

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL061319\
 Data File : VL033923.D
 Acq On : 14 Jun 2019 8:04
 Operator : SY/AP
 Sample : K3295-01DL2 40X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 V1DL

Quant Time: Jun 14 09:18:35 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	982507	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.27	114	2514479	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.22	117	2579822	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.56	95	1895428	8.94	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	89.40%

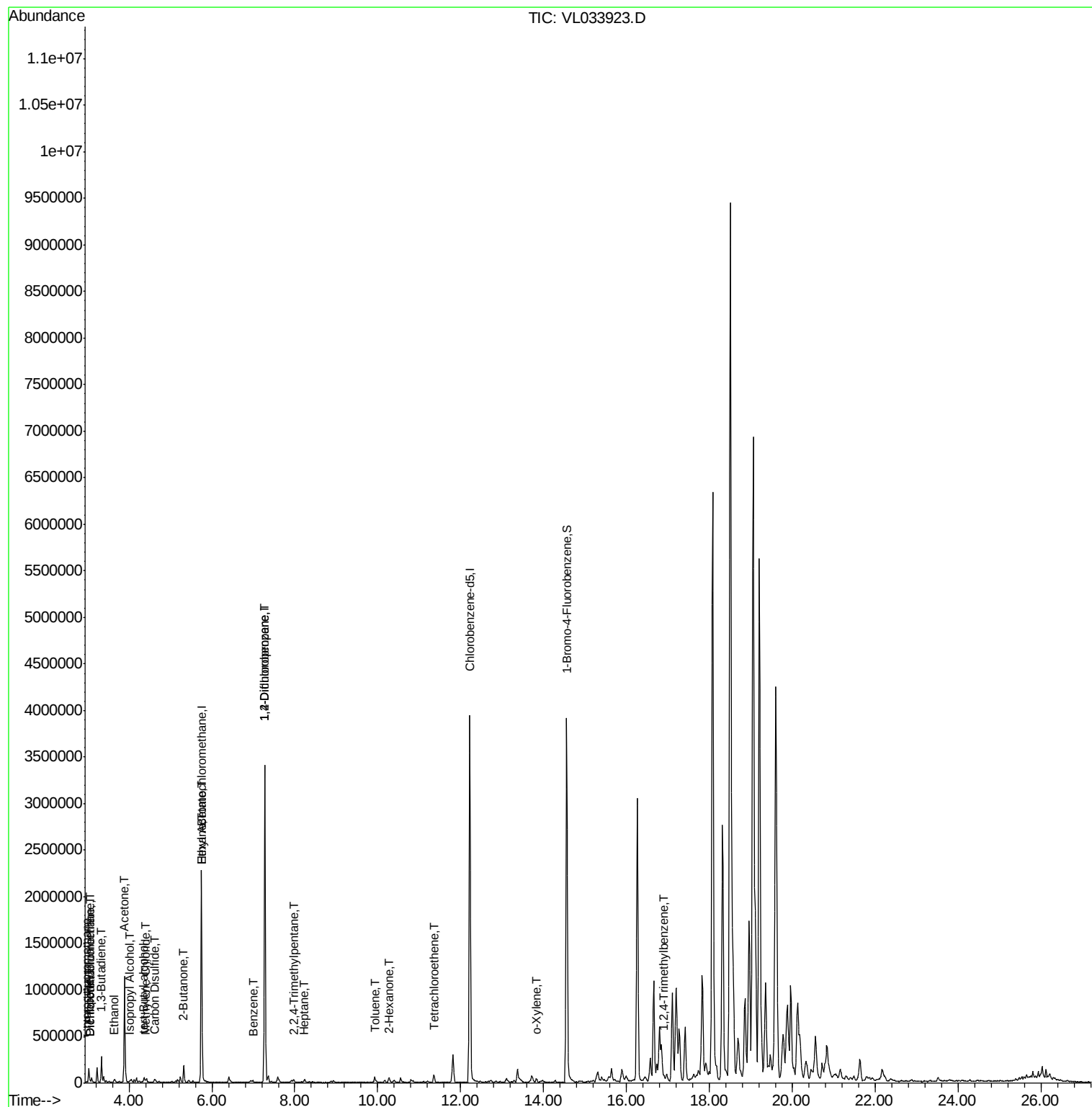
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.07	85	6645	0.042	ppbv	93
3) Chlorodifluoromethane	2.98	51	9887	0.085	ppbv #	70
8) Dichlorotetrafluoroethane	3.07	85	6645	0.039	ppbv #	16
9) Propene	3.03	41	55844	1.290	ppbv	92
10) Heptane	8.23	43	6696	0.061	ppbv #	26
13) Ethanol	3.64	45	13112	0.931	ppbv #	37
15) Acetone	3.89	43	1125845	7.857	ppbv	96
16) 1,3-Butadiene	3.34	39	75340	1.381	ppbv #	20
17) tert-Butyl alcohol	4.36	59	35214	0.314	ppbv	100
19) Isopropyl Alcohol	4.02	45	9866	0.121	ppbv #	94
20) Methylene Chloride	4.40	84	4952	0.089	ppbv #	86
25) Ethyl Acetate	5.76	43	9348	0.043	ppbv #	86
26) Hexane	5.76	57	13596	0.137	ppbv #	38
27) Carbon Disulfide	4.61	76	19115	0.138	ppbv #	44
34) 2-Butanone	5.32	43	209348	1.476	ppbv	98
36) Benzene	6.99	78	9327	0.049	ppbv #	88
39) 1,2-Dichloropropane	7.27	63	597439	8.059	ppbv #	25
44) 2,2,4-Trimethylpentane	7.98	57	10731	0.031	ppbv #	1
51) 2-Hexanone	10.27	43	38255	0.232	ppbv #	94
52) Tetrachloroethene	11.35	164	9697	0.143	ppbv	90
53) Toluene	9.93	91	43641	0.205	ppbv	100
60) o-Xylene	13.83	91	11644	0.043	ppbv #	64
74) 1,2,4-Trimethylbenzene	16.91	105	32266	0.091	ppbv #	75

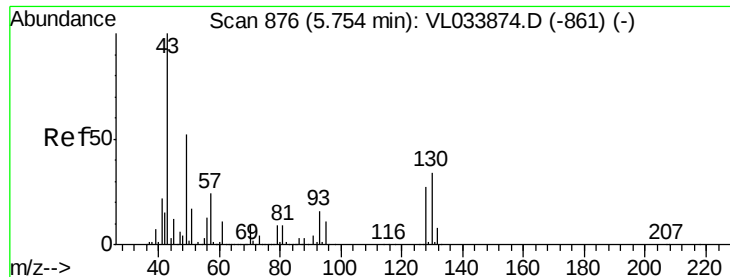
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 874

Delta R.T. -0.01 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

V1DL

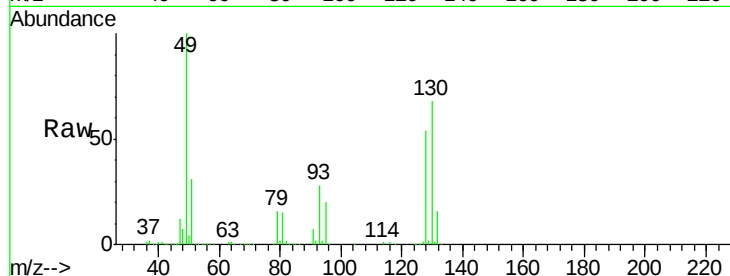
Tgt Ion: 49 Resp: 982507

Ion Ratio Lower Upper

49 100

128 53.6 25.5 76.5

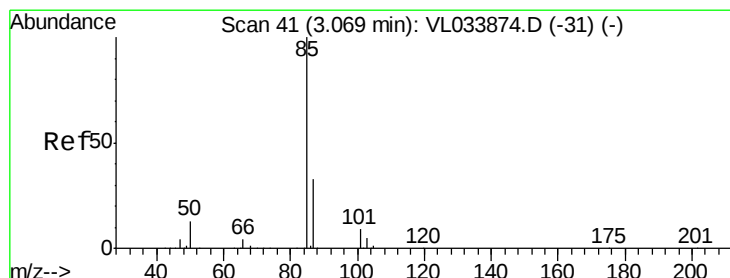
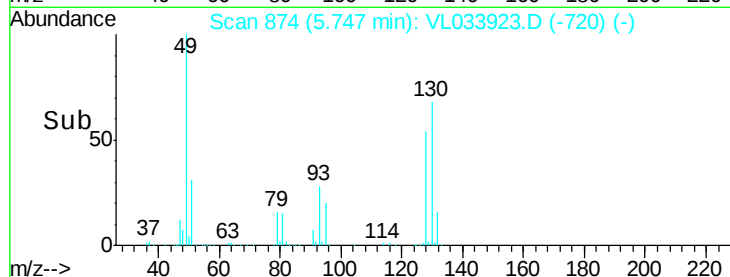
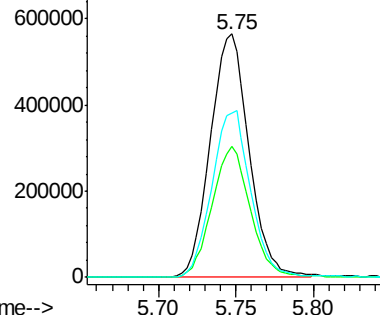
130 69.6 32.5 97.4



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: 0.042 ppbv

RT: 3.07 min Scan# 40

Delta R.T. -0.00 min

Lab File: VL033923.D

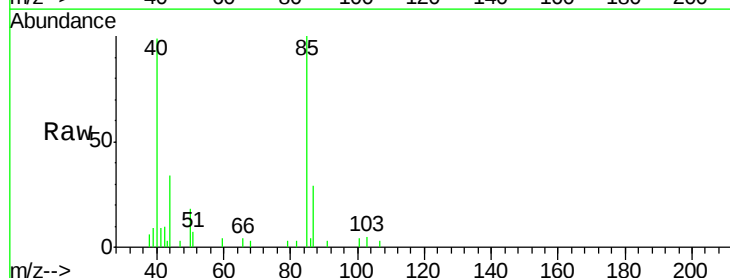
Acq: 14 Jun 2019 8:04

Tgt Ion: 85 Resp: 6645

Ion Ratio Lower Upper

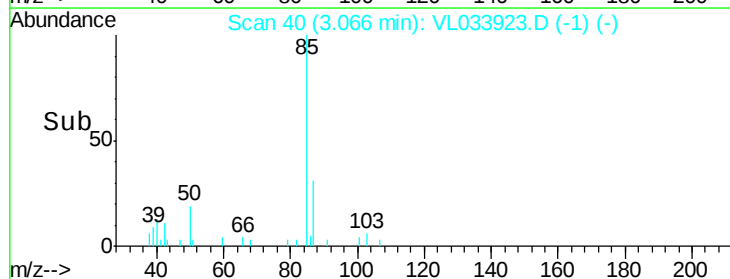
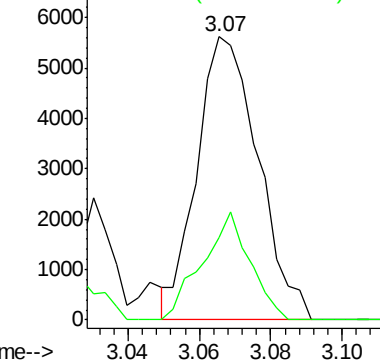
85 100

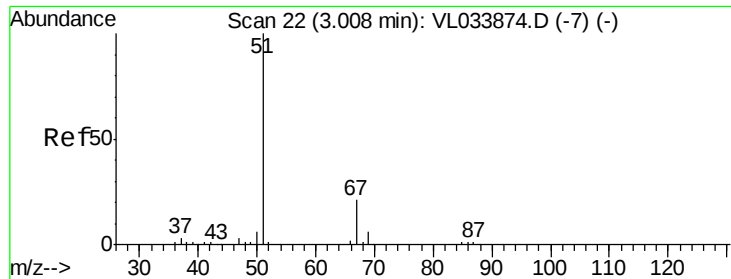
87 29.1 26.6 40.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.085 ppbv

RT: 2.98 min Scan# 13

Delta R.T. -0.03 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

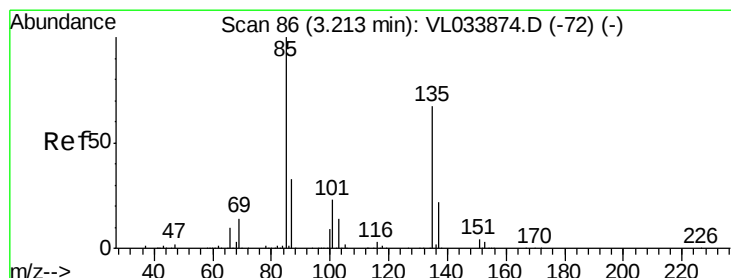
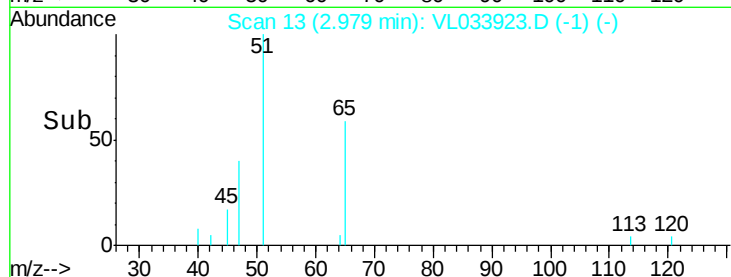
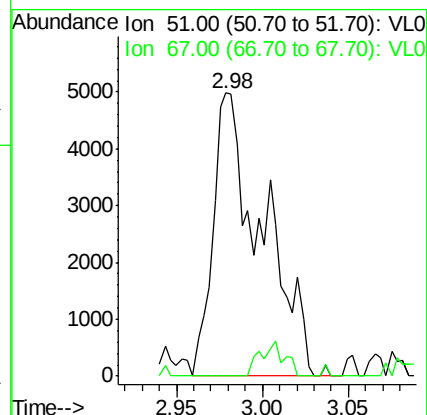
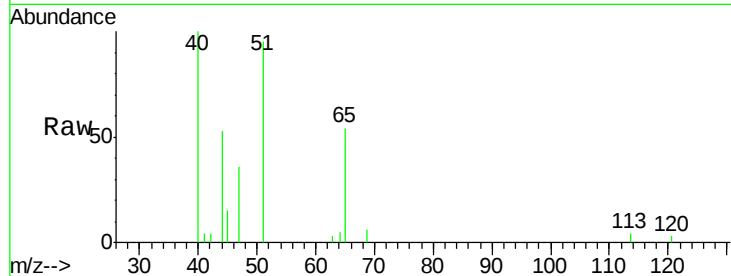
V1DL

Tgt Ion: 51 Resp: 9887

Ion Ratio Lower Upper

51 100

67 6.4 16.4 24.6#



#8

Dichlorotetrafluoroethane

Concen: 0.039 ppbv

RT: 3.07 min Scan# 40

Delta R.T. -0.15 min

Lab File: VL033923.D

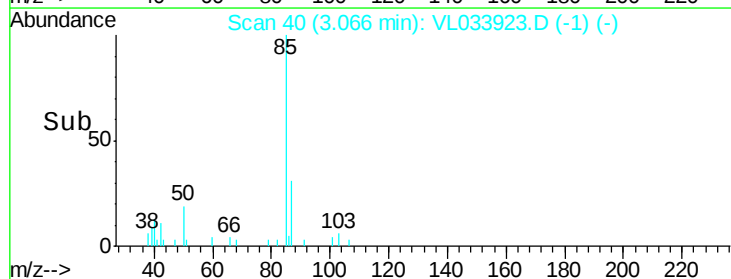
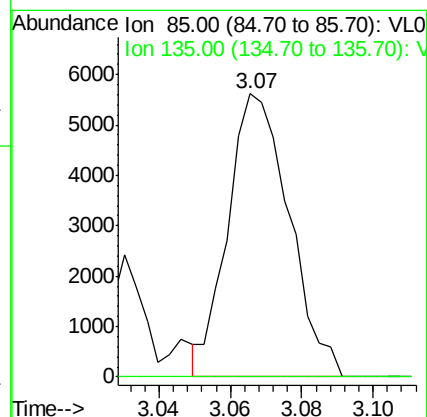
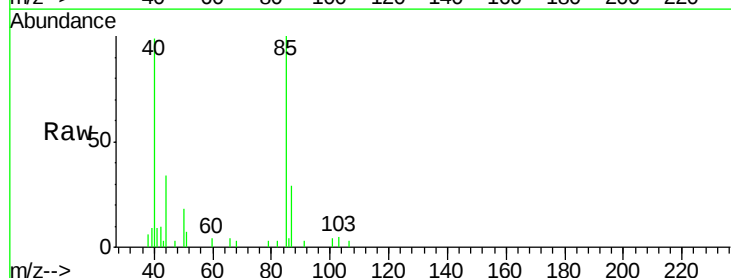
Acq: 14 Jun 2019 8:04

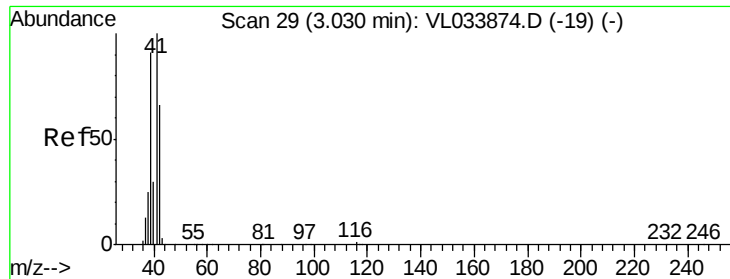
Tgt Ion: 85 Resp: 6645

Ion Ratio Lower Upper

85 100

135 0.0 53.7 80.5#





#9

Propene

Concen: 1.290 ppbv

RT: 3.03 min Scan# 29

Delta R.T. 0.00 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

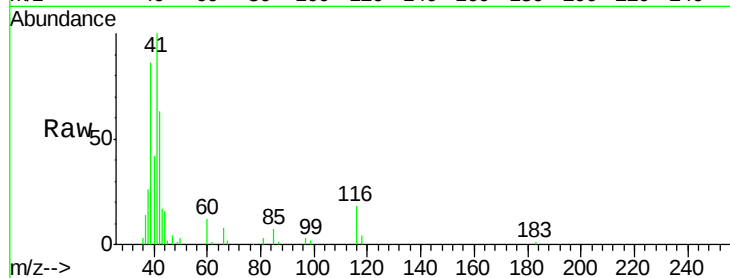
V1DL

Tgt Ion: 41 Resp: 55844

Ion Ratio Lower Upper

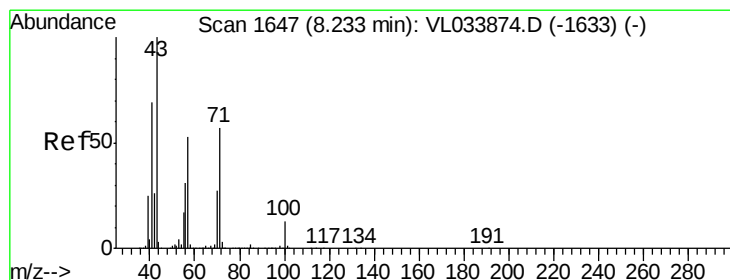
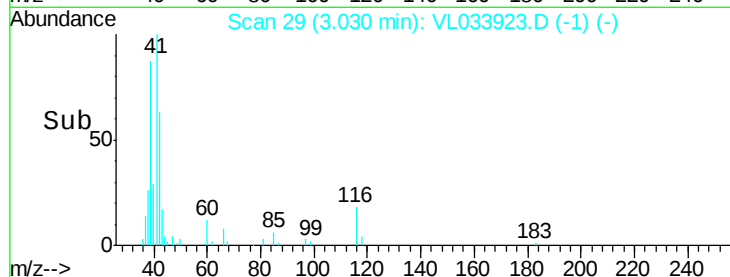
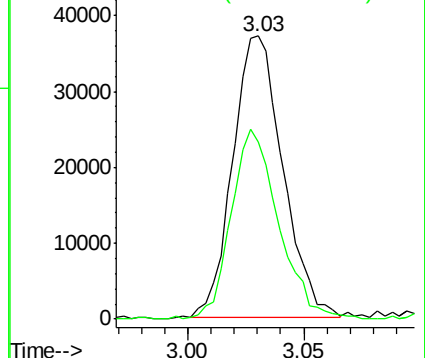
41 100

42 64.0 56.3 84.5



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.061 ppbv

RT: 8.23 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VL033923.D

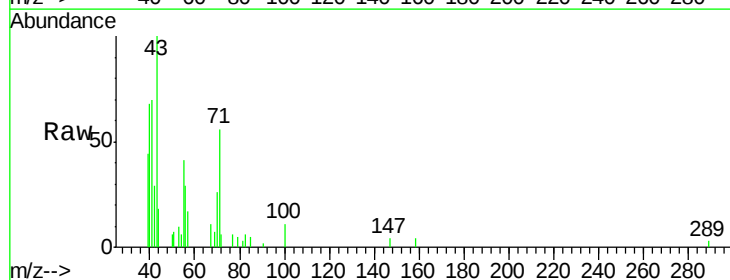
Acq: 14 Jun 2019 8:04

Tgt Ion: 43 Resp: 6696

Ion Ratio Lower Upper

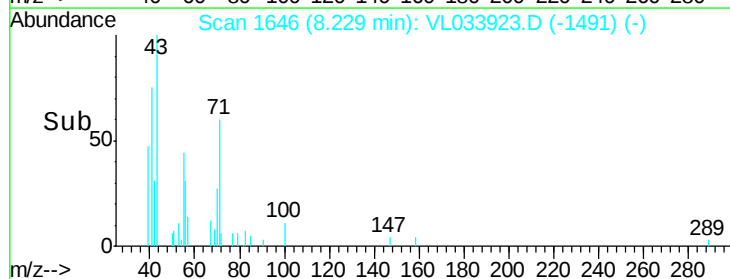
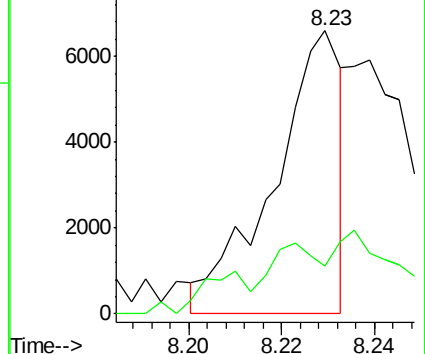
43 100

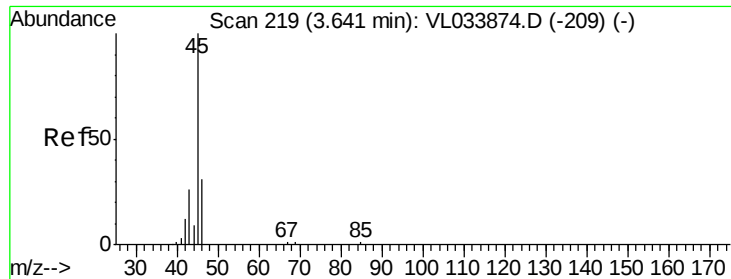
57 0.0 41.7 62.5#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#13

Ethanol

Concen: 0.931 ppbv

RT: 3.64 min Scan# 219

Delta R.T. 0.00 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

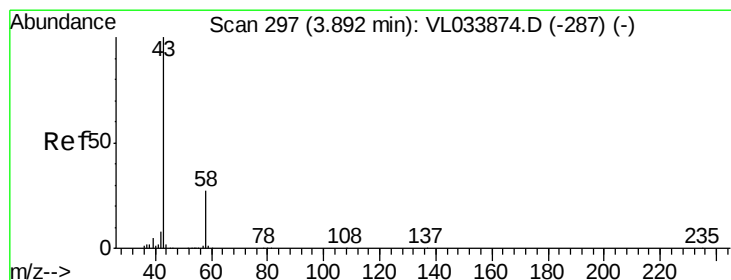
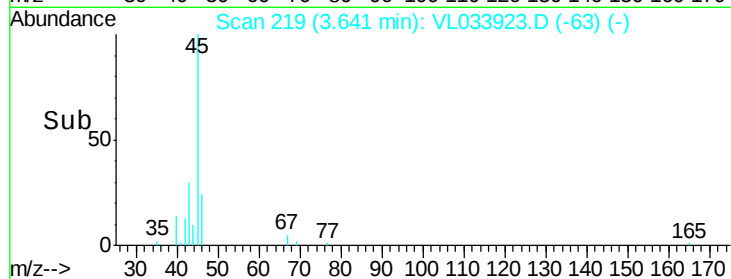
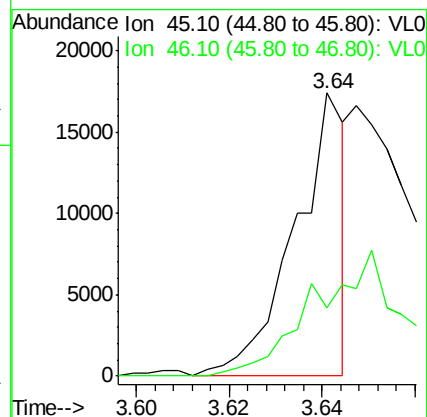
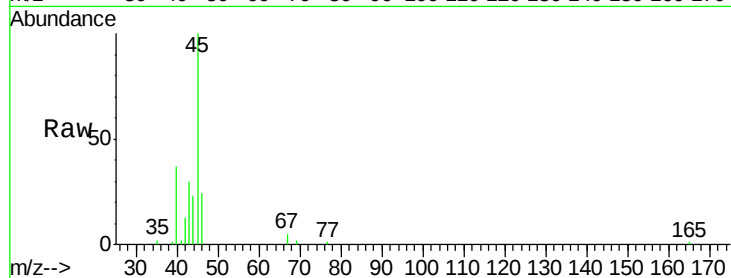
V1DL

Tgt Ion: 45 Resp: 13112

Ion Ratio Lower Upper

45 100

46 0.0 15.3 61.1#



#15

Acetone

Concen: 7.857 ppbv

RT: 3.89 min Scan# 296

Delta R.T. -0.00 min

Lab File: VL033923.D

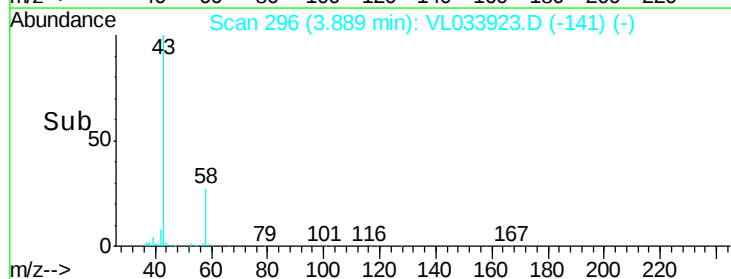
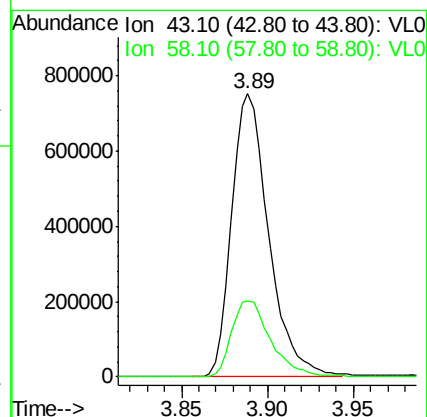
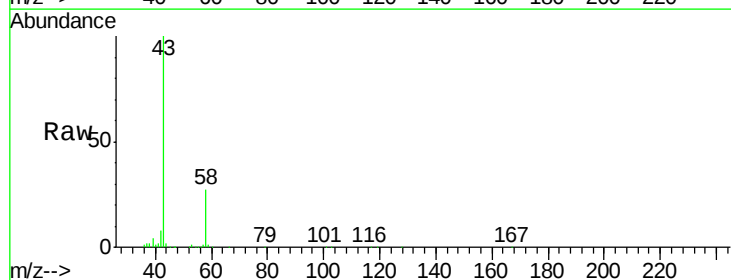
Acq: 14 Jun 2019 8:04

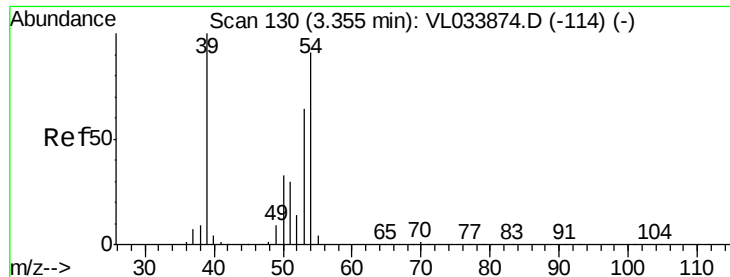
Tgt Ion: 43 Resp: 1125845

Ion Ratio Lower Upper

43 100

58 28.8 21.3 31.9





#16

1,3-Butadiene

Concen: 1.381 ppbv

RT: 3.34 min Scan# 124

Delta R.T. -0.02 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

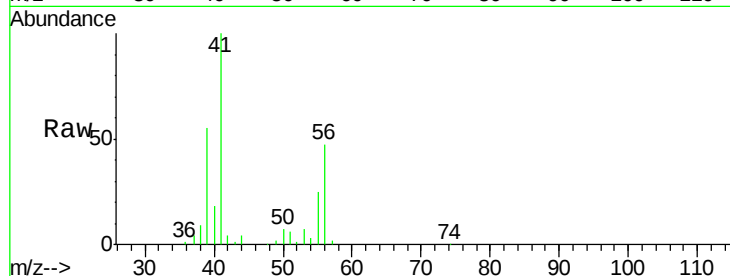
V1DL

Tgt Ion: 39 Resp: 75340

Ion Ratio Lower Upper

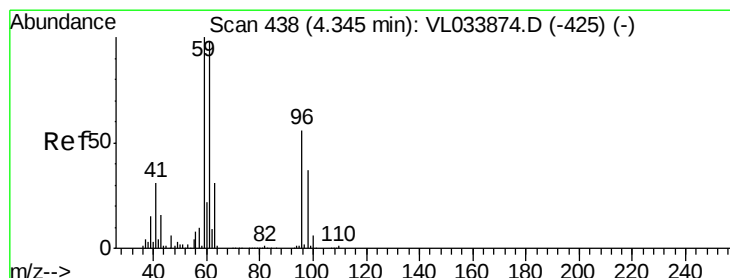
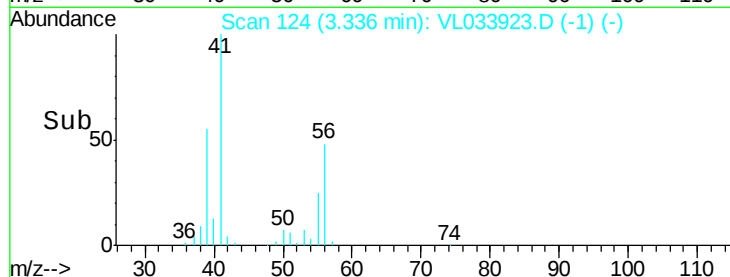
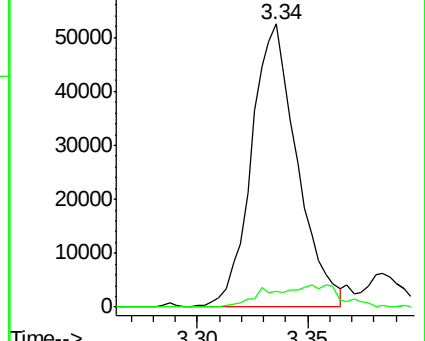
39 100

54 12.5 68.6 103.0#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0



#17

tert-Butyl alcohol

Concen: 0.314 ppbv

RT: 4.36 min Scan# 443

Delta R.T. 0.02 min

Lab File: VL033923.D

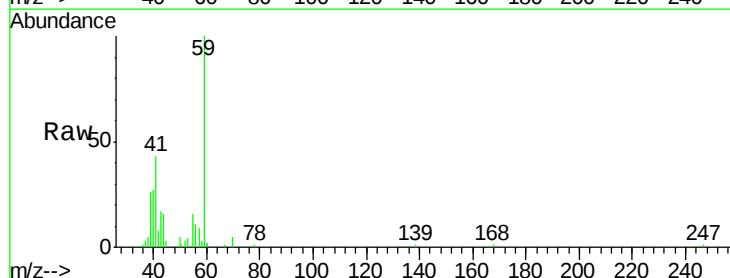
Acq: 14 Jun 2019 8:04

Tgt Ion: 59 Resp: 35214

Ion Ratio Lower Upper

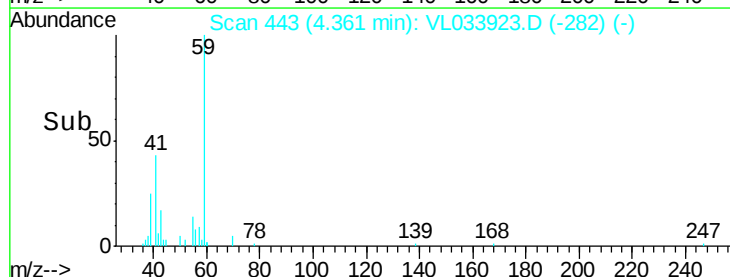
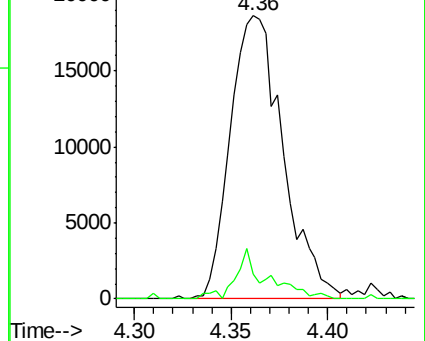
59 100

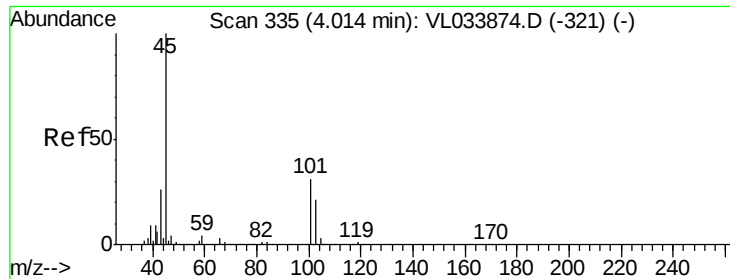
57 10.6 8.4 12.6



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#19

Isopropyl Alcohol

Concen: 0.121 ppbv

RT: 4.02 min Scan# 337

Delta R.T. 0.01 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

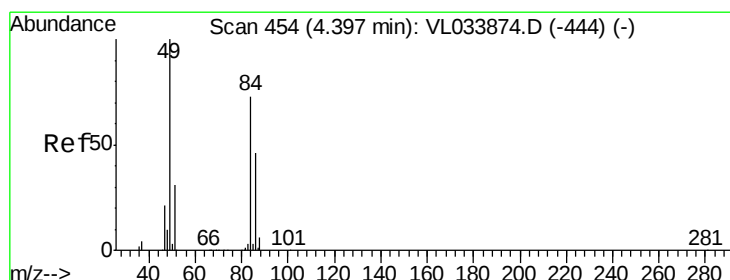
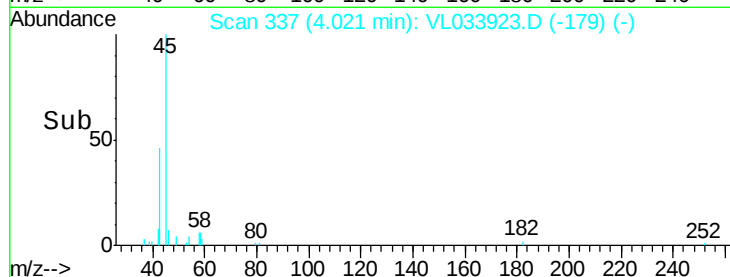
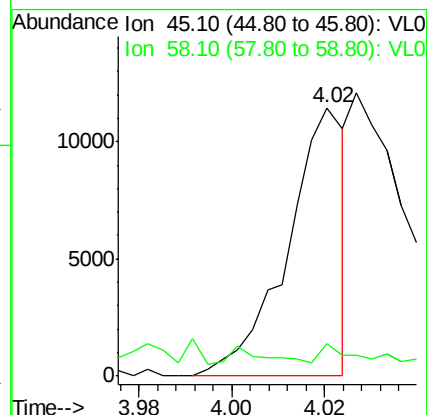
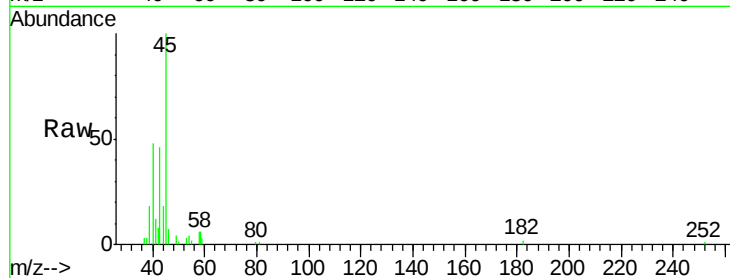
V1DL

Tgt Ion: 45 Resp: 9866

Ion Ratio Lower Upper

45 100

58 0.0 1.8 2.6#



#20

Methylene Chloride

Concen: 0.089 ppbv

RT: 4.40 min Scan# 454

Delta R.T. 0.00 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Tgt Ion: 84 Resp: 4952

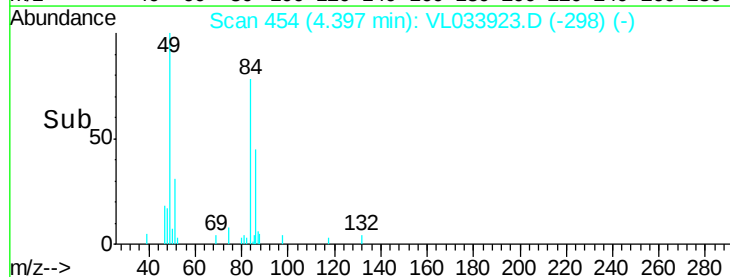
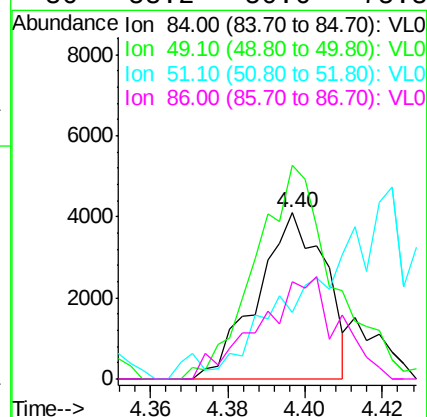
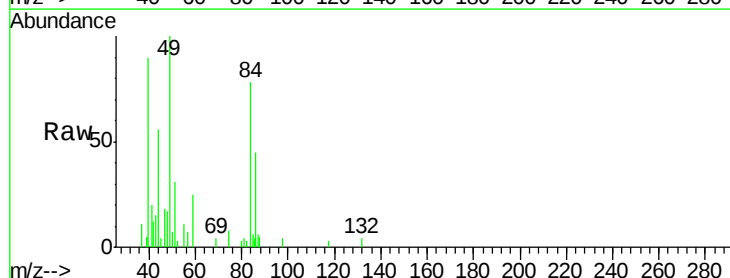
Ion Ratio Lower Upper

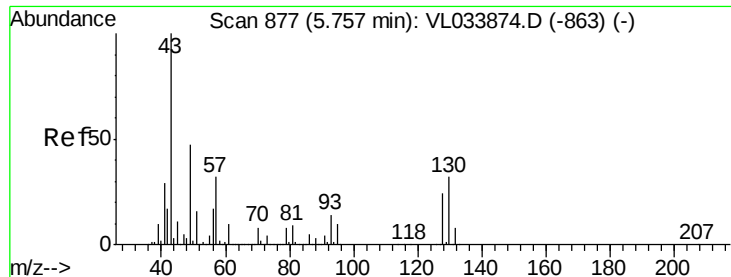
84 100

49 121.6 110.0 165.0

51 24.6 34.6 51.8#

86 58.2 50.6 75.8

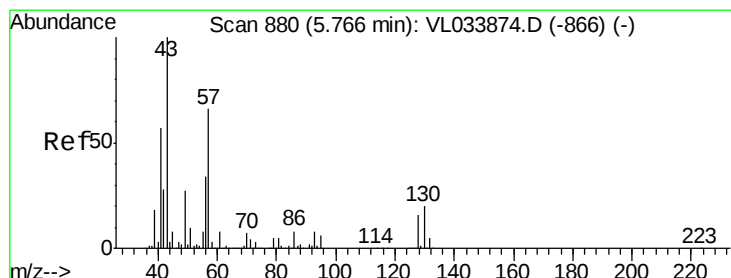
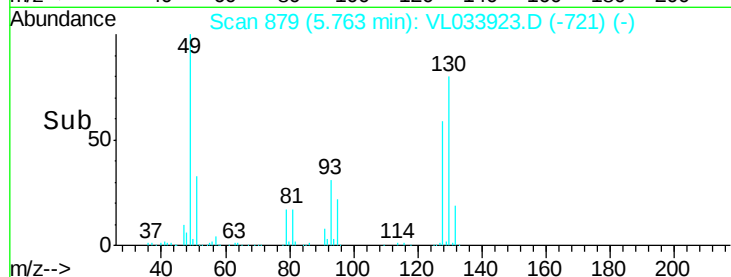
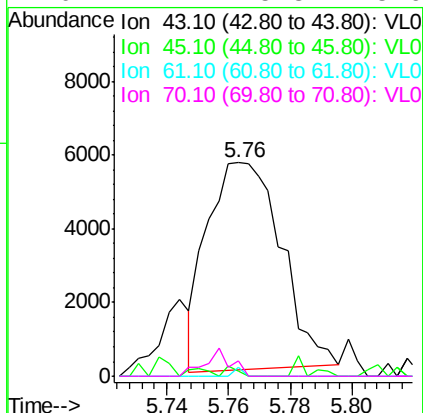
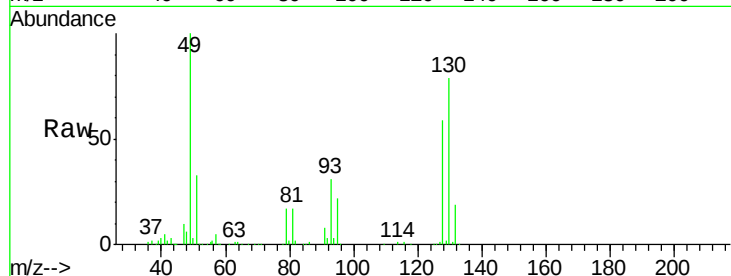




#25
Ethyl Acetate
Concen: 0.043 ppbv
RT: 5.76 min Scan# 879
Delta R.T. 0.01 min
Lab File: VL033923.D
Acq: 14 Jun 2019 8:04

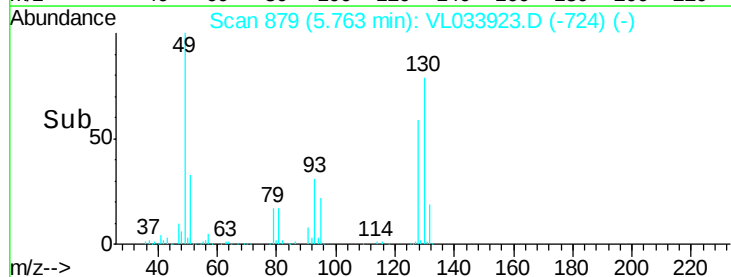
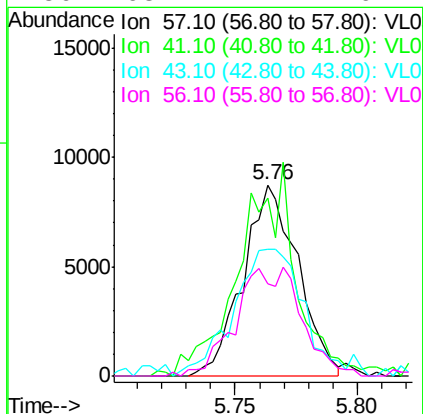
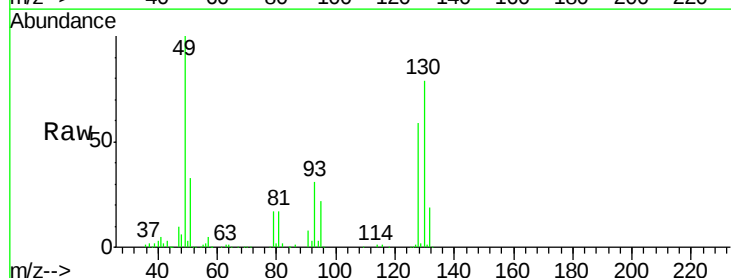
Instrument :
MSVOA_L
ClientSampleId :
V1DL

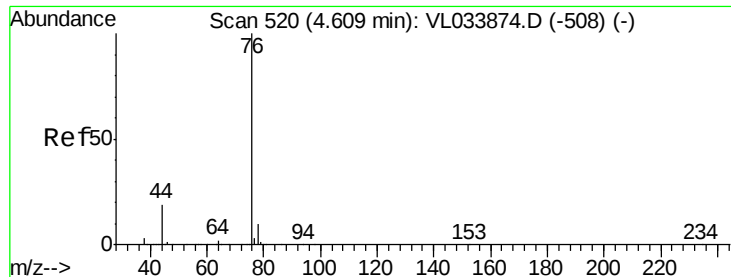
Tgt Ion:	43	Resp:	9348
Ion	Ratio	Lower	Upper
43	100		
45	6.5	7.9	11.9#
61	0.5	7.8	11.6#
70	4.7	5.8	8.6#



#26
Hexane
Concen: 0.137 ppbv
RT: 5.76 min Scan# 879
Delta R.T. -0.00 min
Lab File: VL033923.D
Acq: 14 Jun 2019 8:04

Tgt Ion:	57	Resp:	13596
Ion	Ratio	Lower	Upper
57	100		
41	114.9	71.4	107.2#
43	88.0	183.7	275.5#
56	68.4	42.7	64.1#





#27

Carbon Disulfide

Concen: 0.138 ppbv

RT: 4.61 min Scan# 521

Delta R.T. 0.00 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

V1DL

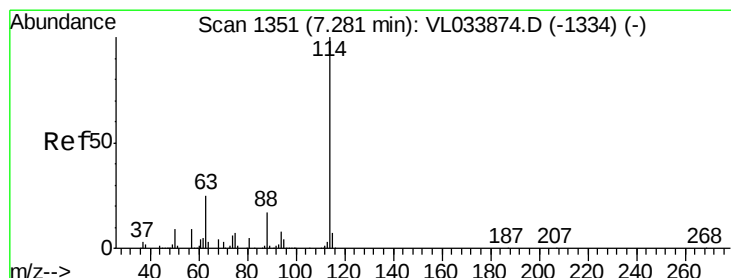
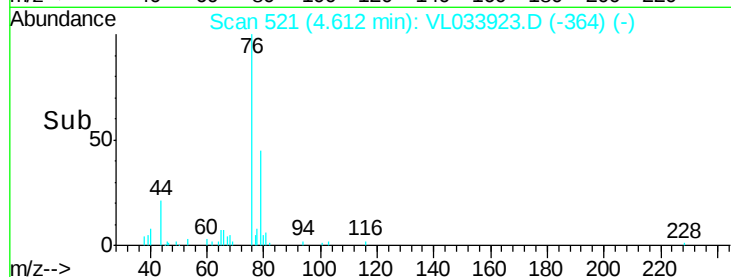
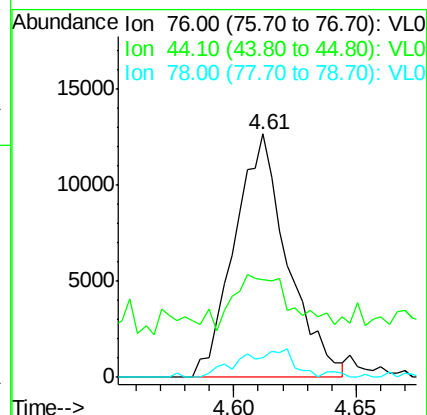
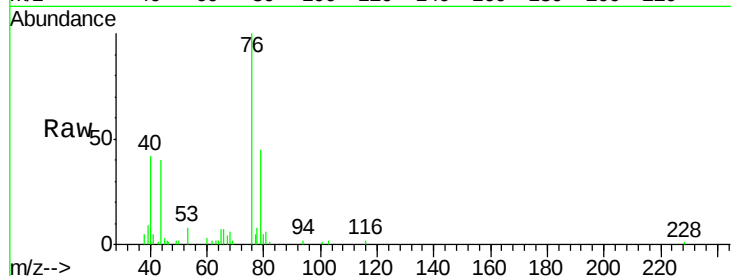
Tgt Ion: 76 Resp: 19115

Ion Ratio Lower Upper

76 100

44 54.5 14.4 21.6#

78 11.7 7.5 11.3#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.27 min Scan# 1349

Delta R.T. -0.01 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

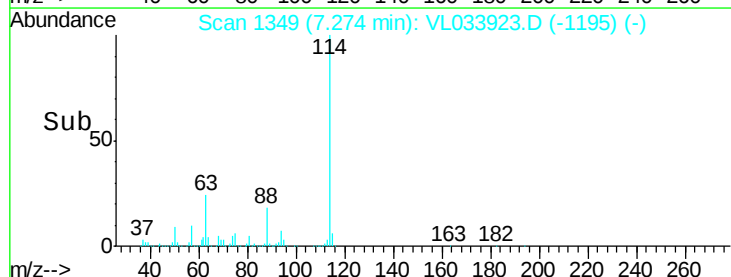
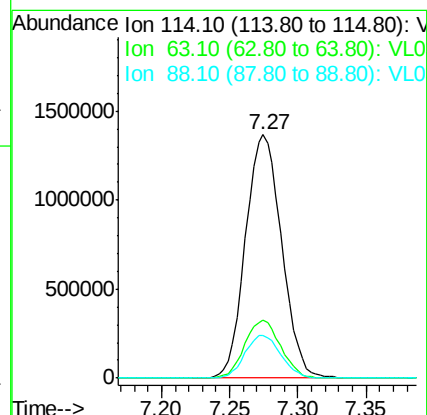
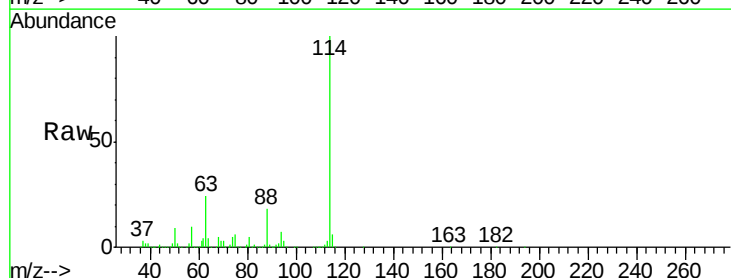
Tgt Ion: 114 Resp: 2514479

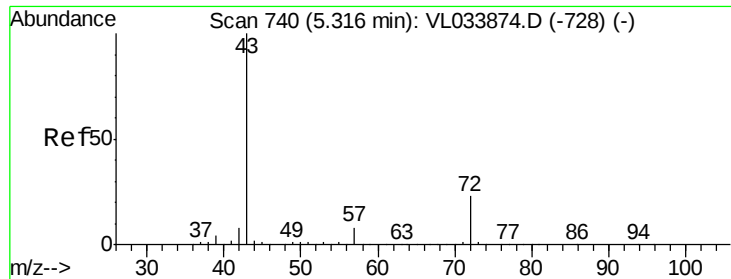
Ion Ratio Lower Upper

114 100

63 23.9 21.1 31.7

88 17.4 14.2 21.4

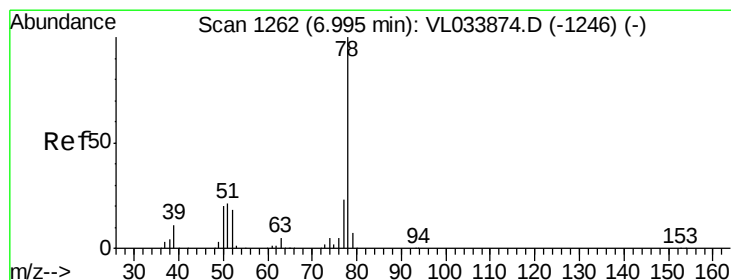
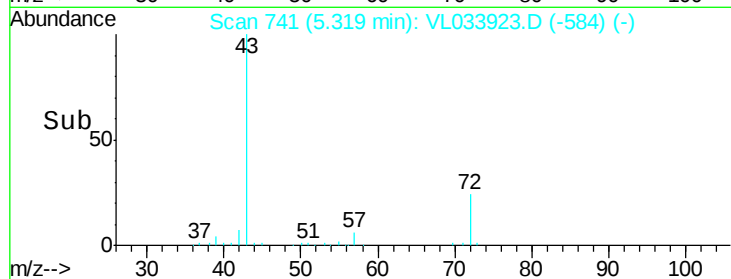
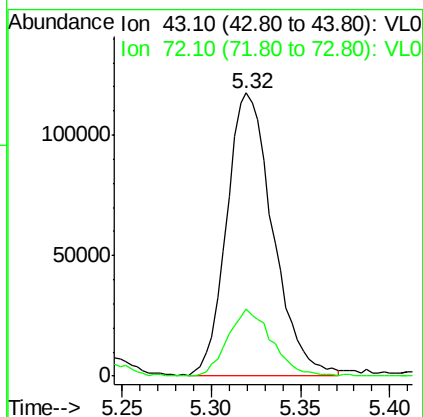
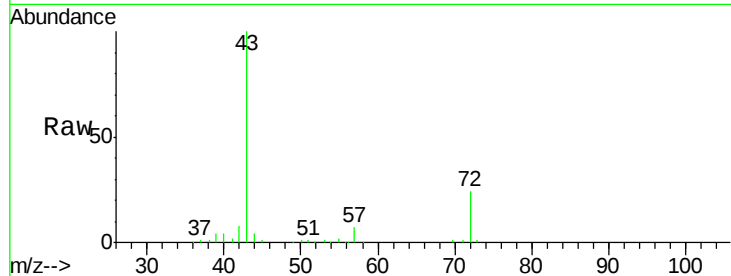




#34
 2-Butanone
 Concen: 1.476 ppbv
 RT: 5.32 min Scan# 741
 Delta R.T. 0.00 min
 Lab File: VL033923.D
 Acq: 14 Jun 2019 8:04

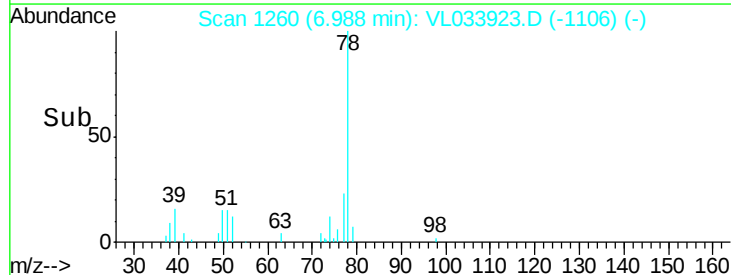
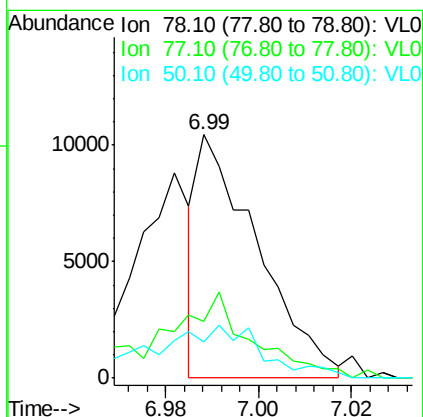
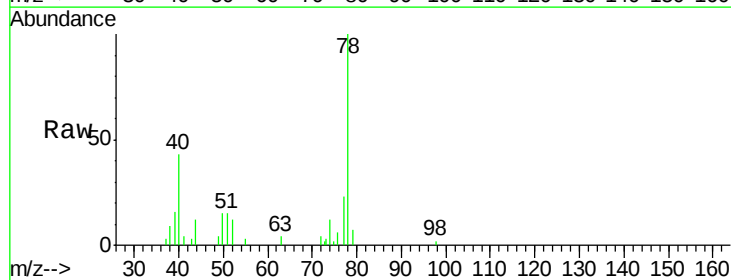
Instrument :
 MSVOA_L
 ClientSampleId :
 V1DL

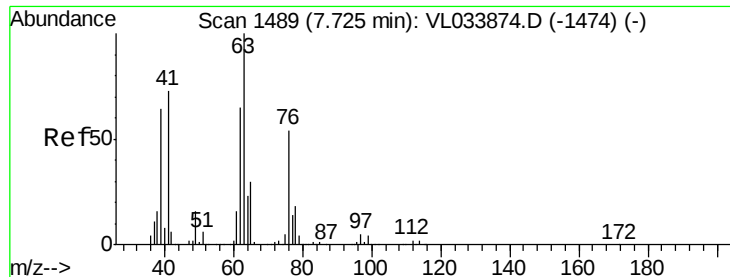
Tgt Ion: 43 Resp: 209348
 Ion Ratio Lower Upper
 43 100
 72 23.2 17.9 26.9



#36
 Benzene
 Concen: 0.049 ppbv
 RT: 6.99 min Scan# 1260
 Delta R.T. -0.01 min
 Lab File: VL033923.D
 Acq: 14 Jun 2019 8:04

Tgt Ion: 78 Resp: 9327
 Ion Ratio Lower Upper
 78 100
 77 20.1 18.2 27.2
 50 10.8 15.9 23.9#





#39

1,2-Dichloropropane

Concen: 8.059 ppbv

RT: 7.27 min Scan# 1349

Delta R.T. -0.45 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

V1DL

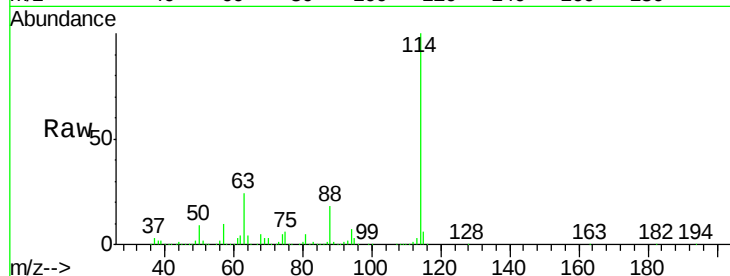
Tgt Ion: 63 Resp: 597439

Ion Ratio Lower Upper

63 100

41 0.0 58.7 88.1#

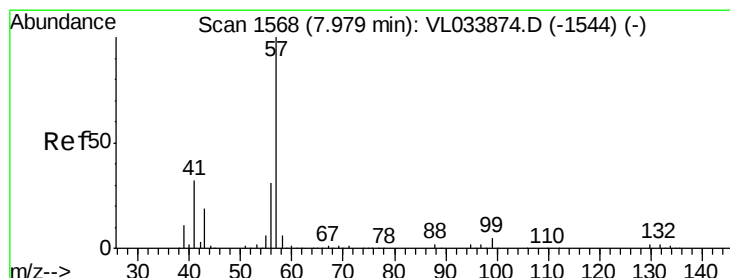
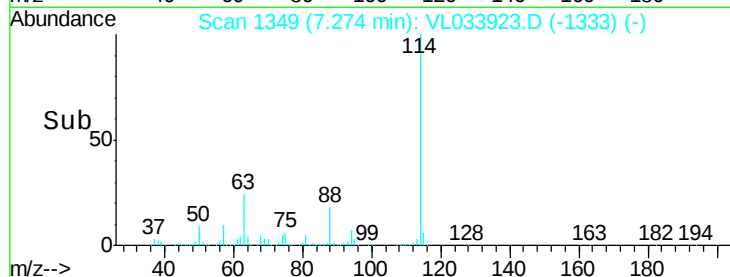
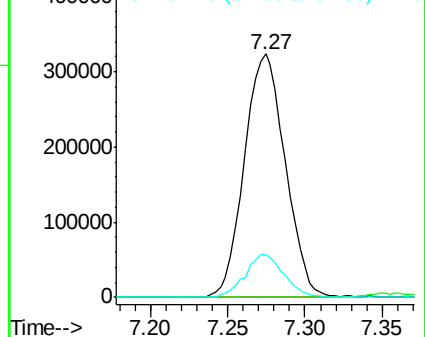
62 17.5 51.9 77.9#



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: 0.031 ppbv

RT: 7.98 min Scan# 1567

Delta R.T. -0.00 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

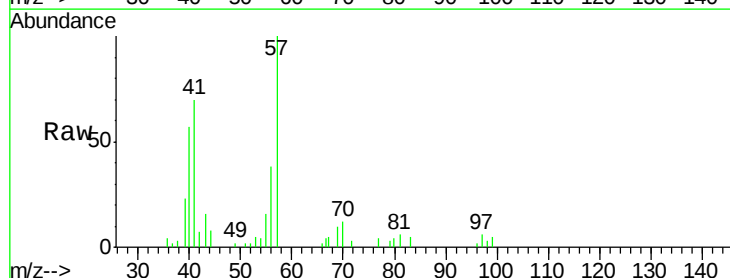
Tgt Ion: 57 Resp: 10731

Ion Ratio Lower Upper

57 100

41 104.1 26.1 39.1#

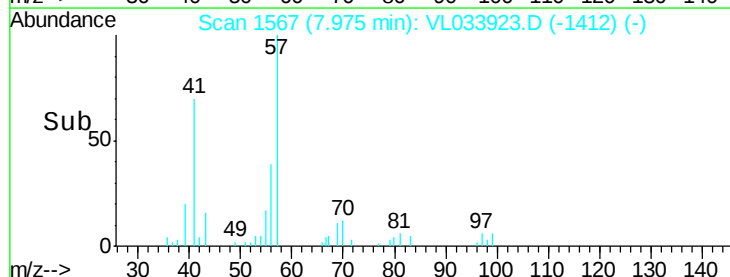
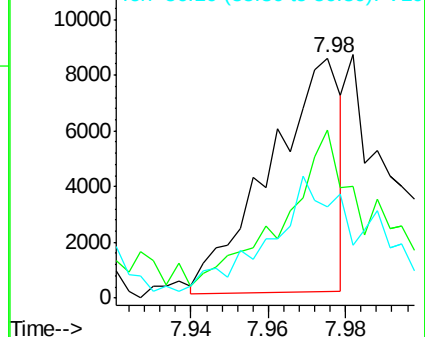
56 83.6 24.6 36.8#

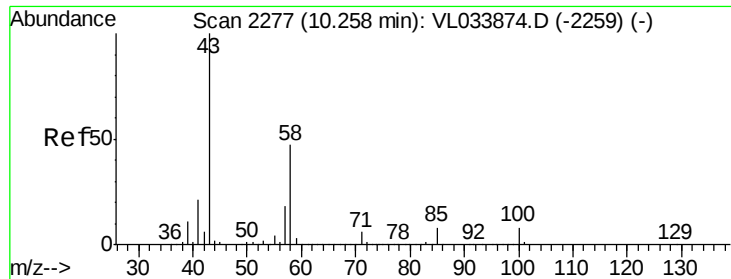


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

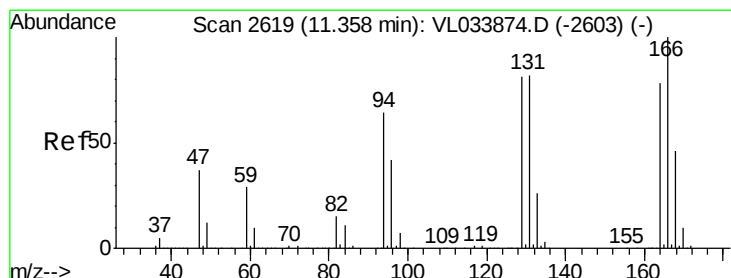
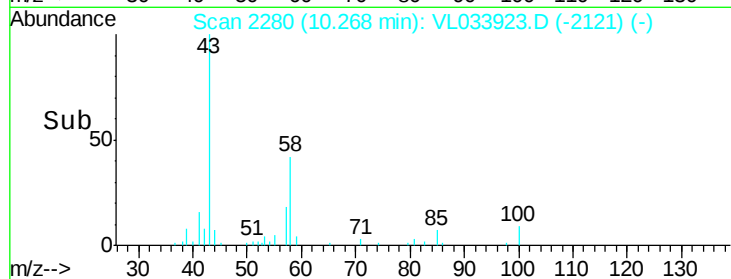
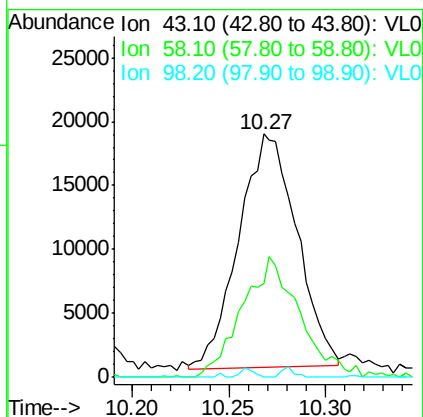
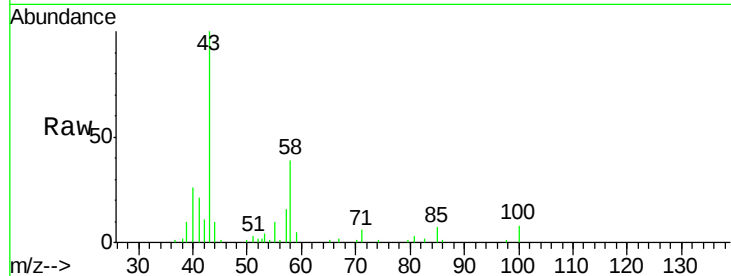




#51
2-Hexanone
Concen: 0.232 ppbv
RT: 10.27 min Scan# 2280
Delta R.T. 0.01 min
Lab File: VL033923.D
Acq: 14 Jun 2019 8:04

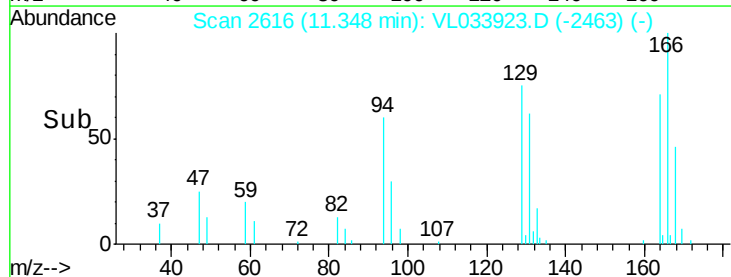
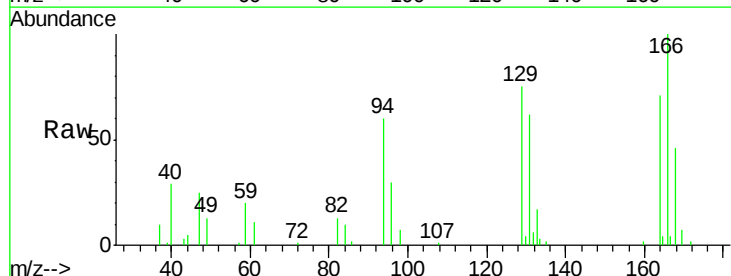
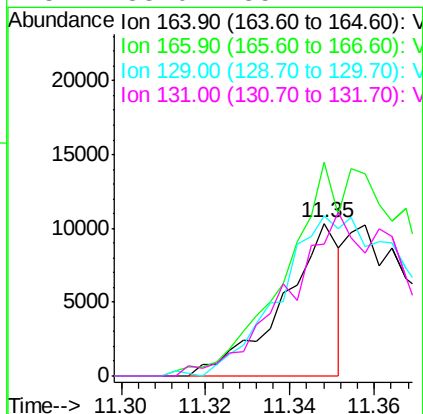
Instrument :
MSVOA_L
ClientSampled :
V1DL

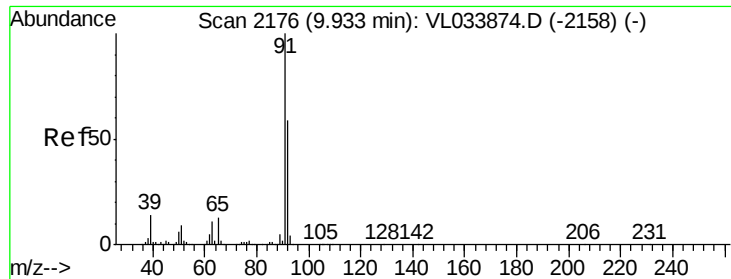
Tgt Ion: 43 Resp: 38255
Ion Ratio Lower Upper
43 100
58 52.1 38.2 57.4
98 1.9 0.2 0.2#



#52
Tetrachloroethene
Concen: 0.143 ppbv
RT: 11.35 min Scan# 2616
Delta R.T. -0.01 min
Lab File: VL033923.D
Acq: 14 Jun 2019 8:04

Tgt Ion: 164 Resp: 9697
Ion Ratio Lower Upper
164 100
166 140.3 103.1 154.7
129 103.1 83.9 125.9
131 88.0 85.1 127.7





#53

Toluene

Concen: 0.205 ppbv

RT: 9.93 min Scan# 2175

Delta R.T. -0.00 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

Instrument :

MSVOA_L

ClientSampleId :

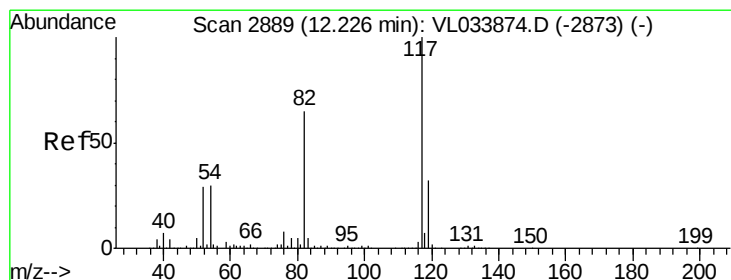
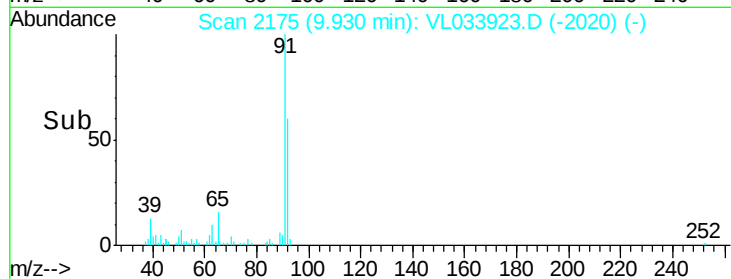
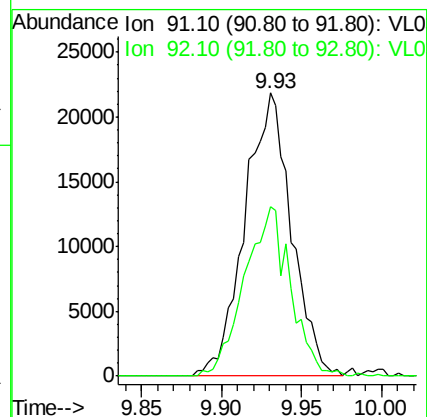
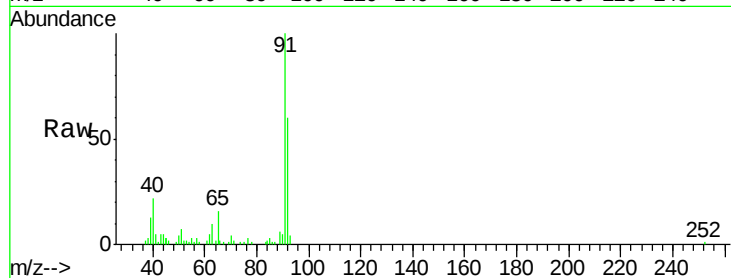
V1DL

Tgt Ion: 91 Resp: 43641

Ion Ratio Lower Upper

91 100

92 59.0 47.0 70.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.22 min Scan# 2887

Delta R.T. -0.01 min

Lab File: VL033923.D

Acq: 14 Jun 2019 8:04

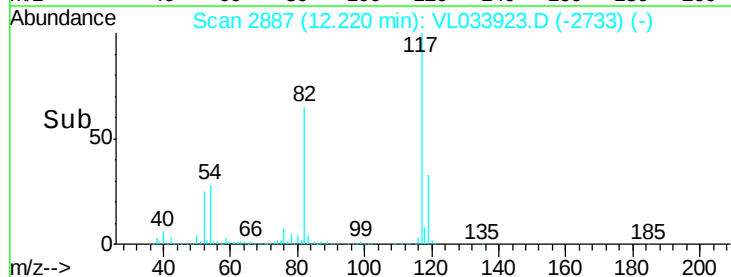
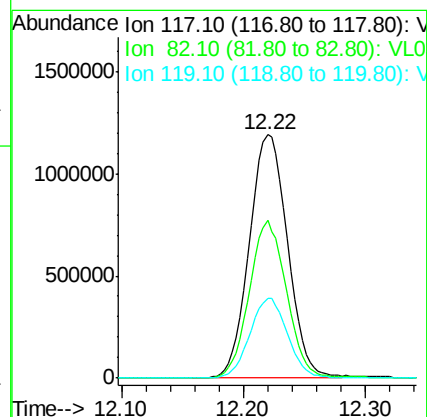
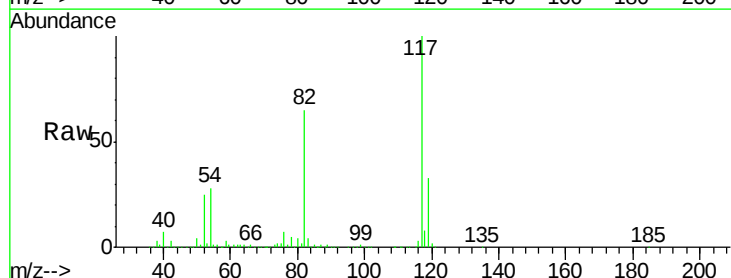
Tgt Ion: 117 Resp: 2579822

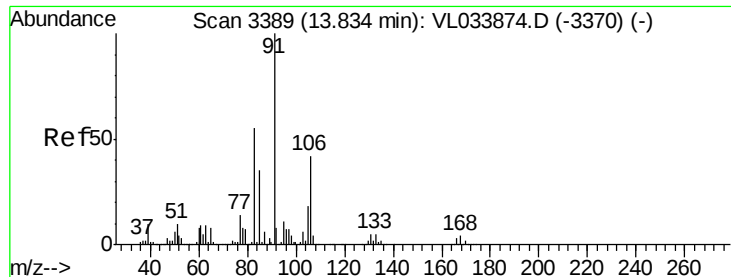
Ion Ratio Lower Upper

117 100

82 63.5 50.2 75.2

119 32.5 24.8 37.2

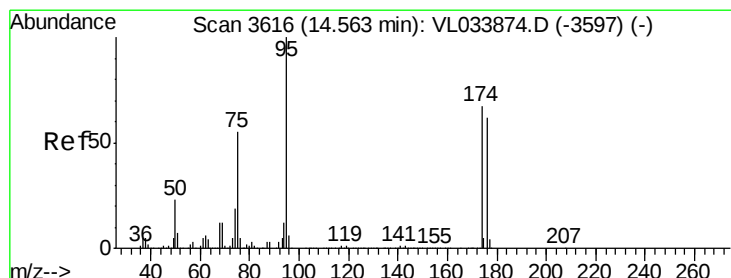
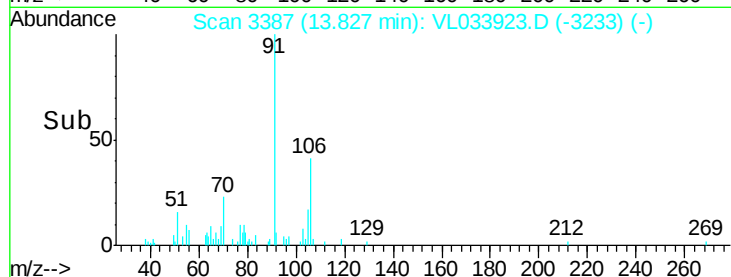
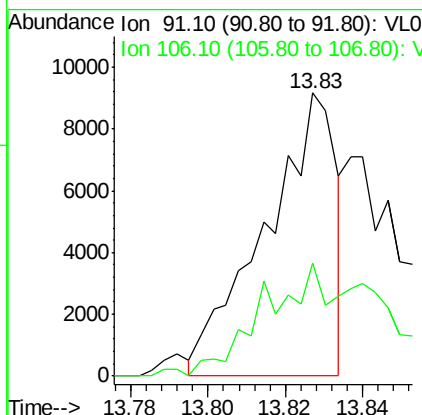
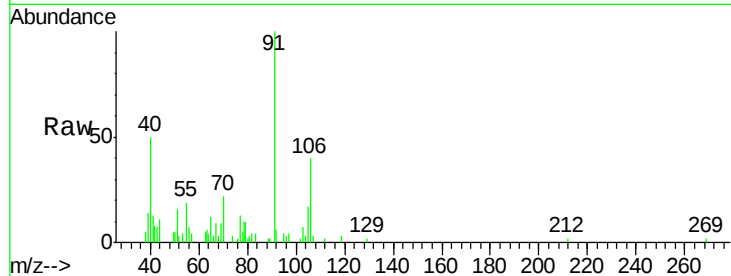




#60
o-Xylene
Concen: 0.043 ppbv
RT: 13.83 min Scan# 3387
Delta R.T. -0.01 min
Lab File: VL033923.D
Acq: 14 Jun 2019 8:04

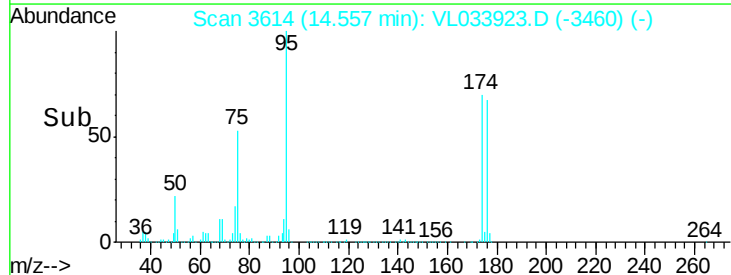
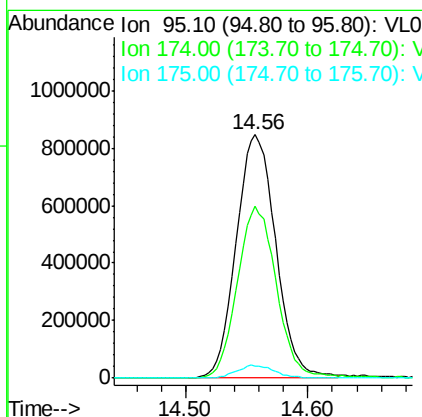
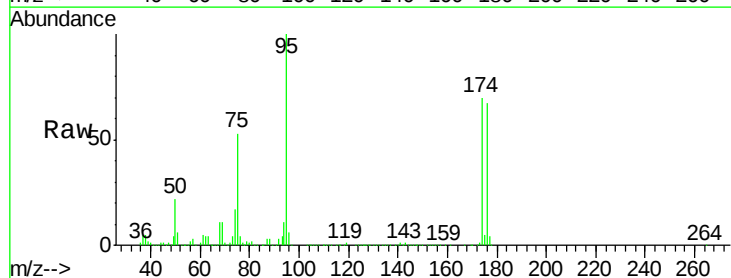
Instrument :
MSVOA_L
ClientSampled :
V1DL

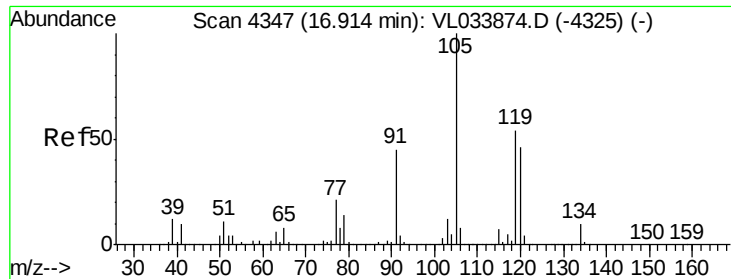
Tgt Ion: 91 Resp: 11644
Ion Ratio Lower Upper
91 100
106 66.4 21.7 65.1#



#68
1-Bromo-4-Fluorobenzene
Concen: 8.945 ppbv
RT: 14.56 min Scan# 3614
Delta R.T. -0.01 min
Lab File: VL033923.D
Acq: 14 Jun 2019 8:04

Tgt Ion: 95 Resp: 1895428
Ion Ratio Lower Upper
95 100
174 70.6 54.0 81.0
175 5.2 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.091 ppbv
 RT: 16.91 min Scan# 4345
 Delta R.T. -0.01 min
 Lab File: VL033923.D
 Acq: 14 Jun 2019 8:04

Instrument :
 MSVOA_L
 ClientSampleId :
 V1DL

Tgt Ion:	105	Resp:	32266
Ion	Ratio	Lower	Upper
105	100		
120	51.7	36.7	55.1
91	12.3	35.8	53.8#
77	25.6	16.9	25.3#

