

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD091120\  
 Data File : VD066652.D  
 Acq On : 11 Sep 2020 16:57  
 Operator : VA/SY  
 Sample : L3981-03  
 Misc : 2.48G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Sep 12 00:40:57 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D090320S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 04 01:57:04 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 371088   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.86  | 114  | 656143   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 600320   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 219224   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.33  | 65   | 236878   | 52.76 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.52% |          |
| 35) Dibromofluoromethane    | 7.91  | 113  | 230727   | 52.13 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.26% |          |
| 50) Toluene-d8              | 10.34 | 98   | 808967   | 51.13 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.26% |          |
| 62) 4-Bromofluorobenzene    | 12.63 | 95   | 244241   | 46.56 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.12%  |          |

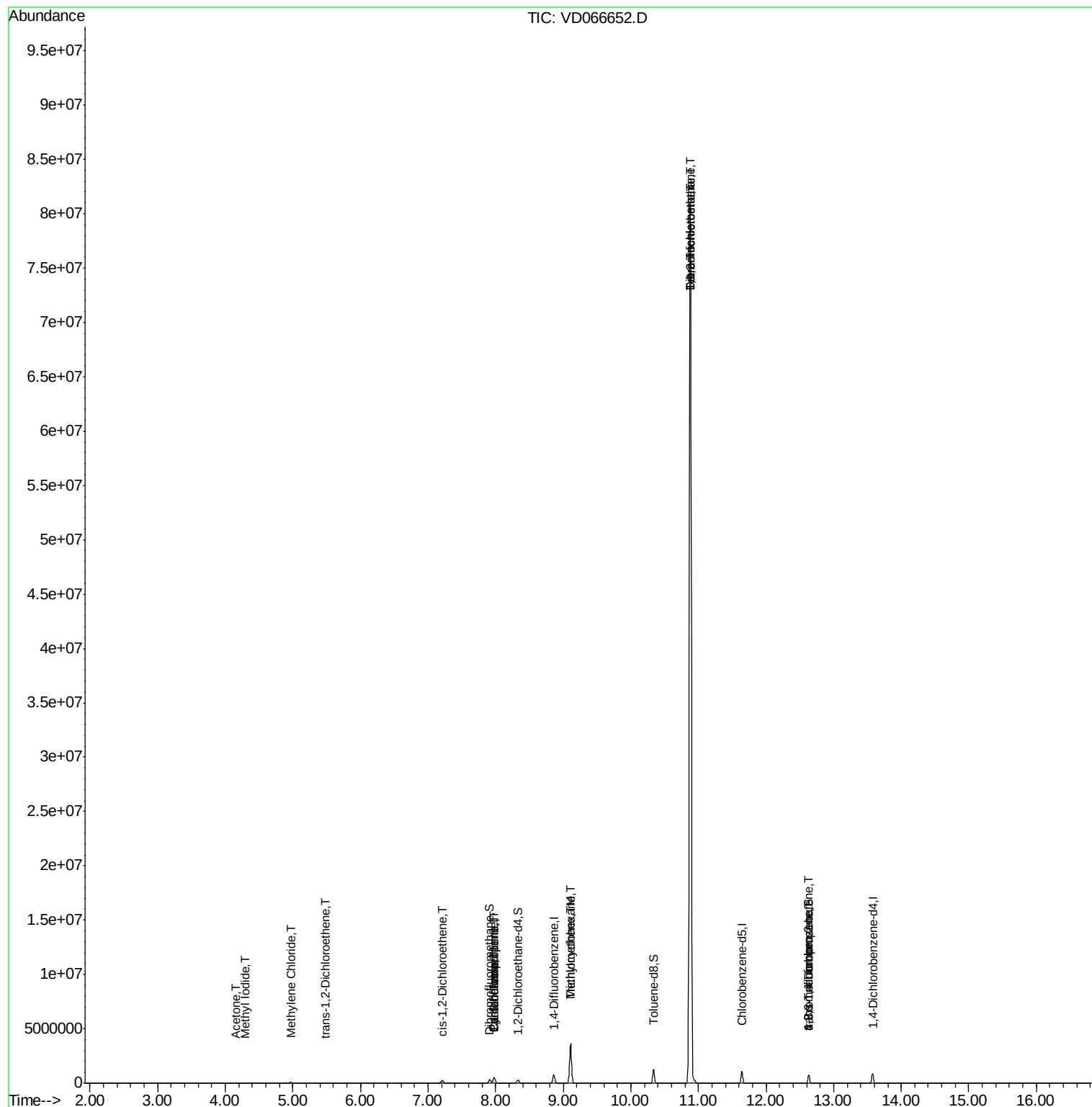
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.99  | 85   | 382      | Below Cal | #      | 46     |
| 5) Bromomethane                | 2.79  | 94   | 506      | Below Cal |        | 99     |
| 10) Methyl Iodide              | 4.29  | 142  | 207      | 4.073     | ug/l # | 35     |
| 11) Tert butyl alcohol         | 5.23  | 59   | 72       | Below Cal | #      | 74     |
| 16) Acetone                    | 4.17  | 43   | 1941     | 2.350     | ug/l # | 85     |
| 20) Methylene Chloride         | 4.97  | 84   | 37972    | 2.093     | ug/l   | 94     |
| 21) trans-1,2-Dichloroethene   | 5.48  | 96   | 7939     | 1.788     | ug/l # | 79     |
| 27) cis-1,2-Dichloroethene     | 7.21  | 96   | 130986   | 27.435    | ug/l   | 90     |
| 31) Cyclohexane                | 7.97  | 56   | 10572    | 1.443     | ug/l # | 32     |
| 36) 1,1-Dichloropropene        | 7.98  | 75   | 35143    | 5.147     | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.98  | 117  | 40826    | 5.656     | ug/l # | 18     |
| 39) Methylcyclohexane          | 9.11  | 83   | 17305    | 2.270     | ug/l # | 1      |
| 44) Trichloroethene            | 9.11  | 130  | 1269171  | 258.718   | ug/l   | 93     |
| 55) 1,1,2-Trichloroethane      | 10.87 | 97   | 240275   | 72.020    | ug/l # | 35     |
| 60) Dibromochloromethane       | 10.87 | 129  | 19305887 | 4376.088  | ug/l # | 10     |
| 64) Tetrachloroethene          | 10.87 | 164  | 19580081 | 4844.185  | ug/l # | 88     |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75   | 134804   | 63.938    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.63 | 75   | 134804   | 149.273   | ug/l # | 7      |

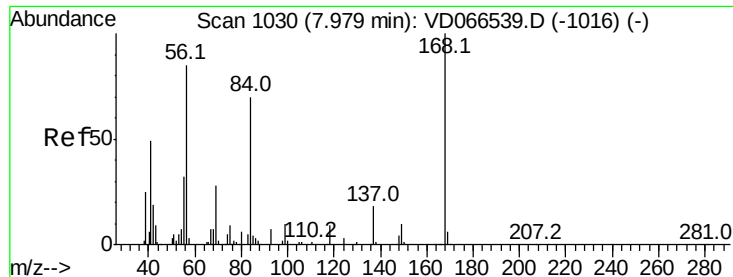
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD091120\  
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ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :

Quant Time: Sep 12 00:40:57 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D090320S.M  
Quant Title : SW846 8260  
QLast Update : Fri Sep 04 01:57:04 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.00 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

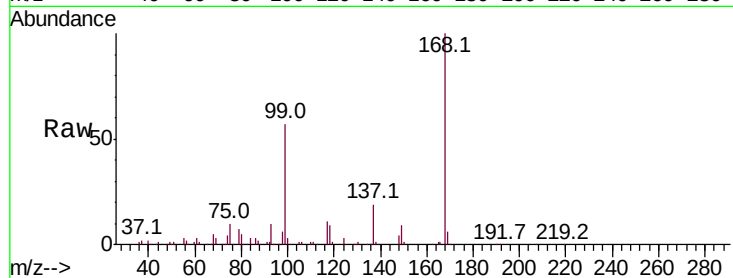
Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion:168 Resp: 371088

Ion Ratio Lower Upper

168 100

99 56.8 50.5 75.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): V

7.98

200000

150000

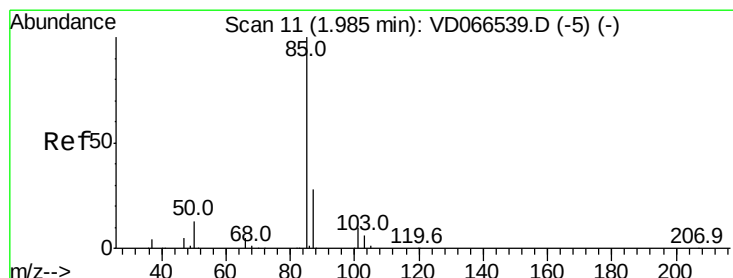
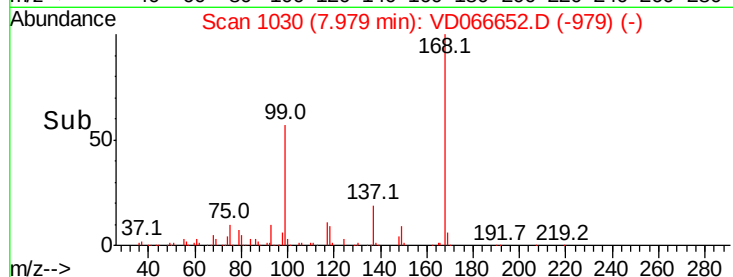
100000

50000

0

Time-->

7.90 8.00 8.10



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.99 min Scan# 11

Delta R.T. 0.00 min

Lab File: VD066652.D

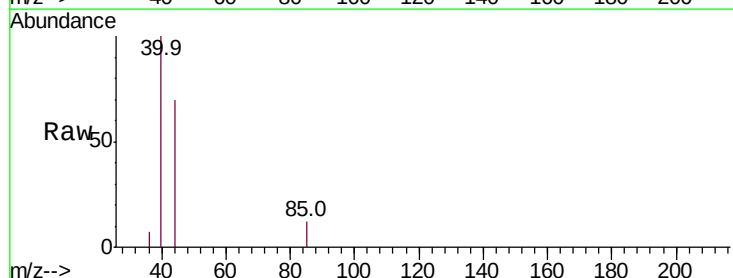
Acq: 11 Sep 2020 16:57

Tgt Ion: 85 Resp: 382

Ion Ratio Lower Upper

85 100

87 0.0 14.2 42.6#



Abundance Ion 84.90 (84.60 to 85.60): V

Ion 86.90 (86.60 to 87.60): V

1.99

400

300

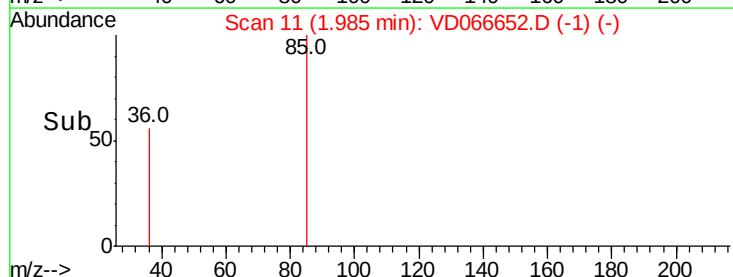
200

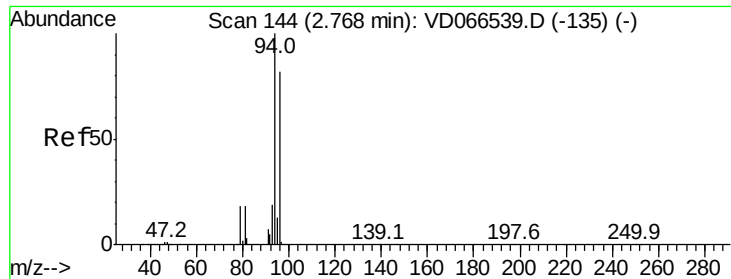
100

0

Time-->

1.96 1.98 2.00 2.02





#5

Bromomethane

Concen: Below Cal

RT: 2.79 min Scan# 147

Delta R.T. 0.02 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

Instrument :

MSVOA\_D

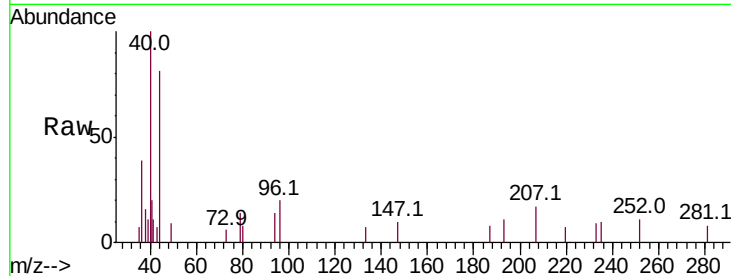
ClientSampled :

Tot Ion: 94 Resp: 506

Ion Ratio Lower Upper

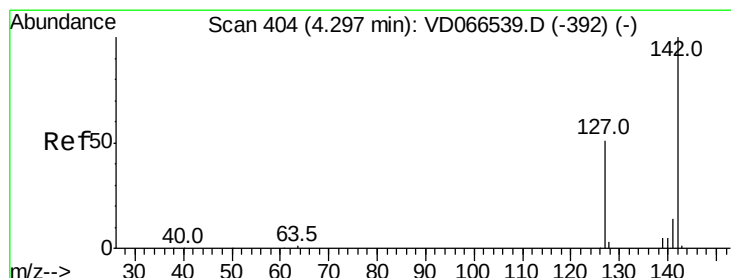
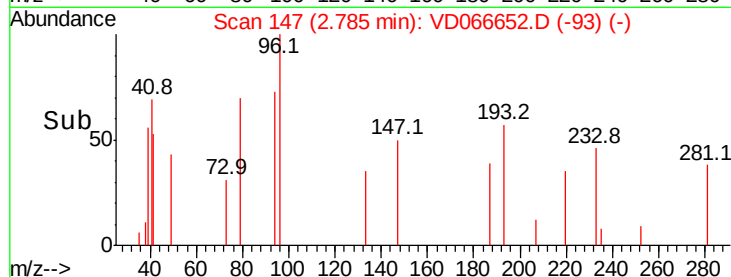
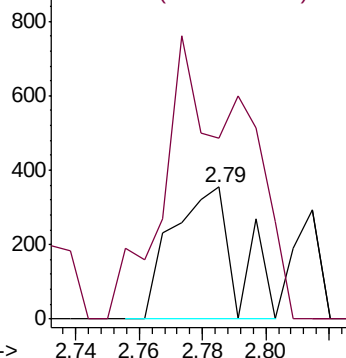
94 100

96 82.8 65.2 97.8



Abundance Ion 93.90 (93.60 to 94.60): VDC

Ion 95.90 (95.60 to 96.60): VDC



#10

Methyl Iodide

Concen: 4.073 ug/l

RT: 4.29 min Scan# 403

Delta R.T. -0.00 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

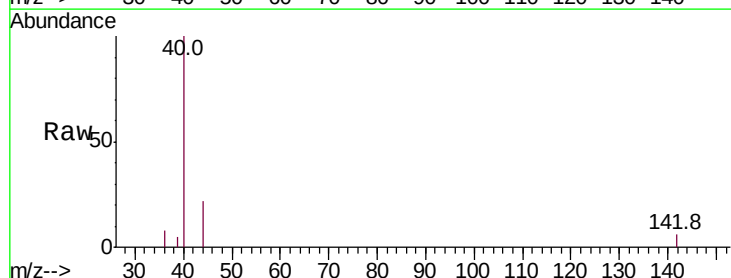
Tgt Ion: 142 Resp: 207

Ion Ratio Lower Upper

142 100

127 0.0 40.6 61.0#

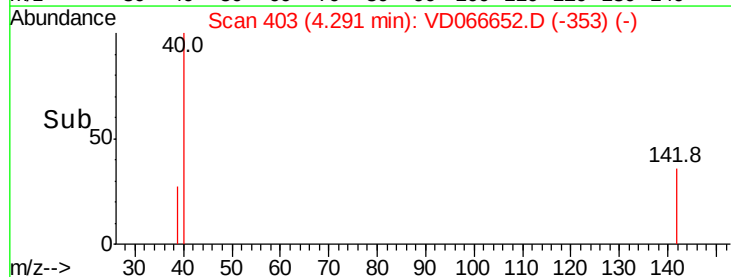
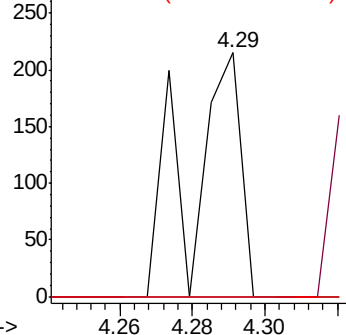
141 0.0 12.2 18.4#

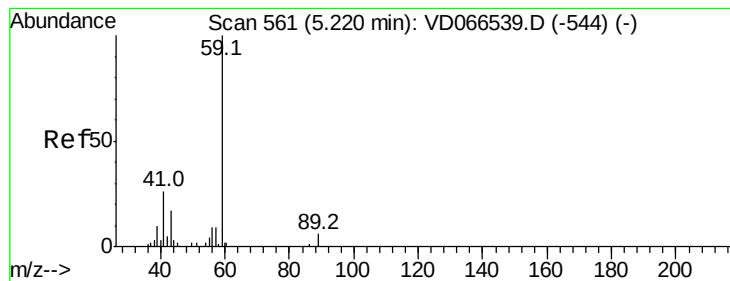


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



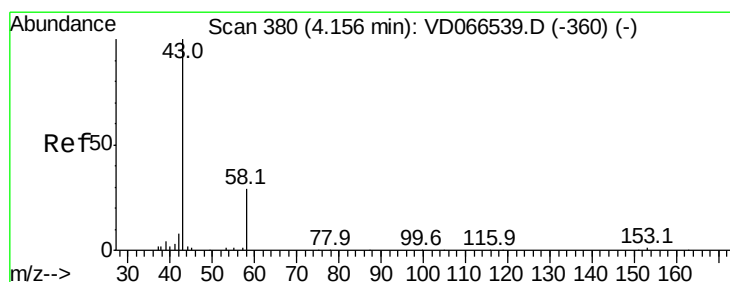
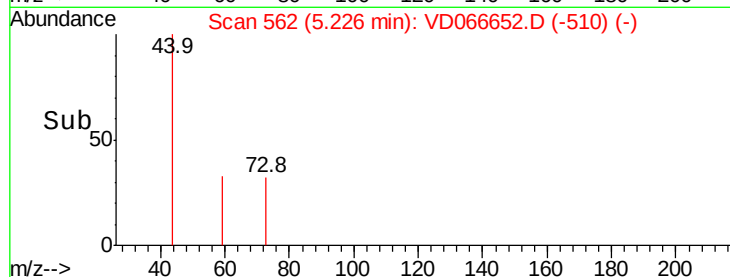
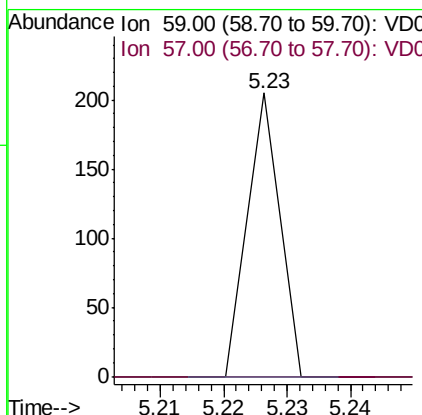
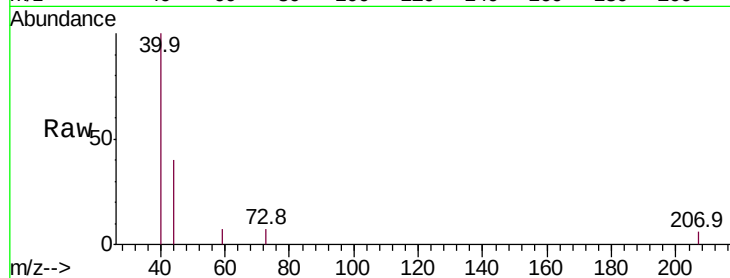


#11

Tert butyl alcohol  
 Concen: Below Cal  
 RT: 5.23 min Scan# 562  
 Delta R.T. 0.01 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

Instrument :  
 MSVOA\_D  
 ClientSampled :

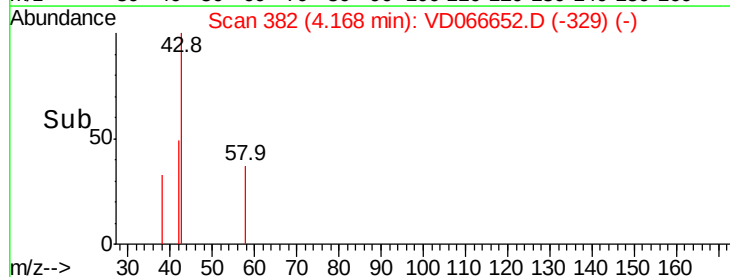
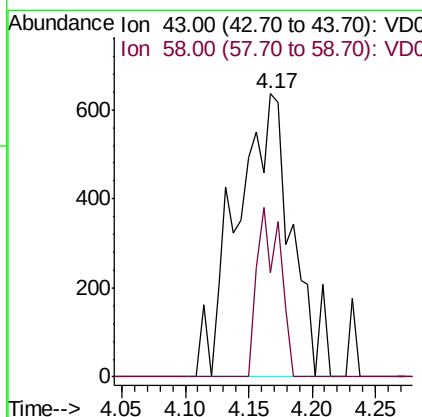
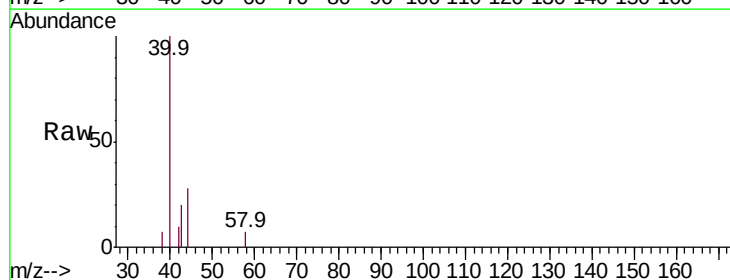
Tot Ion: 59 Resp: 72  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 7.6 11.4#

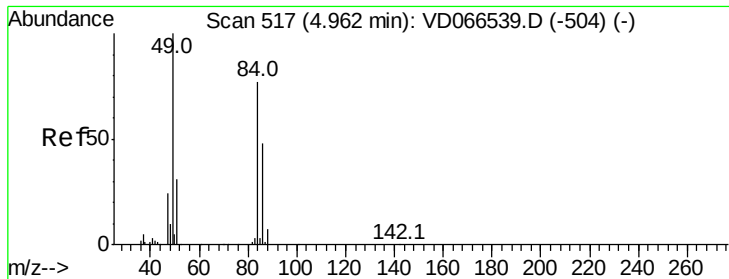


#16

Acetone  
 Concen: 2.350 ug/l  
 RT: 4.17 min Scan# 382  
 Delta R.T. 0.01 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

Tgt Ion: 43 Resp: 1941  
 Ion Ratio Lower Upper  
 43 100  
 58 36.8 22.9 34.3#

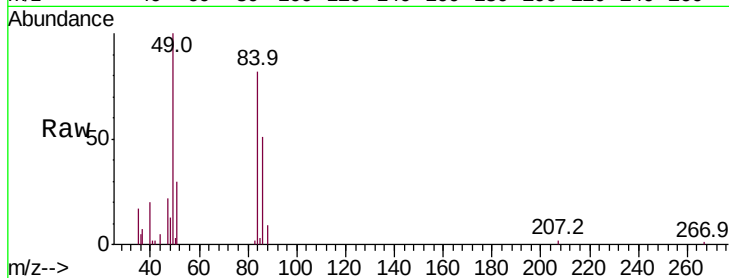




#20  
Methylene Chloride  
Concen: 2.093 ug/l  
RT: 4.97 min Scan# 519  
Delta R.T. 0.01 min  
Lab File: VD066652.D  
Acq: 11 Sep 2020 16:57

Instrument :  
MSVOA\_D  
ClientSampleID :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 37972 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 120.5 | 104.3 | 156.5 |
| 51       | 36.7  | 32.2  | 48.4  |
| 86       | 62.5  | 50.0  | 75.0  |



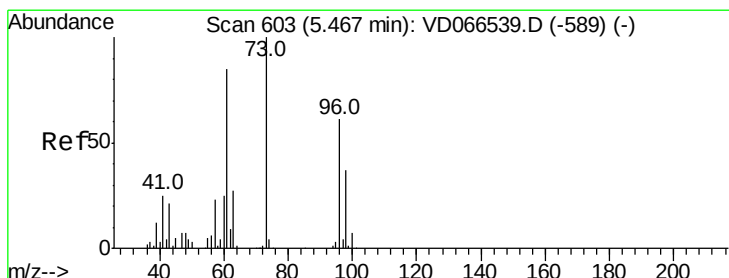
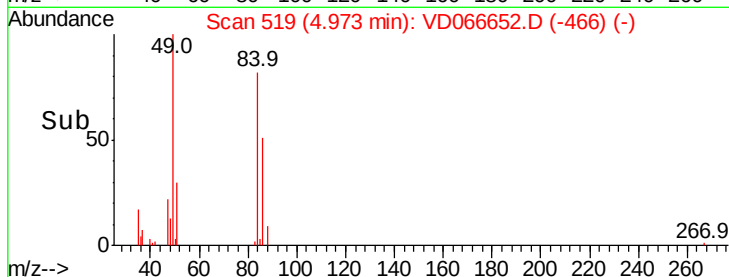
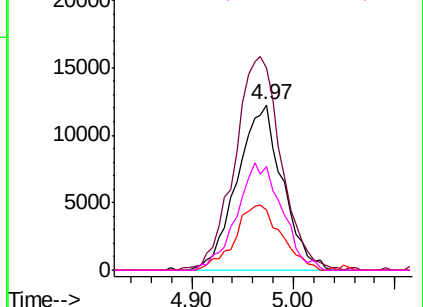
Abundance

Ion 83.90 (83.60 to 84.60): VDC

Ion 48.90 (48.60 to 49.60): VDC

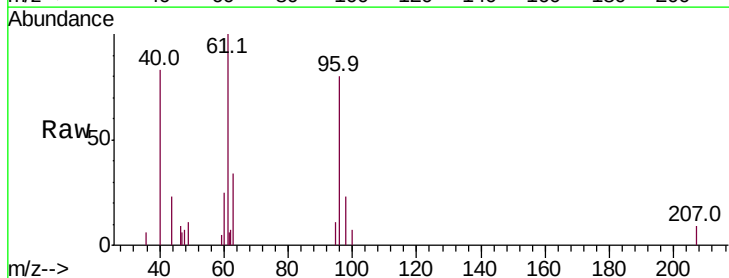
Ion 50.90 (50.60 to 51.60): VDC

Ion 85.90 (85.60 to 86.60): VDC



#21  
trans-1,2-Dichloroethene  
Concen: 1.788 ug/l  
RT: 5.48 min Scan# 605  
Delta R.T. 0.01 min  
Lab File: VD066652.D  
Acq: 11 Sep 2020 16:57

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 7939  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 125.2 | 112.1 | 168.1 |
| 98       | 28.2  | 48.6  | 72.8# |

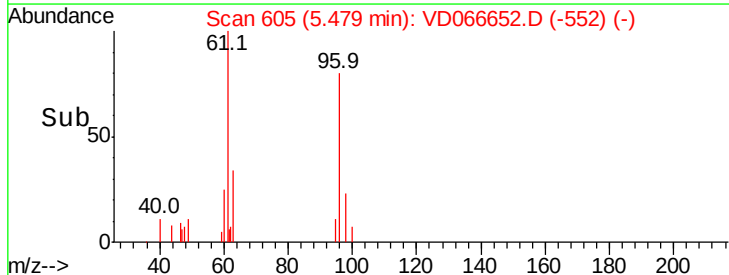
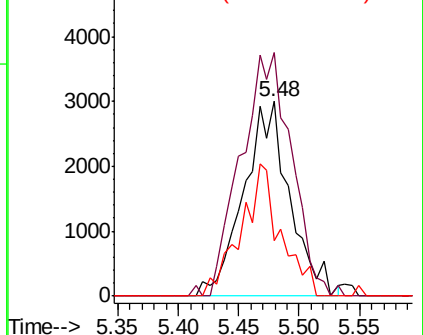


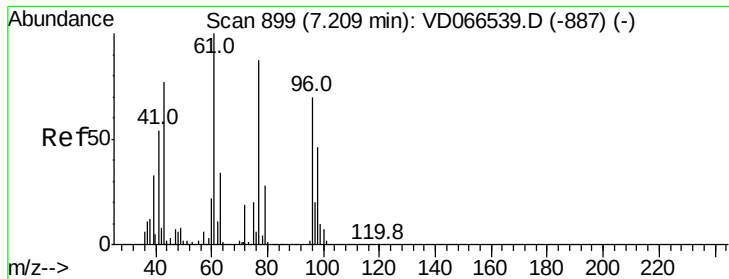
Abundance

Ion 95.90 (95.60 to 96.60): VDC

Ion 60.90 (60.60 to 61.60): VDC

Ion 97.90 (97.60 to 98.60): VDC



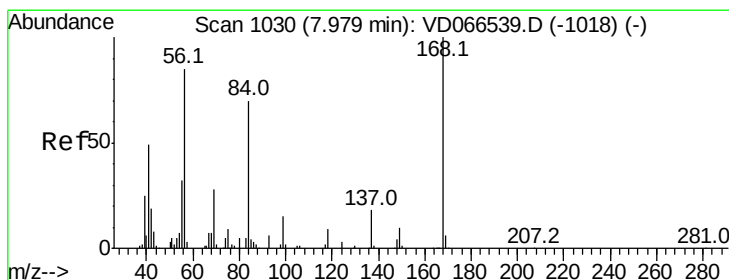
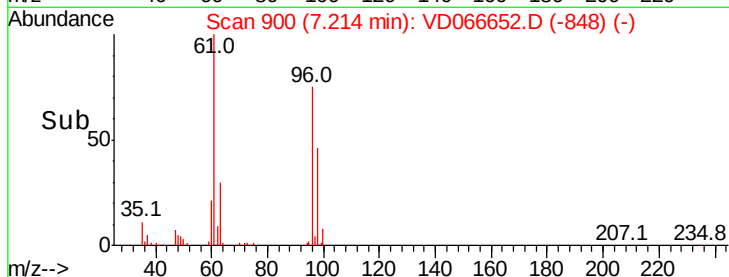
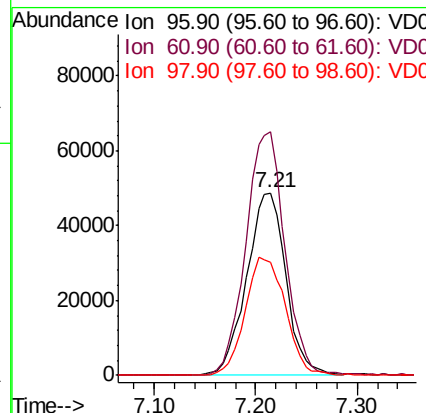
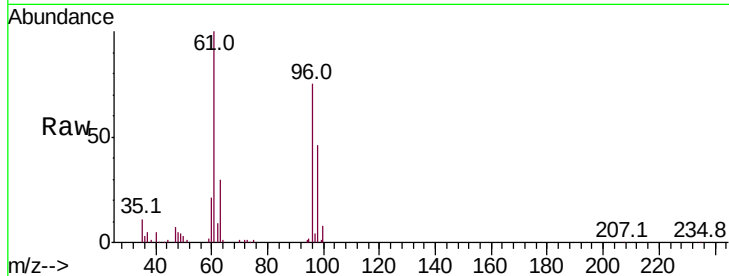


#27

cis-1,2-Dichloroethene  
 Concen: 27.435 ug/l  
 RT: 7.21 min Scan# 900  
 Delta R.T. 0.01 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

Instrument :  
 MSVOA\_D  
 ClientSampled :

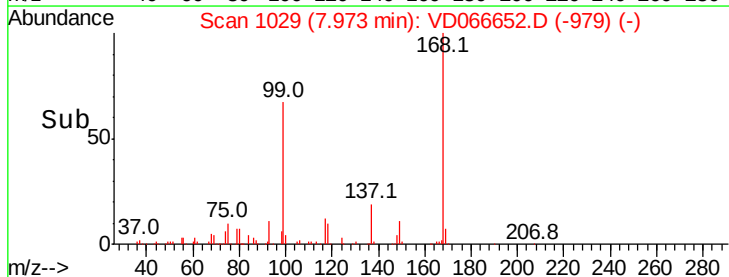
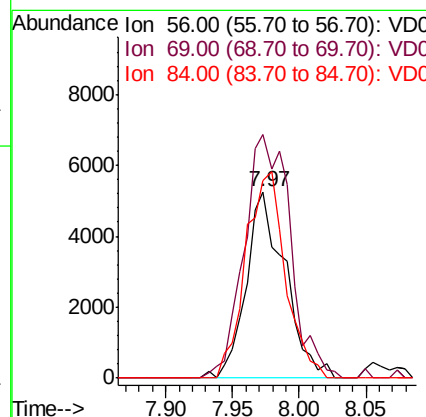
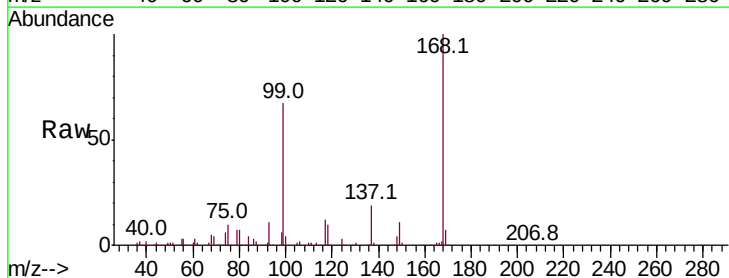
| Tot Ion   | 96    | Resp  | 130986 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 133.3 | 0.0   | 301.0  |
| 98        | 66.6  | 0.0   | 129.8  |

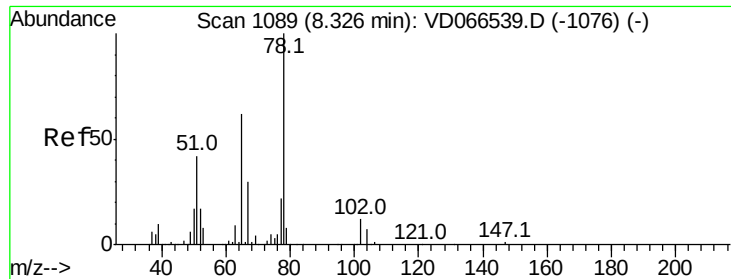


#31

Cyclohexane  
 Concen: 1.443 ug/l  
 RT: 7.97 min Scan# 1029  
 Delta R.T. -0.01 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

| Tgt Ion   | 56    | Resp  | 10572 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 56        | 100   |       |       |
| 69        | 130.6 | 26.3  | 39.5# |
| 84        | 105.7 | 66.1  | 99.1# |

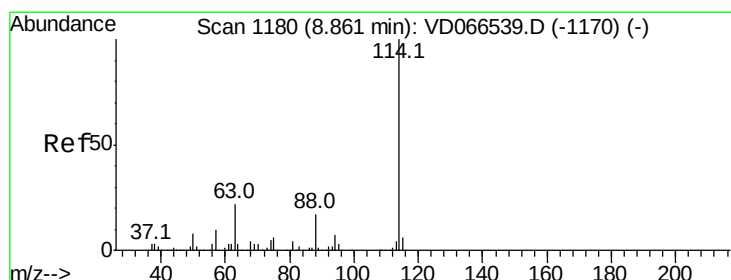
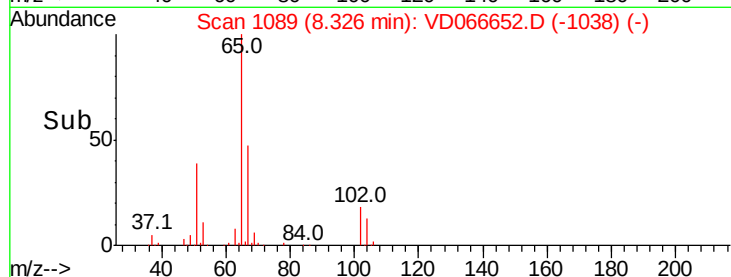
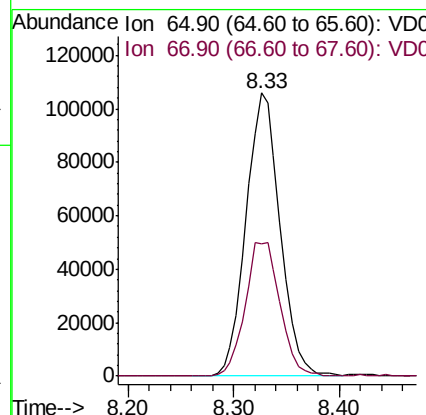
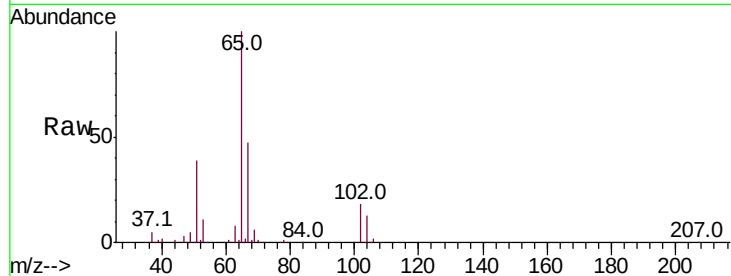




#33  
 1,2-Dichloroethane-d4  
 Concen: 52.759 ug/l  
 RT: 8.33 min Scan# 1089  
 Delta R.T. -0.00 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

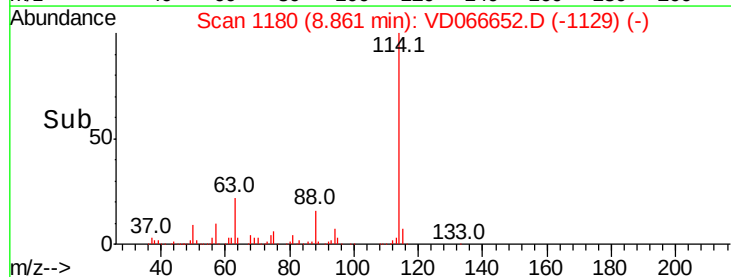
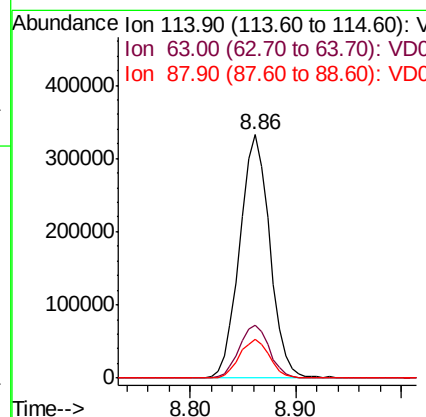
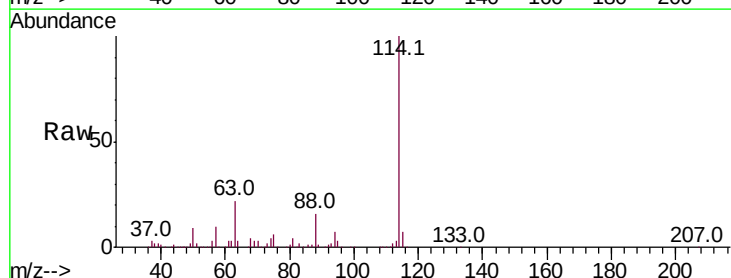
Instrument :  
 MSVOA\_D  
 ClientSampled :

Tot Ion: 65 Resp: 236878  
 Ion Ratio Lower Upper  
 65 100  
 67 48.5 0.0 102.8

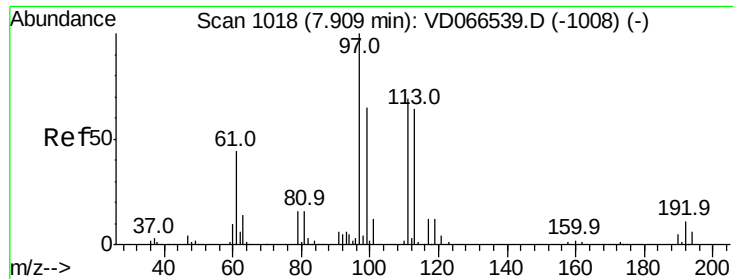


#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.86 min Scan# 1180  
 Delta R.T. -0.00 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

Tgt Ion: 114 Resp: 656143  
 Ion Ratio Lower Upper  
 114 100  
 63 21.8 0.0 43.2  
 88 15.8 0.0 33.2



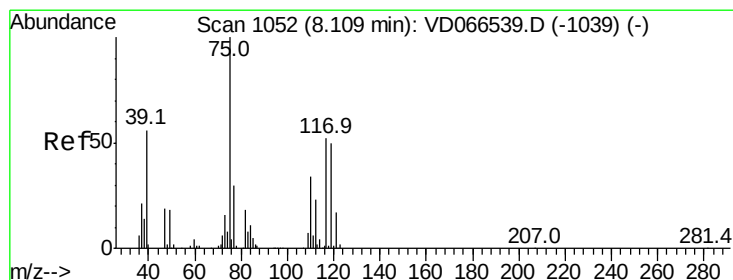
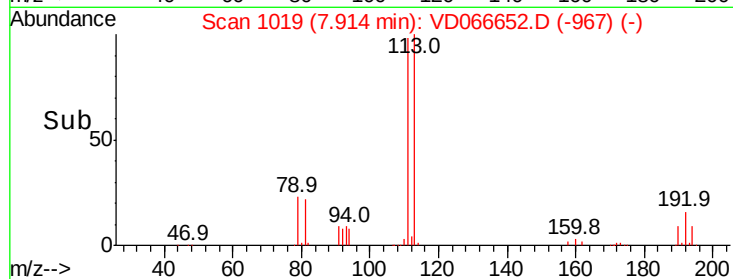
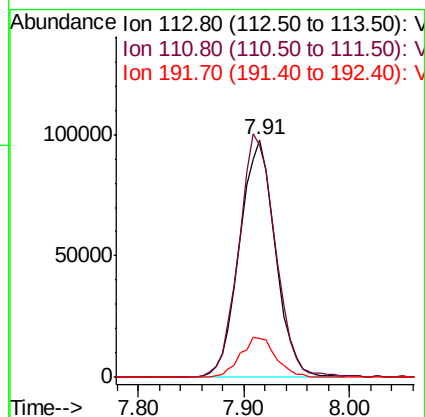
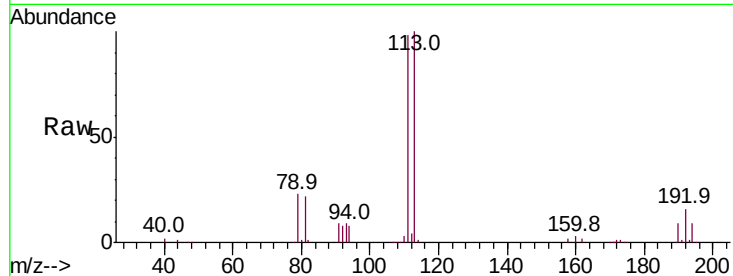




#35  
Dibromofluoromethane  
Concen: 52.125 ug/l  
RT: 7.91 min Scan# 1019  
Delta R.T. 0.01 min  
Lab File: VD066652.D  
Acq: 11 Sep 2020 16:57

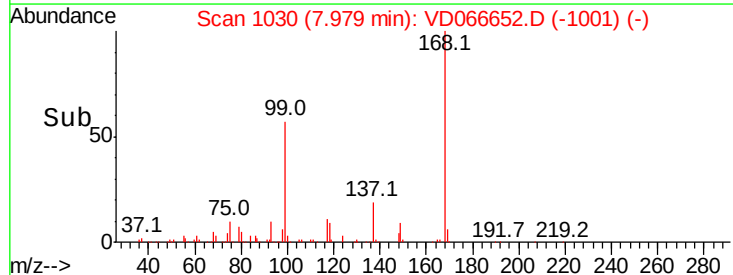
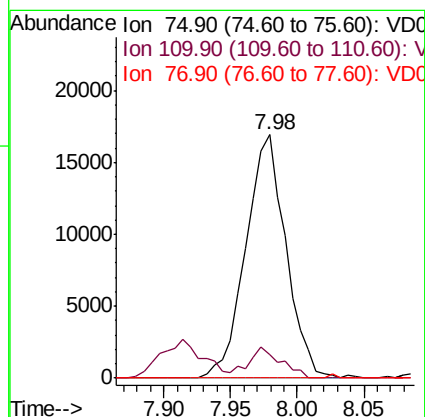
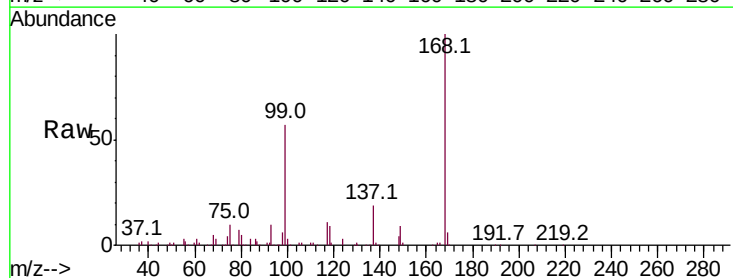
Instrument :  
MSVOA\_D  
ClientSampleId :

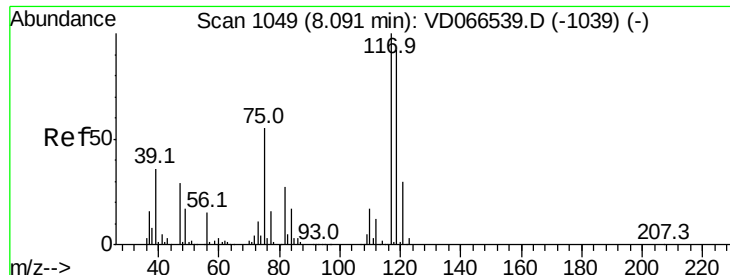
Tot Ion:113 Resp: 230727  
Ion Ratio Lower Upper  
113 100  
111 104.5 83.2 124.8  
192 16.9 13.7 20.5



#36  
1,1-Dichloropropene  
Concen: 5.147 ug/l  
RT: 7.98 min Scan# 1030  
Delta R.T. -0.13 min  
Lab File: VD066652.D  
Acq: 11 Sep 2020 16:57

Tgt Ion: 75 Resp: 35143  
Ion Ratio Lower Upper  
75 100  
110 10.1 17.3 52.0#  
77 0.0 25.1 37.7#





#38

Carbon Tetrachloride

Concen: 5.656 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.11 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

Instrument :

MSVOA\_D

ClientSampleId :

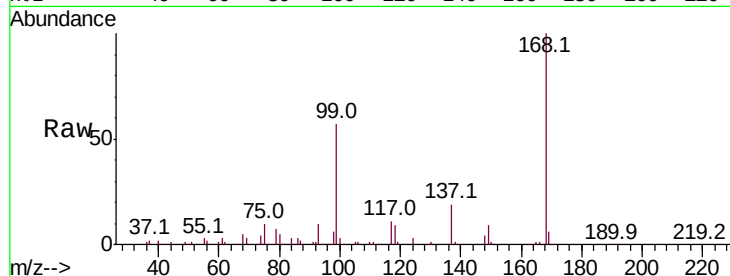
Tot Ion:117 Resp: 40826

Ion Ratio Lower Upper

117 100

119 5.1 73.9 110.9#

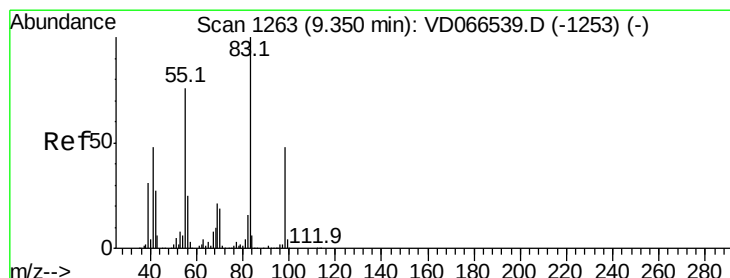
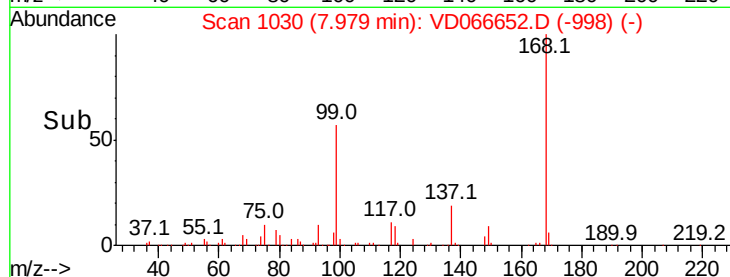
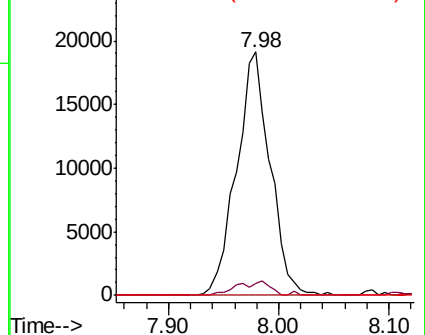
121 0.0 24.1 36.1#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#39

Methylcyclohexane

Concen: 2.270 ug/l

RT: 9.11 min Scan# 1223

Delta R.T. -0.24 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

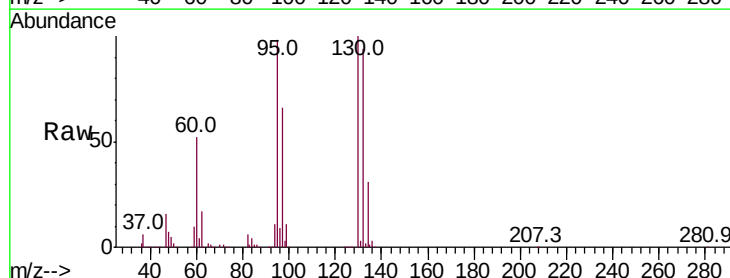
Tgt Ion: 83 Resp: 17305

Ion Ratio Lower Upper

83 100

55 0.0 60.8 91.2#

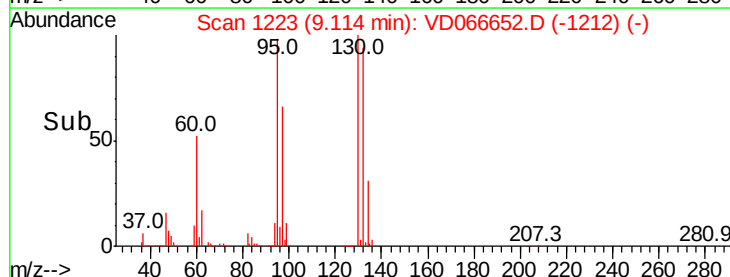
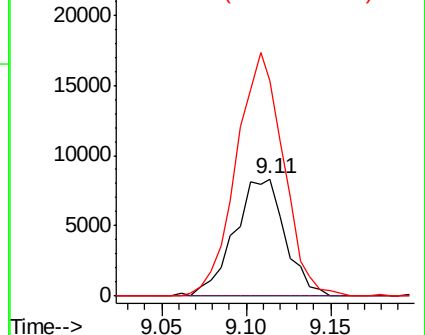
98 180.8 38.6 58.0#

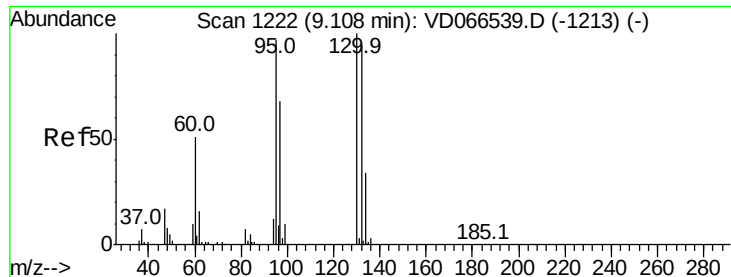


Abundance Ion 83.00 (82.70 to 83.70): VDC

Ion 55.00 (54.70 to 55.70): VDC

Ion 98.00 (97.70 to 98.70): VDC





#44

Trichloroethene

Concen: 258.718 ug/l

RT: 9.11 min Scan# 1222

Delta R.T. -0.00 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

Instrument :

MSVOA\_D

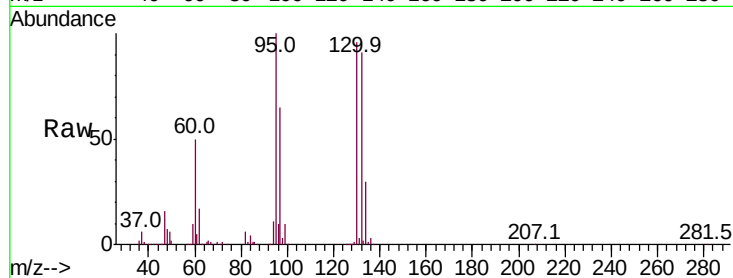
ClientSampleId :

Tot Ion:130 Resp: 1269171

Ion Ratio Lower Upper

130 100

95 104.1 0.0 194.4



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VDC

600000

400000

200000

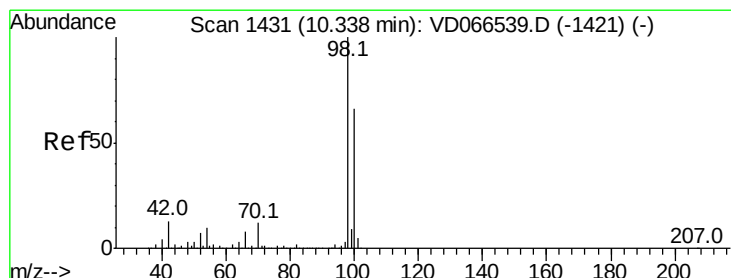
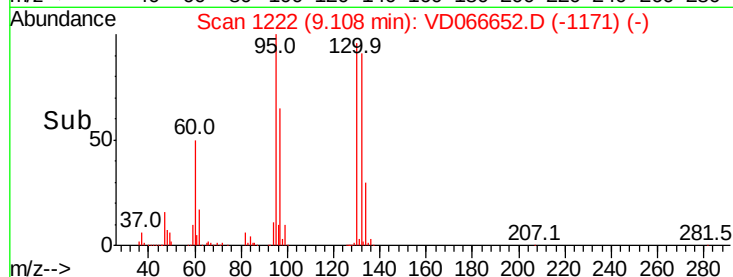
0

9.11

9.10

9.20

Time-->



#50

Toluene-d8

Concen: 51.134 ug/l

RT: 10.34 min Scan# 1431

Delta R.T. -0.00 min

Lab File: VD066652.D

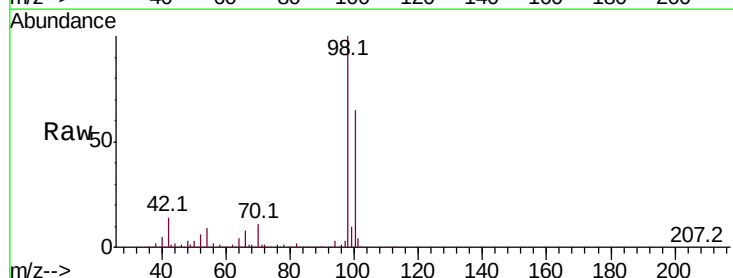
Acq: 11 Sep 2020 16:57

Tgt Ion: 98 Resp: 808967

Ion Ratio Lower Upper

98 100

100 65.3 52.9 79.3



Abundance Ion 98.00 (97.70 to 98.70): VDC

Ion 100.00 (99.70 to 100.70): VD

500000

400000

300000

200000

100000

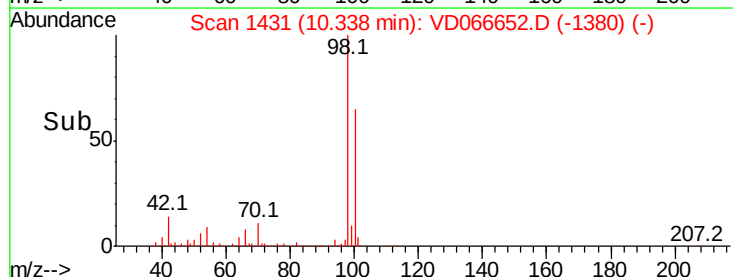
0

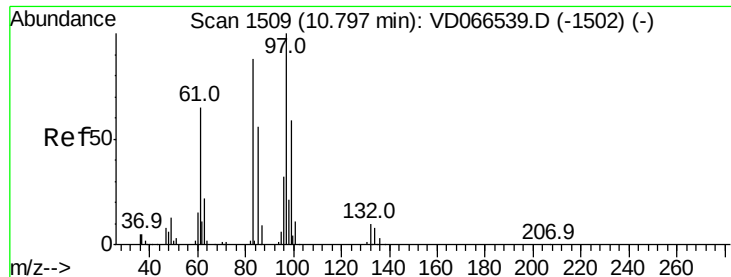
10.34

10.30

10.40

Time-->

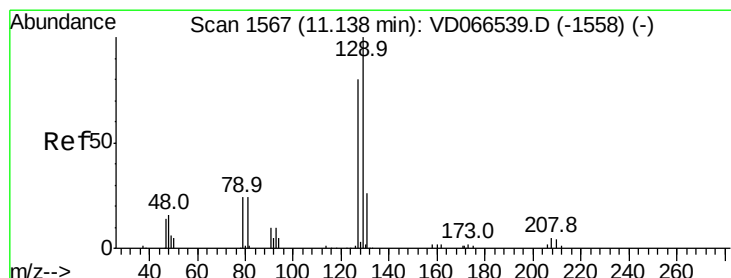
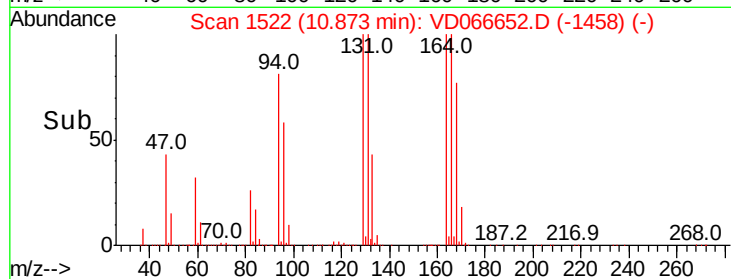
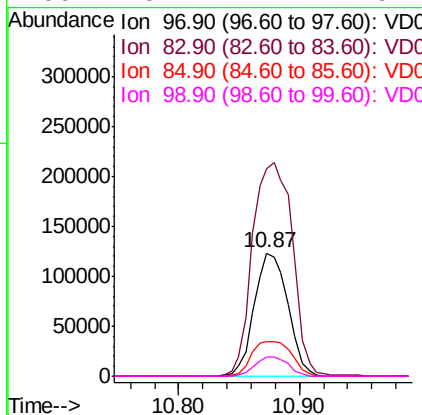
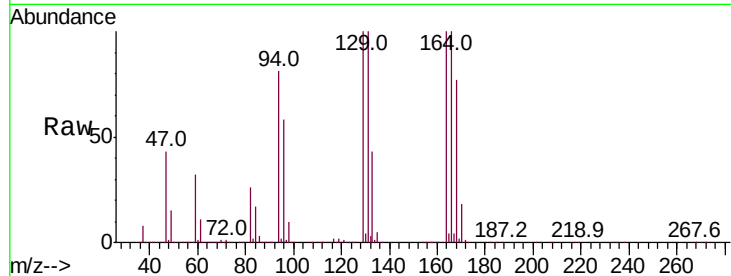




#55  
 1,1,2-Trichloroethane  
 Concen: 72.020 ug/l  
 RT: 10.87 min Scan# 1522  
 Delta R.T. 0.08 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

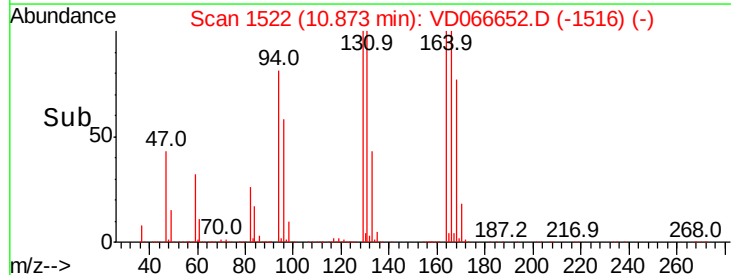
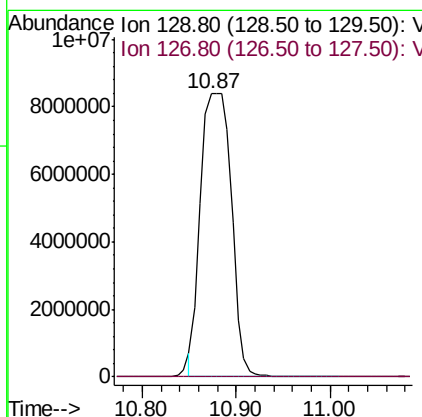
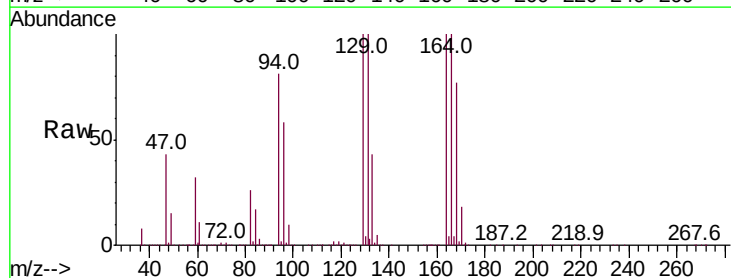
Instrument :  
 MSVOA\_D  
 ClientSampleId :

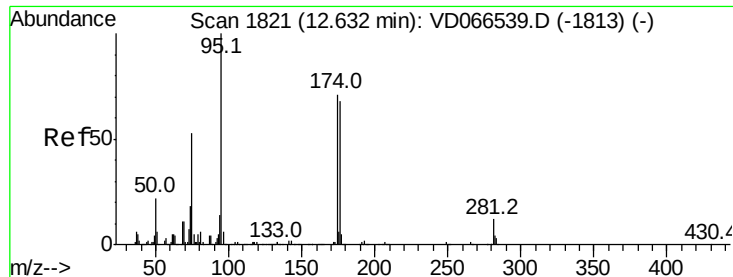
| Tot Ion | Resp  | Lower | Upper  |
|---------|-------|-------|--------|
| 97      | 100   |       |        |
| 83      | 168.1 | 70.1  | 105.1# |
| 85      | 28.2  | 44.5  | 66.7#  |
| 99      | 16.1  | 47.1  | 70.7#  |



#60  
 Dibromochloromethane  
 Concen: 4376.088 ug/l  
 RT: 10.87 min Scan# 1522  
 Delta R.T. -0.26 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

| Tgt Ion | Resp | Lower | Upper  |
|---------|------|-------|--------|
| 129     | 100  |       |        |
| 127     | 0.0  | 39.5  | 118.3# |





#62

4-Bromofluorobenzene

Concen: 46.558 ug/l

RT: 12.63 min Scan# 1821

Delta R.T. -0.00 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

Instrument :

MSVOA\_D

ClientSampleId :

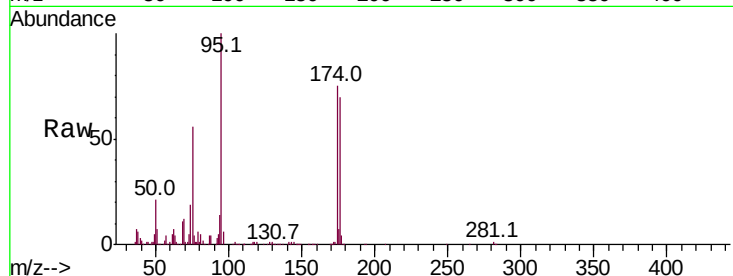
Tot Ion: 95 Resp: 244241

Ion Ratio Lower Upper

95 100

174 75.4 0.0 155.8

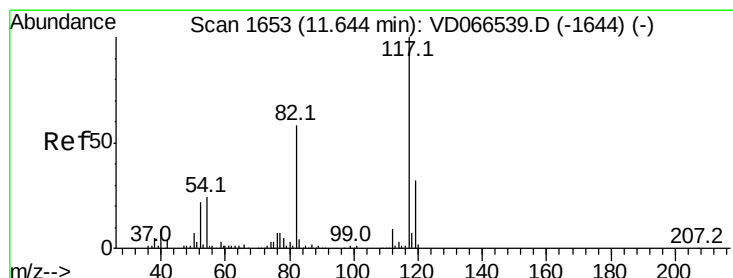
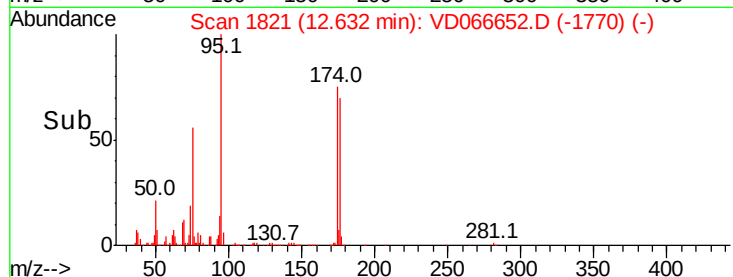
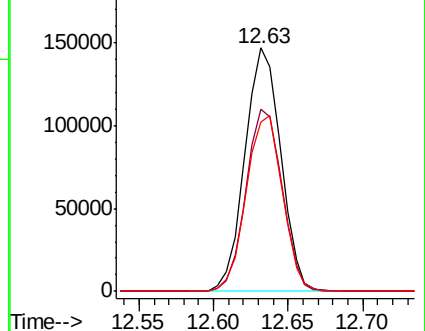
176 73.0 0.0 148.6



Abundance Ion 94.90 (94.60 to 95.60): V

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.64 min Scan# 1653

Delta R.T. -0.00 min

Lab File: VD066652.D

Acq: 11 Sep 2020 16:57

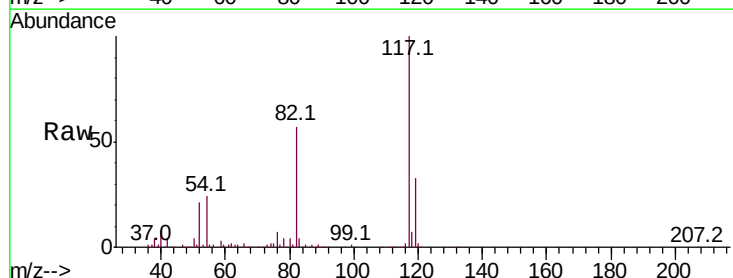
Tgt Ion: 117 Resp: 600320

Ion Ratio Lower Upper

117 100

82 56.7 46.2 69.2

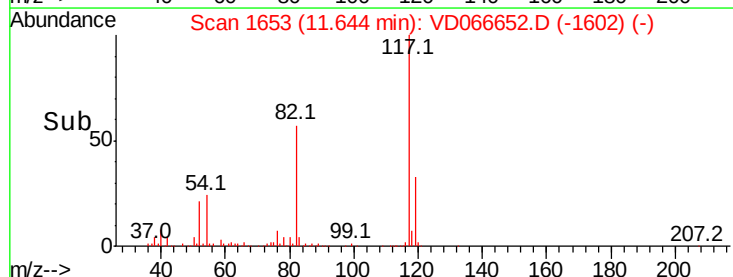
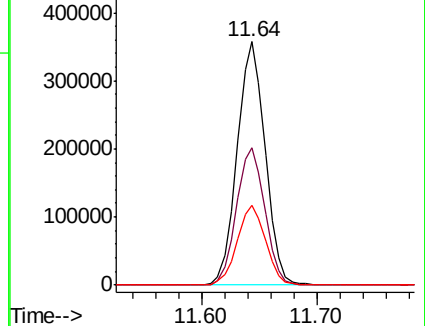
119 32.7 25.8 38.8

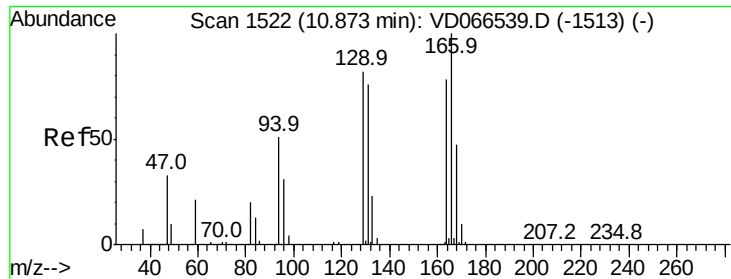


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): V

Ion 118.90 (118.60 to 119.60): V

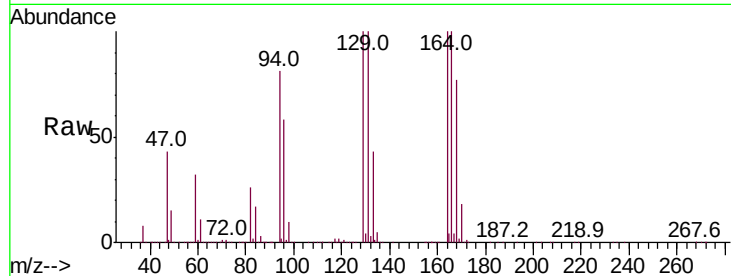




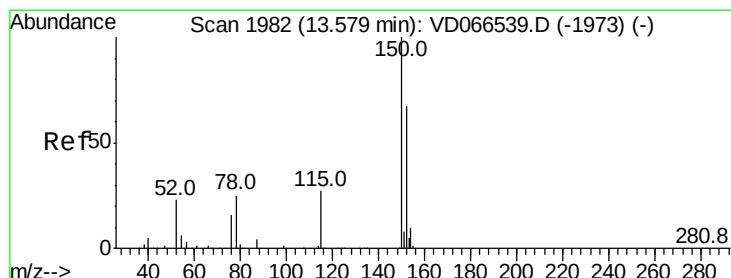
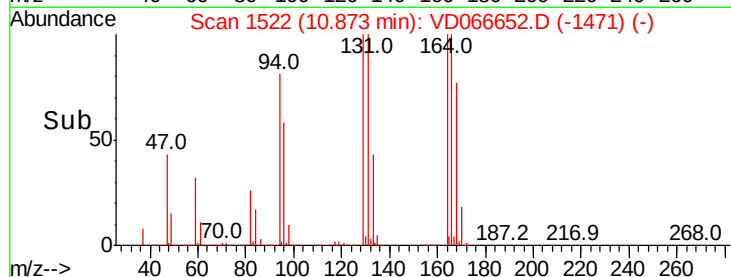
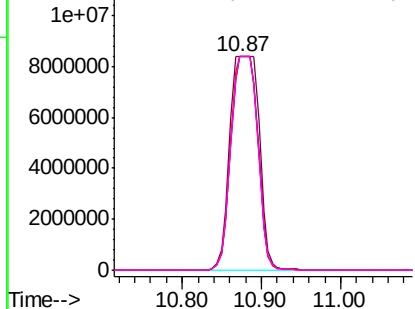
#64  
Tetrachloroethene  
Concen: 4844.185 ug/l  
RT: 10.87 min Scan# 1522  
Delta R.T. -0.00 min  
Lab File: VD066652.D  
Acq: 11 Sep 2020 16:57

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion:164 Resp:19580081  
Ion Ratio Lower Upper  
164 100  
166 100.0 103.2 154.8#  
129 100.0 84.5 126.7  
131 100.0 78.9 118.3

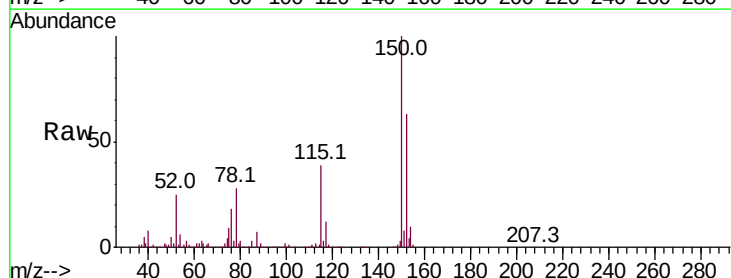


Abundance Ion 163.80 (163.50 to 164.50): V  
Ion 165.80 (165.50 to 166.50): V  
Ion 128.80 (128.50 to 129.50): V  
Ion 130.80 (130.50 to 131.50): V

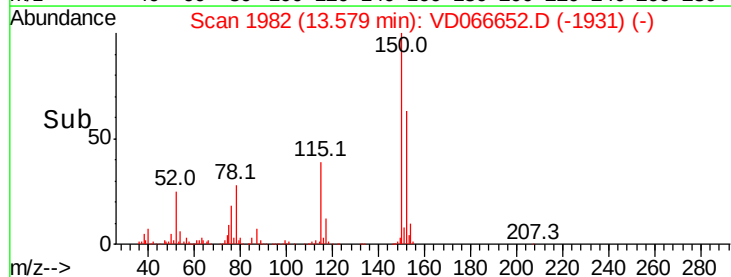
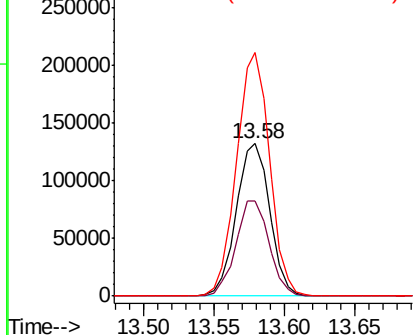


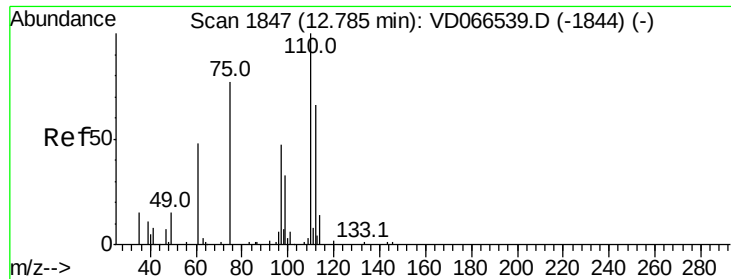
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.58 min Scan# 1982  
Delta R.T. -0.00 min  
Lab File: VD066652.D  
Acq: 11 Sep 2020 16:57

Tgt Ion:152 Resp: 219224  
Ion Ratio Lower Upper  
152 100  
115 61.9 30.4 91.2  
150 157.8 0.0 345.8



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V

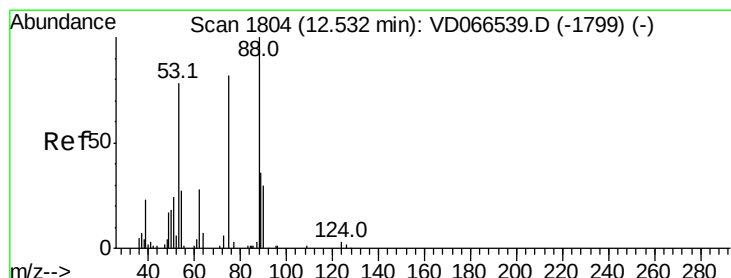
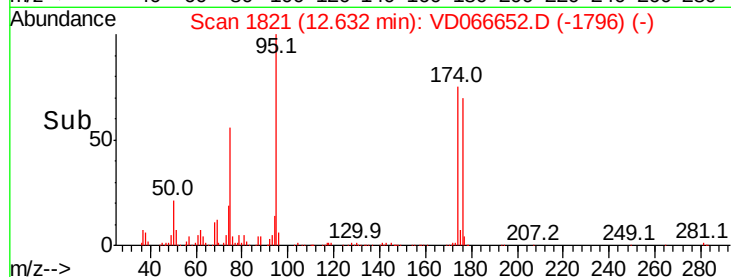
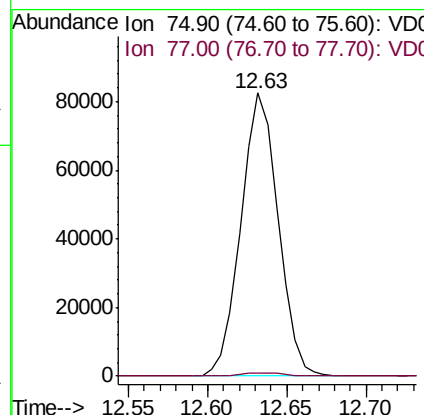
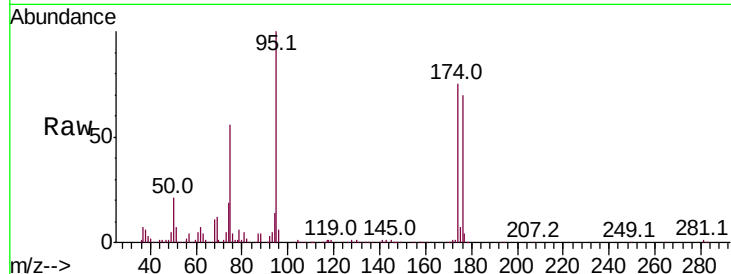




#76  
 1,2,3-Trichloropropane  
 Concen: 63.938 ug/l  
 RT: 12.63 min Scan# 1821  
 Delta R.T. -0.15 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Tot Ion: 75 Resp: 134804  
 Ion Ratio Lower Upper  
 75 100  
 77 1.4 0.0 0.0#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 149.273 ug/l  
 RT: 12.63 min Scan# 1821  
 Delta R.T. 0.10 min  
 Lab File: VD066652.D  
 Acq: 11 Sep 2020 16:57

Tgt Ion: 75 Resp: 134804  
 Ion Ratio Lower Upper  
 75 100  
 53 0.1 87.0 130.4#  
 89 0.0 37.1 55.7#

