

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX102323\  
 Data File : VX038439.D  
 Acq On : 23 Oct 2023 17:47  
 Operator : JC/MD  
 Sample : 05007-16  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Oct 24 00:05:37 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X100523W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Oct 05 15:27:13 2023  
 Response via : Initial Calibration

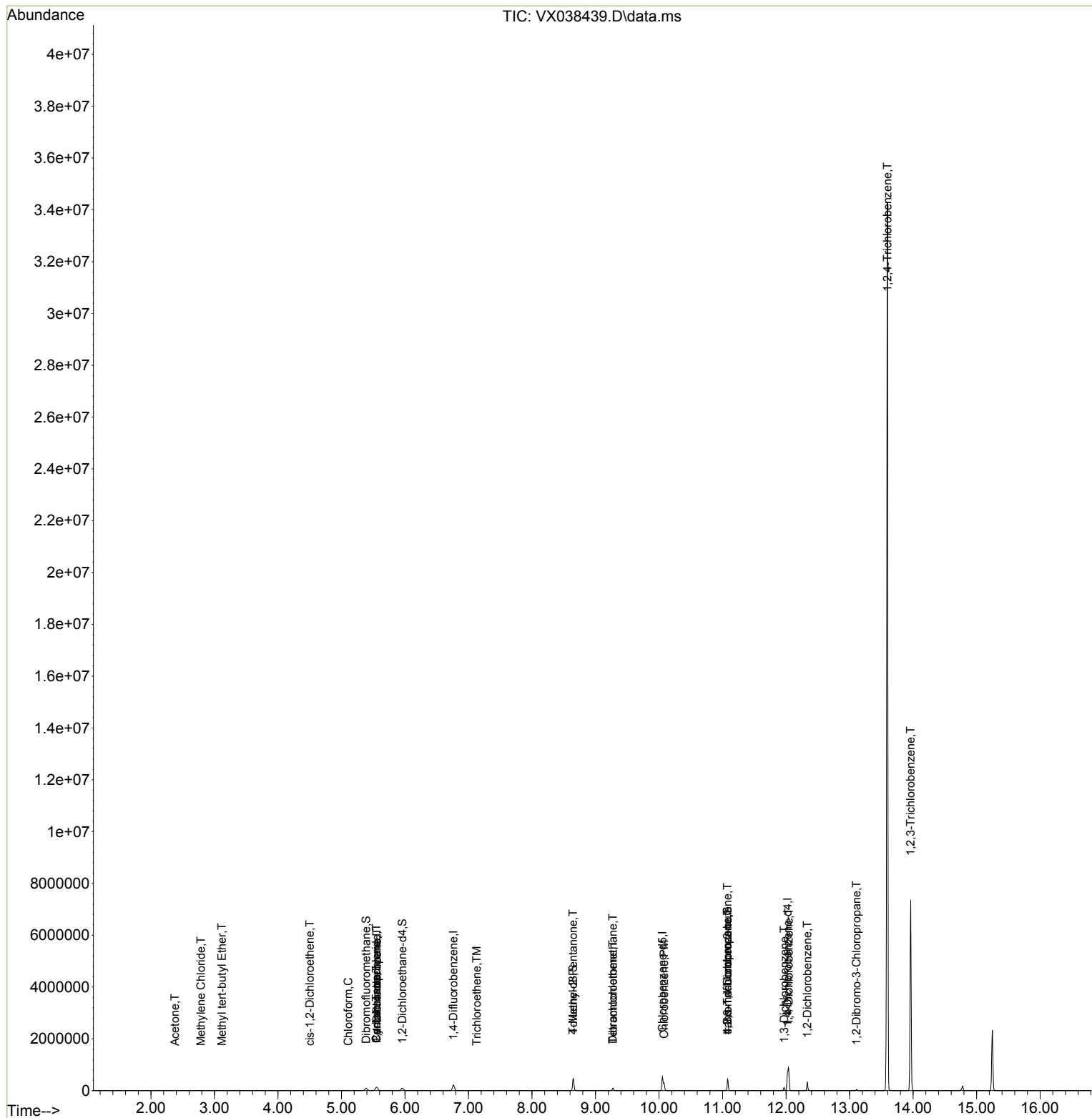
| Compound                      | R.T.   | QIon  | Response | Conc      | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|-----------|--------|----------|
| -----                         |        |       |          |           |        |          |
| Internal Standards            |        |       |          |           |        |          |
| 1) Pentafluorobenzene         | 5.556  | 168   | 129025   | 50.000    | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 6.763  | 114   | 233594   | 50.000    | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 10.055 | 117   | 239982   | 50.000    | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 12.024 | 152   | 128240   | 50.000    | ug/l   | 0.00     |
| System Monitoring Compounds   |        |       |          |           |        |          |
| 33) 1,2-Dichloroethane-d4     | 5.958  | 65    | 91730    | 44.201    | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 78 - 117 | Recovery  | =      | 88.400%  |
| 35) Dibromofluoromethane      | 5.385  | 113   | 77694    | 46.159    | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 75 - 124 | Recovery  | =      | 92.320%  |
| 50) Toluene-d8                | 8.647  | 98    | 290713   | 45.199    | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 92 - 112 | Recovery  | =      | 90.400%# |
| 62) 4-Bromofluorobenzene      | 11.079 | 95    | 111078   | 45.554    | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 83 - 123 | Recovery  | =      | 91.100%  |
| Target Compounds              |        |       |          |           |        |          |
|                               |        |       |          |           | Qvalue |          |
| 5) Bromomethane               | 1.611  | 94    | 25       | Below Cal | #      | 3        |
| 6) Chloroethane               | 1.691  | 64    | 76       | Below Cal | #      | 43       |
| 16) Acetone                   | 2.380  | 43    | 1445     | 1.668     | ug/l # | 75       |
| 19) Methyl tert-butyl Ether   | 3.117  | 73    | 3479     | 0.740     | ug/l   | 91       |
| 20) Methylene Chloride        | 2.788  | 84    | 443      | 0.272     | ug/l # | 71       |
| 27) cis-1,2-Dichloroethene    | 4.501  | 96    | 626      | 0.360     | ug/l   | 84       |
| 30) Chloroform                | 5.105  | 83    | 3929     | 1.338     | ug/l   | 92       |
| 31) Cyclohexane               | 5.550  | 56    | 3099     | 1.378     | ug/l # | 20       |
| 36) 1,1-Dichloropropene       | 5.556  | 75    | 10258    | 4.419     | ug/l # | 51       |
| 38) Carbon Tetrachloride      | 5.550  | 117   | 13593    | 5.953     | ug/l # | 16       |
| 44) Trichloroethene           | 7.129  | 130   | 2650     | 1.561     | ug/l   | 94       |
| 51) 4-Methyl-2-Pentanone      | 8.647  | 43    | 1229     | 0.433     | ug/l # | 1        |
| 60) Dibromochloromethane      | 9.275  | 129   | 16955    | 9.577     | ug/l # | 11       |
| 64) Tetrachloroethene         | 9.275  | 164   | 17263    | 11.112    | ug/l   | 97       |
| 65) Chlorobenzene             | 10.079 | 112   | 124189   | 24.730    | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane    | 11.079 | 75    | 59643    | 20.458    | ug/l # | 38       |
| 81) trans-1,4-Dichloro-2-b... | 11.079 | 75    | 59643    | 58.951    | ug/l # | 5        |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146   | 38820    | 9.205     | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146   | 259337   | 60.234    | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146   | 94062    | 23.204    | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropr... | 13.109 | 75    | 2105     | 2.759     | ug/l # | 9        |
| 93) 1,2,4-Trichlorobenzene    | 13.597 | 180   | 7227278  | 2658.146  | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180   | 1606394  | 610.185   | ug/l   | 97       |
| -----                         |        |       |          |           |        |          |

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

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Sample : 05007-16  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 22 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :

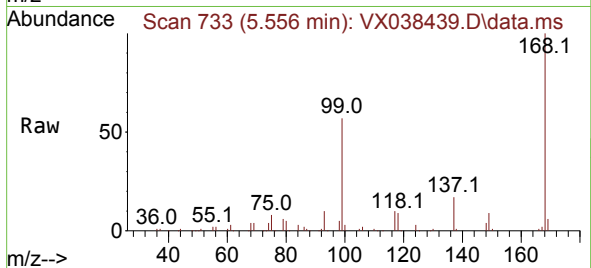
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X100523W.M  
Quant Title : SW846 8260  
QLast Update : Thu Oct 05 15:27:13 2023  
Response via : Initial Calibration



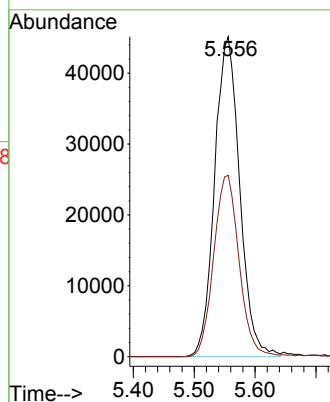
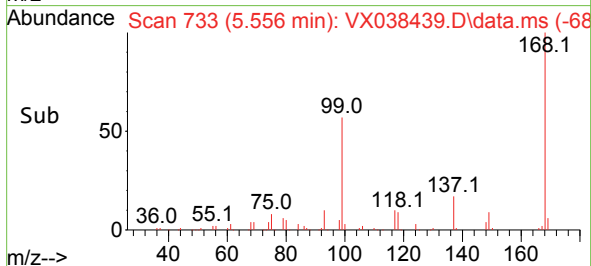


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 71  
Delta R.T. -0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Instrument :  
MSVOA\_X  
ClientSampleId :

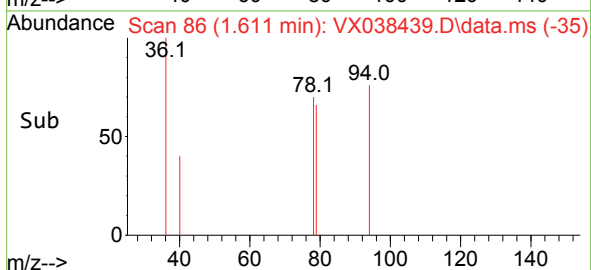
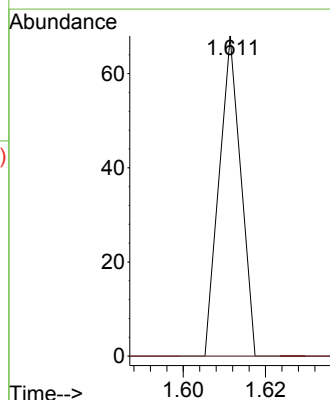
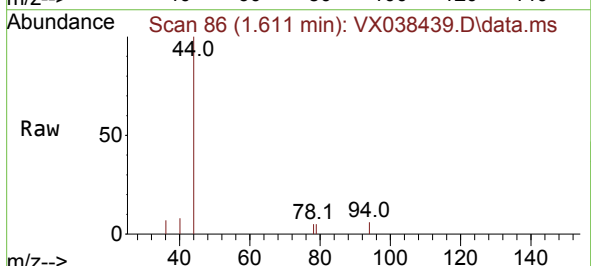


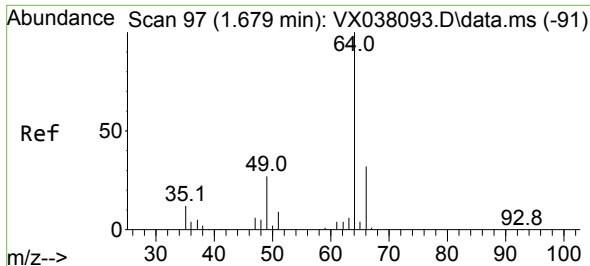
Tgt Ion:168 Resp: 129025  
Ion Ratio Lower Upper  
168 100  
99 56.7 56.6 85.0



#5  
Bromomethane  
Concen: Below Cal  
RT: 1.611 min Scan# 86  
Delta R.T. 0.012 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

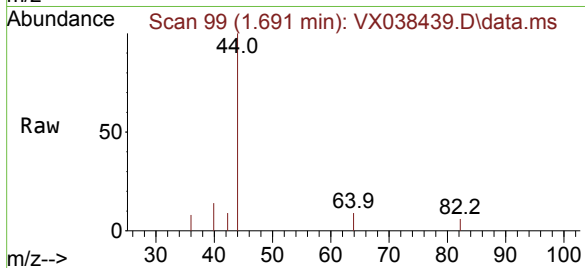
Tgt Ion: 94 Resp: 25  
Ion Ratio Lower Upper  
94 100  
96 0.0 74.6 111.8#



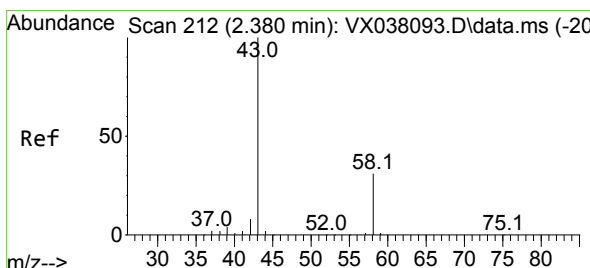
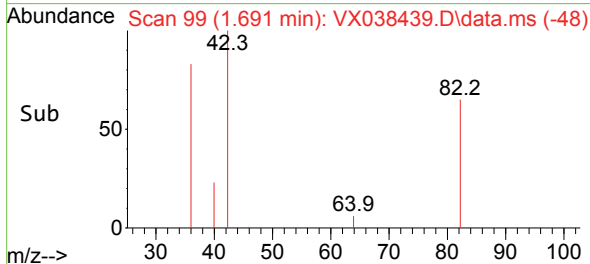
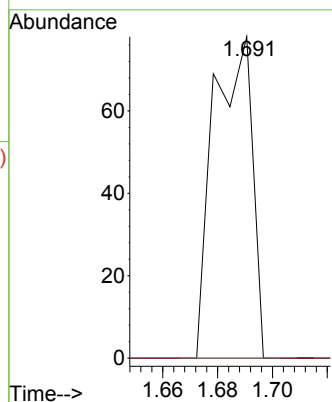


#6  
Chloroethane  
Concen: Below Cal  
RT: 1.691 min Scan# 91  
Delta R.T. 0.012 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Instrument :  
MSVOA\_X  
ClientSampleId :

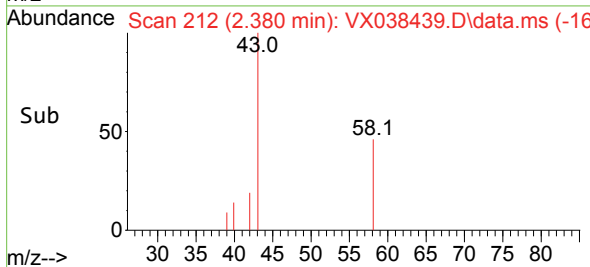
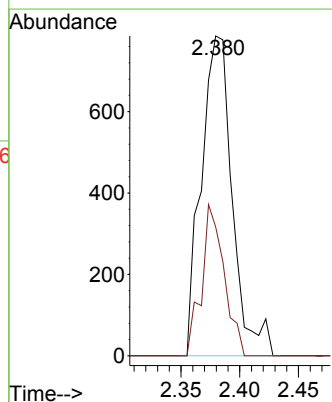
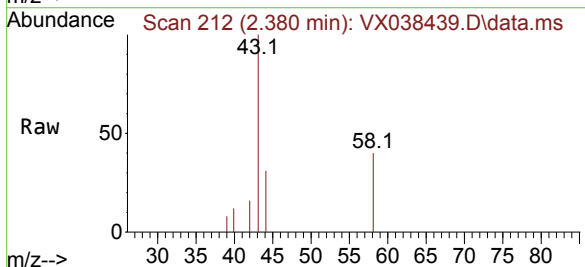


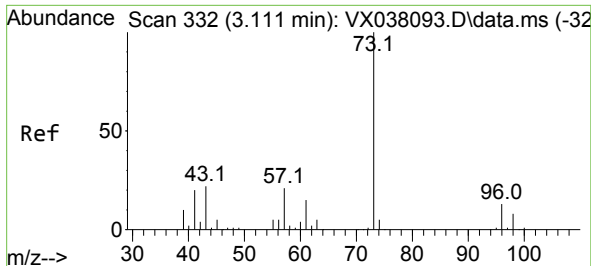
Tgt Ion: 64 Resp: 76  
Ion Ratio Lower Upper  
64 100  
66 0.0 25.1 37.7#



#16  
Acetone  
Concen: 1.668 ug/l  
RT: 2.380 min Scan# 212  
Delta R.T. -0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Tgt Ion: 43 Resp: 1445  
Ion Ratio Lower Upper  
43 100  
58 40.2 21.9 32.9#





#19

Methyl tert-butyl Ether

Concen: 0.740 ug/l

RT: 3.117 min Scan# 31

Delta R.T. 0.006 min

Lab File: VX038439.D

Acq: 23 Oct 2023 17:47

Instrument :

MSVOA\_X

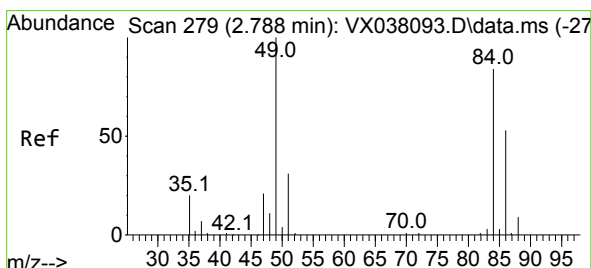
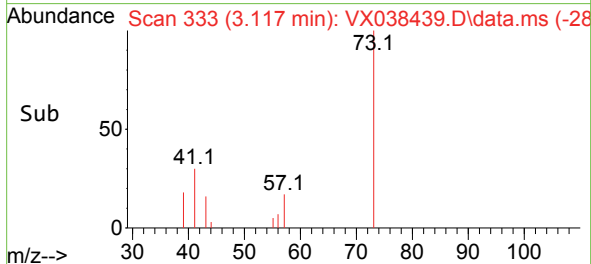
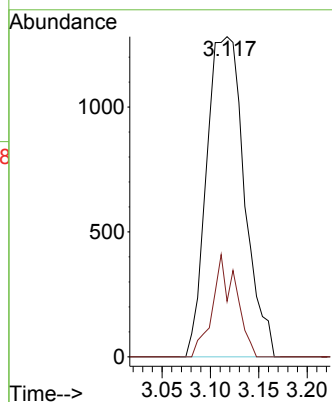
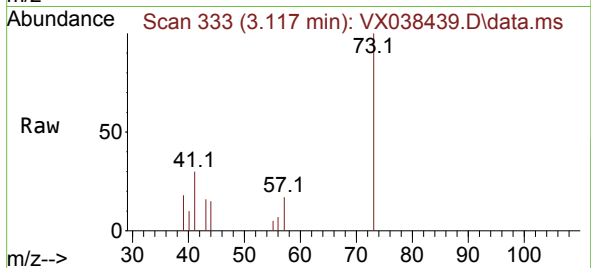
ClientSampleId :

Tgt Ion: 73 Resp: 3479

Ion Ratio Lower Upper

73 100

57 17.3 17.3 25.9



#20

Methylene Chloride

Concen: 0.272 ug/l

RT: 2.788 min Scan# 279

Delta R.T. -0.000 min

Lab File: VX038439.D

Acq: 23 Oct 2023 17:47

Tgt Ion: 84 Resp: 443

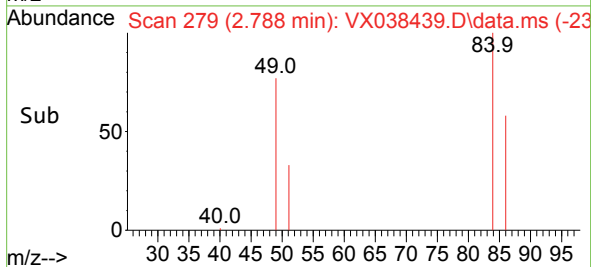
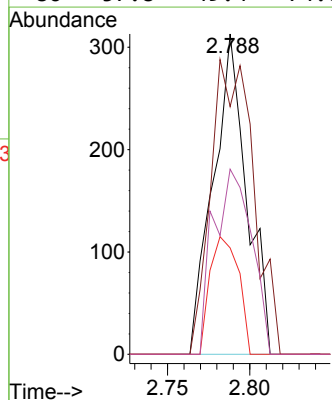
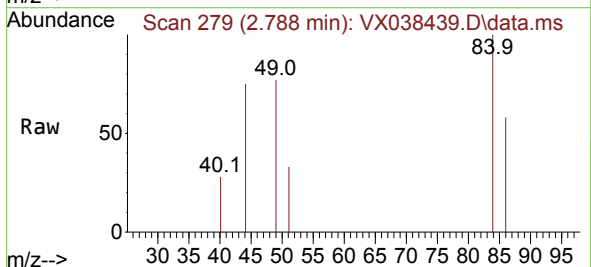
Ion Ratio Lower Upper

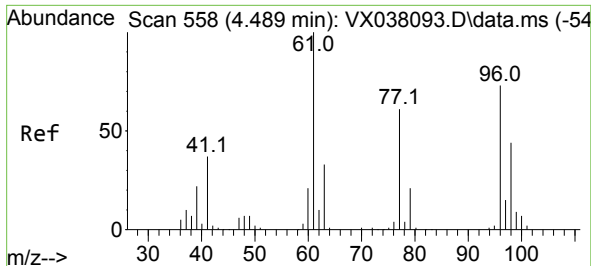
84 100

49 77.3 103.6 155.4#

51 33.2 33.8 50.6#

86 57.8 49.4 74.0





#27

cis-1,2-Dichloroethene

Concen: 0.360 ug/l

RT: 4.501 min Scan# 5

Delta R.T. 0.012 min

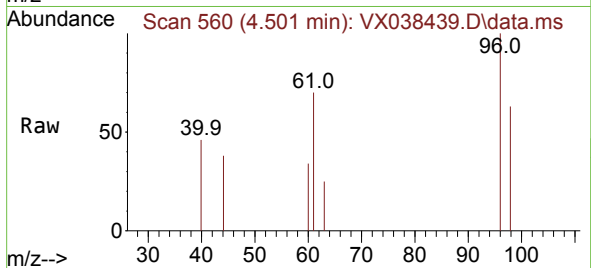
Lab File: VX038439.D

Acq: 23 Oct 2023 17:47

Instrument :

MSVOA\_X

ClientSampleId :



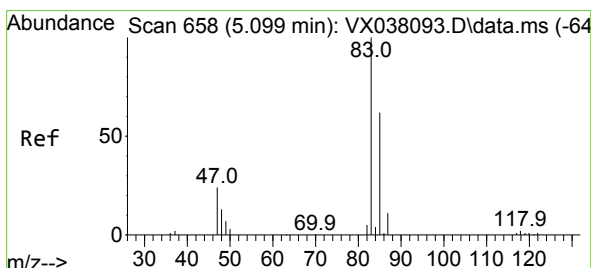
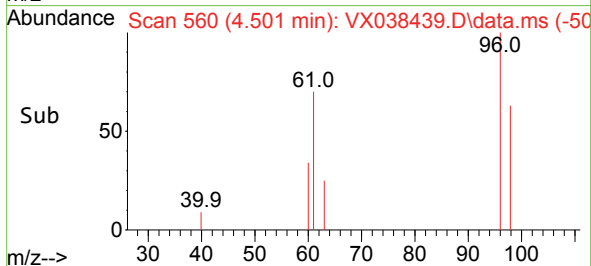
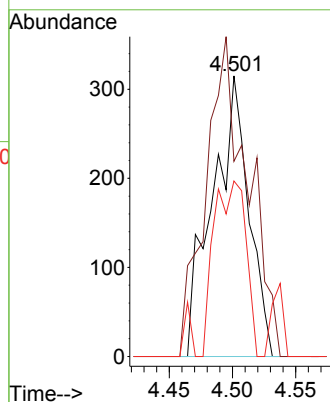
Tgt Ion: 96 Resp: 626

Ion Ratio Lower Upper

96 100

61 132.4 0.0 312.2

98 55.4 0.0 129.0



#30

Chloroform

Concen: 1.338 ug/l

RT: 5.105 min Scan# 659

Delta R.T. 0.012 min

Lab File: VX038439.D

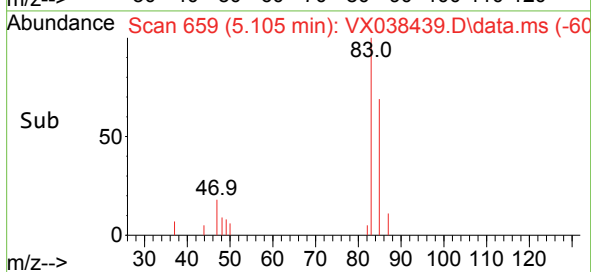
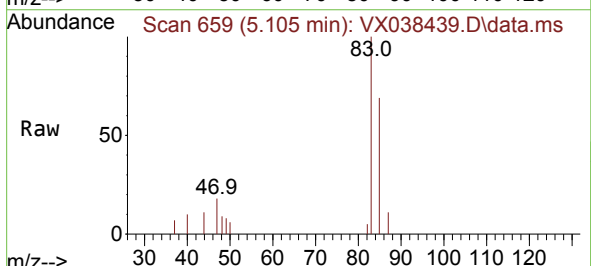
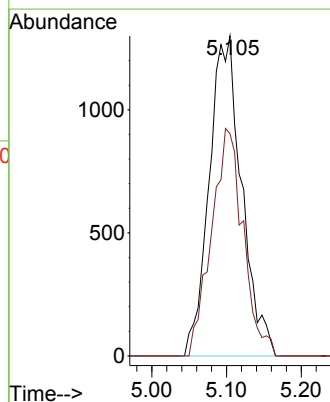
Acq: 23 Oct 2023 17:47

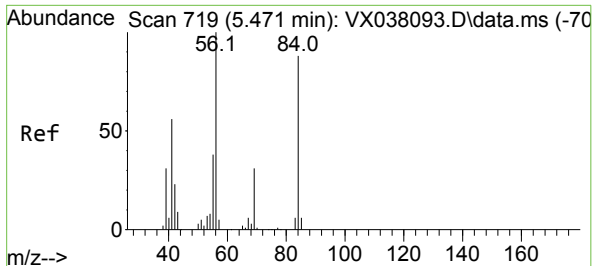
Tgt Ion: 83 Resp: 3929

Ion Ratio Lower Upper

83 100

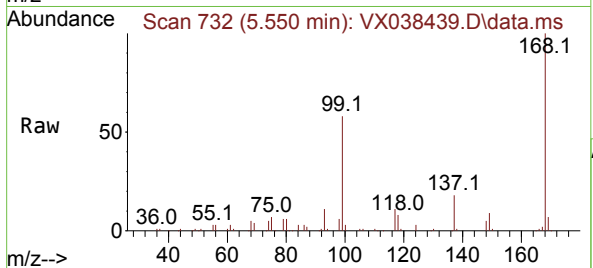
85 69.5 50.3 75.5



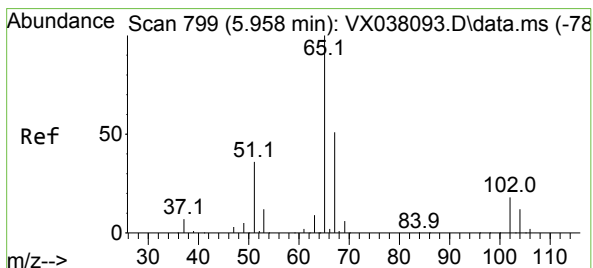
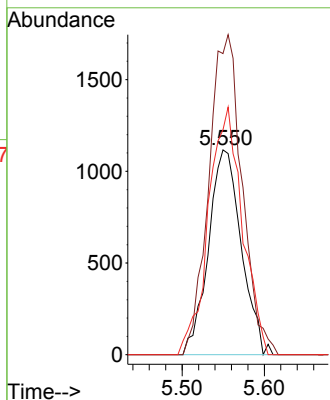
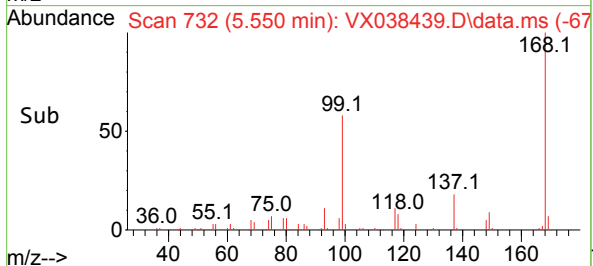


#31  
Cyclohexane  
Concen: 1.378 ug/l  
RT: 5.550 min Scan# 719  
Delta R.T. 0.079 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Instrument :  
MSVOA\_X  
ClientSampleId :

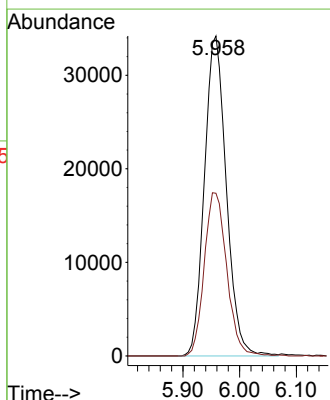
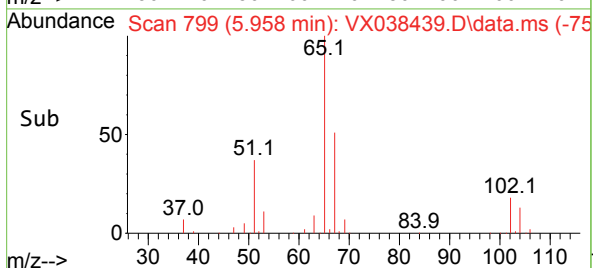
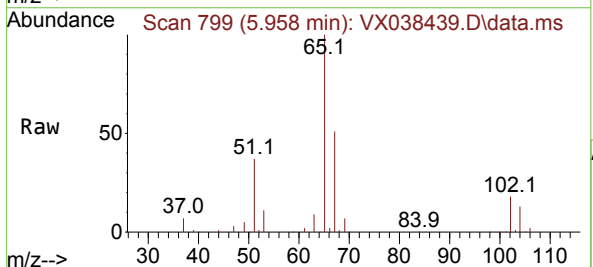


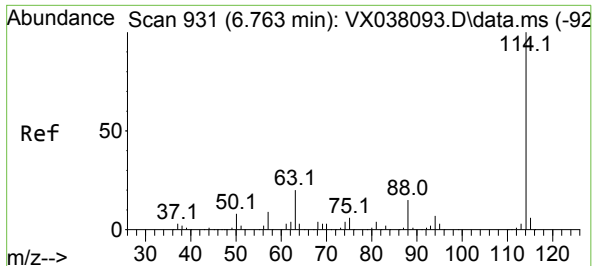
Tgt Ion: 56 Resp: 3099  
Ion Ratio Lower Upper  
56 100  
69 147.0 23.4 35.2#  
84 109.8 65.9 98.9#



#33  
1,2-Dichloroethane-d4  
Concen: 44.201 ug/l  
RT: 5.958 min Scan# 799  
Delta R.T. 0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

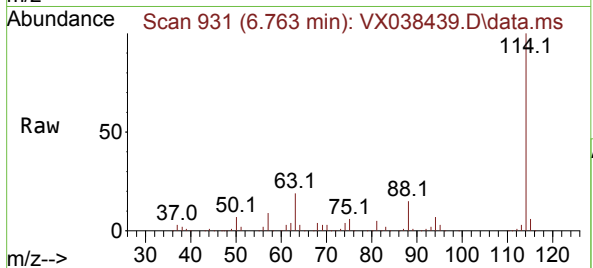
Tgt Ion: 65 Resp: 91730  
Ion Ratio Lower Upper  
65 100  
67 52.4 0.0 100.2



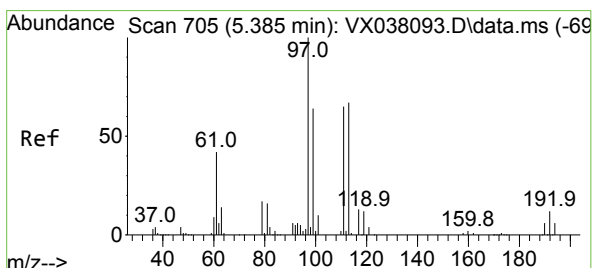
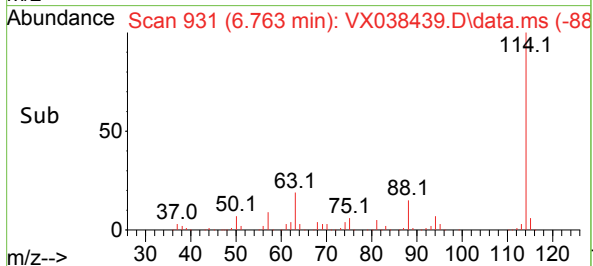
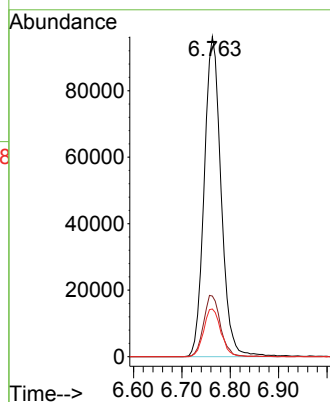


#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 6.763 min Scan# 91  
Delta R.T. -0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Instrument :  
MSVOA\_X  
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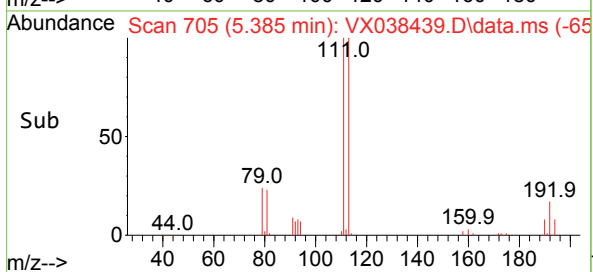
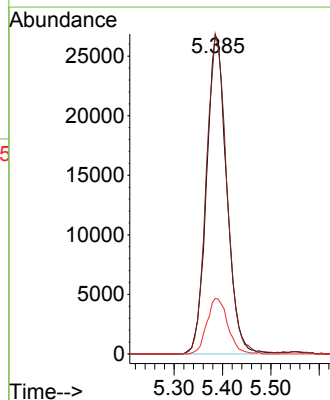
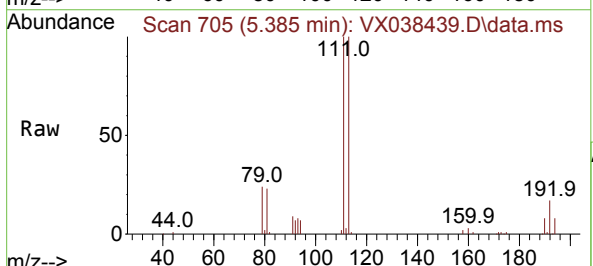


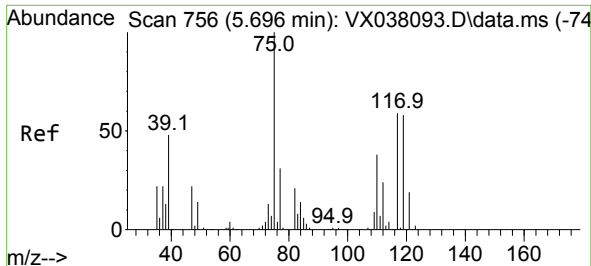
Tgt Ion:114 Resp: 233594  
Ion Ratio Lower Upper  
114 100  
63 19.0 0.0 45.0  
88 14.9 0.0 36.6



#35  
Dibromofluoromethane  
Concen: 46.159 ug/l  
RT: 5.385 min Scan# 705  
Delta R.T. 0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

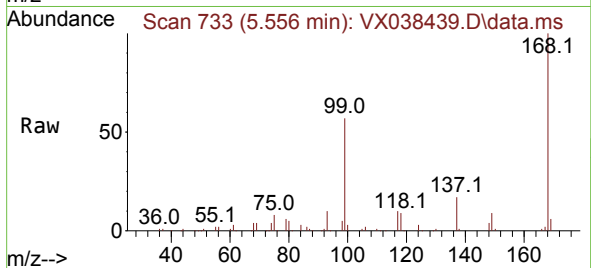
Tgt Ion:113 Resp: 77694  
Ion Ratio Lower Upper  
113 100  
111 100.9 82.9 124.3  
192 18.1 13.3 19.9



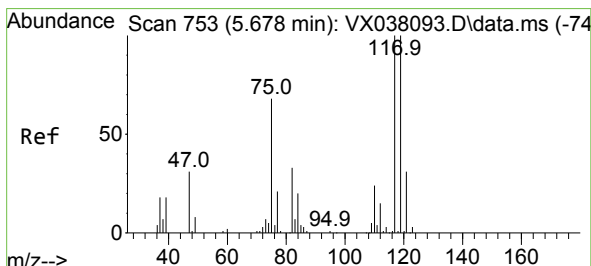
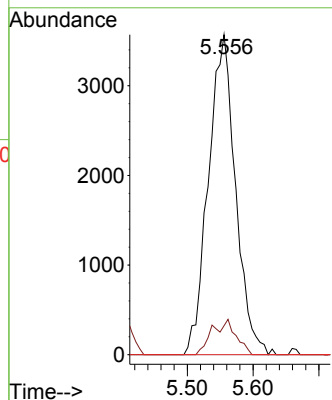
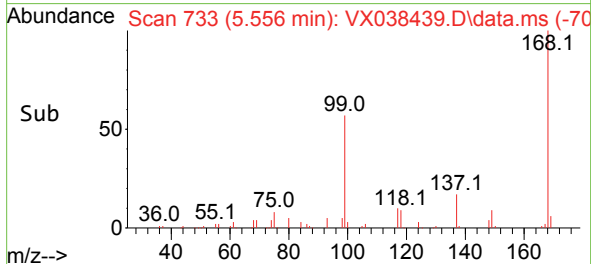


#36  
 1,1-Dichloropropene  
 Concen: 4.419 ug/l  
 RT: 5.556 min Scan# 711  
 Delta R.T. -0.134 min  
 Lab File: VX038439.D  
 Acq: 23 Oct 2023 17:47

Instrument :  
 MSVOA\_X  
 ClientSampleId :

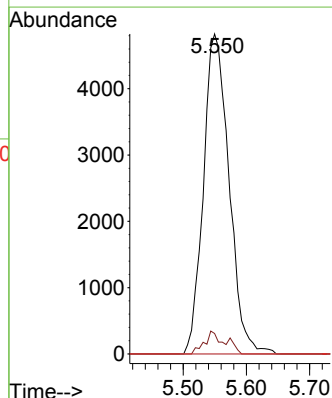
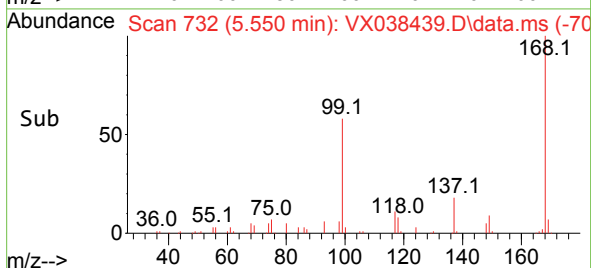
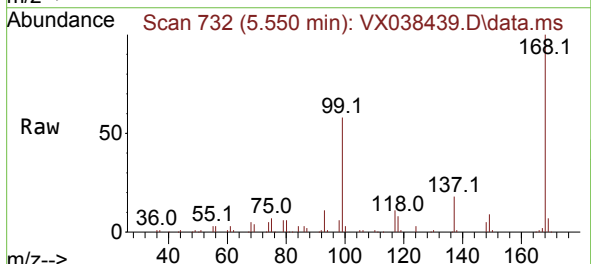


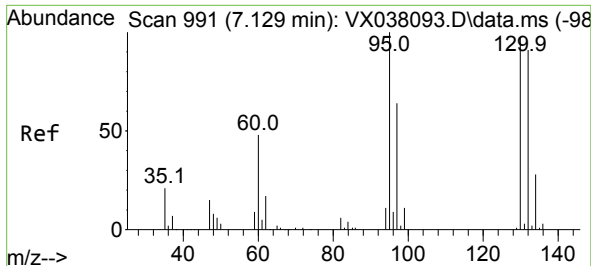
Tgt Ion: 75 Resp: 10258  
 Ion Ratio Lower Upper  
 75 100  
 110 9.7 17.0 50.9#  
 77 0.0 24.7 37.1#



#38  
 Carbon Tetrachloride  
 Concen: 5.953 ug/l  
 RT: 5.550 min Scan# 732  
 Delta R.T. -0.128 min  
 Lab File: VX038439.D  
 Acq: 23 Oct 2023 17:47

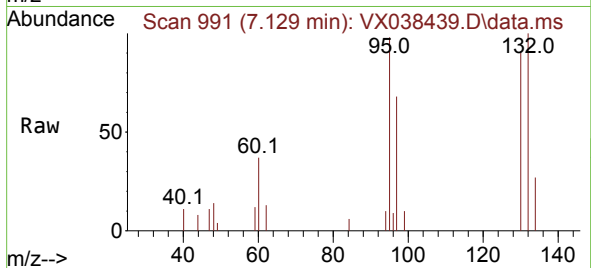
Tgt Ion: 117 Resp: 13593  
 Ion Ratio Lower Upper  
 117 100  
 119 6.4 78.2 117.2#  
 121 0.0 24.4 36.6#



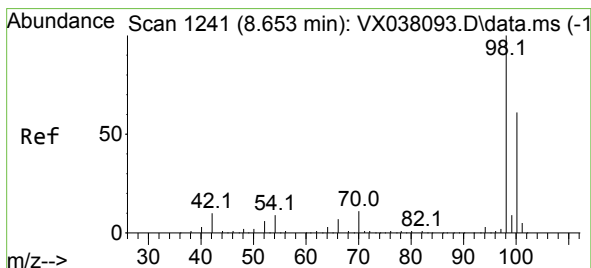
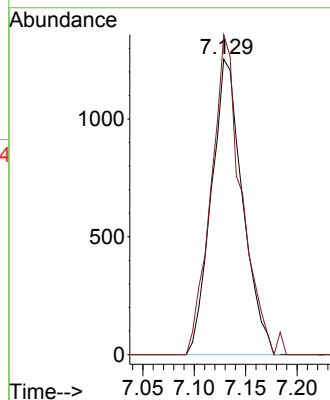
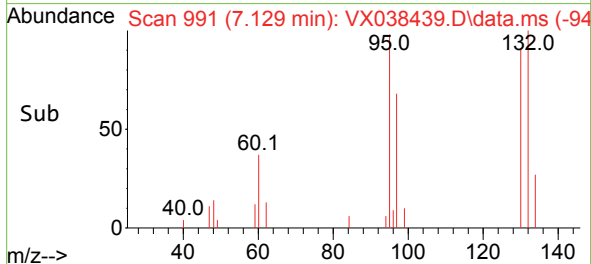


#44  
Trichloroethene  
Concen: 1.561 ug/l  
RT: 7.129 min Scan# 991  
Delta R.T. -0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Instrument :  
MSVOA\_X  
ClientSampleId :

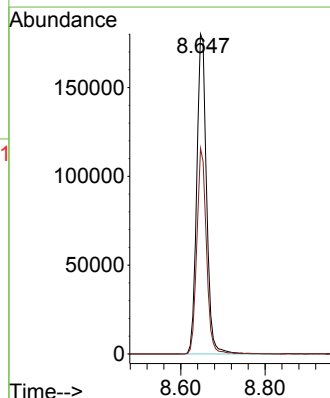
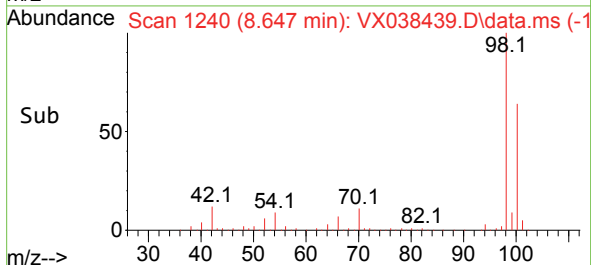
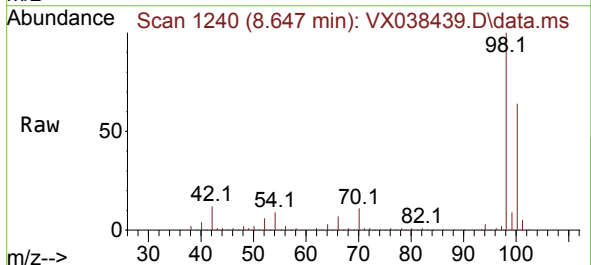


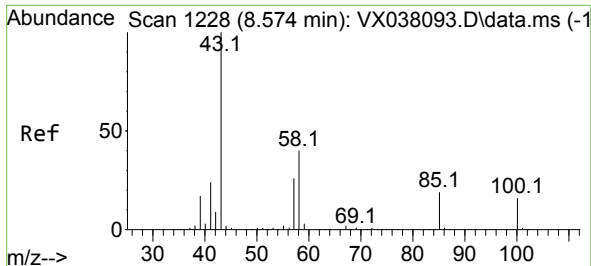
Tgt Ion:130 Resp: 2650  
Ion Ratio Lower Upper  
130 100  
95 108.3 0.0 204.4



#50  
Toluene-d8  
Concen: 45.199 ug/l  
RT: 8.647 min Scan# 1240  
Delta R.T. -0.006 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Tgt Ion: 98 Resp: 290713  
Ion Ratio Lower Upper  
98 100  
100 63.0 53.1 79.7

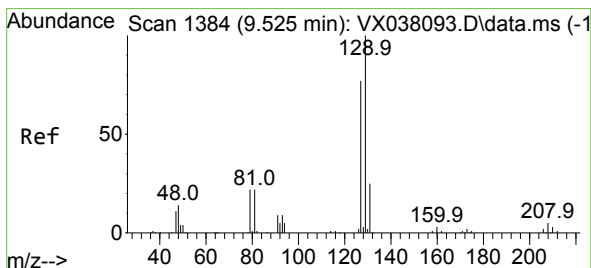
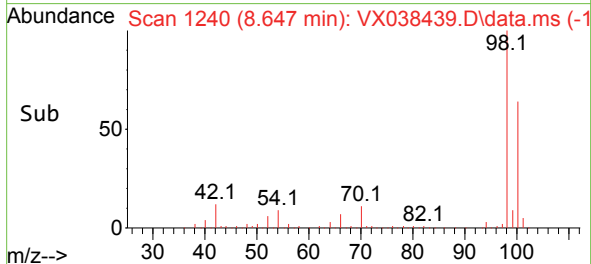
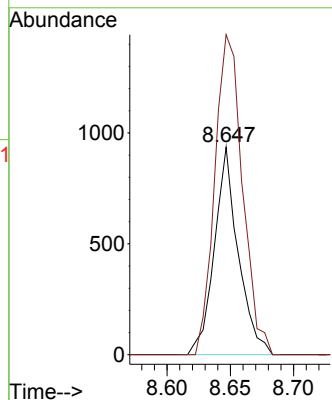
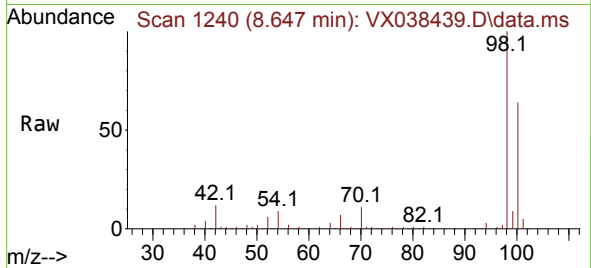




#51  
4-Methyl-2-Pentanone  
Concen: 0.433 ug/l  
RT: 8.647 min Scan# 11  
Delta R.T. 0.073 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

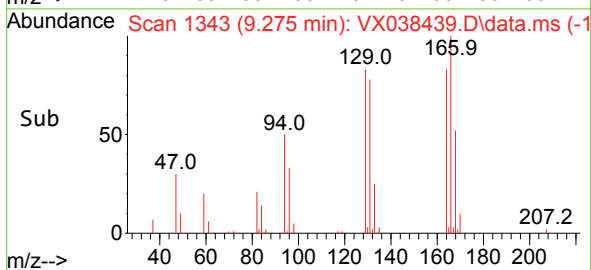
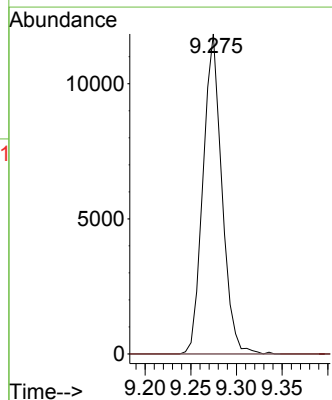
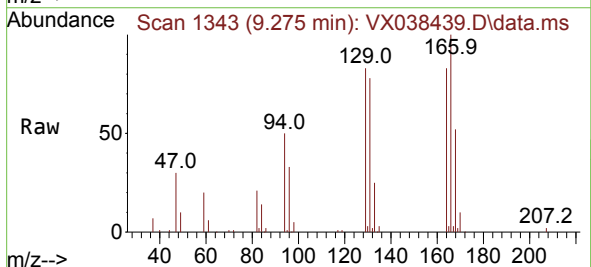
Instrument :  
MSVOA\_X  
ClientSampleId :

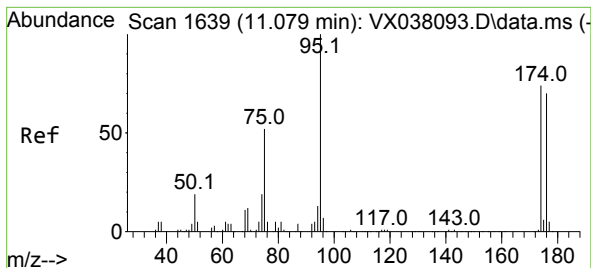
Tgt Ion: 43 Resp: 1229  
Ion Ratio Lower Upper  
43 100  
58 179.0 30.4 45.6#



#60  
Dibromochloromethane  
Concen: 9.577 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. -0.250 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Tgt Ion: 129 Resp: 16955  
Ion Ratio Lower Upper  
129 100  
127 0.0 38.8 116.4#

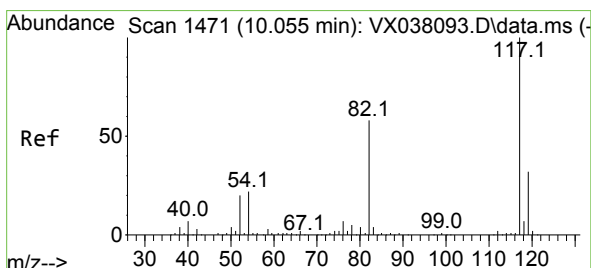
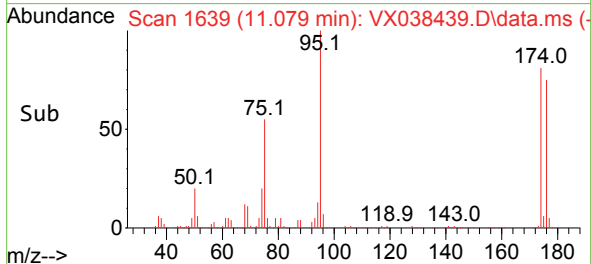
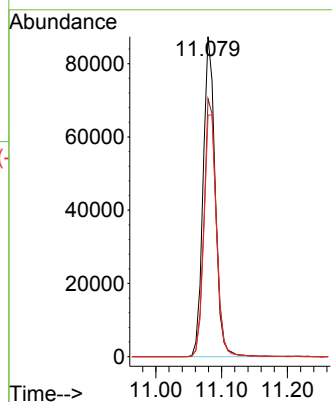
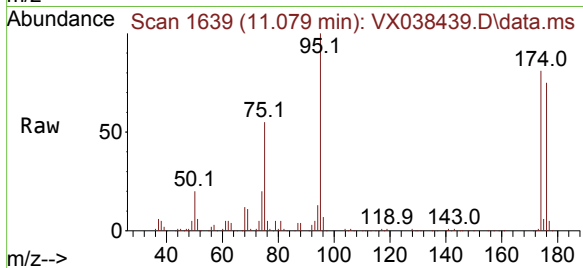




#62  
4-Bromofluorobenzene  
Concen: 45.554 ug/l  
RT: 11.079 min Scan# 111078  
Delta R.T. 0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

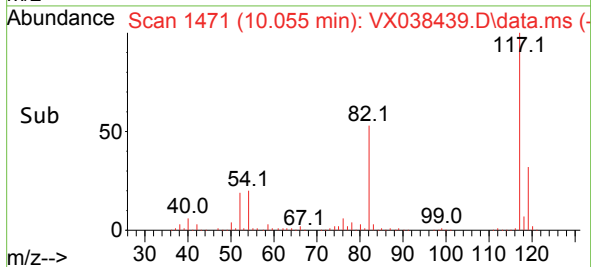
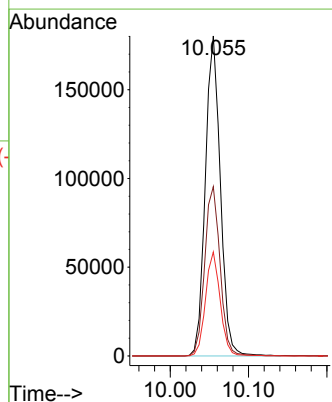
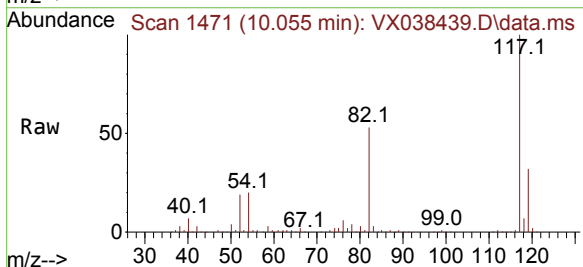
Instrument :  
MSVOA\_X  
ClientSampleId :

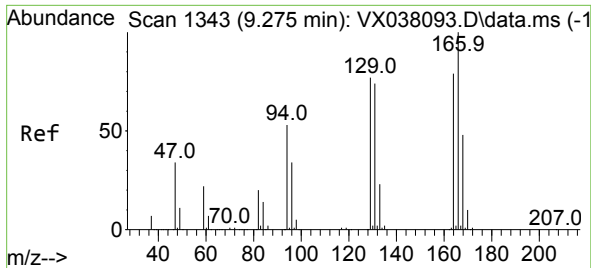
Tgt Ion: 95 Resp: 111078  
Ion Ratio Lower Upper  
95 100  
174 82.9 0.0 135.6  
176 79.3 0.0 131.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. -0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

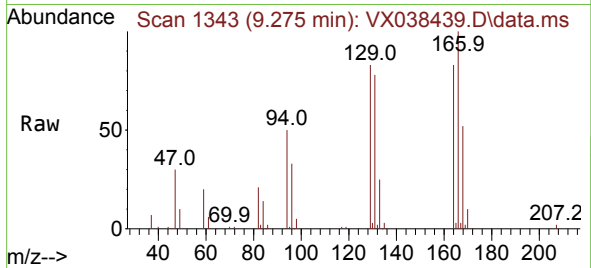
Tgt Ion: 117 Resp: 239982  
Ion Ratio Lower Upper  
117 100  
82 52.9 46.2 69.4  
119 32.5 25.5 38.3



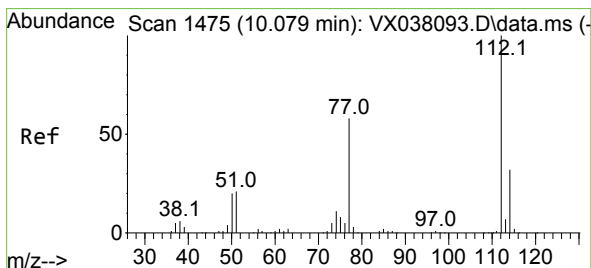
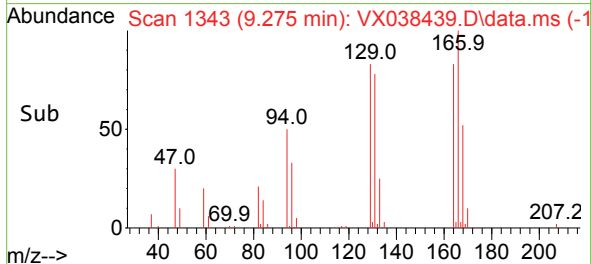
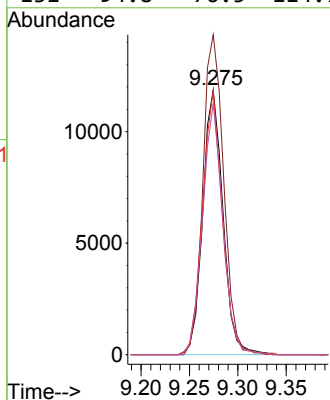


#64  
Tetrachloroethene  
Concen: 11.112 ug/l  
RT: 9.275 min Scan# 11  
Delta R.T. -0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Instrument :  
MSVOA\_X  
ClientSampleId :

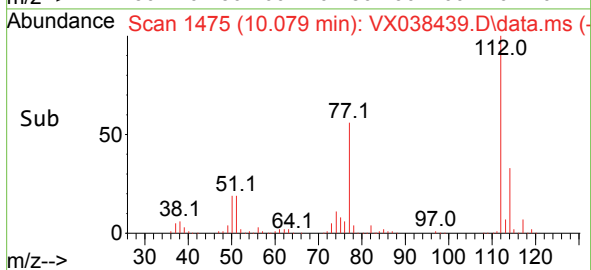
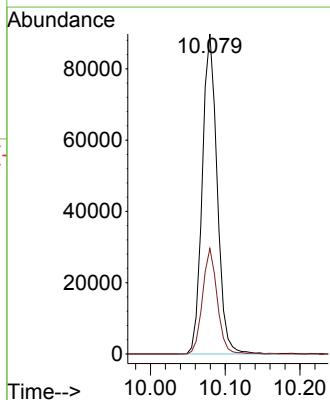
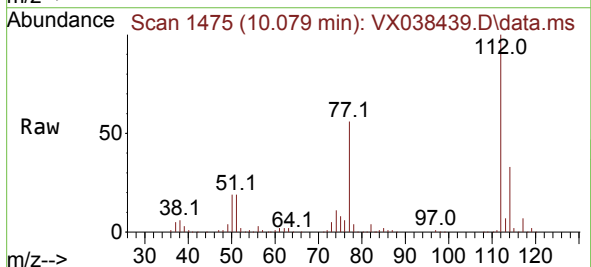


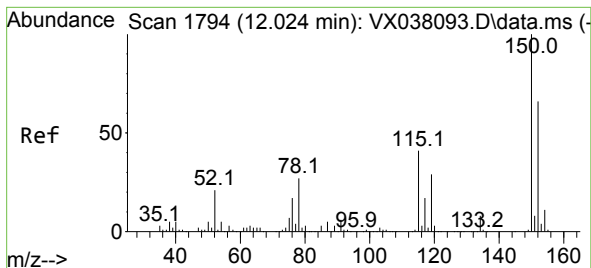
Tgt Ion:164 Resp: 17263  
Ion Ratio Lower Upper  
164 100  
166 120.9 102.7 154.1  
129 99.8 80.4 120.6  
131 94.8 76.5 114.7



#65  
Chlorobenzene  
Concen: 24.730 ug/l  
RT: 10.079 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Tgt Ion:112 Resp: 124189  
Ion Ratio Lower Upper  
112 100  
114 33.0 25.7 38.5





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX038439.D

Acq: 23 Oct 2023 17:47

Instrument :

MSVOA\_X

ClientSampleId :

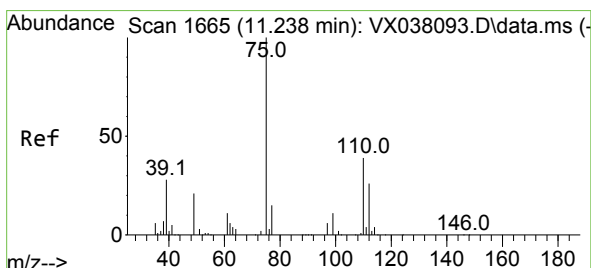
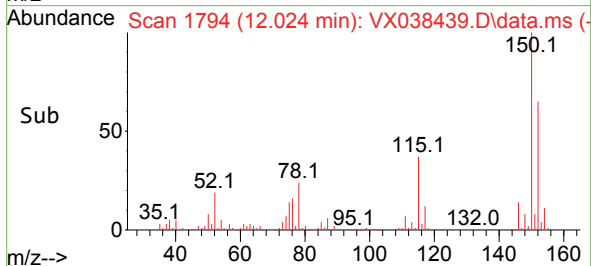
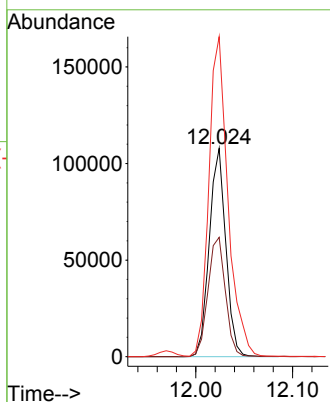
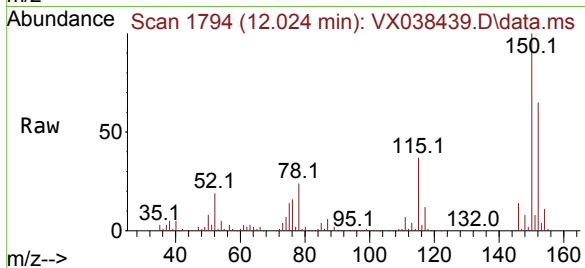
Tgt Ion:152 Resp: 128240

Ion Ratio Lower Upper

152 100

115 60.4 43.3 129.9

150 176.6 0.0 345.0



#76

1,2,3-Trichloropropane

Concen: 20.458 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. -0.159 min

Lab File: VX038439.D

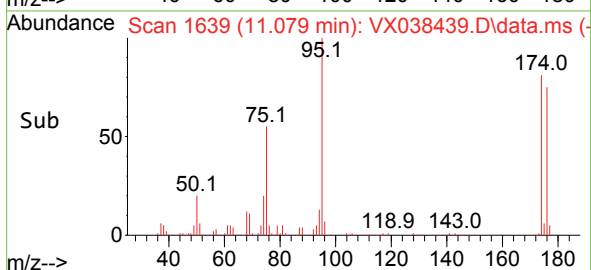
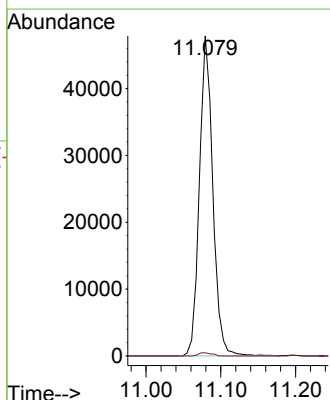
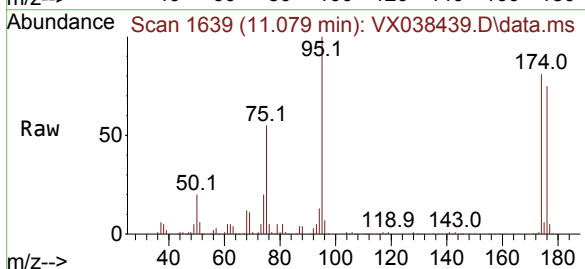
Acq: 23 Oct 2023 17:47

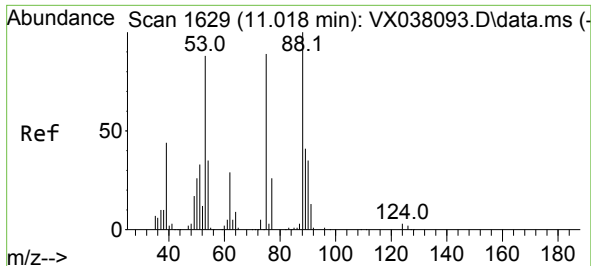
Tgt Ion: 75 Resp: 59643

Ion Ratio Lower Upper

75 100

77 1.0 19.1 57.5#

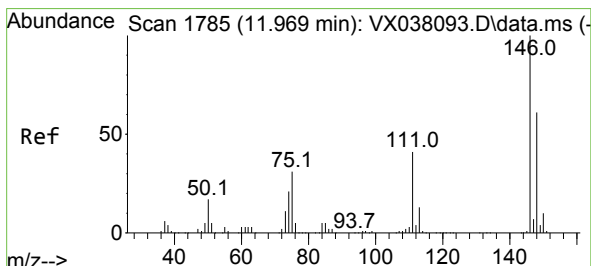
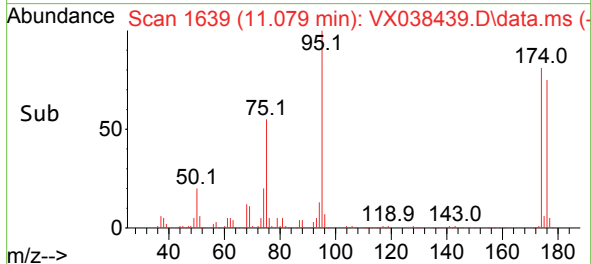
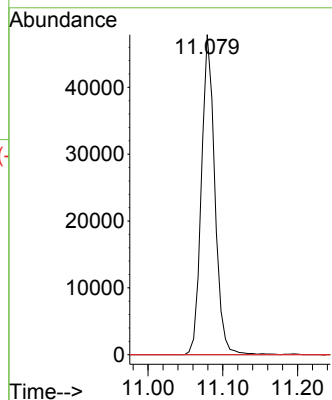
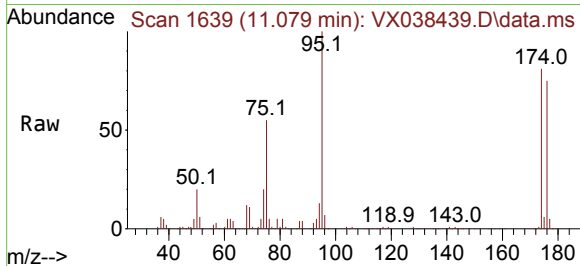




#81  
trans-1,4-Dichloro-2-butene  
Concen: 58.951 ug/l  
RT: 11.079 min Scan# 1  
Delta R.T. 0.061 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

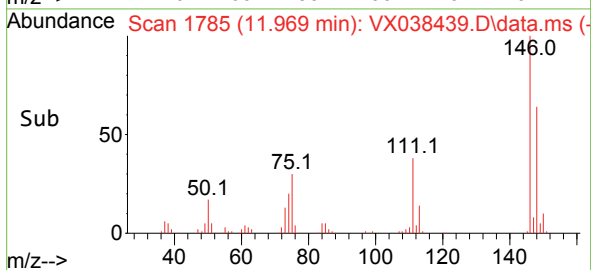
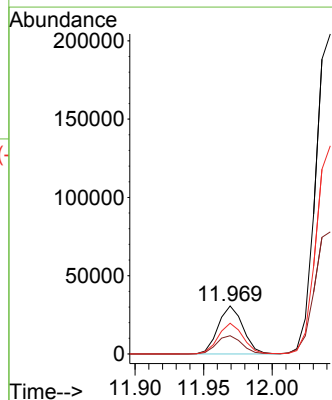
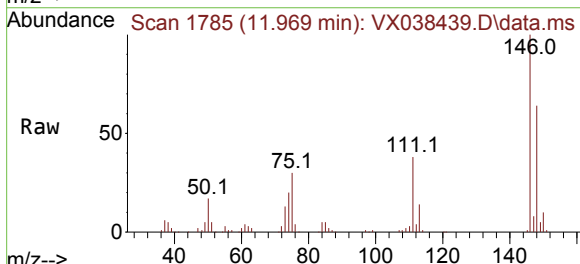
Instrument :  
MSVOA\_X  
ClientSampleId :

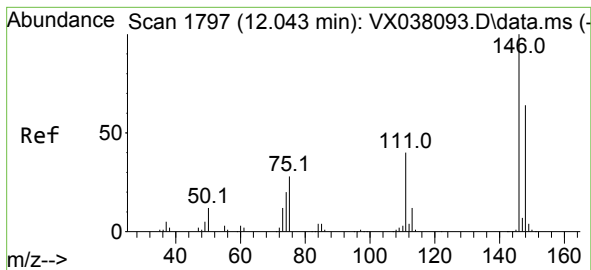
Tgt Ion: 75 Resp: 59643  
Ion Ratio Lower Upper  
75 100  
53 0.0 90.5 135.7#  
89 0.0 36.9 55.3#



#87  
1,3-Dichlorobenzene  
Concen: 9.205 ug/l  
RT: 11.969 min Scan# 1785  
Delta R.T. 0.000 min  
Lab File: VX038439.D  
Acq: 23 Oct 2023 17:47

Tgt Ion:146 Resp: 38820  
Ion Ratio Lower Upper  
146 100  
111 39.1 22.1 66.1  
148 63.9 31.8 95.3





#88

1,4-Dichlorobenzene

Concen: 60.234 ug/l

RT: 12.042 min Scan# 11

Delta R.T. -0.001 min

Lab File: VX038439.D

Acq: 23 Oct 2023 17:47

Instrument :

MSVOA\_X

ClientSampleId :

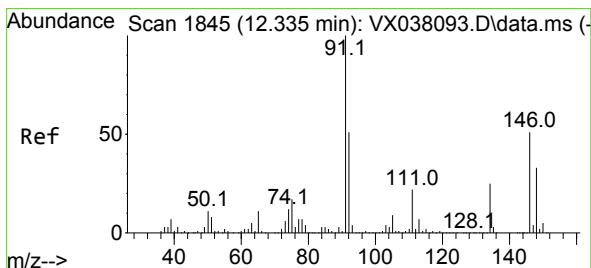
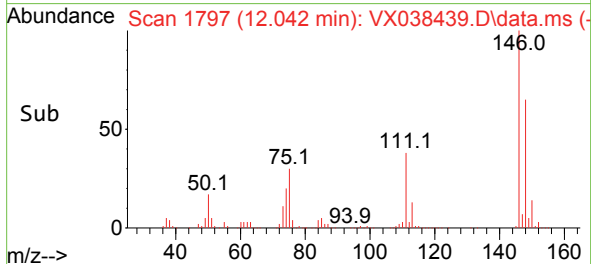
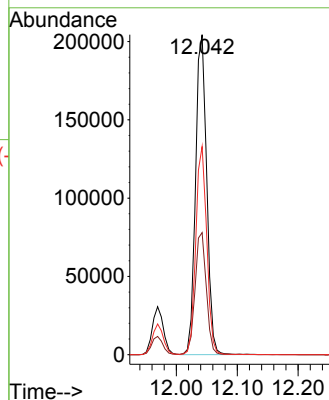
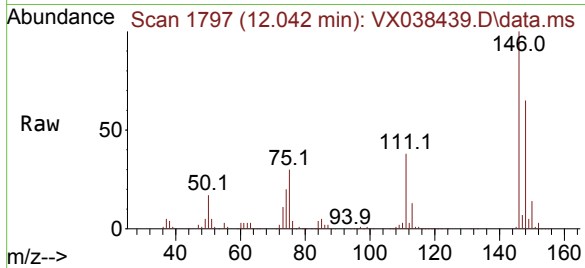
Tgt Ion:146 Resp: 259337

Ion Ratio Lower Upper

146 100

111 38.6 21.3 63.7

148 64.2 31.8 95.4



#91

1,2-Dichlorobenzene

Concen: 23.204 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX038439.D

Acq: 23 Oct 2023 17:47

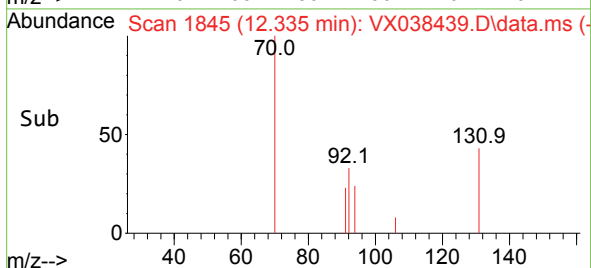
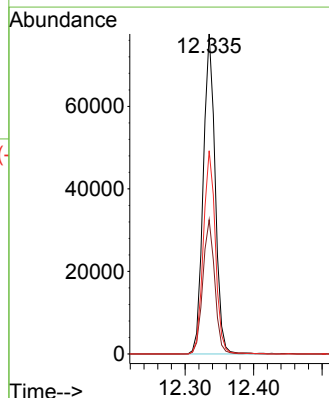
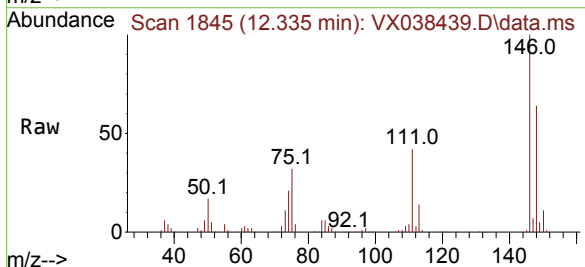
Tgt Ion:146 Resp: 94062

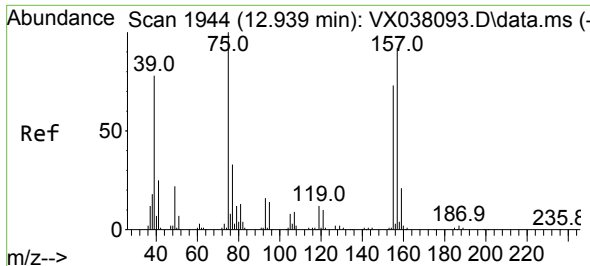
Ion Ratio Lower Upper

146 100

111 41.7 22.4 67.0

148 64.2 31.6 95.0

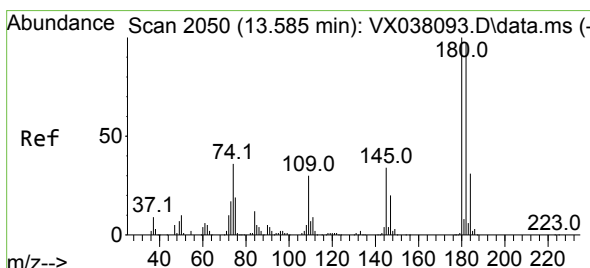
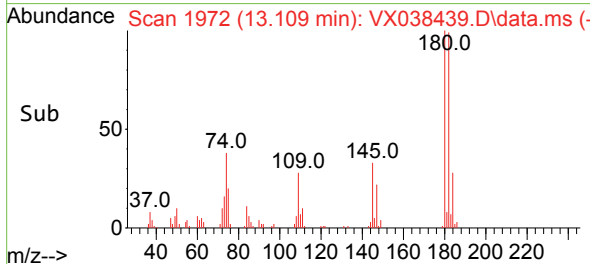
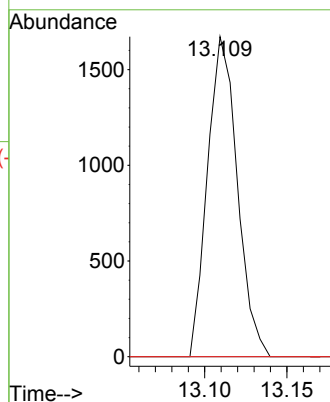
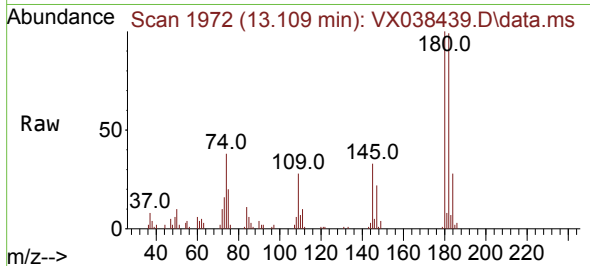




#92  
 1,2-Dibromo-3-Chloropropane  
 Concen: 2.759 ug/l  
 RT: 13.109 min Scan# 1944  
 Delta R.T. 0.164 min  
 Lab File: VX038439.D  
 Acq: 23 Oct 2023 17:47

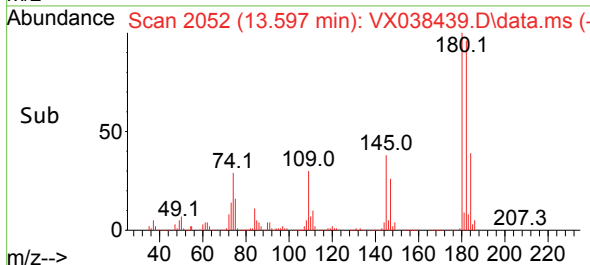
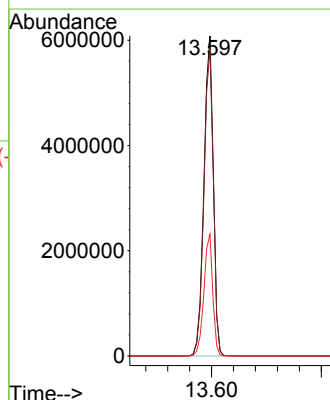
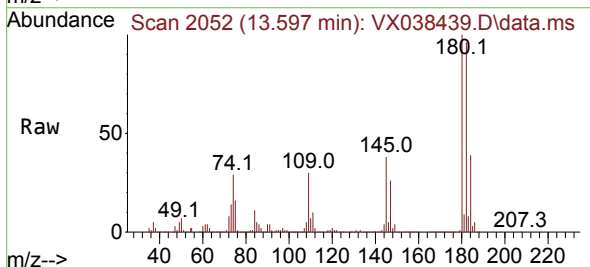
Instrument :  
 MSVOA\_X  
 ClientSampleId :

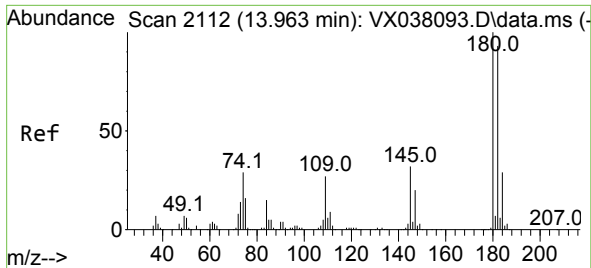
Tgt Ion: 75 Resp: 2105  
 Ion Ratio Lower Upper  
 75 100  
 155 0.0 36.1 108.5#  
 157 0.0 44.9 134.7#



#93  
 1,2,4-Trichlorobenzene  
 Concen: 2658.146 ug/l  
 RT: 13.597 min Scan# 2052  
 Delta R.T. 0.012 min  
 Lab File: VX038439.D  
 Acq: 23 Oct 2023 17:47

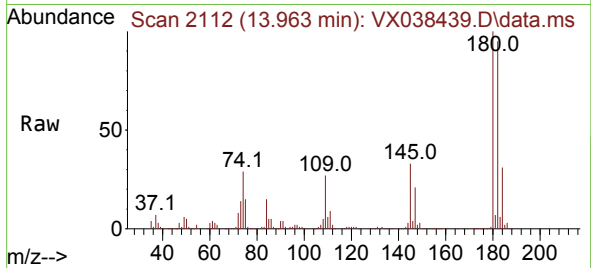
Tgt Ion: 180 Resp: 7227278  
 Ion Ratio Lower Upper  
 180 100  
 182 96.2 48.3 144.8  
 145 35.8 18.0 54.0





#96  
 1,2,3-Trichlorobenzene  
 Concen: 610.185 ug/l  
 RT: 13.963 min Scan# 2112  
 Delta R.T. -0.000 min  
 Lab File: VX038439.D  
 Acq: 23 Oct 2023 17:47

Instrument :  
 MSVOA\_X  
 ClientSampleId :



Tgt Ion:180 Resp: 1606394  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 180 | 100   |       |       |
| 182 | 96.1  | 46.9  | 140.6 |
| 145 | 33.3  | 17.8  | 53.5  |

