

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\Data\VW091522\  
 Data File : VW027855.D  
 Acq On : 15 Sep 2022 15:02  
 Operator : SY/MD  
 Sample : N4652-02  
 Misc : 25.0mL/MSVOA\_V/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 EXZ04

Quant Time: Sep 16 01:33:06 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_V\Method\SFAMVTR090622WMA.M  
 Quant Title : TRACE VOA SFAM1.0  
 QLast Update : Fri Sep 16 01:29:01 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) 1,4-Difluorobenzene        | 5.616  | 114   | 132539   | 5.000    | ug/L   | 0.03     |
| 28) Chlorobenzene-d5          | 8.850  | 117   | 129230   | 5.000    | ug/L   | 0.00     |
| 58) 1,4-Dichlorobenzene-d4    | 11.249 | 152   | 62641    | 5.000    | ug/L   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 4) Vinyl Chloride-d3          | 1.307  | 65    | 34157    | 3.910    | ug/L   | 0.01     |
| Spiked Amount                 | 5.000  | Range | 40 - 130 | Recovery | =      | 78.200%  |
| 7) Chloroethane-d5            | 1.568  | 69    | 36242    | 4.890    | ug/L   | 0.01     |
| Spiked Amount                 | 5.000  | Range | 65 - 130 | Recovery | =      | 97.800%  |
| 11) 1,1-Dichloroethene-d2     | 2.111  | 63    | 75117    | 4.052    | ug/L   | 0.02     |
| Spiked Amount                 | 5.000  | Range | 60 - 125 | Recovery | =      | 81.000%  |
| 20) 2-Butanone-d5             | 3.889  | 46    | 41626    | 21.499   | ug/L   | -0.05    |
| Spiked Amount                 | 50.000 | Range | 40 - 130 | Recovery | =      | 43.000%  |
| 24) Chloroform-d              | 4.346  | 84    | 89970    | 5.029    | ug/L   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 125 | Recovery | =      | 100.600% |
| 26) 1,2-Dichloroethane-d4     | 5.031  | 65    | 44904    | 4.714    | ug/L   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery | =      | 94.200%  |
| 32) Benzene-d6                | 5.050  | 84    | 167499   | 4.468    | ug/L   | 0.02     |
| Spiked Amount                 | 5.000  | Range | 70 - 125 | Recovery | =      | 89.400%  |
| 36) 1,2-Dichloropropane-d6    | 6.069  | 67    | 45951    | 4.186    | ug/L   | 0.02     |
| Spiked Amount                 | 5.000  | Range | 60 - 140 | Recovery | =      | 83.800%  |
| 41) Toluene-d8                | 7.314  | 98    | 138175   | 4.383    | ug/L   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery | =      | 87.600%  |
| 43) trans-1,3-Dichloroprop... | 7.622  | 79    | 14333    | 3.892    | ug/L   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 55 - 130 | Recovery | =      | 77.800%  |
| 46) 2-Hexanone-d5             | 8.092  | 63    | 52649    | 38.463   | ug/L   | -0.02    |
| Spiked Amount                 | 50.000 | Range | 45 - 130 | Recovery | =      | 76.920%  |
| 56) 1,1,2,2-Tetrachloroeth... | 10.214 | 84    | 29015    | 4.116    | ug/L   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 65 - 120 | Recovery | =      | 82.400%  |
| 66) 1,2-Dichlorobenzene-d4    | 11.622 | 152   | 51608    | 5.015    | ug/L   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 80 - 120 | Recovery | =      | 100.400% |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 5) Vinyl chloride             | 1.314  | 62    | 866      | 0.073    | ug/L # | 14       |
| 8) Chloroethane               | 1.584  | 64    | 1499     | 0.219    | ug/L   | 85       |
| 9) Trichlorofluoromethane     | 1.751  | 101   | 1736     | 0.090    | ug/L   | 97       |
| 12) 1,1-Dichloroethene        | 2.118  | 96    | 34727    | 3.953    | ug/L   | 89       |
| 17) Methyl tert-butyl Ether   | 2.767  | 73    | 3851     | 0.185    | ug/L # | 82       |
| 18) trans-1,2-Dichloroethene  | 2.764  | 96    | 3981     | 0.429    | ug/L   | 87       |
| 19) 1,1-Dichloroethane        | 3.188  | 63    | 246302   | 14.149   | ug/L   | 98       |
| 22) cis-1,2-Dichloroethene    | 3.909  | 96    | 38629    | 3.821    | ug/L # | 87       |
| 25) Chloroform                | 4.381  | 83    | 10916    | 0.565    | ug/L   | 99       |
| 29) 1,1,1-Trichloroethane     | 4.603  | 97    | 1184971  | 59.620   | ug/L   | 96       |
| 31) Carbon tetrachloride      | 4.603  | 117   | 148037   | 8.766    | ug/L   | 99       |
| 34) Trichloroethene           | 5.915  | 95    | 23595    | 2.209    | ug/L   | 96       |
| 35) Methylcyclohexane         | 6.066  | 83    | 13199    | 0.805    | ug/L # | 18       |
| 37) 1,2-Dichloropropane       | 6.069  | 63    | 6054     | 0.598    | ug/L # | 85       |
| 39) cis-1,3-Dichloropropene   | 6.986  | 75    | 1050     | 0.082    | ug/L # | 75       |
| 45) 1,1,2-Trichloroethane     | 7.844  | 97    | 544      | 0.083    | ug/L   | 78       |
| 47) Tetrachloroethene         | 7.973  | 164   | 39908    | 4.655    | ug/L   | 96       |
| 49) Dibromochloromethane      | 7.973  | 129   | 33589    | 4.032    | ug/L # | 10       |
| 53) m,p-Xylene                | 9.153  | 106   | 725      | 0.043    | ug/L   | 77       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\Data\VV091522\  
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Operator : SY/MD  
Sample : N4652-02  
Misc : 25.0mL/MSVOA\_V/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
EXZ04

Quant Time: Sep 16 01:33:06 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_V\Method\SFAMVTR090622WMA.M  
Quant Title : TRACE VOA SFAM1.0  
QLast Update : Fri Sep 16 01:29:01 2022  
Response via : Initial Calibration

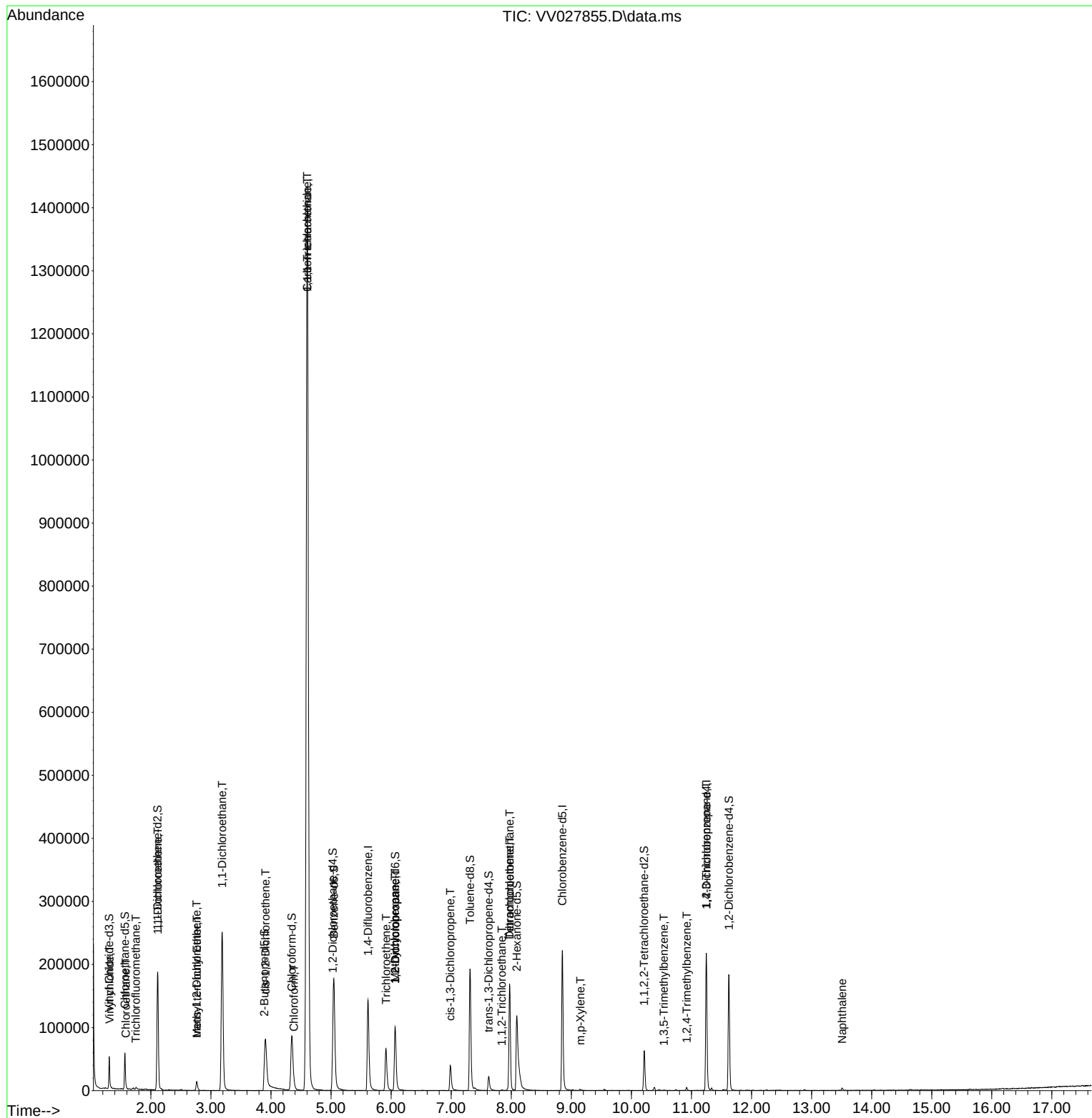
| Compound                   | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|--------|------|----------|-------|--------|----------|
| 61) 1,2,3-Trichloropropane | 11.246 | 75   | 5674     | 1.144 | ug/L # | 64       |
| 62) 1,3,5-Trimethylbenzene | 10.538 | 105  | 715      | 0.065 | ug/L   | 92       |
| 63) 1,2,4-Trimethylbenzene | 10.921 | 105  | 2813     | 0.090 | ug/L   | 92       |
| 71) Naphthalene            | 13.509 | 128  | 4018     | 0.215 | ug/L # | 88       |

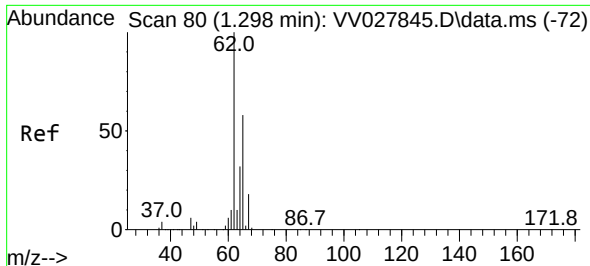
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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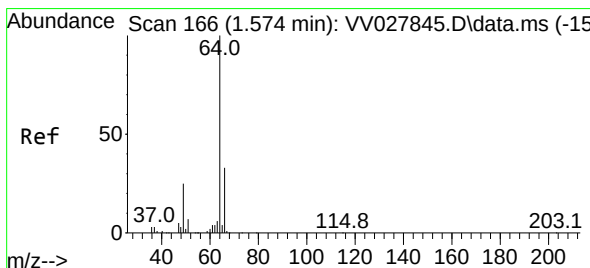
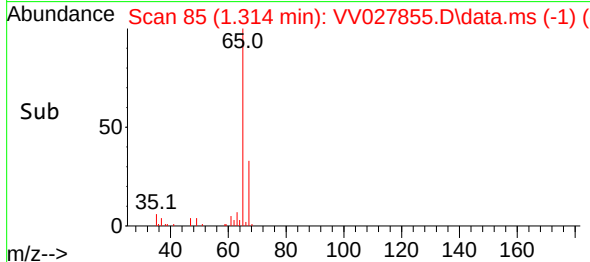
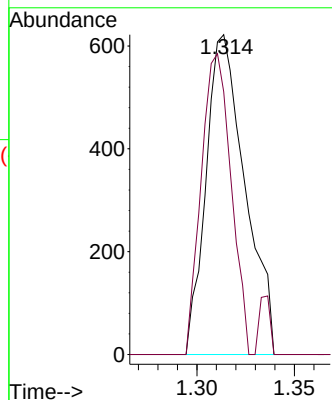
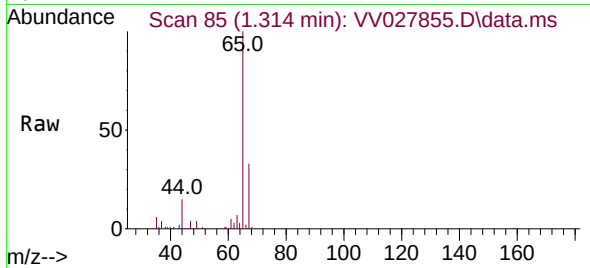




#5  
 Vinyl chloride  
 Concen: 0.073 ug/L  
 RT: 1.314 min Scan# 81  
 Delta R.T. 0.016 min  
 Lab File: VV027855.D  
 Acq: 15 Sep 2022 15:02

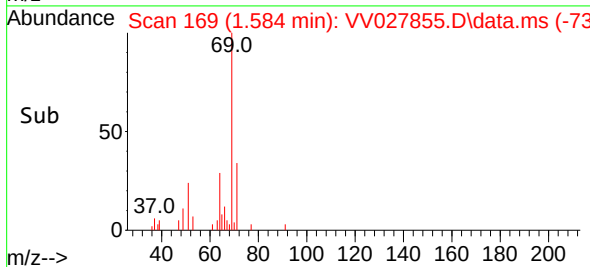
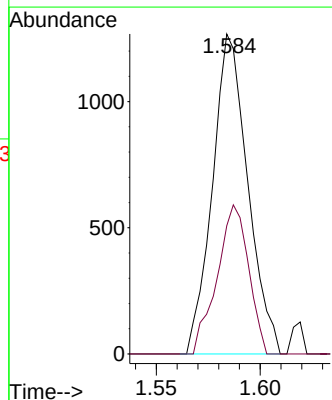
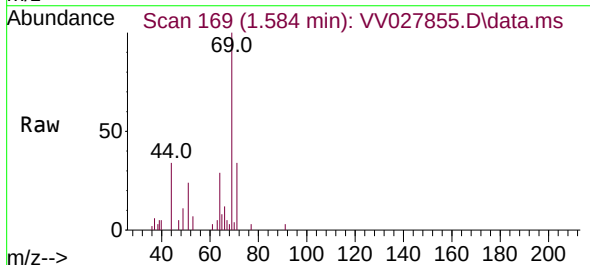
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 EXZ04

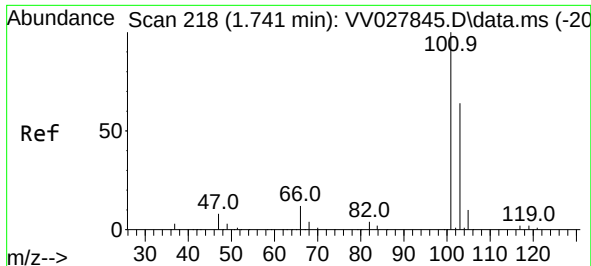
Tgt Ion: 62 Resp: 866  
 Ion Ratio Lower Upper  
 62 100  
 64 82.2 23.2 43.2#



#8  
 Chloroethane  
 Concen: 0.219 ug/L  
 RT: 1.584 min Scan# 169  
 Delta R.T. 0.010 min  
 Lab File: VV027855.D  
 Acq: 15 Sep 2022 15:02

Tgt Ion: 64 Resp: 1499  
 Ion Ratio Lower Upper  
 64 100  
 66 40.1 22.1 41.1

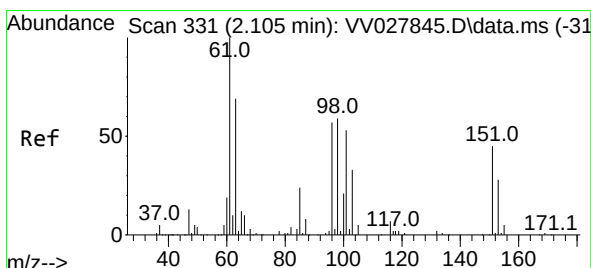
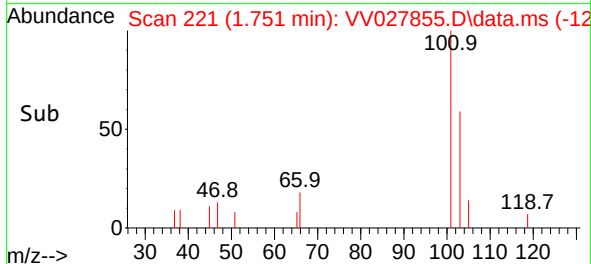
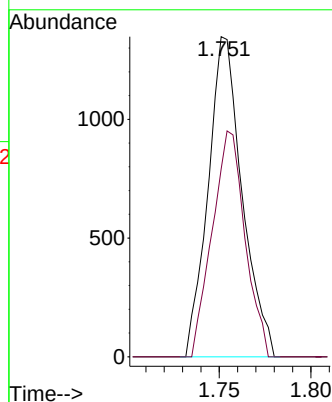
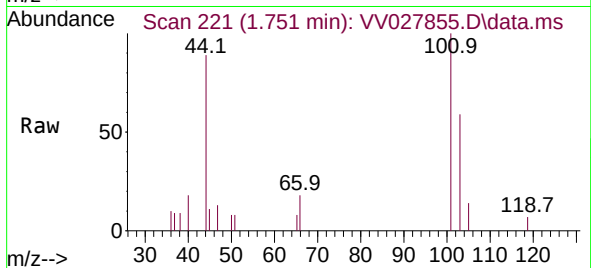




#9  
 Trichlorofluoromethane  
 Concen: 0.090 ug/L  
 RT: 1.751 min Scan# 218  
 Delta R.T. 0.010 min  
 Lab File: VV027855.D  
 Acq: 15 Sep 2022 15:02

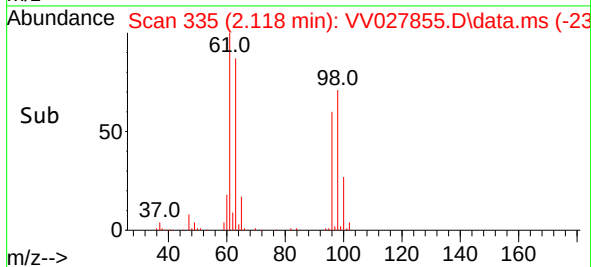
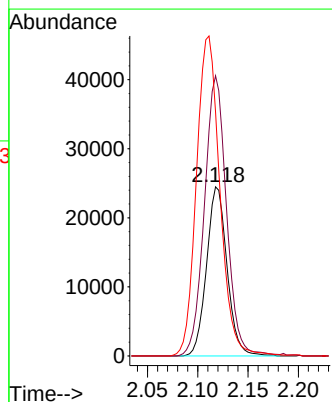
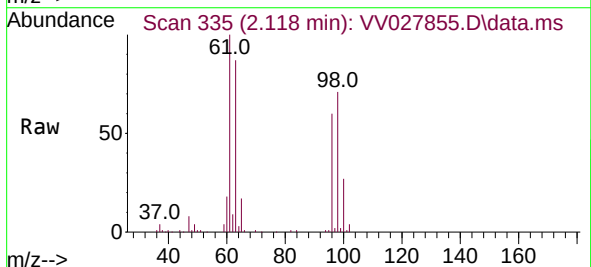
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 EXZ04

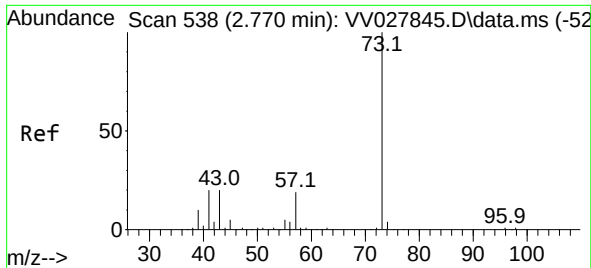
Tgt Ion:101 Resp: 1736  
 Ion Ratio Lower Upper  
 101 100  
 103 68.0 52.3 78.5



#12  
 1,1-Dichloroethene  
 Concen: 3.953 ug/L  
 RT: 2.118 min Scan# 335  
 Delta R.T. 0.013 min  
 Lab File: VV027855.D  
 Acq: 15 Sep 2022 15:02

Tgt Ion: 96 Resp: 34727  
 Ion Ratio Lower Upper  
 96 100  
 61 165.6 129.9 241.3  
 63 144.1 94.6 175.8

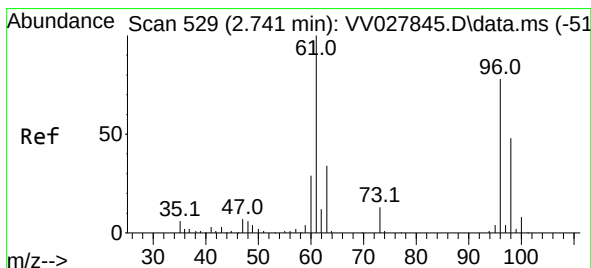
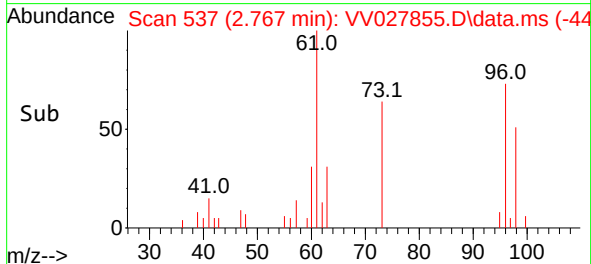
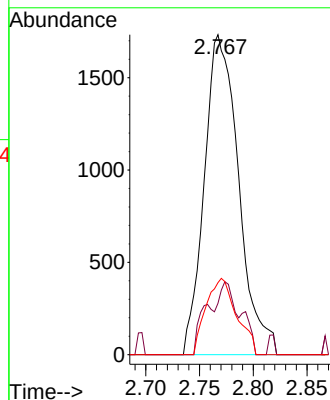
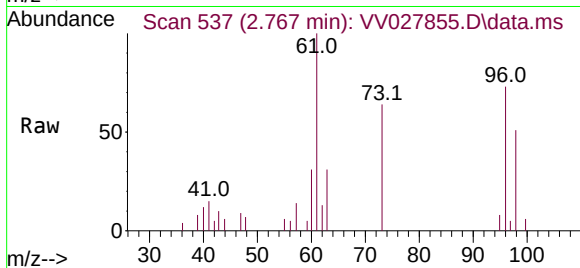




#17  
Methyl tert-butyl Ether  
Concen: 0.185 ug/L  
RT: 2.767 min Scan# 51  
Delta R.T. -0.003 min  
Lab File: VV027855.D  
Acq: 15 Sep 2022 15:02

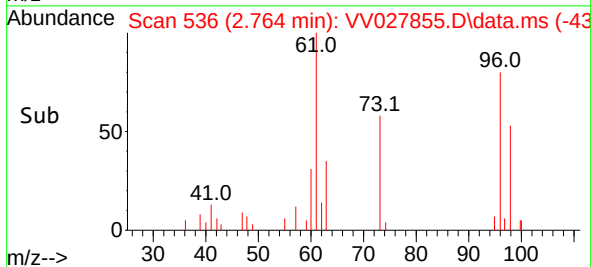
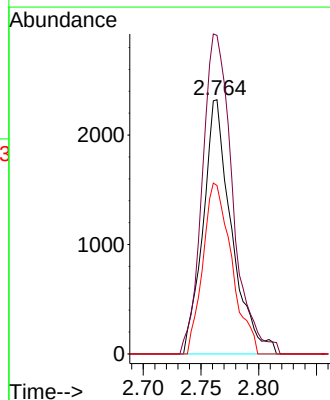
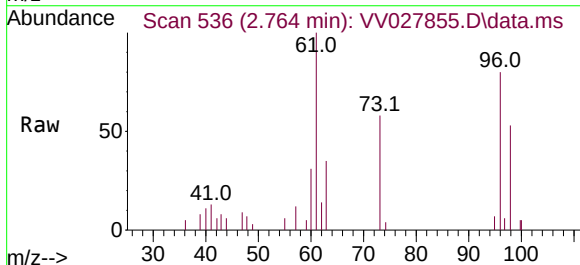
Instrument :  
MSVOA\_V  
ClientSampleId :  
EXZ04

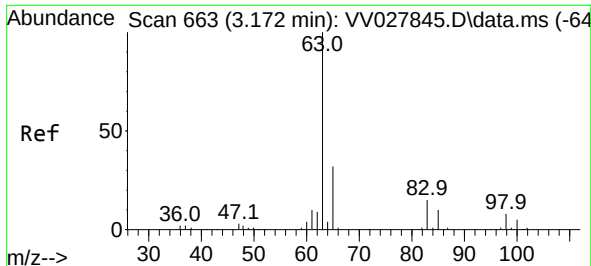
Tgt Ion: 73 Resp: 3851  
Ion Ratio Lower Upper  
73 100  
43 5.5 17.5 26.3#  
57 21.2 16.9 25.3



#18  
trans-1,2-Dichloroethene  
Concen: 0.429 ug/L  
RT: 2.764 min Scan# 536  
Delta R.T. 0.023 min  
Lab File: VV027855.D  
Acq: 15 Sep 2022 15:02

Tgt Ion: 96 Resp: 3981  
Ion Ratio Lower Upper  
96 100  
61 125.3 102.6 190.5  
98 66.3 44.0 81.8





#19

1,1-Dichloroethane

Concen: 14.149 ug/L

RT: 3.188 min Scan# 6

Delta R.T. 0.016 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

Instrument :

MSVOA\_V

ClientSampleId :

EXZ04

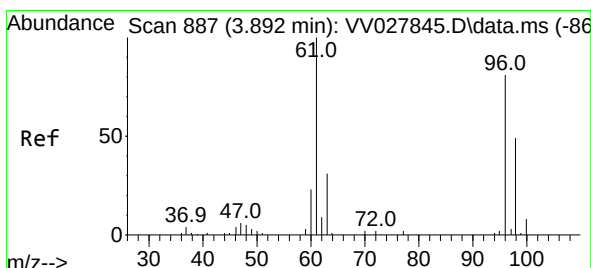
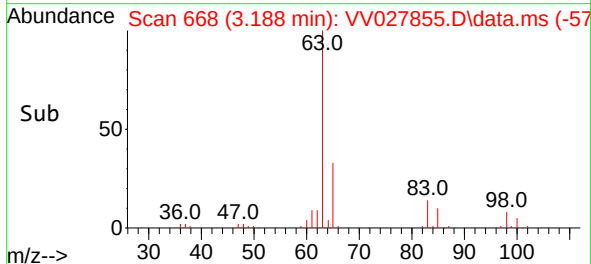
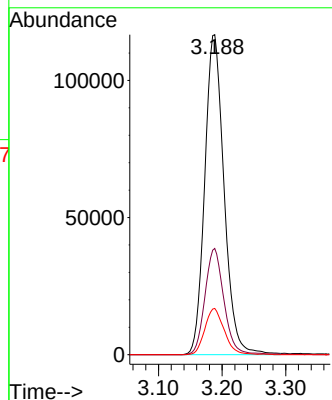
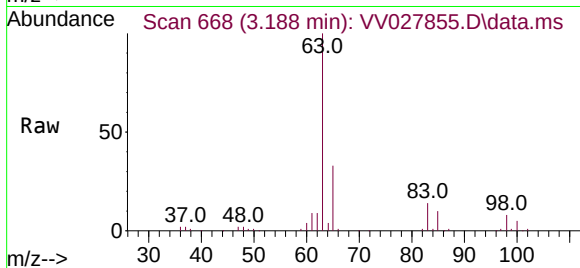
Tgt Ion: 63 Resp: 246302

Ion Ratio Lower Upper

63 100

65 33.2 22.0 41.0

83 14.4 10.1 18.9



#22

cis-1,2-Dichloroethene

Concen: 3.821 ug/L

RT: 3.909 min Scan# 892

Delta R.T. 0.016 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

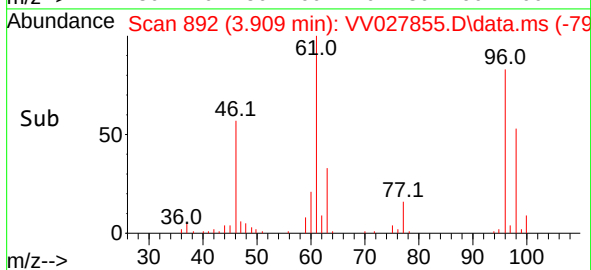
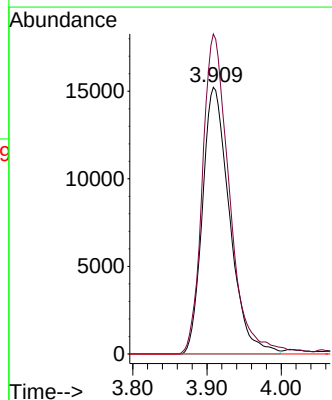
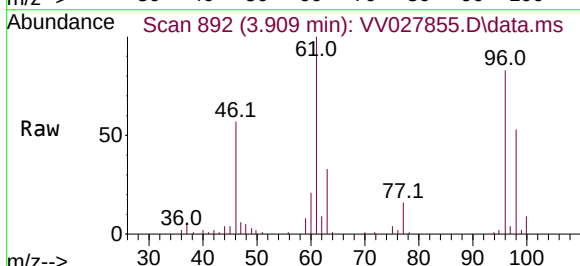
Tgt Ion: 96 Resp: 38629

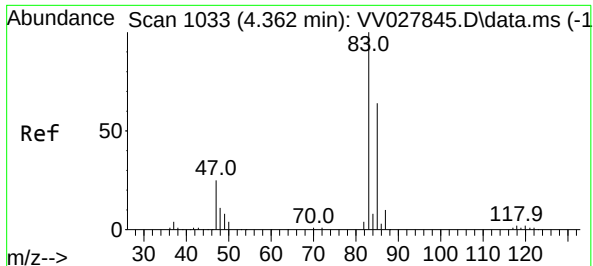
Ion Ratio Lower Upper

96 100

61 120.0 94.6 175.6

68 0.0 0.3 0.5





#25

Chloroform

Concen: 0.565 ug/L

RT: 4.381 min Scan# 1109

Delta R.T. 0.019 min

Lab File: VV027855.D

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ClientSampleId :

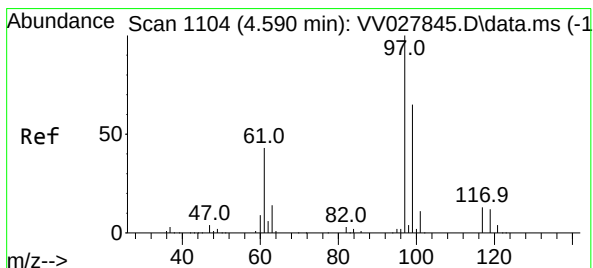
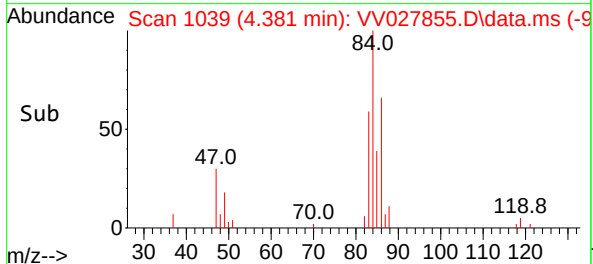
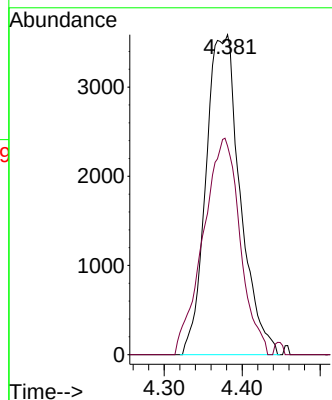
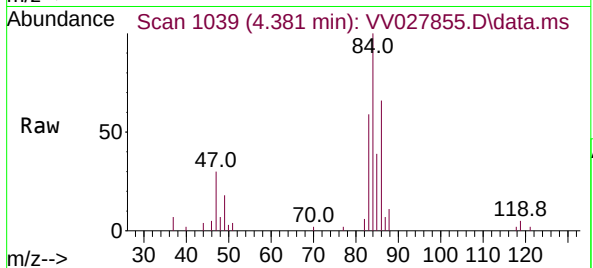
EXZ04

Tgt Ion: 83 Resp: 10916

Ion Ratio Lower Upper

83 100

85 65.2 45.4 84.2



#29

1,1,1-Trichloroethane

Concen: 59.620 ug/L

RT: 4.603 min Scan# 1108

Delta R.T. 0.013 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

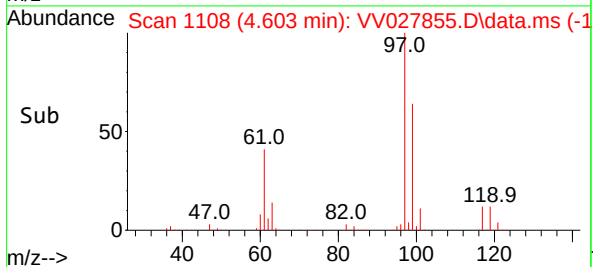
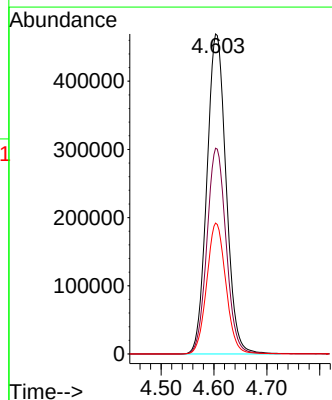
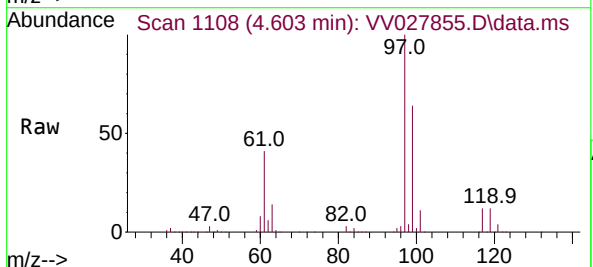
Tgt Ion: 97 Resp: 1184971

Ion Ratio Lower Upper

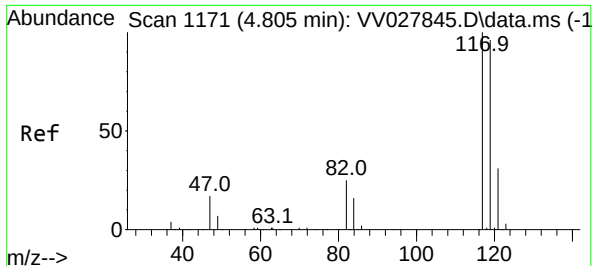
97 100

99 64.5 50.8 76.2

61 40.8 36.2 54.4



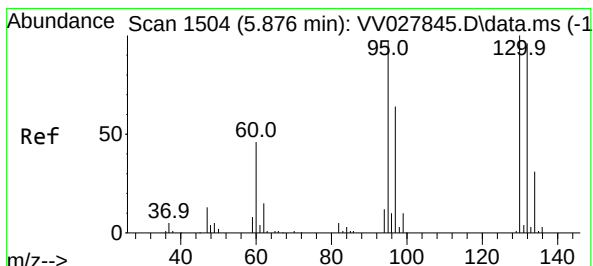
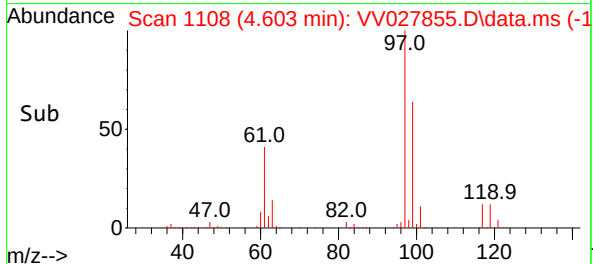
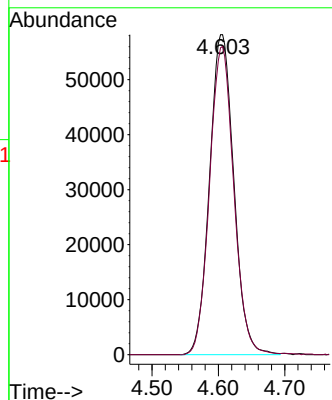
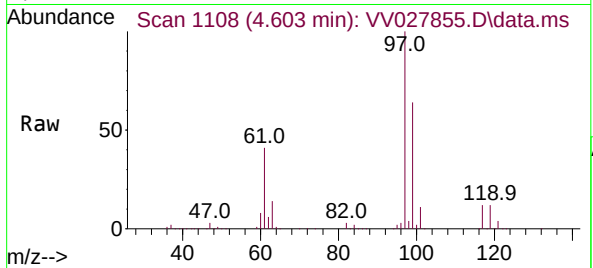




#31  
Carbon tetrachloride  
Concen: 8.766 ug/L  
RT: 4.603 min Scan# 1171  
Delta R.T. -0.202 min  
Lab File: VV027855.D  
Acq: 15 Sep 2022 15:02

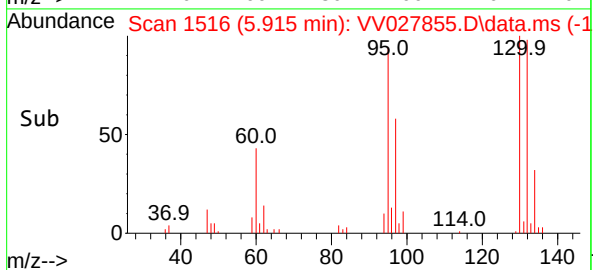
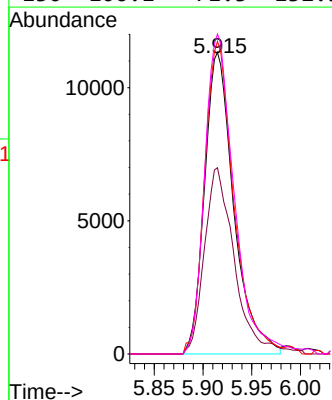
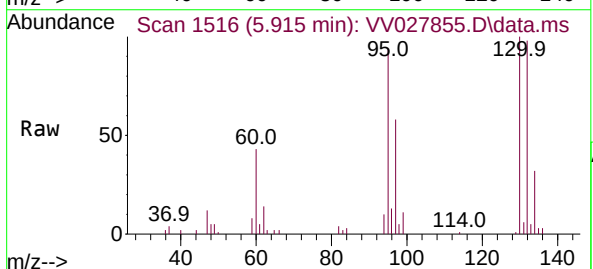
Instrument :  
MSVOA\_V  
ClientSampleId :  
EXZ04

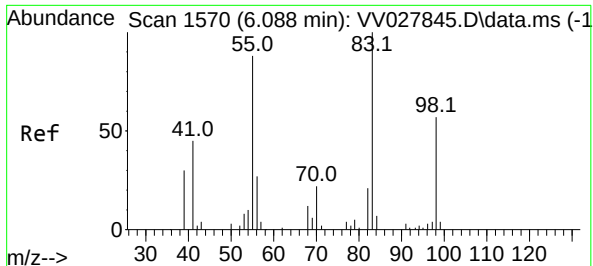
Tgt Ion:117 Resp: 148037  
Ion Ratio Lower Upper  
117 100  
119 96.0 75.8 113.8



#34  
Trichloroethene  
Concen: 2.209 ug/L  
RT: 5.915 min Scan# 1516  
Delta R.T. 0.039 min  
Lab File: VV027855.D  
Acq: 15 Sep 2022 15:02

Tgt Ion: 95 Resp: 23595  
Ion Ratio Lower Upper  
95 100  
97 61.7 42.9 79.7  
132 103.6 67.9 126.1  
130 106.1 71.3 132.3

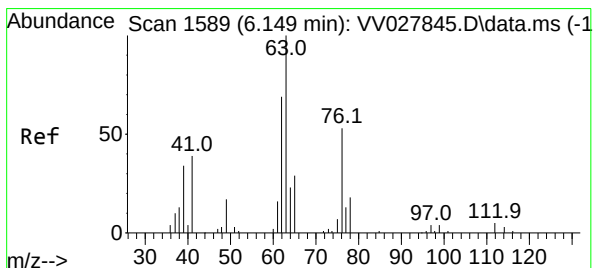
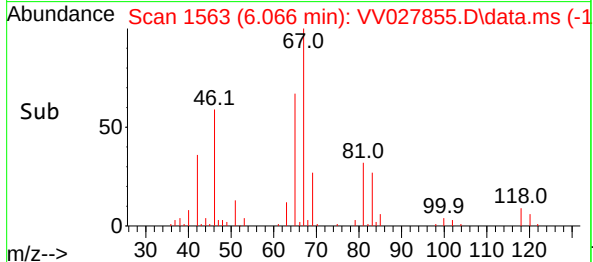
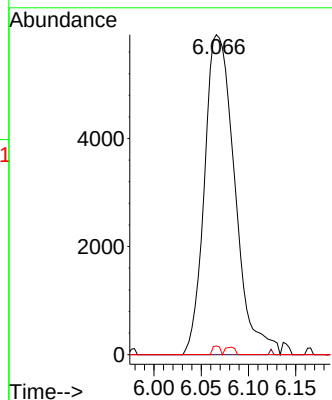
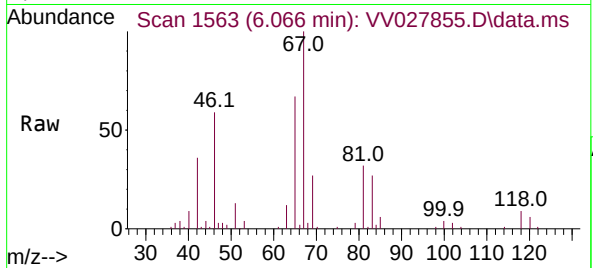




#35  
Methylcyclohexane  
Concen: 0.805 ug/L  
RT: 6.066 min Scan# 1563  
Delta R.T. -0.022 min  
Lab File: VV027855.D  
Acq: 15 Sep 2022 15:02

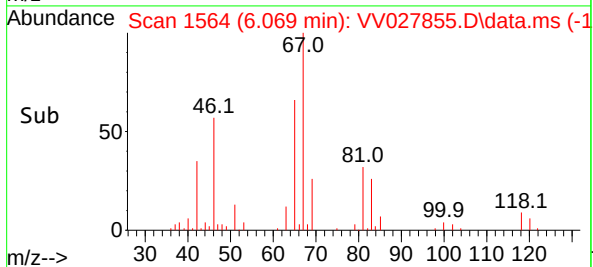
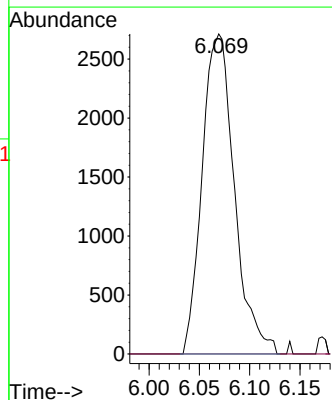
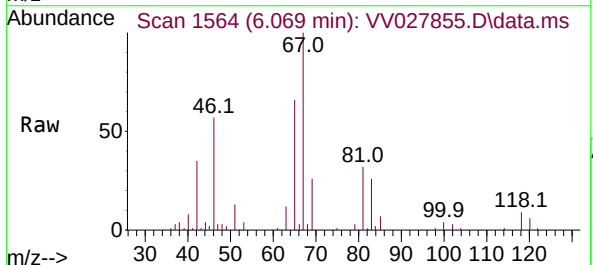
Instrument :  
MSVOA\_V  
ClientSampleId :  
EXZ04

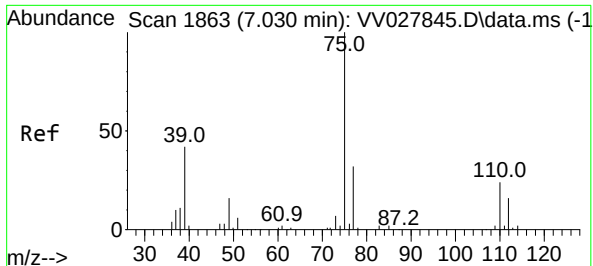
Tgt Ion: 83 Resp: 13199  
Ion Ratio Lower Upper  
83 100  
55 0.0 61.9 92.9#  
98 0.7 37.5 56.3#



#37  
1,2-Dichloropropane  
Concen: 0.598 ug/L  
RT: 6.069 min Scan# 1564  
Delta R.T. -0.080 min  
Lab File: VV027855.D  
Acq: 15 Sep 2022 15:02

Tgt Ion: 63 Resp: 6054  
Ion Ratio Lower Upper  
63 100  
112 0.0 4.0 6.0#





#39

cis-1,3-Dichloropropene

Concen: 0.082 ug/L

RT: 6.986 min Scan# 1116

Delta R.T. -0.045 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

Instrument :

MSVOA\_V

ClientSampleId :

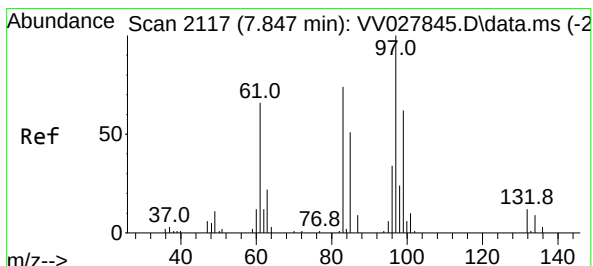
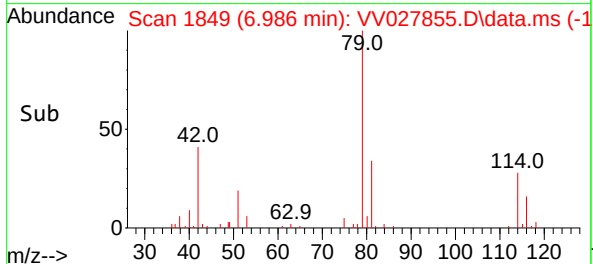
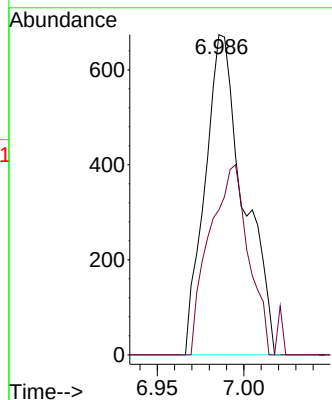
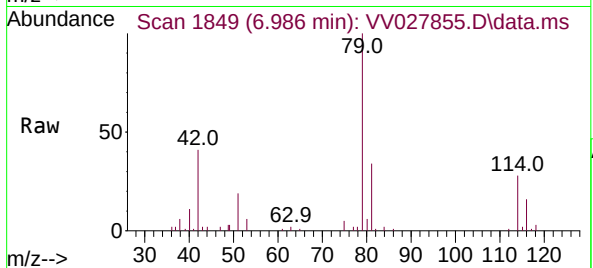
EXZ04

Tgt Ion: 75 Resp: 1050

Ion Ratio Lower Upper

75 100

77 45.3 22.0 40.8#



#45

1,1,2-Trichloroethane

Concen: 0.083 ug/L

RT: 7.844 min Scan# 2116

Delta R.T. -0.003 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

Tgt Ion: 97 Resp: 544

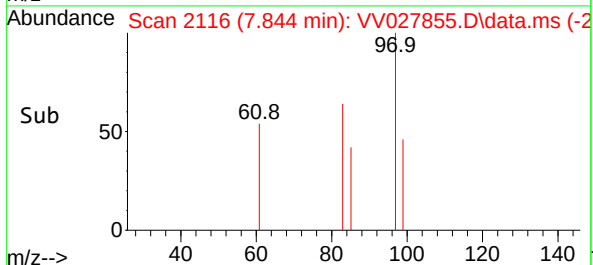
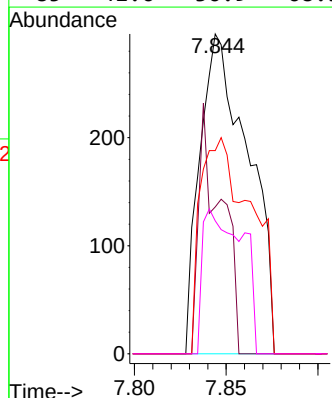
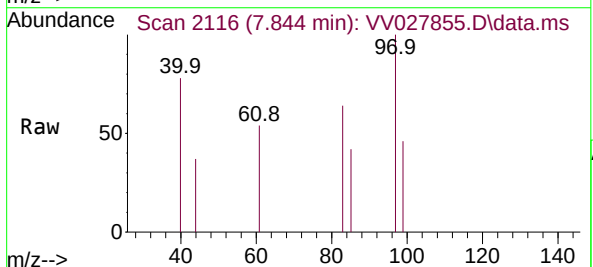
Ion Ratio Lower Upper

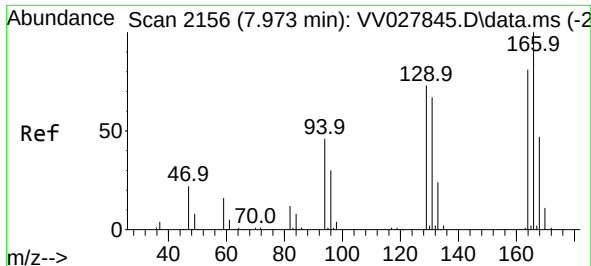
97 100

99 45.9 44.2 82.0

83 63.5 60.3 112.1

85 41.6 36.9 68.5





#47

Tetrachloroethene

Concen: 4.655 ug/L

RT: 7.973 min Scan# 2156

Delta R.T. 0.000 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

Instrument :

MSVOA\_V

ClientSampleId :

EXZ04

Tgt Ion:164 Resp: 39908

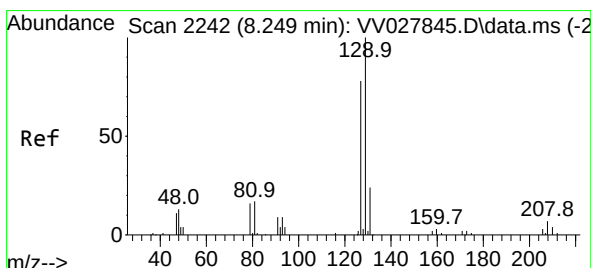
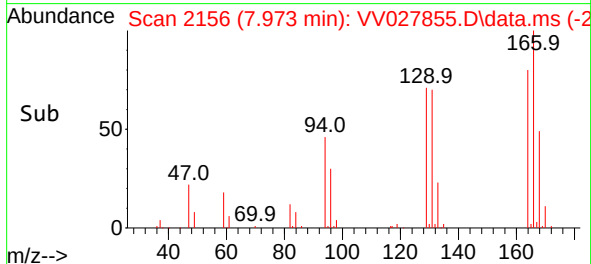
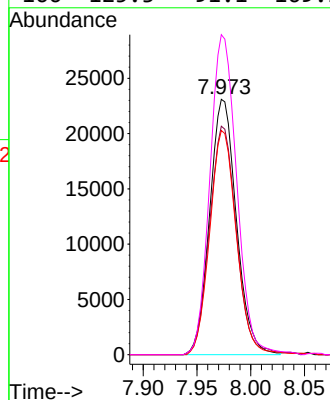
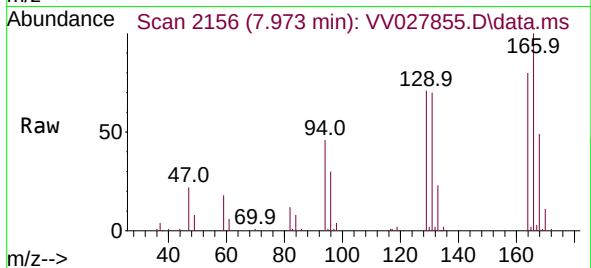
Ion Ratio Lower Upper

164 100

129 89.5 67.2 124.8

131 87.7 61.5 114.3

166 125.3 91.1 169.3



#49

Dibromochloromethane

Concen: 4.032 ug/L

RT: 7.973 min Scan# 2156

Delta R.T. -0.276 min

Lab File: VV027855.D

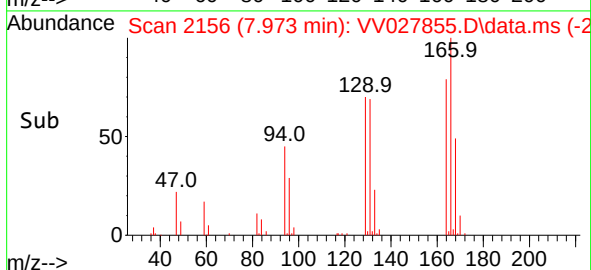
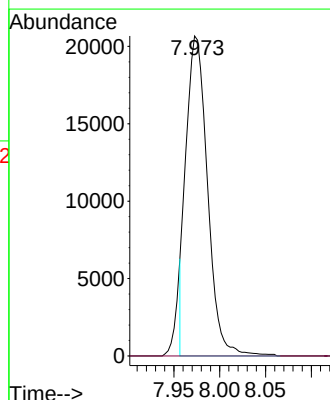
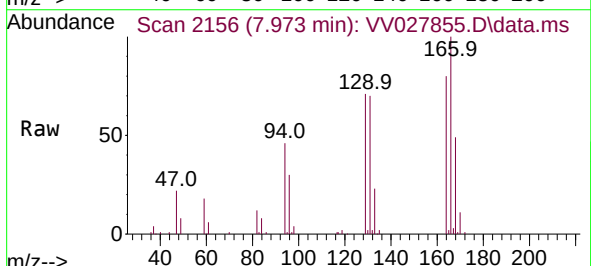
Acq: 15 Sep 2022 15:02

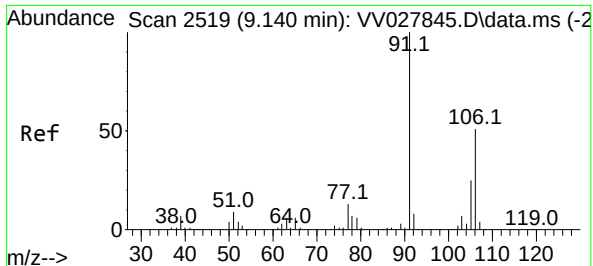
Tgt Ion:129 Resp: 33589

Ion Ratio Lower Upper

129 100

127 0.0 55.2 102.6#





#53

m,p-Xylene

Concen: 0.043 ug/L

RT: 9.153 min Scan# 21

Delta R.T. 0.013 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

Instrument :

MSVOA\_V

ClientSampleId :

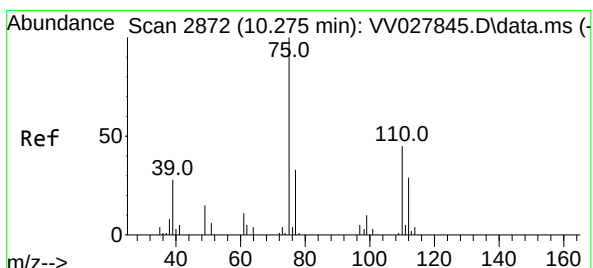
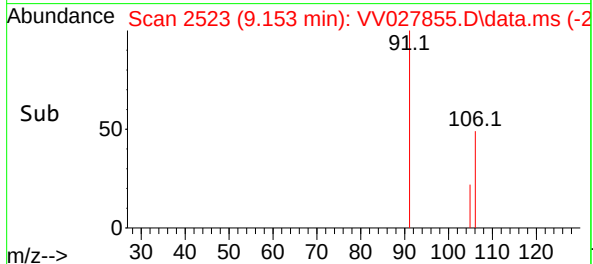
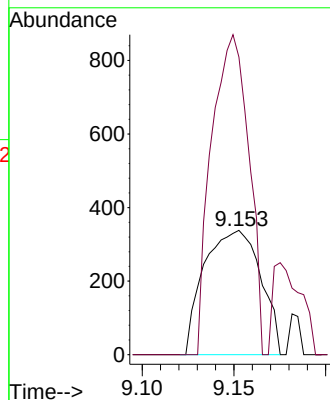
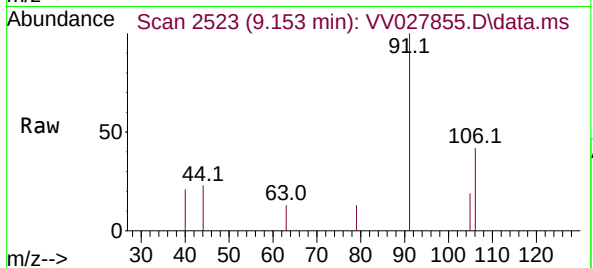
EXZ04

Tgt Ion:106 Resp: 725

Ion Ratio Lower Upper

106 100

91 239.3 142.4 264.4



#61

1,2,3-Trichloropropane

Concen: 1.144 ug/L

RT: 11.246 min Scan# 3174

Delta R.T. 0.971 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

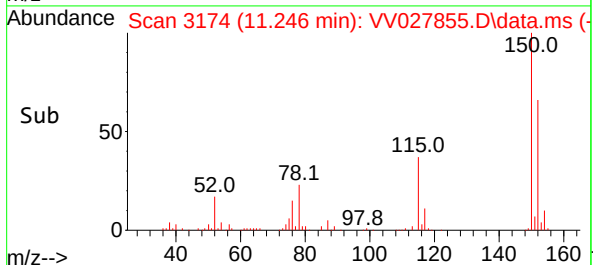
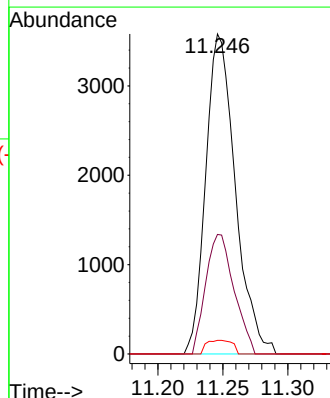
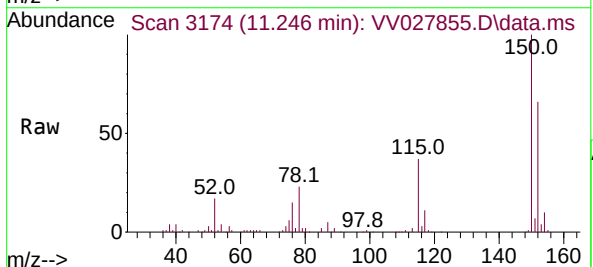
Tgt Ion: 75 Resp: 5674

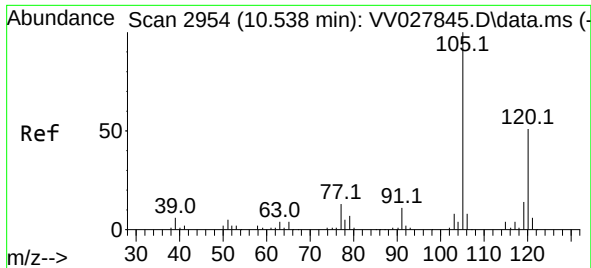
Ion Ratio Lower Upper

75 100

77 35.6 27.6 41.4

110 3.7 35.6 53.4#





#62

1,3,5-Trimethylbenzene

Concen: 0.065 ug/L

RT: 10.538 min Scan# 2954

Delta R.T. 0.000 min

Lab File: VV027855.D

Acq: 15 Sep 2022 15:02

Instrument :

MSVOA\_V

ClientSampleId :

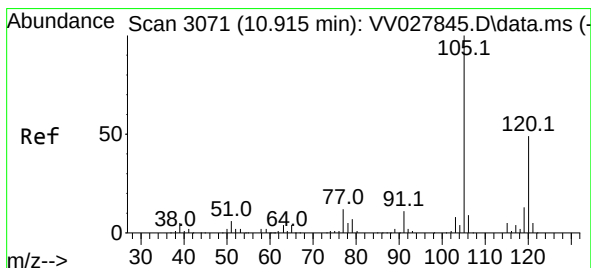
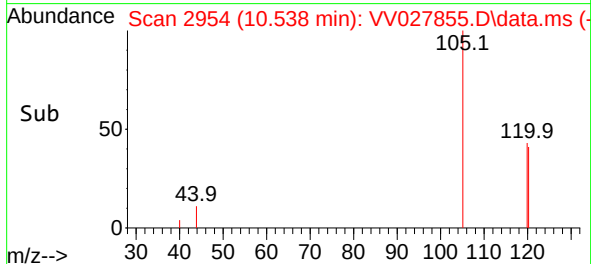
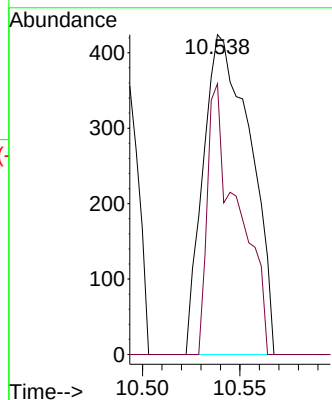
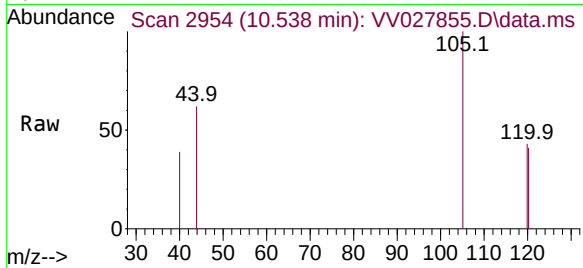
EXZ04

Tgt Ion:105 Resp: 715

Ion Ratio Lower Upper

105 100

120 55.1 39.6 59.4



#63

1,2,4-Trimethylbenzene

Concen: 0.090 ug/L

RT: 10.921 min Scan# 3073

Delta R.T. 0.007 min

Lab File: VV027855.D

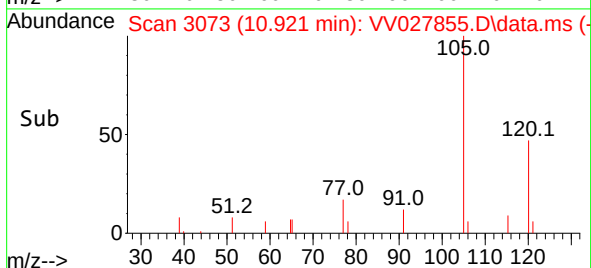
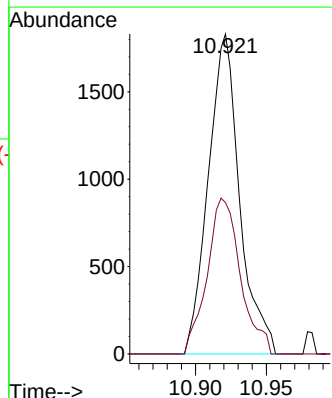
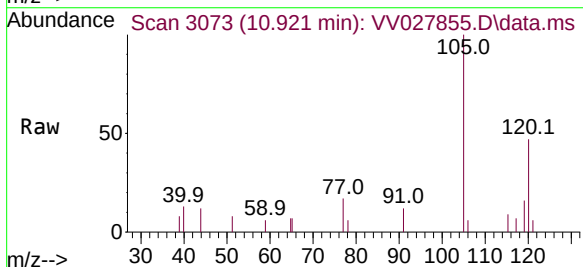
Acq: 15 Sep 2022 15:02

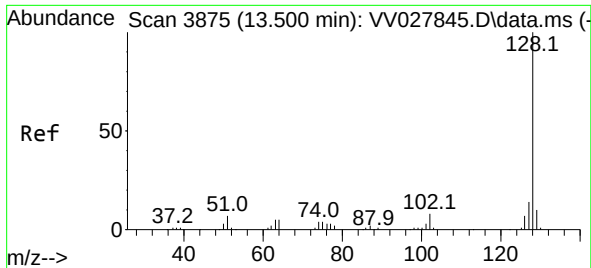
Tgt Ion:105 Resp: 2813

Ion Ratio Lower Upper

105 100

120 51.9 37.4 56.0





#71

Naphthalene

Concen: 0.215 ug/L

RT: 13.509 min Scan# 3878

Delta R.T. 0.010 min

Lab File: VV027855.D

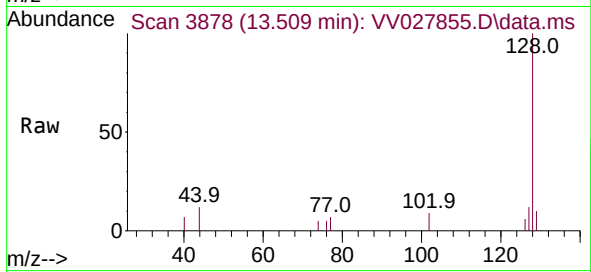
Acq: 15 Sep 2022 15:02

Instrument :

MSVOA\_V

ClientSampleId :

EXZ04



Tgt Ion:128 Resp: 4018

Ion Ratio Lower Upper

128 100

129 2.4 9.2 13.8#

127 12.2 10.6 16.0

