

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100719\
 Data File : VL034240.D
 Acq On : 8 Oct 2019 2:57
 Operator : SY/AP
 Sample : K5222-02DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 V-2DL

Quant Time: Oct 09 02:23:42 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 18 12:53:31 2019
 QLast Update : Wed Sep 18 12:53:31 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	1042502	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.21	114	1785012	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.15	117	1764120	10.00	ppbv	-0.02

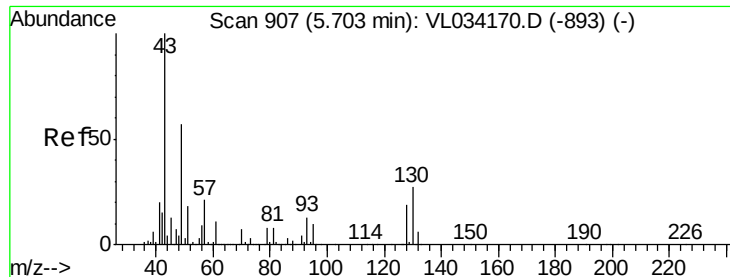
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1570415	10.24	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	12090	0.079	ppbv #	78
3) Chlorodifluoromethane	2.94	51	21795	0.178	ppbv #	74
4) Chloromethane	3.12	50	10138	0.141	ppbv #	83
9) Propene	2.99	41	82082	1.361	ppbv	95
10) Heptane	8.17	43	70066	0.446	ppbv	99
13) Ethanol	3.60	45	164035	11.233	ppbv	94
15) Acetone	3.87	43	586643	4.199	ppbv #	71
16) 1,3-Butadiene	3.31	39	9446	0.155	ppbv #	8
19) Isopropyl Alcohol	3.99	45	16651	0.194	ppbv #	1
20) Methylene Chloride	4.35	84	26607	0.660	ppbv	98
21) Allyl Chloride	4.37	41	12030	0.152	ppbv #	5
23) Vinyl Acetate	5.07	43	55794	0.271	ppbv #	1
25) Ethyl Acetate	5.71	43	100184	0.379	ppbv #	85
26) Hexane	5.71	57	110183	1.002	ppbv #	46
30) Cyclohexane	7.16	84	27679	0.349	ppbv #	91
31) cis-1,2-Dichloroethene	5.56	61	7440	0.066	ppbv #	89
34) 2-Butanone	5.26	43	5824	0.032	ppbv #	1
36) Benzene	6.93	78	117318	0.595	ppbv #	92
39) 1,2-Dichloropropane	7.21	63	581080	6.560	ppbv #	19
44) 2,2,4-Trimethylpentane	7.91	57	72244	0.190	ppbv #	39
53) Toluene	9.86	91	484133	2.247	ppbv	97
58) Ethyl Benzene	12.77	91	46202	0.162	ppbv	94
59) m/p-Xylene	13.07	91	30753	0.130	ppbv #	32
60) o-Xylene	13.76	91	30849	0.131	ppbv #	40
74) 1,2,4-Trimethylbenzene	16.83	105	29285	0.107	ppbv #	54

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

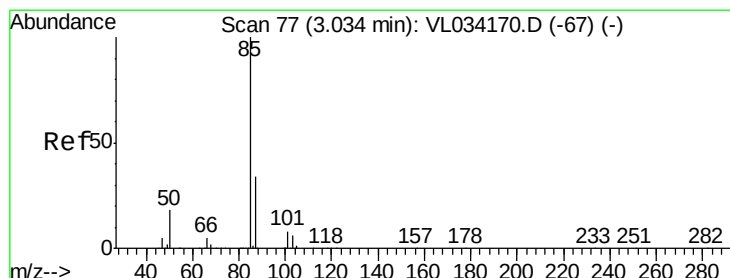
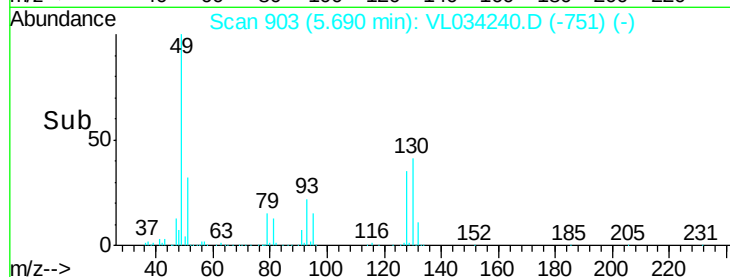
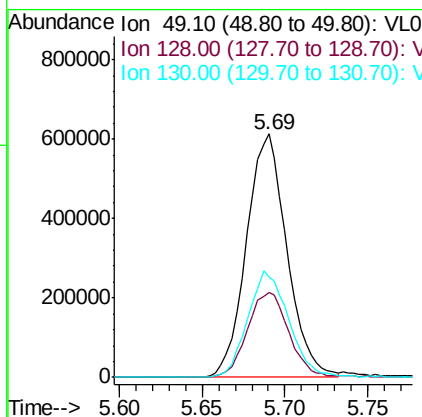
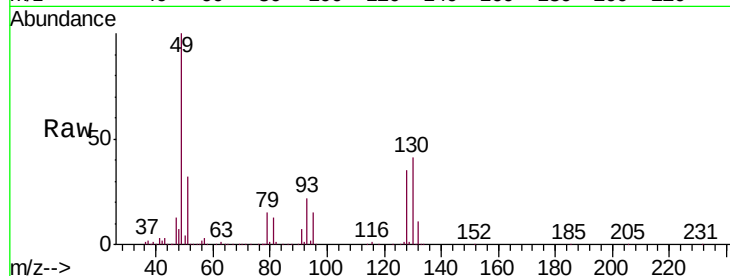
```
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL100719\
Data File : VL034240.D
Acq On    : 8 Oct 2019    2:57
Operator  : SY/AP
Sample    : K5222-02DL 10X
Misc      : 400ml/MSVOA_L
ALS Vial  : 1    Sample Multiplier: 1
```



#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.69 min Scan# 903
 Delta R.T. -0.01 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

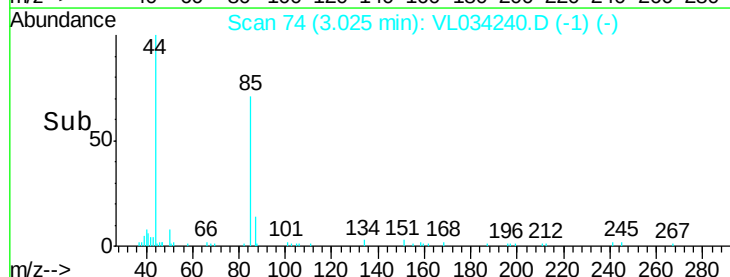
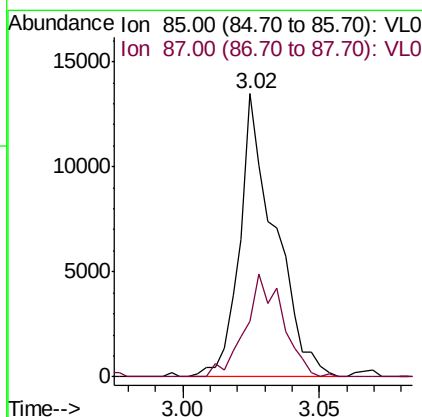
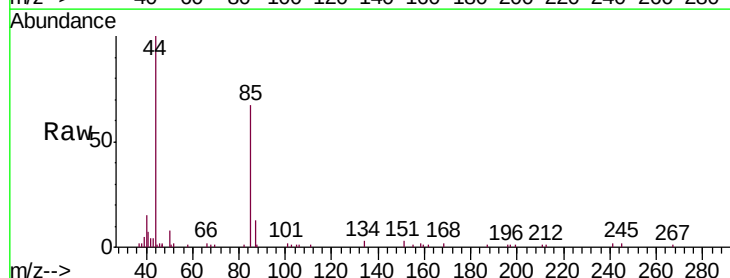
Instrument :
 MSVOA_L
 ClientSampleId :
 V-2DL

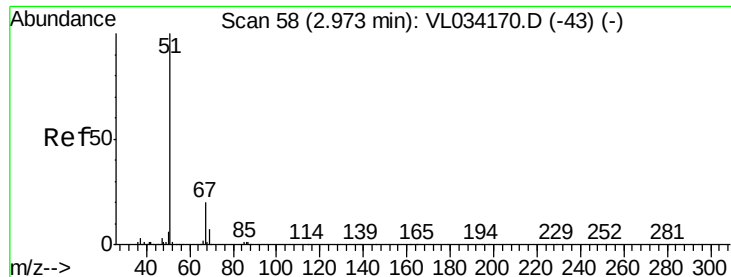
Tgt Ion: 49 Resp: 1042502
 Ion Ratio Lower Upper
 49 100
 128 36.2 17.6 52.9
 130 44.7 22.3 66.9



#2
 Dichlorodifluoromethane
 Concen: 0.079 ppbv
 RT: 3.02 min Scan# 74
 Delta R.T. -0.01 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

Tgt Ion: 85 Resp: 12090
 Ion Ratio Lower Upper
 85 100
 87 21.2 27.2 40.8#





#3

Chlorodifluoromethane

Concen: 0.178 ppbv

RT: 2.94 min Scan# 48

Delta R.T. -0.03 min

Lab File: VL034240.D

Acq: 8 Oct 2019 2:57

Instrument :

MSVOA_L

ClientSampleId :

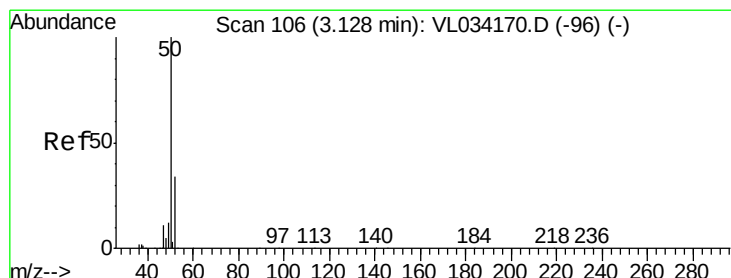
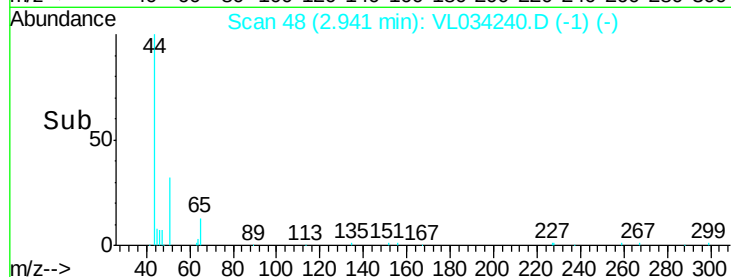
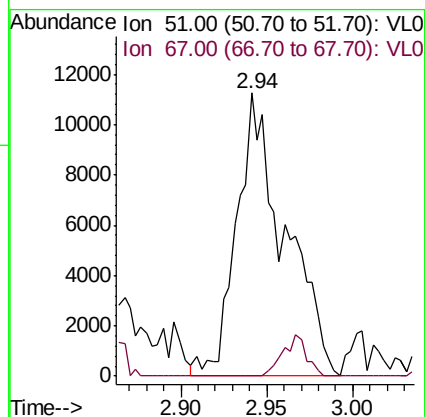
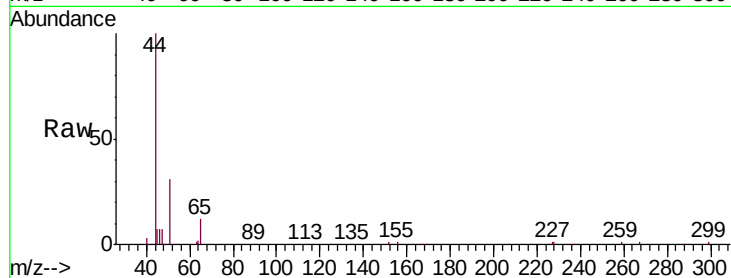
V-2DL

Tgt Ion: 51 Resp: 21795

Ion Ratio Lower Upper

51 100

67 7.0 14.8 22.2#



#4

Chloromethane

Concen: 0.141 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.00 min

Lab File: VL034240.D

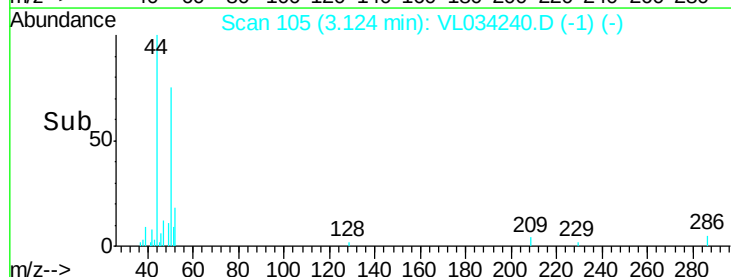
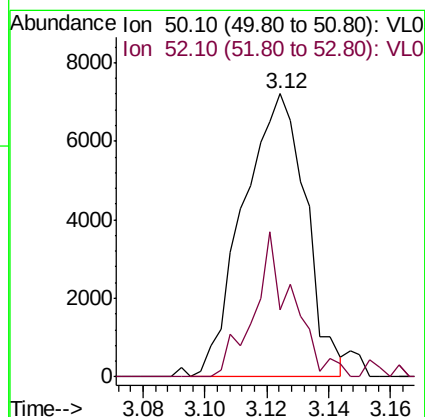
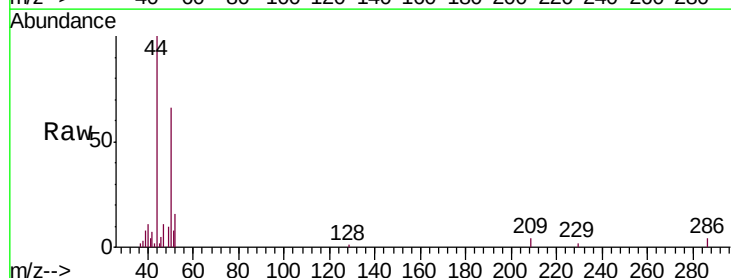
Acq: 8 Oct 2019 2:57

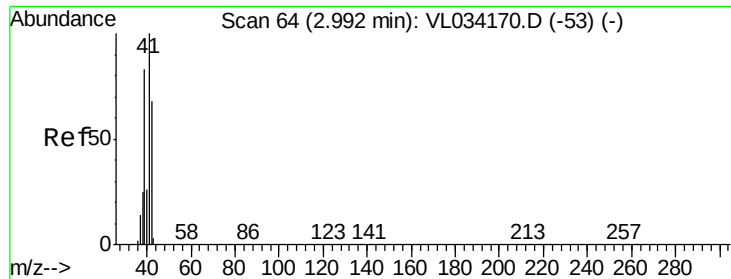
Tgt Ion: 50 Resp: 10138

Ion Ratio Lower Upper

50 100

52 23.9 27.1 40.7#





#9

Propene

Concen: 1.361 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.00 min

Lab File: VL034240.D

Acq: 8 Oct 2019 2:57

Instrument :

MSVOA_L

ClientSampleId :

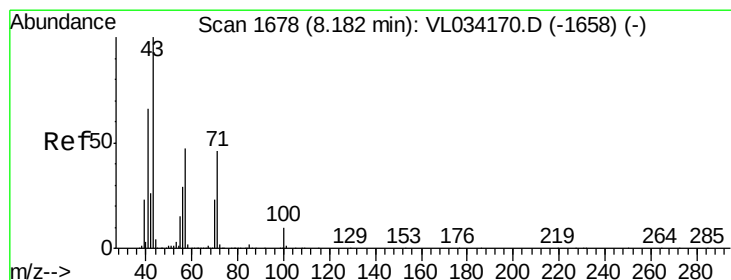
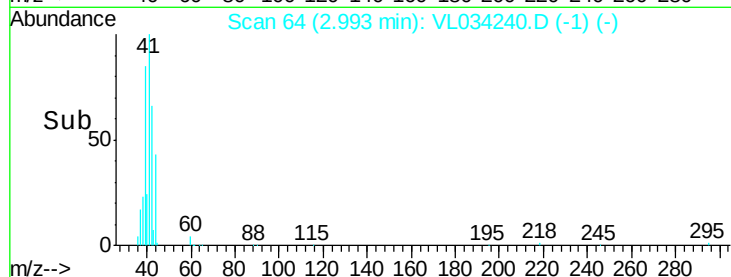
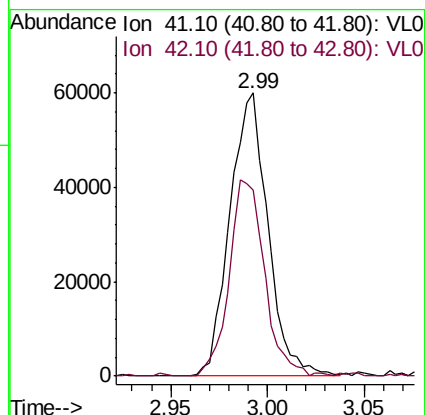
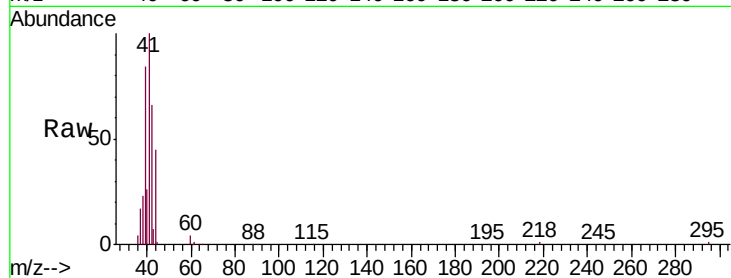
V-2DL

Tgt Ion: 41 Resp: 82082

Ion Ratio Lower Upper

41 100

42 65.4 55.8 83.6



#10

Heptane

Concen: 0.446 ppbv

RT: 8.17 min Scan# 1673

Delta R.T. -0.02 min

Lab File: VL034240.D

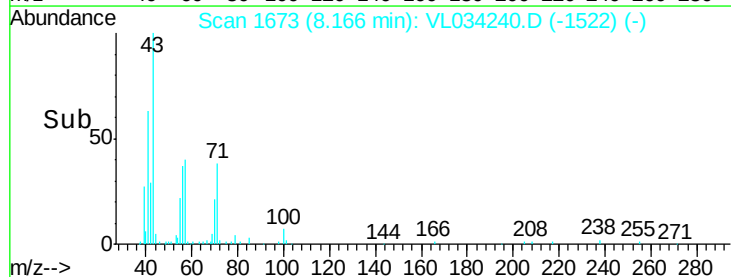
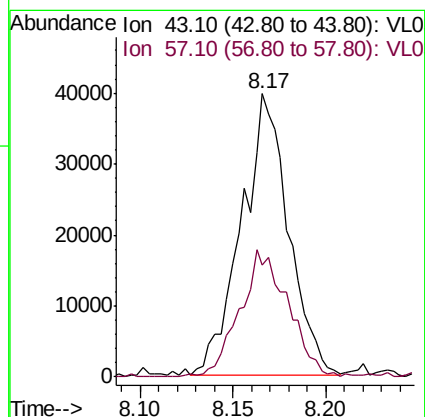
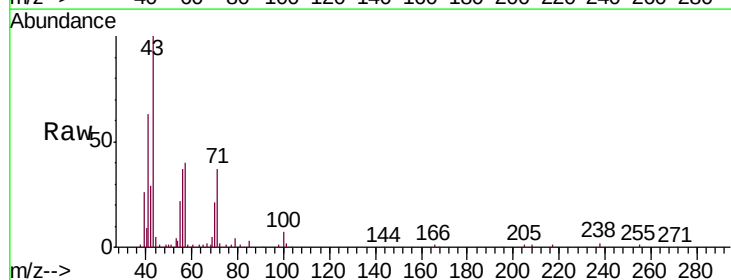
Acq: 8 Oct 2019 2:57

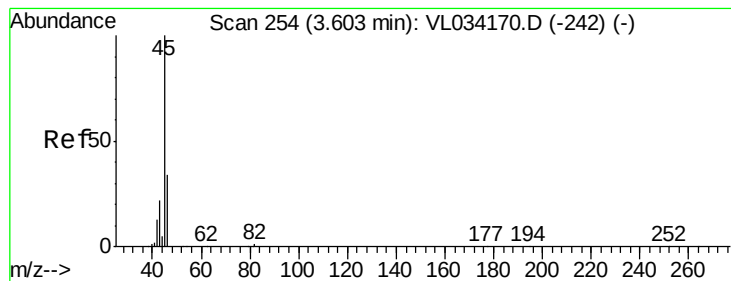
Tgt Ion: 43 Resp: 70066

Ion Ratio Lower Upper

43 100

57 46.1 37.5 56.3





#13

Ethanol

Concen: 11.233 ppbv

RT: 3.60 min Scan# 253

Delta R.T. -0.00 min

Lab File: VL034240.D

Acq: 8 Oct 2019 2:57

Instrument :

MSVOA_L

ClientSampleId :

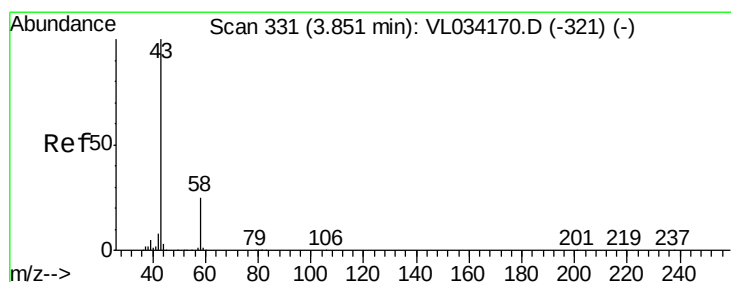
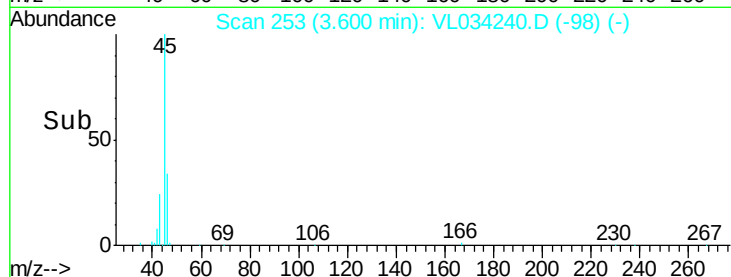
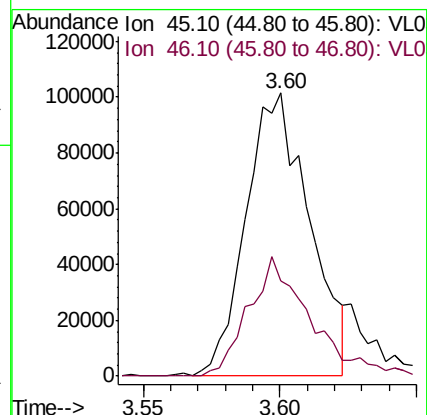
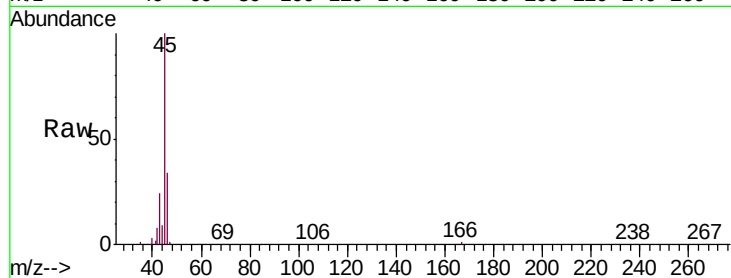
V-2DL

Tgt Ion: 45 Resp: 164035

Ion Ratio Lower Upper

45 100

46 42.4 15.5 61.9



#15

Acetone

Concen: 4.199 ppbv

RT: 3.87 min Scan# 336

Delta R.T. 0.02 min

Lab File: VL034240.D

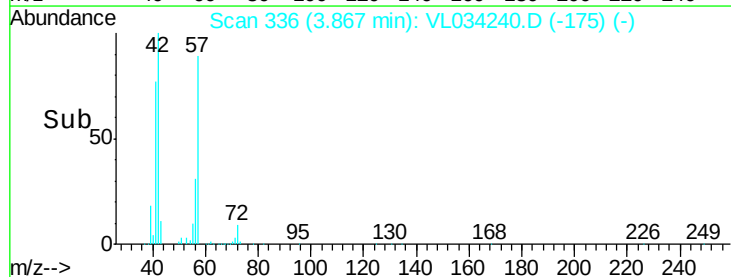
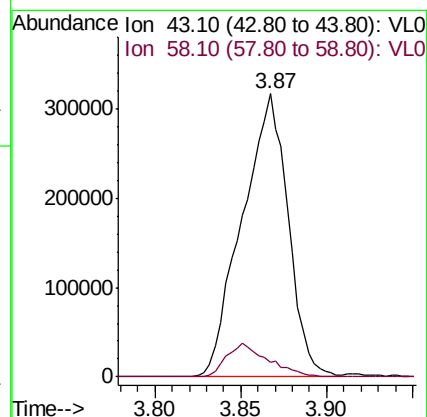
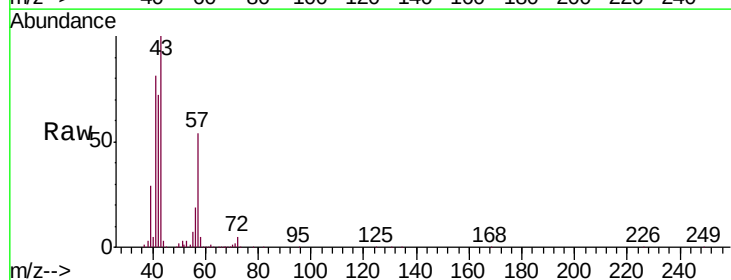
Acq: 8 Oct 2019 2:57

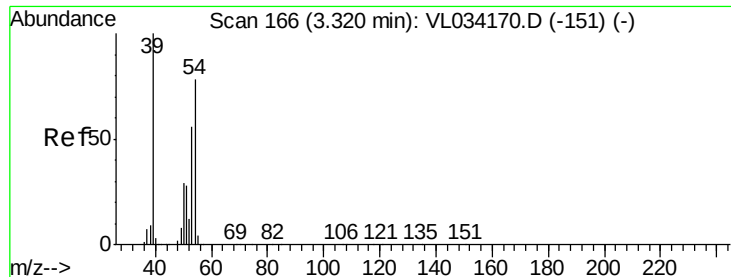
Tgt Ion: 43 Resp: 586643

Ion Ratio Lower Upper

43 100

58 10.9 20.5 30.7#

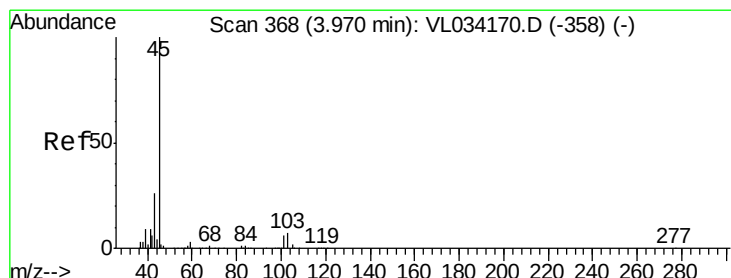
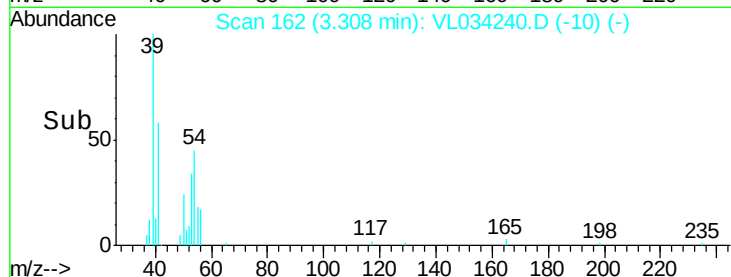
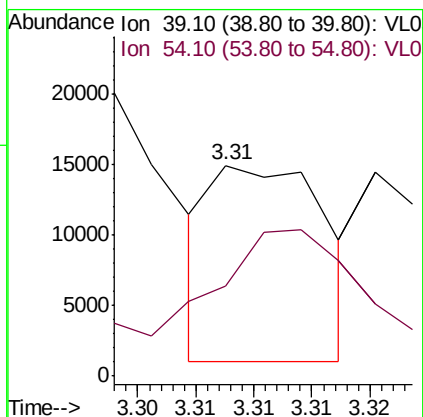
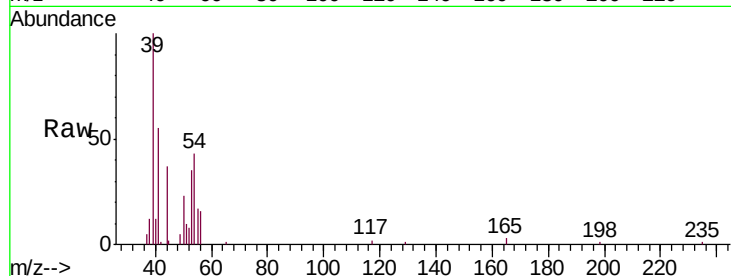




#16
 1,3-Butadiene
 Concen: 0.155 ppbv
 RT: 3.31 min Scan# 162
 Delta R.T. -0.01 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

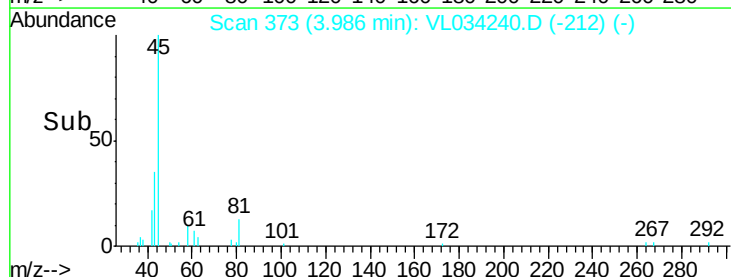
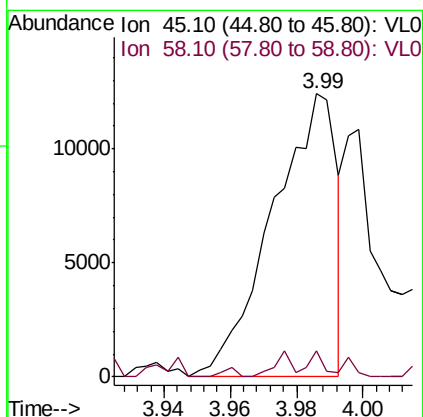
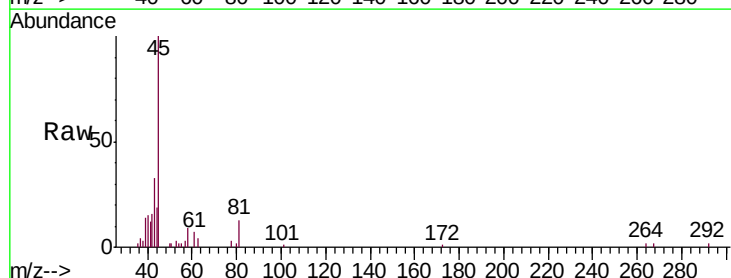
Instrument :
 MSVOA_L
 ClientSampleId :
 V-2DL

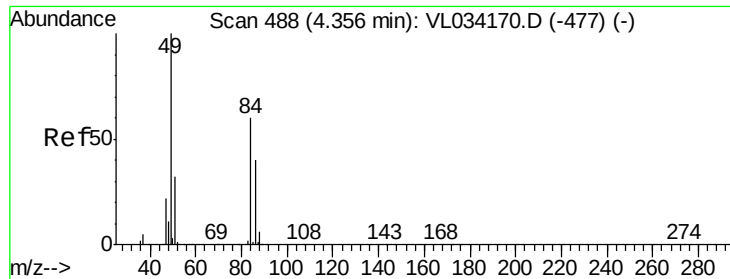
Tgt Ion: 39 Resp: 9446
 Ion Ratio Lower Upper
 39 100
 54 159.8 63.4 95.0#



#19
 Isopropyl Alcohol
 Concen: 0.194 ppbv
 RT: 3.99 min Scan# 373
 Delta R.T. 0.02 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

Tgt Ion: 45 Resp: 16651
 Ion Ratio Lower Upper
 45 100
 58 384.0 1.4 2.0#

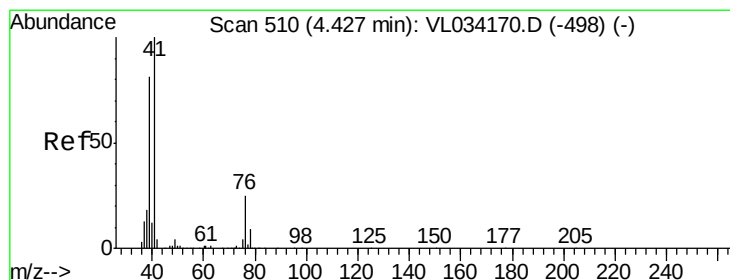
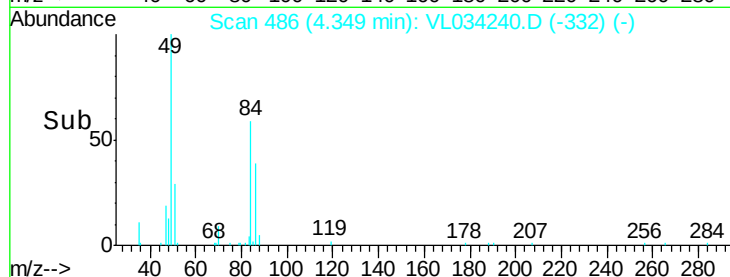
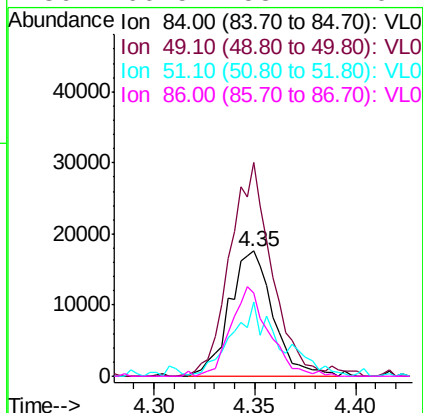
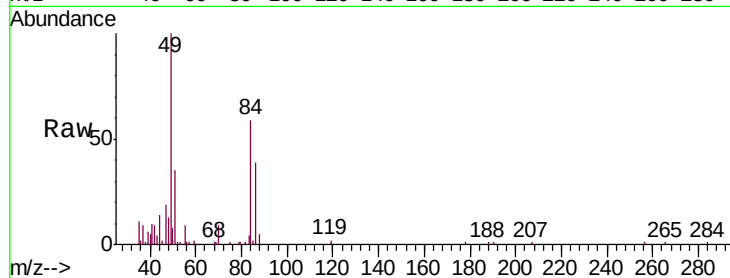




#20
Methylene Chloride
Concen: 0.660 ppbv
RT: 4.35 min Scan# 486
Delta R.T. -0.01 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

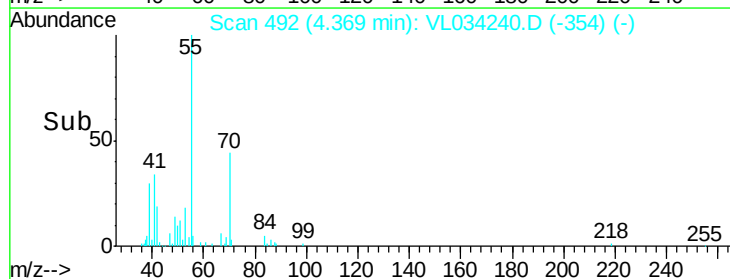
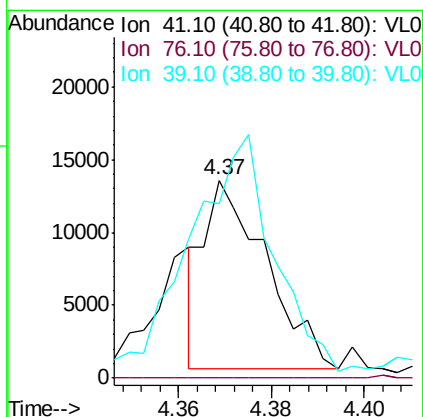
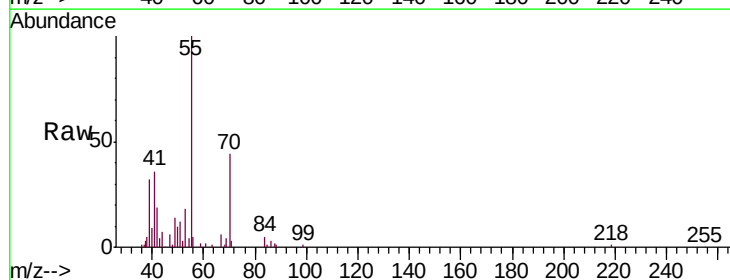
Instrument :
MSVOA_L
ClientSampleId :
V-2DL

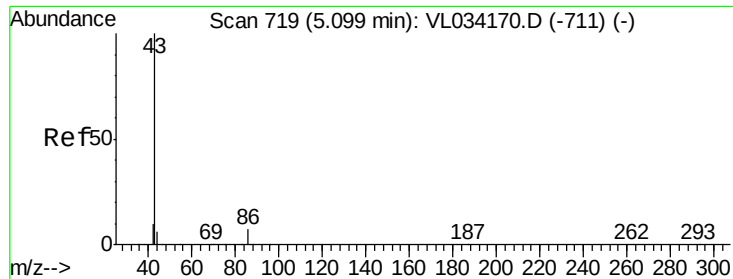
Tgt Ion:	84	Resp:	26607
Ion	Ratio	Lower	Upper
84	100		
49	169.3	133.8	200.8
51	58.0	43.6	65.4
86	66.5	53.1	79.7



#21
Allyl Chloride
Concen: 0.152 ppbv
RT: 4.37 min Scan# 492
Delta R.T. -0.06 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

Tgt Ion:	41	Resp:	12030
Ion	Ratio	Lower	Upper
41	100		
76	0.6	21.8	32.6#
39	178.9	64.8	97.2#

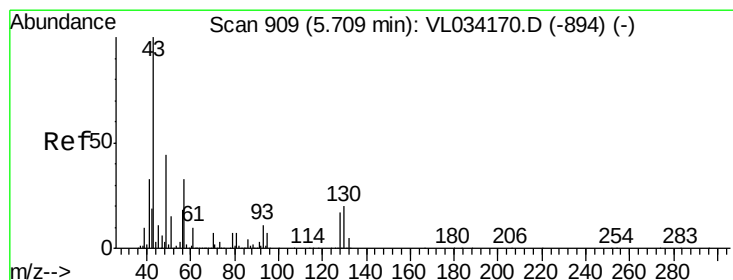
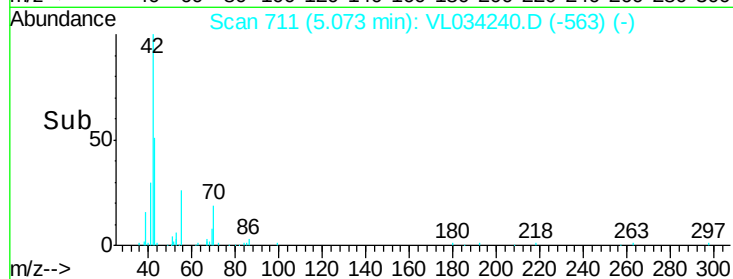
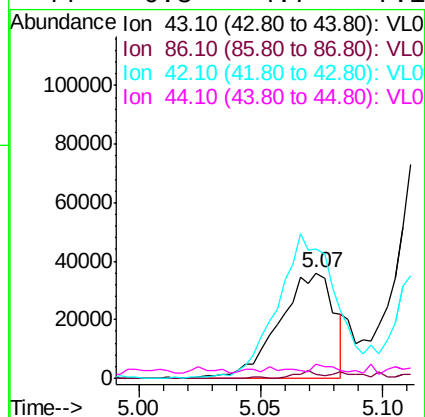
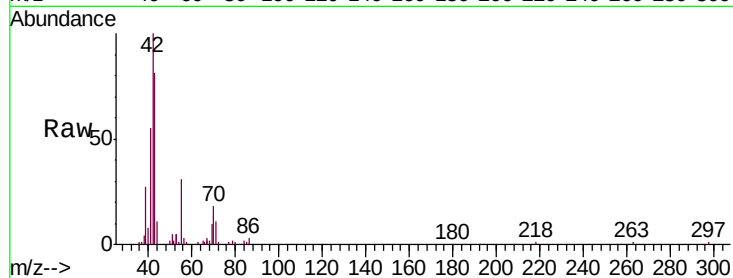




#23
 Vinyl Acetate
 Concen: 0.271 ppbv
 RT: 5.07 min Scan# 711
 Delta R.T. -0.03 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

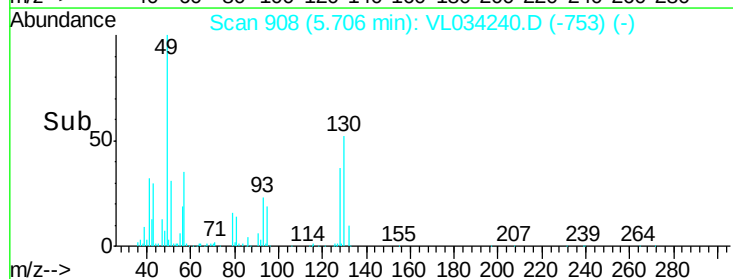
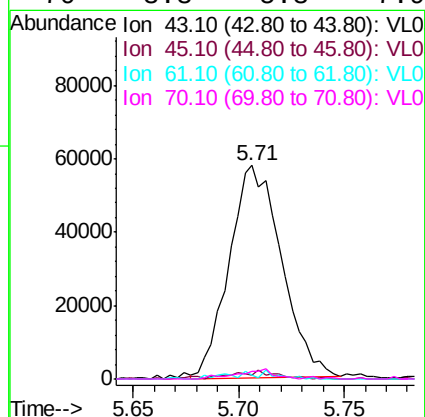
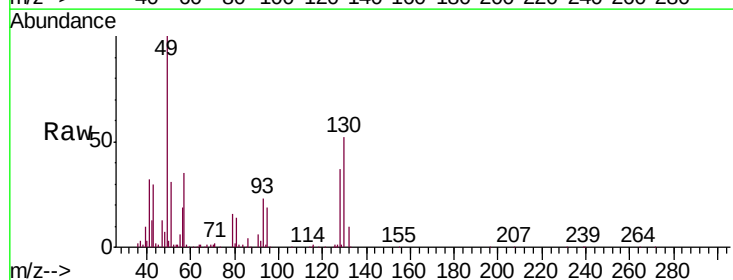
Instrument :
 MSVOA_L
 ClientSampled :
 V-2DL

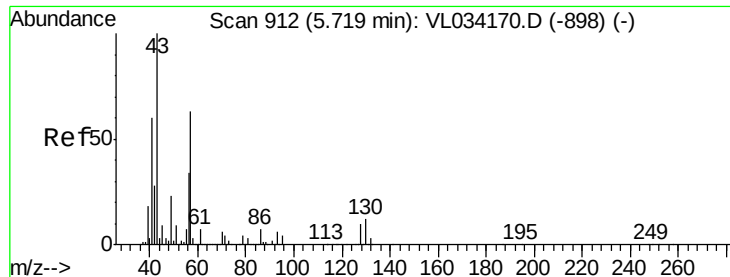
Tgt Ion:	43	Resp:	55794
Ion	Ratio	Lower	Upper
43	100		
86	3.4	5.1	7.7#
42	121.9	8.6	12.8#
44	6.3	4.7	7.1



#25
 Ethyl Acetate
 Concen: 0.379 ppbv
 RT: 5.71 min Scan# 908
 Delta R.T. -0.00 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

Tgt Ion:	43	Resp:	100184
Ion	Ratio	Lower	Upper
43	100		
45	3.9	8.4	12.6#
61	3.0	7.2	10.8#
70	3.3	5.3	7.9#

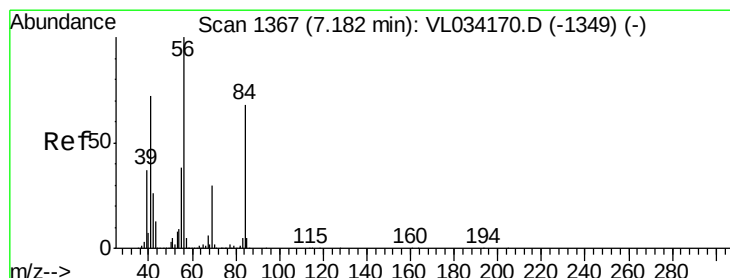
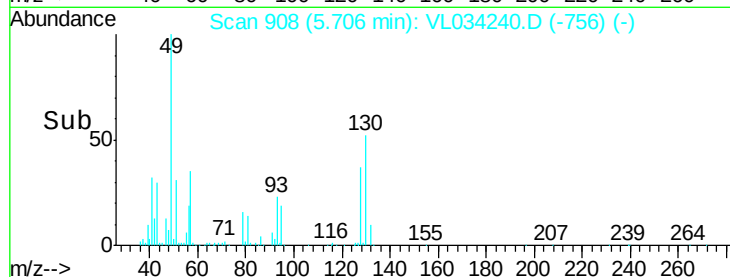
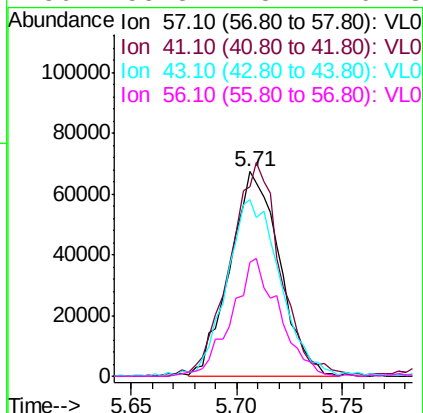
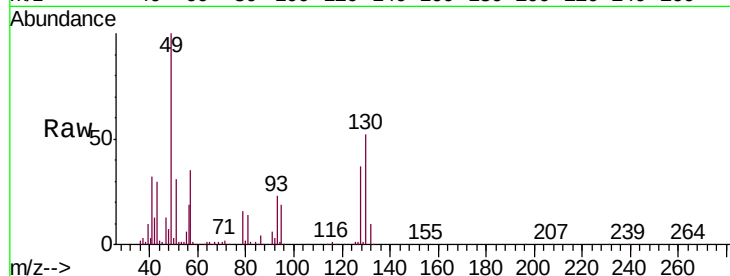




#26
Hexane
Concen: 1.002 ppbv
RT: 5.71 min Scan# 908
Delta R.T. -0.01 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

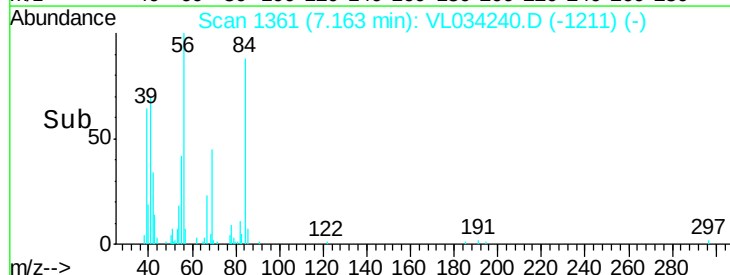
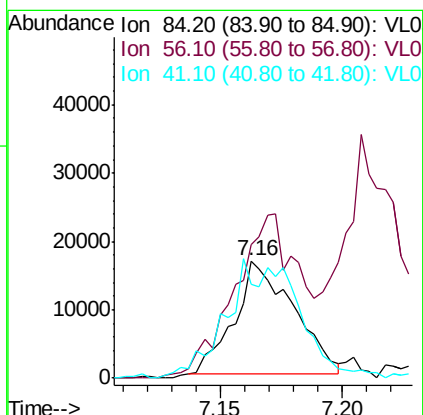
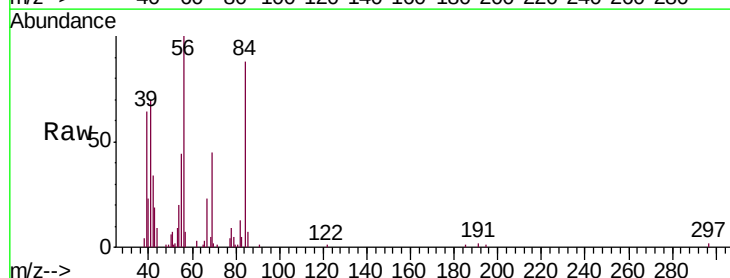
Instrument :
MSVOA_L
ClientSampleId :
V-2DL

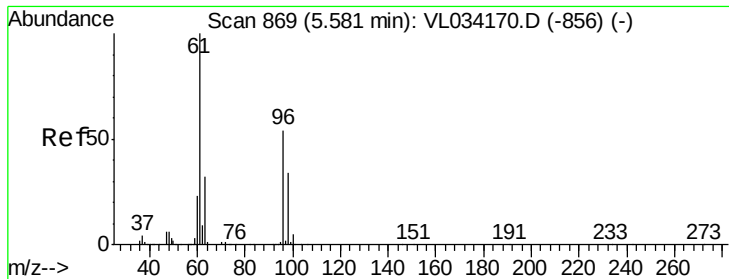
Tgt Ion: 57 Resp: 110183
Ion Ratio Lower Upper
57 100
41 107.4 78.5 117.7
43 94.6 189.5 284.3#
56 55.3 43.2 64.8



#30
Cyclohexane
Concen: 0.349 ppbv
RT: 7.16 min Scan# 1361
Delta R.T. -0.02 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

Tgt Ion: 84 Resp: 27679
Ion Ratio Lower Upper
84 100
56 159.2 126.2 189.2
41 129.1 85.8 128.8#



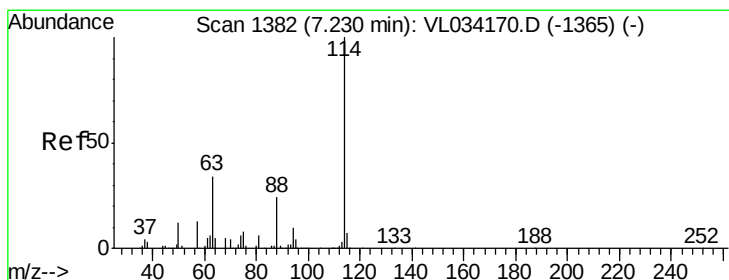
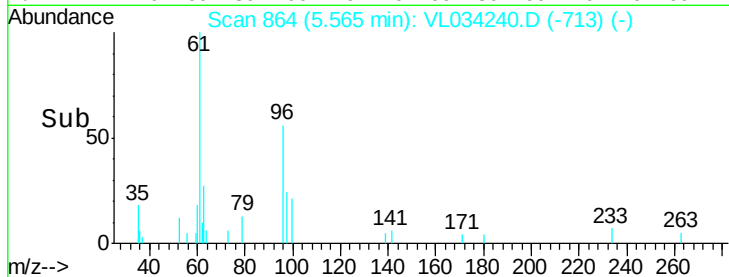
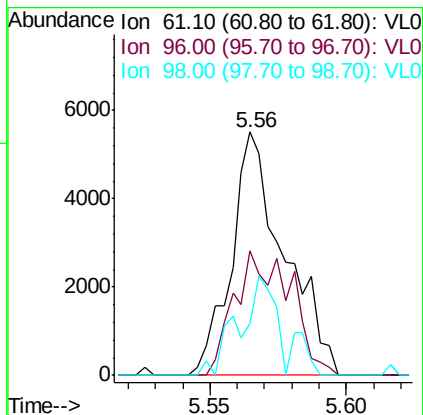
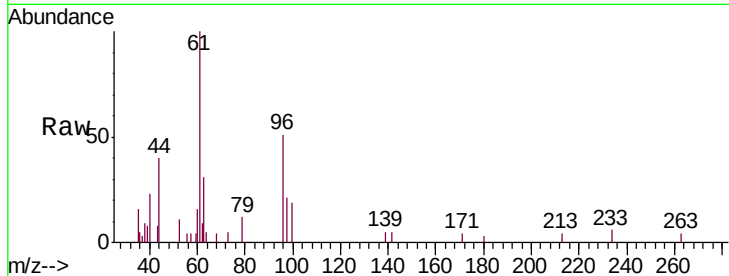


#31

cis-1,2-Dichloroethene
 Concen: 0.066 ppbv
 RT: 5.56 min Scan# 864
 Delta R.T. -0.02 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

Instrument :
 MSVOA_L
 ClientSampleId :
 V-2DL

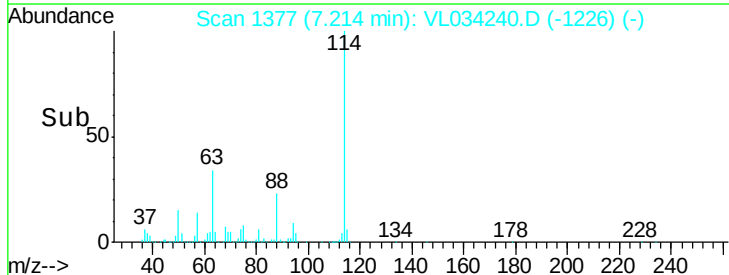
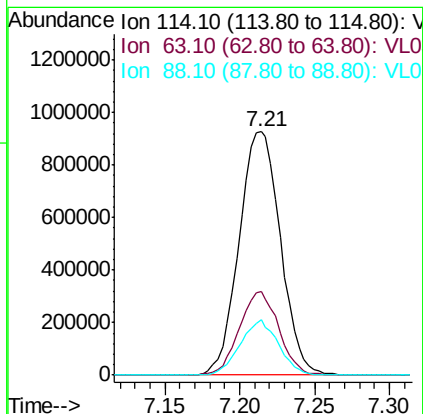
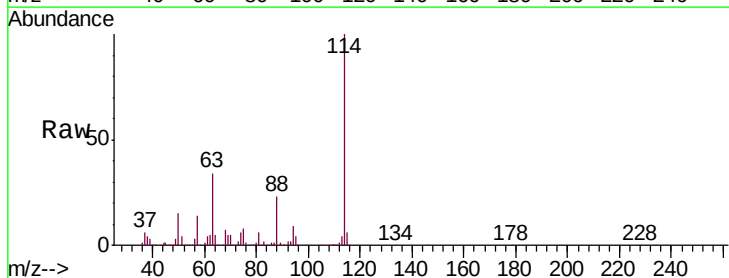
Tgt Ion: 61 Resp: 7440
 Ion Ratio Lower Upper
 61 100
 96 50.9 43.0 64.4
 98 21.4 27.2 40.8#

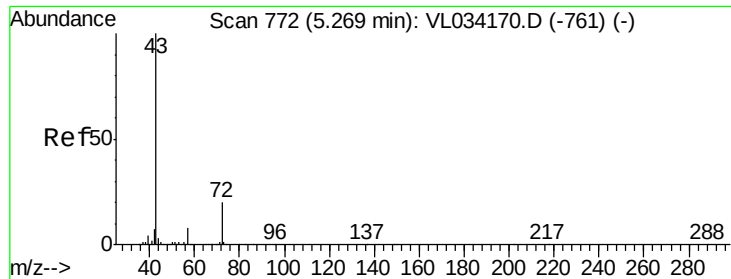


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.21 min Scan# 1377
 Delta R.T. -0.02 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

Tgt Ion: 114 Resp: 1785012
 Ion Ratio Lower Upper
 114 100
 63 33.0 27.8 41.6
 88 21.1 17.1 25.7

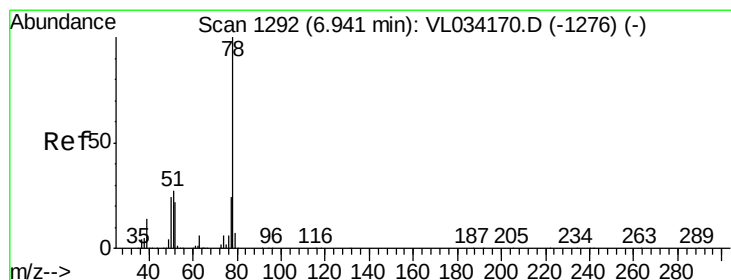
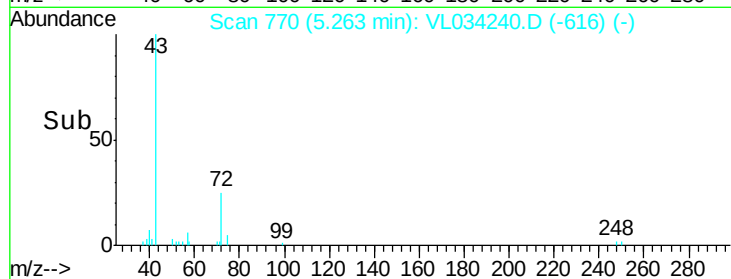
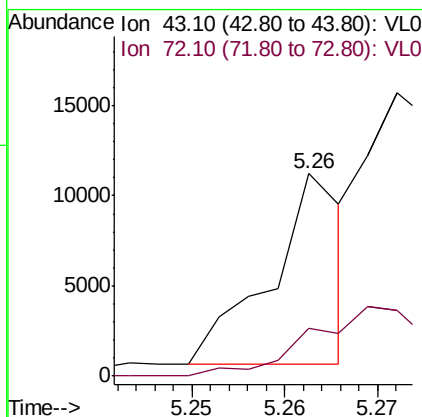
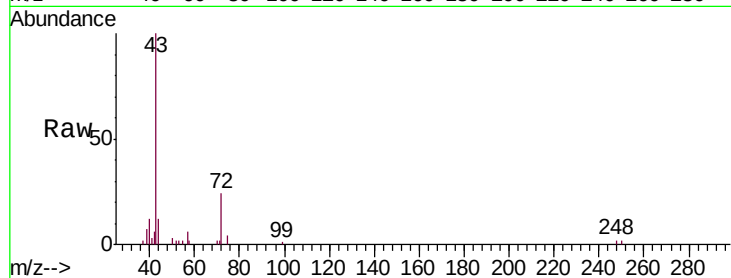




#34
2-Butanone
Concen: 0.032 ppbv
RT: 5.26 min Scan# 770
Delta R.T. -0.01 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

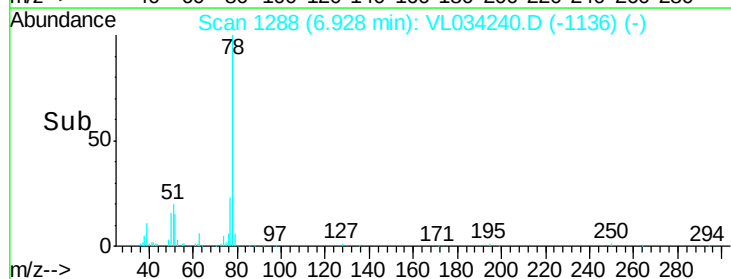
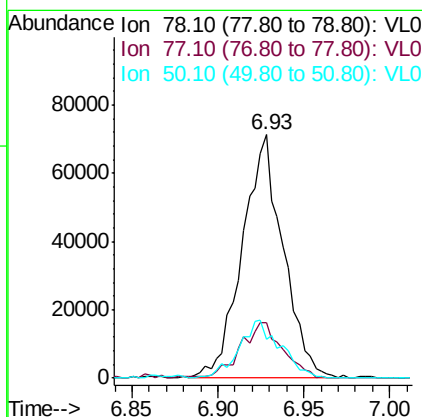
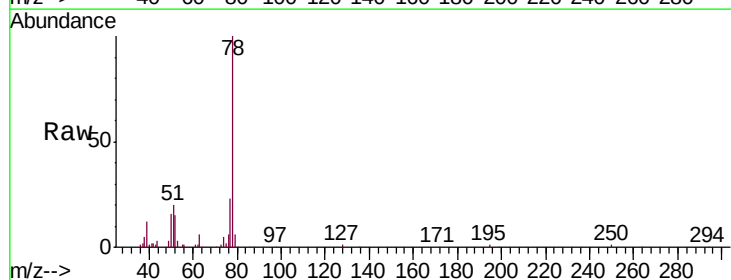
Instrument :
MSVOA_L
ClientSampleId :
V-2DL

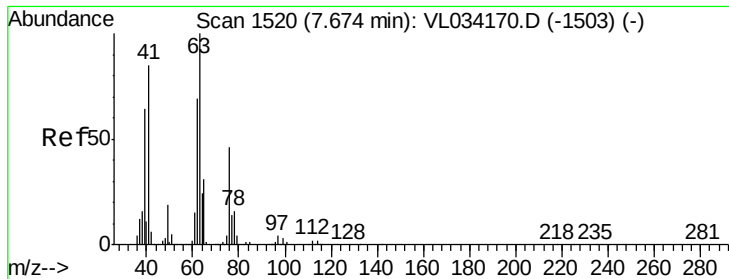
Tgt Ion: 43 Resp: 5824
Ion Ratio Lower Upper
43 100
72 88.7 15.0 22.6#



#36
Benzene
Concen: 0.595 ppbv
RT: 6.93 min Scan# 1288
Delta R.T. -0.01 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

Tgt Ion: 78 Resp: 117318
Ion Ratio Lower Upper
78 100
77 22.9 19.0 28.4
50 16.2 18.9 28.3#

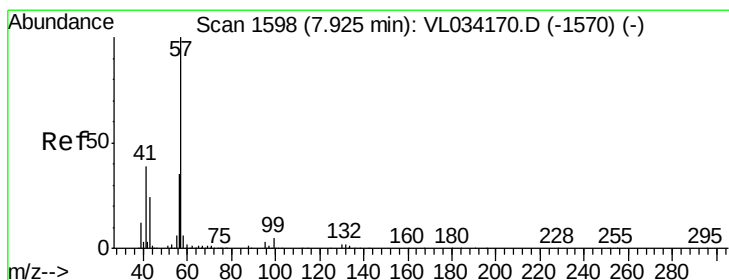
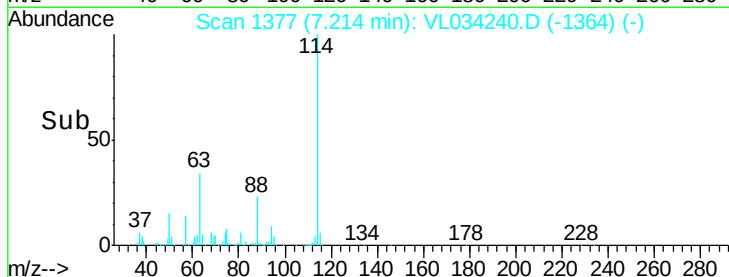
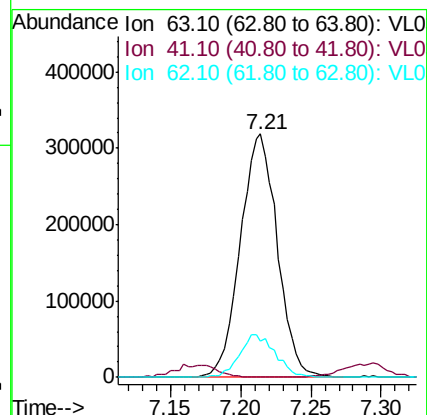
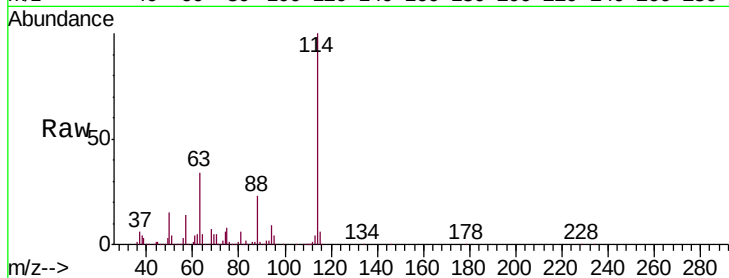




#39
 1,2-Dichloropropane
 Concen: 6.560 ppbv
 RT: 7.21 min Scan# 1377
 Delta R.T. -0.46 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

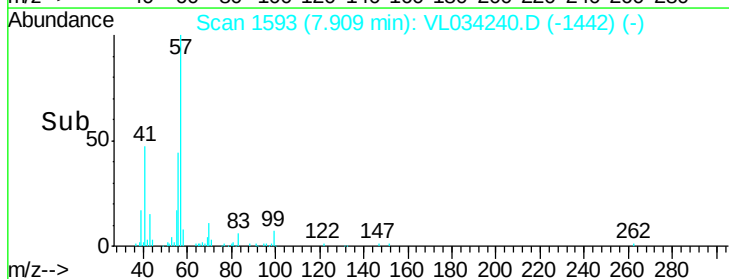
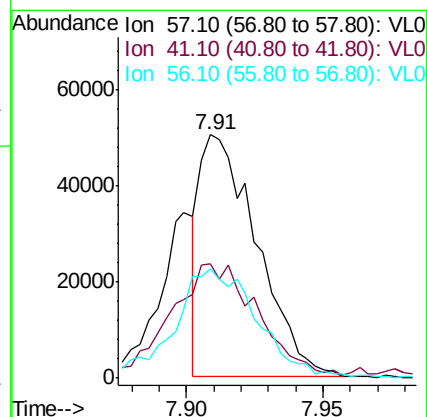
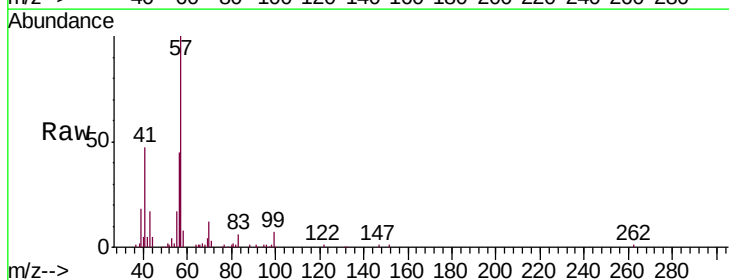
Instrument :
 MSVOA_L
 ClientSampleId :
 V-2DL

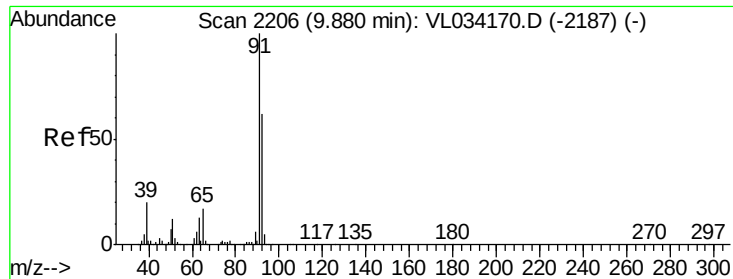
Tgt Ion: 63 Resp: 581080
 Ion Ratio Lower Upper
 63 100
 41 0.0 68.4 102.6#
 62 15.1 55.4 83.2#



#44
 2,2,4-Trimethylpentane
 Concen: 0.190 ppbv
 RT: 7.91 min Scan# 1593
 Delta R.T. -0.02 min
 Lab File: VL034240.D
 Acq: 8 Oct 2019 2:57

Tgt Ion: 57 Resp: 72244
 Ion Ratio Lower Upper
 57 100
 41 73.3 29.8 44.6#
 56 67.0 25.9 38.9#





#53

Toluene

Concen: 2.247 ppbv

RT: 9.86 min Scan# 2201

Delta R.T. -0.02 min

Lab File: VL034240.D

Acq: 8 Oct 2019 2:57

Instrument :

MSVOA_L

ClientSampleId :

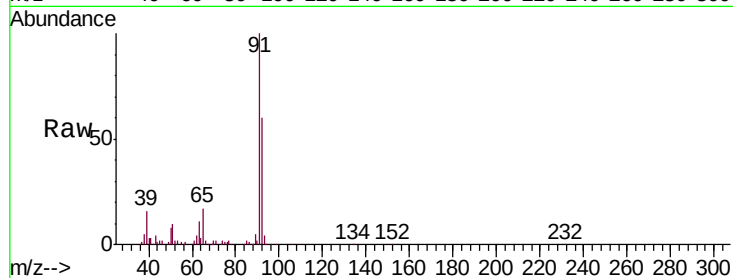
V-2DL

Tgt Ion: 91 Resp: 484133

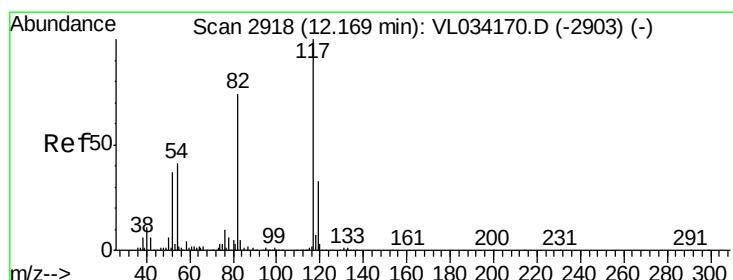
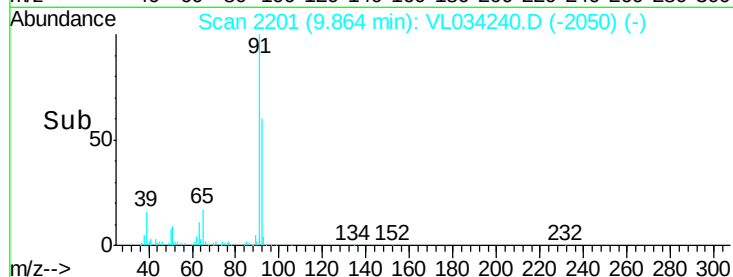
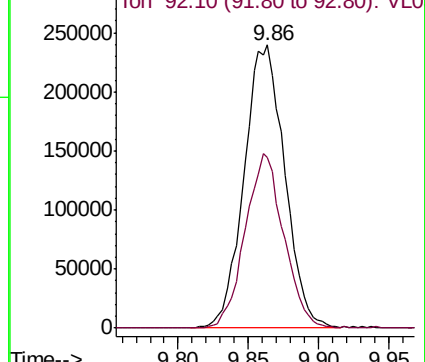
Ion Ratio Lower Upper

91 100

92 58.7 49.0 73.6



Abundance Ion 91.10 (90.80 to 91.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2913

Delta R.T. -0.02 min

Lab File: VL034240.D

Acq: 8 Oct 2019 2:57

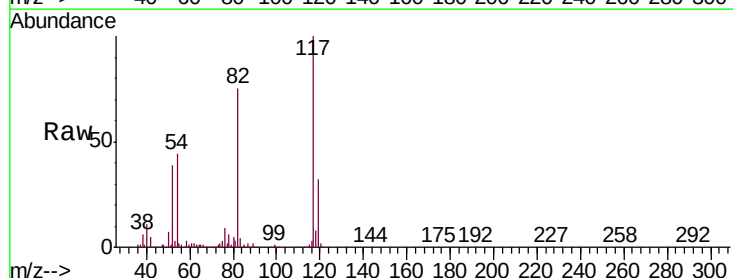
Tgt Ion: 117 Resp: 1764120

Ion Ratio Lower Upper

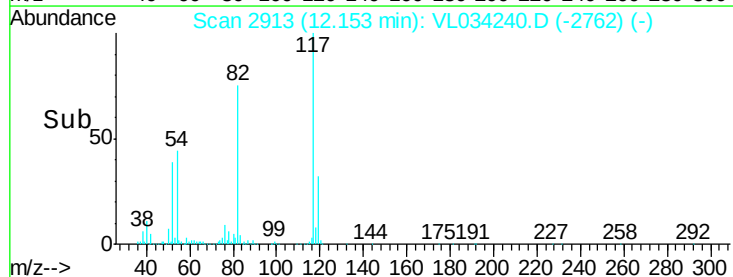
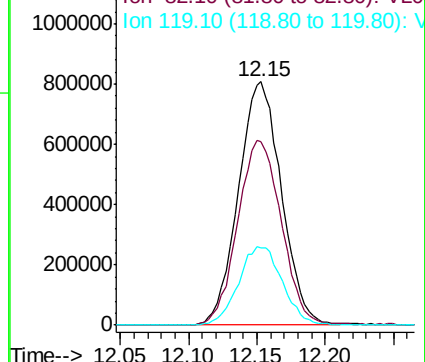
117 100

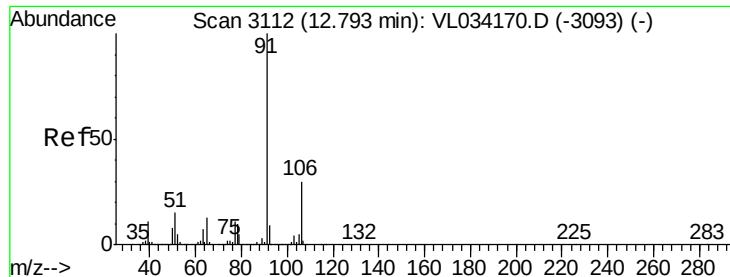
82 77.3 58.2 87.4

119 32.9 23.7 35.5



Abundance Ion 117.10 (116.80 to 117.80): V





#58

Ethyl Benzene

Concen: 0.162 ppbv

RT: 12.77 min Scan# 3106

Delta R.T. -0.02 min

Lab File: VL034240.D

Acq: 8 Oct 2019 2:57

Instrument :

MSVOA_L

ClientSampleId :

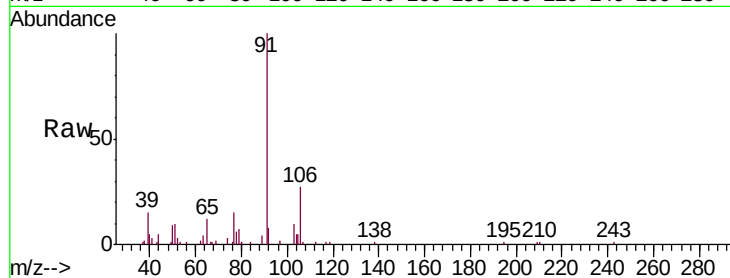
V-2DL

Tgt Ion: 91 Resp: 46202

Ion Ratio Lower Upper

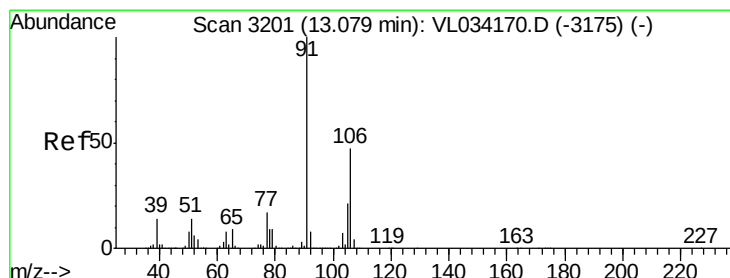
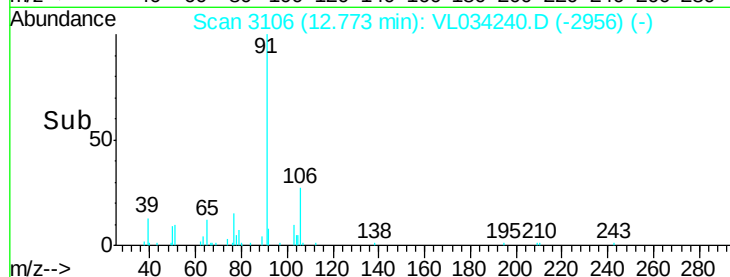
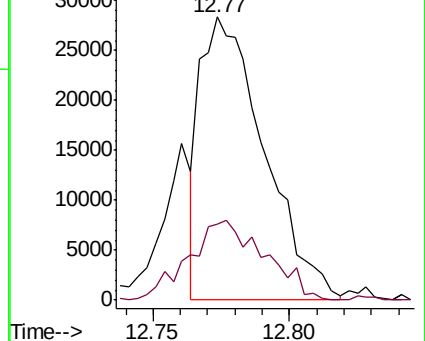
91 100

106 27.2 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.130 ppbv

RT: 13.07 min Scan# 3197

Delta R.T. -0.01 min

Lab File: VL034240.D

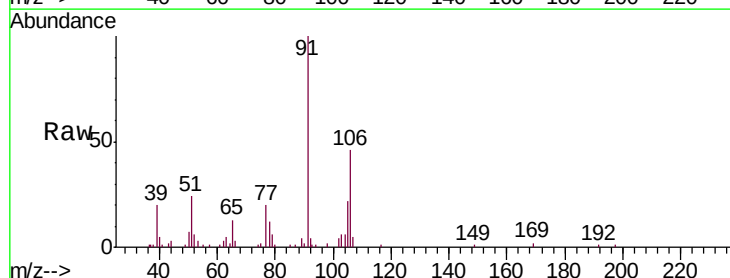
Acq: 8 Oct 2019 2:57

Tgt Ion: 91 Resp: 30753

Ion Ratio Lower Upper

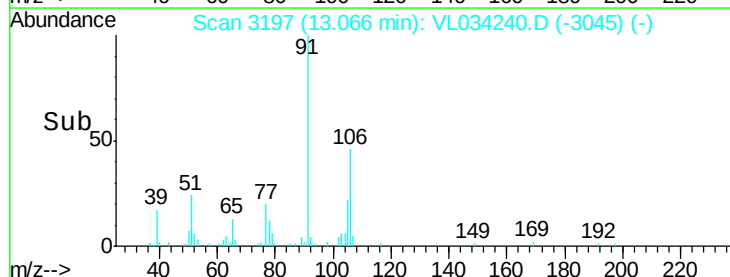
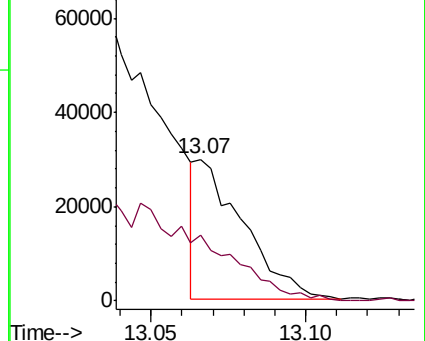
91 100

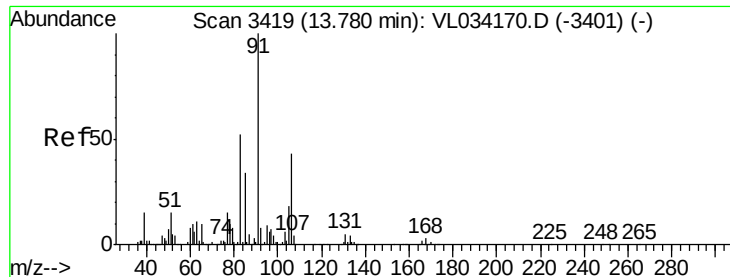
106 0.0 35.5 53.3#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

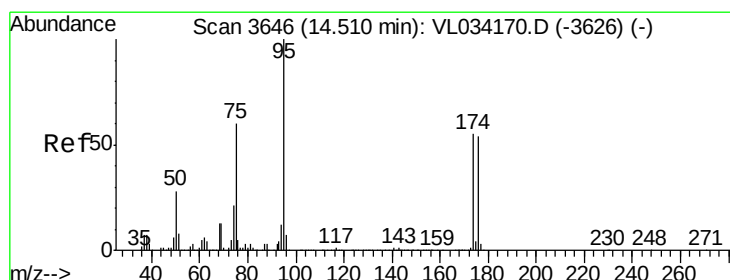
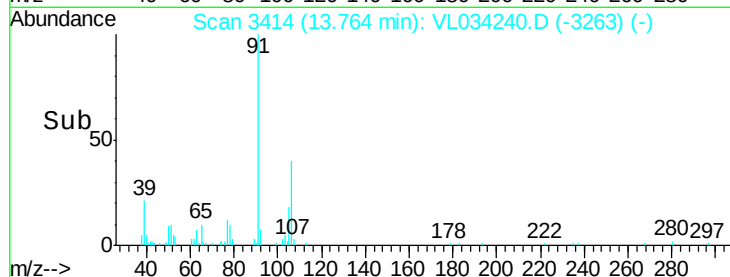
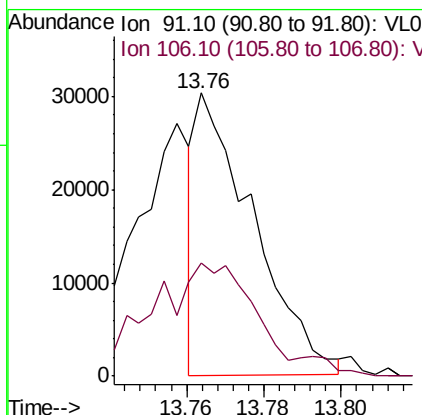
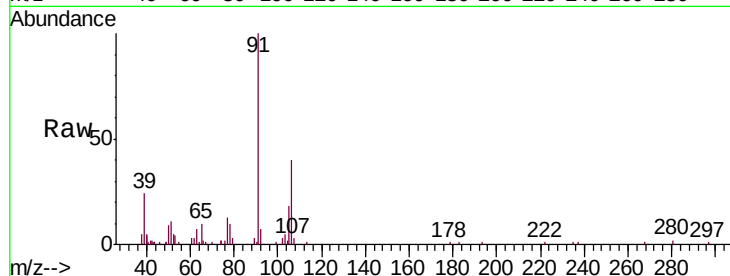




#60
o-Xylene
Concen: 0.131 ppbv
RT: 13.76 min Scan# 3414
Delta R.T. -0.02 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

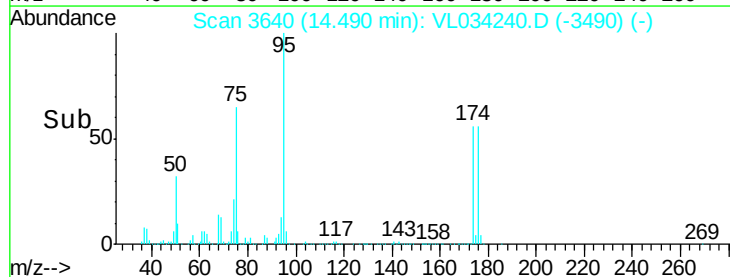
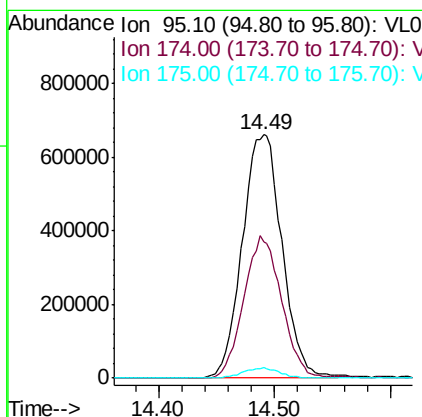
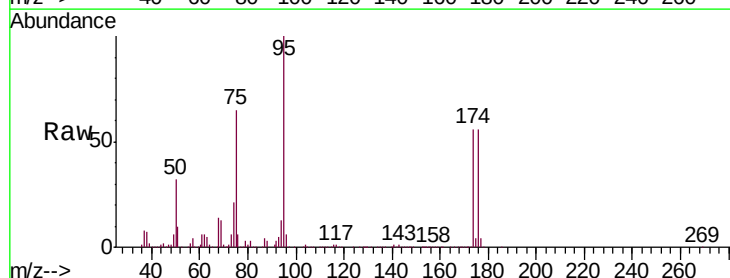
Instrument :
MSVOA_L
ClientSampleId :
V-2DL

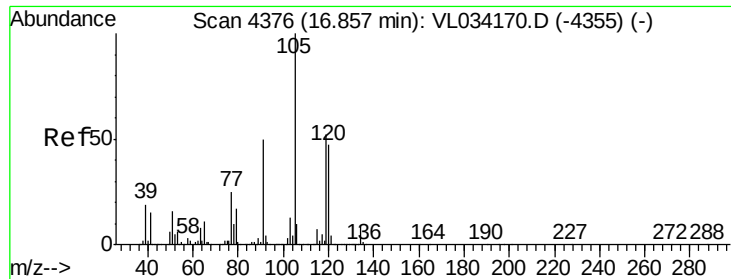
Tgt Ion: 91 Resp: 30849
Ion Ratio Lower Upper
91 100
106 80.6 21.2 63.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.245 ppbv
RT: 14.49 min Scan# 3640
Delta R.T. -0.02 min
Lab File: VL034240.D
Acq: 8 Oct 2019 2:57

Tgt Ion: 95 Resp: 1570415
Ion Ratio Lower Upper
95 100
174 56.4 45.1 67.7
175 3.8 3.3 4.9





#74

1,2,4-Trimethylbenzene

Concen: 0.107 ppbv

RT: 16.83 min Scan# 4369

Delta R.T. -0.02 min

Lab File: VL034240.D

Acq: 8 Oct 2019 2:57

Instrument :

MSVOA_L

ClientSampleId :

V-2DL

Tgt Ion:105 Resp: 29285

Ion Ratio Lower Upper

105 100

120 26.0 37.5 56.3#

91 5.3 41.1 61.7#

77 9.7 19.9 29.9#

