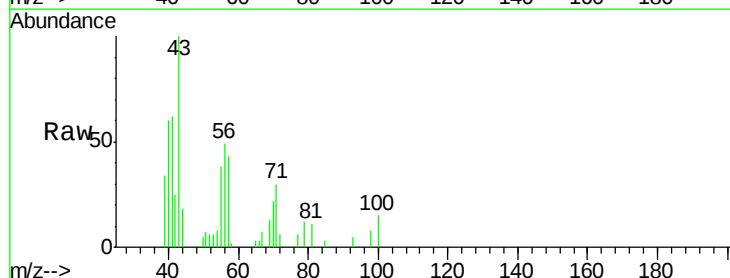
Acq: 14 Jun 2019 5:29

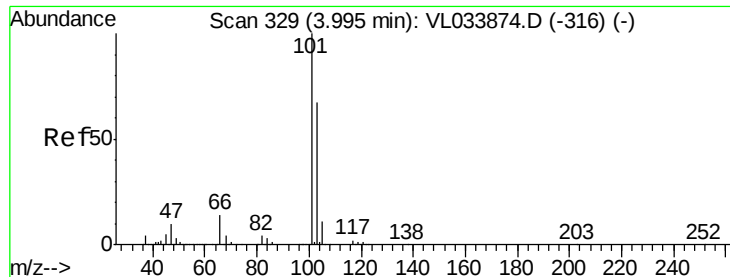
Tgt Ion: 43 Resp: 6015

Ion Ratio Lower Upper

43 100

57 90.9 41.7 62.5#

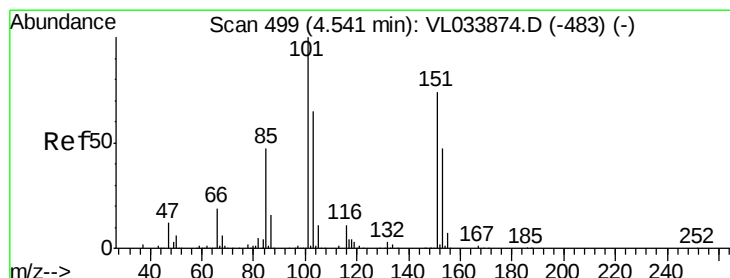
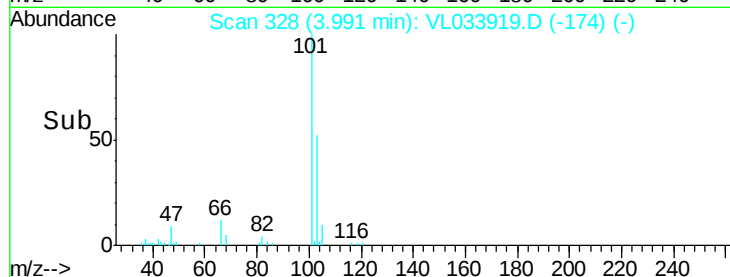
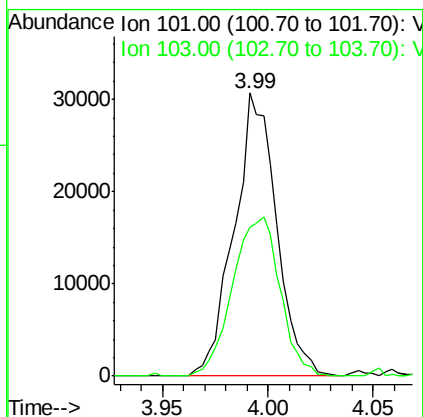
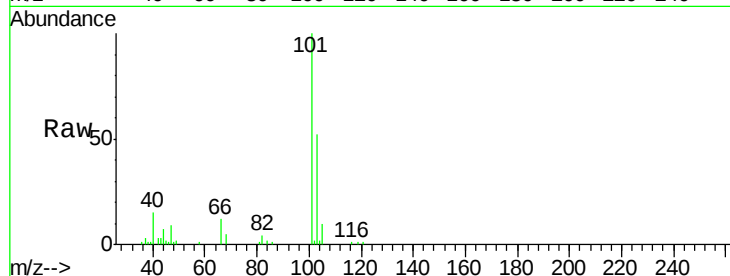




#11
 Trichlorofluoromethane
 Concen: 0.222 ppbv
 RT: 3.99 min Scan# 328
 Delta R.T. -0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

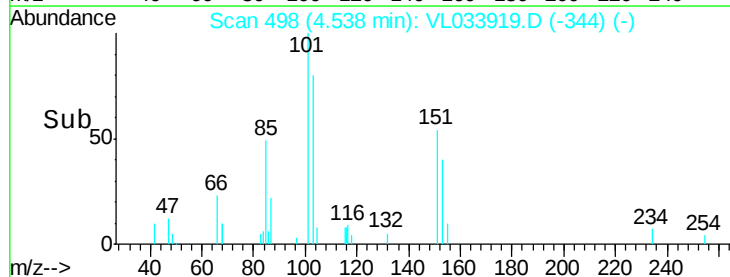
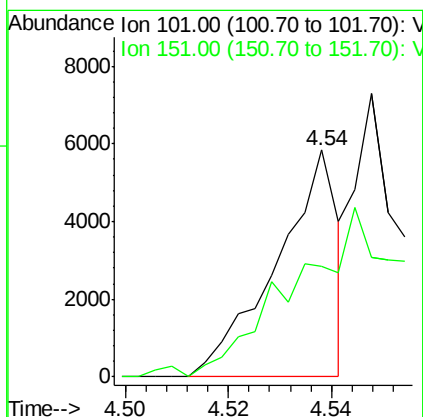
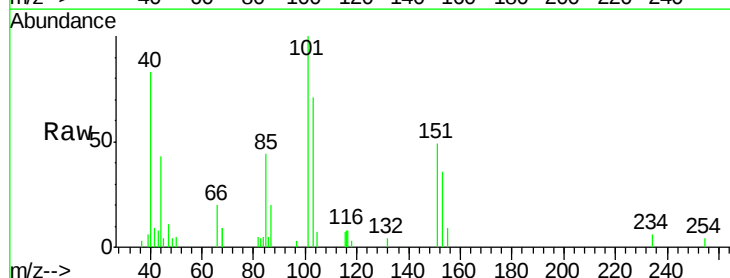
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

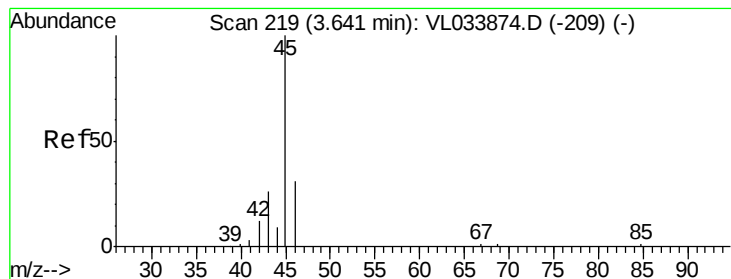
Tgt Ion:101 Resp: 42872
 Ion Ratio Lower Upper
 101 100
 103 52.4 53.6 80.4#



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.037 ppbv
 RT: 4.54 min Scan# 498
 Delta R.T. -0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Tgt Ion:101 Resp: 4829
 Ion Ratio Lower Upper
 101 100
 151 0.0 58.6 87.8#





#13

Ethanol

Concen: 31.088 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.01 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

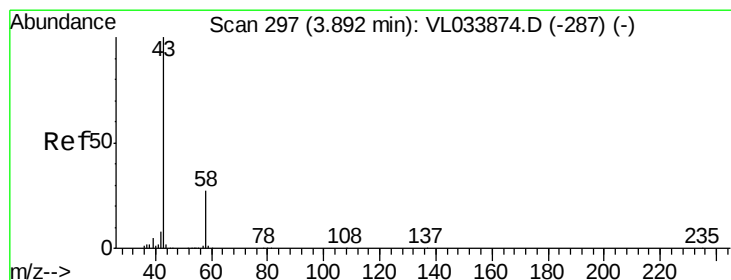
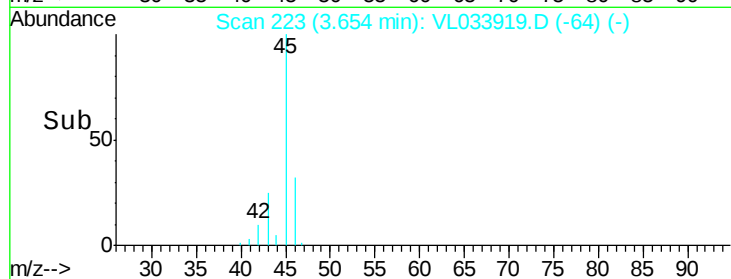
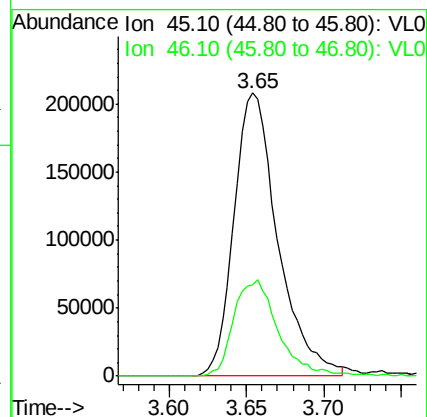
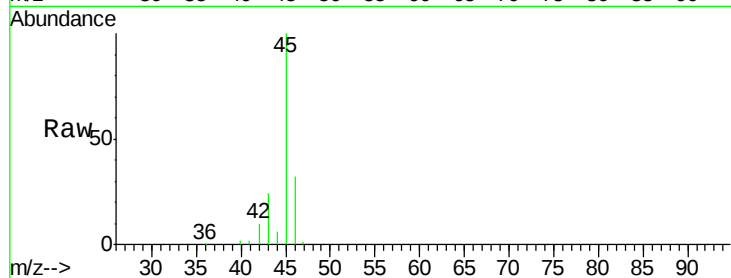
OA1

Tgt Ion: 45 Resp: 410086

Ion Ratio Lower Upper

45 100

46 34.7 15.3 61.1



#15

Acetone

Concen: 3.221 ppbv

RT: 3.89 min Scan# 297

Delta R.T. -0.00 min

Lab File: VL033919.D

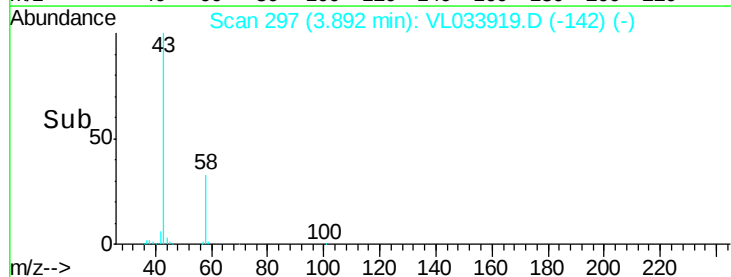
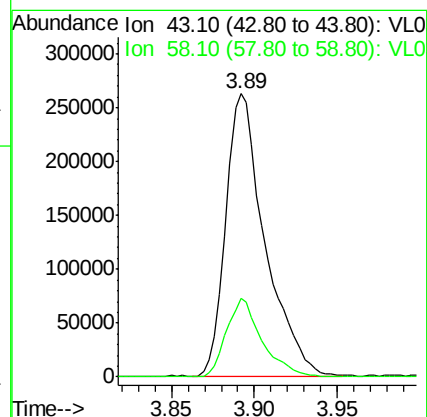
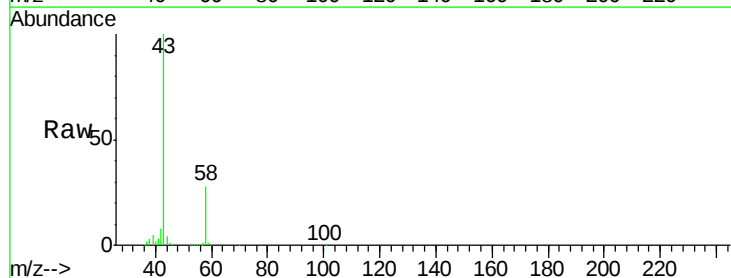
Acq: 14 Jun 2019 5:29

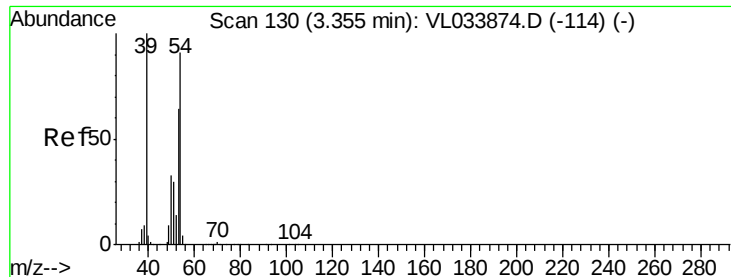
Tgt Ion: 43 Resp: 432425

Ion Ratio Lower Upper

43 100

58 25.3 21.3 31.9

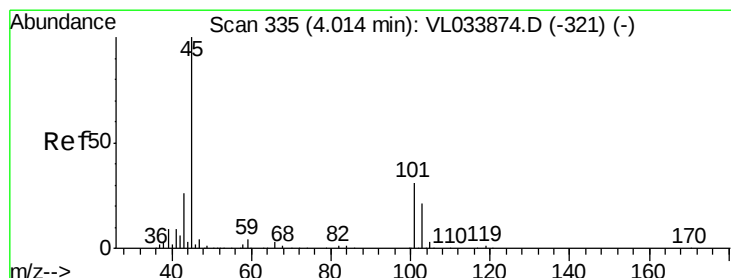
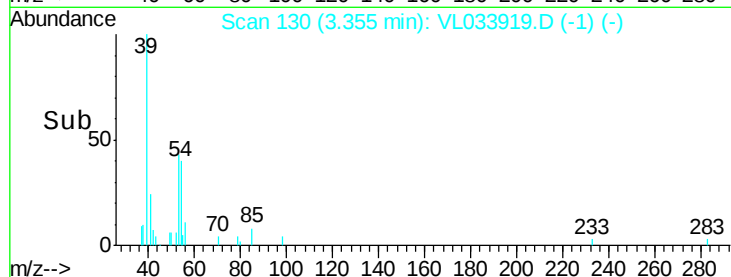
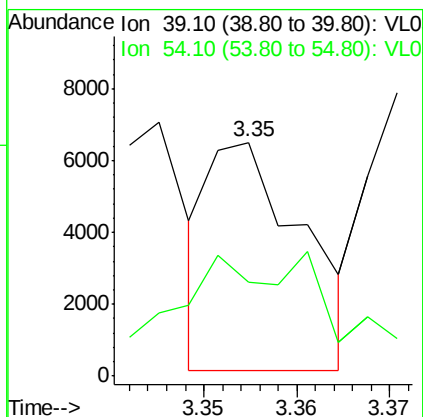
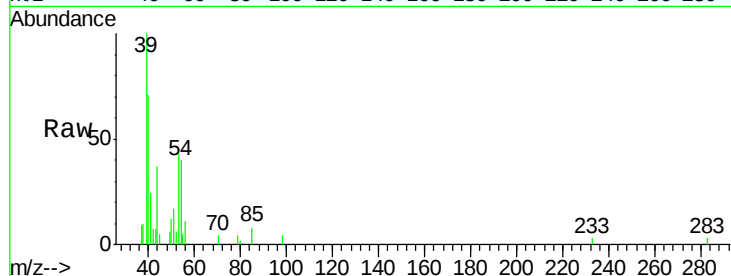




#16
 1,3-Butadiene
 Concen: 0.088 ppbv
 RT: 3.35 min Scan# 130
 Delta R.T. -0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

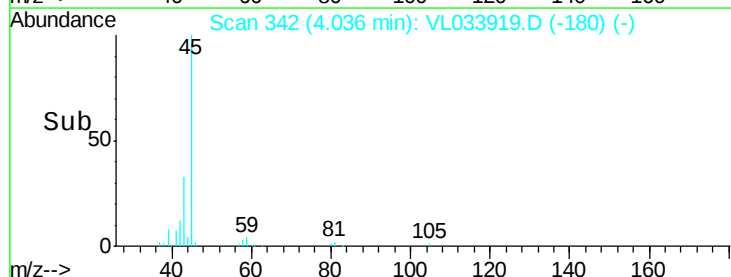
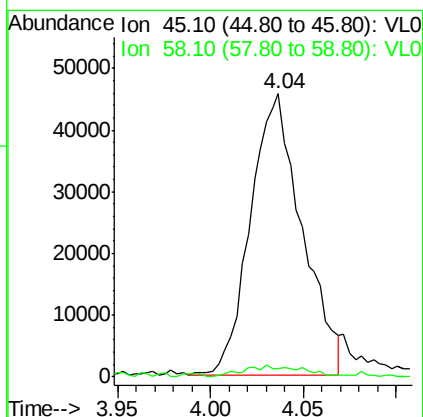
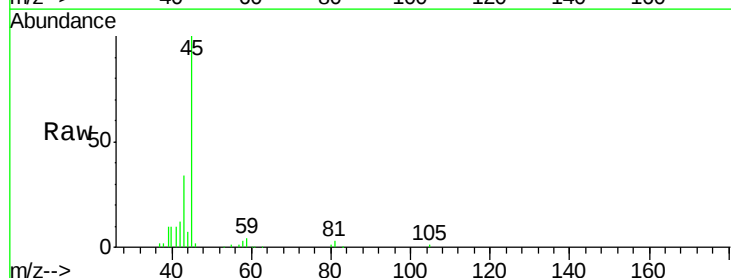
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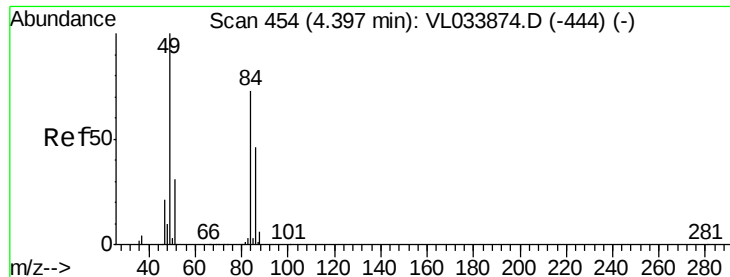
Tgt Ion: 39 Resp: 4474
 Ion Ratio Lower Upper
 39 100
 54 122.5 68.6 103.0#



#19
 Isopropyl Alcohol
 Concen: 1.154 ppbv
 RT: 4.04 min Scan# 342
 Delta R.T. 0.02 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Tgt Ion: 45 Resp: 88476
 Ion Ratio Lower Upper
 45 100
 58 5.7 1.8 2.6#

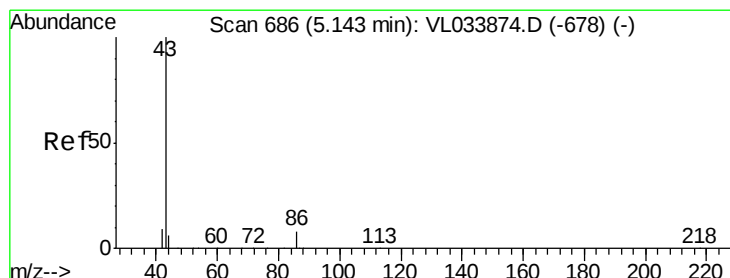
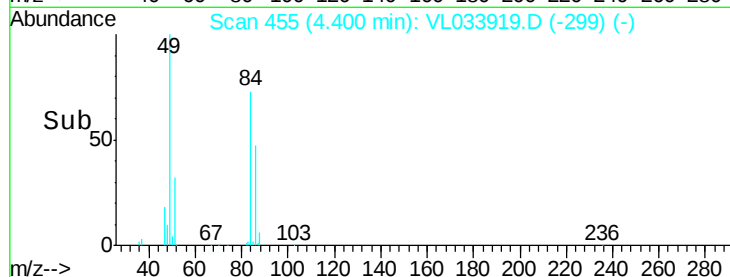
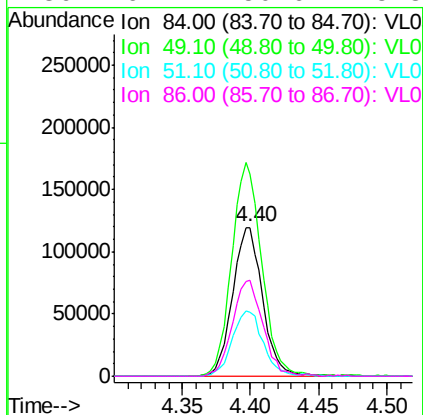
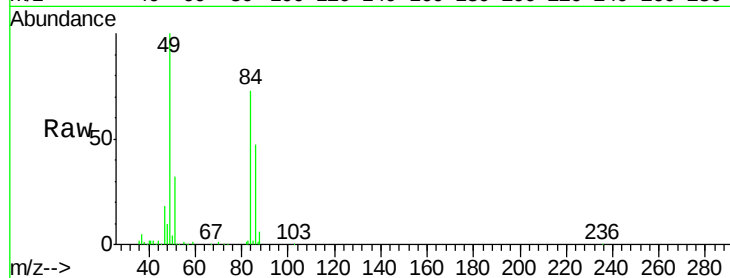




#20
Methylene Chloride
Concen: 3.488 ppbv
RT: 4.40 min Scan# 455
Delta R.T. 0.00 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

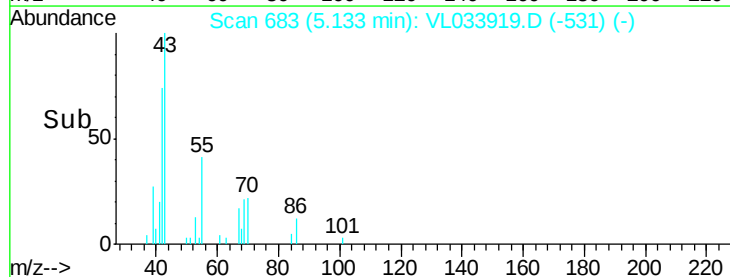
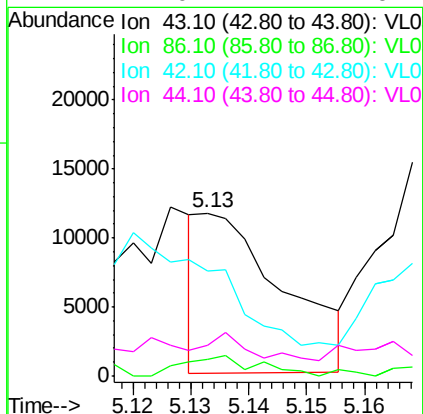
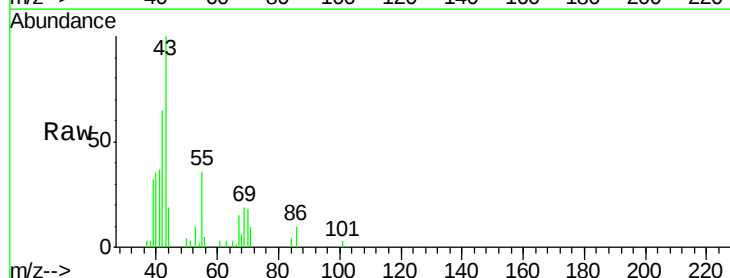
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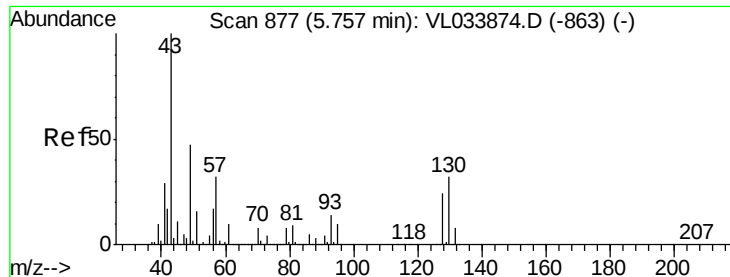
Tgt Ion:	84	Resp:	182595
Ion	Ratio	Lower	Upper
84	100		
49	136.2	110.0	165.0
51	43.0	34.6	51.8
86	64.4	50.6	75.8



#23
Vinyl Acetate
Concen: 0.075 ppbv
RT: 5.13 min Scan# 683
Delta R.T. -0.01 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

Tgt Ion:	43	Resp:	11629
Ion	Ratio	Lower	Upper
43	100		
86	9.7	5.8	8.8#
42	76.4	7.8	11.8#
44	4.0	4.2	6.4#

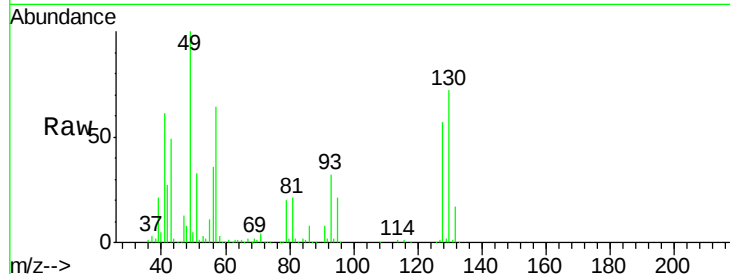




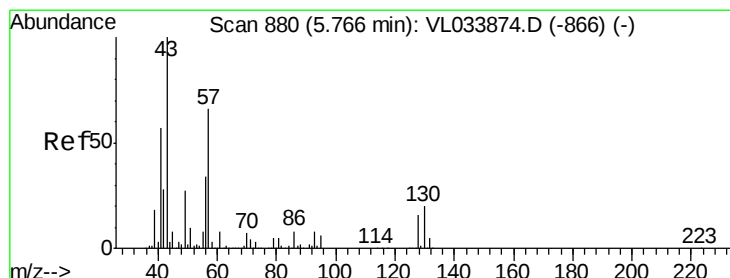
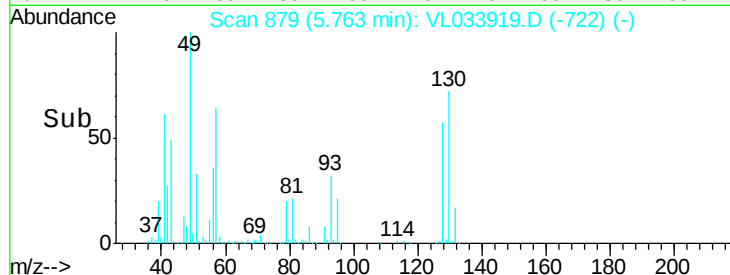
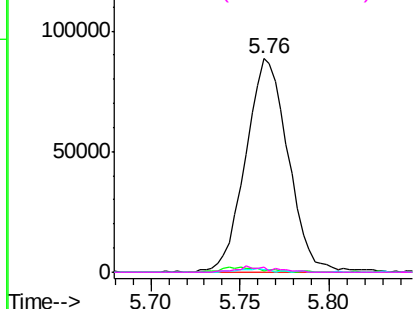
#25
Ethyl Acetate
Concen: 0.718 ppbv
RT: 5.76 min Scan# 879
Delta R.T. 0.01 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion:	43	Resp:	146777
Ion	Ratio	Lower	Upper
43	100		
45	2.5	7.9	11.9#
61	1.4	7.8	11.6#
70	2.5	5.8	8.6#

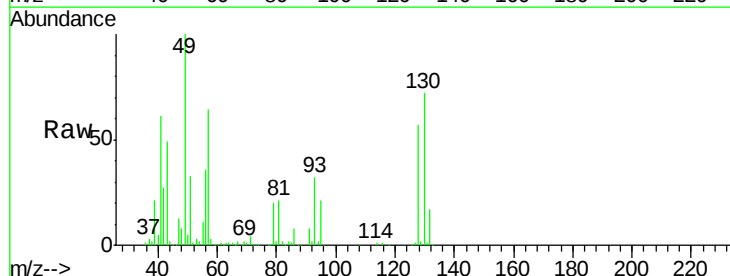


Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0

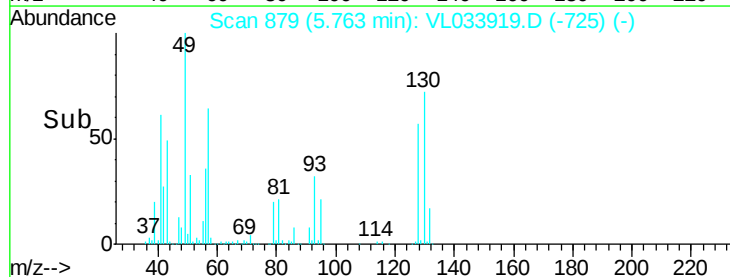
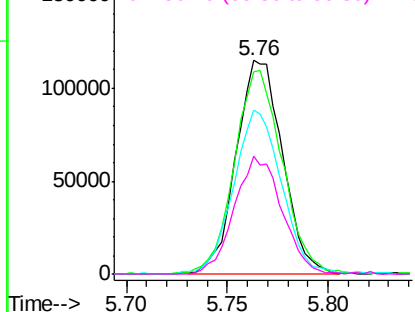


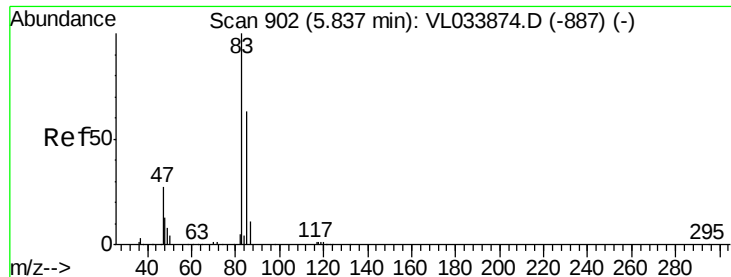
#26
Hexane
Concen: 1.994 ppbv
RT: 5.76 min Scan# 879
Delta R.T. -0.00 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

Tgt Ion:	57	Resp:	185629
Ion	Ratio	Lower	Upper
57	100		
41	98.7	71.4	107.2
43	80.6	183.7	275.5#
56	56.7	42.7	64.1



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





#29

Chloroform

Concen: 0.059 ppbv

RT: 5.83 min Scan# 901

Delta R.T. -0.00 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

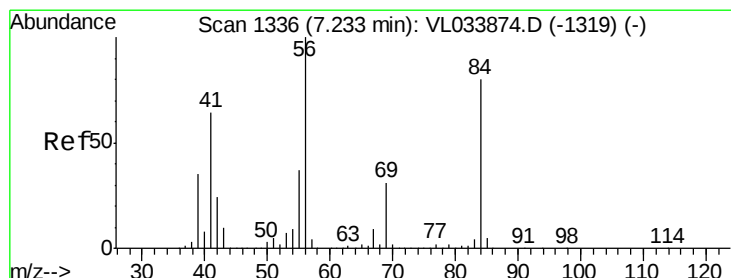
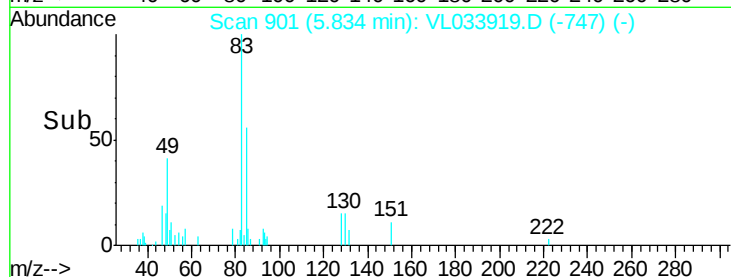
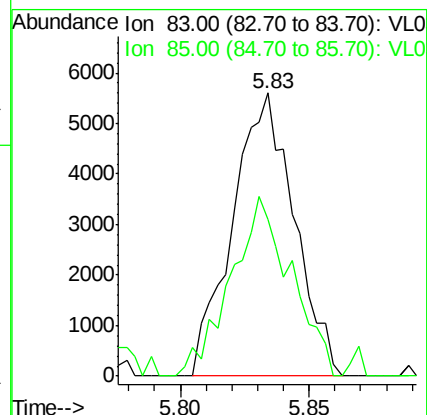
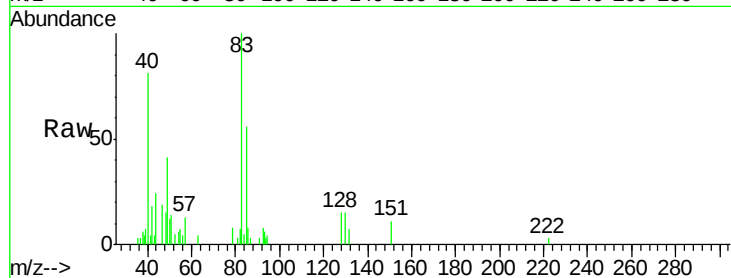
OA1

Tgt Ion: 83 Resp: 9351

Ion Ratio Lower Upper

83 100

85 55.6 50.5 75.7



#30

Cyclohexane

Concen: 0.080 ppbv

RT: 7.23 min Scan# 1334

Delta R.T. -0.01 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

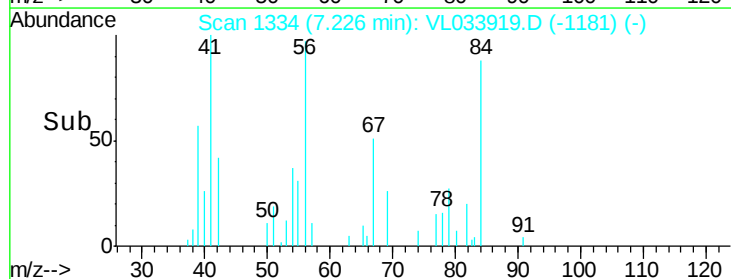
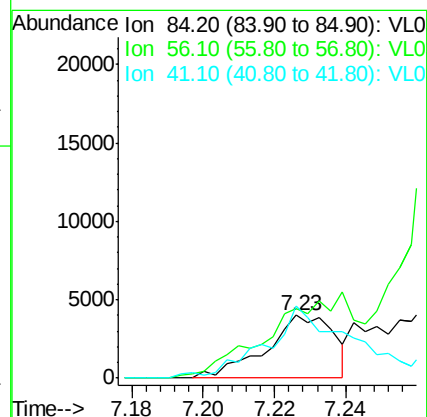
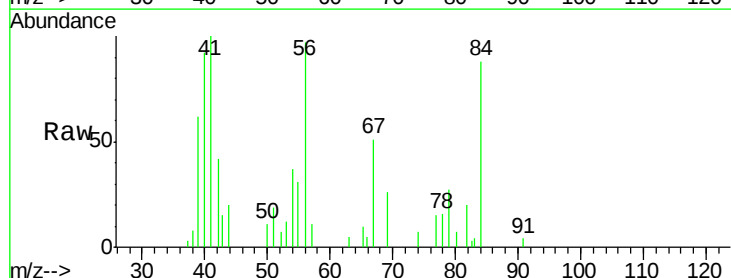
Tgt Ion: 84 Resp: 5243

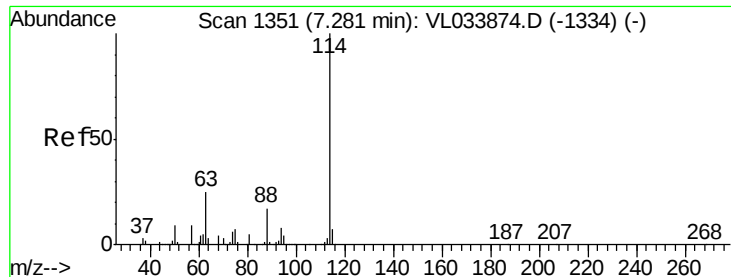
Ion Ratio Lower Upper

84 100

56 0.0 105.8 158.8#

41 160.6 65.7 98.5#

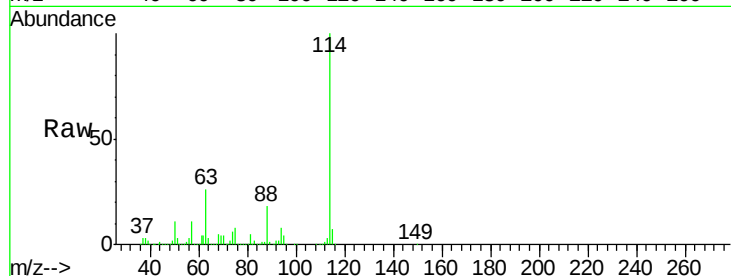




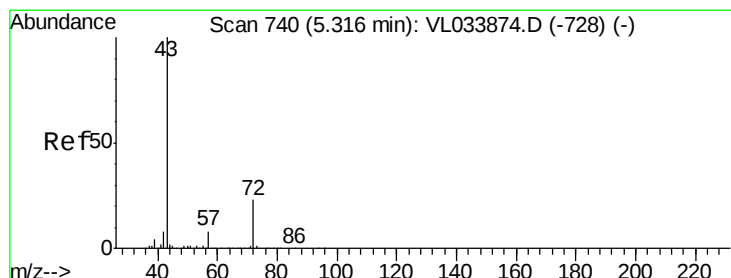
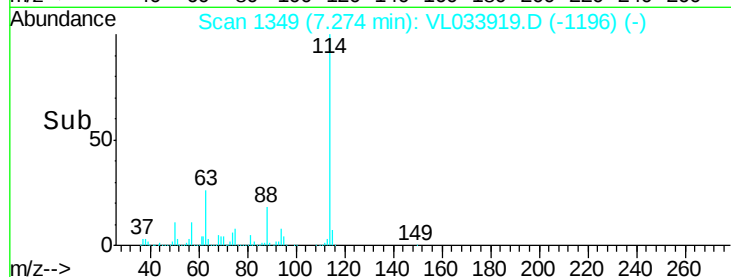
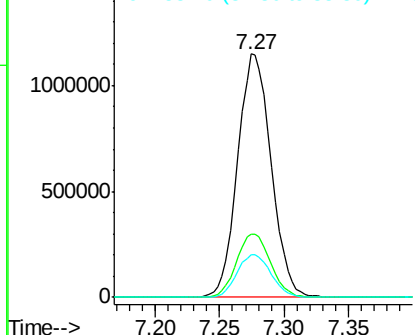
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.27 min Scan# 1349
 Delta R.T. -0.01 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Tgt Ion:114 Resp: 2079793
 Ion Ratio Lower Upper
 114 100
 63 26.4 21.1 31.7
 88 17.9 14.2 21.4

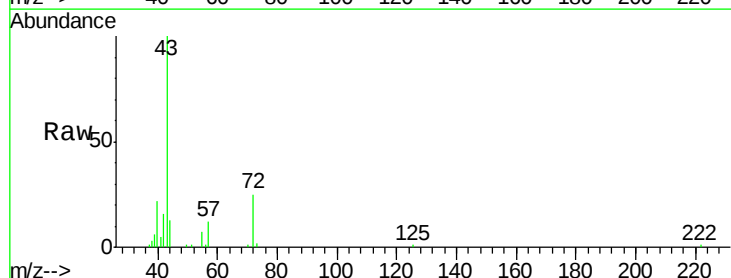


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

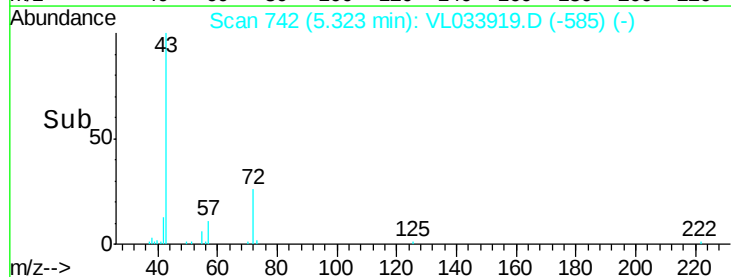
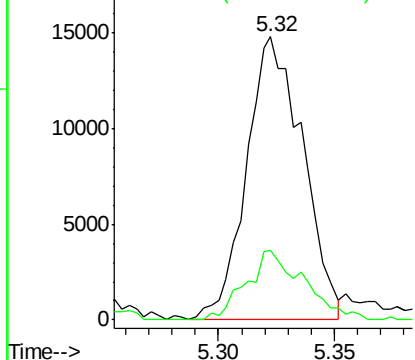


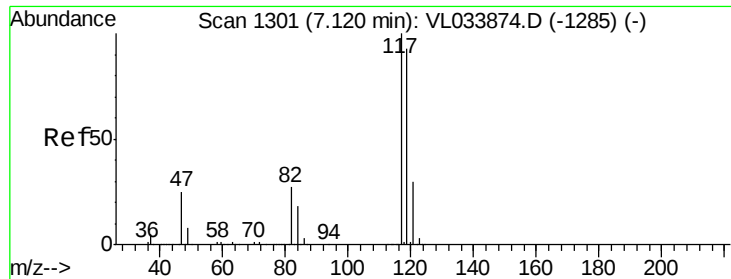
#34
 2-Butanone
 Concen: 0.213 ppbv
 RT: 5.32 min Scan# 742
 Delta R.T. 0.01 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Tgt Ion: 43 Resp: 25022
 Ion Ratio Lower Upper
 43 100
 72 25.4 17.9 26.9



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0

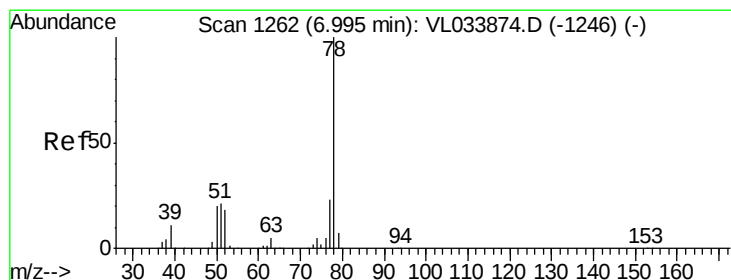
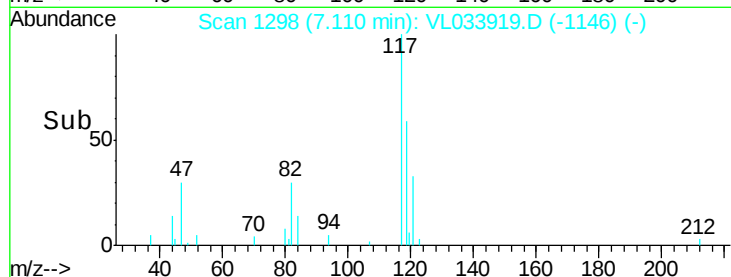
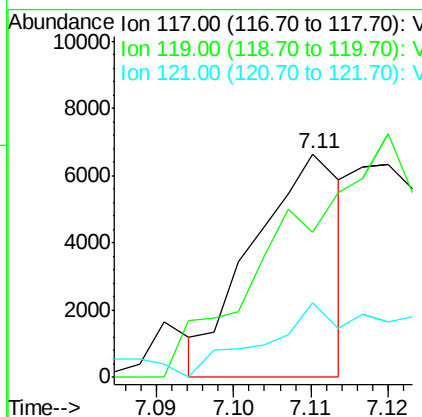
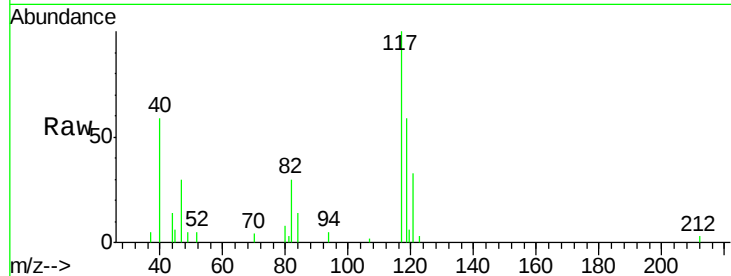




#35
Carbon Tetrachloride
Concen: 0.033 ppbv
RT: 7.11 min Scan# 1298
Delta R.T. -0.01 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

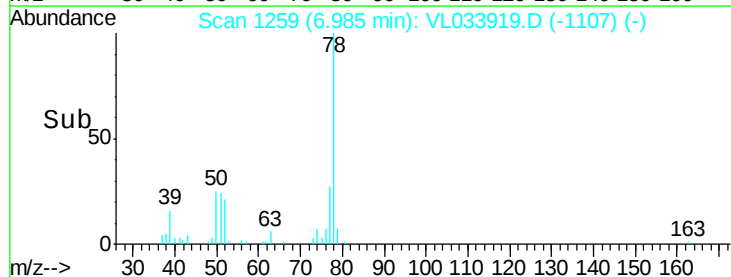
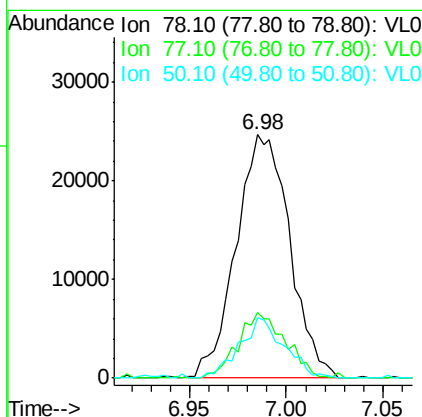
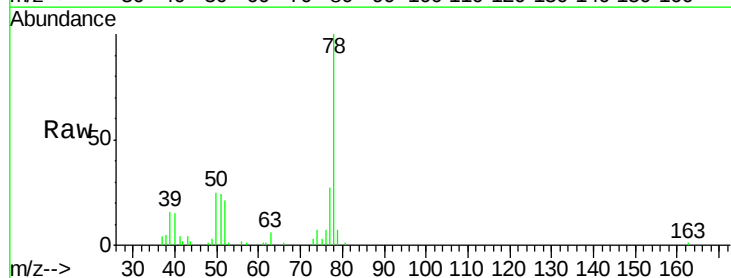
Instrument :
MSVOA_L
ClientSampleId :
OA1

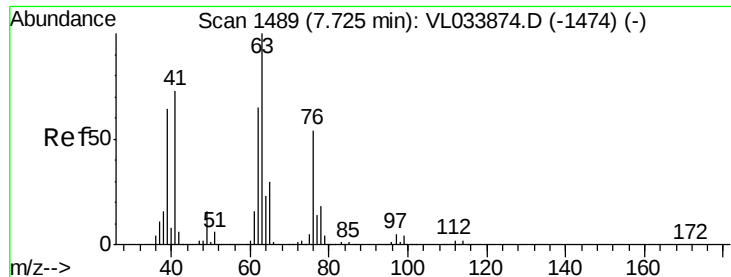
Tgt Ion: 117 Resp: 5255
Ion Ratio Lower Upper
117 100
119 48.4 74.6 111.8#
121 40.6 24.0 36.0#



#36
Benzene
Concen: 0.299 ppbv
RT: 6.98 min Scan# 1259
Delta R.T. -0.01 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

Tgt Ion: 78 Resp: 47452
Ion Ratio Lower Upper
78 100
77 26.5 18.2 27.2
50 25.0 15.9 23.9#





#39

1,2-Dichloropropane

Concen: 8.904 ppbv

RT: 7.27 min Scan# 1349

Delta R.T. -0.45 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

OA1

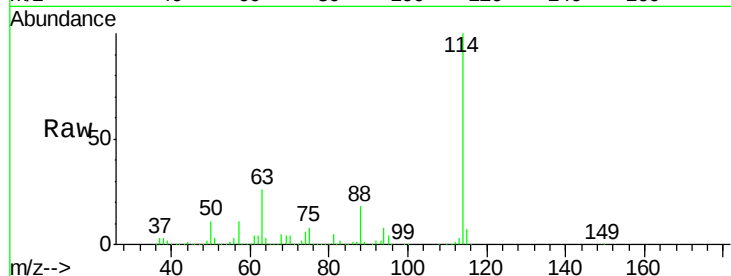
Tgt Ion: 63 Resp: 545953

Ion Ratio Lower Upper

63 100

41 0.0 58.7 88.1#

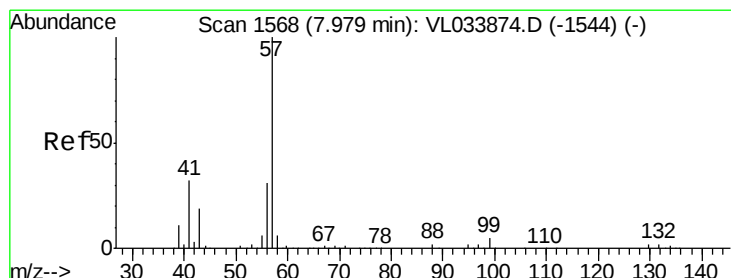
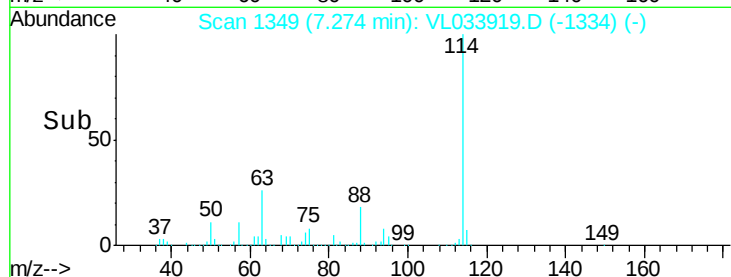
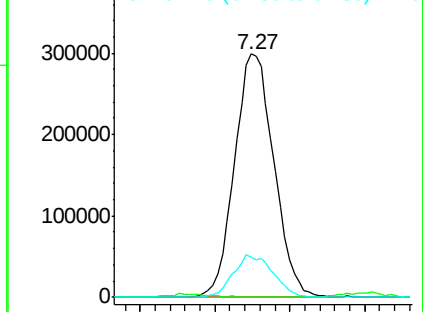
62 16.5 51.9 77.9#



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



#44

2,2,4-Trimethylpentane

Concen: 0.268 ppbv

RT: 7.98 min Scan# 1568

Delta R.T. -0.00 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

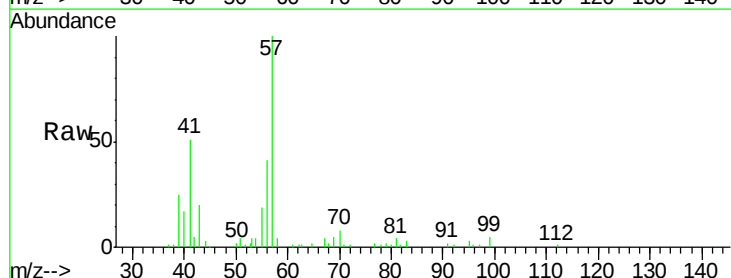
Tgt Ion: 57 Resp: 75792

Ion Ratio Lower Upper

57 100

41 50.3 26.1 39.1#

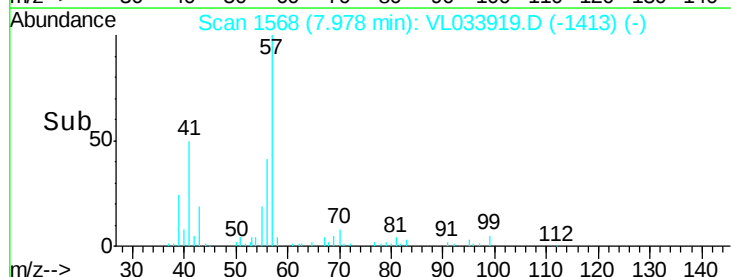
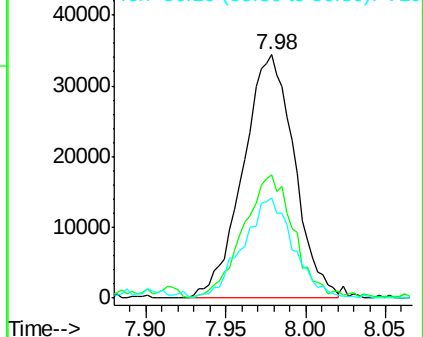
56 41.3 24.6 36.8#

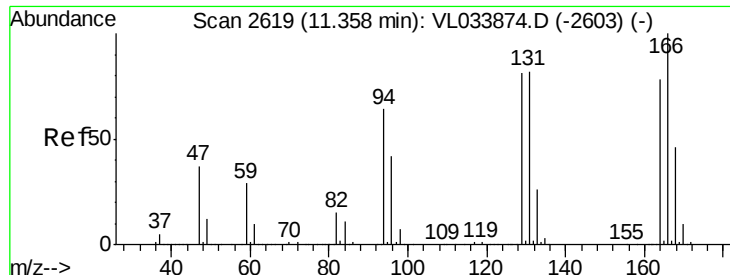


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 1.343 ppbv

RT: 11.35 min Scan# 2618

Delta R.T. -0.00 min

Lab File: VL033919.D

Acq: 14 Jun 2019 5:29

Instrument :

MSVOA_L

ClientSampleId :

OA1

Tgt Ion:164 Resp: 75065

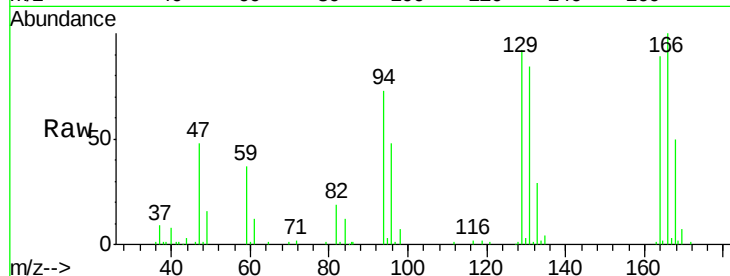
Ion Ratio Lower Upper

164 100

166 112.9 103.1 154.7

129 103.8 83.9 125.9

131 95.1 85.1 127.7

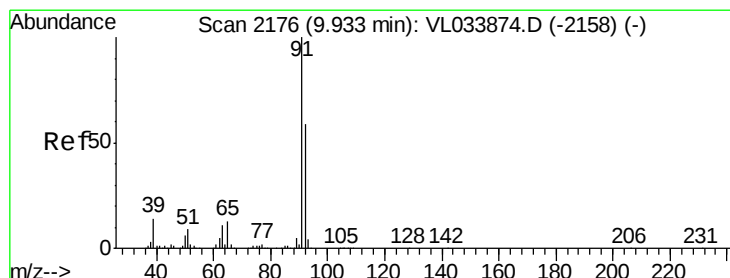
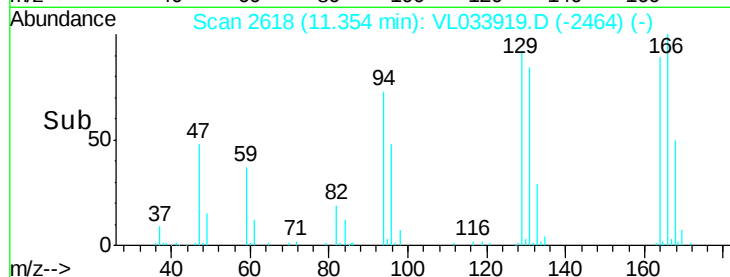
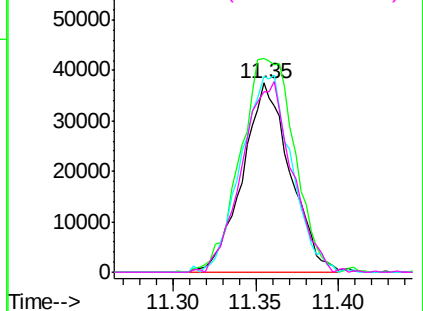


Abundance Ion 163.90 (163.60 to 164.60): V

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: 6.277 ppbv

RT: 9.93 min Scan# 2175

Delta R.T. -0.00 min

Lab File: VL033919.D

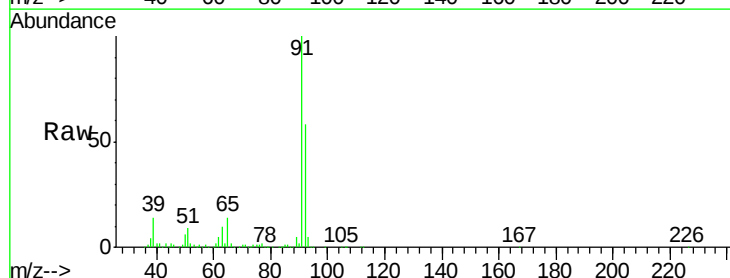
Acq: 14 Jun 2019 5:29

Tgt Ion: 91 Resp: 1103572

Ion Ratio Lower Upper

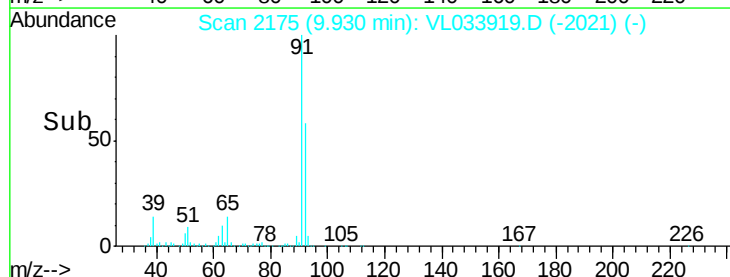
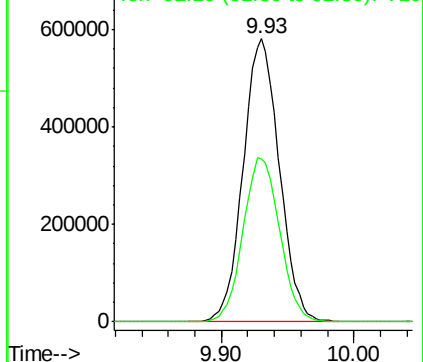
91 100

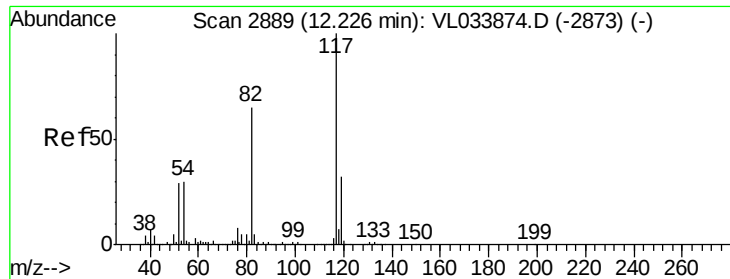
92 58.8 47.0 70.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

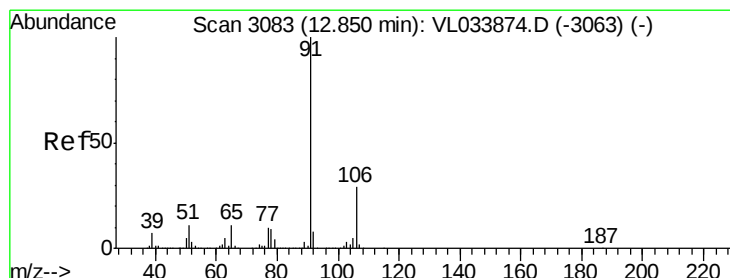
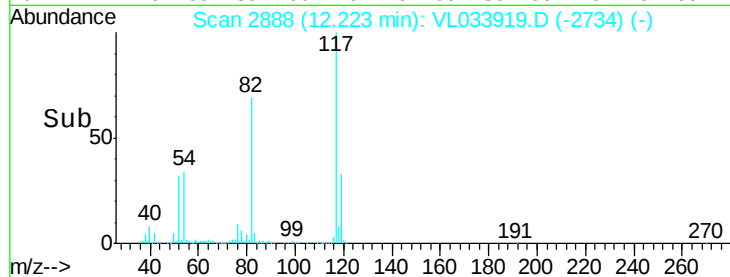
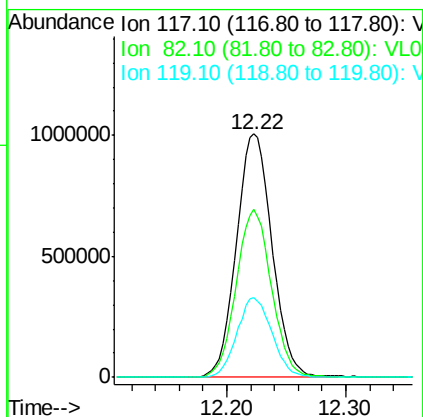
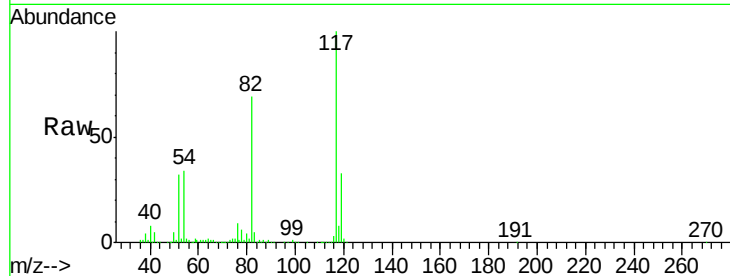




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.22 min Scan# 2888
Delta R.T. -0.00 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

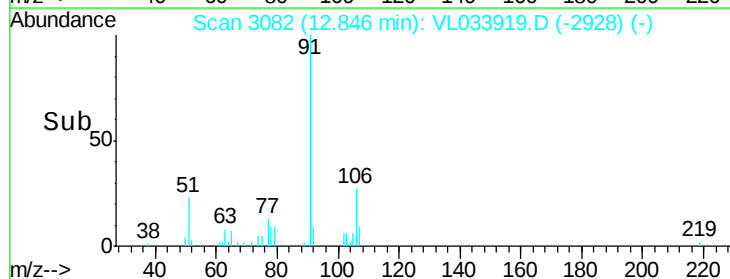
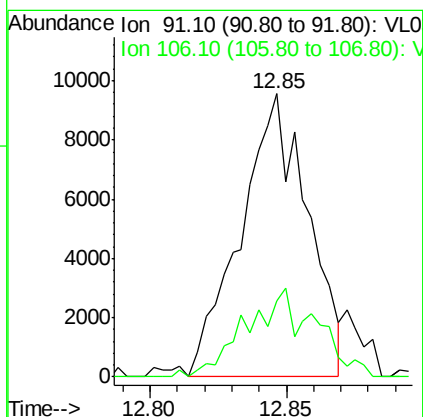
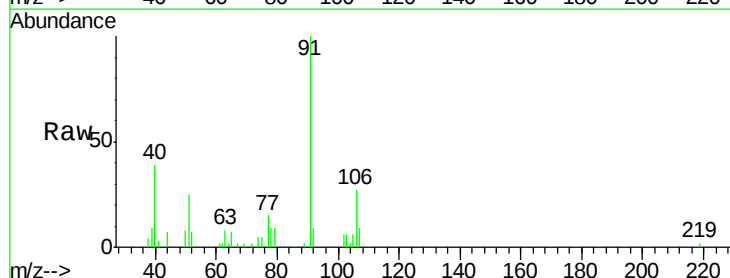
Instrument :
MSVOA_L
ClientSampleId :
OA1

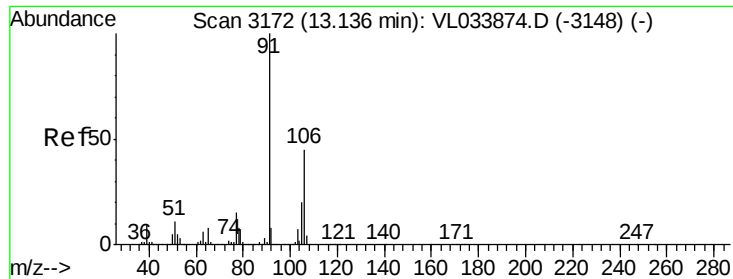
Tgt Ion: 117 Resp: 2091237
Ion Ratio Lower Upper
117 100
82 68.6 50.2 75.2
119 32.3 24.8 37.2



#58
Ethyl Benzene
Concen: 0.069 ppbv
RT: 12.85 min Scan# 3082
Delta R.T. -0.00 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

Tgt Ion: 91 Resp: 16278
Ion Ratio Lower Upper
91 100
106 33.0 23.0 34.6

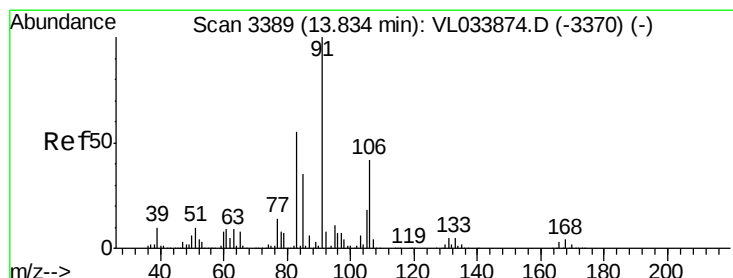
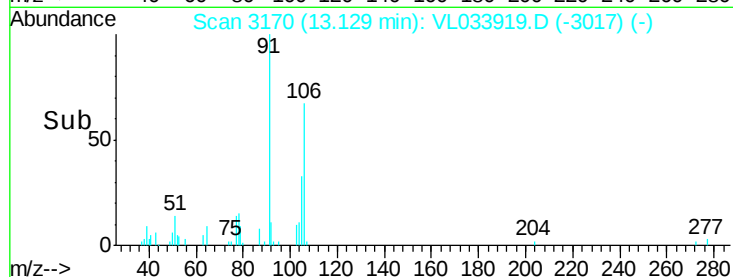
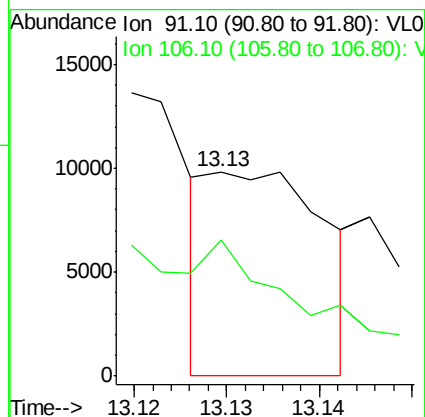
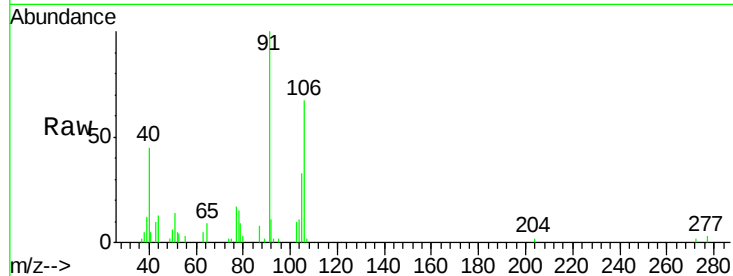




#59
m/p-Xylene
Concen: 0.040 ppbv
RT: 13.13 min Scan# 3170
Delta R.T. -0.01 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

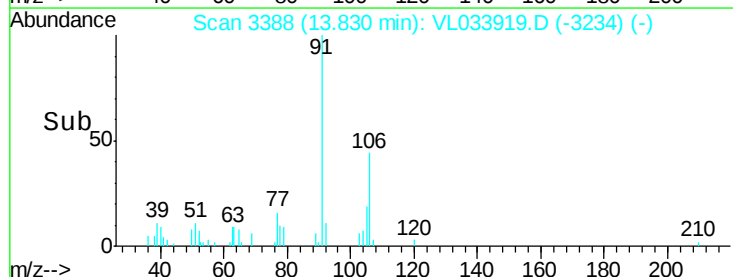
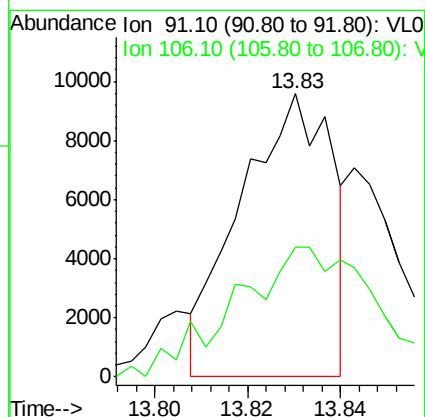
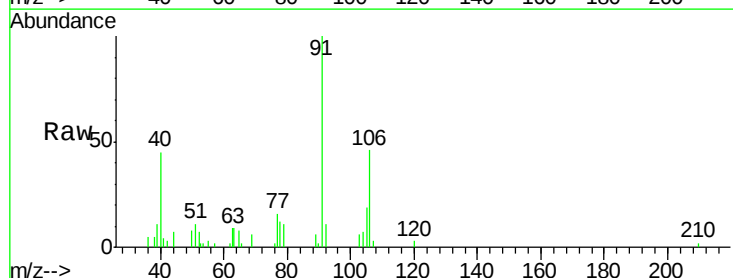
Instrument :
MSVOA_L
ClientSampleId :
OA1

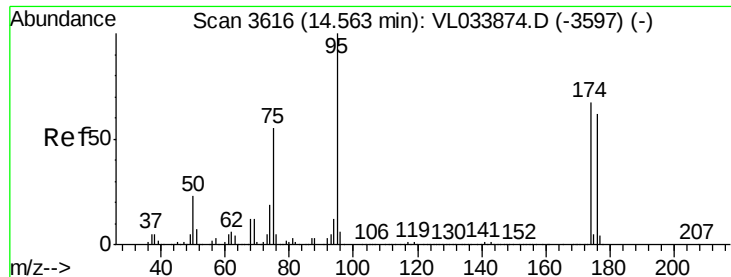
Tgt Ion: 91 Resp: 8501
Ion Ratio Lower Upper
91 100
106 0.0 35.8 53.8#



#60
o-Xylene
Concen: 0.060 ppbv
RT: 13.83 min Scan# 3388
Delta R.T. -0.00 min
Lab File: VL033919.D
Acq: 14 Jun 2019 5:29

Tgt Ion: 91 Resp: 13180
Ion Ratio Lower Upper
91 100
106 72.2 21.7 65.1#

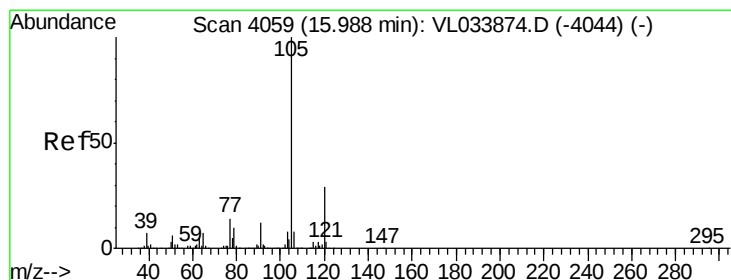
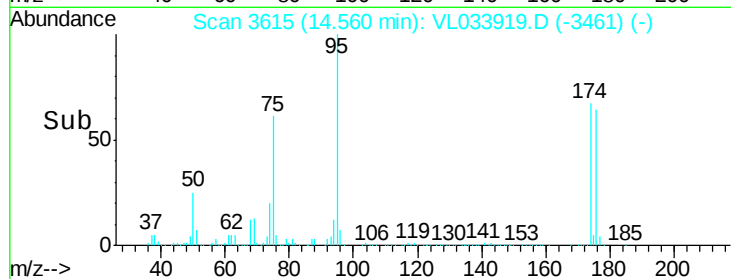
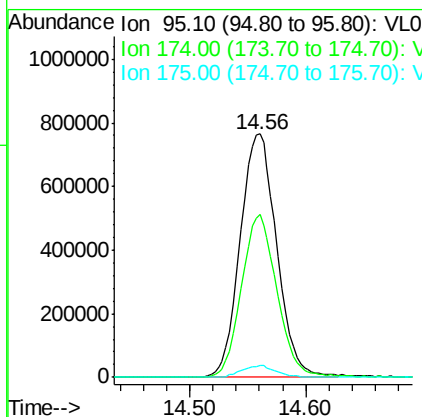
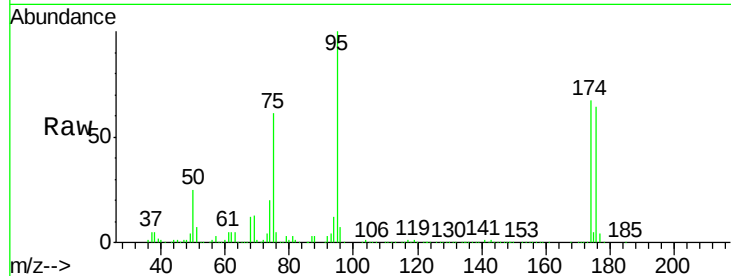




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.749 ppbv
 RT: 14.56 min Scan# 3615
 Delta R.T. -0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

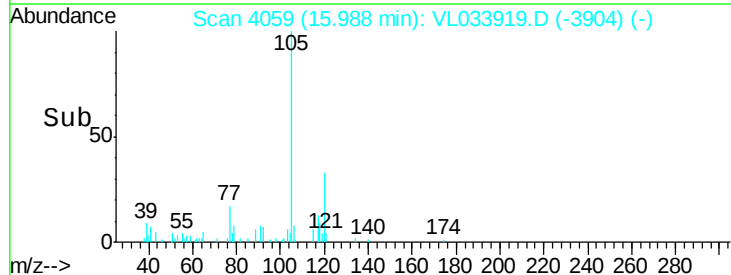
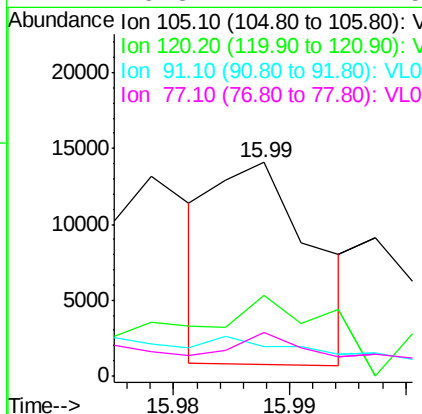
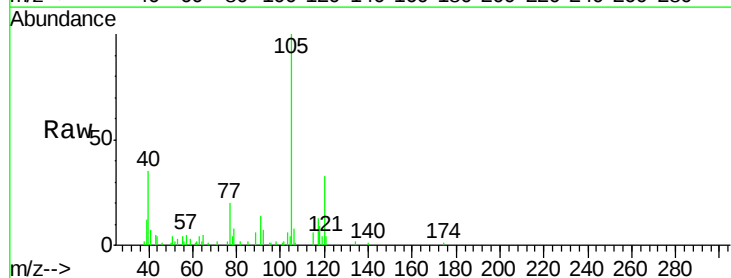
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

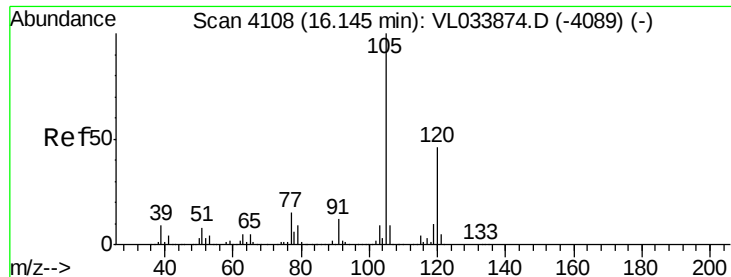
Tgt Ion: 95 Resp: 1674683
 Ion Ratio Lower Upper
 95 100
 174 65.8 54.0 81.0
 175 4.7 3.8 5.8



#72
 4-Ethyltoluene
 Concen: 0.031 ppbv
 RT: 15.99 min Scan# 4059
 Delta R.T. -0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Tgt Ion: 105 Resp: 7867
 Ion Ratio Lower Upper
 105 100
 120 104.8 23.5 35.3#
 91 79.1 10.4 15.6#
 77 75.3 11.7 17.5#

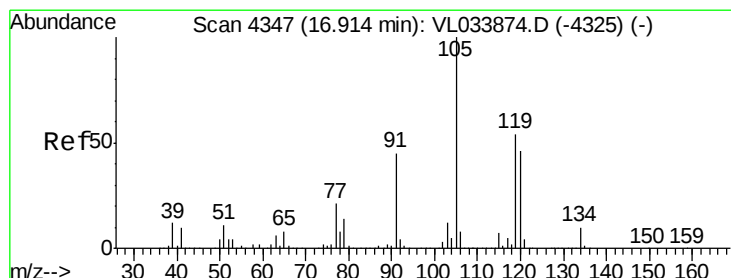
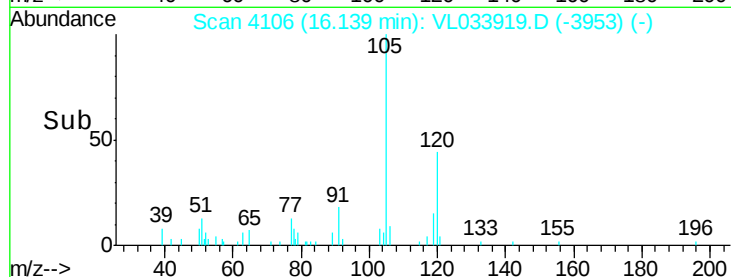
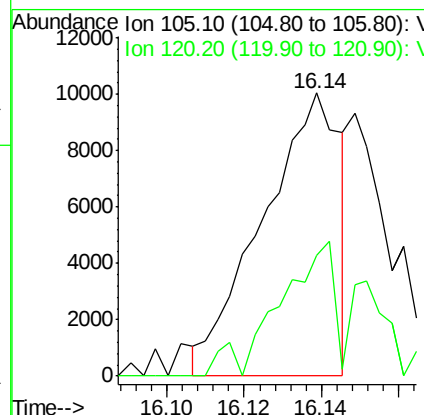
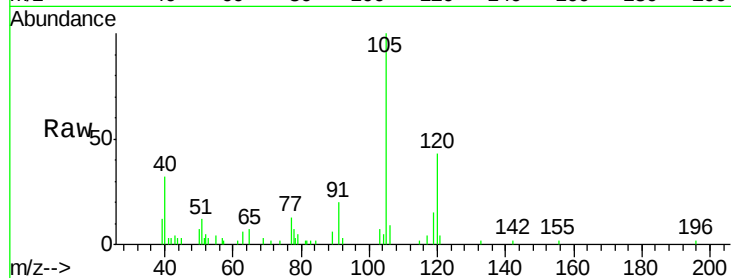




#73
 1,3,5-Trimethylbenzene
 Concen: 0.057 ppbv
 RT: 16.14 min Scan# 4106
 Delta R.T. -0.01 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Tgt Ion:105 Resp: 14027
 Ion Ratio Lower Upper
 105 100
 120 51.8 37.1 55.7



#74
 1,2,4-Trimethylbenzene
 Concen: 0.229 ppbv
 RT: 16.91 min Scan# 4347
 Delta R.T. -0.00 min
 Lab File: VL033919.D
 Acq: 14 Jun 2019 5:29

Tgt Ion:105 Resp: 65527
 Ion Ratio Lower Upper
 105 100
 120 47.1 36.7 55.1
 91 12.7 35.8 53.8#
 77 18.1 16.9 25.3

