

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL080824\  
 Data File : VL041512.D  
 Acq On : 8 Aug 2024 14:26  
 Operator : SY/MD  
 Sample : P3496-01DUP  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 B-CSDUP

Quant Time: Aug 09 05:55:07 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL072524AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Tue Aug 06 01:32:58 2024  
 Response via : Initial Calibration

| Compound                | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|--------|------|----------|--------|-------|----------|
| -----                   |        |      |          |        |       |          |
| Internal Standards      |        |      |          |        |       |          |
| 1) Bromochloromethane   | 5.189  | 49   | 874594   | 10.000 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 6.648  | 114  | 2303723  | 10.000 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 11.458 | 117  | 2161903  | 10.000 | ppbv  | # 0.00   |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 13.767 | 95    | 1583653  | 9.519    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 95.200% |

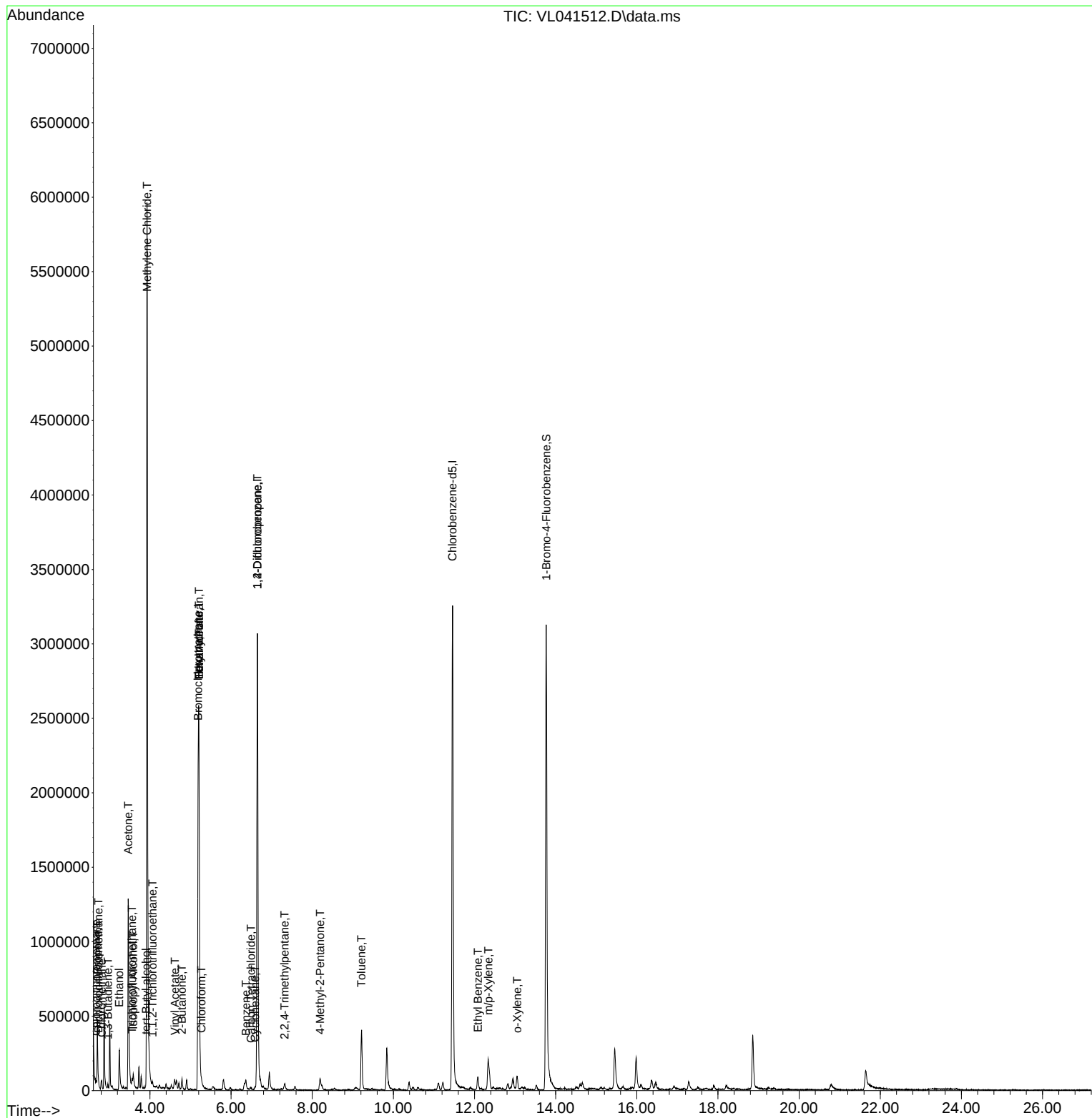
| Target Compounds              |        |     |         |        |        | Qvalue |
|-------------------------------|--------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.732  | 85  | 34154   | 0.227  | ppbv   | 90     |
| 3) Chlorodifluoromethane      | 2.674  | 51  | 67588   | 0.649  | ppbv # | 84     |
| 4) Chloromethane              | 2.816  | 50  | 32983   | 0.596  | ppbv   | 99     |
| 9) Propene                    | 2.703  | 41  | 91804   | 1.919  | ppbv # | 69     |
| 11) Trichlorofluoromethane    | 3.558  | 101 | 32046   | 0.240  | ppbv   | 93     |
| 12) 1,1,2-Trichlorotrifluo... | 4.063  | 101 | 6092    | 0.063  | ppbv   | 86     |
| 13) Ethanol                   | 3.243  | 45  | 282755  | 66.144 | ppbv   | 99     |
| 15) Acetone                   | 3.465  | 43  | 1338944 | 13.474 | ppbv   | 100    |
| 16) 1,3-Butadiene             | 2.964  | 39  | 7218    | 0.136  | ppbv # | 36     |
| 17) tert-Butyl alcohol        | 3.902  | 59  | 10825   | 0.119  | ppbv # | 72     |
| 19) Isopropyl Alcohol         | 3.587  | 45  | 85602   | 1.473  | ppbv # | 1      |
| 20) Methylene Chloride        | 3.931  | 84  | 2053768 | 55.423 | ppbv   | 99     |
| 23) Vinyl Acetate             | 4.613  | 43  | 42711   | 0.563  | ppbv # | 56     |
| 25) Ethyl Acetate             | 5.208  | 43  | 567396  | 2.874  | ppbv # | 77     |
| 26) Hexane                    | 5.208  | 57  | 769414  | 9.395  | ppbv # | 38     |
| 29) Chloroform                | 5.269  | 83  | 8820    | 0.066  | ppbv # | 79     |
| 30) Cyclohexane               | 6.594  | 84  | 2188    | 0.033  | ppbv # | 1      |
| 34) 2-Butanone                | 4.790  | 43  | 72397   | 0.650  | ppbv   | 96     |
| 35) Carbon Tetrachloride      | 6.487  | 117 | 4702    | 0.037  | ppbv # | 87     |
| 36) Benzene                   | 6.365  | 78  | 38560   | 0.229  | ppbv   | 97     |
| 39) 1,2-Dichloropropane       | 6.648  | 63  | 569365  | 8.835  | ppbv # | 25     |
| 41) Tetrahydrofuran           | 5.208  | 42  | 314939  | 4.941  | ppbv # | 49     |
| 44) 2,2,4-Trimethylpentane    | 7.317  | 57  | 23051   | 0.082  | ppbv # | 49     |
| 50) 4-Methyl-2-Pentanone      | 8.195  | 43  | 63491   | 0.361  | ppbv   | 95     |
| 53) Toluene                   | 9.214  | 91  | 305606  | 1.630  | ppbv   | 99     |
| 58) Ethyl Benzene             | 12.082 | 91  | 74254   | 0.298  | ppbv   | 90     |
| 59) m/p-Xylene                | 12.339 | 91  | 145794  | 0.678  | ppbv # | 61     |
| 60) o-Xylene                  | 13.053 | 91  | 36590   | 0.180  | ppbv # | 40     |

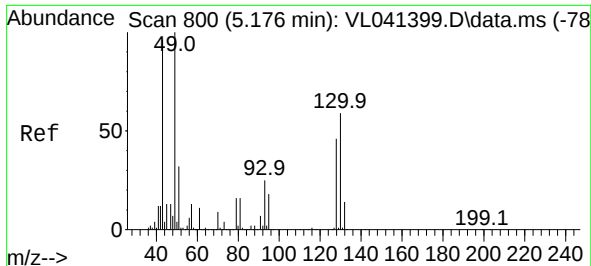
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Tue Aug 06 01:32:58 2024  
Response via : Initial Calibration

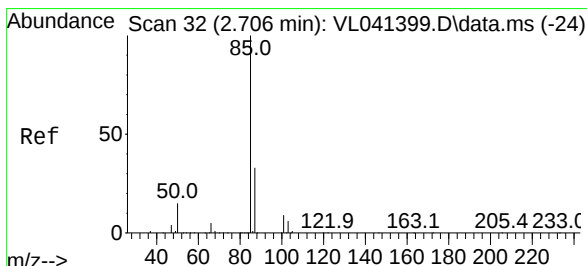
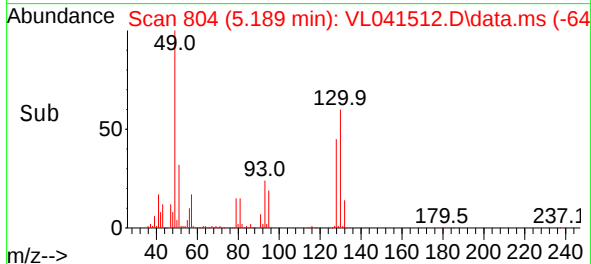
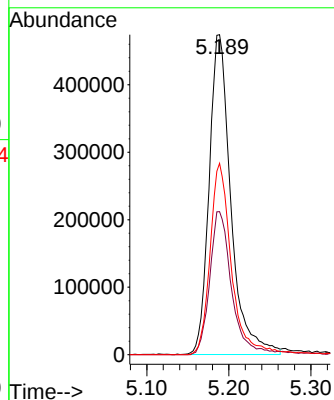
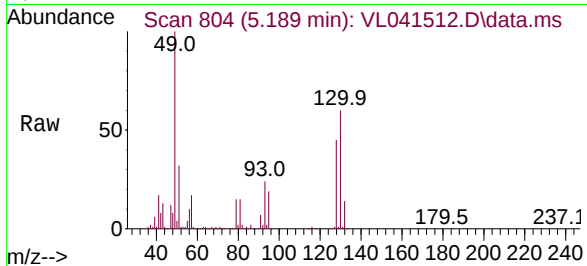




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.189 min Scan# 80  
Delta R.T. -0.000 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

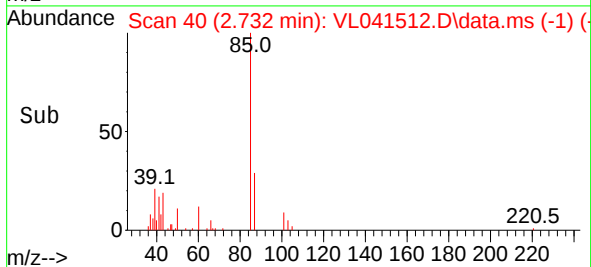
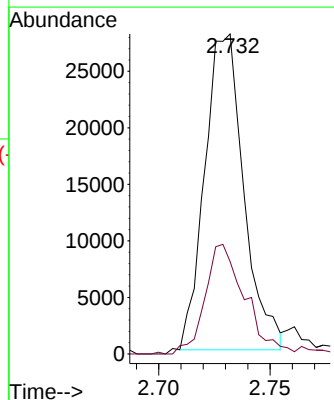
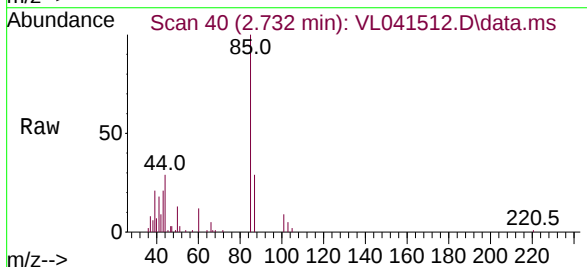
Instrument :  
MSVOA\_1  
ClientSampleId :  
B-CSDUP

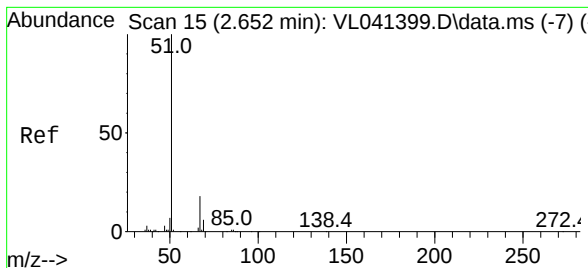
Tgt Ion: 49 Resp: 874594  
Ion Ratio Lower Upper  
49 100  
128 45.6 23.8 71.4  
130 60.1 30.8 92.4



#2  
Dichlorodifluoromethane  
Concen: 0.227 ppbv  
RT: 2.732 min Scan# 40  
Delta R.T. 0.000 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

Tgt Ion: 85 Resp: 34154  
Ion Ratio Lower Upper  
85 100  
87 26.8 26.0 39.0





#3

Chlorodifluoromethane

Concen: 0.649 ppbv

RT: 2.674 min Scan# 21

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

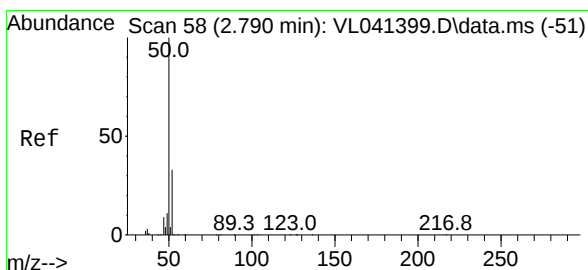
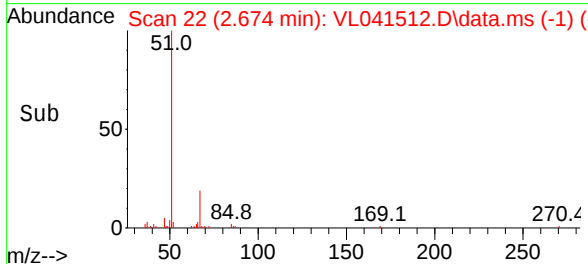
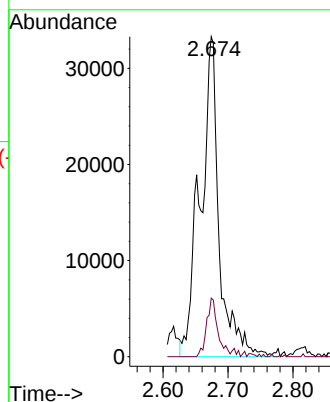
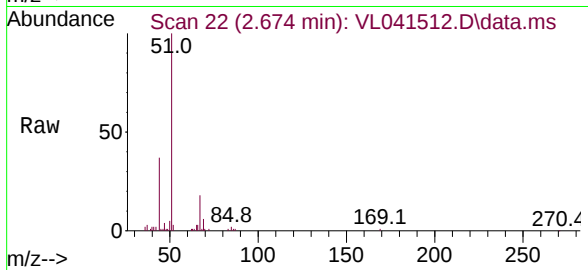
B-CSDUP

Tgt Ion: 51 Resp: 67588

Ion Ratio Lower Upper

51 100

67 11.2 14.5 21.7#



#4

Chloromethane

Concen: 0.596 ppbv

RT: 2.816 min Scan# 66

Delta R.T. 0.000 min

Lab File: VL041512.D

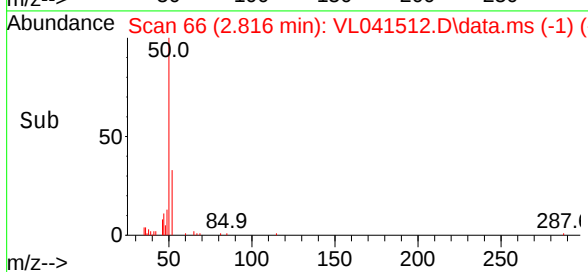
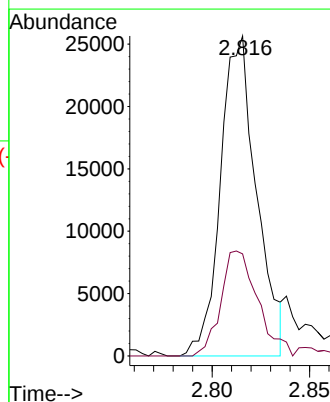
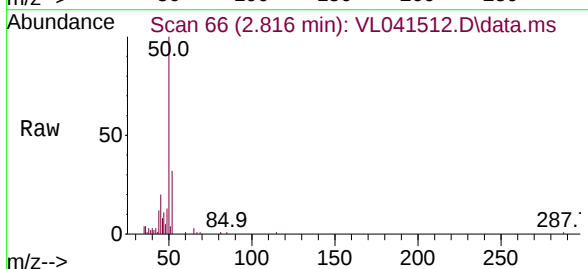
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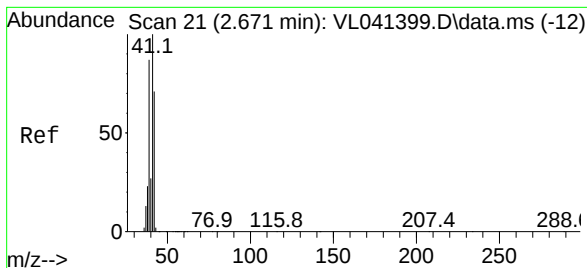
Tgt Ion: 50 Resp: 32983

Ion Ratio Lower Upper

50 100

52 31.9 26.1 39.1





#9

Propene

Concen: 1.919 ppbv

RT: 2.703 min Scan# 31

Delta R.T. 0.006 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

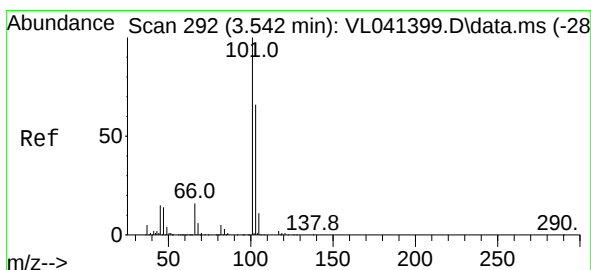
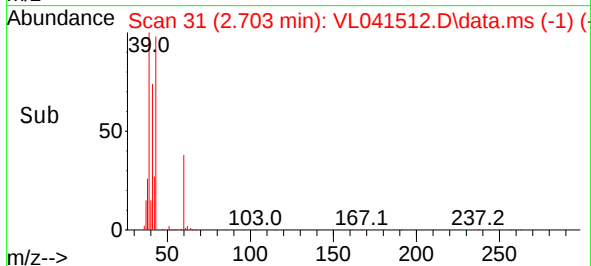
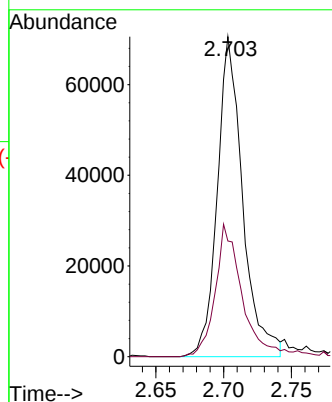
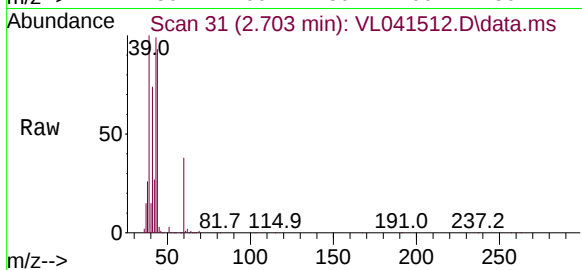
B-CSDUP

Tgt Ion: 41 Resp: 91804

Ion Ratio Lower Upper

41 100

42 44.9 55.9 83.9#



#11

Trichlorofluoromethane

Concen: 0.240 ppbv

RT: 3.558 min Scan# 297

Delta R.T. -0.003 min

Lab File: VL041512.D

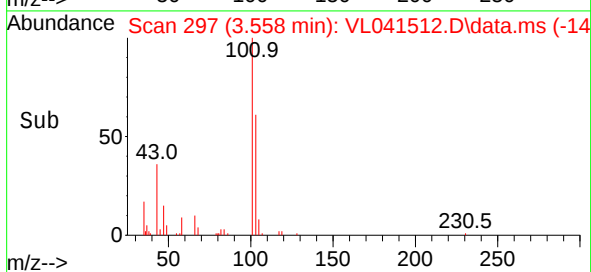
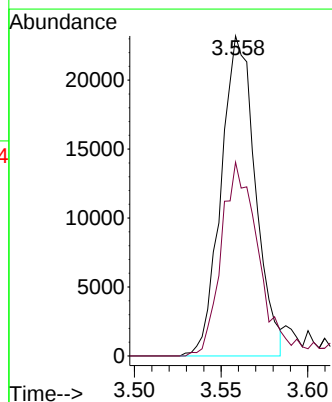
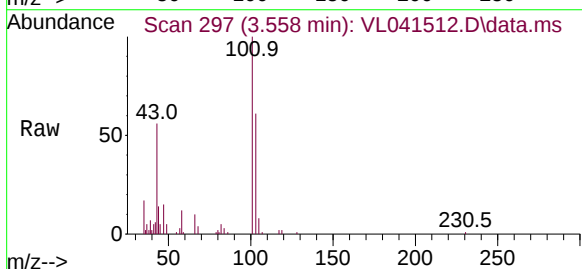
Acq: 8 Aug 2024 14:26

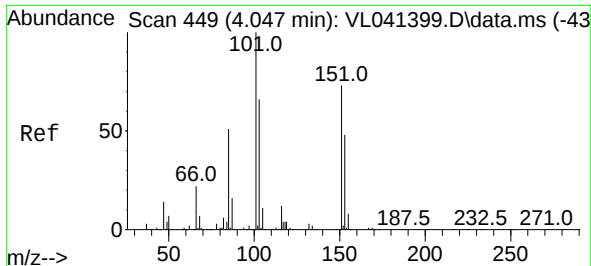
Tgt Ion:101 Resp: 32046

Ion Ratio Lower Upper

101 100

103 60.6 52.6 79.0

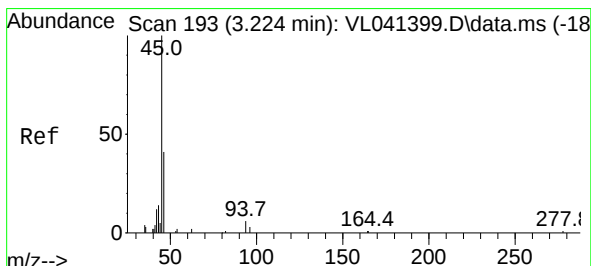
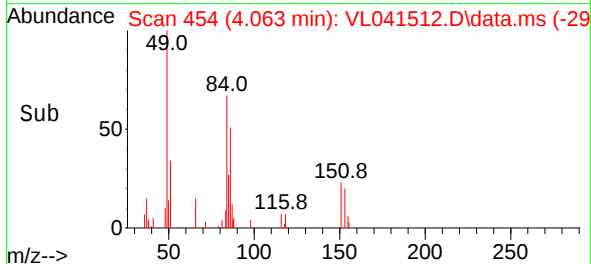
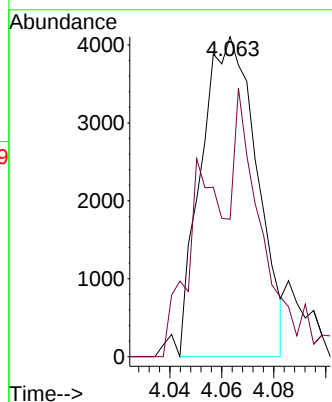
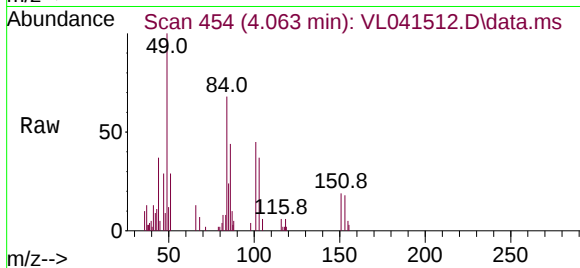




#12  
1,1,2-Trichlorotrifluoroethane  
Concen: 0.063 ppbv  
RT: 4.063 min Scan# 41  
Delta R.T. 0.000 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

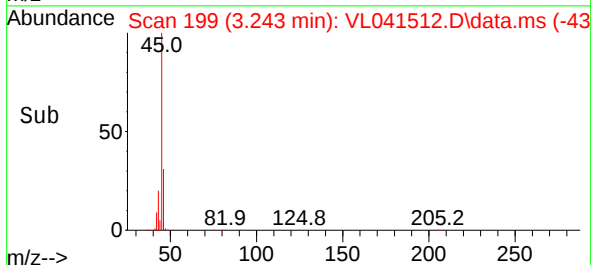
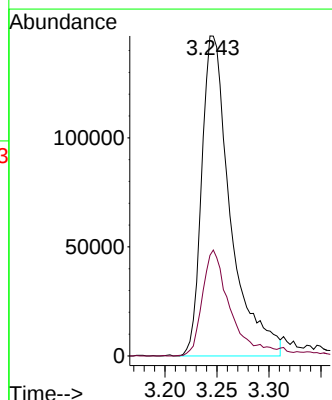
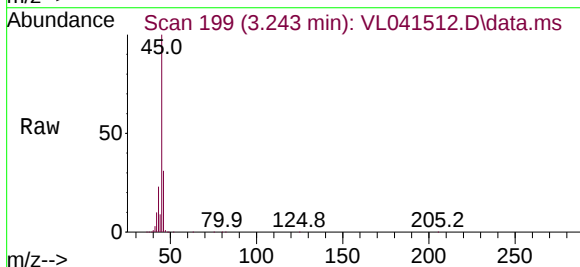
Instrument :  
MSVOA\_L  
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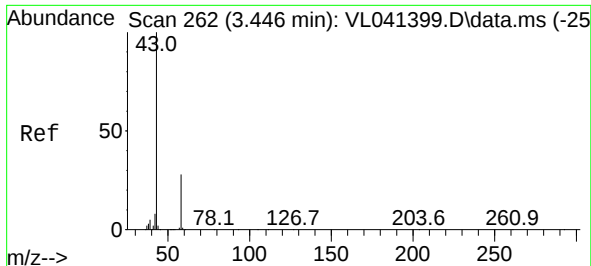
Tgt Ion:101 Resp: 6092  
Ion Ratio Lower Upper  
101 100  
151 86.2 59.4 89.2



#13  
Ethanol  
Concen: 66.144 ppbv  
RT: 3.243 min Scan# 199  
Delta R.T. 0.000 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

Tgt Ion: 45 Resp: 282755  
Ion Ratio Lower Upper  
45 100  
46 34.0 13.4 53.4





#15

Acetone

Concen: 13.474 ppbv

RT: 3.465 min Scan# 2

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

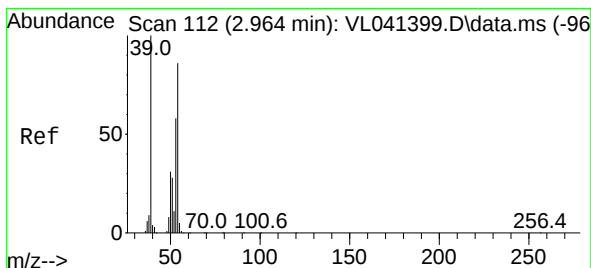
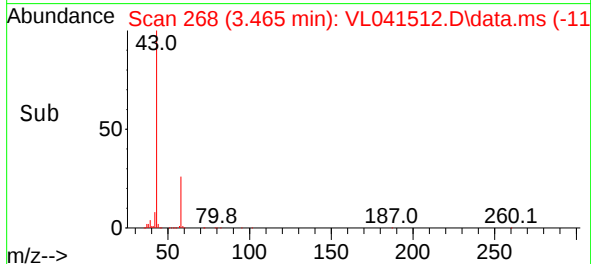
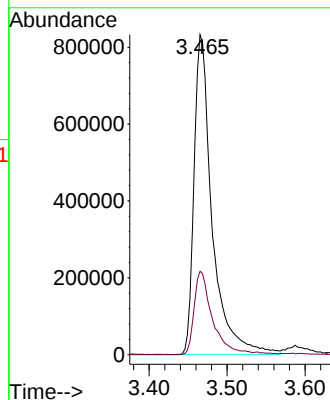
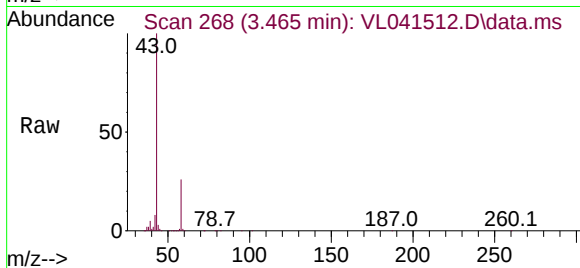
B-CSDUP

Tgt Ion: 43 Resp: 1338944

Ion Ratio Lower Upper

43 100

58 26.9 21.4 32.2



#16

1,3-Butadiene

Concen: 0.136 ppbv

RT: 2.964 min Scan# 112

Delta R.T. -0.022 min

Lab File: VL041512.D

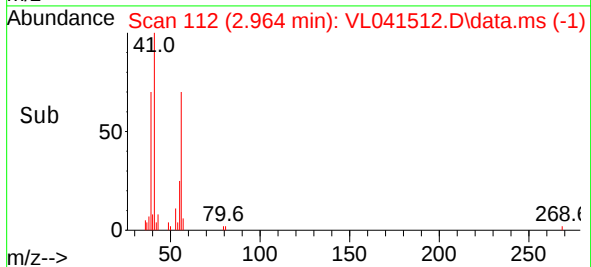
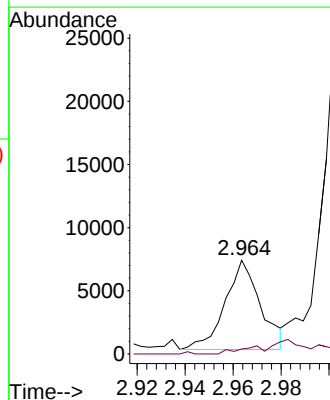
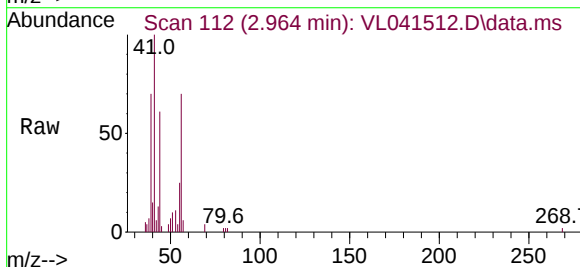
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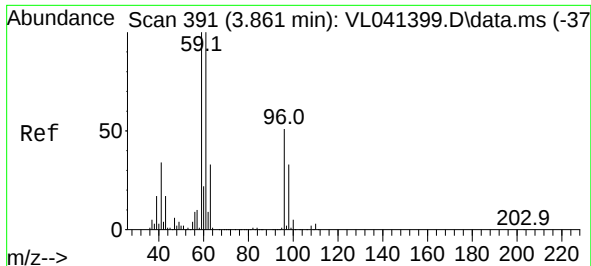
Tgt Ion: 39 Resp: 7218

Ion Ratio Lower Upper

39 100

54 22.7 62.5 93.7#

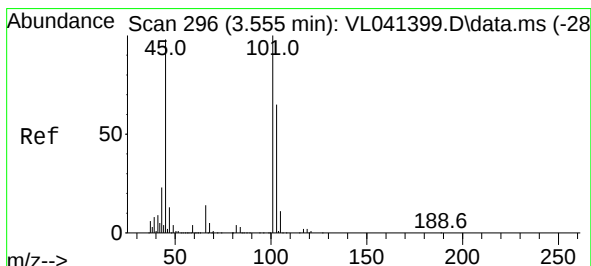
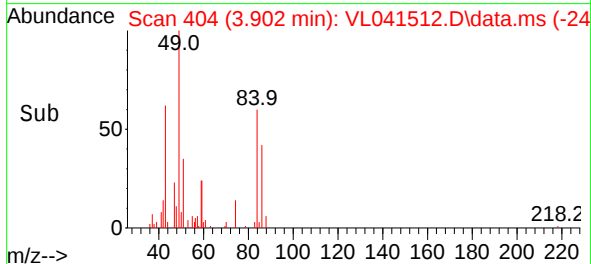
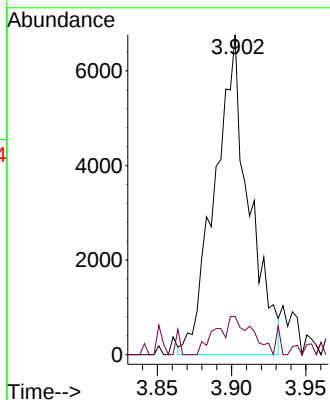
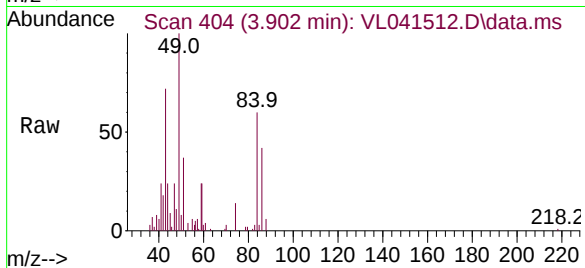




#17  
tert-Butyl alcohol  
Concen: 0.119 ppbv  
RT: 3.902 min Scan# 404  
Delta R.T. 0.026 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

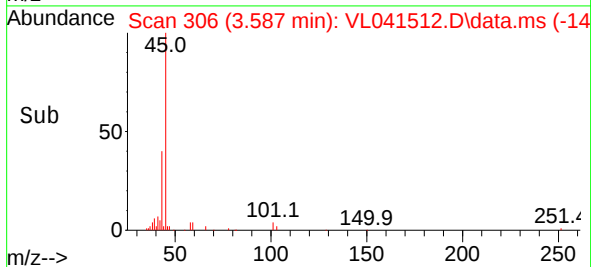
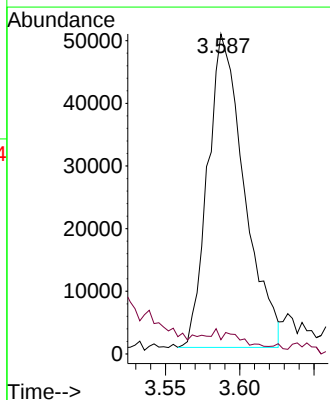
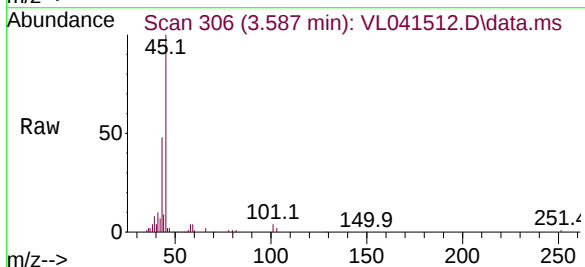
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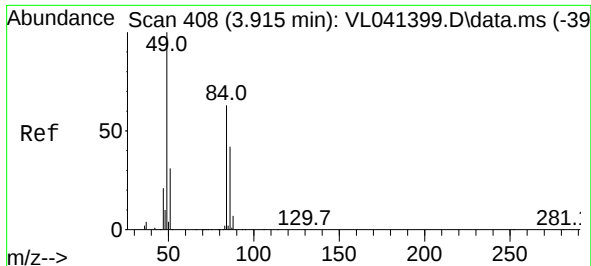
Tgt Ion: 59 Resp: 10825  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.6 12.8#



#19  
Isopropyl Alcohol  
Concen: 1.473 ppbv  
RT: 3.587 min Scan# 306  
Delta R.T. 0.013 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

Tgt Ion: 45 Resp: 85602  
Ion Ratio Lower Upper  
45 100  
58 421.3 1.9 2.9#





#20

Methylene Chloride

Concen: 55.423 ppbv

RT: 3.931 min Scan# 413

Delta R.T. 0.000 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

B-CSDUP

Tgt Ion: 84 Resp: 2053768

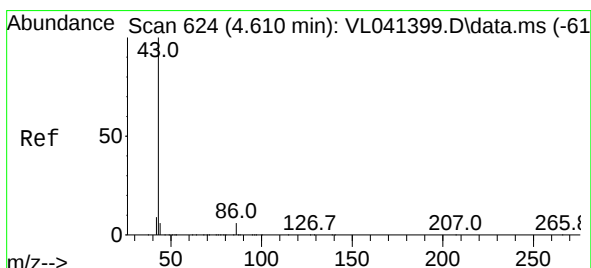
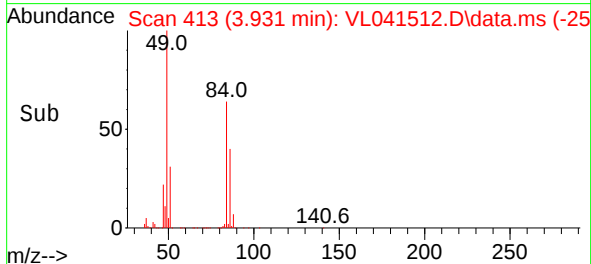
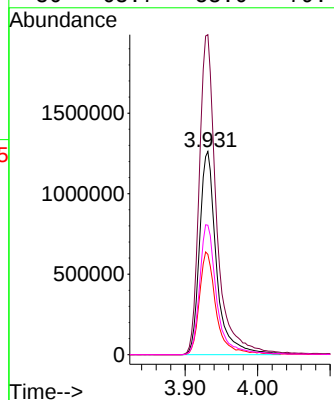
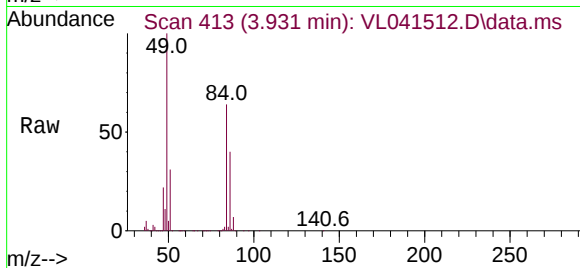
Ion Ratio Lower Upper

84 100

49 157.4 126.6 190.0

51 49.3 38.6 58.0

86 63.7 53.0 79.4



#23

Vinyl Acetate

Concen: 0.563 ppbv

RT: 4.613 min Scan# 625

Delta R.T. -0.013 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Tgt Ion: 43 Resp: 42711

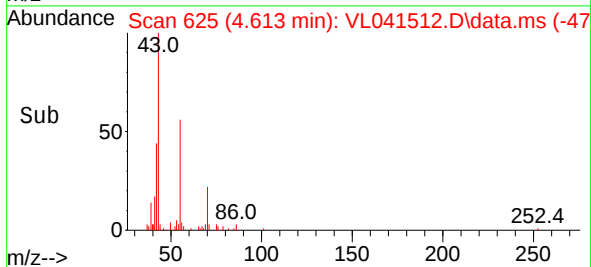
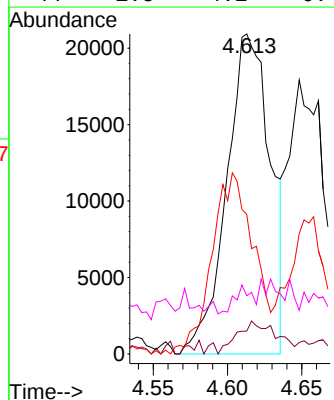
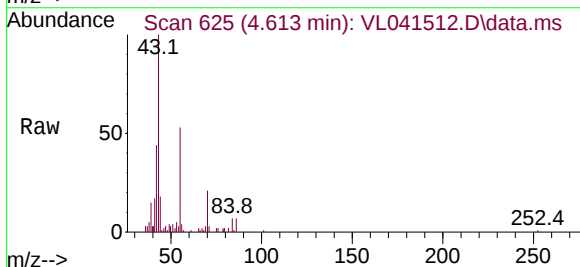
Ion Ratio Lower Upper

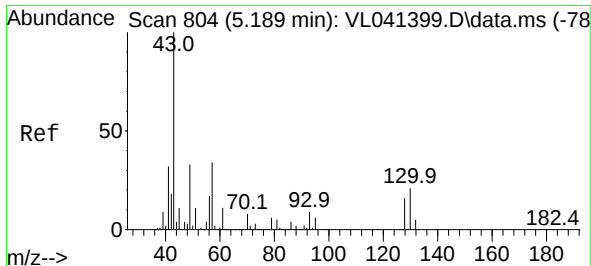
43 100

86 7.2 4.6 6.8#

42 40.9 7.9 11.9#

44 1.5 4.2 6.4#

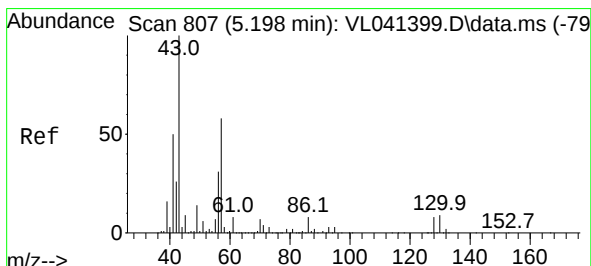
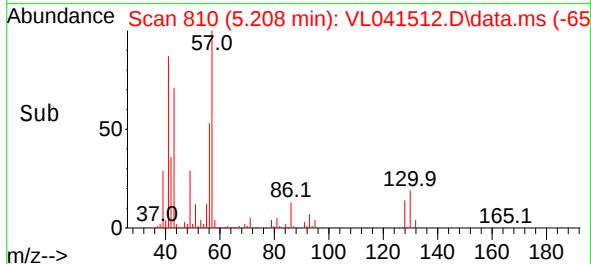
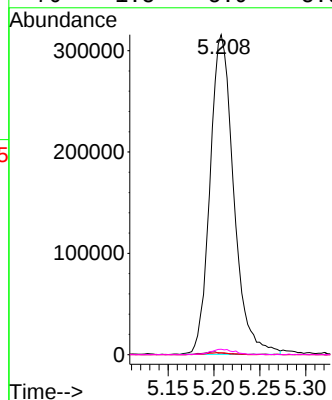
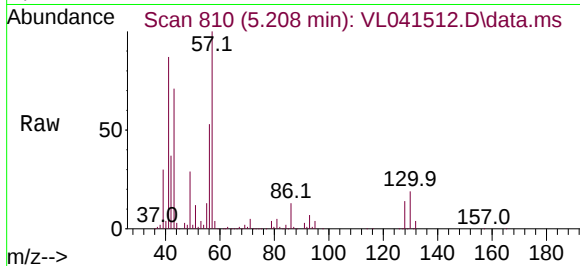




#25  
Ethyl Acetate  
Concen: 2.874 ppbv  
RT: 5.208 min Scan# 810  
Delta R.T. 0.006 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

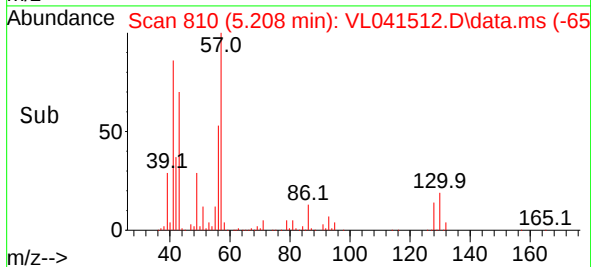
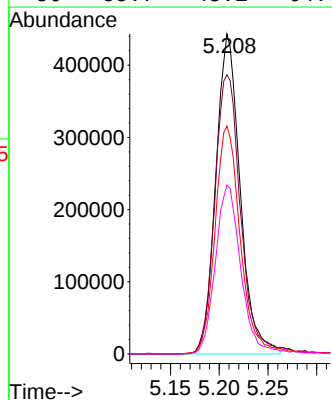
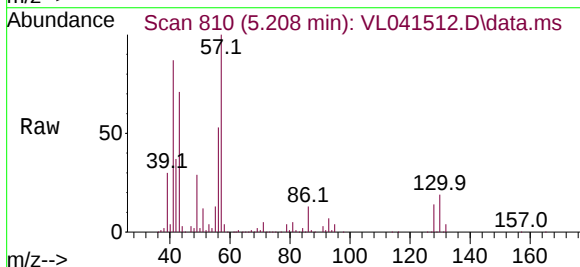
Instrument :  
MSVOA\_L  
ClientSampleId :  
B-CSDUP

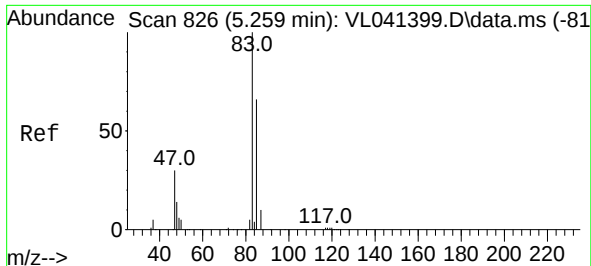
Tgt Ion: 43 Resp: 567396  
Ion Ratio Lower Upper  
43 100  
45 0.9 8.5 12.7#  
61 0.6 8.0 12.0#  
70 1.8 5.9 8.9#



#26  
Hexane  
Concen: 9.395 ppbv  
RT: 5.208 min Scan# 810  
Delta R.T. -0.003 min  
Lab File: VL041512.D  
Acq: 8 Aug 2024 14:26

Tgt Ion: 57 Resp: 769414  
Ion Ratio Lower Upper  
57 100  
41 94.4 74.0 111.0  
43 74.5 193.6 290.4#  
56 55.7 43.1 64.7





#29

Chloroform

Concen: 0.066 ppbv

RT: 5.269 min Scan# 81

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

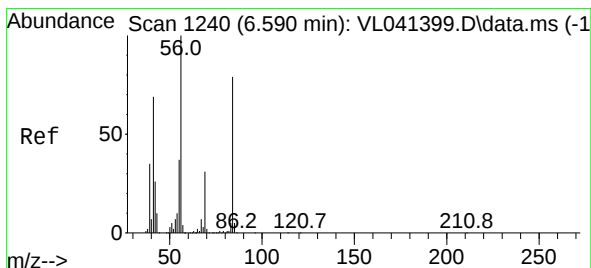
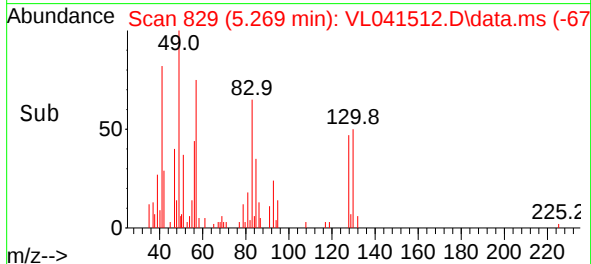
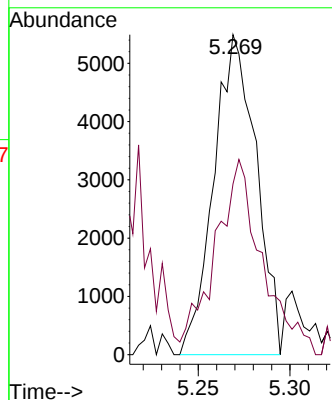
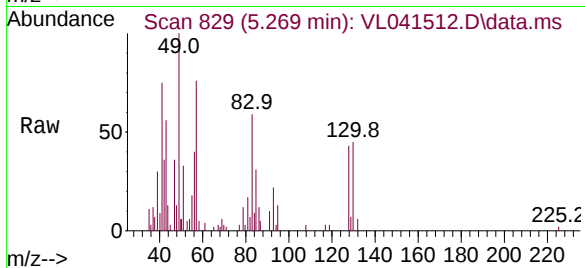
B-CSDUP

Tgt Ion: 83 Resp: 8820

Ion Ratio Lower Upper

83 100

85 49.4 53.1 79.7#



#30

Cyclohexane

Concen: 0.033 ppbv

RT: 6.594 min Scan# 1241

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

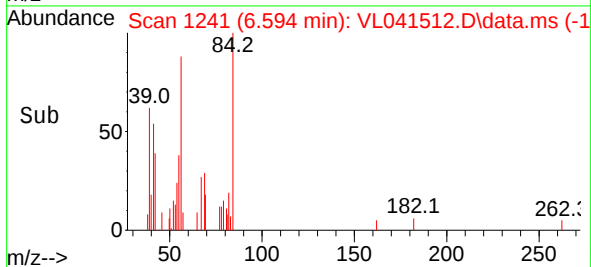
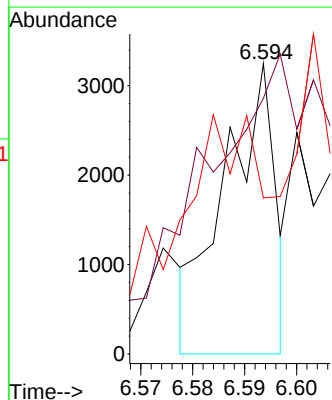
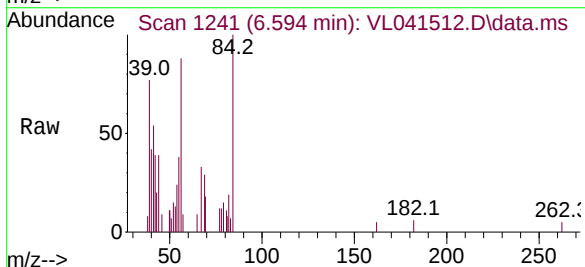
Tgt Ion: 84 Resp: 2188

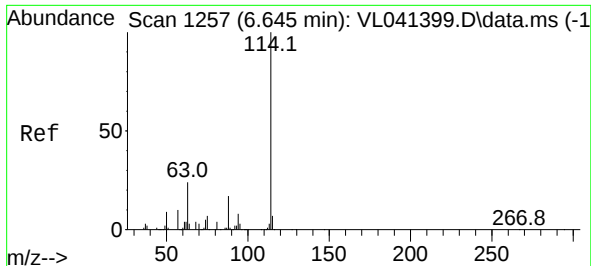
Ion Ratio Lower Upper

84 100

56 0.0 111.2 166.8#

41 0.0 70.3 105.5#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.648 min Scan# 11

Delta R.T. 0.000 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

B-CSDUP

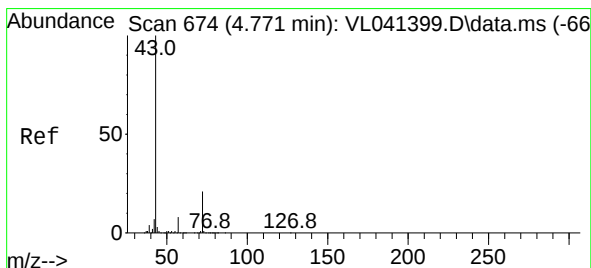
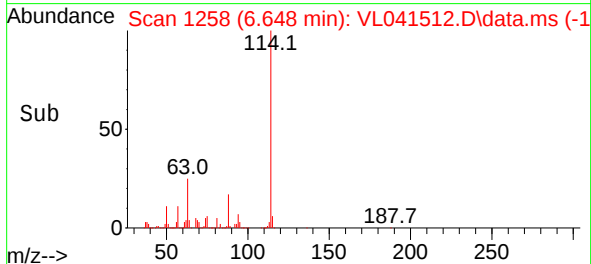
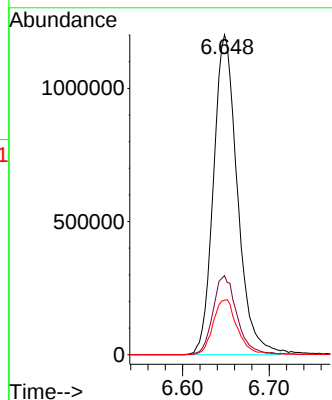
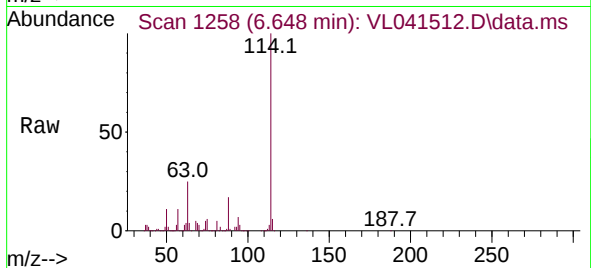
Tgt Ion:114 Resp: 2303723

Ion Ratio Lower Upper

114 100

63 25.1 20.3 30.5

88 17.6 14.3 21.5



#34

2-Butanone

Concen: 0.650 ppbv

RT: 4.790 min Scan# 680

Delta R.T. 0.006 min

Lab File: VL041512.D

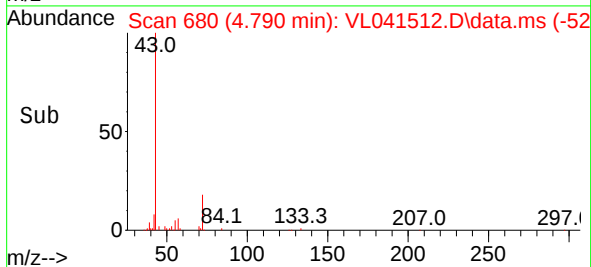
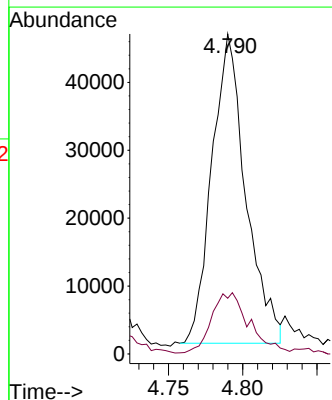
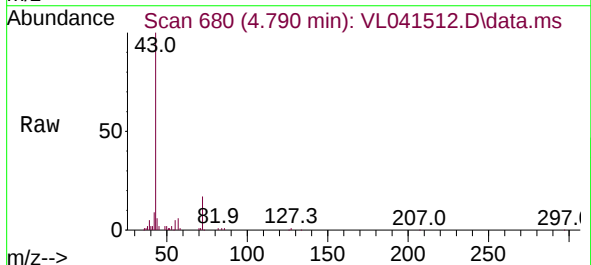
Acq: 8 Aug 2024 14:26

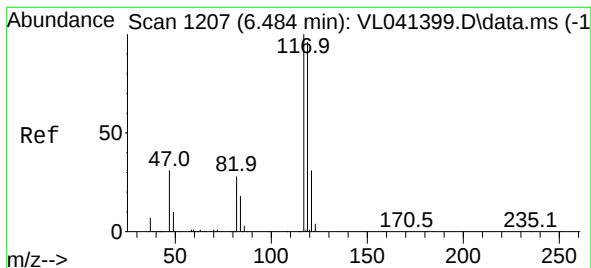
Tgt Ion: 43 Resp: 72397

Ion Ratio Lower Upper

43 100

72 23.7 17.3 25.9





#35

Carbon Tetrachloride

Concen: 0.037 ppbv

RT: 6.487 min Scan# 1170

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

B-CSDUP

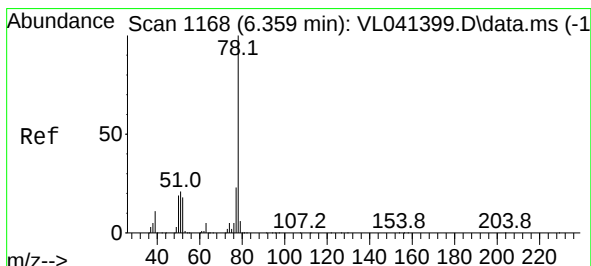
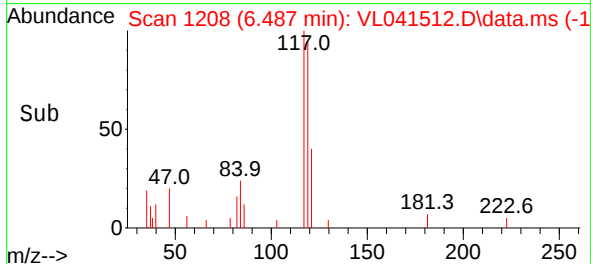
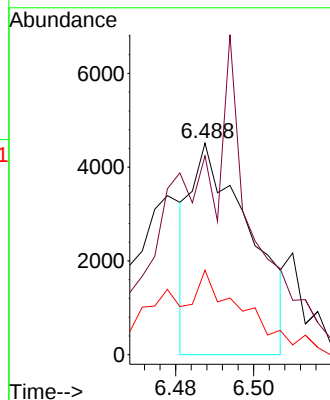
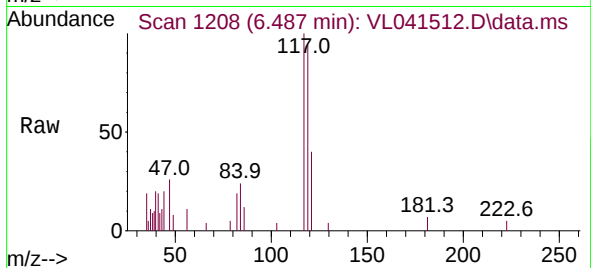
Tgt Ion:117 Resp: 4702

Ion Ratio Lower Upper

117 100

119 88.8 76.6 115.0

121 47.4 25.1 37.7#



#36

Benzene

Concen: 0.229 ppbv

RT: 6.365 min Scan# 1170

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

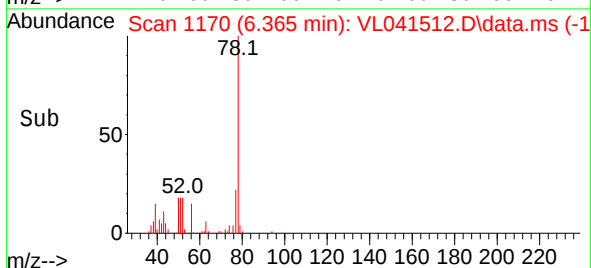
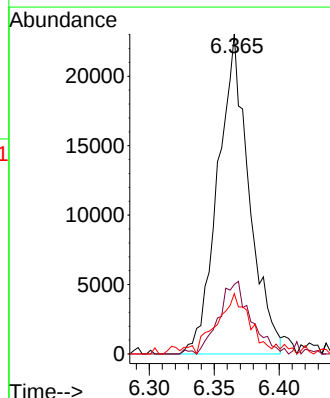
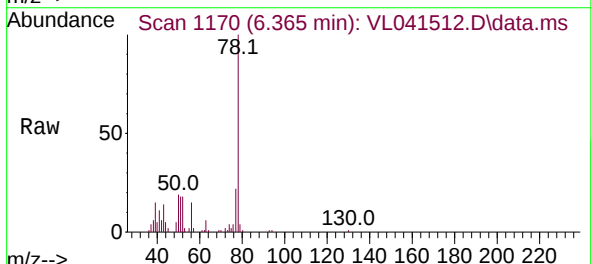
Tgt Ion: 78 Resp: 38560

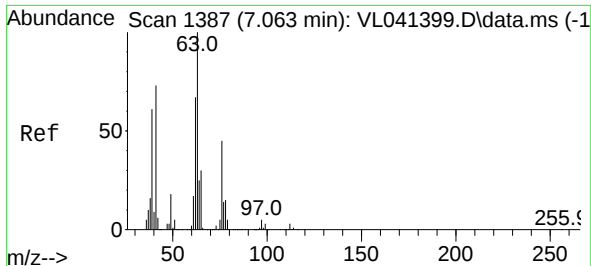
Ion Ratio Lower Upper

78 100

77 21.7 18.1 27.1

50 17.9 15.5 23.3





#39

1,2-Dichloropropane

Concen: 8.835 ppbv

RT: 6.648 min Scan# 11

Delta R.T. -0.421 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

B-CSDUP

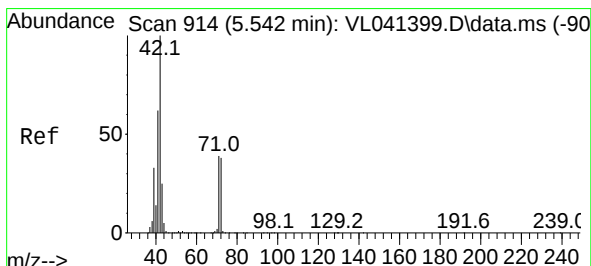
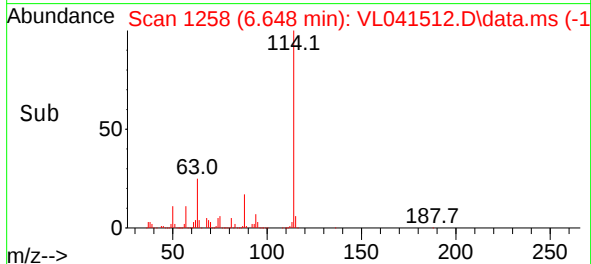
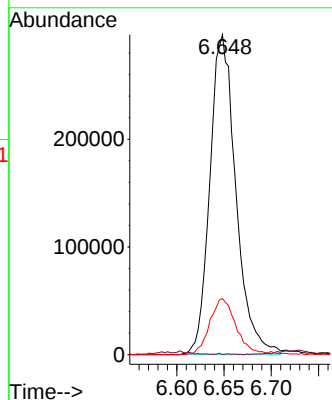
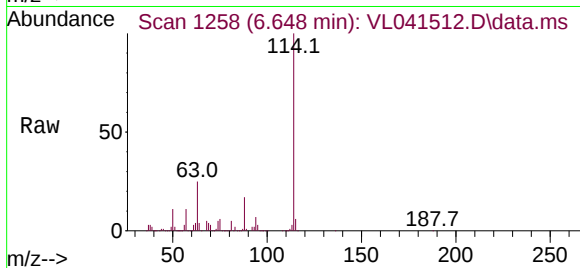
Tgt Ion: 63 Resp: 569365

Ion Ratio Lower Upper

63 100

41 0.0 58.3 87.5#

62 17.6 53.9 80.9#



#41

Tetrahydrofuran

Concen: 4.941 ppbv

RT: 5.208 min Scan# 810

Delta R.T. -0.344 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

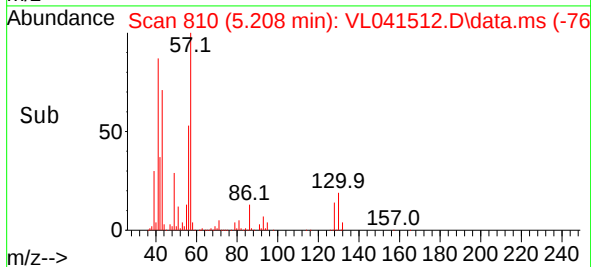
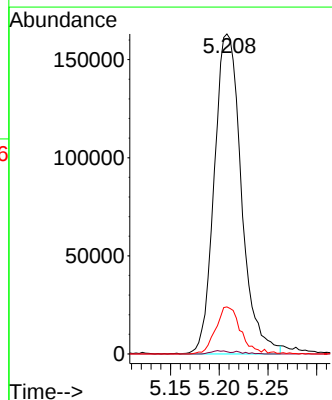
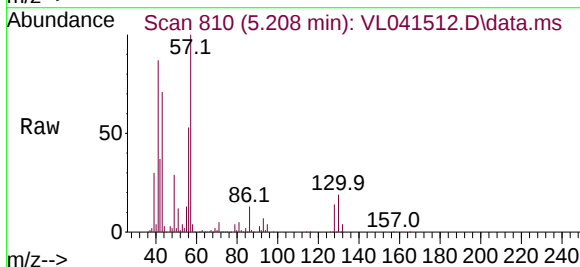
Tgt Ion: 42 Resp: 314939

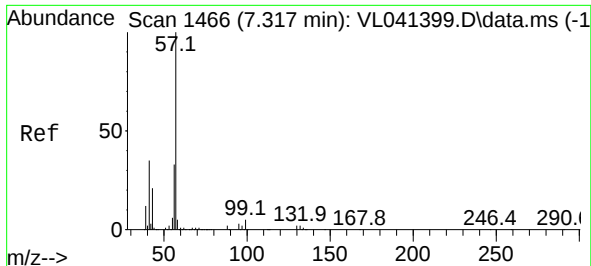
Ion Ratio Lower Upper

42 100

72 0.9 31.2 46.8#

71 13.8 30.5 45.7#





#44

2,2,4-Trimethylpentane

Concen: 0.082 ppbv

RT: 7.317 min Scan# 1466

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

B-CSDUP

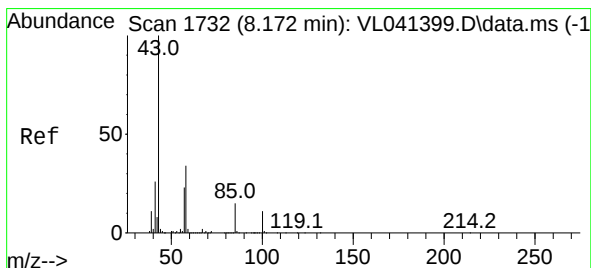
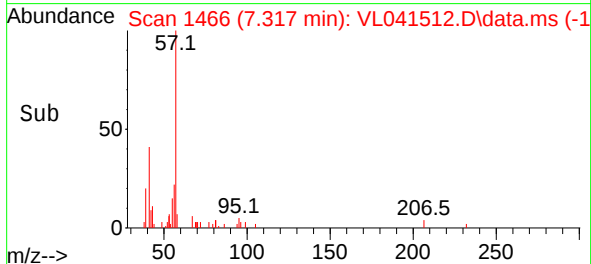
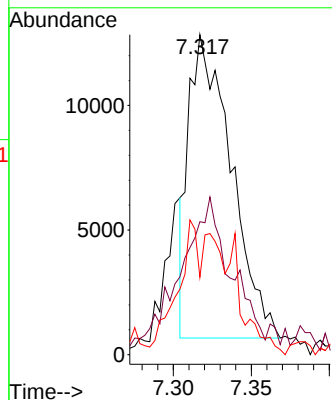
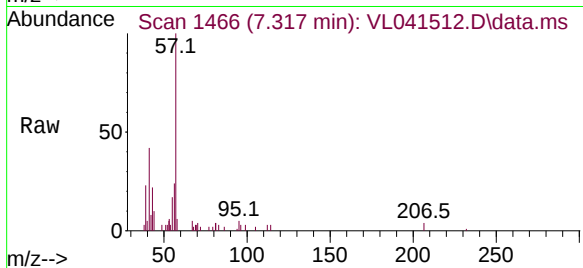
Tgt Ion: 57 Resp: 23051

Ion Ratio Lower Upper

57 100

41 64.4 27.0 40.6#

56 58.0 25.2 37.8#



#50

4-Methyl-2-Pentanone

Concen: 0.361 ppbv

RT: 8.195 min Scan# 1739

Delta R.T. 0.019 min

Lab File: VL041512.D

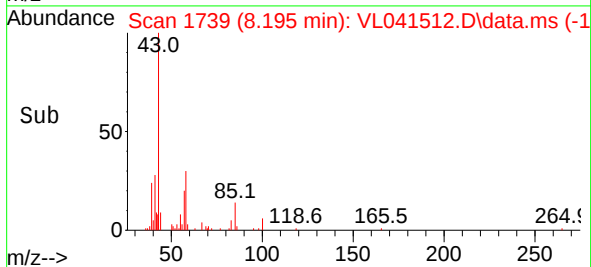
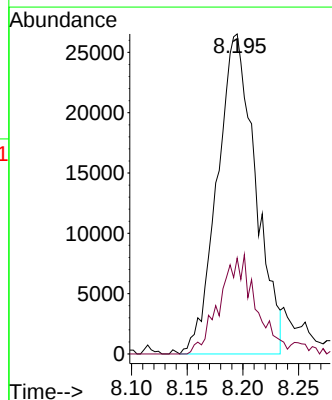
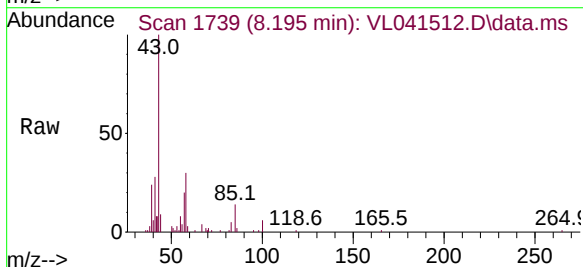
Acq: 8 Aug 2024 14:26

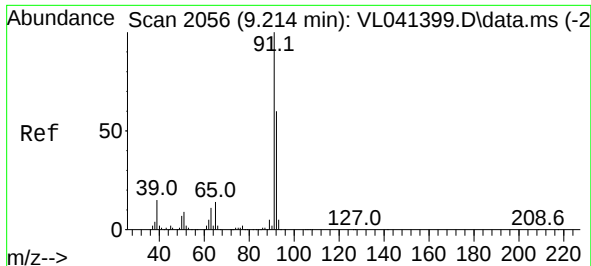
Tgt Ion: 43 Resp: 63491

Ion Ratio Lower Upper

43 100

58 32.0 27.9 41.9





#53

Toluene

Concen: 1.630 ppbv

RT: 9.214 min Scan# 2056

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

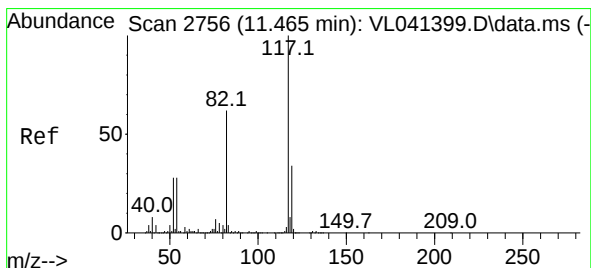
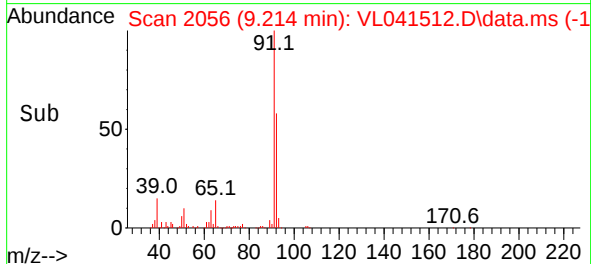
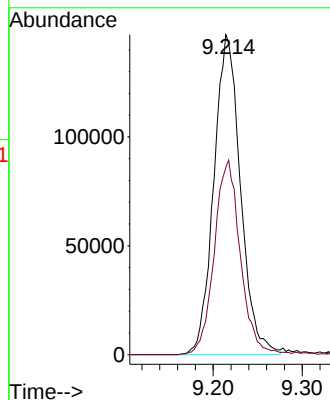
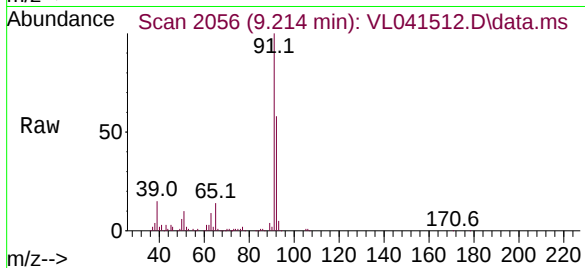
B-CSDUP

Tgt Ion: 91 Resp: 305606

Ion Ratio Lower Upper

91 100

92 60.0 48.7 73.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.458 min Scan# 2754

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

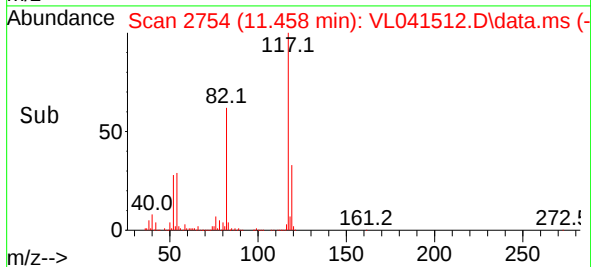
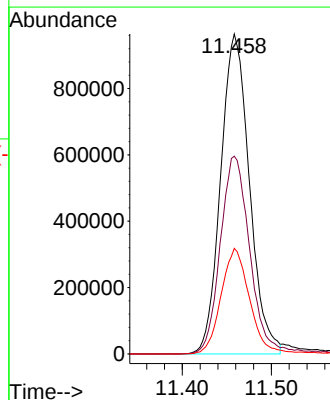
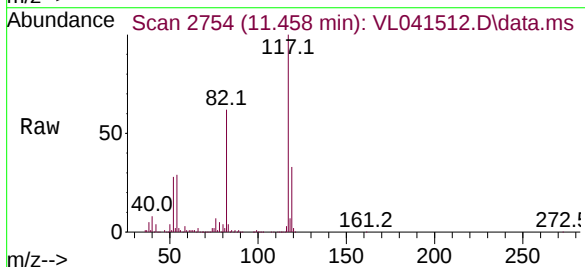
Tgt Ion: 117 Resp: 2161903

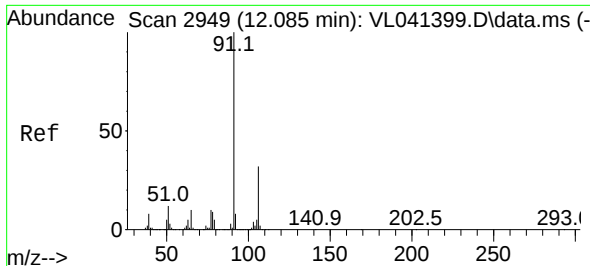
Ion Ratio Lower Upper

117 100

82 64.7 51.0 76.6

119 33.1 45.2 67.8#





#58

Ethyl Benzene

Concen: 0.298 ppbv

RT: 12.082 min Scan# 2949

Delta R.T. -0.003 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

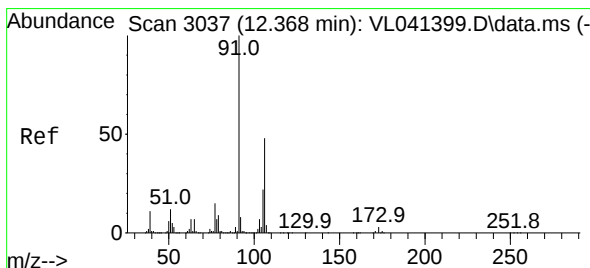
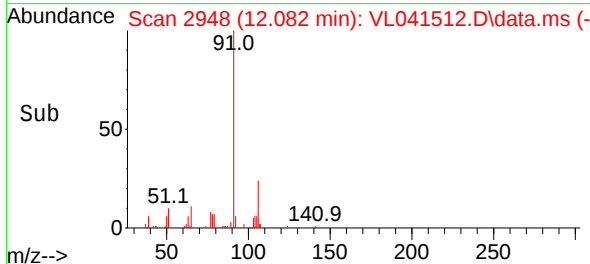
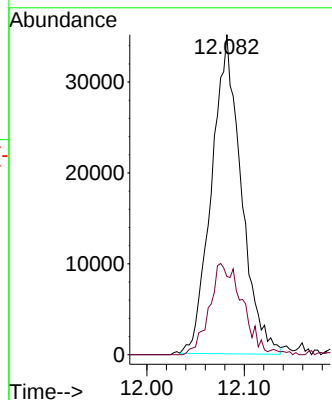
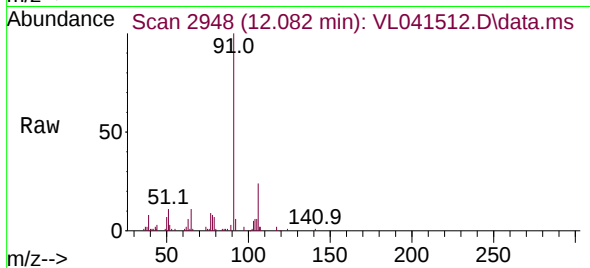
B-CSDUP

Tgt Ion: 91 Resp: 74254

Ion Ratio Lower Upper

91 100

106 26.6 25.8 38.8



#59

m/p-Xylene

Concen: 0.678 ppbv

RT: 12.339 min Scan# 3028

Delta R.T. -0.029 min

Lab File: VL041512.D

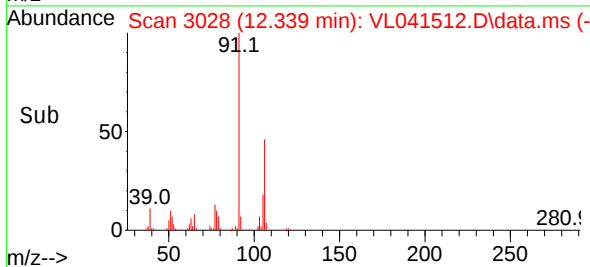
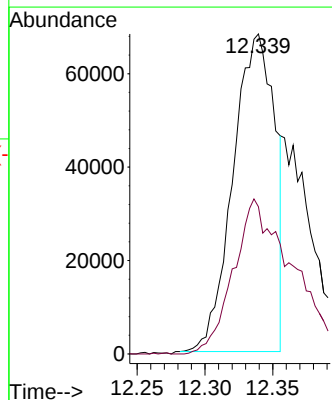
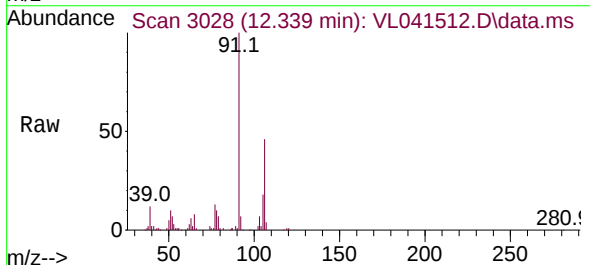
Acq: 8 Aug 2024 14:26

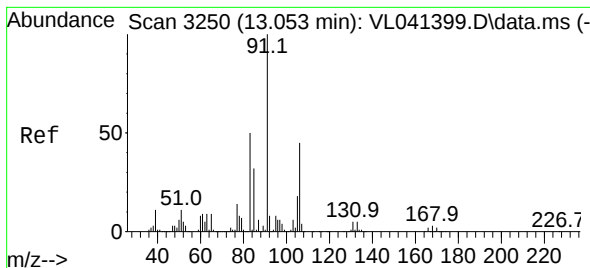
Tgt Ion: 91 Resp: 145794

Ion Ratio Lower Upper

91 100

106 70.7 36.3 54.5#





#60

o-Xylene

Concen: 0.180 ppbv

RT: 13.053 min Scan# 31

Delta R.T. 0.000 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Instrument :

MSVOA\_L

ClientSampleId :

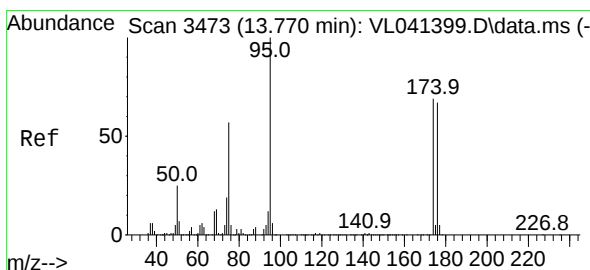
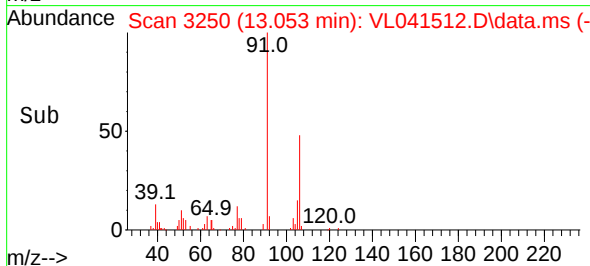
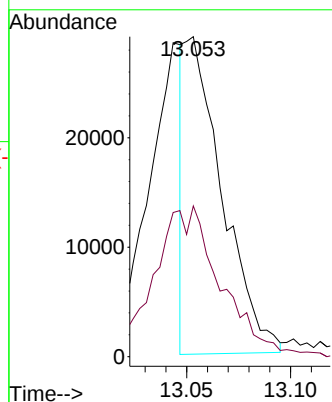
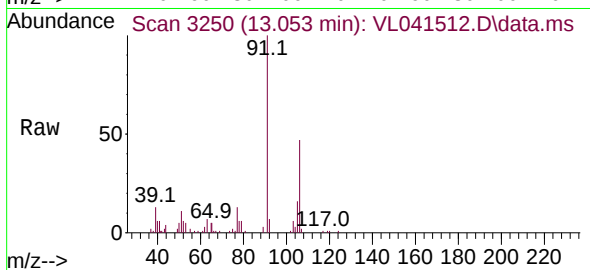
B-CSDUP

Tgt Ion: 91 Resp: 36590

Ion Ratio Lower Upper

91 100

106 85.7 23.1 69.3#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.519 ppbv

RT: 13.767 min Scan# 3472

Delta R.T. 0.000 min

Lab File: VL041512.D

Acq: 8 Aug 2024 14:26

Tgt Ion: 95 Resp: 1583653

Ion Ratio Lower Upper

95 100

174 70.3 56.3 84.5

175 4.9 4.0 6.0

