

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_D\Data\VD102523\  
 Data File : VD077412.D  
 Acq On : 25 Oct 2023 14:19  
 Operator : JC/SY  
 Sample : 05011-03RE  
 Misc : 5.08G/5.0ml/MSVOA\_D/SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Oct 26 06:59:32 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_D\Method\82D101723S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 18 03:02:43 2023  
 Response via : Initial Calibration

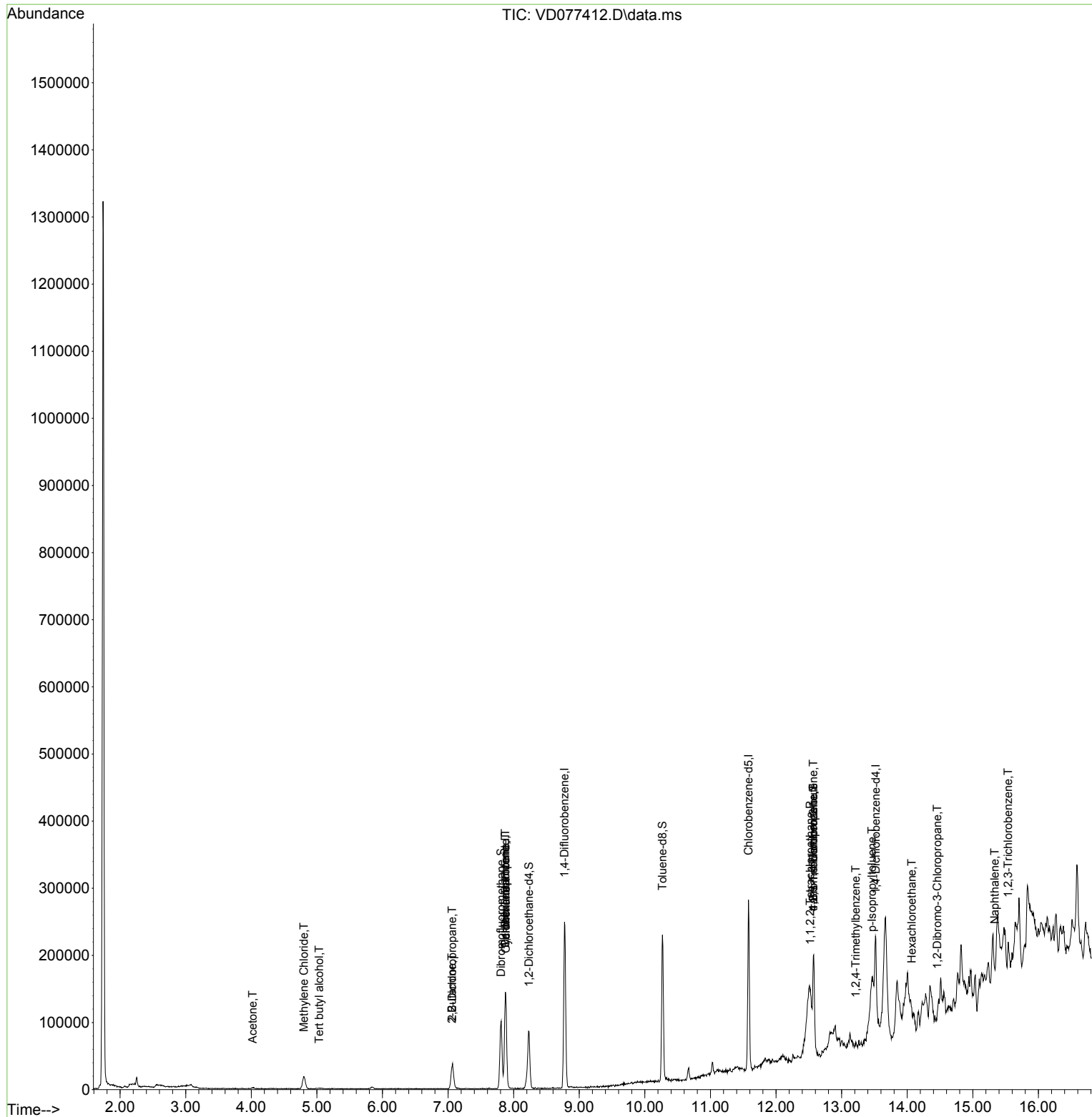
| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Pentafluorobenzene         | 7.875  | 168   | 115725   | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 8.775  | 114   | 237748   | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.581 | 117   | 154225   | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.522 | 152   | 34710    | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.234  | 65    | 63089    | 61.053   | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 50 - 163 | Recovery | =      | 122.100% |
| 35) Dibromofluoromethane      | 7.810  | 113   | 74422    | 44.557   | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 54 - 147 | Recovery | =      | 89.120%  |
| 50) Toluene-d8                | 10.269 | 98    | 163128   | 27.271   | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 58 - 134 | Recovery | =      | 54.540%# |
| 62) 4-Bromofluorobenzene      | 12.569 | 95    | 43150    | 25.059   | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 30 - 143 | Recovery | =      | 50.120%  |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 11) Tert butyl alcohol        | 5.034  | 59    | 800      | 13.762   | ug/l # | 73       |
| 16) Acetone                   | 4.022  | 43    | 3022     | 13.336   | ug/l   | 87       |
| 20) Methylene Chloride        | 4.805  | 84    | 16040    | 7.655    | ug/l   | 94       |
| 25) 2-Butanone                | 7.057  | 43    | 1685     | 7.168    | ug/l   | 93       |
| 26) 2,2-Dichloropropane       | 7.063  | 77    | 2805     | 1.491    | ug/l # | 49       |
| 31) Cyclohexane               | 7.881  | 56    | 2350     | 1.462    | ug/l # | 55       |
| 36) 1,1-Dichloropropene       | 7.875  | 75    | 8417     | 3.835    | ug/l # | 45       |
| 38) Carbon Tetrachloride      | 7.875  | 117   | 11693    | 4.789    | ug/l # | 17       |
| 75) 1,1,2,2-Tetrachloroethane | 12.522 | 83    | 32642    | 78.241   | ug/l # | 26       |
| 76) 1,2,3-Trichloropropane    | 12.569 | 75    | 17538    | 37.919   | ug/l # | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.569 | 75    | 17538    | 135.390  | ug/l # | 17       |
| 84) 1,2,4-Trimethylbenzene    | 13.216 | 105   | 2868     | 1.504    | ug/l   | 95       |
| 86) p-Isopropyltoluene        | 13.463 | 119   | 2289     | 1.042    | ug/l # | 1        |
| 90) Hexachloroethane          | 14.069 | 117   | 1002     | 2.257    | ug/l # | 24       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.457 | 75    | 60       | 1.175    | ug/l # | 1        |
| 95) Naphthalene               | 15.333 | 128   | 2604     | 2.310    | ug/l # | 1        |
| 96) 1,2,3-Trichlorobenzene    | 15.539 | 180   | 1962     | 3.386    | ug/l # | 13       |
| -----                         |        |       |          |          |        |          |

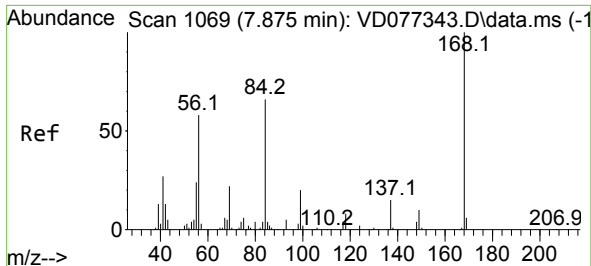
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_D  
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Quant Title : SW846 8260  
QLast Update : Wed Oct 18 03:02:43 2023  
Response via : Initial Calibration

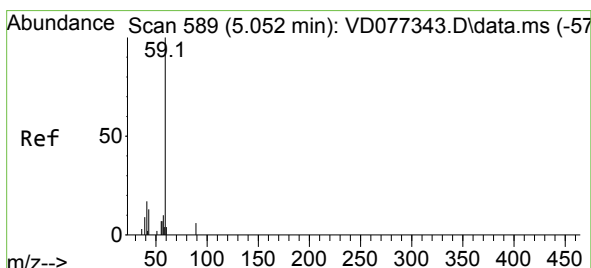
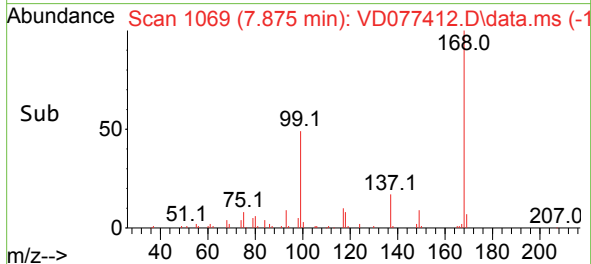
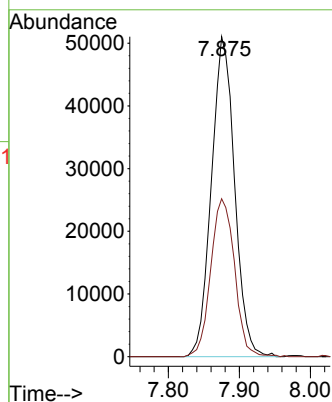
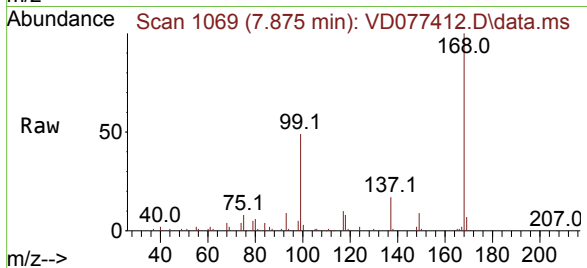




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 7.875 min Scan# 1069  
Delta R.T. 0.000 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

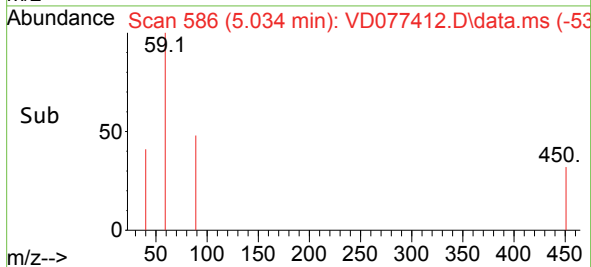
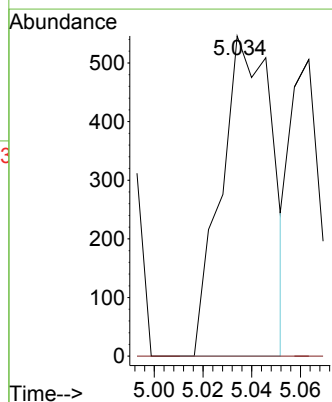
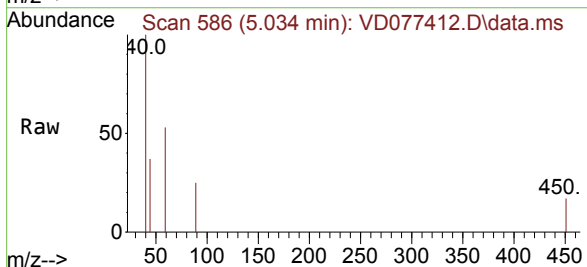
Instrument :  
MSVOA\_D  
ClientSampleId :

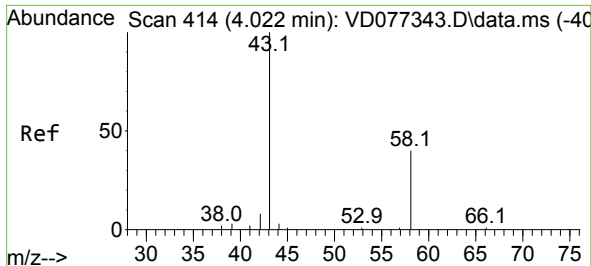
Tgt Ion:168 Resp: 115725  
Ion Ratio Lower Upper  
168 100  
99 49.3 36.7 55.1



#11  
Tert butyl alcohol  
Concen: 13.762 ug/l  
RT: 5.034 min Scan# 586  
Delta R.T. -0.018 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

Tgt Ion: 59 Resp: 800  
Ion Ratio Lower Upper  
59 100  
57 0.0 7.8 11.8#

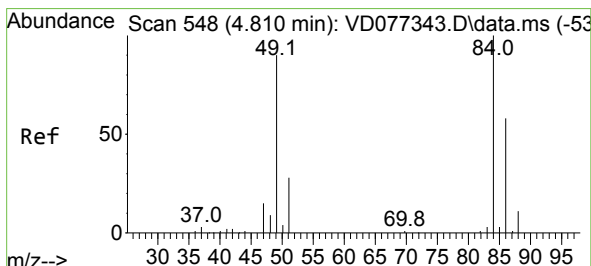
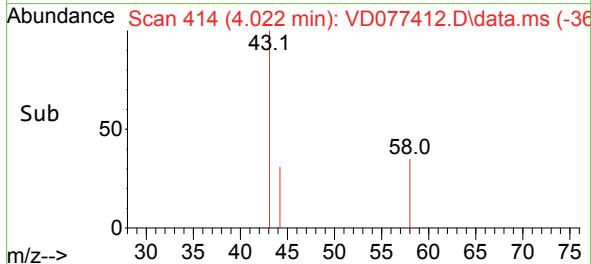
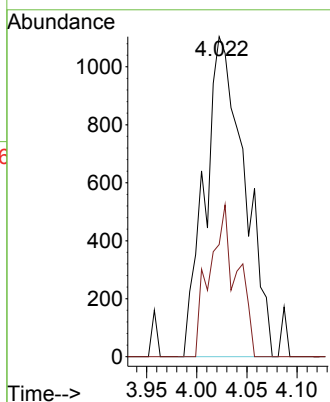
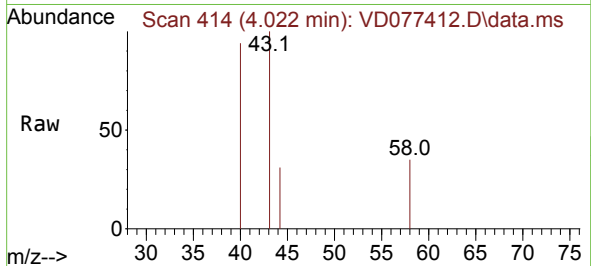




#16  
Acetone  
Concen: 13.336 ug/l  
RT: 4.022 min Scan# 414  
Delta R.T. 0.000 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

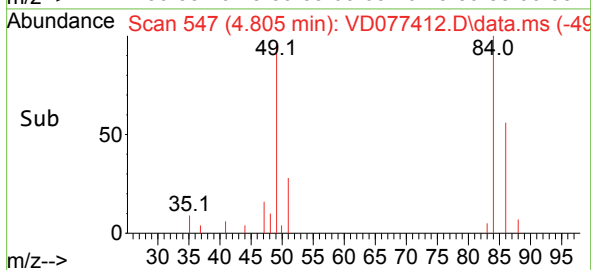
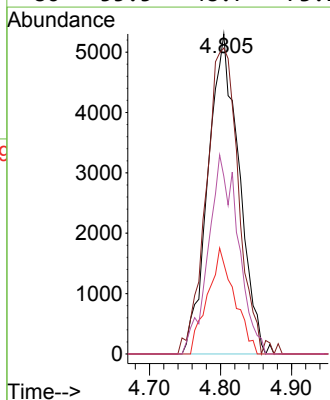
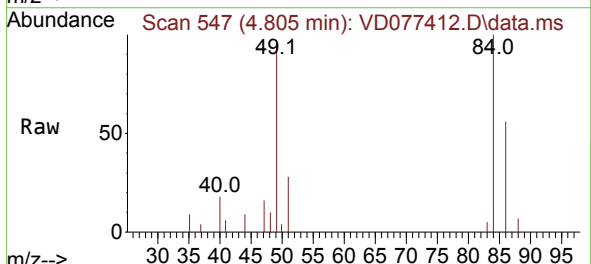
Instrument :  
MSVOA\_D  
ClientSampleId :

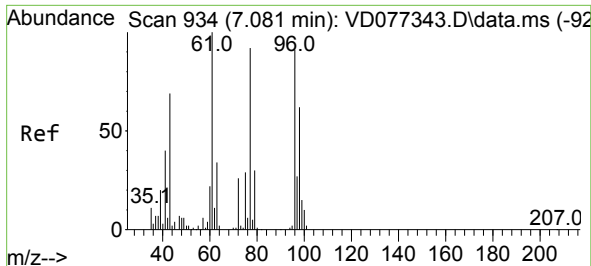
Tgt Ion: 43 Resp: 3022  
Ion Ratio Lower Upper  
43 100  
58 35.1 34.7 52.1



#20  
Methylene Chloride  
Concen: 7.655 ug/l  
RT: 4.805 min Scan# 547  
Delta R.T. -0.005 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

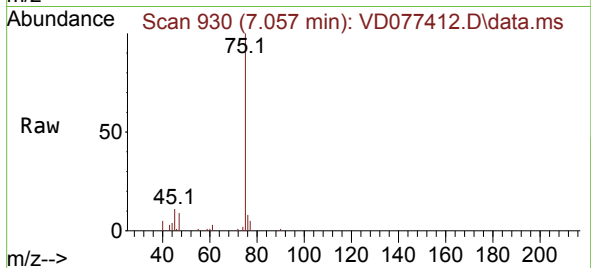
Tgt Ion: 84 Resp: 16040  
Ion Ratio Lower Upper  
84 100  
49 95.6 71.4 107.2  
51 28.3 24.5 36.7  
86 55.5 48.7 73.1



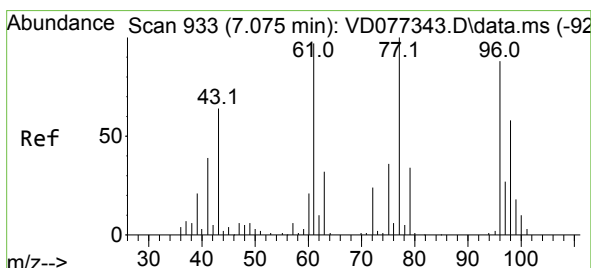
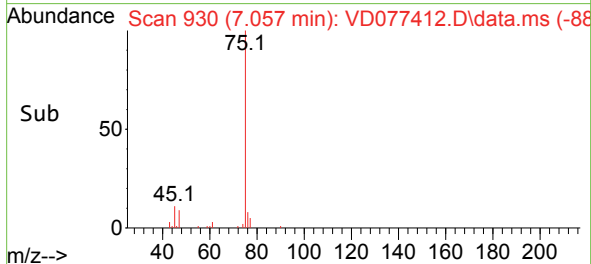
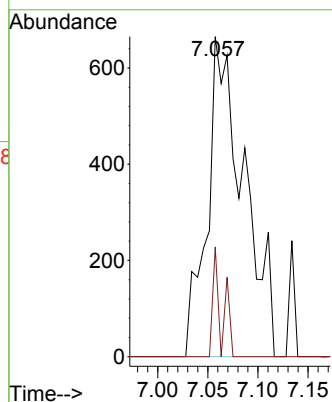


#25  
2-Butanone  
Concen: 7.168 ug/l  
RT: 7.057 min Scan# 91  
Delta R.T. -0.024 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

Instrument :  
MSVOA\_D  
ClientSampleId :

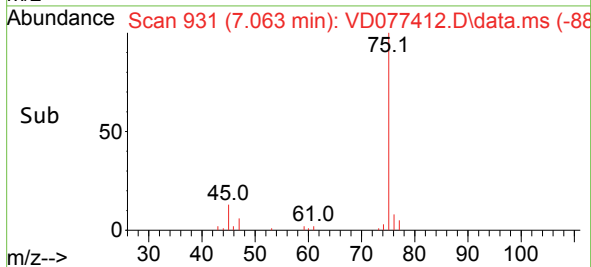
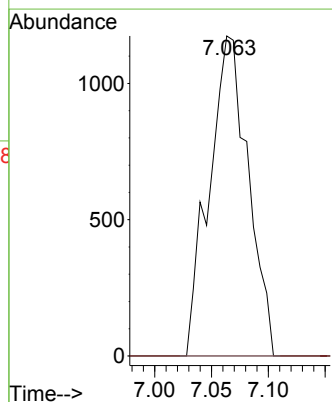
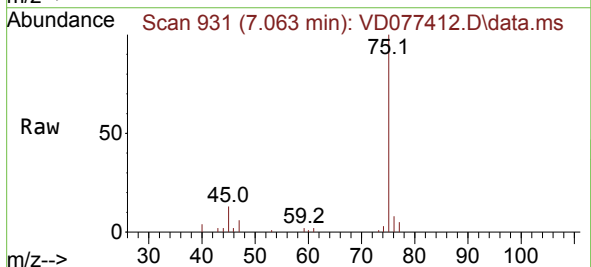


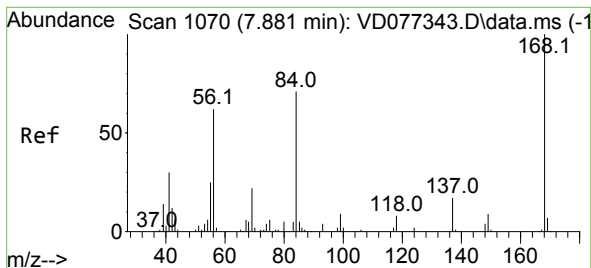
Tgt Ion: 43 Resp: 1685  
Ion Ratio Lower Upper  
43 100  
72 34.3 30.7 46.1



#26  
2,2-Dichloropropane  
Concen: 1.491 ug/l  
RT: 7.063 min Scan# 931  
Delta R.T. -0.012 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

Tgt Ion: 77 Resp: 2805  
Ion Ratio Lower Upper  
77 100  
97 0.0 13.2 39.6#





#31

Cyclohexane

Concen: 1.462 ug/l

RT: 7.881 min Scan# 1107

Delta R.T. -0.000 min

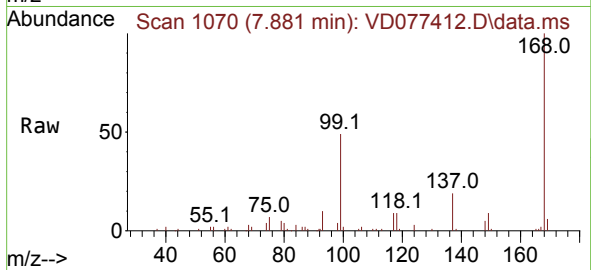
Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

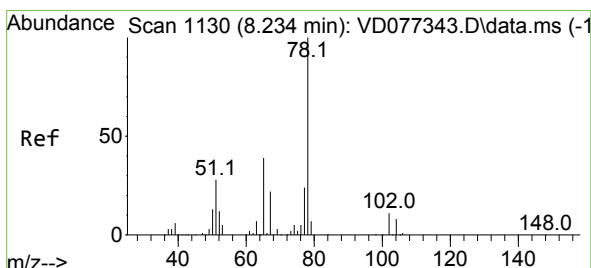
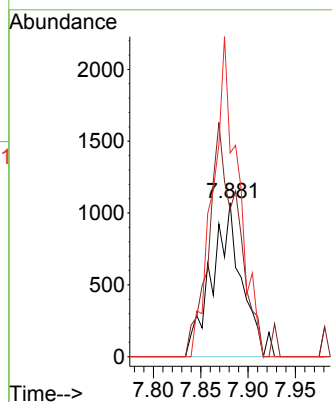
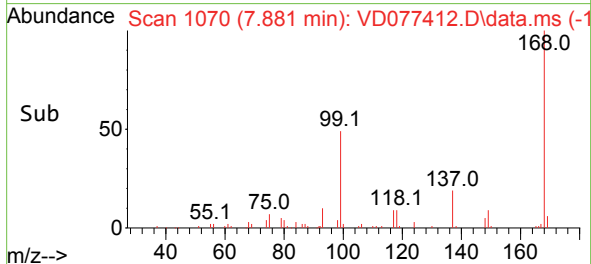
Instrument :

MSVOA\_D

ClientSampleId :



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 56    | Resp: | 2350   |
| Ion      | Ratio | Lower | Upper  |
| 56       | 100   |       |        |
| 69       | 95.8  | 28.6  | 43.0#  |
| 84       | 132.3 | 84.8  | 127.2# |



#33

1,2-Dichloroethane-d4

Concen: 61.053 ug/l

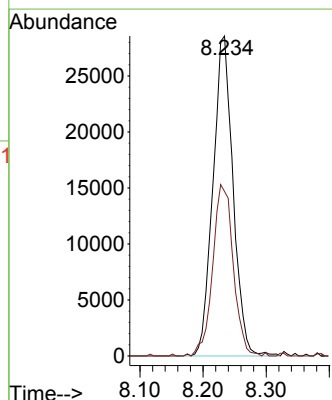
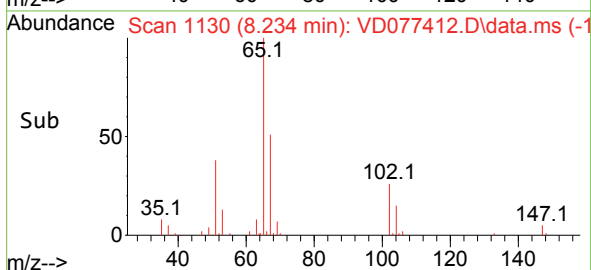
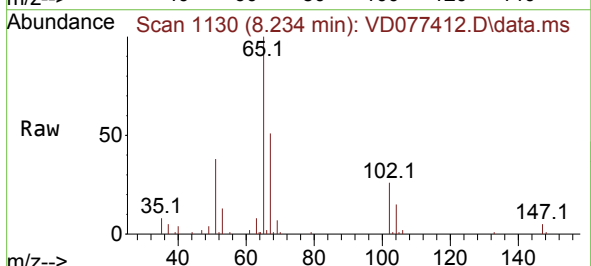
RT: 8.234 min Scan# 1130

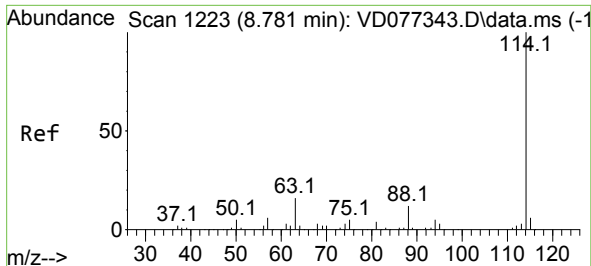
Delta R.T. -0.000 min

Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 65    | Resp: | 63089 |
| Ion      | Ratio | Lower | Upper |
| 65       | 100   |       |       |
| 67       | 54.8  | 0.0   | 115.0 |





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.775 min Scan# 11

Delta R.T. -0.006 min

Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

Instrument :

MSVOA\_D

ClientSampleId :

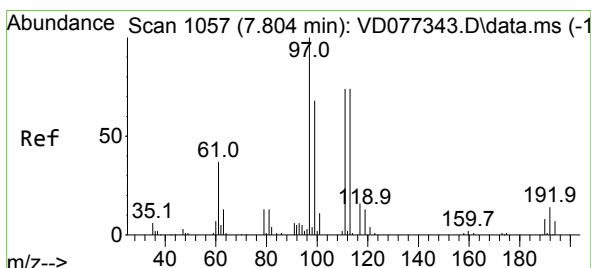
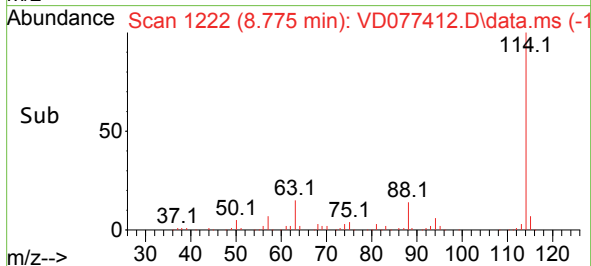
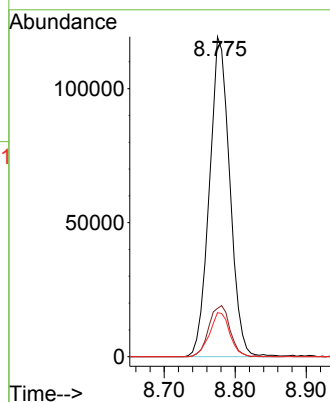
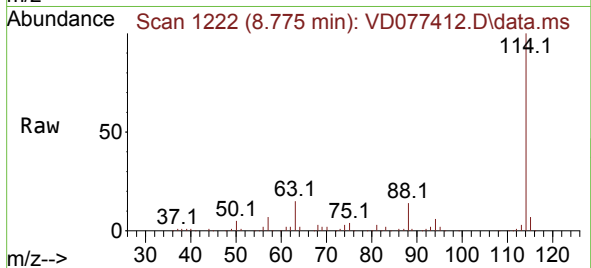
Tgt Ion:114 Resp: 237748

Ion Ratio Lower Upper

114 100

63 15.1 0.0 33.4

88 13.7 0.0 26.2



#35

Dibromofluoromethane

Concen: 44.557 ug/l

RT: 7.810 min Scan# 1058

Delta R.T. 0.006 min

Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

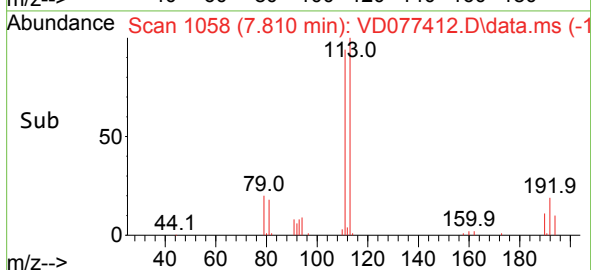
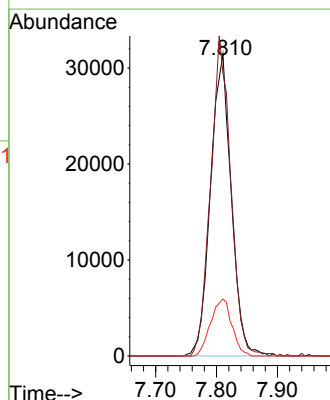
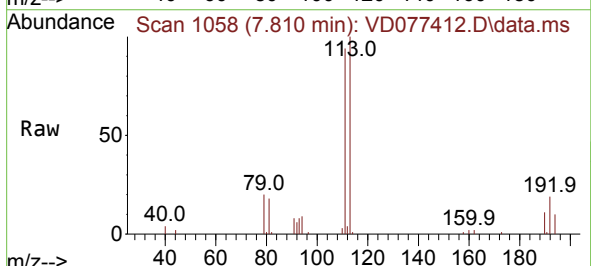
Tgt Ion:113 Resp: 74422

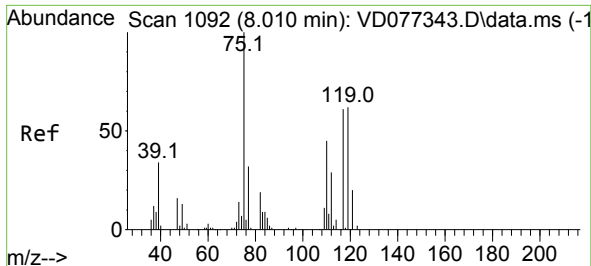
Ion Ratio Lower Upper

113 100

111 102.9 84.7 127.1

192 19.3 16.8 25.2





#36

1,1-Dichloropropene

Concen: 3.835 ug/l

RT: 7.875 min Scan# 1069

Delta R.T. -0.135 min

Lab File: VD077412.D

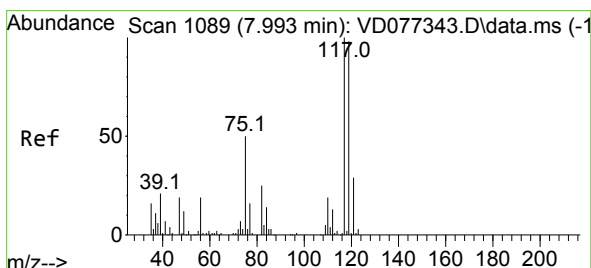
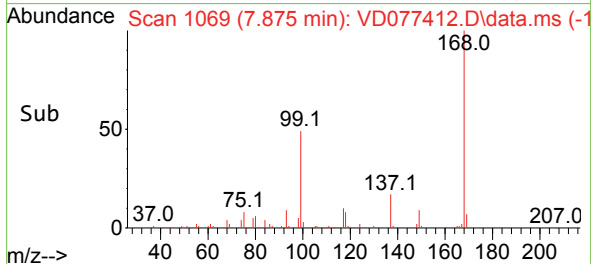
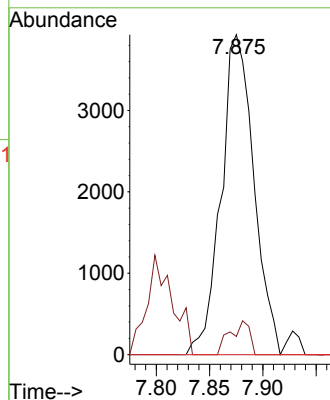
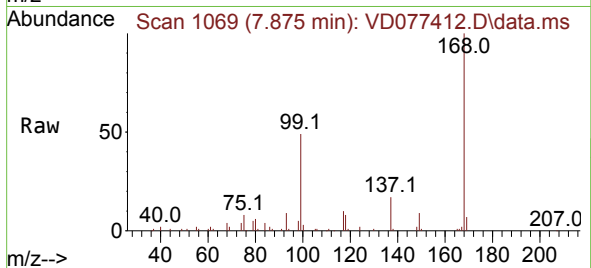
Acq: 25 Oct 2023 14:19

Instrument :

MSVOA\_D

ClientSampleId :

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 75    | Resp: | 8417  |
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 110       | 6.3   | 19.9  | 59.6# |
| 77        | 0.0   | 24.7  | 37.1# |



#38

Carbon Tetrachloride

Concen: 4.789 ug/l

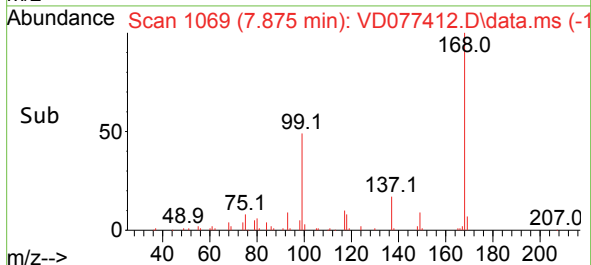
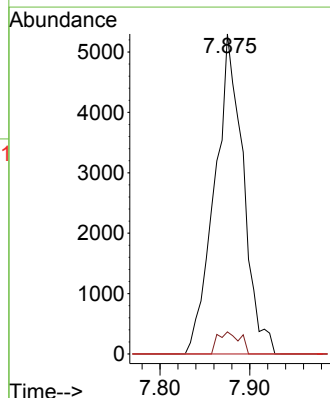
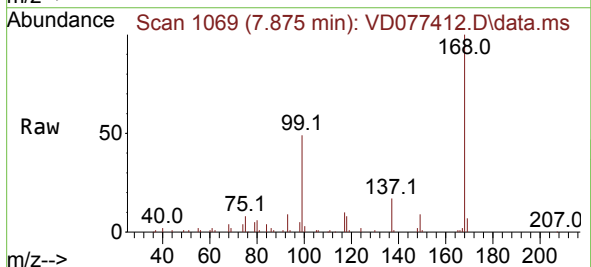
RT: 7.875 min Scan# 1069

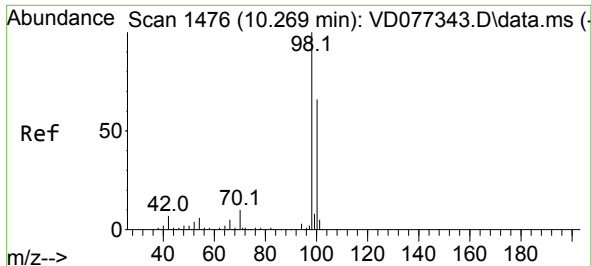
Delta R.T. -0.118 min

Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 117   | Resp: | 11693  |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 6.9   | 78.0  | 117.0# |
| 121       | 0.0   | 24.2  | 36.2#  |

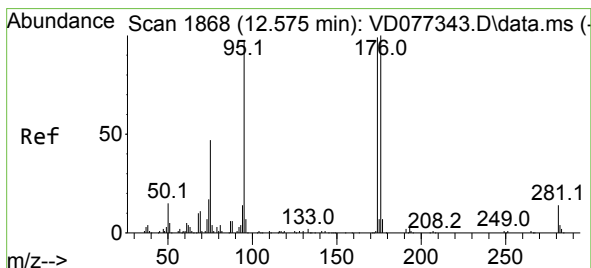
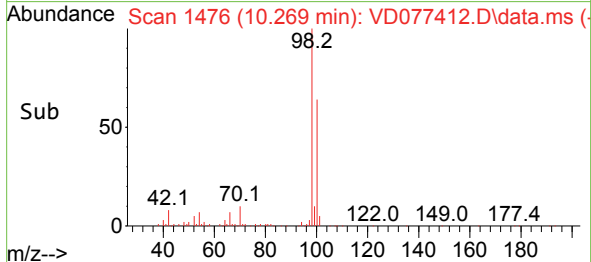
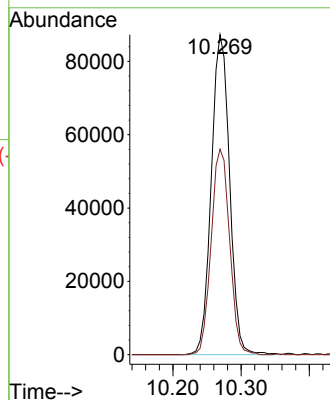
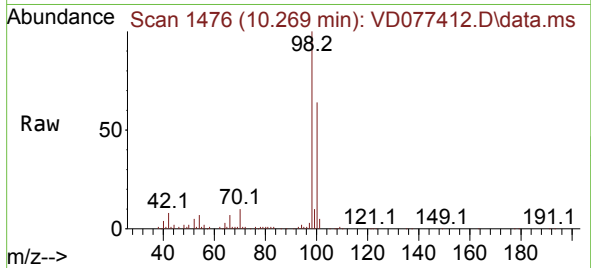




#50  
Toluene-d8  
Concen: 27.271 ug/l  
RT: 10.269 min Scan# 1476  
Delta R.T. 0.000 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

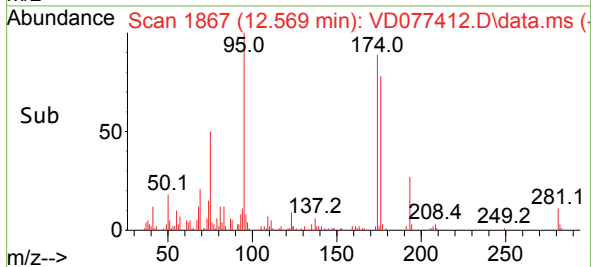
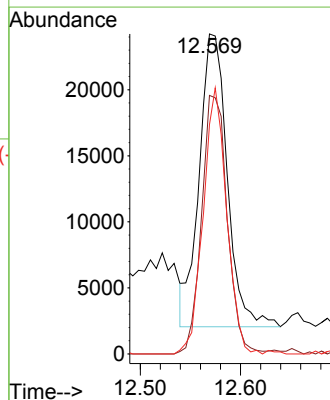
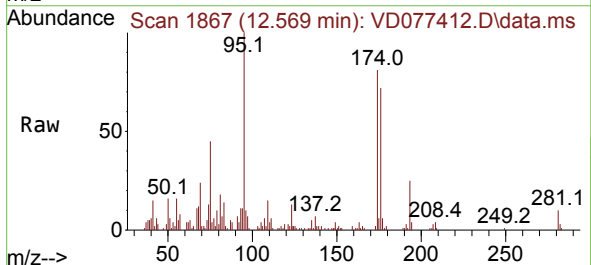
Instrument :  
MSVOA\_D  
ClientSampleId :

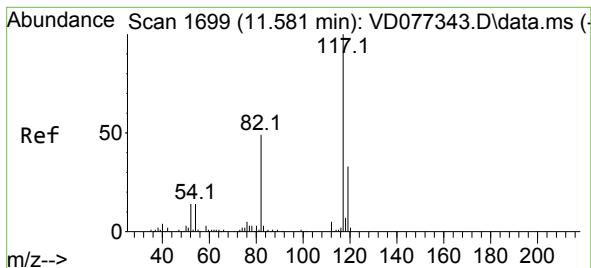
Tgt Ion: 98 Resp: 163128  
Ion Ratio Lower Upper  
98 100  
100 64.6 50.3 75.5



#62  
4-Bromofluorobenzene  
Concen: 25.059 ug/l  
RT: 12.569 min Scan# 1867  
Delta R.T. -0.006 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

Tgt Ion: 95 Resp: 43150  
Ion Ratio Lower Upper  
95 100  
174 80.5 0.0 201.8  
176 75.9 0.0 191.8





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.581 min Scan# 1

Delta R.T. -0.000 min

Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

Instrument :

MSVOA\_D

ClientSampleId :

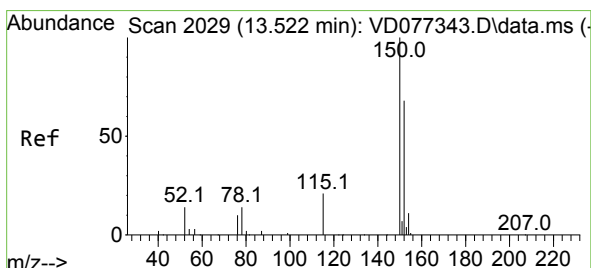
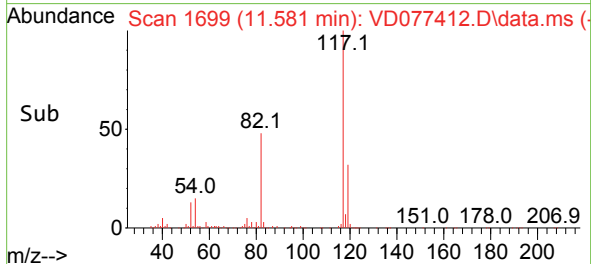
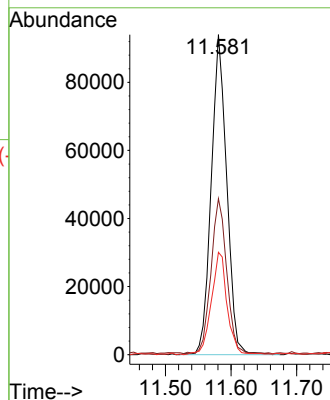
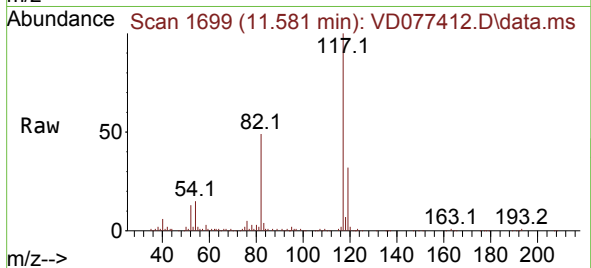
Tgt Ion:117 Resp: 154225

Ion Ratio Lower Upper

117 100

82 48.1 38.3 57.5

119 31.8 25.0 37.4



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.522 min Scan# 2029

Delta R.T. 0.000 min

Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

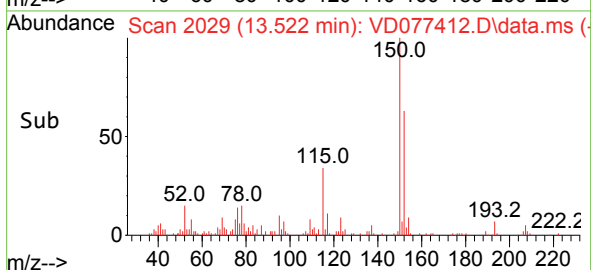
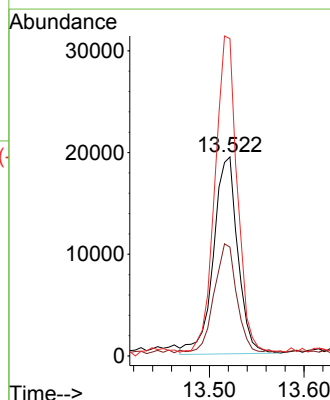
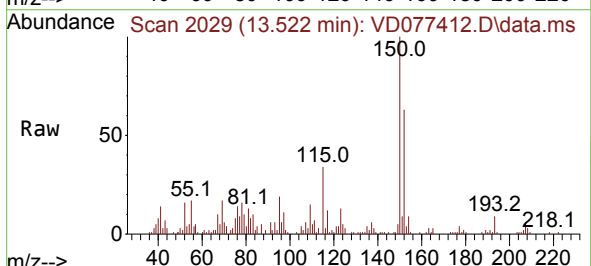
Tgt Ion:152 Resp: 34710

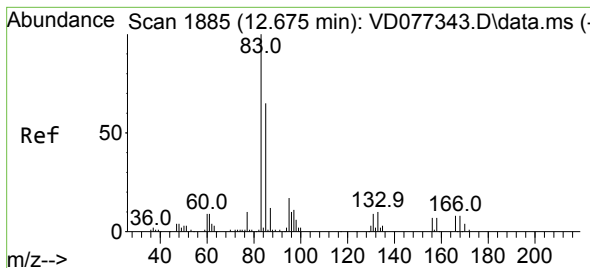
Ion Ratio Lower Upper

152 100

115 49.3 27.1 81.3

150 148.4 0.0 353.6





#75

1,1,2,2-Tetrachloroethane

Concen: 78.241 ug/l

RT: 12.522 min Scan# 1859

Delta R.T. -0.153 min

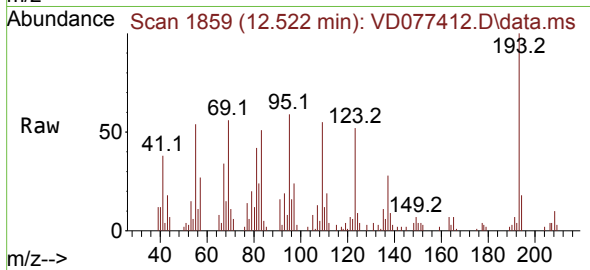
Lab File: VD077412.D

Acq: 25 Oct 2023 14:19

Instrument :

MSVOA\_D

ClientSampleId :



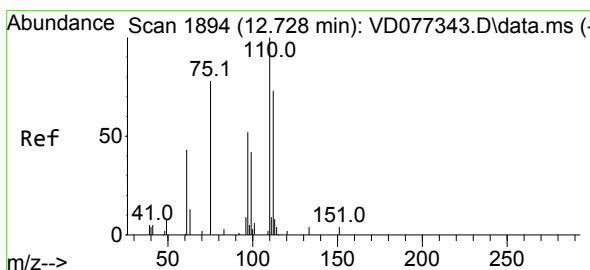
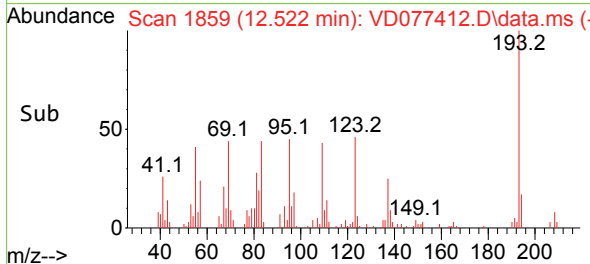
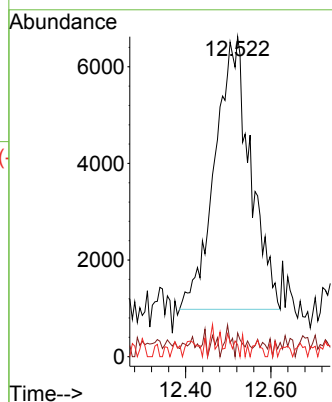
Tgt Ion: 83 Resp: 32642

Ion Ratio Lower Upper

83 100

131 1.4 5.1 15.3#

85 0.7 32.6 97.8#



#76

1,2,3-Trichloropropane

Concen: 37.919 ug/l

RT: 12.569 min Scan# 1867

Delta R.T. -0.159 min

Lab File: VD077412.D

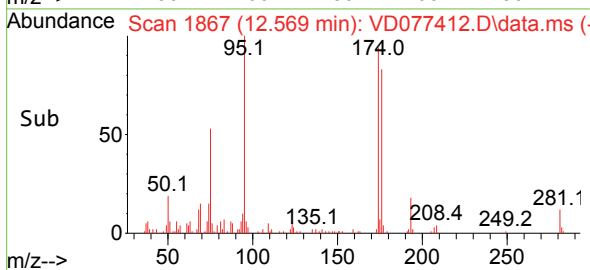
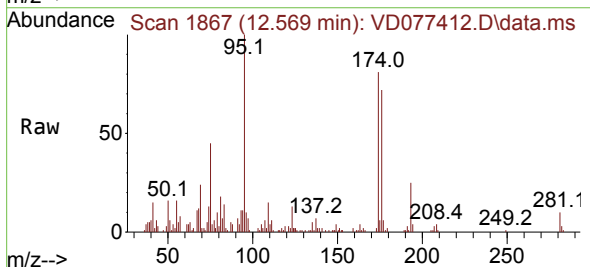
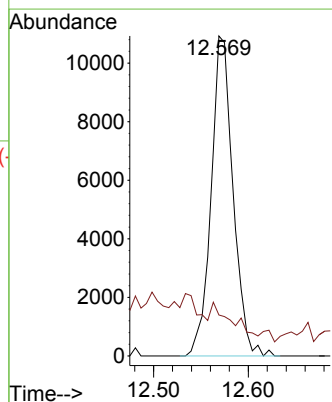
Acq: 25 Oct 2023 14:19

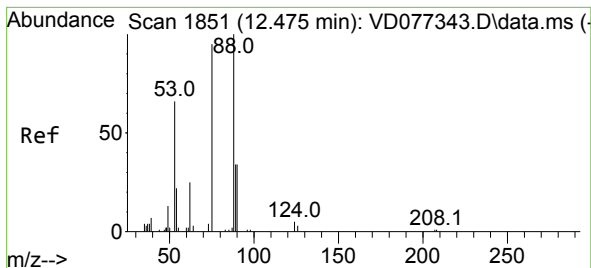
Tgt Ion: 75 Resp: 17538

Ion Ratio Lower Upper

75 100

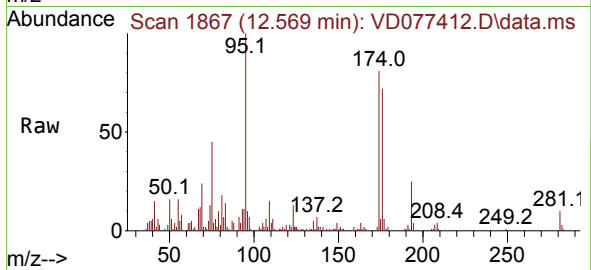
77 8.6 0.0 0.0#



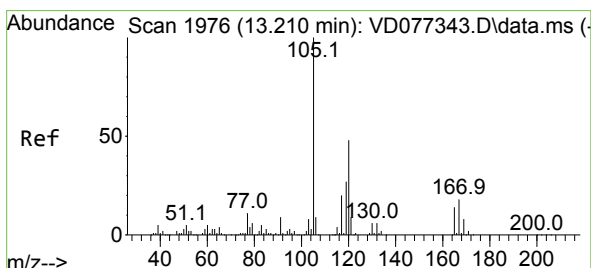
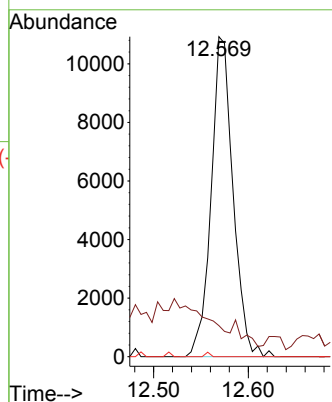
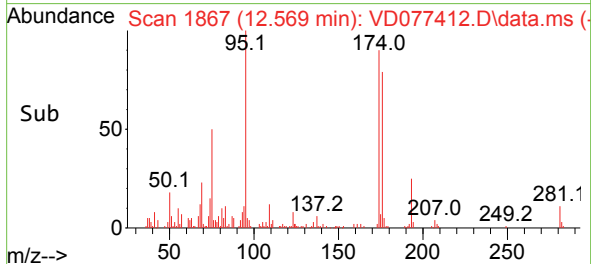


#81  
trans-1,4-Dichloro-2-butene  
Concen: 135.390 ug/l  
RT: 12.569 min Scan# 1867  
Delta R.T. 0.094 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

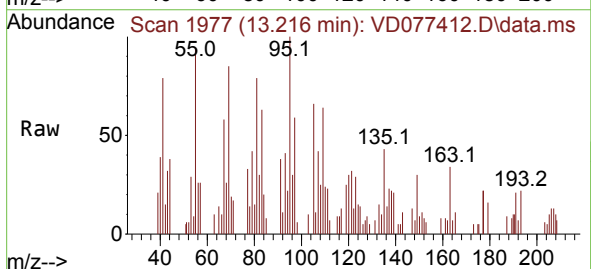
Instrument :  
MSVOA\_D  
ClientSampleId :



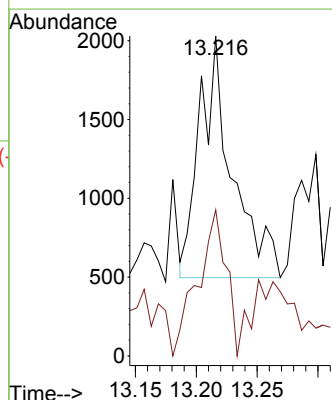
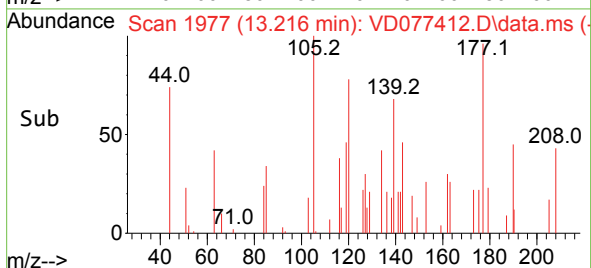
Tgt Ion: 75 Resp: 17538  
Ion Ratio Lower Upper  
75 100  
53 0.0 63.0 94.4#  
89 0.3 37.9 56.9#

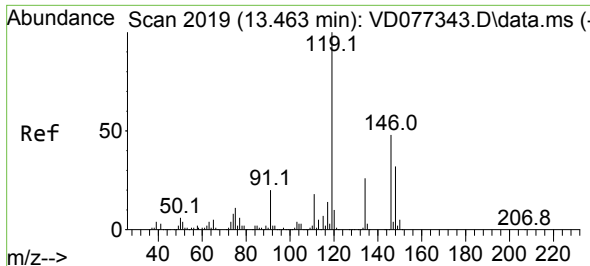


#84  
1,2,4-Trimethylbenzene  
Concen: 1.504 ug/l  
RT: 13.216 min Scan# 1977  
Delta R.T. 0.006 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19



Tgt Ion: 105 Resp: 2868  
Ion Ratio Lower Upper  
105 100  
120 52.0 24.3 72.9

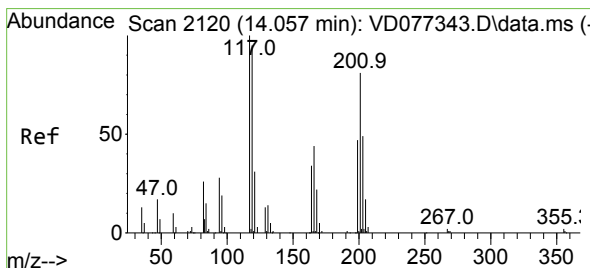
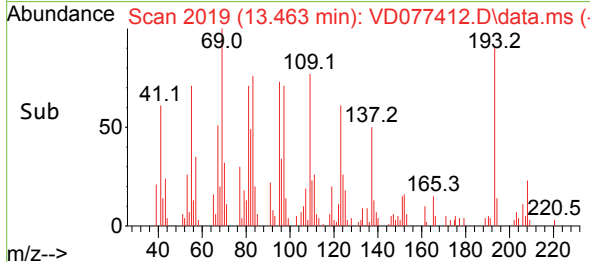
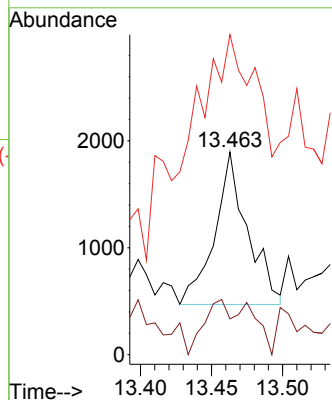
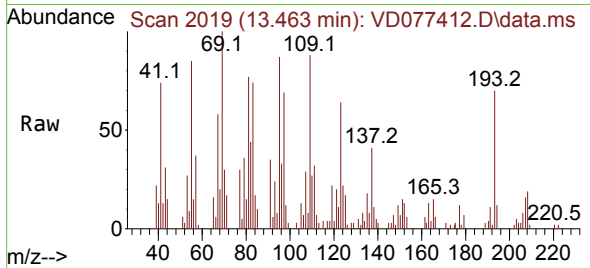




#86  
p-Isopropyltoluene  
Concen: 1.042 ug/l  
RT: 13.463 min Scan# 2019  
Delta R.T. 0.000 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

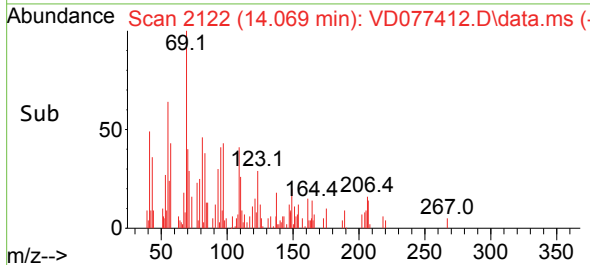
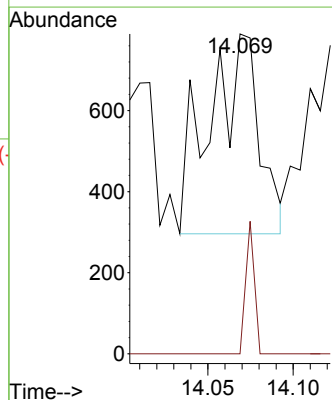
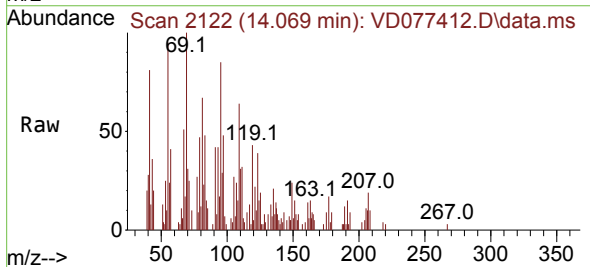
Instrument :  
MSVOA\_D  
ClientSampleId :

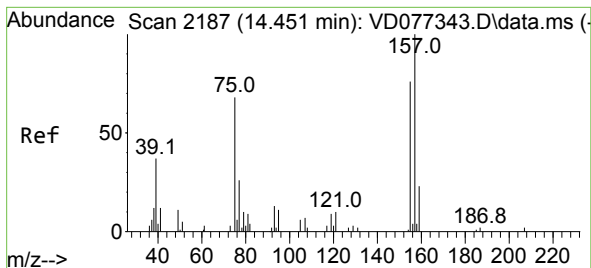
Tgt Ion:119 Resp: 2289  
Ion Ratio Lower Upper  
119 100  
134 33.8 14.2 42.6  
91 215.8 10.5 31.5#



#90  
Hexachloroethane  
Concen: 2.257 ug/l  
RT: 14.069 min Scan# 2122  
Delta R.T. 0.012 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

Tgt Ion:117 Resp: 1002  
Ion Ratio Lower Upper  
117 100  
201 11.5 38.5 115.5#

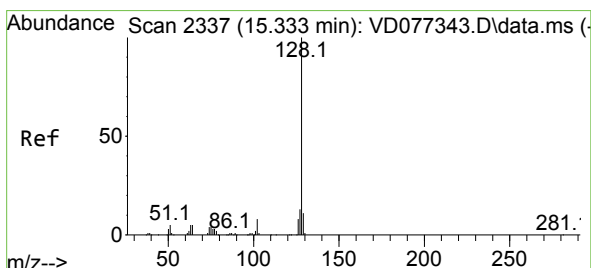
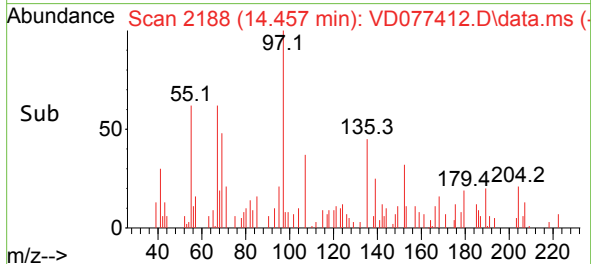
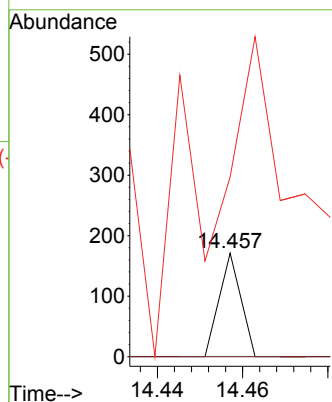
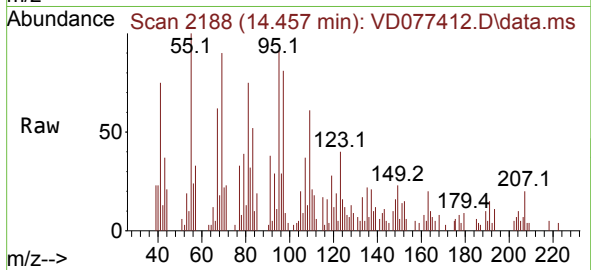




#92  
1,2-Dibromo-3-Chloropropane  
Concen: 1.175 ug/l  
RT: 14.457 min Scan# 2187  
Delta R.T. 0.006 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

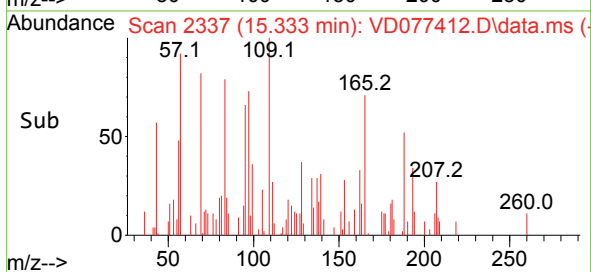
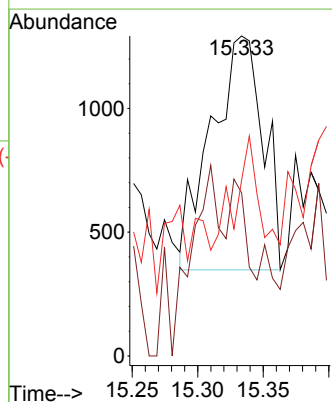
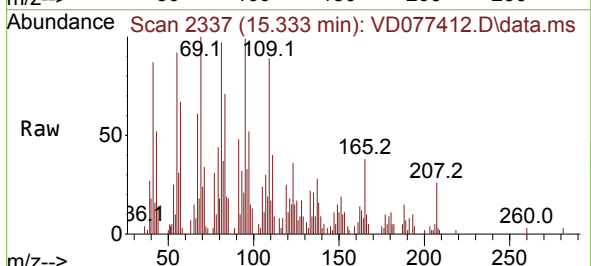
Instrument :  
MSVOA\_D  
ClientSampleId :

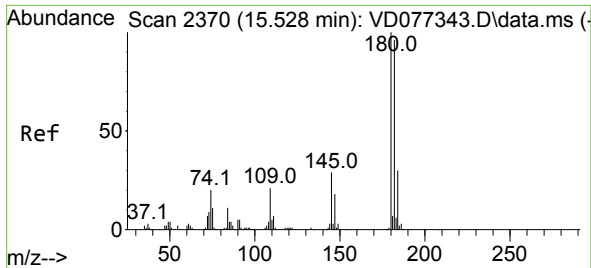
Tgt Ion: 75 Resp: 60  
Ion Ratio Lower Upper  
75 100  
155 0.0 47.9 143.8#  
157 1480.0 59.9 179.7#



#95  
Naphthalene  
Concen: 2.310 ug/l  
RT: 15.333 min Scan# 2337  
Delta R.T. 0.000 min  
Lab File: VD077412.D  
Acq: 25 Oct 2023 14:19

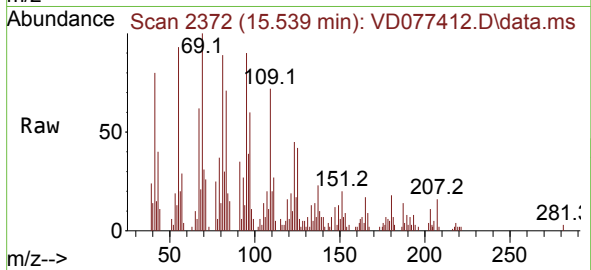
Tgt Ion: 128 Resp: 2604  
Ion Ratio Lower Upper  
128 100  
127 51.0 10.5 15.7#  
129 55.0 8.7 13.1#





#96  
 1,2,3-Trichlorobenzene  
 Concen: 3.386 ug/l  
 RT: 15.539 min Scan# 21  
 Delta R.T. 0.012 min  
 Lab File: VD077412.D  
 Acq: 25 Oct 2023 14:19

Instrument :  
 MSVOA\_D  
 ClientSampleId :



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 180   | Resp: | 1962   |
| Ion Ratio | Lower | Upper |        |
| 180       | 100   |       |        |
| 182       | 0.0   | 47.3  | 141.9# |
| 145       | 0.0   | 15.1  | 45.3#  |

