

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_D\Data\VD121121\  
 Data File : VD071276.D  
 Acq On : 11 Dec 2021 18:13  
 Operator : VA/SY  
 Sample : M5051-02  
 Misc : 5.00G/5.00ml/MSVOA\_D/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

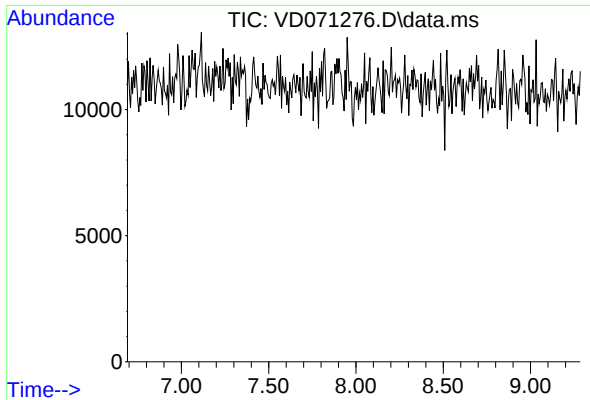
Quant Time: Dec 12 17:55:48 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_D\Method\82D112921S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Nov 29 17:54:09 2021  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Pentafluorobenzene         | 0.000  | 168   | 0        | 0.000    | ug/l   | -7.99    |
| 34) 1,4-Difluorobenzene       | 0.000  | 114   | 0        | 0.000    | ug/l   | -8.86    |
| 63) Chlorobenzene-d5          | 11.749 | 117   | 69       | 50.000   | ug/l   | # 0.11   |
| 72) 1,4-Dichlorobenzene-d4    | 13.561 | 152   | 176      | 50.000   | ug/l   | # 0.00   |
|                               |        |       |          |          |        |          |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 33) 1,2-Dichloroethane-d4     | 0.000  | 65    | 0        | 0.000    | ug/l   |          |
| Spiked Amount                 | 50.000 | Range | 50 - 163 | Recovery | =      | 0.000%#  |
| 35) Dibromofluoromethane      | 0.000  | 113   | 0        | 0.000    | ug/l   |          |
| Spiked Amount                 | 50.000 | Range | 54 - 147 | Recovery | =      | 0.000%#  |
| 50) Toluene-d8                | 0.000  | 98    | 0        | 0.000    | ug/l   |          |
| Spiked Amount                 | 50.000 | Range | 49 - 140 | Recovery | =      | 0.000%#  |
| 62) 4-Bromofluorobenzene      | 12.620 | 95    | 60       | 0.000    | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 25 - 144 | Recovery | =      | 0.000%#  |
|                               |        |       |          |          |        |          |
| Target Compounds              |        |       |          |          | Qvalue |          |
| 66) 1,1,1,2-Tetrachloroethane | 11.579 | 131   | 65       | 139.053  | ug/l # | 8        |
| 67) Ethyl Benzene             | 11.726 | 91    | 991      | 411.188  | ug/l # | 44       |
| 68) m/p-Xylenes               | 11.861 | 106   | 151      | 165.954  | ug/l # | 1        |
| 69) o-Xylene                  | 12.179 | 106   | 265      | 309.875  | ug/l # | 1        |
| 70) Styrene                   | 12.238 | 104   | 61       | 42.323   | ug/l # | 27       |
| 71) Bromoform                 | 12.202 | 173   | 63       | 260.151  | ug/l # | 29       |
| 73) Isopropylbenzene          | 12.514 | 105   | 117      | 9.181    | ug/l # | 49       |
| 74) N-amyl acetate            | 12.261 | 43    | 171      | 49.123   | ug/l # | 48       |
| 75) 1,1,2,2-Tetrachloroethane | 12.679 | 83    | 55       | 26.207   | ug/l # | 25       |
| 76) 1,2,3-Trichloropropane    | 12.949 | 75    | 307      | 183.081  | ug/l   | 85       |
| 77) Bromobenzene              | 12.614 | 156   | 641      | 232.221  | ug/l # | 22       |
| 78) n-propylbenzene           | 12.808 | 91    | 338      | 21.298   | ug/l   | 96       |
| 79) 2-Chlorotoluene           | 12.973 | 91    | 262      | 29.414   | ug/l   | 83       |
| 80) 1,3,5-Trimethylbenzene    | 12.949 | 105   | 2145     | 204.115  | ug/l   | 87       |
| 81) trans-1,4-Dichloro-2-b... | 12.532 | 75    | 93       | 120.514  | ug/l # | 1        |
| 82) 4-Chlorotoluene           | 12.973 | 91    | 262      | 28.333   | ug/l   | 84       |
| 83) tert-Butylbenzene         | 13.173 | 119   | 71       | 7.867    | ug/l # | 1        |
| 84) 1,2,4-Trimethylbenzene    | 13.255 | 105   | 2465     | 240.258  | ug/l   | 88       |
| 85) sec-Butylbenzene          | 13.385 | 105   | 122      | 8.851    | ug/l # | 57       |
| 86) p-Isopropyltoluene        | 13.496 | 119   | 306      | 27.142   | ug/l # | 14       |
| 89) n-Butylbenzene            | 13.826 | 91    | 71       | 6.451    | ug/l # | 32       |
| 90) Hexachloroethane          | 14.120 | 117   | 69       | 32.285   | ug/l # | 14       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.590 | 75    | 169      | 494.490  | ug/l # | 4        |
| 95) Naphthalene               | 15.373 | 128   | 13716    | 2669.397 | ug/l # | 87       |
| -----                         |        |       |          |          |        |          |

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

Quant Time: Dec 12 17:55:48 2021  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_D\Method\82D112921S.M  
Quant Title : SW846 8260  
QLast Update : Mon Nov 29 17:54:09 2021  
Response via : Initial Calibration

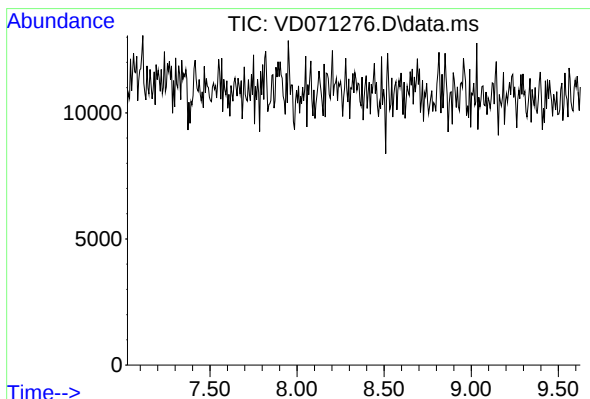
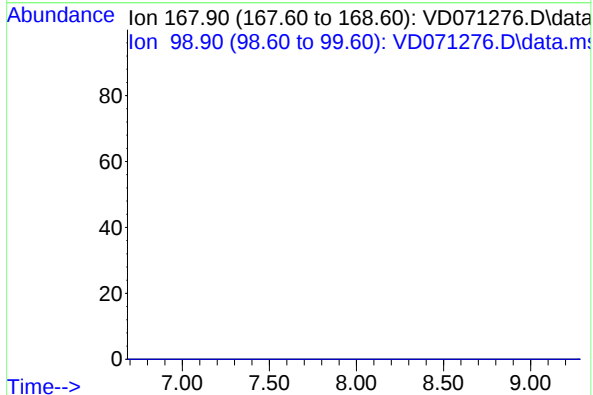




#1  
 Pentafluorobenzene  
 Concen: 0.000 ug/l  
 Expected RT: 7.99 min  
  
 Lab File: VD071276.D  
 Acq: 11 Dec 2021 18:13

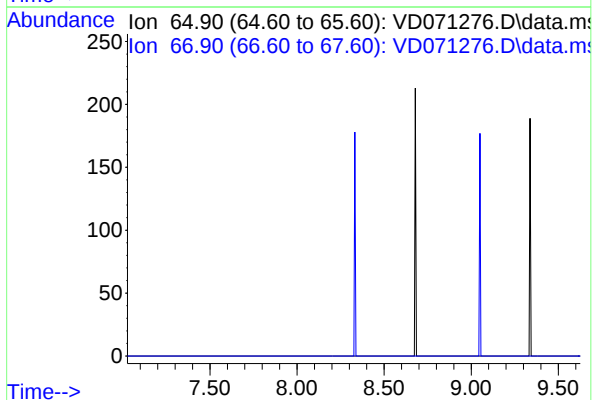
Instrument :  
 MSVOA\_D  
 ClientSampleId :

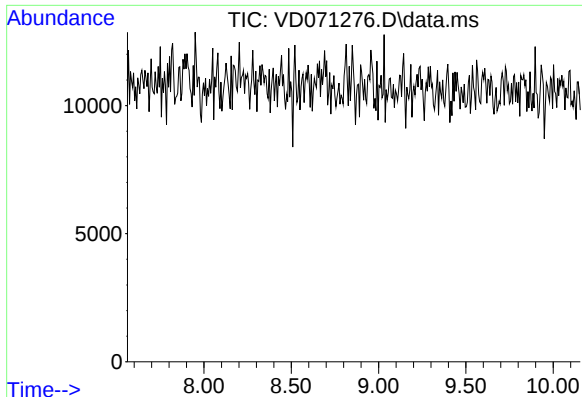
Tgt Ion: 168  
 Sig Exp Ratio  
 168 100  
 99 58.2



#33  
 1,2-Dichloroethane-d4  
 Concen: 0.000 ug/l  
 Expected RT: 8.33 min  
  
 Lab File: VD071276.D  
 Acq: 11 Dec 2021 18:13

Tgt Ion: 65  
 Sig Exp Ratio  
 65 100  
 67 56.1



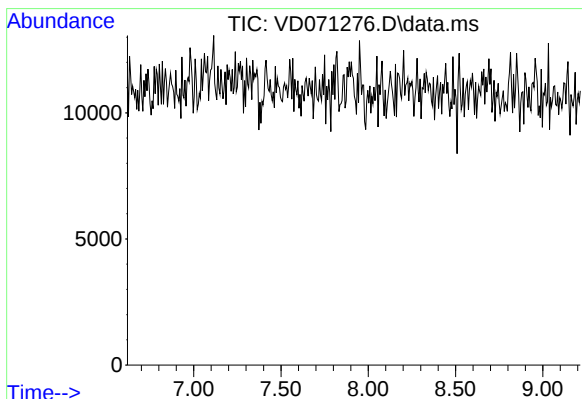
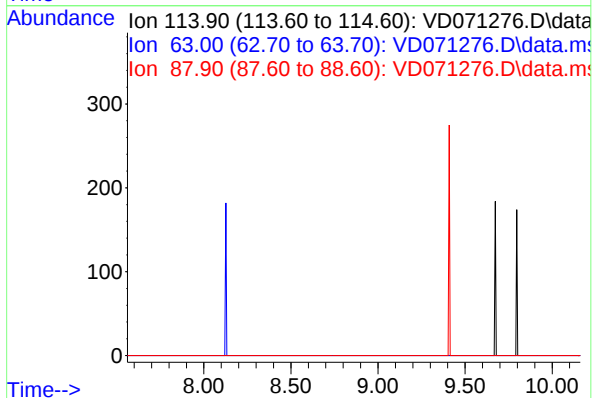


#34  
 1,4-Difluorobenzene  
 Concen: 0.000 ug/l  
 Expected RT: 8.86 min  
 Lab File: VD071276.D  
 Acq: 11 Dec 2021 18:13

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Tgt Ion: 114  

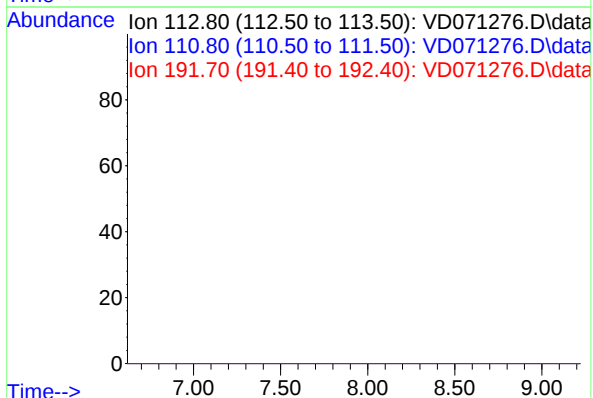
| Sig | Exp Ratio |
|-----|-----------|
| 114 | 100       |
| 63  | 20.9      |
| 88  | 16.4      |

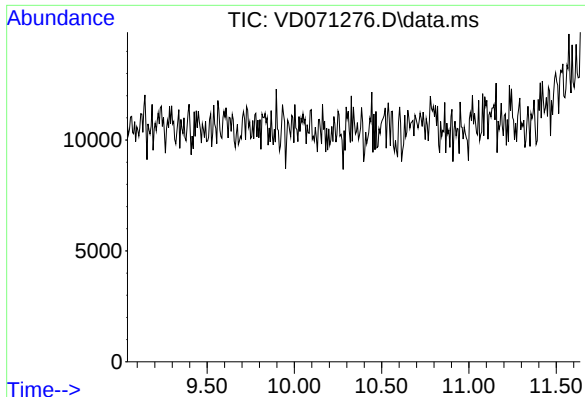


#35  
 Dibromofluoromethane  
 Concen: 0.000 ug/l  
 Expected RT: 7.92 min  
 Lab File: VD071276.D  
 Acq: 11 Dec 2021 18:13

Tgt Ion: 113  

| Sig | Exp Ratio |
|-----|-----------|
| 113 | 100       |
| 111 | 102.5     |
| 192 | 19.0      |

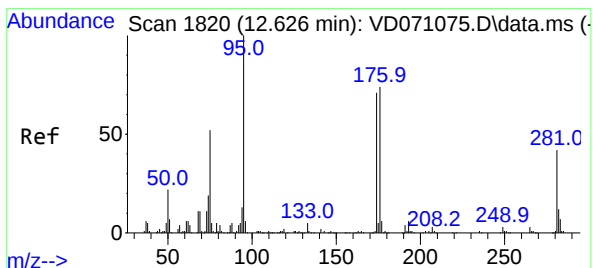
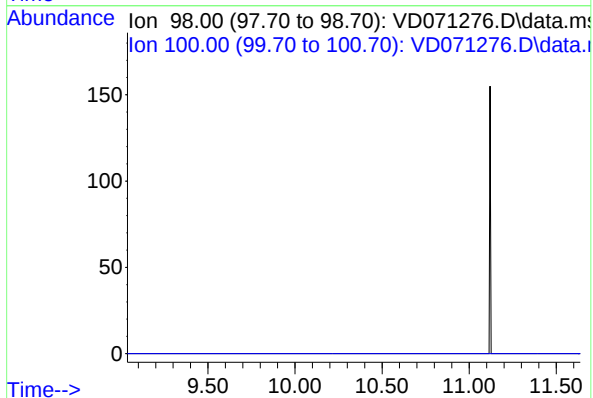




#50  
Toluene-d8  
Concen: 0.000 ug/l  
Expected RT: 10.34 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

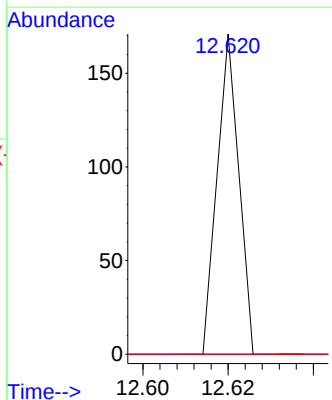
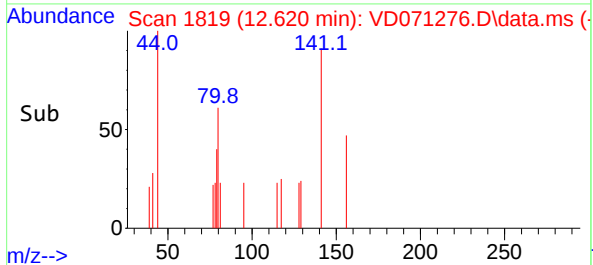
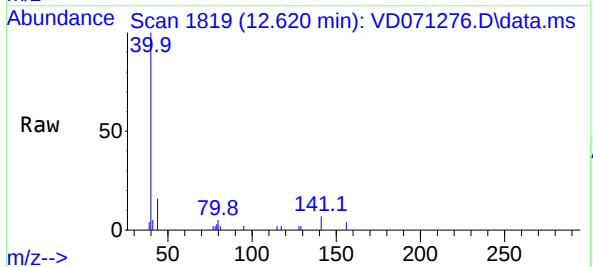
Instrument :  
MSVOA\_D  
ClientSampleId :

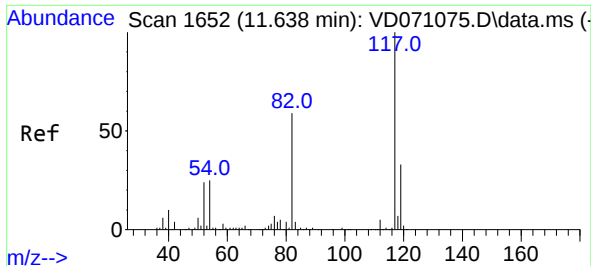
Tgt Ion: 98  
Sig Exp Ratio  
98 100  
100 64.7



#62  
4-Bromofluorobenzene  
Concen: 0.000 ug/l  
RT: 12.620 min Scan# 1819  
Delta R.T. -0.006 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

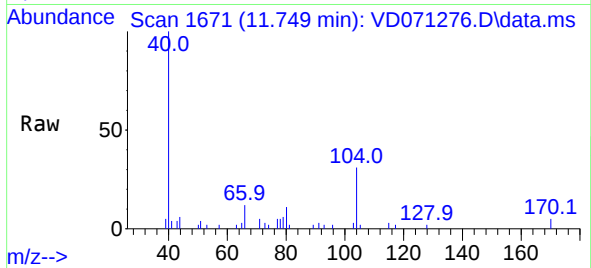
Tgt Ion: 95 Resp: 60  
Ion Ratio Lower Upper  
95 100  
174 0.0 0.0 159.4  
176 0.0 0.0 154.0



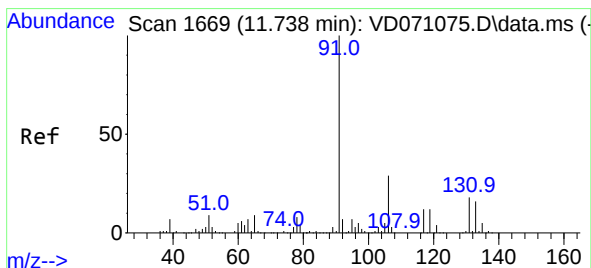
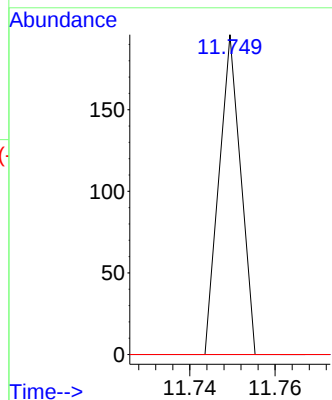
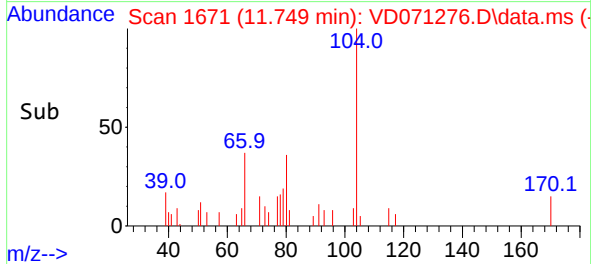


#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.749 min Scan# 1642  
Delta R.T. 0.111 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

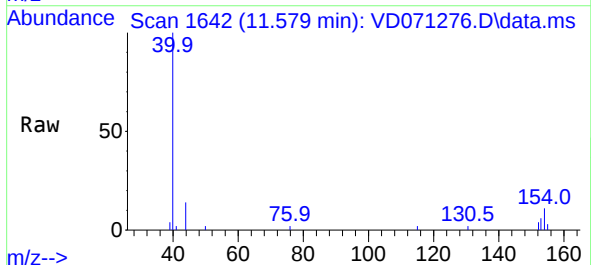
Instrument :  
MSVOA\_D  
ClientSampleId :



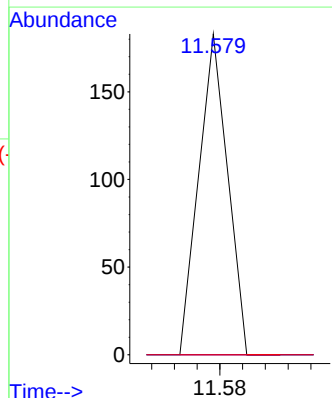
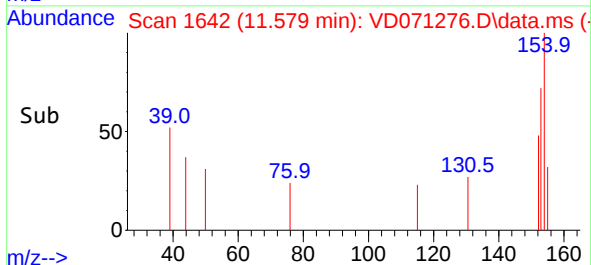
Tgt Ion:117 Resp: 69  
Ion Ratio Lower Upper  
117 100  
82 0.0 44.7 67.1#  
119 0.0 26.2 39.4#

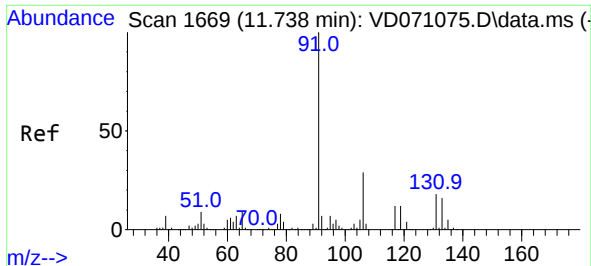


#66  
1,1,1,2-Tetrachloroethane  
Concen: 139.053 ug/l  
RT: 11.579 min Scan# 1642  
Delta R.T. -0.159 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13



Tgt Ion:131 Resp: 65  
Ion Ratio Lower Upper  
131 100  
133 0.0 48.0 144.0#  
119 0.0 33.5 100.4#

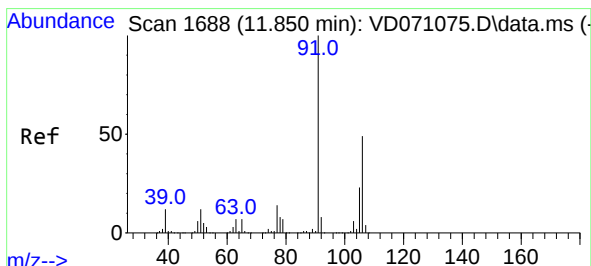
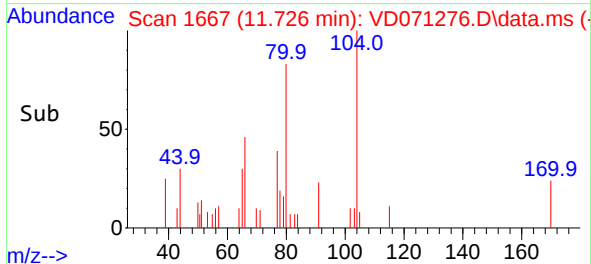
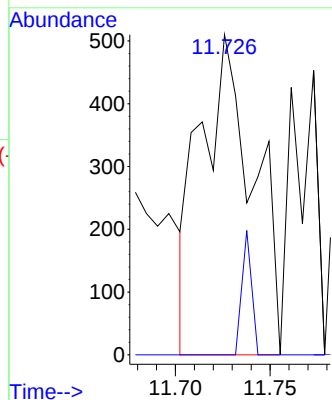
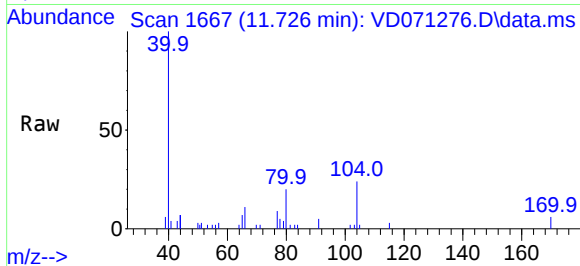




#67  
Ethyl Benzene  
Concen: 411.188 ug/l  
RT: 11.726 min Scan# 1667  
Delta R.T. -0.012 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

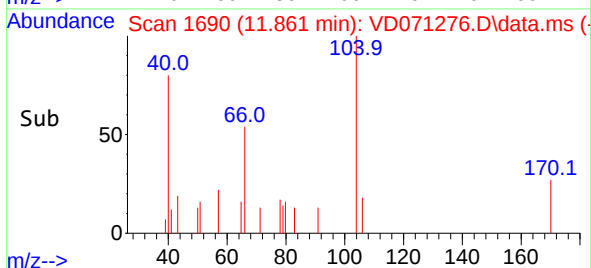
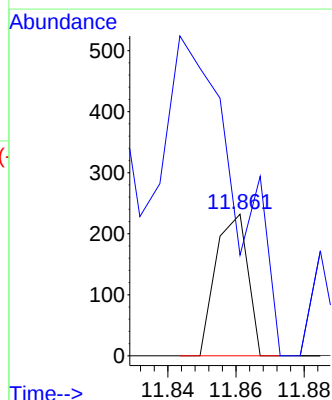
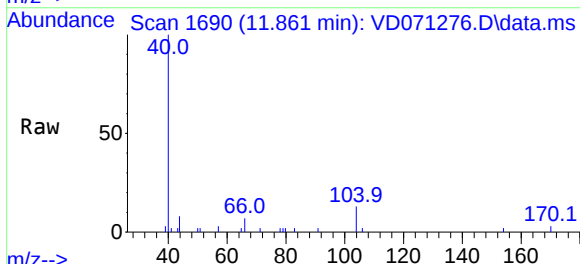
Instrument :  
MSVOA\_D  
ClientSampleId :

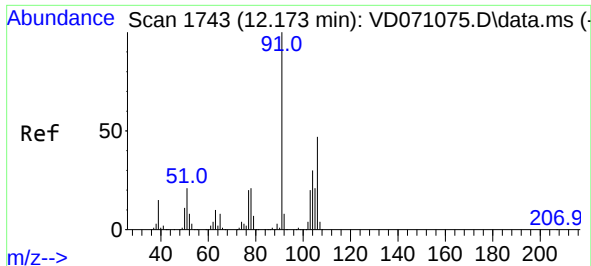
Tgt Ion: 91 Resp: 991  
Ion Ratio Lower Upper  
91 100  
106 0.0 24.6 36.8#



#68  
m/p-Xylenes  
Concen: 165.954 ug/l  
RT: 11.861 min Scan# 1690  
Delta R.T. 0.011 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Tgt Ion: 106 Resp: 151  
Ion Ratio Lower Upper  
106 100  
91 504.6 160.1 240.1#

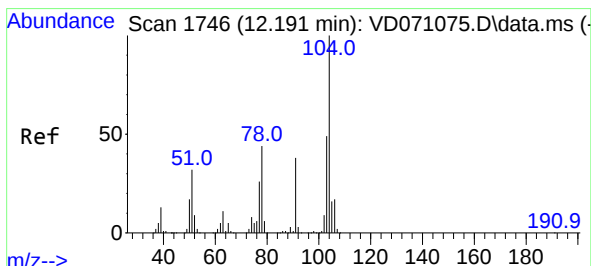
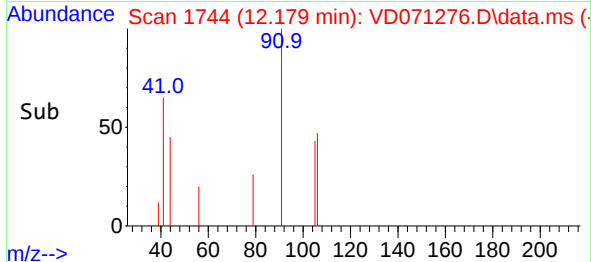
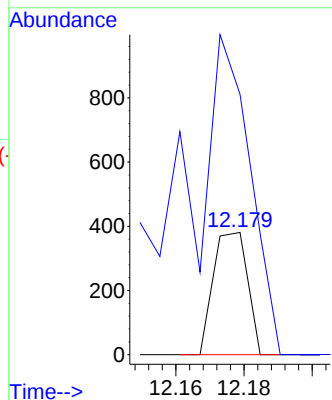
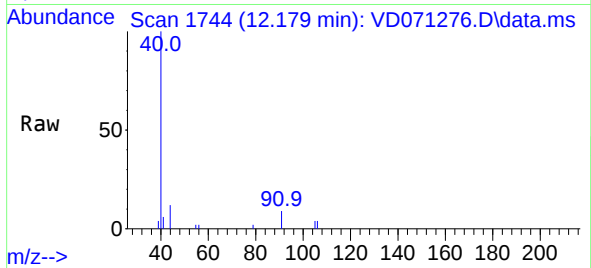




#69  
o-Xylene  
Concen: 309.875 ug/l  
RT: 12.179 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

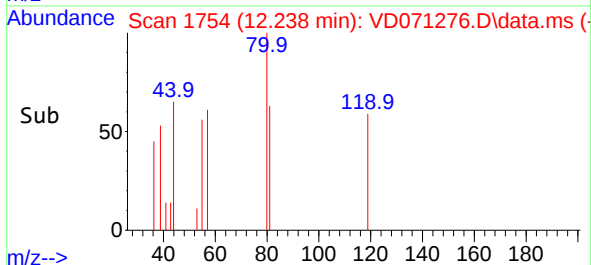
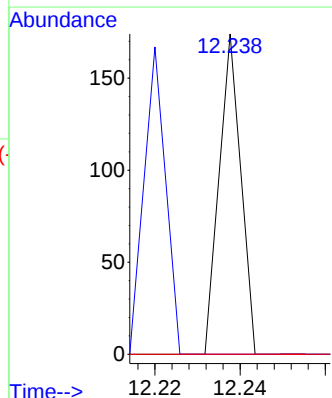
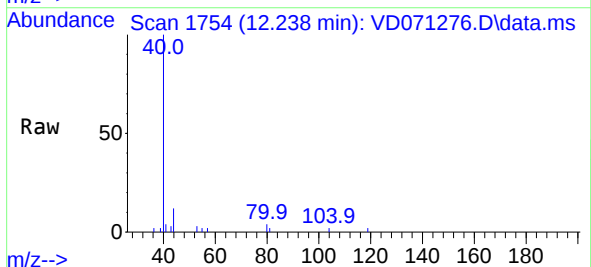
Instrument :  
MSVOA\_D  
ClientSampleId :

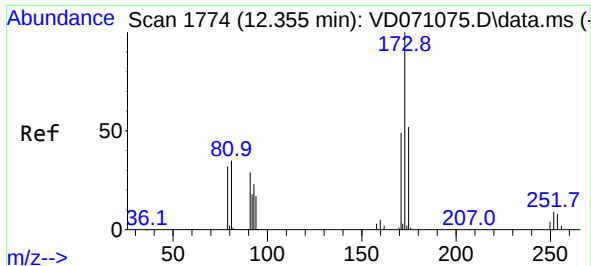
Tgt Ion:106 Resp: 265  
Ion Ratio Lower Upper  
106 100  
91 513.2 106.3 319.0#



#70  
Styrene  
Concen: 42.323 ug/l  
RT: 12.238 min Scan# 1754  
Delta R.T. 0.047 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

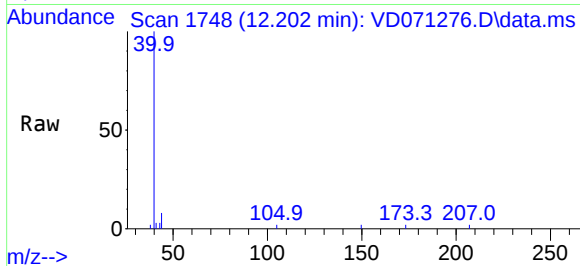
Tgt Ion:104 Resp: 61  
Ion Ratio Lower Upper  
104 100  
78 96.7 39.4 59.0#  
103 0.0 43.4 65.0#



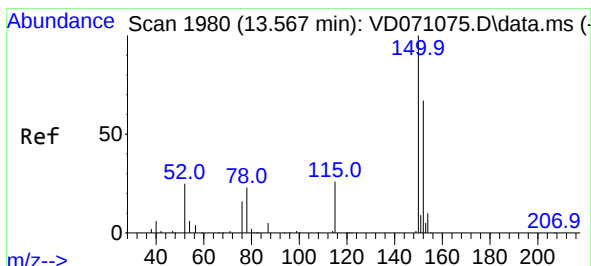
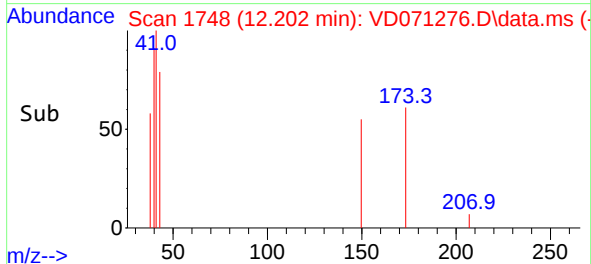
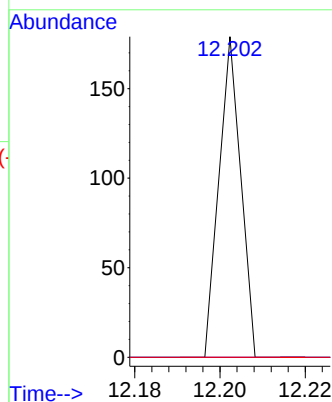


#71  
Bromoform  
Concen: 260.151 ug/l  
RT: 12.202 min Scan# 11  
Delta R.T. -0.153 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Instrument :  
MSVOA\_D  
ClientSampleId :

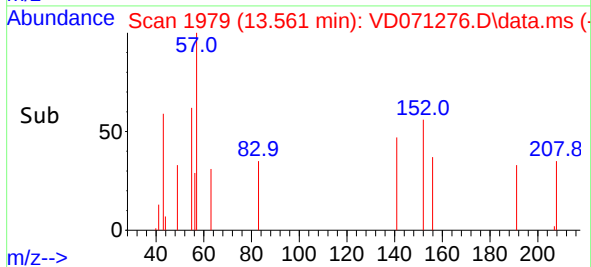
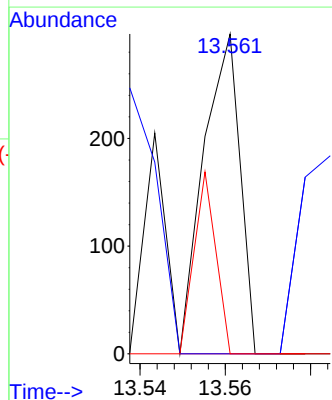
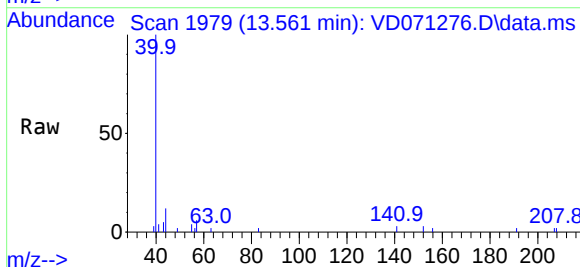


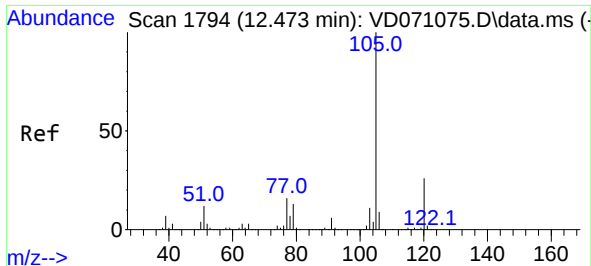
Tgt Ion:173 Resp: 63  
Ion Ratio Lower Upper  
173 100  
175 0.0 24.1 72.2#  
254 0.0 0.1 0.1#



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.561 min Scan# 1979  
Delta R.T. -0.006 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Tgt Ion:152 Resp: 176  
Ion Ratio Lower Upper  
152 100  
115 0.0 29.8 89.3#  
150 34.1 0.0 349.2

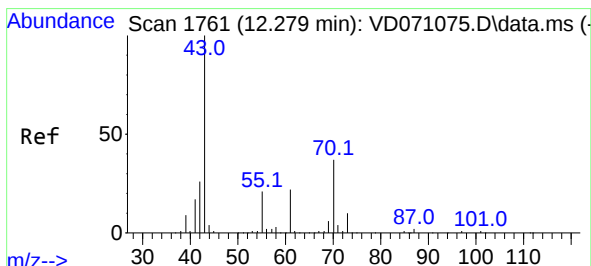
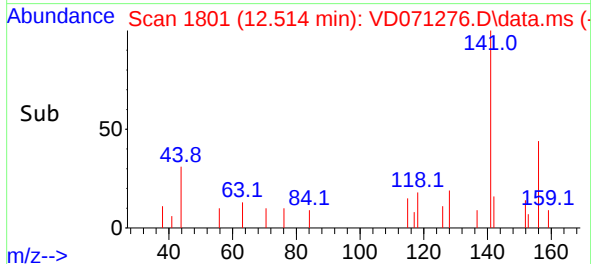
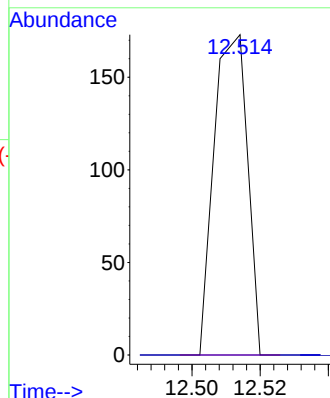
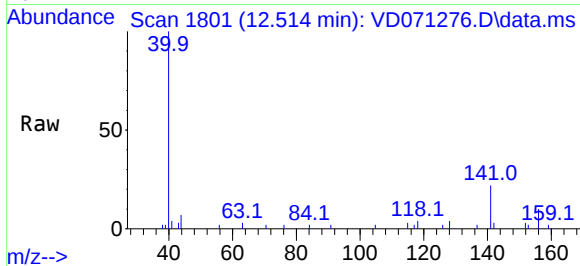




#73  
Isopropylbenzene  
Concen: 9.181 ug/l  
RT: 12.514 min Scan# 117  
Delta R.T. 0.041 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

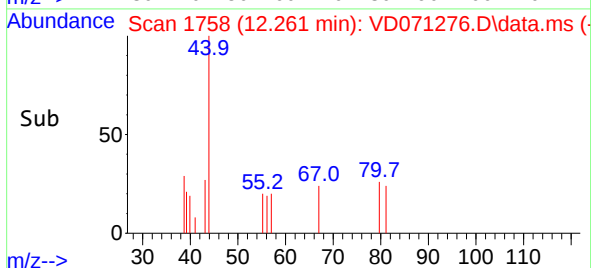
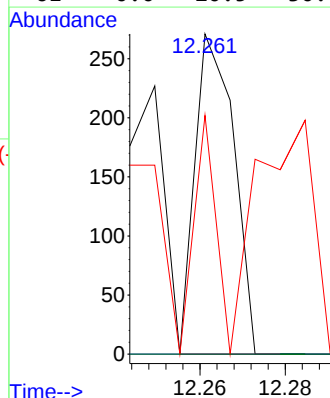
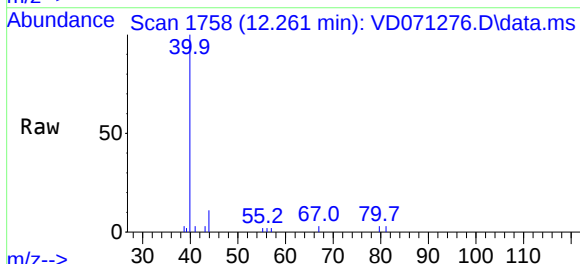
Instrument :  
MSVOA\_D  
ClientSampleId :

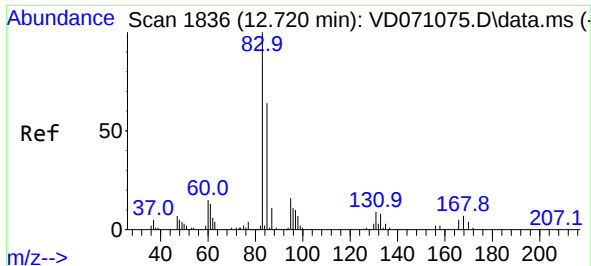
Tgt Ion:105 Resp: 117  
Ion Ratio Lower Upper  
105 100  
120 0.0 13.2 39.5#



#74  
N-ethyl acetate  
Concen: 49.123 ug/l  
RT: 12.261 min Scan# 1758  
Delta R.T. -0.018 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

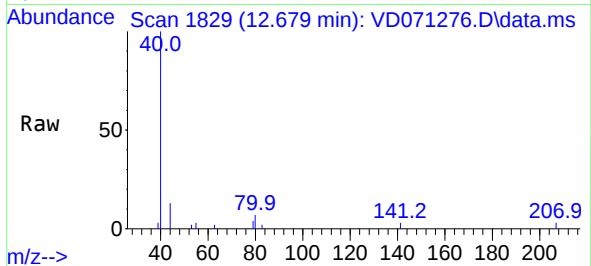
Tgt Ion: 43 Resp: 171  
Ion Ratio Lower Upper  
43 100  
70 0.0 36.6 55.0#  
55 41.5 22.5 33.7#  
61 0.0 20.5 30.7#



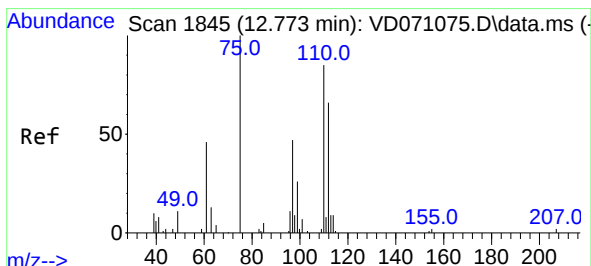
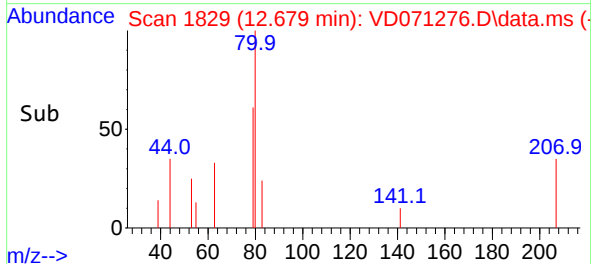
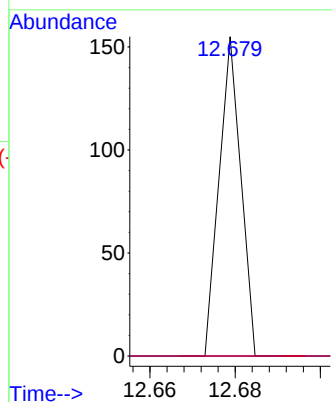


#75  
1,1,2,2-Tetrachloroethane  
Concen: 26.207 ug/l  
RT: 12.679 min Scan# 1829  
Delta R.T. -0.041 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Instrument :  
MSVOA\_D  
ClientSampleId :

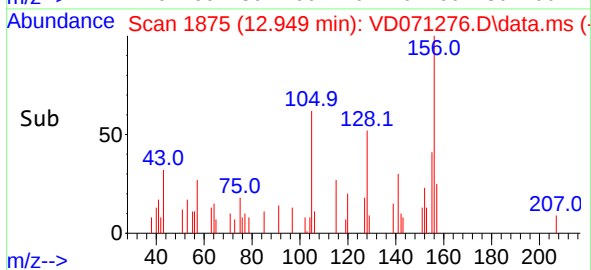
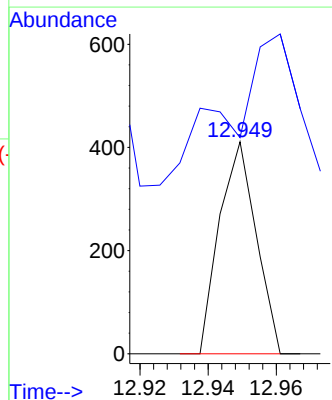
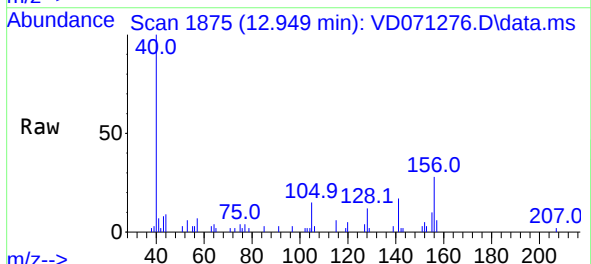


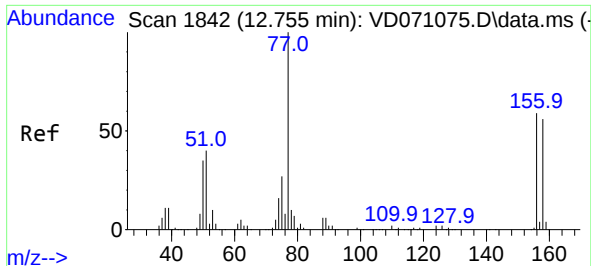
Tgt Ion: 83 Resp: 55  
Ion Ratio Lower Upper  
83 100  
131 0.0 4.9 14.7#  
85 0.0 32.0 96.2#



#76  
1,2,3-Trichloropropane  
Concen: 183.081 ug/l  
RT: 12.949 min Scan# 1875  
Delta R.T. 0.176 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

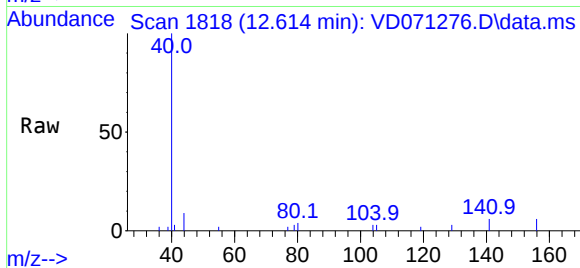
Tgt Ion: 75 Resp: 307  
Ion Ratio Lower Upper  
75 100  
77 347.2 158.4 475.3



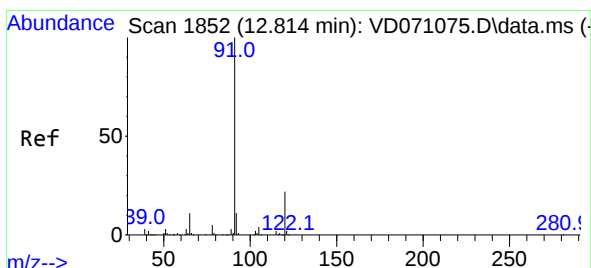
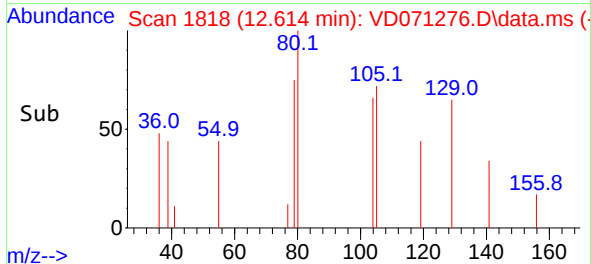
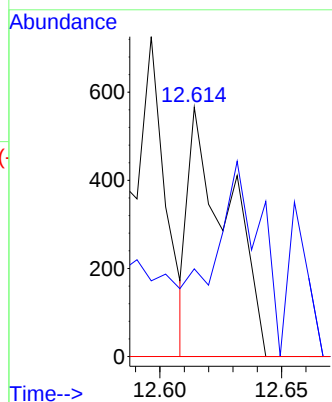


#77  
Bromobenzene  
Concen: 232.221 ug/l  
RT: 12.614 min Scan# 1842  
Delta R.T. -0.141 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Instrument :  
MSVOA\_D  
ClientSampleId :

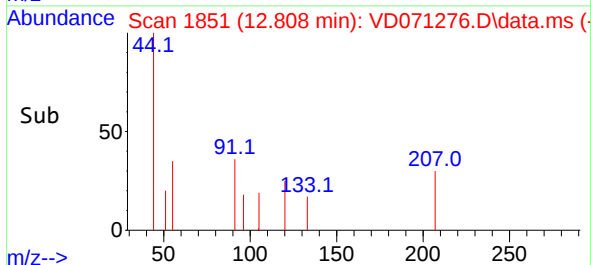
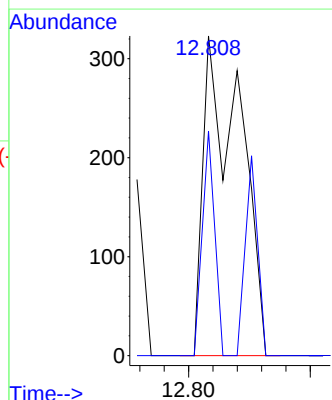
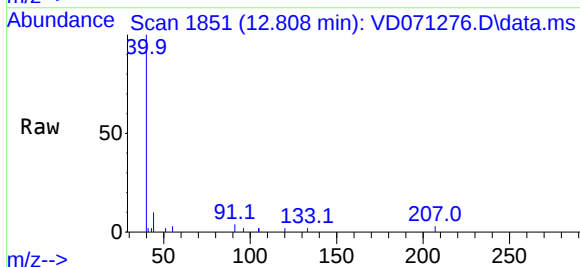


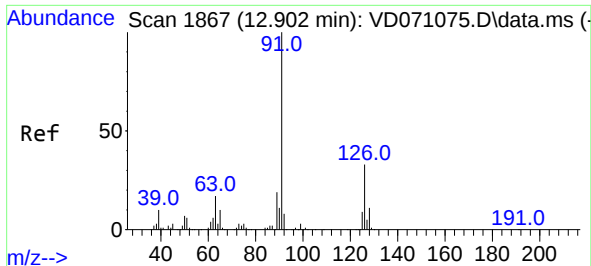
Tgt Ion:156 Resp: 641  
Ion Ratio Lower Upper  
156 100  
77 92.5 96.6 289.8#  
158 0.0 49.1 147.4#



#78  
n-propylbenzene  
Concen: 21.298 ug/l  
RT: 12.808 min Scan# 1851  
Delta R.T. -0.006 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Tgt Ion: 91 Resp: 338  
Ion Ratio Lower Upper  
91 100  
120 23.7 10.9 32.9

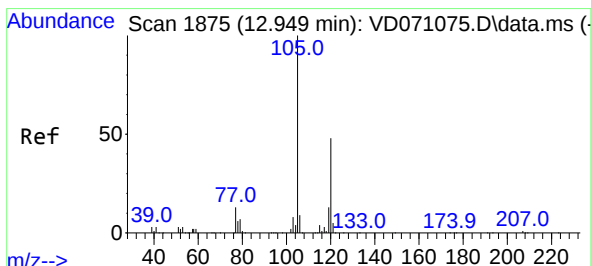
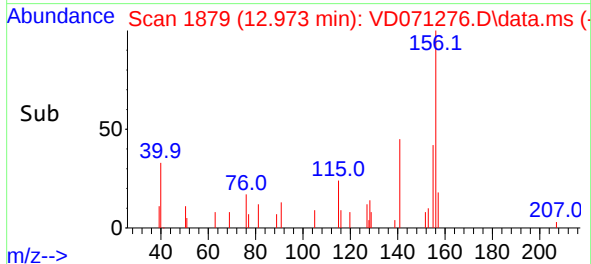
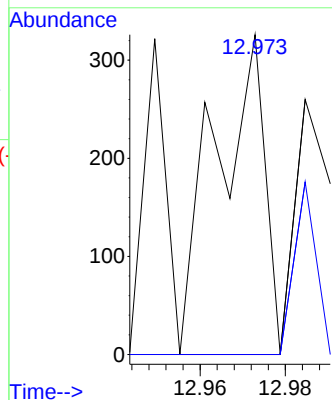
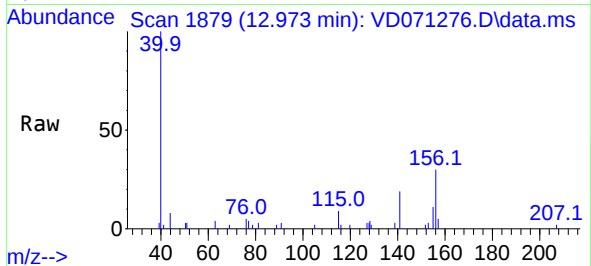




#79  
2-Chlorotoluene  
Concen: 29.414 ug/l  
RT: 12.973 min Scan# 1879  
Delta R.T. 0.071 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

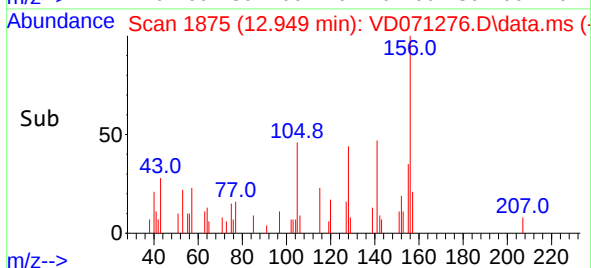
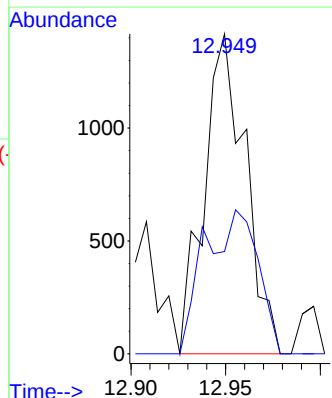
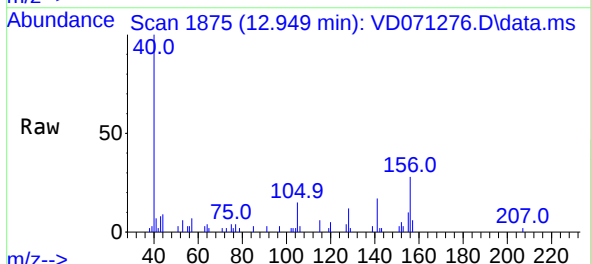
Instrument :  
MSVOA\_D  
ClientSampleId :

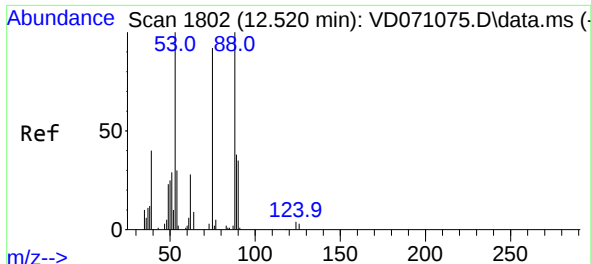
Tgt Ion: 91 Resp: 262  
Ion Ratio Lower Upper  
91 100  
126 23.7 16.6 49.7



#80  
1,3,5-Trimethylbenzene  
Concen: 204.115 ug/l  
RT: 12.949 min Scan# 1875  
Delta R.T. 0.000 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Tgt Ion: 105 Resp: 2145  
Ion Ratio Lower Upper  
105 100  
120 58.2 24.6 73.8

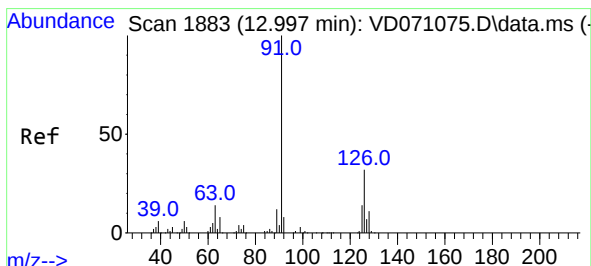
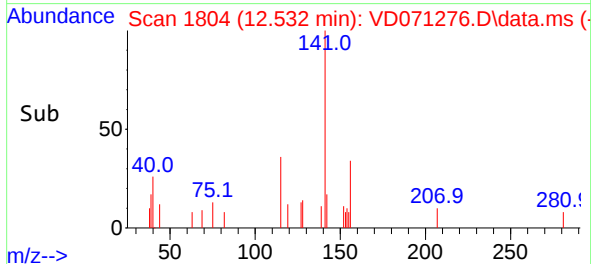
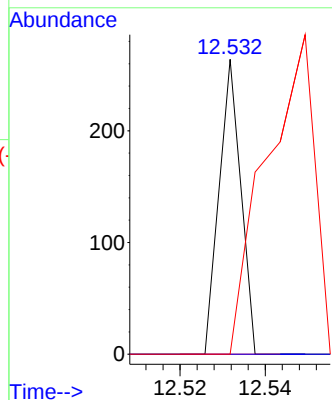
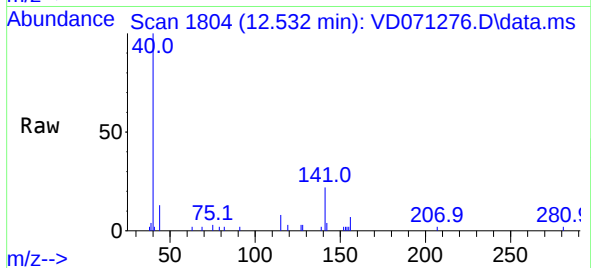




#81  
trans-1,4-Dichloro-2-butene  
Concen: 120.514 ug/l  
RT: 12.532 min Scan# 1804  
Delta R.T. 0.012 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

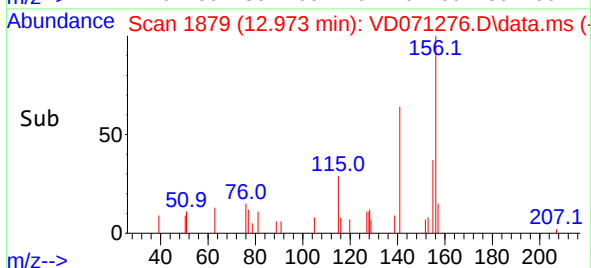
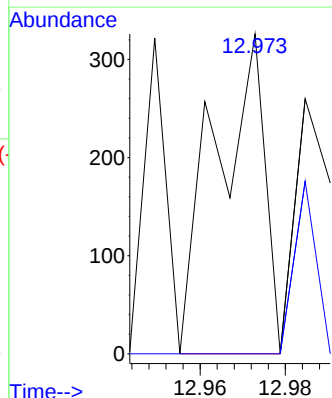
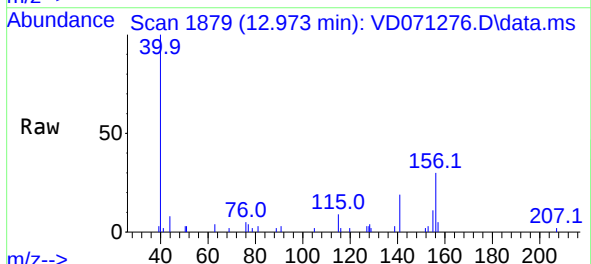
Instrument :  
MSVOA\_D  
ClientSampleId :

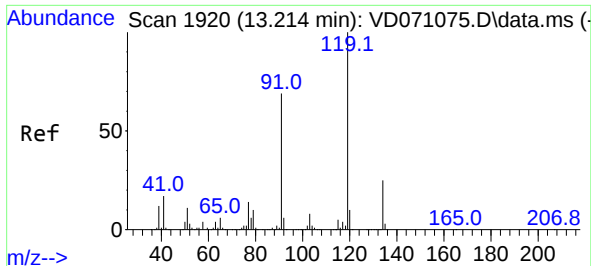
Tgt Ion: 75 Resp: 93  
Ion Ratio Lower Upper  
75 100  
53 0.0 62.6 94.0#  
89 243.0 34.5 51.7#



#82  
4-Chlorotoluene  
Concen: 28.333 ug/l  
RT: 12.973 min Scan# 1879  
Delta R.T. -0.024 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

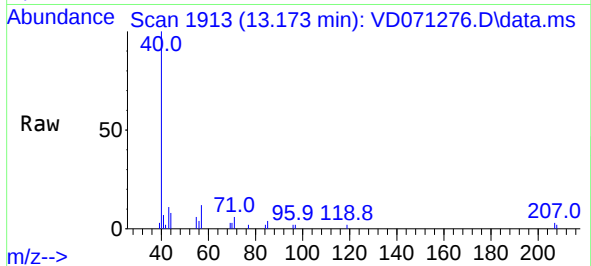
Tgt Ion: 91 Resp: 262  
Ion Ratio Lower Upper  
91 100  
126 23.7 16.4 49.1



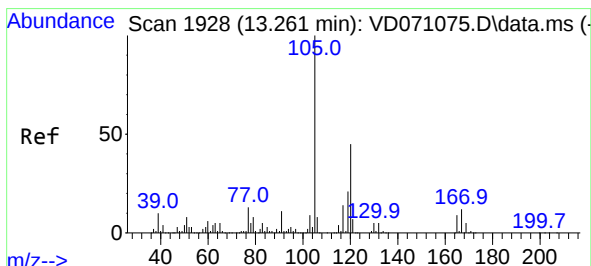
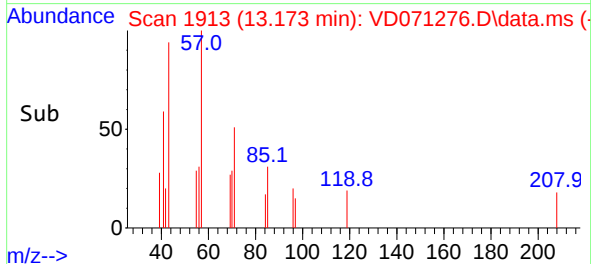
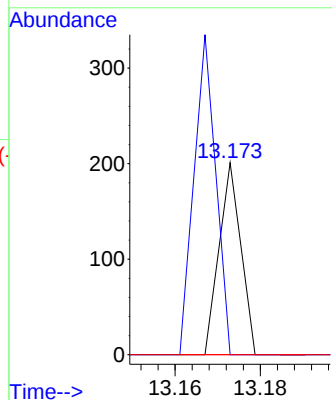


#83  
tert-Butylbenzene  
Concen: 7.867 ug/l  
RT: 13.173 min Scan# 1913  
Delta R.T. -0.041 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Instrument :  
MSVOA\_D  
ClientSampleId :

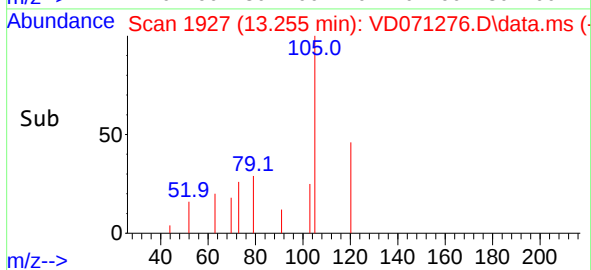
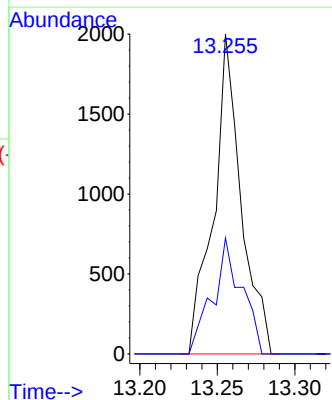
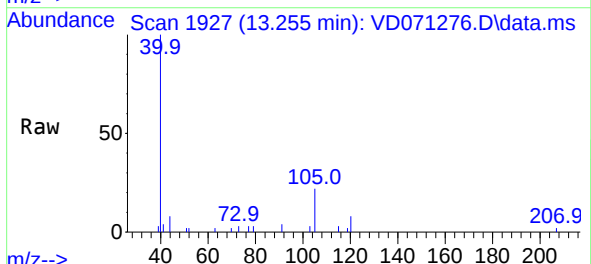


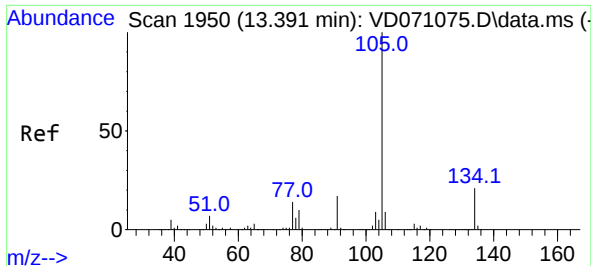
Tgt Ion:119 Resp: 71  
Ion Ratio Lower Upper  
119 100  
91 166.2 32.5 97.5#  
134 0.0 13.2 39.6#



#84  
1,2,4-Trimethylbenzene  
Concen: 240.258 ug/l  
RT: 13.255 min Scan# 1927  
Delta R.T. -0.006 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Tgt Ion:105 Resp: 2465  
Ion Ratio Lower Upper  
105 100  
120 38.1 22.9 68.7

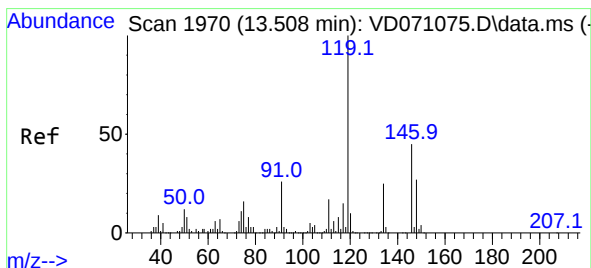
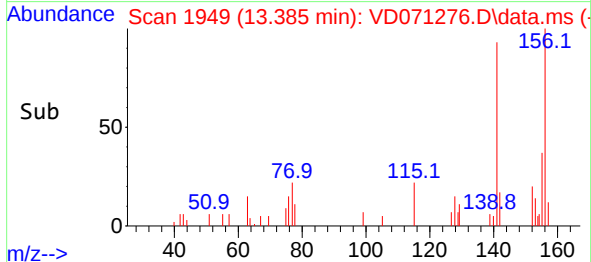
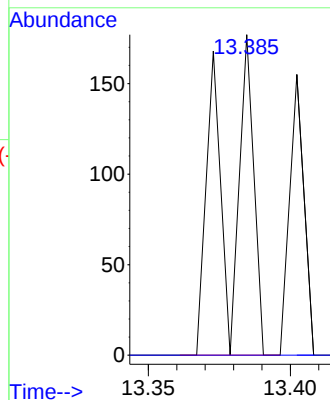
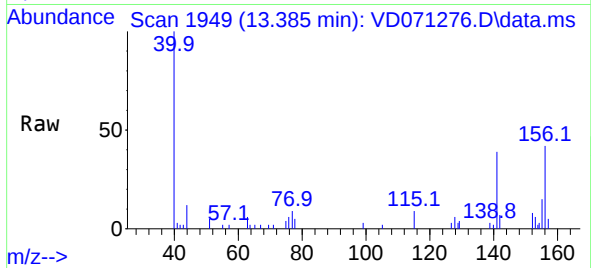




#85  
 sec-Butylbenzene  
 Concen: 8.851 ug/l  
 RT: 13.385 min Scan# 1949  
 Delta R.T. -0.006 min  
 Lab File: VD071276.D  
 Acq: 11 Dec 2021 18:13

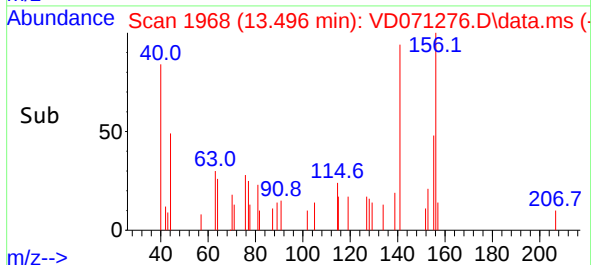
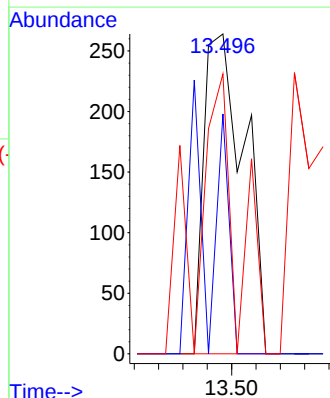
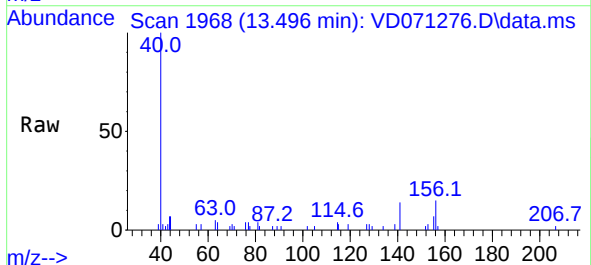
Instrument :  
 MSVOA\_D  
 ClientSampleId :

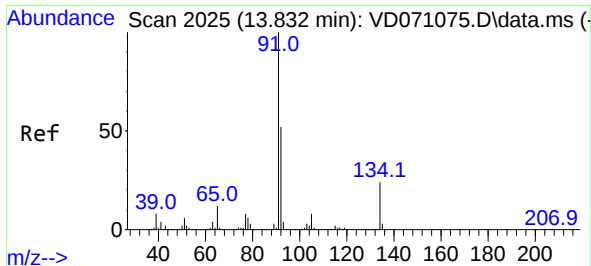
Tgt Ion:105 Resp: 122  
 Ion Ratio Lower Upper  
 105 100  
 134 0.0 9.7 28.9#



#86  
 p-Isopropyltoluene  
 Concen: 27.142 ug/l  
 RT: 13.496 min Scan# 1968  
 Delta R.T. -0.012 min  
 Lab File: VD071276.D  
 Acq: 11 Dec 2021 18:13

Tgt Ion:119 Resp: 306  
 Ion Ratio Lower Upper  
 119 100  
 134 49.0 13.0 38.9#  
 91 86.6 11.4 34.2#

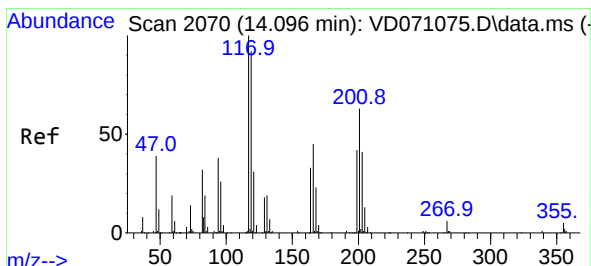
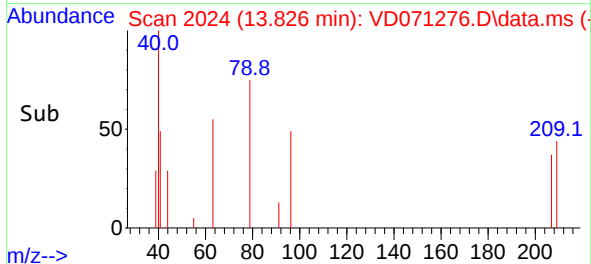
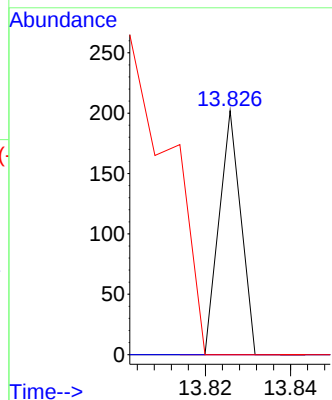
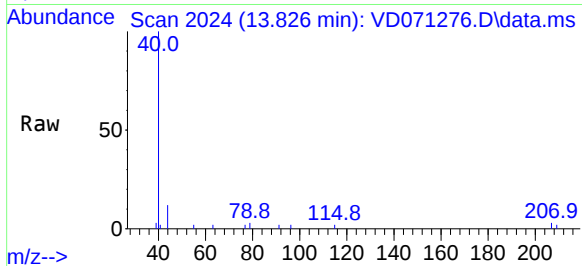




#89  
n-Butylbenzene  
Concen: 6.451 ug/l  
RT: 13.826 min Scan# 2074  
Delta R.T. -0.006 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

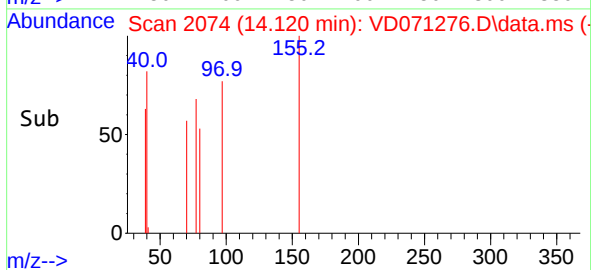
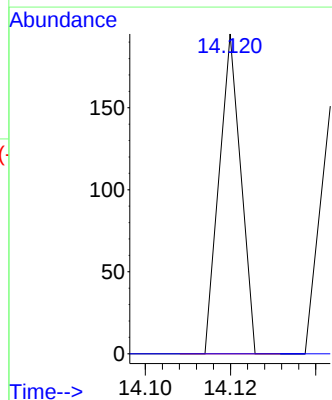
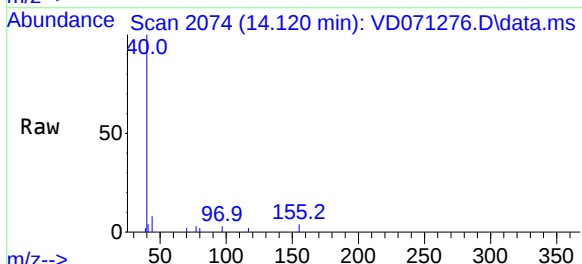
Instrument :  
MSVOA\_D  
ClientSampleId :

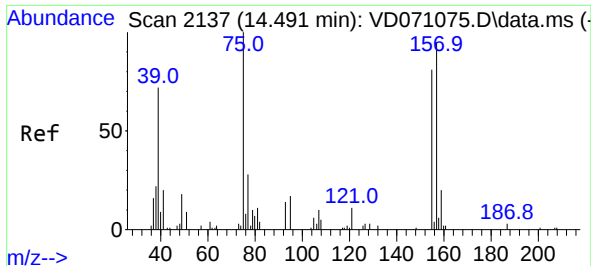
Tgt Ion: 91 Resp: 71  
Ion Ratio Lower Upper  
91 100  
92 0.0 27.3 81.9#  
134 0.0 12.3 36.9#



#90  
Hexachloroethane  
Concen: 32.285 ug/l  
RT: 14.120 min Scan# 2074  
Delta R.T. 0.024 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

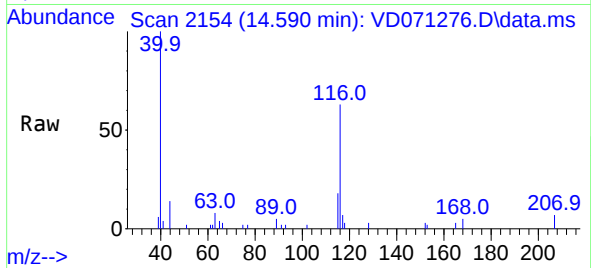
Tgt Ion: 117 Resp: 69  
Ion Ratio Lower Upper  
117 100  
201 0.0 36.0 108.1#



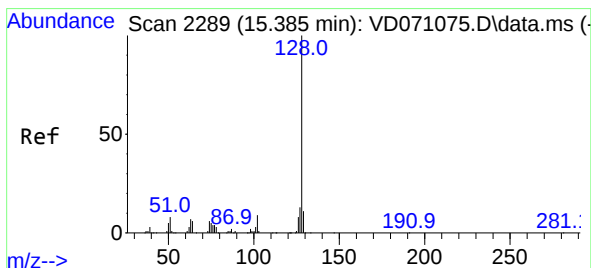
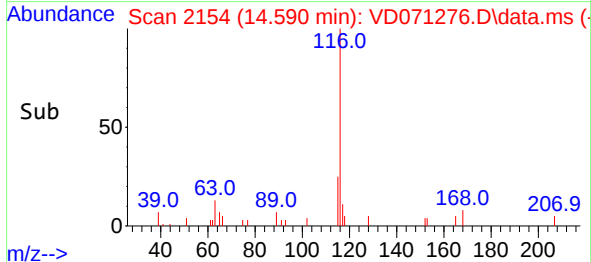
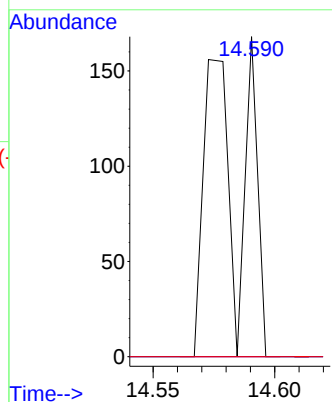


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 494.490 ug/l  
RT: 14.590 min Scan# 2137  
Delta R.T. 0.099 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Instrument :  
MSVOA\_D  
ClientSampleId :



Tgt Ion: 75 Resp: 169  
Ion Ratio Lower Upper  
75 100  
155 0.0 40.0 120.0#  
157 0.0 49.8 149.3#



#95  
Naphthalene  
Concen: 2669.397 ug/l  
RT: 15.373 min Scan# 2287  
Delta R.T. -0.012 min  
Lab File: VD071276.D  
Acq: 11 Dec 2021 18:13

Tgt Ion: 128 Resp: 13716  
Ion Ratio Lower Upper  
128 100  
127 17.8 10.7 16.1#  
129 5.0 8.7 13.1#

