

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX101723\  
 Data File : VX038332.D  
 Acq On : 17 Oct 2023 16:18  
 Operator : JC/MD  
 Sample : PB156409ZHE#05  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Oct 18 04:01:18 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

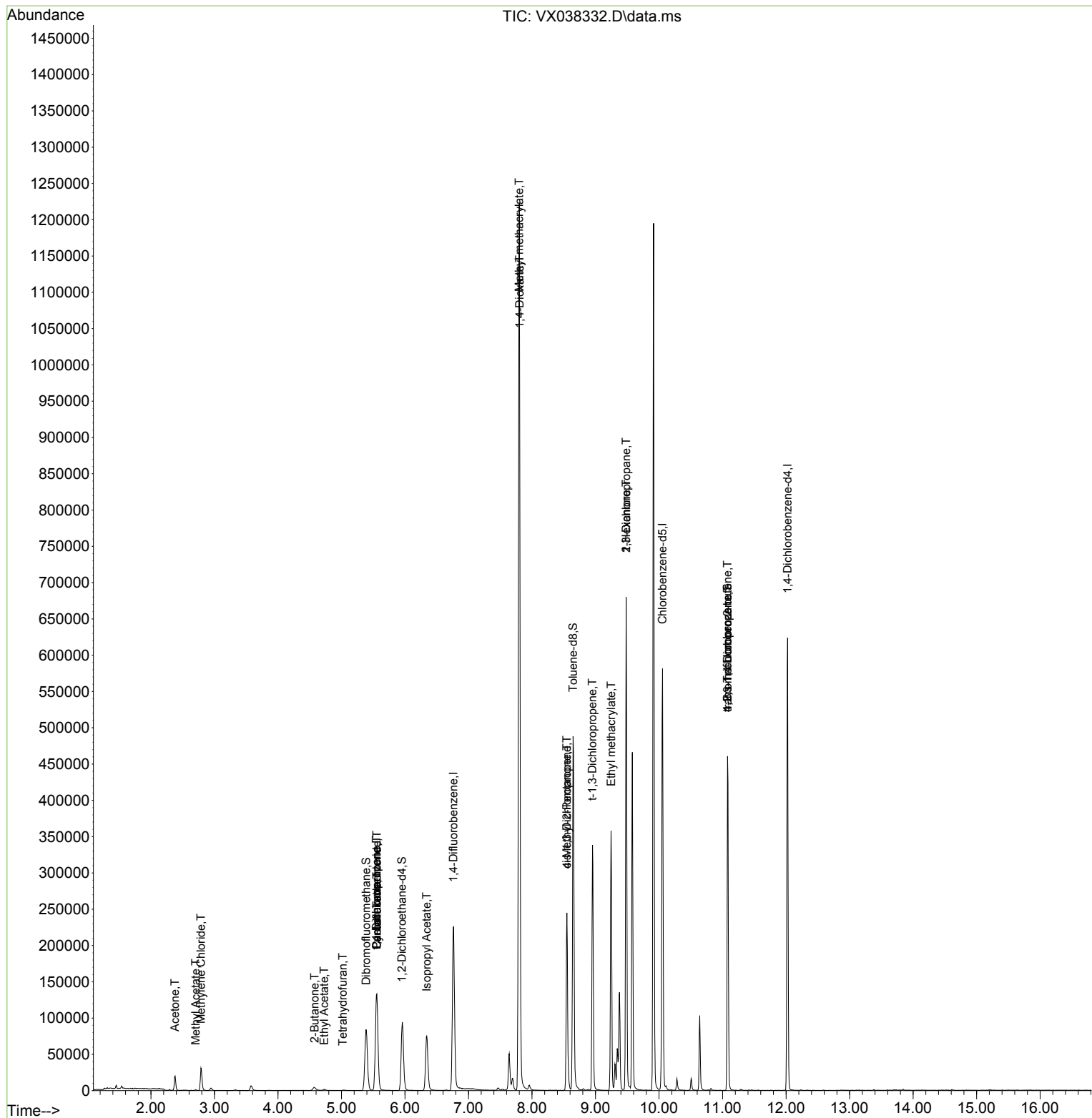
| Compound                      | R.T.           | QIon | Response   | Conc      | Units  | Dev(Min) |
|-------------------------------|----------------|------|------------|-----------|--------|----------|
| -----                         |                |      |            |           |        |          |
| Internal Standards            |                |      |            |           |        |          |
| 1) Pentafluorobenzene         | 5.556          | 168  | 125324     | 50.000    | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 6.763          | 114  | 232209     | 50.000    | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 10.055         | 117  | 252953     | 50.000    | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 12.024         | 152  | 125833     | 50.000    | ug/l   | 0.00     |
|                               |                |      |            |           |        |          |
| System Monitoring Compounds   |                |      |            |           |        |          |
| 33) 1,2-Dichloroethane-d4     | 5.952          | 65   | 89956      | 44.626    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 78 - 117 |      | Recovery = | 89.260%   |        |          |
| 35) Dibromofluoromethane      | 5.385          | 113  | 72398      | 43.269    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 75 - 124 |      | Recovery = | 86.540%   |        |          |
| 50) Toluene-d8                | 8.647          | 98   | 297854     | 46.585    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 92 - 112 |      | Recovery = | 93.180%   |        |          |
| 62) 4-Bromofluorobenzene      | 11.079         | 95   | 118805     | 49.013    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 83 - 123 |      | Recovery = | 98.020%   |        |          |
|                               |                |      |            |           |        |          |
| Target Compounds              |                |      |            |           | Qvalue |          |
| 5) Bromomethane               | 1.618          | 94   | 50         | Below Cal | #      | 3        |
| 6) Chloroethane               | 1.691          | 64   | 331        | Below Cal | #      | 43       |
| 11) Tert butyl alcohol        | 2.947          | 59   | 1986       | Below Cal | #      | 78       |
| 16) Acetone                   | 2.380          | 43   | 20857      | 24.792    | ug/l   | 93       |
| 18) Methyl Acetate            | 2.703          | 43   | 1178       | 0.327     | ug/l   | 97       |
| 20) Methylene Chloride        | 2.788          | 84   | 14309      | 9.042     | ug/l   | 91       |
| 25) 2-Butanone                | 4.574          | 43   | 2976       | 2.192     | ug/l   | 96       |
| 29) Tetrahydrofuran           | 5.019          | 42   | 226        | 0.256     | ug/l # | 64       |
| 31) Cyclohexane               | 5.556          | 56   | 2878       | 1.318     | ug/l # | 1        |
| 36) 1,1-Dichloropropene       | 5.550          | 75   | 10527      | 4.562     | ug/l # | 50       |
| 37) Ethyl Acetate             | 4.727          | 43   | 3210       | 1.171     | ug/l # | 89       |
| 38) Carbon Tetrachloride      | 5.556          | 117  | 13246      | 5.836     | ug/l # | 15       |
| 43) Isopropyl Acetate         | 6.342          | 43   | 104238     | 25.481    | ug/l   | 97       |
| 48) Methyl methacrylate       | 7.799          | 41   | 107240     | 54.914    | ug/l # | 50       |
| 49) 1,4-Dioxane               | 7.806          | 88   | 208        | 4.322     | ug/l # | 1        |
| 51) 4-Methyl-2-Pentanone      | 8.549          | 43   | 84145      | 29.821    | ug/l # | 53       |
| 53) t-1,3-Dichloropropene     | 8.952          | 75   | 670        | 0.271     | ug/l # | 43       |
| 54) cis-1,3-Dichloropropene   | 8.549          | 75   | 39697      | 15.274    | ug/l # | 58       |
| 56) Ethyl methacrylate        | 9.244          | 69   | 894        | 0.324     | ug/l # | 1        |
| 57) 1,3-Dichloropropane       | 9.482          | 76   | 5918       | 2.035     | ug/l # | 42       |
| 59) 2-Hexanone                | 9.482          | 43   | 73706      | 32.493    | ug/l # | 55       |
| 76) 1,2,3-Trichloropropane    | 11.079         | 75   | 64735      | 22.629    | ug/l # | 38       |
| 81) trans-1,4-Dichloro-2-b... | 11.079         | 75   | 64735      | 64.780    | ug/l # | 5        |
| -----                         |                |      |            |           |        |          |

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

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Quant Time: Oct 18 04:01:18 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

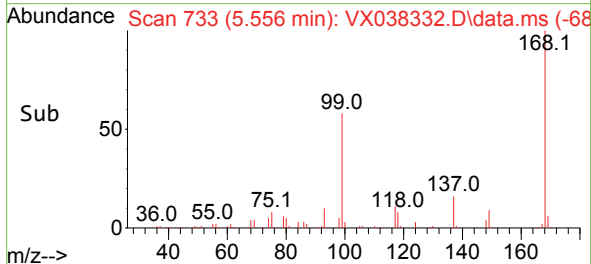
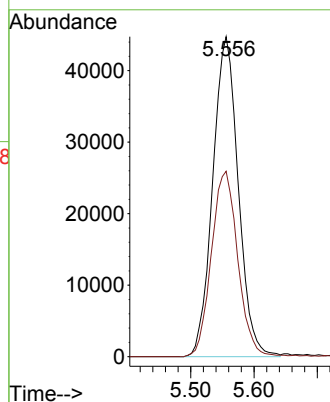
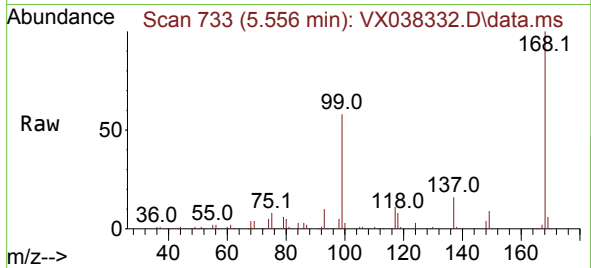




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 71  
Delta R.T. -0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

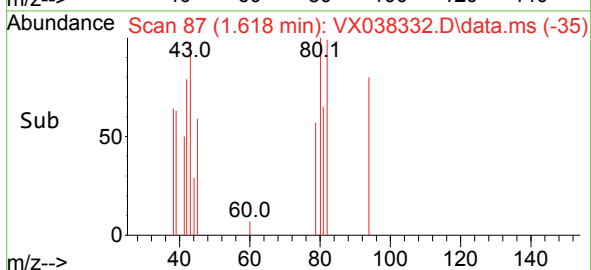
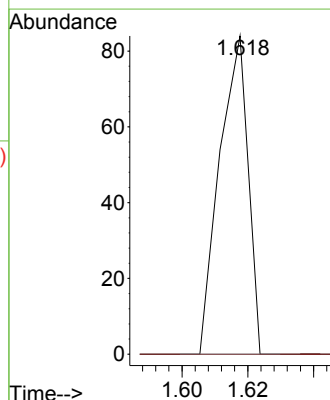
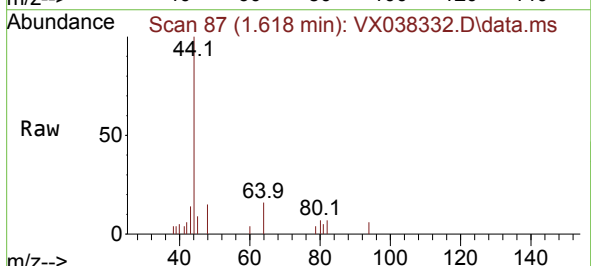
Instrument :  
MSVOA\_X  
ClientSampleId :

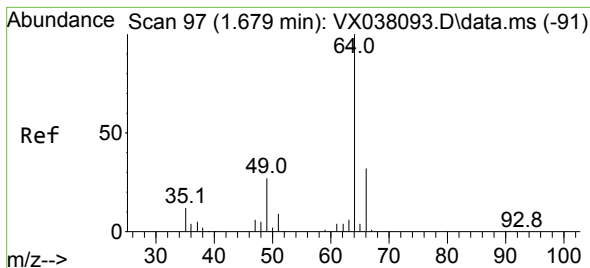
Tgt Ion:168 Resp: 125324  
Ion Ratio Lower Upper  
168 100  
99 58.0 56.6 85.0



#5  
Bromomethane  
Concen: Below Cal  
RT: 1.618 min Scan# 87  
Delta R.T. 0.019 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 94 Resp: 50  
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: VX038332.D

Acq: 17 Oct 2023 16:18

Instrument :

MSVOA\_X

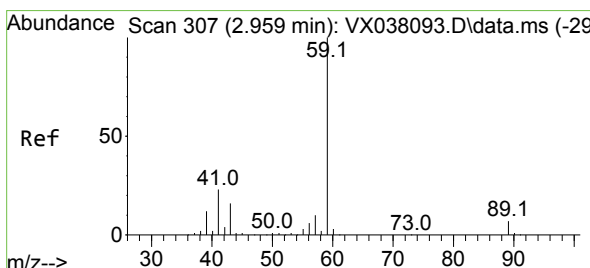
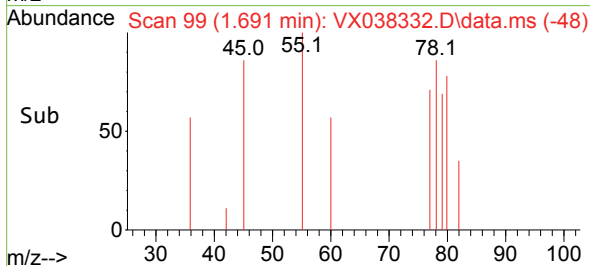
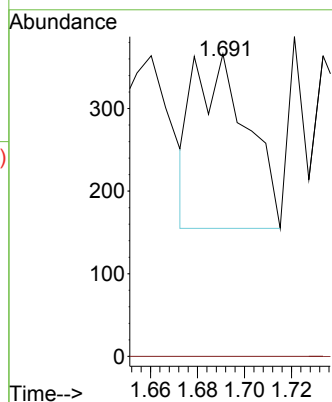
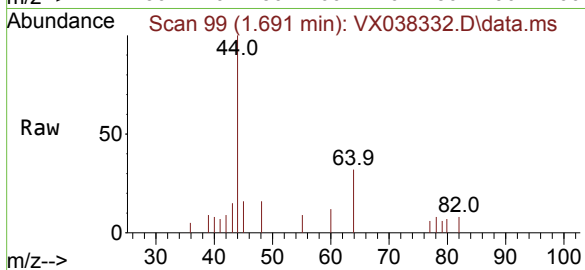
ClientSampleId :

Tgt Ion: 64 Resp: 331

Ion Ratio Lower Upper

64 100

66 0.0 25.1 37.7#



#11

Tert butyl alcohol

Concen: Below Cal

RT: 2.947 min Scan# 305

Delta R.T. -0.012 min

Lab File: VX038332.D

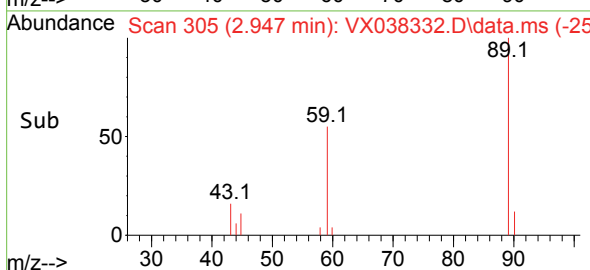
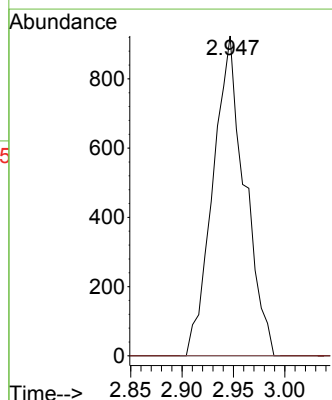
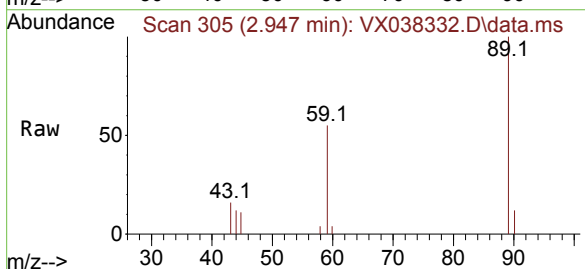
Acq: 17 Oct 2023 16:18

Tgt Ion: 59 Resp: 1986

Ion Ratio Lower Upper

59 100

57 0.0 6.0 9.0#

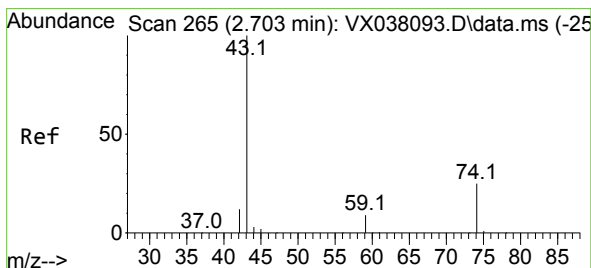
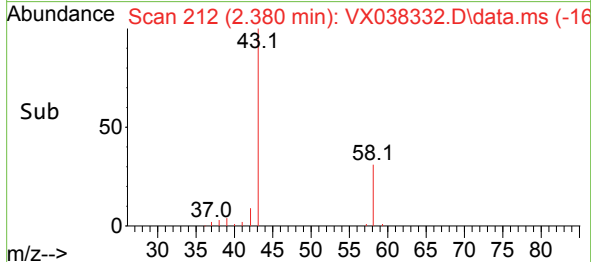
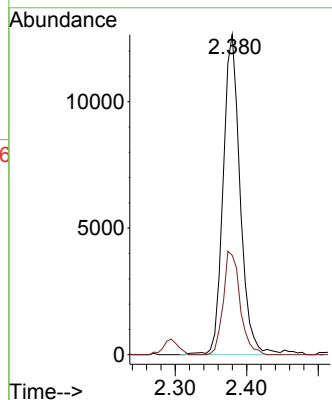
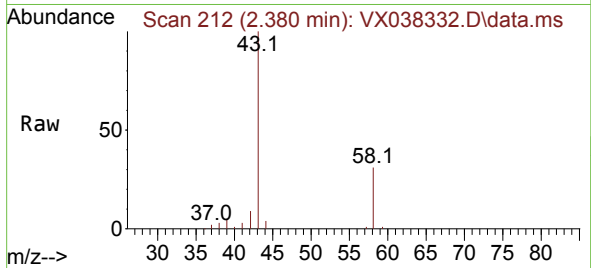




#16  
Acetone  
Concen: 24.792 ug/l  
RT: 2.380 min Scan# 212  
Delta R.T. -0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

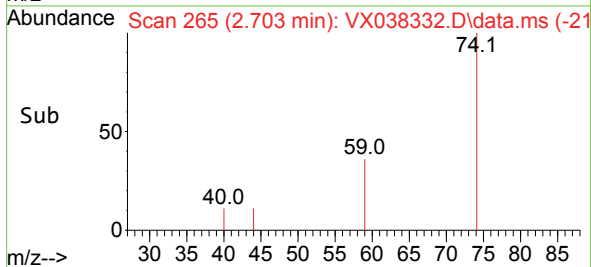
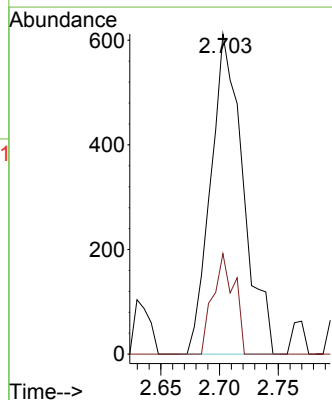
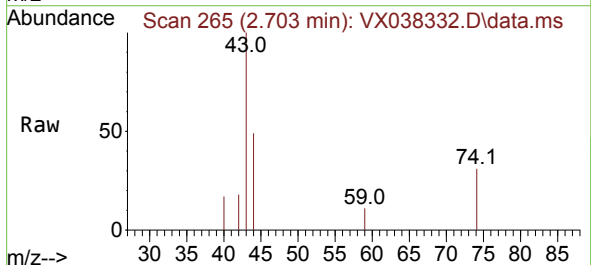
Instrument :  
MSVOA\_X  
ClientSampleId :

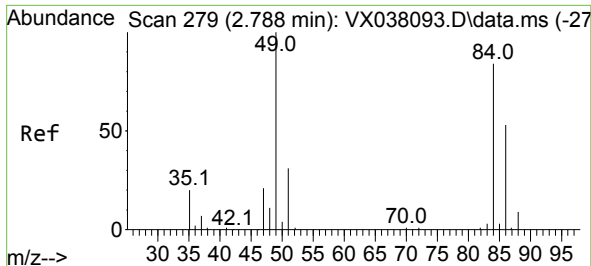
Tgt Ion: 43 Resp: 20857  
Ion Ratio Lower Upper  
43 100  
58 31.0 21.9 32.9



#18  
Methyl Acetate  
Concen: 0.327 ug/l  
RT: 2.703 min Scan# 265  
Delta R.T. -0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 43 Resp: 1178  
Ion Ratio Lower Upper  
43 100  
74 20.8 17.8 26.8





#20

Methylene Chloride

Concen: 9.042 ug/l

RT: 2.788 min Scan# 21

Delta R.T. 0.000 min

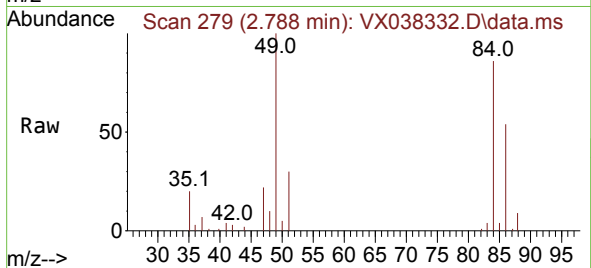
Lab File: VX038332.D

Acq: 17 Oct 2023 16:18

Instrument :

MSVOA\_X

ClientSampleId :



Tgt Ion: 84 Resp: 14309

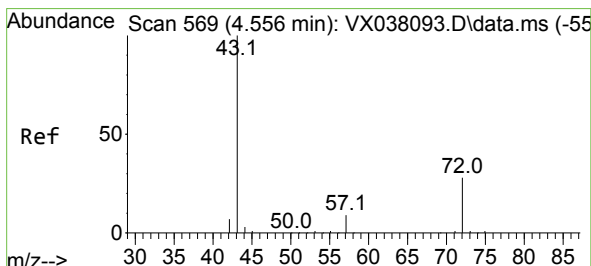
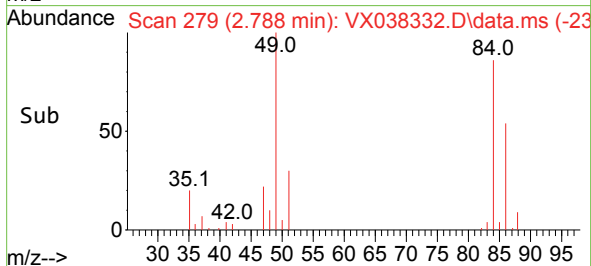
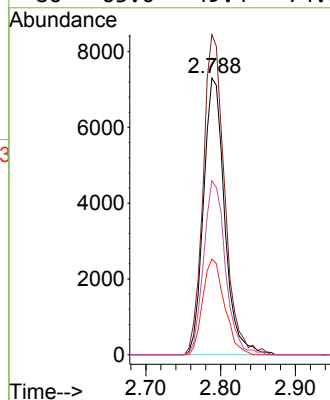
Ion Ratio Lower Upper

84 100

49 115.8 103.6 155.4

51 34.5 33.8 50.6

86 63.0 49.4 74.0



#25

2-Butanone

Concen: 2.192 ug/l

RT: 4.574 min Scan# 572

Delta R.T. 0.018 min

Lab File: VX038332.D

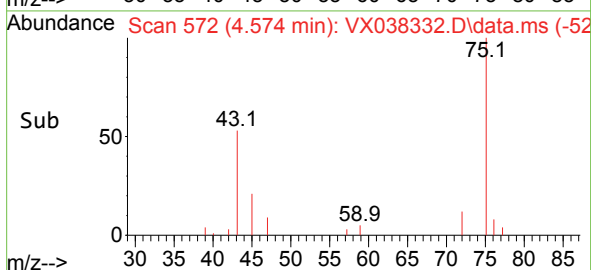
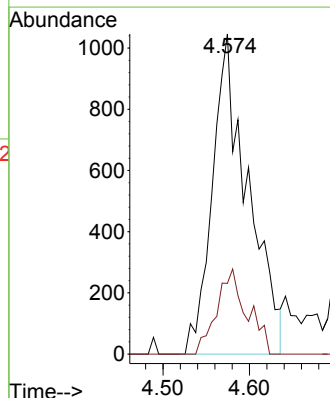
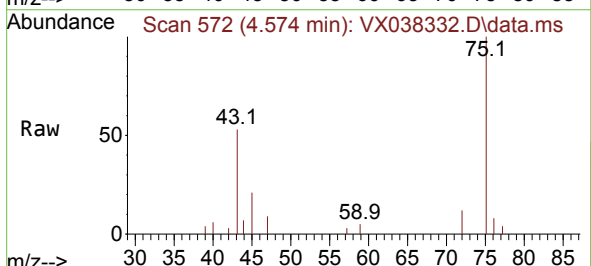
Acq: 17 Oct 2023 16:18

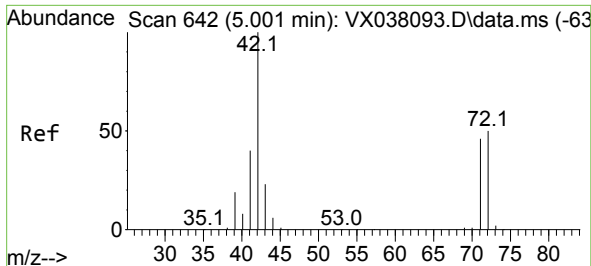
Tgt Ion: 43 Resp: 2976

Ion Ratio Lower Upper

43 100

72 22.1 19.4 29.2





#29

Tetrahydrofuran

Concen: 0.256 ug/l

RT: 5.019 min Scan# 64

Delta R.T. 0.018 min

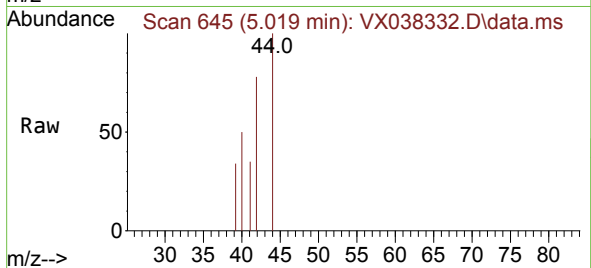
Lab File: VX038332.D

Acq: 17 Oct 2023 16:18

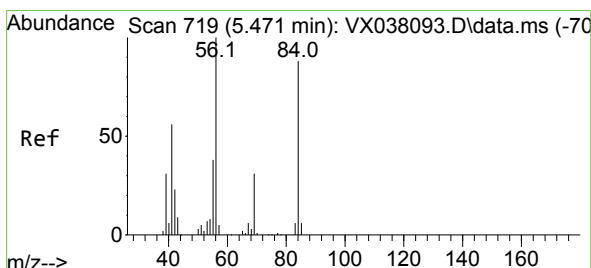
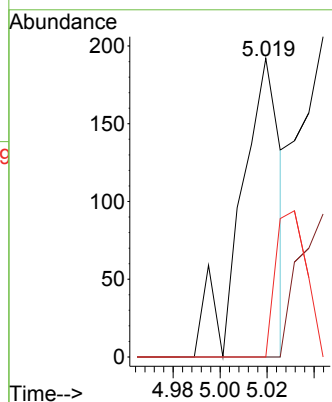
Instrument :

MSVOA\_X

ClientSampleId :



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 226   |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 0.0   | 34.2  | 51.4# |
| 71       | 38.1  | 32.2  | 48.2  |



#31

Cyclohexane

Concen: 1.318 ug/l

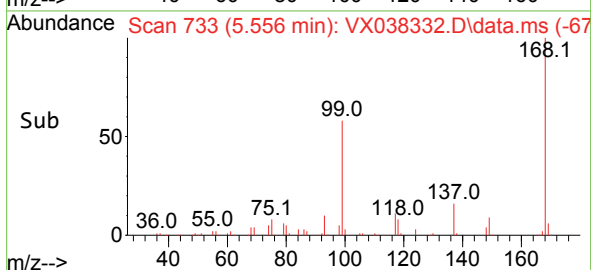
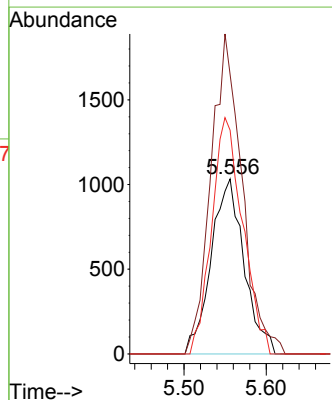
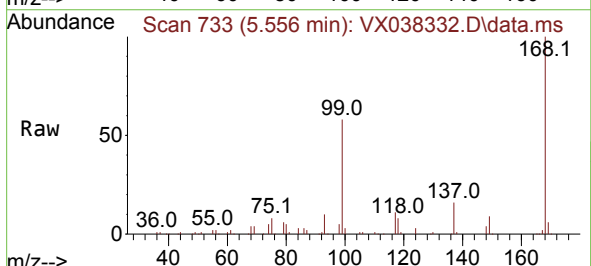
RT: 5.556 min Scan# 733

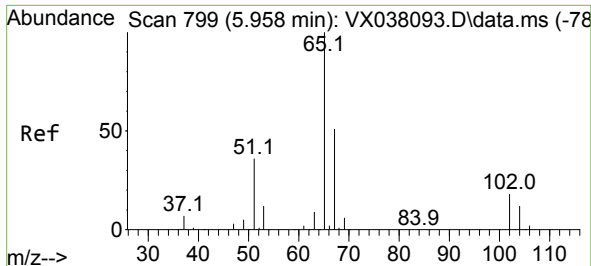
Delta R.T. 0.085 min

Lab File: VX038332.D

Acq: 17 Oct 2023 16:18

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 56    | Resp: | 2878  |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 69       | 159.6 | 23.4  | 35.2# |
| 84       | 127.8 | 65.9  | 98.9# |

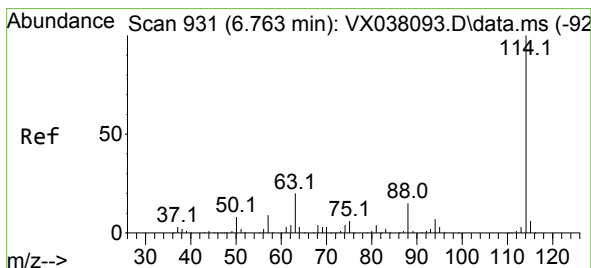
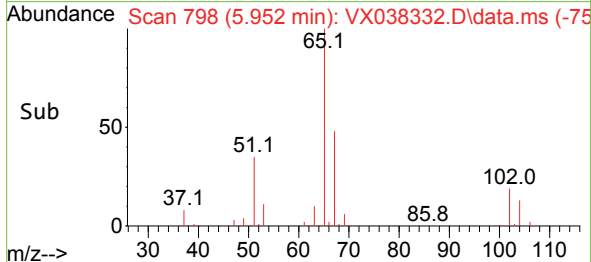
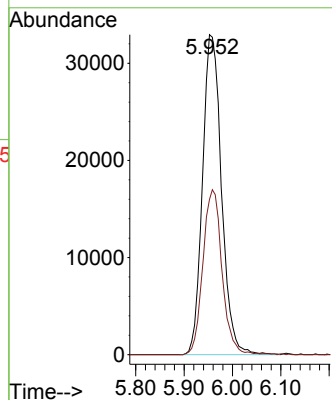
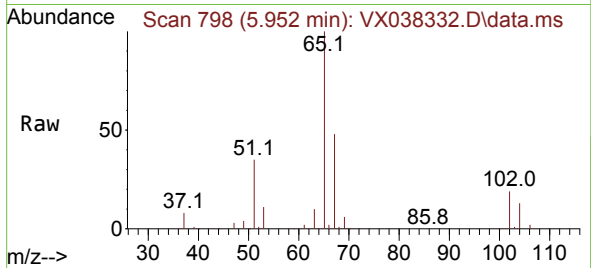




#33  
1,2-Dichloroethane-d4  
Concen: 44.626 ug/l  
RT: 5.952 min Scan# 799  
Delta R.T. -0.006 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

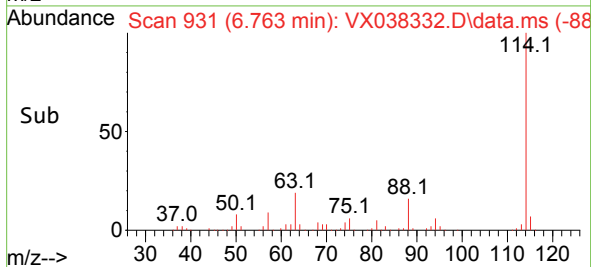
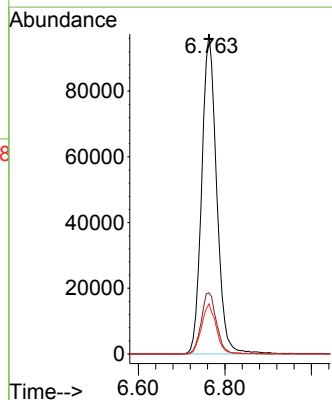
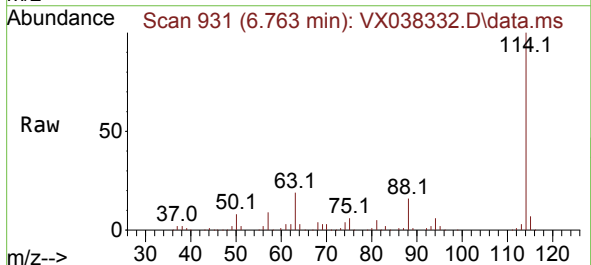
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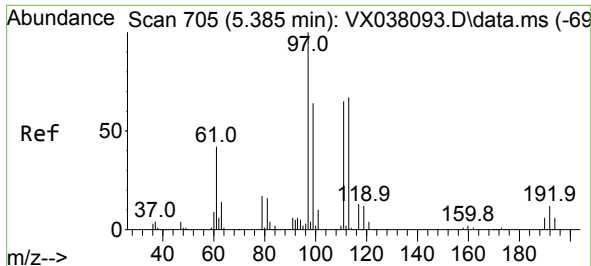
Tgt Ion: 65 Resp: 89956  
Ion Ratio Lower Upper  
65 100  
67 51.9 0.0 100.2



#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 6.763 min Scan# 931  
Delta R.T. 0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

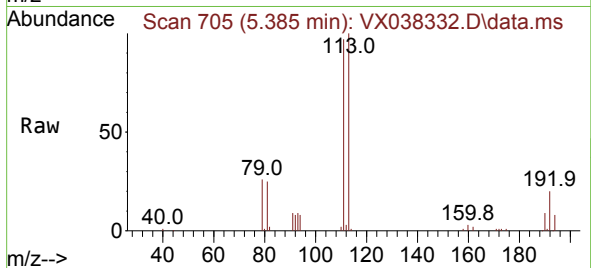
Tgt Ion: 114 Resp: 232209  
Ion Ratio Lower Upper  
114 100  
63 19.1 0.0 45.0  
88 15.7 0.0 36.6



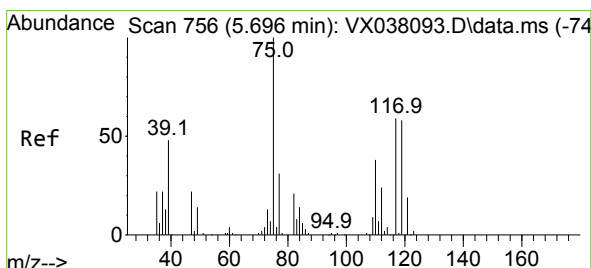
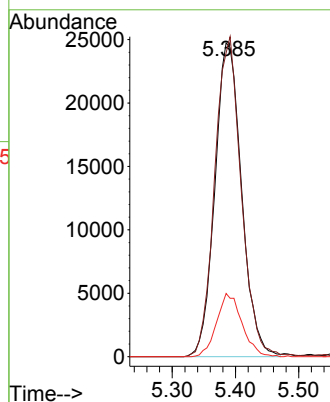
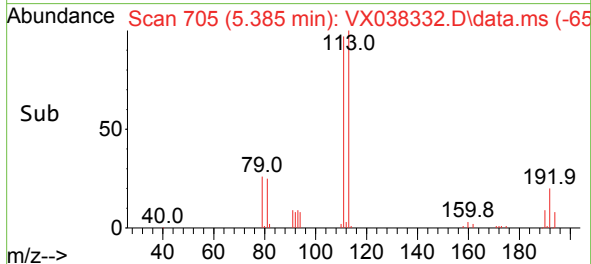


#35  
Dibromofluoromethane  
Concen: 43.269 ug/l  
RT: 5.385 min Scan# 705  
Delta R.T. 0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Instrument :  
MSVOA\_X  
ClientSampleId :

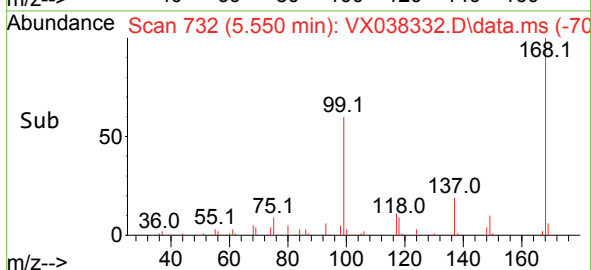
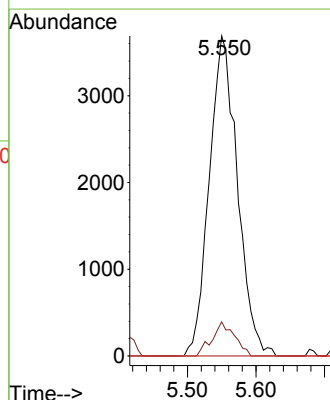
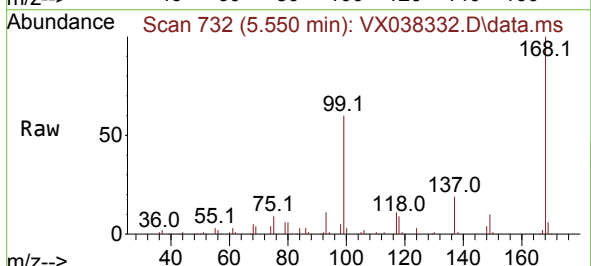


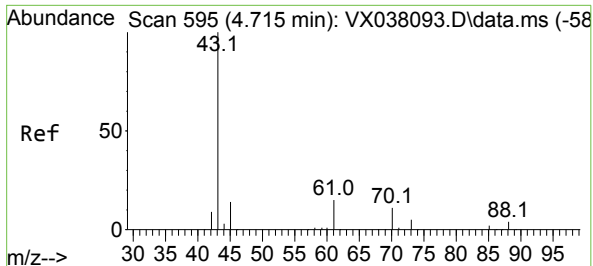
Tgt Ion:113 Resp: 72398  
Ion Ratio Lower Upper  
113 100  
111 101.2 82.9 124.3  
192 19.2 13.3 19.9



#36  
1,1-Dichloropropene  
Concen: 4.562 ug/l  
RT: 5.550 min Scan# 732  
Delta R.T. -0.140 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 75 Resp: 10527  
Ion Ratio Lower Upper  
75 100  
110 8.5 17.0 50.9#  
77 0.0 24.7 37.1#





#37

Ethyl Acetate

Concen: 1.171 ug/l

RT: 4.727 min Scan# 597

Delta R.T. 0.012 min

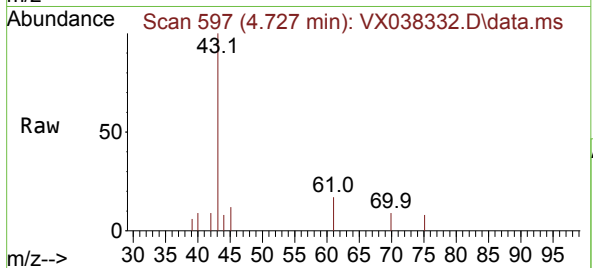
Lab File: VX038332.D

Acq: 17 Oct 2023 16:18

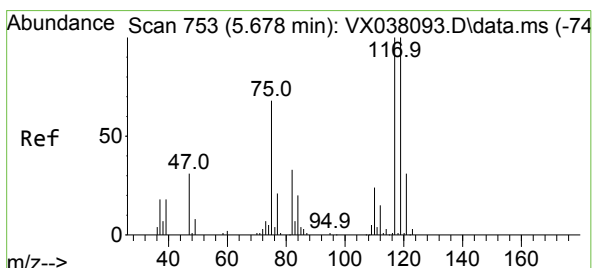
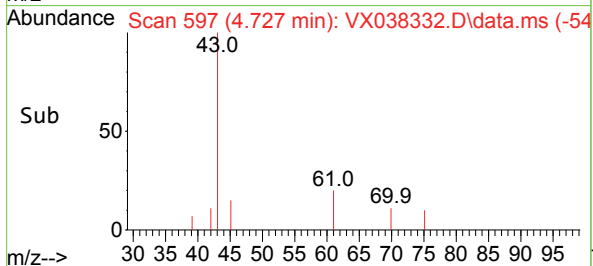
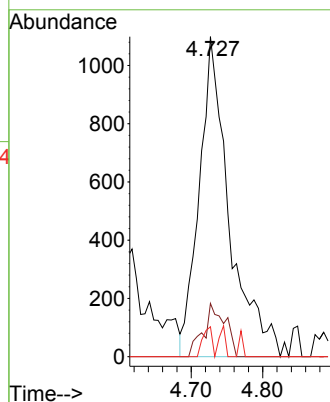
Instrument :

MSVOA\_X

ClientSampleId :



|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 3210     |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 61          | 12.0 10.6 16.0 |
| 70          | 2.8 8.3 12.5   |



#38

Carbon Tetrachloride

Concen: 5.836 ug/l

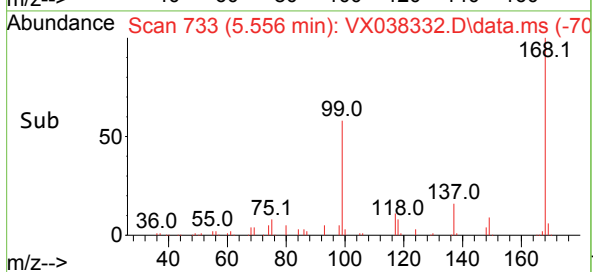
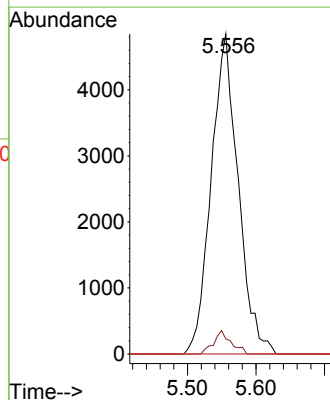
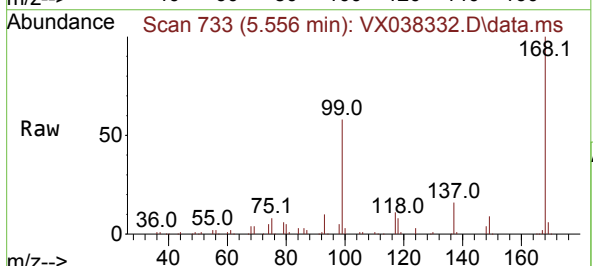
RT: 5.556 min Scan# 733

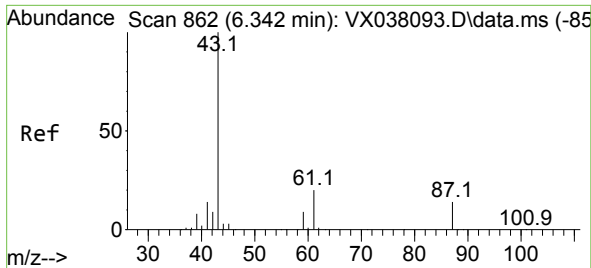
Delta R.T. -0.122 min

Lab File: VX038332.D

Acq: 17 Oct 2023 16:18

|              |                |
|--------------|----------------|
| Tgt Ion: 117 | Resp: 13246    |
| Ion Ratio    | Lower Upper    |
| 117          | 100            |
| 119          | 4.7 78.2 117.2 |
| 121          | 0.0 24.4 36.6  |

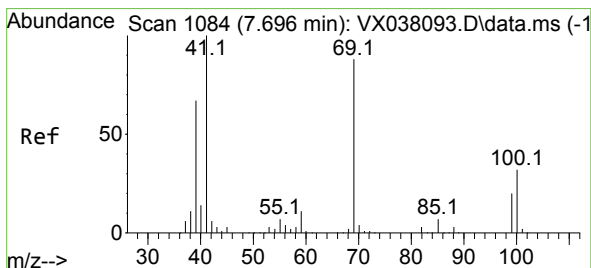
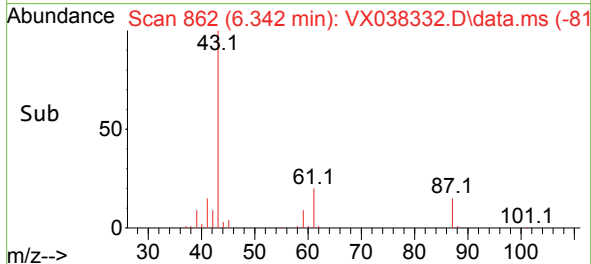
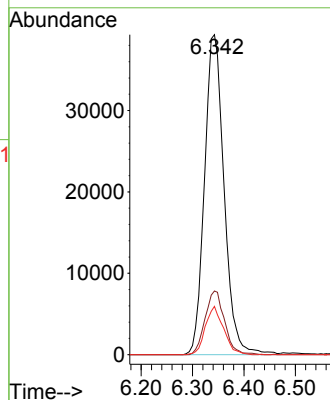
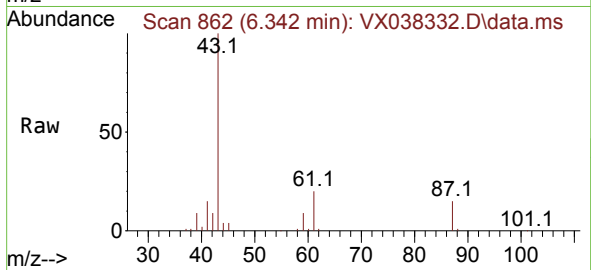




#43  
Isopropyl Acetate  
Concen: 25.481 ug/l  
RT: 6.342 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

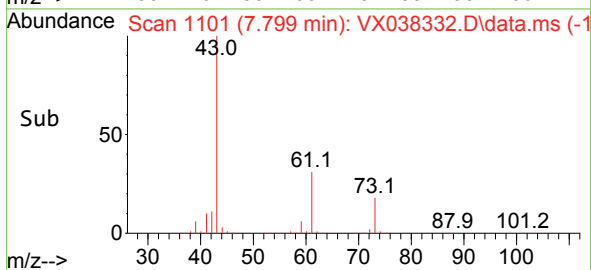
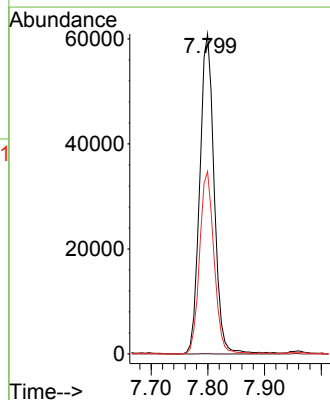
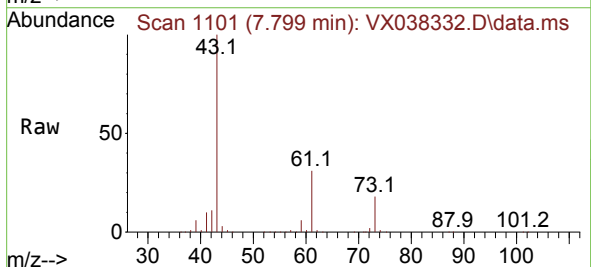
Instrument :  
MSVOA\_X  
ClientSampleId :

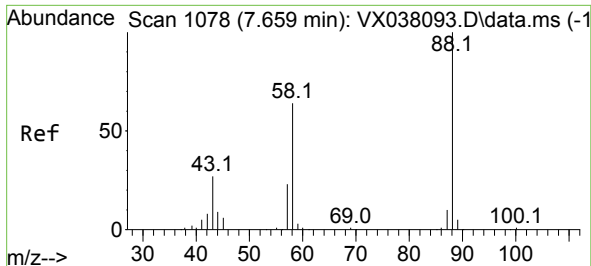
Tgt Ion: 43 Resp: 104238  
Ion Ratio Lower Upper  
43 100  
61 19.7 15.2 22.8  
87 14.0 9.8 14.6



#48  
Methyl methacrylate  
Concen: 54.914 ug/l  
RT: 7.799 min Scan# 1101  
Delta R.T. 0.109 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 41 Resp: 107240  
Ion Ratio Lower Upper  
41 100  
69 0.1 59.2 88.8#  
39 57.2 47.7 71.5

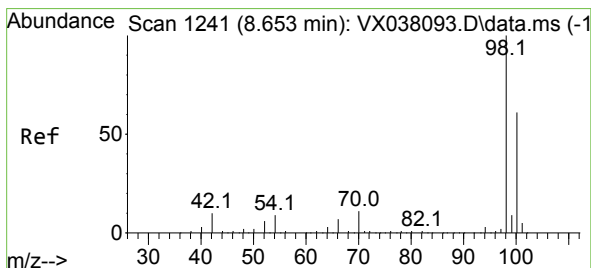
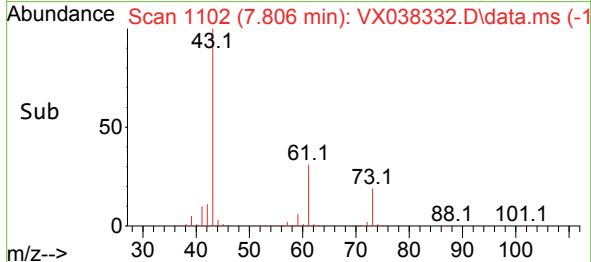
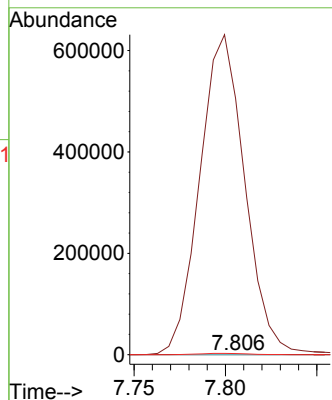
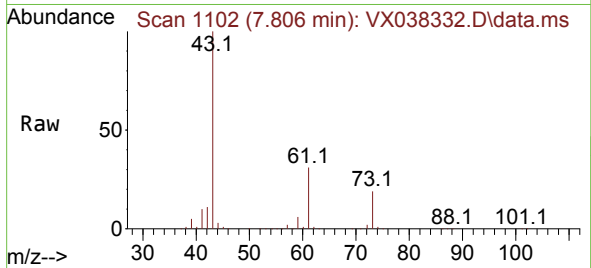




#49  
1,4-Dioxane  
Concen: 4.322 ug/l  
RT: 7.806 min Scan# 1102  
Delta R.T. 0.147 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

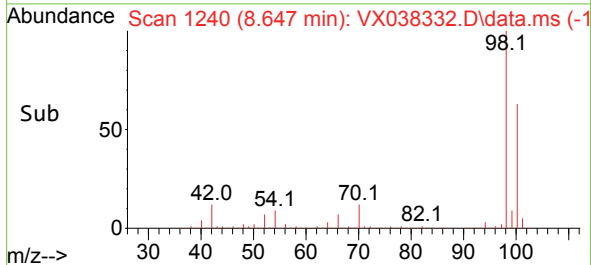
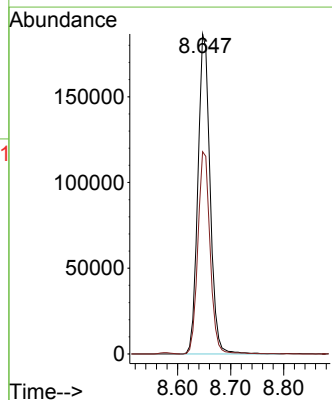
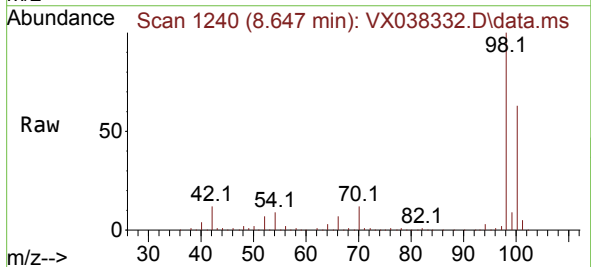
Instrument :  
MSVOA\_X  
ClientSampleId :

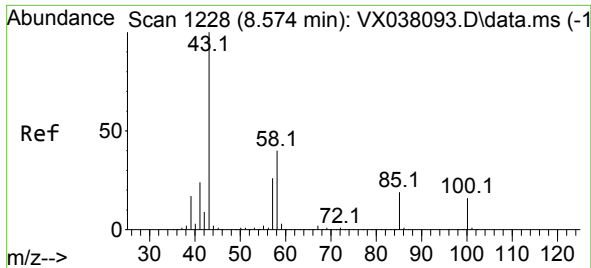
Tgt Ion: 88 Resp: 208  
Ion Ratio Lower Upper  
88 100  
43 525016.3 0.0 0.0#  
58 2422.1 60.1 90.1#



#50  
Toluene-d8  
Concen: 46.585 ug/l  
RT: 8.647 min Scan# 1240  
Delta R.T. -0.006 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 98 Resp: 297854  
Ion Ratio Lower Upper  
98 100  
100 63.5 53.1 79.7

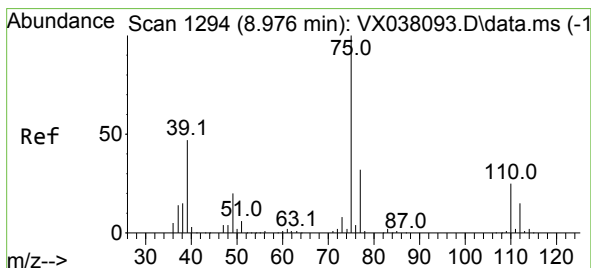
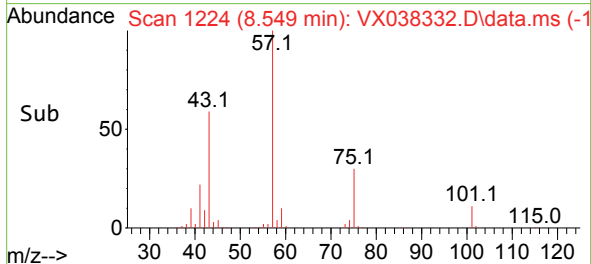
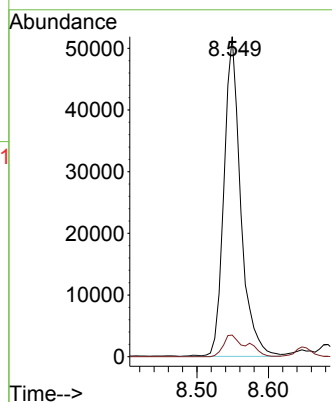
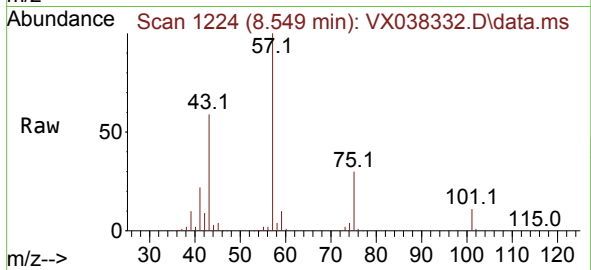




#51  
4-Methyl-2-Pentanone  
Concen: 29.821 ug/l  
RT: 8.549 min Scan# 11  
Delta R.T. -0.025 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

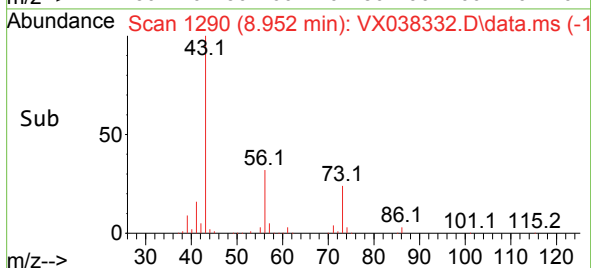
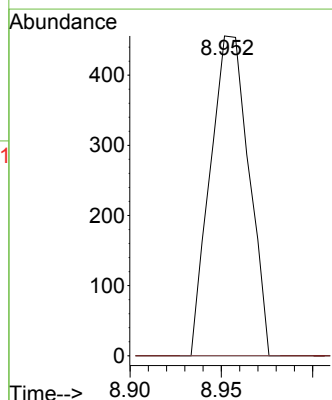
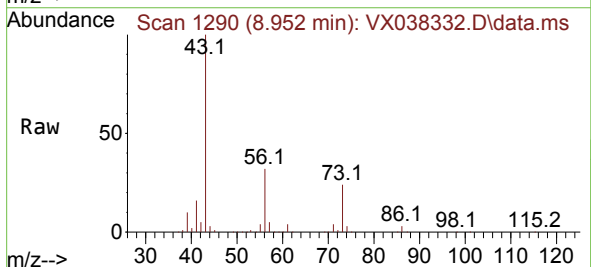
Instrument :  
MSVOA\_X  
ClientSampleId :

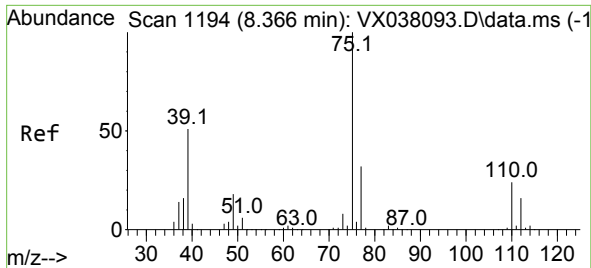
Tgt Ion: 43 Resp: 84145  
Ion Ratio Lower Upper  
43 100  
58 9.5 30.4 45.6#



#53  
t-1,3-Dichloropropene  
Concen: 0.271 ug/l  
RT: 8.952 min Scan# 1290  
Delta R.T. -0.024 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 75 Resp: 670  
Ion Ratio Lower Upper  
75 100  
77 0.0 25.7 38.5#

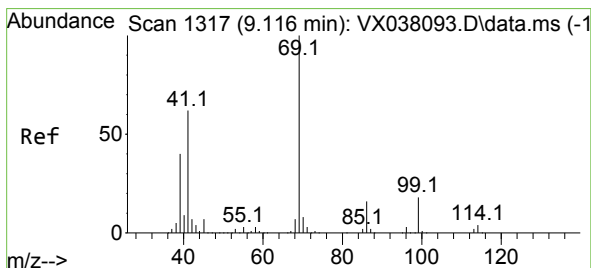
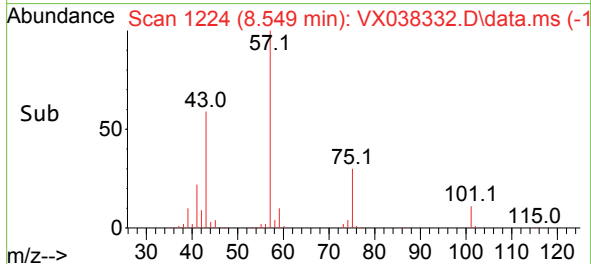
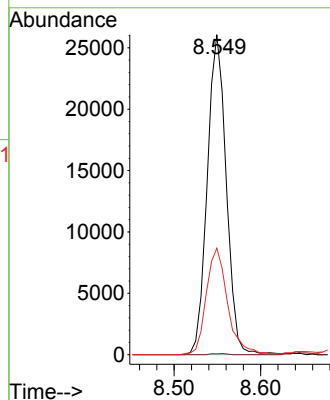
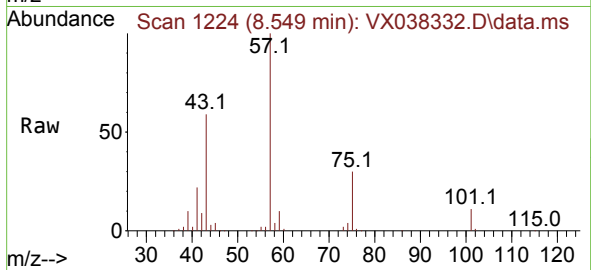




#54  
cis-1,3-Dichloropropene  
Concen: 15.274 ug/l  
RT: 8.549 min Scan# 1194  
Delta R.T. 0.183 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

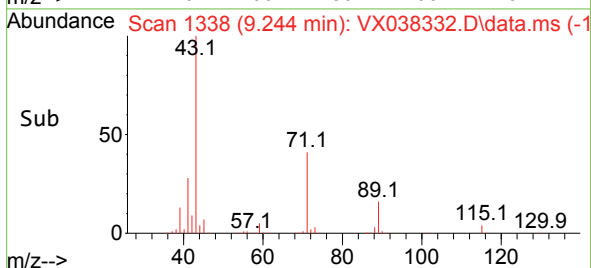
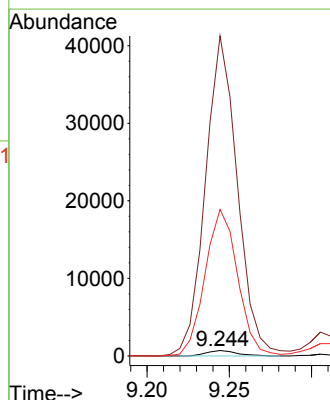
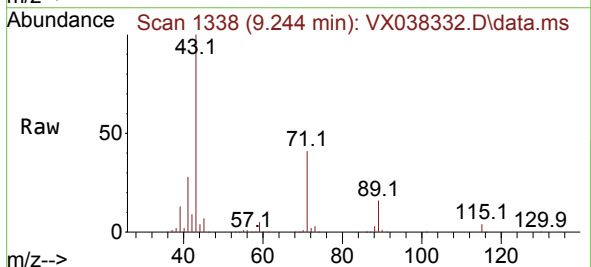
Instrument :  
MSVOA\_X  
ClientSampleId :

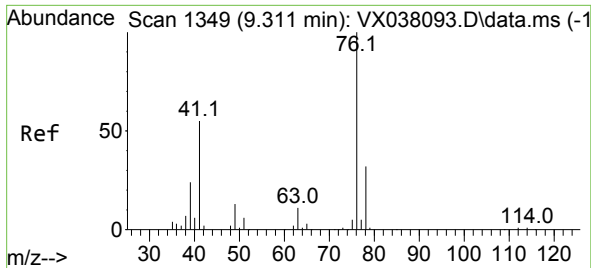
Tgt Ion: 75 Resp: 39697  
Ion Ratio Lower Upper  
75 100  
77 0.2 25.3 37.9#  
39 33.3 46.7 70.1#



#56  
Ethyl methacrylate  
Concen: 0.324 ug/l  
RT: 9.244 min Scan# 1338  
Delta R.T. 0.128 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 69 Resp: 894  
Ion Ratio Lower Upper  
69 100  
41 6271.1 56.8 85.2#  
39 2919.8 32.0 48.0#





#57

1,3-Dichloropropane

Concen: 2.035 ug/l

RT: 9.482 min Scan# 1377

Delta R.T. 0.171 min

Lab File: VX038332.D

Acq: 17 Oct 2023 16:18

Instrument :

MSVOA\_X

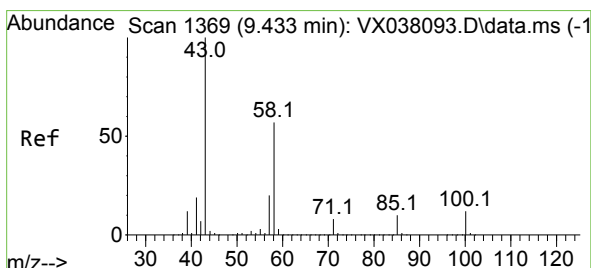
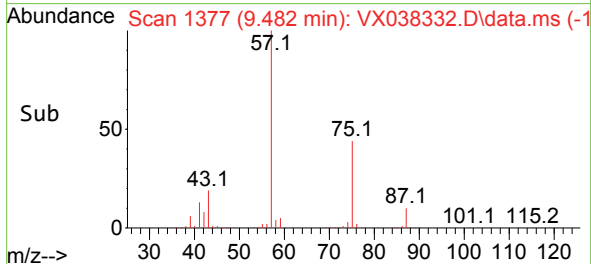
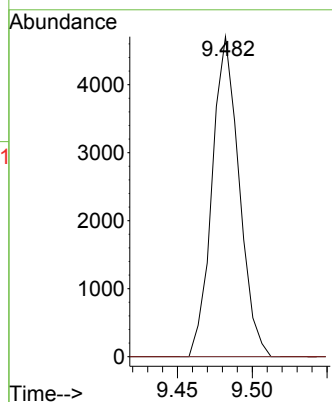
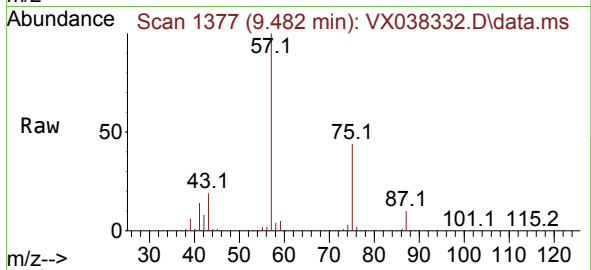
ClientSampleId :

Tgt Ion: 76 Resp: 5918

Ion Ratio Lower Upper

76 100

78 0.0 26.1 39.1#



#59

2-Hexanone

Concen: 32.493 ug/l

RT: 9.482 min Scan# 1377

Delta R.T. 0.049 min

Lab File: VX038332.D

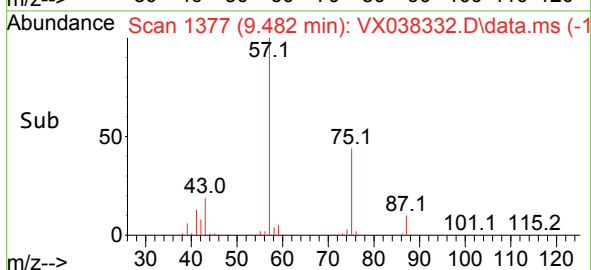
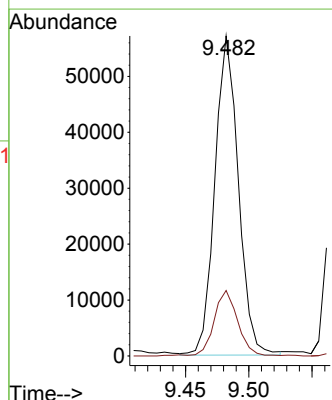
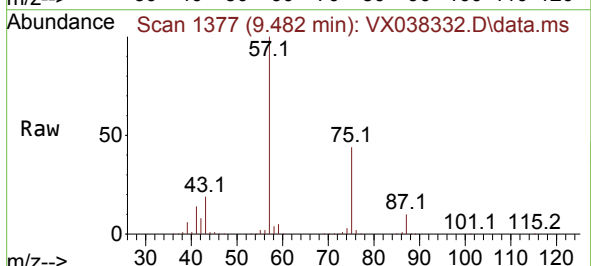
Acq: 17 Oct 2023 16:18

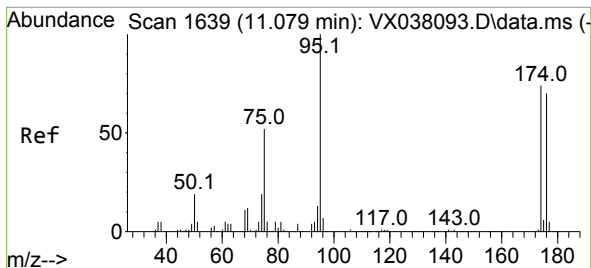
Tgt Ion: 43 Resp: 73706

Ion Ratio Lower Upper

43 100

58 20.9 26.2 78.5#

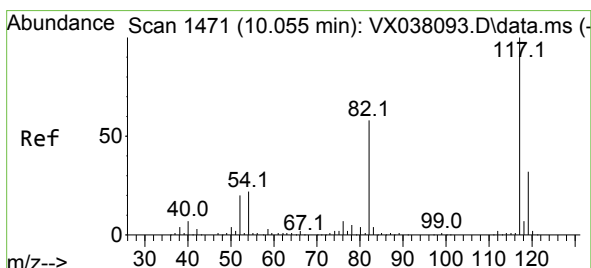
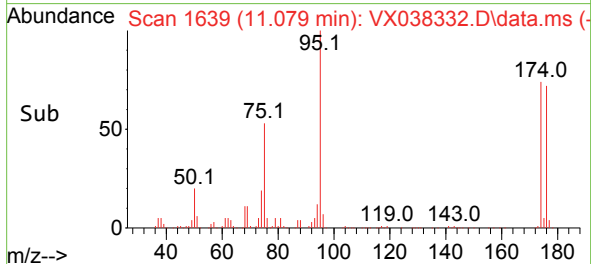
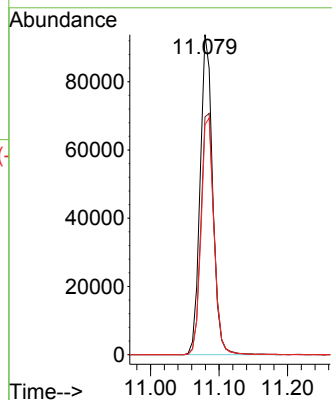
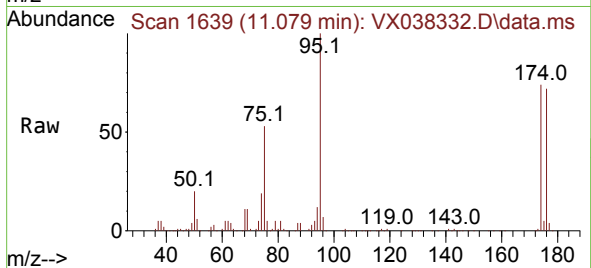




#62  
4-Bromofluorobenzene  
Concen: 49.013 ug/l  
RT: 11.079 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

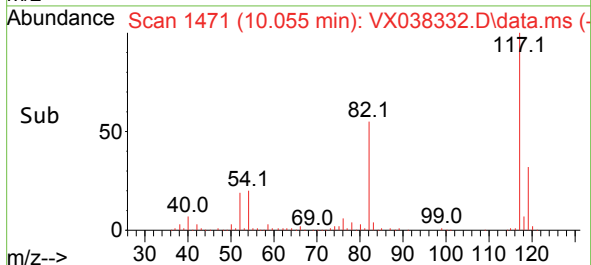
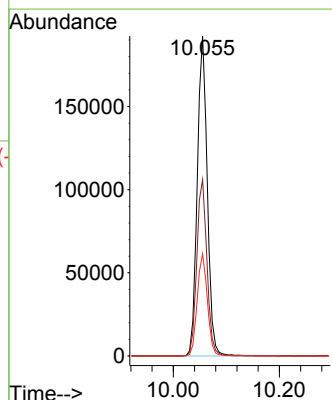
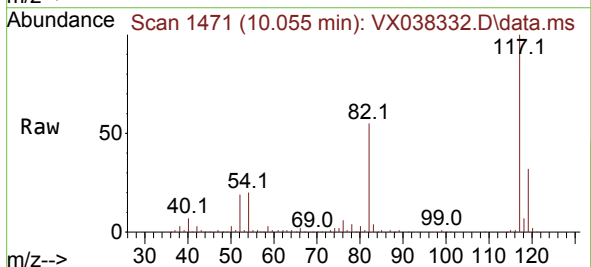
Instrument :  
MSVOA\_X  
ClientSampleId :

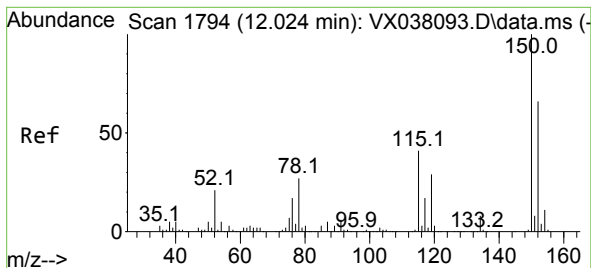
Tgt Ion: 95 Resp: 118805  
Ion Ratio Lower Upper  
95 100  
174 79.3 0.0 135.6  
176 76.4 0.0 131.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. 0.000 min  
Lab File: VX038332.D  
Acq: 17 Oct 2023 16:18

Tgt Ion: 117 Resp: 252953  
Ion Ratio Lower Upper  
117 100  
82 55.1 46.2 69.4  
119 31.9 25.5 38.3





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX038332.D

Acq: 17 Oct 2023 16:18

Instrument :

MSVOA\_X

ClientSampleId :

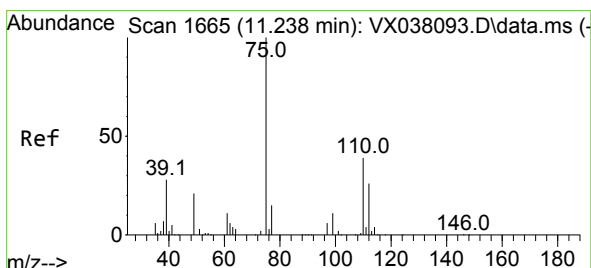
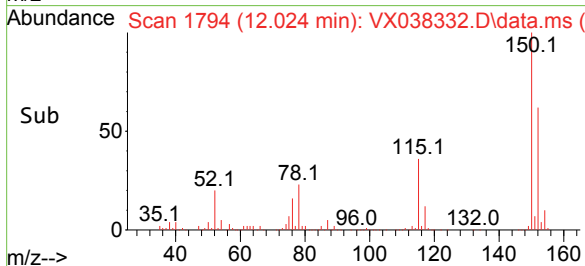
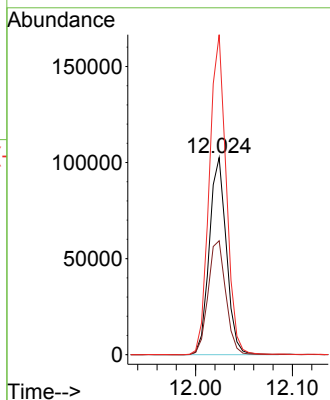
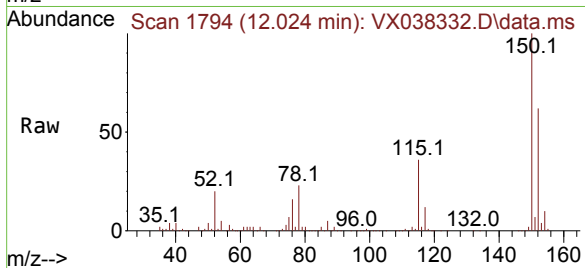
Tgt Ion:152 Resp: 125833

Ion Ratio Lower Upper

152 100

115 60.1 43.3 129.9

150 160.9 0.0 345.0



#76

1,2,3-Trichloropropane

Concen: 22.629 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. -0.159 min

Lab File: VX038332.D

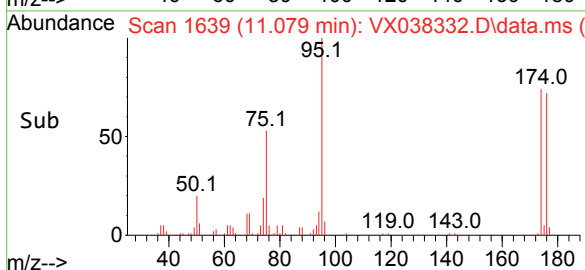
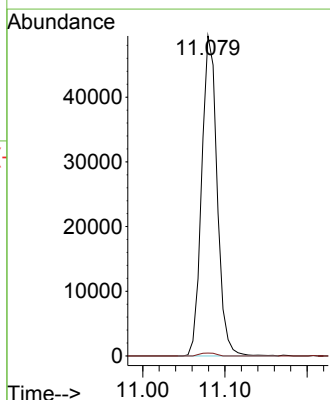
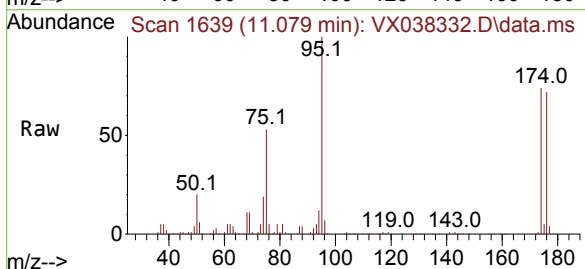
Acq: 17 Oct 2023 16:18

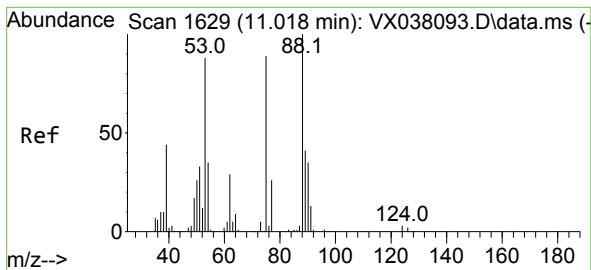
Tgt Ion: 75 Resp: 64735

Ion Ratio Lower Upper

75 100

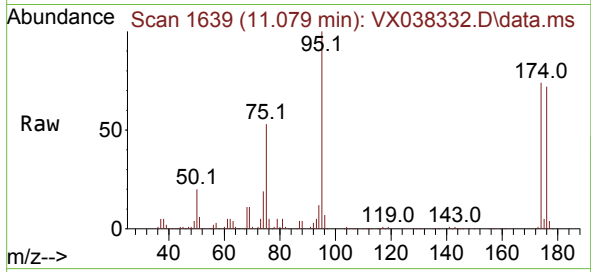
77 1.0 19.1 57.5#





#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 64.780 ug/l  
 RT: 11.079 min Scan# 1  
 Delta R.T. 0.061 min  
 Lab File: VX038332.D  
 Acq: 17 Oct 2023 16:18

Instrument :  
 MSVOA\_X  
 ClientSampleId :



Tgt Ion: 75 Resp: 64735  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 90.5 135.7#  
 89 0.0 36.9 55.3#

