

Data Path : Z:\voasrv\HPCHEM1\MSVOA L\Data\VL050619\  
 Data File : VL033655.D  
 Acq On : 6 May 2019 11:39  
 Operator : SY/AP  
 Sample : VSTDIC002  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: May 06 12:20:24 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon May 06 12:00:34 2019  
 QLast Update : Mon May 06 12:00:34 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 1036504  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2576562  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2607405  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 2073527  | 9.96     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 99.60% |

| Target Compounds               |      |     |        |              | Ovalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 3.08 | 85  | 542953 | 3.141 ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.01 | 51  | 337506 | 2.701 ppbv   | 93     |
| 4) Chloromethane               | 3.17 | 50  | 171703 | 2.494 ppbv   | 99     |
| 5) Vinyl Chloride              | 3.29 | 62  | 167577 | 2.340 ppbv   | 93     |
| 6) Bromomethane                | 3.52 | 94  | 103151 | 2.424 ppbv   | 100    |
| 7) Chloroethane                | 3.60 | 64  | 57874  | 2.419 ppbv   | 99     |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85  | 442421 | 2.538 ppbv   | 98     |
| 9) Propene                     | 3.04 | 41  | 123747 | 2.845 ppbv   | 97     |
| 10) Heptane                    | 8.25 | 43  | 306892 | 2.317 ppbv   | 98     |
| 11) Trichlorofluoromethane     | 4.00 | 101 | 492281 | 2.559 ppbv   | 95     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101 | 325889 | 2.467 ppbv   | 99     |
| 13) Ethanol                    | 3.65 | 45  | 36849  | 2.293 ppbv   | 98     |
| 14) Bromoethene                | 3.79 | 108 | 130649 | 2.441 ppbv   | 98     |
| 15) Acetone                    | 3.90 | 43  | 359597 | 2.756 ppbv   | 100    |
| 16) 1,3-Butadiene              | 3.36 | 39  | 148471 | 2.556 ppbv   | 99     |
| 17) tert-Butyl alcohol         | 4.36 | 59  | 236886 | 2.159 ppbv   | 97     |
| 18) 1,1-Dichloroethene         | 4.35 | 96  | 139976 | 2.441 ppbv   | 96     |
| 19) Isopropyl Alcohol          | 4.03 | 45  | 193218 | 2.217 ppbv # | 96     |
| 20) Methylene Chloride         | 4.41 | 84  | 127451 | 2.497 ppbv   | 93     |
| 21) Allyl Chloride             | 4.48 | 41  | 199071 | 2.436 ppbv   | 98     |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96  | 144956 | 2.561 ppbv   | 99     |
| 23) Vinyl Acetate              | 5.15 | 43  | 442043 | 2.338 ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.09 | 63  | 322739 | 2.282 ppbv   | 97     |
| 25) Ethyl Acetate              | 5.77 | 43  | 535947 | 2.221 ppbv   | 99     |
| 26) Hexane                     | 5.78 | 57  | 232416 | 2.277 ppbv   | 96     |
| 27) Carbon Disulfide           | 4.62 | 76  | 325559 | 2.568 ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73  | 407580 | 2.376 ppbv   | 100    |
| 29) Chloroform                 | 5.85 | 83  | 410756 | 2.200 ppbv   | 96     |
| 30) Cyclohexane                | 7.25 | 84  | 200997 | 2.322 ppbv   | 87     |
| 31) cis-1,2-Dichloroethene     | 5.64 | 61  | 239438 | 2.328 ppbv   | 99     |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97  | 416968 | 2.131 ppbv   | 98     |
| 34) 2-Butanone                 | 5.33 | 43  | 358449 | 2.249 ppbv   | 100    |
| 35) Carbon Tetrachloride       | 7.13 | 117 | 452084 | 2.186 ppbv   | 98     |
| 36) Benzene                    | 7.00 | 78  | 488792 | 2.191 ppbv   | 98     |
| 37) 1,2-Dichloroethane         | 6.41 | 62  | 314751 | 2.125 ppbv   | 99     |
| 38) Trichloroethene            | 7.96 | 130 | 199994 | 2.257 ppbv   | 93     |
| 39) 1,2-Dichloropropane        | 7.73 | 63  | 184311 | 2.204 ppbv   | 97     |
| 40) 1,4-Dioxane                | 7.97 | 88  | 65200  | 1.942 ppbv   | 66     |
| 41) Tetrahydrofuran            | 6.16 | 42  | 195508 | 2.286 ppbv   | 99     |
| 42) Bromodichloromethane       | 7.91 | 83  | 435996 | 2.172 ppbv   | 99     |
| 43) Methyl Methacrylate        | 8.13 | 69  | 185436 | 2.204 ppbv   | 99     |

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 Operator : SY/AP  
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 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

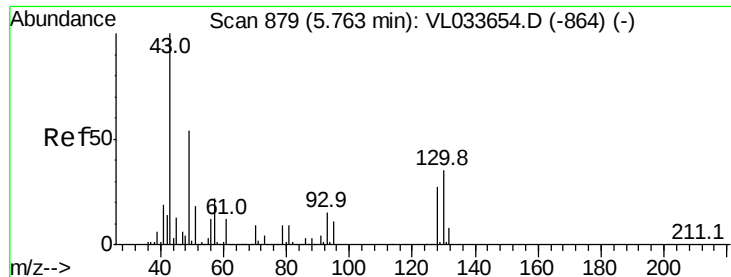
Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: May 06 12:20:24 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon May 06 12:00:34 2019  
 QLast Update : Mon May 06 12:00:34 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.98  | 57   | 863904   | 2.228 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 222905   | 2.053 | ppbv   | 96       |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 261261   | 2.080 | ppbv   | 97       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 211438   | 2.138 | ppbv   | 96       |
| 48) Dibromochloromethane      | 10.44 | 129  | 351348   | 2.116 | ppbv   | 99       |
| 49) Bromoform                 | 13.20 | 173  | 309305   | 2.171 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 537311   | 2.150 | ppbv   | 98       |
| 51) 2-Hexanone                | 10.27 | 43   | 420096   | 2.141 | ppbv # | 98       |
| 52) Tetrachloroethene         | 11.37 | 164  | 181550   | 2.148 | ppbv   | 96       |
| 53) Toluene                   | 9.94  | 91   | 545267   | 2.166 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.75 | 107  | 308367   | 2.087 | ppbv   | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 12.27 | 131  | 255132   | 2.235 | ppbv # | 1        |
| 57) Chlorobenzene             | 12.29 | 112  | 456750   | 2.246 | ppbv # | 97       |
| 58) Ethyl Benzene             | 12.86 | 91   | 757846   | 2.315 | ppbv   | 99       |
| 59) m/p-Xylene                | 13.15 | 91   | 697066   | 2.474 | ppbv # | 40       |
| 60) o-Xylene                  | 13.84 | 91   | 677435   | 2.387 | ppbv   | 98       |
| 61) Styrene                   | 13.68 | 104  | 454374   | 2.334 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.82 | 105  | 891623   | 2.357 | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.83 | 83   | 482826   | 2.248 | ppbv   | 99       |
| 64) n-propylbenzene           | 15.72 | 120  | 231935   | 2.358 | ppbv   | 96       |
| 65) tert-Butylbenzene         | 16.90 | 119  | 835117   | 2.359 | ppbv   | 97       |
| 66) Benzyl Chloride           | 17.15 | 91   | 358528   | 2.196 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.45 | 105  | 1185259  | 2.388 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 978842   | 2.369 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.71 | 91   | 1048430  | 2.328 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.61 | 91   | 676054   | 2.382 | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.99 | 105  | 774454   | 2.384 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 752282   | 2.364 | ppbv   | 100      |
| 74) 1,2,4-Trimethylbenzene    | 16.92 | 105  | 833156   | 2.360 | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 500603   | 2.286 | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.30 | 146  | 478176   | 2.289 | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.98 | 146  | 459732   | 2.254 | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.53 | 225  | 184866   | 1.188 | ppbv # | 26       |
| 79) Naphthalene               | 22.41 | 128  | 764403   | 2.320 | ppbv   | 97       |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 270388   | 1.934 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.13 | 180  | 214061   | 1.128 | ppbv # | 10       |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

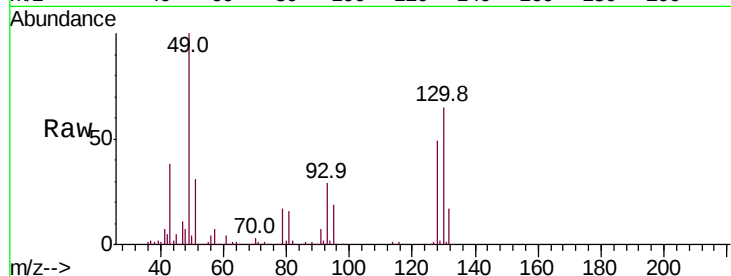
Tot Ion: 49 Resp: 1036504

Ion Ratio Lower Upper

49 100

128 50.0 24.8 74.4

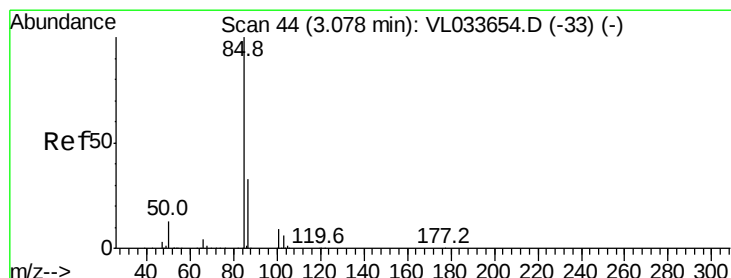
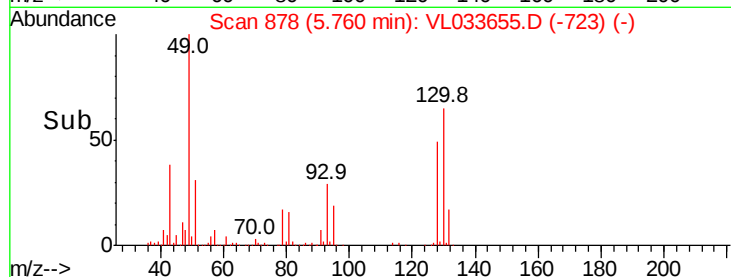
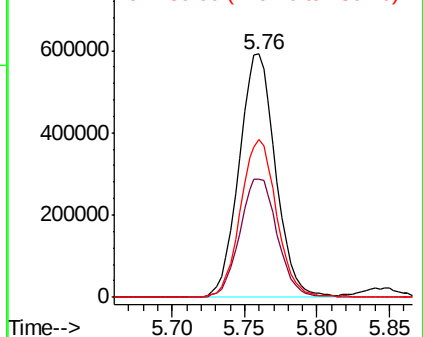
130 64.2 32.1 96.5



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 3.141 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033655.D

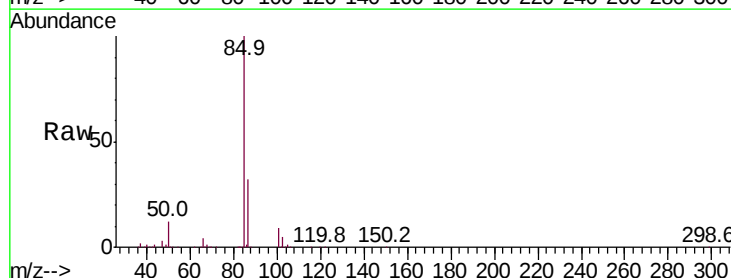
Acq: 6 May 2019 11:39

Tgt Ion: 85 Resp: 542953

Ion Ratio Lower Upper

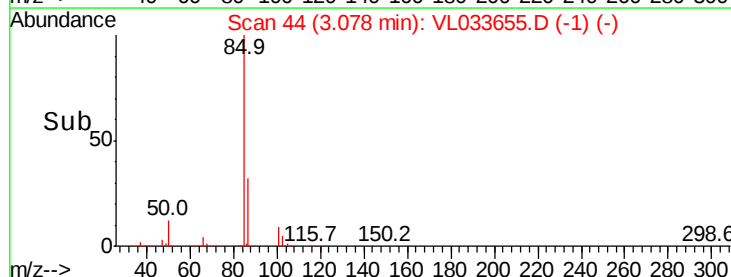
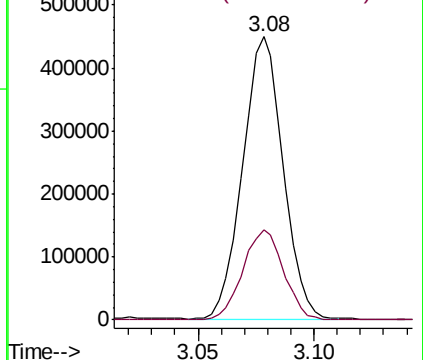
85 100

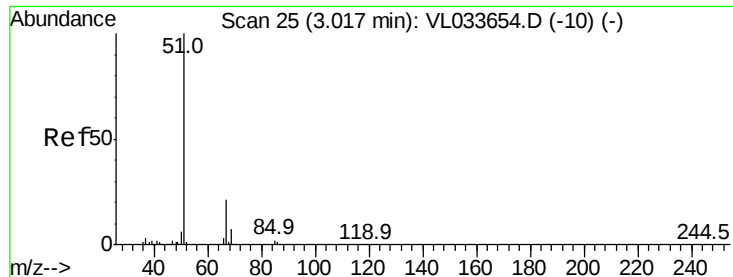
87 31.9 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.701 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

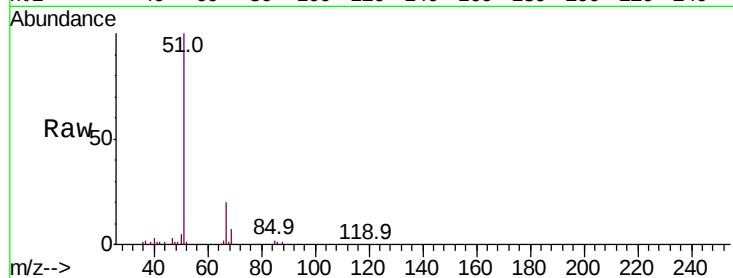
ClientSampleId :

Tot Ion: 51 Resp: 337506

Ion Ratio Lower Upper

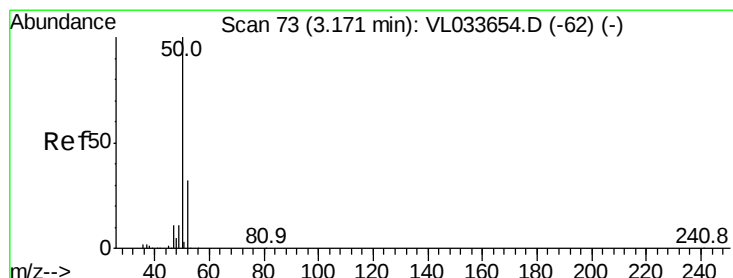
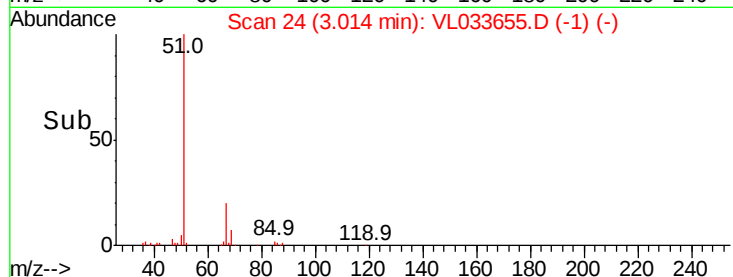
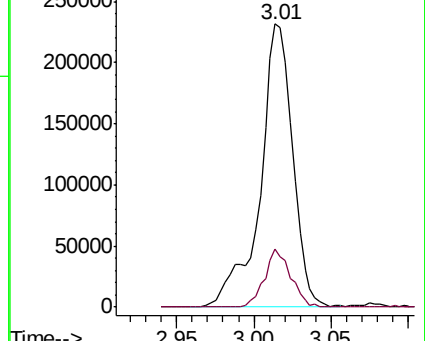
51 100

67 16.6 15.7 23.5



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 2.494 ppbv

RT: 3.17 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL033655.D

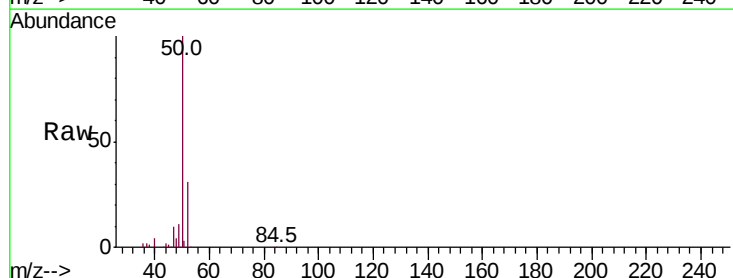
Acq: 6 May 2019 11:39

Tgt Ion: 50 Resp: 171703

Ion Ratio Lower Upper

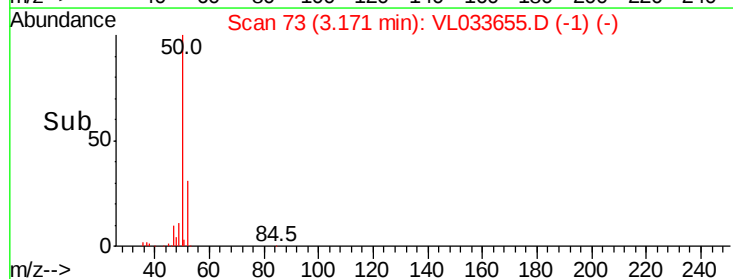
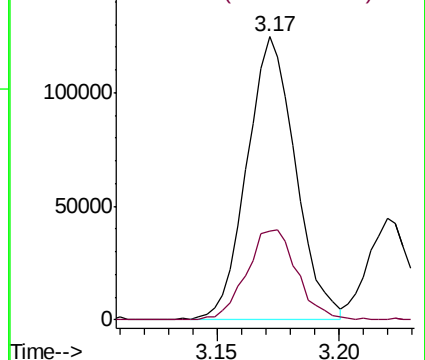
50 100

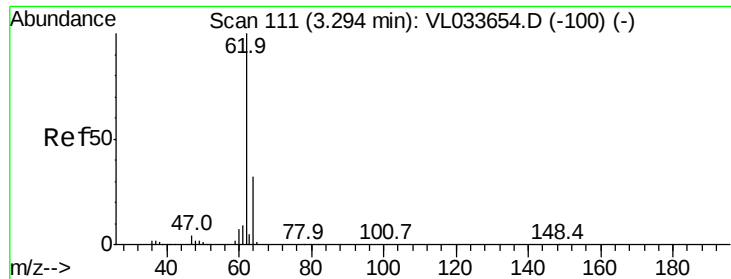
52 31.6 25.8 38.8



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 2.340 ppbv

RT: 3.29 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

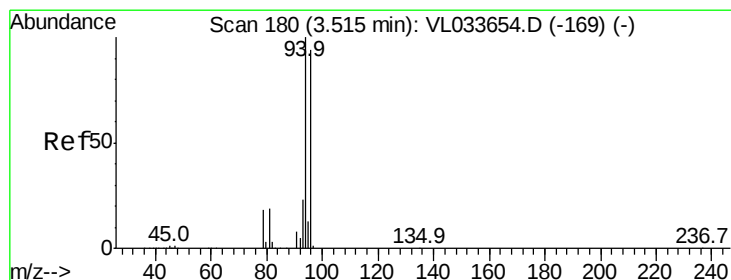
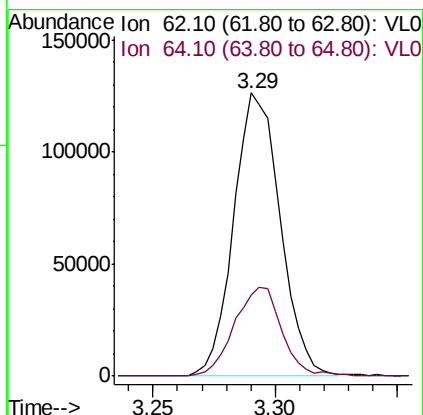
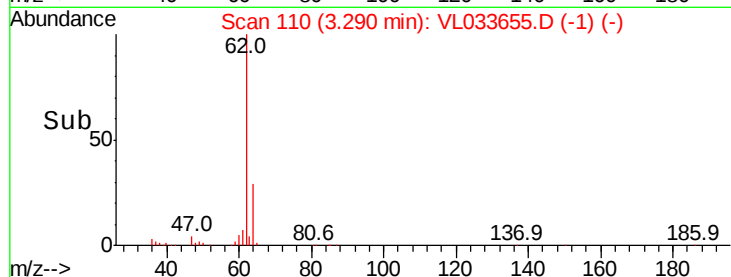
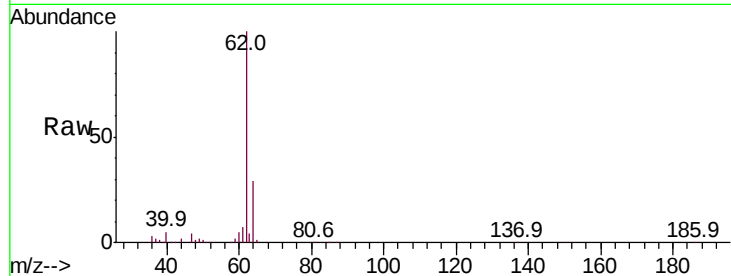
ClientSampleId :

Tot Ion: 62 Resp: 167577

Ion Ratio Lower Upper

62 100

64 28.3 25.6 38.4



#6

Bromomethane

Concen: 2.424 ppbv

RT: 3.52 min Scan# 180

Delta R.T. 0.00 min

Lab File: VL033655.D

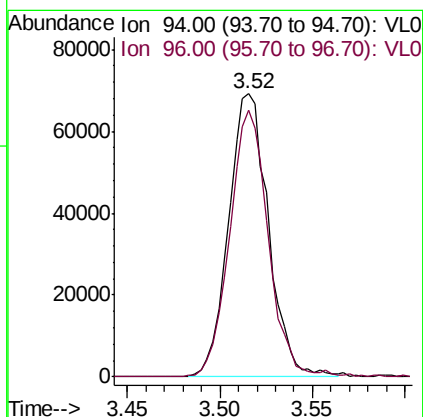
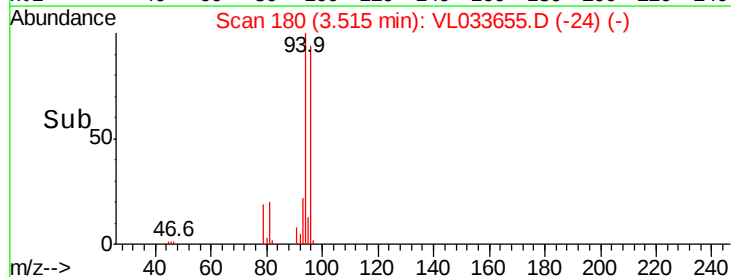
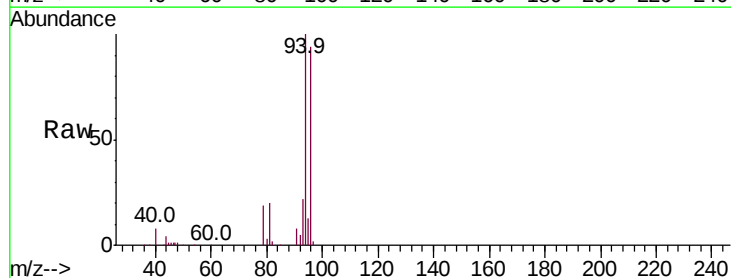
Acq: 6 May 2019 11:39

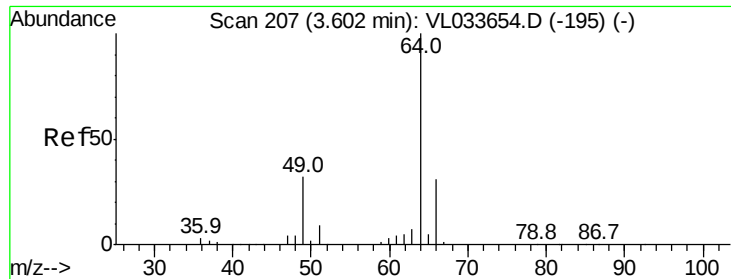
Tgt Ion: 94 Resp: 103151

Ion Ratio Lower Upper

94 100

96 93.5 75.2 112.8





#7

Chloroethane

Concen: 2.419 ppbv

RT: 3.60 min Scan# 207

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

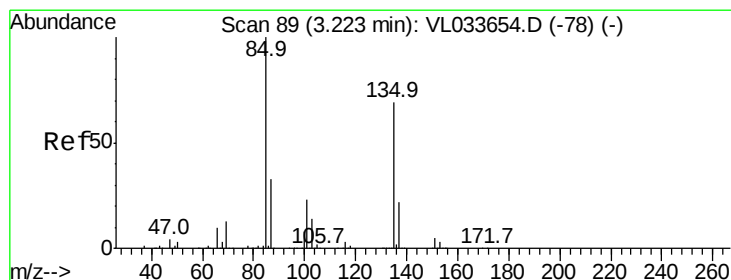
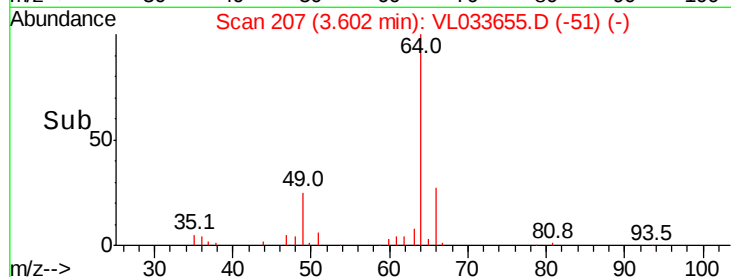
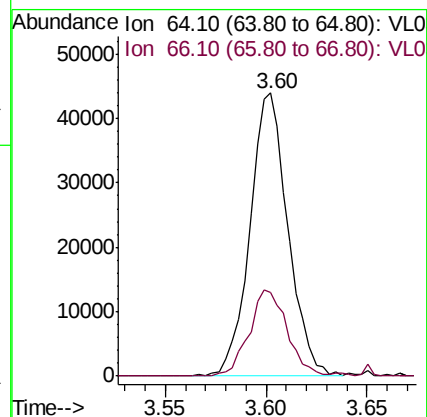
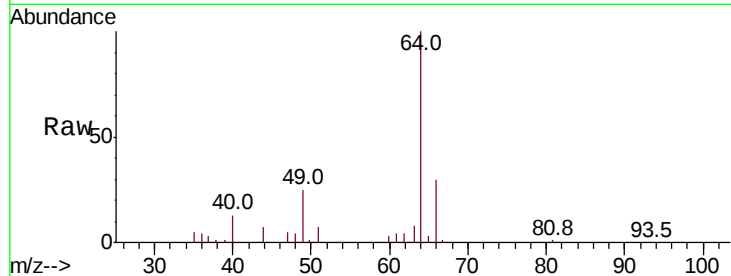
ClientSampleId :

Tot Ion: 64 Resp: 57874

Ion Ratio Lower Upper

64 100

66 31.0 25.1 37.7



#8

Dichlorotetrafluoroethane

Concen: 2.538 ppbv

RT: 3.22 min Scan# 88

Delta R.T. -0.00 min

Lab File: VL033655.D

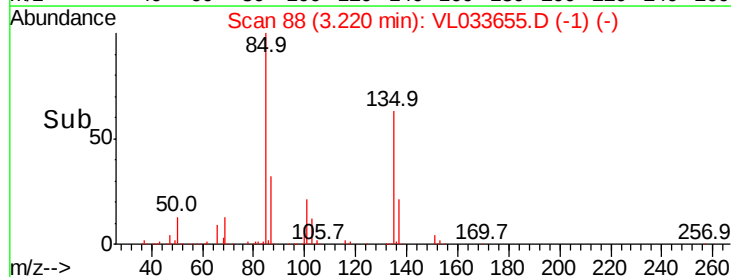
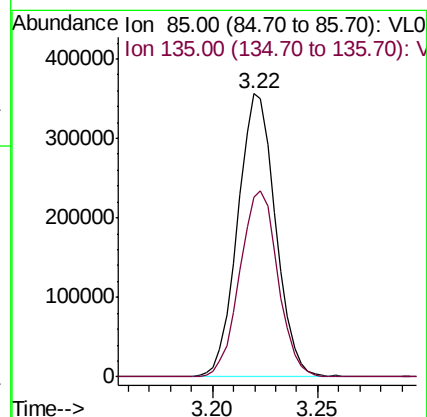
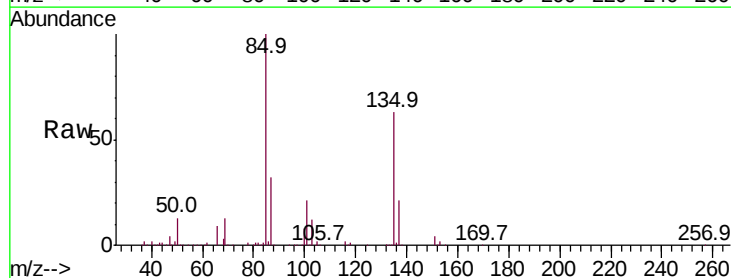
Acq: 6 May 2019 11:39

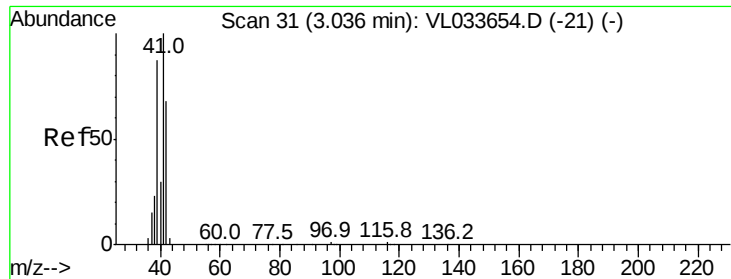
Tgt Ion: 85 Resp: 442421

Ion Ratio Lower Upper

85 100

135 66.6 54.3 81.5





#9

Propene

Concen: 2.845 ppbv

RT: 3.04 min Scan# 32

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

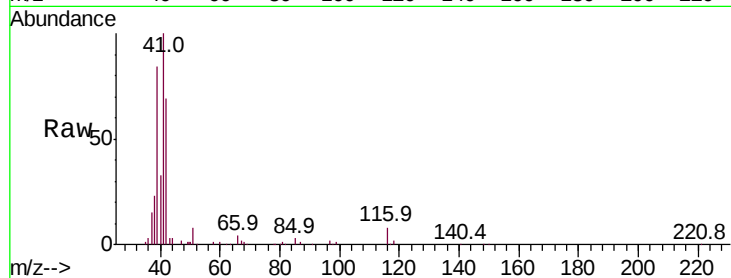
ClientSampleId :

Tot Ion: 41 Resp: 123747

Ion Ratio Lower Upper

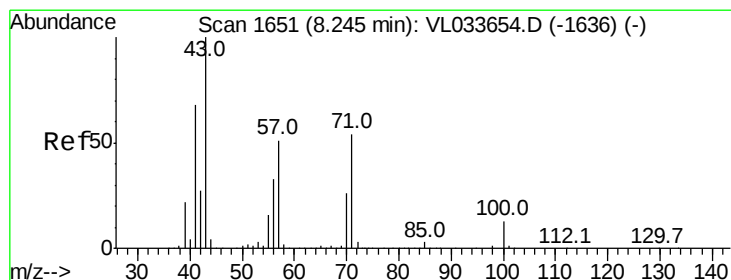
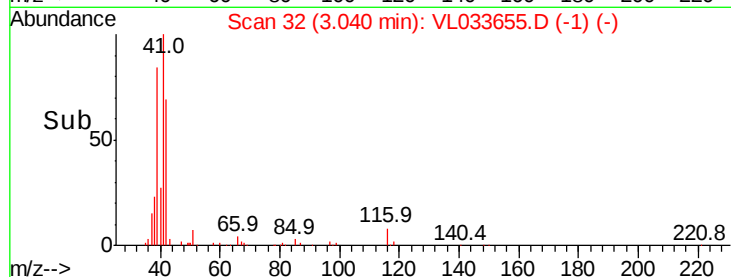
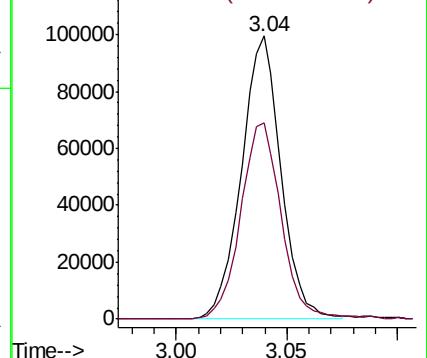
41 100

42 72.1 55.6 83.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 2.317 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. 0.00 min

Lab File: VL033655.D

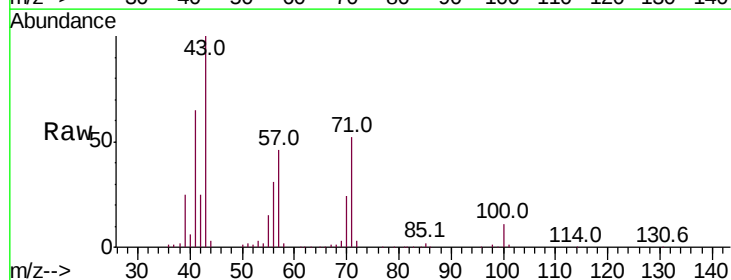
Acq: 6 May 2019 11:39

Tgt Ion: 43 Resp: 306892

Ion Ratio Lower Upper

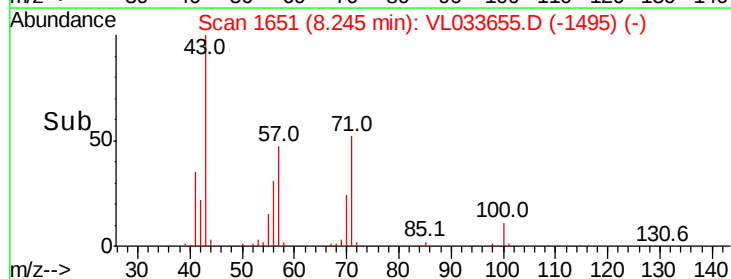
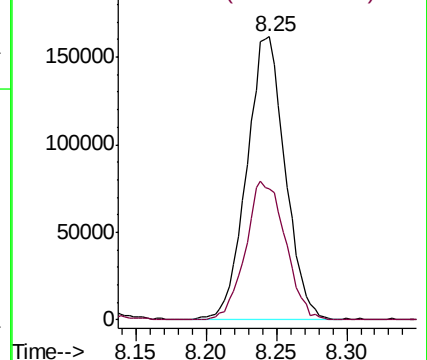
43 100

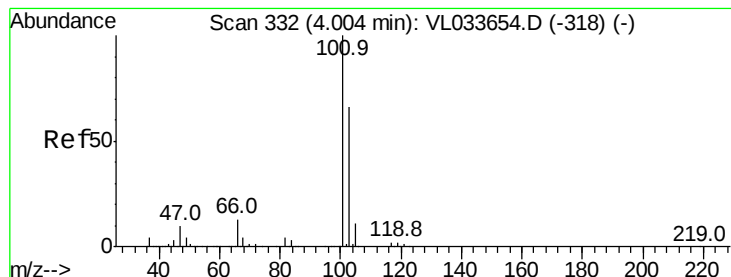
57 51.0 41.8 62.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#11

Trichlorofluoromethane

Concen: 2.559 ppbv

RT: 4.00 min Scan# 332

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

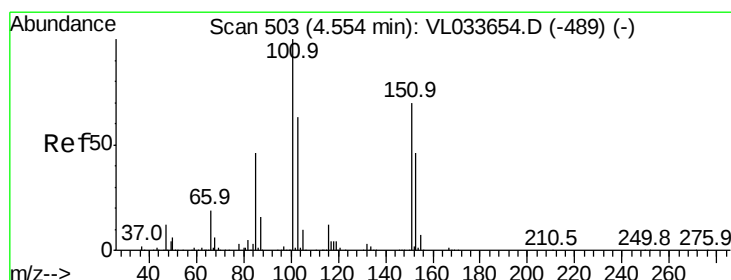
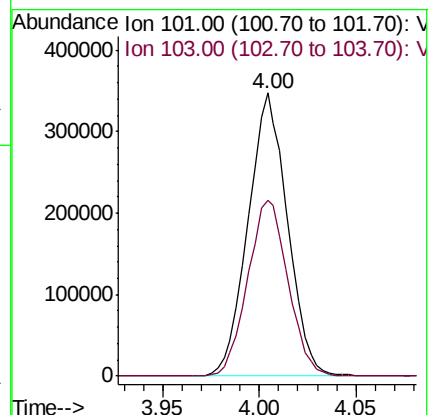
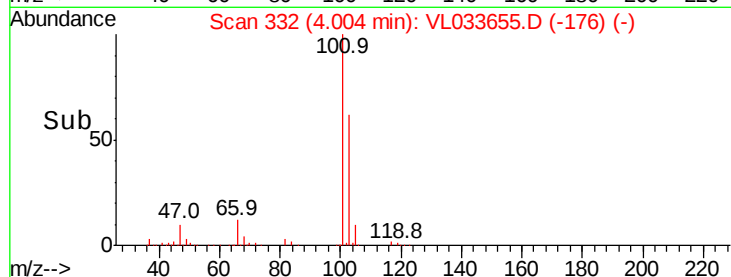
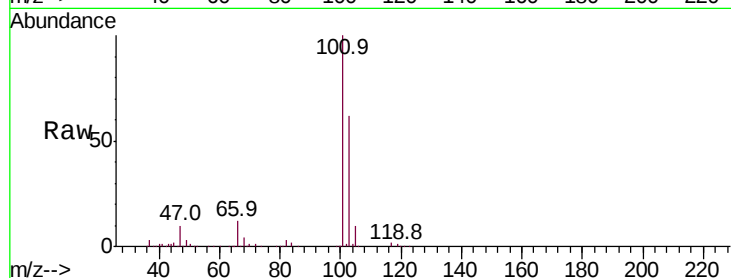
ClientSampleId :

Tot Ion:101 Resp: 492281

Ion Ratio Lower Upper

101 100

103 62.2 52.7 79.1



#12

1,1,2-Trichlorotrifluoroethane

Concen: 2.467 ppbv

RT: 4.55 min Scan# 503

Delta R.T. 0.00 min

Lab File: VL033655.D

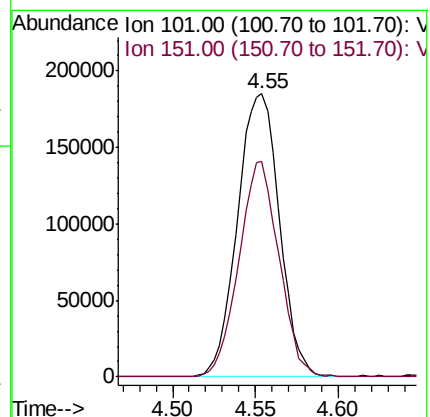
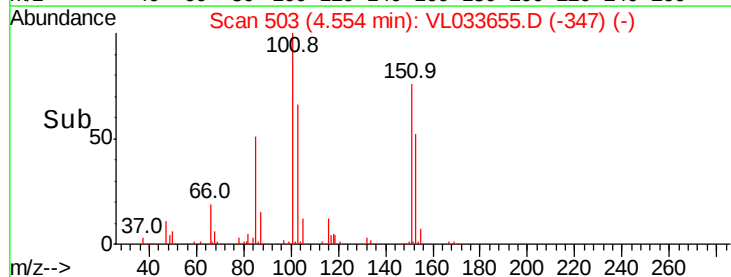
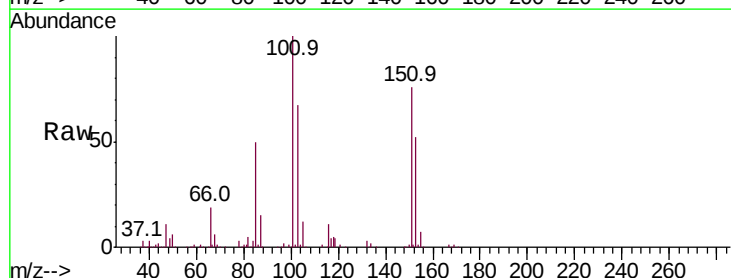
Acq: 6 May 2019 11:39

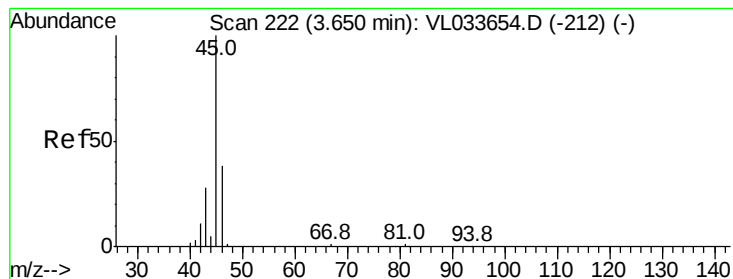
Tgt Ion:101 Resp: 325889

Ion Ratio Lower Upper

101 100

151 72.9 58.0 87.0





#13

Ethanol

Concen: 2.293 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

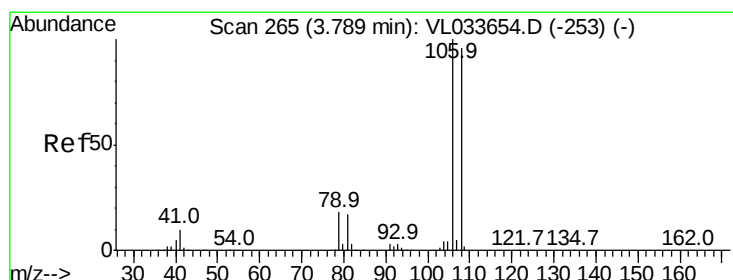
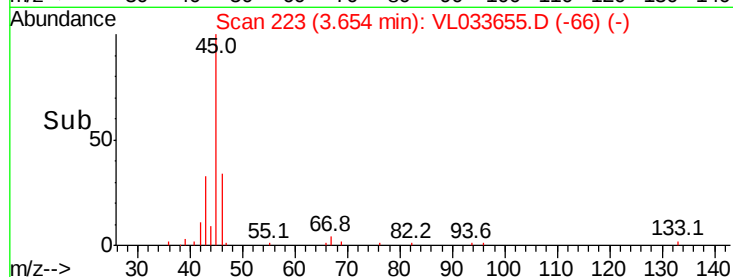
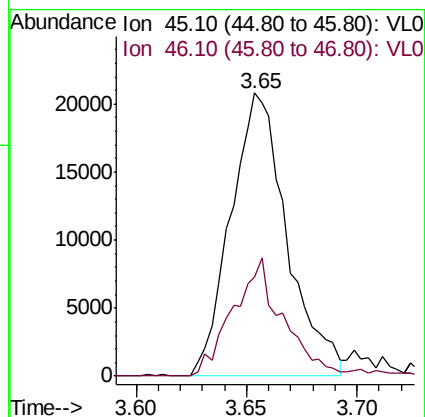
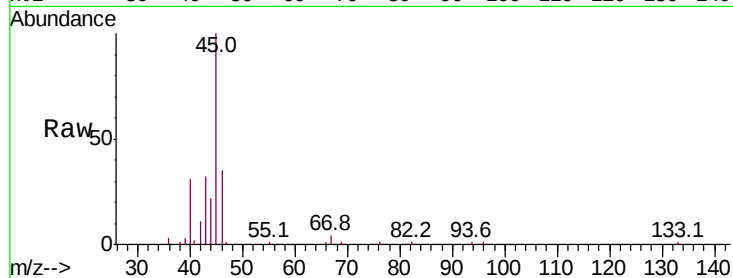
ClientSampleId :

Tot Ion: 45 Resp: 36849

Ion Ratio Lower Upper

45 100

46 38.4 14.9 59.7



#14

Bromoethene

Concen: 2.441 ppbv

RT: 3.79 min Scan# 265

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

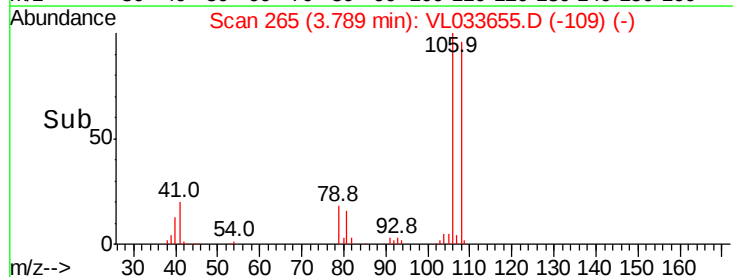
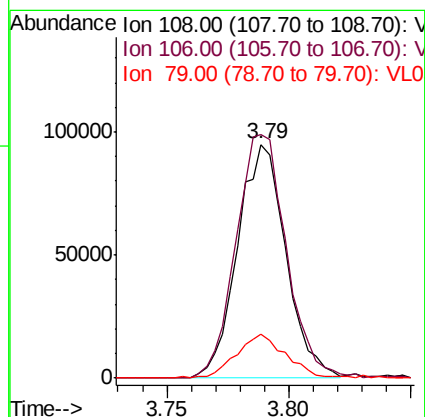
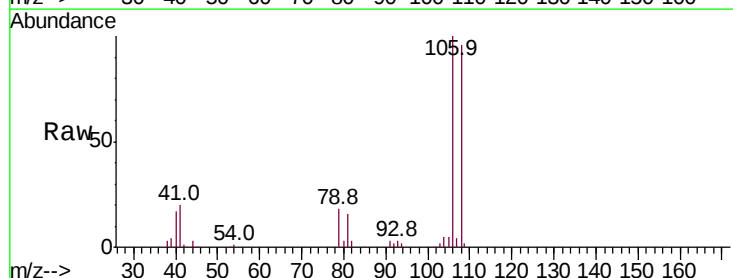
Tgt Ion: 108 Resp: 130649

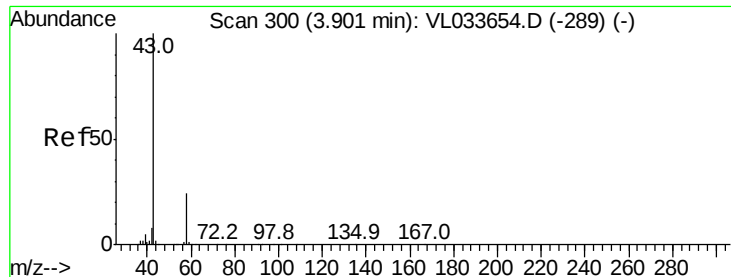
Ion Ratio Lower Upper

108 100

106 109.5 85.8 128.6

79 19.8 15.2 22.8





#15

Acetone

Concen: 2.756 ppbv

RT: 3.90 min Scan# 301

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

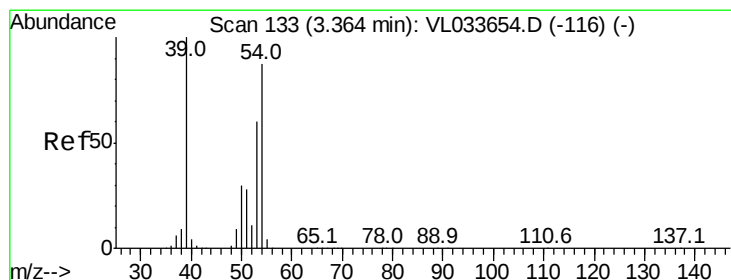
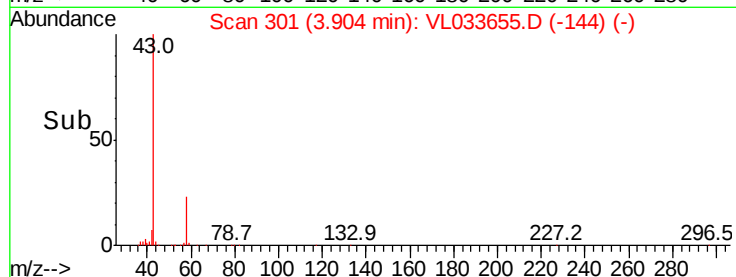
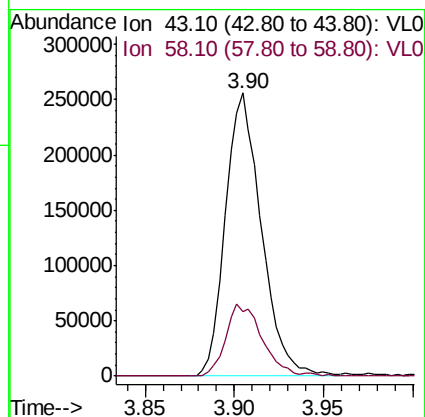
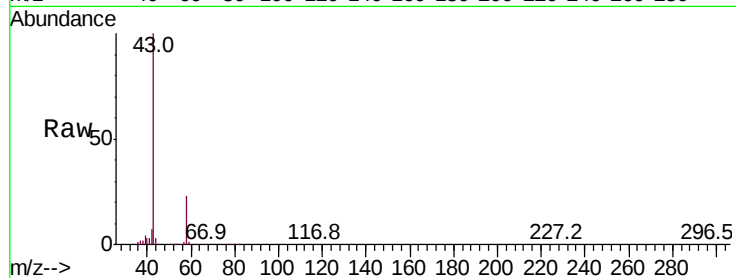
Instrument :  
MSVOA\_L  
ClientSampled :

Tot Ion: 43 Resp: 359597

Ion Ratio Lower Upper

43 100

58 26.0 20.9 31.3



#16

1,3-Butadiene

Concen: 2.556 ppbv

RT: 3.36 min Scan# 133

Delta R.T. 0.00 min

Lab File: VL033655.D

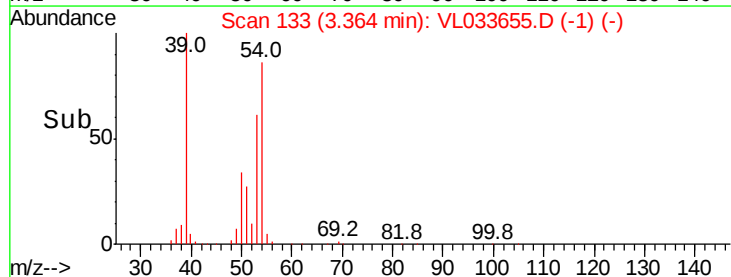
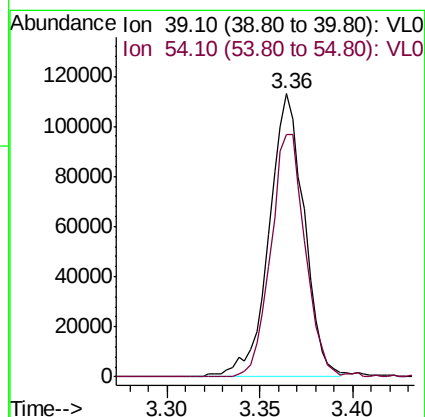
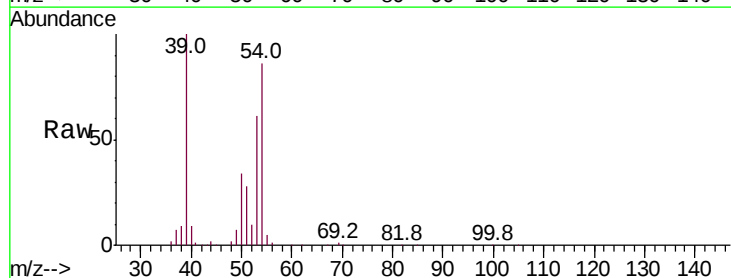
Acq: 6 May 2019 11:39

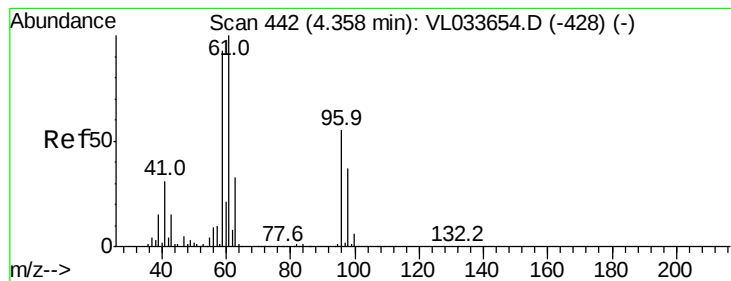
Tgt Ion: 39 Resp: 148471

Ion Ratio Lower Upper

39 100

54 84.9 67.0 100.4



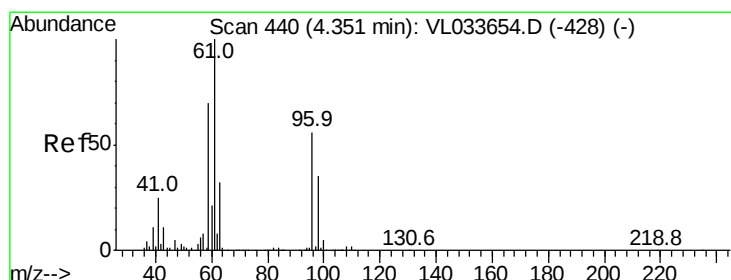
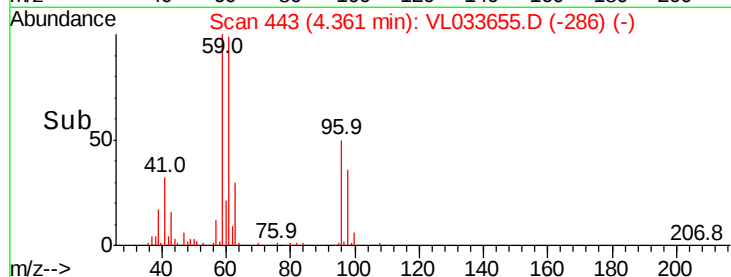
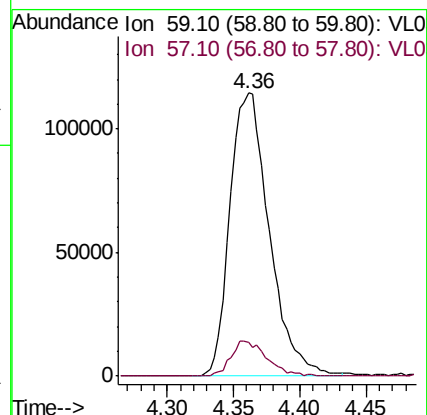
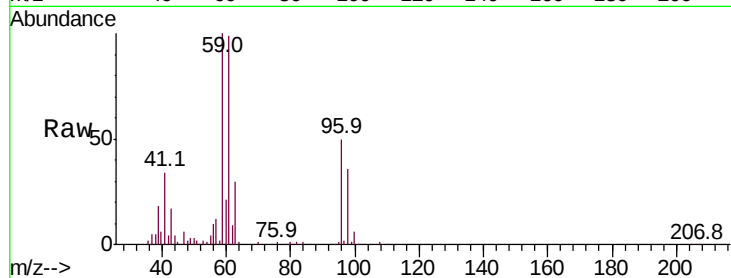


#17

tert-Butyl alcohol  
 Concen: 2.159 ppbv  
 RT: 4.36 min Scan# 443  
 Delta R.T. 0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Instrument :  
 MSVOA\_L  
 ClientSampled :

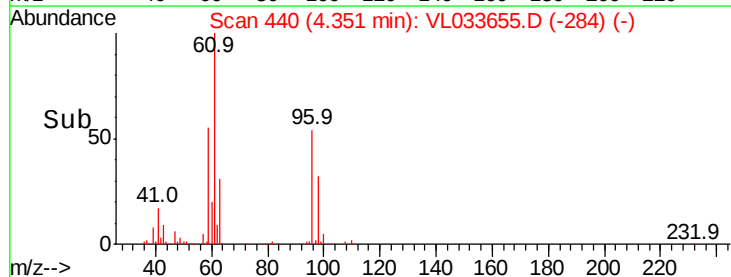
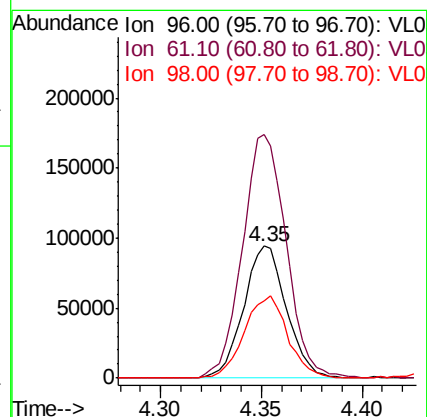
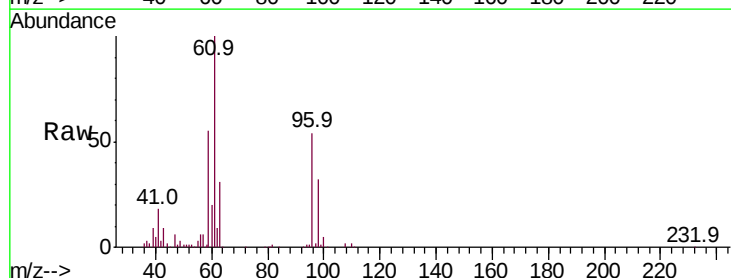
Tot Ion: 59 Resp: 236886  
 Ion Ratio Lower Upper  
 59 100  
 57 11.5 8.4 12.6

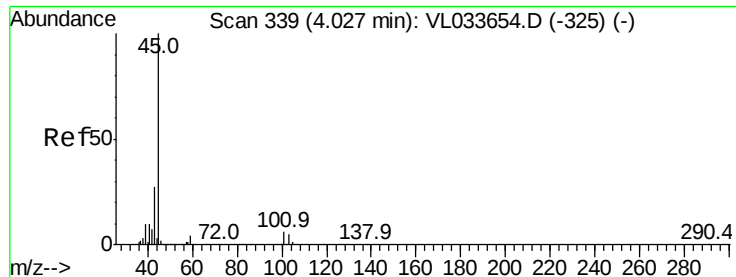


#18

1,1-Dichloroethene  
 Concen: 2.441 ppbv  
 RT: 4.35 min Scan# 440  
 Delta R.T. 0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Tgt Ion: 96 Resp: 139976  
 Ion Ratio Lower Upper  
 96 100  
 61 184.7 143.4 215.0  
 98 58.5 50.4 75.6





#19

Isopropyl Alcohol

Concen: 2.217 ppbv

RT: 4.03 min Scan# 339

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

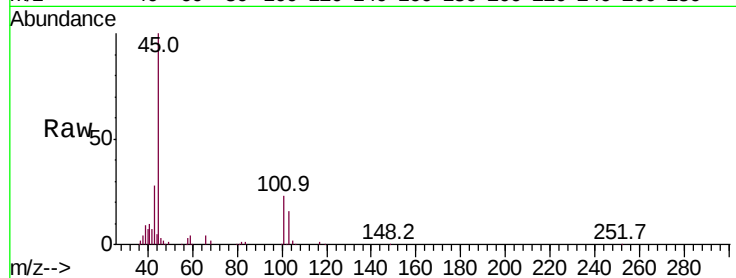
ClientSampleId :

Tot Ion: 45 Resp: 193218

Ion Ratio Lower Upper

45 100

58 3.7 1.9 2.9#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.03

120000

100000

80000

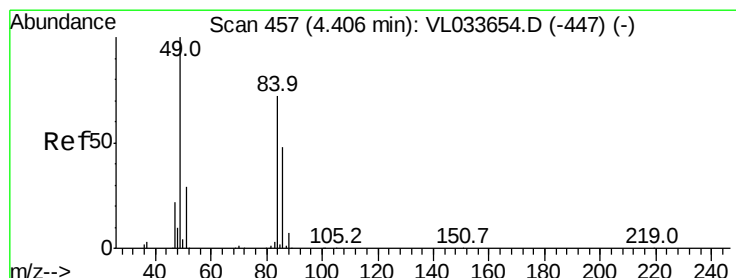
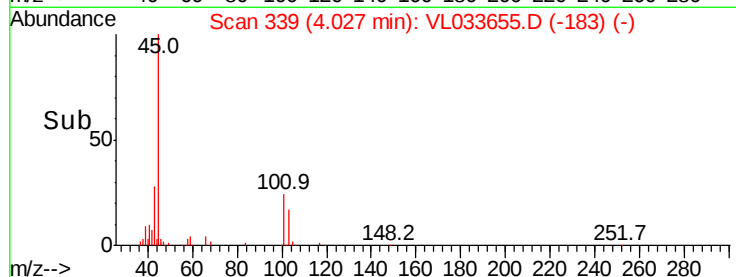
60000

40000

20000

0

Time-->



#20

Methylene Chloride

Concen: 2.497 ppbv

RT: 4.41 min Scan# 458

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Tgt Ion: 84 Resp: 127451

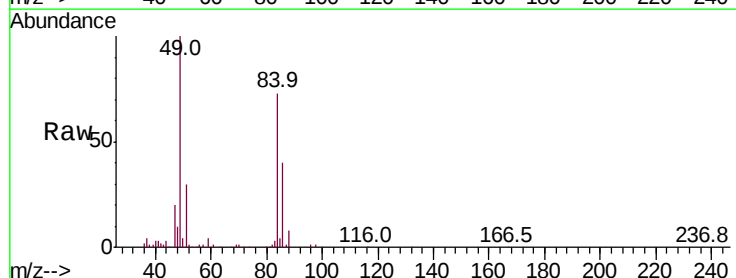
Ion Ratio Lower Upper

84 100

49 135.3 111.8 167.6

51 39.5 32.3 48.5

86 54.6 53.9 80.9



Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

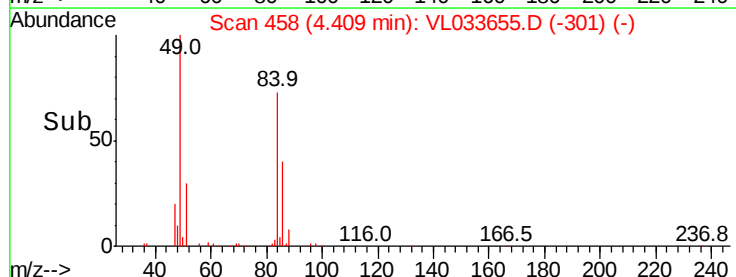
150000

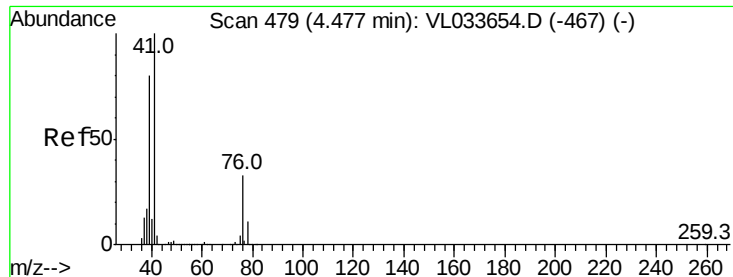
100000

50000

0

Time-->

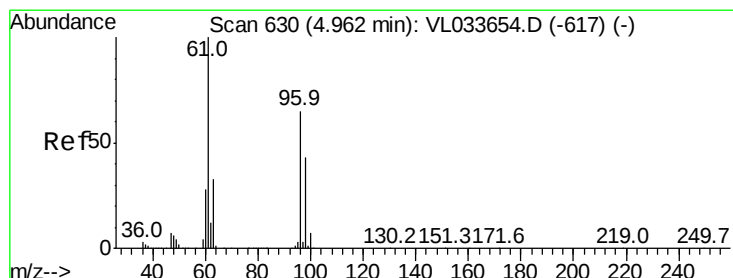
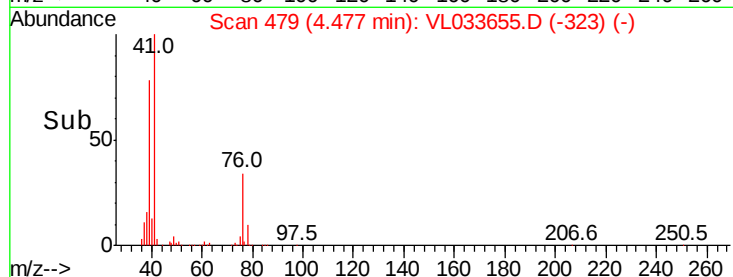
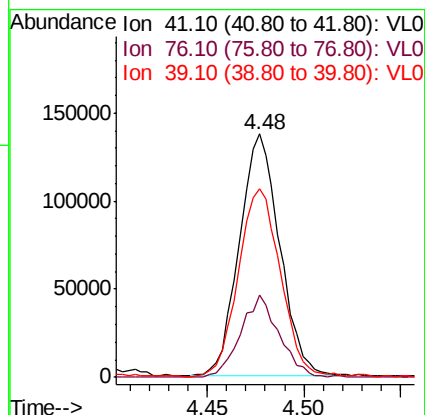
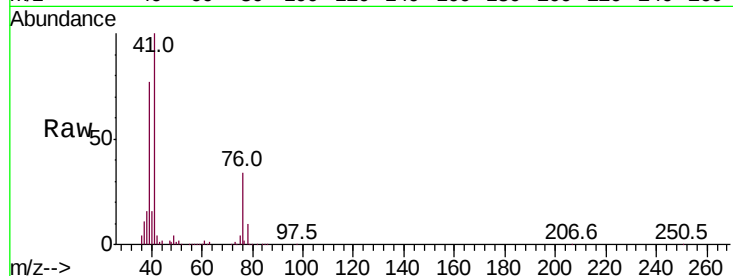




#21  
Allvl Chloride  
Concen: 2.436 ppbv  
RT: 4.48 min Scan# 479  
Delta R.T. 0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

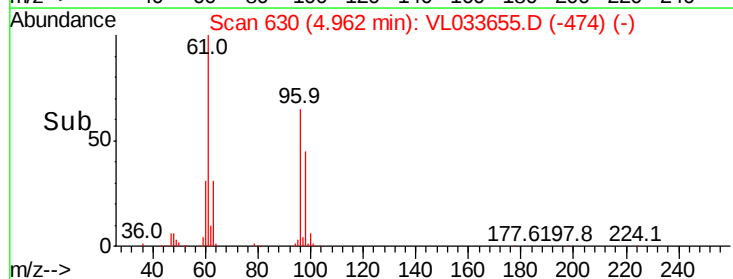
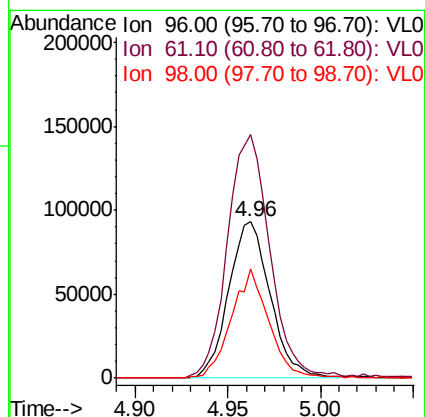
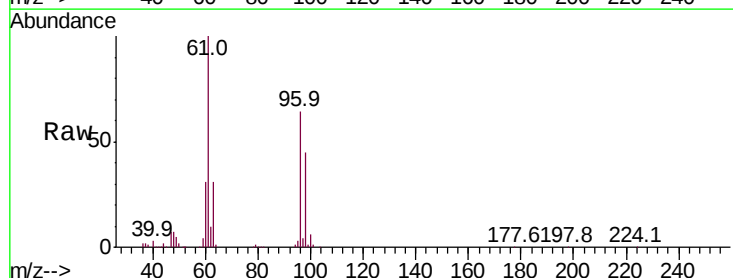
Instrument :  
MSVOA\_L  
ClientSampleId :

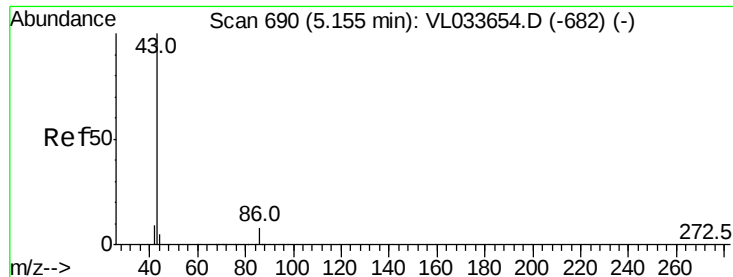
Tot Ion: 41 Resp: 199071  
Ion Ratio Lower Upper  
41 100  
76 32.7 26.0 39.0  
39 83.1 64.4 96.6



#22  
trans-1,2-Dichloroethene  
Concen: 2.561 ppbv  
RT: 4.96 min Scan# 630  
Delta R.T. 0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Tgt Ion: 96 Resp: 144956  
Ion Ratio Lower Upper  
96 100  
61 154.1 123.1 184.7  
98 68.9 52.6 79.0





#23

Vinyl Acetate

Concen: 2.338 ppbv

RT: 5.15 min Scan# 689

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 442043

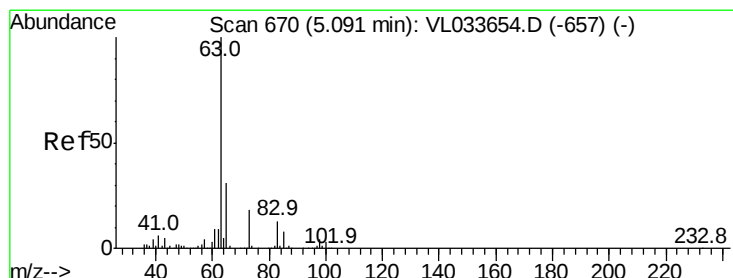
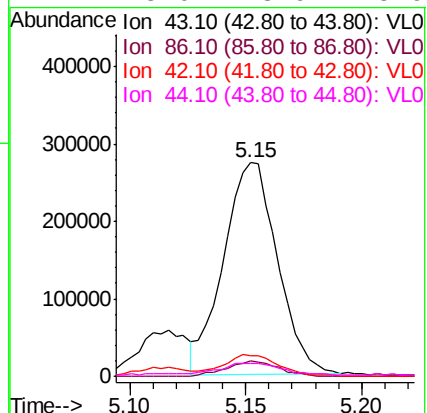
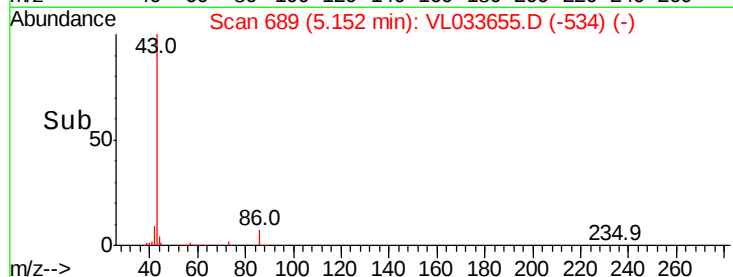
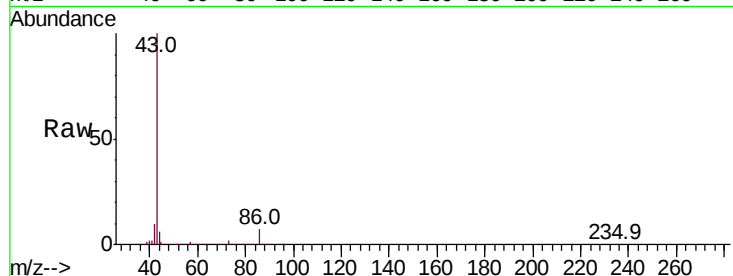
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 86  | 7.2   | 6.0   | 9.0   |
| 42  | 9.4   | 8.0   | 12.0  |
| 44  | 5.0   | 3.9   | 5.9   |

43 100

86 7.2 6.0 9.0

42 9.4 8.0 12.0

44 5.0 3.9 5.9



#24

1,1-Dichloroethane

Concen: 2.282 ppbv

RT: 5.09 min Scan# 669

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

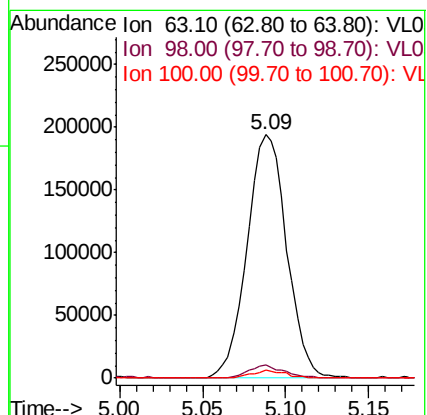
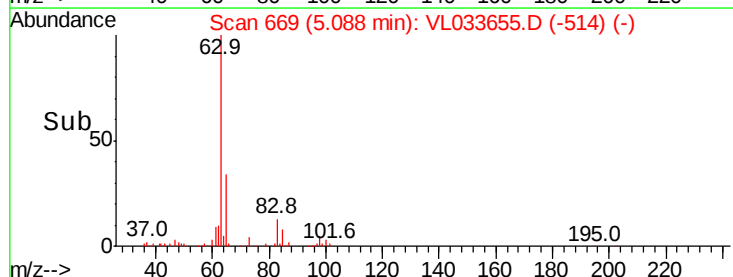
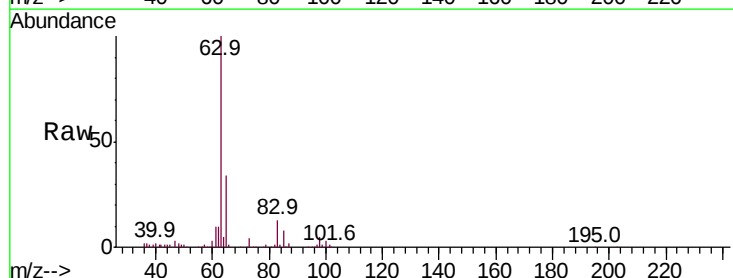
Tgt Ion: 63 Resp: 322739

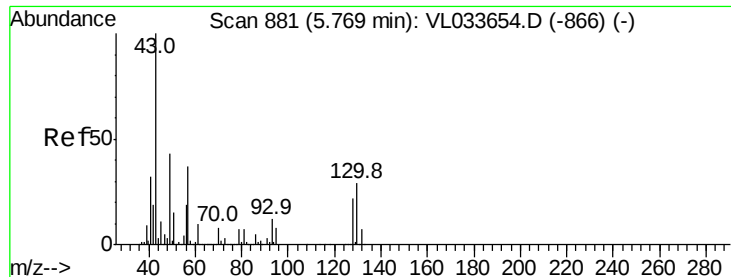
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 98  | 5.3   | 2.1   | 6.2   |
| 100 | 3.5   | 1.5   | 4.4   |

63 100

98 5.3 2.1 6.2

100 3.5 1.5 4.4





#25

Ethyl Acetate

Concen: 2.221 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :  
MSVOA\_L  
ClientSampled :

Tot Ion: 43 Resp: 535947

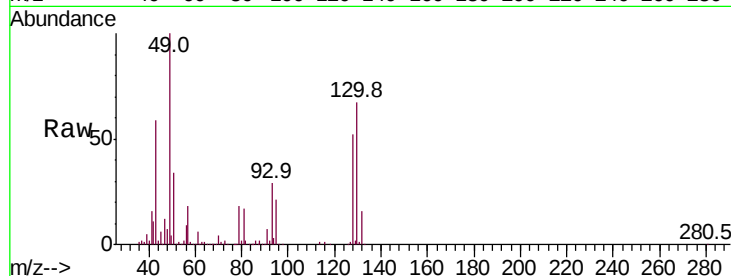
Ion Ratio Lower Upper

43 100

45 9.9 8.0 12.0

61 9.6 7.5 11.3

70 7.0 5.8 8.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

400000

300000

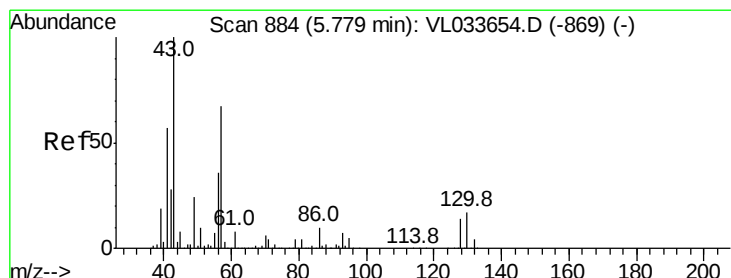
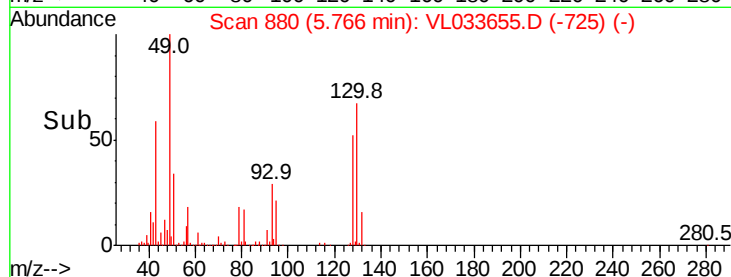
200000

100000

0

5.70 5.75 5.80

Time-->



#26

Hexane

Concen: 2.277 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Tgt Ion: 57 Resp: 232416

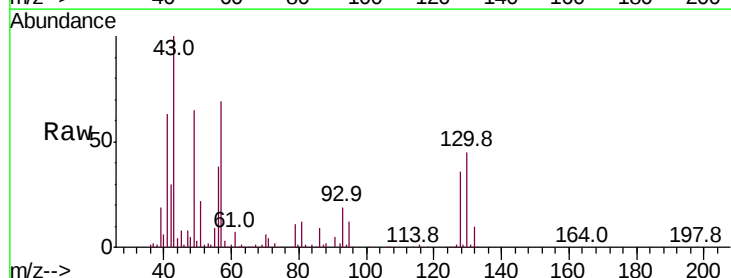
Ion Ratio Lower Upper

57 100

41 91.9 69.7 104.5

43 233.1 181.9 272.9

56 54.4 42.5 63.7



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

400000

300000

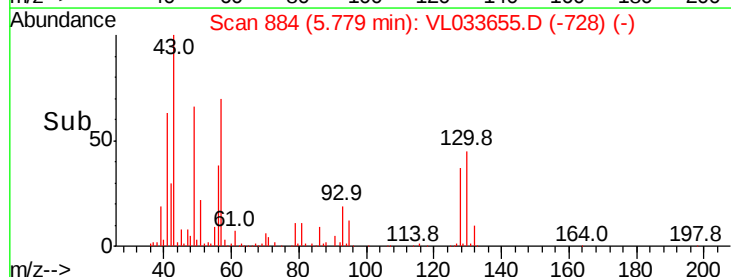
200000

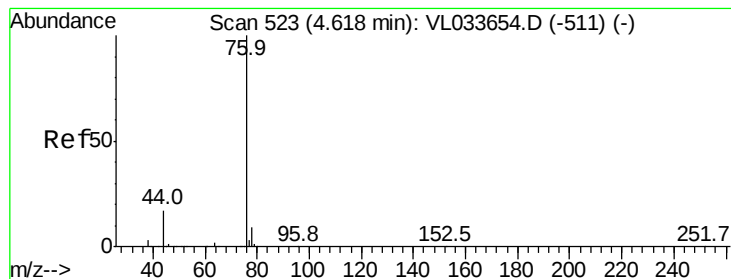
100000

0

5.70 5.75 5.80 5.85

Time-->





#27

Carbon Disulfide

Concen: 2.568 ppbv

RT: 4.62 min Scan# 523

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampled :

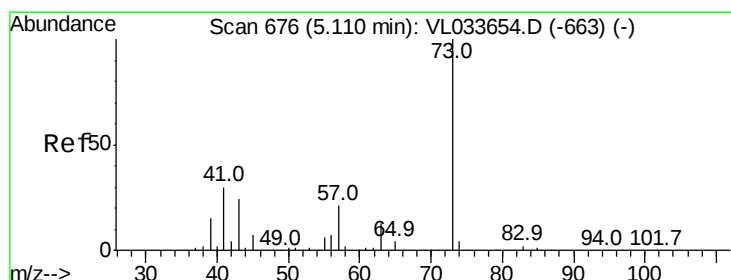
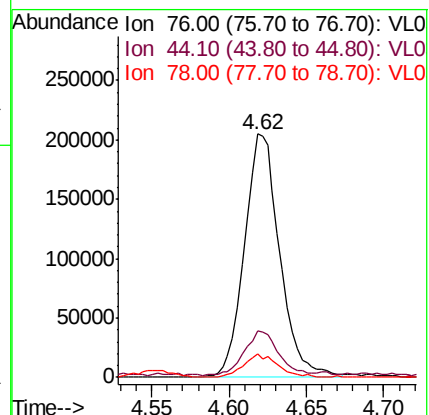
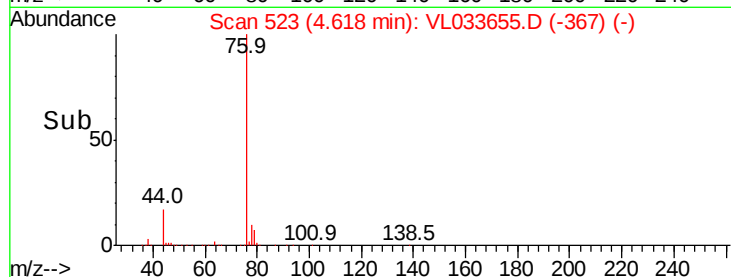
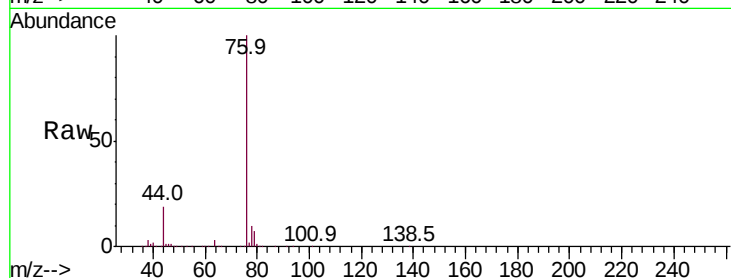
Tot Ion: 76 Resp: 325559

Ion Ratio Lower Upper

76 100

44 18.4 14.4 21.6

78 9.1 7.4 11.2



#28

Methyl tert-Butyl Ether

Concen: 2.376 ppbv

RT: 5.11 min Scan# 677

Delta R.T. 0.00 min

Lab File: VL033655.D

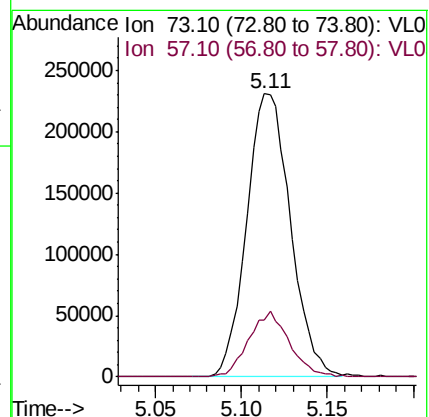
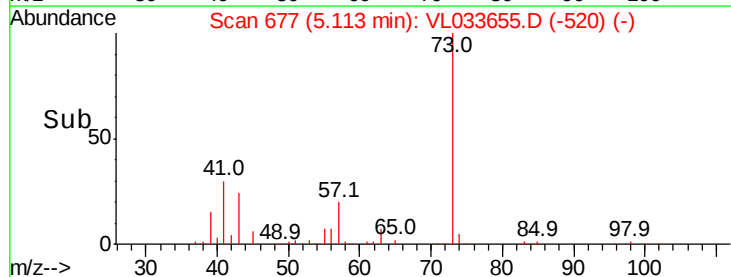
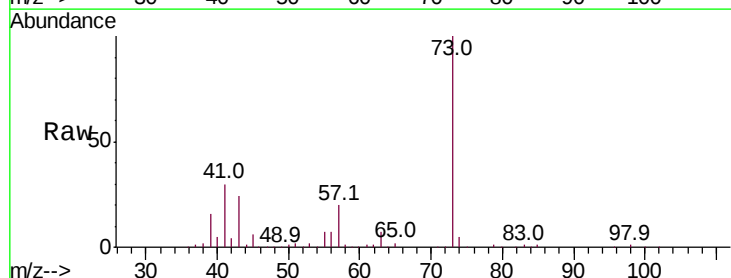
Acq: 6 May 2019 11:39

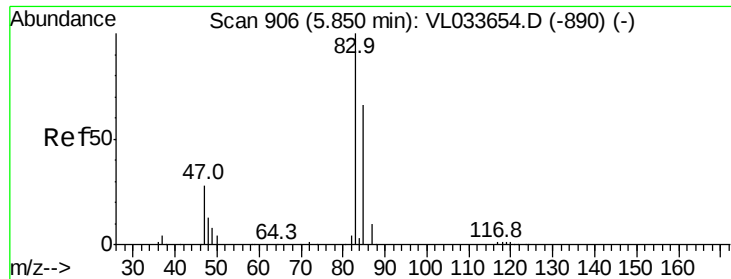
Tgt Ion: 73 Resp: 407580

Ion Ratio Lower Upper

73 100

57 21.7 17.4 26.0

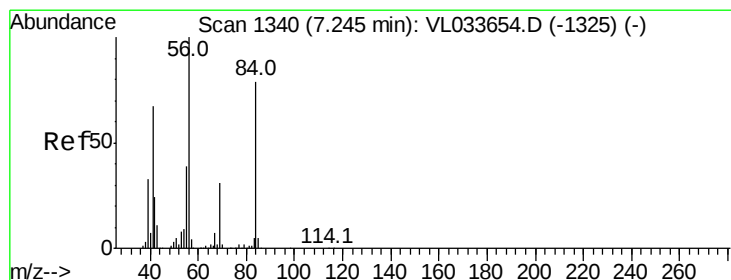
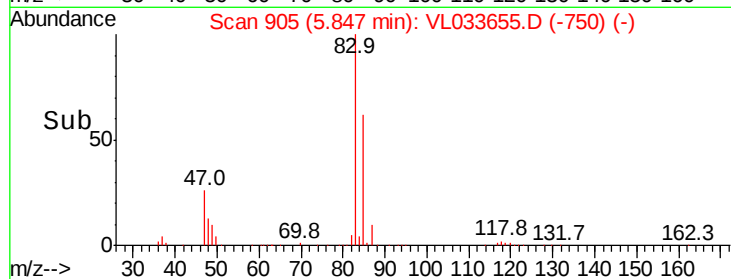
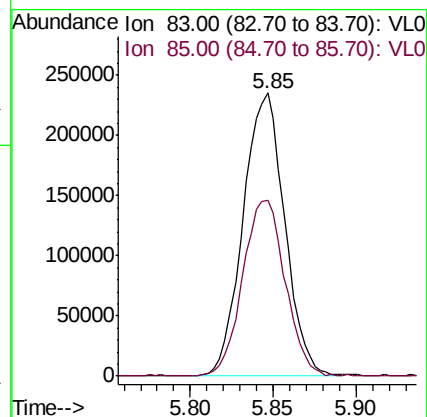
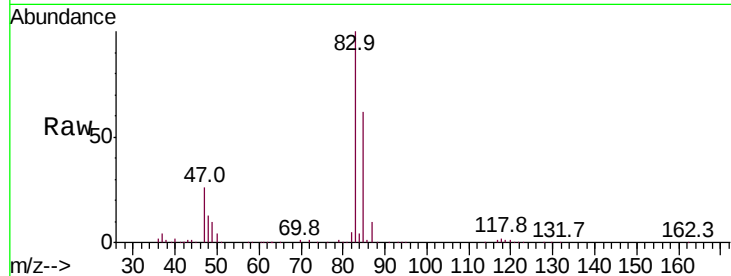




#29  
Chloroform  
Concen: 2.200 ppbv  
RT: 5.85 min Scan# 905  
Delta R.T. -0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

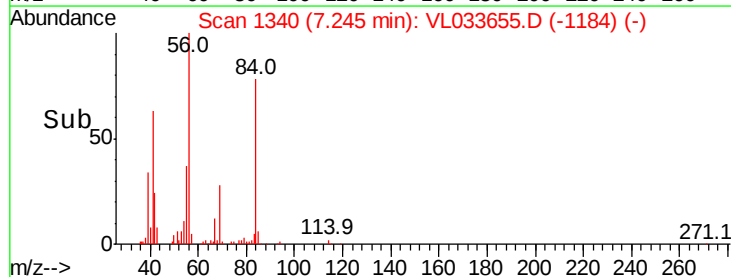
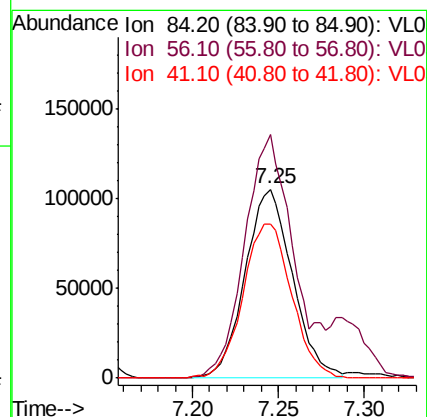
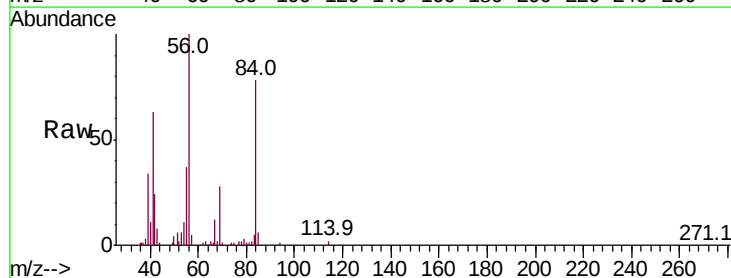
Instrument :  
MSVOA\_L  
ClientSampleId :

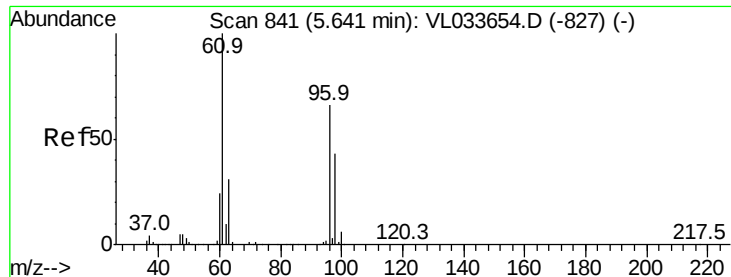
Tot Ion: 83 Resp: 410756  
Ion Ratio Lower Upper  
83 100  
85 62.2 52.6 78.8



#30  
Cyclohexane  
Concen: 2.322 ppbv  
RT: 7.25 min Scan# 1340  
Delta R.T. 0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Tgt Ion: 84 Resp: 200997  
Ion Ratio Lower Upper  
84 100  
56 157.2 107.0 160.4  
41 84.3 66.6 99.8





#31

cis-1,2-Dichloroethene

Concen: 2.328 ppbv

RT: 5.64 min Scan# 840

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

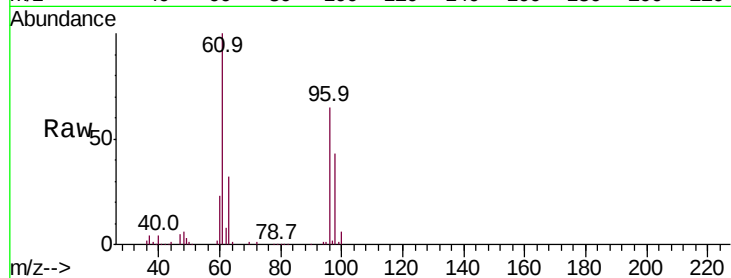
Tot Ion: 61 Resp: 239438

Ion Ratio Lower Upper

61 100

96 65.4 53.2 79.8

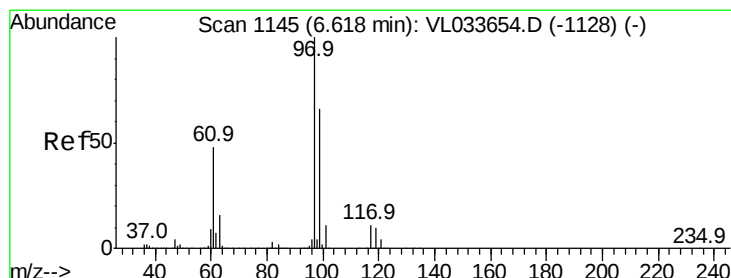
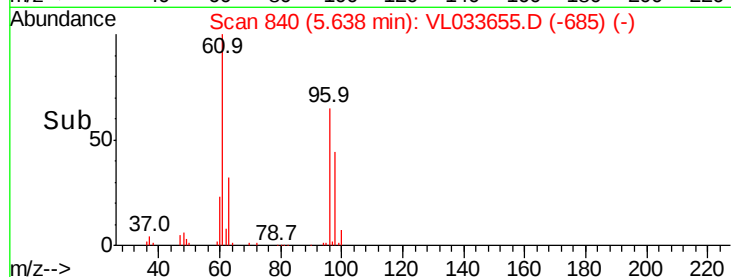
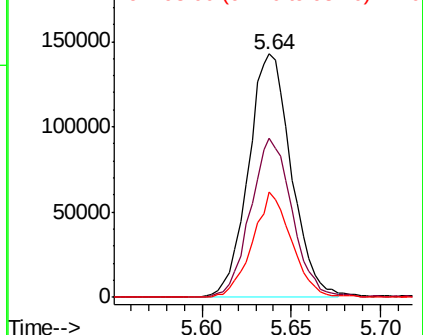
98 43.5 34.2 51.4



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: 2.131 ppbv

RT: 6.62 min Scan# 1145

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

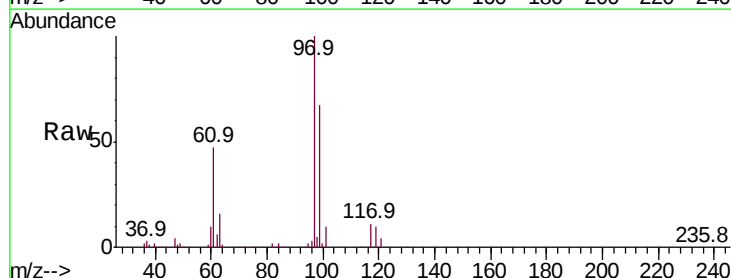
Tgt Ion: 97 Resp: 416968

Ion Ratio Lower Upper

97 100

99 66.1 51.5 77.3

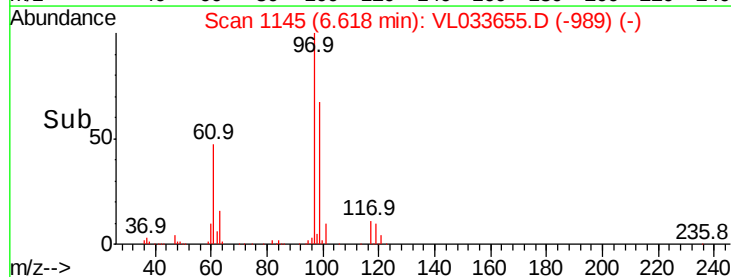
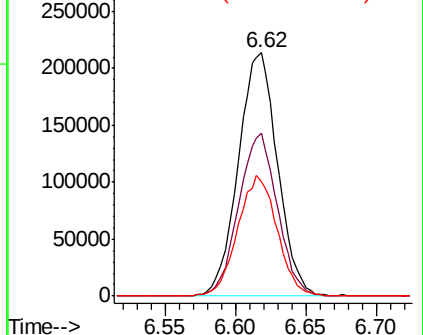
61 49.9 38.5 57.7

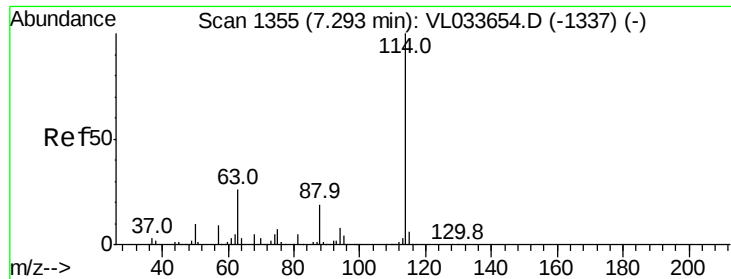


Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 99.00 (98.70 to 99.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

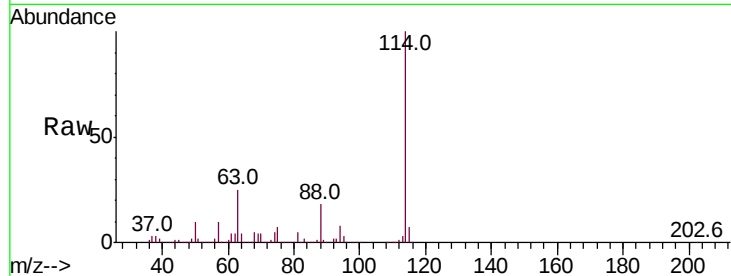




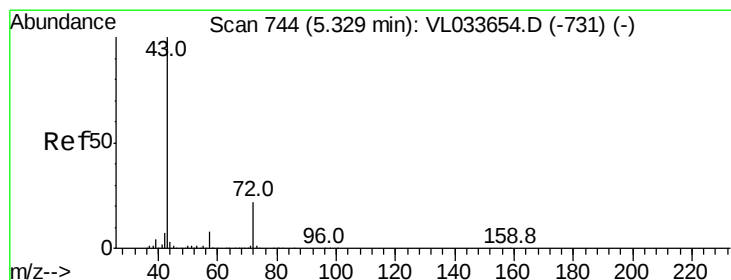
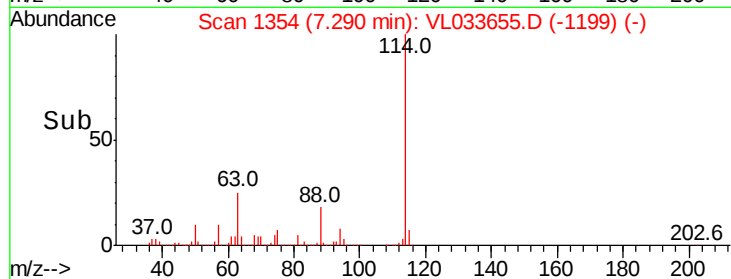
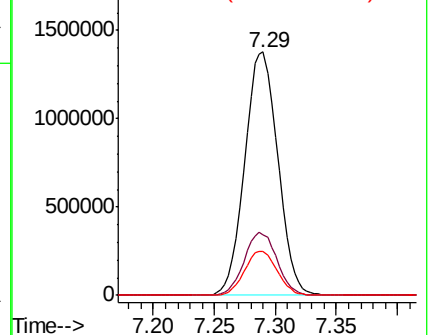
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.29 min Scan# 1354  
 Delta R.T. -0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:114 Resp: 2576562  
 Ion Ratio Lower Upper  
 114 100  
 63 25.8 21.2 31.8  
 88 18.0 14.4 21.6

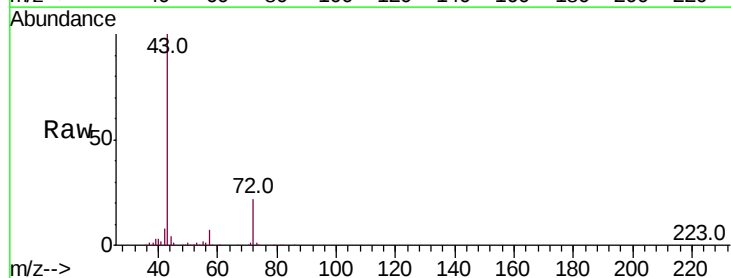


Abundance Ion 114.10 (113.80 to 114.80): V  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

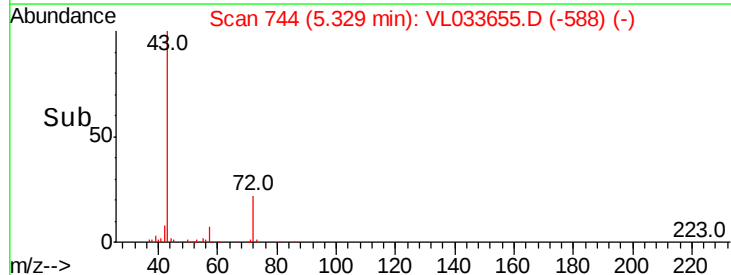
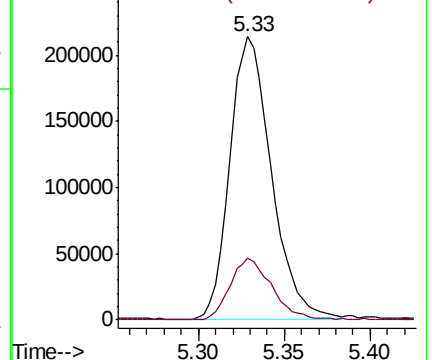


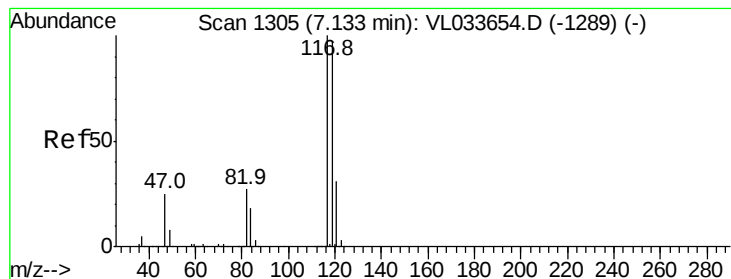
#34  
 2-Butanone  
 Concen: 2.249 ppbv  
 RT: 5.33 min Scan# 744  
 Delta R.T. 0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Tgt Ion: 43 Resp: 358449  
 Ion Ratio Lower Upper  
 43 100  
 72 21.9 17.4 26.2



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 2.186 ppbv

RT: 7.13 min Scan# 1304

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

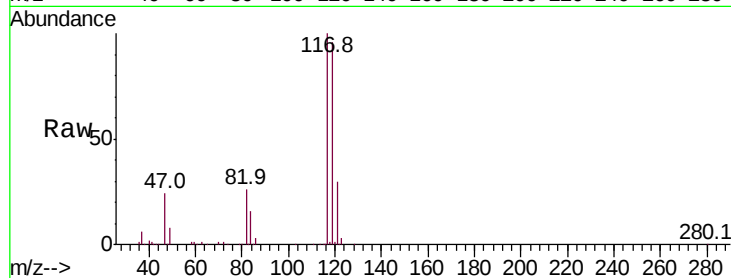
Tot Ion:117 Resp: 452084

Ion Ratio Lower Upper

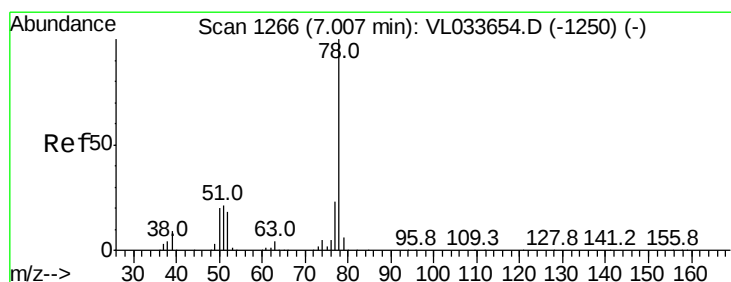
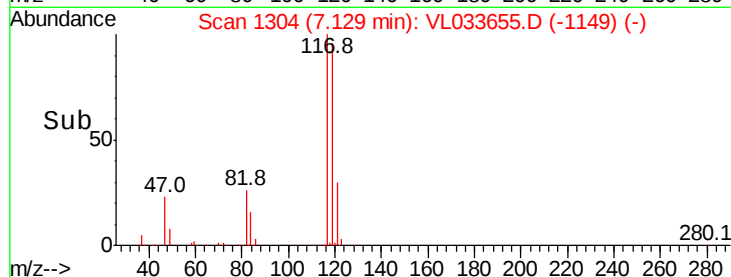
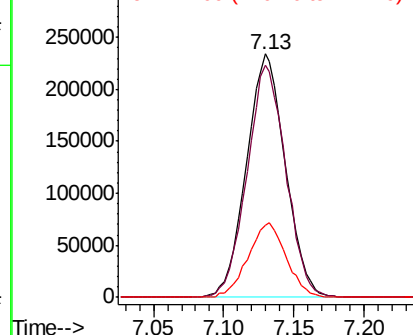
117 100

119 95.6 77.9 116.9

121 29.9 25.0 37.6



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: 2.191 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

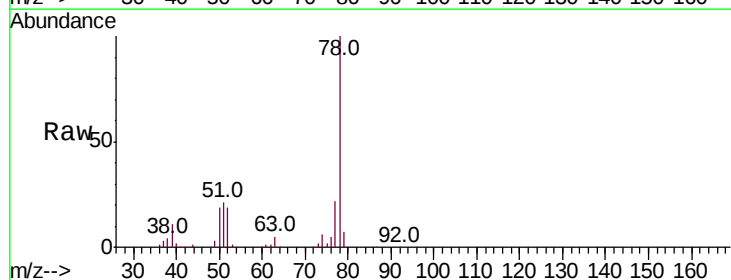
Tgt Ion: 78 Resp: 488792

Ion Ratio Lower Upper

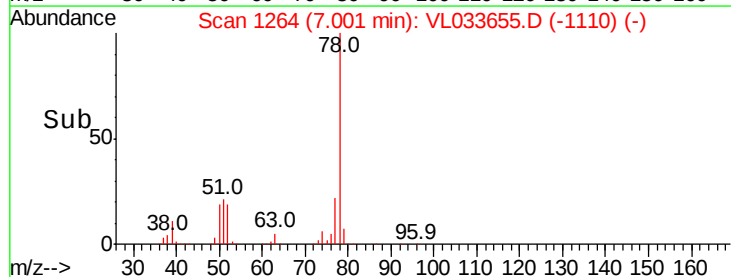
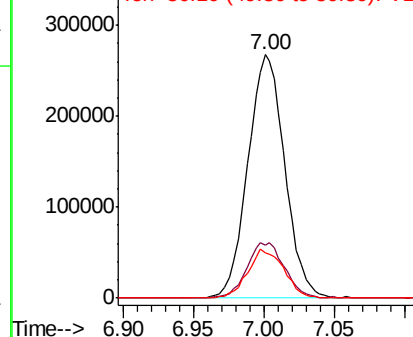
78 100

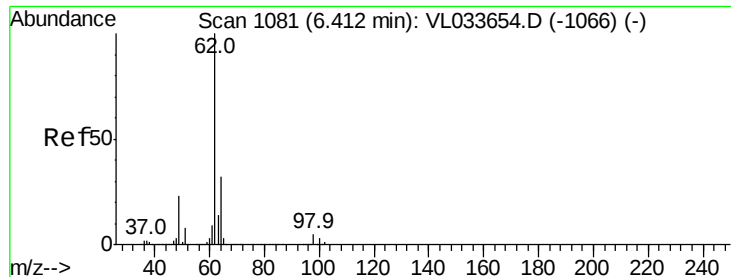
77 22.0 18.2 27.2

50 18.5 15.8 23.6



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: 2.125 ppbv

RT: 6.41 min Scan# 1080

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

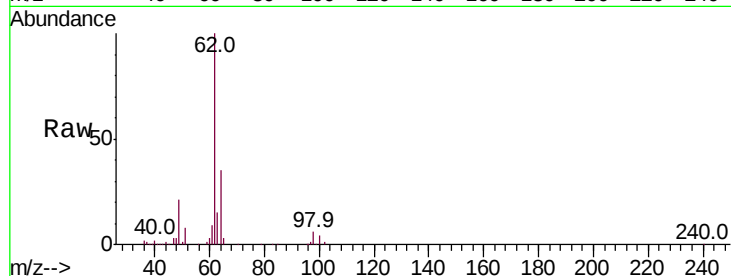
ClientSampleId :

Tot Ion: 62 Resp: 314751

Ion Ratio Lower Upper

62 100

98 5.8 4.5 6.7



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

200000

150000

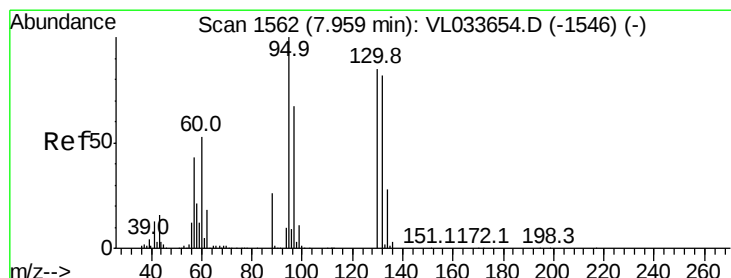
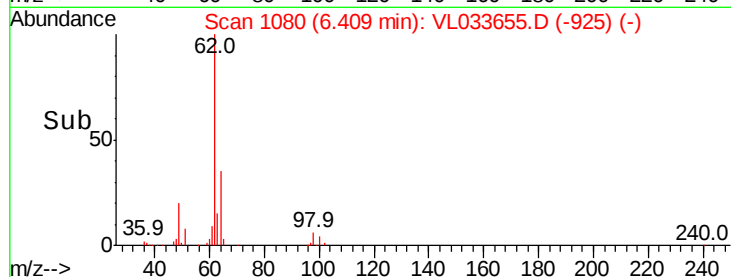
100000

50000

0

6.35 6.40 6.45

Time-->



#38

Trichloroethene

Concen: 2.257 ppbv

RT: 7.96 min Scan# 1562

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Tgt Ion:130 Resp: 199994

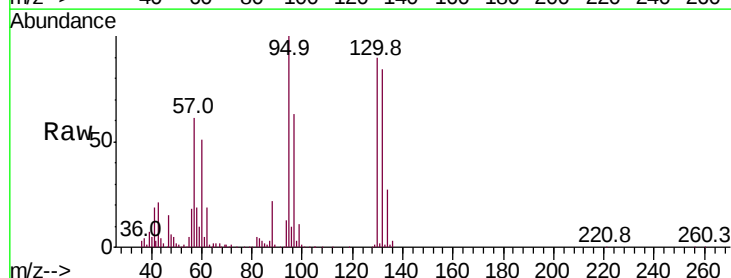
Ion Ratio Lower Upper

130 100

95 108.0 93.4 140.0

132 92.0 76.2 114.4

97 68.4 62.2 93.4



Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0

150000

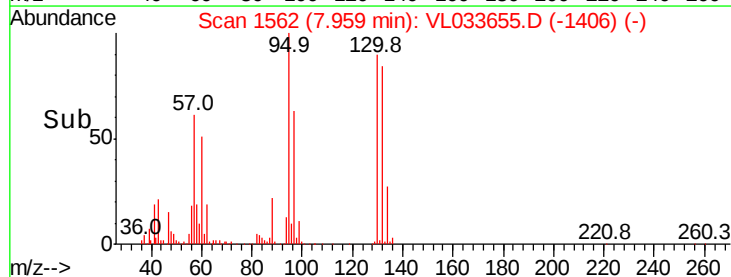
100000

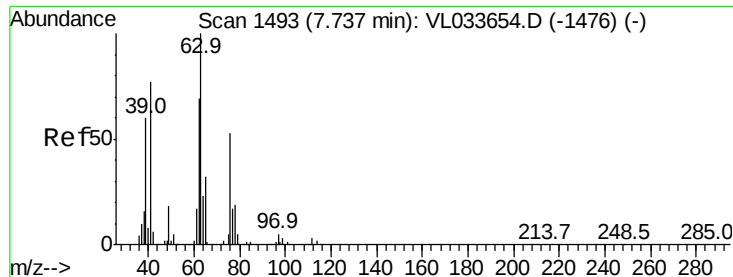
50000

0

7.90 7.95 8.00

Time-->

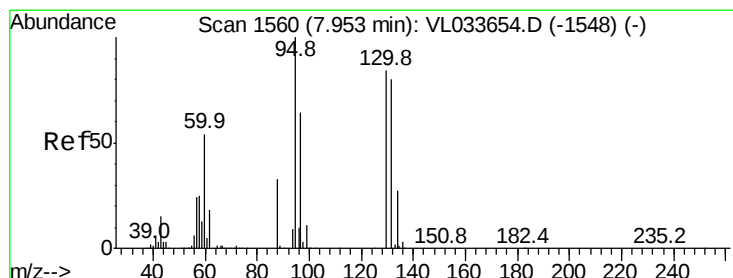
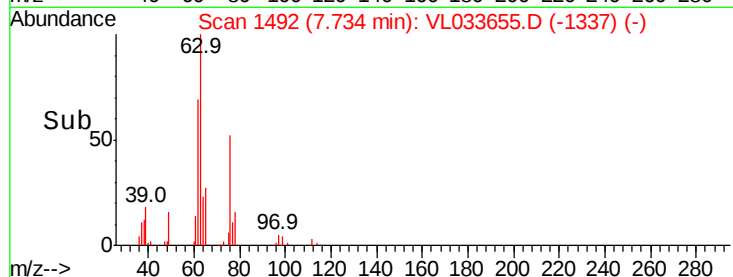
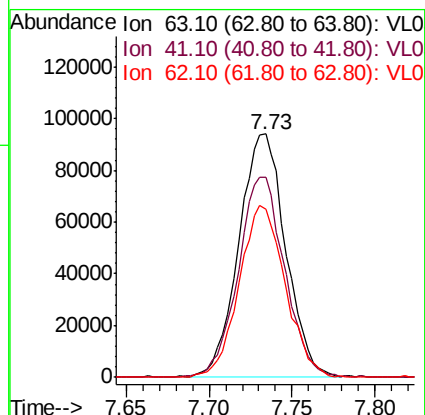
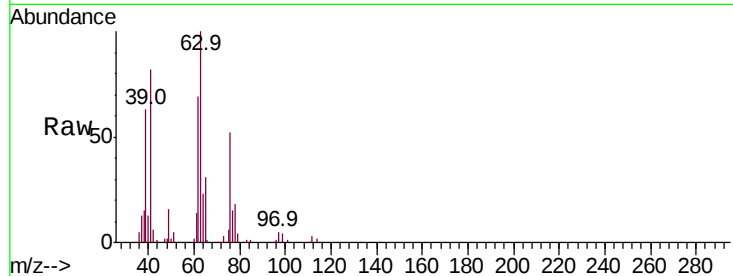




#39  
 1,2-Dichloropropane  
 Concen: 2.204 ppbv  
 RT: 7.73 min Scan# 1492  
 Delta R.T. -0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

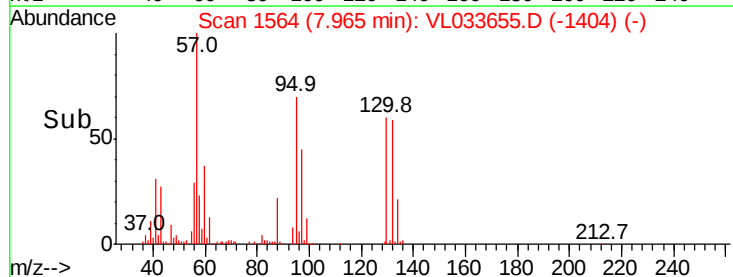
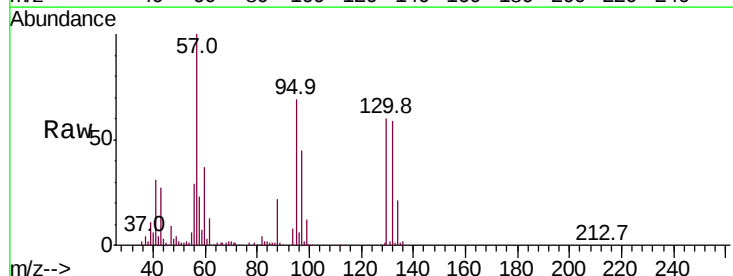
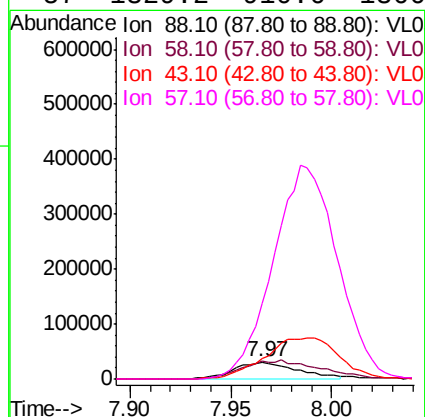
Instrument :  
 MSVOA\_L  
 ClientSampleId :

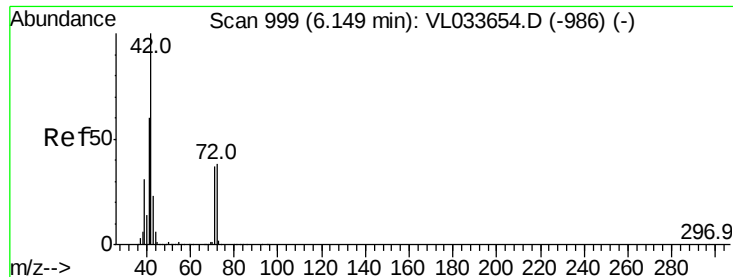
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 82.2  | 61.6  | 92.4  |
| 62      | 68.7  | 55.0  | 82.6  |



#40  
 1,4-Dioxane  
 Concen: 1.942 ppbv  
 RT: 7.97 min Scan# 1564  
 Delta R.T. 0.01 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

| Tgt Ion | Ratio  | Lower | Upper  |
|---------|--------|-------|--------|
| 88      | 100    |       |        |
| 58      | 145.5  | 102.3 | 153.5  |
| 43      | 295.9  | 206.1 | 309.1  |
| 57      | 1329.2 | 910.6 | 1366.0 |





#41

Tetrahydrofuran

Concen: 2.286 ppbv

RT: 6.16 min Scan# 1001

Delta R.T. 0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampled :

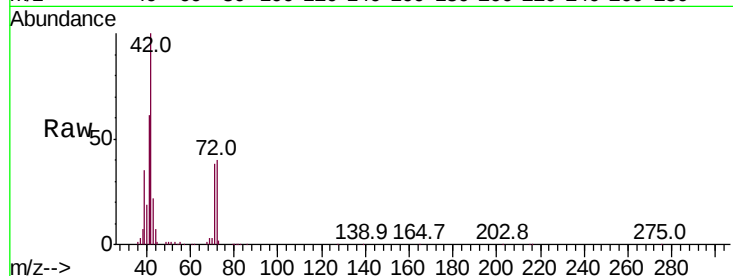
Tot Ion: 42 Resp: 195508

Ion Ratio Lower Upper

42 100

72 39.1 31.6 47.4

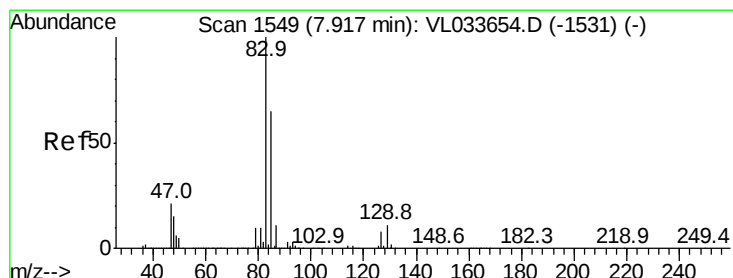
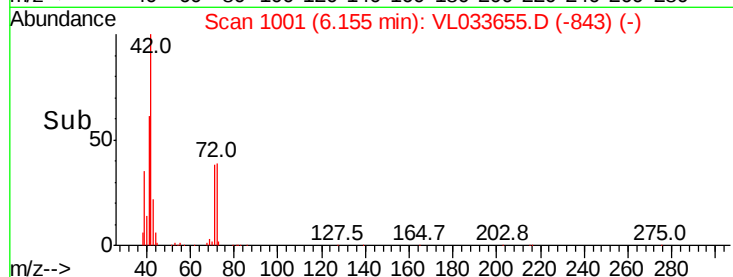
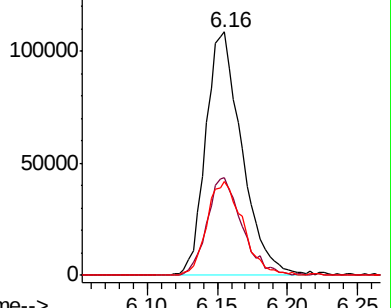
71 38.6 30.6 45.8



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



#42

Bromodichloromethane

Concen: 2.172 ppbv

RT: 7.91 min Scan# 1548

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

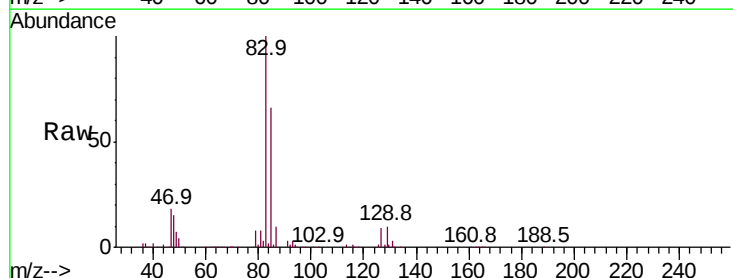
Tgt Ion: 83 Resp: 435996

Ion Ratio Lower Upper

83 100

85 65.8 52.4 78.6

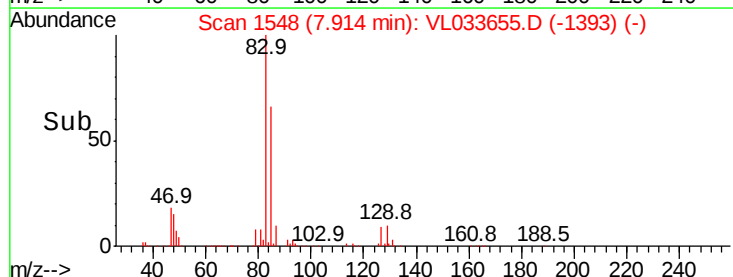
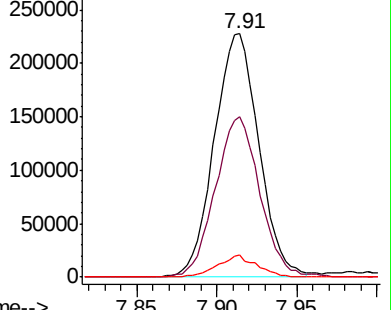
127 9.1 6.6 9.8

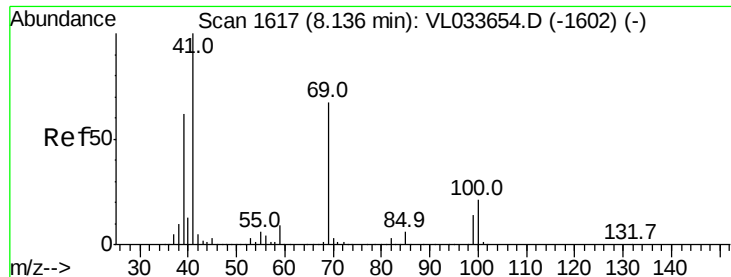


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): V





#43

Methyl Methacrylate

Concen: 2.204 ppbv

RT: 8.13 min Scan# 1616

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :  
MSVOA\_L  
ClientSampled :

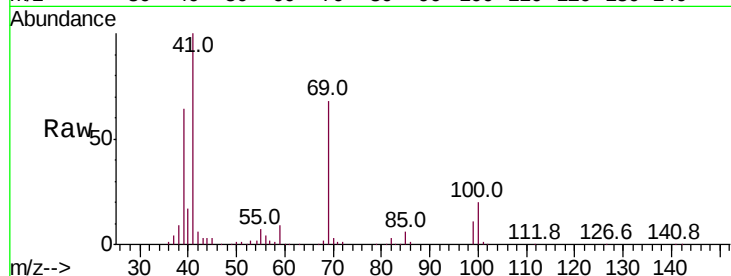
Tot Ion: 69 Resp: 185436

Ion Ratio Lower Upper

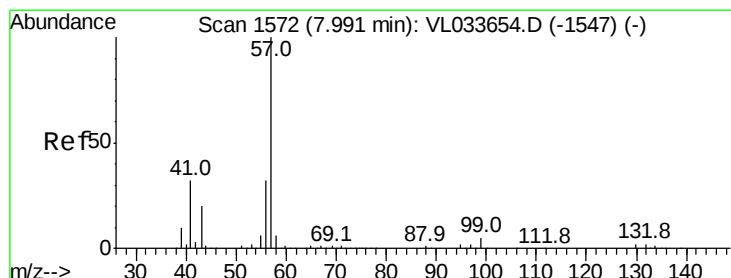
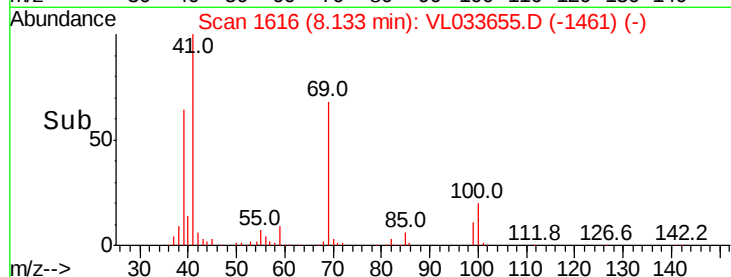
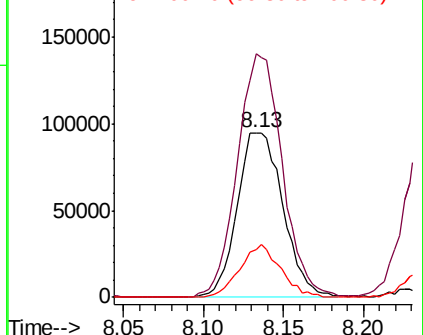
69 100

41 145.1 116.5 174.7

100 28.5 24.6 37.0



Abundance Ion 69.10 (68.80 to 69.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 100.10 (99.80 to 100.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 2.228 ppbv

RT: 7.98 min Scan# 1570

Delta R.T. -0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

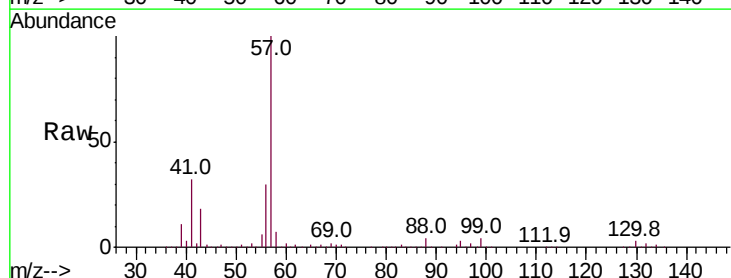
Tgt Ion: 57 Resp: 863904

Ion Ratio Lower Upper

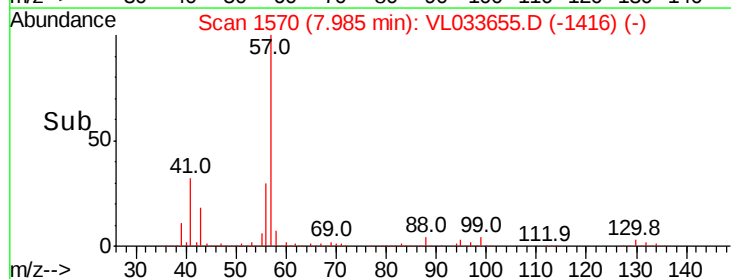
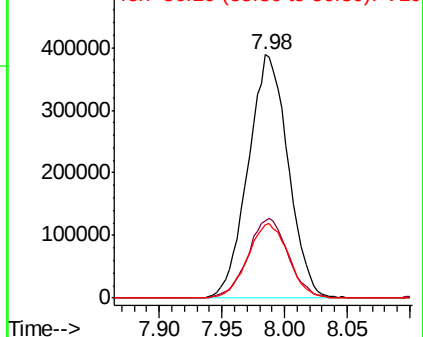
57 100

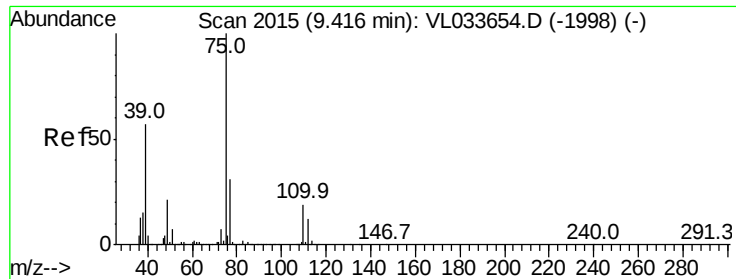
41 32.8 25.7 38.5

56 31.2 25.0 37.6



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





#45

t-1,3-Dichloropropene

Concen: 2.053 ppbv

RT: 9.41 min Scan# 2014

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

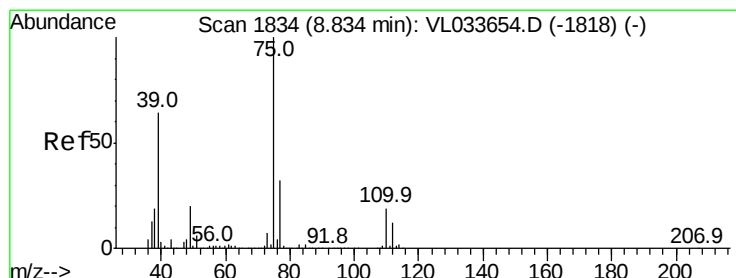
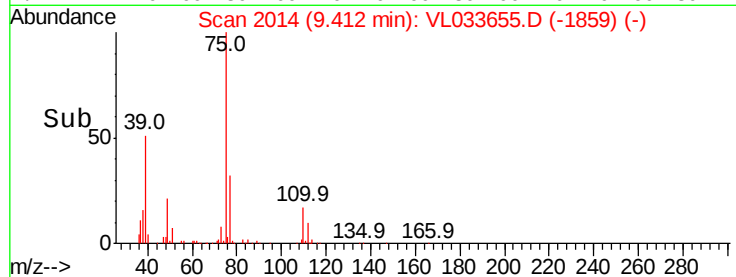
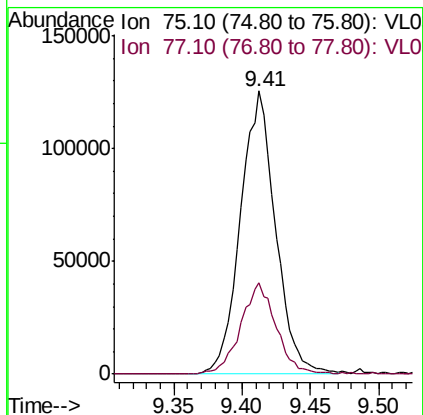
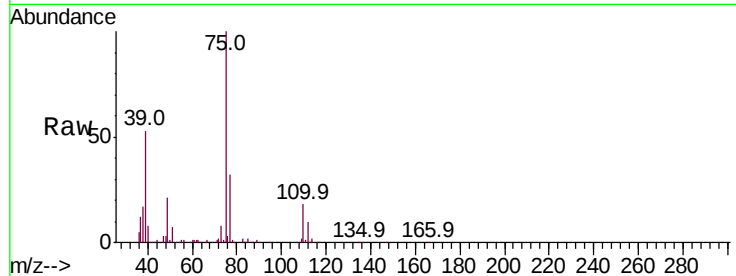
ClientSampleId :

Tot Ion: 75 Resp: 222905

Ion Ratio Lower Upper

75 100

77 32.9 24.7 37.1



#46

cis-1,3-Dichloropropene

Concen: 2.080 ppbv

RT: 8.83 min Scan# 1833

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

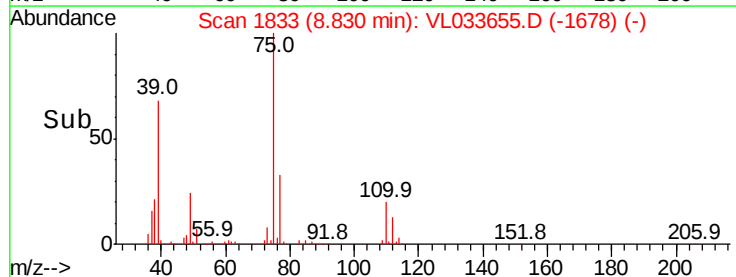
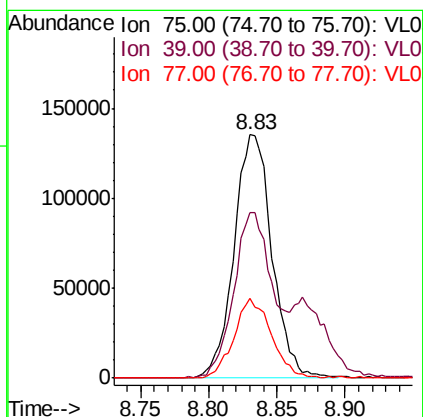
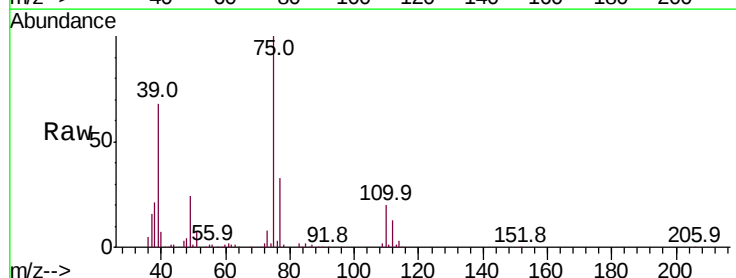
Tgt Ion: 75 Resp: 261261

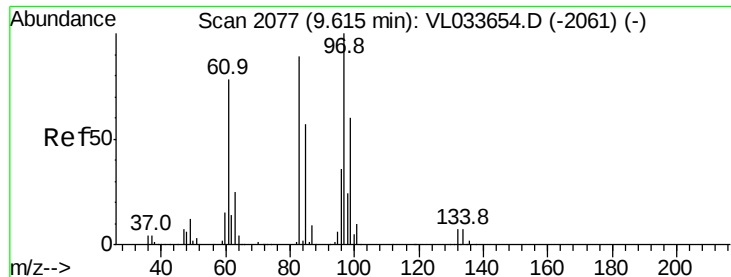
Ion Ratio Lower Upper

75 100

39 67.6 51.5 77.3

77 33.0 25.4 38.0



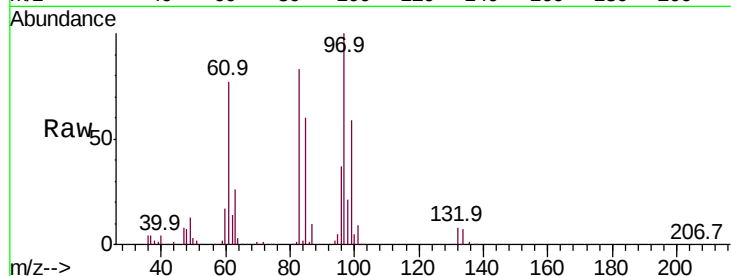


#47  
 1,1,2-Trichloroethane  
 Concen: 2.138 ppbv  
 RT: 9.61 min Scan# 2075  
 Delta R.T. -0.01 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion: 97 Resp: 211438  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 97  | 100   |       |       |
| 83  | 82.4  | 70.9  | 106.3 |
| 85  | 59.6  | 45.8  | 68.6  |
| 99  | 58.4  | 48.2  | 72.4  |



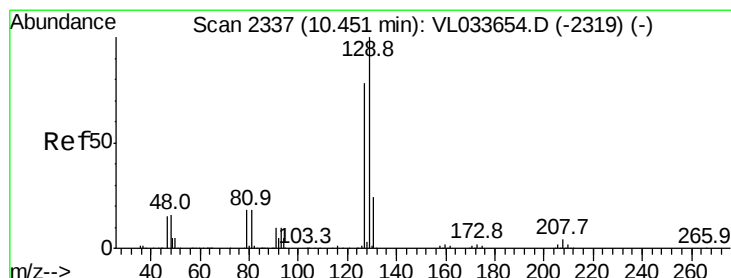
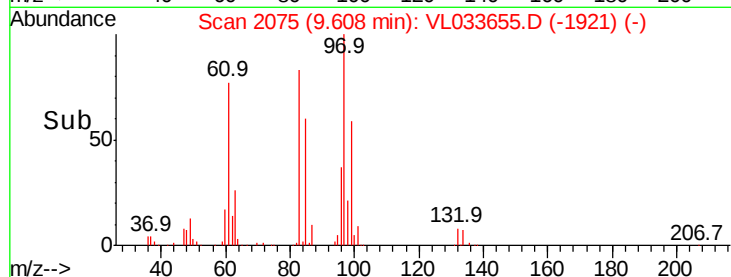
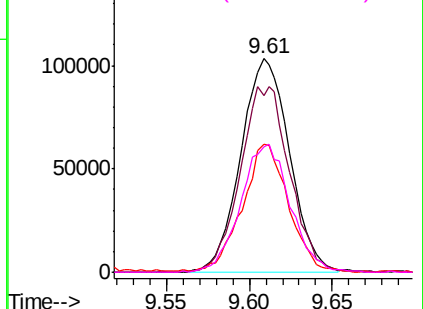
Abundance

Ion 97.00 (96.70 to 97.70): VL0

Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

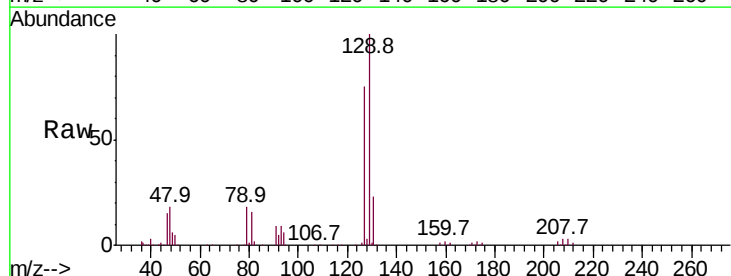
Ion 99.00 (98.70 to 99.70): VL0



#48  
 Dibromochloromethane  
 Concen: 2.116 ppbv  
 RT: 10.44 min Scan# 2335  
 Delta R.T. -0.01 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Tgt Ion: 129 Resp: 351348  

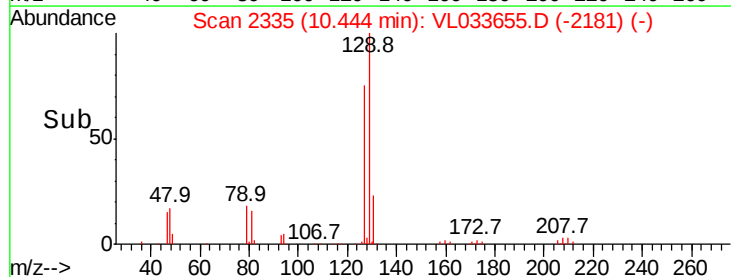
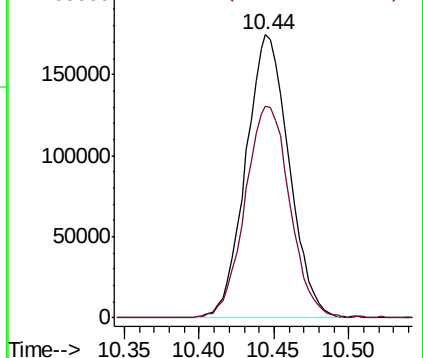
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 129 | 100   |       |       |
| 127 | 77.5  | 39.1  | 117.2 |

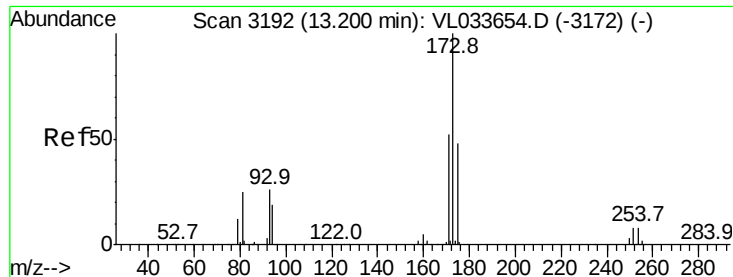


Abundance

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V





#49

Bromoform

Concen: 2.171 ppbv

RT: 13.20 min Scan# 3191

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

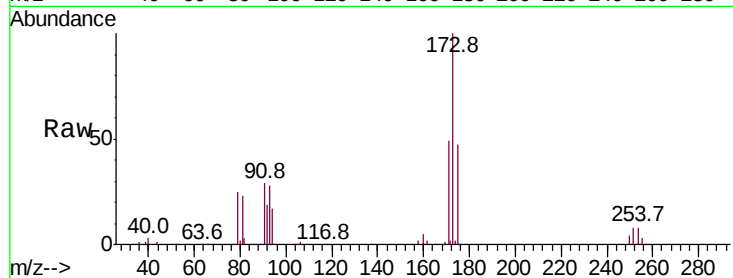
Tot Ion:173 Resp: 309305

Ion Ratio Lower Upper

173 100

175 49.5 39.3 58.9

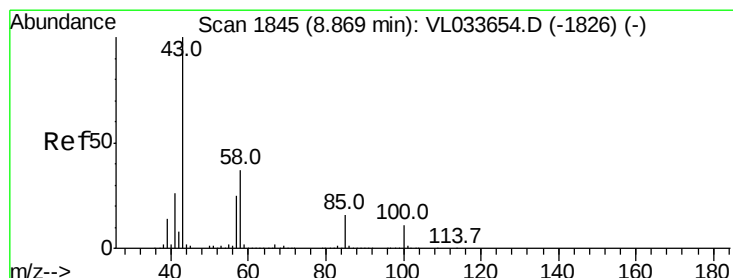
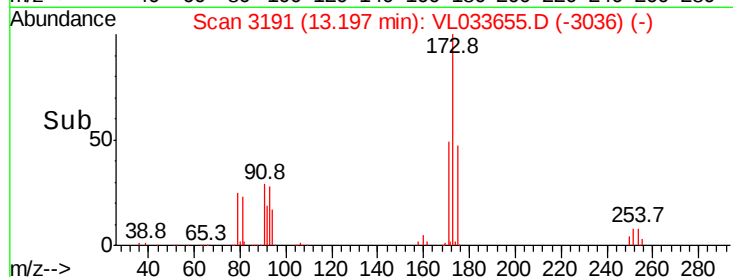
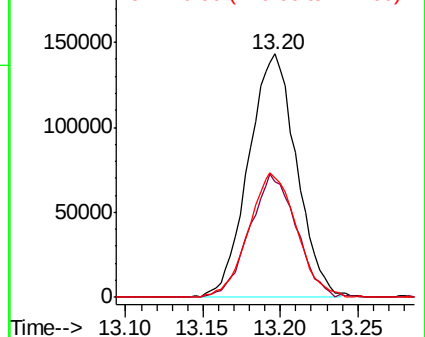
171 51.1 41.5 62.3



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: 2.150 ppbv

RT: 8.87 min Scan# 1845

Delta R.T. 0.00 min

Lab File: VL033655.D

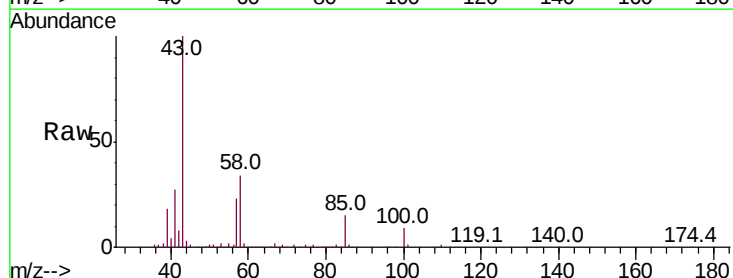
Acq: 6 May 2019 11:39

Tgt Ion: 43 Resp: 537311

Ion Ratio Lower Upper

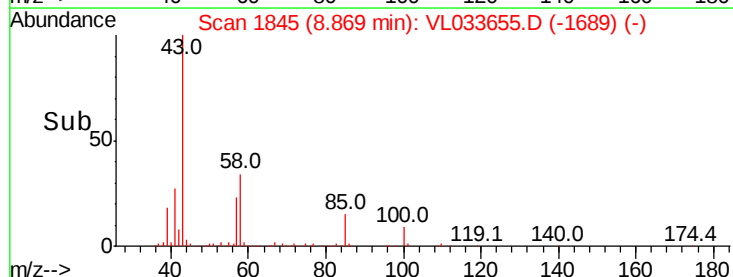
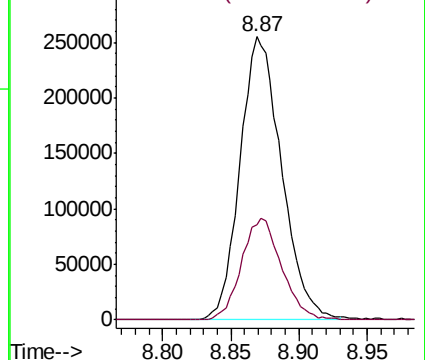
43 100

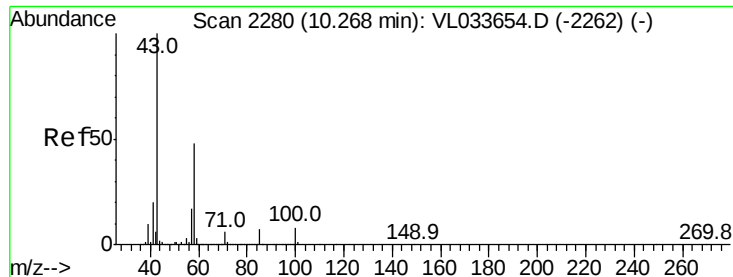
58 34.8 28.8 43.2



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

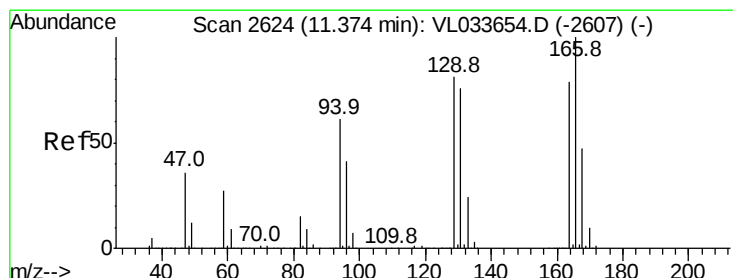
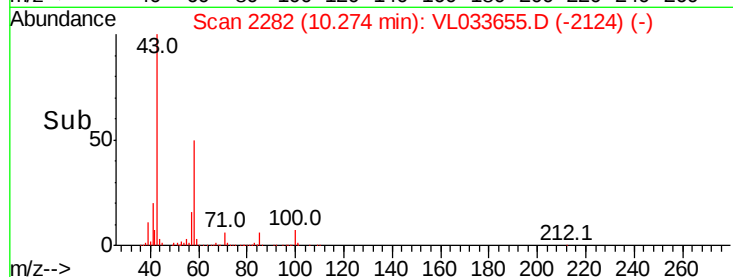
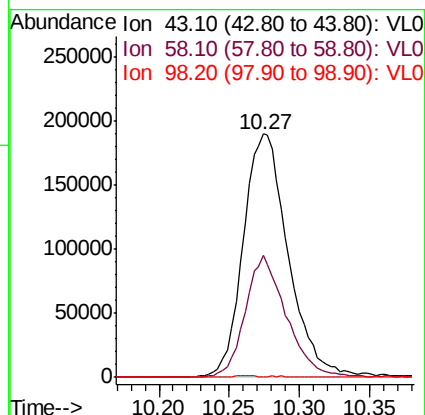
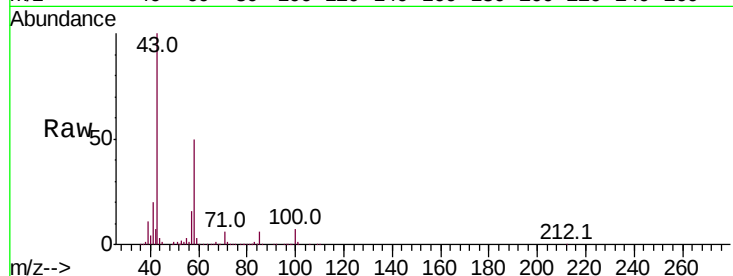




#51  
2-Hexanone  
Concen: 2.141 ppbv  
RT: 10.27 min Scan# 2282  
Delta R.T. 0.01 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

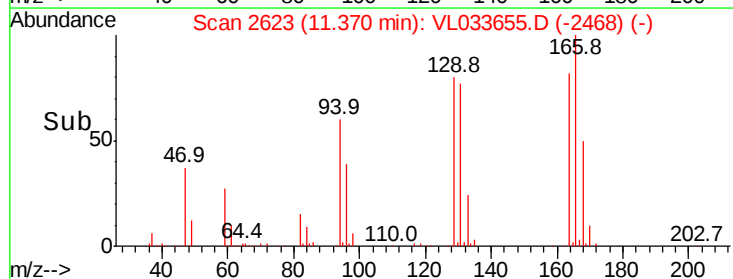
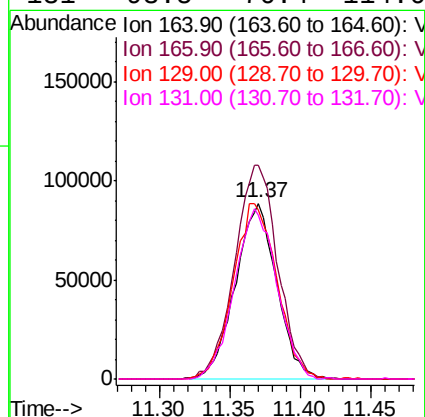
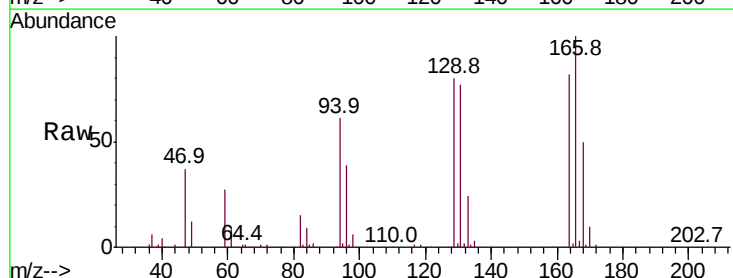
Instrument :  
MSVOA\_L  
ClientSampleId :

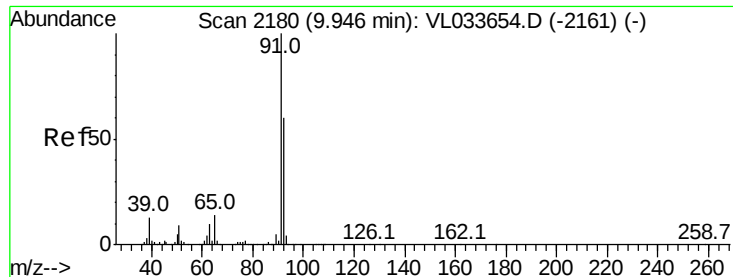
Tot Ion: 43 Resp: 420096  
Ion Ratio Lower Upper  
43 100  
58 46.5 38.2 57.4  
98 0.7 0.2 0.4#



#52  
Tetrachloroethene  
Concen: 2.148 ppbv  
RT: 11.37 min Scan# 2623  
Delta R.T. -0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Tgt Ion: 164 Resp: 181550  
Ion Ratio Lower Upper  
164 100  
166 121.4 100.6 151.0  
129 96.3 81.0 121.6  
131 93.5 76.4 114.6





#53

Toluene

Concen: 2.166 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

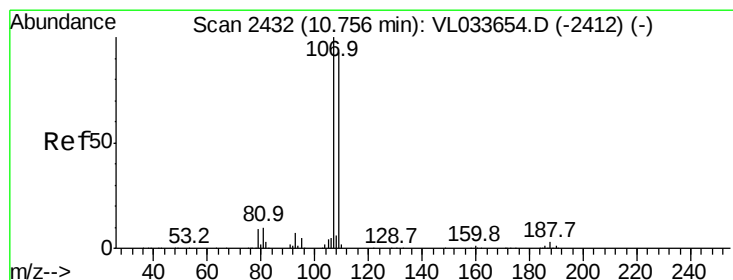
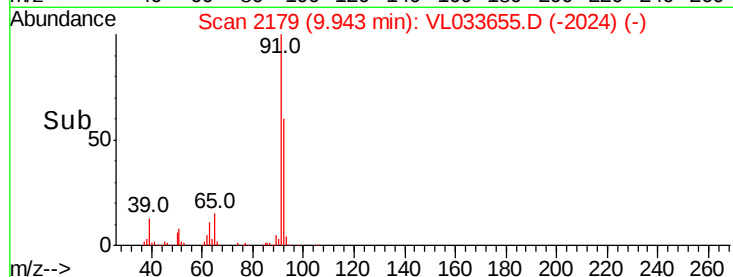
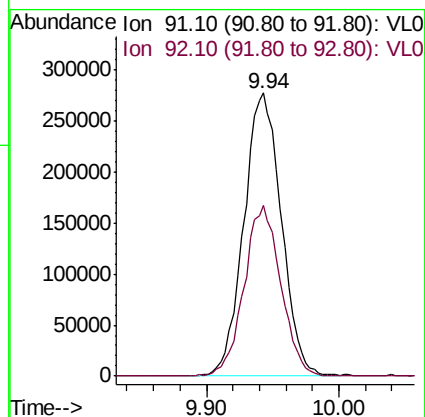
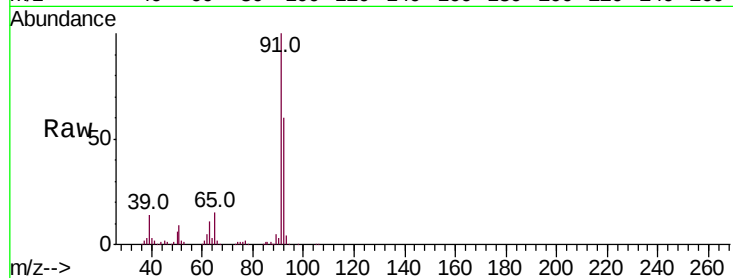
ClientSampleId :

Tot Ion: 91 Resp: 545267

Ion Ratio Lower Upper

91 100

92 58.9 47.8 71.6



#54

1,2-Dibromoethane

Concen: 2.087 ppbv

RT: 10.75 min Scan# 2431

Delta R.T. -0.00 min

Lab File: VL033655.D

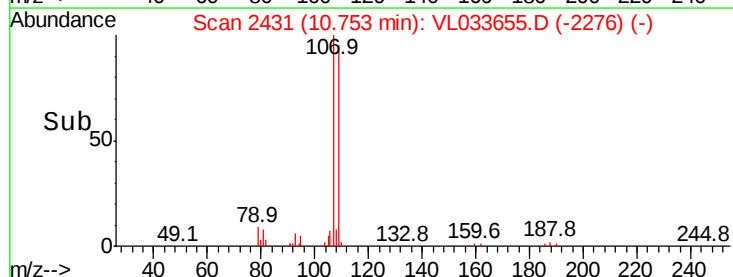
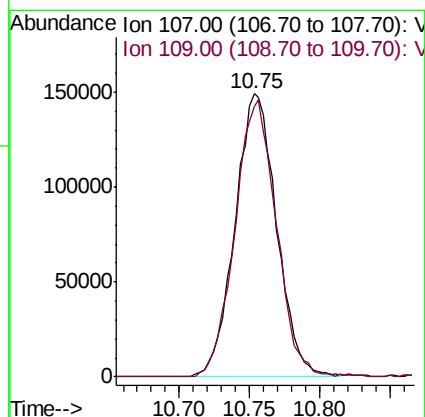
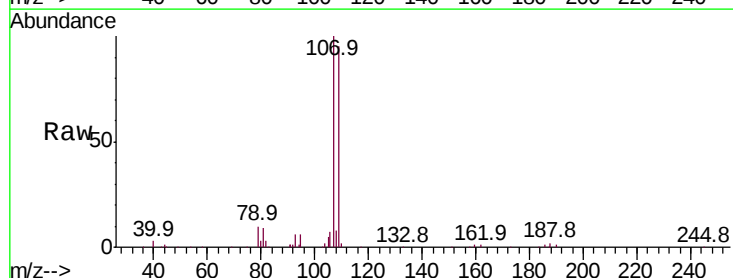
Acq: 6 May 2019 11:39

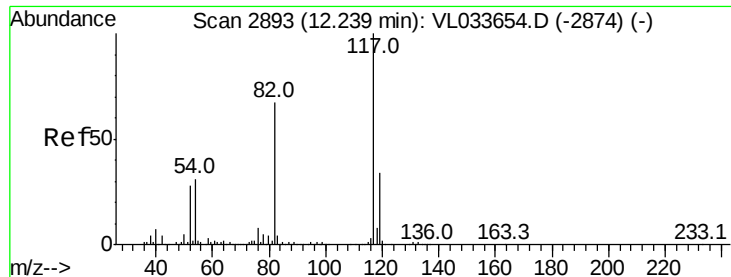
Tgt Ion: 107 Resp: 308367

Ion Ratio Lower Upper

107 100

109 95.2 74.6 111.8

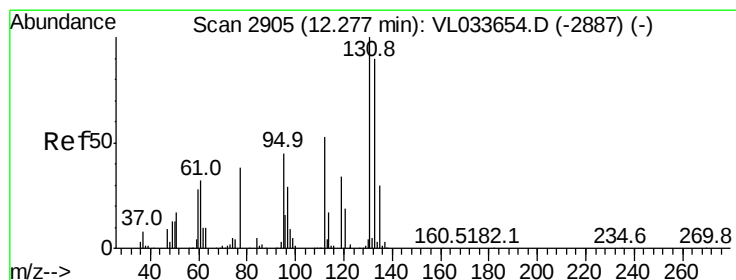
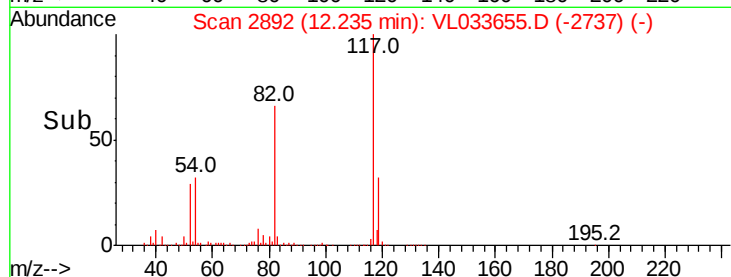
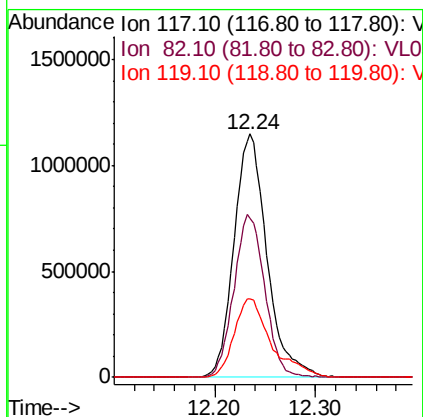
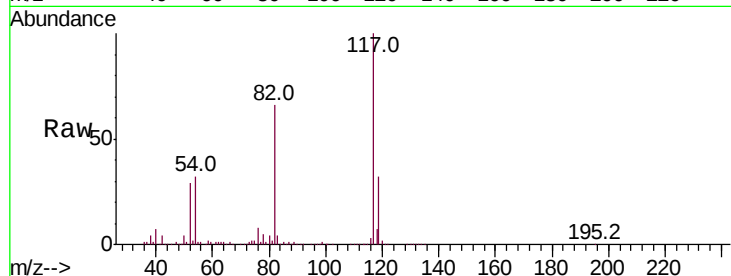




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.24 min Scan# 2892  
Delta R.T. -0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

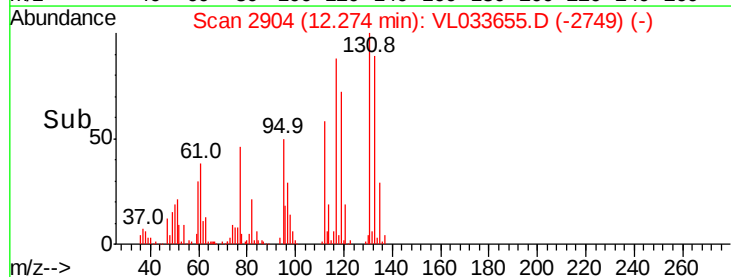
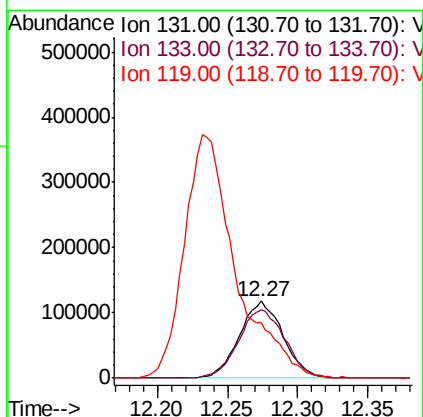
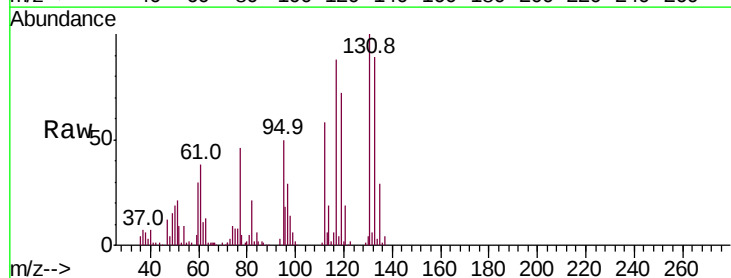
Instrument :  
MSVOA\_L  
ClientSampleId :

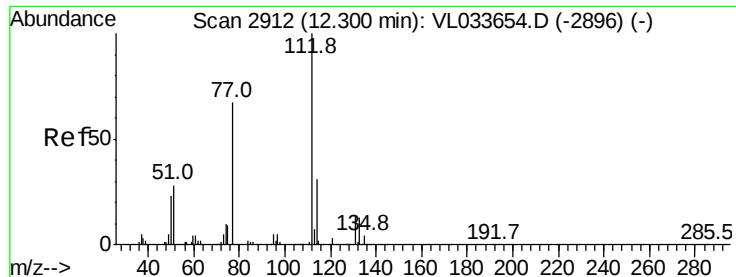
Tot Ion:117 Resp: 2607405  
Ion Ratio Lower Upper  
117 100  
82 62.9 49.7 74.5  
119 36.4 23.3 34.9#



#56  
1,1,1,2-Tetrachloroethane  
Concen: 2.235 ppbv  
RT: 12.27 min Scan# 2904  
Delta R.T. -0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Tgt Ion:131 Resp: 255132  
Ion Ratio Lower Upper  
131 100  
133 93.9 76.1 114.1  
119 371.9 49.4 74.0#

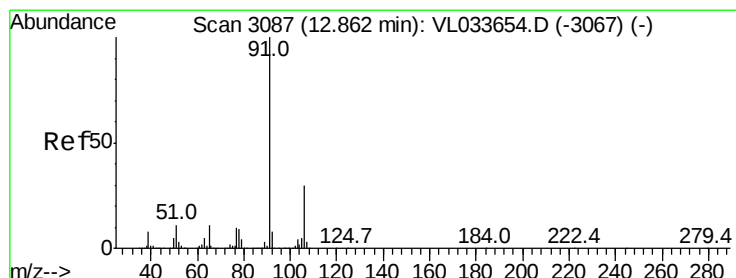
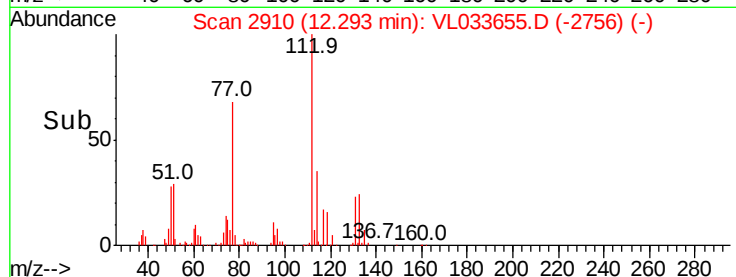
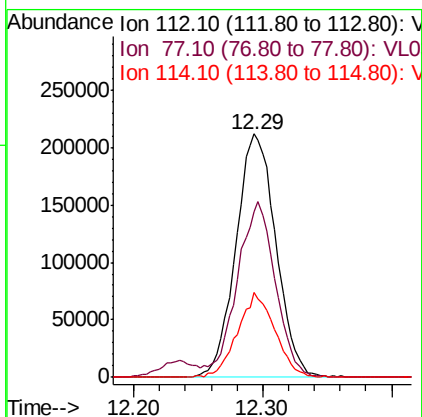
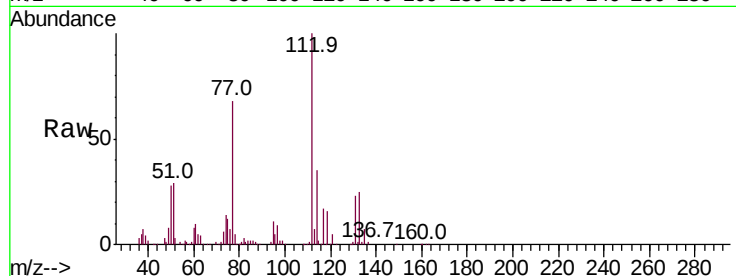




#57  
Chlorobenzene  
Concen: 2.246 ppbv  
RT: 12.29 min Scan# 2910  
Delta R.T. -0.01 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

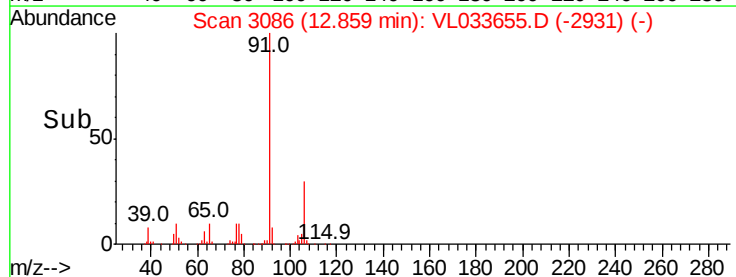
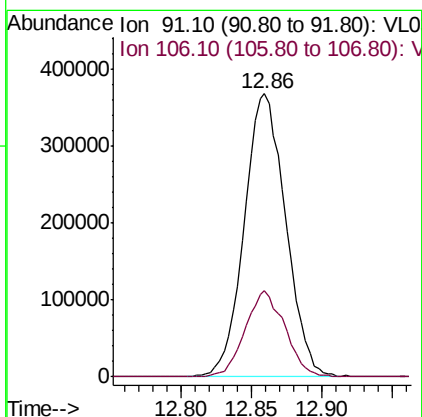
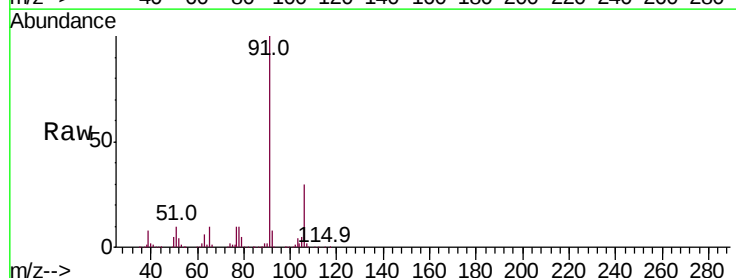
Instrument :  
MSVOA\_L  
ClientSampleId :

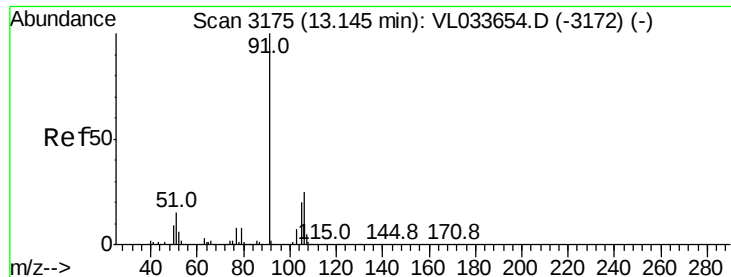
Tot Ion:112 Resp: 456750  
Ion Ratio Lower Upper  
112 100  
77 67.4 54.4 81.6  
114 35.1 28.2 34.4#



#58  
Ethyl Benzene  
Concen: 2.315 ppbv  
RT: 12.86 min Scan# 3086  
Delta R.T. -0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Tgt Ion: 91 Resp: 757846  
Ion Ratio Lower Upper  
91 100  
106 30.3 23.7 35.5

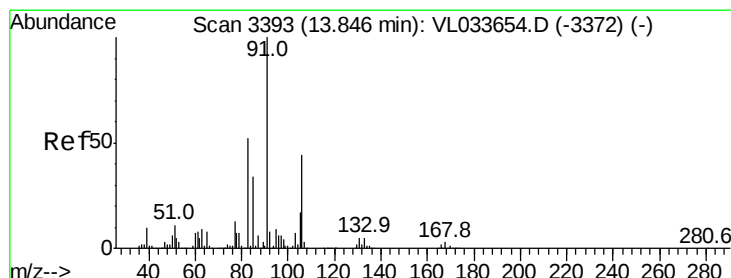
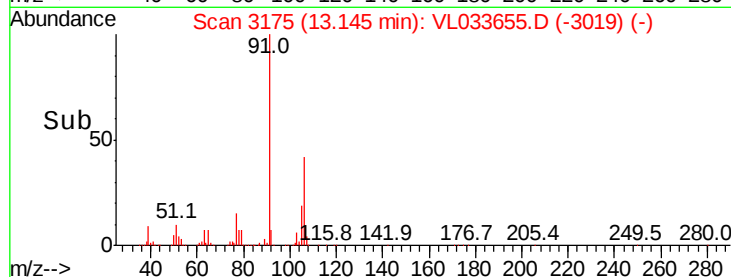
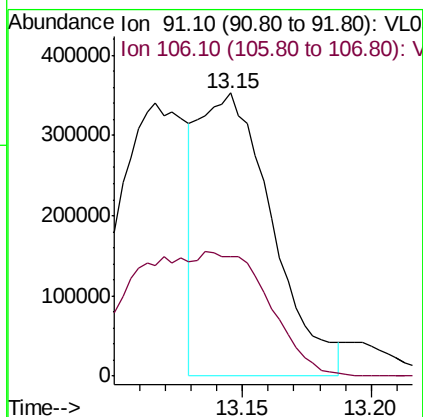
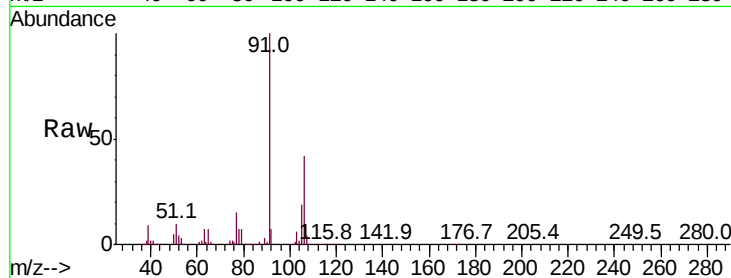




#59  
m/p-Xylene  
Concen: 2.474 ppbv  
RT: 13.15 min Scan# 3175  
Delta R.T. 0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

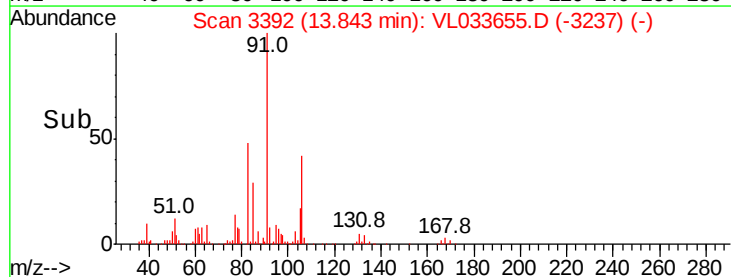
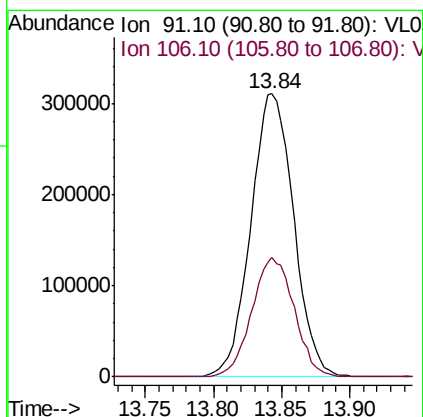
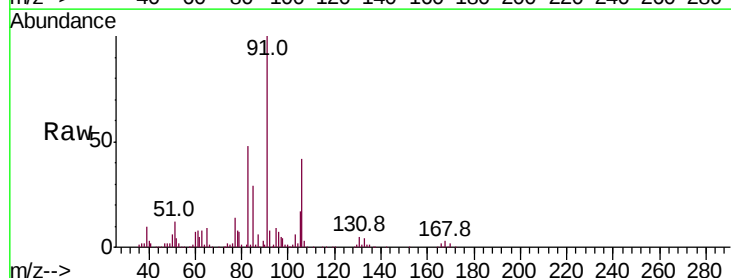
Instrument :  
MSVOA\_L  
ClientSampled :

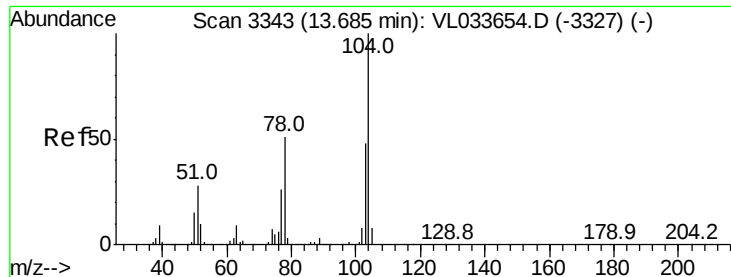
Tot Ion: 91 Resp: 697066  
Ion Ratio Lower Upper  
91 100  
106 84.4 35.9 53.9#



#60  
o-Xylene  
Concen: 2.387 ppbv  
RT: 13.84 min Scan# 3392  
Delta R.T. -0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Tgt Ion: 91 Resp: 677435  
Ion Ratio Lower Upper  
91 100  
106 41.8 21.7 65.1

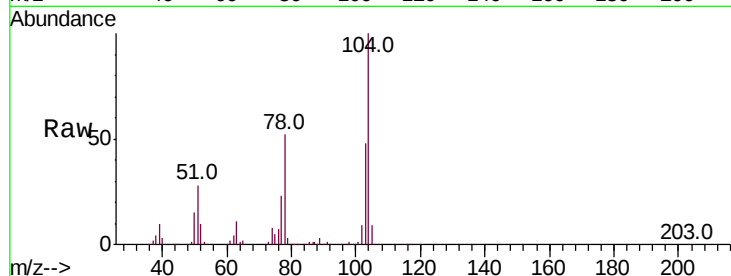




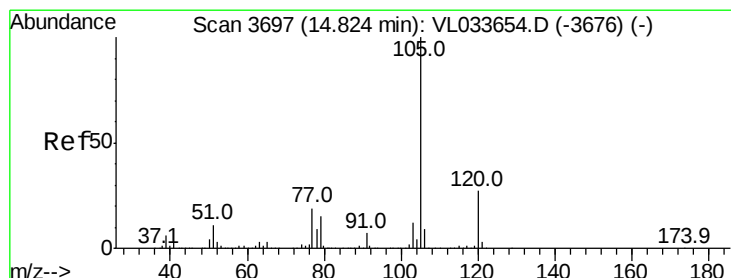
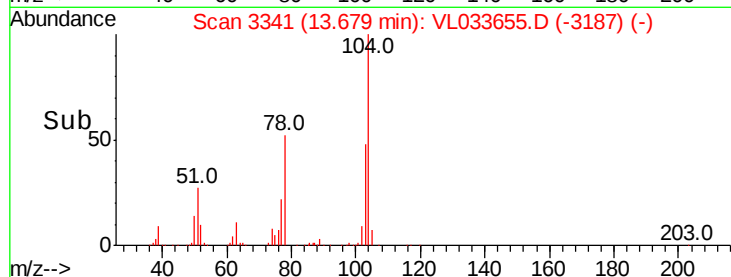
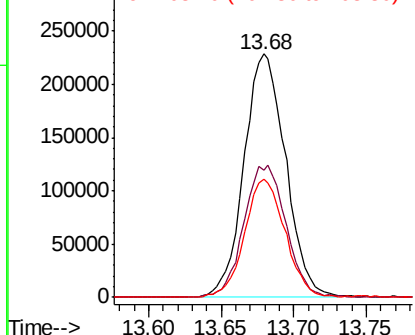
#61  
Stvrene  
Concen: 2.334 ppbv  
RT: 13.68 min Scan# 3341  
Delta R.T. -0.01 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion:104 Resp: 454374  
Ion Ratio Lower Upper  
104 100  
78 55.6 43.0 64.6  
103 48.0 38.1 57.1

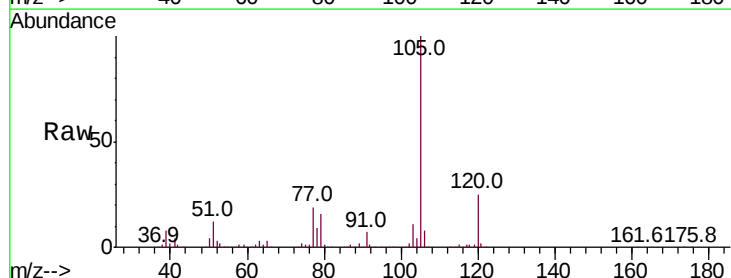


Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): V  
Ion 103.10 (102.80 to 103.80): V

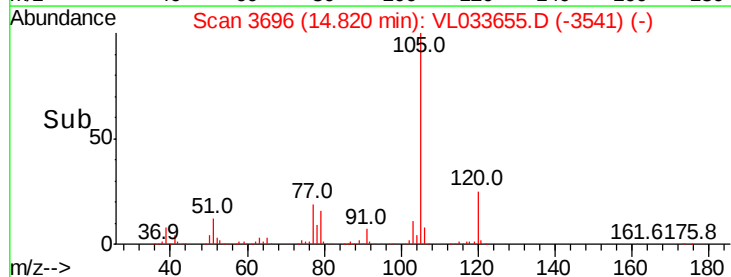
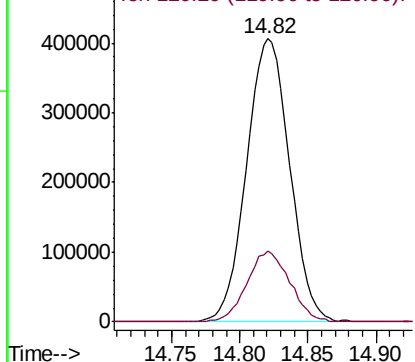


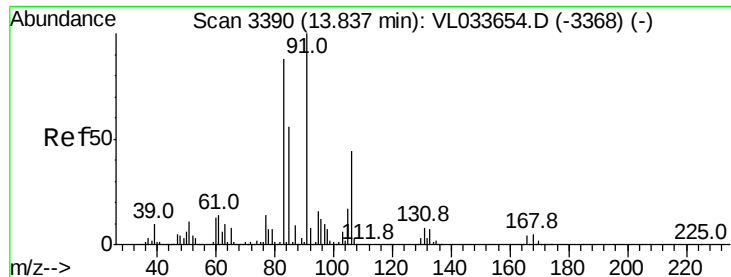
#62  
Isopropylbenzene  
Concen: 2.357 ppbv  
RT: 14.82 min Scan# 3696  
Delta R.T. -0.00 min  
Lab File: VL033655.D  
Acq: 6 May 2019 11:39

Tgt Ion:105 Resp: 891623  
Ion Ratio Lower Upper  
105 100  
120 24.9 20.5 30.7



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: 2.248 ppbv

RT: 13.83 min Scan# 3387

Delta R.T. -0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

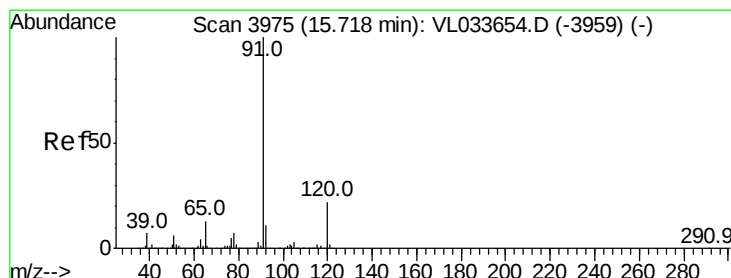
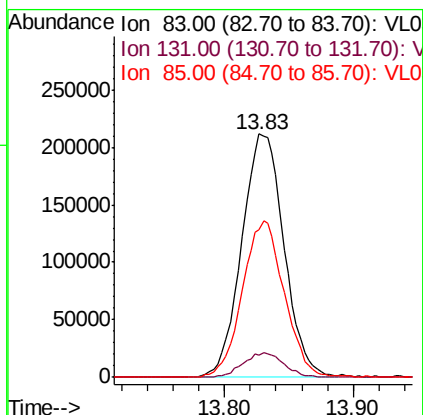
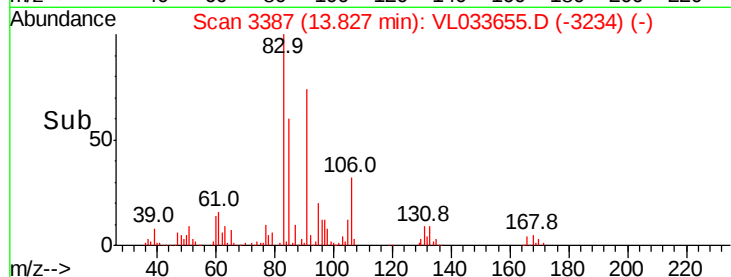
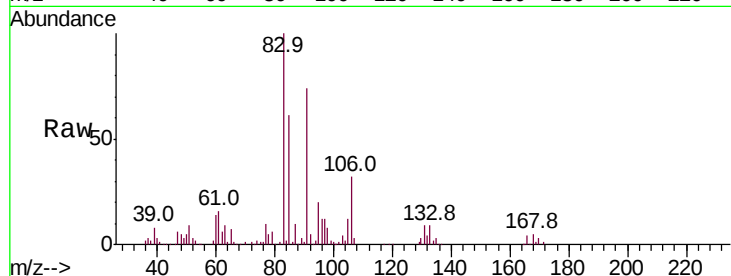
Tot Ion: 83 Resp: 482826

Ion Ratio Lower Upper

83 100

131 9.8 4.8 14.3

85 64.0 32.5 97.5



#64

n-propylbenzene

Concen: 2.358 ppbv

RT: 15.72 min Scan# 3975

Delta R.T. 0.00 min

Lab File: VL033655.D

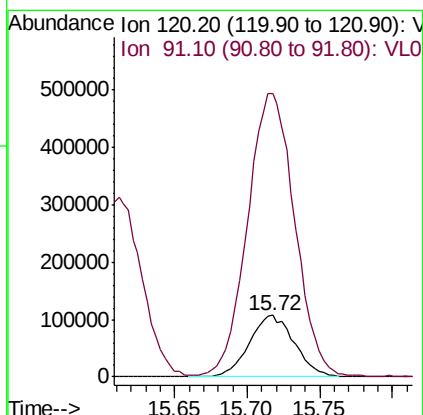
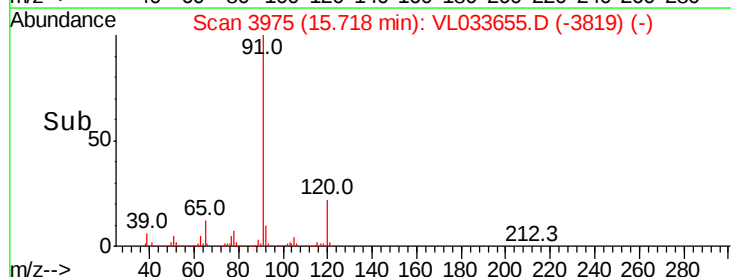
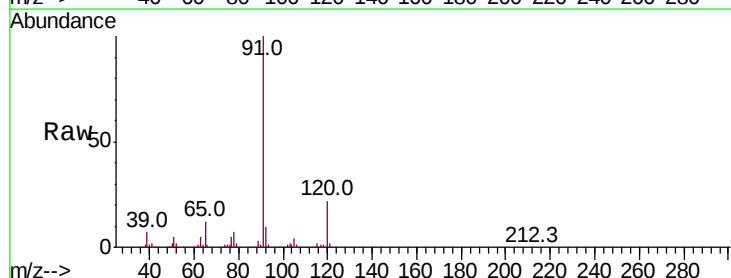
Acq: 6 May 2019 11:39

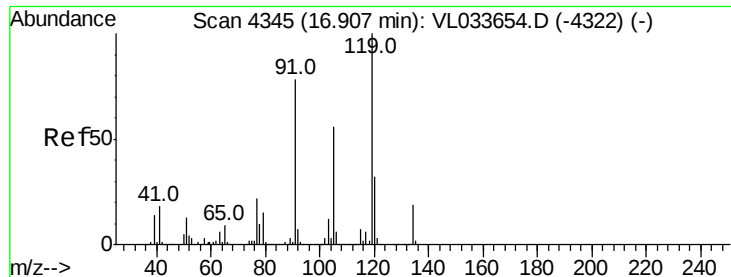
Tgt Ion:120 Resp: 231935

Ion Ratio Lower Upper

120 100

91 485.3 379.4 569.2





#65

tert-Butylbenzene

Concen: 2.359 ppbv

RT: 16.90 min Scan# 4344

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

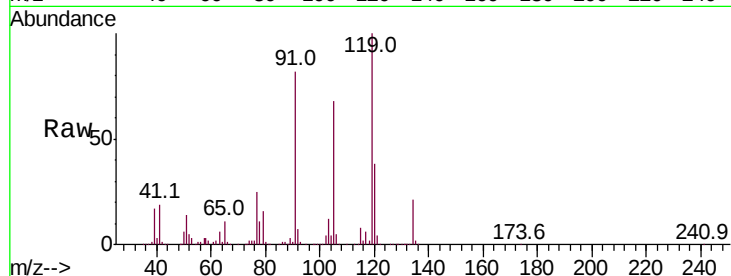
Tot Ion:119 Resp: 835117

Ion Ratio Lower Upper

119 100

91 85.3 65.9 98.9

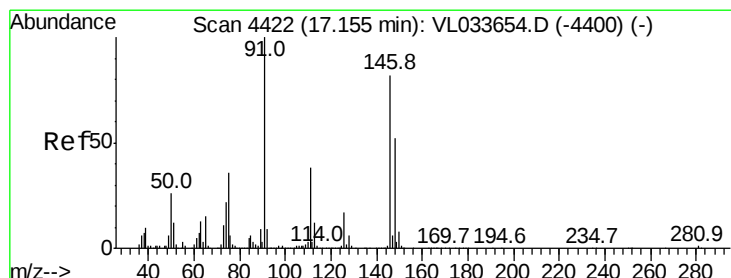
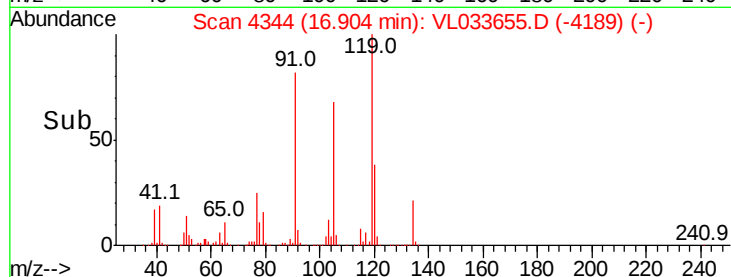
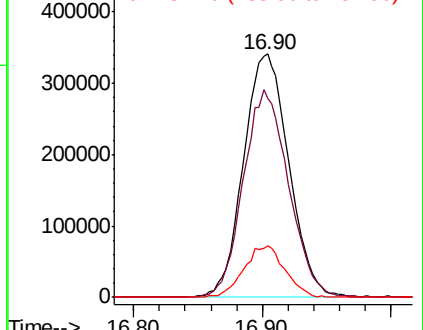
134 19.1 15.5 23.3



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: 2.196 ppbv

RT: 17.15 min Scan# 4420

Delta R.T. -0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

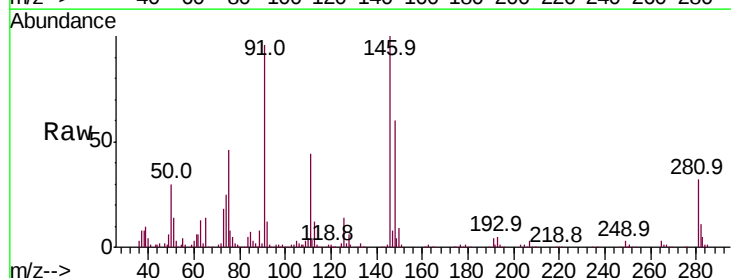
Tgt Ion: 91 Resp: 358528

Ion Ratio Lower Upper

91 100

126 16.6 13.4 20.2

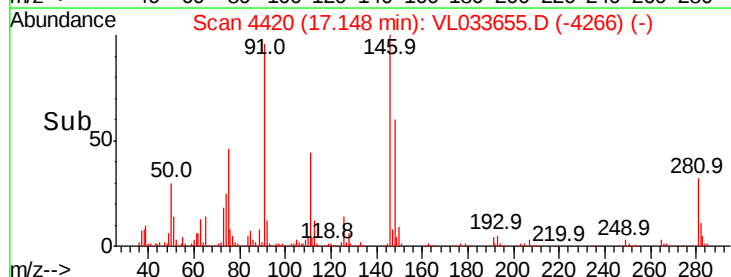
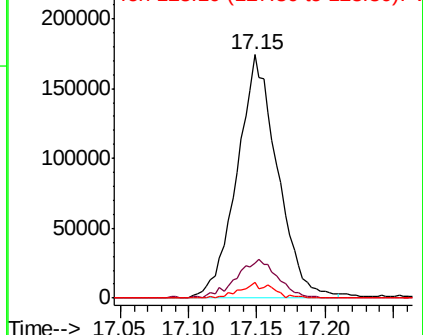
128 5.4 4.4 6.6

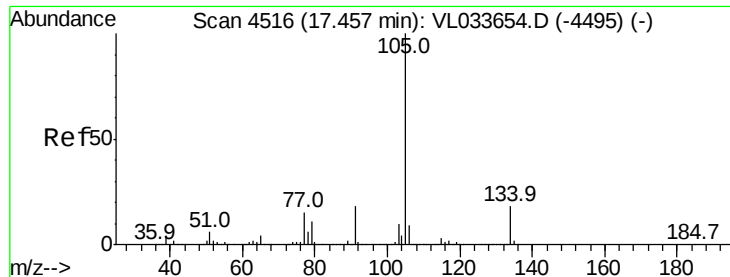


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 2.388 ppbv

RT: 17.45 min Scan# 4515

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

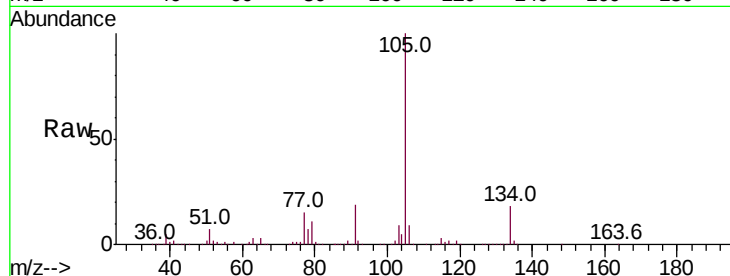
ClientSampleId :

Tot Ion:105 Resp: 1185259

Ion Ratio Lower Upper

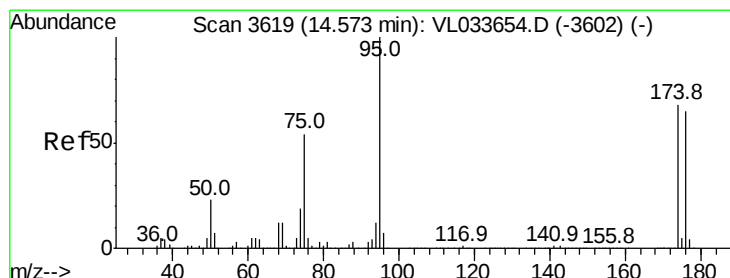
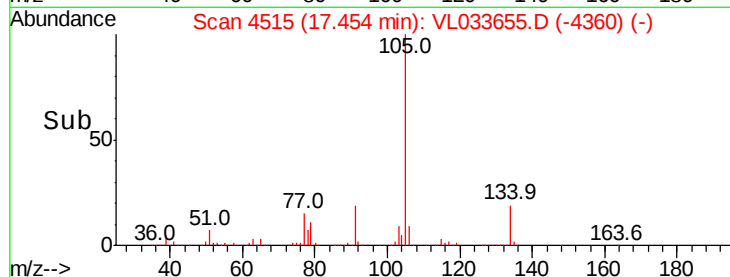
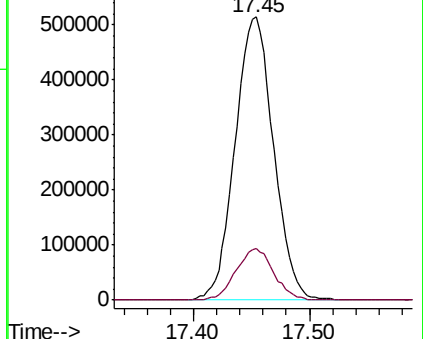
105 100

134 17.8 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: 9.960 ppbv

RT: 14.57 min Scan# 3618

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

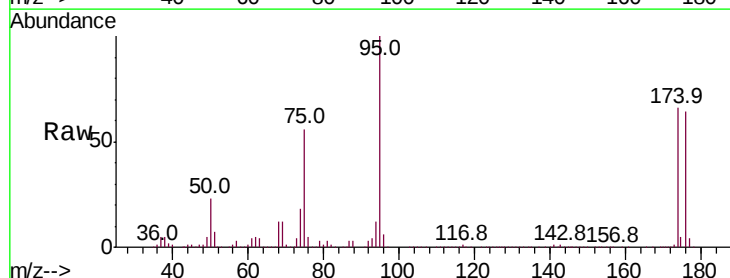
Tgt Ion: 95 Resp: 2073527

Ion Ratio Lower Upper

95 100

174 66.5 54.0 81.0

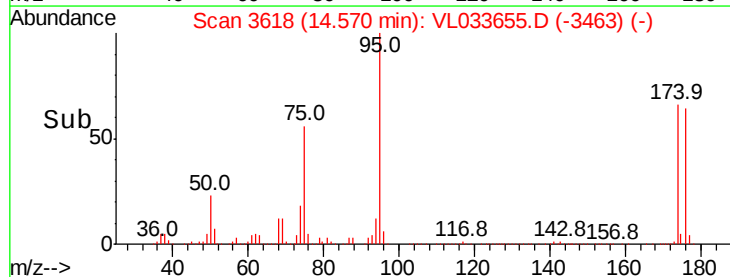
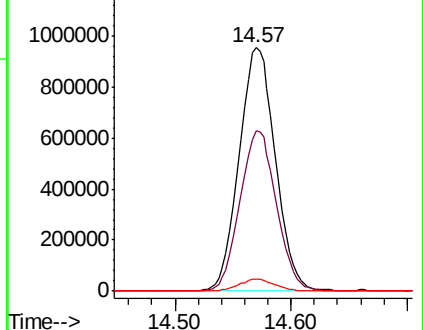
175 4.8 3.8 5.8

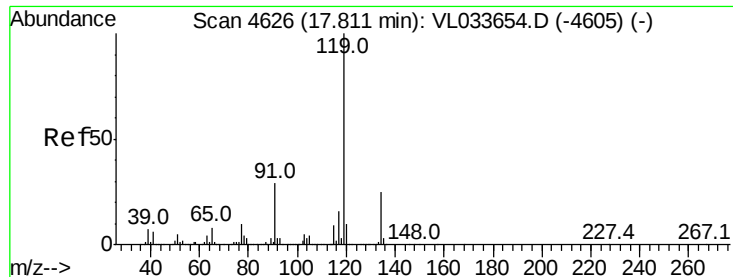


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

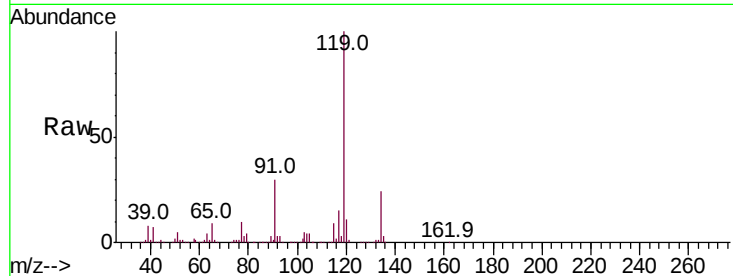




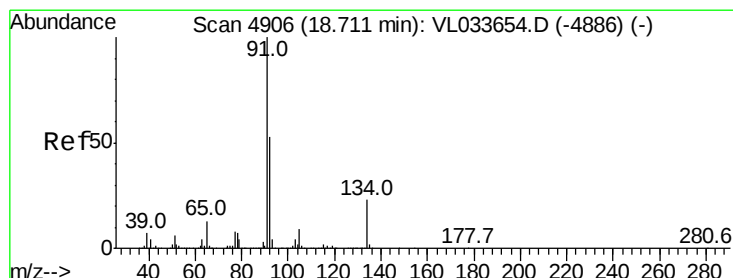
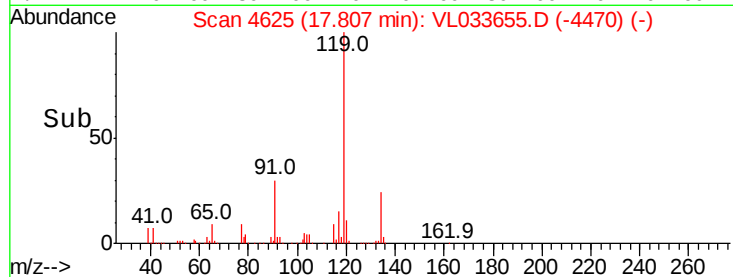
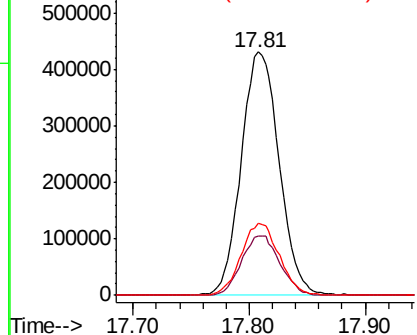
#69  
 p-Isopropyltoluene  
 Concen: 2.369 ppbv  
 RT: 17.81 min Scan# 4625  
 Delta R.T. -0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Instrument :  
 MSVOA\_L  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 24.8  | 20.2  | 30.2  |
| 91      | 29.9  | 23.3  | 34.9  |

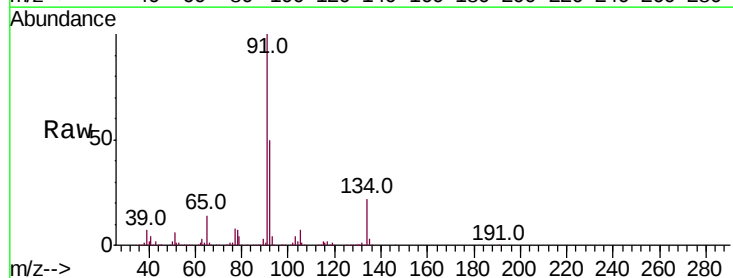


Abundance Ion 119.10 (118.80 to 119.80): V  
 Ion 134.20 (133.90 to 134.90): V  
 Ion 91.10 (90.80 to 91.80): V

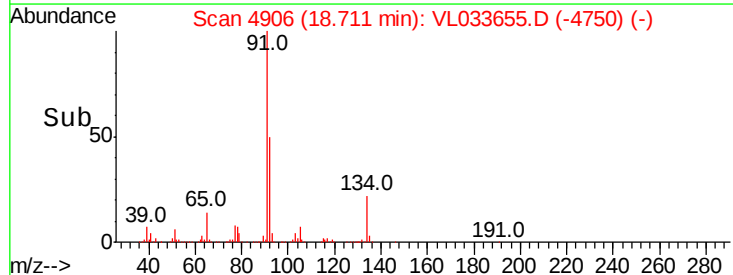
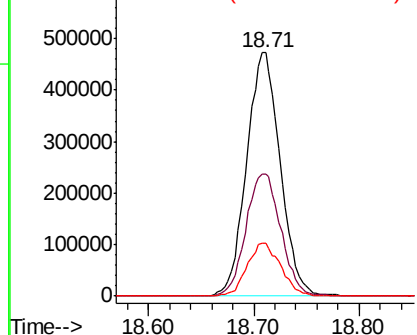


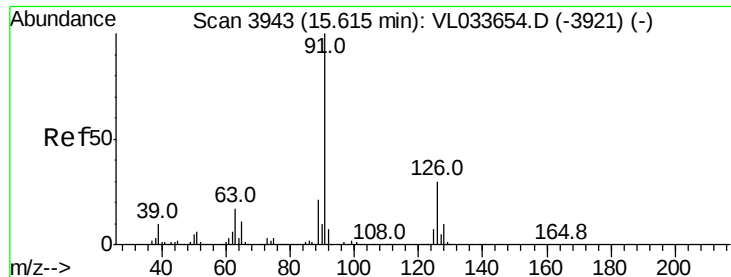
#70  
 n-Butylbenzene  
 Concen: 2.328 ppbv  
 RT: 18.71 min Scan# 4906  
 Delta R.T. 0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 52.1  | 42.5  | 63.7  |
| 134     | 21.7  | 18.0  | 27.0  |



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: 2.382 ppbv

RT: 15.61 min Scan# 3942

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

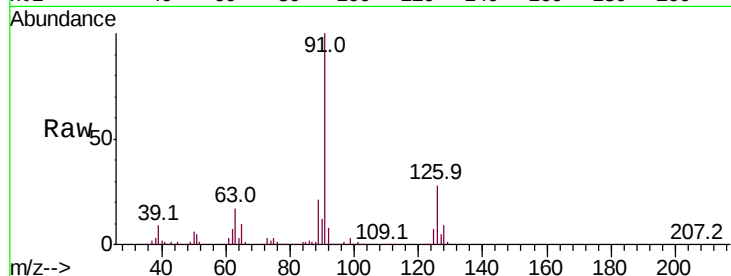
ClientSampled :

Tot Ion: 91 Resp: 676054

Ion Ratio Lower Upper

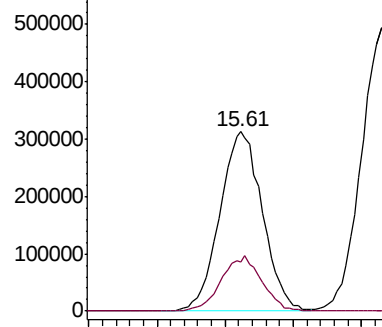
91 100

126 29.1 12.0 47.8

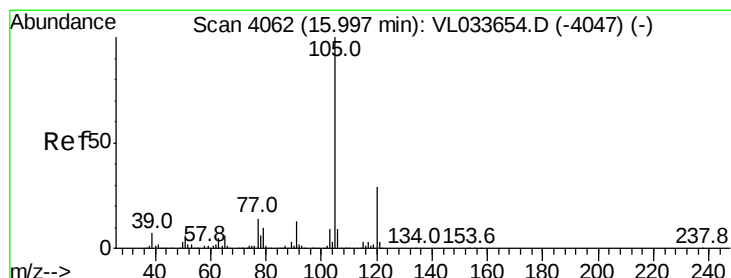
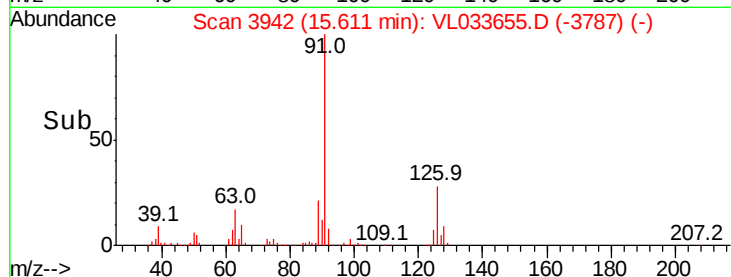


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



Time--> 15.50 15.55 15.60 15.65



#72

4-Ethyltoluene

Concen: 2.384 ppbv

RT: 15.99 min Scan# 4061

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Tgt Ion:105 Resp: 774454

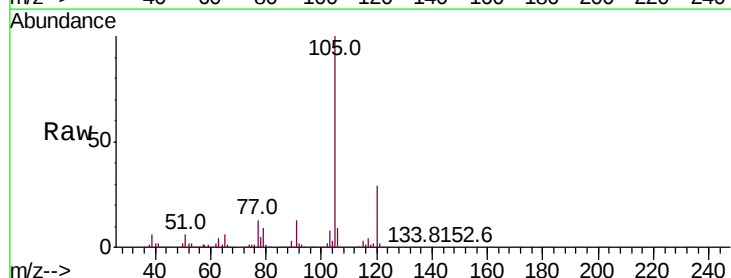
Ion Ratio Lower Upper

105 100

120 29.0 23.0 34.6

91 13.5 10.6 15.8

77 14.2 11.1 16.7

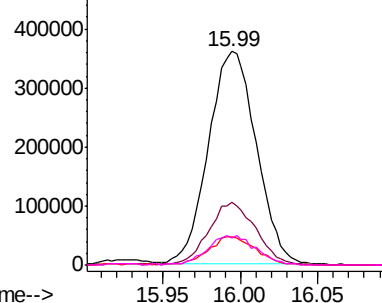


Abundance Ion 105.10 (104.80 to 105.80): V

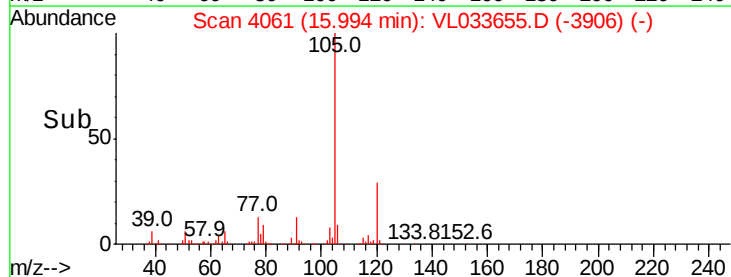
Ion 120.20 (119.90 to 120.90): V

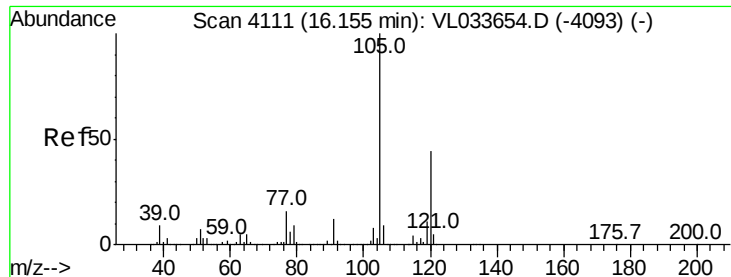
Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



Time--> 15.95 16.00 16.05

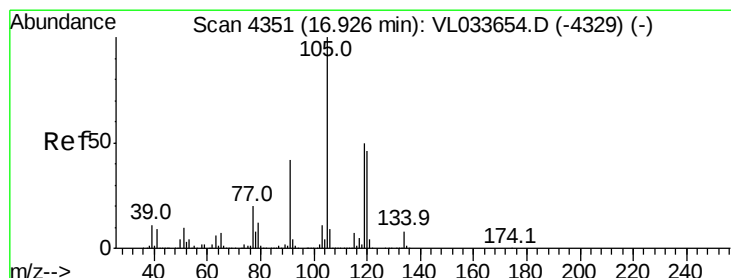
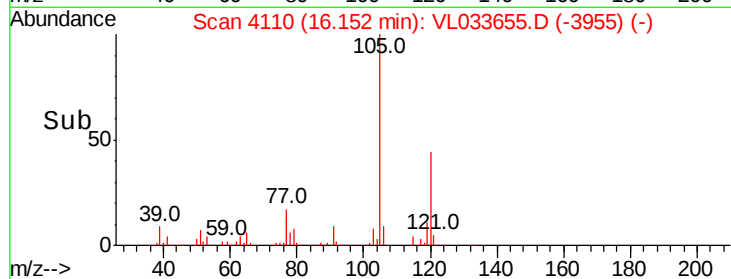
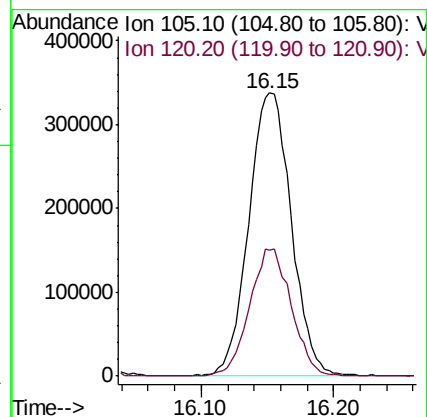
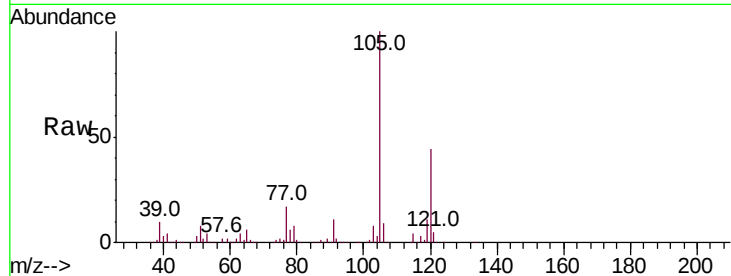




#73  
 1,3,5-Trimethylbenzene  
 Concen: 2.364 ppbv  
 RT: 16.15 min Scan# 4110  
 Delta R.T. -0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

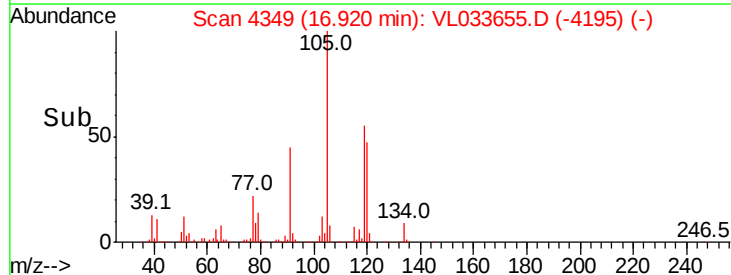
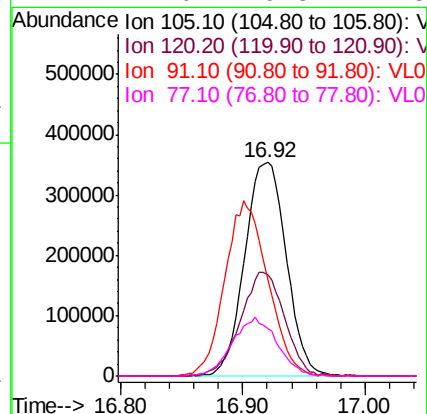
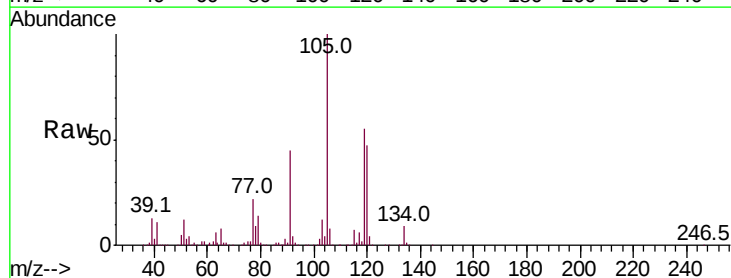
Instrument :  
 MSVOA\_L  
 ClientSampleId :

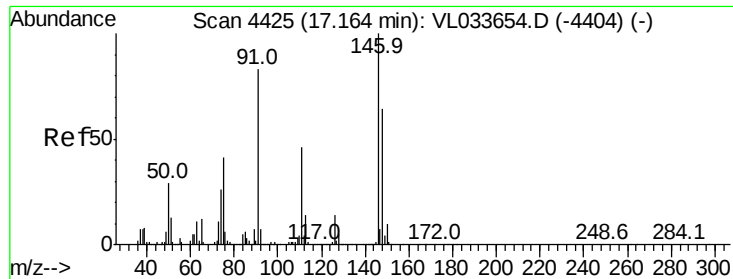
Tot Ion:105 Resp: 752282  
 Ion Ratio Lower Upper  
 105 100  
 120 44.4 35.5 53.3



#74  
 1,2,4-Trimethylbenzene  
 Concen: 2.360 ppbv  
 RT: 16.92 min Scan# 4349  
 Delta R.T. -0.01 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Tgt Ion:105 Resp: 833156  
 Ion Ratio Lower Upper  
 105 100  
 120 47.2 36.5 54.7  
 91 44.6 33.7 50.5  
 77 22.0 16.3 24.5





#75

1,3-Dichlorobenzene

Concen: 2.286 ppbv

RT: 17.16 min Scan# 4423

Delta R.T. -0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampled :

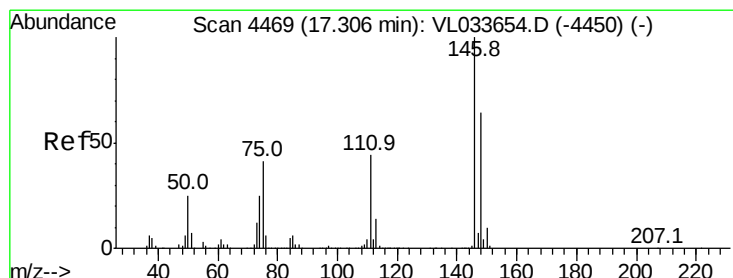
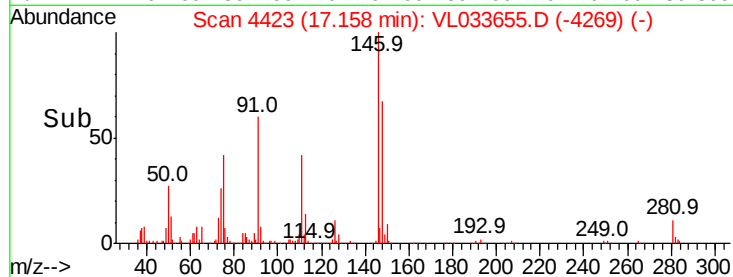
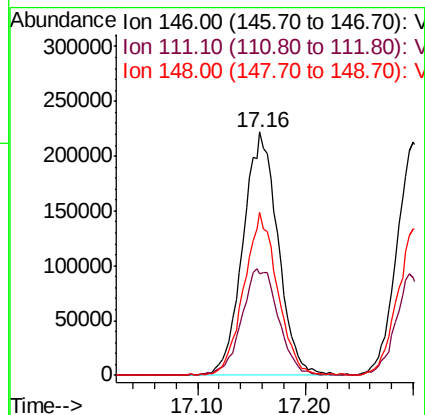
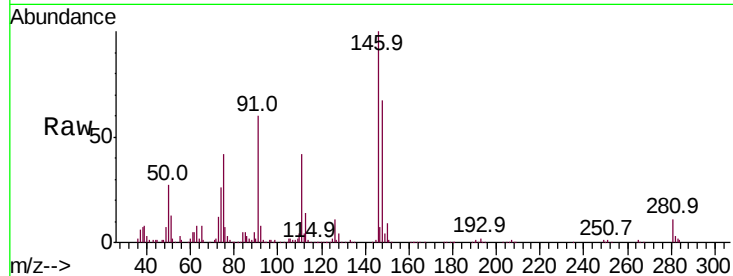
Tot Ion:146 Resp: 500603

Ion Ratio Lower Upper

146 100

111 46.2 22.6 67.7

148 64.2 31.8 95.4



#76

1,4-Dichlorobenzene

Concen: 2.289 ppbv

RT: 17.30 min Scan# 4467

Delta R.T. -0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

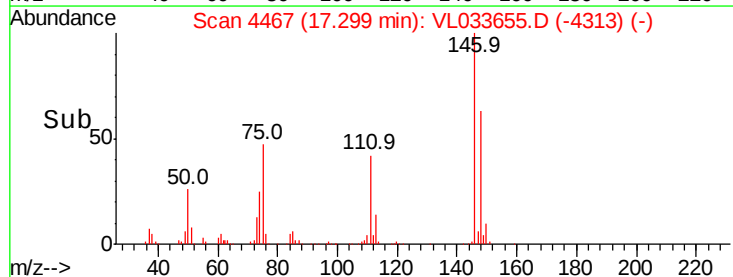
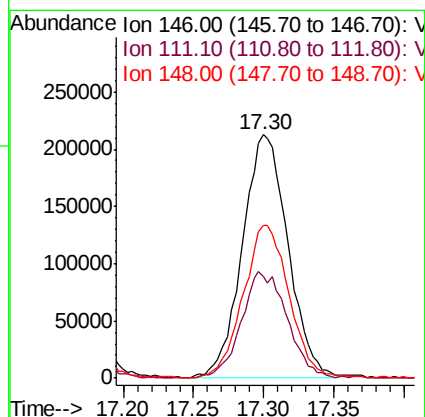
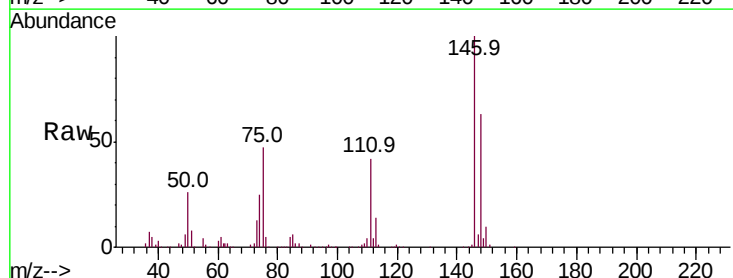
Tgt Ion:146 Resp: 478176

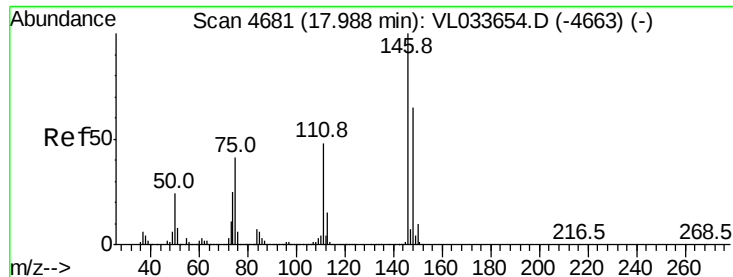
Ion Ratio Lower Upper

146 100

111 44.2 21.9 65.7

148 64.1 32.0 96.0





#77

1,2-Dichlorobenzene

Concen: 2.254 ppbv

RT: 17.98 min Scan# 4680

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

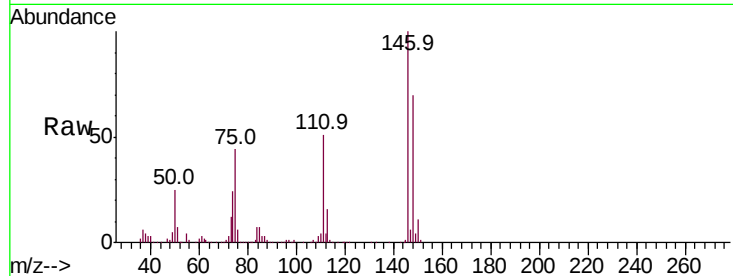
Tot Ion:146 Resp: 459732

Ion Ratio Lower Upper

146 100

111 47.6 23.4 70.0

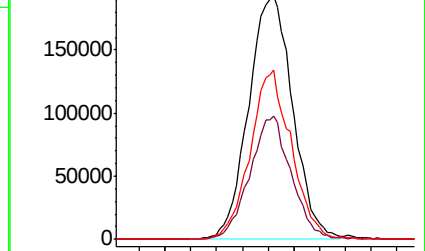
148 65.0 31.9 95.9



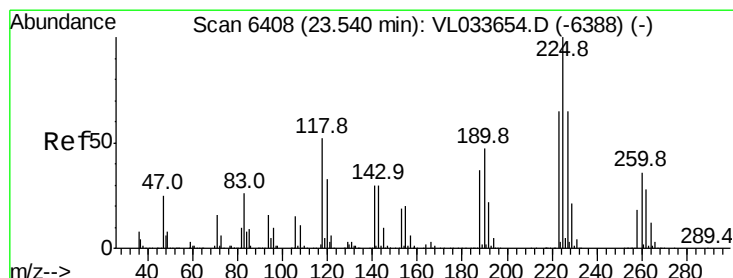
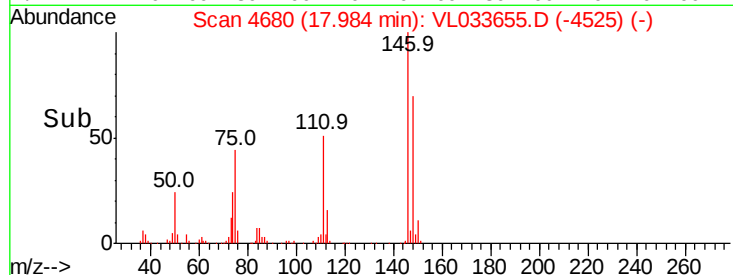
Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



Time-->



#78

Hexachloro-1,3-Butadiene

Concen: 1.188 ppbv

RT: 23.53 min Scan# 6406

Delta R.T. -0.01 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

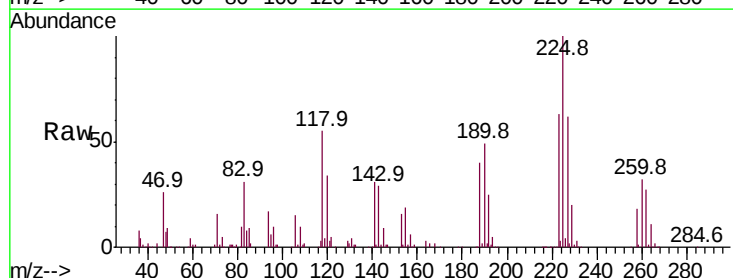
Tgt Ion:225 Resp: 184866

Ion Ratio Lower Upper

225 100

223 121.8 50.7 76.1#

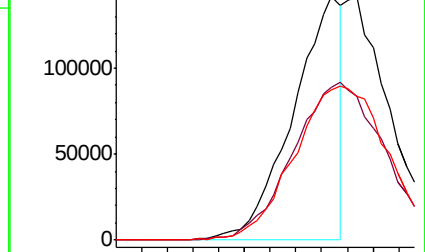
227 121.7 51.4 77.2#



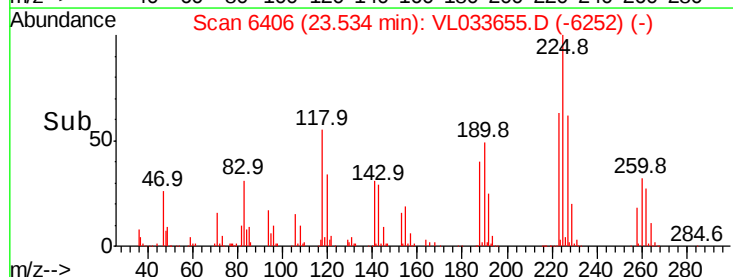
Abundance Ion 224.90 (224.60 to 225.60): V

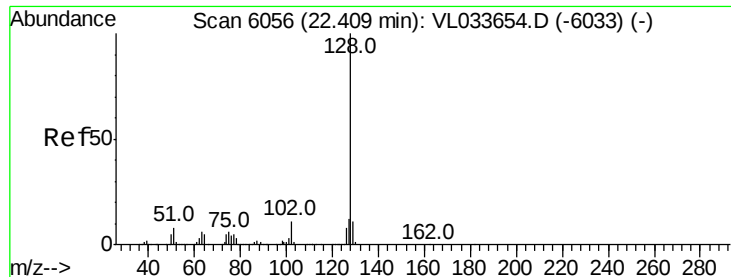
Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V



Time-->





#79

Naphthalene

Concen: 2.320 ppbv

RT: 22.41 min Scan# 6055

Delta R.T. -0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

Instrument :

MSVOA\_L

ClientSampleId :

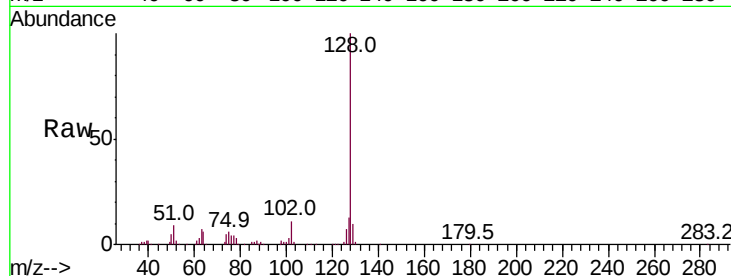
Tot Ion:128 Resp: 764403

Ion Ratio Lower Upper

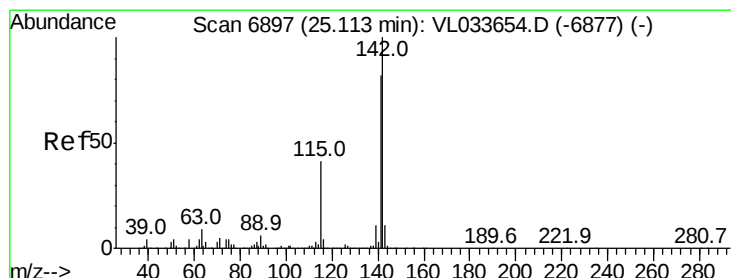
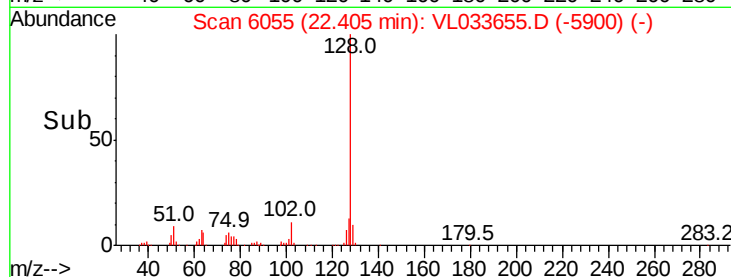
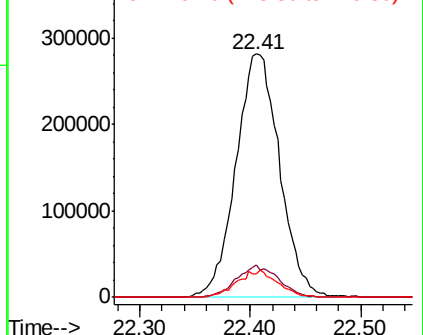
128 100

127 13.5 9.8 14.8

129 9.7 8.8 13.2



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: 1.934 ppbv

RT: 25.11 min Scan# 6897

Delta R.T. 0.00 min

Lab File: VL033655.D

Acq: 6 May 2019 11:39

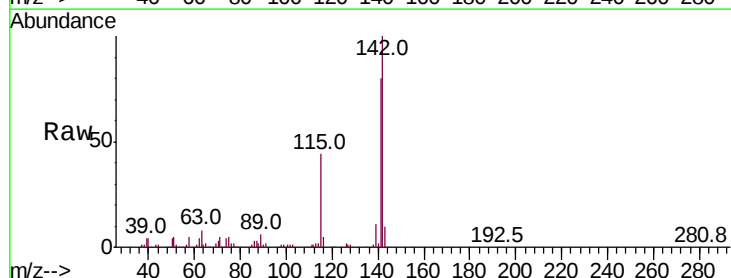
Tgt Ion:142 Resp: 270388

Ion Ratio Lower Upper

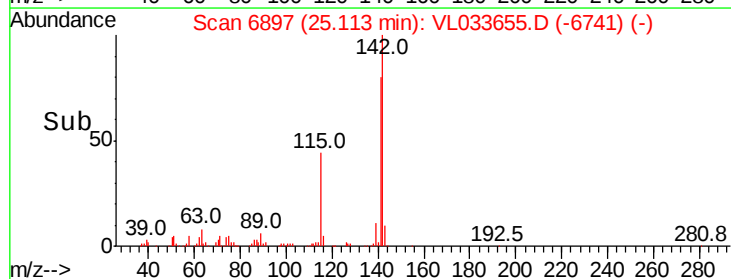
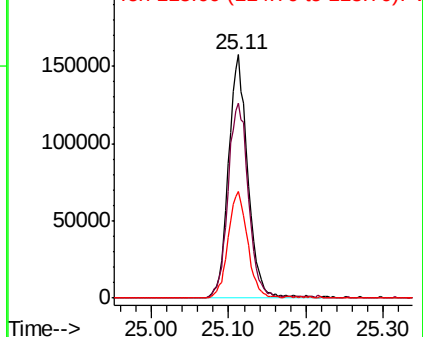
142 100

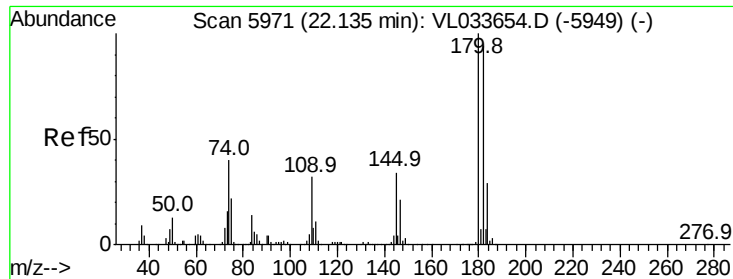
141 84.8 67.8 101.8

115 44.4 34.2 51.4



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: 1.128 ppbv  
 RT: 22.13 min Scan# 5970  
 Delta R.T. -0.00 min  
 Lab File: VL033655.D  
 Acq: 6 May 2019 11:39

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:180 Resp: 214061  
 Ion Ratio Lower Upper  
 180 100  
 182 194.8 77.4 116.0#  
 184 61.7 24.6 36.8#

