

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121118\  
 Data File : VL032955.D  
 Acq On : 11 Dec 2018 15:20  
 Operator : SY/AP  
 Sample : VL1211ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Dec 12 00:50:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Dec 07 09:35:17 2018  
 QLast Update : Fri Dec 07 09:35:17 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1290673  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3401834  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 4078199  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2668831  | 8.86     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 88.60% |

| Target Compounds               |      |     |         |        | Ovalue    |
|--------------------------------|------|-----|---------|--------|-----------|
| 2) Dichlorodifluoromethane     | 3.08 | 85  | 1767636 | 10.259 | ppbv 98   |
| 3) Chlorodifluoromethane       | 3.02 | 51  | 933987  | 9.555  | ppbv 100  |
| 4) Chloromethane               | 3.17 | 50  | 530556  | 9.323  | ppbv 96   |
| 5) Vinyl Chloride              | 3.29 | 62  | 554285  | 9.573  | ppbv 99   |
| 6) Bromomethane                | 3.52 | 94  | 365075  | 10.081 | ppbv 97   |
| 7) Chloroethane                | 3.61 | 64  | 211000  | 10.167 | ppbv 98   |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85  | 1417663 | 9.901  | ppbv 100  |
| 9) Propene                     | 3.04 | 41  | 370591  | 9.588  | ppbv 99   |
| 10) Heptane                    | 8.25 | 43  | 1660832 | 11.439 | ppbv 99   |
| 11) Trichlorofluoromethane     | 4.01 | 101 | 1572227 | 9.685  | ppbv 99   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101 | 1424905 | 10.288 | ppbv 98   |
| 13) Ethanol                    | 3.65 | 45  | 95496   | 7.176  | ppbv 94   |
| 14) Bromoethene                | 3.79 | 108 | 467257  | 10.162 | ppbv 100  |
| 15) Acetone                    | 3.91 | 43  | 976563  | 8.815  | ppbv 99   |
| 16) 1,3-Butadiene              | 3.37 | 39  | 452675  | 10.299 | ppbv 96   |
| 17) tert-Butyl alcohol         | 4.36 | 59  | 327716  | 11.619 | ppbv # 81 |
| 18) 1,1-Dichloroethene         | 4.36 | 96  | 650250  | 11.988 | ppbv 98   |
| 19) Isopropyl Alcohol          | 4.03 | 45  | 657340  | 9.448  | ppbv 100  |
| 20) Methylene Chloride         | 4.41 | 84  | 553869  | 10.229 | ppbv 97   |
| 21) Allyl Chloride             | 4.48 | 41  | 1011918 | 11.209 | ppbv 99   |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96  | 607721  | 9.027  | ppbv 98   |
| 23) Vinyl Acetate              | 5.16 | 43  | 1869132 | 9.965  | ppbv 99   |
| 24) 1,1-Dichloroethane         | 5.10 | 63  | 1718346 | 10.535 | ppbv 99   |
| 25) Ethyl Acetate              | 5.77 | 43  | 2557402 | 9.772  | ppbv 100  |
| 26) Hexane                     | 5.79 | 57  | 1188310 | 9.835  | ppbv 99   |
| 27) Carbon Disulfide           | 4.62 | 76  | 1631027 | 10.797 | ppbv 100  |
| 28) Methyl tert-Butyl Ether    | 5.12 | 73  | 1895392 | 10.445 | ppbv 99   |
| 29) Chloroform                 | 5.86 | 83  | 2129380 | 9.877  | ppbv 97   |
| 30) Cyclohexane                | 7.25 | 84  | 1081641 | 10.801 | ppbv 99   |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61  | 1261508 | 11.378 | ppbv 99   |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97  | 2253625 | 9.880  | ppbv 99   |
| 34) 2-Butanone                 | 5.34 | 43  | 1195856 | 8.070  | ppbv 99   |
| 35) Carbon Tetrachloride       | 7.14 | 117 | 2437620 | 9.116  | ppbv 98   |
| 36) Benzene                    | 7.01 | 78  | 2544668 | 10.170 | ppbv 100  |
| 37) 1,2-Dichloroethane         | 6.42 | 62  | 1607493 | 9.436  | ppbv 99   |
| 38) Trichloroethene            | 7.97 | 130 | 1092962 | 10.496 | ppbv 98   |
| 39) 1,2-Dichloropropane        | 7.74 | 63  | 976312  | 10.289 | ppbv 96   |
| 40) 1,4-Dioxane                | 7.97 | 88  | 365929  | 10.469 | ppbv # 94 |
| 41) Tetrahydrofuran            | 6.15 | 42  | 919329  | 9.976  | ppbv 99   |
| 42) Bromodichloromethane       | 7.93 | 83  | 2398969 | 10.164 | ppbv 98   |
| 43) Methyl Methacrylate        | 8.15 | 69  | 1043077 | 11.250 | ppbv 98   |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121118\  
 Data File : VL032955.D  
 Acq On : 11 Dec 2018 15:20  
 Operator : SY/AP  
 Sample : VL1211ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

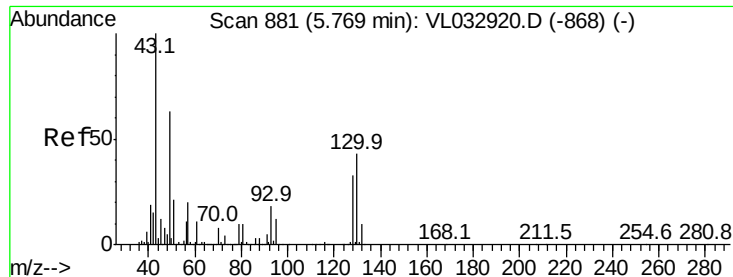
Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Dec 12 00:50:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Dec 07 09:35:17 2018  
 QLast Update : Fri Dec 07 09:35:17 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.00  | 57   | 4471615  | 10.528 | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1414115  | 12.440 | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.84  | 75   | 1610481  | 11.575 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.62  | 97   | 1096768  | 10.501 | ppbv   | 99       |
| 48) Dibromochloromethane      | 10.46 | 129  | 2089699  | 10.665 | ppbv   | 100      |
| 49) Bromoform                 | 13.21 | 173  | 1780329  | 11.047 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.88  | 43   | 2501659  | 10.558 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.28 | 43   | 1928186  | 11.999 | ppbv   | 99       |
| 52) Tetrachloroethene         | 11.38 | 164  | 1008381  | 11.079 | ppbv   | 98       |
| 53) Toluene                   | 9.96  | 91   | 3290786  | 12.401 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 1712626  | 10.496 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.29 | 131  | 1460184  | 8.031  | ppbv   | 99       |
| 57) Chlorobenzene             | 12.31 | 112  | 2330760  | 7.913  | ppbv   | 98       |
| 58) Ethyl Benzene             | 12.88 | 91   | 4186645  | 9.623  | ppbv   | 99       |
| 59) m/p-Xylene                | 13.15 | 91   | 3299522  | 8.365  | ppbv # | 100      |
| 60) o-Xylene                  | 13.86 | 91   | 3724166  | 9.350  | ppbv   | 100      |
| 61) Styrene                   | 13.70 | 104  | 2575082  | 9.719  | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.84 | 105  | 5336233  | 9.602  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 2562721  | 8.286  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.73 | 120  | 1249894  | 8.659  | ppbv   | 100      |
| 65) tert-Butylbenzene         | 16.92 | 119  | 4616436  | 8.960  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.17 | 91   | 2728170  | 9.554  | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.47 | 105  | 6220359  | 8.189  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.83 | 119  | 5191460  | 8.433  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.73 | 91   | 5319850  | 9.393  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.63 | 91   | 3638997  | 8.805  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.01 | 105  | 4023361  | 9.047  | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.17 | 105  | 3884241  | 8.947  | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.94 | 105  | 4206076  | 8.580  | ppbv   | 98       |
| 75) 1,3-Dichlorobenzene       | 17.18 | 146  | 2369429  | 8.208  | ppbv   | 100      |
| 76) 1,4-Dichlorobenzene       | 17.32 | 146  | 2233660  | 8.292  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 2209091  | 8.195  | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.55 | 225  | 978802   | 6.602  | ppbv   | 99       |
| 79) Naphthalene               | 22.42 | 128  | 3093938  | 9.775  | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.12 | 142  | 803211   | 11.877 | ppbv   | 100      |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 1538185  | 9.163  | ppbv   | 100      |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :  
MSVOA\_L  
ClientSampled :

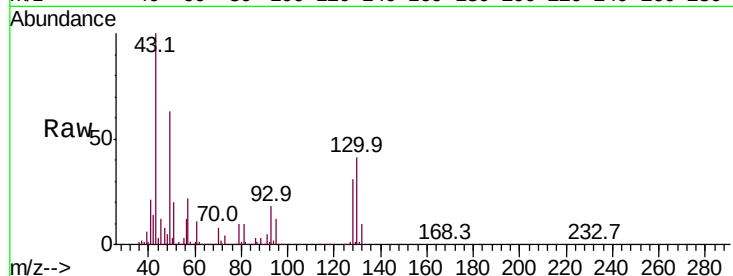
Tot Ion: 49 Resp: 1290673

Ion Ratio Lower Upper

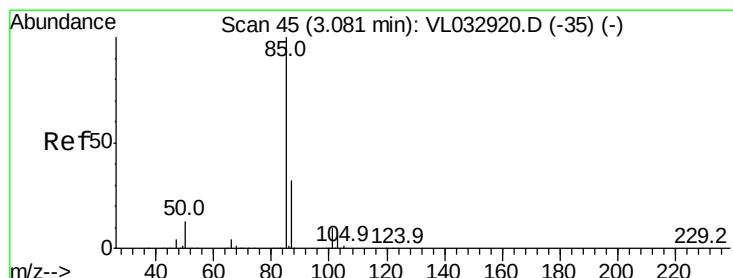
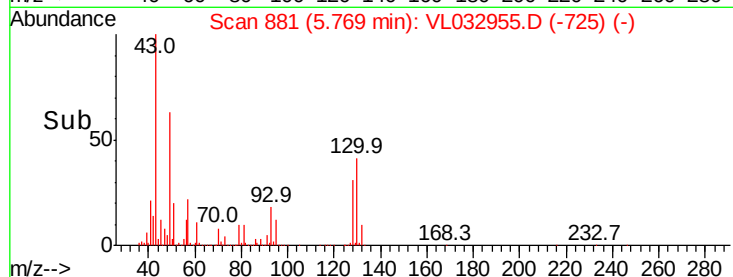
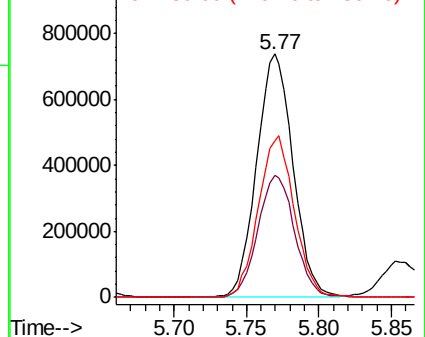
49 100

128 51.3 26.3 78.8

130 66.0 33.9 101.7



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: 10.259 ppbv

RT: 3.08 min Scan# 45

Delta R.T. 0.00 min

Lab File: VL032955.D

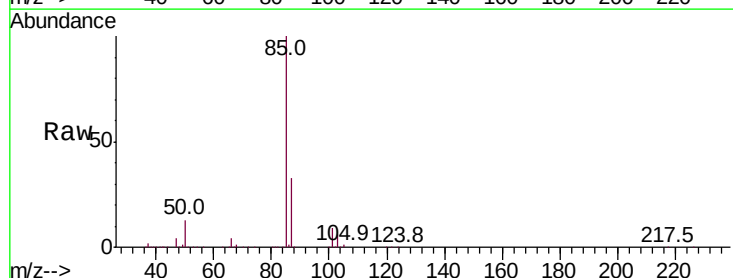
Acq: 11 Dec 2018 15:20

Tgt Ion: 85 Resp: 1767636

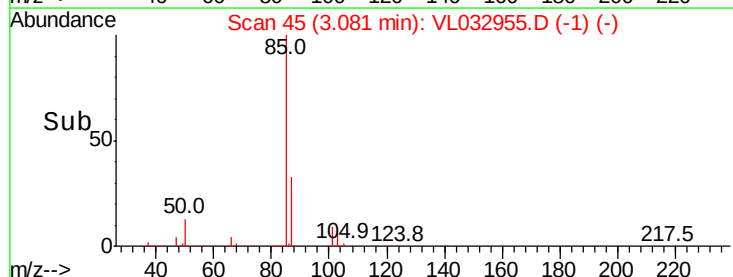
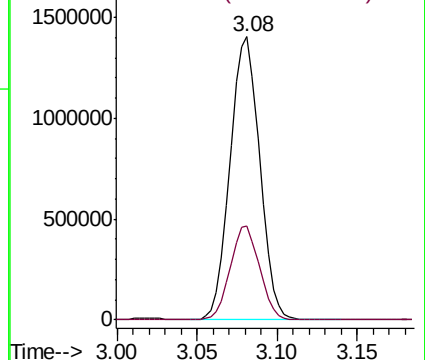
Ion Ratio Lower Upper

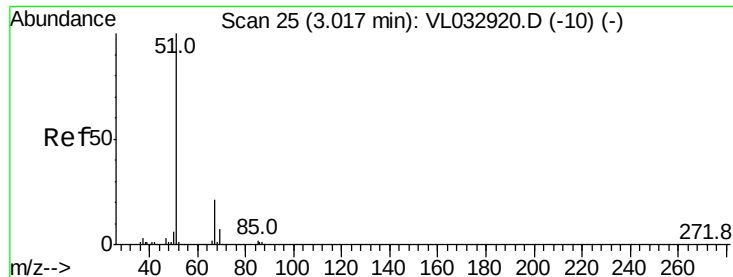
85 100

87 33.0 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0  
Ion 87.00 (86.70 to 87.70): VL0

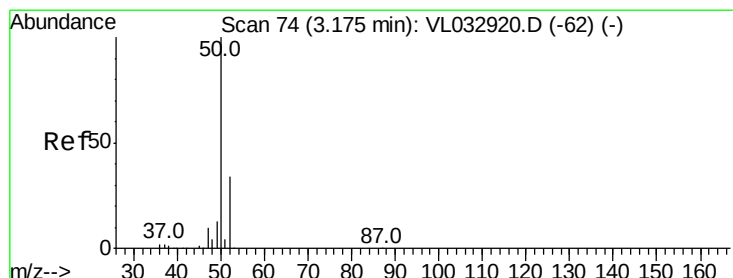
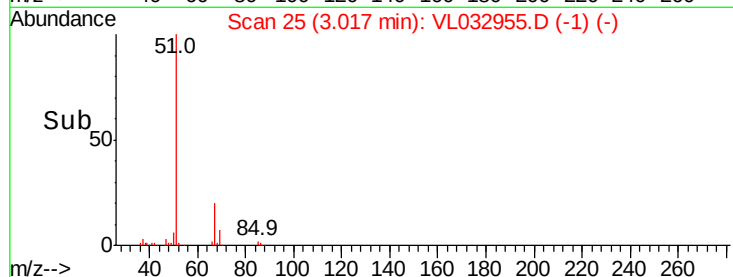
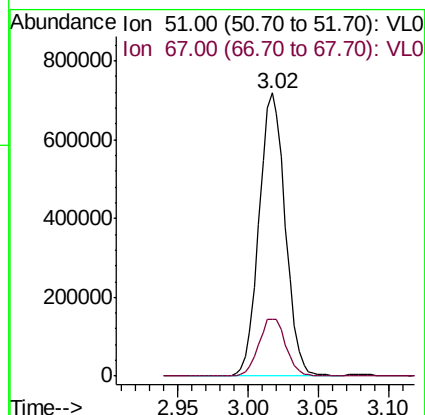
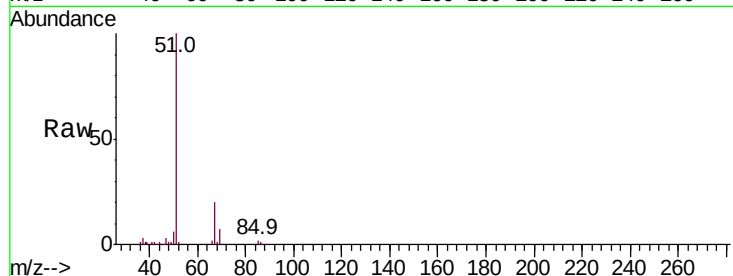




#3  
 Chlorodifluoromethane  
 Concen: 9.555 ppbv  
 RT: 3.02 min Scan# 25  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

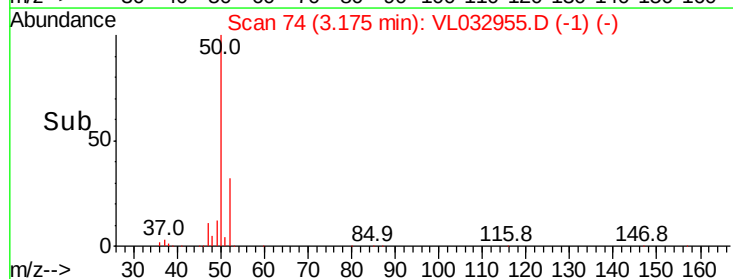
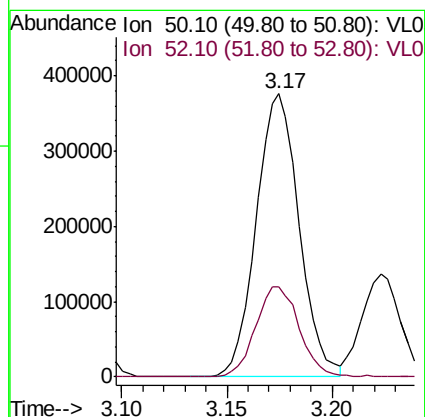
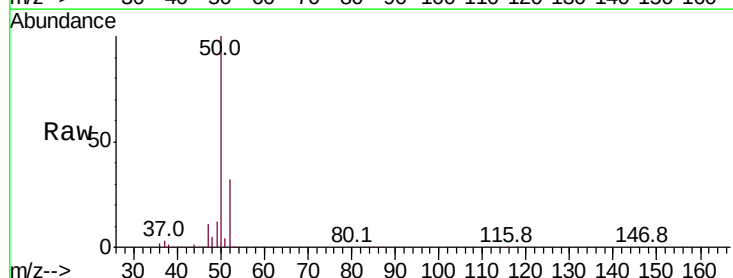
Instrument :  
 MSVOA\_L  
 ClientSampleId :

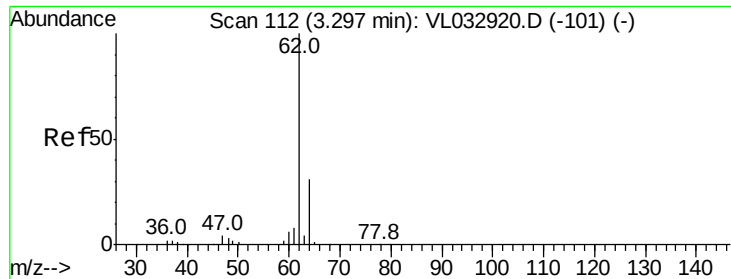
Tot Ion: 51 Resp: 933987  
 Ion Ratio Lower Upper  
 51 100  
 67 21.2 16.8 25.2



#4  
 Chloromethane  
 Concen: 9.323 ppbv  
 RT: 3.17 min Scan# 74  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Tgt Ion: 50 Resp: 530556  
 Ion Ratio Lower Upper  
 50 100  
 52 31.9 27.3 40.9





#5

Vinyl Chloride

Concen: 9.573 ppbv

RT: 3.29 min Scan# 111

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

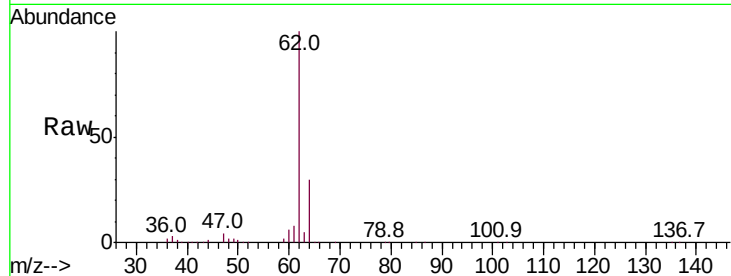
ClientSampleId :

Tot Ion: 62 Resp: 554285

Ion Ratio Lower Upper

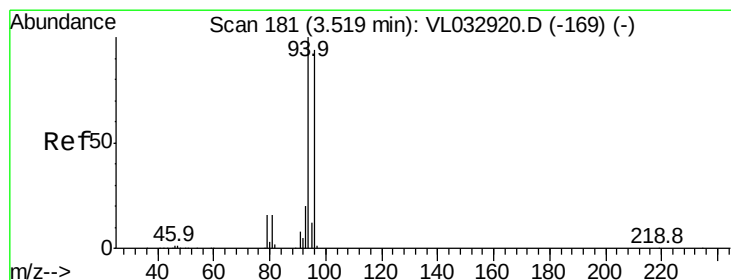
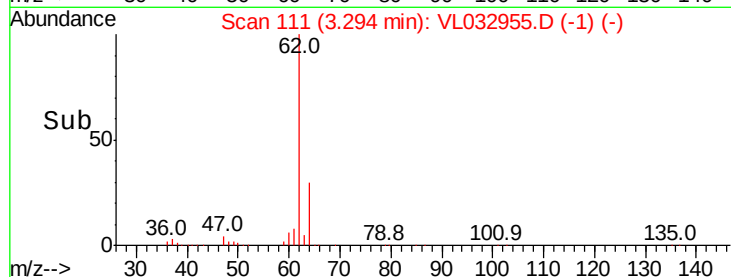
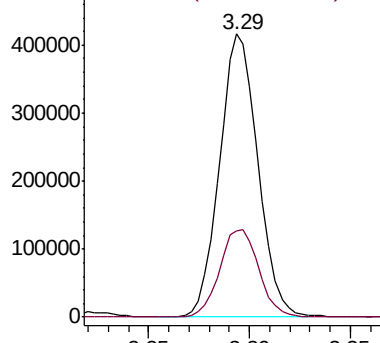
62 100

64 30.5 24.8 37.2



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 10.081 ppbv

RT: 3.52 min Scan# 181

Delta R.T. 0.00 min

Lab File: VL032955.D

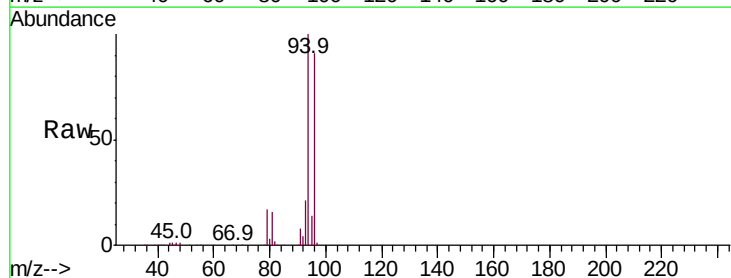
Acq: 11 Dec 2018 15:20

Tgt Ion: 94 Resp: 365075

Ion Ratio Lower Upper

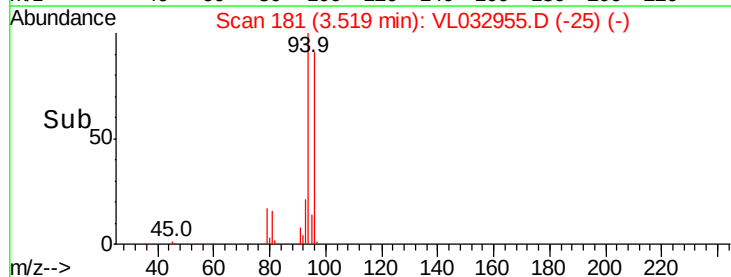
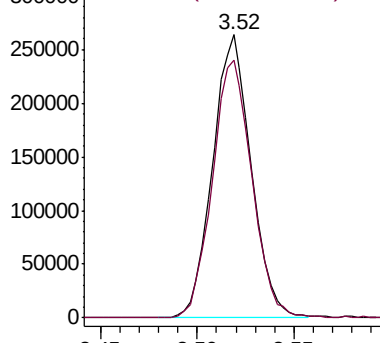
94 100

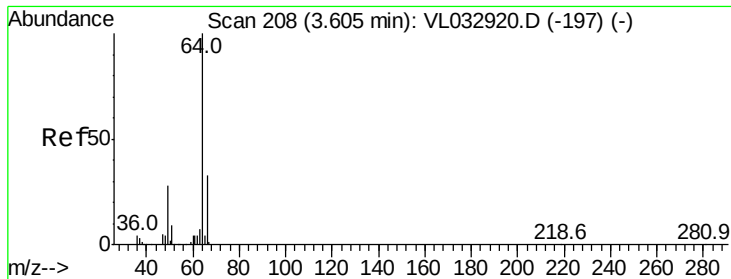
96 91.1 75.5 113.3



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 10.167 ppbv

RT: 3.61 min Scan# 208

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

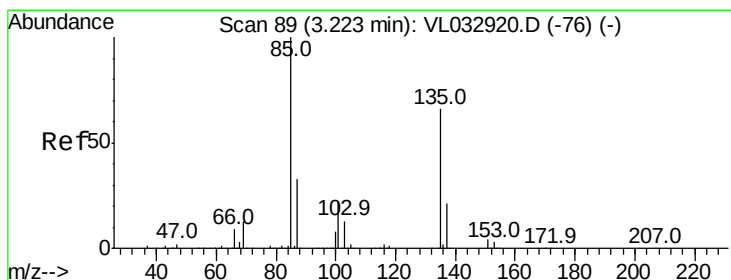
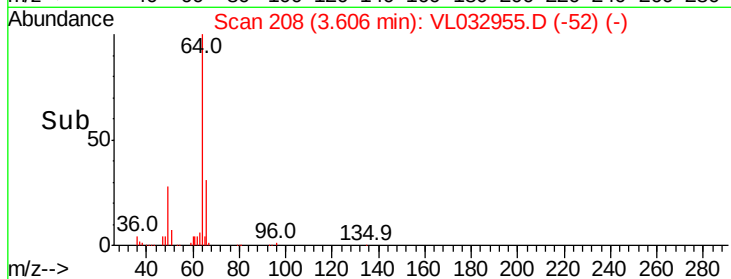
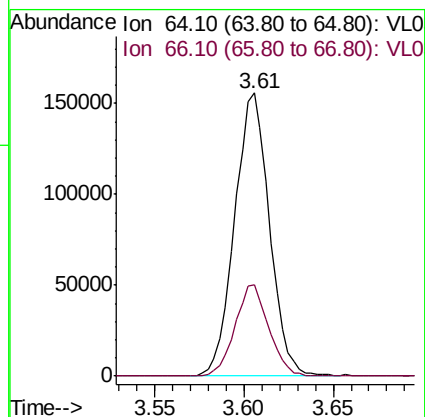
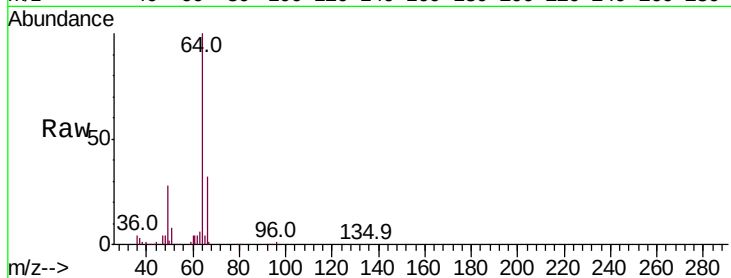
ClientSampleId :

Tot Ion: 64 Resp: 211000

Ion Ratio Lower Upper

64 100

66 32.1 26.6 40.0



#8

Dichlorotetrafluoroethane

Concen: 9.901 ppbv

RT: 3.22 min Scan# 89

Delta R.T. 0.00 min

Lab File: VL032955.D

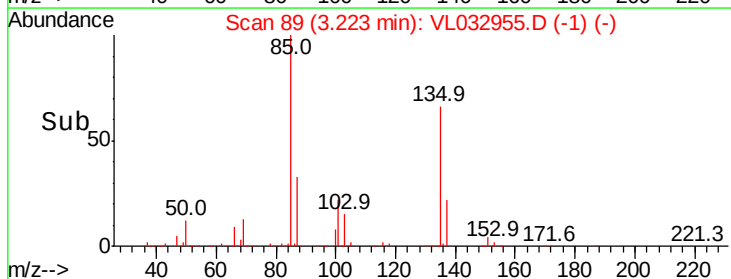
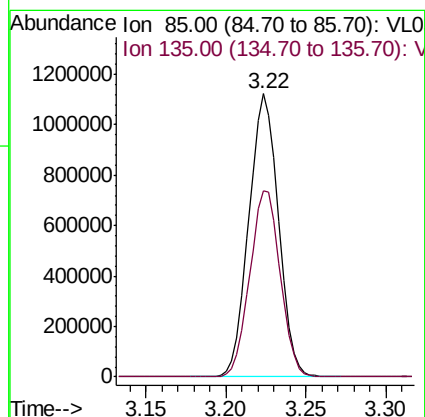
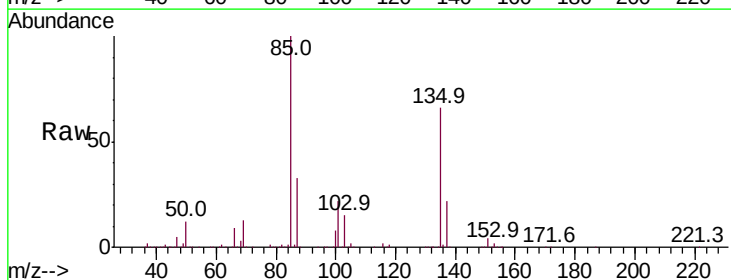
Acq: 11 Dec 2018 15:20

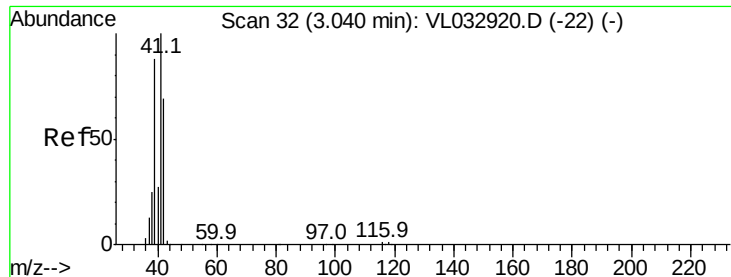
Tgt Ion: 85 Resp: 1417663

Ion Ratio Lower Upper

85 100

135 67.8 54.5 81.7





#9

Propene

Concen: 9.588 ppbv

RT: 3.04 min Scan# 32

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

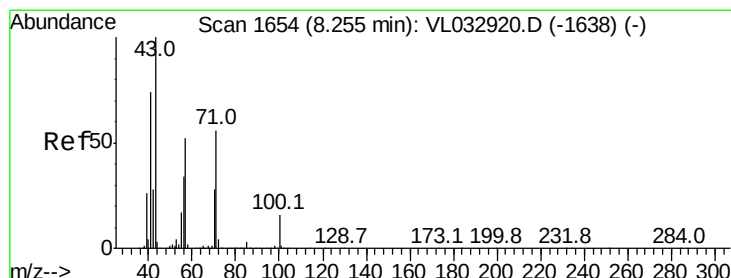
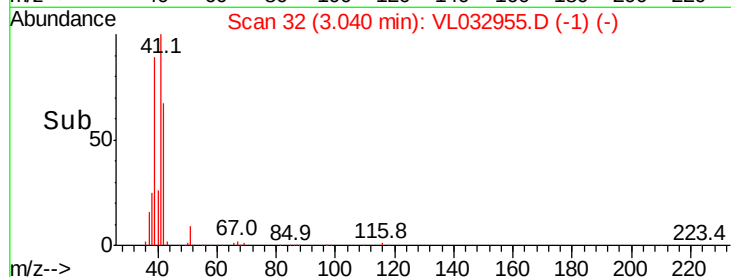
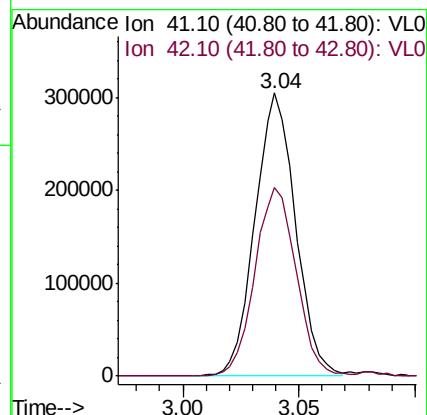
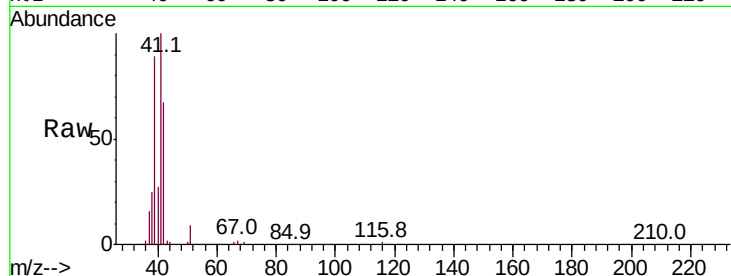
ClientSampleId :

Tot Ion: 41 Resp: 370591

Ion Ratio Lower Upper

41 100

42 69.1 56.2 84.2



#10

Heptane

Concen: 11.439 ppbv

RT: 8.25 min Scan# 1654

Delta R.T. 0.00 min

Lab File: VL032955.D

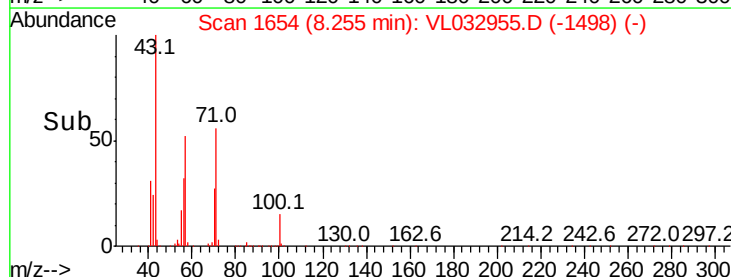
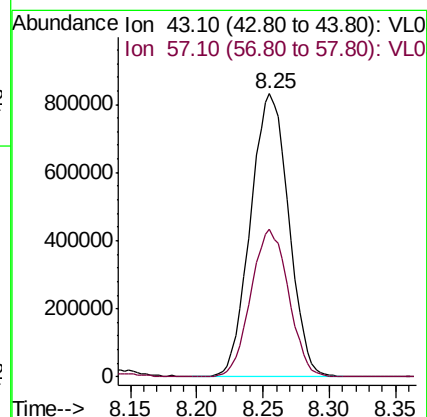
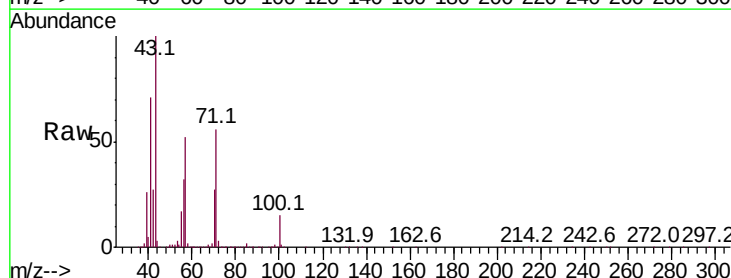
Acq: 11 Dec 2018 15:20

Tgt Ion: 43 Resp: 1660832

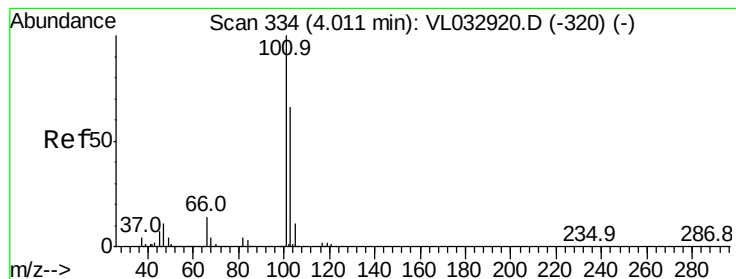
Ion Ratio Lower Upper

43 100

57 51.7 41.8 62.6







#11

Trichlorofluoromethane

Concen: 9.685 ppbv

RT: 4.01 min Scan# 333

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

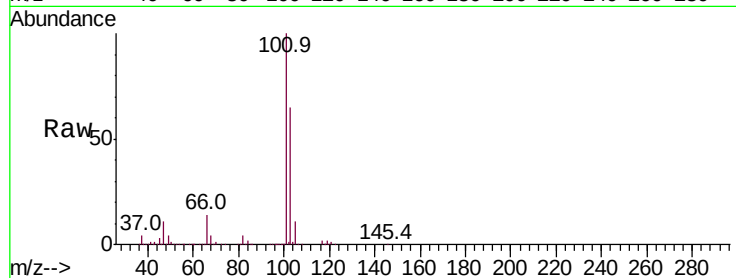
ClientSampled :

Tot Ion:101 Resp: 1572227

Ion Ratio Lower Upper

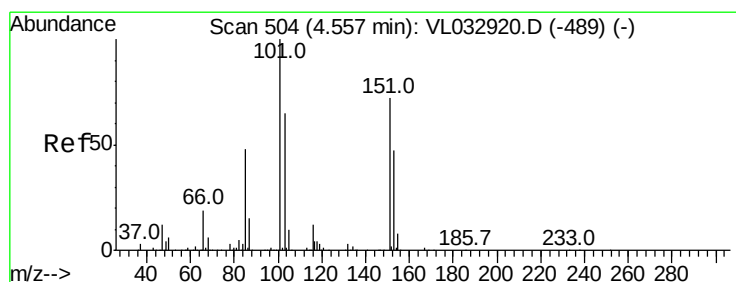
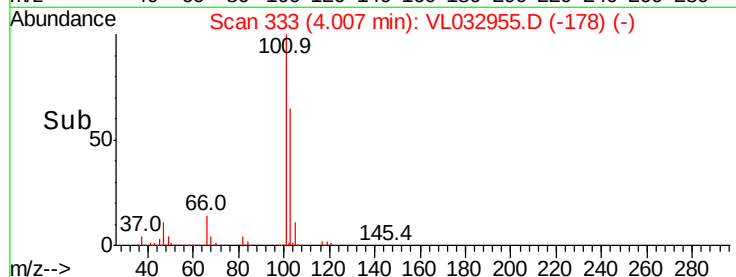
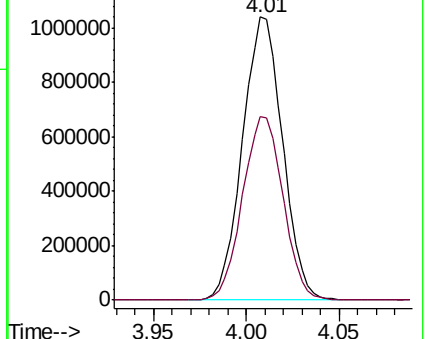
101 100

103 65.0 52.7 79.1



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: 10.288 ppbv

RT: 4.56 min Scan# 504

Delta R.T. 0.00 min

Lab File: VL032955.D

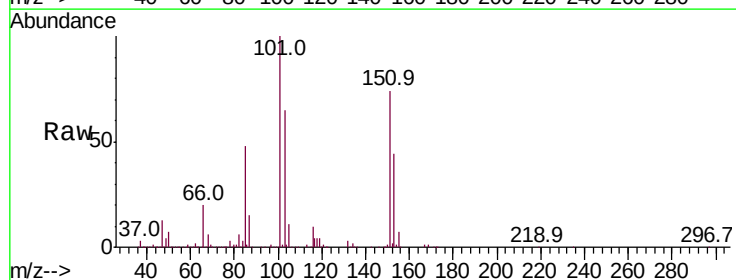
Acq: 11 Dec 2018 15:20

Tgt Ion:101 Resp: 1424905

Ion Ratio Lower Upper

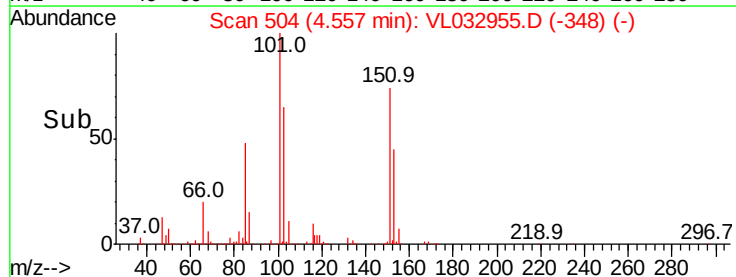
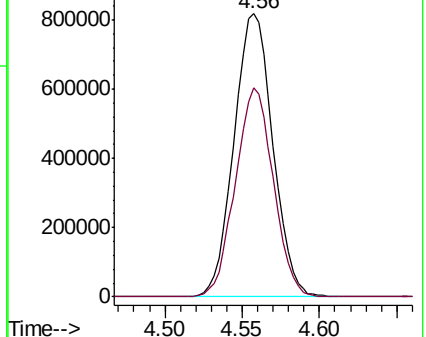
101 100

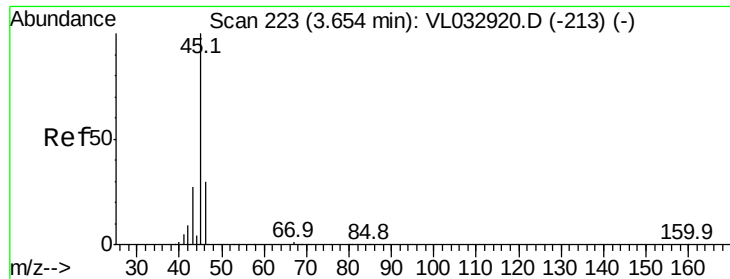
151 72.4 59.3 88.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 7.176 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

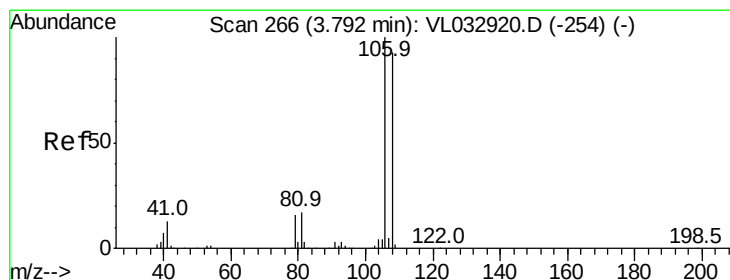
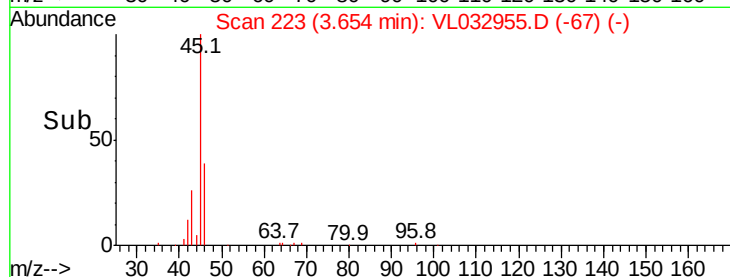
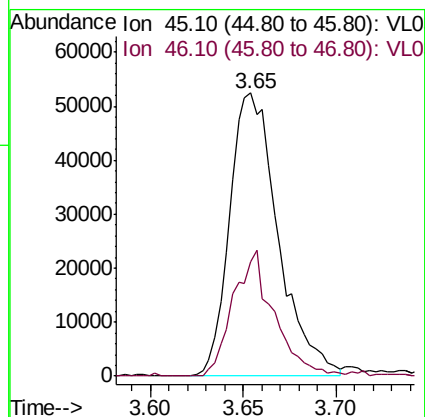
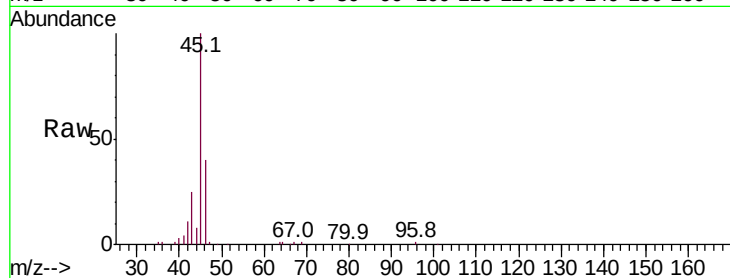
ClientSampled :

Tot Ion: 45 Resp: 95496

Ion Ratio Lower Upper

45 100

46 38.3 13.8 55.4



#14

Bromoethene

Concen: 10.162 ppbv

RT: 3.79 min Scan# 266

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

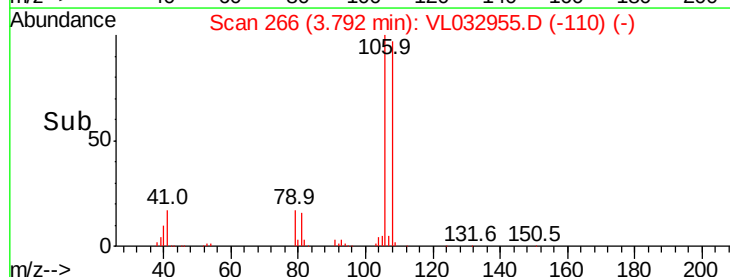
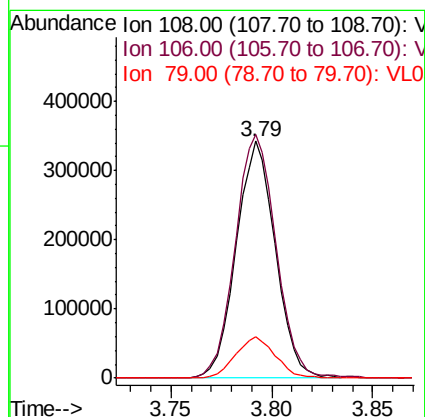
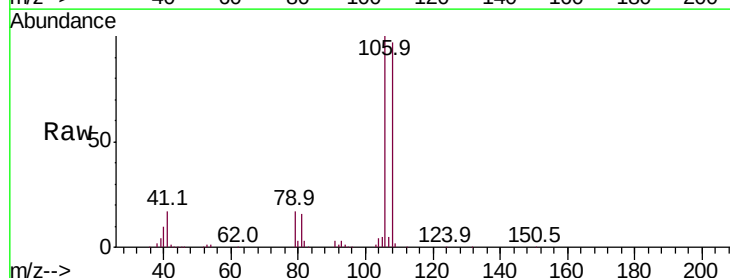
Tgt Ion: 108 Resp: 467257

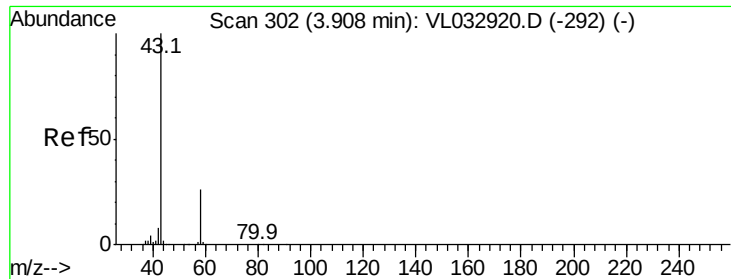
Ion Ratio Lower Upper

108 100

106 107.3 85.4 128.2

79 17.9 14.6 21.8





#15

Acetone

Concen: 8.815 ppbv

RT: 3.91 min Scan# 302

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

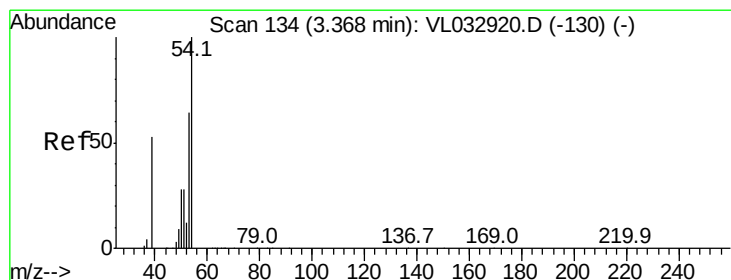
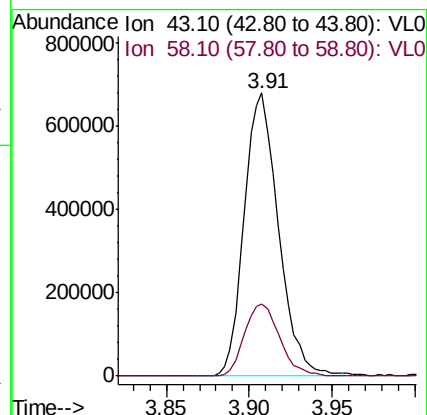
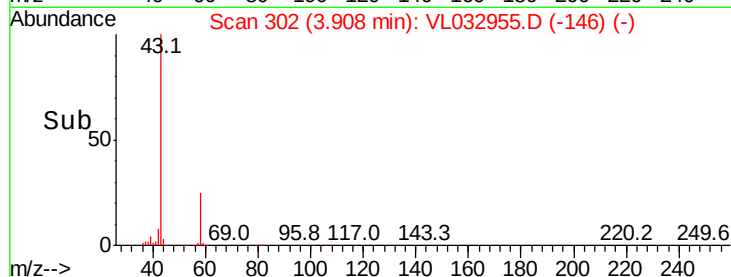
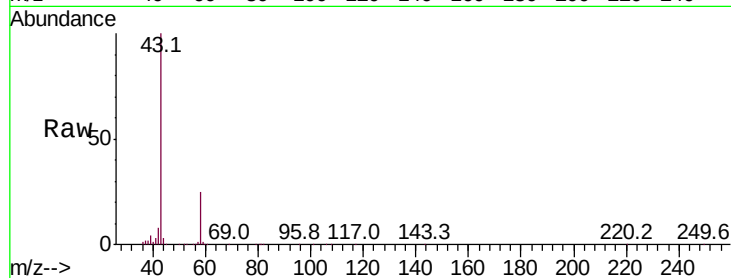
Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 976563

Ion Ratio Lower Upper

43 100

58 26.4 20.6 30.8



#16

1,3-Butadiene

Concen: 10.299 ppbv

RT: 3.37 min Scan# 134

Delta R.T. 0.00 min

Lab File: VL032955.D

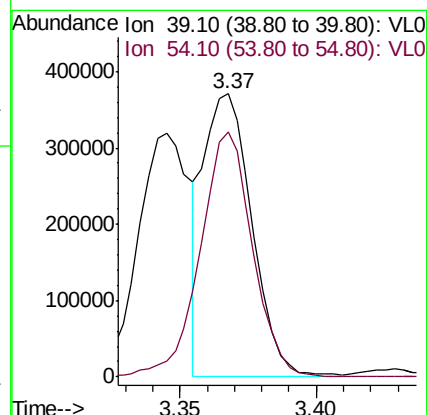
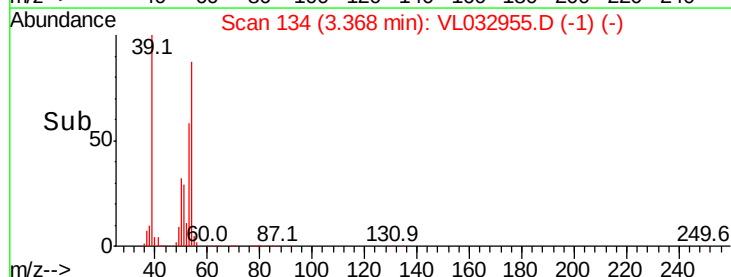
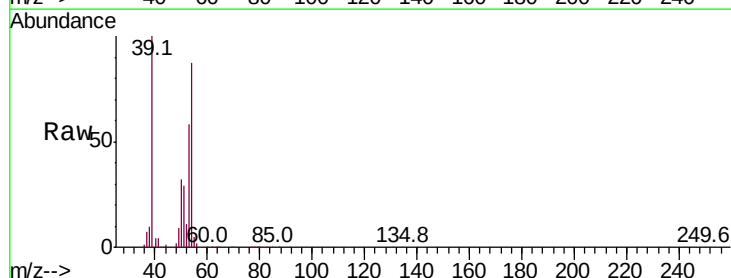
Acq: 11 Dec 2018 15:20

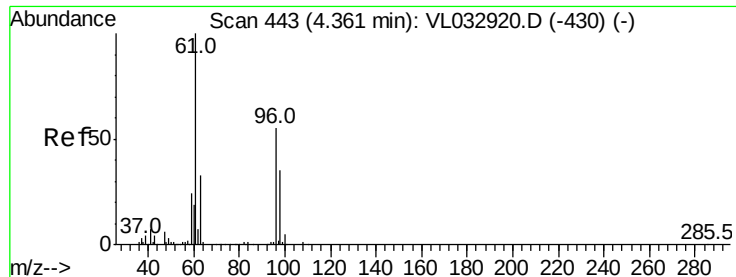
Tgt Ion: 39 Resp: 452675

Ion Ratio Lower Upper

39 100

54 95.0 72.7 109.1





#17

tert-Butyl alcohol

Concen: 11.619 ppbv

RT: 4.36 min Scan# 443

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

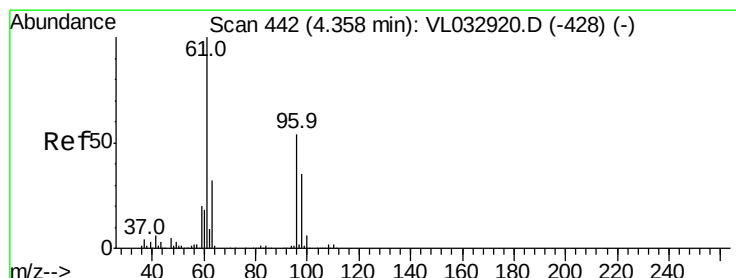
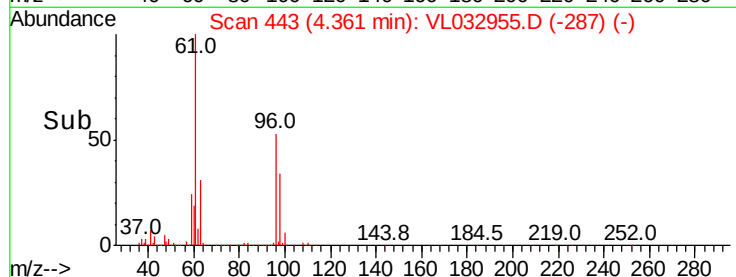
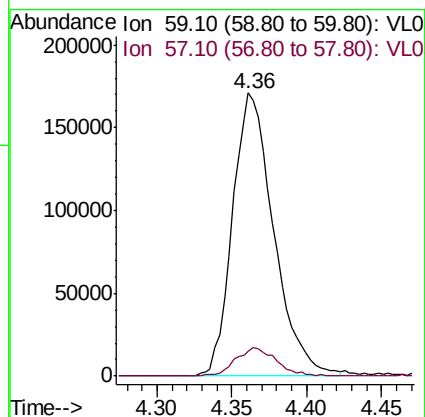
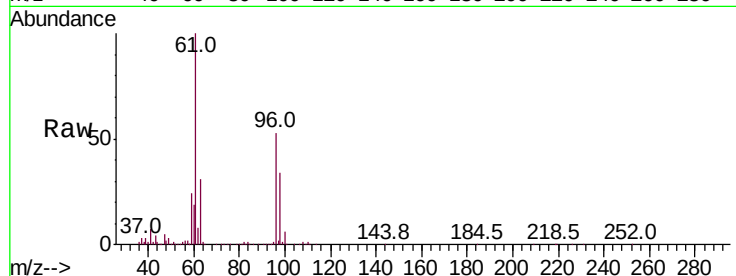
ClientSampleId :

Tot Ion: 59 Resp: 327716

Ion Ratio Lower Upper

59 100

57 10.0 0.6 1.0#



#18

1,1-Dichloroethene

Concen: 11.988 ppbv

RT: 4.36 min Scan# 442

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

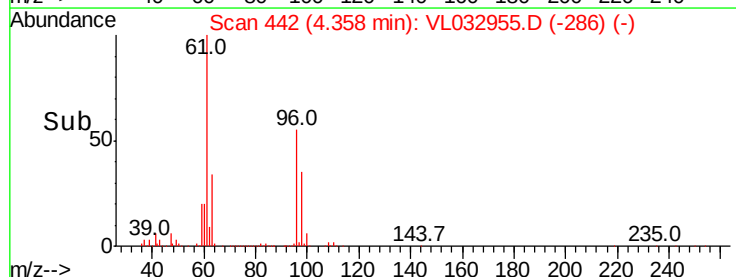
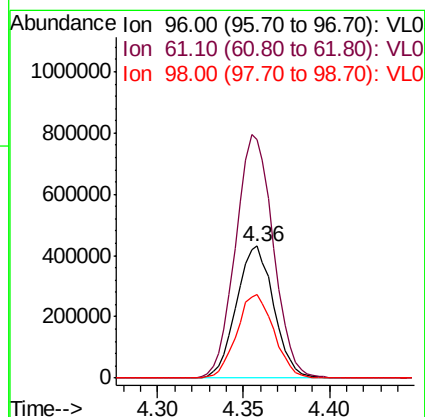
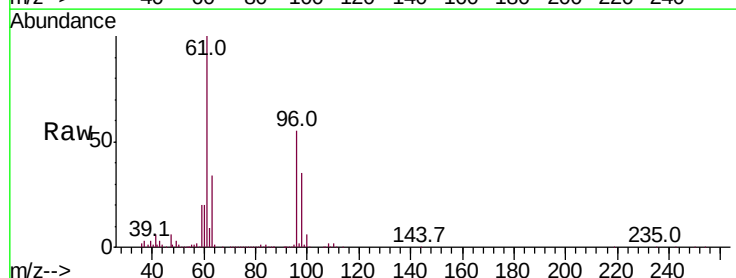
Tgt Ion: 96 Resp: 650250

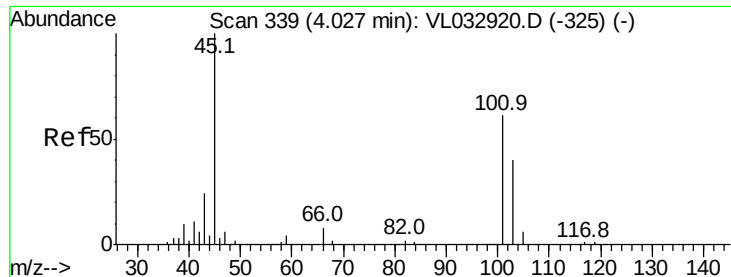
Ion Ratio Lower Upper

96 100

61 180.1 147.0 220.4

98 63.7 50.7 76.1





#19

Isopropyl Alcohol

Concen: 9.448 ppbv

RT: 4.03 min Scan# 339

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

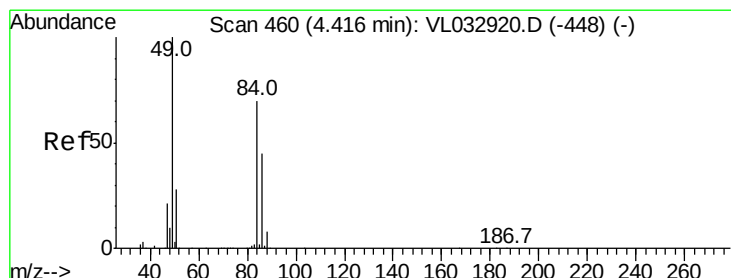
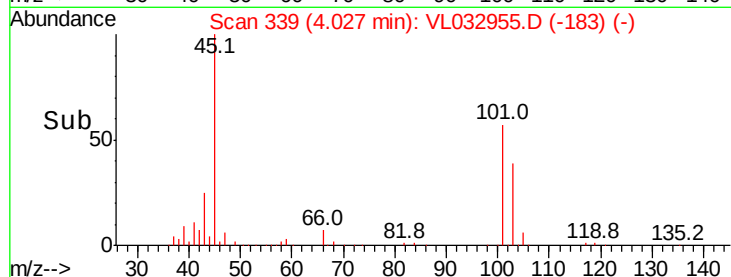
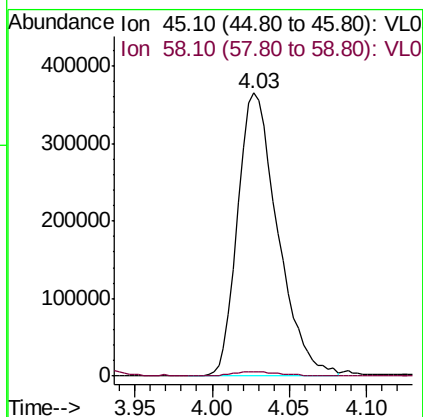
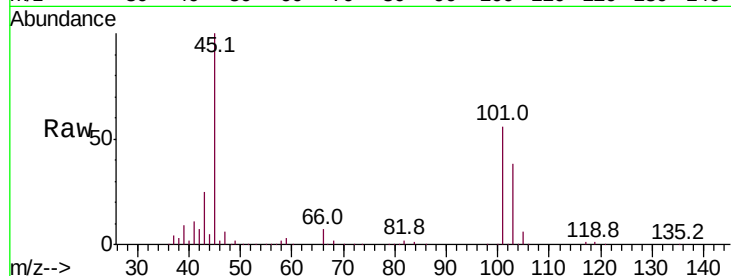
ClientSampleId :

Tot Ion: 45 Resp: 657340

Ion Ratio Lower Upper

45 100

58 1.9 1.4 2.2



#20

Methylene Chloride

Concen: 10.229 ppbv

RT: 4.41 min Scan# 459

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Tgt Ion: 84 Resp: 553869

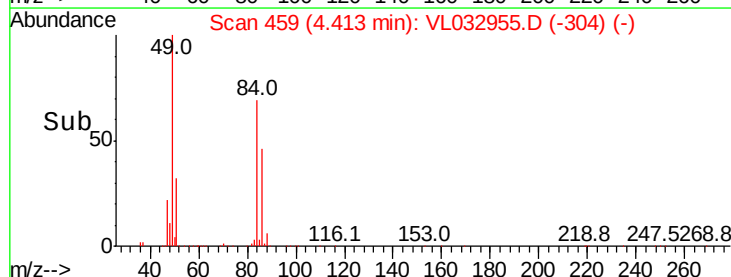
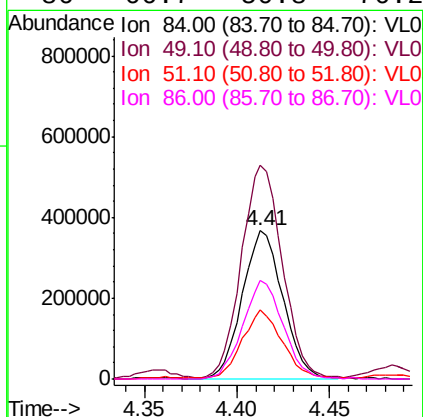
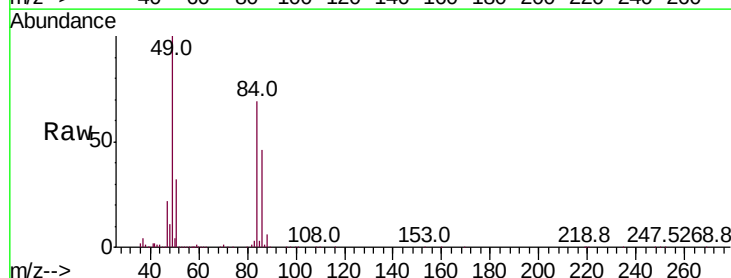
Ion Ratio Lower Upper

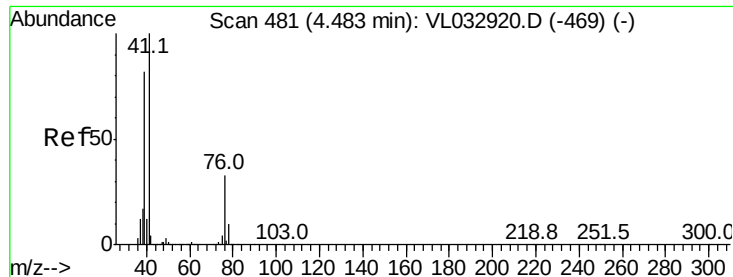
84 100

49 143.1 113.8 170.8

51 46.0 31.8 47.8

86 66.7 50.8 76.2





#21

Allvl Chloride

Concen: 11.209 ppbv

RT: 4.48 min Scan# 481

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

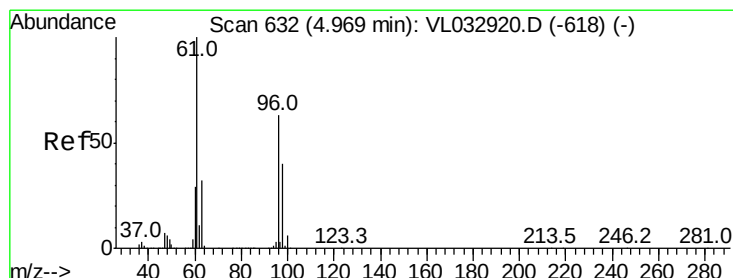
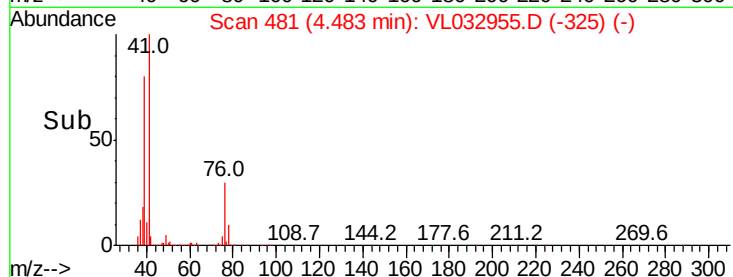
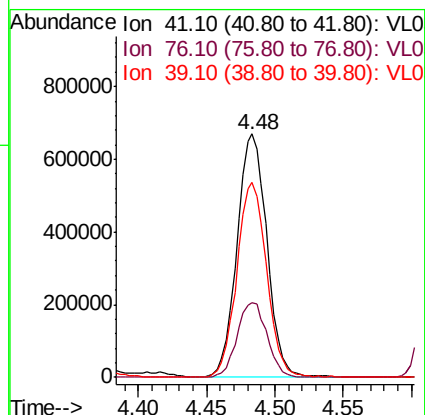
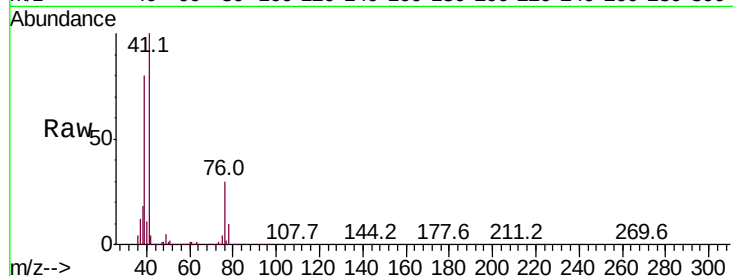
Tot Ion: 41 Resp: 1011918

Ion Ratio Lower Upper

41 100

76 31.1 25.2 37.8

39 80.5 65.2 97.8



#22

trans-1,2-Dichloroethene

Concen: 9.027 ppbv

RT: 4.97 min Scan# 631

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

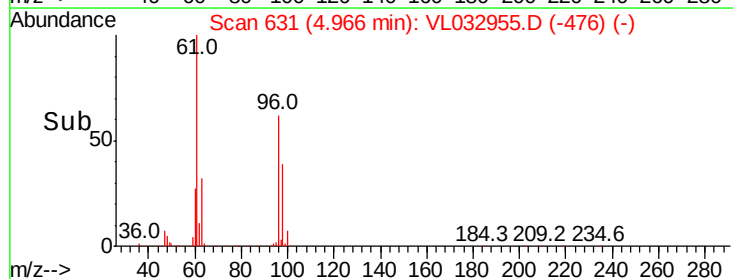
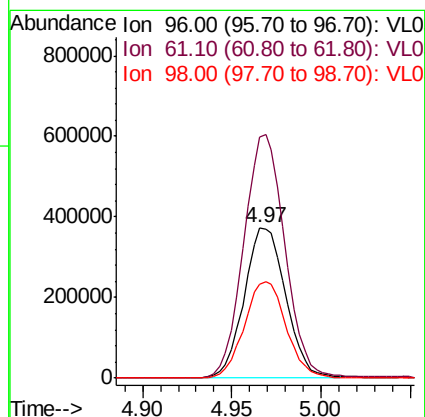
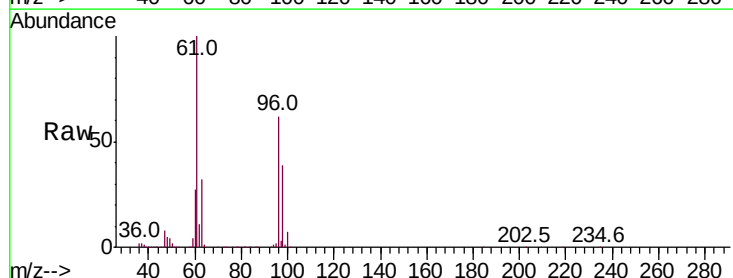
Tgt Ion: 96 Resp: 607721

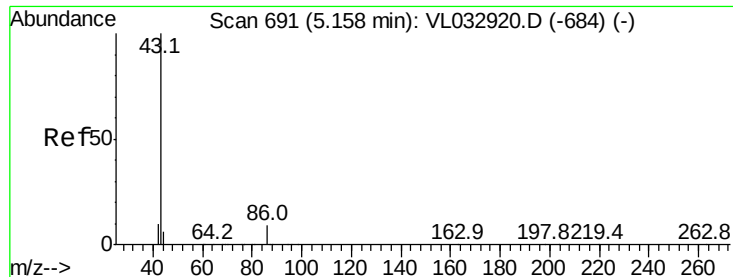
Ion Ratio Lower Upper

96 100

61 160.7 127.1 190.7

98 62.2 51.3 76.9





#23

Vinyl Acetate

Concen: 9.965 ppbv

RT: 5.16 min Scan# 692

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 43 Resp: 1869132

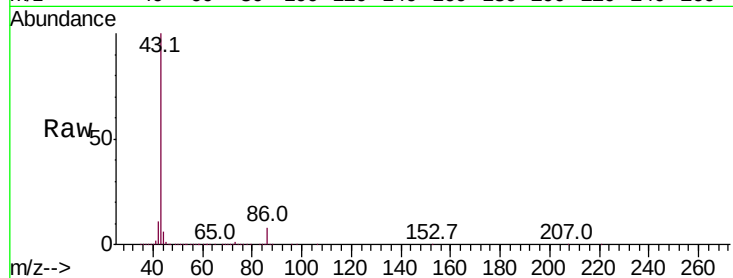
Ion Ratio Lower Upper

43 100

86 8.1 6.6 9.8

42 10.8 8.3 12.5

44 5.6 4.2 6.4

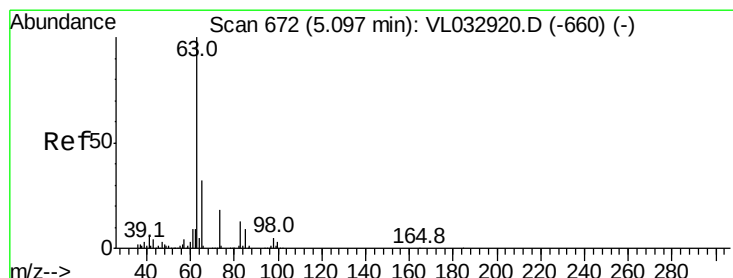
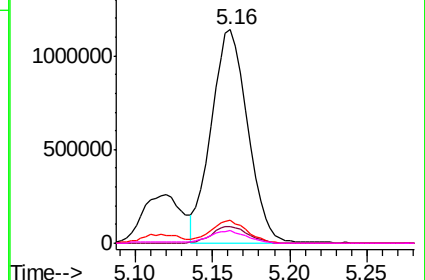
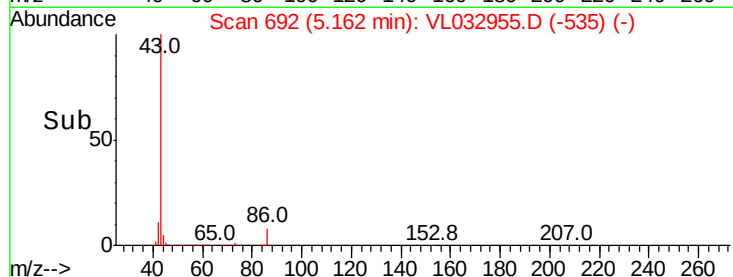


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 10.535 ppbv

RT: 5.10 min Scan# 672

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

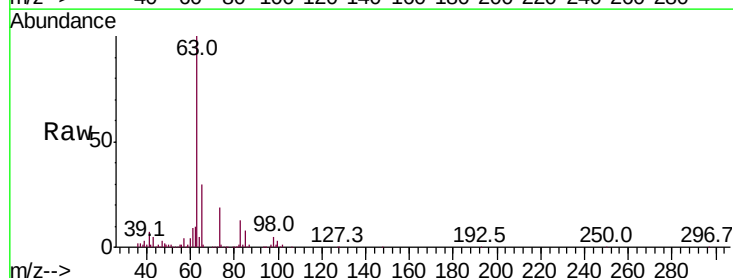
Tgt Ion: 63 Resp: 1718346

Ion Ratio Lower Upper

63 100

98 4.6 2.5 7.5

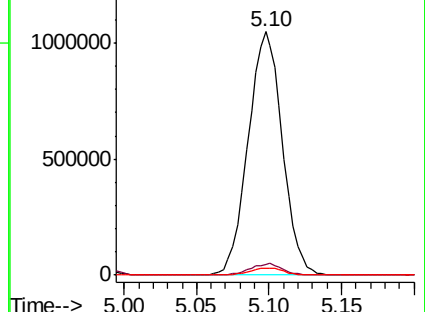
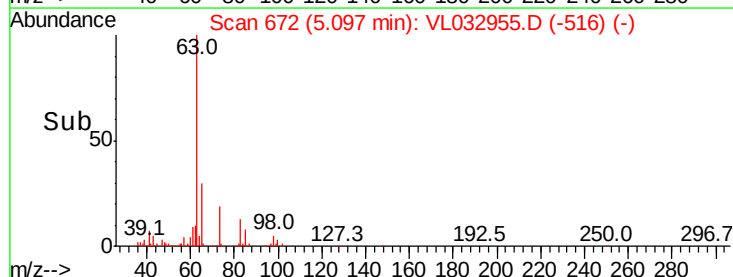
100 3.0 1.4 4.2

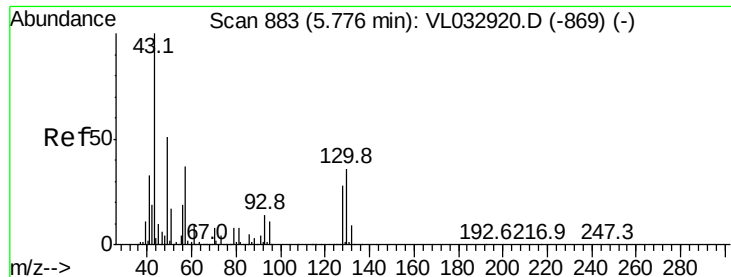


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



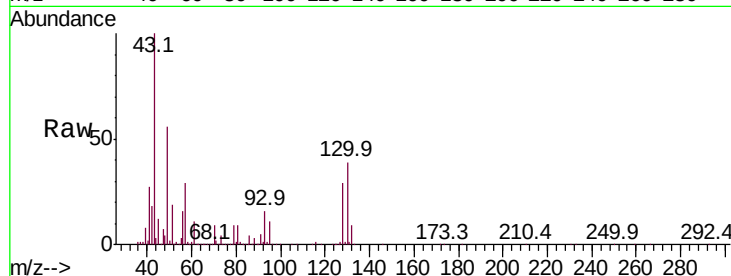


#25  
Ethyl Acetate  
Concen: 9.772 ppbv  
RT: 5.77 min Scan# 882  
Delta R.T. -0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 2557402

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 45  | 9.8   | 7.8   | 11.6  |
| 61  | 9.5   | 7.4   | 11.2  |
| 70  | 7.1   | 5.7   | 8.5   |



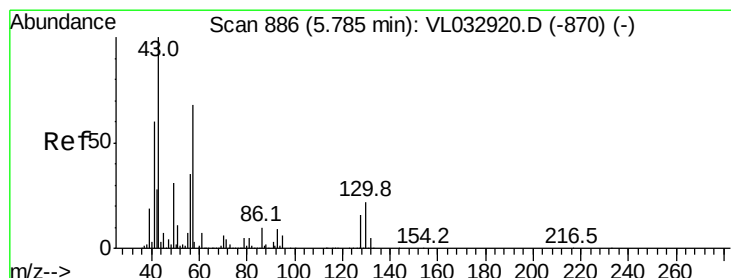
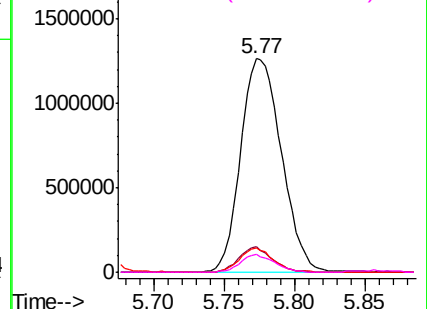
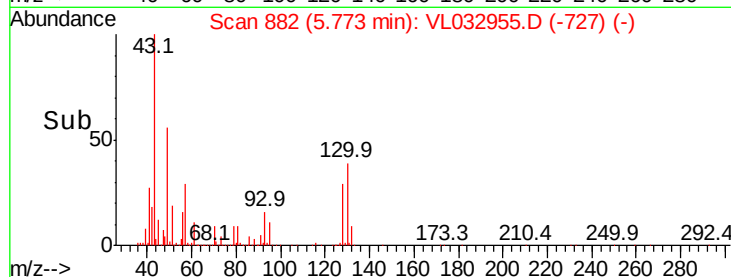
Abundance

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

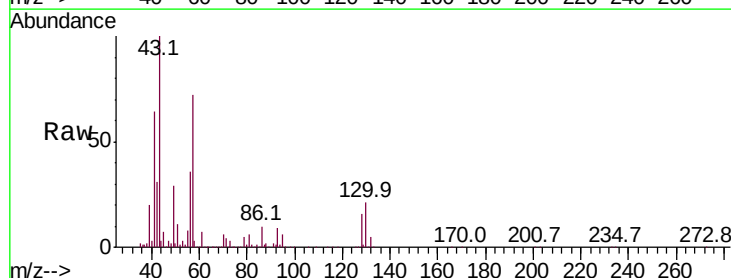
Ion 70.10 (69.80 to 70.80): VL0



#26  
Hexane  
Concen: 9.835 ppbv  
RT: 5.79 min Scan# 886  
Delta R.T. 0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Tgt Ion: 57 Resp: 1188310

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 57  | 100   |       |       |
| 41  | 89.7  | 72.2  | 108.2 |
| 43  | 216.0 | 171.9 | 257.9 |
| 56  | 52.5  | 42.2  | 63.2  |



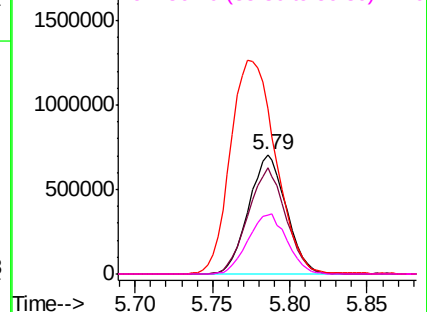
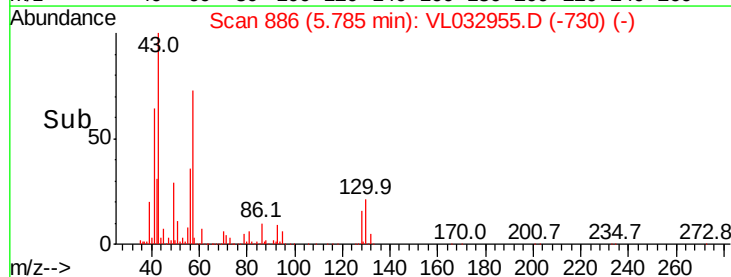
Abundance

Ion 57.10 (56.80 to 57.80): VL0

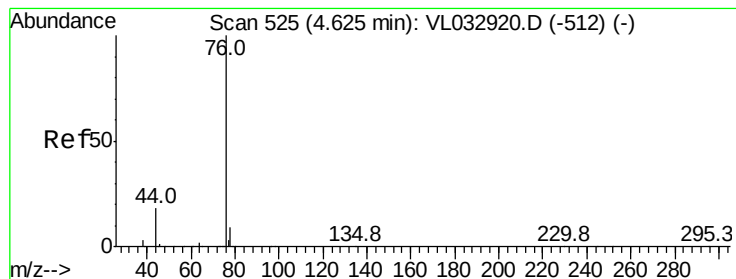
Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0







#27

Carbon Disulfide

Concen: 10.797 ppbv

RT: 4.62 min Scan# 525

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

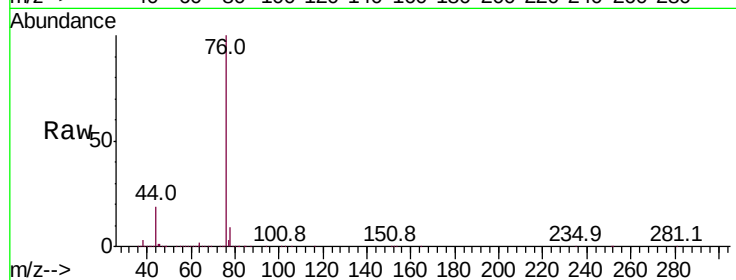
Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 76 Resp: 1631027

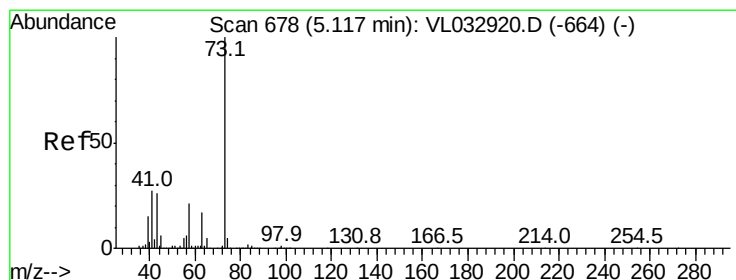
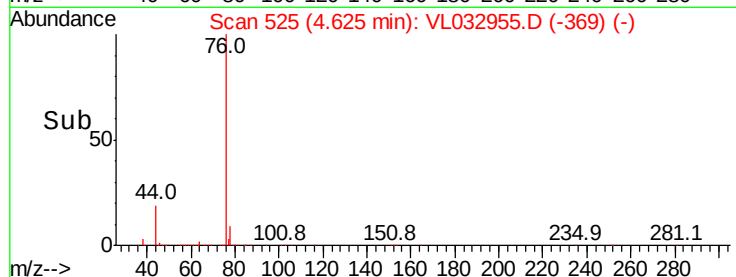
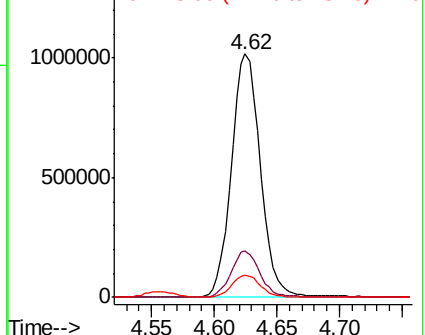
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 76  | 100   |       |       |
| 44  | 18.5  | 14.7  | 22.1  |
| 78  | 9.1   | 7.4   | 11.2  |



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: 10.445 ppbv

RT: 5.12 min Scan# 678

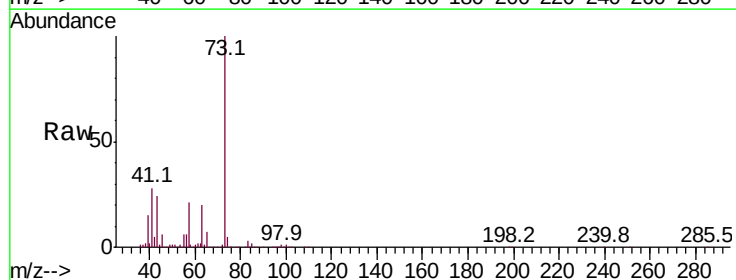
Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

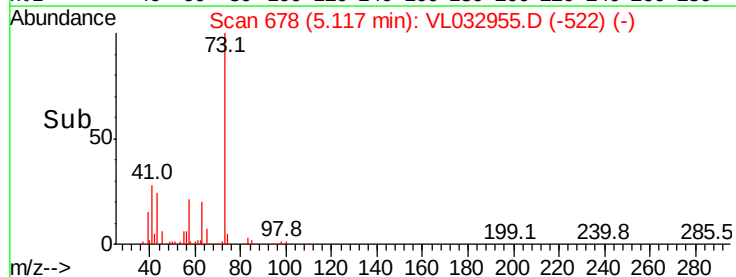
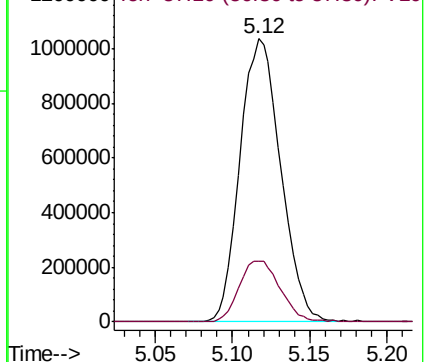
Tgt Ion: 73 Resp: 1895392

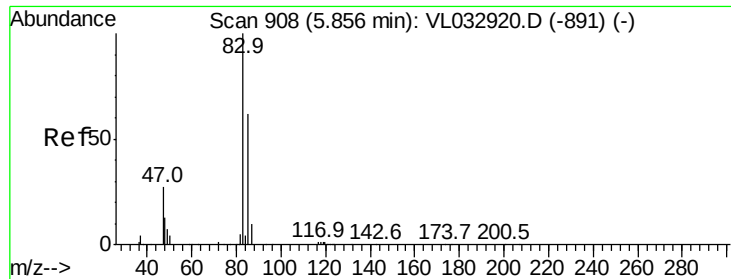
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 73  | 100   |       |       |
| 57  | 22.1  | 17.4  | 26.0  |



Abundance Ion 73.10 (72.80 to 73.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

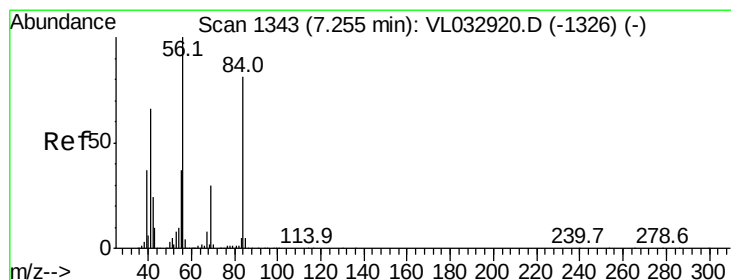
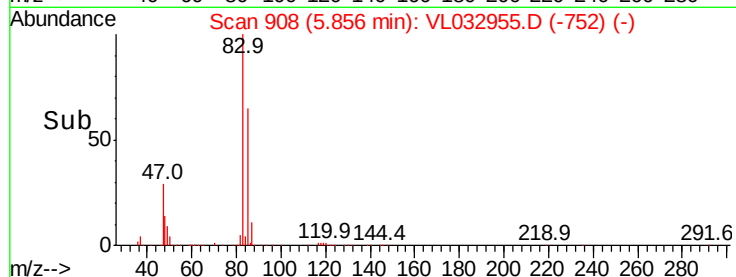
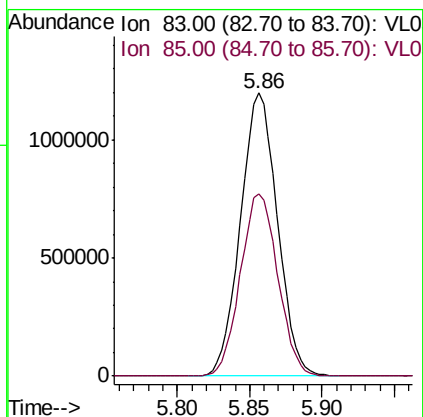
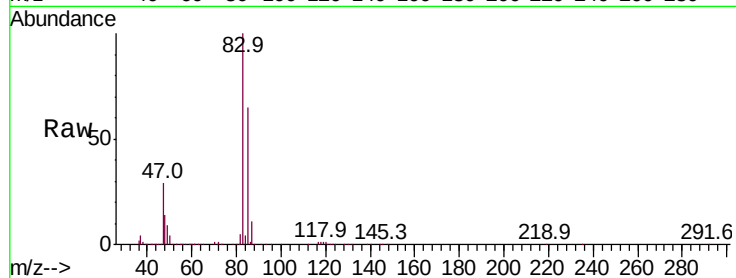




#29  
Chloroform  
Concen: 9.877 ppbv  
RT: 5.86 min Scan# 908  
Delta R.T. 0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

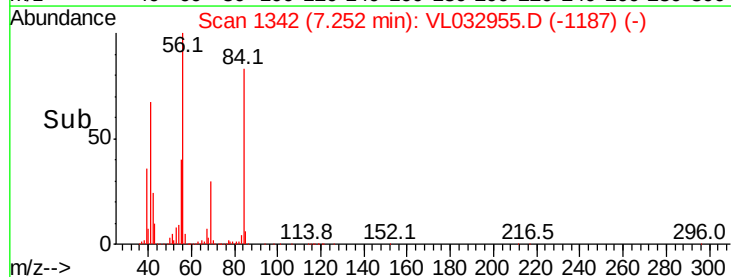
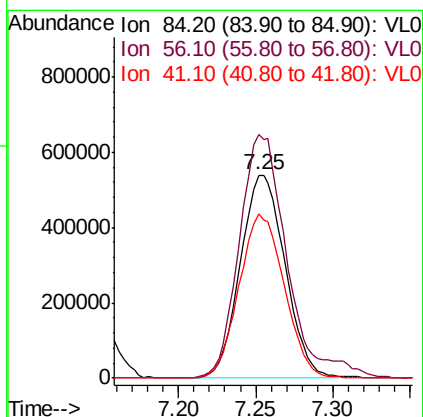
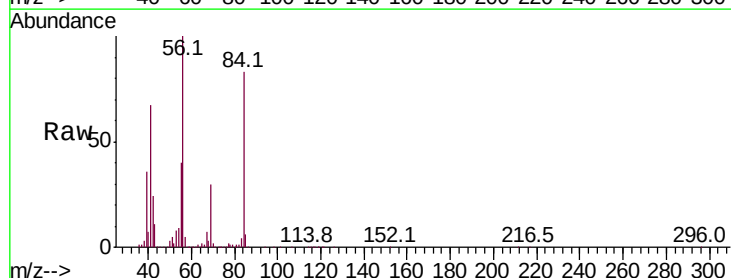
Instrument :  
MSVOA\_L  
ClientSampleId :

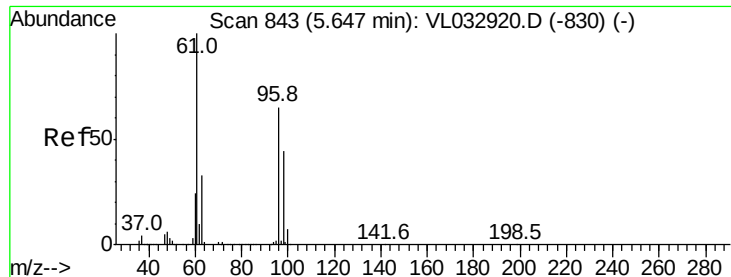
Tot Ion: 83 Resp: 2129380  
Ion Ratio Lower Upper  
83 100  
85 64.5 49.8 74.8



#30  
Cyclohexane  
Concen: 10.801 ppbv  
RT: 7.25 min Scan# 1342  
Delta R.T. -0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Tgt Ion: 84 Resp: 1081641  
Ion Ratio Lower Upper  
84 100  
56 128.6 102.5 153.7  
41 81.8 64.1 96.1



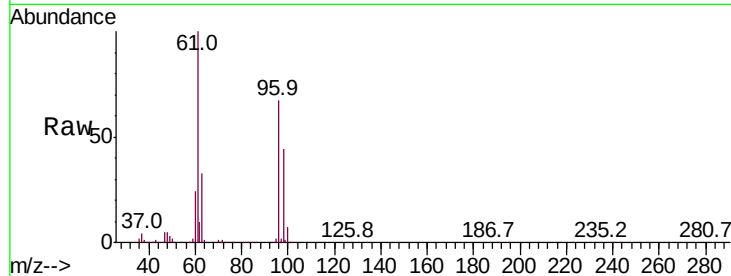


#31

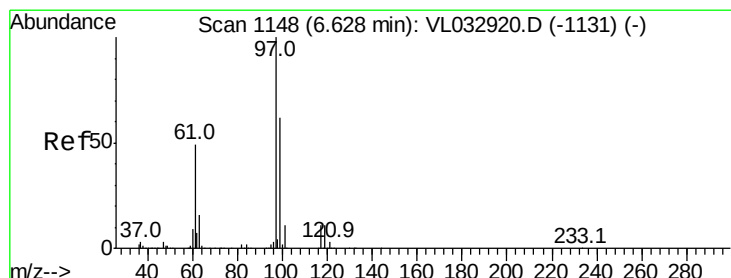
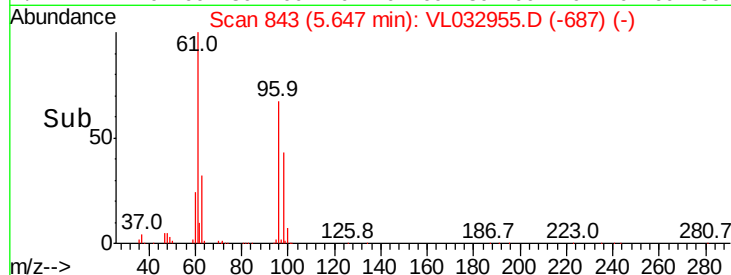
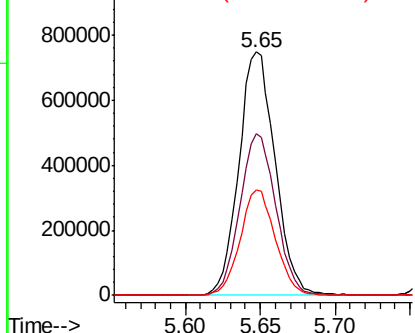
cis-1,2-Dichloroethene  
 Concen: 11.378 ppbv  
 RT: 5.65 min Scan# 843  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion: 61 Resp: 1261508  
 Ion Ratio Lower Upper  
 61 100  
 96 66.5 51.9 77.9  
 98 43.5 35.0 52.4



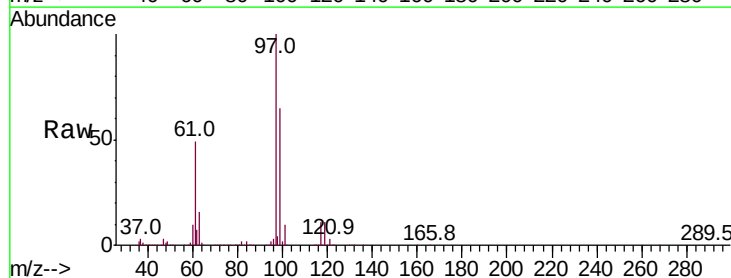
Abundance Ion 61.10 (60.80 to 61.80): VL0  
 Ion 96.00 (95.70 to 96.70): VL0  
 Ion 98.00 (97.70 to 98.70): VL0



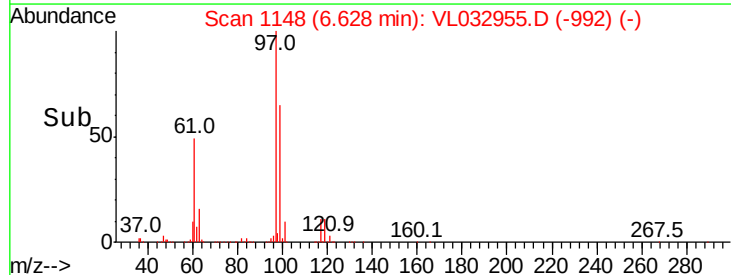
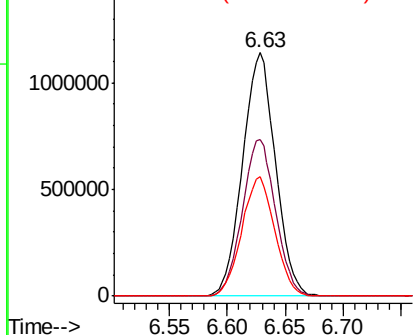
#32

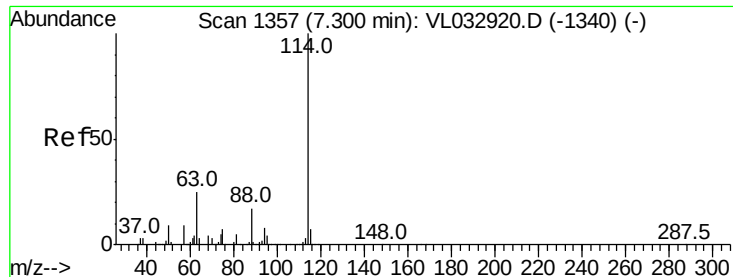
1,1,1-Trichloroethane  
 Concen: 9.880 ppbv  
 RT: 6.63 min Scan# 1148  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Tgt Ion: 97 Resp: 2253625  
 Ion Ratio Lower Upper  
 97 100  
 99 64.8 51.1 76.7  
 61 49.2 39.3 58.9



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

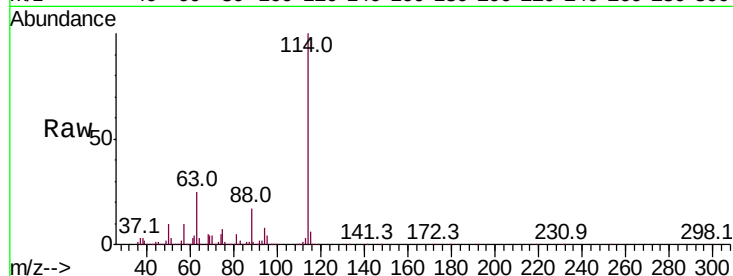




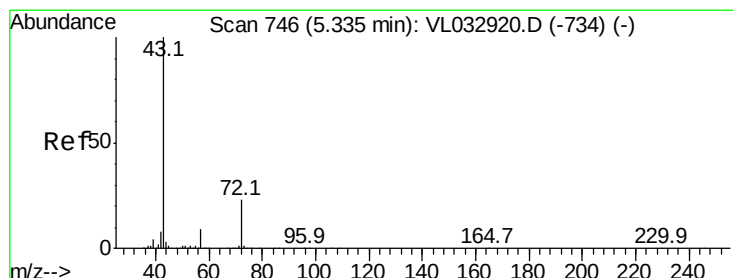
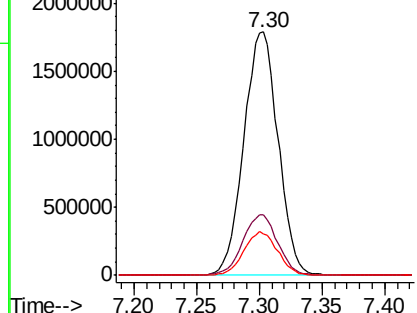
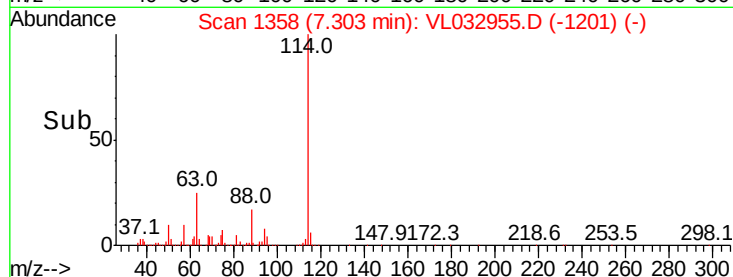
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.30 min Scan# 1358  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:114 Resp: 3401834  
 Ion Ratio Lower Upper  
 114 100  
 63 25.4 20.1 30.1  
 88 17.7 14.2 21.4

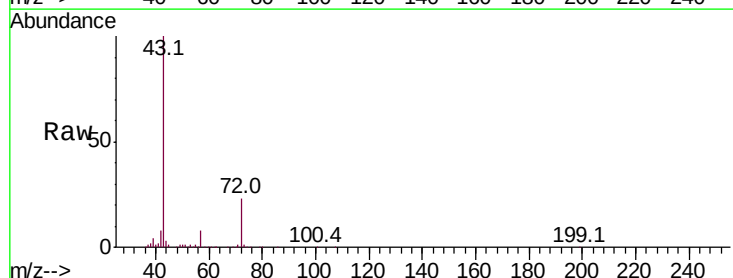


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

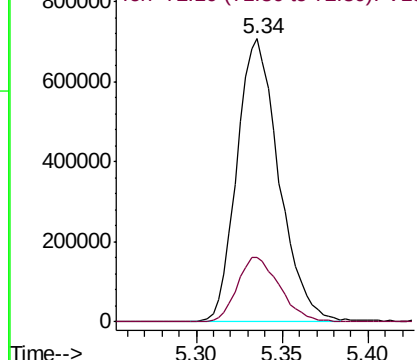
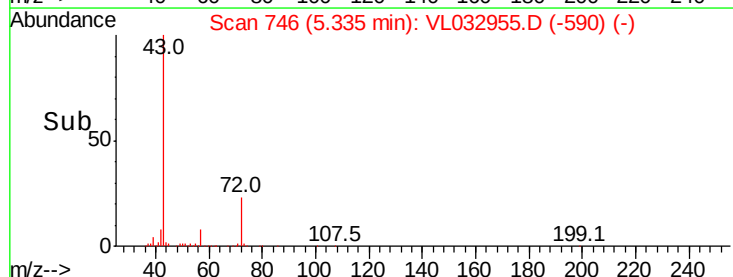


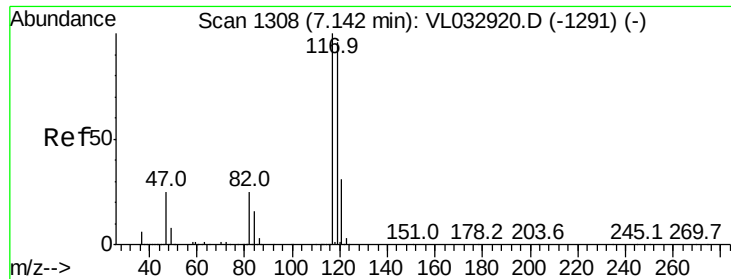
#34  
 2-Butanone  
 Concen: 8.070 ppbv  
 RT: 5.34 min Scan# 746  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Tgt Ion: 43 Resp: 1195856  
 Ion Ratio Lower Upper  
 43 100  
 72 23.2 18.8 28.2



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





#35

Carbon Tetrachloride

Concen: 9.116 ppbv

RT: 7.14 min Scan# 1307

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampled :

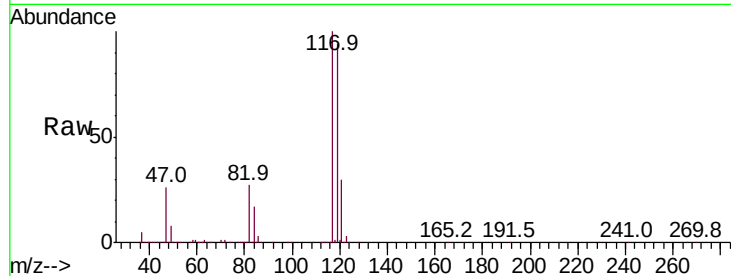
Tot Ion:117 Resp: 2437620

Ion Ratio Lower Upper

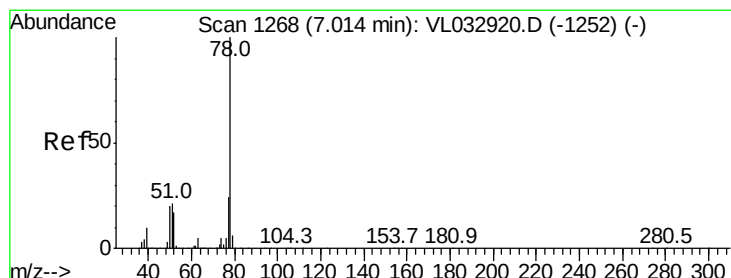
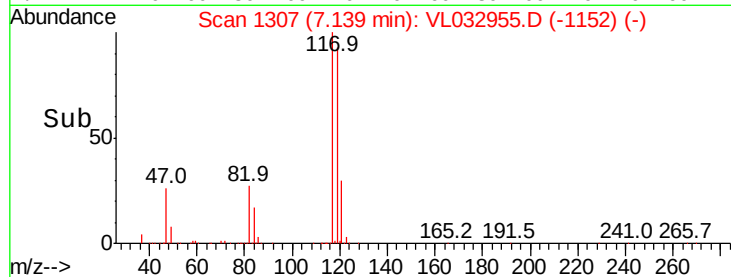
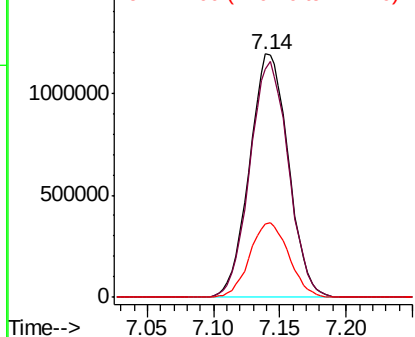
117 100

119 93.8 76.5 114.7

121 30.4 24.5 36.7



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: 10.170 ppbv

RT: 7.01 min Scan# 1268

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

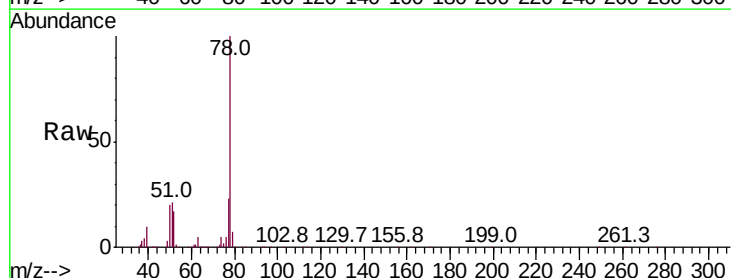
Tgt Ion: 78 Resp: 2544668

Ion Ratio Lower Upper

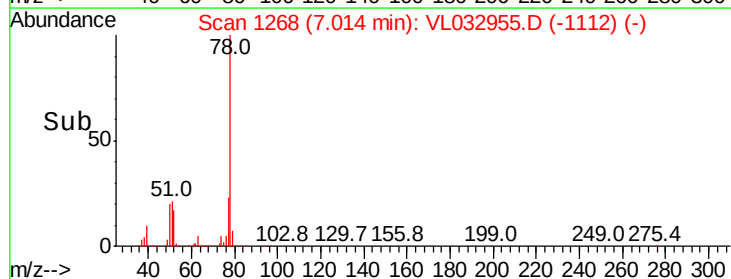
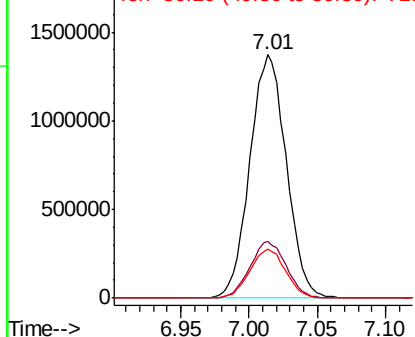
78 100

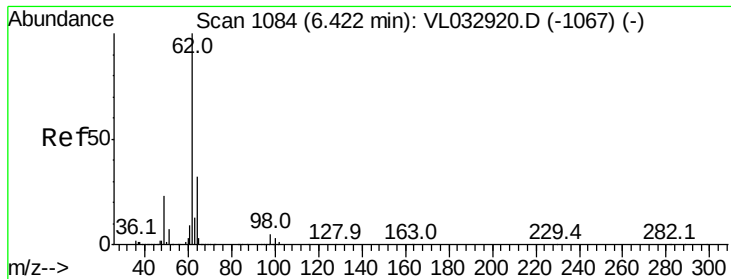
77 23.4 18.9 28.3

50 20.2 16.1 24.1



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

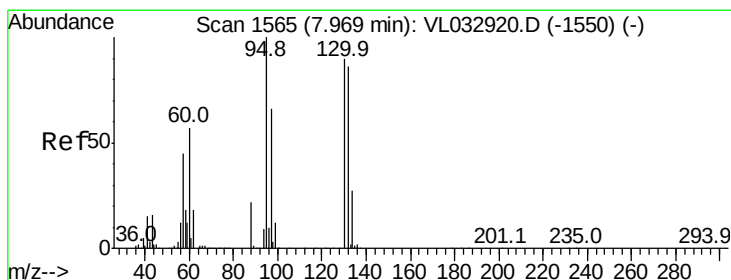
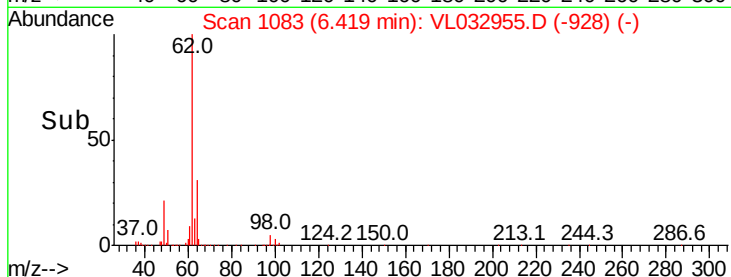
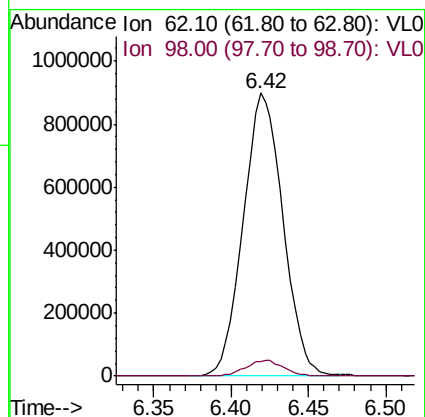
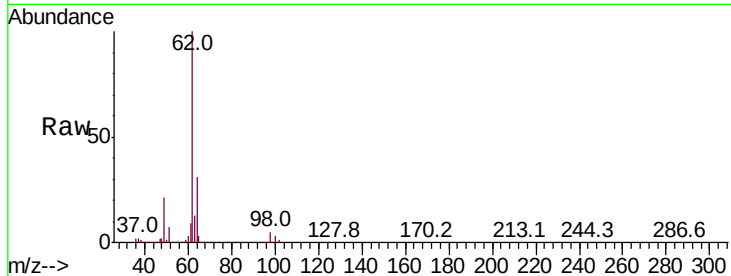




#37  
 1,2-Dichloroethane  
 Concen: 9.436 ppbv  
 RT: 6.42 min Scan# 1083  
 Delta R.T. -0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

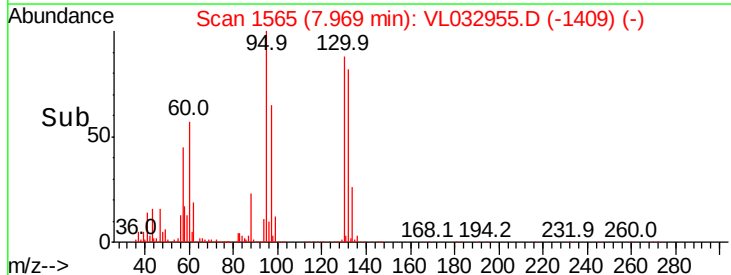
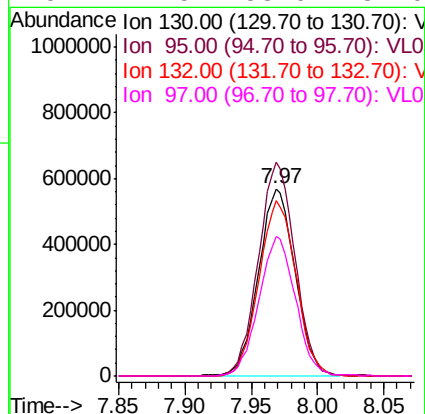
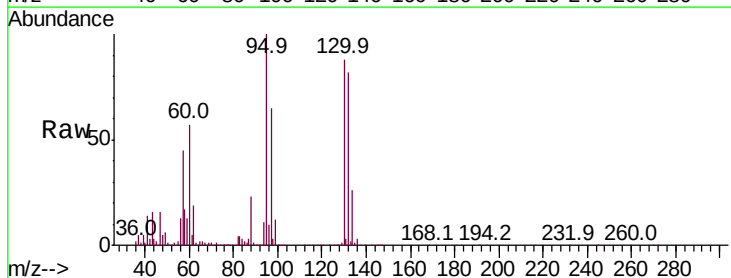
Instrument :  
 MSVOA\_L  
 ClientSampleId :

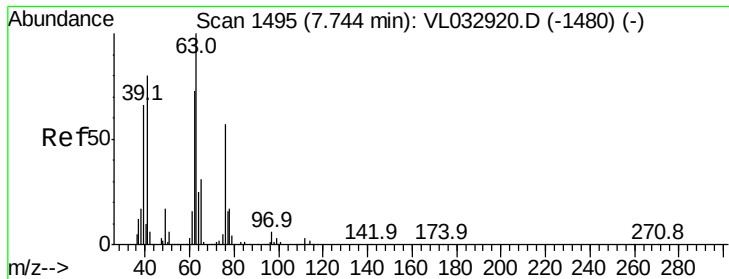
Tot Ion: 62 Resp: 1607493  
 Ion Ratio Lower Upper  
 62 100  
 98 5.6 4.3 6.5



#38  
 Trichloroethene  
 Concen: 10.496 ppbv  
 RT: 7.97 min Scan# 1565  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Tgt Ion:130 Resp: 1092962  
 Ion Ratio Lower Upper  
 130 100  
 95 114.1 88.6 132.8  
 132 93.7 76.1 114.1  
 97 74.5 58.0 87.0





#39

1,2-Dichloropropane

Concen: 10.289 ppbv

RT: 7.74 min Scan# 1495

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

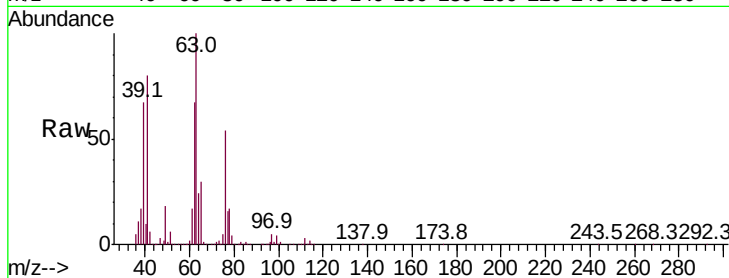
Tot Ion: 63 Resp: 976312

Ion Ratio Lower Upper

63 100

41 80.1 63.9 95.9

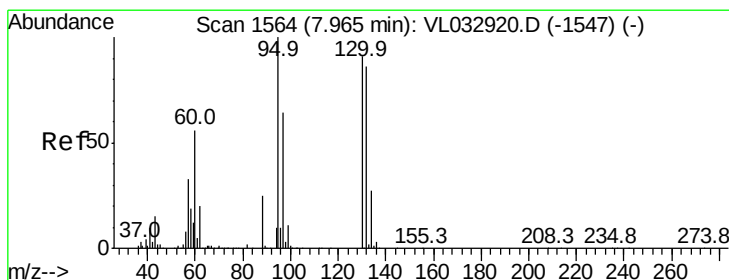
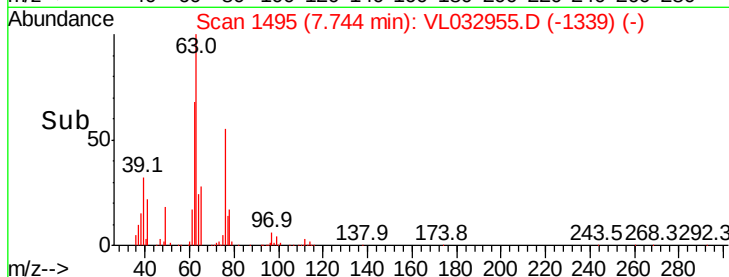
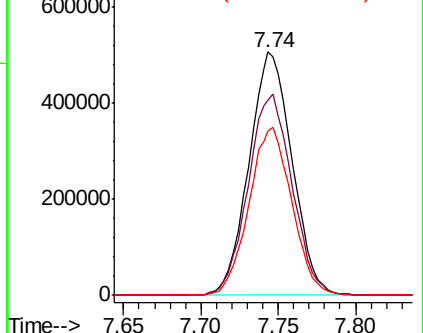
62 67.2 58.8 88.2



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#40

1,4-Dioxane

Concen: 10.469 ppbv

RT: 7.97 min Scan# 1564

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Tgt Ion: 88 Resp: 365929

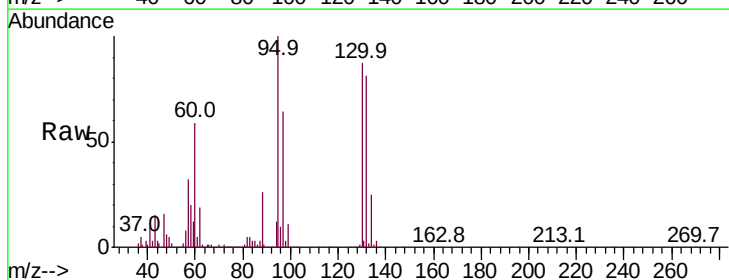
Ion Ratio Lower Upper

88 100

58 127.4 107.4 161.2

43 273.3 0.0 0.0#

57 1223.4 0.0 0.0#

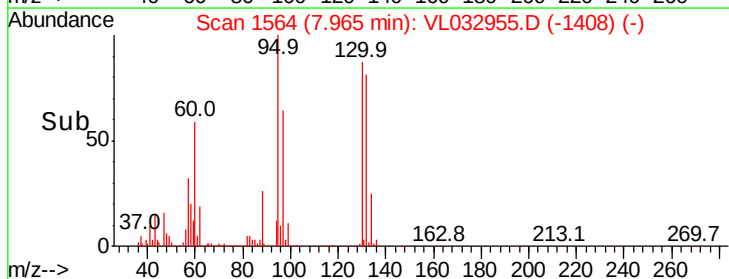
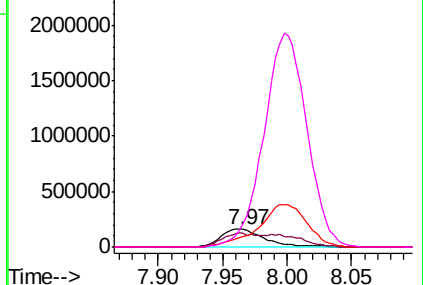


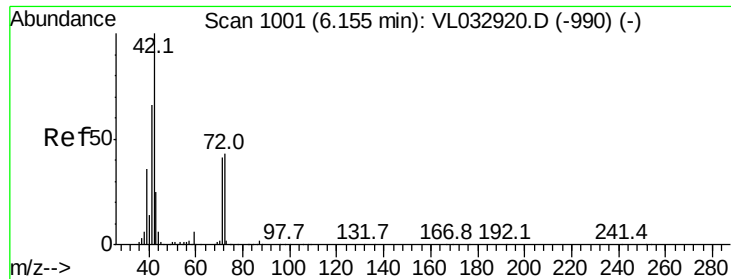
Abundance Ion 88.10 (87.80 to 88.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#41

Tetrahydrofuran

Concen: 9.976 ppbv

RT: 6.15 min Scan# 1000

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

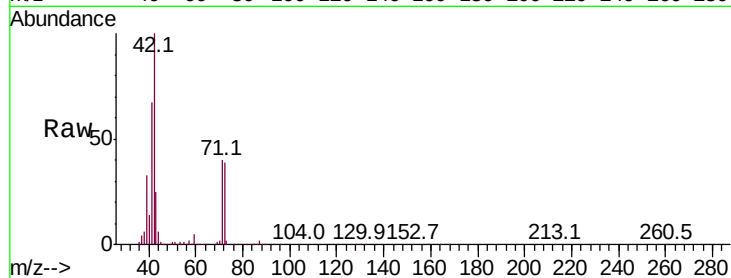
Tot Ion: 42 Resp: 919329

Ion Ratio Lower Upper

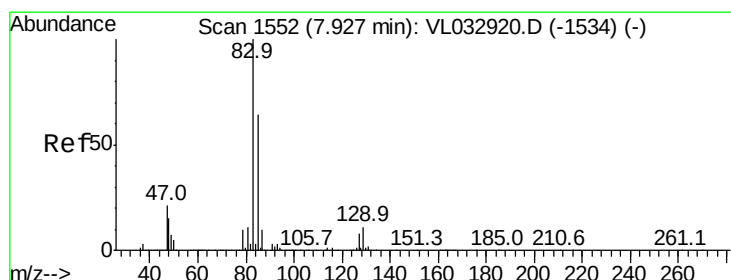
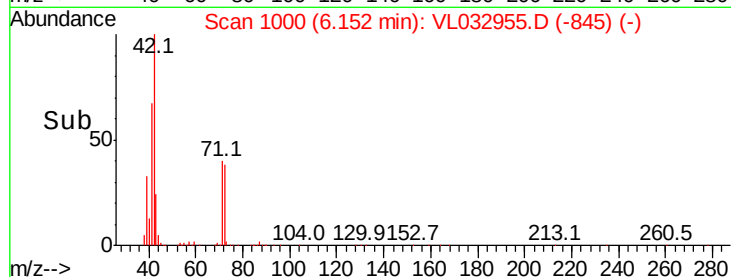
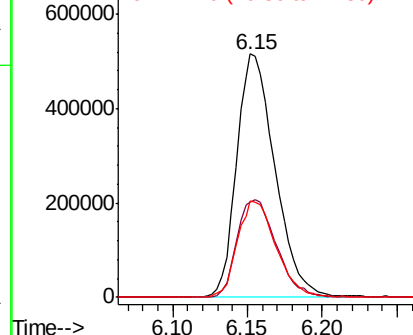
42 100

72 41.6 32.9 49.3

71 40.2 32.0 48.0



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: 10.164 ppbv

RT: 7.93 min Scan# 1552

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

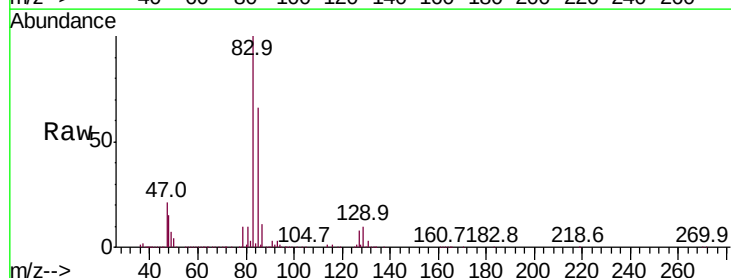
Tgt Ion: 83 Resp: 2398969

Ion Ratio Lower Upper

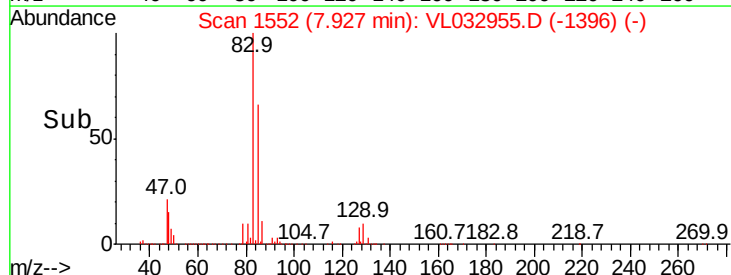
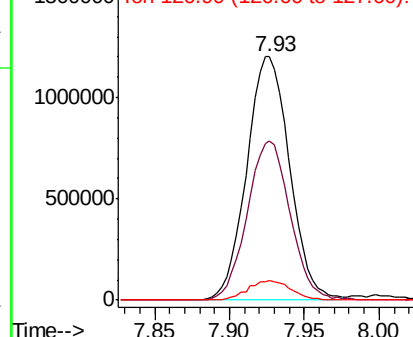
83 100

85 65.6 50.9 76.3

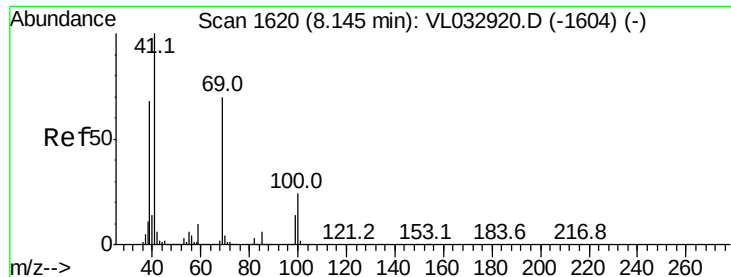
127 8.3 6.7 10.1



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



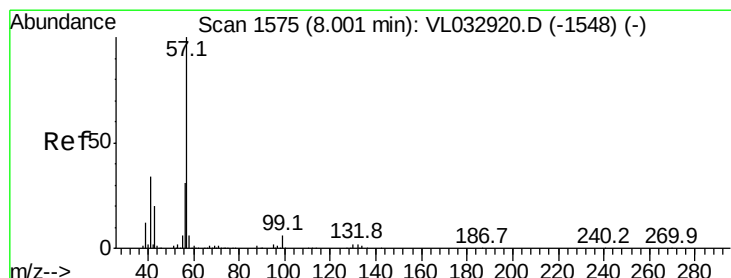
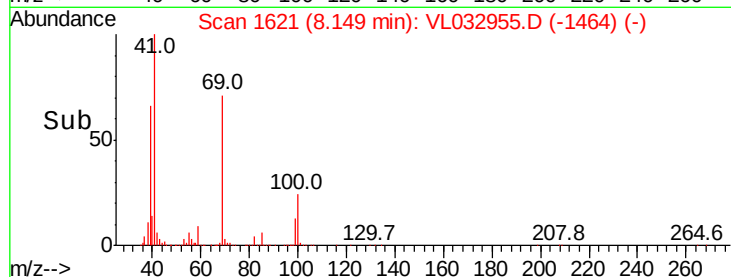
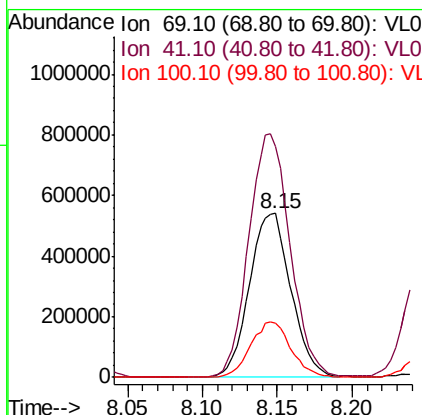
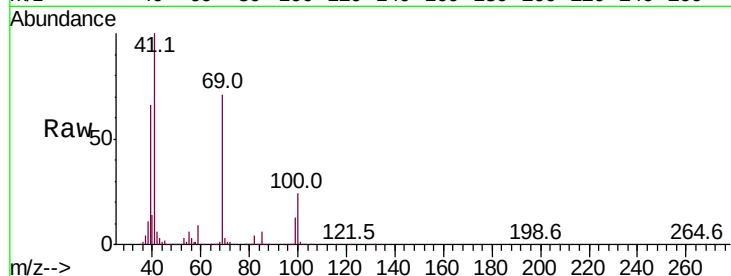




#43  
Methyl Methacrylate  
Concen: 11.250 ppbv  
RT: 8.15 min Scan# 1621  
Delta R.T. 0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

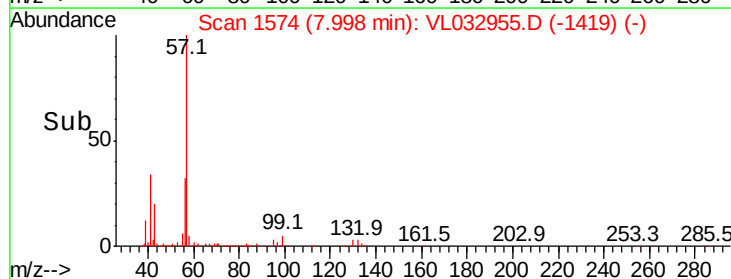
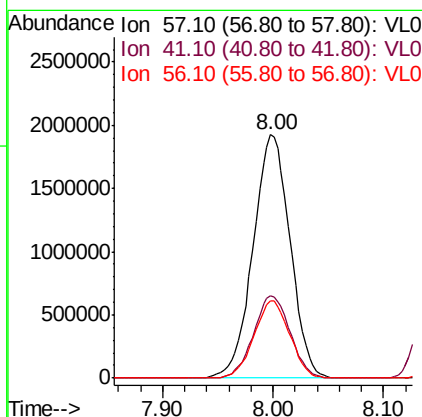
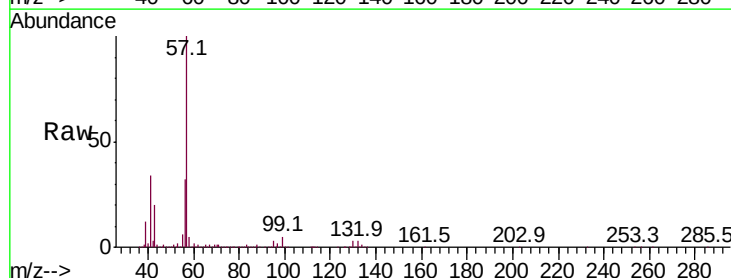
Instrument :  
MSVOA\_L  
ClientSampleId :

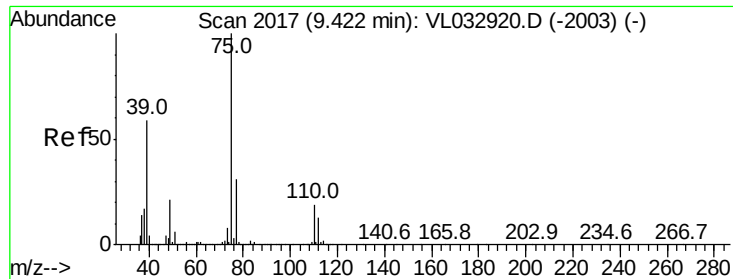
Tot Ion: 69 Resp: 1043077  
Ion Ratio Lower Upper  
69 100  
41 148.1 116.6 175.0  
100 32.9 26.5 39.7



#44  
2,2,4-Trimethylpentane  
Concen: 10.528 ppbv  
RT: 8.00 min Scan# 1574  
Delta R.T. -0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Tgt Ion: 57 Resp: 4471615  
Ion Ratio Lower Upper  
57 100  
41 33.5 27.0 40.4  
56 30.9 24.6 37.0





#45

t-1,3-Dichloropropene

Concen: 12.440 ppbv

RT: 9.43 min Scan# 2018

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

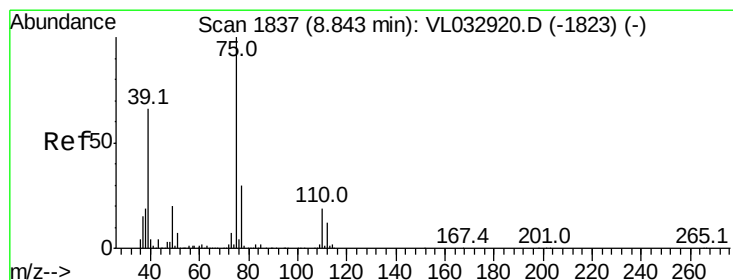
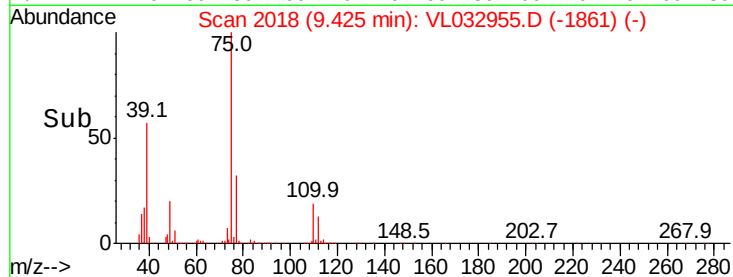
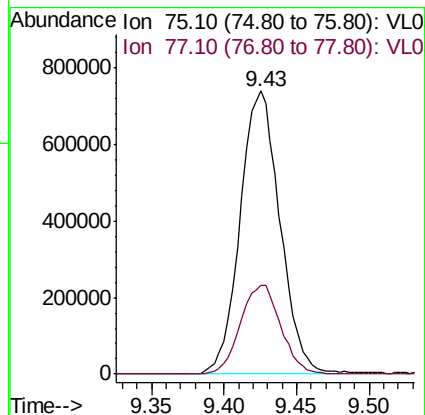
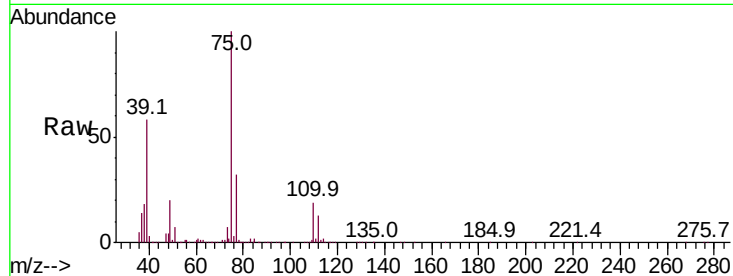
ClientSampleId :

Tot Ion: 75 Resp: 1414115

Ion Ratio Lower Upper

75 100

77 31.6 24.8 37.2



#46

cis-1,3-Dichloropropene

Concen: 11.575 ppbv

RT: 8.84 min Scan# 1837

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

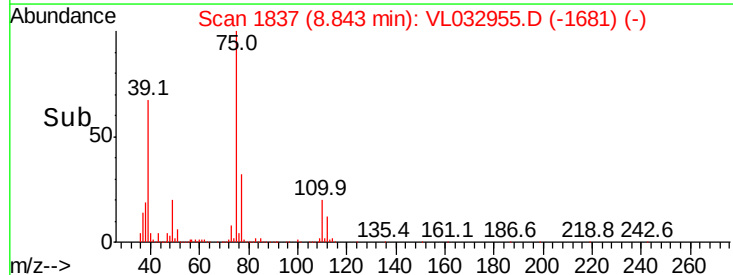
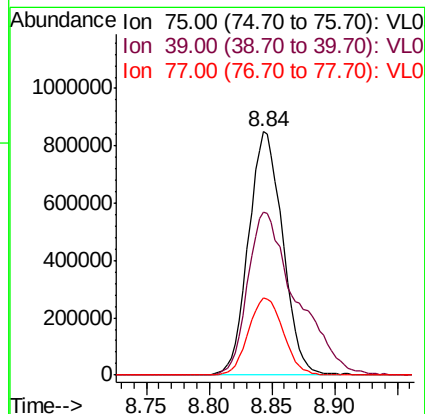
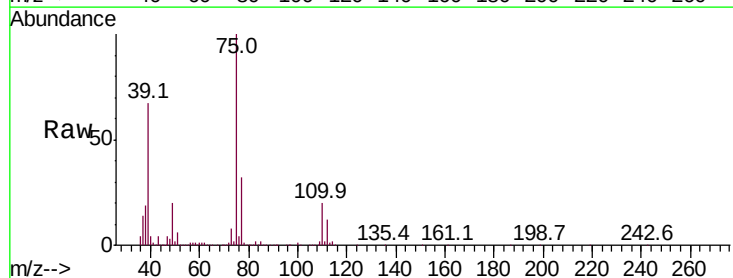
Tgt Ion: 75 Resp: 1610481

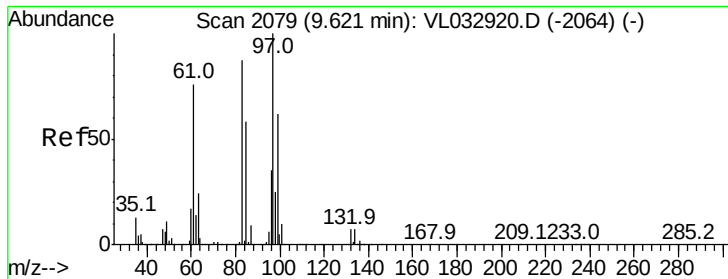
Ion Ratio Lower Upper

75 100

39 66.9 52.8 79.2

77 31.9 24.3 36.5





#47

1,1,2-Trichloroethane

Concen: 10.501 ppbv

RT: 9.62 min Scan# 2080

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 97 Resp: 1096768

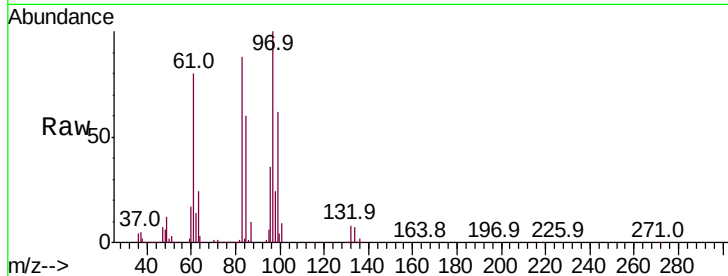
Ion Ratio Lower Upper

97 100

83 87.9 69.8 104.8

85 59.8 46.7 70.1

99 62.1 49.2 73.8

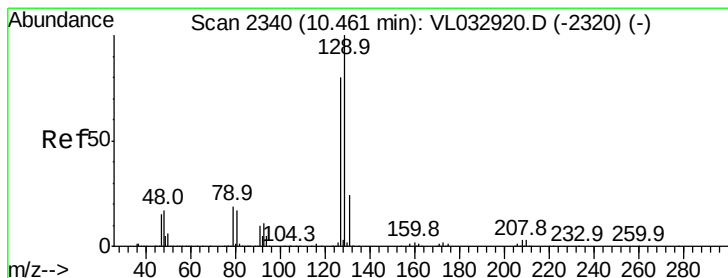
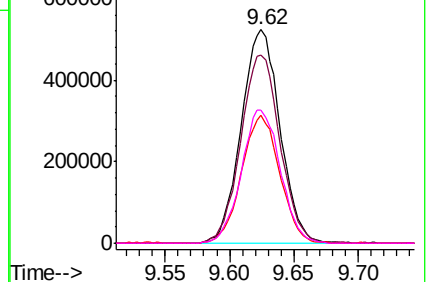
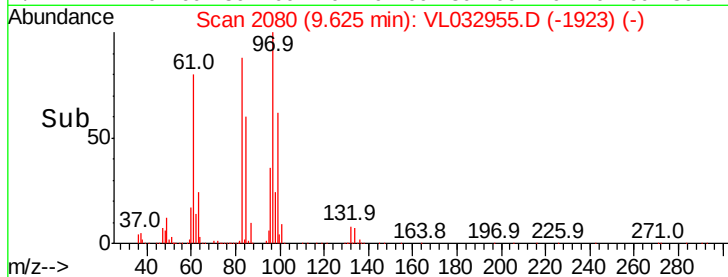


Abundance Ion 97.00 (96.70 to 97.70): VL0

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: 10.665 ppbv

RT: 10.46 min Scan# 2340

Delta R.T. 0.00 min

Lab File: VL032955.D

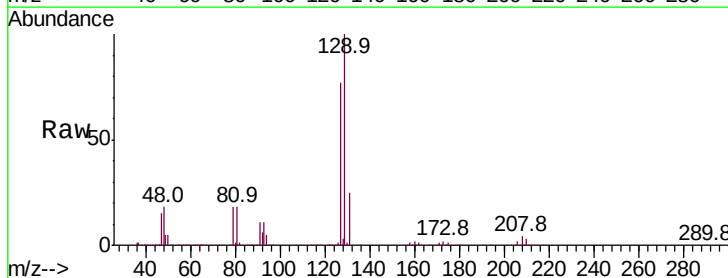
Acq: 11 Dec 2018 15:20

Tgt Ion: 129 Resp: 2089699

Ion Ratio Lower Upper

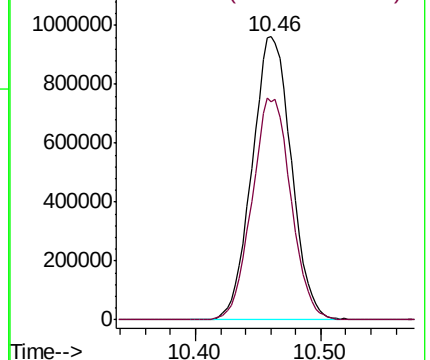
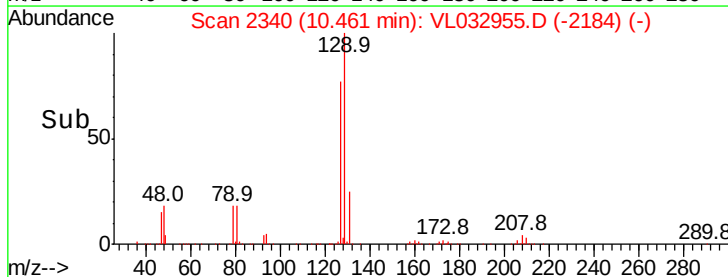
129 100

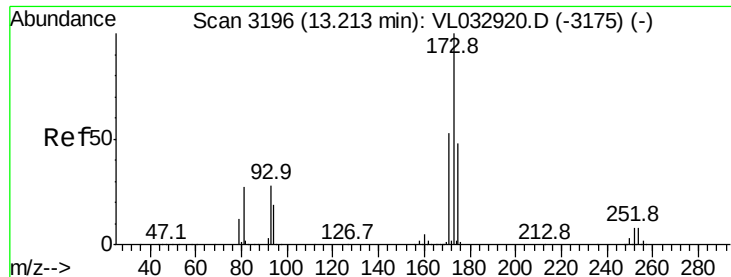
127 78.2 39.3 117.8



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V





#49

Bromoform

Concen: 11.047 ppbv

RT: 13.21 min Scan# 3196

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

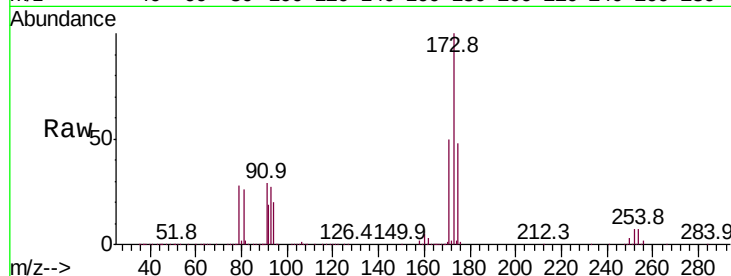
Tot Ion:173 Resp: 1780329

Ion Ratio Lower Upper

173 100

175 48.2 39.0 58.4

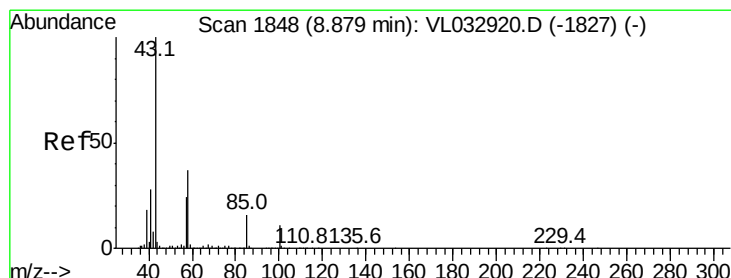
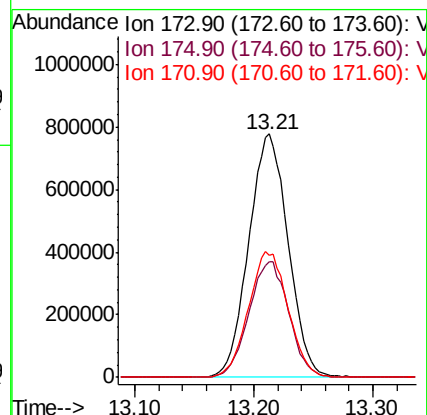
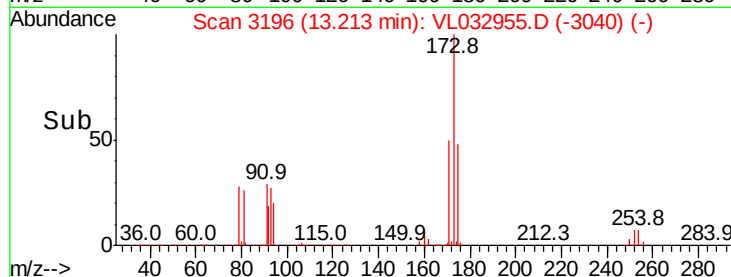
171 51.8 41.5 62.3



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: 10.558 ppbv

RT: 8.88 min Scan# 1848

Delta R.T. 0.00 min

Lab File: VL032955.D

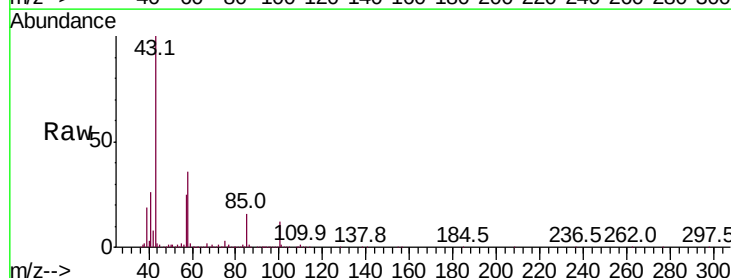
Acq: 11 Dec 2018 15:20

Tgt Ion: 43 Resp: 2501659

Ion Ratio Lower Upper

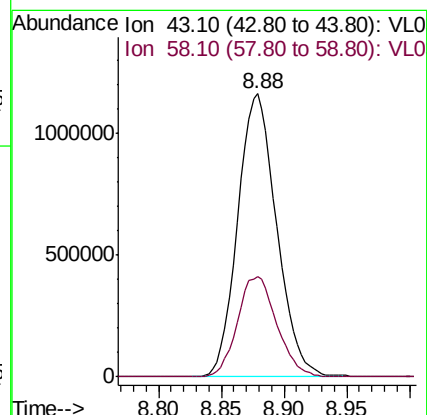
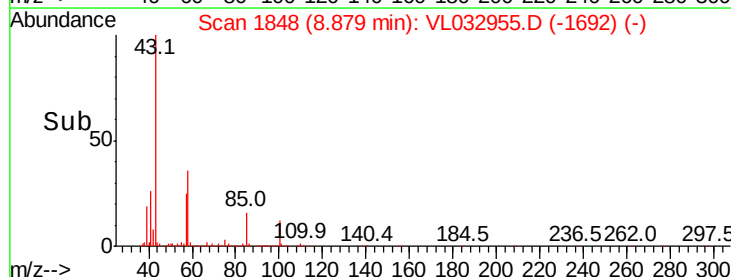
43 100

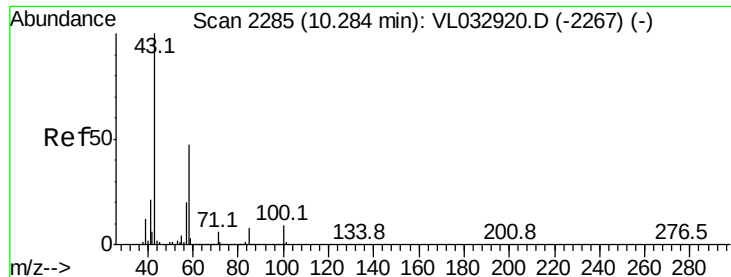
58 36.0 29.0 43.4



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

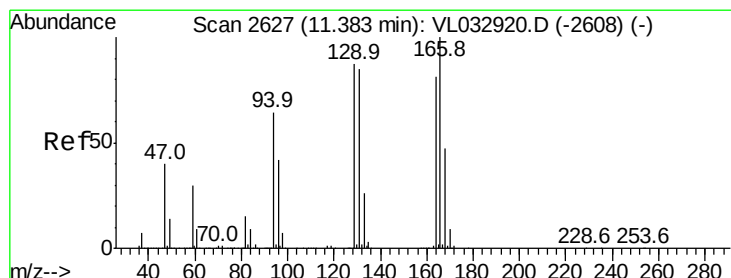
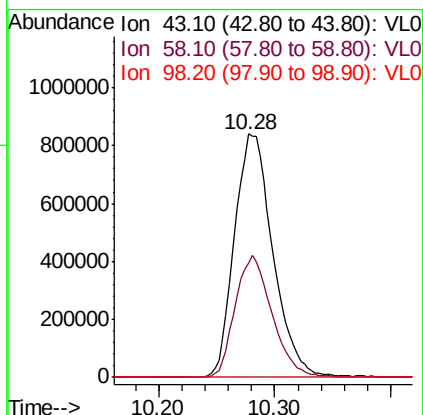
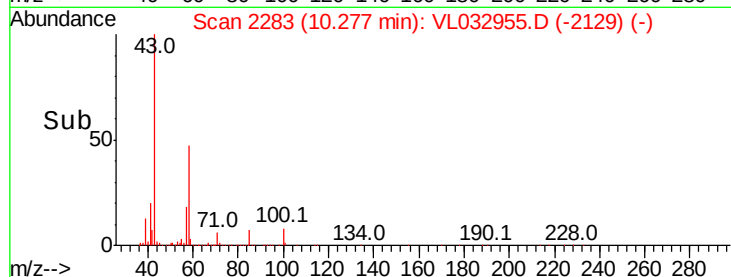
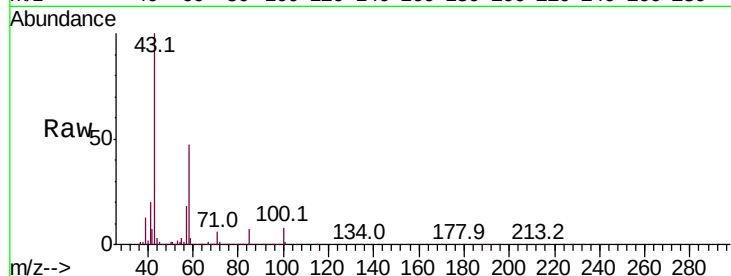




#51  
2-Hexanone  
Concen: 11.999 ppbv  
RT: 10.28 min Scan# 2283  
Delta R.T. -0.01 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

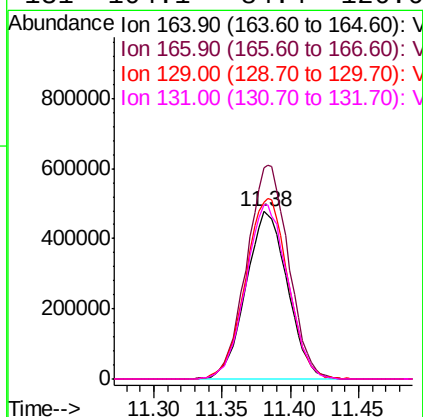
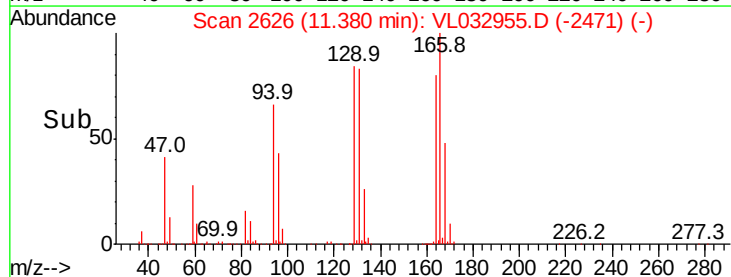
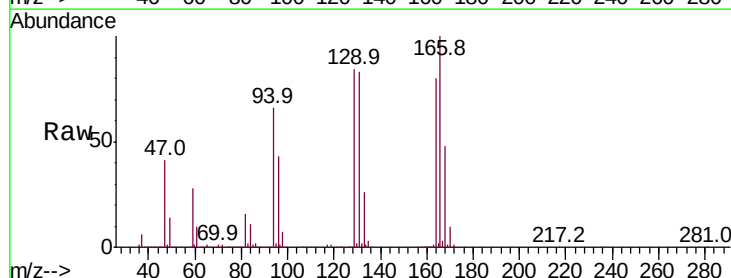
Instrument :  
MSVOA\_L  
ClientSampled :

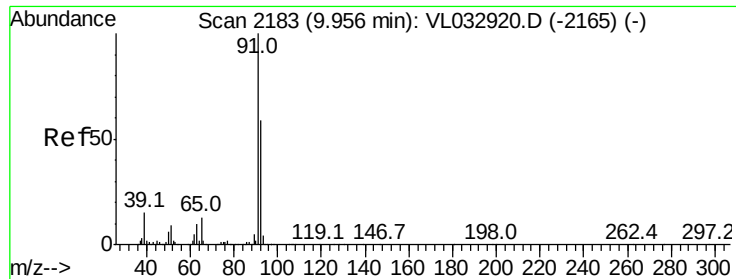
Tot Ion: 43 Resp: 1928186  
Ion Ratio Lower Upper  
43 100  
58 48.2 38.1 57.1  
98 0.5 0.4 0.6



#52  
Tetrachloroethene  
Concen: 11.079 ppbv  
RT: 11.38 min Scan# 2626  
Delta R.T. -0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Tgt Ion:164 Resp: 1008381  
Ion Ratio Lower Upper  
164 100  
166 125.6 98.8 148.2  
129 105.6 85.5 128.3  
131 104.1 84.4 126.6





#53

Toluene

Concen: 12.401 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

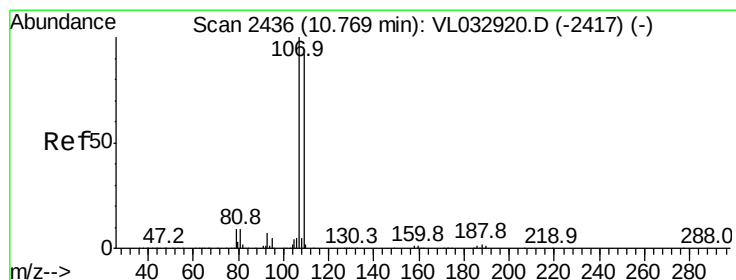
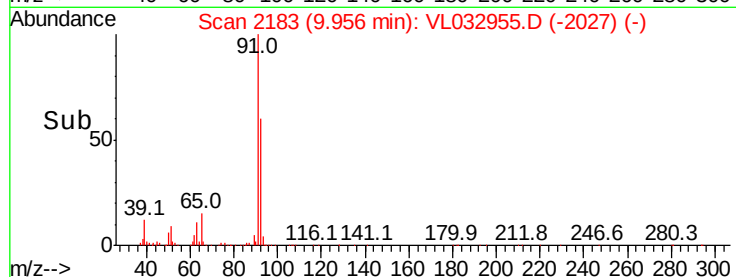
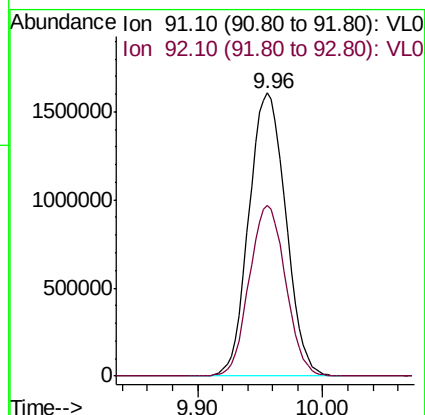
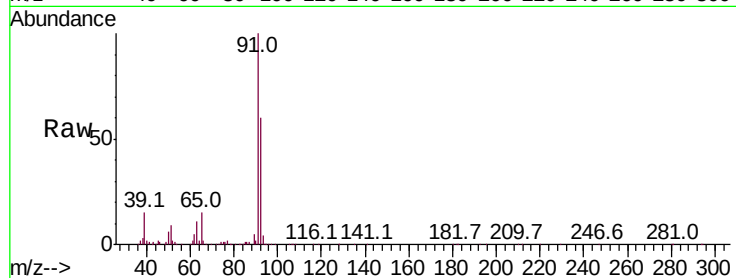
ClientSampleId :

Tot Ion: 91 Resp: 3290786

Ion Ratio Lower Upper

91 100

92 59.4 47.4 71.0



#54

1,2-Dibromoethane

Concen: 10.496 ppbv

RT: 10.77 min Scan# 2436

Delta R.T. 0.00 min

Lab File: VL032955.D

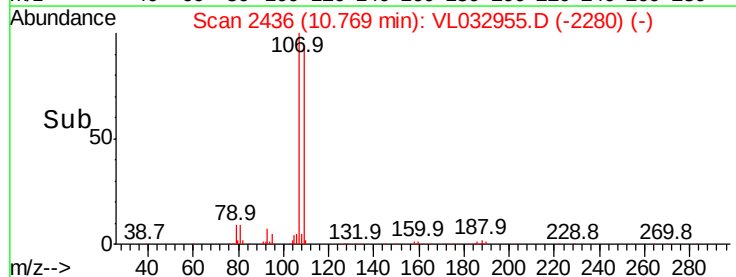
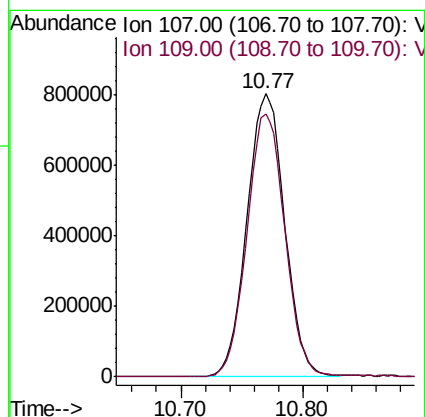
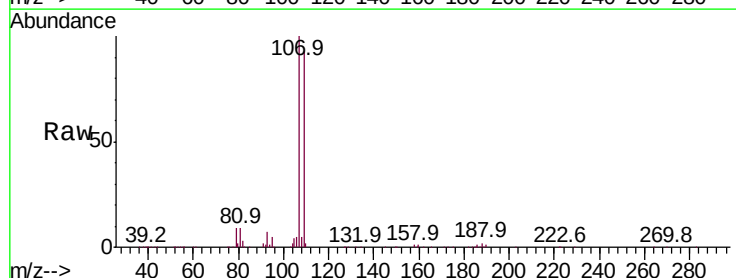
Acq: 11 Dec 2018 15:20

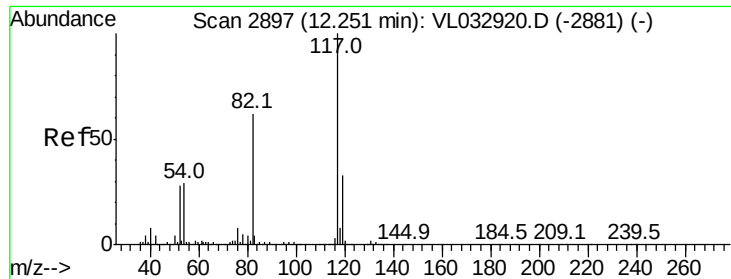
Tgt Ion: 107 Resp: 1712626

Ion Ratio Lower Upper

107 100

109 92.8 73.4 110.2

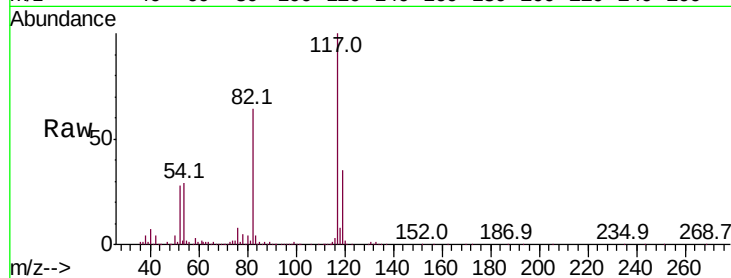




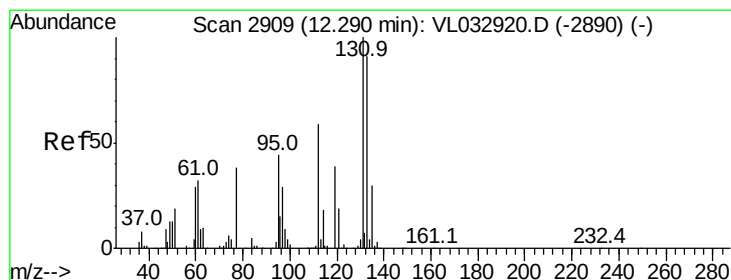
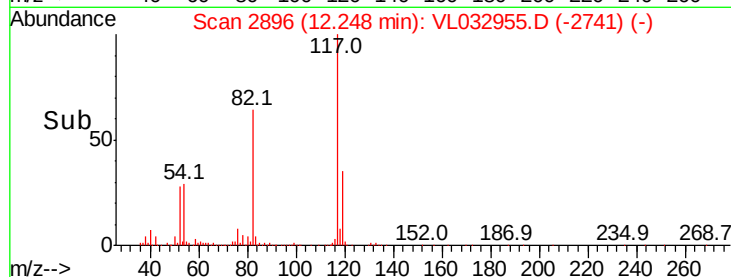
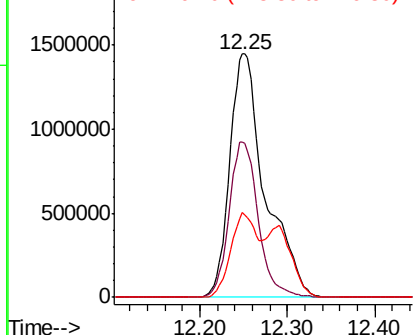
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.25 min Scan# 2896  
Delta R.T. -0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion:117 Resp: 4078199  
Ion Ratio Lower Upper  
117 100  
82 52.3 47.8 71.8  
119 47.4 43.1 64.7

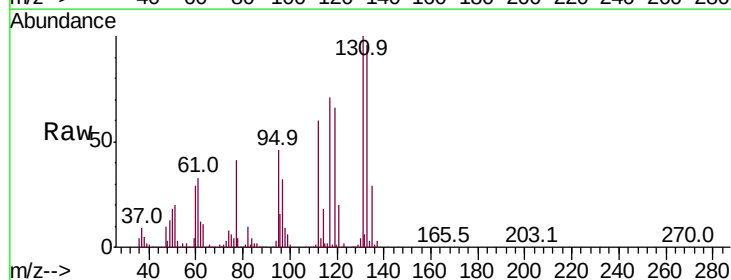


Abundance Ion 117.10 (116.80 to 117.80): V  
Ion 82.10 (81.80 to 82.80): VL0  
Ion 119.10 (118.80 to 119.80): V

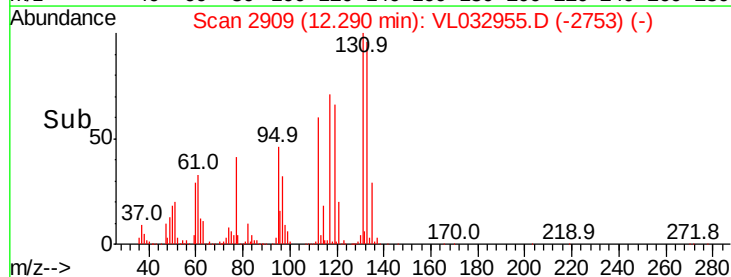
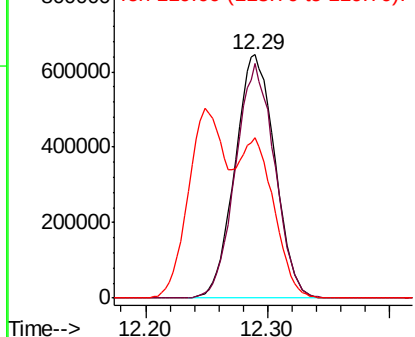


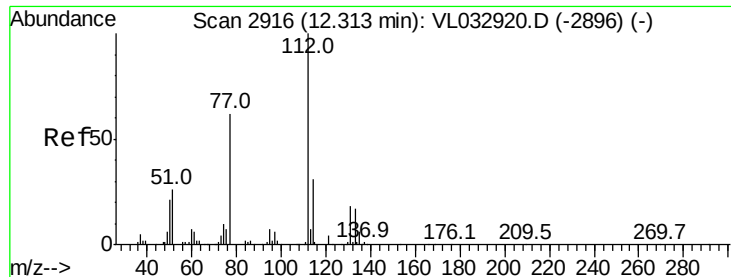
#56  
1,1,1,2-Tetrachloroethane  
Concen: 8.031 ppbv  
RT: 12.29 min Scan# 2909  
Delta R.T. 0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Tgt Ion:131 Resp: 1460184  
Ion Ratio Lower Upper  
131 100  
133 94.5 75.1 112.7  
119 58.9 47.5 71.3



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: 7.913 ppbv

RT: 12.31 min Scan# 2916

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

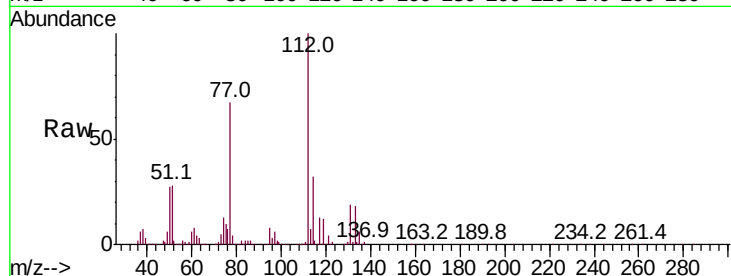
ClientSampleId :

Tot Ion:112 Resp: 2330760

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 112 | 100   |       |       |
| 77  | 66.7  | 51.1  | 76.7  |
| 114 | 31.5  | 28.4  | 34.7  |

77 66.7 51.1 76.7

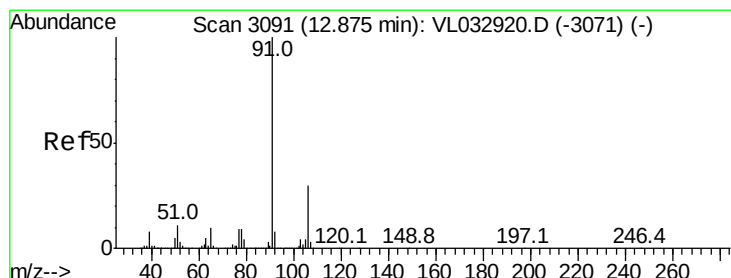
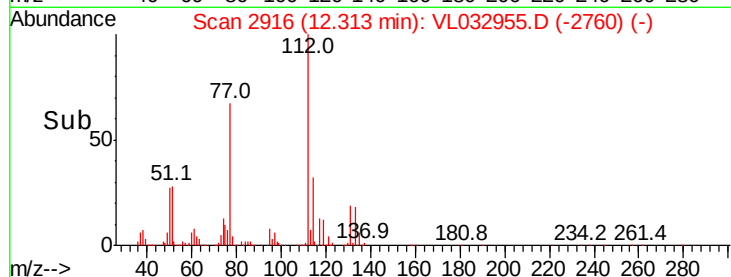
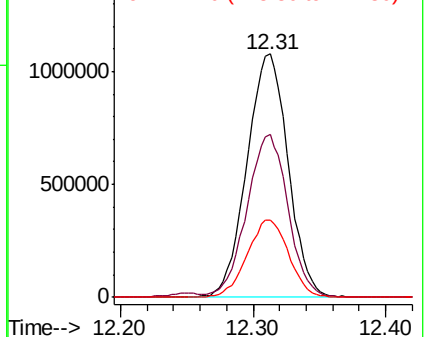
114 31.5 28.4 34.7



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: 9.623 ppbv

RT: 12.88 min Scan# 3091

Delta R.T. 0.00 min

Lab File: VL032955.D

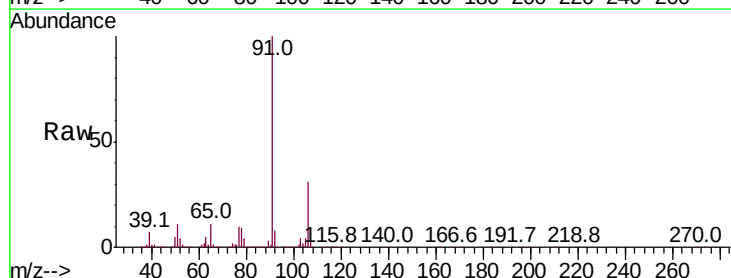
Acq: 11 Dec 2018 15:20

Tgt Ion: 91 Resp: 4186645

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 91  | 100   |       |       |
| 106 | 30.7  | 23.9  | 35.9  |

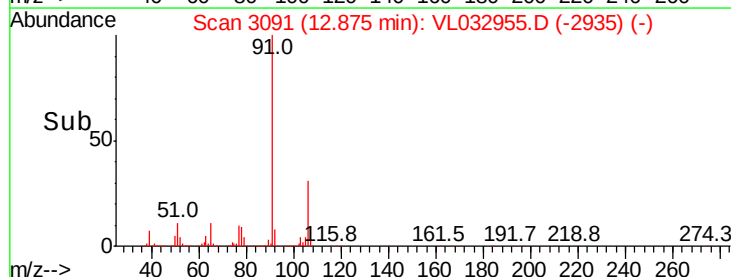
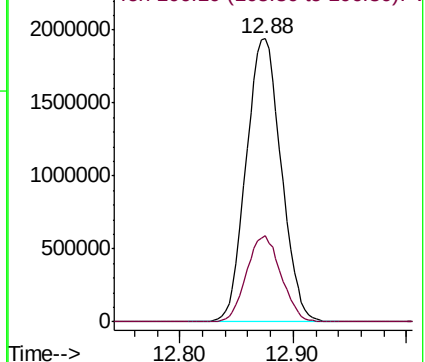
91 100

106 30.7 23.9 35.9

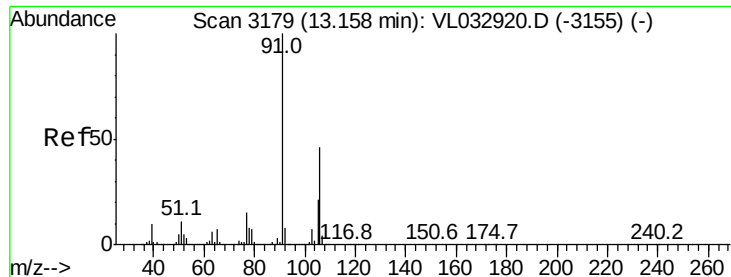


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



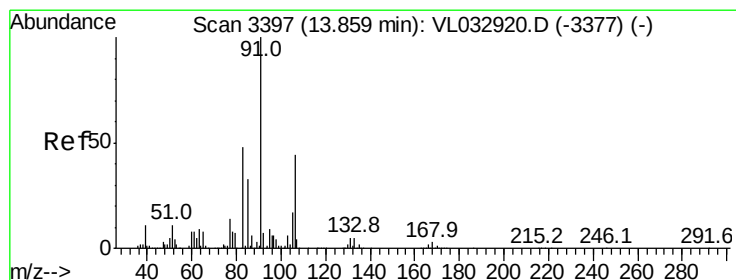
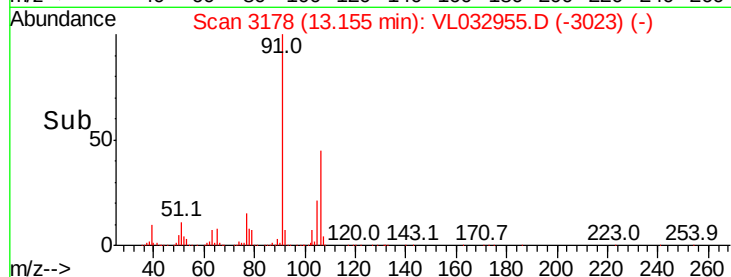
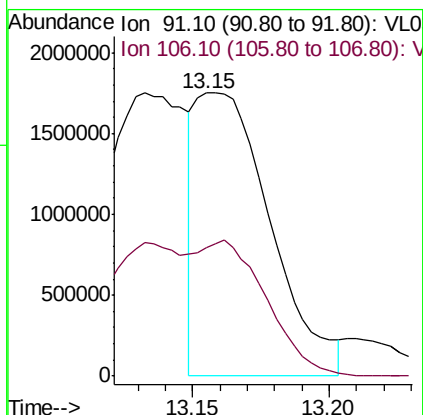
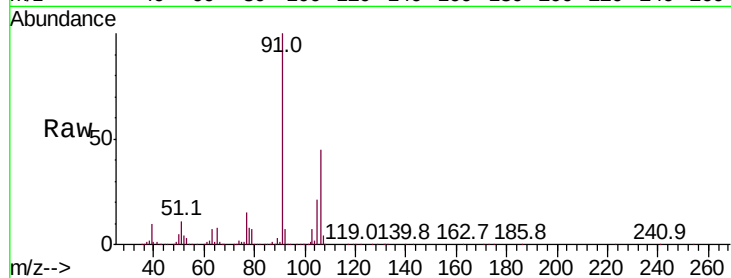




#59  
m/p-Xylene  
Concen: 8.365 ppbv  
RT: 13.15 min Scan# 3178  
Delta R.T. -0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

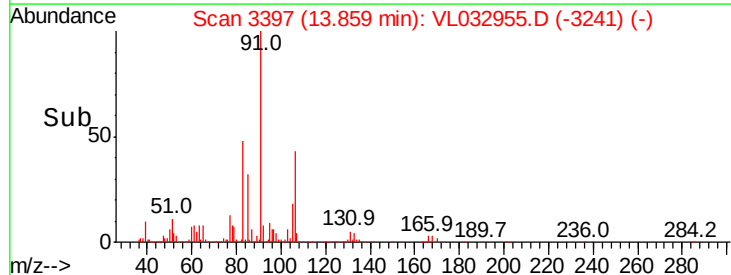
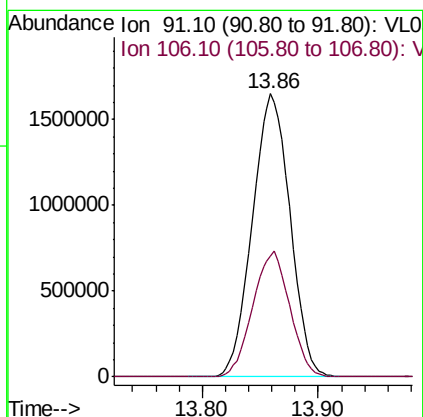
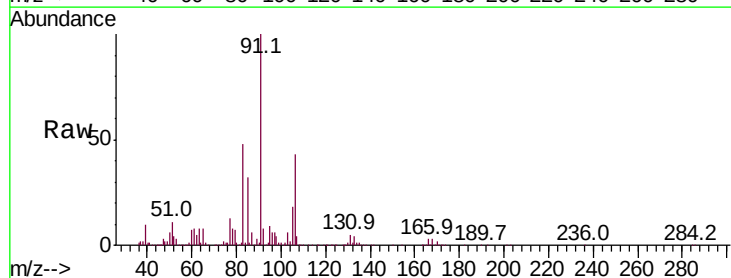
Instrument :  
MSVOA\_L  
ClientSampleId :

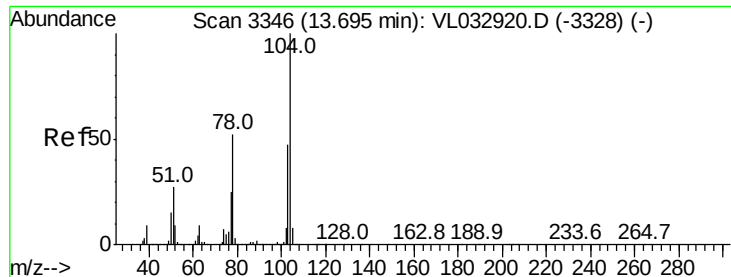
Tot Ion: 91 Resp: 3299522  
Ion Ratio Lower Upper  
91 100  
106 97.5 0.0 0.0#



#60  
o-Xylene  
Concen: 9.350 ppbv  
RT: 13.86 min Scan# 3397  
Delta R.T. 0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Tgt Ion: 91 Resp: 3724166  
Ion Ratio Lower Upper  
91 100  
106 43.6 21.9 65.8





#61

Stvrene

Concen: 9.719 ppbv

RT: 13.70 min Scan# 3347

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

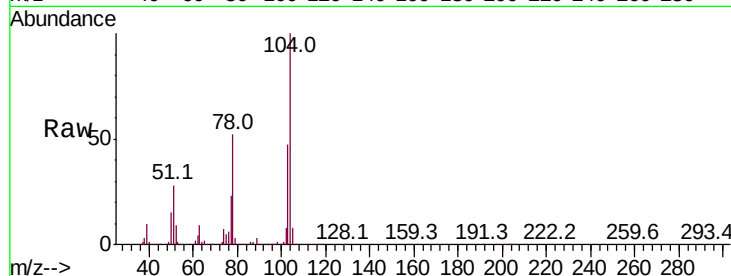
Tot Ion:104 Resp: 2575082

Ion Ratio Lower Upper

104 100

78 52.8 42.0 63.0

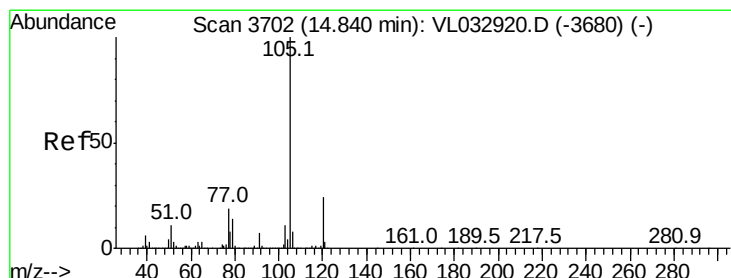
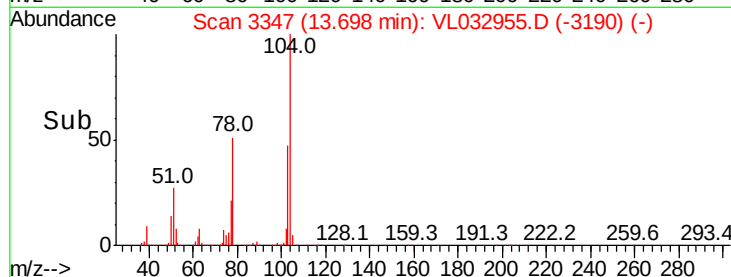
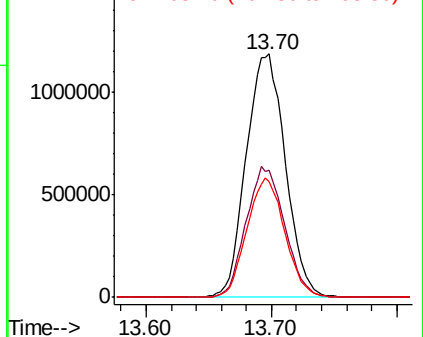
103 47.5 38.3 57.5



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: 9.602 ppbv

RT: 14.84 min Scan# 3701

Delta R.T. -0.00 min

Lab File: VL032955.D

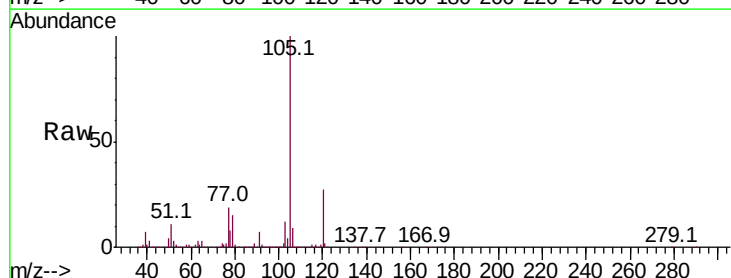
Acq: 11 Dec 2018 15:20

Tgt Ion:105 Resp: 5336233

Ion Ratio Lower Upper

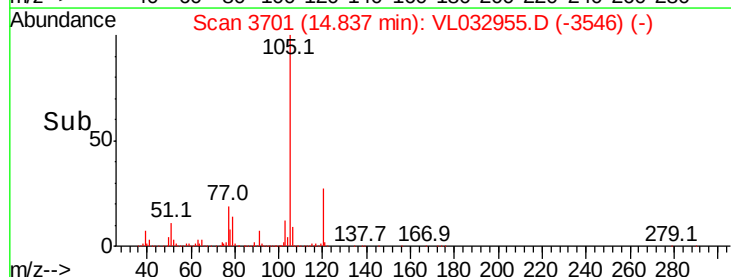
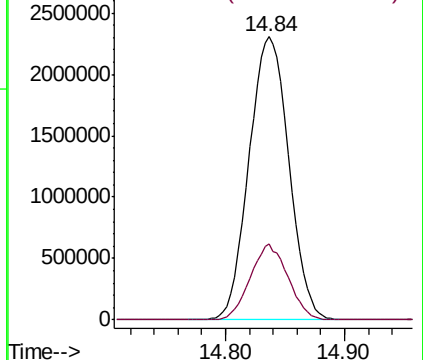
105 100

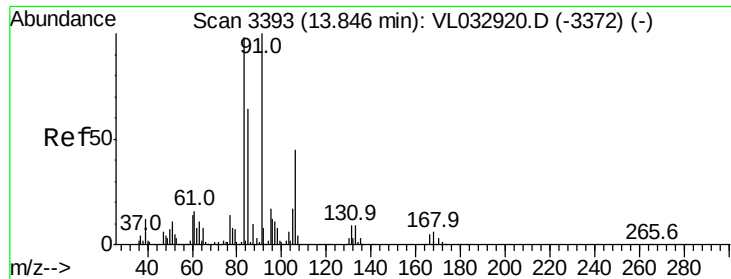
120 25.3 20.3 30.5



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

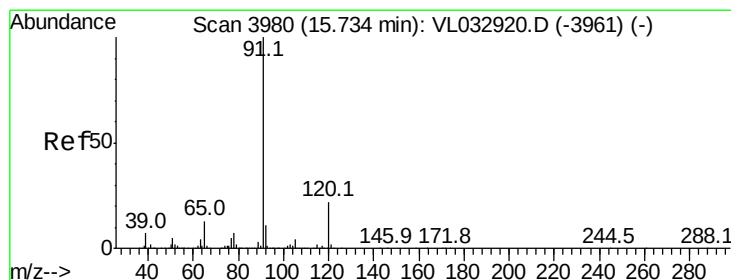
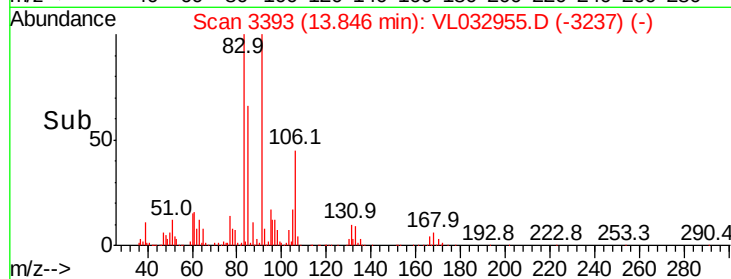
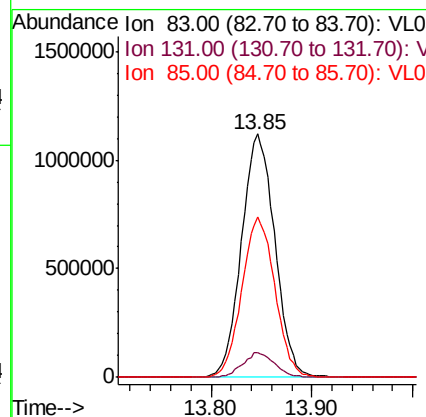
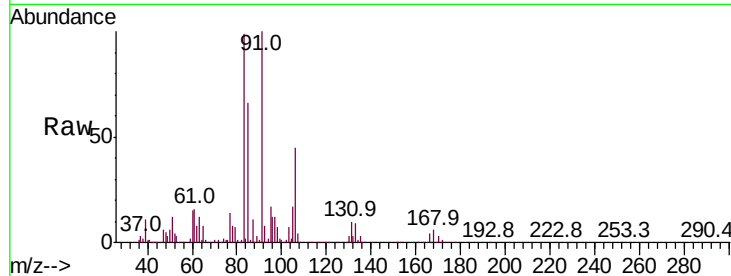




#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 8.286 ppbv  
 RT: 13.85 min Scan# 3393  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

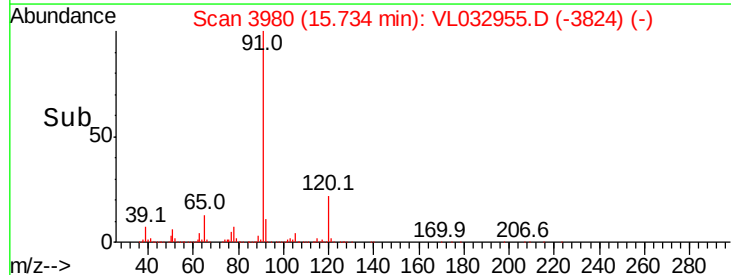
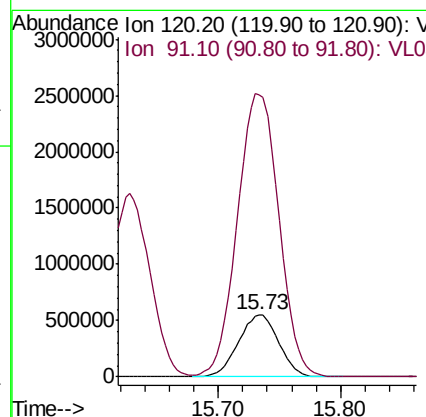
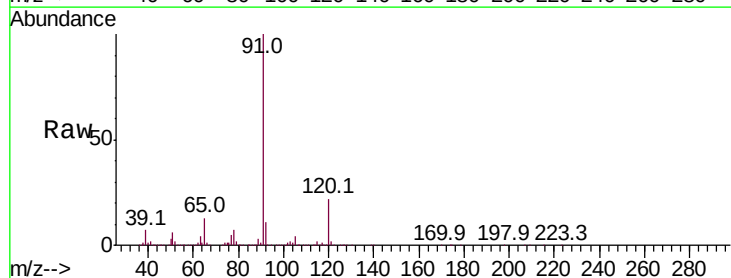
Instrument :  
 MSVOA\_L  
 ClientSampled :

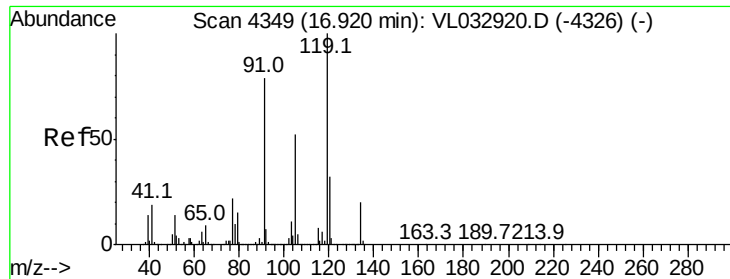
Tot Ion: 83 Resp: 2562721  
 Ion Ratio Lower Upper  
 83 100  
 131 9.8 4.9 14.6  
 85 65.6 32.9 98.6



#64  
 n-propylbenzene  
 Concen: 8.659 ppbv  
 RT: 15.73 min Scan# 3980  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Tgt Ion:120 Resp: 1249894  
 Ion Ratio Lower Upper  
 120 100  
 91 474.7 380.4 570.6





#65

tert-Butylbenzene

Concen: 8.960 ppbv

RT: 16.92 min Scan# 4348

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampleId :

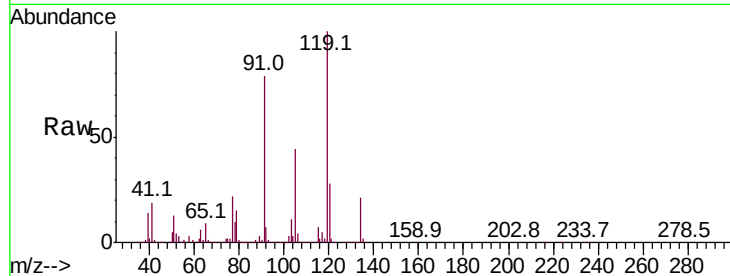
Tot Ion:119 Resp: 4616436

Ion Ratio Lower Upper

119 100

91 81.3 64.5 96.7

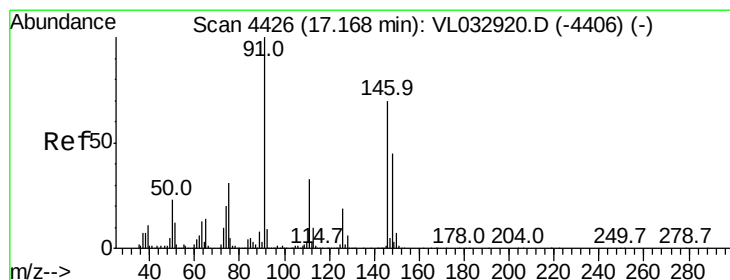
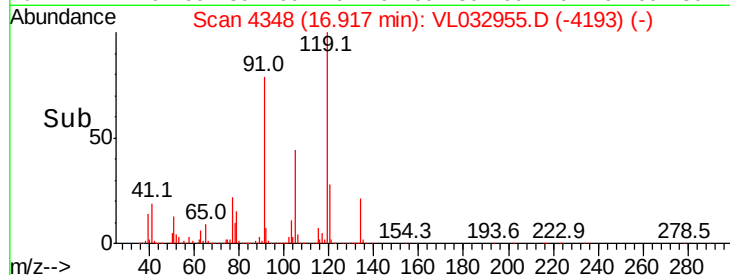
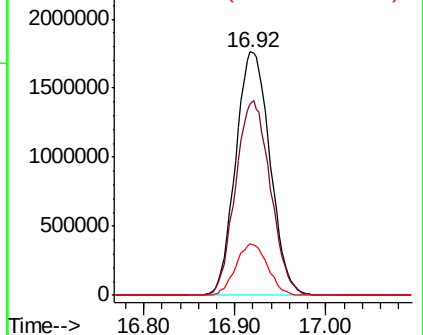
134 19.6 15.7 23.5



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: 9.554 ppbv

RT: 17.17 min Scan# 4426

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

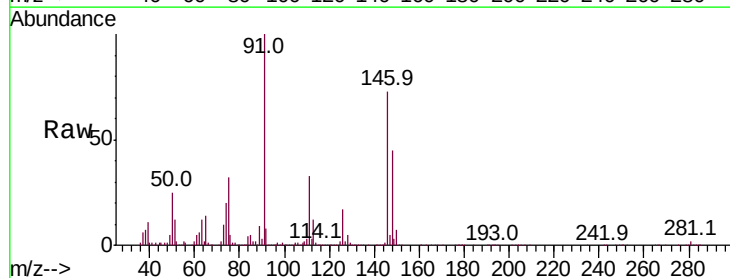
Tgt Ion: 91 Resp: 2728170

Ion Ratio Lower Upper

91 100

126 17.5 14.1 21.1

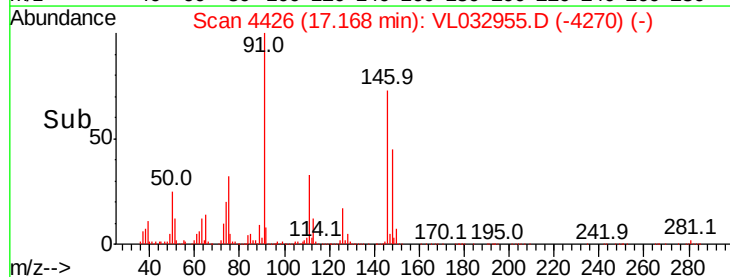
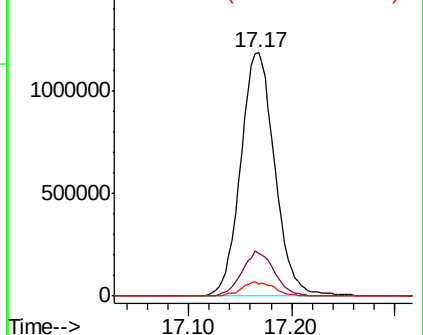
128 5.7 4.5 6.7

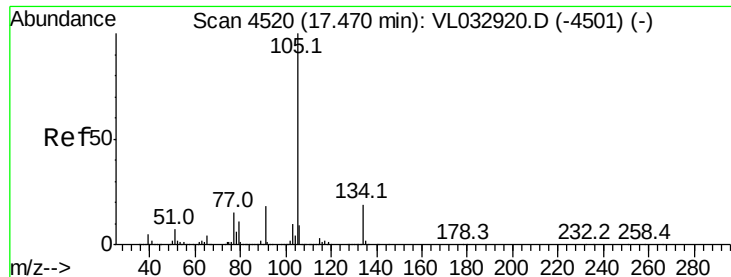


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 8.189 ppbv

RT: 17.47 min Scan# 4520

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

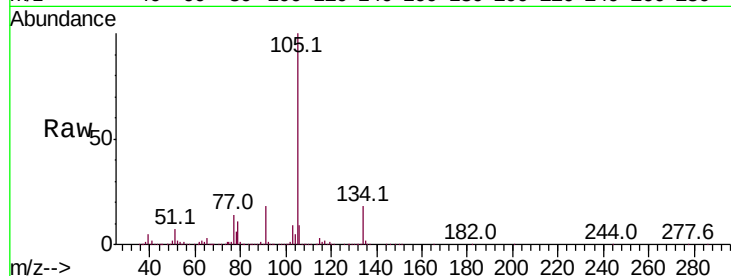
ClientSampled :

Tot Ion:105 Resp: 6220359

Ion Ratio Lower Upper

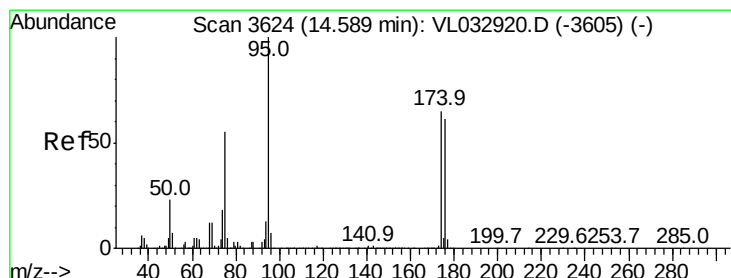
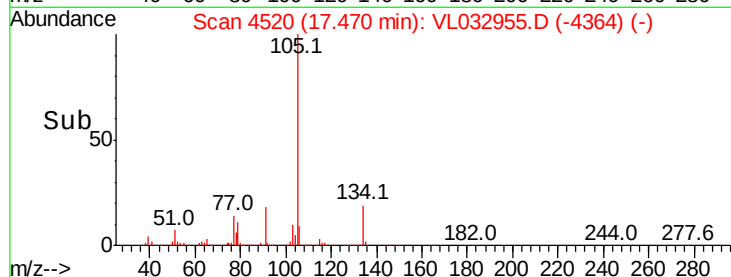
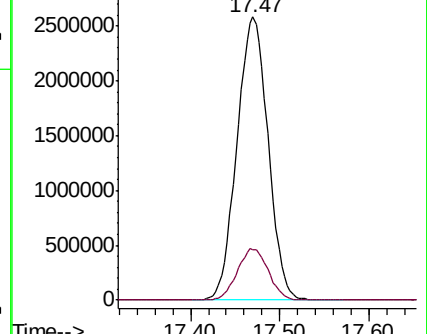
105 100

134 18.2 14.6 21.8



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: 8.858 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

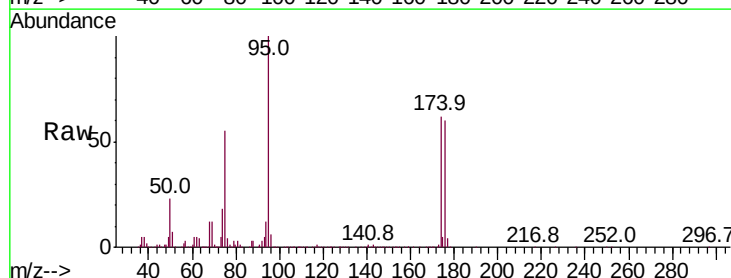
Tgt Ion: 95 Resp: 2668831

Ion Ratio Lower Upper

95 100

174 64.3 51.4 77.0

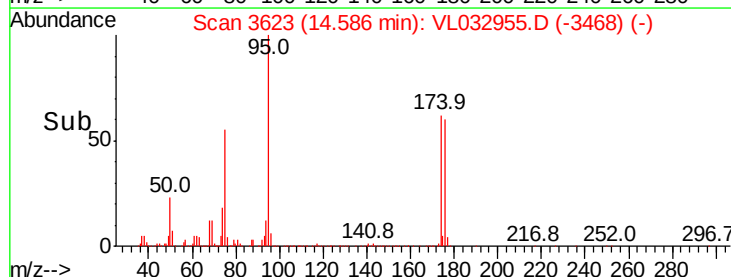
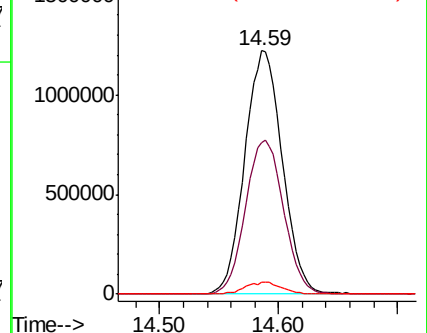
175 4.8 3.8 5.6

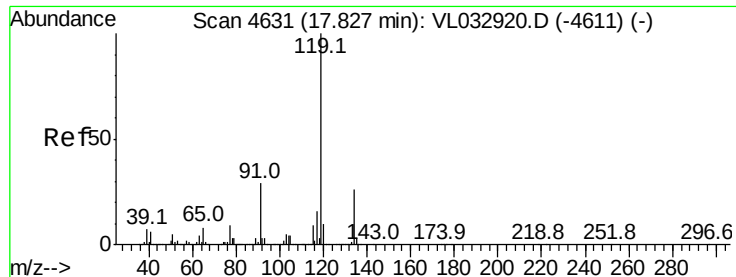


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



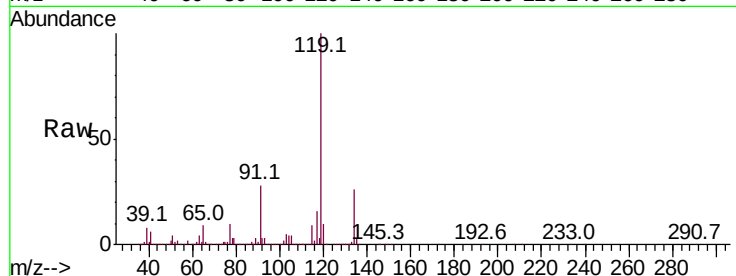


#69  
 p-Isopropyltoluene  
 Concen: 8.433 ppbv  
 RT: 17.83 min Scan# 4631  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

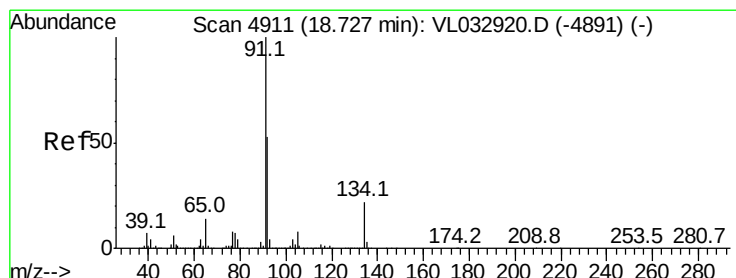
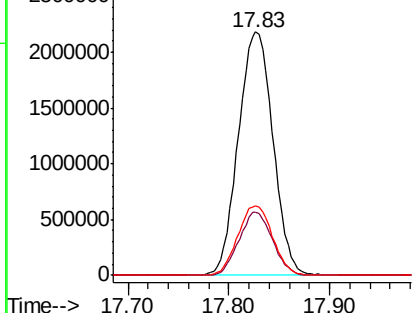
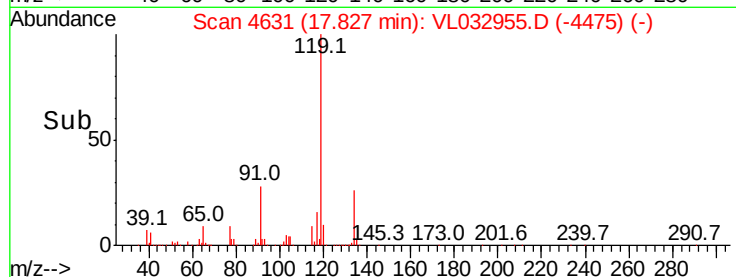
Instrument :  
 MSVOA\_L  
 ClientSampled :

Tot Ion: 119 Resp: 5191460  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 119 | 100   |       |       |
| 134 | 25.2  | 20.2  | 30.2  |
| 91  | 28.6  | 22.9  | 34.3  |



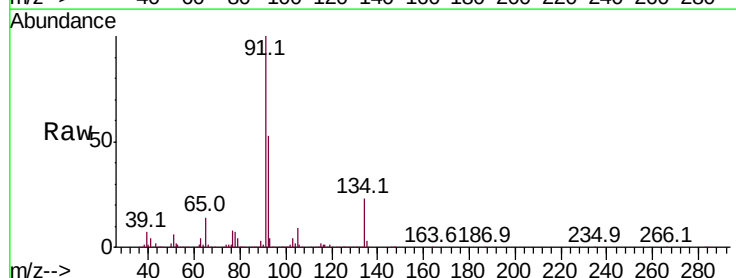
Abundance Ion 119.10 (118.80 to 119.80): V  
 Ion 134.20 (133.90 to 134.90): V  
 Ion 91.10 (90.80 to 91.80): V



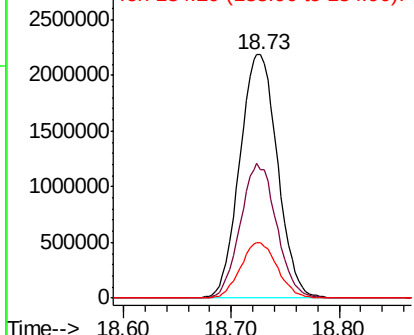
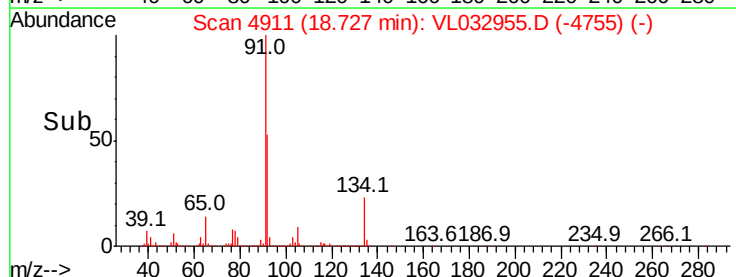
#70  
 n-Butylbenzene  
 Concen: 9.393 ppbv  
 RT: 18.73 min Scan# 4911  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

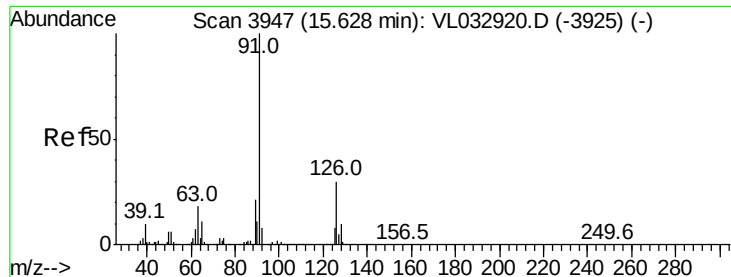
Tgt Ion: 91 Resp: 5319850  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 91  | 100   |       |       |
| 92  | 52.9  | 42.7  | 64.1  |
| 134 | 22.3  | 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

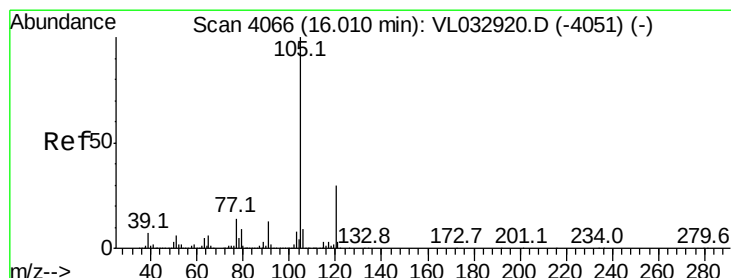
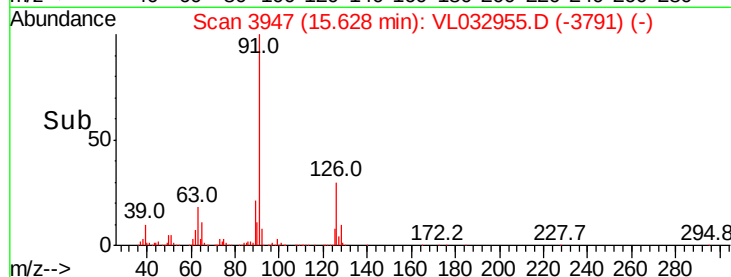
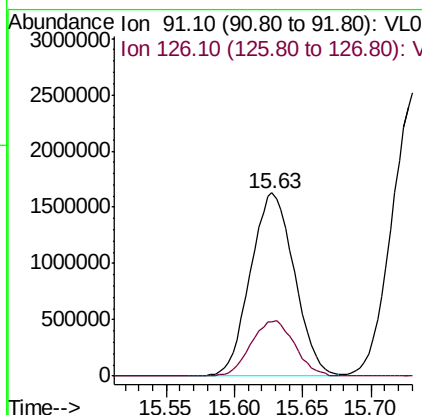
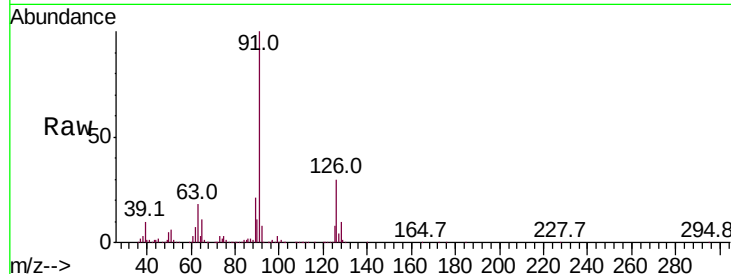




#71  
2-Chlorotoluene  
Concen: 8.805 ppbv  
RT: 15.63 min Scan# 3947  
Delta R.T. 0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

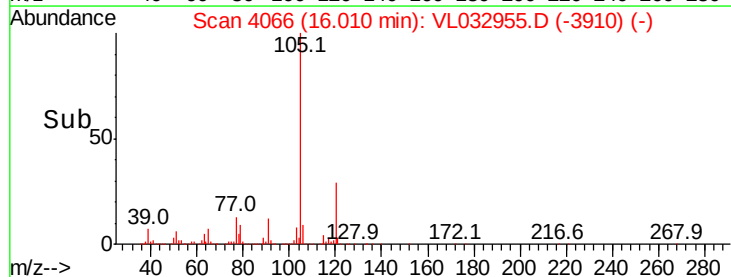
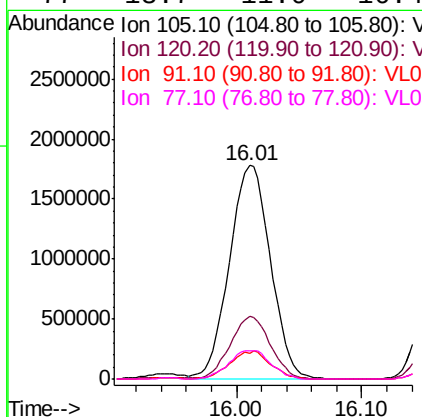
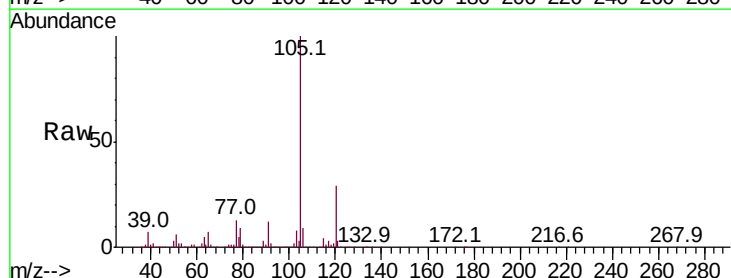
Instrument :  
MSVOA\_L  
ClientSampled :

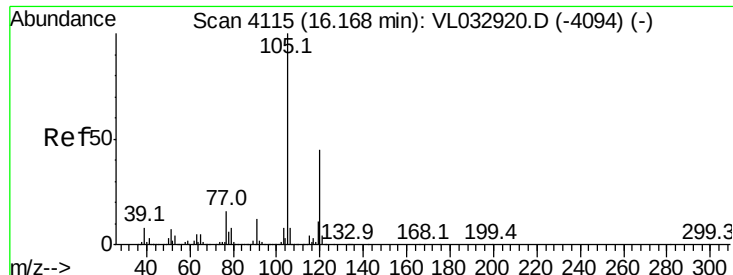
Tot Ion: 91 Resp: 3638997  
Ion Ratio Lower Upper  
91 100  
126 30.4 12.3 49.3



#72  
4-Ethyltoluene  
Concen: 9.047 ppbv  
RT: 16.01 min Scan# 4066  
Delta R.T. 0.00 min  
Lab File: VL032955.D  
Acq: 11 Dec 2018 15:20

Tgt Ion:105 Resp: 4023361  
Ion Ratio Lower Upper  
105 100  
120 29.0 23.0 34.4  
91 13.0 10.4 15.6  
77 13.7 11.0 16.4





#73

1,3,5-Trimethylbenzene

Concen: 8.947 ppbv

RT: 16.17 min Scan# 4115

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

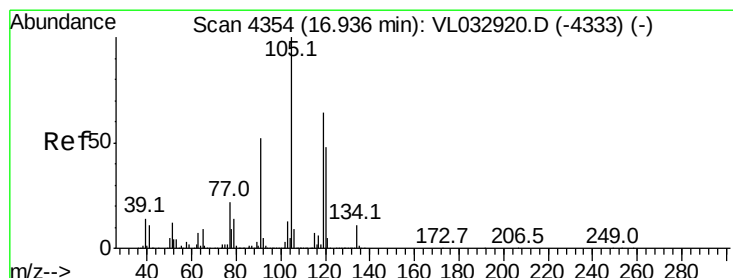
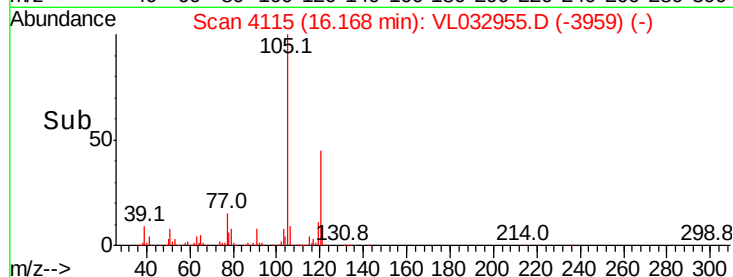
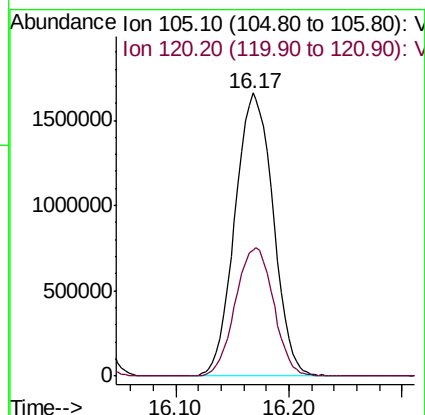
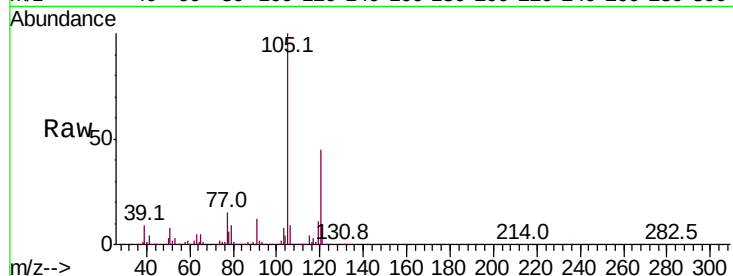
ClientSampleId :

Tot Ion:105 Resp: 3884241

Ion Ratio Lower Upper

105 100

120 44.5 36.0 54.0



#74

1,2,4-Trimethylbenzene

Concen: 8.580 ppbv

RT: 16.94 min Scan# 4354

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Tgt Ion:105 Resp: 4206076

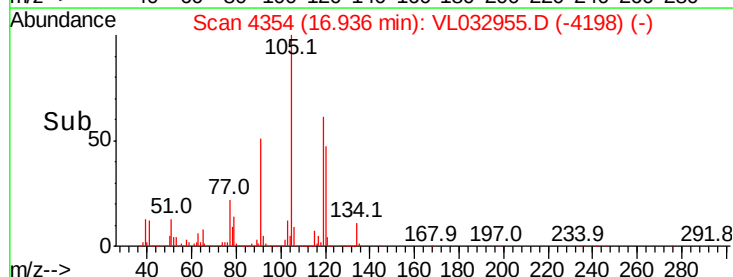
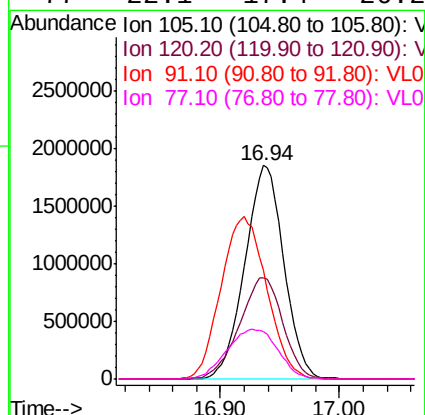
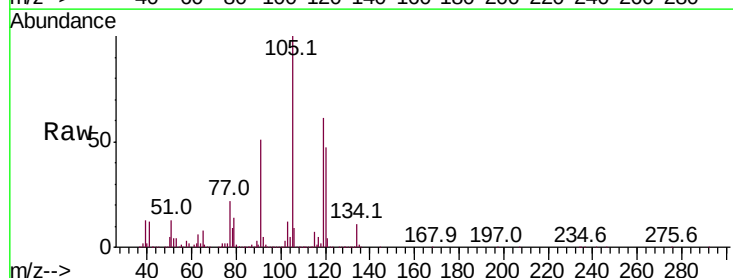
Ion Ratio Lower Upper

105 100

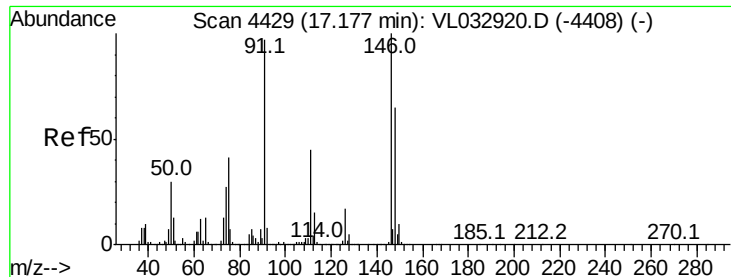
120 47.1 38.6 58.0

91 50.8 41.7 62.5

77 22.1 17.4 26.2



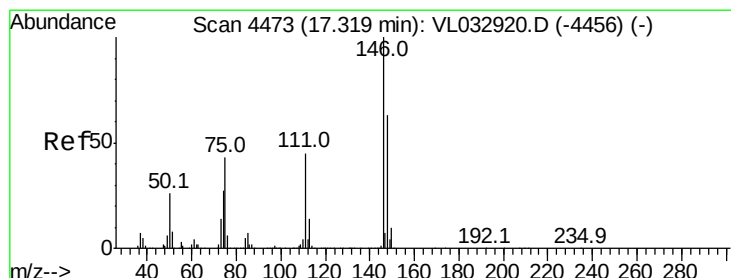
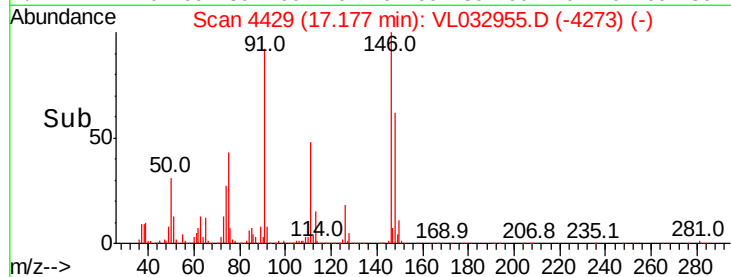
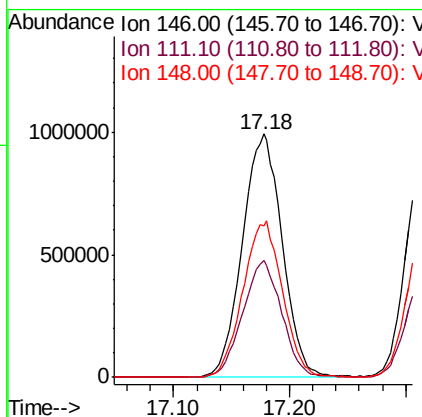
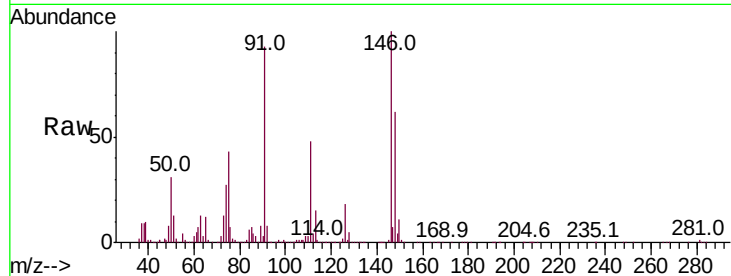




#75  
 1,3-Dichlorobenzene  
 Concen: 8.208 ppbv  
 RT: 17.18 min Scan# 4429  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

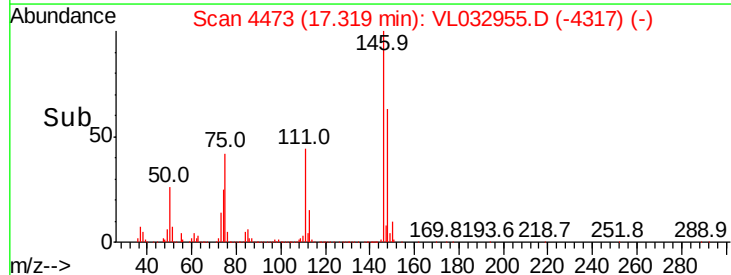
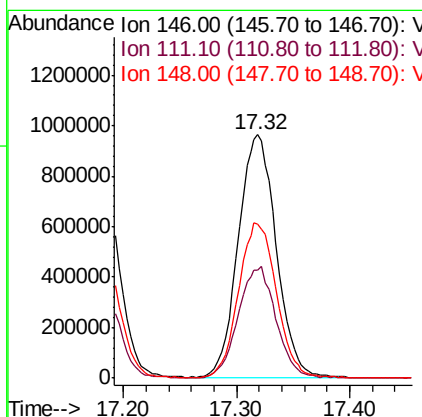
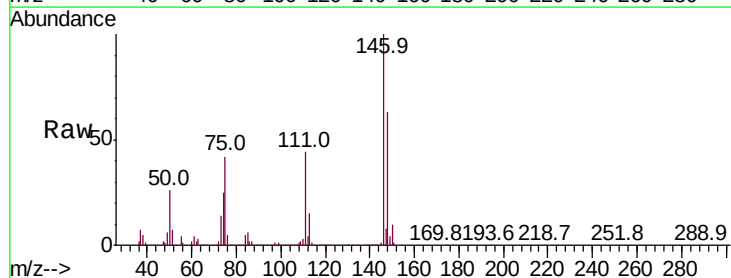
Instrument :  
 MSVOA\_L  
 ClientSampleId :

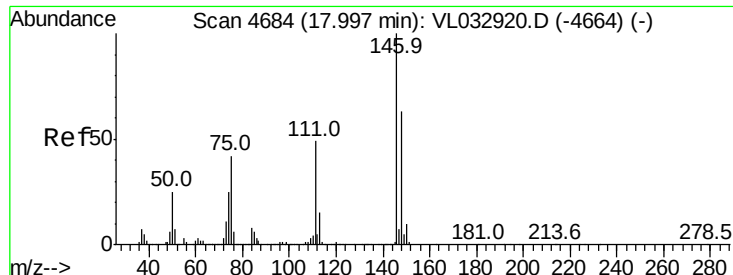
Tot Ion:146 Resp: 2369429  
 Ion Ratio Lower Upper  
 146 100  
 111 47.1 23.6 70.8  
 148 64.0 32.1 96.3



#76  
 1,4-Dichlorobenzene  
 Concen: 8.292 ppbv  
 RT: 17.32 min Scan# 4473  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Tgt Ion:146 Resp: 2233660  
 Ion Ratio Lower Upper  
 146 100  
 111 45.8 22.8 68.4  
 148 64.8 32.0 96.2

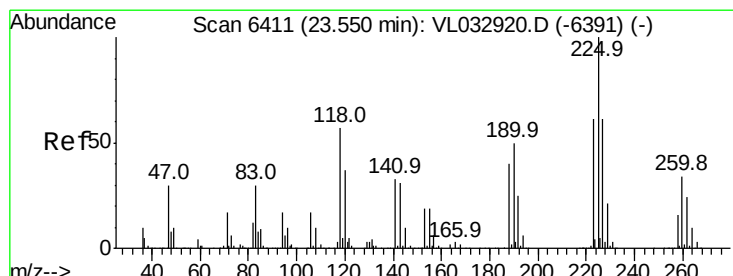
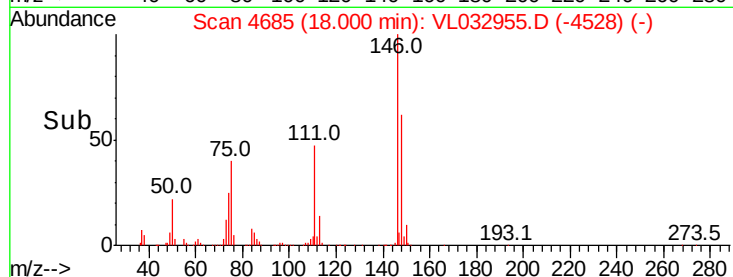
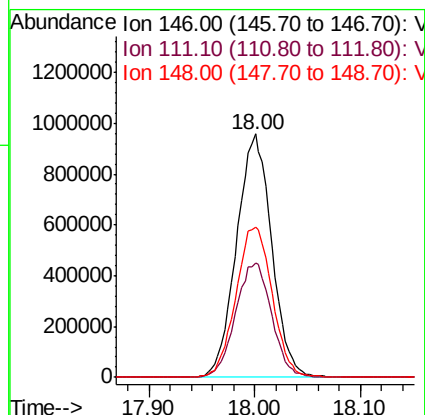
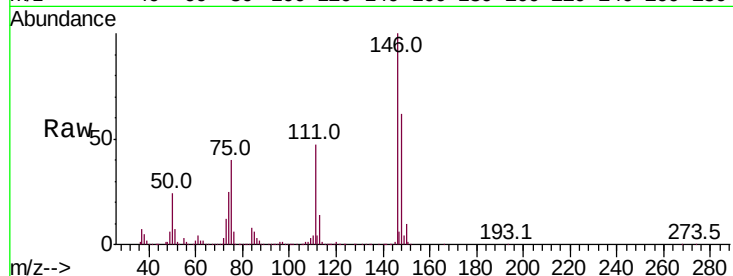




#77  
 1,2-Dichlorobenzene  
 Concen: 8.195 ppbv  
 RT: 18.00 min Scan# 4685  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

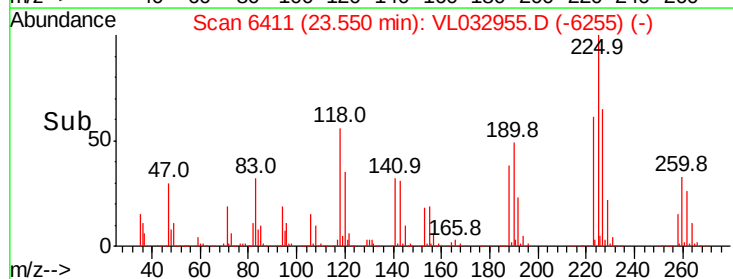
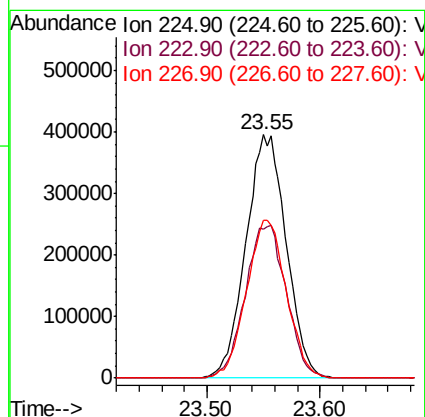
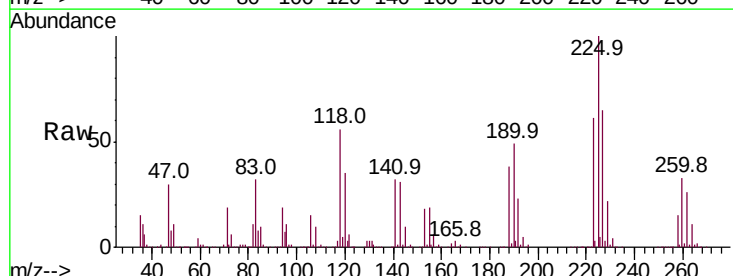
Instrument :  
 MSVOA\_L  
 ClientSampleId :

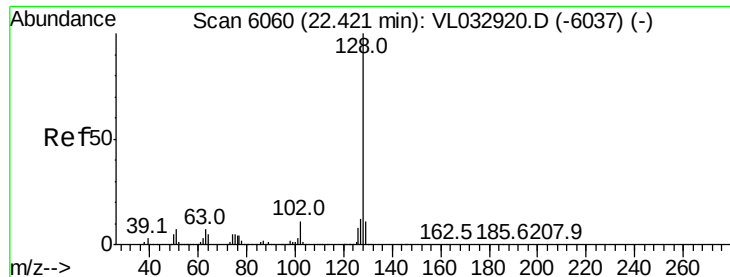
Tot Ion:146 Resp: 2209091  
 Ion Ratio Lower Upper  
 146 100  
 111 48.4 24.3 72.9  
 148 64.2 32.0 96.2



#78  
 Hexachloro-1,3-Butadiene  
 Concen: 6.602 ppbv  
 RT: 23.55 min Scan# 6411  
 Delta R.T. 0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Tgt Ion:225 Resp: 978802  
 Ion Ratio Lower Upper  
 225 100  
 223 63.9 50.6 75.8  
 227 64.3 50.4 75.6





#79

Naphthalene

Concen: 9.775 ppbv

RT: 22.42 min Scan# 6061

Delta R.T. 0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

Instrument :

MSVOA\_L

ClientSampled :

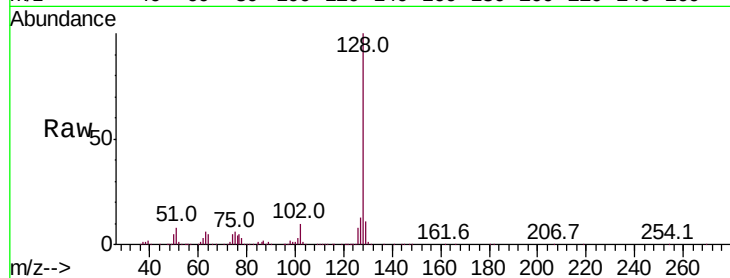
Tot Ion:128 Resp: 3093938

Ion Ratio Lower Upper

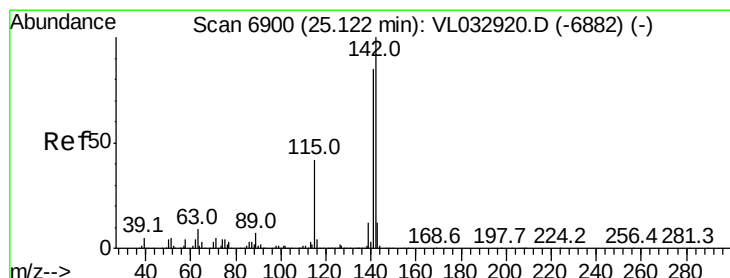
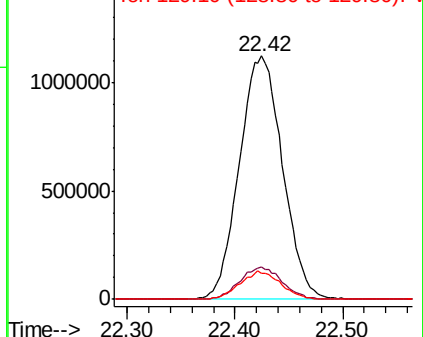
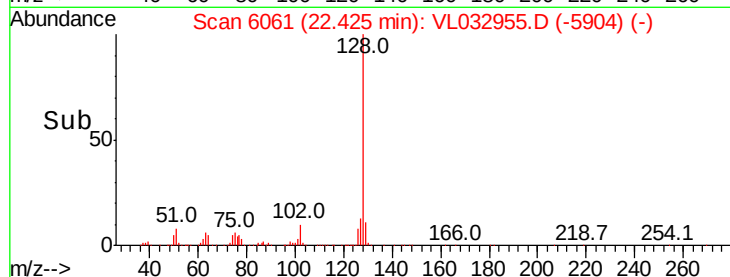
128 100

127 13.4 9.9 14.9

129 10.8 8.6 13.0



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: 11.877 ppbv

RT: 25.12 min Scan# 6899

Delta R.T. -0.00 min

Lab File: VL032955.D

Acq: 11 Dec 2018 15:20

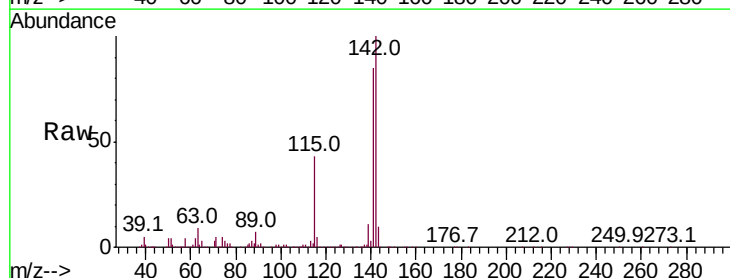
Tgt Ion:142 Resp: 803211

Ion Ratio Lower Upper

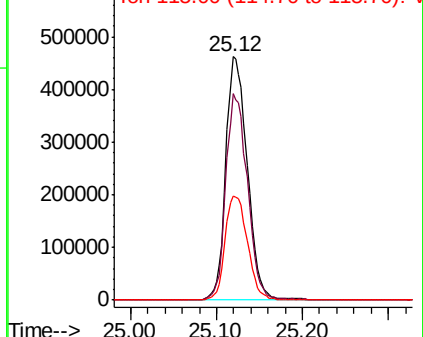
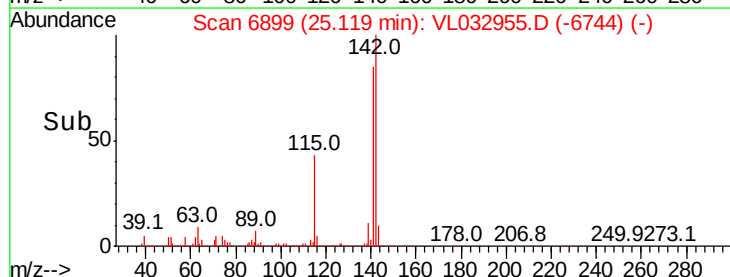
142 100

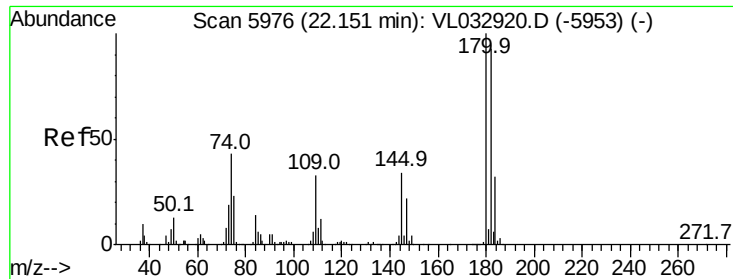
141 85.2 68.2 102.2

115 44.5 35.1 52.7



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

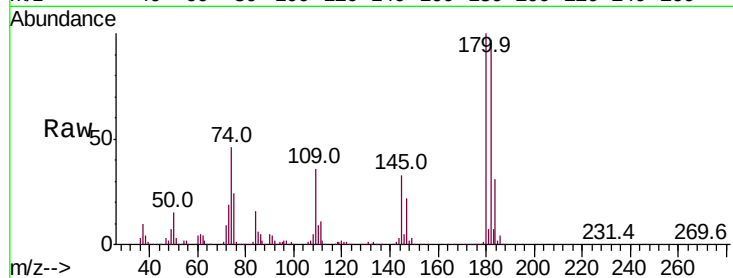




#81  
 1,2,4-Trichlorobenzene  
 Concen: 9.163 ppbv  
 RT: 22.15 min Scan# 5975  
 Delta R.T. -0.00 min  
 Lab File: VL032955.D  
 Acq: 11 Dec 2018 15:20

Instrument :  
 MSVOA\_L  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.0  | 77.0  | 115.6 |
| 184     | 30.6  | 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

