

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062419\
 Data File : VL033942.D
 Acq On : 24 Jun 2019 18:38
 Operator : SY/AP
 Sample : K3481-09
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-OUTDOOR-AIR-2

Quant Time: Jun 25 03:39:28 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	5.74	49	860994	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.27	114	2044298	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.21	117	2031856	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.54	95	1670912	10.01	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.10%

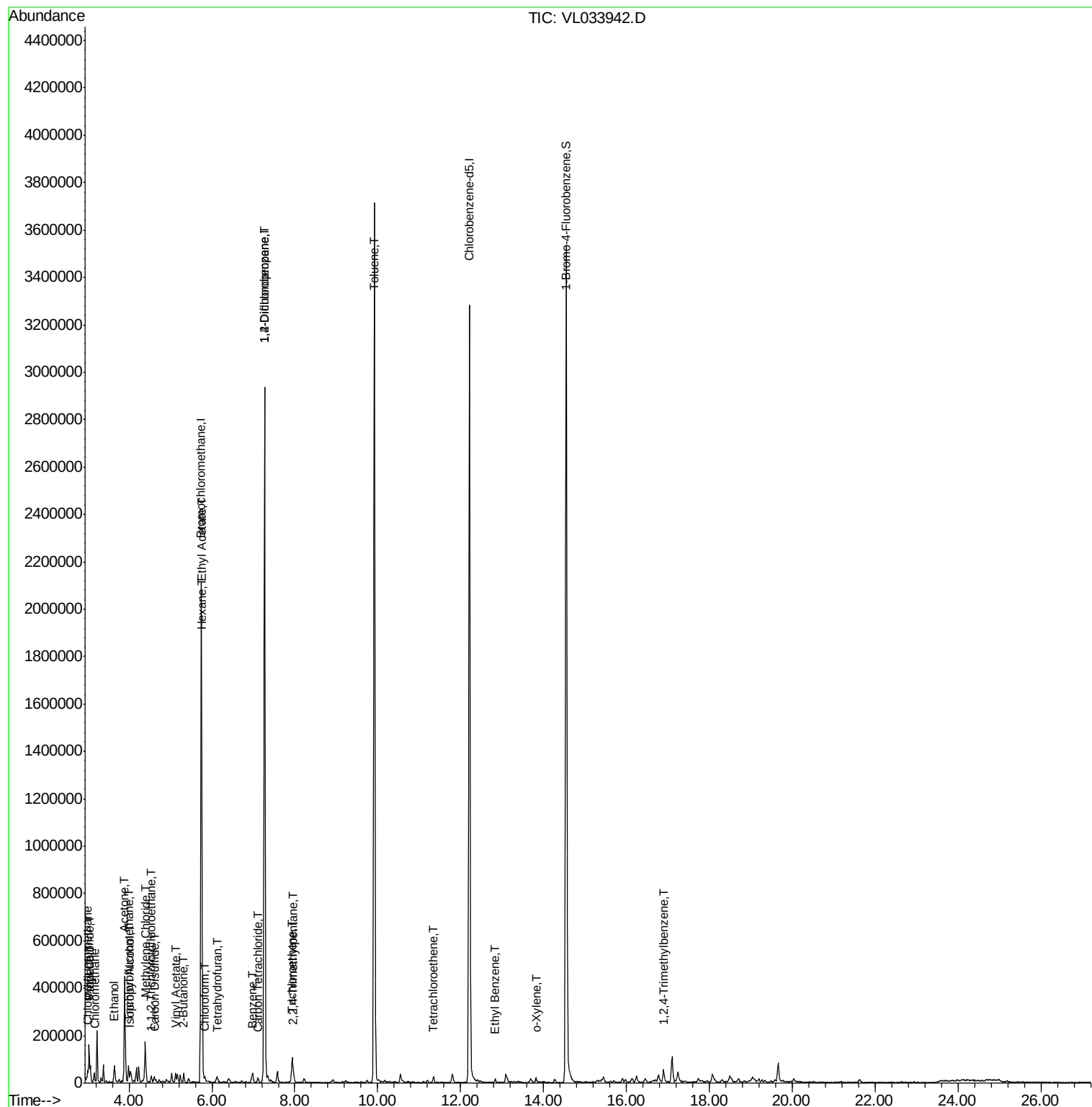
Target Compounds					Ovalue
3) Chlorodifluoromethane	3.00	51	50238	0.496 ppbv	93
4) Chloromethane	3.17	50	28892	0.500 ppbv	100
5) Vinyl Chloride	3.04	62	2275	0.042 ppbv	97
9) Propene	3.04	41	20862	0.550 ppbv	84
11) Trichlorofluoromethane	3.99	101	42108	0.234 ppbv	92
12) 1,1,2-Trichlorotrifluoroet	4.54	101	9403	0.077 ppbv	86
13) Ethanol	3.64	45	78158	6.334 ppbv	100
15) Acetone	3.89	43	445638	3.549 ppbv	99
19) Isopropyl Alcohol	4.02	45	26228	0.366 ppbv #	63
20) Methylene Chloride	4.39	84	57560	1.175 ppbv	93
23) Vinyl Acetate	5.13	43	26135	0.179 ppbv #	58
25) Ethyl Acetate	5.76	43	148310	0.776 ppbv #	79
26) Hexane	5.76	57	201468	2.314 ppbv #	40
27) Carbon Disulfide	4.61	76	23738	0.196 ppbv #	38
29) Chloroform	5.82	83	4539	0.030 ppbv	96
34) 2-Butanone	5.32	43	44201	0.383 ppbv	98
35) Carbon Tetrachloride	7.11	117	9811	0.062 ppbv #	82
36) Benzene	6.98	78	9873	0.063 ppbv	98
38) Trichloroethene	7.93	130	30882	0.508 ppbv #	85
39) 1,2-Dichloropropane	7.27	63	515095	8.546 ppbv #	25
41) Tetrahydrofuran	6.13	42	3822	0.065 ppbv #	35
44) 2,2,4-Trimethylpentane	7.97	57	18109	0.065 ppbv #	26
52) Tetrachloroethene	11.34	164	2070	0.038 ppbv #	67
53) Toluene	9.92	91	2890229	16.725 ppbv	99
58) Ethyl Benzene	12.83	91	7882	0.034 ppbv	100
60) o-Xylene	13.82	91	11154	0.052 ppbv	87
74) 1,2,4-Trimethylbenzene	16.89	105	35569	0.128 ppbv #	68

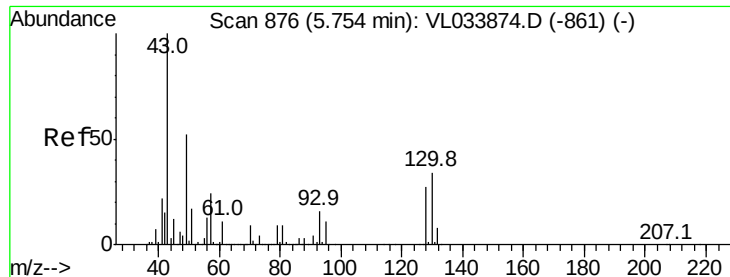
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.74 min Scan# 872

Delta R.T. -0.01 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-OUTDOOR-AIR-2

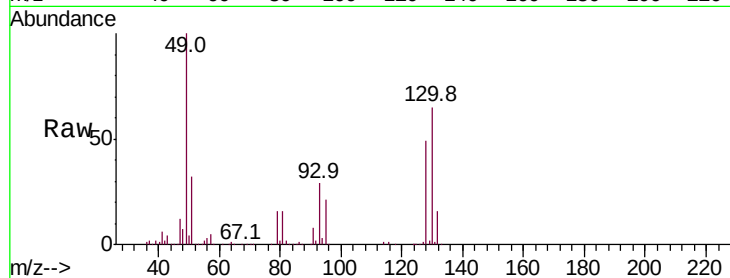
Tot Ion: 49 Resp: 860994

Ion Ratio Lower Upper

49 100

128 51.6 25.5 76.5

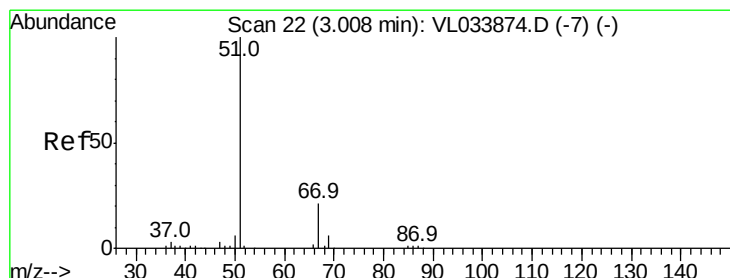
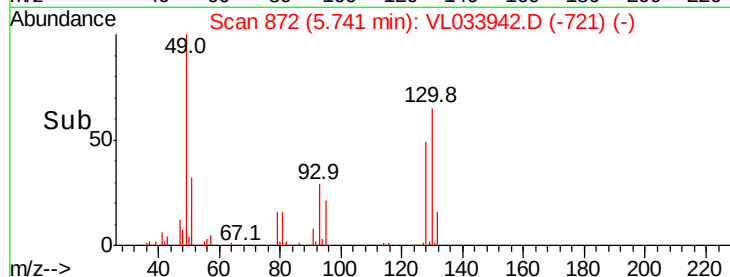
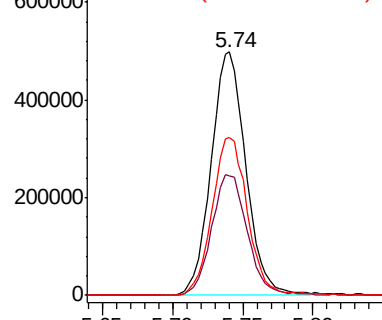
130 66.3 32.5 97.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#3

Chlorodifluoromethane

Concen: 0.496 ppbv

RT: 3.00 min Scan# 21

Delta R.T. -0.00 min

Lab File: VL033942.D

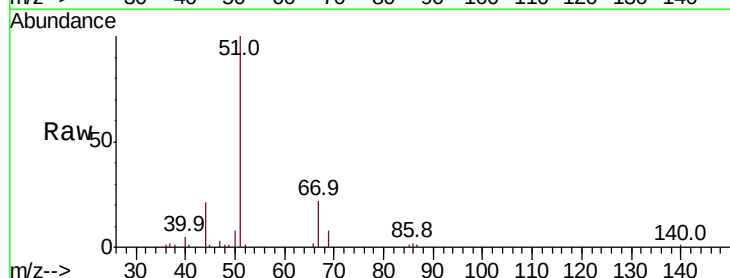
Acq: 24 Jun 2019 18:38

Tgt Ion: 51 Resp: 50238

Ion Ratio Lower Upper

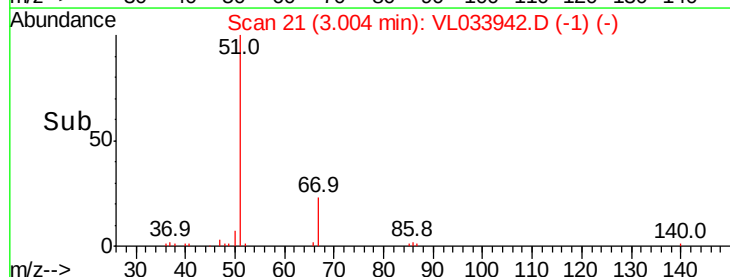
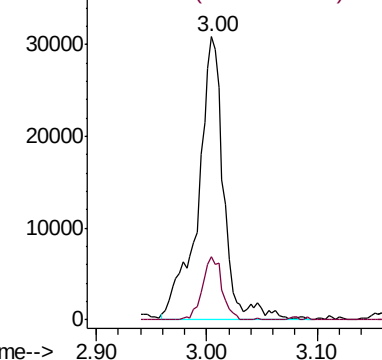
51 100

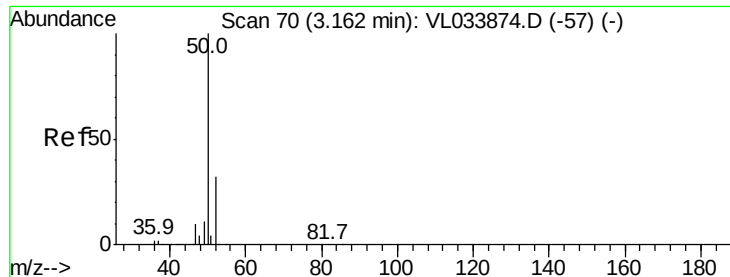
67 17.1 16.4 24.6



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.500 ppbv

RT: 3.17 min Scan# 71

Delta R.T. 0.00 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

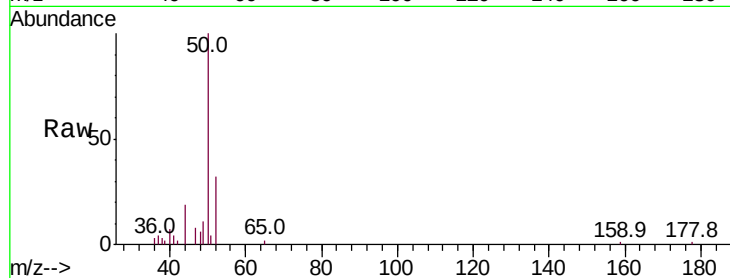
TZC-SSDS-OUTDOOR-AIR-2

Tot Ion: 50 Resp: 28892

Ion Ratio Lower Upper

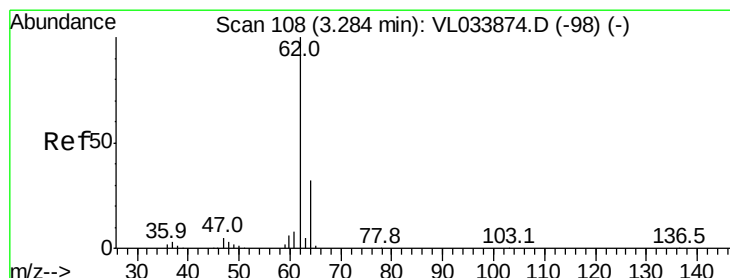
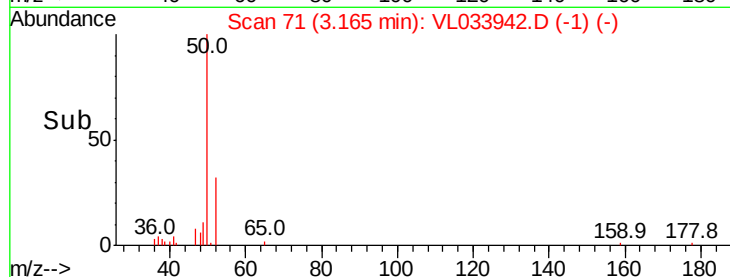
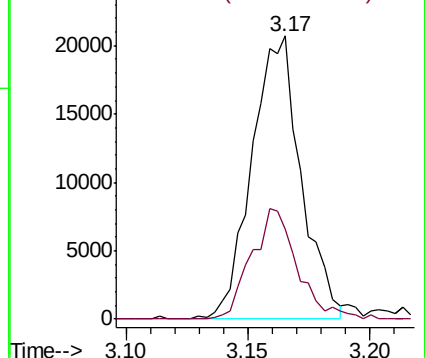
50 100

52 31.6 25.4 38.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#5

Vinyl Chloride

Concen: 0.042 ppbv

RT: 3.04 min Scan# 32

Delta R.T. -0.24 min

Lab File: VL033942.D

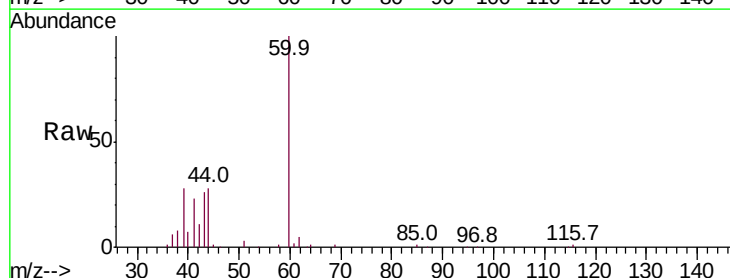
Acq: 24 Jun 2019 18:38

Tgt Ion: 62 Resp: 2275

Ion Ratio Lower Upper

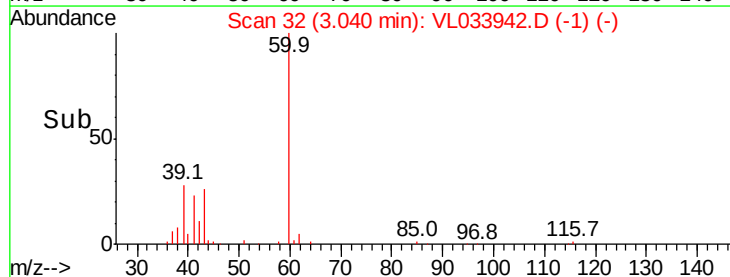
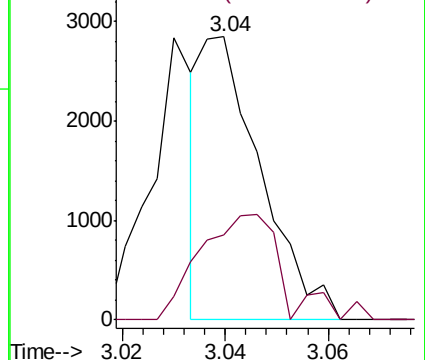
62 100

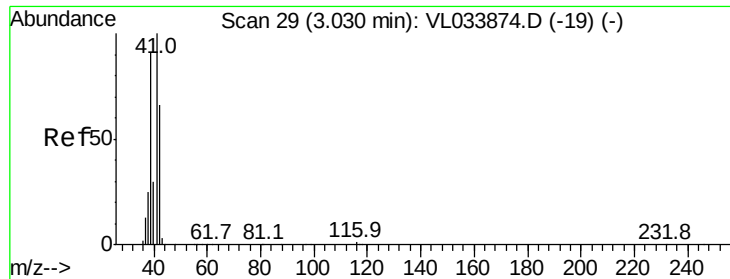
64 29.8 25.2 37.8



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0





#9

Propene

Concen: 0.550 ppbv

RT: 3.04 min Scan# 32

Delta R.T. 0.01 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

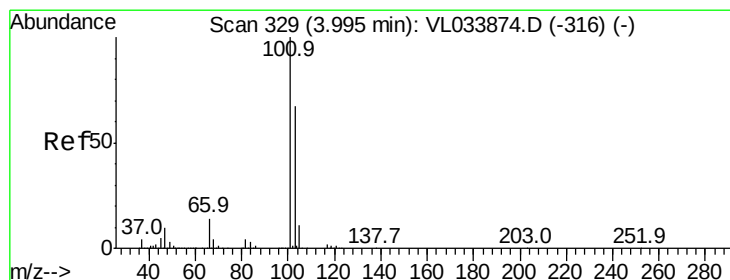
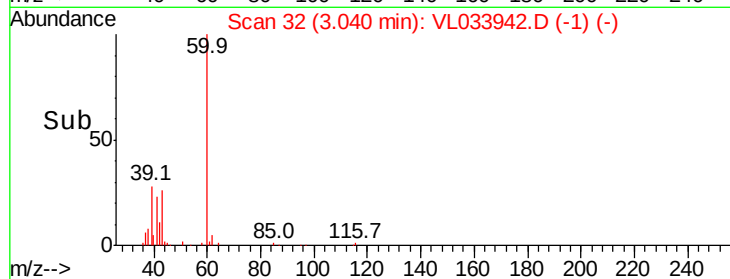
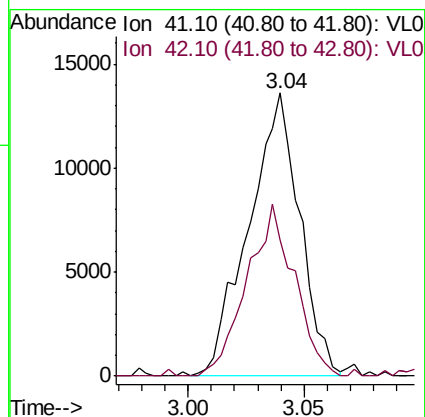
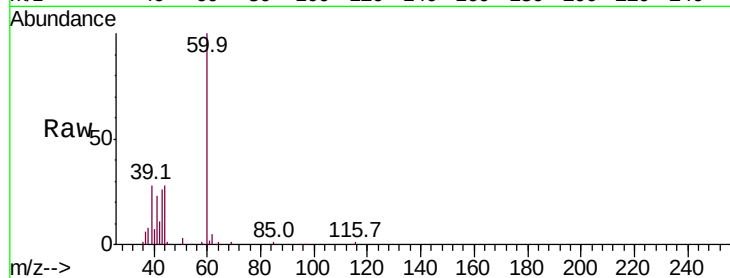
TZC-SSDS-OUTDOOR-AIR-2

Tot Ion: 41 Resp: 20862

Ion Ratio Lower Upper

41 100

42 57.0 56.3 84.5



#11

Trichlorofluoromethane

Concen: 0.234 ppbv

RT: 3.99 min Scan# 328

Delta R.T. -0.00 min

Lab File: VL033942.D

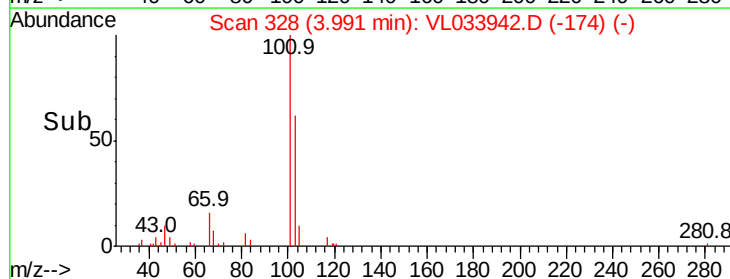
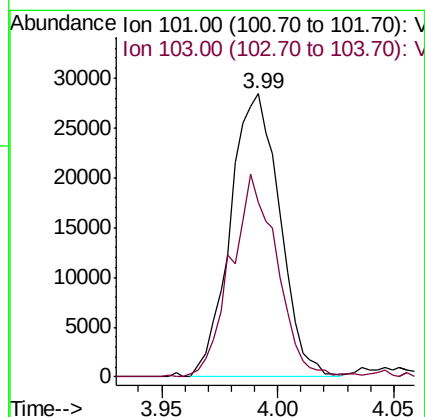
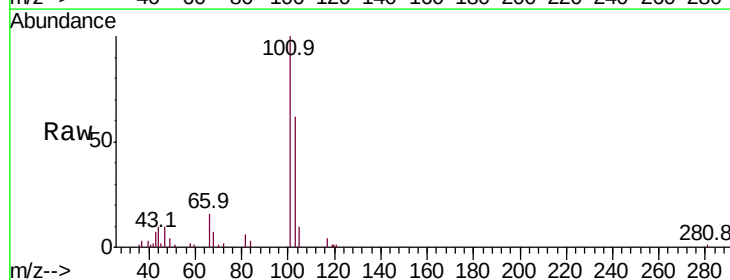
Acq: 24 Jun 2019 18:38

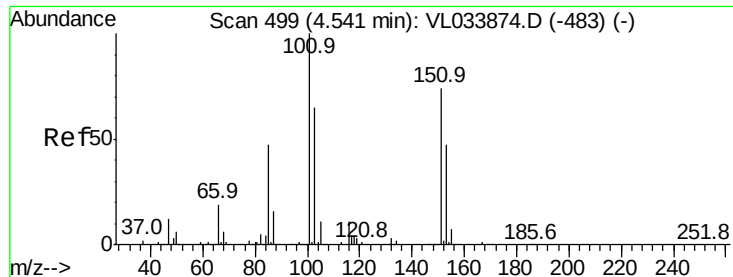
Tgt Ion: 101 Resp: 42108

Ion Ratio Lower Upper

101 100

103 60.7 53.6 80.4





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.077 ppbv

RT: 4.54 min Scan# 498

Delta R.T. -0.00 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

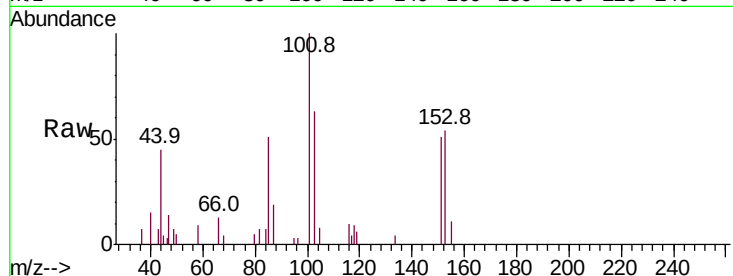
TZC-SSDS-OUTDOOR-AIR-2

Tot Ion:101 Resp: 9403

Ion Ratio Lower Upper

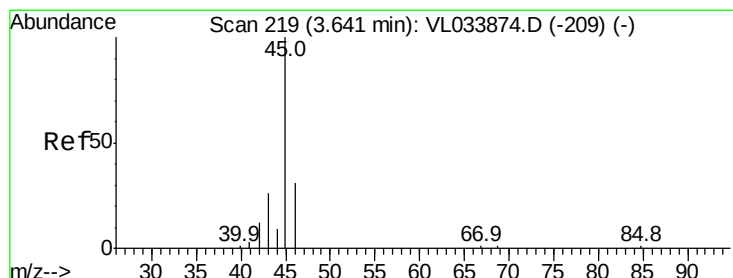
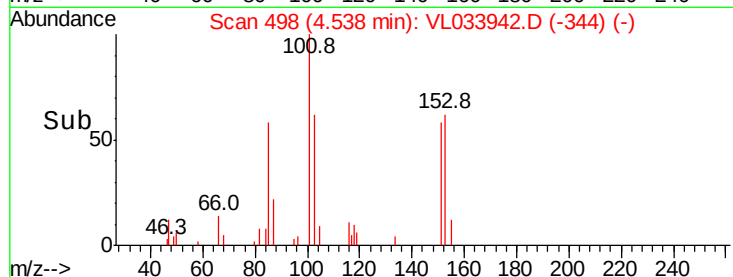
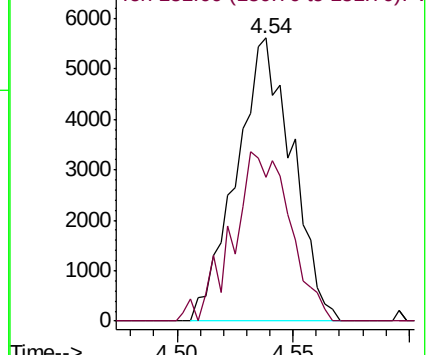
101 100

151 61.6 58.6 87.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 6.334 ppbv

RT: 3.64 min Scan# 219

Delta R.T. -0.00 min

Lab File: VL033942.D

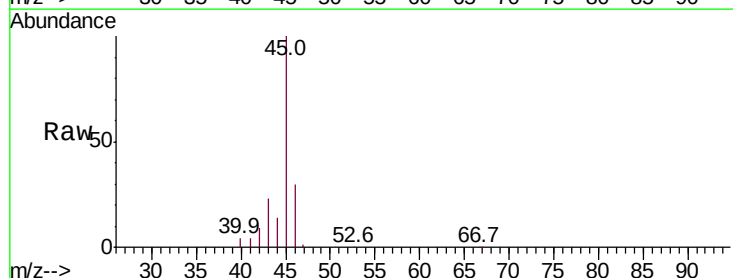
Acq: 24 Jun 2019 18:38

Tgt Ion: 45 Resp: 78158

Ion Ratio Lower Upper

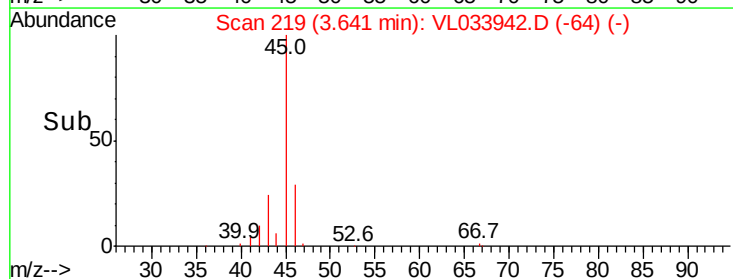
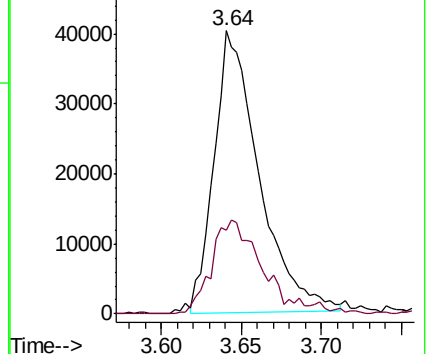
45 100

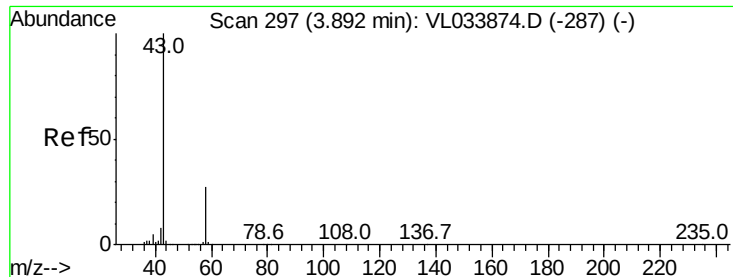
46 38.5 15.3 61.1



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 3.549 ppbv

RT: 3.89 min Scan# 296

Delta R.T. -0.00 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

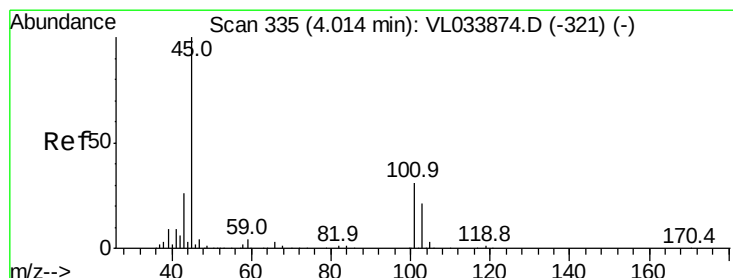
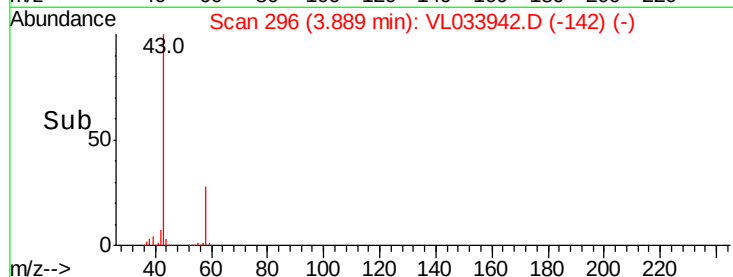
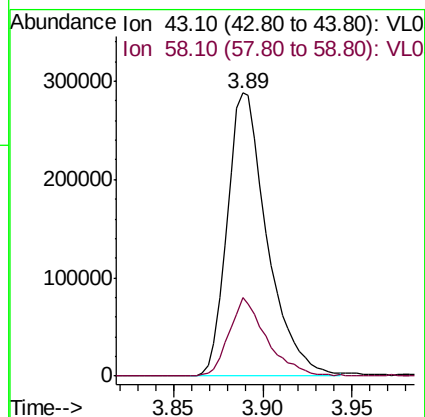
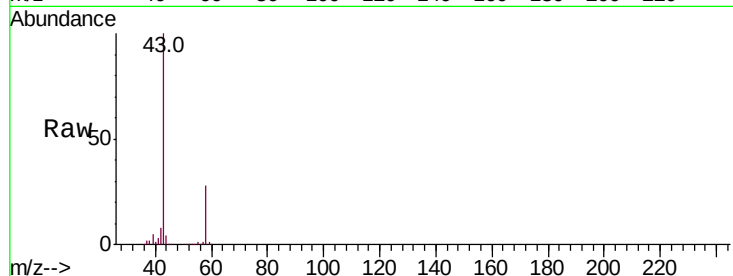
TZC-SSDS-OUTDOOR-AIR-2

Tot Ion: 43 Resp: 445638

Ion Ratio Lower Upper

43 100

58 26.2 21.3 31.9



#19

Isopropyl Alcohol

Concen: 0.366 ppbv

RT: 4.02 min Scan# 338

Delta R.T. 0.01 min

Lab File: VL033942.D

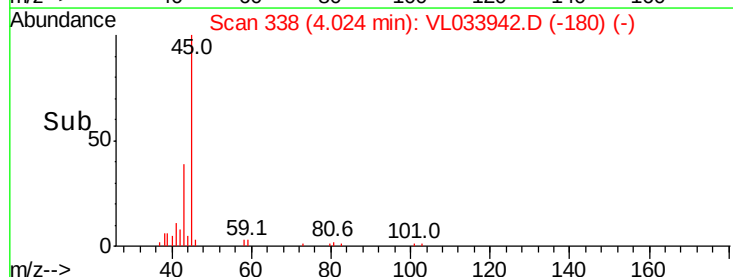
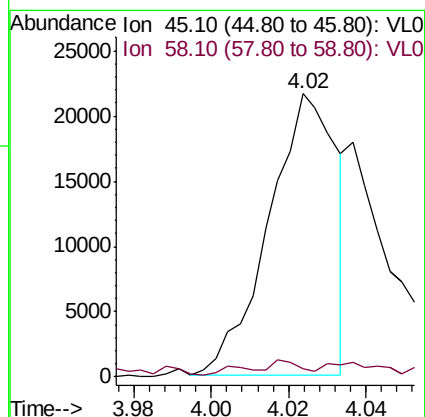
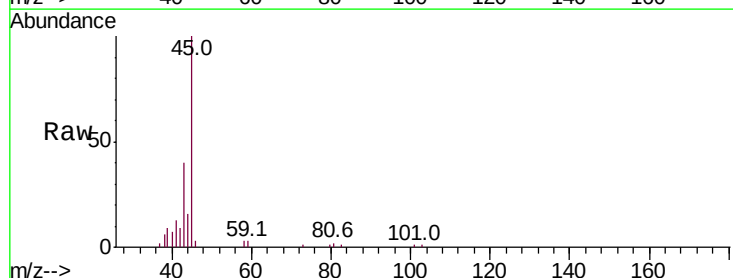
Acq: 24 Jun 2019 18:38

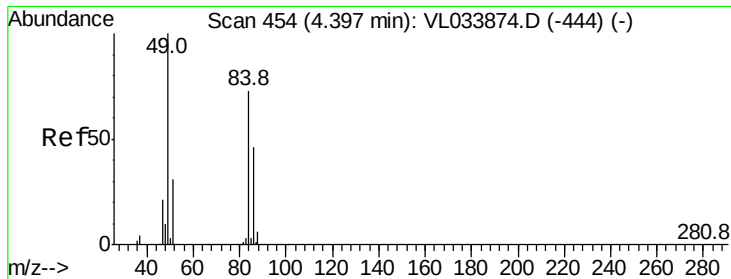
Tgt Ion: 45 Resp: 26228

Ion Ratio Lower Upper

45 100

58 15.2 1.8 2.6#

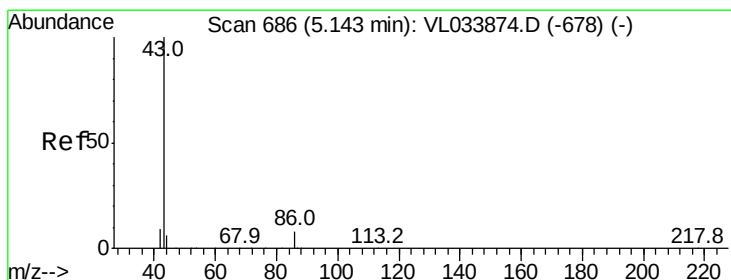
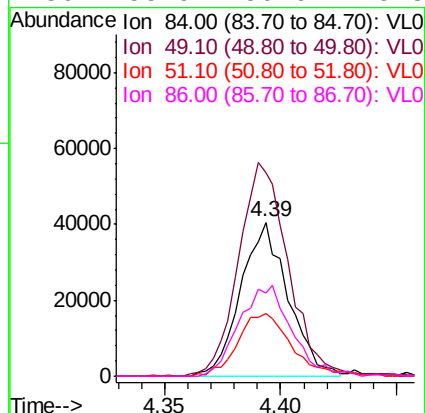
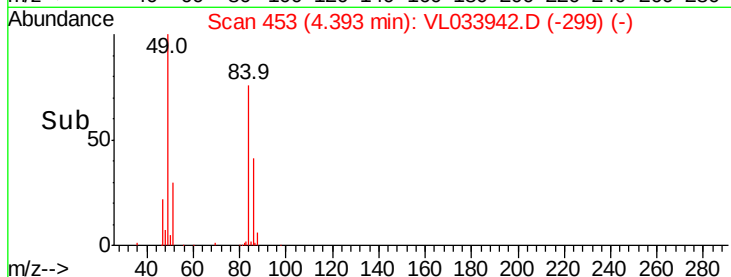
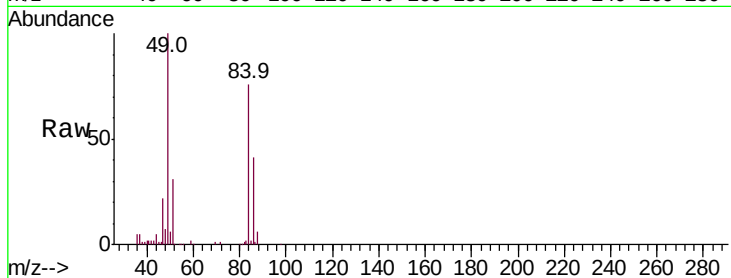




#20
Methvlene Chloride
Concen: 1.175 ppbv
RT: 4.39 min Scan# 453
Delta R.T. -0.00 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

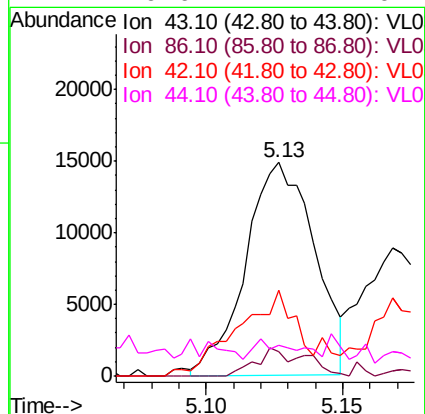
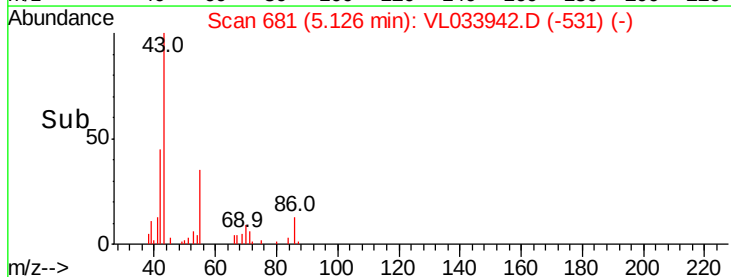
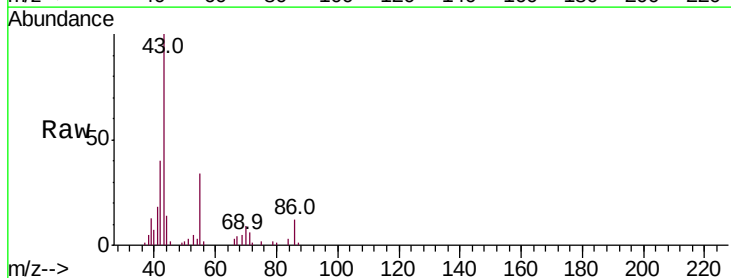
Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-OUTDOOR-AIR-2

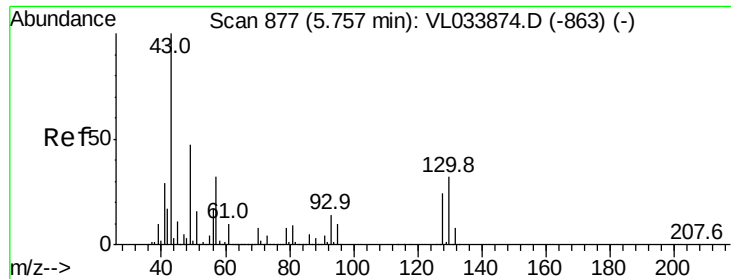
Tot Ion:	84	Resp:	57560
Ion	Ratio	Lower	Upper
84	100		
49	130.7	110.0	165.0
51	41.5	34.6	51.8
86	53.9	50.6	75.8



#23
Vinyl Acetate
Concen: 0.179 ppbv
RT: 5.13 min Scan# 681
Delta R.T. -0.02 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

Tgt Ion:	43	Resp:	26135
Ion	Ratio	Lower	Upper
43	100		
86	11.8	5.8	8.8#
42	39.0	7.8	11.8#
44	0.6	4.2	6.4#

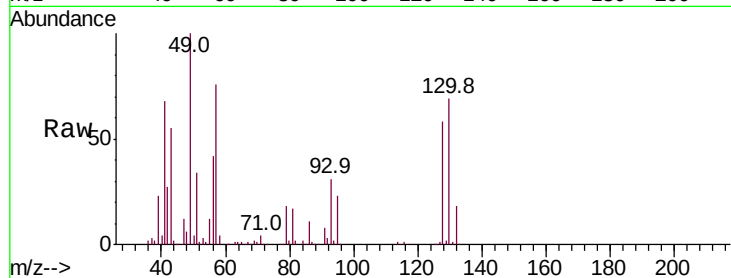




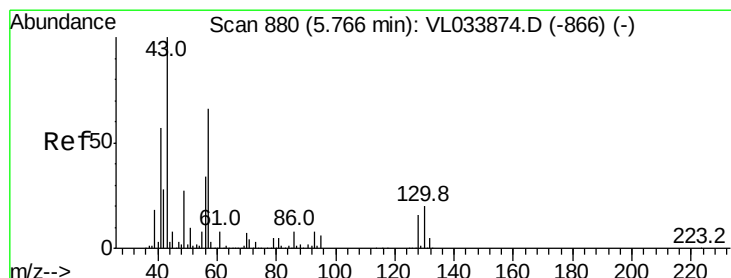
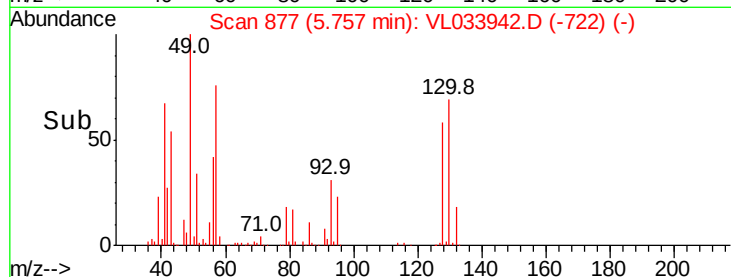
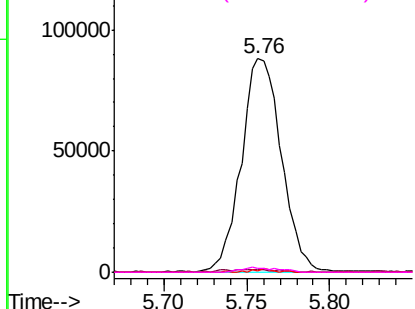
#25
Ethyl Acetate
Concen: 0.776 ppbv
RT: 5.76 min Scan# 877
Delta R.T. -0.00 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-OUTDOOR-AIR-2

Tot Ion:	43	Resp:	148310
Ion	Ratio	Lower	Upper
43	100		
45	1.9	7.9	11.9#
61	0.9	7.8	11.6#
70	2.2	5.8	8.6#

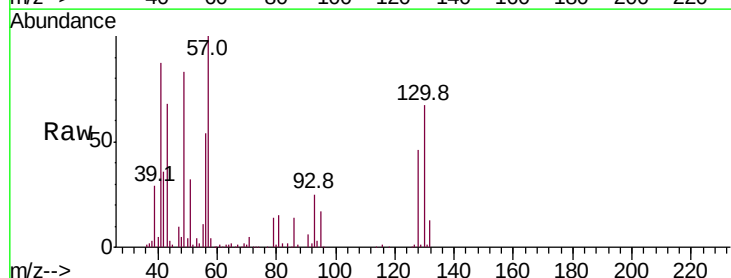


Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0

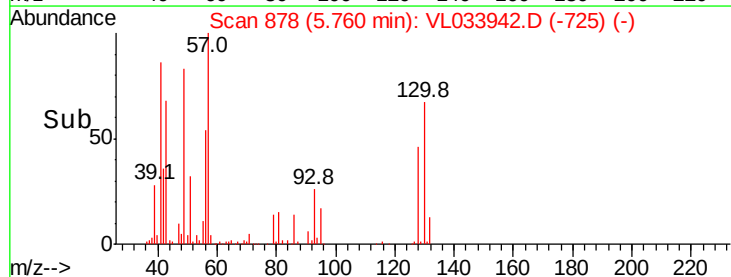
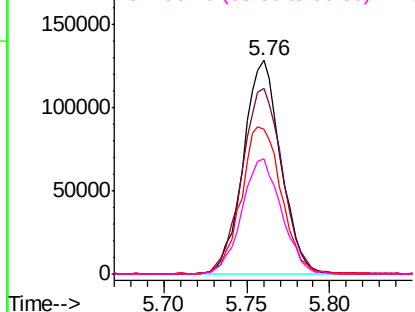


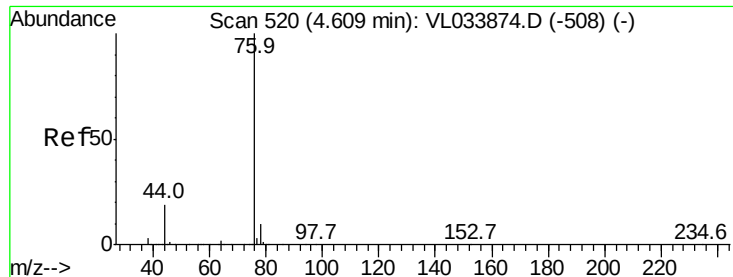
#26
Hexane
Concen: 2.314 ppbv
RT: 5.76 min Scan# 878
Delta R.T. -0.01 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

Tgt Ion:	57	Resp:	201468
Ion	Ratio	Lower	Upper
57	100		
41	94.2	71.4	107.2
43	74.2	183.7	275.5#
56	56.9	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





#27

Carbon Disulfide

Concen: 0.196 ppbv

RT: 4.61 min Scan# 520

Delta R.T. -0.00 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-OUTDOOR-AIR-2

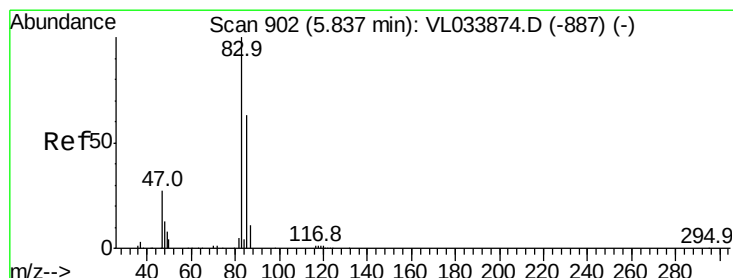
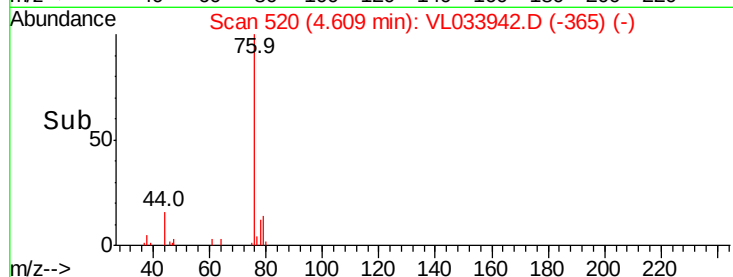
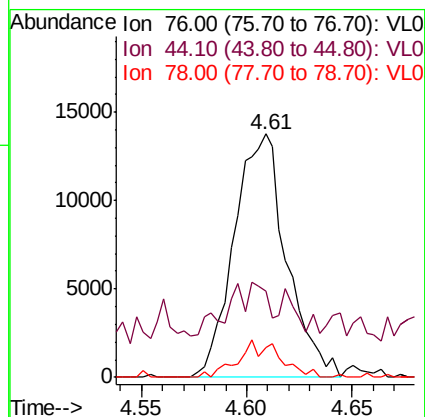
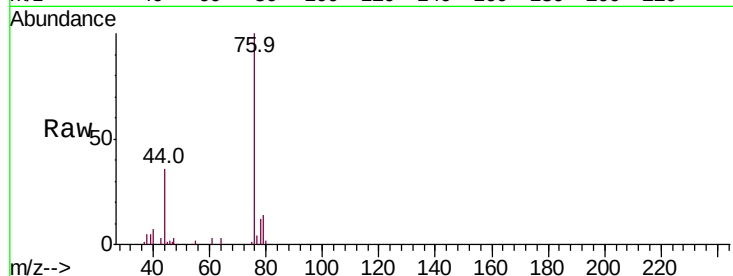
Tot Ion: 76 Resp: 23738

Ion Ratio Lower Upper

76 100

44 57.8 14.4 21.6#

78 12.1 7.5 11.3#



#29

Chloroform

Concen: 0.030 ppbv

RT: 5.82 min Scan# 897

Delta R.T. -0.02 min

Lab File: VL033942.D

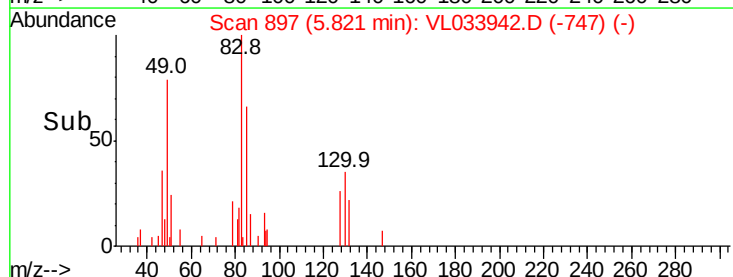
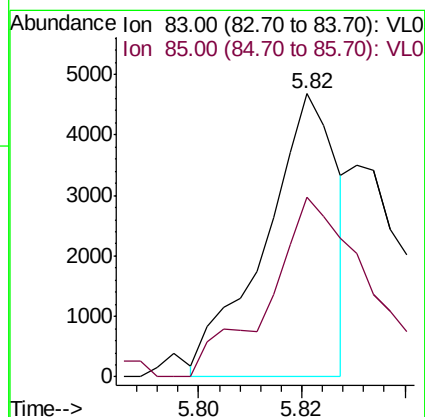
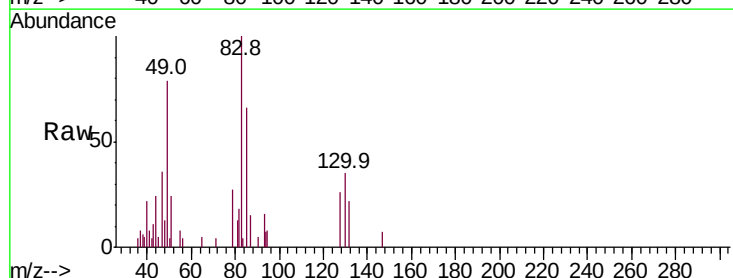
Acq: 24 Jun 2019 18:38

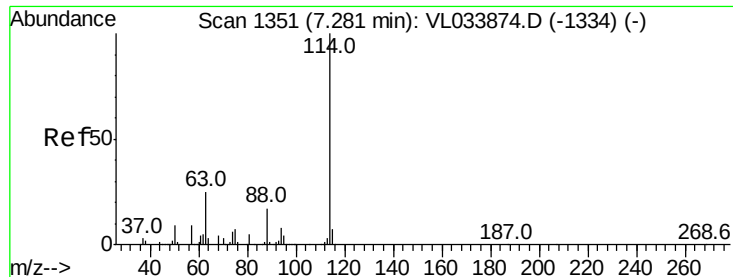
Tgt Ion: 83 Resp: 4539

Ion Ratio Lower Upper

83 100

85 66.0 50.5 75.7

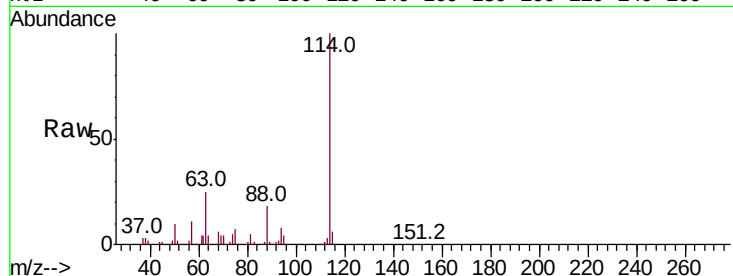




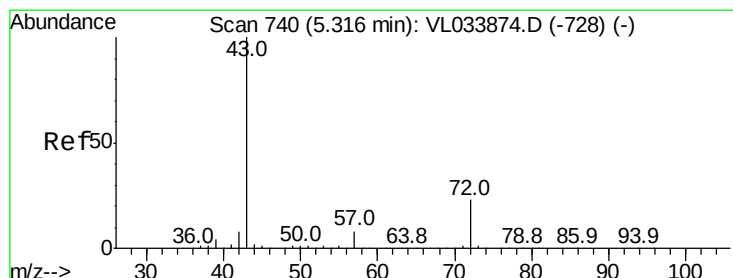
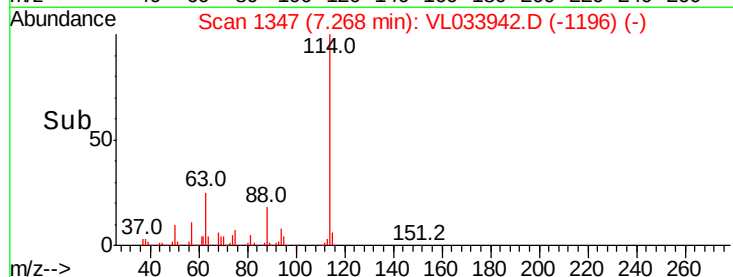
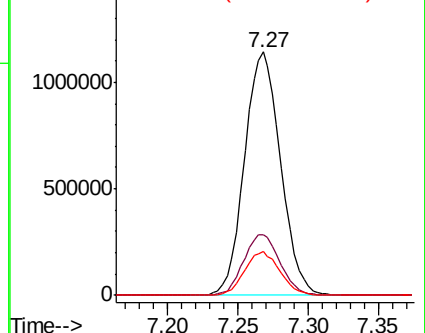
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.27 min Scan# 1347
 Delta R.T. -0.01 min
 Lab File: VL033942.D
 Acq: 24 Jun 2019 18:38

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-OUTDOOR-AIR-2

Tot Ion:114 Resp: 2044298
 Ion Ratio Lower Upper
 114 100
 63 25.3 21.1 31.7
 88 17.7 14.2 21.4

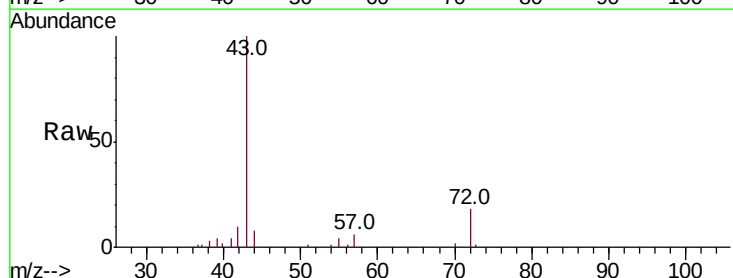


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

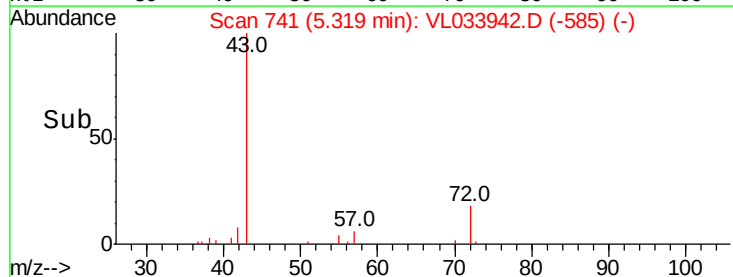
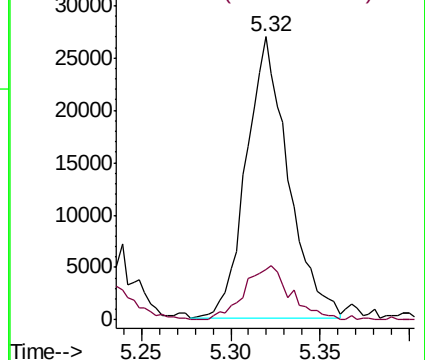


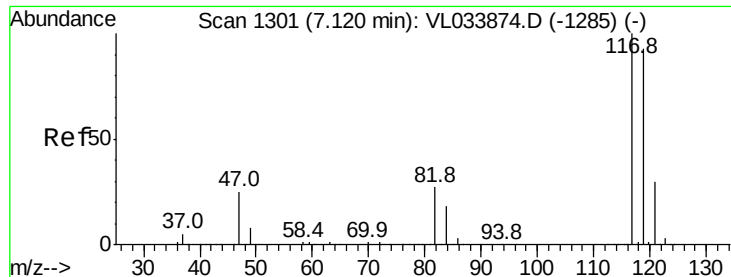
#34
 2-Butanone
 Concen: 0.383 ppbv
 RT: 5.32 min Scan# 741
 Delta R.T. 0.00 min
 Lab File: VL033942.D
 Acq: 24 Jun 2019 18:38

Tgt Ion: 43 Resp: 44201
 Ion Ratio Lower Upper
 43 100
 72 21.5 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: 0.062 ppbv

RT: 7.11 min Scan# 1298

Delta R.T. -0.01 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-OUTDOOR-AIR-2

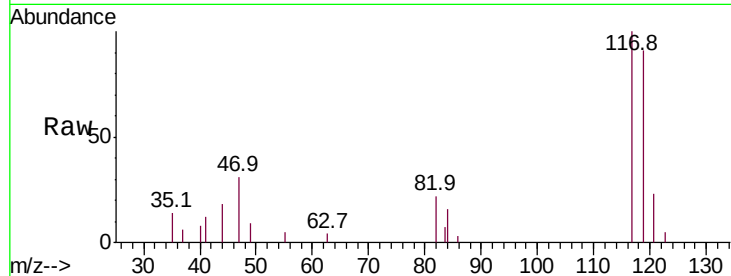
Tot Ion:117 Resp: 9811

Ion Ratio Lower Upper

117 100

119 87.3 74.6 111.8

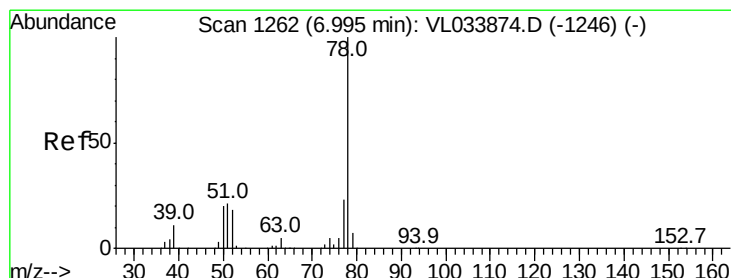
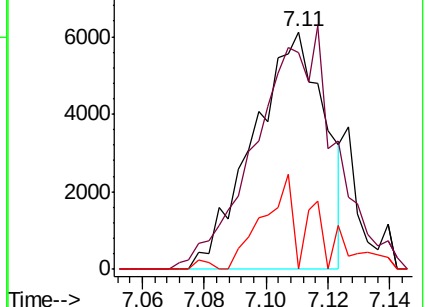
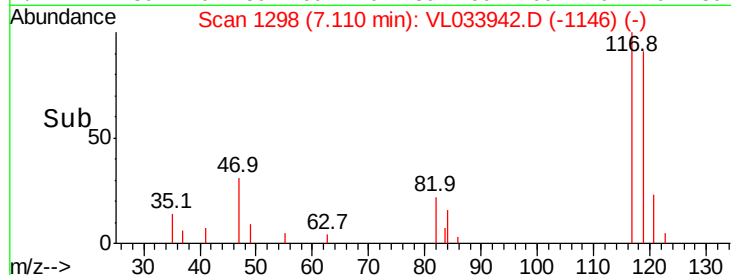
121 0.0 24.0 36.0#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.063 ppbv

RT: 6.98 min Scan# 1259

Delta R.T. -0.01 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

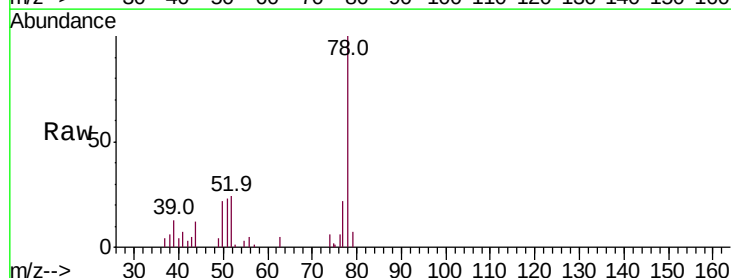
Tgt Ion: 78 Resp: 9873

Ion Ratio Lower Upper

78 100

77 22.9 18.2 27.2

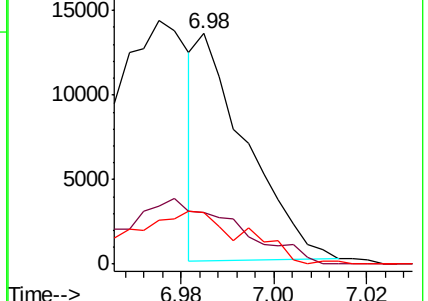
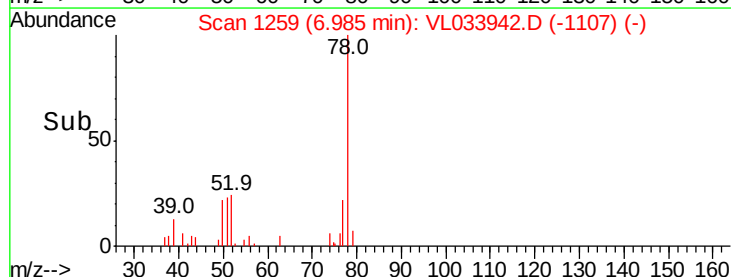
50 21.3 15.9 23.9

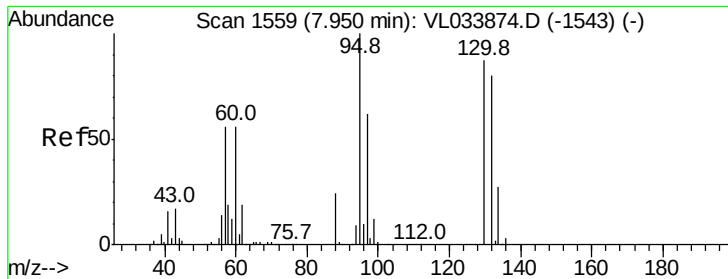


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

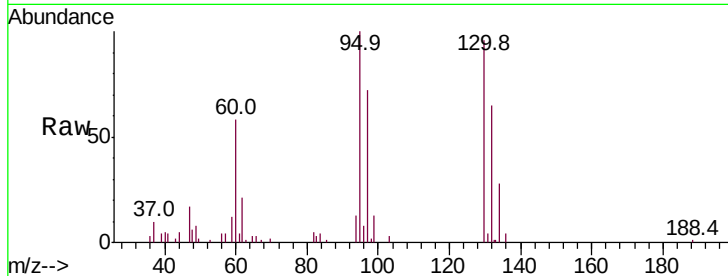




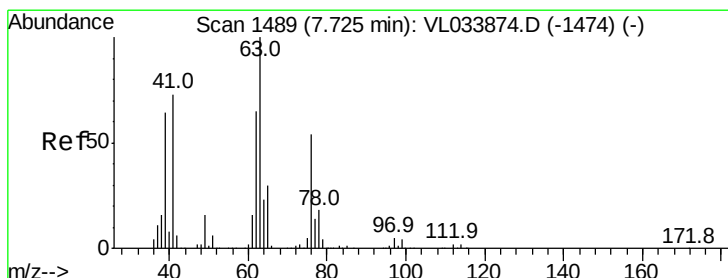
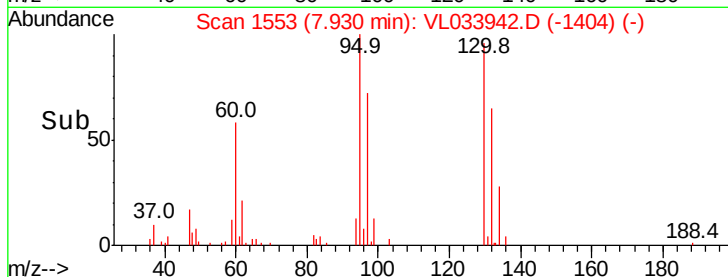
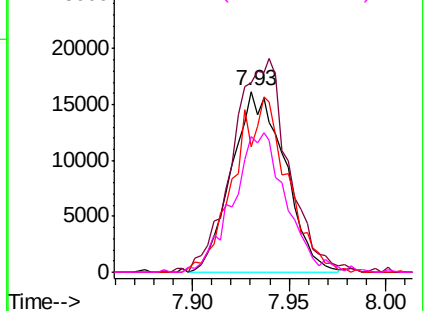
#38
 Trichloroethene
 Concen: 0.508 ppbv
 RT: 7.93 min Scan# 1553
 Delta R.T. -0.02 min
 Lab File: VL033942.D
 Acq: 24 Jun 2019 18:38

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-OUTDOOR-AIR-2

Tot Ion:130 Resp: 30882
 Ion Ratio Lower Upper
 130 100
 95 100.8 92.0 138.0
 132 66.0 73.8 110.8#
 97 69.7 57.2 85.8

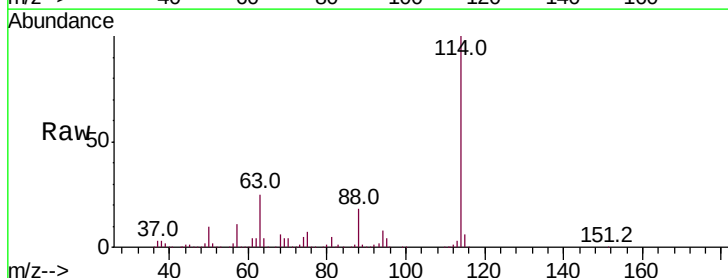


Abundance Ion 130.00 (129.70 to 130.70): V
 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

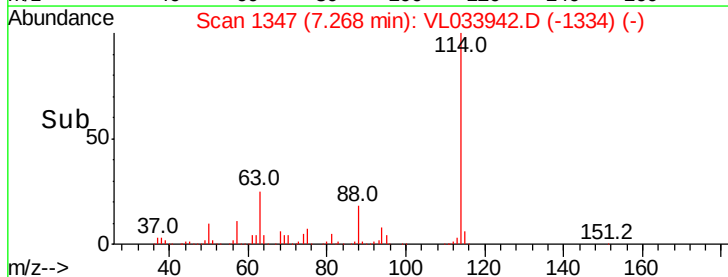
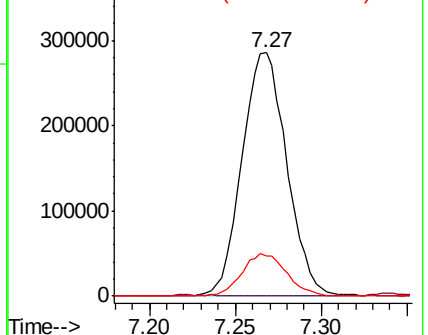


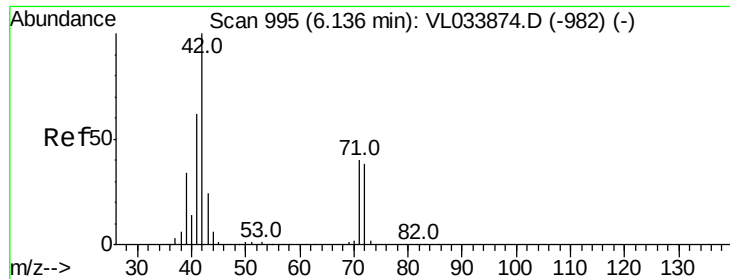
#39
 1,2-Dichloropropane
 Concen: 8.546 ppbv
 RT: 7.27 min Scan# 1347
 Delta R.T. -0.46 min
 Lab File: VL033942.D
 Acq: 24 Jun 2019 18:38

Tgt Ion: 63 Resp: 515095
 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





#41

Tetrahydrofuran

Concen: 0.065 ppbv

RT: 6.13 min Scan# 994

Delta R.T. -0.00 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-OUTDOOR-AIR-2

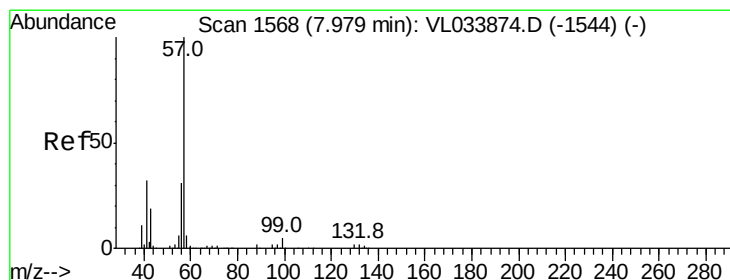
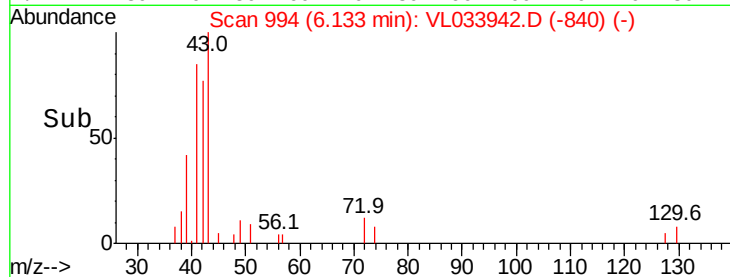
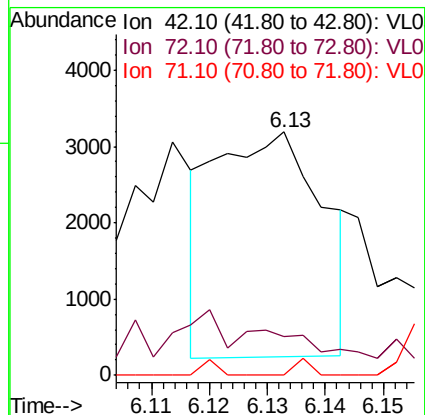
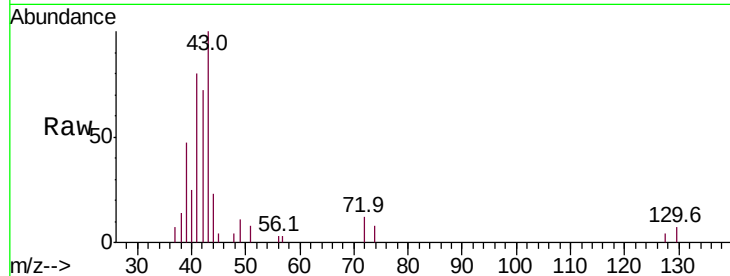
Tot Ion: 42 Resp: 3822

Ion Ratio Lower Upper

42 100

72 0.0 32.2 48.4#

71 0.0 31.7 47.5#



#44

2,2,4-Trimethylpentane

Concen: 0.065 ppbv

RT: 7.97 min Scan# 1565

Delta R.T. -0.01 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

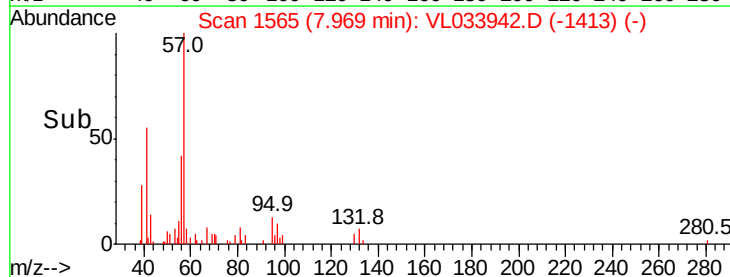
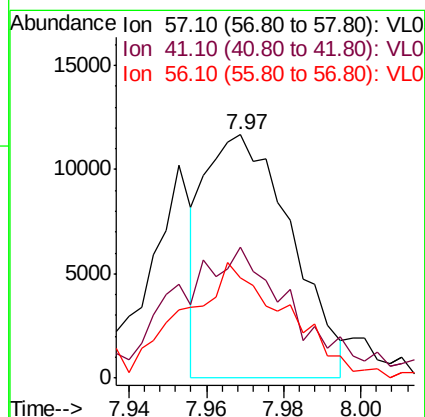
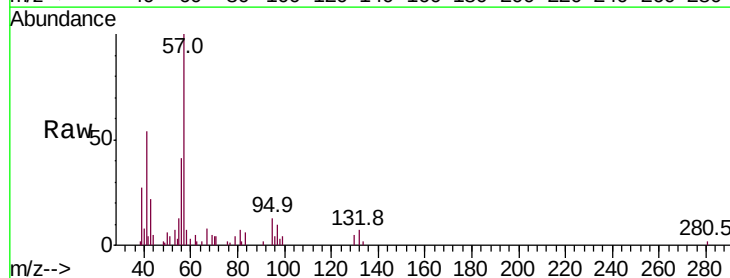
Tgt Ion: 57 Resp: 18109

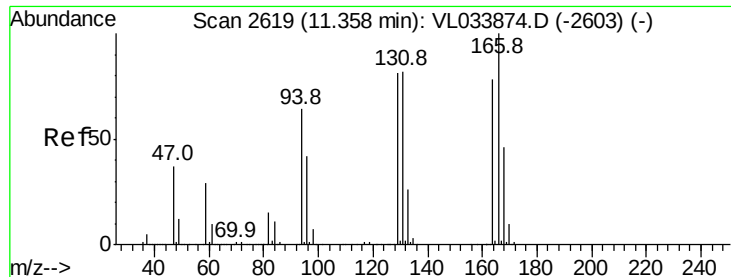
Ion Ratio Lower Upper

57 100

41 83.5 26.1 39.1#

56 61.8 24.6 36.8#





#52

Tetrachloroethene

Concen: 0.038 ppbv

RT: 11.34 min Scan# 2613

Delta R.T. -0.02 min

Lab File: VL033942.D

Acq: 24 Jun 2019 18:38

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-OUTDOOR-AIR-2

Tot Ion:164 Resp: 2070

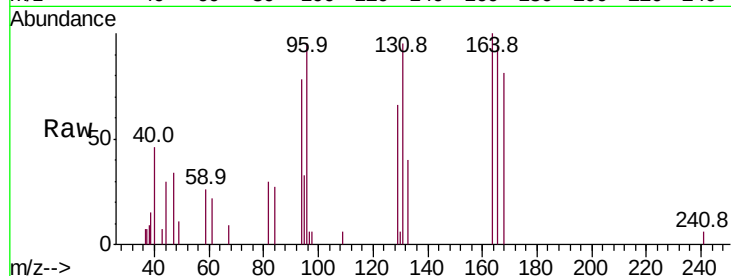
Ion Ratio Lower Upper

164 100

166 89.9 103.1 154.7#

129 51.5 83.9 125.9#

131 91.8 85.1 127.7

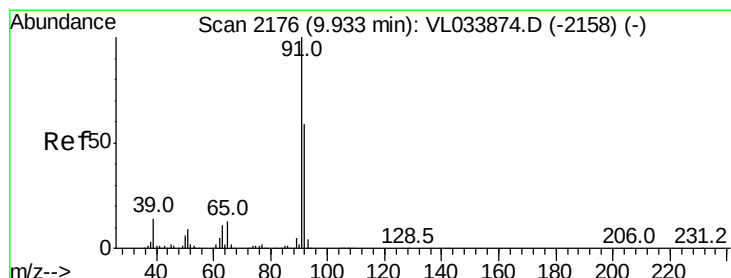
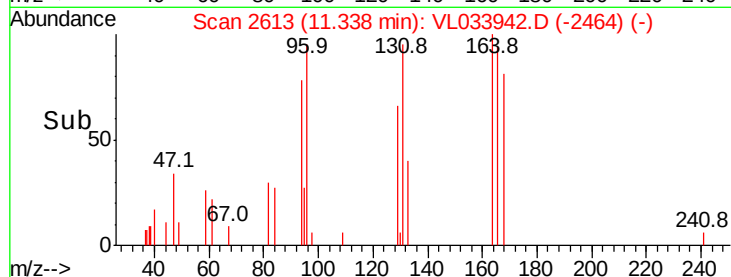
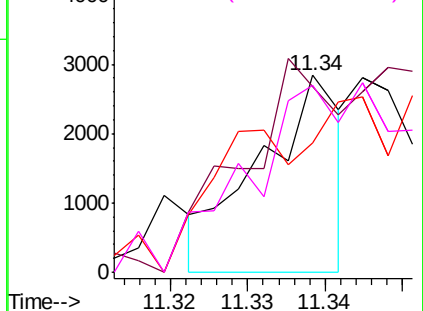


Abundance Ion 163.90 (163.60 to 164.60): V

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: 16.725 ppbv

RT: 9.92 min Scan# 2171

Delta R.T. -0.02 min

Lab File: VL033942.D

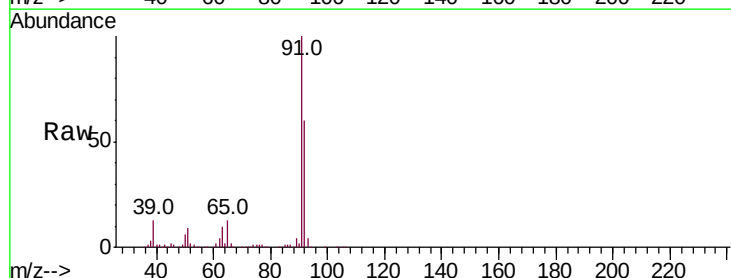
Acq: 24 Jun 2019 18:38

Tgt Ion: 91 Resp: 2890229

Ion Ratio Lower Upper

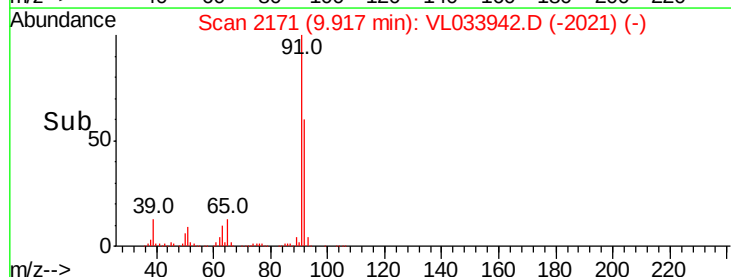
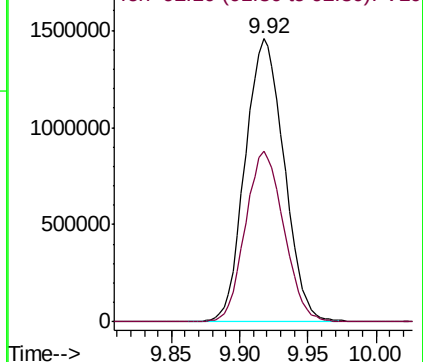
91 100

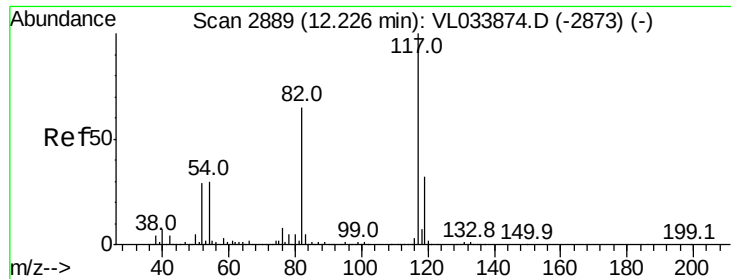
92 59.7 47.0 70.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

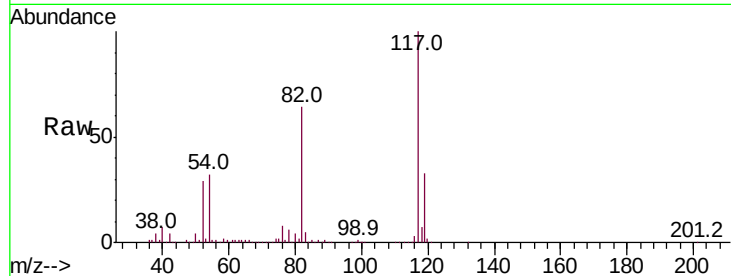




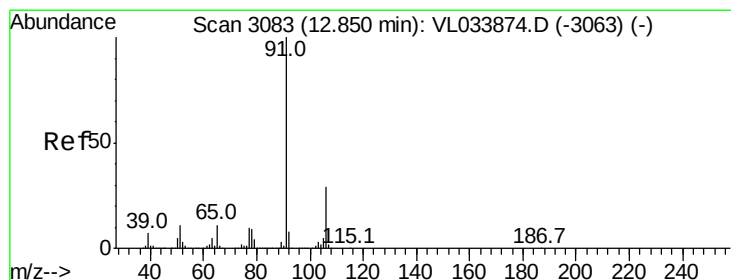
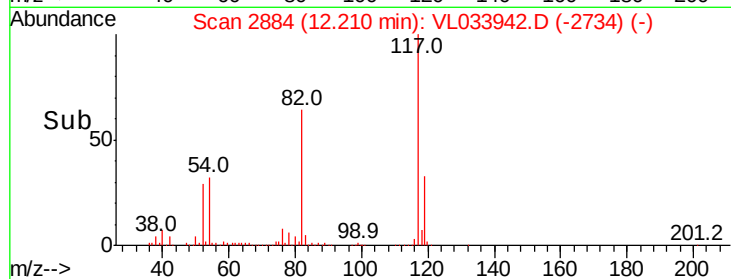
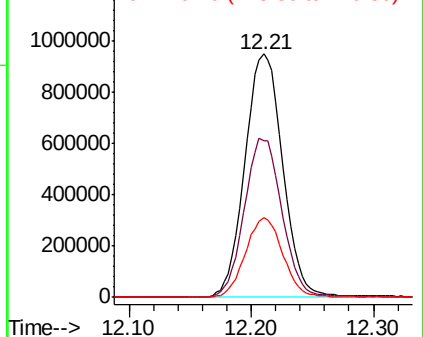
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.21 min Scan# 2884
Delta R.T. -0.02 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-OUTDOOR-AIR-2

Tot Ion:117 Resp: 2031856
Ion Ratio Lower Upper
117 100
82 65.7 50.2 75.2
119 32.6 24.8 37.2

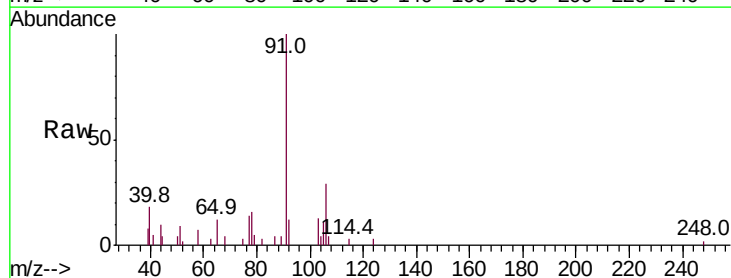


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

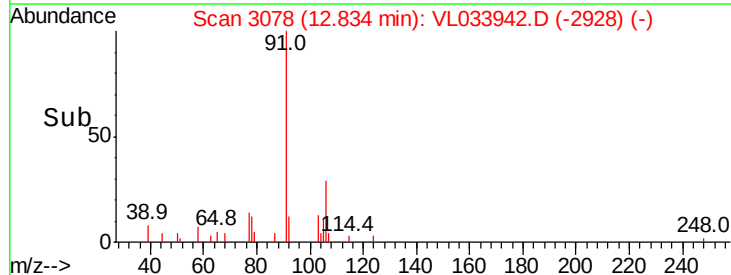
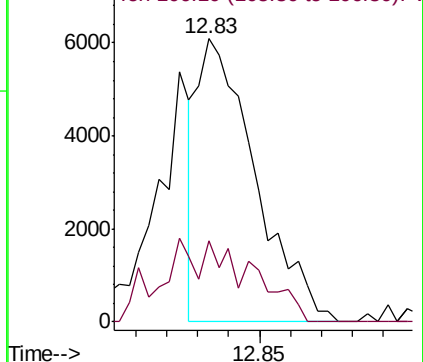


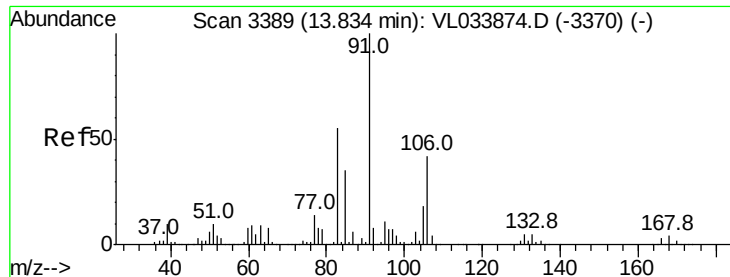
#58
Ethyl Benzene
Concen: 0.034 ppbv
RT: 12.83 min Scan# 3078
Delta R.T. -0.02 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

Tgt Ion: 91 Resp: 7882
Ion Ratio Lower Upper
91 100
106 28.7 23.0 34.6



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

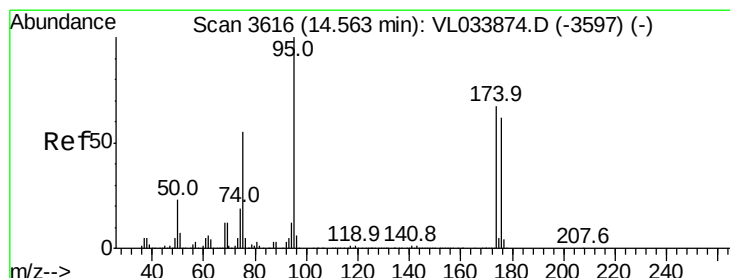
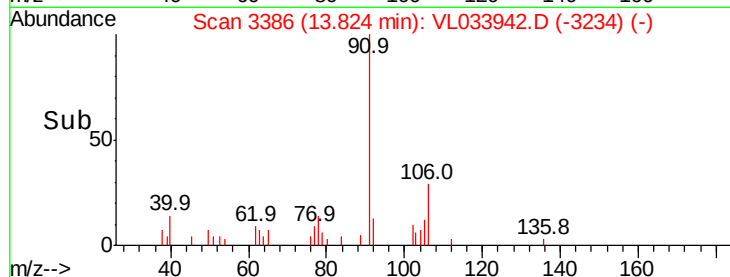
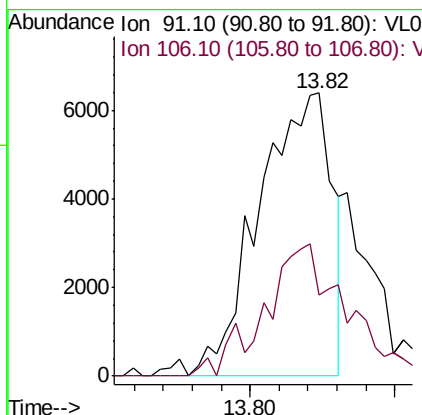
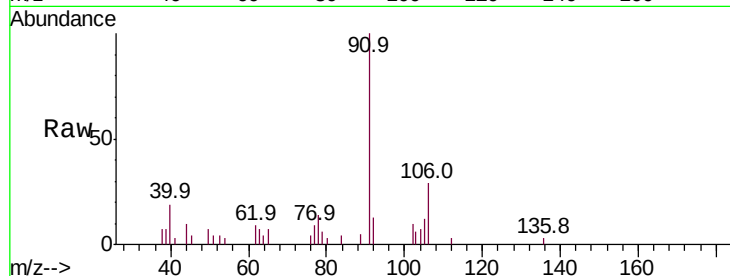




#60
o-Xylene
Concen: 0.052 ppbv
RT: 13.82 min Scan# 3386
Delta R.T. -0.01 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

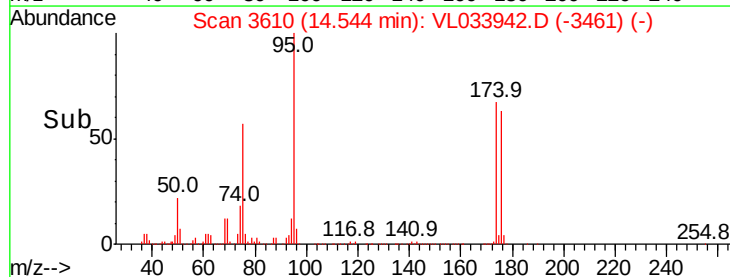
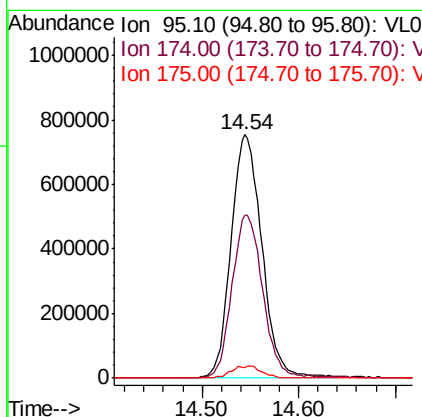
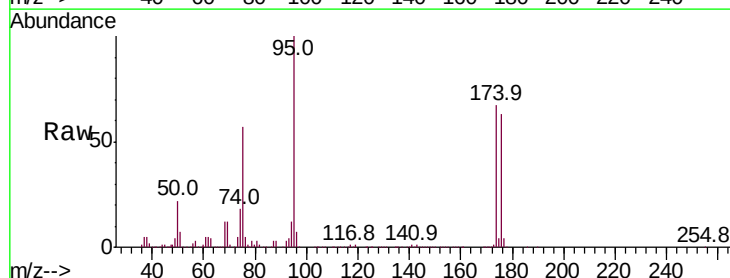
Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-OUTDOOR-AIR-2

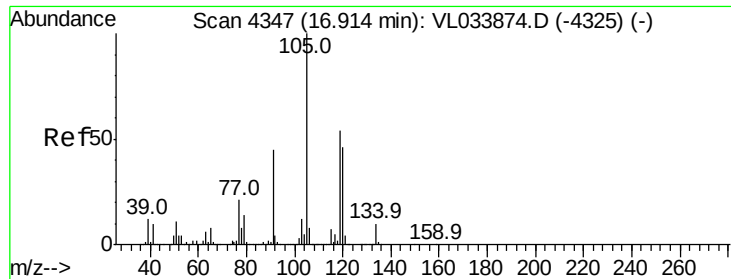
Tot Ion: 91 Resp: 11154
Ion Ratio Lower Upper
91 100
106 52.0 21.7 65.1



#68
1-Bromo-4-Fluorobenzene
Concen: 10.012 ppbv
RT: 14.54 min Scan# 3610
Delta R.T. -0.02 min
Lab File: VL033942.D
Acq: 24 Jun 2019 18:38

Tgt Ion: 95 Resp: 1670912
Ion Ratio Lower Upper
95 100
174 67.5 54.0 81.0
175 5.0 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.128 ppbv
 RT: 16.89 min Scan# 4341
 Delta R.T. -0.02 min
 Lab File: VL033942.D
 Acq: 24 Jun 2019 18:38

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-OUTDOOR-AIR-2

Tot Ion:	105	Resp:	35569
Ion	Ratio	Lower	Upper
105	100		
120	33.9	36.7	55.1#
91	11.2	35.8	53.8#
77	11.8	16.9	25.3#

