

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX052323\  
 Data File : VX035813.D  
 Acq On : 23 May 2023 14:57  
 Operator : JC/MD  
 Sample : 02824-01 5X  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 EFF-WW

Quant Time: May 24 05:48:55 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X052323W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue May 23 11:36:37 2023  
 Response via : Initial Calibration

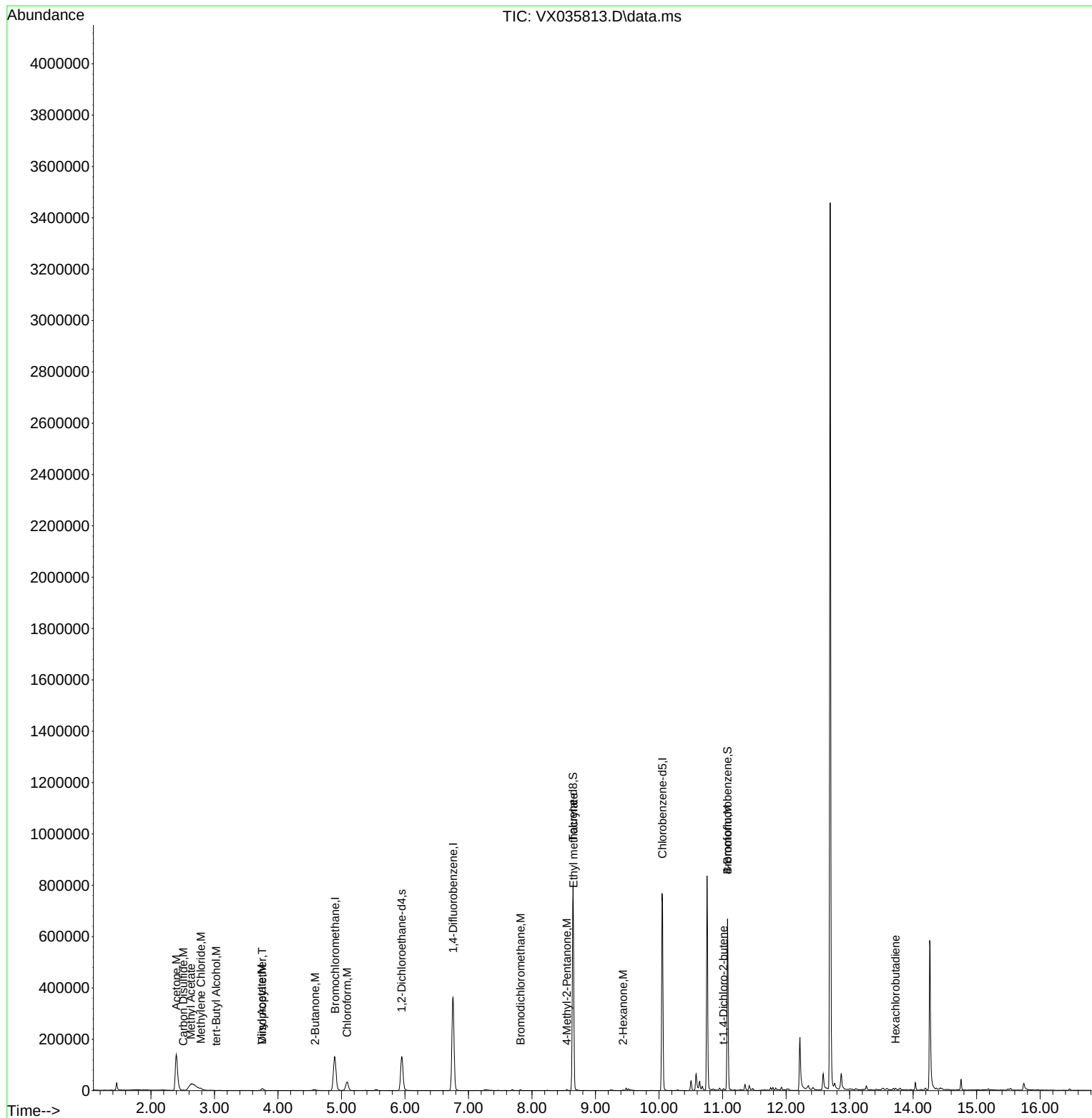
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 4.897  | 128   | 53531    | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene     | 6.757  | 114   | 369073   | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5        | 10.055 | 117   | 341958   | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4   | 5.946  | 65    | 126709   | 28.488   | ug/l   | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 110 | Recovery | =      | 94.967%  |
| 60) 4-Bromofluorobenzene    | 11.079 | 95    | 166025   | 28.934   | ug/l   | 0.00     |
| Spiked Amount               | 30.000 | Range | 63 - 112 | Recovery | =      | 96.433%  |
| 63) Toluene-d8              | 8.647  | 98    | 456348   | 30.187   | ug/l   | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 112 | Recovery | =      | 100.633% |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 12) Methyl Acetate          | 2.629  | 43    | 15816    | 2.086    | ug/l # | 53       |
| 15) Acetone                 | 2.398  | 58    | 70943    | 124.781  | ug/l   | 93       |
| 16) Carbon Disulfide        | 2.508  | 76    | 1869     | 0.321    | ug/l   | 99       |
| 18) Methylene Chloride      | 2.788  | 84    | 1872     | 0.536    | ug/l # | 83       |
| 20) Diisopropyl ether       | 3.751  | 45    | 8439     | 0.722    | ug/l # | 68       |
| 23) tert-Butyl Alcohol      | 3.026  | 59    | 169      | 0.244    | ug/l # | 100      |
| 25) Chloroform              | 5.086  | 83    | 37983    | 6.043    | ug/l   | 94       |
| 30) 2-Butanone              | 4.586  | 43    | 1006     | 0.299    | ug/l # | 71       |
| 41) Bromodichloromethane    | 7.818  | 83    | 1992     | 0.373    | ug/l # | 97       |
| 42) Vinyl Acetate           | 3.745  | 43    | 2283     | 0.231    | ug/l # | 76       |
| 51) Ethyl methacrylate      | 8.653  | 69    | 1377     | 0.212    | ug/l   | 81       |
| 56) Bromoform               | 11.079 | 173   | 1233     | 0.491    | ug/l # | 1        |
| 58) 4-Methyl-2-Pentanone    | 8.549  | 43    | 1625     | 0.245    | ug/l # | 49       |
| 59) 2-Hexanone              | 9.433  | 43    | 1418     | 0.284    | ug/l   | 94       |
| 77) t-1,4-Dichloro-2-butene | 11.012 | 75    | 2888     | 1.631    | ug/l # | 4        |
| 90) Hexachlorobutadiene     | 13.725 | 225   | 616      | 0.325    | ug/l   | 70       |
| -----                       |        |       |          |          |        |          |

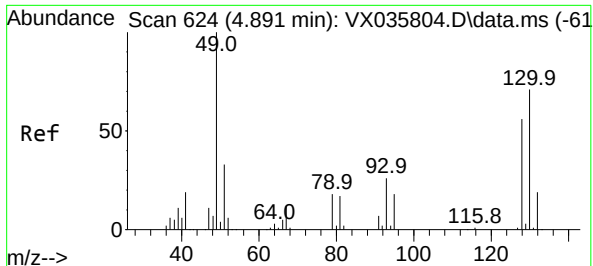
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX052323\  
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Sample : 02824-01 5X  
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Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

Quant Time: May 24 05:48:55 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X052323W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Tue May 23 11:36:37 2023  
Response via : Initial Calibration

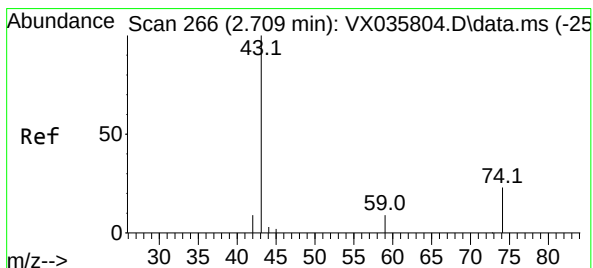
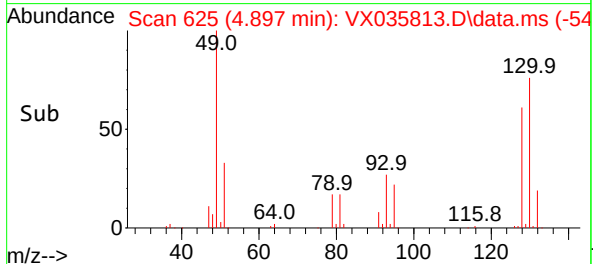
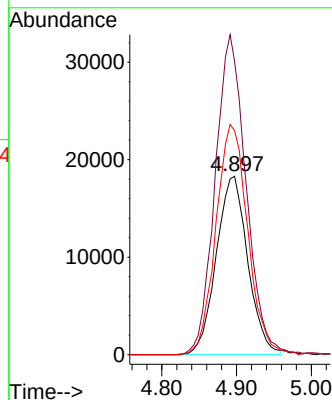
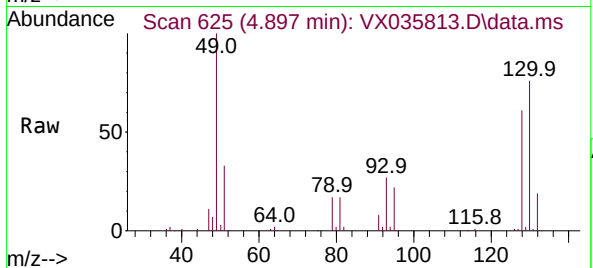




#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 4.897 min Scan# 61  
Delta R.T. 0.006 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

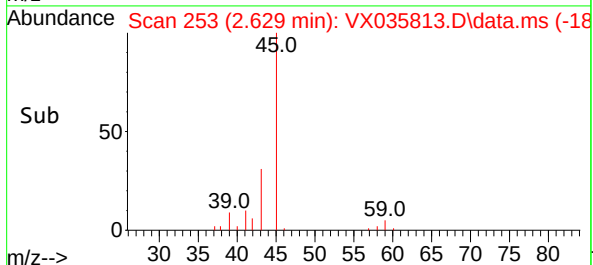
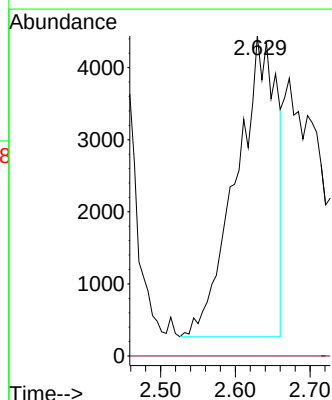
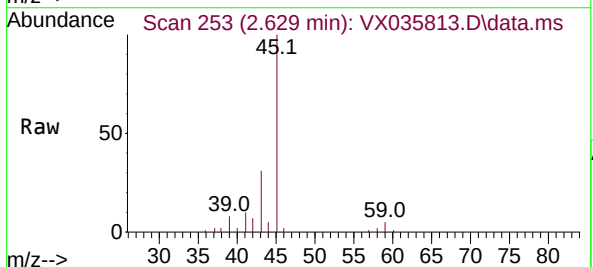
Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

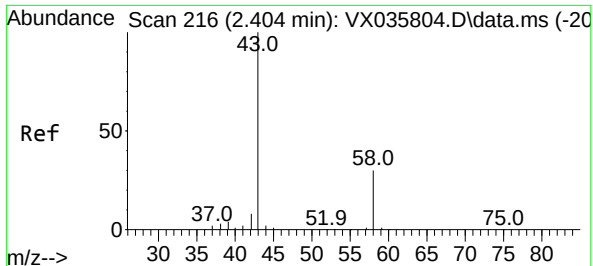
Tgt Ion:128 Resp: 53531  
Ion Ratio Lower Upper  
128 100  
49 176.0 0.0 428.8  
130 130.6 0.0 310.8



#12  
Methyl Acetate  
Concen: 2.086 ug/l  
RT: 2.629 min Scan# 253  
Delta R.T. -0.079 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Tgt Ion: 43 Resp: 15816  
Ion Ratio Lower Upper  
43 100  
74 0.0 18.0 27.0#





#15

Acetone

Concen: 124.781 ug/l

RT: 2.398 min Scan# 21

Delta R.T. -0.006 min

Lab File: VX035813.D

Acq: 23 May 2023 14:57

Instrument :

MSVOA\_X

ClientSampleId :

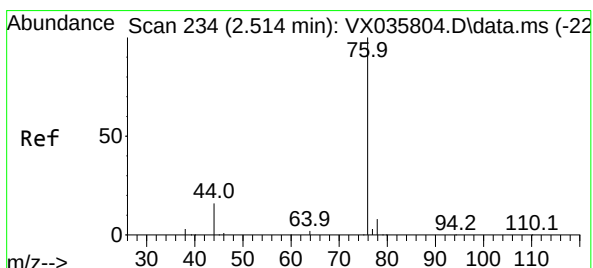
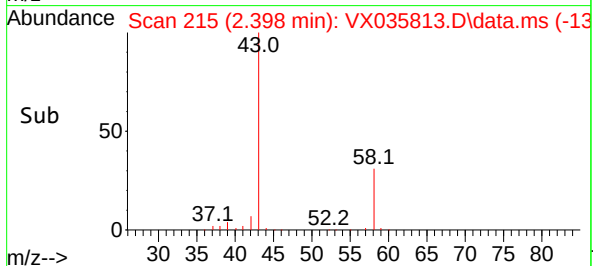
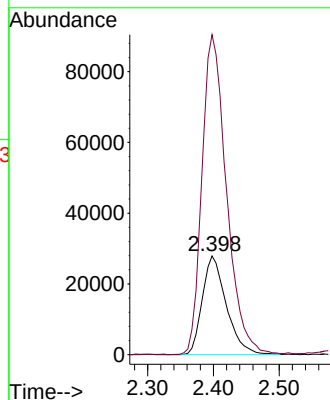
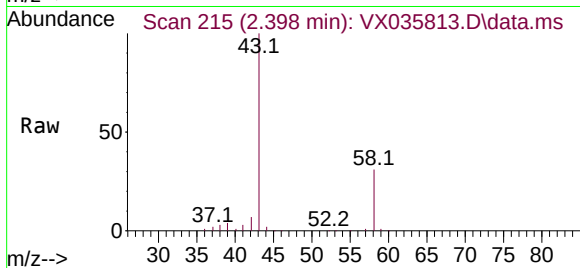
EFF-WW

Tgt Ion: 58 Resp: 70943

Ion Ratio Lower Upper

58 100

43 323.8 270.8 406.2



#16

Carbon Disulfide

Concen: 0.321 ug/l

RT: 2.508 min Scan# 233

Delta R.T. -0.006 min

Lab File: VX035813.D

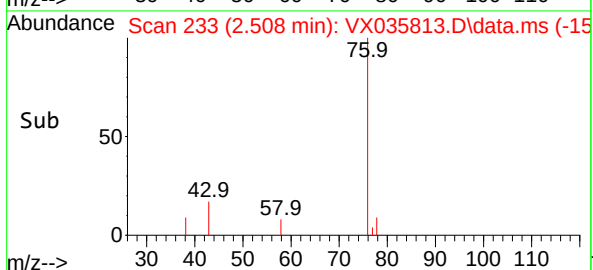
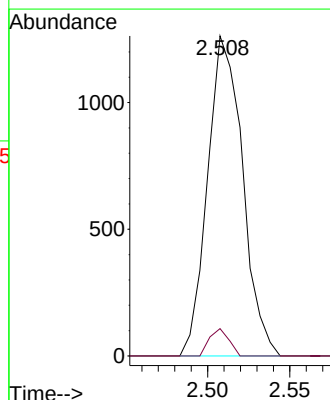
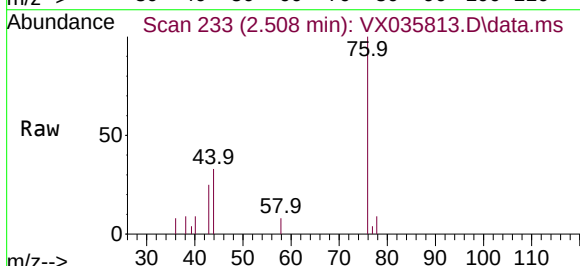
Acq: 23 May 2023 14:57

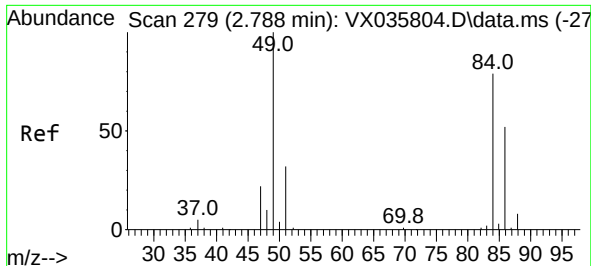
Tgt Ion: 76 Resp: 1869

Ion Ratio Lower Upper

76 100

78 8.6 7.0 10.6





#18

Methylene Chloride

Concen: 0.536 ug/l

RT: 2.788 min Scan# 21

Delta R.T. -0.000 min

Lab File: VX035813.D

Acq: 23 May 2023 14:57

Instrument :

MSVOA\_X

ClientSampleId :

EFF-WW

Tgt Ion: 84 Resp: 1872

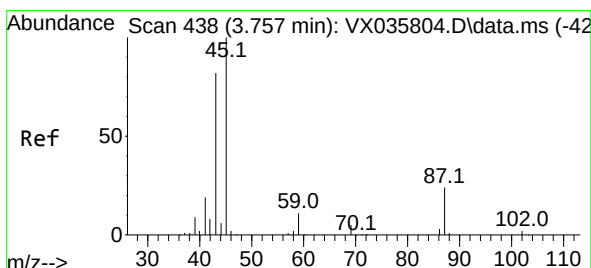
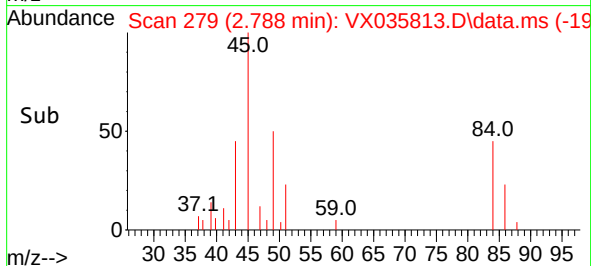
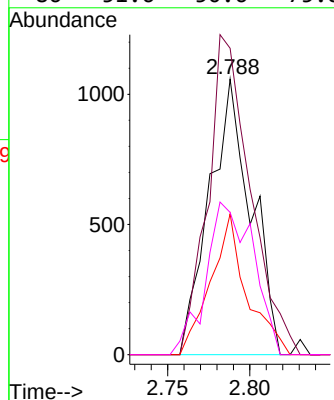
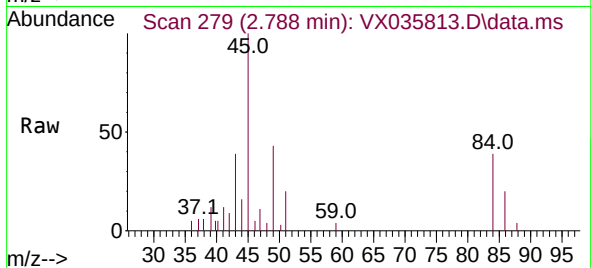
Ion Ratio Lower Upper

84 100

49 111.1 103.9 155.9

51 51.1 30.6 45.8#

86 51.6 50.6 75.8



#20

Diisopropyl ether

Concen: 0.722 ug/l

RT: 3.751 min Scan# 437

Delta R.T. -0.006 min

Lab File: VX035813.D

Acq: 23 May 2023 14:57

Tgt Ion: 45 Resp: 8439

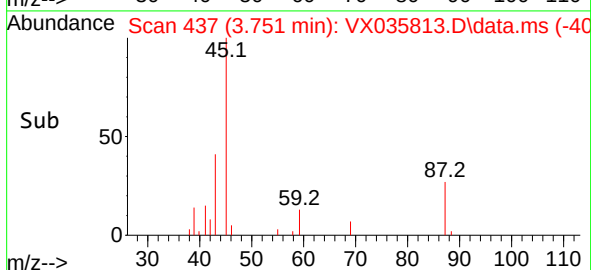
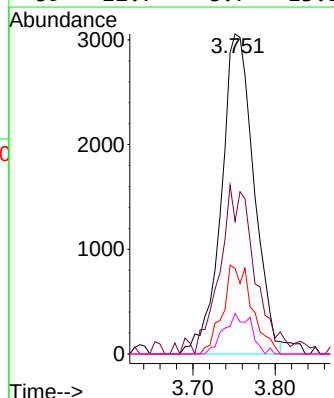
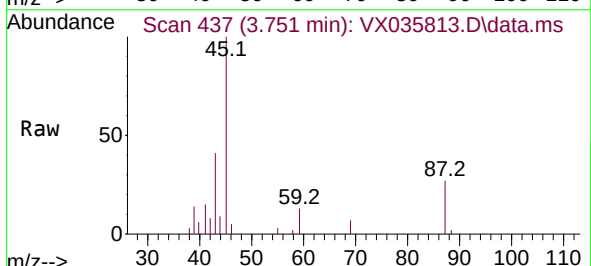
Ion Ratio Lower Upper

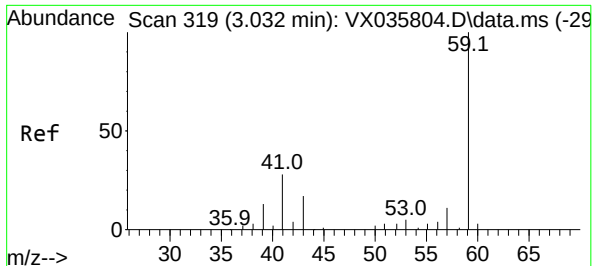
45 100

43 41.4 66.0 99.0#

87 26.7 21.8 32.6

59 12.7 8.7 13.1

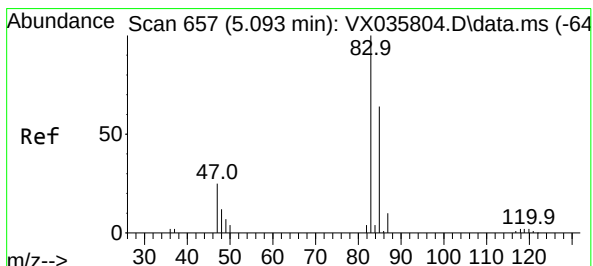
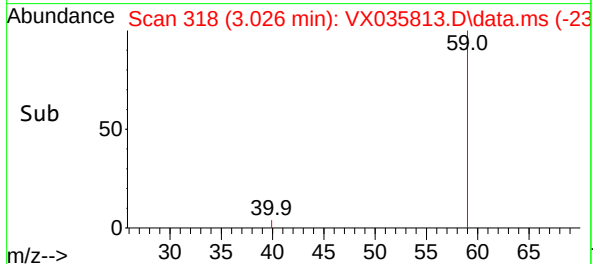
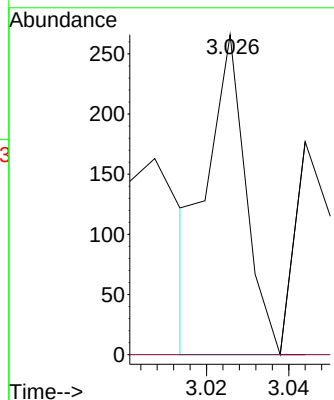
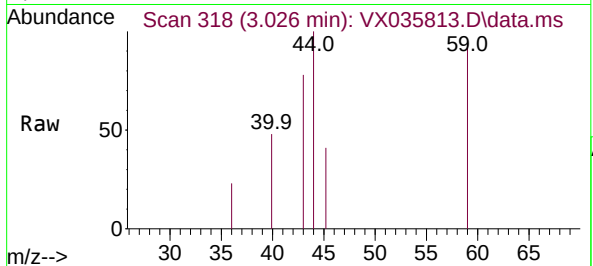




#23  
tert-Butyl Alcohol  
Concen: 0.244 ug/l  
RT: 3.026 min Scan# 319  
Delta R.T. -0.006 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

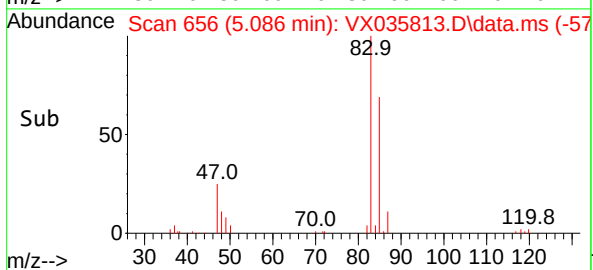
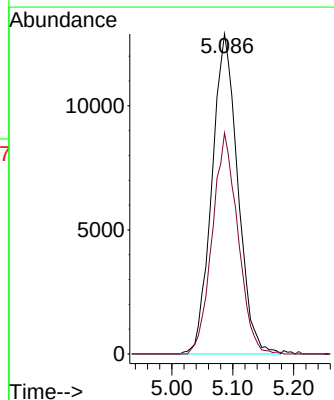
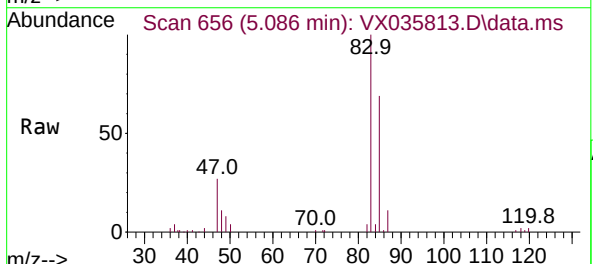
Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

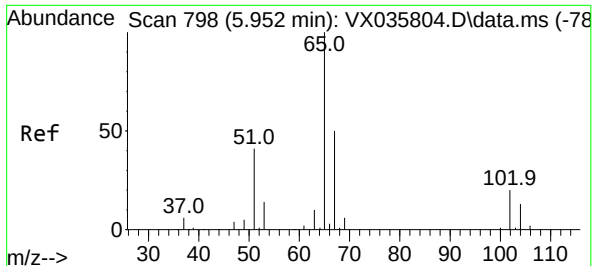
Tgt Ion: 59 Resp: 169  
Ion Ratio Lower Upper  
59 100  
52 0.0 0.2 0.4#



#25  
Chloroform  
Concen: 6.043 ug/l  
RT: 5.086 min Scan# 656  
Delta R.T. -0.006 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Tgt Ion: 83 Resp: 37983  
Ion Ratio Lower Upper  
83 100  
85 69.0 51.2 76.8





#27

1,2-Dichloroethane-d4

Concen: 28.488 ug/l

RT: 5.946 min Scan# 798

Delta R.T. -0.006 min

Lab File: VX035813.D

Acq: 23 May 2023 14:57

Instrument :

MSVOA\_X

ClientSampleId :

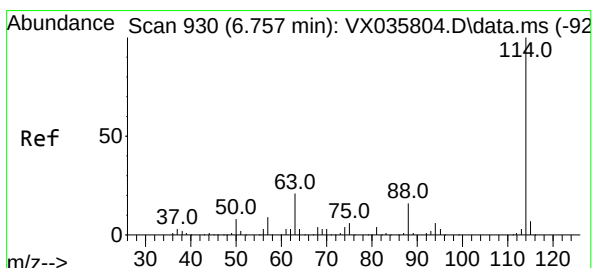
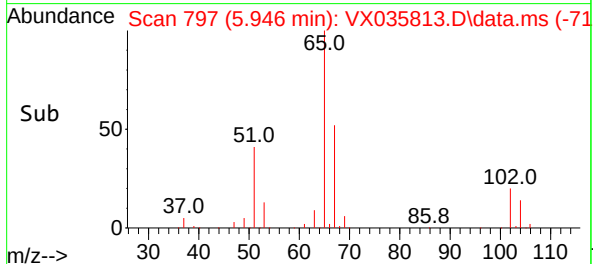
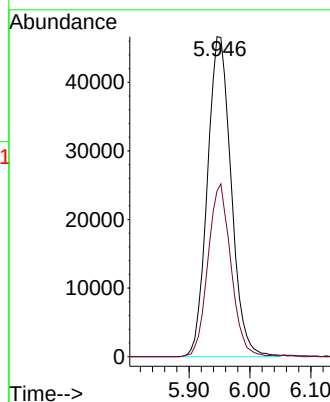
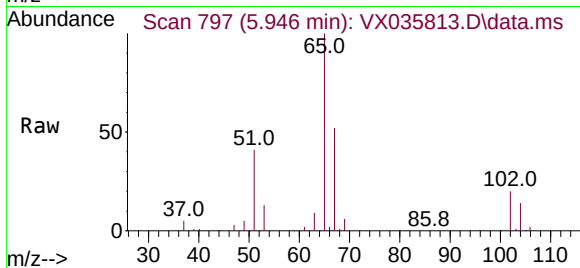
EFF-WW

Tgt Ion: 65 Resp: 126709

Ion Ratio Lower Upper

65 100

67 51.9 40.9 61.3



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.000 min

Lab File: VX035813.D

Acq: 23 May 2023 14:57

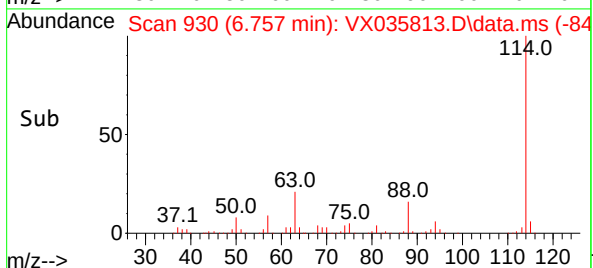
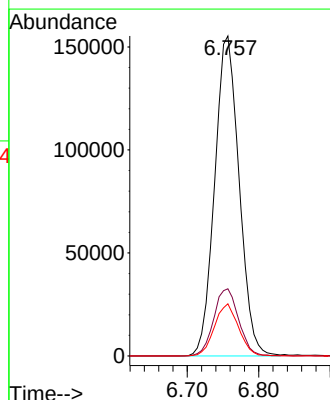
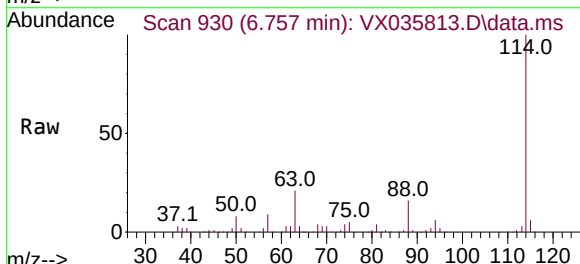
Tgt Ion: 114 Resp: 369073

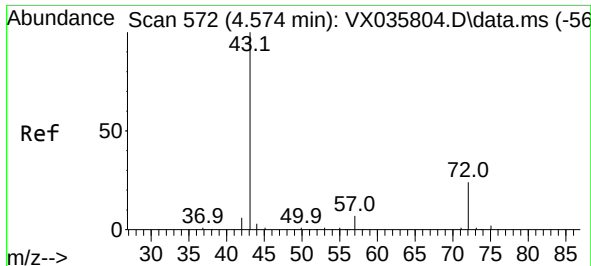
Ion Ratio Lower Upper

114 100

63 21.5 18.0 27.0

88 16.0 13.3 19.9

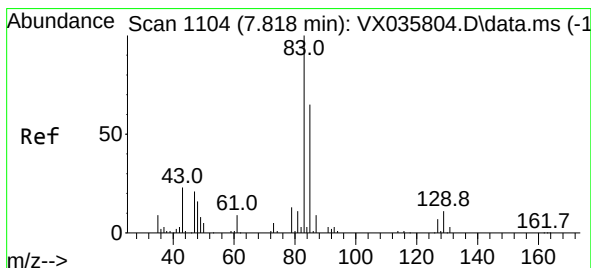
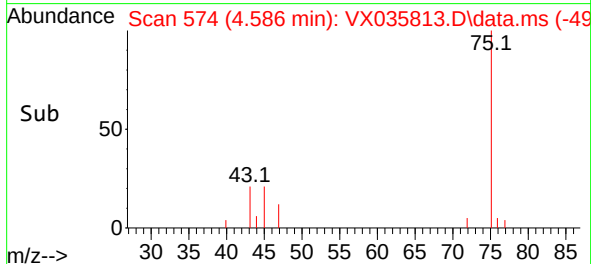
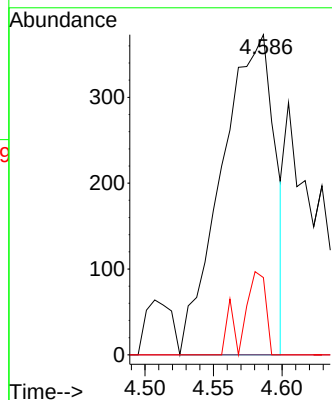
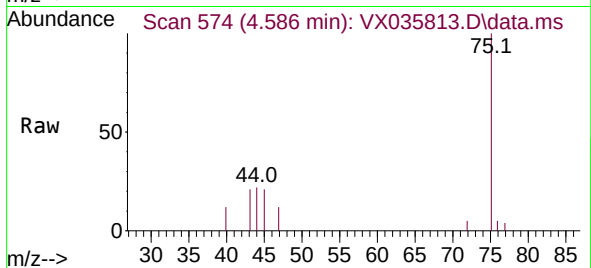




#30  
2-Butanone  
Concen: 0.299 ug/l  
RT: 4.586 min Scan# 51  
Delta R.T. 0.012 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

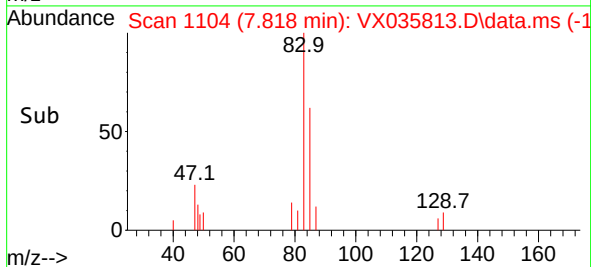
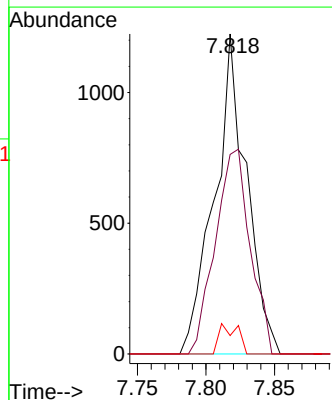
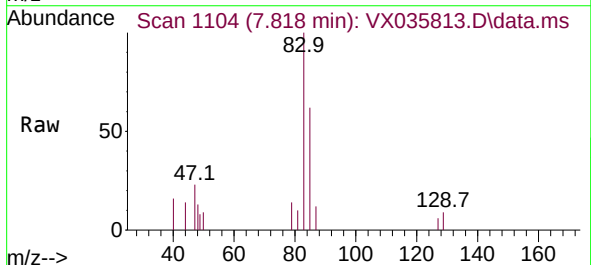
Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

Tgt Ion: 43 Resp: 1006  
Ion Ratio Lower Upper  
43 100  
57 0.0 6.3 9.5#  
72 8.8 19.6 29.4#

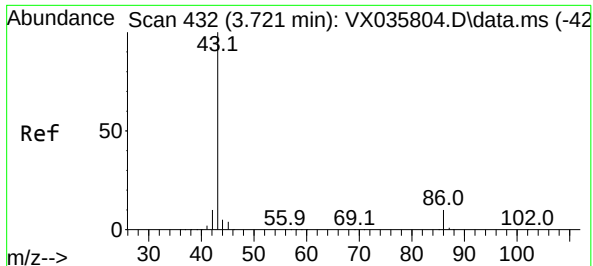


#41  
Bromodichloromethane  
Concen: 0.373 ug/l  
RT: 7.818 min Scan# 1104  
Delta R.T. -0.000 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Tgt Ion: 83 Resp: 1992  
Ion Ratio Lower Upper  
83 100  
85 62.3 51.1 76.7  
127 5.7 8.2 12.4#







#42

Vinyl Acetate

Concen: 0.231 ug/l

RT: 3.745 min Scan# 41

Delta R.T. 0.024 min

Lab File: VX035813.D

Acq: 23 May 2023 14:57

Instrument :

MSVOA\_X

ClientSampleId :

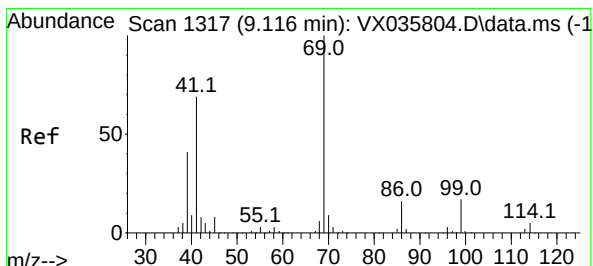
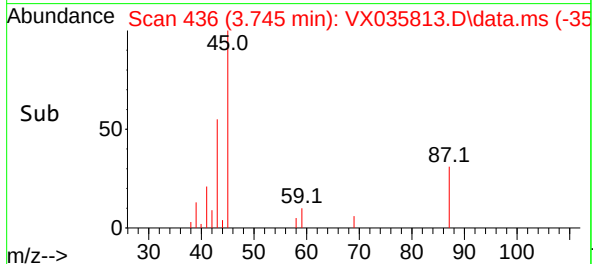
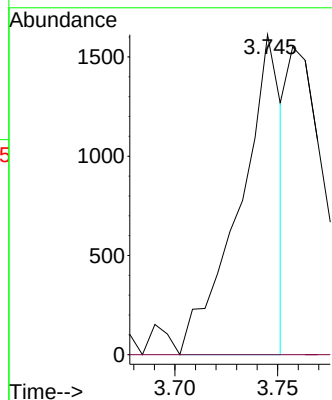
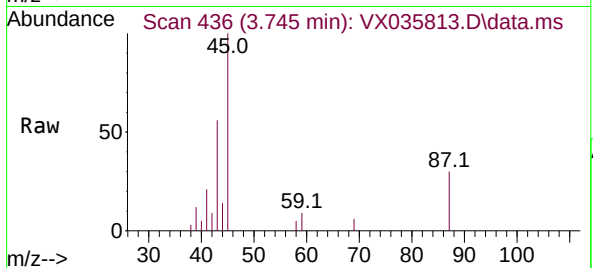
EFF-WW

Tgt Ion: 43 Resp: 2283

Ion Ratio Lower Upper

43 100

86 0.0 6.9 10.3#



#51

Ethyl methacrylate

Concen: 0.212 ug/l

RT: 8.653 min Scan# 1241

Delta R.T. -0.463 min

Lab File: VX035813.D

Acq: 23 May 2023 14:57

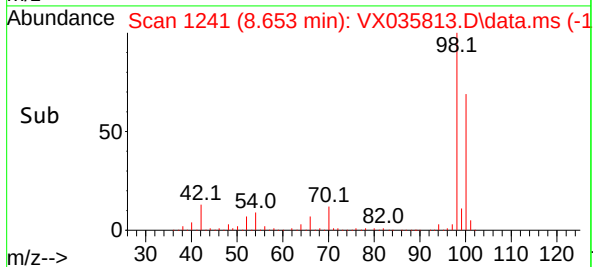
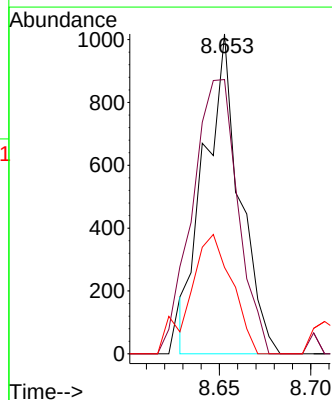
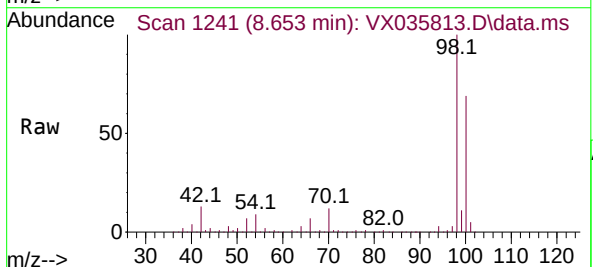
Tgt Ion: 69 Resp: 1377

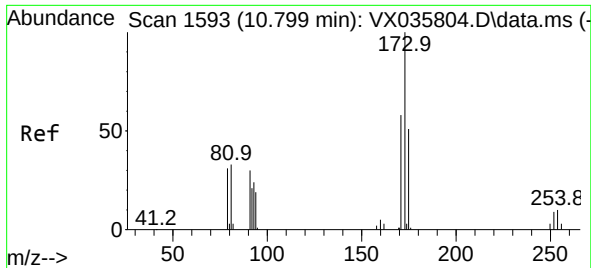
Ion Ratio Lower Upper

69 100

41 85.8 36.2 108.6

39 27.0 21.2 63.6

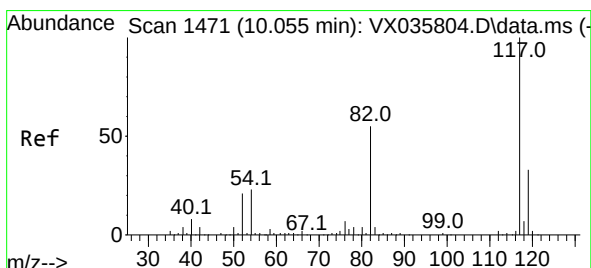
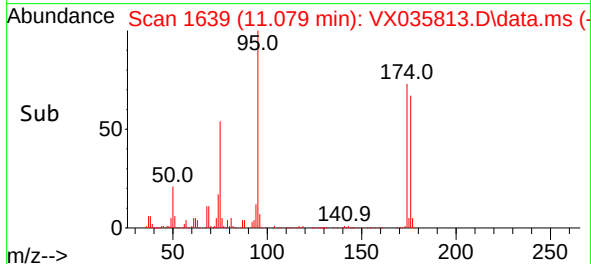
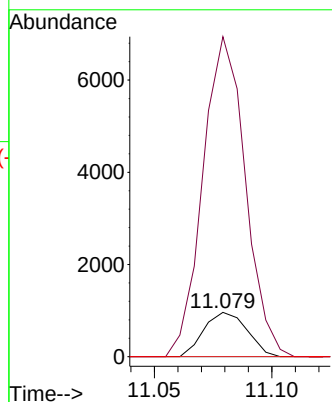
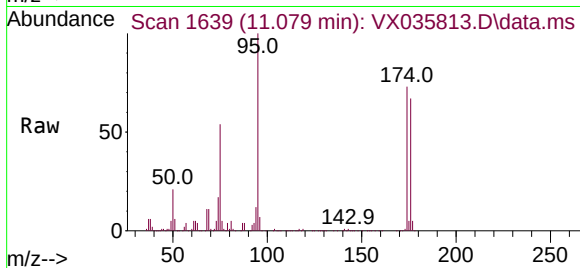




#56  
Bromoform  
Concen: 0.491 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. 0.280 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

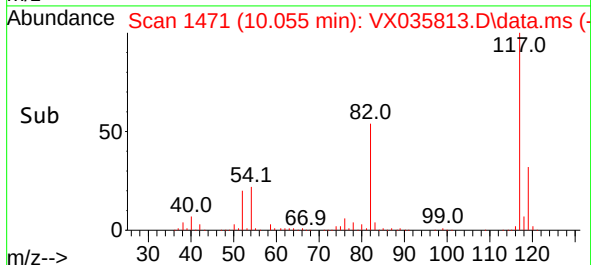
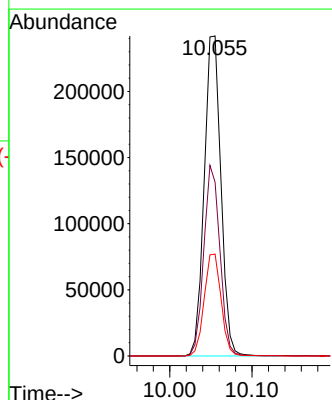
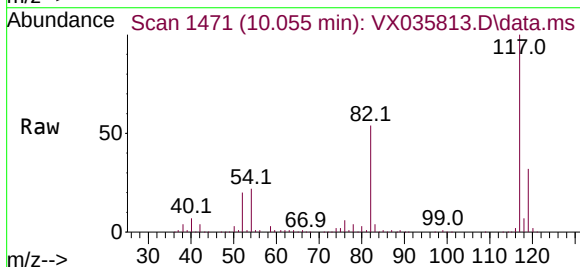
Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

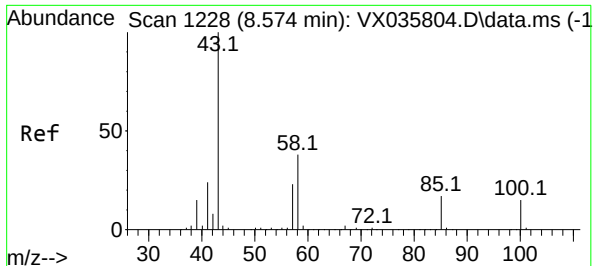
Tgt Ion:173 Resp: 1233  
Ion Ratio Lower Upper  
173 100  
175 709.7 37.0 55.4#  
254 0.0 6.7 10.1#



#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. -0.000 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Tgt Ion:117 Resp: 341958  
Ion Ratio Lower Upper  
117 100  
82 57.4 45.8 68.8  
119 32.3 25.4 38.0

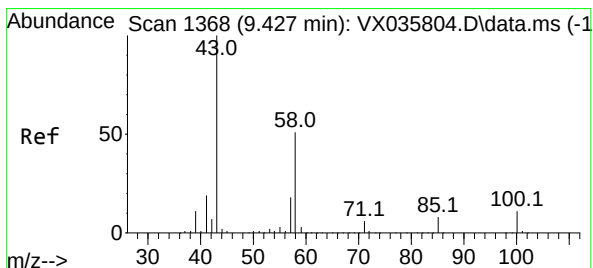
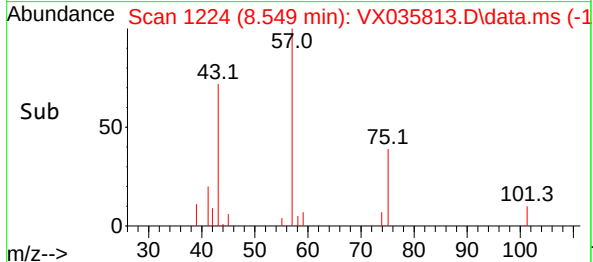
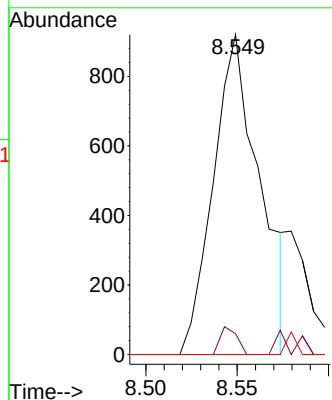
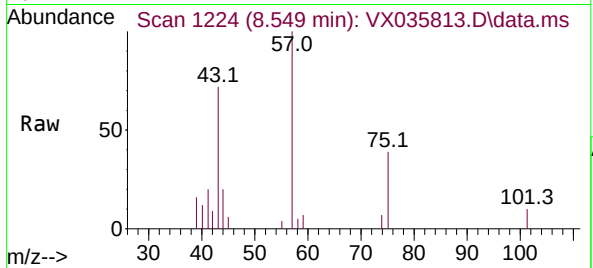




#58  
4-Methyl-2-Pentanone  
Concen: 0.245 ug/l  
RT: 8.549 min Scan# 11  
Delta R.T. -0.024 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

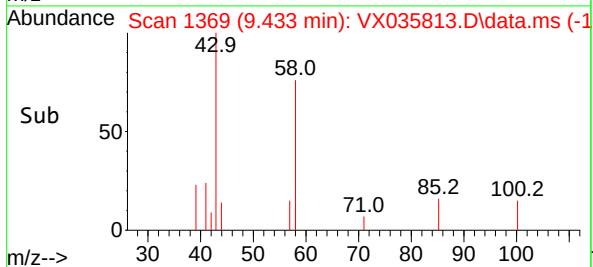
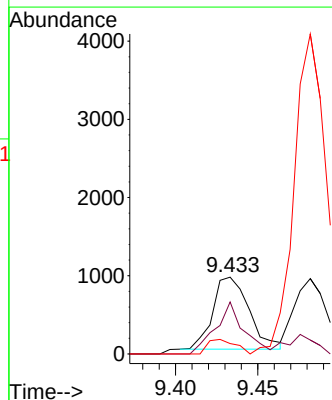
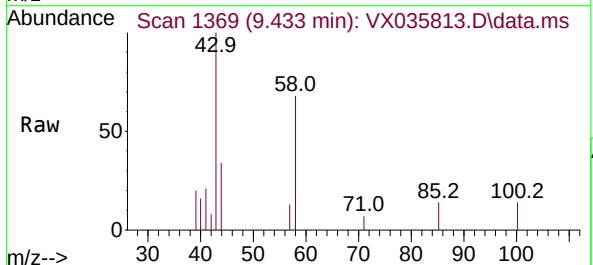
Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

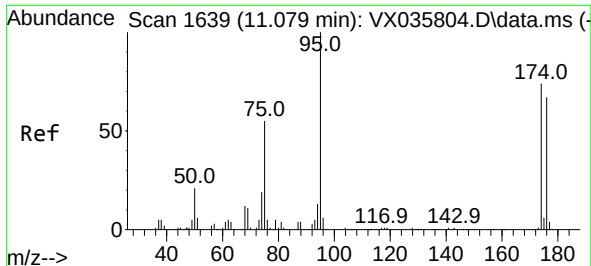
Tgt Ion: 43 Resp: 1625  
Ion Ratio Lower Upper  
43 100  
58 3.1 29.9 44.9#  
85 0.0 13.2 19.8#



#59  
2-Hexanone  
Concen: 0.284 ug/l  
RT: 9.433 min Scan# 1369  
Delta R.T. 0.006 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Tgt Ion: 43 Resp: 1418  
Ion Ratio Lower Upper  
43 100  
58 56.3 41.7 62.5  
57 15.4 14.7 22.1

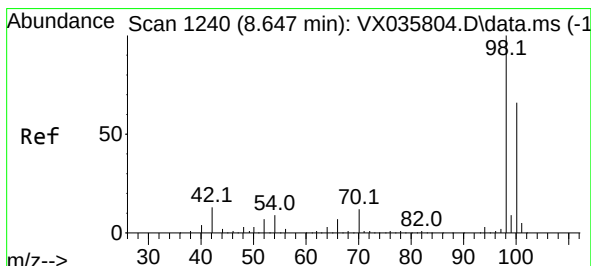
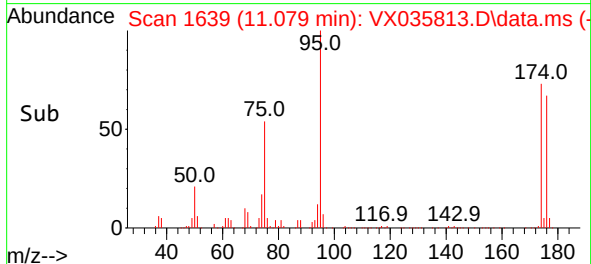
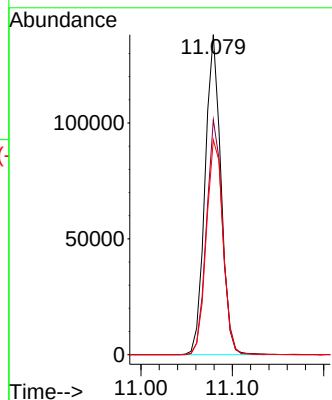
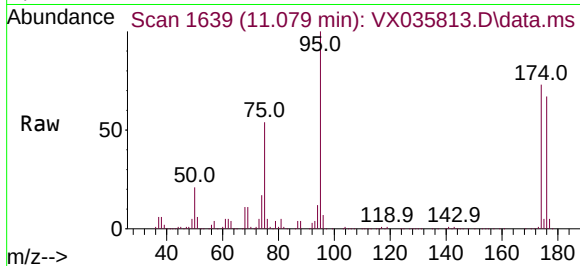




#60  
4-Bromofluorobenzene  
Concen: 28.934 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. -0.000 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

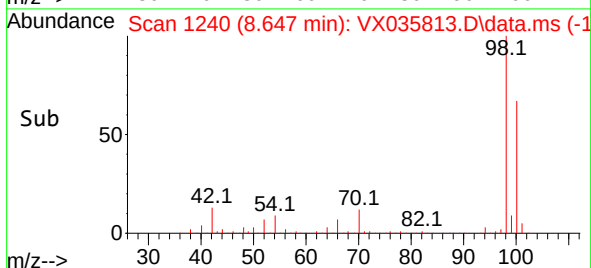
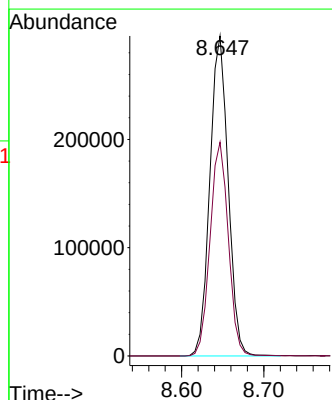
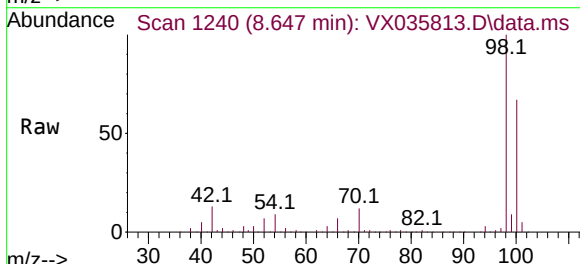
Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

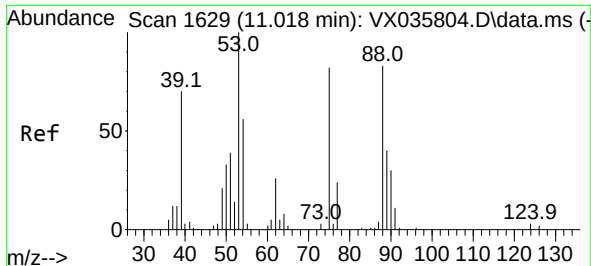
Tgt Ion: 95 Resp: 166025  
Ion Ratio Lower Upper  
95 100  
174 74.1 0.2 0.4#  
176 70.6 0.2 0.2#



#63  
Toluene-d8  
Concen: 30.187 ug/l  
RT: 8.647 min Scan# 1240  
Delta R.T. -0.000 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Tgt Ion: 98 Resp: 456348  
Ion Ratio Lower Upper  
98 100  
100 66.6 52.1 78.1

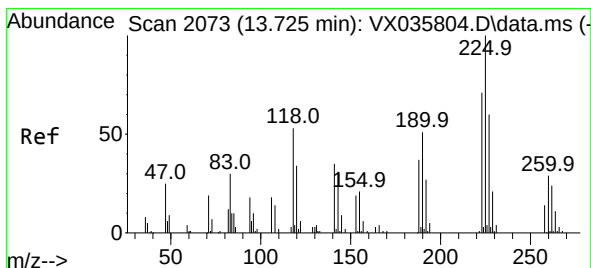
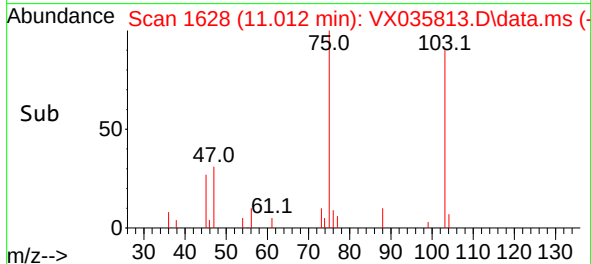
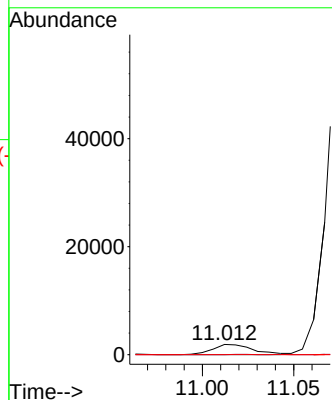
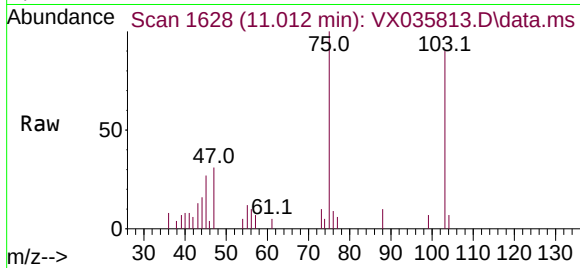




#77  
t-1,4-Dichloro-2-butene  
Concen: 1.631 ug/l  
RT: 11.012 min Scan# 1  
Delta R.T. -0.006 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Instrument :  
MSVOA\_X  
ClientSampleId :  
EFF-WW

Tgt Ion: 75 Resp: 2888  
Ion Ratio Lower Upper  
75 100  
53 0.0 58.2 174.6#  
89 0.0 20.6 61.8#



#90  
Hexachlorobutadiene  
Concen: 0.325 ug/l  
RT: 13.725 min Scan# 2073  
Delta R.T. -0.000 min  
Lab File: VX035813.D  
Acq: 23 May 2023 14:57

Tgt Ion: 225 Resp: 616  
Ion Ratio Lower Upper  
225 100  
223 29.7 0.0 124.2  
227 48.1 0.0 122.8

