

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL021419\  
 Data File : VL033202.D  
 Acq On : 14 Feb 2019 17:01  
 Operator : SY/AP  
 Sample : VL0214ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

Quant Time: Feb 15 04:31:21 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL020519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Feb 06 09:13:11 2019  
 QLast Update : Wed Feb 06 09:13:11 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 774624   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 1819845  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2216848m | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 1537123  | 9.00     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 90.00% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Ovalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 3.08 | 85   | 1519438  | 10.260 | ppbv  | 100    |
| 3) Chlorodifluoromethane       | 3.01 | 51   | 924721   | 9.914  | ppbv  | 98     |
| 4) Chloromethane               | 3.17 | 50   | 494943   | 10.050 | ppbv  | 99     |
| 5) Vinyl Chloride              | 3.29 | 62   | 479957   | 9.326  | ppbv  | 98     |
| 6) Bromomethane                | 3.52 | 94   | 286745   | 10.145 | ppbv  | 99     |
| 7) Chloroethane                | 3.60 | 64   | 171690   | 10.212 | ppbv  | 95     |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85   | 1143884  | 9.876  | ppbv  | 98     |
| 9) Propene                     | 3.04 | 41   | 422673   | 9.381  | ppbv  | 99     |
| 10) Heptane                    | 8.25 | 43   | 1118821  | 8.208  | ppbv  | 100    |
| 11) Trichlorofluoromethane     | 4.00 | 101  | 1254030  | 10.459 | ppbv  | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101  | 823331   | 9.908  | ppbv  | 99     |
| 13) Ethanol                    | 3.65 | 45   | 89905    | 5.984  | ppbv  | 99     |
| 14) Bromoethene                | 3.79 | 108  | 361093   | 10.078 | ppbv  | 100    |
| 15) Acetone                    | 3.90 | 43   | 844299   | 9.674  | ppbv  | 99     |
| 16) 1,3-Butadiene              | 3.36 | 39   | 404430   | 9.763  | ppbv  | 97     |
| 17) tert-Butyl alcohol         | 4.36 | 59   | 171841   | 10.328 | ppbv  | 98     |
| 18) 1,1-Dichloroethene         | 4.35 | 96   | 377083   | 10.138 | ppbv  | 95     |
| 19) Isopropyl Alcohol          | 4.02 | 45   | 598267   | 10.108 | ppbv  | 100    |
| 20) Methylene Chloride         | 4.41 | 84   | 325354   | 9.372  | ppbv  | 95     |
| 21) Allyl Chloride             | 4.48 | 41   | 585547   | 10.161 | ppbv  | 99     |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96   | 377957   | 10.463 | ppbv  | 99     |
| 23) Vinyl Acetate              | 5.16 | 43   | 1528355  | 10.105 | ppbv  | 100    |
| 24) 1,1-Dichloroethane         | 5.09 | 63   | 1034998  | 9.674  | ppbv  | 100    |
| 25) Ethyl Acetate              | 5.77 | 43   | 1802364  | 9.185  | ppbv  | 100    |
| 26) Hexane                     | 5.78 | 57   | 824949   | 8.955  | ppbv  | 99     |
| 27) Carbon Disulfide           | 4.62 | 76   | 937947   | 11.115 | ppbv  | 100    |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73   | 1199227  | 9.527  | ppbv  | 99     |
| 29) Chloroform                 | 5.85 | 83   | 1333516  | 9.446  | ppbv  | 98     |
| 30) Cyclohexane                | 7.25 | 84   | 696540   | 8.150  | ppbv  | 97     |
| 31) cis-1,2-Dichloroethene     | 5.64 | 61   | 870452   | 9.441  | ppbv  | 100    |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97   | 1329705  | 8.555  | ppbv  | 99     |
| 34) 2-Butanone                 | 5.33 | 43   | 1237829  | 10.723 | ppbv  | 99     |
| 35) Carbon Tetrachloride       | 7.14 | 117  | 1363692  | 9.812  | ppbv  | 95     |
| 36) Benzene                    | 7.01 | 78   | 1743397  | 9.452  | ppbv  | 98     |
| 37) 1,2-Dichloroethane         | 6.41 | 62   | 1056980  | 10.341 | ppbv  | 99     |
| 38) Trichloroethene            | 7.97 | 130  | 654202   | 8.283  | ppbv  | 95     |
| 39) 1,2-Dichloropropane        | 7.74 | 63   | 668527   | 9.178  | ppbv  | 95     |
| 40) 1,4-Dioxane                | 7.96 | 88   | 240599   | 9.089  | ppbv  | 99     |
| 41) Tetrahydrofuran            | 6.15 | 42   | 719066   | 10.064 | ppbv  | 99     |
| 42) Bromodichloromethane       | 7.92 | 83   | 1526502  | 10.306 | ppbv  | 100    |
| 43) Methyl Methacrylate        | 8.14 | 69   | 715278   | 9.660  | ppbv  | 98     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL021419\  
 Data File : VL033202.D  
 Acq On : 14 Feb 2019 17:01  
 Operator : SY/AP  
 Sample : VL0214ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

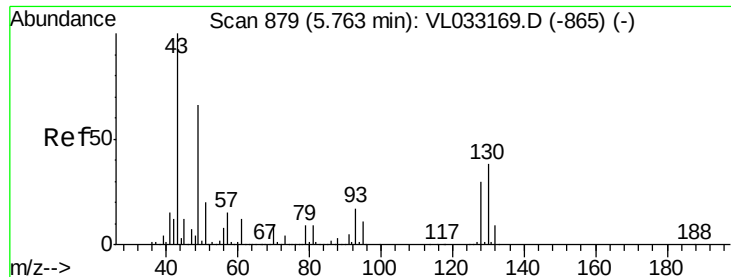
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

Quant Time: Feb 15 04:31:21 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL020519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Feb 06 09:13:11 2019  
 QLast Update : Wed Feb 06 09:13:11 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.99  | 57   | 2956954  | 9.461  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.42  | 75   | 966708   | 11.752 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.84  | 75   | 1108147  | 10.576 | ppbv   | 96       |
| 47) 1,1,2-Trichloroethane     | 9.62  | 97   | 724507   | 9.584  | ppbv   | 96       |
| 48) Dibromochloromethane      | 10.45 | 129  | 1262518  | 10.609 | ppbv   | 100      |
| 49) Bromoform                 | 13.20 | 173  | 1153084  | 11.263 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 1843346  | 9.958  | ppbv   | 98       |
| 51) 2-Hexanone                | 10.27 | 43   | 1475130  | 10.107 | ppbv # | 98       |
| 52) Tetrachloroethene         | 11.38 | 164  | 637745   | 9.000  | ppbv   | 98       |
| 53) Toluene                   | 9.95  | 91   | 2099728  | 9.614  | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.76 | 107  | 1149831  | 9.700  | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.28 | 131  | 919762   | 9.040  | ppbv # | 58       |
| 57) Chlorobenzene             | 12.30 | 112  | 1592189  | 8.227  | ppbv   | 95       |
| 58) Ethyl Benzene             | 12.87 | 91   | 2984388  | 8.318  | ppbv   | 98       |
| 59) m/p-Xylene                | 13.12 | 91   | 4962626m | 16.574 | ppbv   |          |
| 60) o-Xylene                  | 13.85 | 91   | 2394817  | 8.225  | ppbv   | 98       |
| 61) Styrene                   | 13.69 | 104  | 1816330  | 8.270  | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.83 | 105  | 3375128  | 8.218  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.84 | 83   | 1659621  | 7.255  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.73 | 120  | 844809   | 8.093  | ppbv   | 96       |
| 65) tert-Butylbenzene         | 16.91 | 119  | 2914281  | 8.148  | ppbv   | 98       |
| 66) Benzyl Chloride           | 17.16 | 91   | 1443727  | 11.370 | ppbv   | 98       |
| 67) sec-Butylbenzene          | 17.46 | 105  | 4761113  | 9.170  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.82 | 119  | 4018046  | 9.291  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.72 | 91   | 4324170  | 9.267  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.62 | 91   | 2598645  | 8.053  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.00 | 105  | 2751327  | 8.198  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.16 | 105  | 2664210  | 8.300  | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 16.93 | 105  | 2664699  | 7.999  | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.17 | 146  | 1538123  | 8.007  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 1559856  | 8.199  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.99 | 146  | 1784898  | 9.404  | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 860126   | 9.104  | ppbv   | 99       |
| 79) Naphthalene               | 22.42 | 128  | 3142221  | 8.780  | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 1176113  | 6.490  | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.14 | 180  | 1554236  | 8.547  | ppbv   | 100      |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

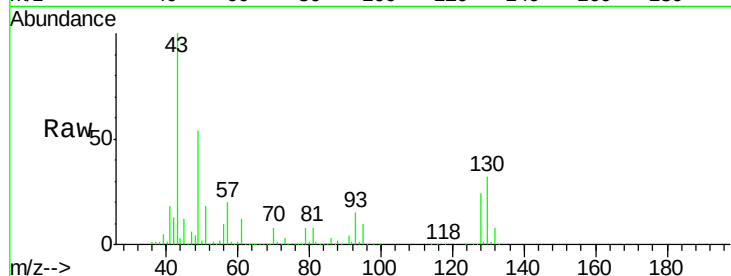
Tot Ion: 49 Resp: 774624

Ion Ratio Lower Upper

49 100

128 46.0 23.6 71.0

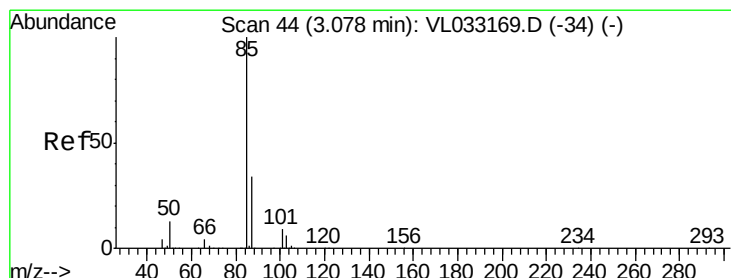
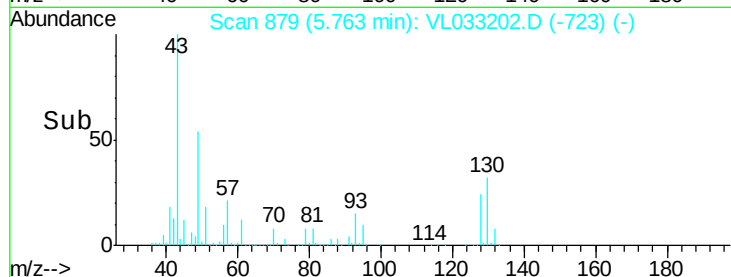
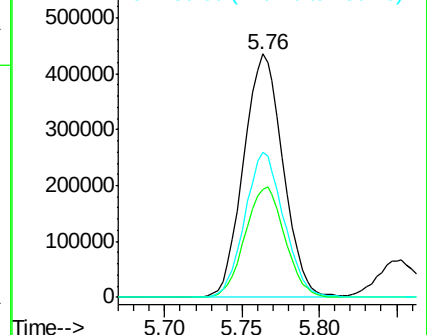
130 58.9 30.3 91.0



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: 10.260 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033202.D

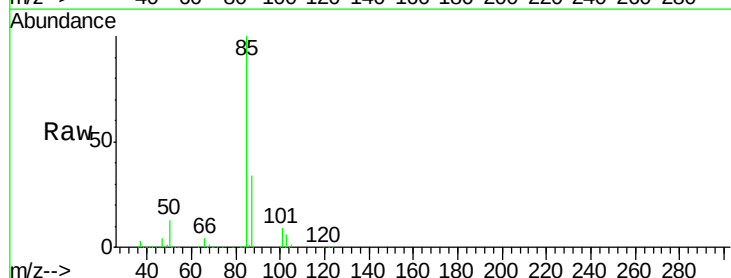
Acq: 14 Feb 2019 17:01

Tgt Ion: 85 Resp: 1519438

Ion Ratio Lower Upper

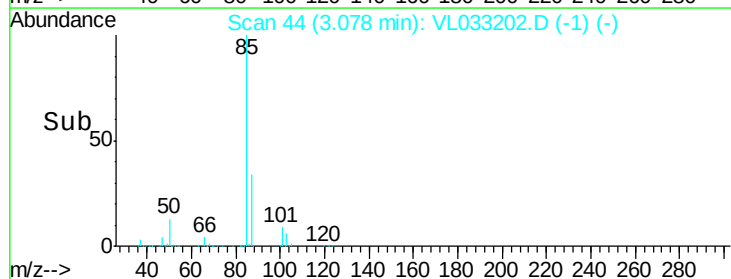
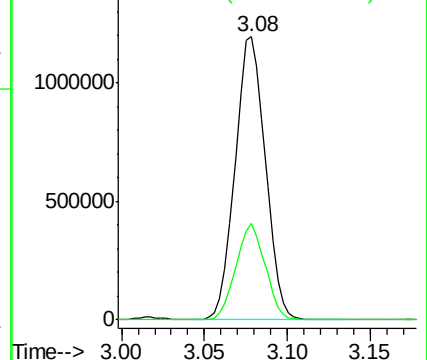
85 100

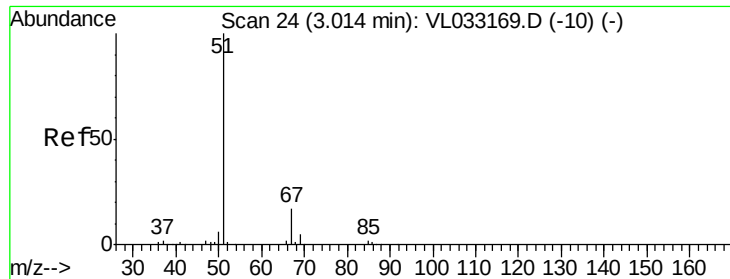
87 34.3 27.4 41.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 9.914 ppbv

RT: 3.01 min Scan# 24

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

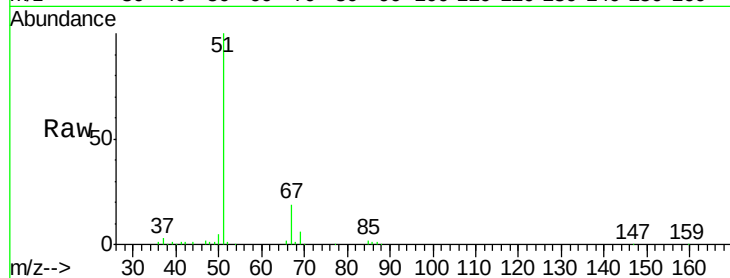
VL0214ABS01

Tot Ion: 51 Resp: 924721

Ion Ratio Lower Upper

51 100

67 18.4 14.0 21.0



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3.01

600000

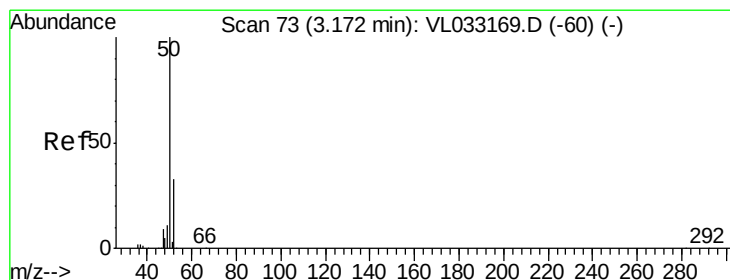
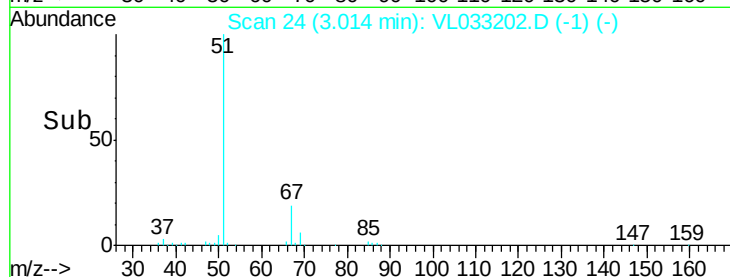
400000

200000

0

3.00 3.10

Time-->



#4

Chloromethane

Concen: 10.050 ppbv

RT: 3.17 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL033202.D

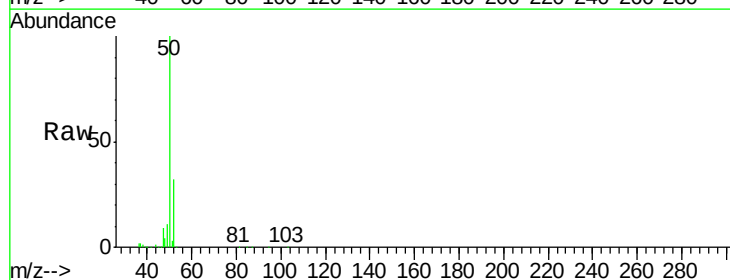
Acq: 14 Feb 2019 17:01

Tgt Ion: 50 Resp: 494943

Ion Ratio Lower Upper

50 100

52 32.4 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.17

400000

300000

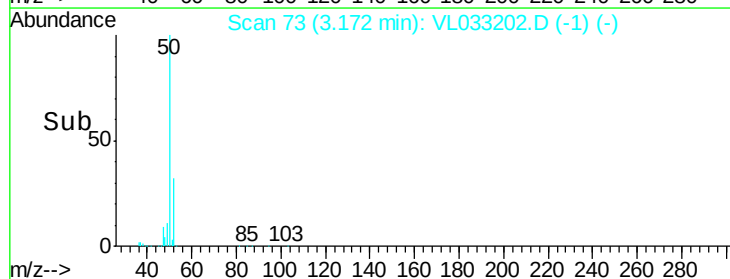
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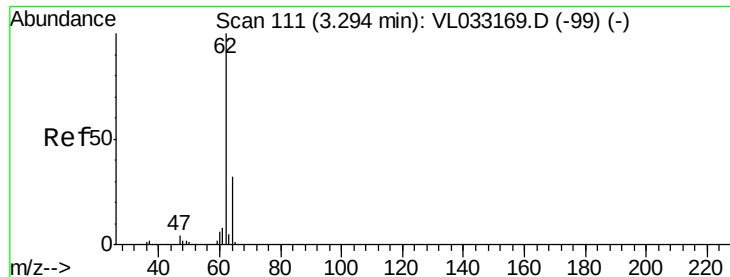
100000

0

3.15 3.20

Time-->





#5

Vinyl Chloride

Concen: 9.326 ppbv

RT: 3.29 min Scan# 111

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

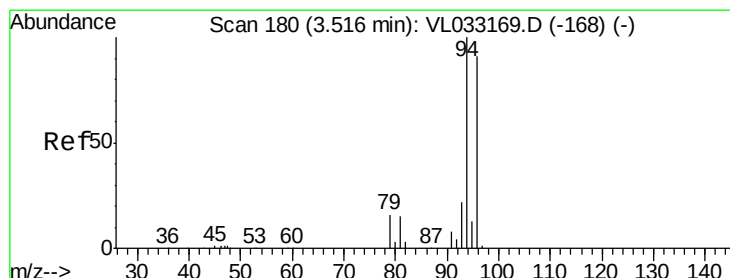
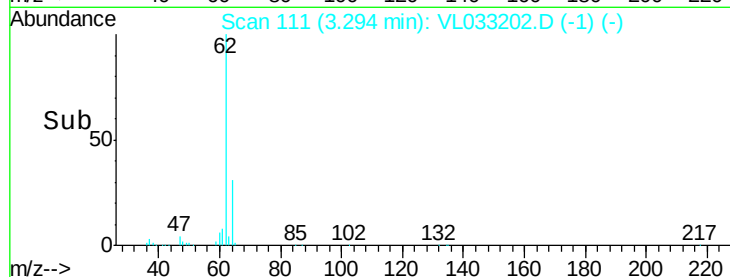
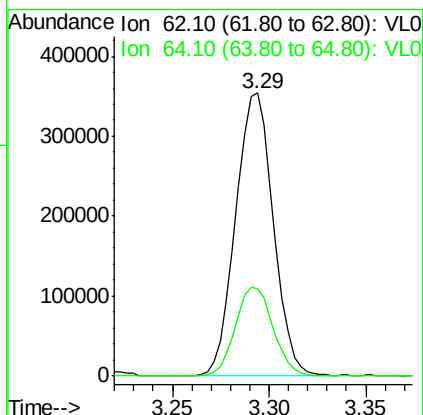
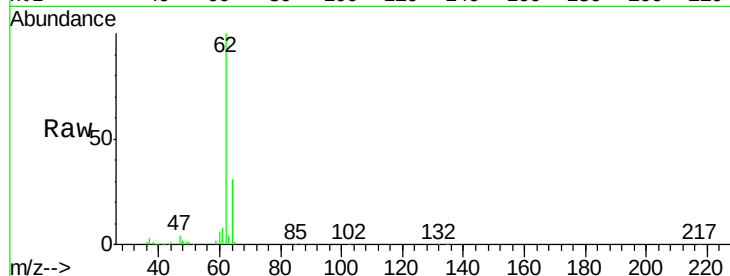
VL0214ABS01

Tot Ion: 62 Resp: 479957

Ion Ratio Lower Upper

62 100

64 31.0 25.6 38.4



#6

Bromomethane

Concen: 10.145 ppbv

RT: 3.52 min Scan# 180

Delta R.T. 0.00 min

Lab File: VL033202.D

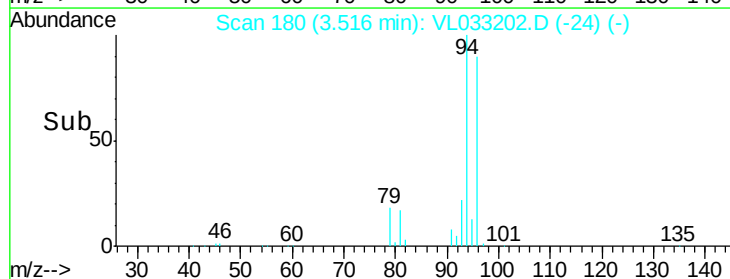
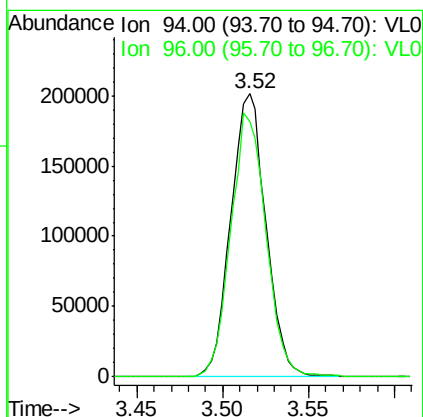
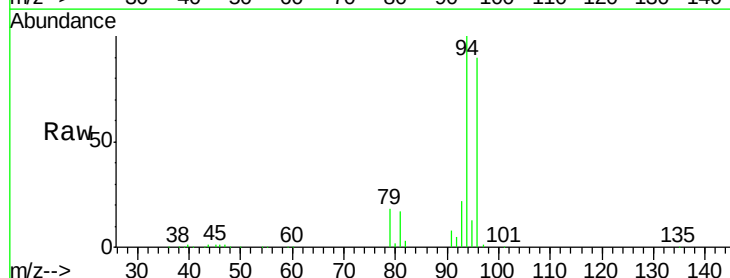
Acq: 14 Feb 2019 17:01

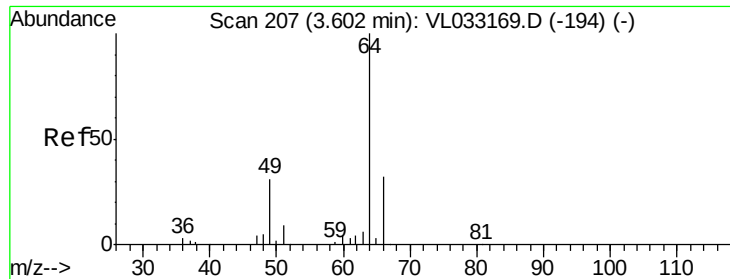
Tgt Ion: 94 Resp: 286745

Ion Ratio Lower Upper

94 100

96 90.1 73.2 109.8





#7

Chloroethane

Concen: 10.212 ppbv

RT: 3.60 min Scan# 207

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

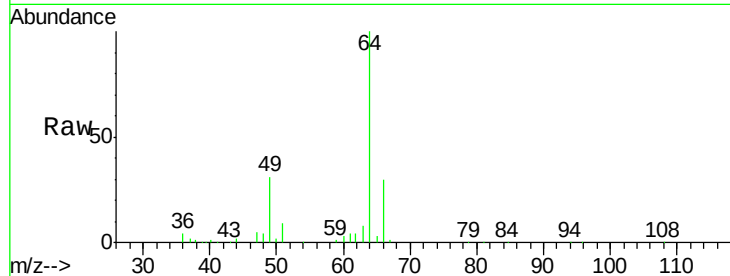
VL0214ABS01

Tot Ion: 64 Resp: 171690

Ion Ratio Lower Upper

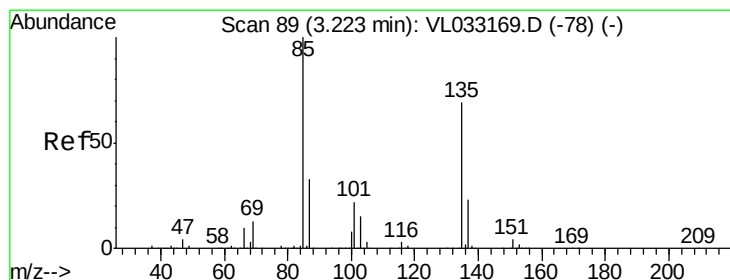
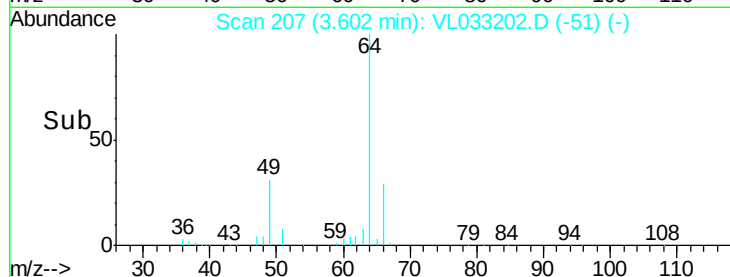
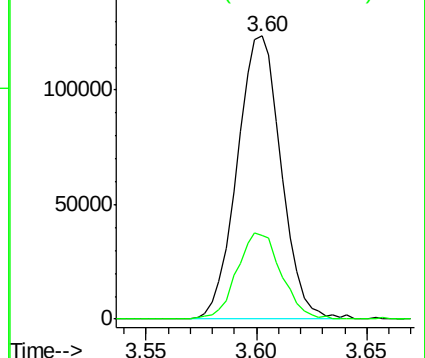
64 100

66 29.7 26.0 39.0



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 9.876 ppbv

RT: 3.22 min Scan# 88

Delta R.T. -0.00 min

Lab File: VL033202.D

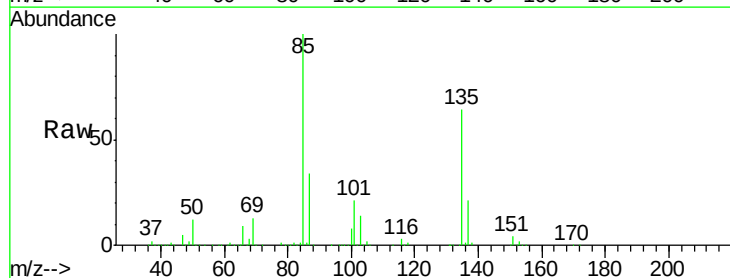
Acq: 14 Feb 2019 17:01

Tgt Ion: 85 Resp: 1143884

Ion Ratio Lower Upper

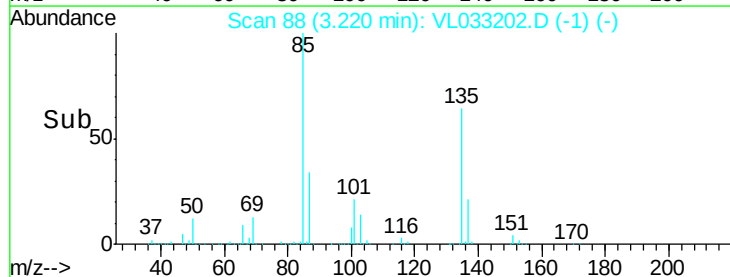
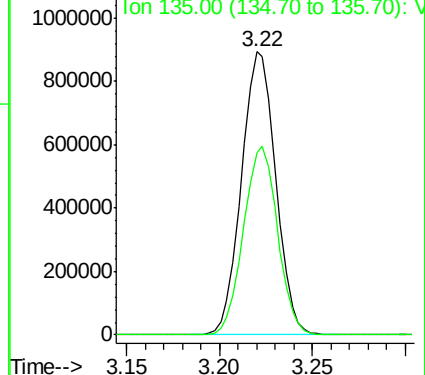
85 100

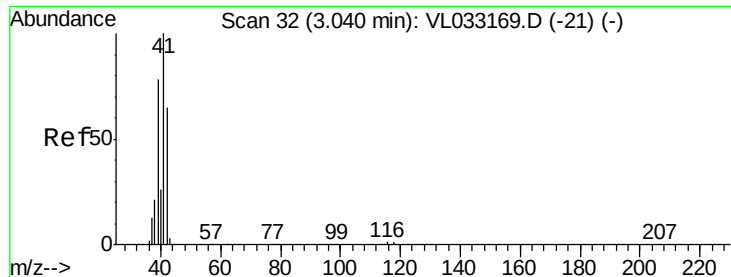
135 66.4 54.3 81.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 9.381 ppbv

RT: 3.04 min Scan# 31

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

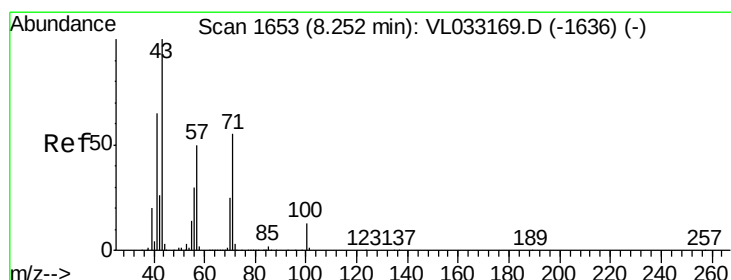
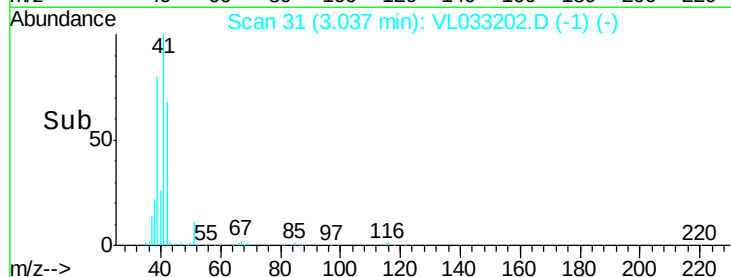
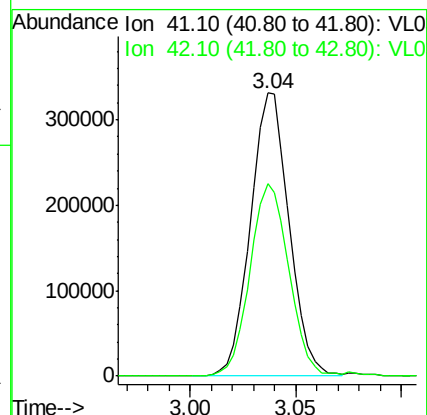
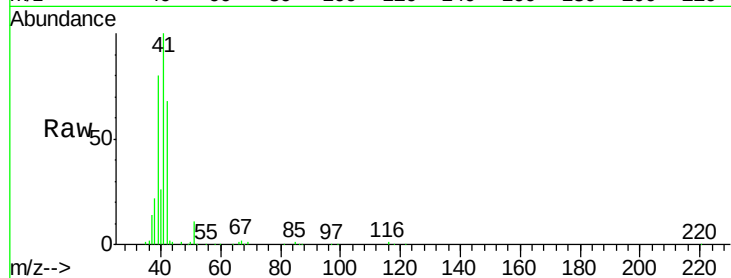
VL0214ABS01

Tot Ion: 41 Resp: 422673

Ion Ratio Lower Upper

41 100

42 69.3 55.0 82.6



#10

Heptane

Concen: 8.208 ppbv

RT: 8.25 min Scan# 1652

Delta R.T. -0.00 min

Lab File: VL033202.D

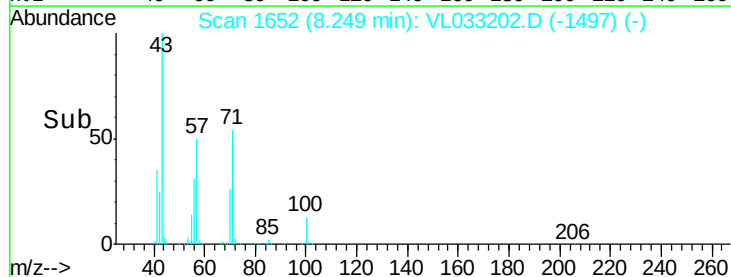
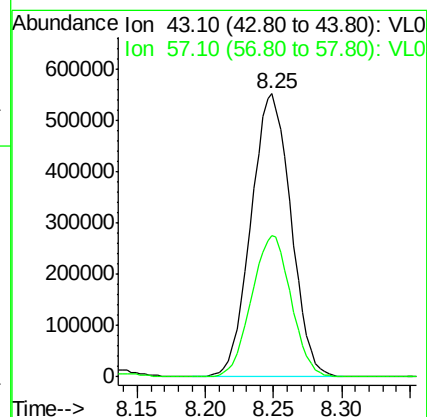
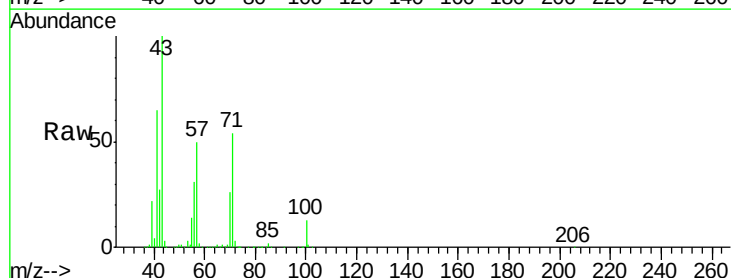
Acq: 14 Feb 2019 17:01

Tgt Ion: 43 Resp: 1118821

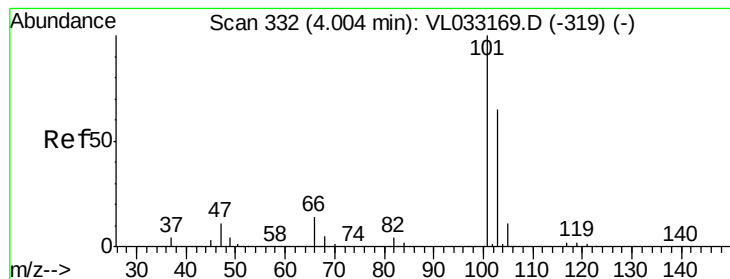
Ion Ratio Lower Upper

43 100

57 49.4 39.5 59.3







#11

Trichlorofluoromethane

Concen: 10.459 ppbv

RT: 4.00 min Scan# 332

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

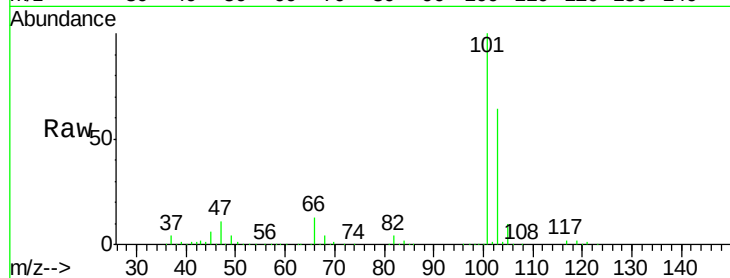
VL0214ABS01

Tot Ion:101 Resp: 1254030

Ion Ratio Lower Upper

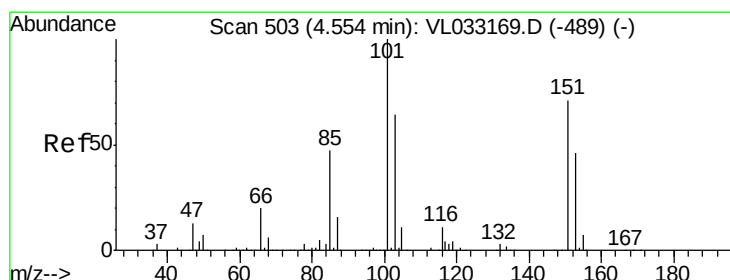
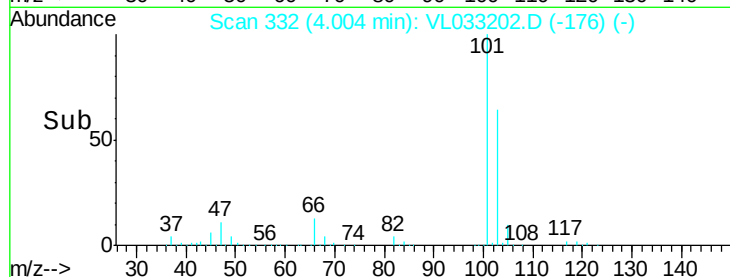
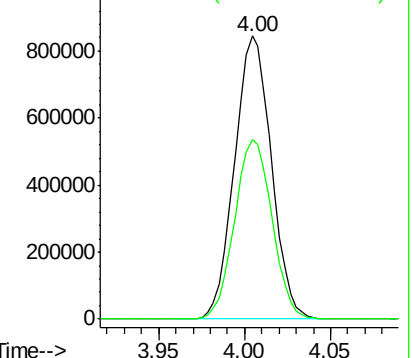
101 100

103 63.6 51.7 77.5



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: 9.908 ppbv

RT: 4.55 min Scan# 503

Delta R.T. 0.00 min

Lab File: VL033202.D

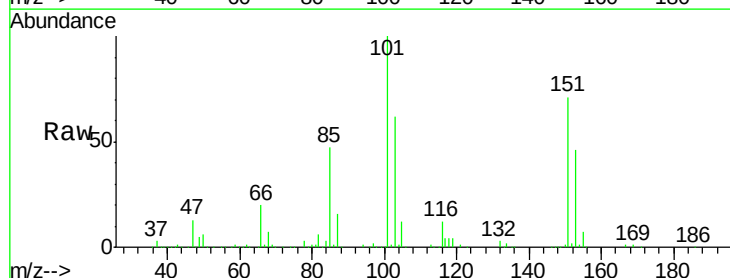
Acq: 14 Feb 2019 17:01

Tgt Ion:101 Resp: 823331

Ion Ratio Lower Upper

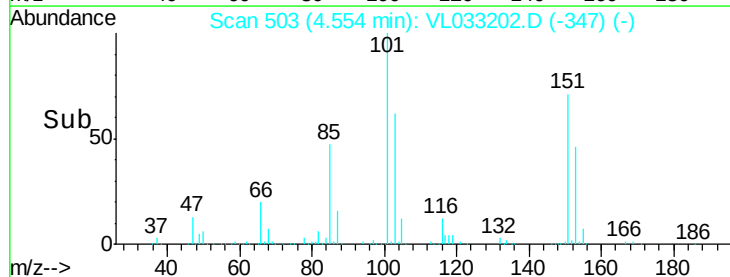
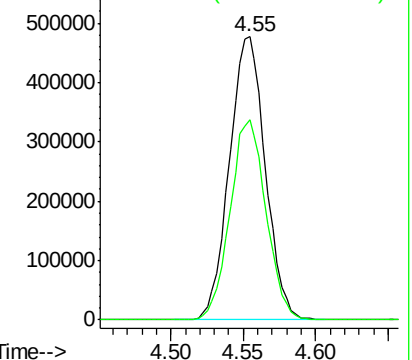
101 100

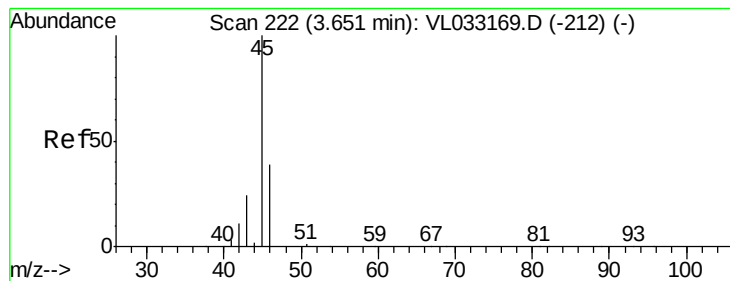
151 70.8 57.4 86.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 5.984 ppbv

RT: 3.65 min Scan# 222

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

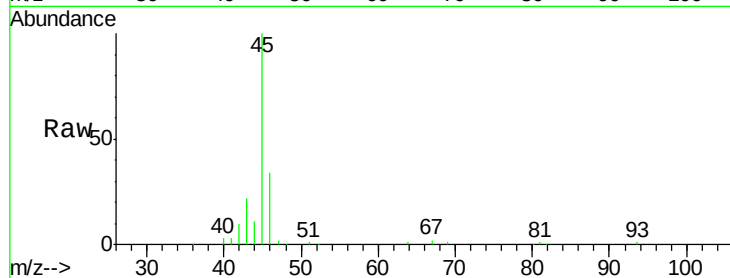
VL0214ABS01

Tot Ion: 45 Resp: 89905

Ion Ratio Lower Upper

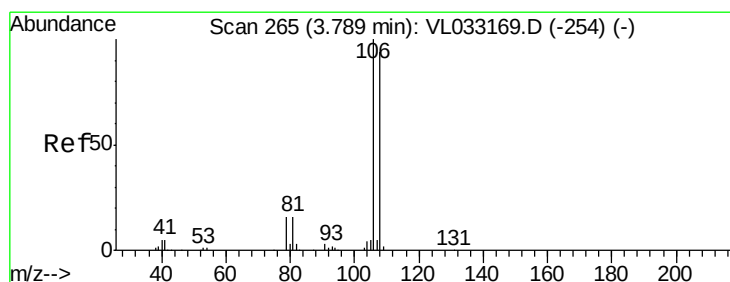
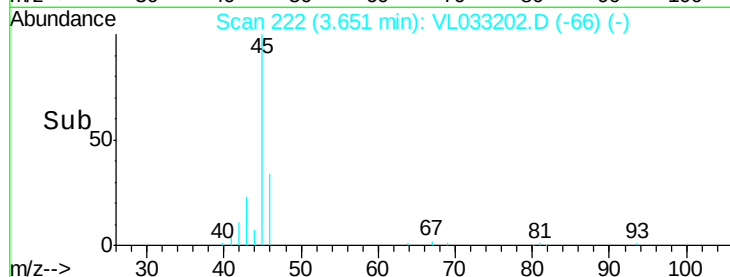
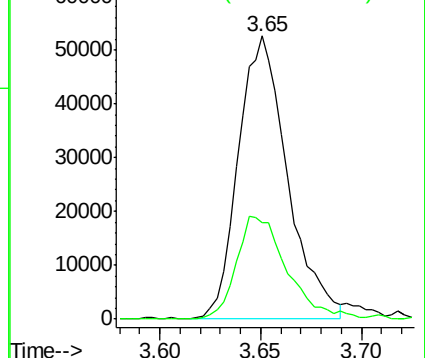
45 100

46 37.9 15.0 60.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#14

Bromoethene

Concen: 10.078 ppbv

RT: 3.79 min Scan# 265

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

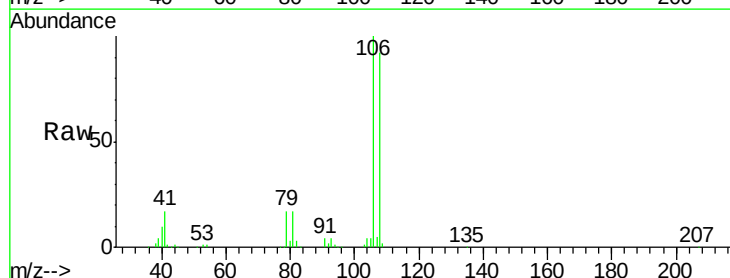
Tgt Ion: 108 Resp: 361093

Ion Ratio Lower Upper

108 100

106 107.2 86.0 129.0

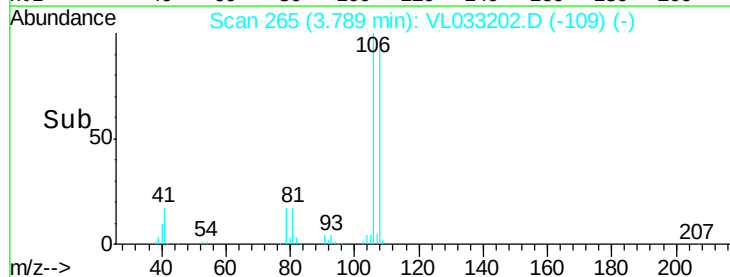
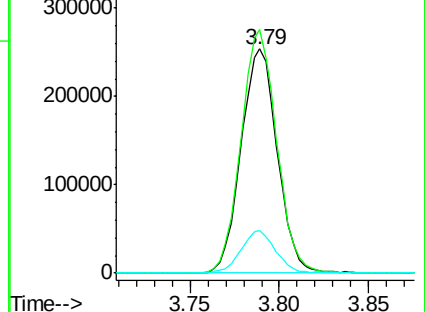
79 18.1 14.5 21.7

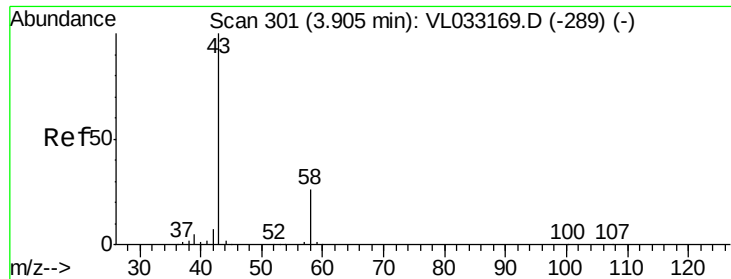


Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VL0





#15

Acetone

Concen: 9.674 ppbv

RT: 3.90 min Scan# 300

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

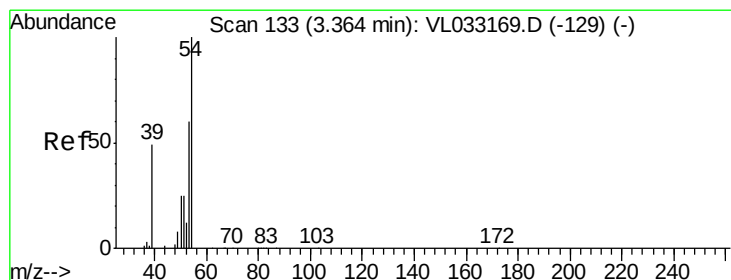
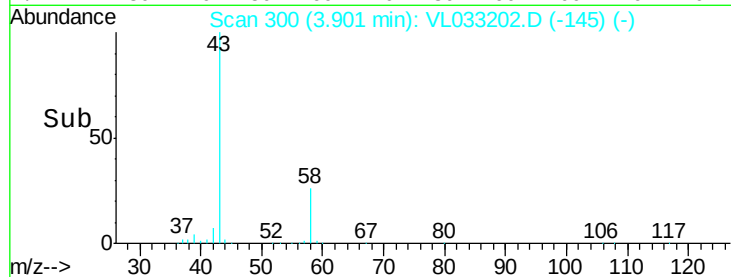
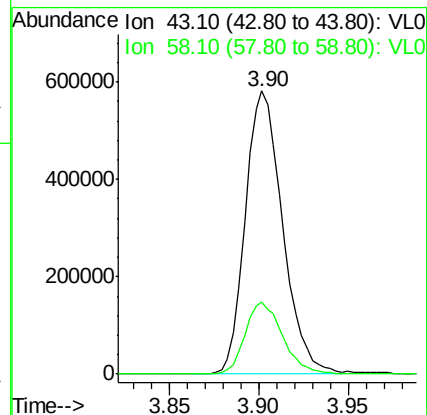
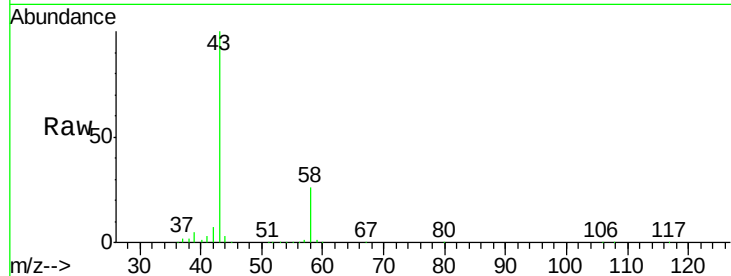
VL0214ABS01

Tot Ion: 43 Resp: 844299

Ion Ratio Lower Upper

43 100

58 25.7 21.1 31.7



#16

1,3-Butadiene

Concen: 9.763 ppbv

RT: 3.36 min Scan# 133

Delta R.T. 0.00 min

Lab File: VL033202.D

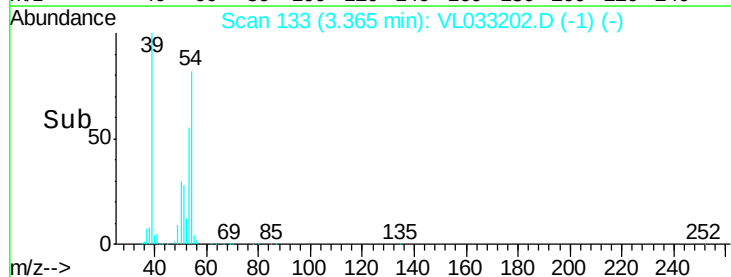
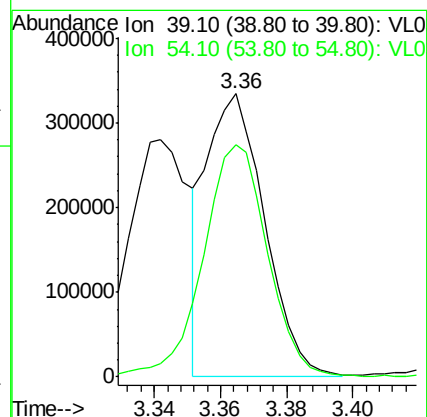
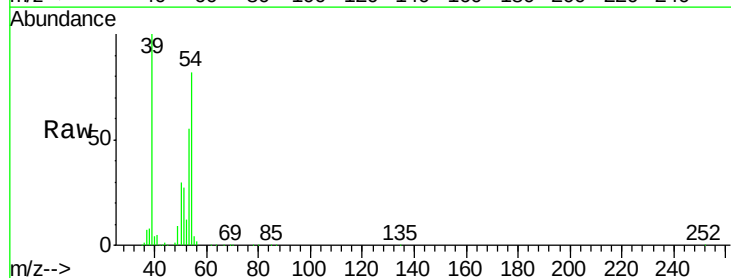
Acq: 14 Feb 2019 17:01

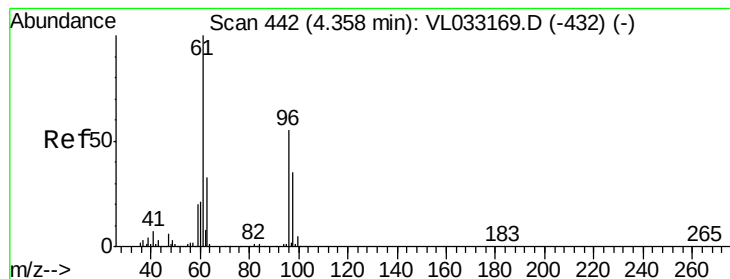
Tgt Ion: 39 Resp: 404430

Ion Ratio Lower Upper

39 100

54 92.1 71.3 106.9





#17

tert-Butyl alcohol

Concen: 10.328 ppbv

RT: 4.36 min Scan# 442

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

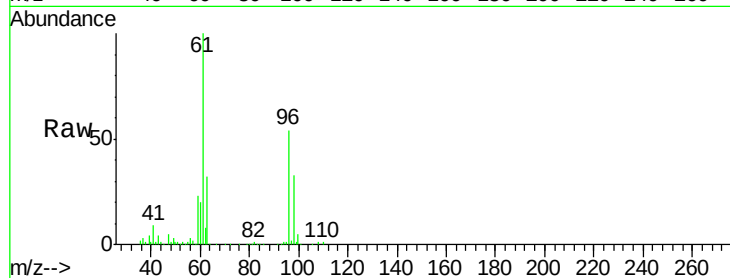
VL0214ABS01

Tot Ion: 59 Resp: 171841

Ion Ratio Lower Upper

59 100

57 10.2 7.6 11.4



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

4.36

100000

80000

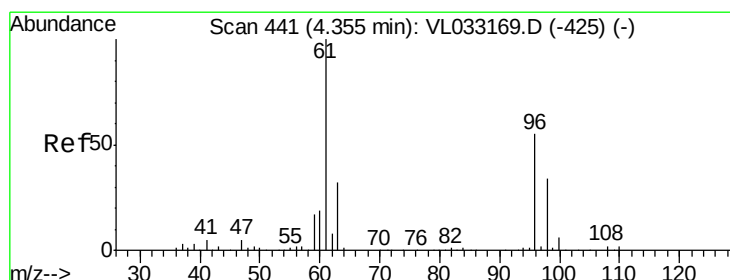
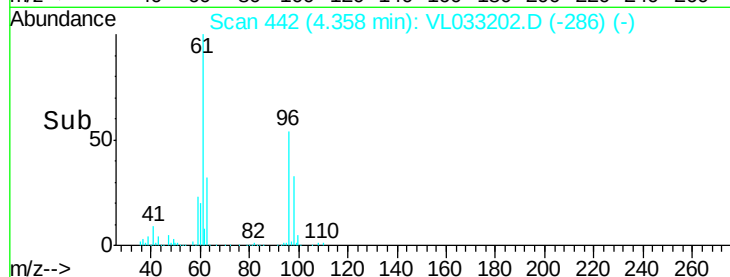
60000

40000

20000

0

Time-->



#18

1,1-Dichloroethene

Concen: 10.138 ppbv

RT: 4.35 min Scan# 440

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

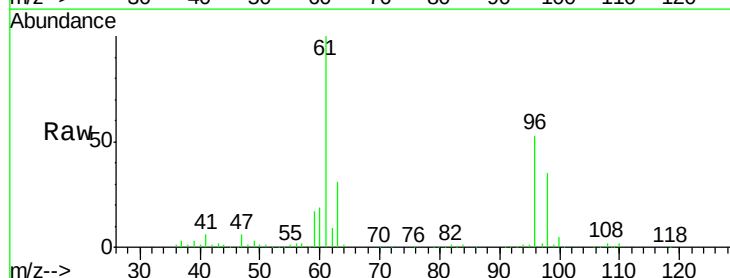
Tgt Ion: 96 Resp: 377083

Ion Ratio Lower Upper

96 100

61 189.1 145.0 217.6

98 66.3 50.0 75.0



Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

600000

500000

400000

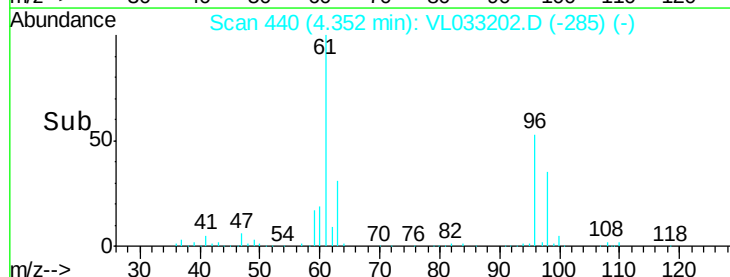
300000

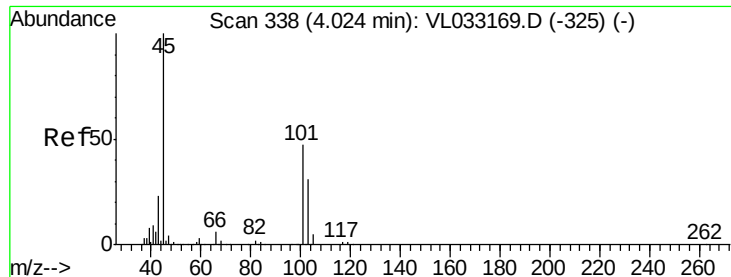
200000

100000

0

Time-->



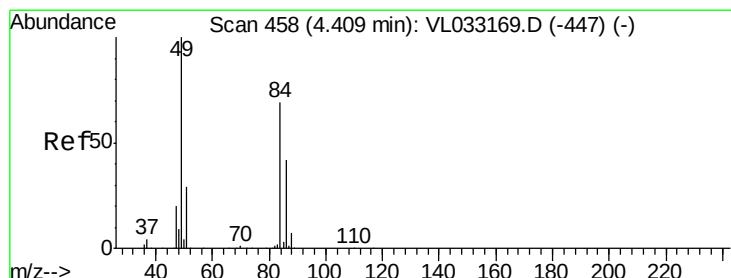
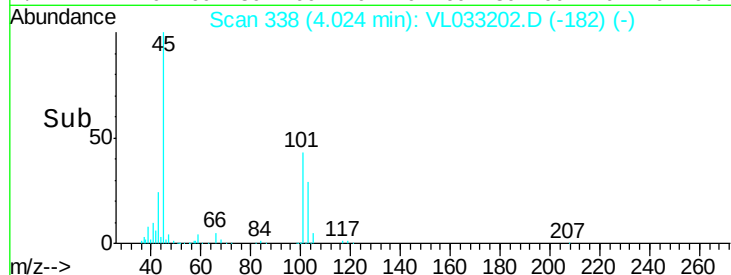
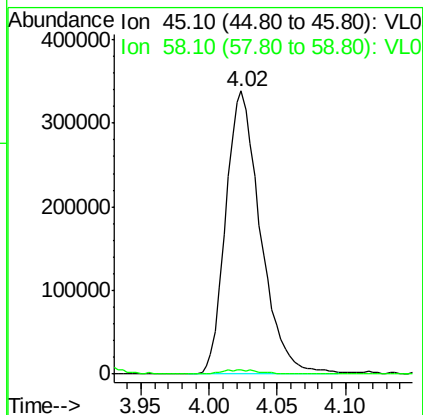
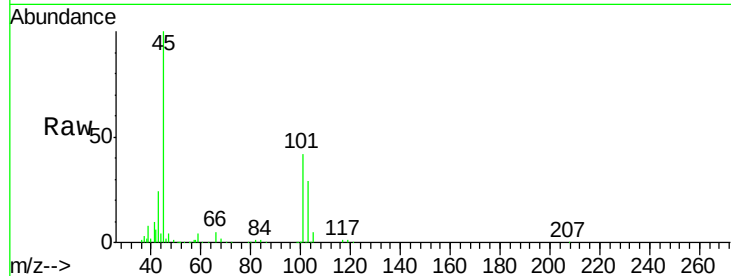


#19

Isopropyl Alcohol  
 Concen: 10.108 ppbv  
 RT: 4.02 min Scan# 338  
 Delta R.T. 0.00 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

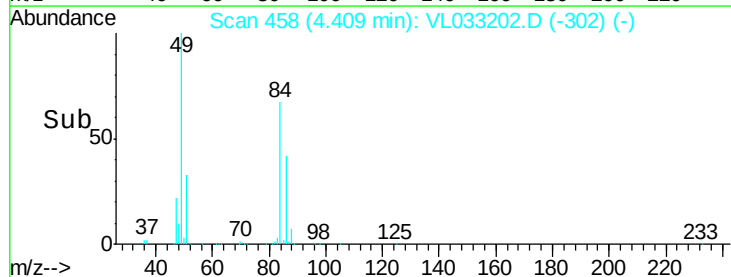
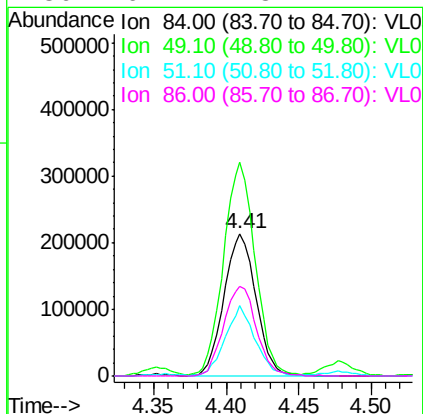
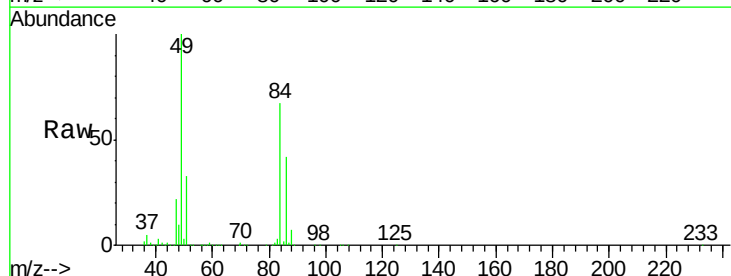
Tot Ion: 45 Resp: 598267  
 Ion Ratio Lower Upper  
 45 100  
 58 1.9 1.5 2.3

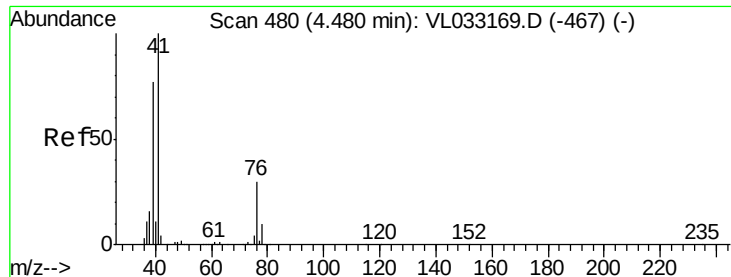


#20

Methylene Chloride  
 Concen: 9.372 ppbv  
 RT: 4.41 min Scan# 458  
 Delta R.T. 0.00 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

Tgt Ion: 84 Resp: 325354  
 Ion Ratio Lower Upper  
 84 100  
 49 148.9 115.8 173.8  
 51 49.2 33.0 49.6  
 86 62.7 48.2 72.2





#21

Allvl Chloride

Concen: 10.161 ppbv

RT: 4.48 min Scan# 479

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

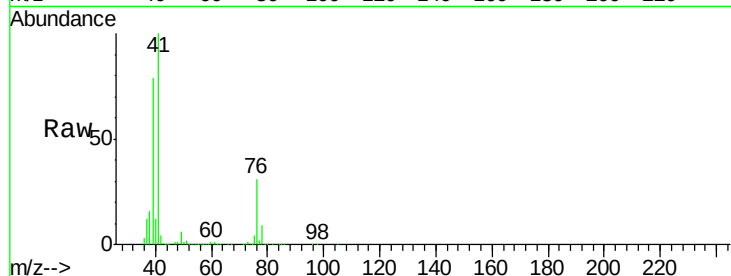
Tot Ion: 41 Resp: 585547

Ion Ratio Lower Upper

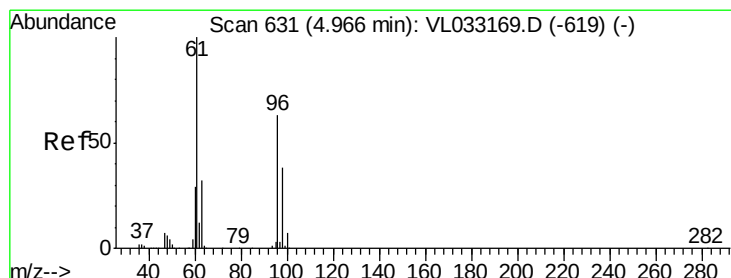
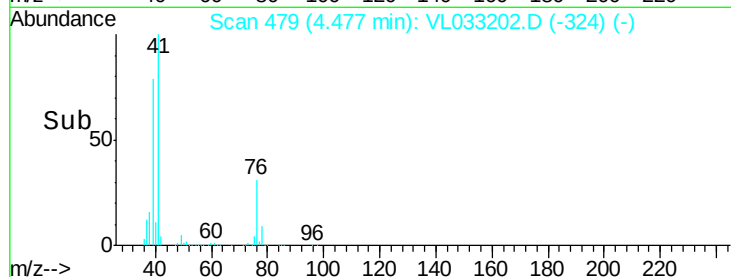
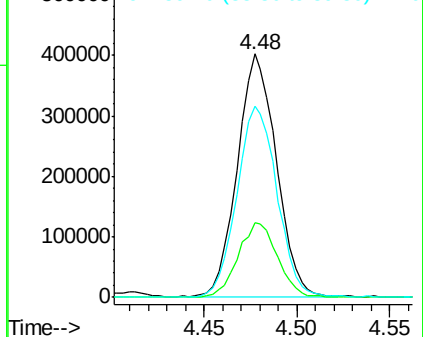
41 100

76 31.2 24.5 36.7

39 81.4 64.1 96.1



Abundance Ion 41.10 (40.80 to 41.80): VL0  
Ion 76.10 (75.80 to 76.80): VL0  
Ion 39.10 (38.80 to 39.80): VL0



#22

trans-1,2-Dichloroethene

Concen: 10.463 ppbv

RT: 4.97 min Scan# 631

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

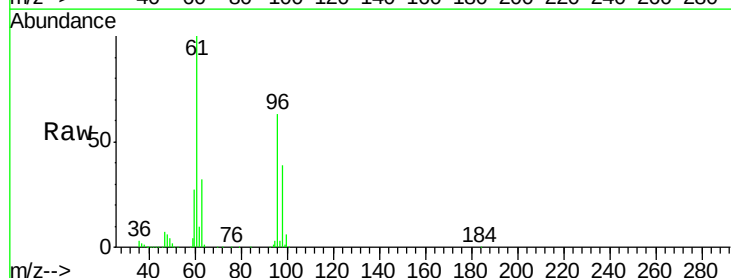
Tgt Ion: 96 Resp: 377957

Ion Ratio Lower Upper

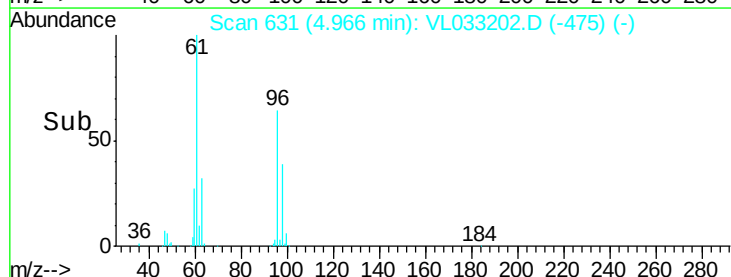
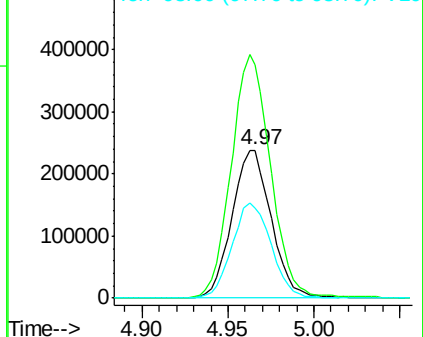
96 100

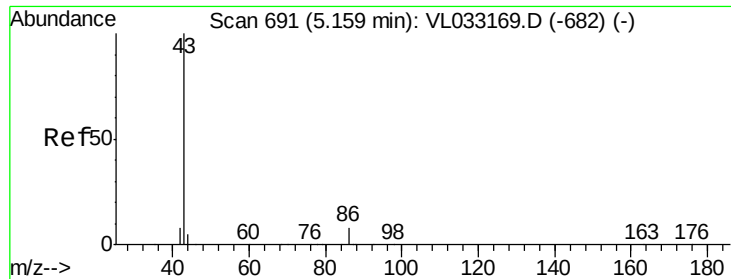
61 157.2 126.4 189.6

98 60.8 48.4 72.6



Abundance Ion 96.00 (95.70 to 96.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0





#23

Vinyl Acetate

Concen: 10.105 ppbv

RT: 5.16 min Scan# 690

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

Tot Ion: 43 Resp: 1528355

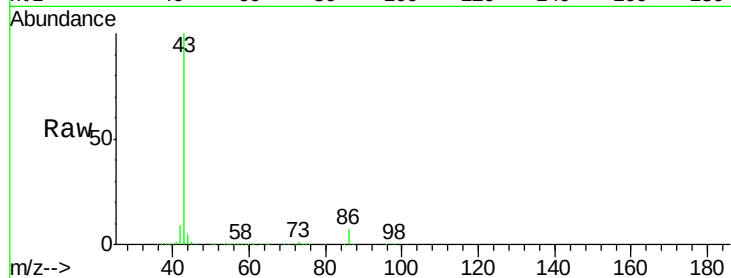
Ion Ratio Lower Upper

43 100

86 7.3 5.8 8.8

42 9.2 7.4 11.0

44 5.2 3.7 5.5

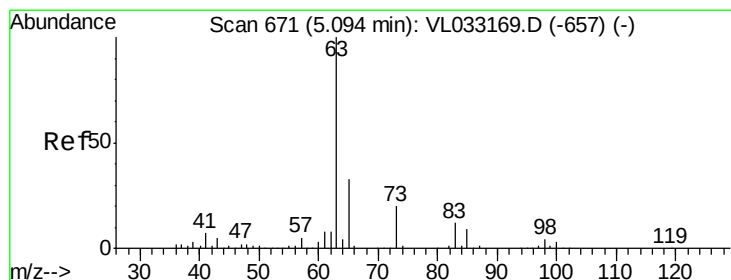
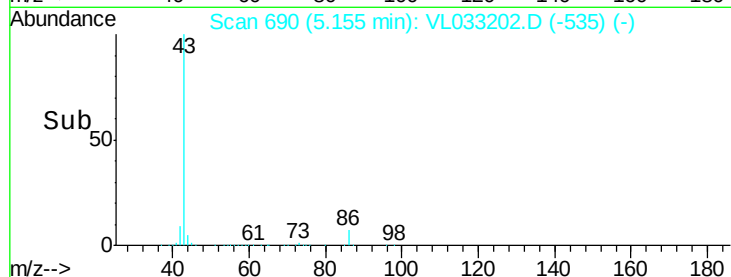
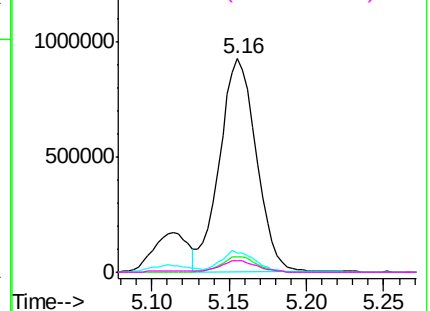


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 9.674 ppbv

RT: 5.09 min Scan# 671

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

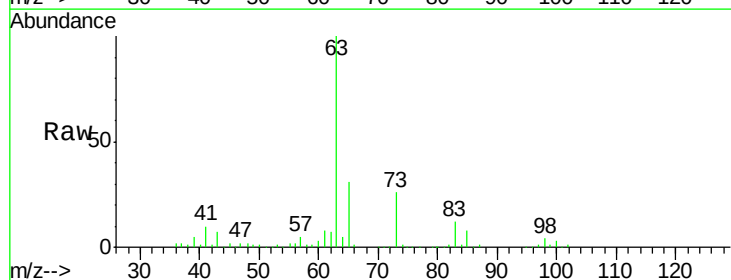
Tgt Ion: 63 Resp: 1034998

Ion Ratio Lower Upper

63 100

98 4.1 2.1 6.5

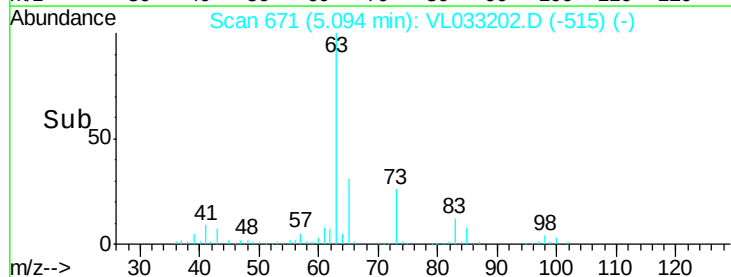
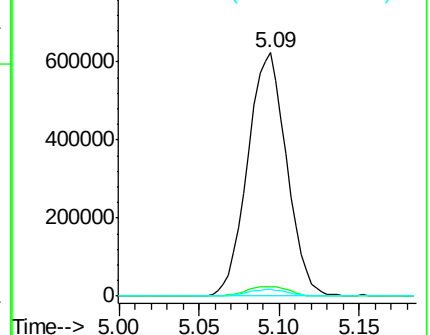
100 2.9 1.4 4.2

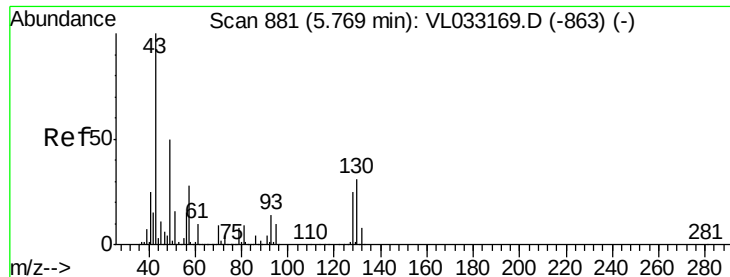


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



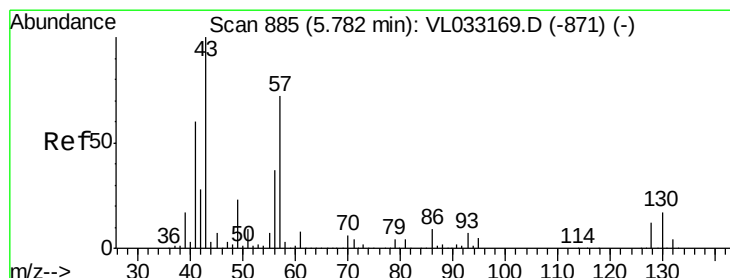
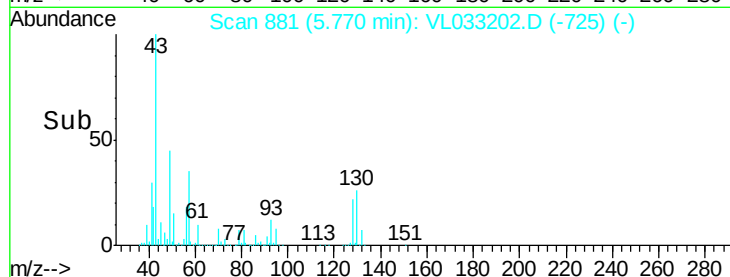
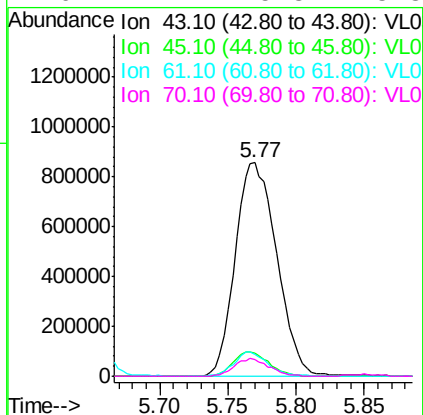
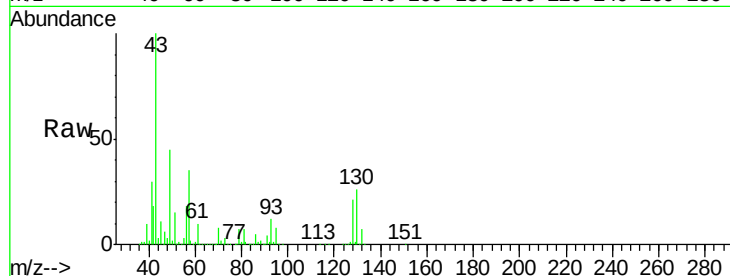


#25  
Ethyl Acetate  
Concen: 9.185 ppbv  
RT: 5.77 min Scan# 881  
Delta R.T. 0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0214ABS01

Tot Ion: 43 Resp: 1802364

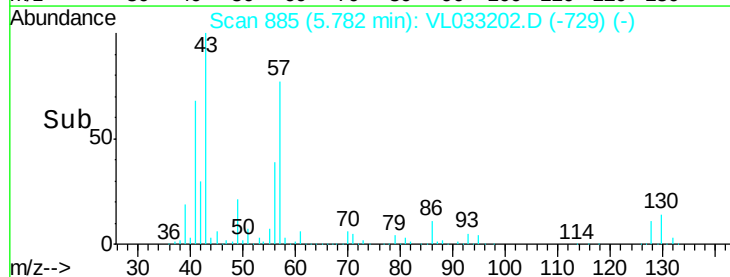
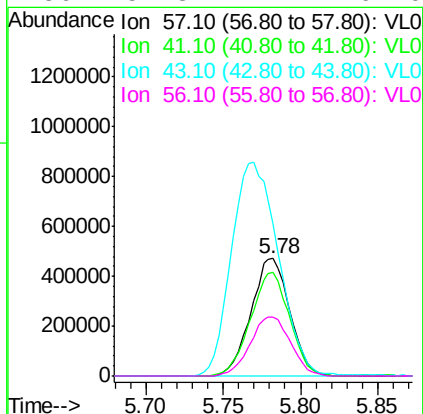
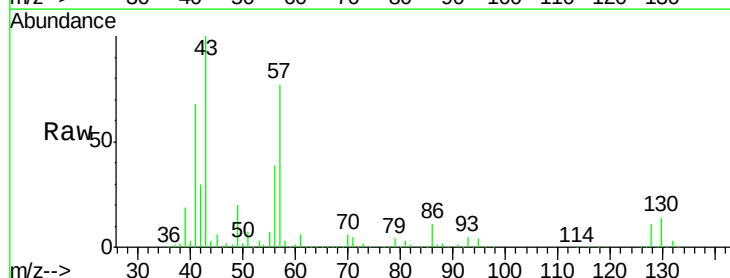
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 45  | 9.9   | 7.9   | 11.9  |
| 61  | 9.1   | 7.5   | 11.3  |
| 70  | 7.1   | 5.8   | 8.8   |



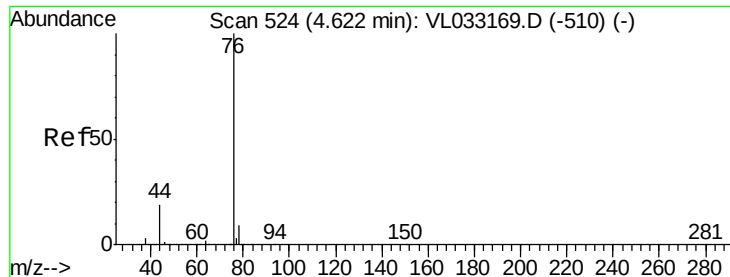
#26  
Hexane  
Concen: 8.955 ppbv  
RT: 5.78 min Scan# 885  
Delta R.T. 0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

Tgt Ion: 57 Resp: 824949

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 57  | 100   |       |       |
| 41  | 88.9  | 69.4  | 104.2 |
| 43  | 219.8 | 176.7 | 265.1 |
| 56  | 52.3  | 41.4  | 62.0  |







#27

Carbon Disulfide

Concen: 11.115 ppbv

RT: 4.62 min Scan# 524

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

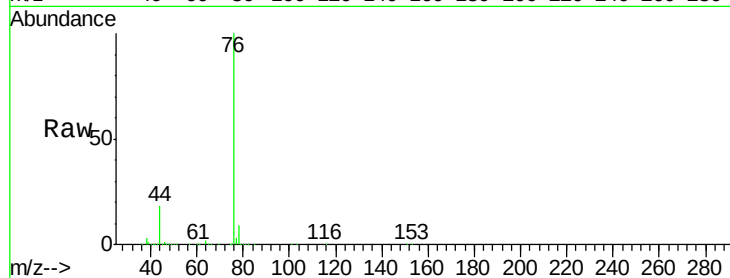
Tot Ion: 76 Resp: 937947

Ion Ratio Lower Upper

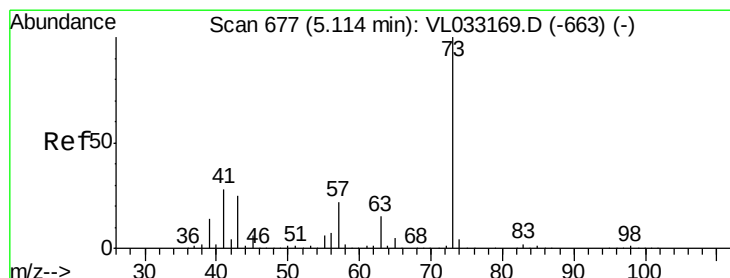
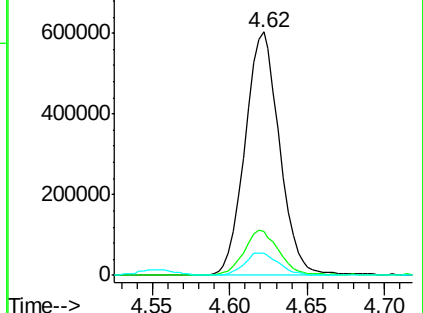
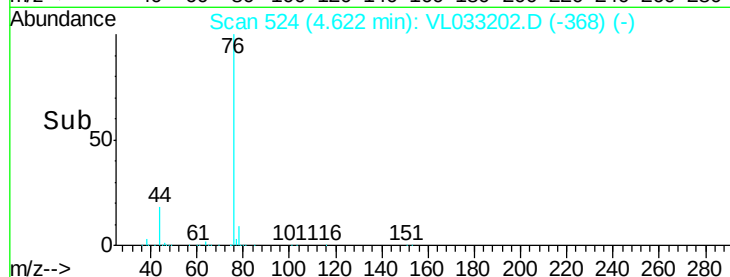
76 100

44 18.5 15.0 22.4

78 9.3 7.4 11.0



Abundance Ion 76.00 (75.70 to 76.70): VL0  
Ion 44.10 (43.80 to 44.80): VL0  
Ion 78.00 (77.70 to 78.70): VL0



#28

Methyl tert-Butyl Ether

Concen: 9.527 ppbv

RT: 5.11 min Scan# 677

Delta R.T. 0.00 min

Lab File: VL033202.D

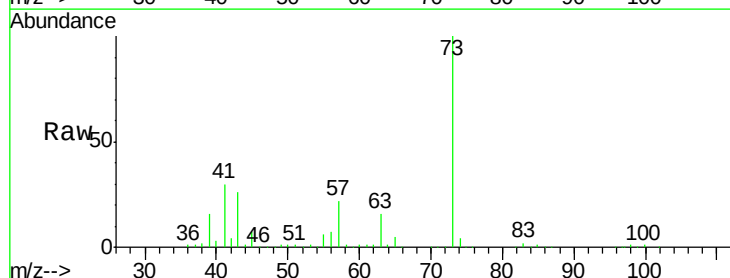
Acq: 14 Feb 2019 17:01

Tgt Ion: 73 Resp: 1199227

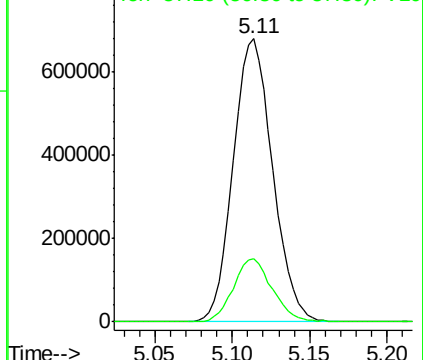
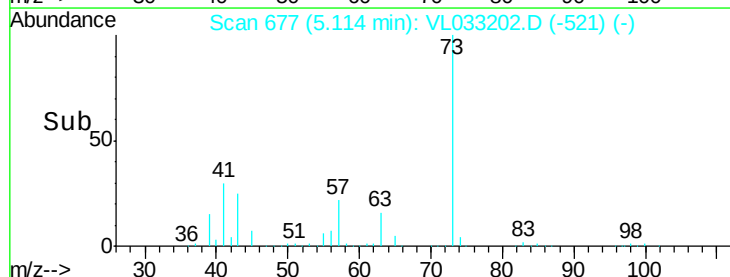
Ion Ratio Lower Upper

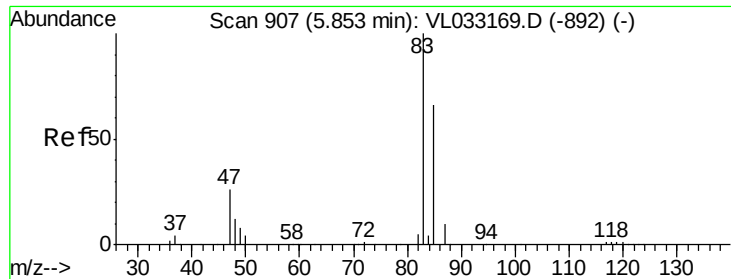
73 100

57 22.1 17.9 26.9



Abundance Ion 73.10 (72.80 to 73.80): VL0  
Ion 57.10 (56.80 to 57.80): VL0

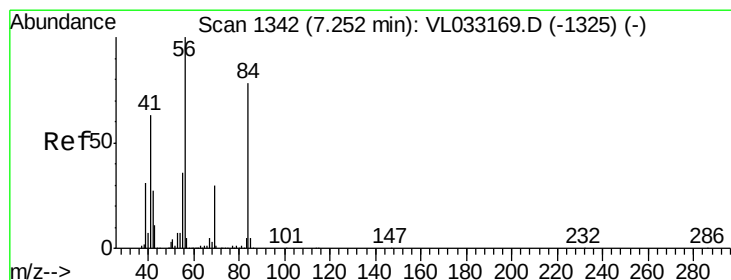
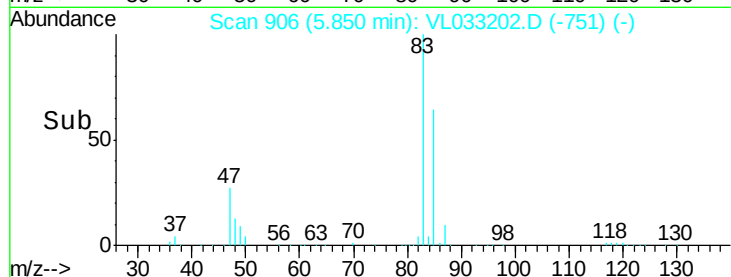
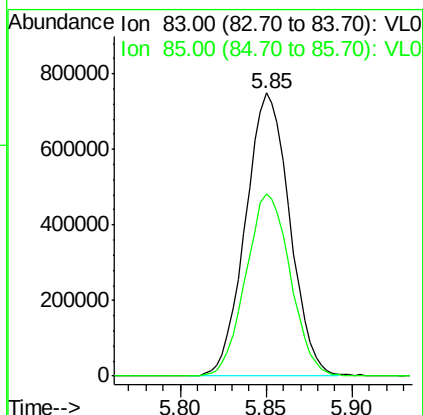
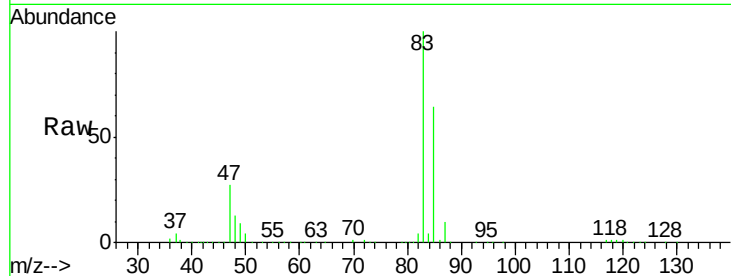




#29  
Chloroform  
Concen: 9.446 ppbv  
RT: 5.85 min Scan# 906  
Delta R.T. -0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

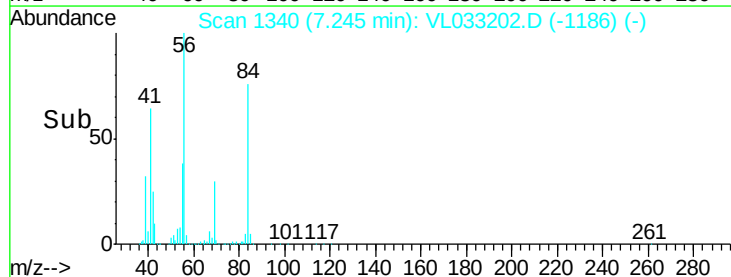
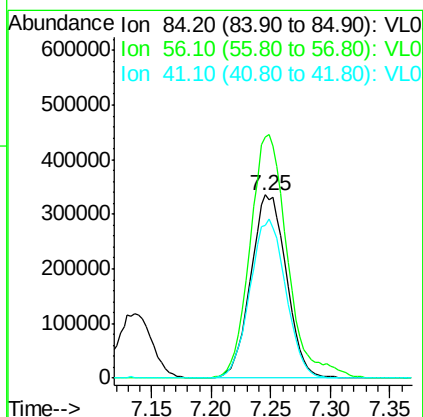
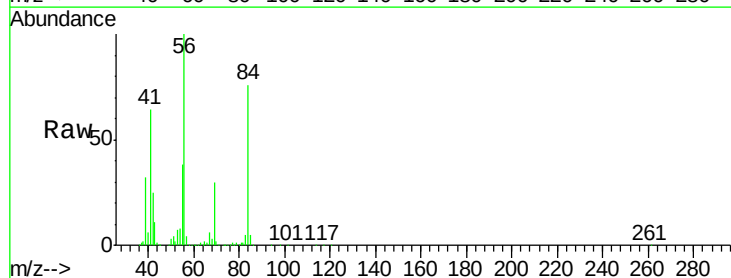
Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0214ABS01

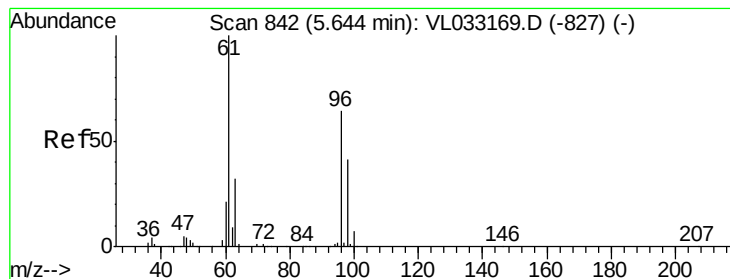
Tot Ion: 83 Resp: 1333516  
Ion Ratio Lower Upper  
83 100  
85 64.4 52.6 78.8



#30  
Cyclohexane  
Concen: 8.150 ppbv  
RT: 7.25 min Scan# 1340  
Delta R.T. -0.01 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

Tgt Ion: 84 Resp: 696540  
Ion Ratio Lower Upper  
84 100  
56 139.4 109.5 164.3  
41 87.3 66.6 100.0





#31

cis-1,2-Dichloroethene

Concen: 9.441 ppbv

RT: 5.64 min Scan# 842

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

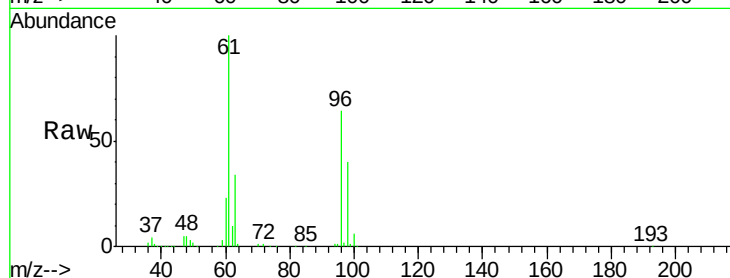
Tot Ion: 61 Resp: 870452

Ion Ratio Lower Upper

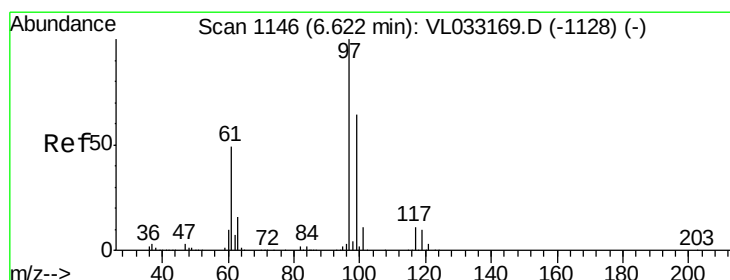
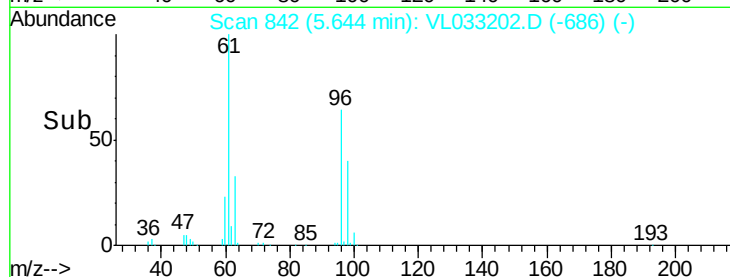
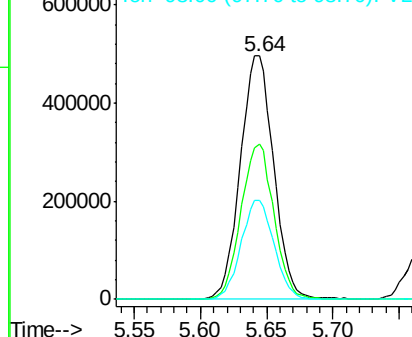
61 100

96 63.8 51.2 76.8

98 40.4 32.8 49.2



Abundance Ion 61.10 (60.80 to 61.80): VL0  
Ion 96.00 (95.70 to 96.70): VL0  
Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 8.555 ppbv

RT: 6.62 min Scan# 1146

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

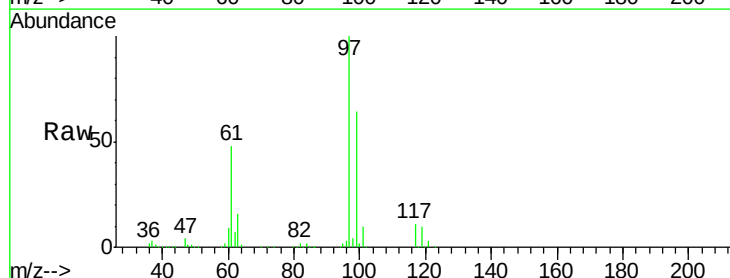
Tgt Ion: 97 Resp: 1329705

Ion Ratio Lower Upper

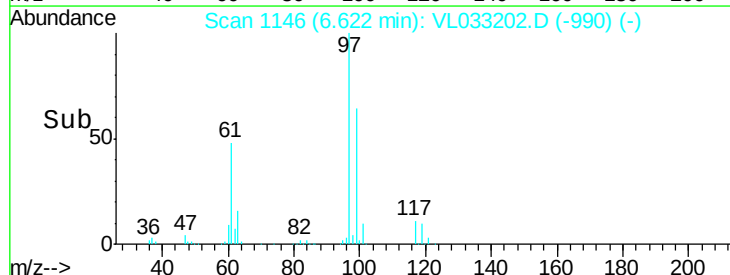
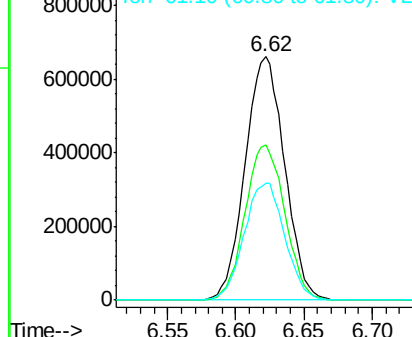
97 100

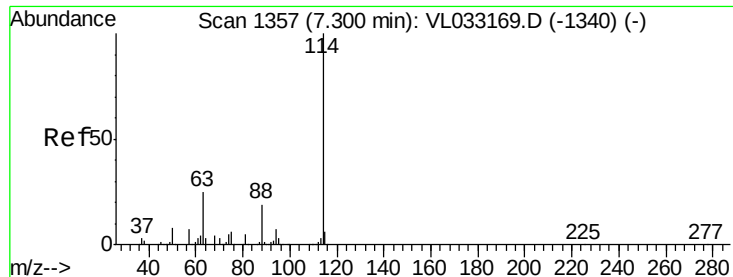
99 64.4 51.4 77.2

61 49.6 38.9 58.3



Abundance Ion 97.00 (96.70 to 97.70): VL0  
Ion 99.00 (98.70 to 99.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

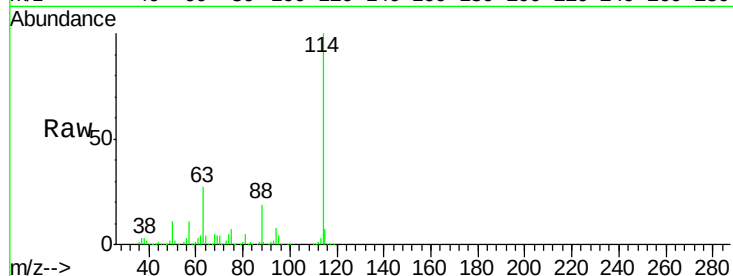
Tot Ion:114 Resp: 1819845

Ion Ratio Lower Upper

114 100

63 27.0 20.8 31.2

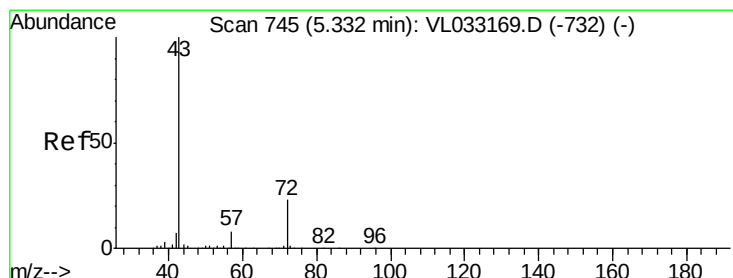
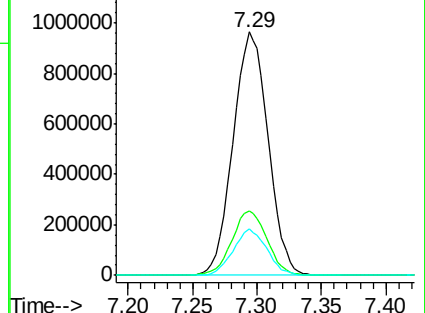
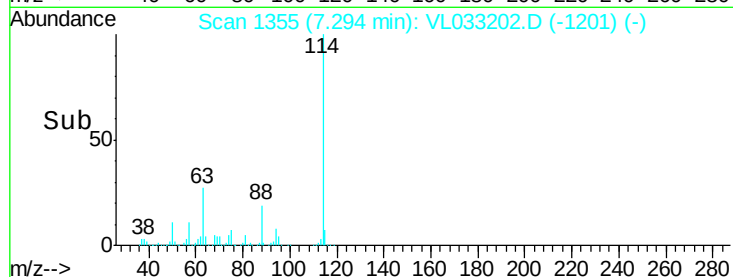
88 18.3 14.6 22.0



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: 10.723 ppbv

RT: 5.33 min Scan# 744

Delta R.T. -0.00 min

Lab File: VL033202.D

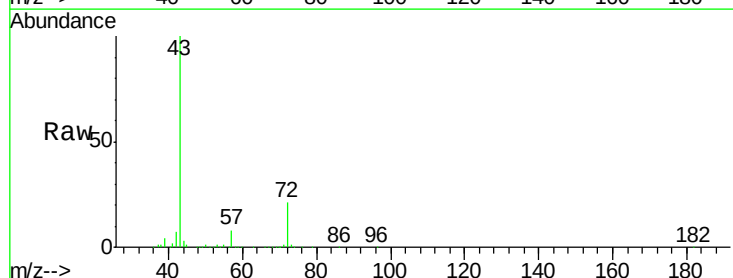
Acq: 14 Feb 2019 17:01

Tgt Ion: 43 Resp: 1237829

Ion Ratio Lower Upper

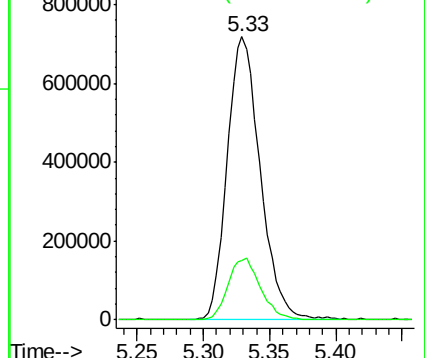
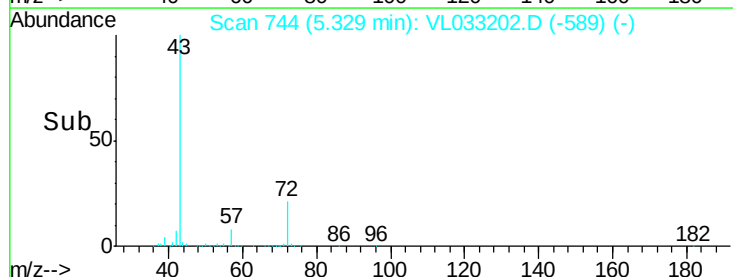
43 100

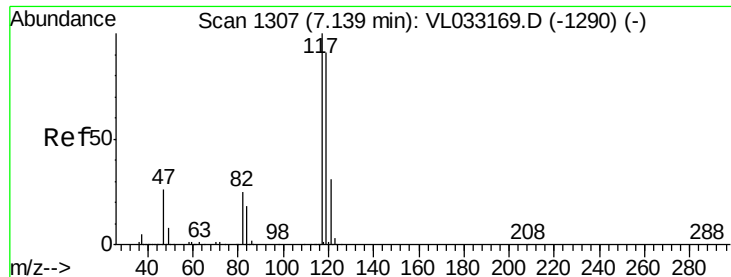
72 21.7 17.8 26.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 9.812 ppbv

RT: 7.14 min Scan# 1306

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

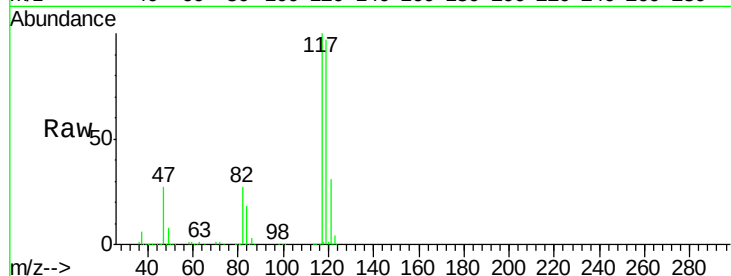
Tot Ion:117 Resp: 1363692

Ion Ratio Lower Upper

117 100

119 97.2 73.0 109.6

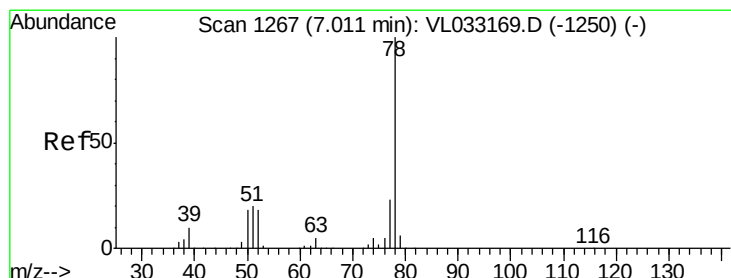
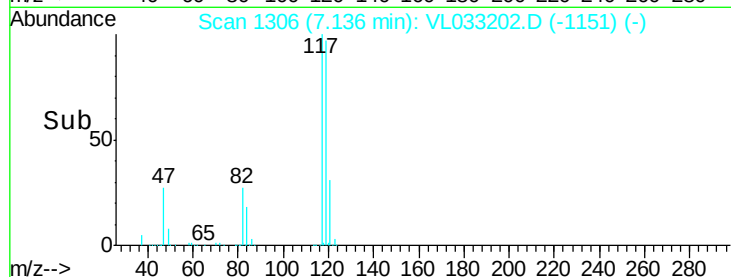
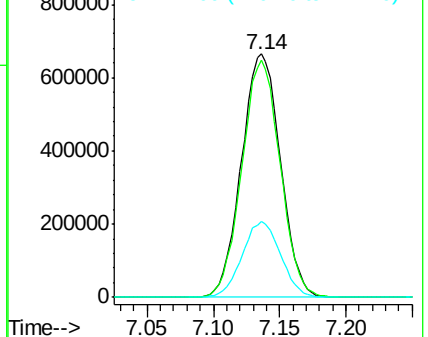
121 30.9 25.1 37.7



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: 9.452 ppbv

RT: 7.01 min Scan# 1266

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

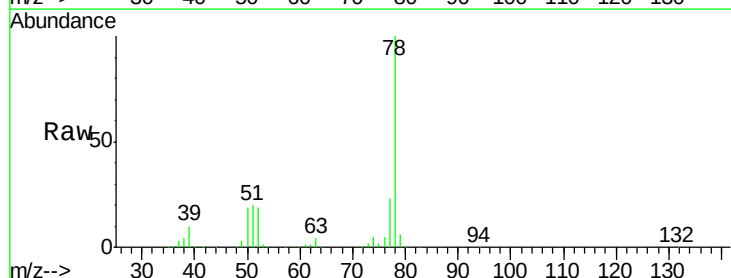
Tgt Ion: 78 Resp: 1743397

Ion Ratio Lower Upper

78 100

77 22.6 18.0 27.0

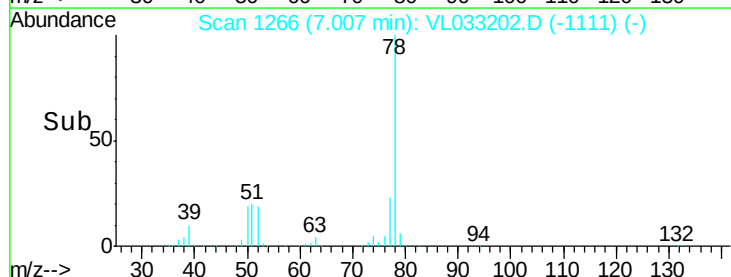
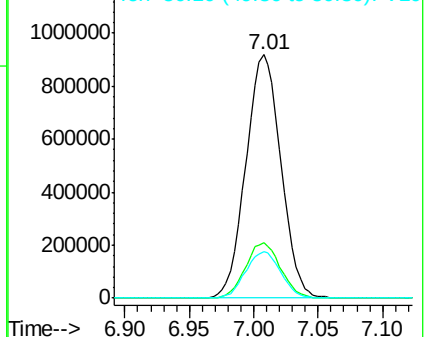
50 19.3 14.2 21.2

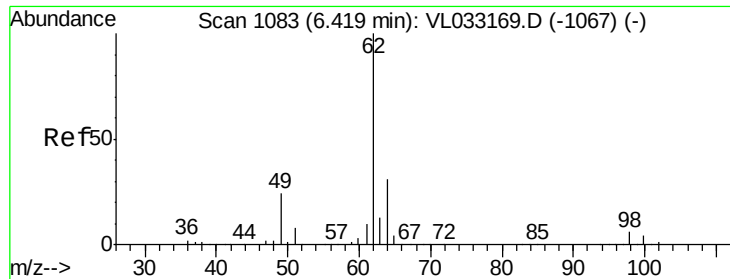


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

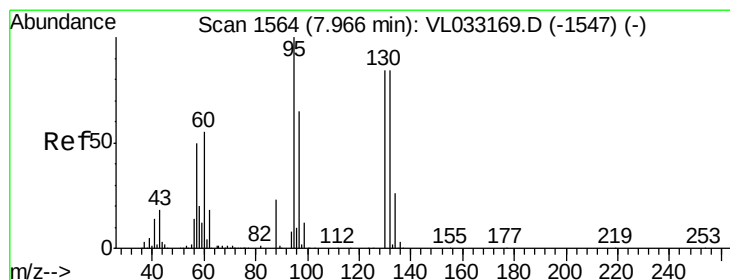
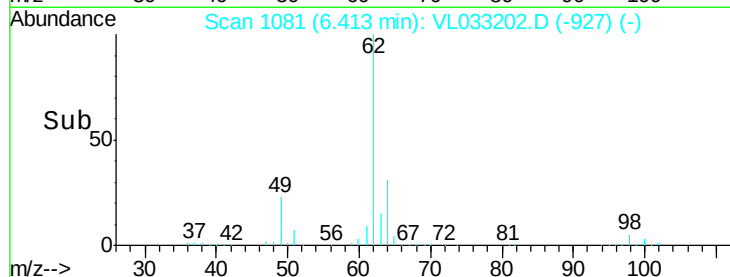
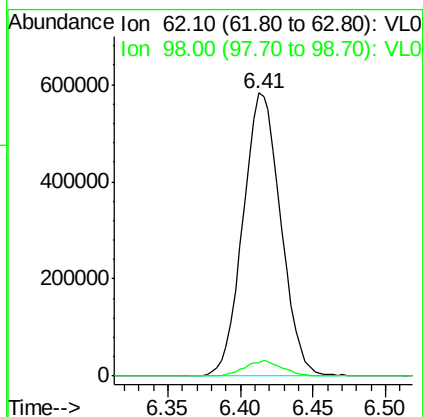
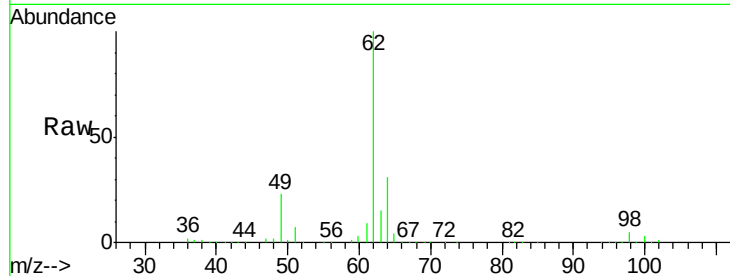




#37  
 1,2-Dichloroethane  
 Concen: 10.341 ppbv  
 RT: 6.41 min Scan# 1081  
 Delta R.T. -0.01 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

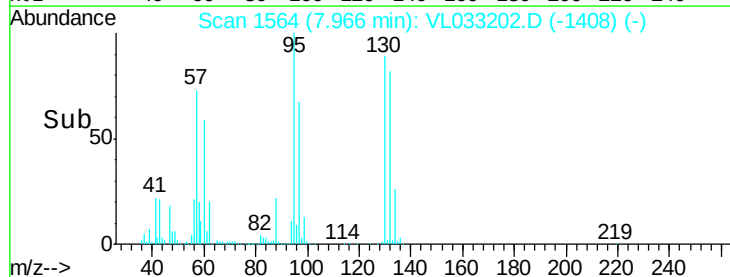
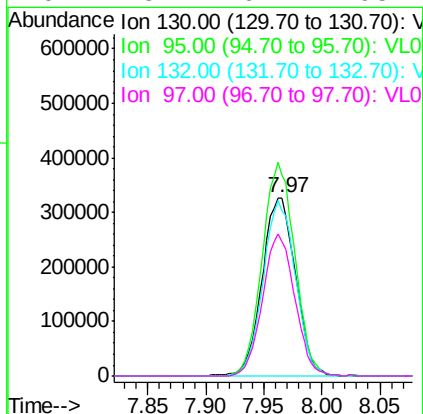
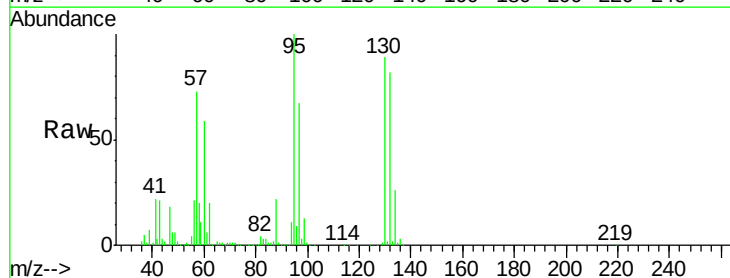
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

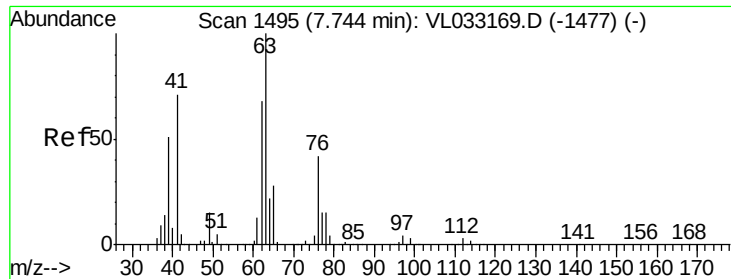
Tot Ion: 62 Resp: 1056980  
 Ion Ratio Lower Upper  
 62 100  
 98 5.5 4.7 7.1



#38  
 Trichloroethene  
 Concen: 8.283 ppbv  
 RT: 7.97 min Scan# 1564  
 Delta R.T. 0.00 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

Tgt Ion:130 Resp: 654202  
 Ion Ratio Lower Upper  
 130 100  
 95 112.8 95.5 143.3  
 132 93.0 80.0 120.0  
 97 75.7 62.2 93.2

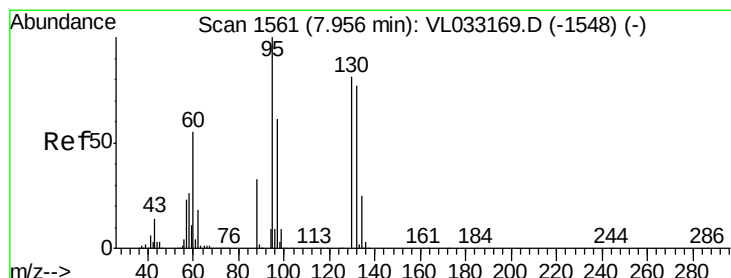
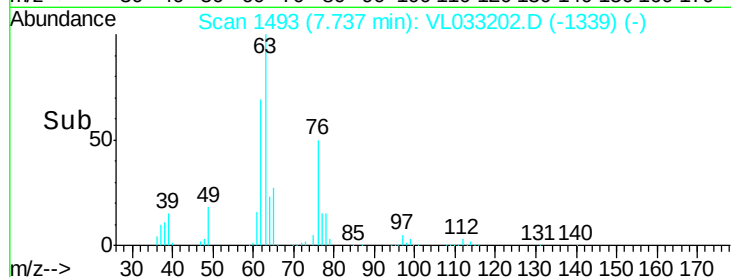
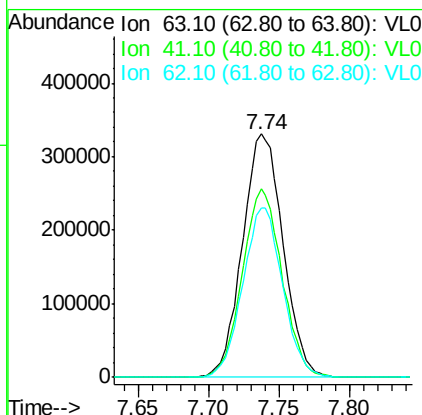
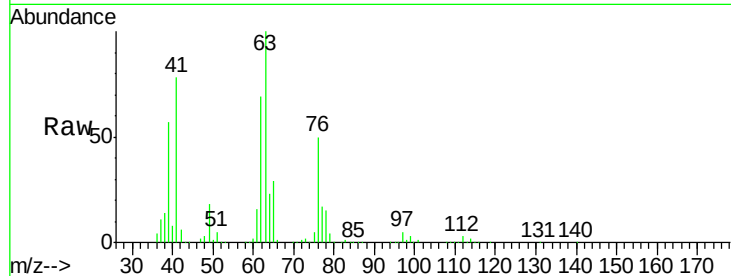




#39  
 1,2-Dichloropropane  
 Concen: 9.178 ppbv  
 RT: 7.74 min Scan# 1493  
 Delta R.T. -0.01 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

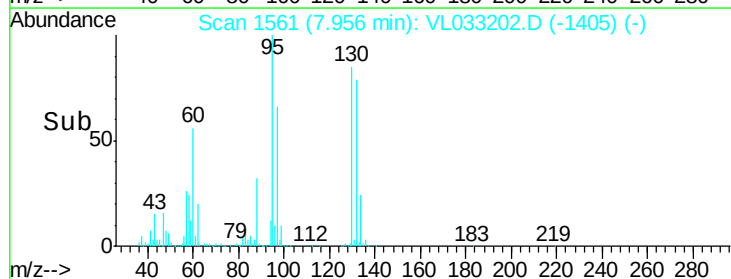
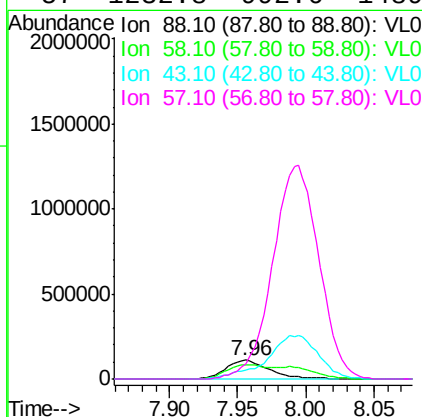
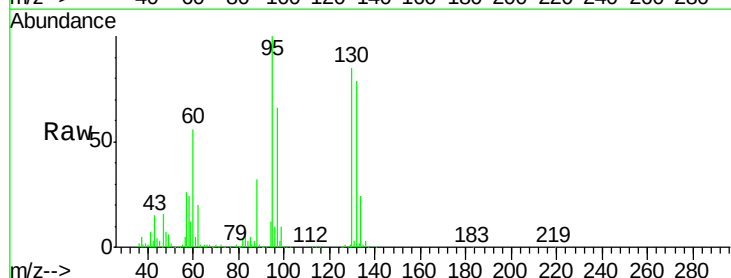
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

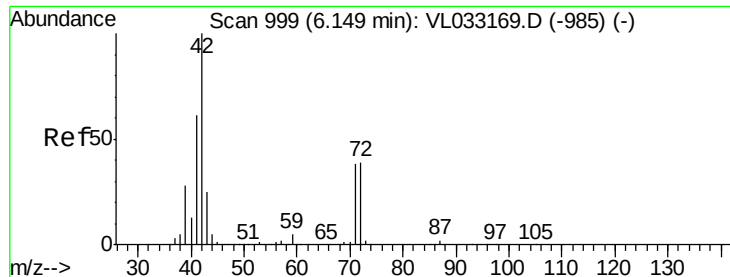
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 77.5  | 56.4  | 84.6  |
| 62      | 69.3  | 54.2  | 81.4  |



#40  
 1,4-Dioxane  
 Concen: 9.089 ppbv  
 RT: 7.96 min Scan# 1561  
 Delta R.T. 0.00 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

| Tgt Ion | Ratio  | Lower | Upper  |
|---------|--------|-------|--------|
| 88      | 100    |       |        |
| 58      | 132.2  | 106.6 | 160.0  |
| 43      | 277.5  | 220.2 | 330.2  |
| 57      | 1232.8 | 992.6 | 1489.0 |

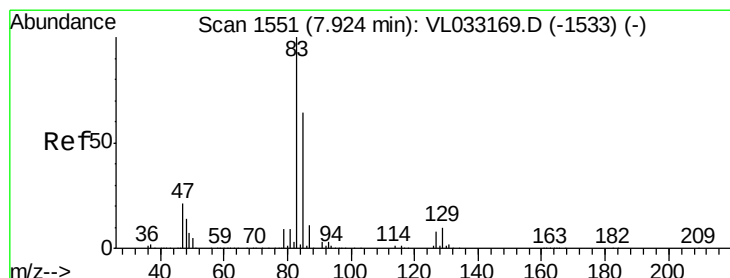
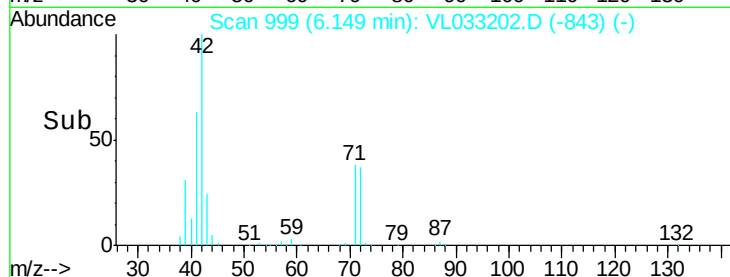
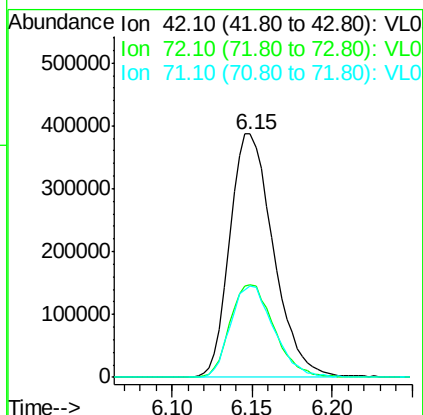
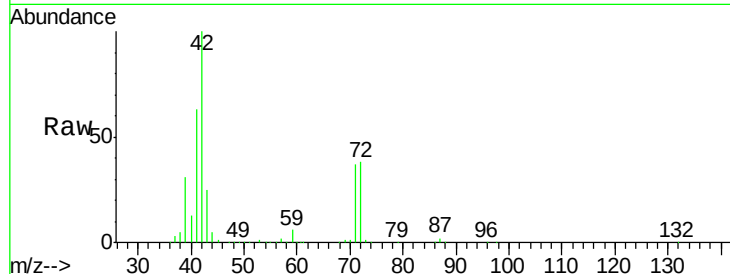




#41  
Tetrahydrofuran  
Concen: 10.064 ppbv  
RT: 6.15 min Scan# 999  
Delta R.T. 0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

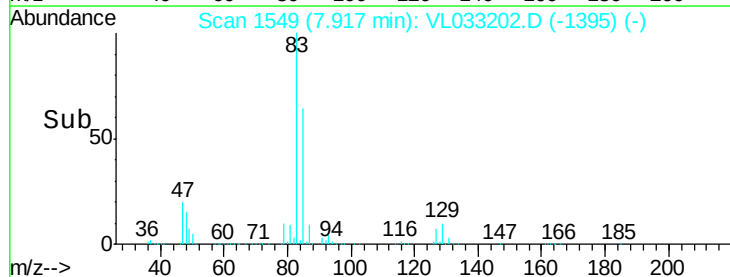
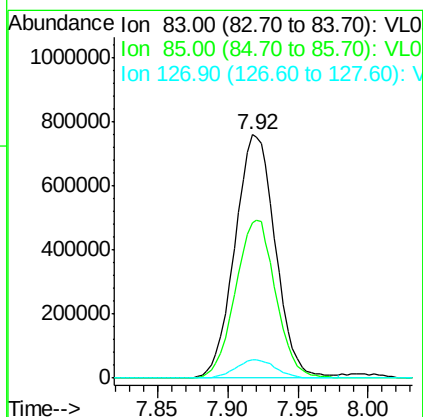
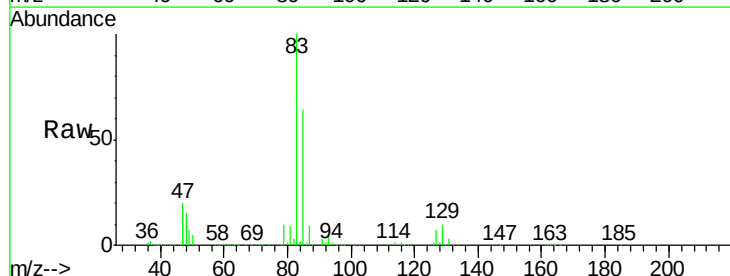
Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0214ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 38.8  | 31.6  | 47.4  |
| 71      | 37.6  | 30.3  | 45.5  |

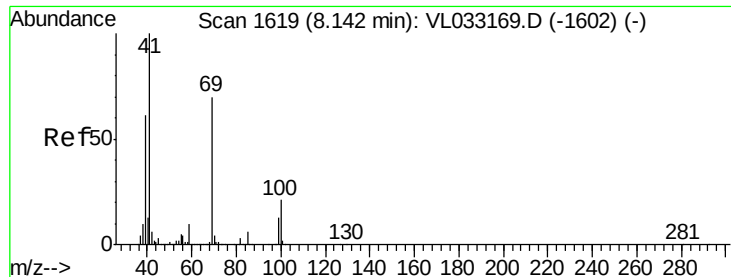


#42  
Bromodichloromethane  
Concen: 10.306 ppbv  
RT: 7.92 min Scan# 1549  
Delta R.T. -0.01 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 63.7  | 51.1  | 76.7  |
| 127     | 7.4   | 6.4   | 9.6   |



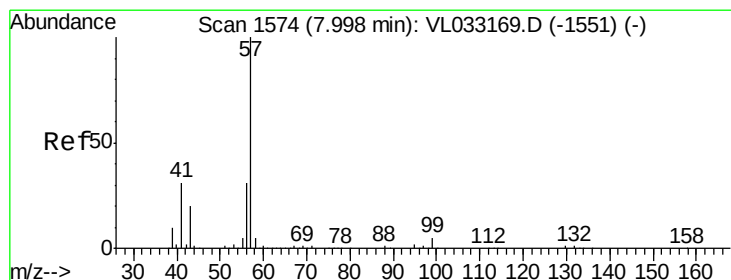
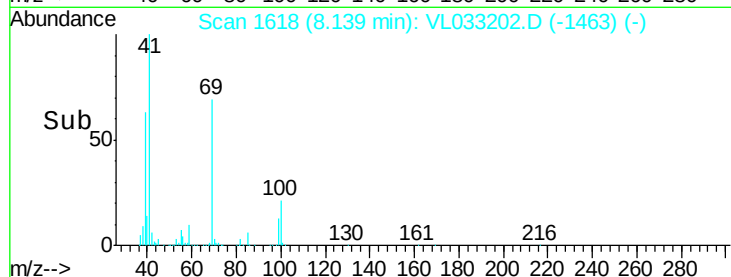
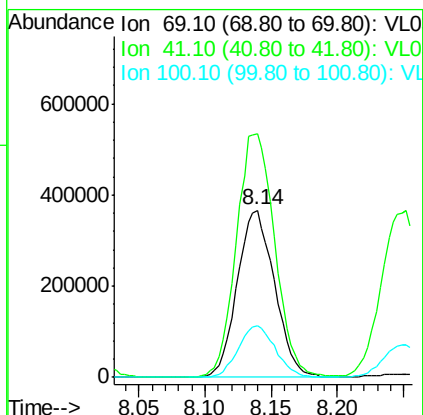
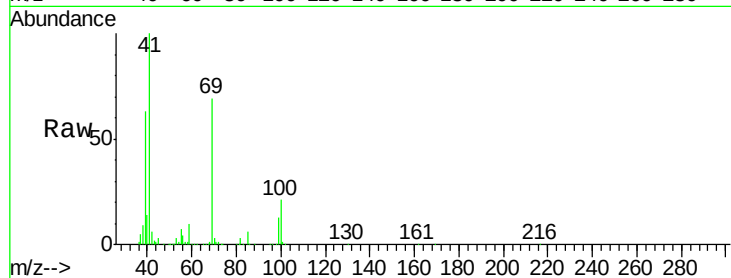




#43  
Methyl Methacrylate  
Concen: 9.660 ppbv  
RT: 8.14 min Scan# 1618  
Delta R.T. -0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

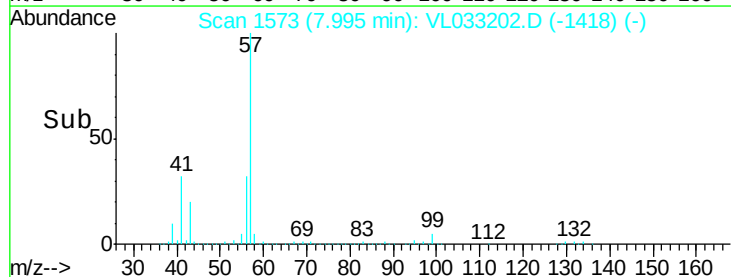
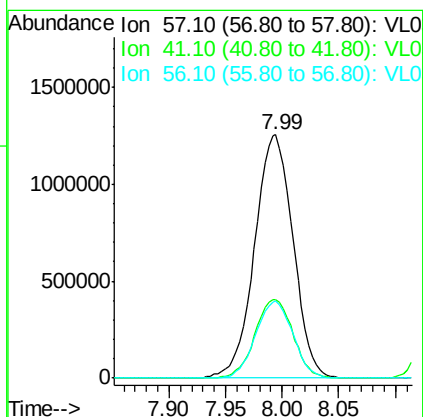
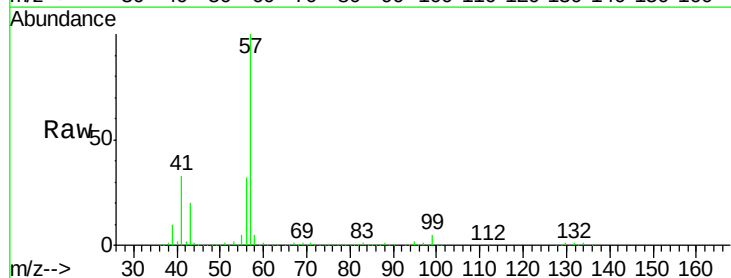
Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0214ABS01

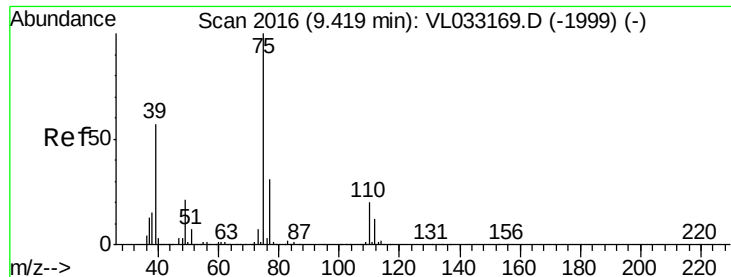
Tot Ion: 69 Resp: 715278  
Ion Ratio Lower Upper  
69 100  
41 150.0 117.1 175.7  
100 30.9 25.0 37.6



#44  
2,2,4-Trimethylpentane  
Concen: 9.461 ppbv  
RT: 7.99 min Scan# 1573  
Delta R.T. -0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

Tgt Ion: 57 Resp: 2956954  
Ion Ratio Lower Upper  
57 100  
41 32.1 25.1 37.7  
56 30.8 24.5 36.7





#45

t-1,3-Dichloropropene

Concen: 11.752 ppbv

RT: 9.42 min Scan# 2016

Delta R.T. 0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

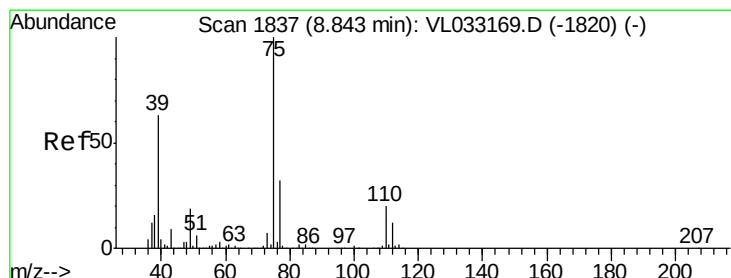
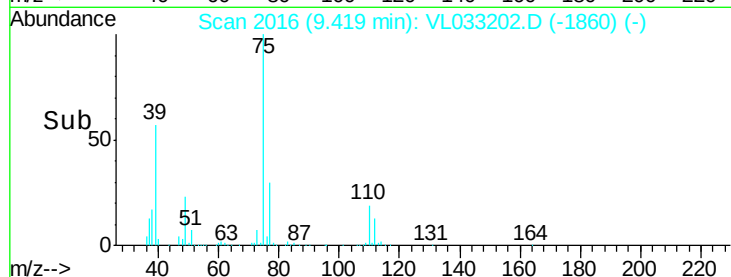
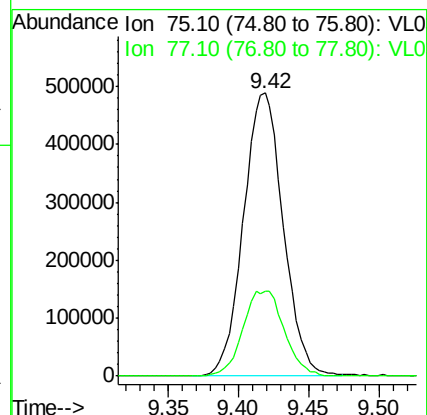
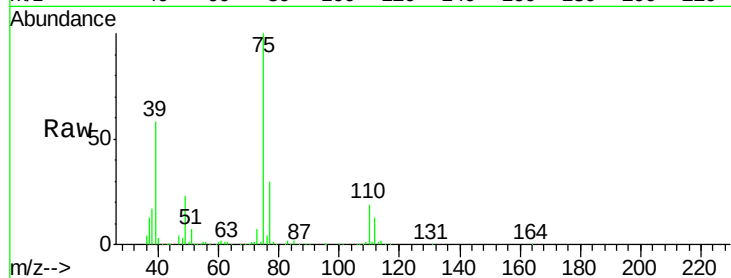
VL0214ABS01

Tot Ion: 75 Resp: 966708

Ion Ratio Lower Upper

75 100

77 30.2 25.0 37.4



#46

cis-1,3-Dichloropropene

Concen: 10.576 ppbv

RT: 8.84 min Scan# 1835

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

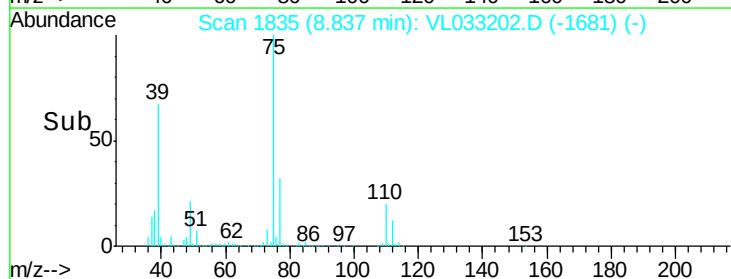
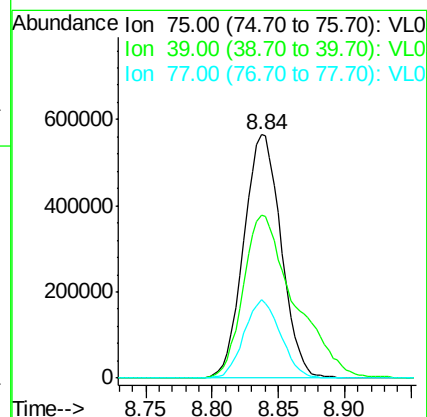
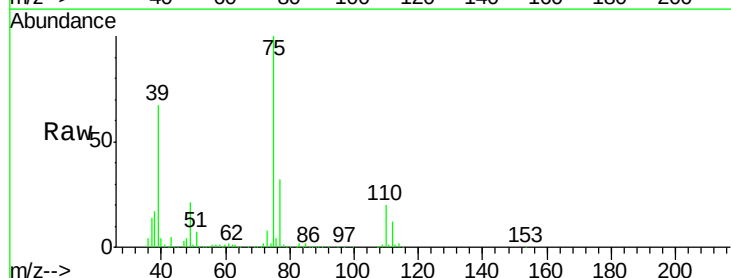
Tgt Ion: 75 Resp: 1108147

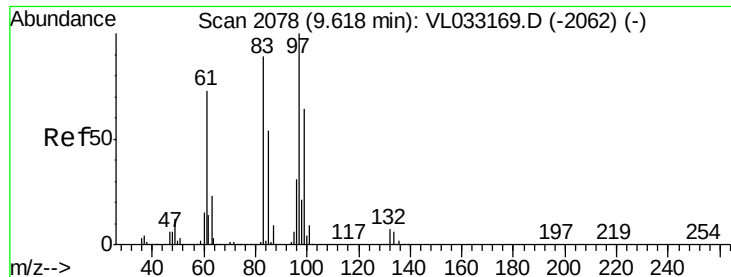
Ion Ratio Lower Upper

75 100

39 66.9 50.1 75.1

77 32.2 25.4 38.2

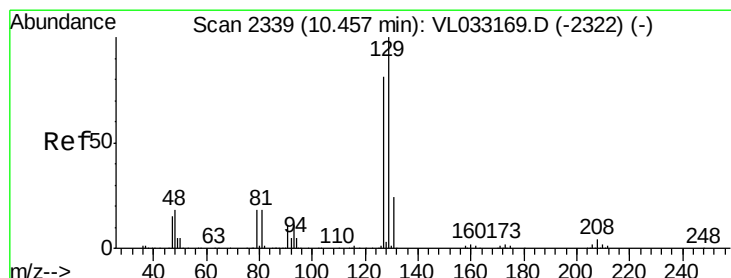
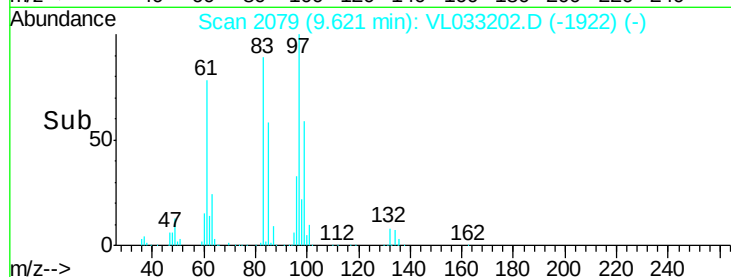
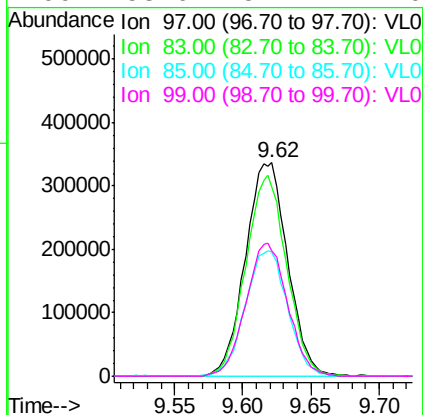
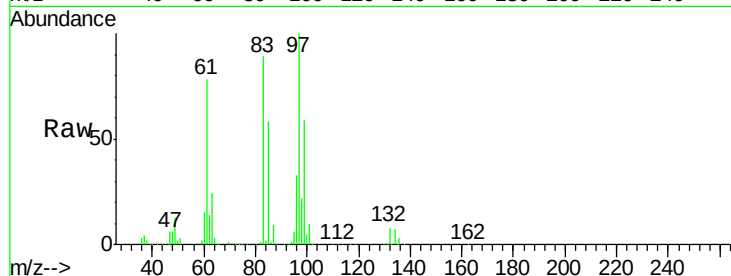




#47  
 1,1,2-Trichloroethane  
 Concen: 9.584 ppbv  
 RT: 9.62 min Scan# 2079  
 Delta R.T. 0.00 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

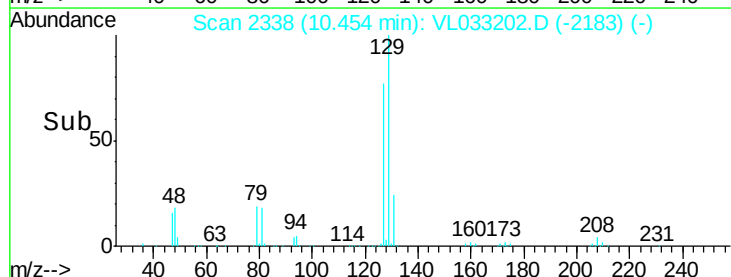
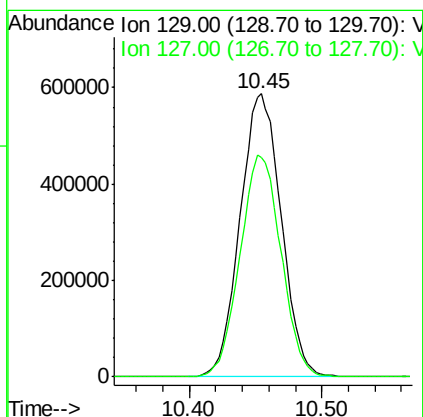
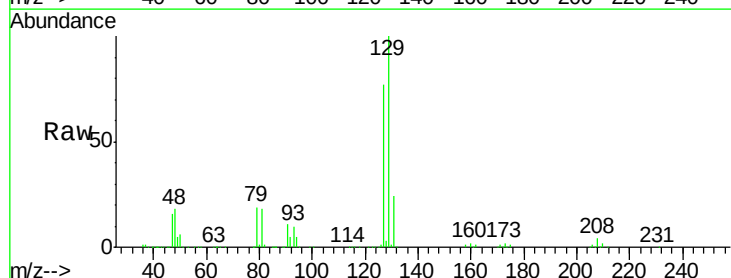
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

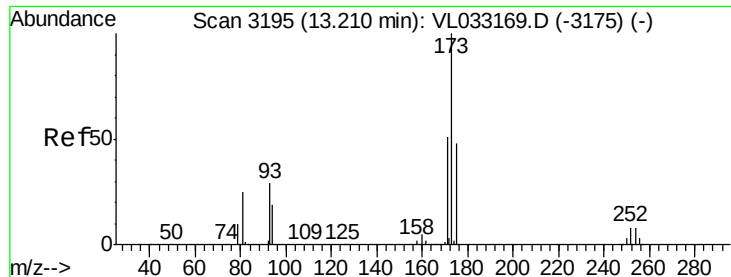
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 97    | Resp: | 724507 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 83       | 88.9  | 71.4  | 107.2  |
| 85       | 58.2  | 43.5  | 65.3   |
| 99       | 58.6  | 51.4  | 77.0   |



#48  
 Dibromochloromethane  
 Concen: 10.609 ppbv  
 RT: 10.45 min Scan# 2338  
 Delta R.T. -0.00 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 129   | Resp: | 1262518 |
| Ion      | Ratio | Lower | Upper   |
| 129      | 100   |       |         |
| 127      | 78.5  | 39.1  | 117.3   |





#49

Bromoform

Concen: 11.263 ppbv

RT: 13.20 min Scan# 3193

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

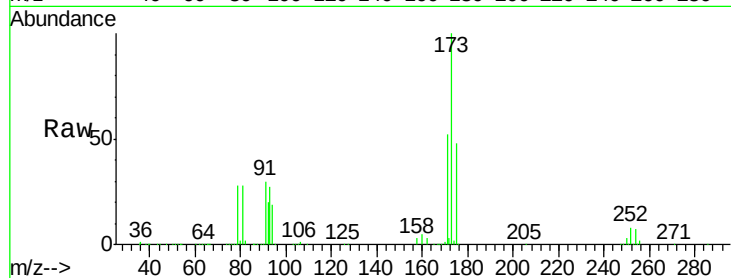
Tot Ion:173 Resp: 1153084

Ion Ratio Lower Upper

173 100

175 48.9 38.6 58.0

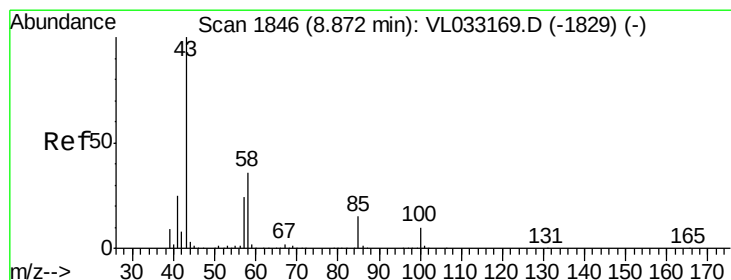
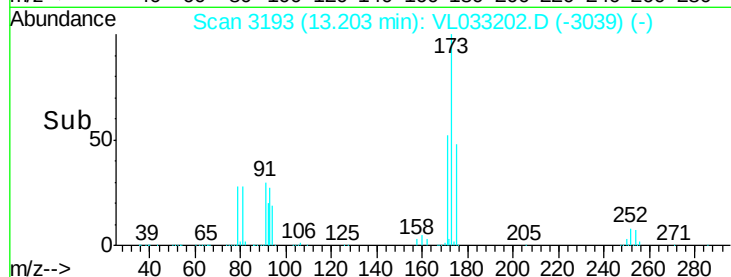
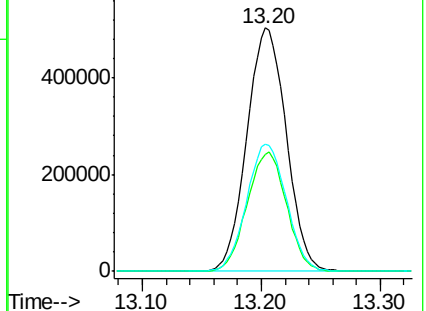
171 52.9 41.6 62.4



Abundance Ion 172.90 (172.60 to 173.60): V

Ion 174.90 (174.60 to 175.60): V

Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 9.958 ppbv

RT: 8.87 min Scan# 1845

Delta R.T. -0.00 min

Lab File: VL033202.D

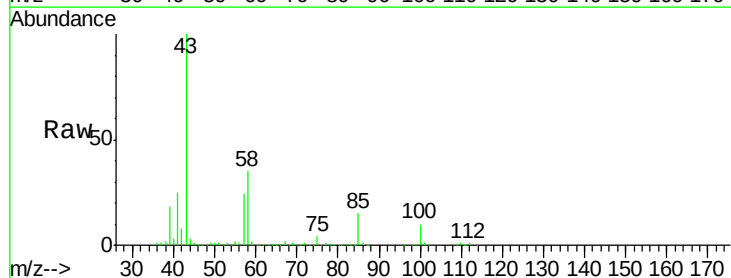
Acq: 14 Feb 2019 17:01

Tgt Ion: 43 Resp: 1843346

Ion Ratio Lower Upper

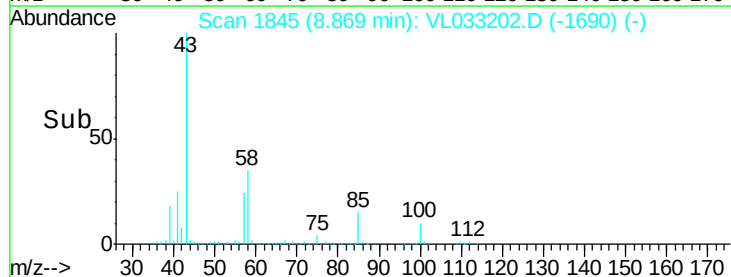
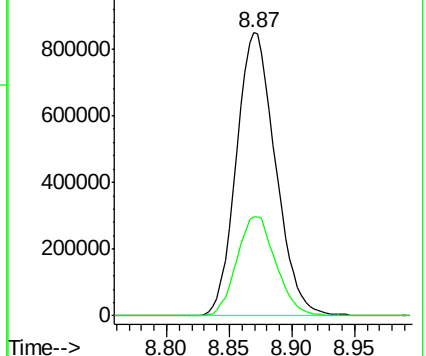
43 100

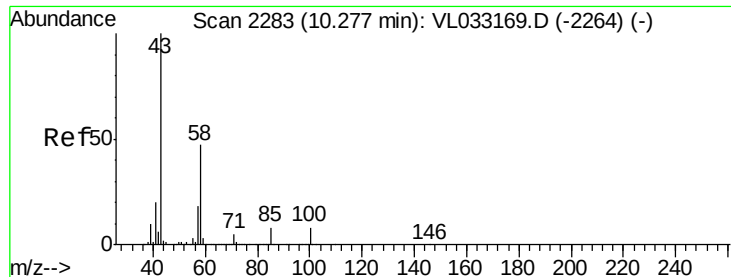
58 35.3 29.0 43.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

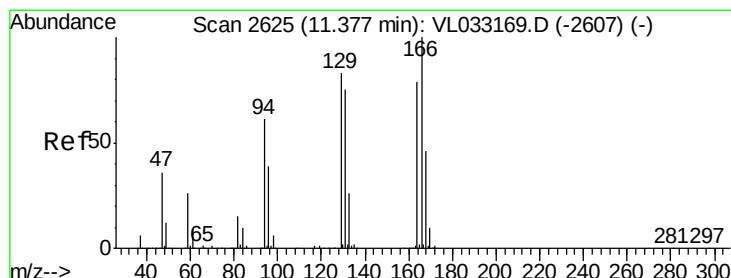
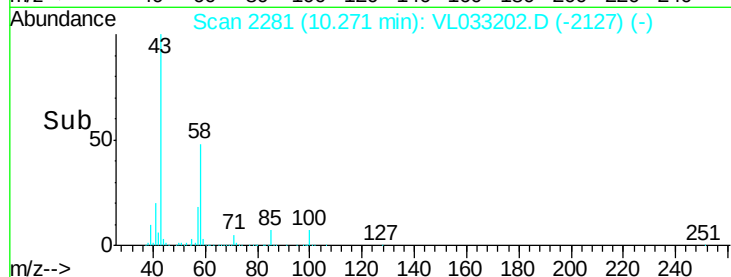
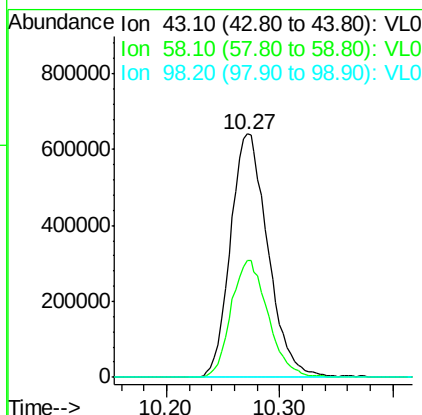
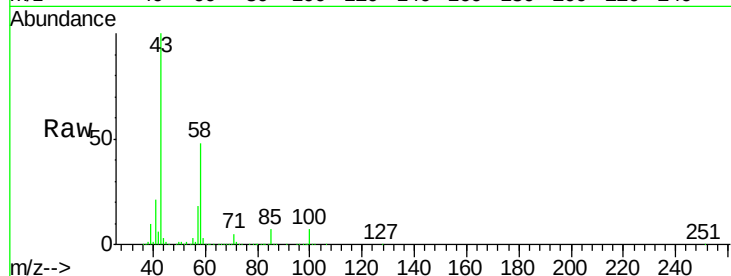




#51  
2-Hexanone  
Concen: 10.107 ppbv  
RT: 10.27 min Scan# 2281  
Delta R.T. -0.01 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

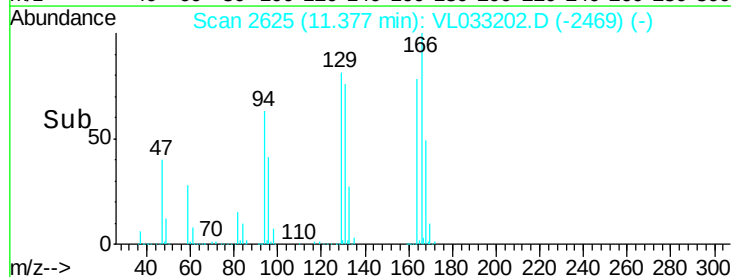
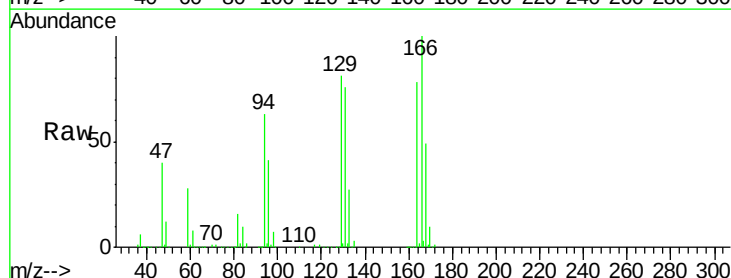
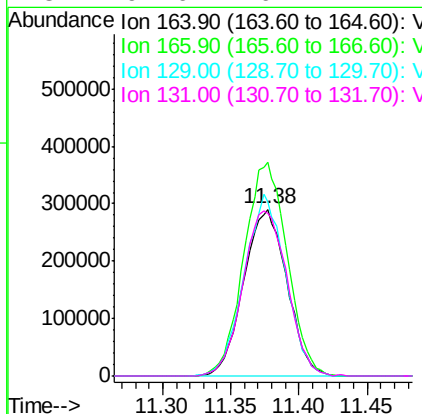
Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0214ABS01

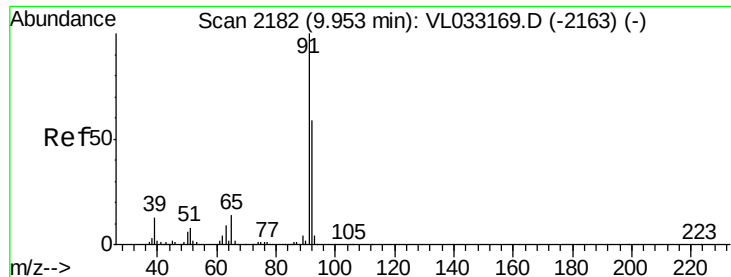
Tot Ion: 43 Resp: 1475130  
Ion Ratio Lower Upper  
43 100  
58 47.6 39.1 58.7  
98 0.1 0.2 0.2#



#52  
Tetrachloroethene  
Concen: 9.000 ppbv  
RT: 11.38 min Scan# 2625  
Delta R.T. 0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

Tgt Ion: 164 Resp: 637745  
Ion Ratio Lower Upper  
164 100  
166 128.0 100.9 151.3  
129 104.2 83.9 125.9  
131 97.6 76.2 114.2





#53

Toluene

Concen: 9.614 ppbv

RT: 9.95 min Scan# 2180

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

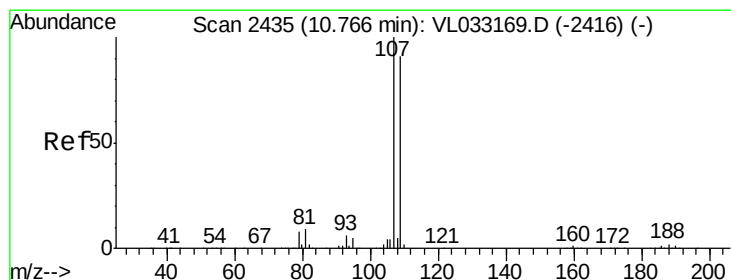
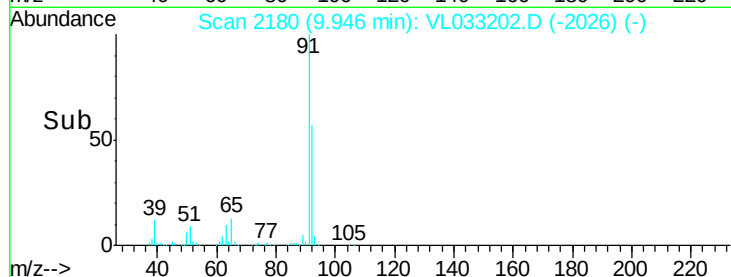
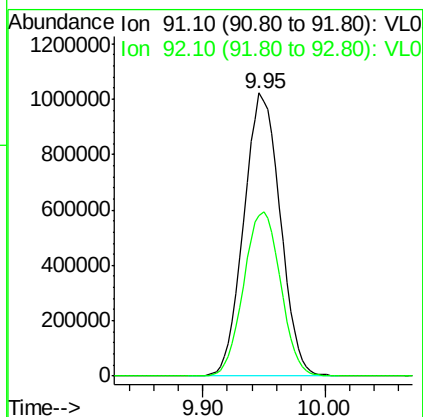
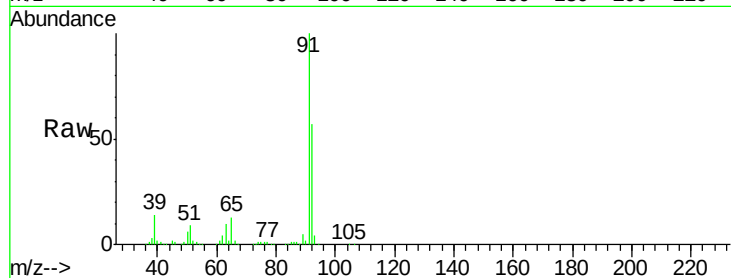
VL0214ABS01

Tot Ion: 91 Resp: 2099728

Ion Ratio Lower Upper

91 100

92 59.1 48.0 72.0



#54

1,2-Dibromoethane

Concen: 9.700 ppbv

RT: 10.76 min Scan# 2434

Delta R.T. -0.00 min

Lab File: VL033202.D

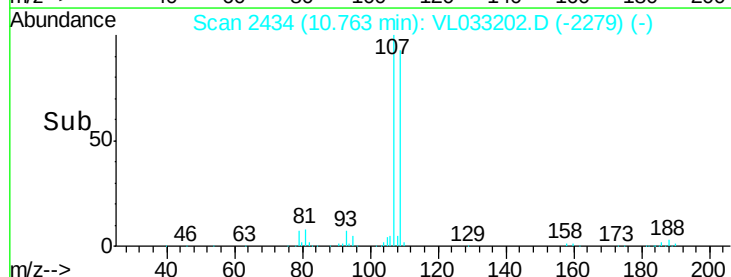
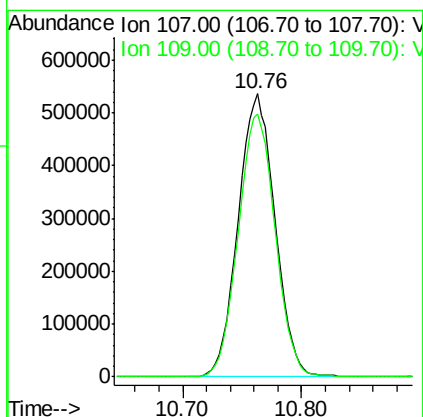
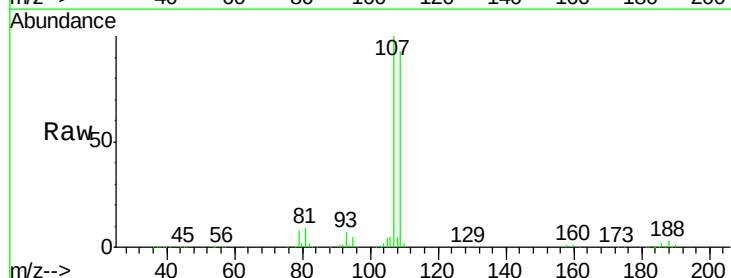
Acq: 14 Feb 2019 17:01

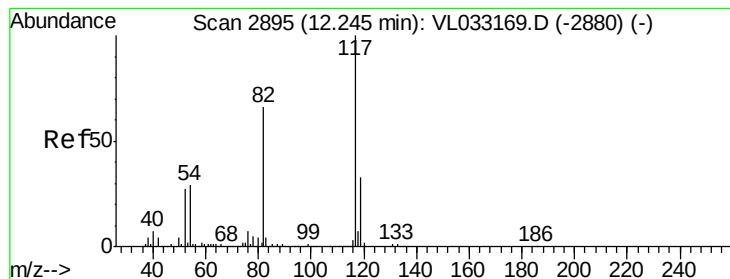
Tgt Ion: 107 Resp: 1149831

Ion Ratio Lower Upper

107 100

109 92.7 73.2 109.8





#55

Chlorobenzene-d5

Concen: 10.000 ppbv m

RT: 12.24 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

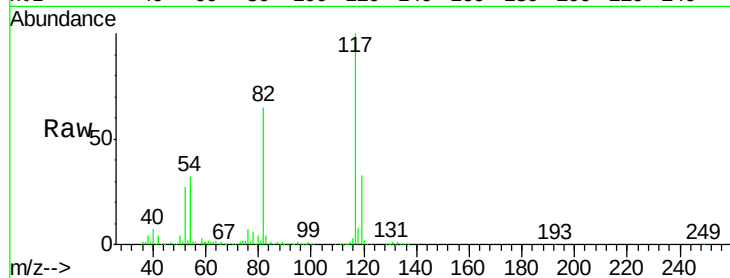
Tot Ion:117 Resp: 2216848

Ion Ratio Lower Upper

117 100

82 61.3 49.5 74.3

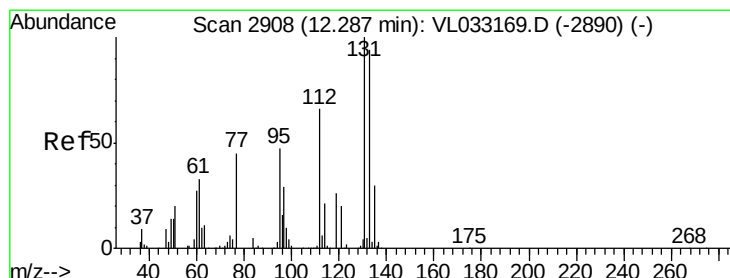
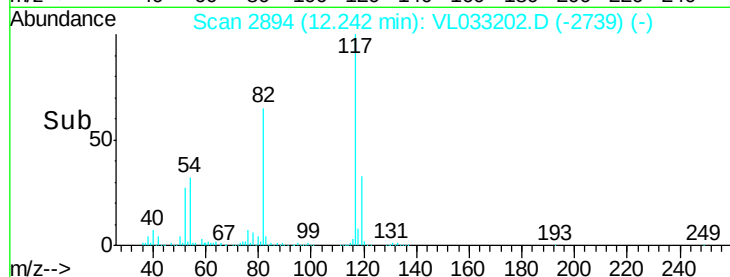
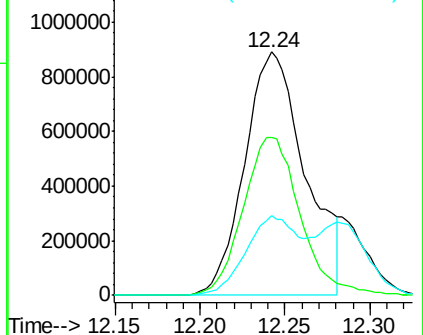
119 29.8 24.4 36.6



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



#56

1,1,1,2-Tetrachloroethane

Concen: 9.040 ppbv

RT: 12.28 min Scan# 2906

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

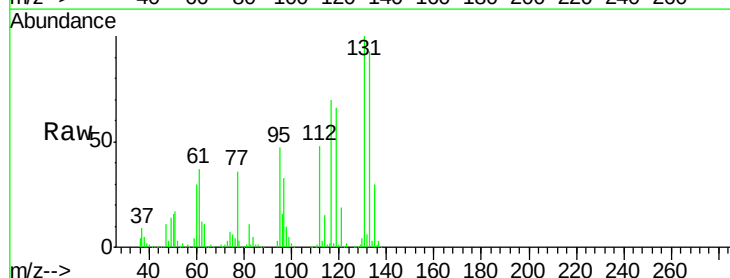
Tgt Ion:131 Resp: 919762

Ion Ratio Lower Upper

131 100

133 95.5 75.8 113.6

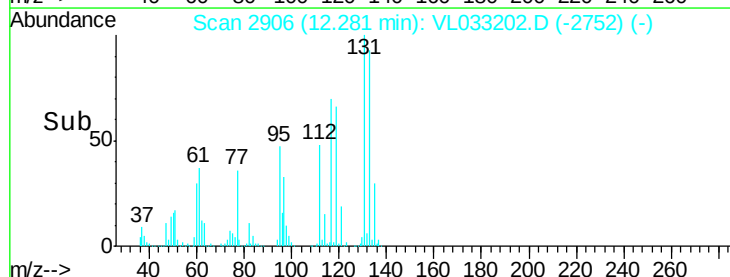
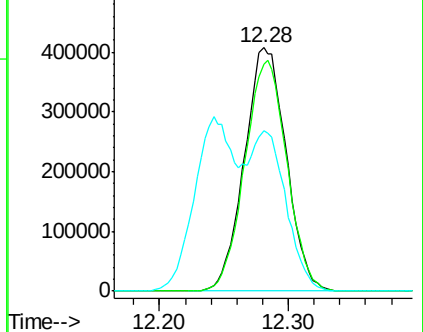
119 53.8 110.9 166.3#

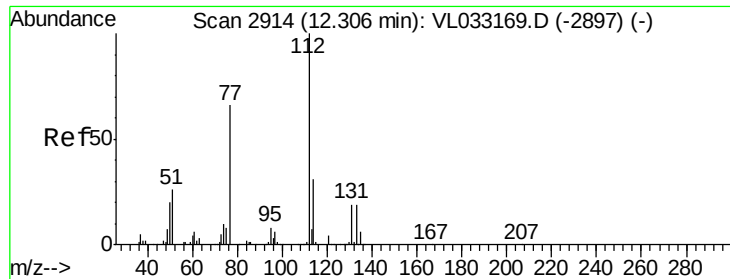


Abundance Ion 131.00 (130.70 to 131.70): V

Ion 133.00 (132.70 to 133.70): V

Ion 119.00 (118.70 to 119.70): V

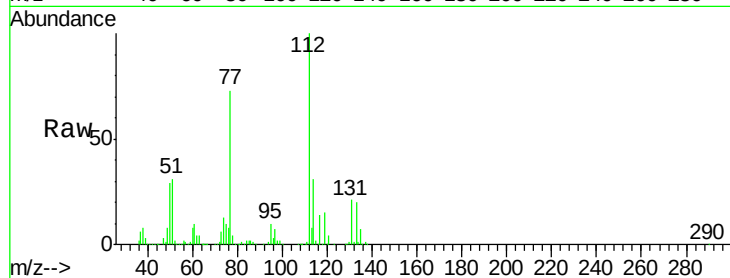




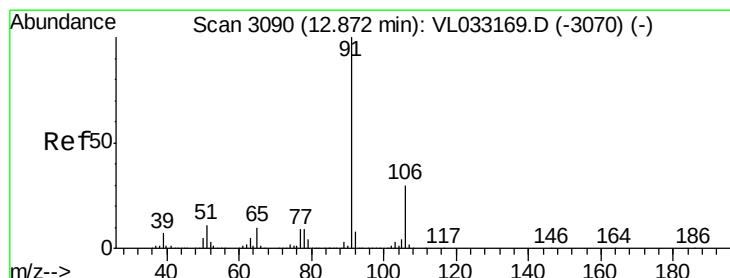
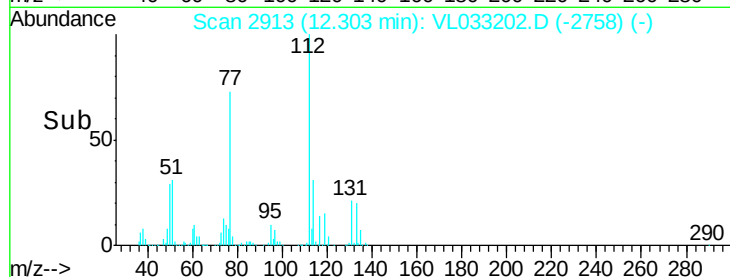
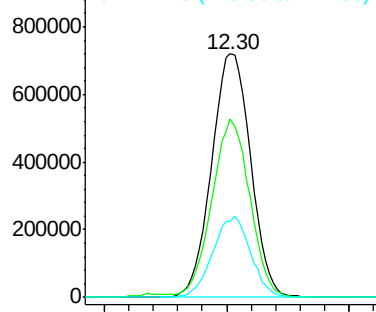
#57  
Chlorobenzene  
Concen: 8.227 ppbv  
RT: 12.30 min Scan# 2913  
Delta R.T. -0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0214ABS01

Tot Ion:112 Resp: 1592189  
Ion Ratio Lower Upper  
112 100  
77 72.9 54.0 81.0  
114 31.3 27.9 34.1

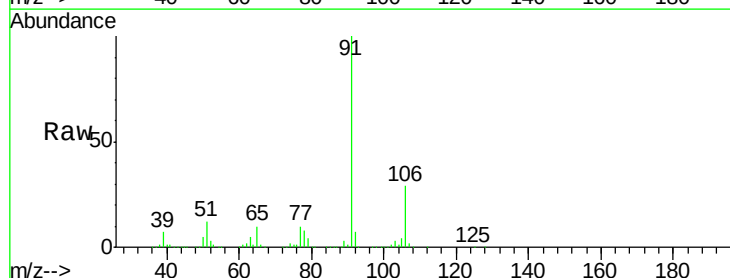


Abundance Ion 112.10 (111.80 to 112.80): V  
Ion 77.10 (76.80 to 77.80): VL0  
Ion 114.10 (113.80 to 114.80): V

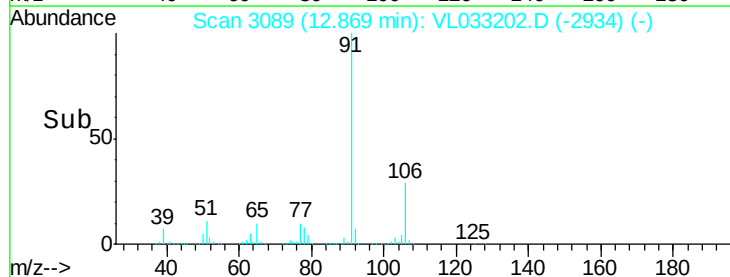
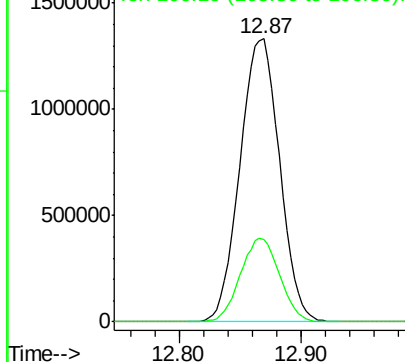


#58  
Ethyl Benzene  
Concen: 8.318 ppbv  
RT: 12.87 min Scan# 3089  
Delta R.T. -0.00 min  
Lab File: VL033202.D  
Acq: 14 Feb 2019 17:01

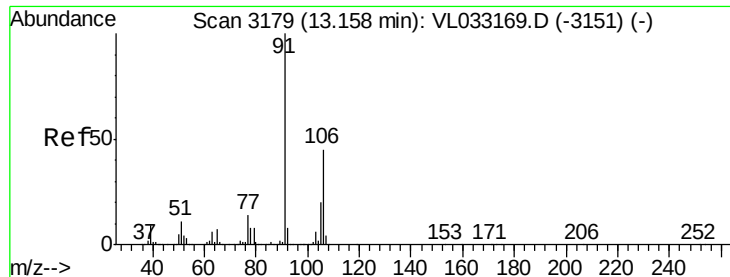
Tgt Ion: 91 Resp: 2984388  
Ion Ratio Lower Upper  
91 100  
106 29.0 23.8 35.8



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







#59

m/p-Xylene

Concen: 16.574 ppbv m

RT: 13.12 min Scan# 3168

Delta R.T. -0.04 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

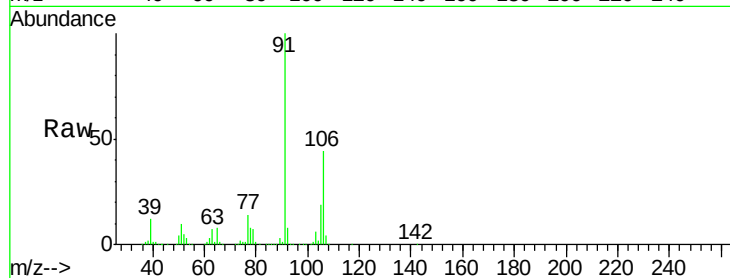
VL0214ABS01

Tot Ion: 91 Resp: 4962626

Ion Ratio Lower Upper

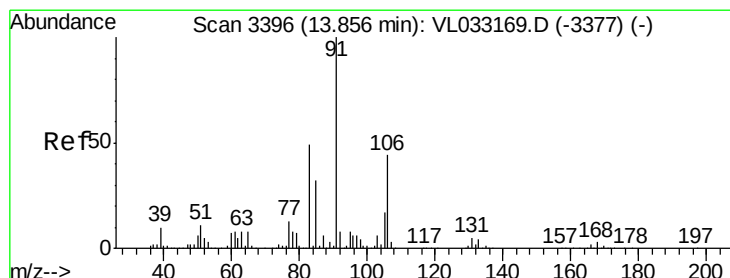
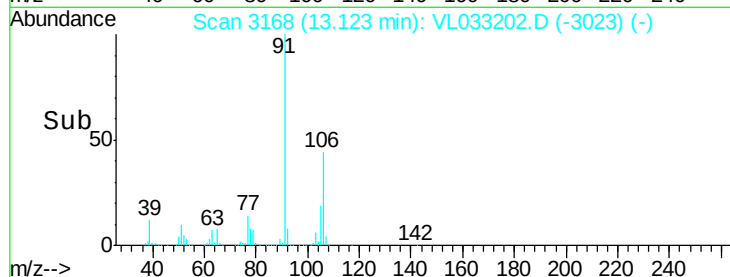
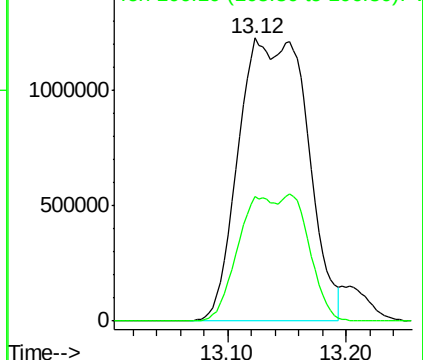
91 100

106 44.0 0.0 0.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 8.225 ppbv

RT: 13.85 min Scan# 3395

Delta R.T. -0.00 min

Lab File: VL033202.D

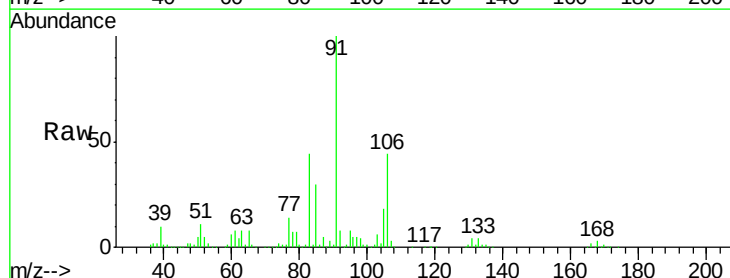
Acq: 14 Feb 2019 17:01

Tgt Ion: 91 Resp: 2394817

Ion Ratio Lower Upper

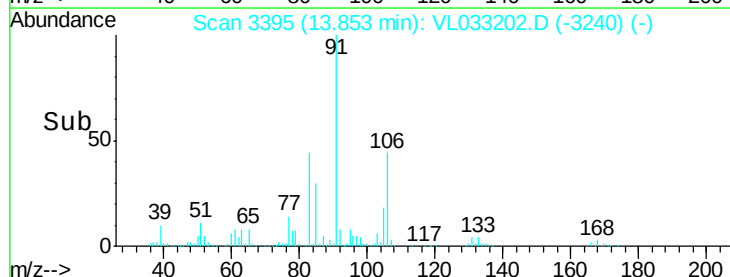
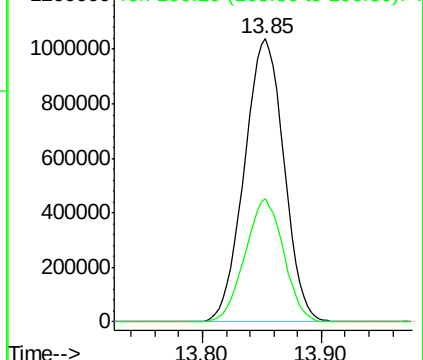
91 100

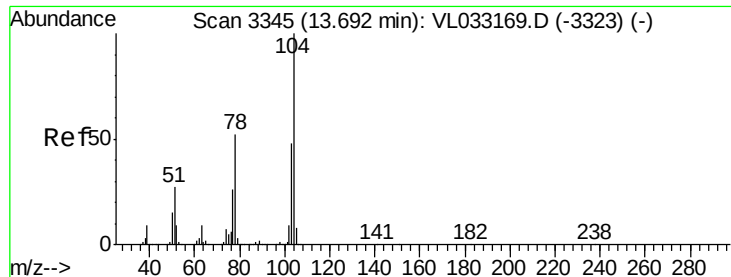
106 42.5 21.8 65.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#61

Stvrene

Concen: 8.270 ppbv

RT: 13.69 min Scan# 3344

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

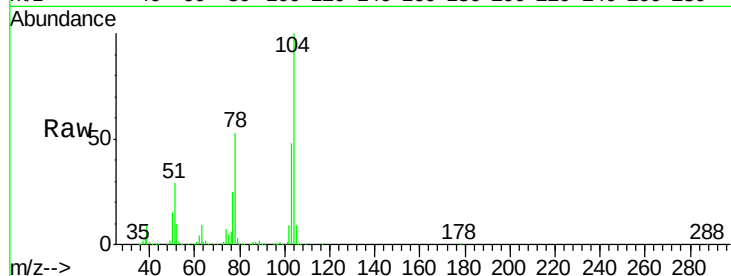
Tot Ion:104 Resp: 1816330

Ion Ratio Lower Upper

104 100

78 54.0 41.9 62.9

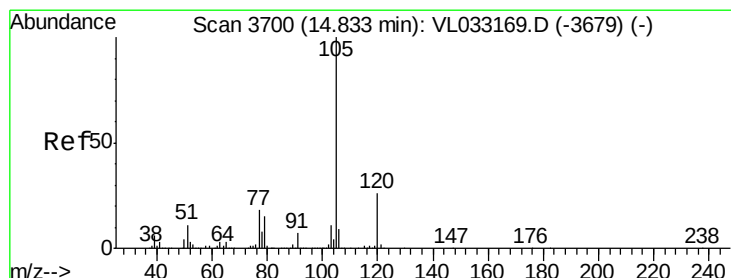
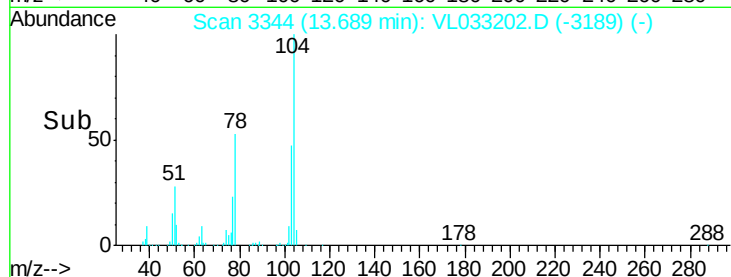
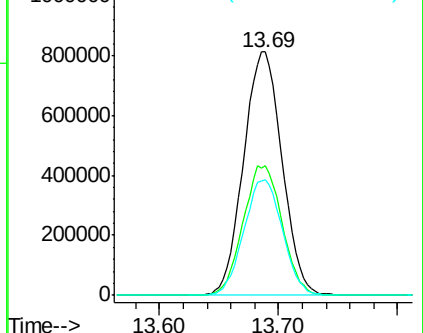
103 47.8 37.9 56.9



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 8.218 ppbv

RT: 14.83 min Scan# 3699

Delta R.T. -0.00 min

Lab File: VL033202.D

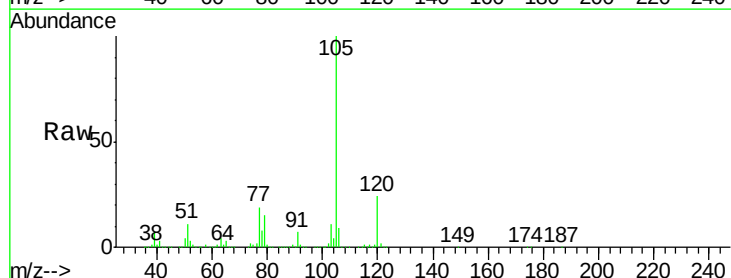
Acq: 14 Feb 2019 17:01

Tgt Ion:105 Resp: 3375128

Ion Ratio Lower Upper

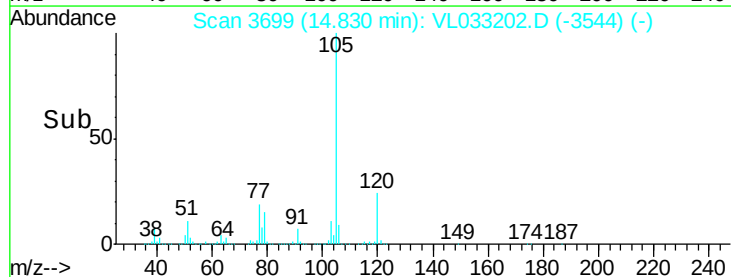
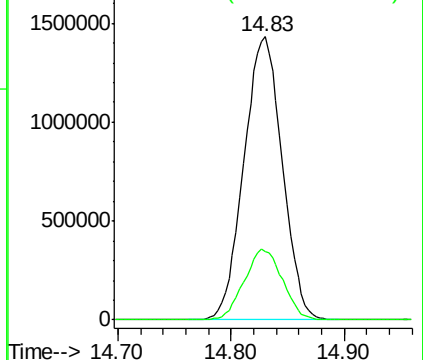
105 100

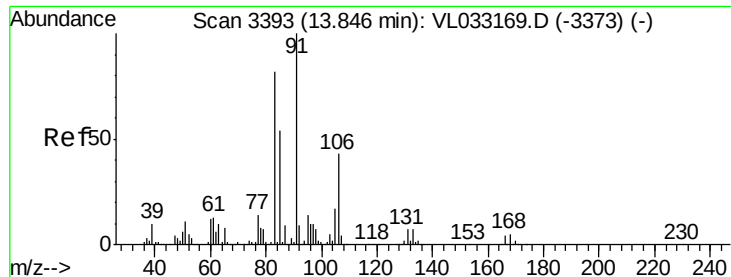
120 24.9 20.3 30.5



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

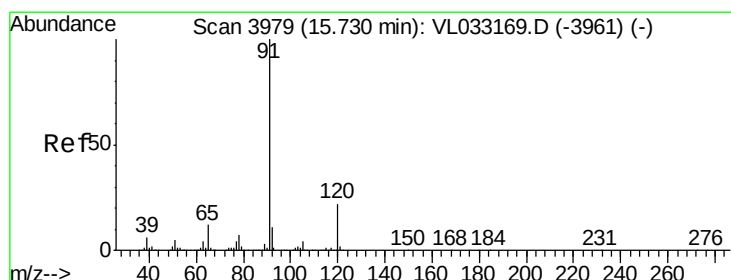
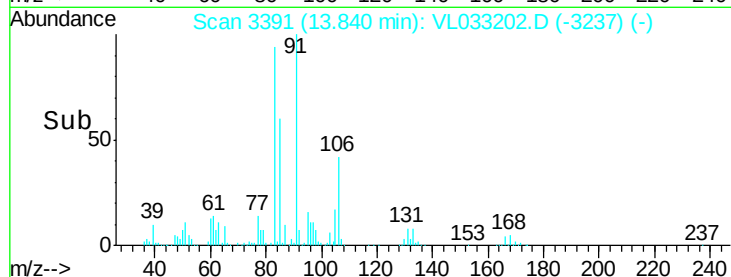
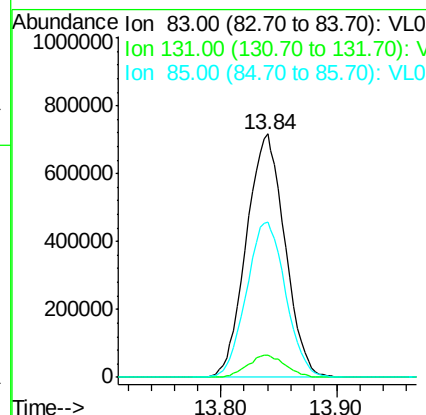
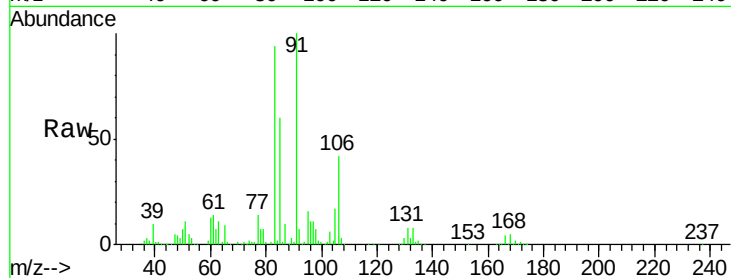




#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 7.255 ppbv  
 RT: 13.84 min Scan# 3391  
 Delta R.T. -0.01 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

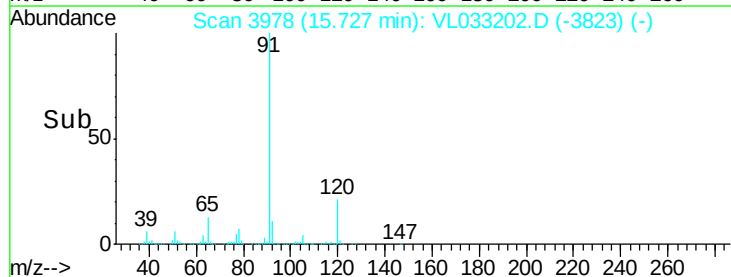
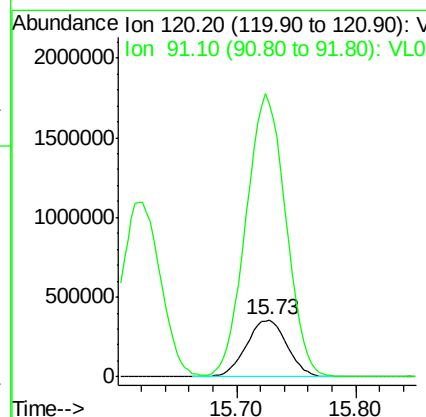
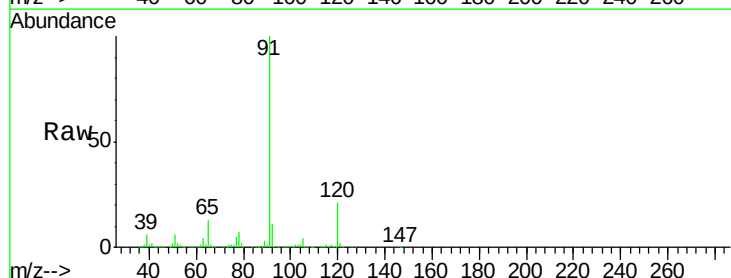
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

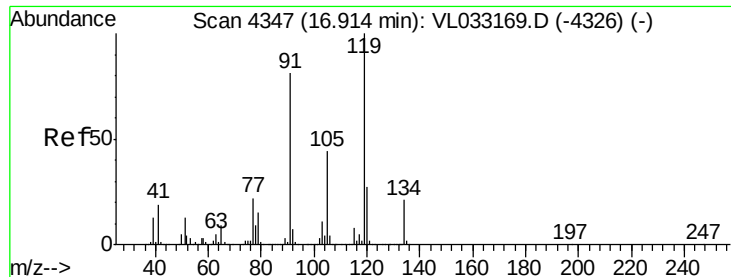
Tot Ion: 83 Resp: 1659621  
 Ion Ratio Lower Upper  
 83 100  
 131 9.0 4.8 14.3  
 85 64.9 32.8 98.3



#64  
 n-propylbenzene  
 Concen: 8.093 ppbv  
 RT: 15.73 min Scan# 3978  
 Delta R.T. -0.00 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

Tgt Ion:120 Resp: 844809  
 Ion Ratio Lower Upper  
 120 100  
 91 489.4 383.9 575.9





#65

tert-Butylbenzene

Concen: 8.148 ppbv

RT: 16.91 min Scan# 4346

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

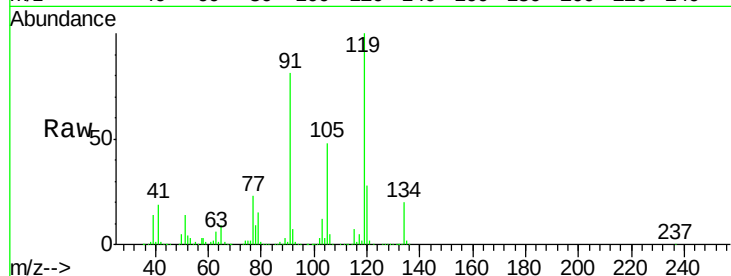
Tot Ion:119 Resp: 2914281

Ion Ratio Lower Upper

119 100

91 83.7 65.7 98.5

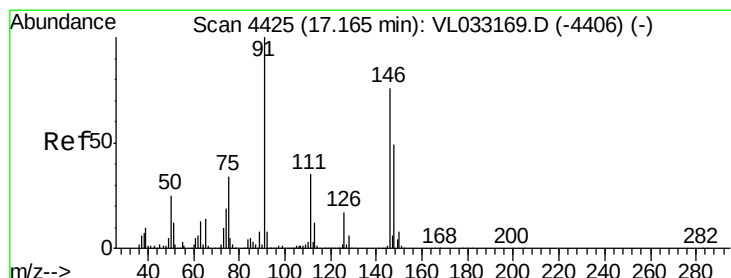
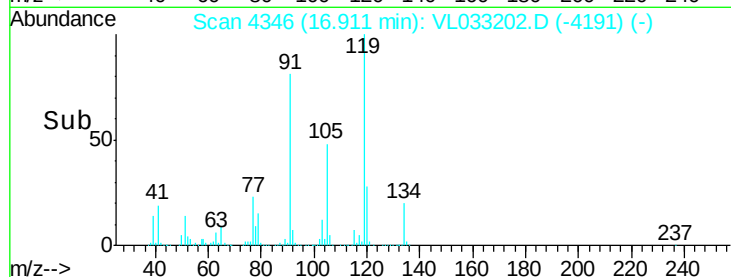
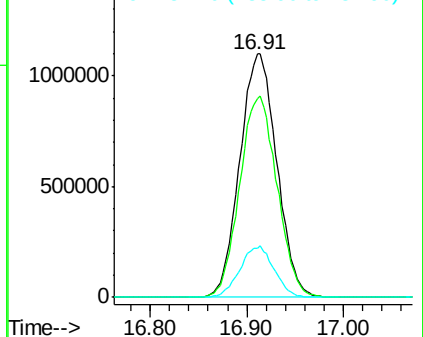
134 19.4 15.8 23.6



Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V



#66

Benzyl Chloride

Concen: 11.370 ppbv

RT: 17.16 min Scan# 4424

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

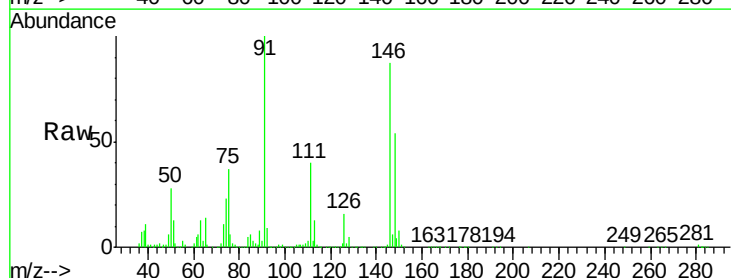
Tgt Ion: 91 Resp: 1443727

Ion Ratio Lower Upper

91 100

126 16.5 13.8 20.6

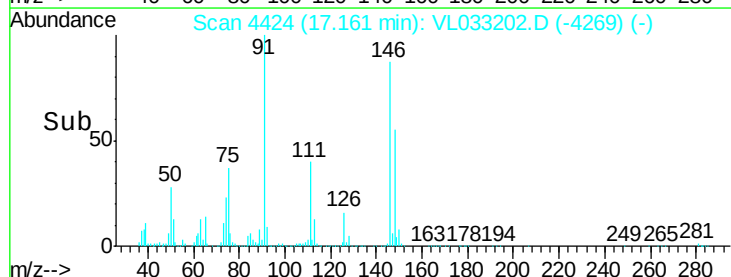
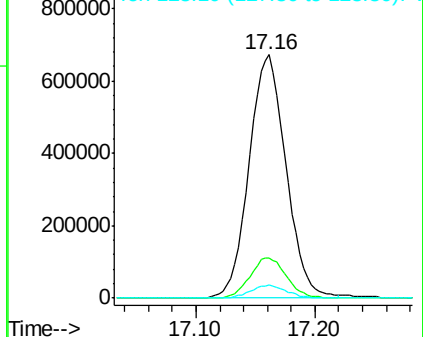
128 5.3 4.5 6.7

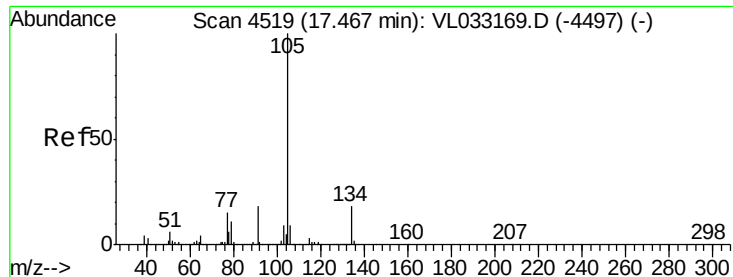


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 9.170 ppbv

RT: 17.46 min Scan# 4518

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

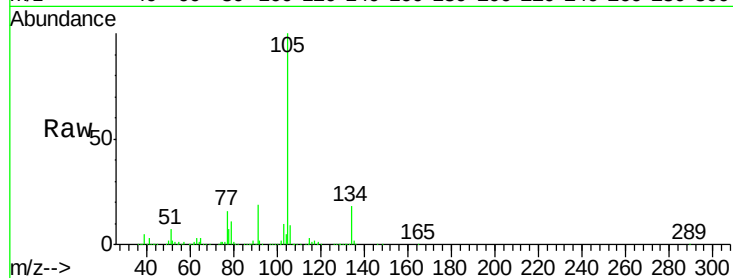
VL0214ABS01

Tot Ion:105 Resp: 4761113

Ion Ratio Lower Upper

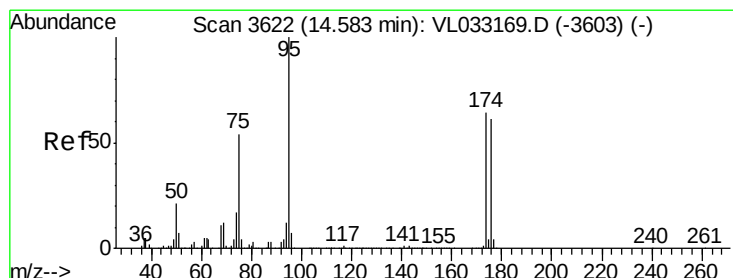
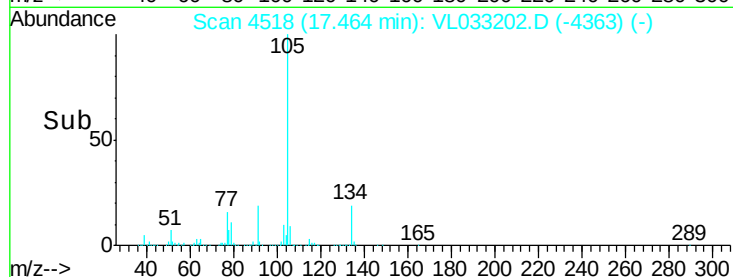
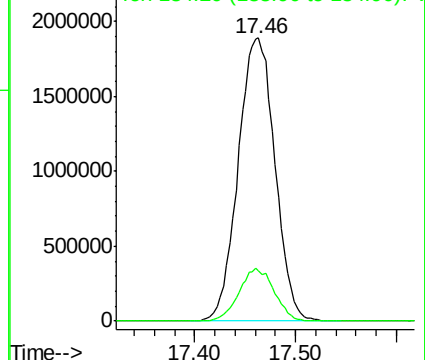
105 100

134 17.9 14.6 22.0



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.003 ppbv

RT: 14.58 min Scan# 3621

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

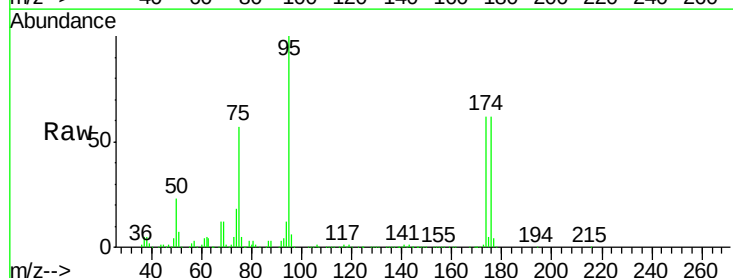
Tgt Ion: 95 Resp: 1537123

Ion Ratio Lower Upper

95 100

174 64.6 51.2 76.8

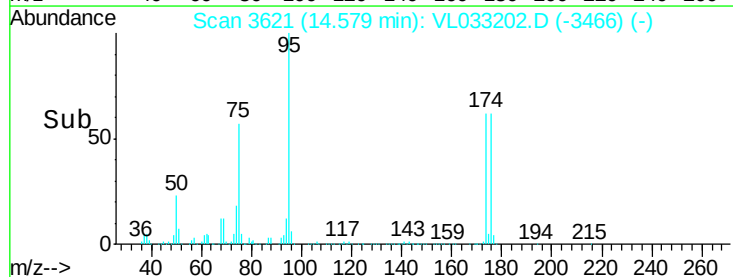
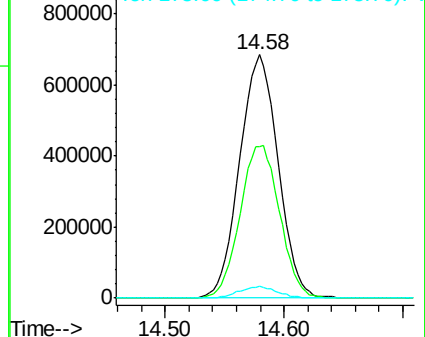
175 4.6 3.8 5.6

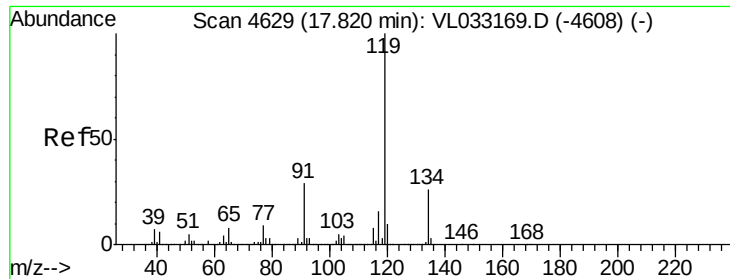


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#69

p-Isopropyltoluene

Concen: 9.291 ppbv

RT: 17.82 min Scan# 4628

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

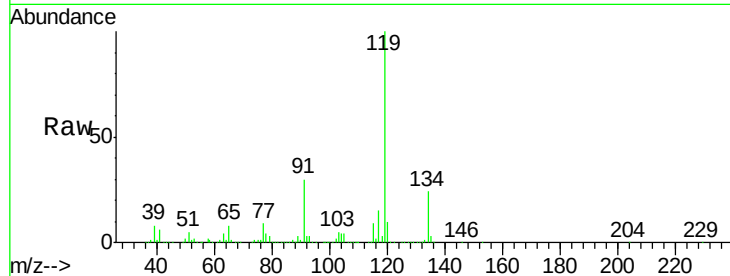
Tot Ion: 119 Resp: 4018046

Ion Ratio Lower Upper

119 100

134 24.7 20.4 30.6

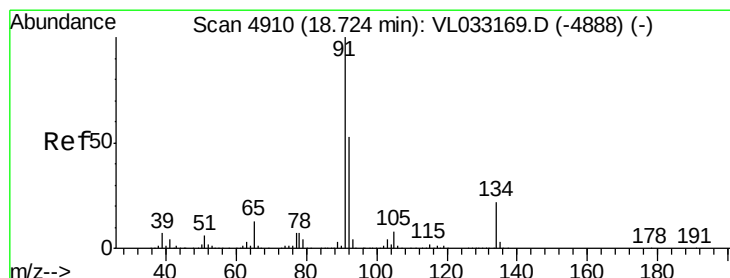
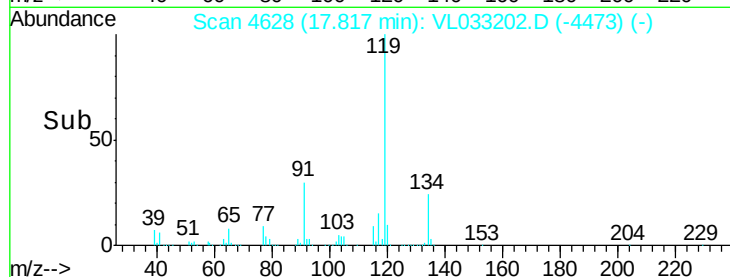
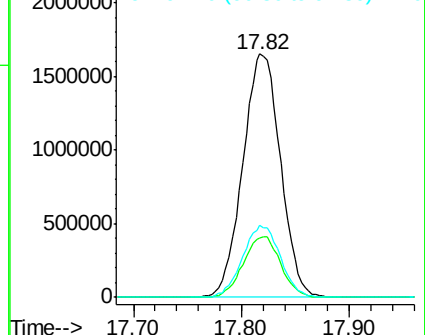
91 29.5 23.4 35.2



Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): V



#70

n-Butylbenzene

Concen: 9.267 ppbv

RT: 18.72 min Scan# 4908

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

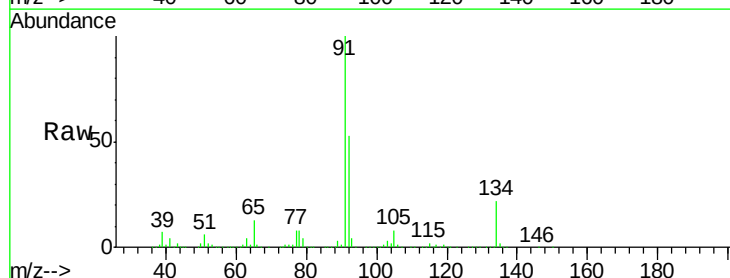
Tgt Ion: 91 Resp: 4324170

Ion Ratio Lower Upper

91 100

92 53.1 43.0 64.4

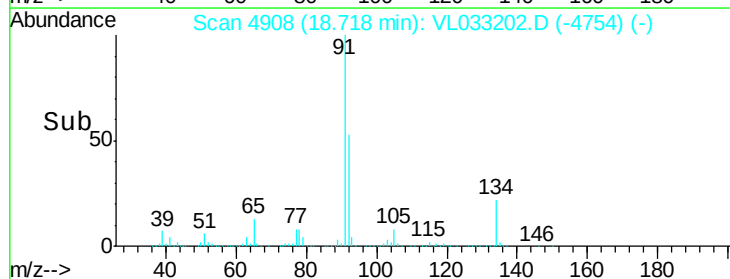
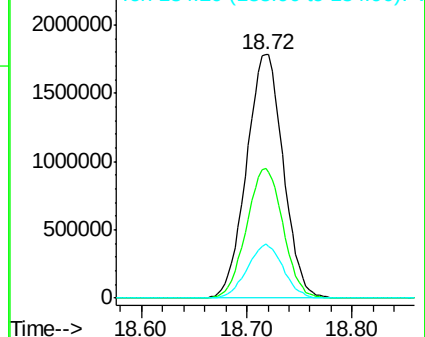
134 21.6 17.5 26.3

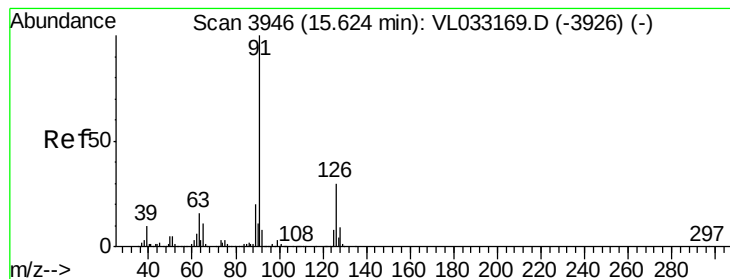


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

Ion 134.20 (133.90 to 134.90): V





#71

2-Chlorotoluene

Concen: 8.053 ppbv

RT: 15.62 min Scan# 3944

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

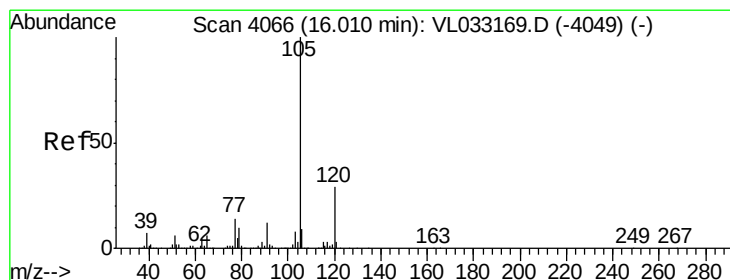
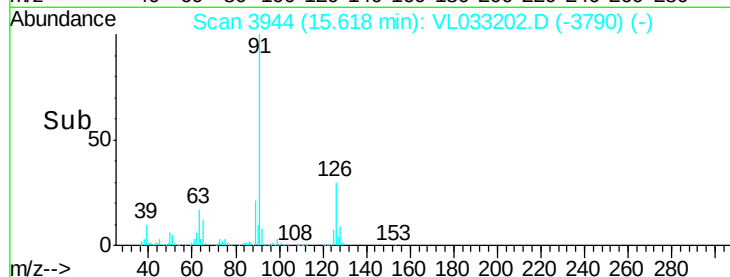
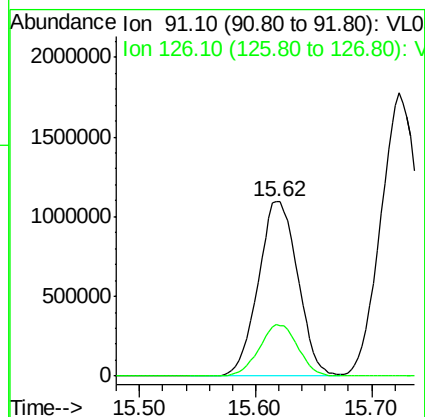
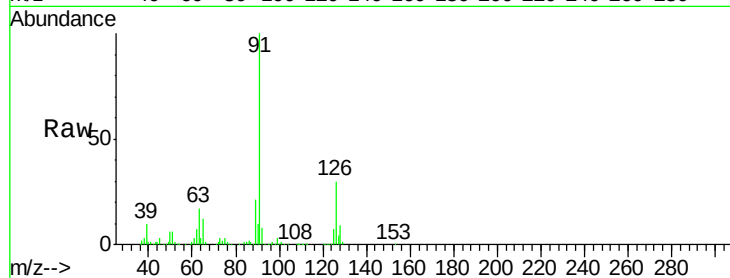
VL0214ABS01

Tot Ion: 91 Resp: 2598645

Ion Ratio Lower Upper

91 100

126 28.9 11.8 47.4



#72

4-Ethyltoluene

Concen: 8.198 ppbv

RT: 16.00 min Scan# 4064

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Tgt Ion: 105 Resp: 2751327

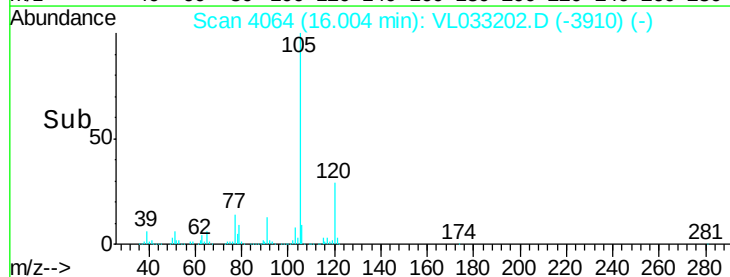
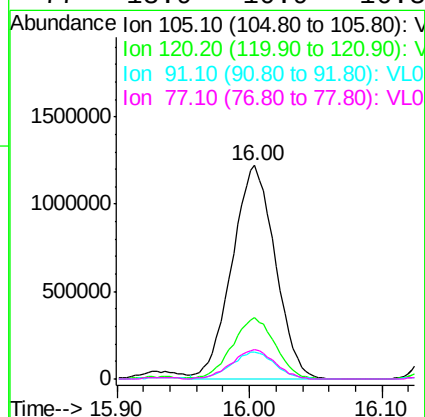
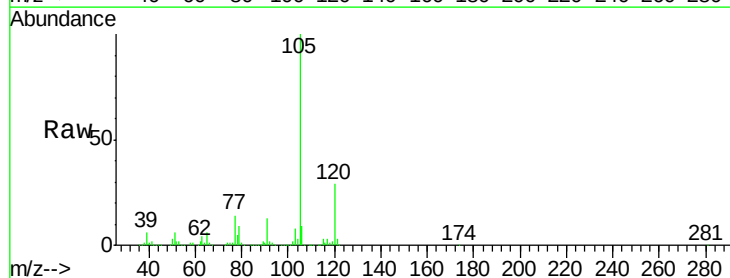
Ion Ratio Lower Upper

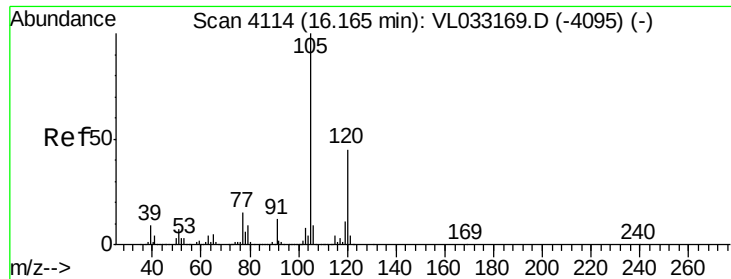
105 100

120 28.8 23.1 34.7

91 12.9 9.8 14.6

77 13.9 10.9 16.3





#73

1,3,5-Trimethylbenzene

Concen: 8.300 ppbv

RT: 16.16 min Scan# 4113

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

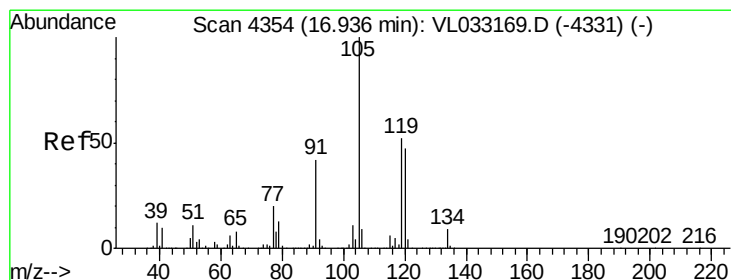
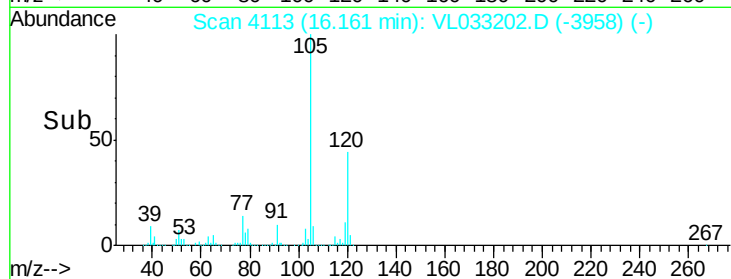
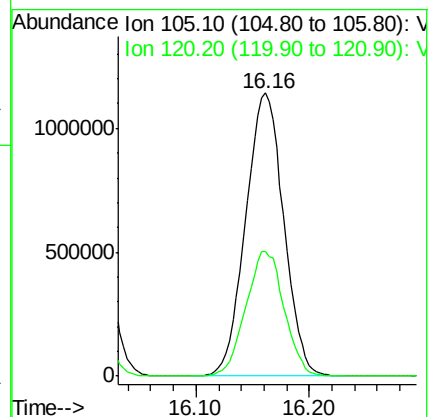
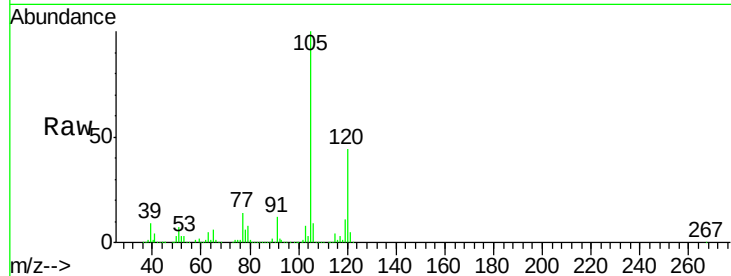
VL0214ABS01

Tot Ion:105 Resp: 2664210

Ion Ratio Lower Upper

105 100

120 43.9 36.2 54.4



#74

1,2,4-Trimethylbenzene

Concen: 7.999 ppbv

RT: 16.93 min Scan# 4353

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Tgt Ion:105 Resp: 2664699

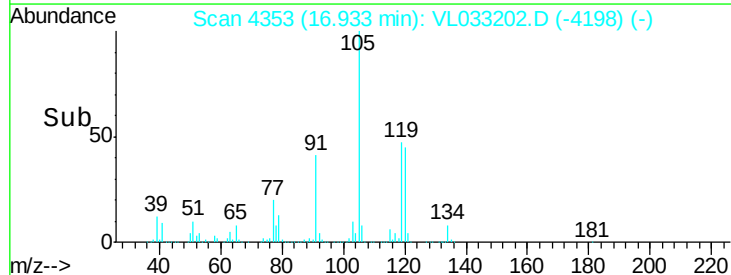
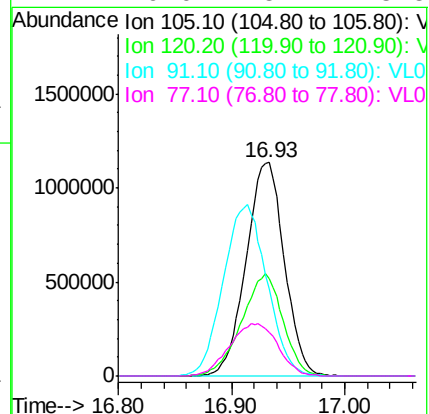
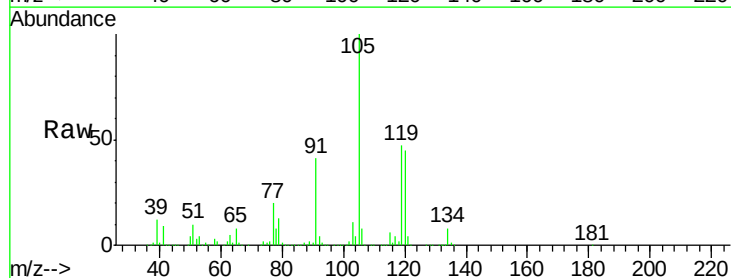
Ion Ratio Lower Upper

105 100

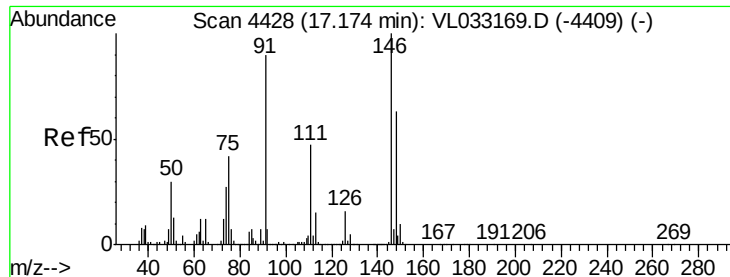
120 45.3 37.9 56.9

91 40.7 34.0 51.0

77 20.0 15.7 23.5







#75

1,3-Dichlorobenzene

Concen: 8.007 ppbv

RT: 17.17 min Scan# 4427

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

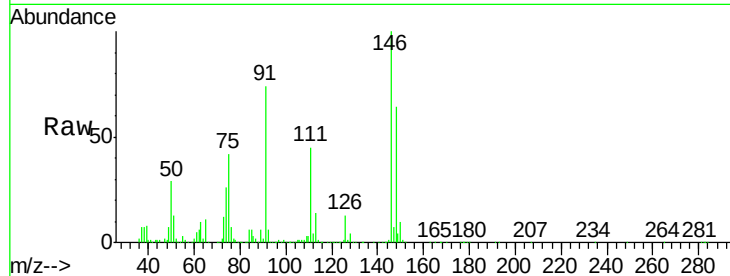
Tot Ion:146 Resp: 1538123

Ion Ratio Lower Upper

146 100

111 45.8 23.2 69.6

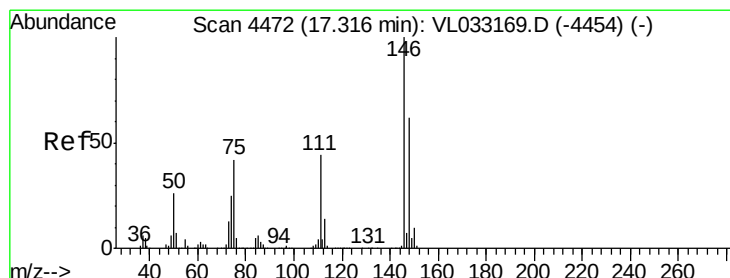
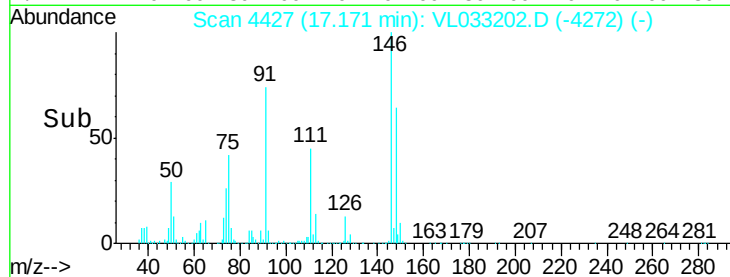
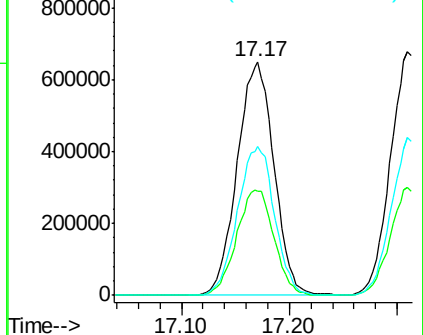
148 64.4 31.8 95.4



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#76

1,4-Dichlorobenzene

Concen: 8.199 ppbv

RT: 17.31 min Scan# 4470

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

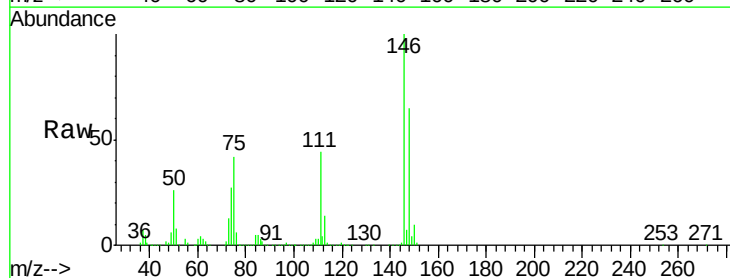
Tgt Ion:146 Resp: 1559856

Ion Ratio Lower Upper

146 100

111 44.0 22.4 67.0

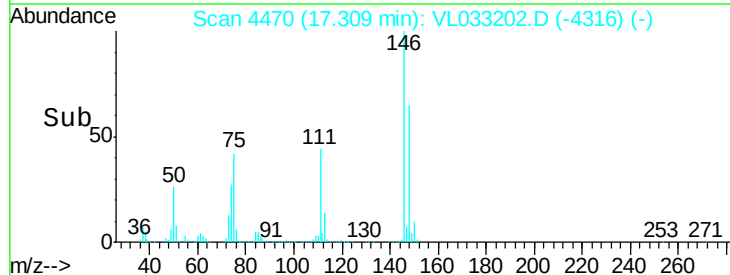
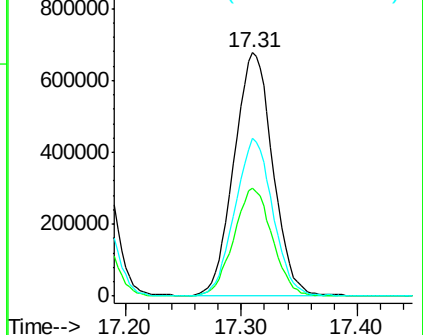
148 64.0 31.9 95.9

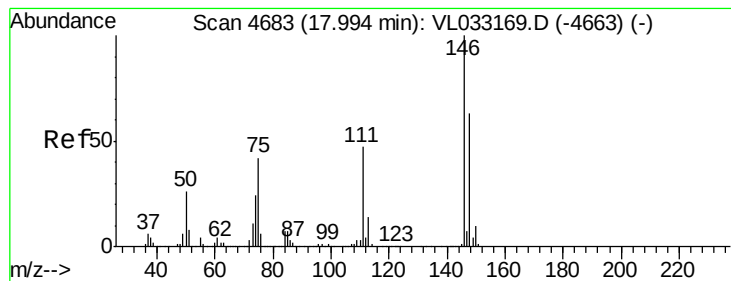


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#77

1,2-Dichlorobenzene

Concen: 9.404 ppbv

RT: 17.99 min Scan# 4682

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

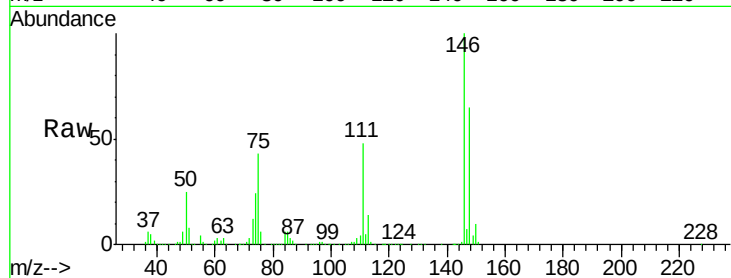
Tot Ion:146 Resp: 1784898

Ion Ratio Lower Upper

146 100

111 46.7 23.5 70.6

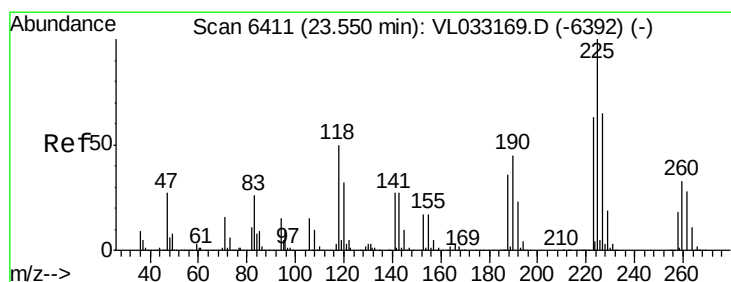
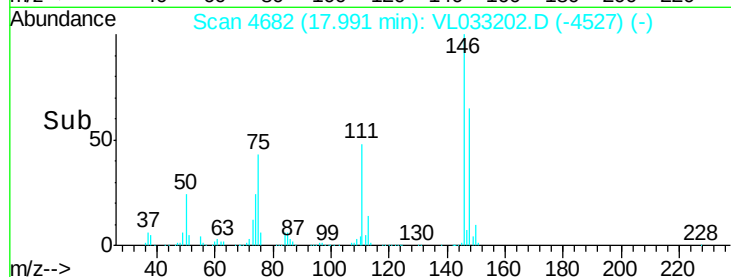
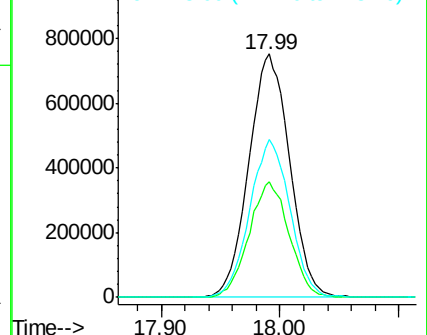
148 63.9 31.9 95.7



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 9.104 ppbv

RT: 23.54 min Scan# 6408

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

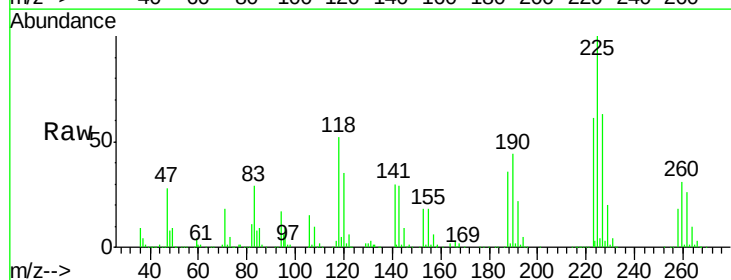
Tgt Ion:225 Resp: 860126

Ion Ratio Lower Upper

225 100

223 61.9 50.6 75.8

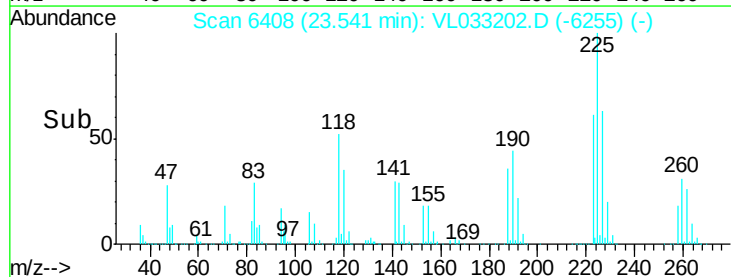
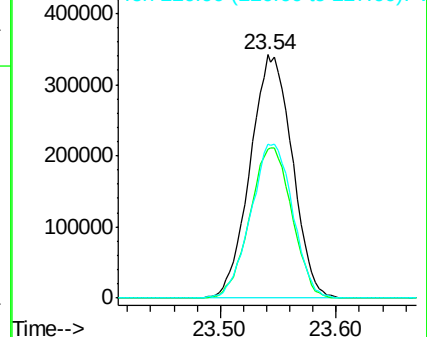
227 63.6 51.4 77.2

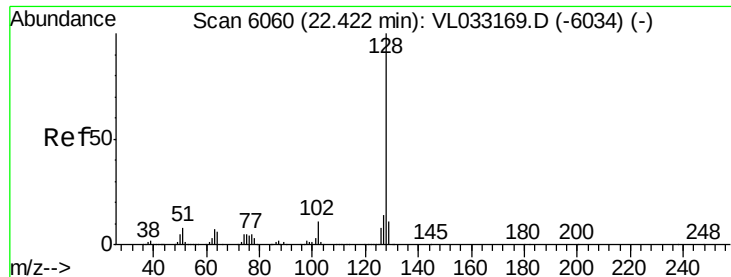


Abundance Ion 224.90 (224.60 to 225.60): V

Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V





#79

Naphthalene

Concen: 8.780 ppbv

RT: 22.42 min Scan# 6058

Delta R.T. -0.01 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

Instrument :

MSVOA\_L

ClientSampleId :

VL0214ABS01

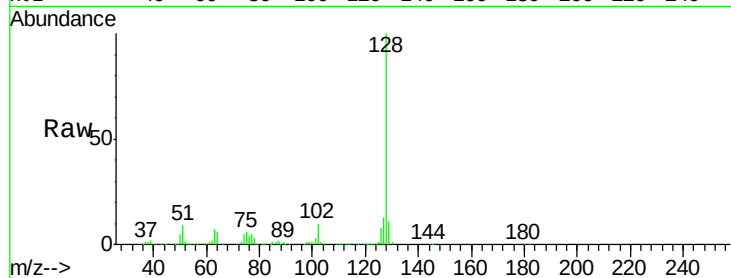
Tot Ion:128 Resp: 3142221

Ion Ratio Lower Upper

128 100

127 13.1 11.0 16.4

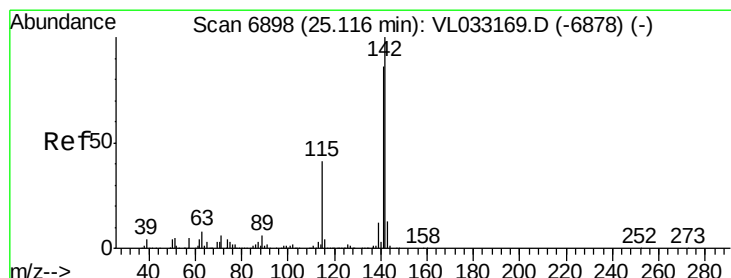
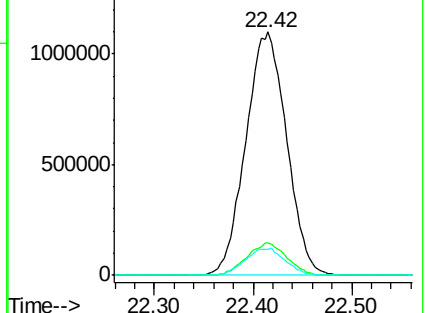
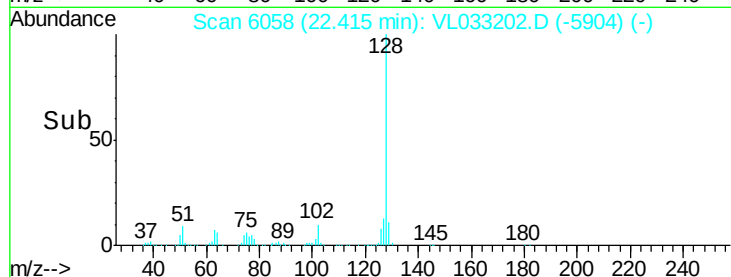
129 10.8 8.6 12.8



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 6.490 ppbv

RT: 25.11 min Scan# 6897

Delta R.T. -0.00 min

Lab File: VL033202.D

Acq: 14 Feb 2019 17:01

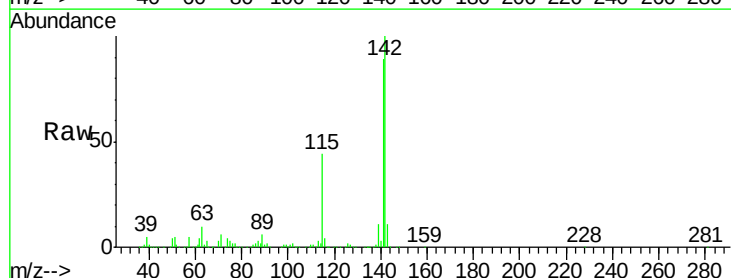
Tgt Ion:142 Resp: 1176113

Ion Ratio Lower Upper

142 100

141 85.5 67.7 101.5

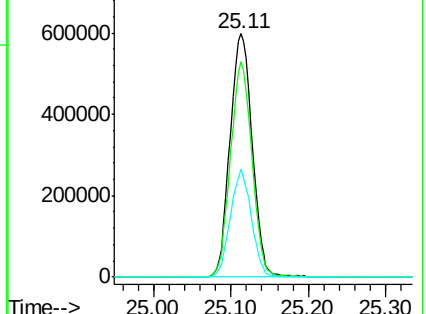
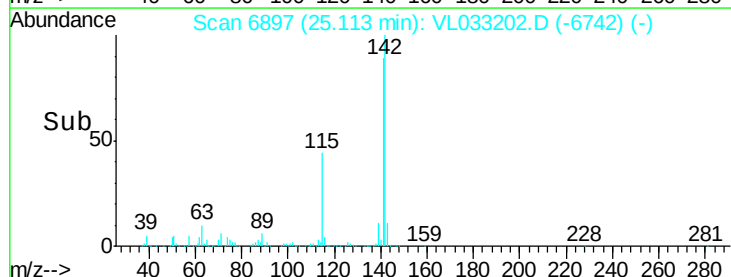
115 42.1 32.7 49.1

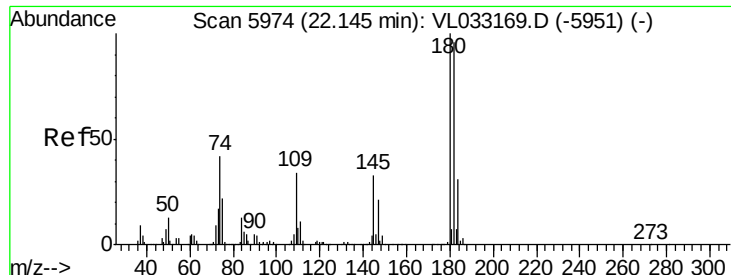


Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

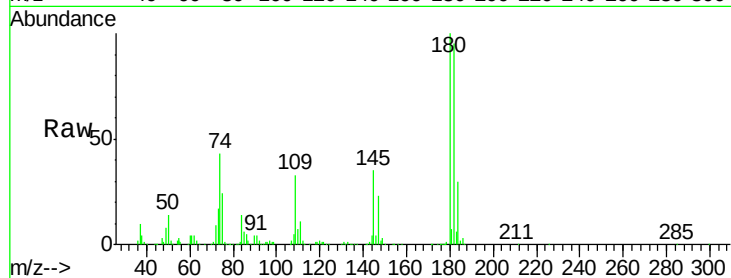




#81  
 1,2,4-Trichlorobenzene  
 Concen: 8.547 ppbv  
 RT: 22.14 min Scan# 5972  
 Delta R.T. -0.01 min  
 Lab File: VL033202.D  
 Acq: 14 Feb 2019 17:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0214ABS01

Tot Ion:180 Resp: 1554236  
 Ion Ratio Lower Upper  
 180 100  
 182 95.3 75.8 113.8  
 184 30.3 24.3 36.5



Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V

