

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL031720\
 Data File : VL034921.D
 Acq On : 17 Mar 2020 18:44
 Operator : SY/AP
 Sample : L1952-03
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Quant Time: Mar 18 06:59:56 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL030920AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 09 16:42:53 2020
 QLast Update : Mon Mar 09 16:42:53 2020
 Response via : Initial Calibration

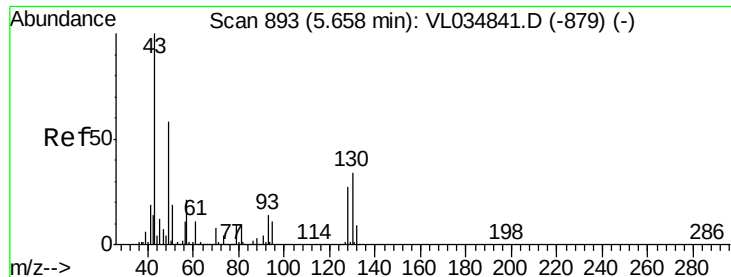
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	955151	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2030516	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	2000125	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	1705663	10.93	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	109.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.01	85	90123	0.689	ppbv	99
3) Chlorodifluoromethane	2.92	51	219361	2.056	ppbv #	67
4) Chloromethane	3.10	50	34689	0.575	ppbv #	82
9) Propene	3.17	41	98975	1.943	ppbv	85
10) Heptane	8.13	43	5000	0.040	ppbv #	28
11) Trichlorofluoromethane	3.92	101	35488	0.255	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.46	101	4424	0.045	ppbv #	51
13) Ethanol	3.58	45	2565217	165.632	ppbv	95
15) Acetone	3.82	43	1637564	13.228	ppbv	100
16) 1,3-Butadiene	3.27	39	6455	0.115	ppbv #	9
17) tert-Butyl alcohol	4.29	59	9376	0.079	ppbv #	72
19) Isopropyl Alcohol	3.95	45	152606	1.952	ppbv #	1
20) Methylene Chloride	4.32	84	113956	2.911	ppbv	88
23) Vinyl Acetate	5.05	43	18477	0.101	ppbv #	82
25) Ethyl Acetate	5.66	43	105782	0.480	ppbv #	80
26) Hexane	5.67	57	187495	1.974	ppbv #	55
34) 2-Butanone	5.23	43	369647	2.739	ppbv	98
36) Benzene	6.88	78	56701	0.313	ppbv #	91
37) 1,2-Dichloroethane	6.30	62	96468	0.945	ppbv	98
39) 1,2-Dichloropropane	7.17	63	559760	7.806	ppbv #	23
41) Tetrahydrofuran	6.04	42	116295	1.593	ppbv	98
44) 2,2,4-Trimethylpentane	7.88	57	18026	0.059	ppbv #	44
53) Toluene	9.82	91	365903	1.751	ppbv	99
58) Ethyl Benzene	12.99	91	43784	0.162	ppbv	92
59) m/p-Xylene	13.02	91	8426	0.037	ppbv #	30
60) o-Xylene	13.72	91	10932	0.049	ppbv #	1
69) p-Isopropyltoluene	17.68	119	10915	0.032	ppbv #	47
74) 1,2,4-Trimethylbenzene	16.79	105	9914	0.039	ppbv #	38

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.00 min

Lab File: VL034921.D

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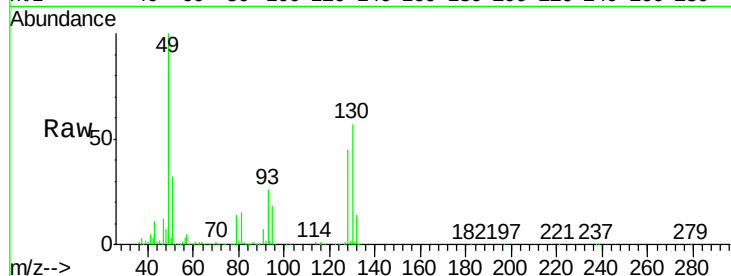
Tgt Ion: 49 Resp: 955151

Ion Ratio Lower Upper

49 100

128 44.4 23.4 70.3

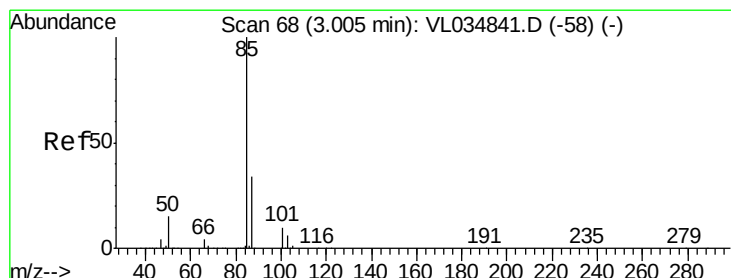
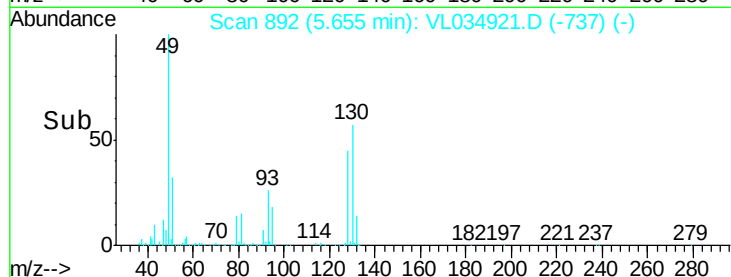
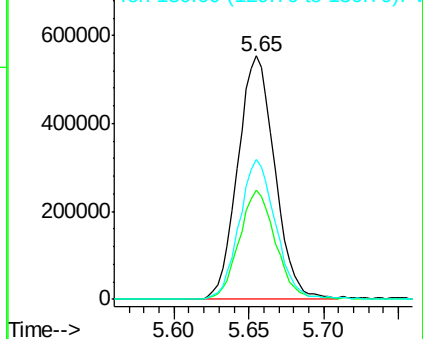
130 56.8 30.0 90.0



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: 0.689 ppbv

RT: 3.01 min Scan# 69

Delta R.T. 0.00 min

Lab File: VL034921.D

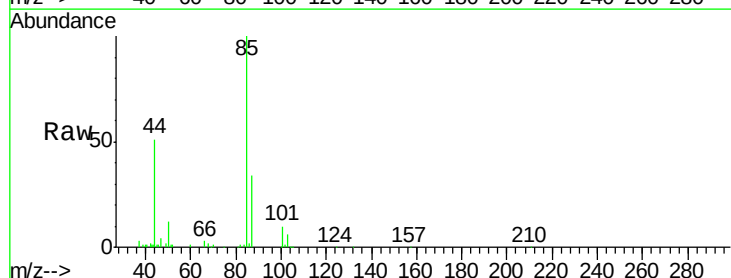
Acq: 17 Mar 2020 18:44

Tgt Ion: 85 Resp: 90123

Ion Ratio Lower Upper

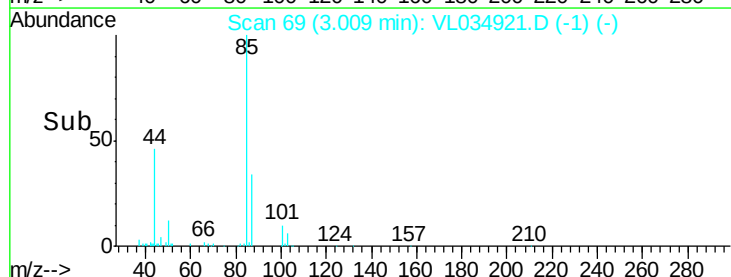
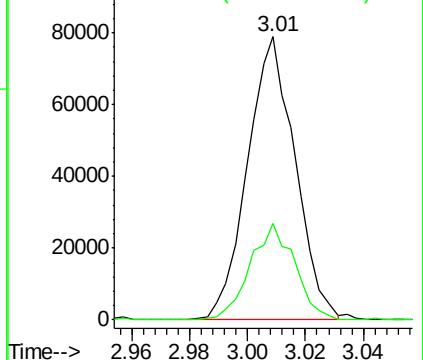
85 100

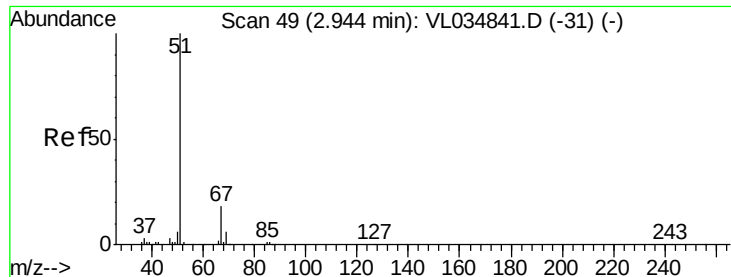
87 34.3 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.056 ppbv

RT: 2.92 min Scan# 42

Delta R.T. -0.02 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

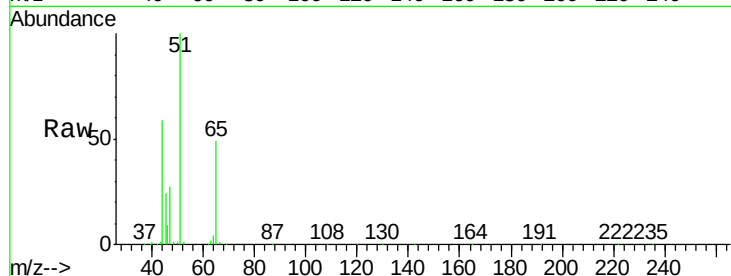
IA-2

Tgt Ion: 51 Resp: 219361

Ion Ratio Lower Upper

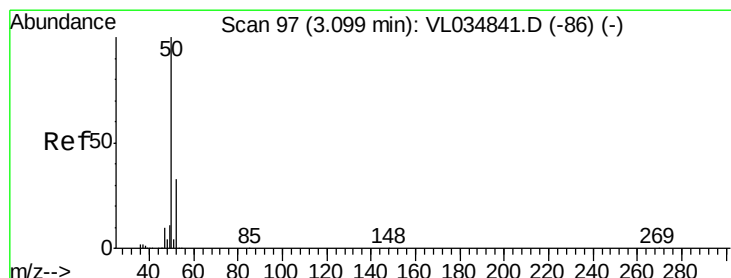
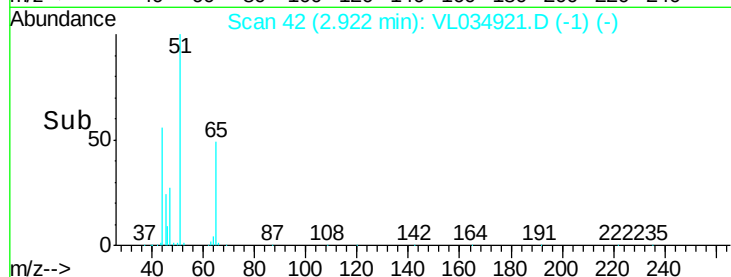
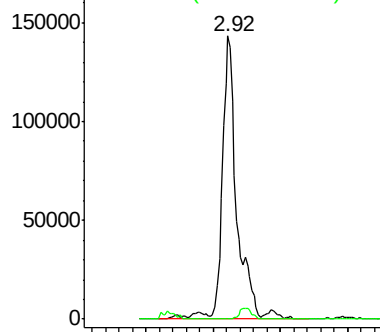
51 100

67 3.3 14.3 21.5#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.575 ppbv

RT: 3.10 min Scan# 98

Delta R.T. 0.00 min

Lab File: VL034921.D

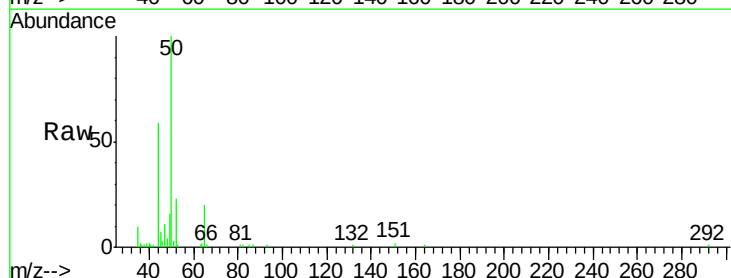
Acq: 17 Mar 2020 18:44

Tgt Ion: 50 Resp: 34689

Ion Ratio Lower Upper

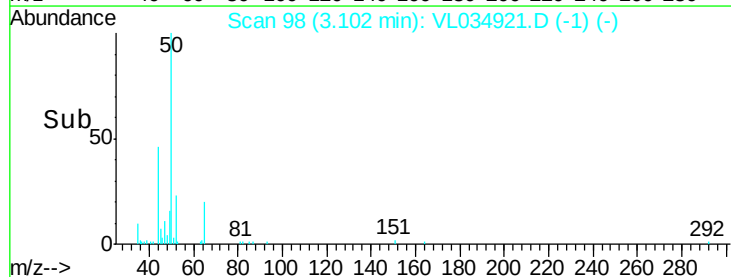
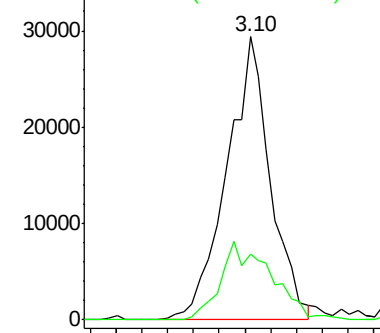
50 100

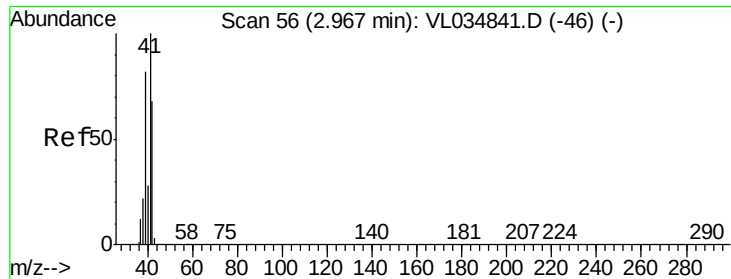
52 23.1 26.8 40.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.943 ppbv

RT: 3.17 min Scan# 119

Delta R.T. 0.20 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

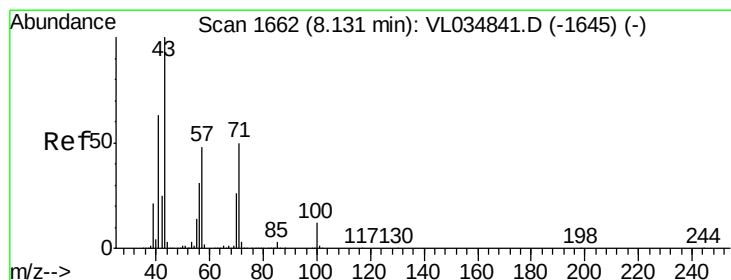
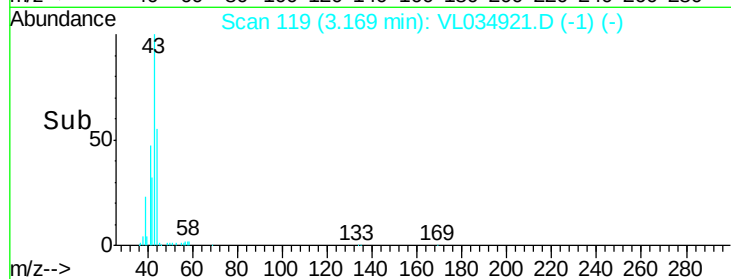
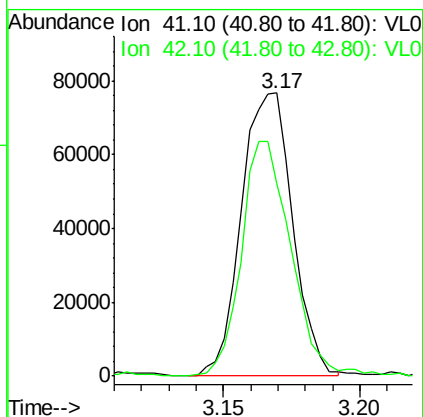
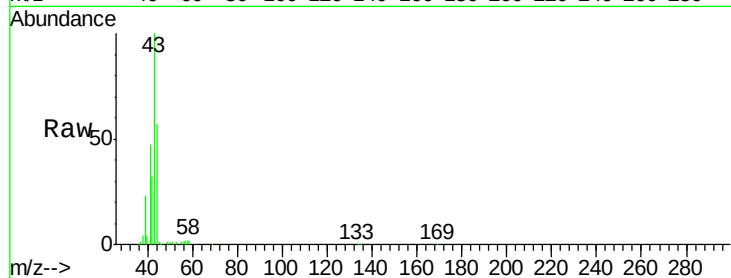
IA-2

Tgt Ion: 41 Resp: 98975

Ion Ratio Lower Upper

41 100

42 81.1 55.2 82.8



#10

Heptane

Concen: 0.040 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. -0.00 min

Lab File: VL034921.D

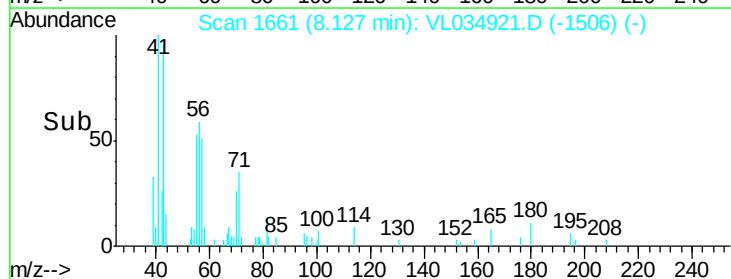
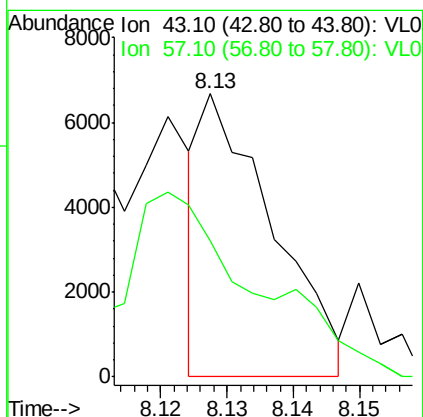
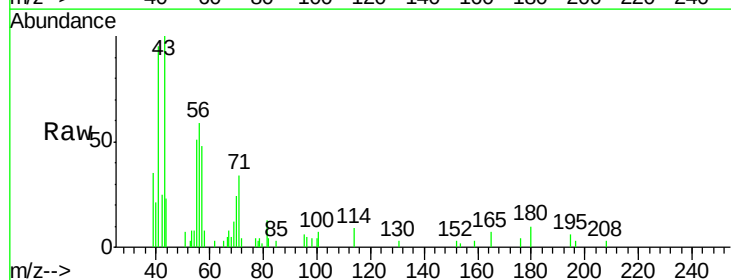
Acq: 17 Mar 2020 18:44

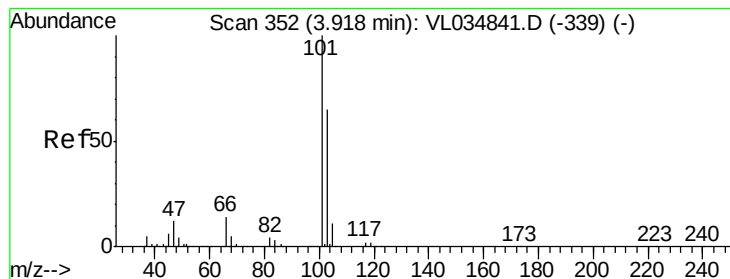
Tgt Ion: 43 Resp: 5000

Ion Ratio Lower Upper

43 100

57 0.0 39.7 59.5#





#11

Trichlorofluoromethane

Concen: 0.255 ppbv

RT: 3.92 min Scan# 352

Delta R.T. 0.00 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

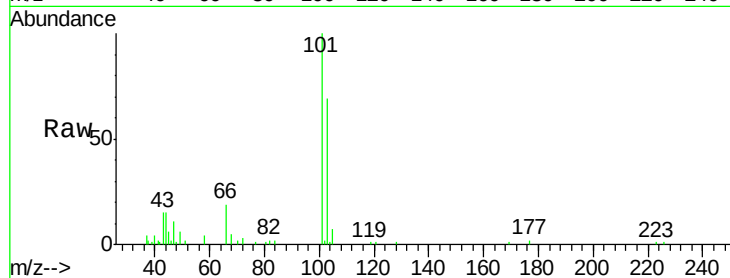
IA-2

Tgt Ion:101 Resp: 35488

Ion Ratio Lower Upper

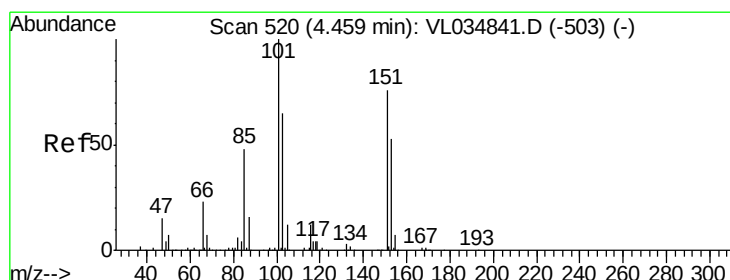
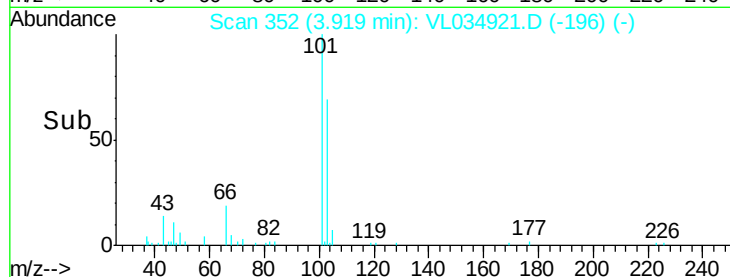
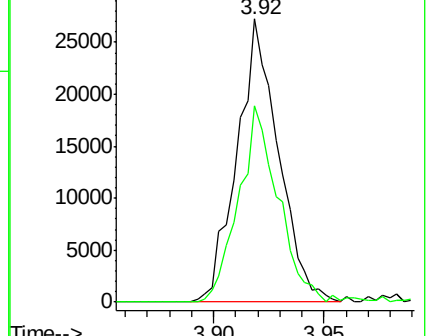
101 100

103 69.3 51.8 77.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.045 ppbv

RT: 4.46 min Scan# 520

Delta R.T. 0.00 min

Lab File: VL034921.D

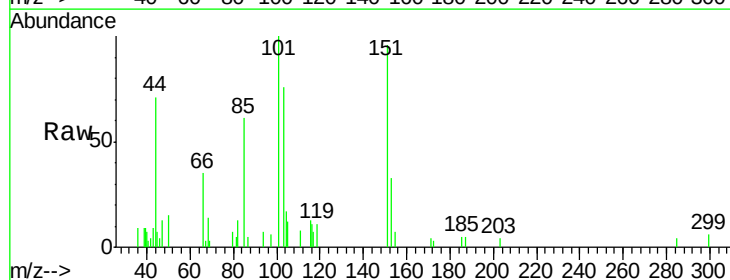
Acq: 17 Mar 2020 18:44

Tgt Ion:101 Resp: 4424

Ion Ratio Lower Upper

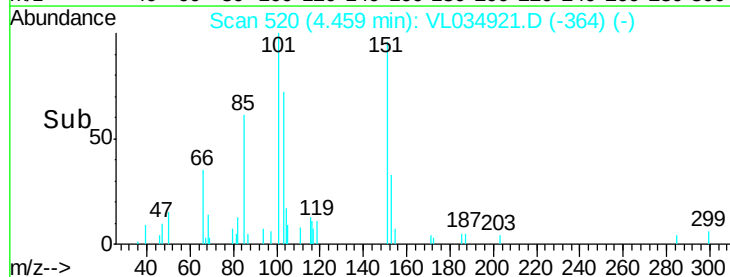
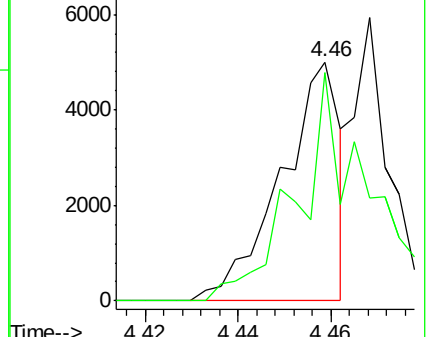
101 100

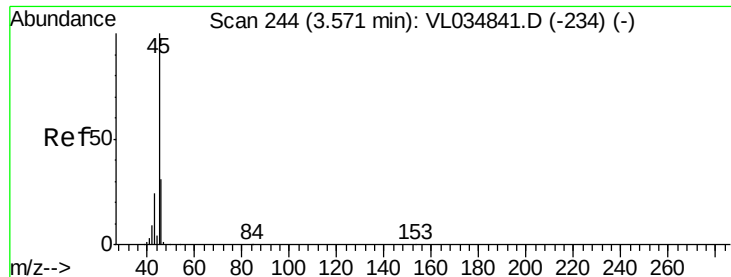
151 118.0 60.8 91.2#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

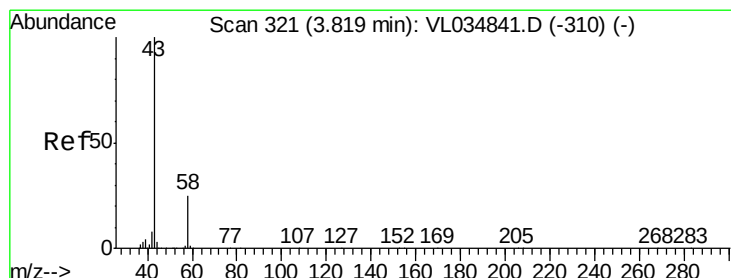
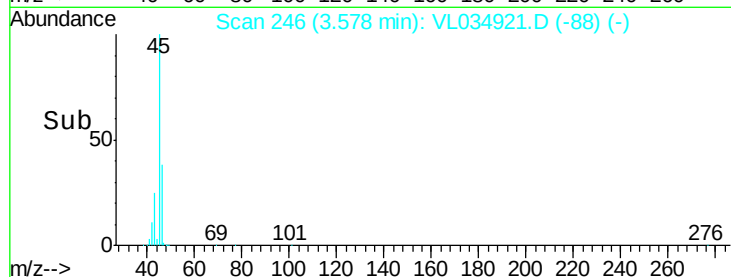
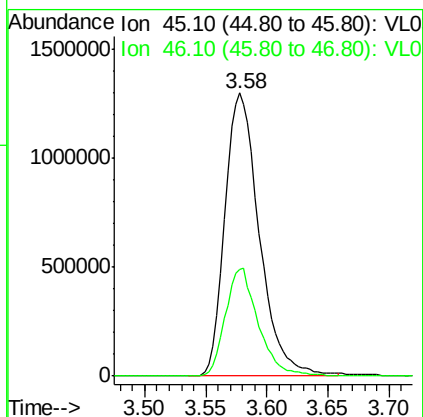
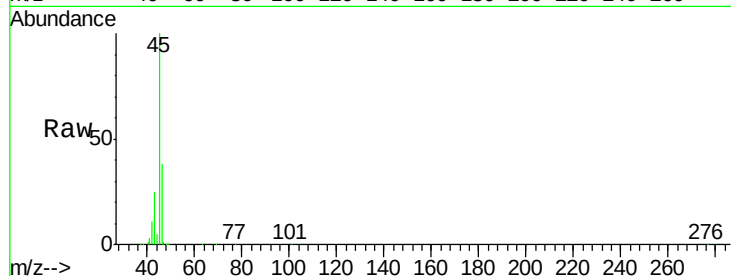




#13
Ethanol
Concen: 165.632 ppbv
RT: 3.58 min Scan# 246
Delta R.T. 0.01 min
Lab File: VL034921.D
Acq: 17 Mar 2020 18:44

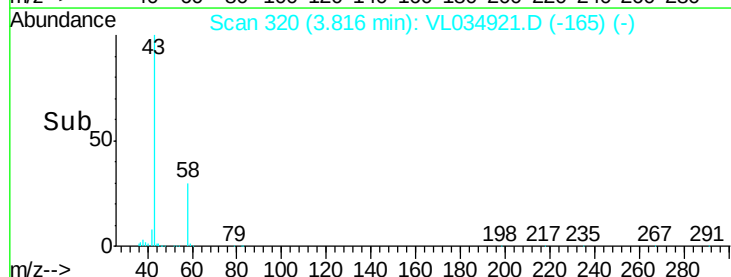
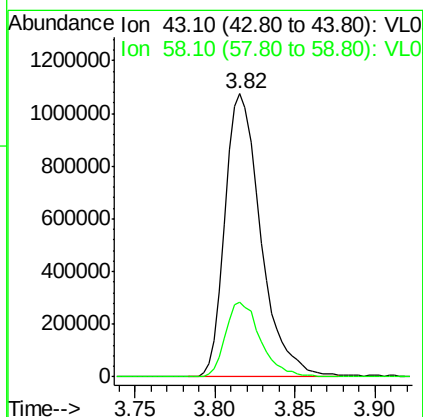
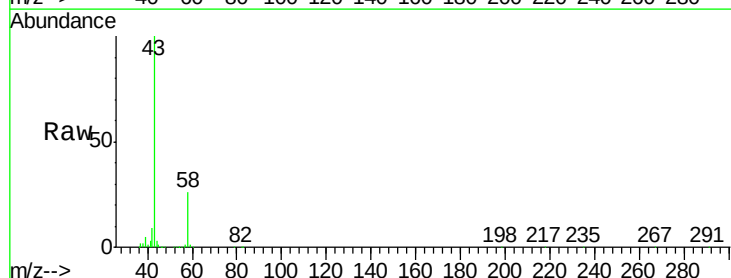
Instrument :
MSVOA_L
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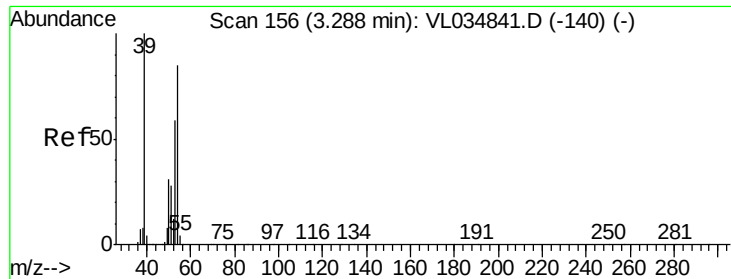
Tgt Ion: 45 Resp: 2565217
Ion Ratio Lower Upper
45 100
46 36.7 16.0 64.0



#15
Acetone
Concen: 13.228 ppbv
RT: 3.82 min Scan# 320
Delta R.T. -0.00 min
Lab File: VL034921.D
Acq: 17 Mar 2020 18:44

Tgt Ion: 43 Resp: 1637564
Ion Ratio Lower Upper
43 100
58 26.1 21.0 31.6

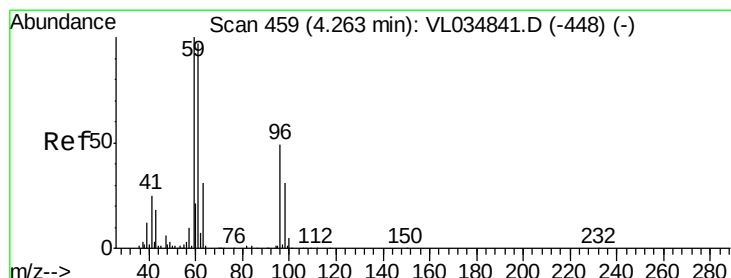
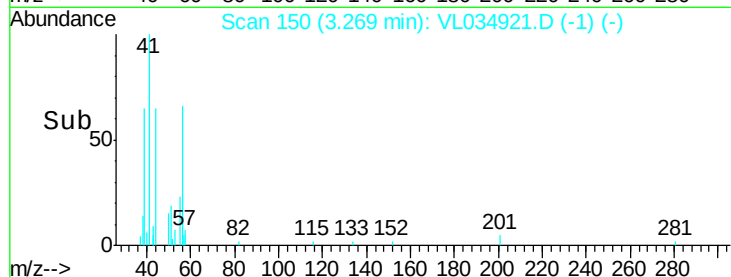
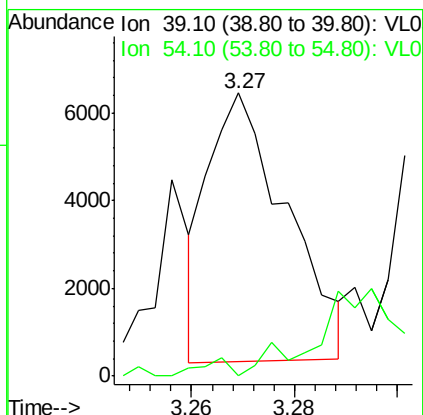
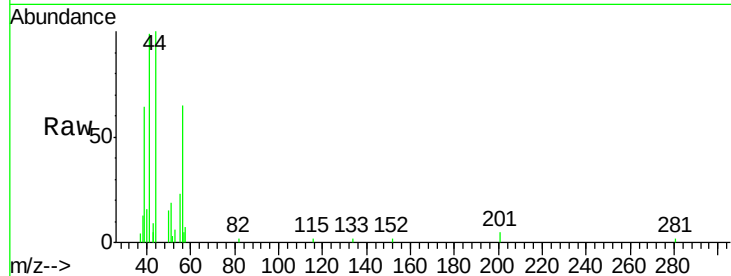




#16
 1,3-Butadiene
 Concen: 0.115 ppbv
 RT: 3.27 min Scan# 150
 Delta R.T. -0.02 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

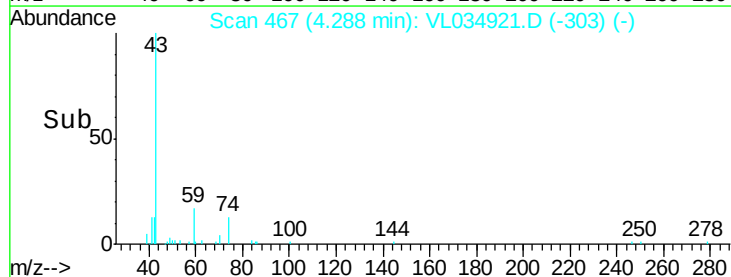
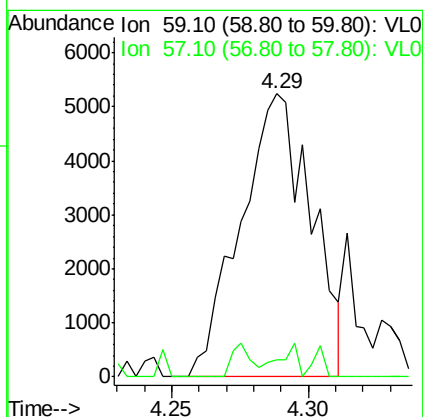
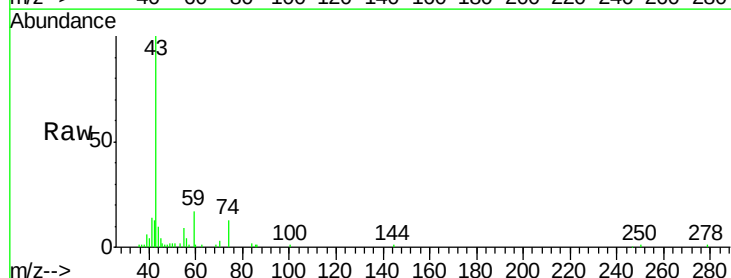
Instrument :
 MSVOA_L
 ClientSampleID :
 IA-2

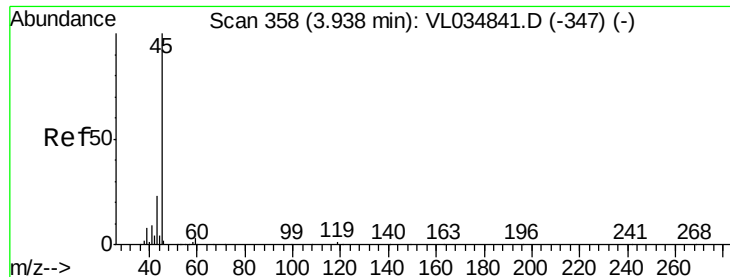
Tgt Ion: 39 Resp: 6455
 Ion Ratio Lower Upper
 39 100
 54 0.0 65.0 97.6#



#17
 tert-Butyl alcohol
 Concen: 0.079 ppbv
 RT: 4.29 min Scan# 467
 Delta R.T. 0.03 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

Tgt Ion: 59 Resp: 9376
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.3 12.5#





#19

Isopropyl Alcohol

Concen: 1.952 ppbv

RT: 3.95 min Scan# 363

Delta R.T. 0.02 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

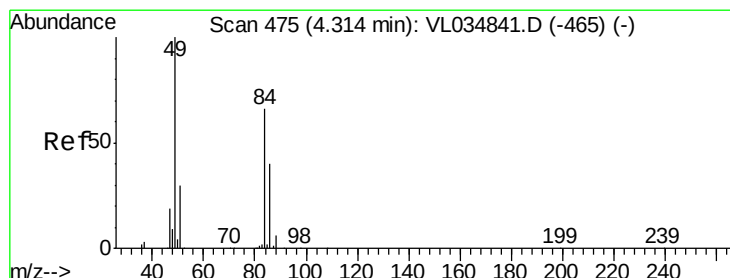
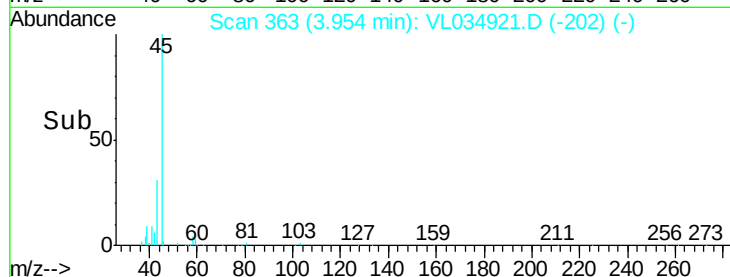
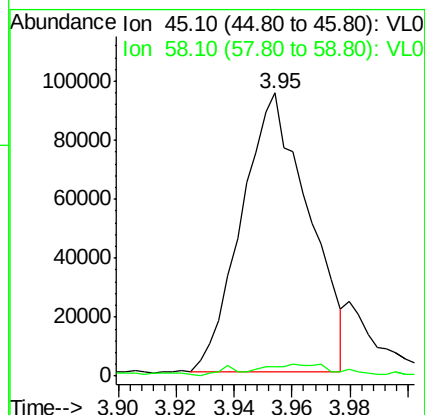
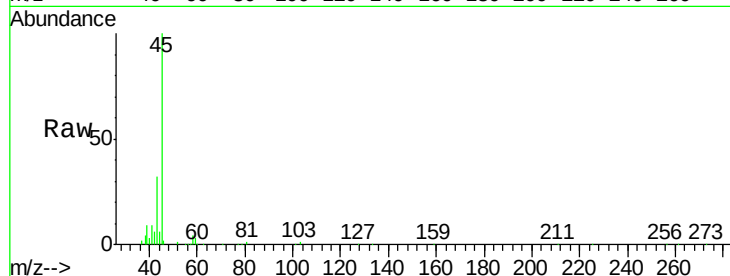
IA-2

Tgt Ion: 45 Resp: 152606

Ion Ratio Lower Upper

45 100

58 280.3 30.5 45.7#



#20

Methylene Chloride

Concen: 2.911 ppbv

RT: 4.32 min Scan# 476

Delta R.T. 0.00 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Tgt Ion: 84 Resp: 113956

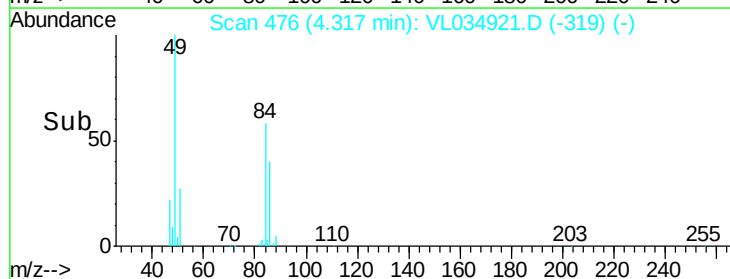
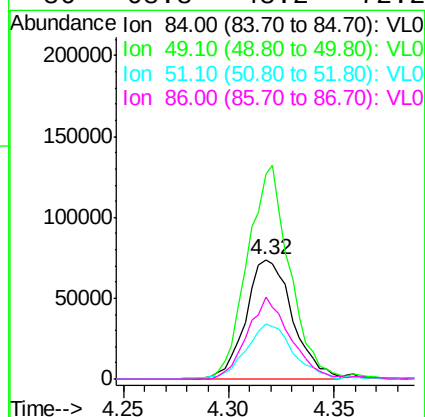
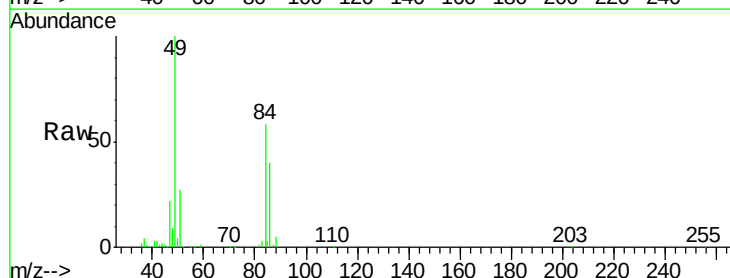
Ion Ratio Lower Upper

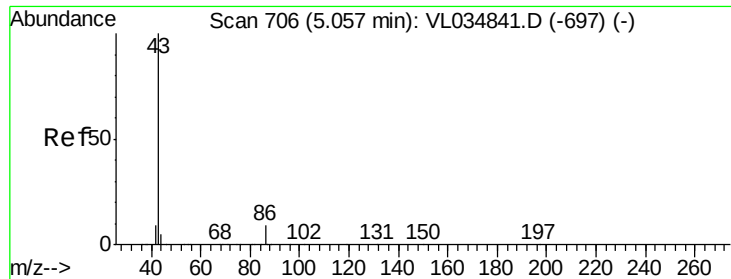
84 100

49 171.1 121.5 182.3

51 45.8 36.6 55.0

86 68.8 48.2 72.2

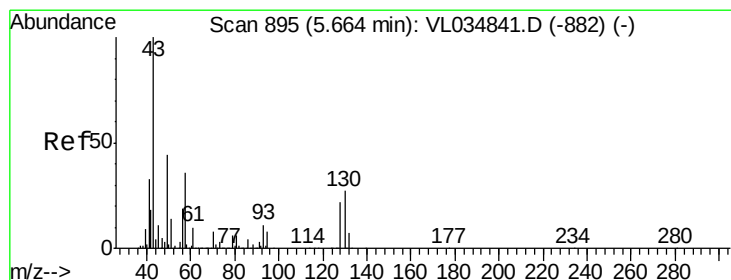
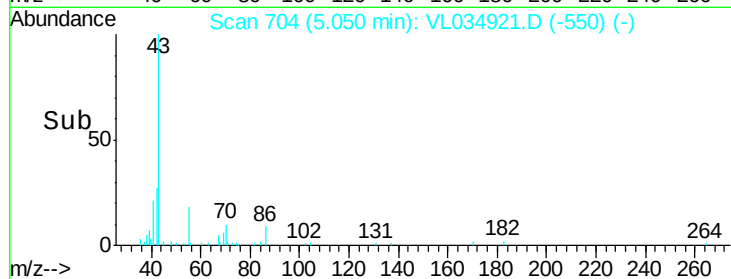
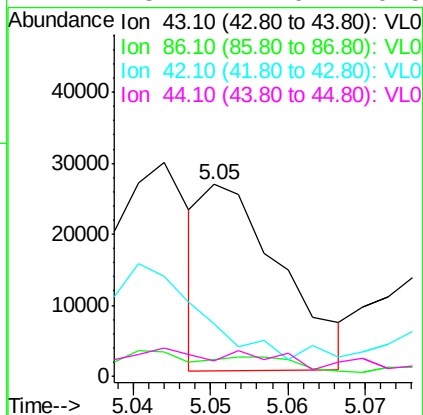
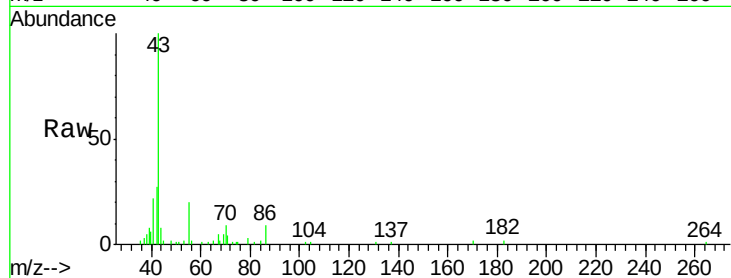




#23
 Vinyl Acetate
 Concen: 0.101 ppbv
 RT: 5.05 min Scan# 704
 Delta R.T. -0.01 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

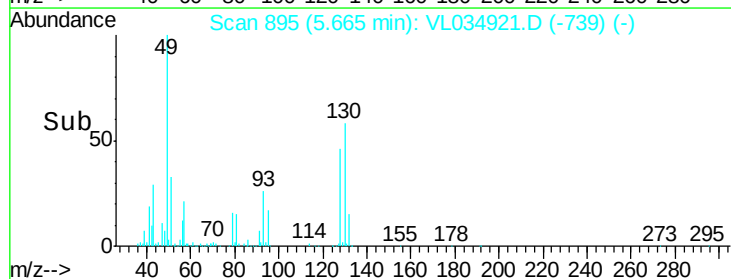
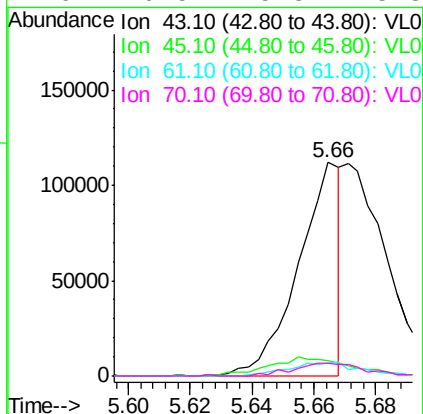
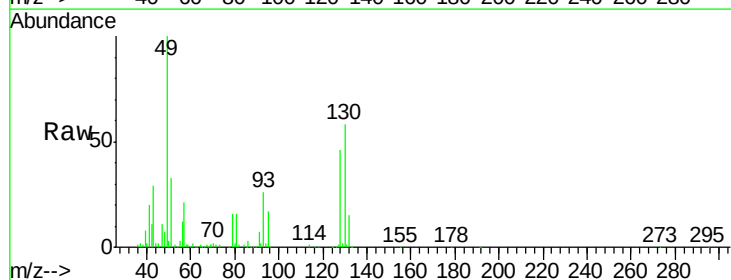
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

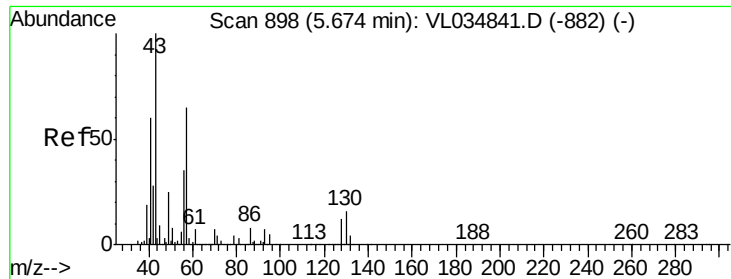
Tgt Ion:	43	Resp:	18477
Ion	Ratio	Lower	Upper
43	100		
86	8.4	6.3	9.5
42	23.9	7.8	11.8#
44	3.4	4.0	6.0#



#25
 Ethyl Acetate
 Concen: 0.480 ppbv
 RT: 5.66 min Scan# 895
 Delta R.T. 0.00 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

Tgt Ion:	43	Resp:	105782
Ion	Ratio	Lower	Upper
43	100		
45	18.1	8.2	12.2#
61	0.0	7.8	11.6#
70	10.5	5.8	8.8#

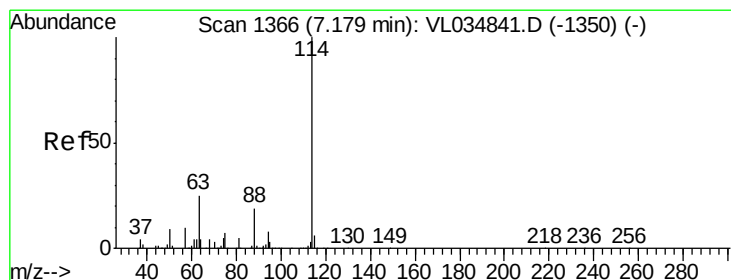
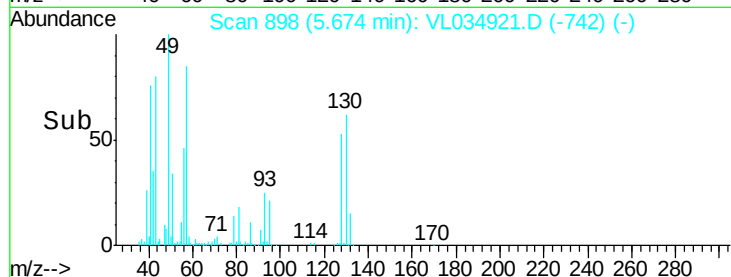
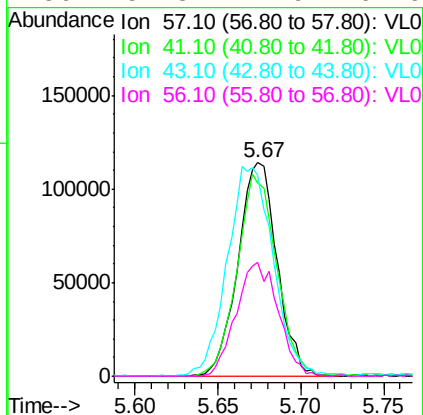
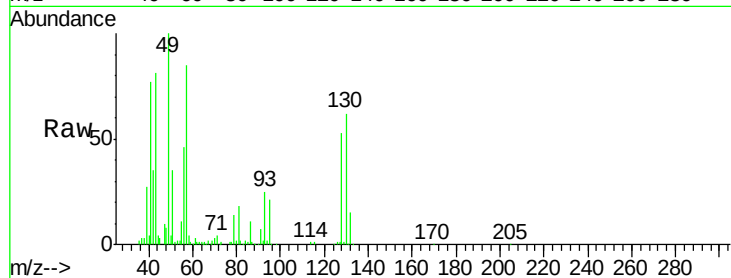




#26
Hexane
Concen: 1.974 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.00 min
Lab File: VL034921.D
Acq: 17 Mar 2020 18:44

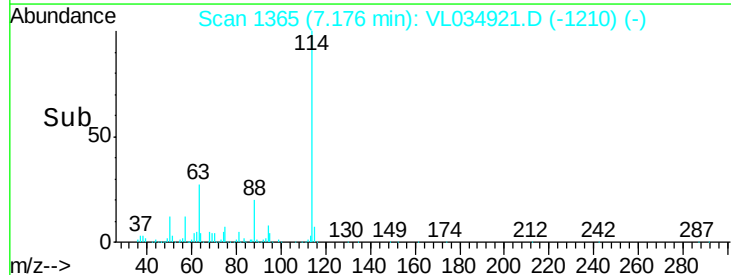
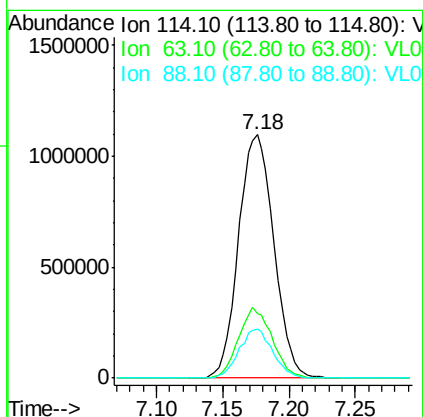
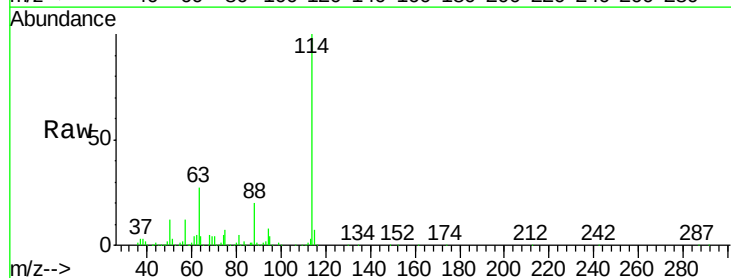
Instrument :
MSVOA_L
ClientSampleId :
IA-2

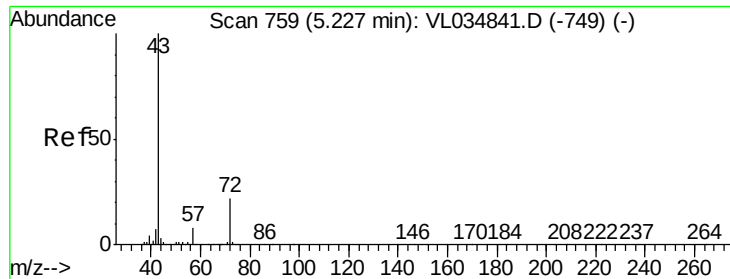
Tgt Ion:	57	Resp:	187495
Ion	Ratio	Lower	Upper
57	100		
41	96.4	72.6	109.0
43	115.6	183.8	275.6#
56	57.3	41.9	62.9



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VL034921.D
Acq: 17 Mar 2020 18:44

Tgt Ion:	114	Resp:	2030516
Ion	Ratio	Lower	Upper
114	100		
63	27.8	20.6	31.0
88	19.2	15.0	22.6

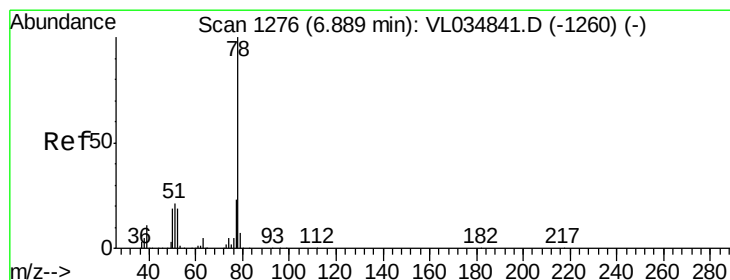
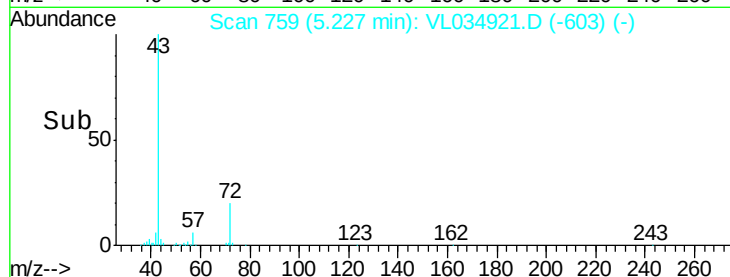
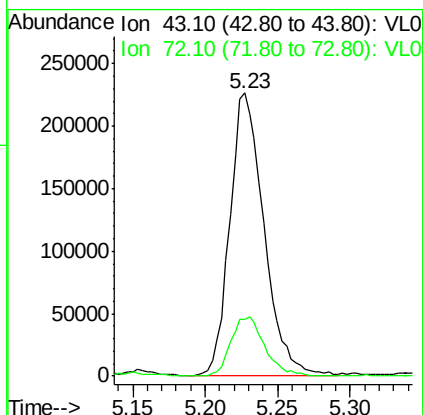
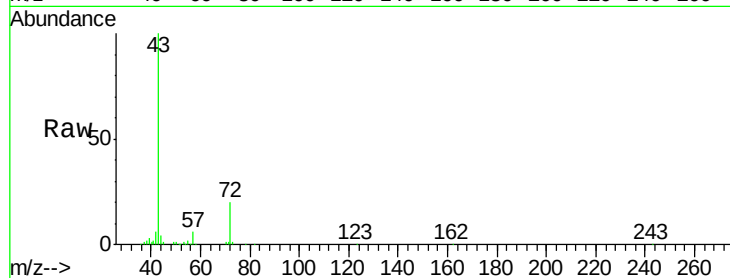




#34
 2-Butanone
 Concen: 2.739 ppbv
 RT: 5.23 min Scan# 759
 Delta R.T. 0.00 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

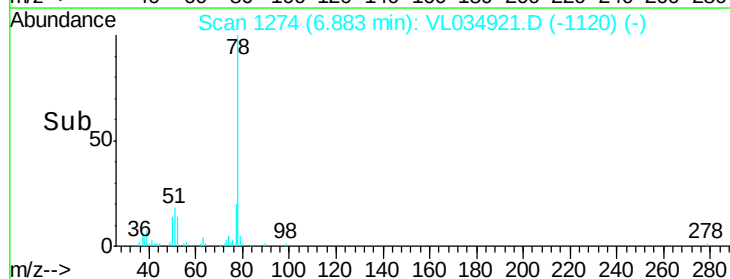
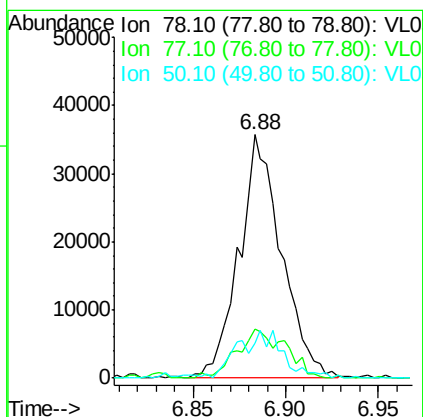
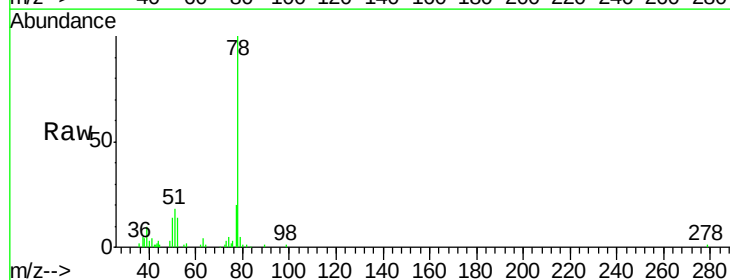
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

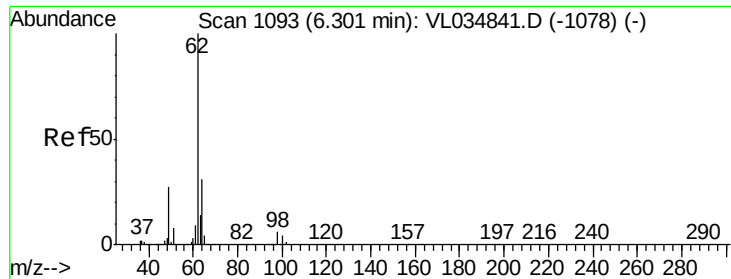
Tgt Ion: 43 Resp: 369647
 Ion Ratio Lower Upper
 43 100
 72 20.9 17.6 26.4



#36
 Benzene
 Concen: 0.313 ppbv
 RT: 6.88 min Scan# 1274
 Delta R.T. -0.01 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

Tgt Ion: 78 Resp: 56701
 Ion Ratio Lower Upper
 78 100
 77 20.2 18.2 27.2
 50 13.2 15.2 22.8#

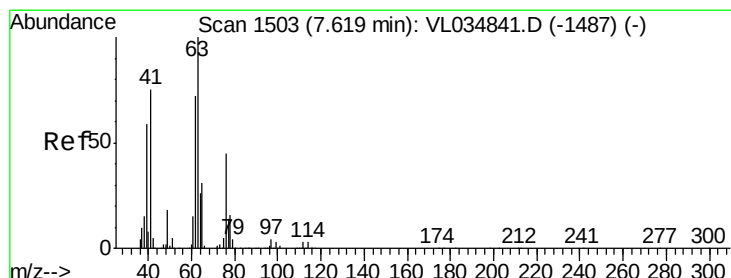
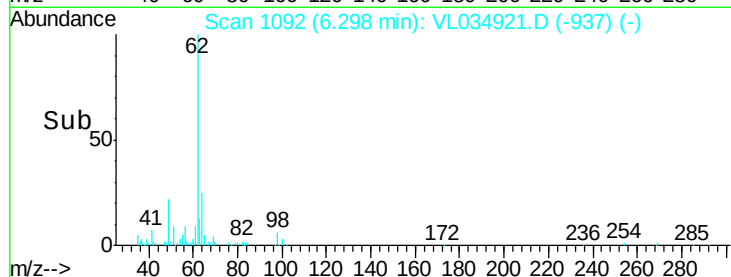
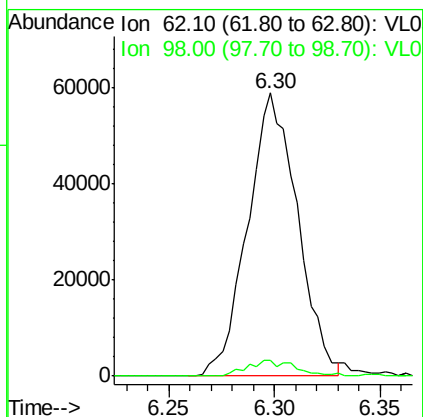
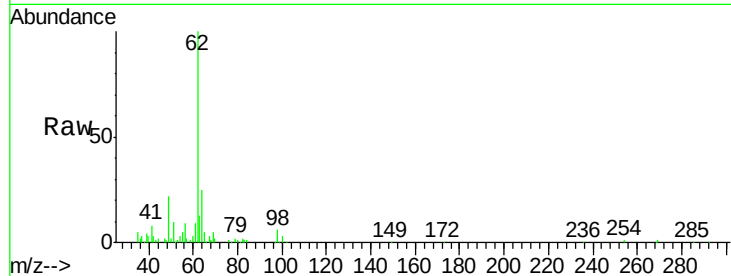




#37
 1,2-Dichloroethane
 Concen: 0.945 ppbv
 RT: 6.30 min Scan# 1092
 Delta R.T. -0.00 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

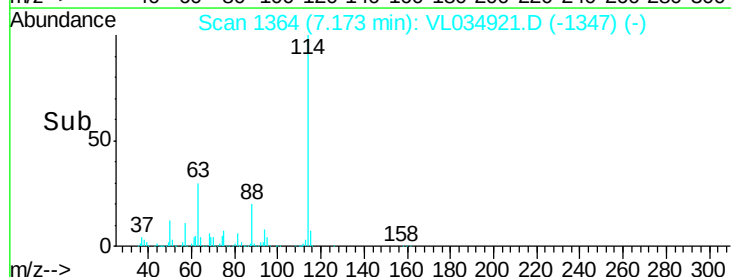
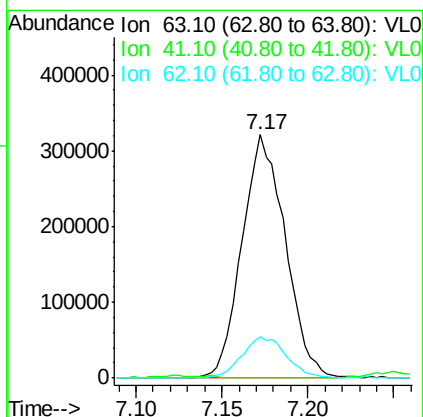
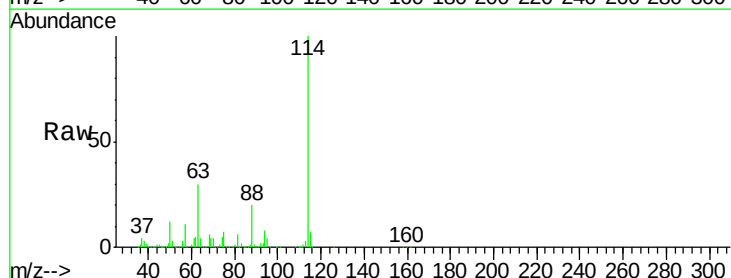
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

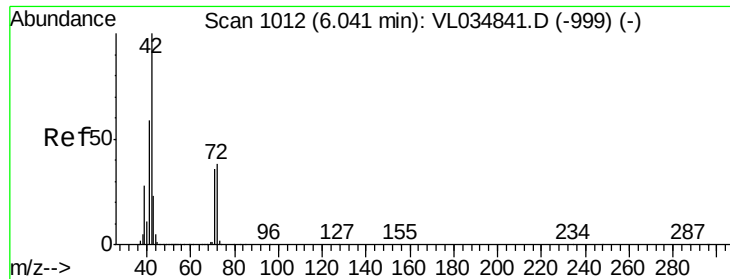
Tgt Ion: 62 Resp: 96468
 Ion Ratio Lower Upper
 62 100
 98 5.7 5.2 7.8



#39
 1,2-Dichloropropane
 Concen: 7.806 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.45 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

Tgt Ion: 63 Resp: 559760
 Ion Ratio Lower Upper
 63 100
 41 0.0 59.8 89.8#
 62 17.0 57.6 86.4#





#41

Tetrahydrofuran

Concen: 1.593 ppbv

RT: 6.04 min Scan# 1013

Delta R.T. 0.00 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

IA-2

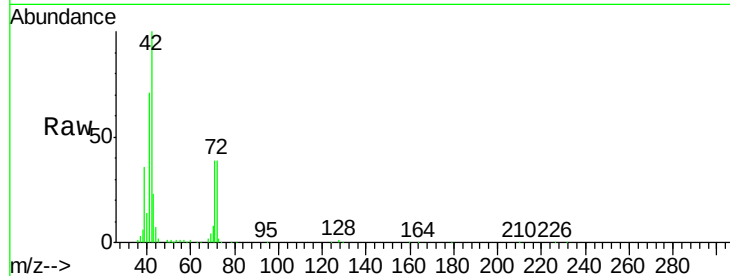
Tgt Ion: 42 Resp: 116295

Ion Ratio Lower Upper

42 100

72 36.9 30.8 46.2

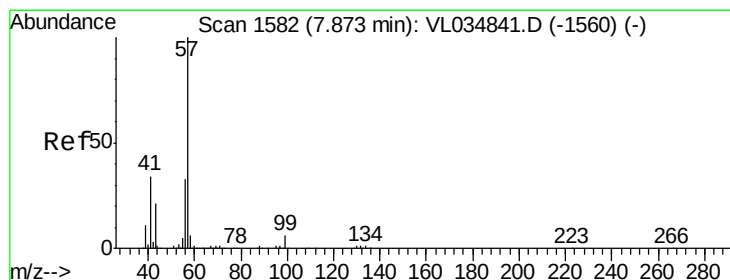
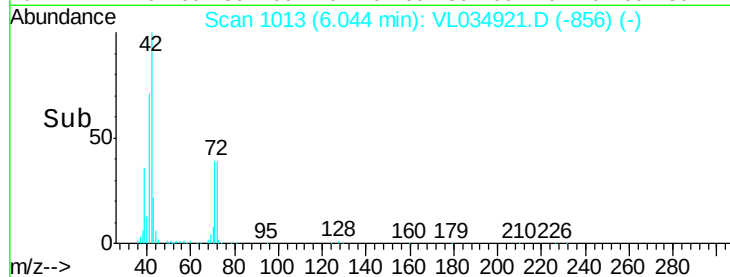
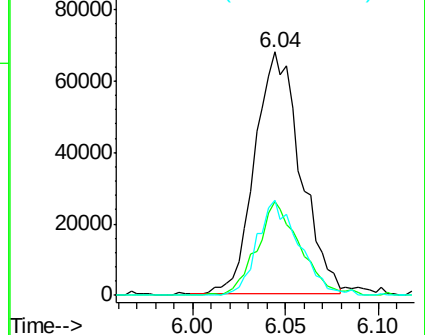
71 36.3 30.1 45.1



Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.059 ppbv

RT: 7.88 min Scan# 1583

Delta R.T. 0.00 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

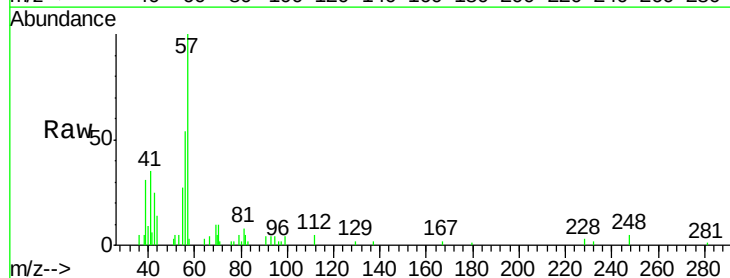
Tgt Ion: 57 Resp: 18026

Ion Ratio Lower Upper

57 100

41 0.0 26.2 39.4#

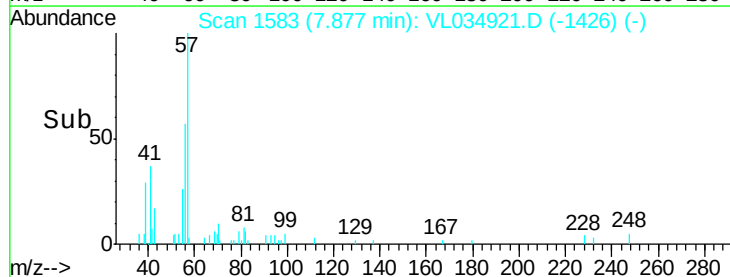
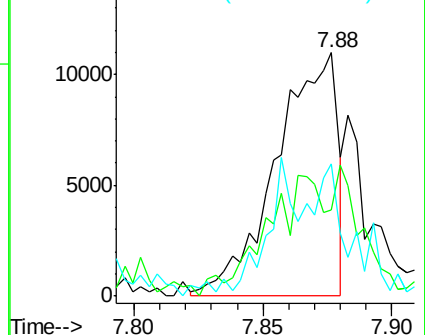
56 60.9 25.0 37.4#

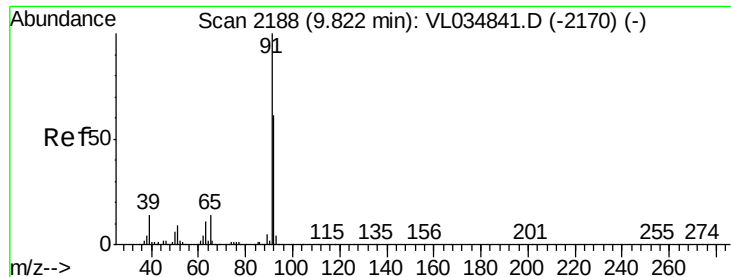


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 1.751 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. -0.00 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

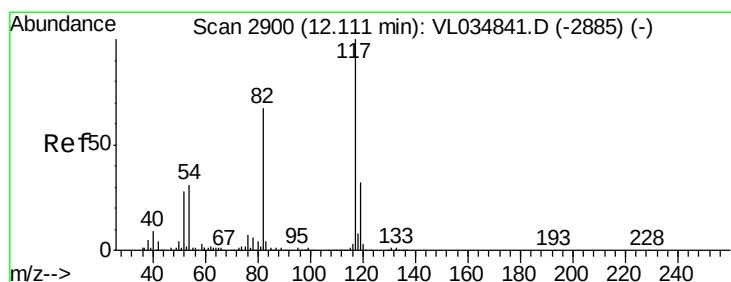
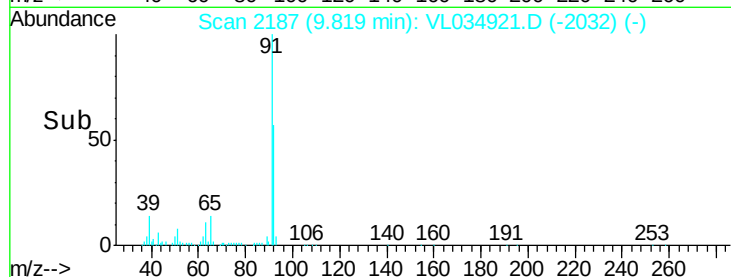
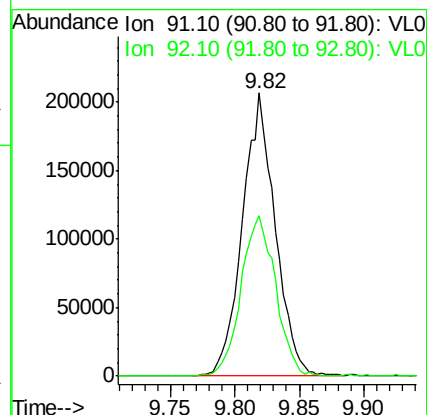
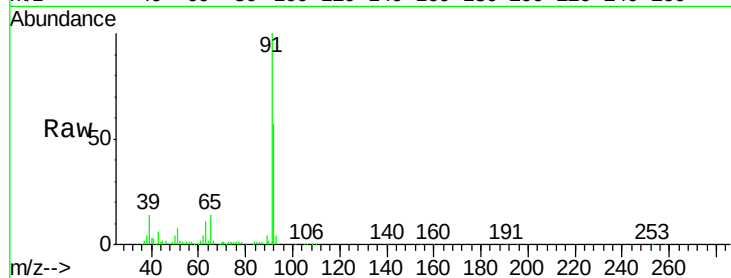
IA-2

Tgt Ion: 91 Resp: 365903

Ion Ratio Lower Upper

91 100

92 59.8 48.6 72.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. -0.01 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

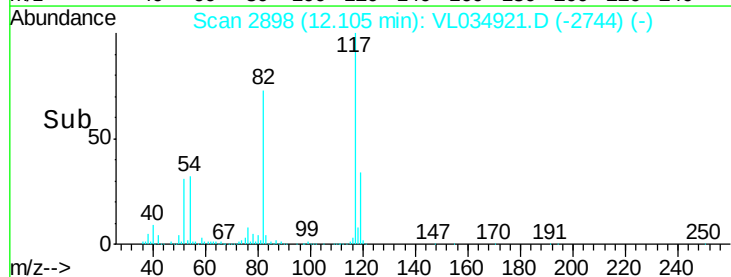
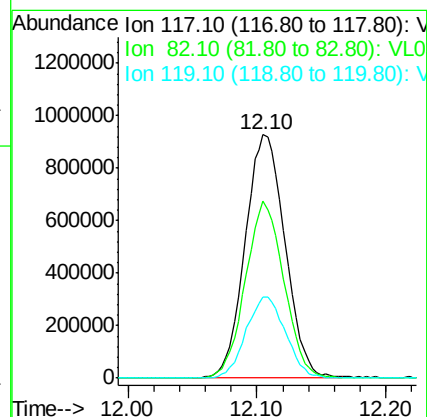
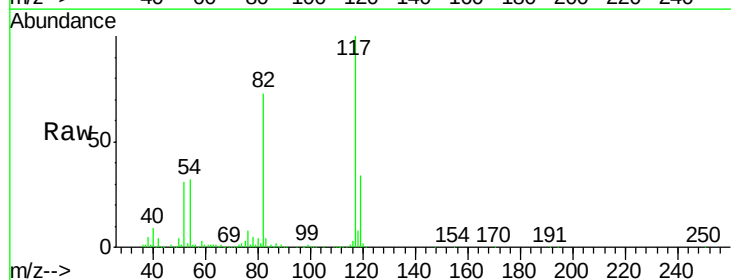
Tgt Ion: 117 Resp: 2000125

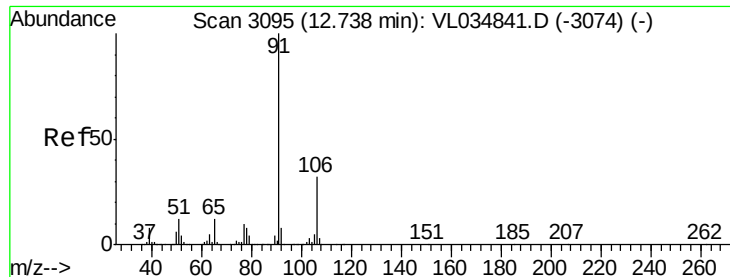
Ion Ratio Lower Upper

117 100

82 70.2 51.1 76.7

119 33.2 27.3 40.9





#58

Ethyl Benzene

Concen: 0.162 ppbv

RT: 12.99 min Scan# 3172

Delta R.T. 0.25 min

Lab File: VL034921.D

Acq: 17 Mar 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

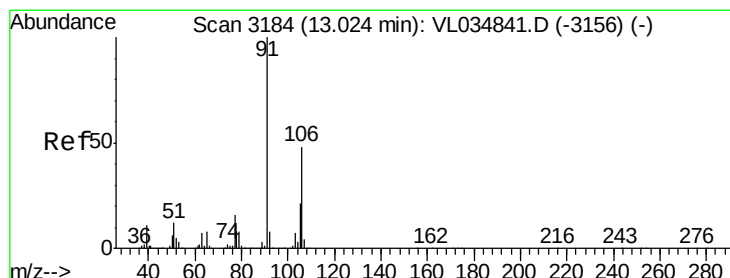
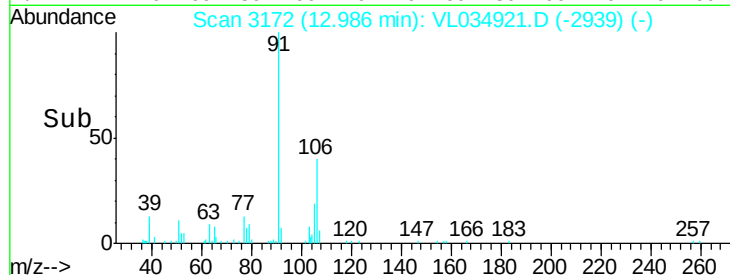
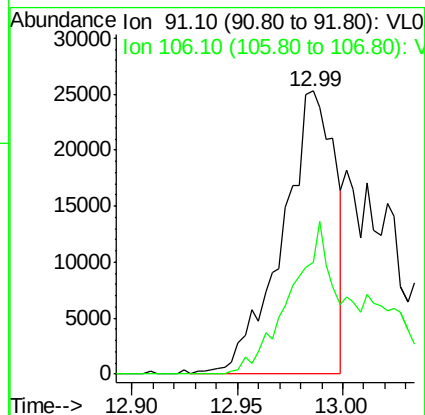
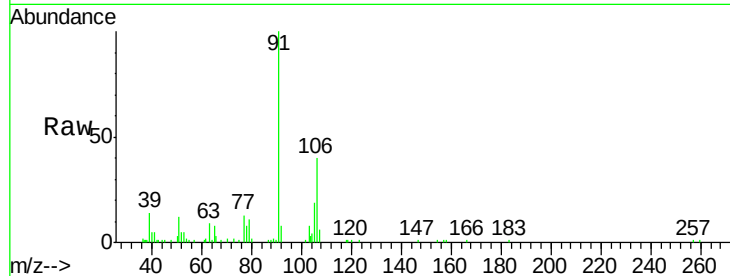
IA-2

Tgt Ion: 91 Resp: 43784

Ion Ratio Lower Upper

91 100

106 36.9 25.8 38.6



#59

m/p-Xylene

Concen: 0.037 ppbv

RT: 13.02 min Scan# 3183

Delta R.T. -0.00 min

Lab File: VL034921.D

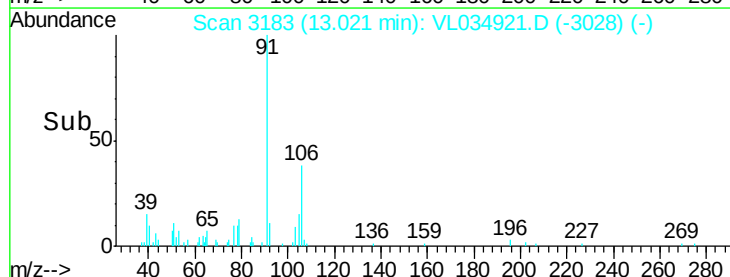
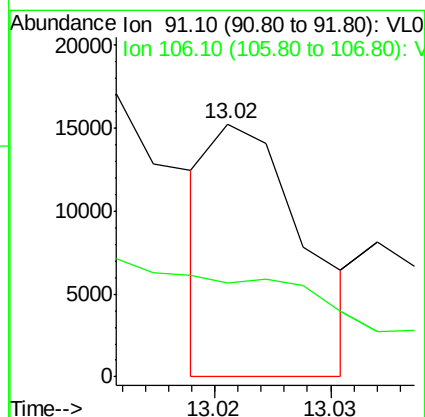
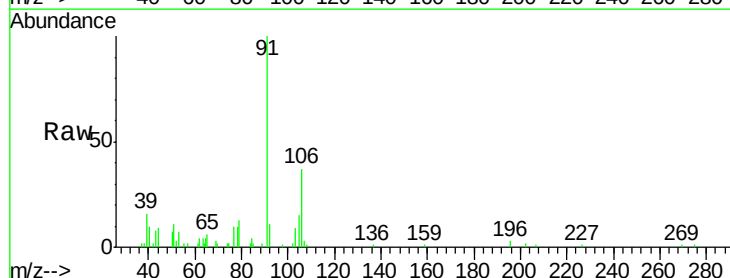
Acq: 17 Mar 2020 18:44

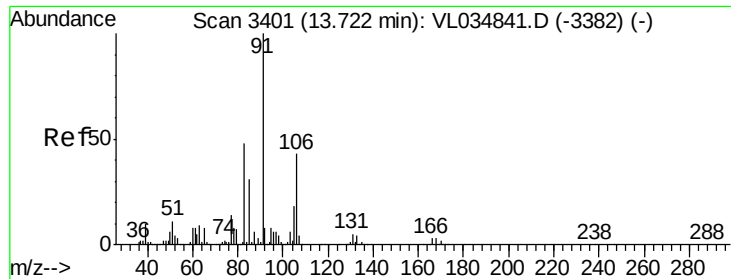
Tgt Ion: 91 Resp: 8426

Ion Ratio Lower Upper

91 100

106 0.0 37.1 55.7#

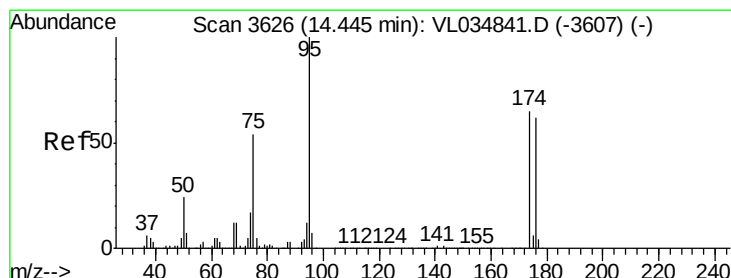
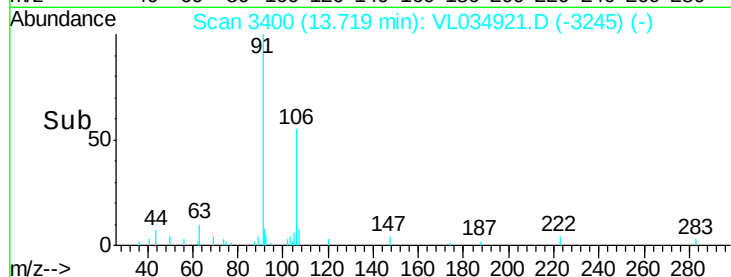
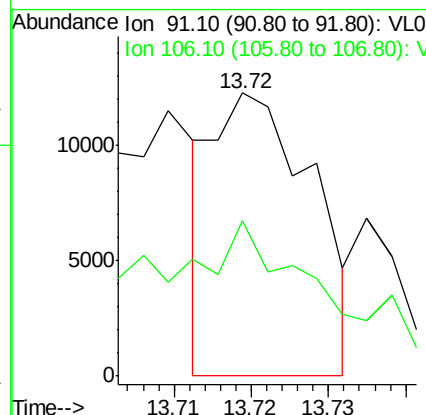
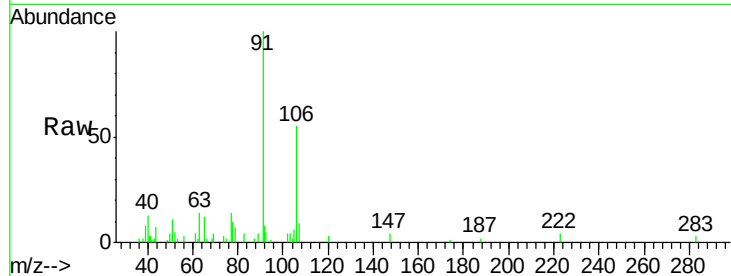




#60
o-Xylene
Concen: 0.049 ppbv
RT: 13.72 min Scan# 3400
Delta R.T. -0.00 min
Lab File: VL034921.D
Acq: 17 Mar 2020 18:44

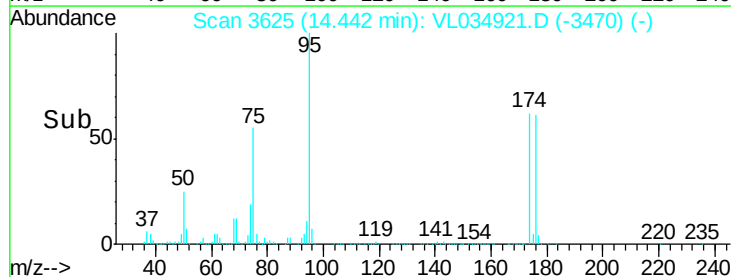
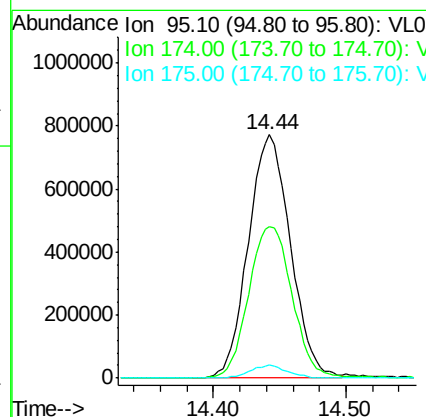
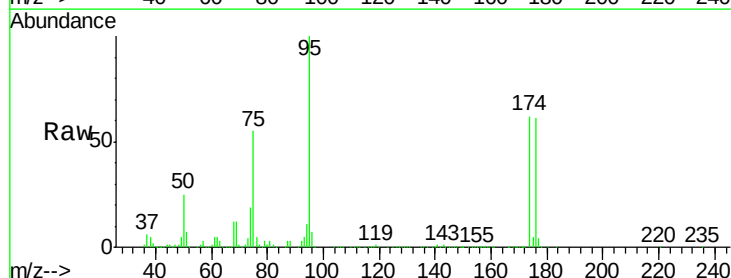
Instrument :
MSVOA_L
ClientSampleId :
IA-2

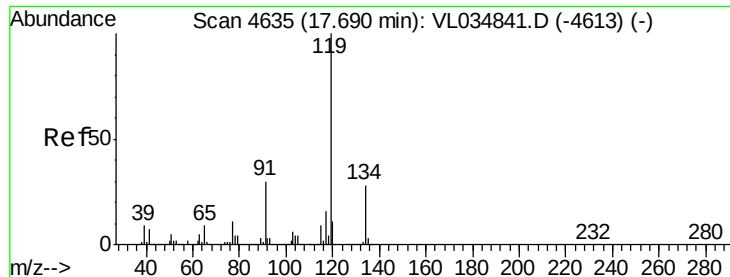
Tgt Ion: 91 Resp: 10932
Ion Ratio Lower Upper
91 100
106 120.1 22.5 67.5#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.935 ppbv
RT: 14.44 min Scan# 3625
Delta R.T. -0.00 min
Lab File: VL034921.D
Acq: 17 Mar 2020 18:44

Tgt Ion: 95 Resp: 1705663
Ion Ratio Lower Upper
95 100
174 64.9 55.2 82.8
175 4.9 4.3 6.5

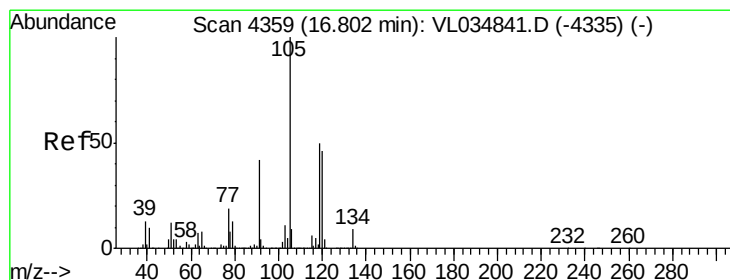
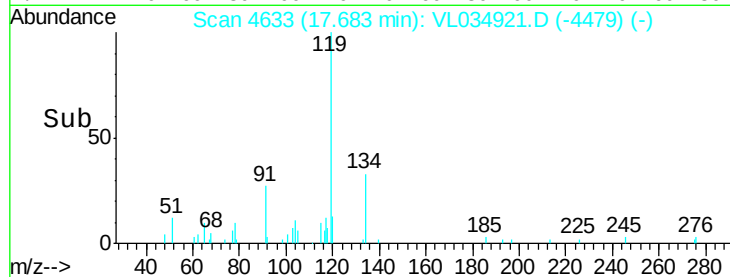
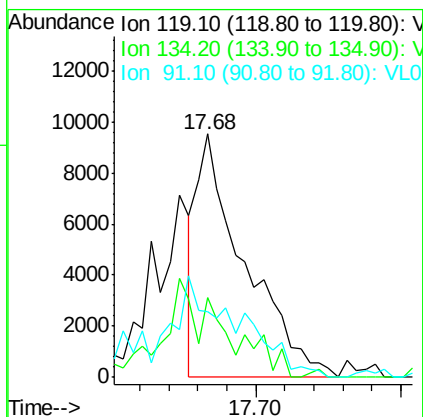
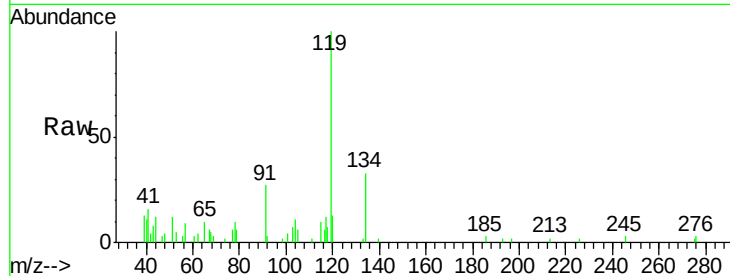




#69
 p-Isopropyltoluene
 Concen: 0.032 ppbv
 RT: 17.68 min Scan# 4633
 Delta R.T. -0.01 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Tgt Ion:119 Resp: 10915
 Ion Ratio Lower Upper
 119 100
 134 0.0 20.6 30.8#
 91 0.0 23.4 35.2#



#74
 1,2,4-Trimethylbenzene
 Concen: 0.039 ppbv
 RT: 16.79 min Scan# 4356
 Delta R.T. -0.01 min
 Lab File: VL034921.D
 Acq: 17 Mar 2020 18:44

Tgt Ion:105 Resp: 9914
 Ion Ratio Lower Upper
 105 100
 120 0.0 37.0 55.4#
 91 0.0 33.8 50.6#
 77 5.2 15.4 23.0#

