

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051921\  
 Data File : VL037013.D  
 Acq On : 20 May 2021 4:59  
 Operator : SY/AP  
 Sample : M2424-09 10X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 KSV-09

Manual Integrations  
 APPROVED

MMDadoda  
 5/24/2021 3:02:58 PM

Quant Time: May 20 08:45:55 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue May 18 2021  
 QLast Update : Tue May 18 12:00:15 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.64  | 49   | 1009067  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.15  | 114  | 2897524  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.05 | 117  | 2694930  | 10.00 | ppbv  | -0.01    |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.38  | 95    | 2071716  | 10.23    | ppbv | -0.01   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.30% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 9) Propene                 | 2.99  | 41   | 61287    | 0.926  | ppbv   | 98     |
| 10) Heptane                | 8.09  | 43   | 29090    | 0.176  | ppbv # | 76     |
| 13) Ethanol                | 3.60  | 45   | 57893m   | 6.555  | ppbv   |        |
| 15) Acetone                | 3.82  | 43   | 4678882  | 45.270 | ppbv   | 97     |
| 17) tert-Butyl alcohol     | 4.30  | 59   | 46245m   | 0.488  | ppbv   |        |
| 19) Isopropyl Alcohol      | 3.96  | 45   | 44108    | 0.794  | ppbv # | 30     |
| 20) Methylene Chloride     | 4.32  | 84   | 89369    | 1.613  | ppbv   | 95     |
| 26) Hexane                 | 5.66  | 57   | 130741   | 1.030  | ppbv # | 25     |
| 27) Carbon Disulfide       | 4.52  | 76   | 32721    | 0.256  | ppbv # | 91     |
| 34) 2-Butanone             | 5.22  | 43   | 295749   | 2.803  | ppbv   | 94     |
| 51) 2-Hexanone             | 10.12 | 43   | 34518m   | 0.375  | ppbv   |        |
| 53) Toluene                | 9.78  | 91   | 82354m   | 0.277  | ppbv   |        |
| 59) m/p-Xylene             | 12.94 | 91   | 45226m   | 0.144  | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene | 16.73 | 105  | 33560m   | 0.097  | ppbv   |        |

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

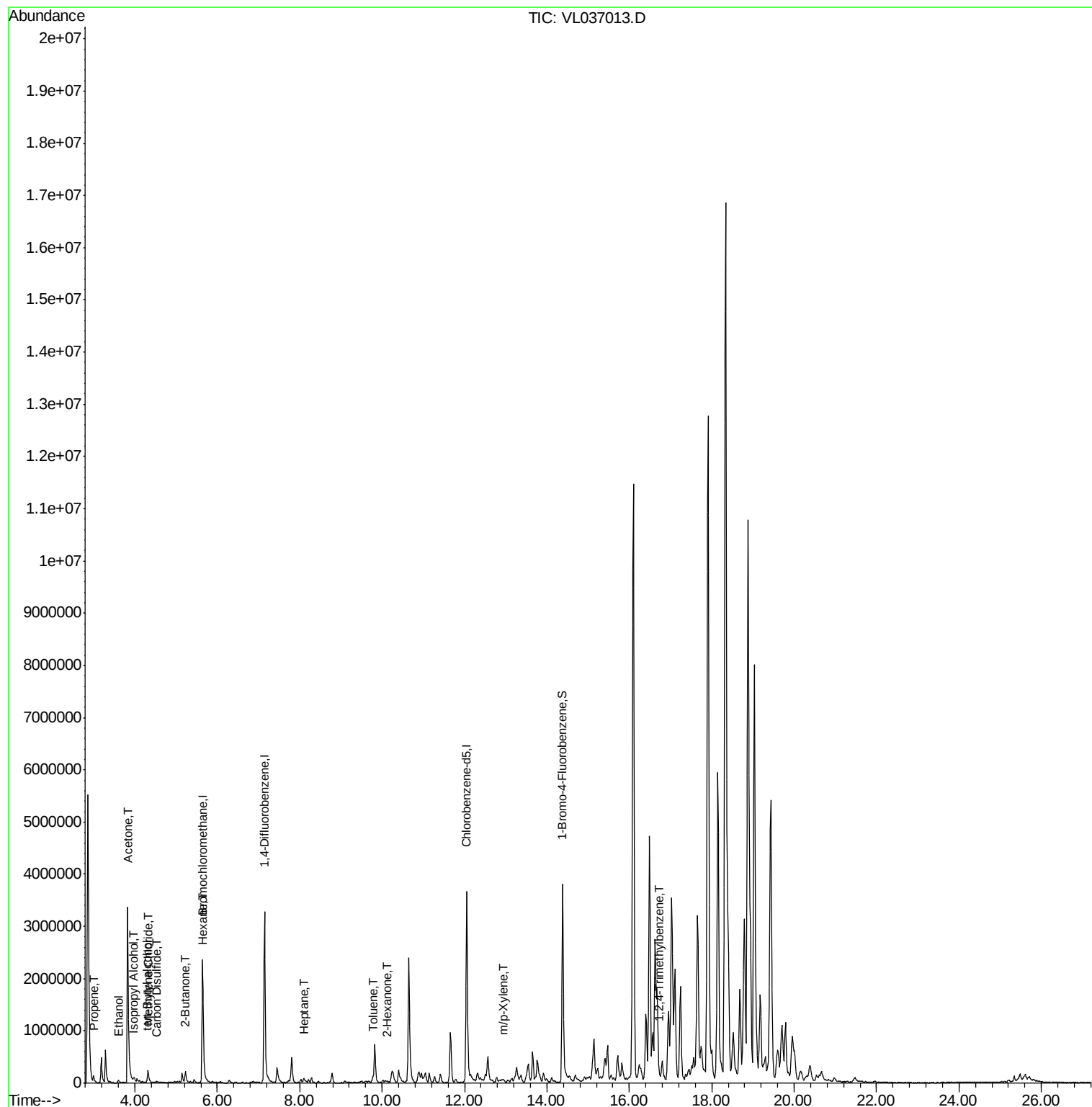
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL051921\  
Data File : VL037013.D  
Acq On : 20 May 2021 4:59  
Operator : SY/AP  
Sample : M2424-09 10X  
Misc : 400mL/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

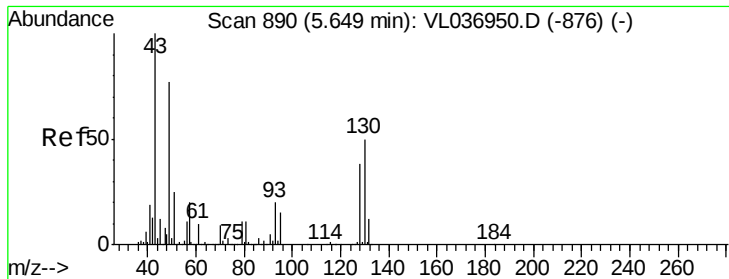
Instrument :  
MSVOA\_L  
ClientSampleId :  
KSV-09

Manual Integrations  
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5/24/2021 3:02:58 PM

Quant Time: May 20 08:45:55 2021  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue May  
QLast Update : Tue May 18 12:00:15 2021  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 887

Delta R.T. -0.01 min

Lab File: VL037013.D

Acq: 20 May 2021 4:59

Instrument :

MSVOA\_L

ClientSampleId :

KSV-09

Tot Ion: 49 Resp: 1009067

Ion Ratio Lower Upper

49 100

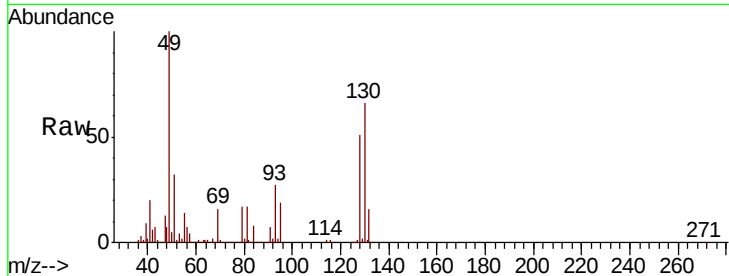
128 53.1 26.9 80.7

130 69.2 33.8 101.4

Manual Integrations  
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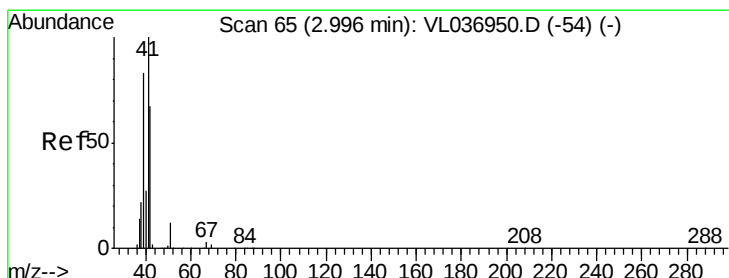
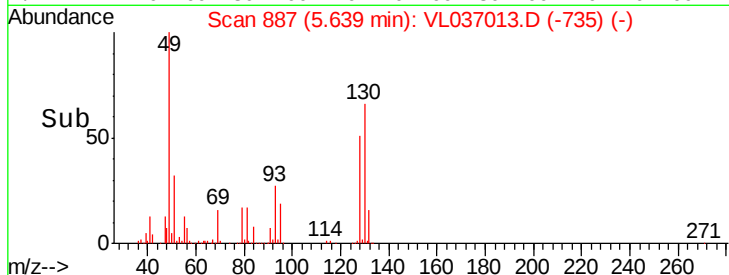
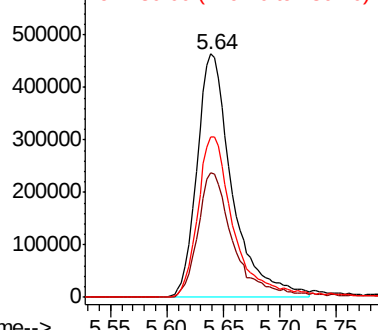
5/24/2021 3:02:58 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#9

Propene

Concen: 0.926 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.00 min

Lab File: VL037013.D

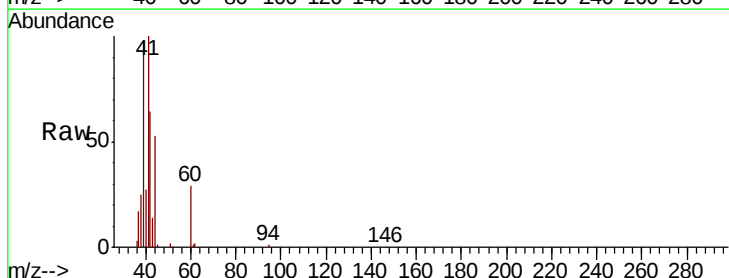
Acq: 20 May 2021 4:59

Tgt Ion: 41 Resp: 61287

Ion Ratio Lower Upper

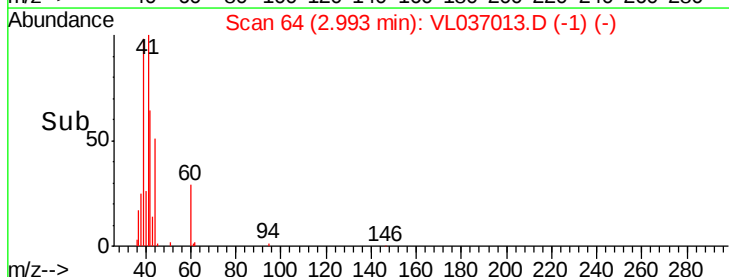
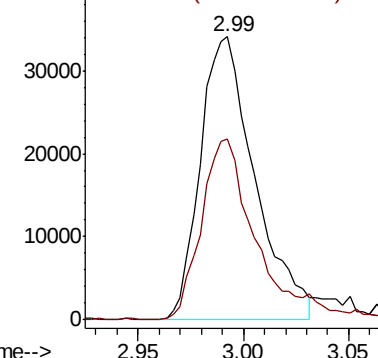
41 100

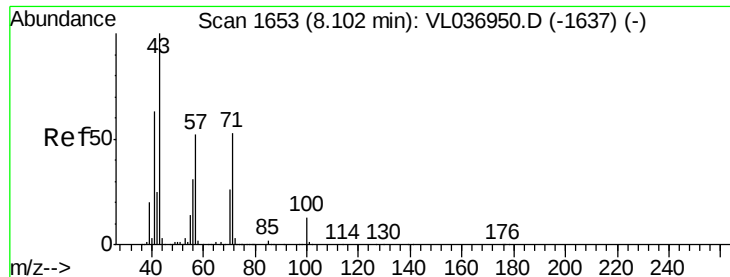
42 65.9 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.176 ppbv

RT: 8.09 min Scan# 1650

Delta R.T. -0.01 min

Lab File: VL037013.D

Acq: 20 May 2021 4:59

Instrument :

MSVOA\_L

ClientSampled :

KSV-09

Tot Ion: 43 Resp: 29090

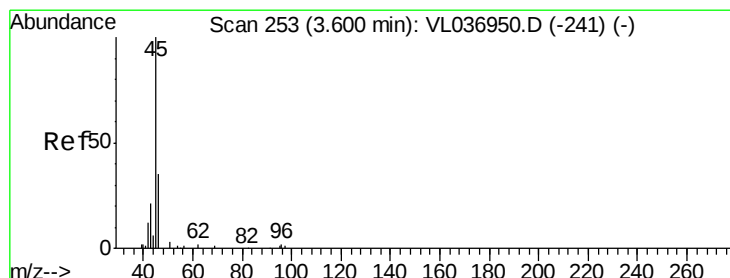
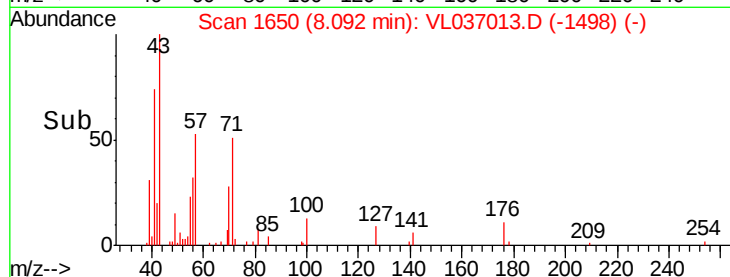
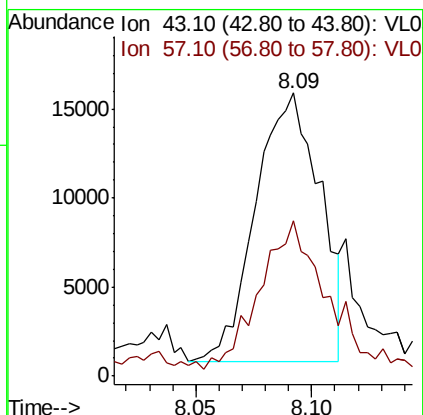
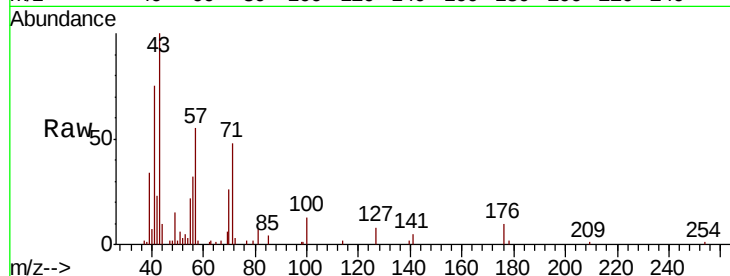
Ion Ratio Lower Upper

43 100

57 68.1 41.0 61.6#

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#13

Ethanol

Concen: 6.555 ppbv m

RT: 3.60 min Scan# 254

Delta R.T. 0.00 min

Lab File: VL037013.D

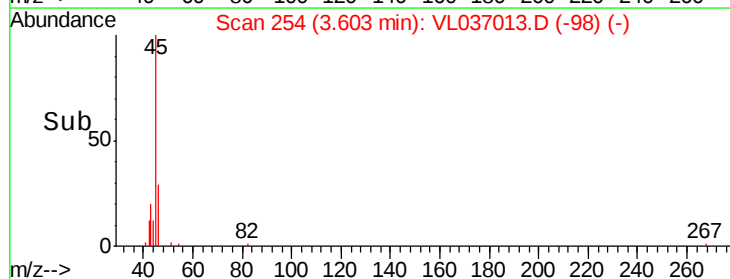
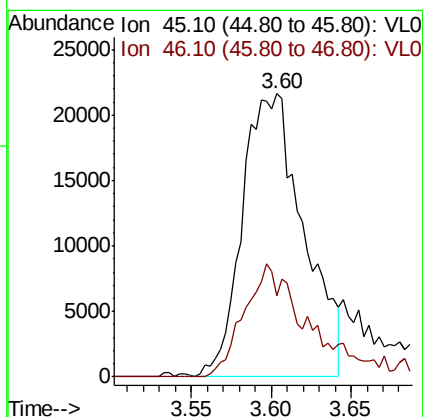
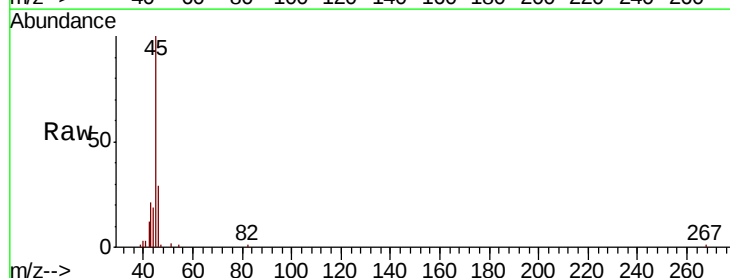
Acq: 20 May 2021 4:59

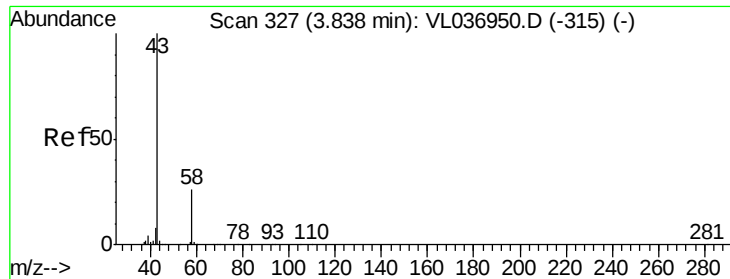
Tgt Ion: 45 Resp: 57893

Ion Ratio Lower Upper

45 100

46 41.7 16.3 65.3





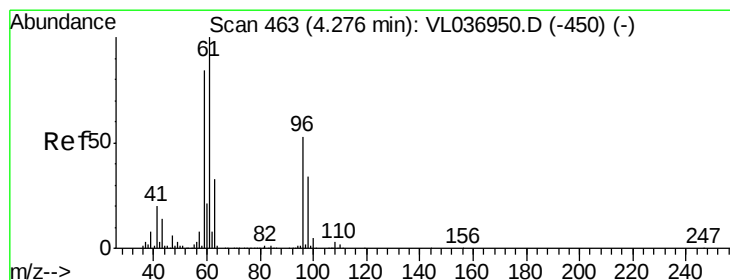
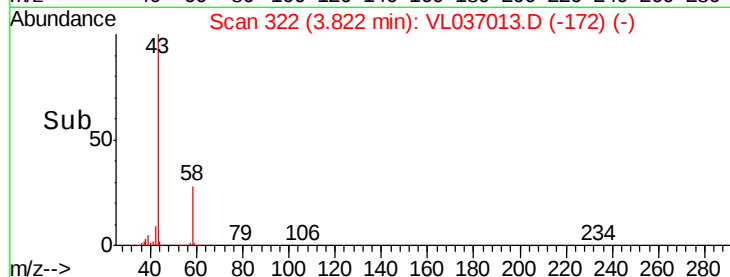
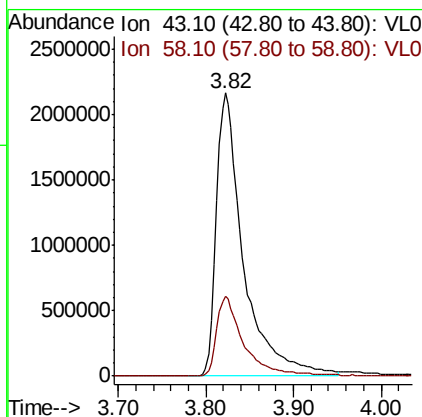
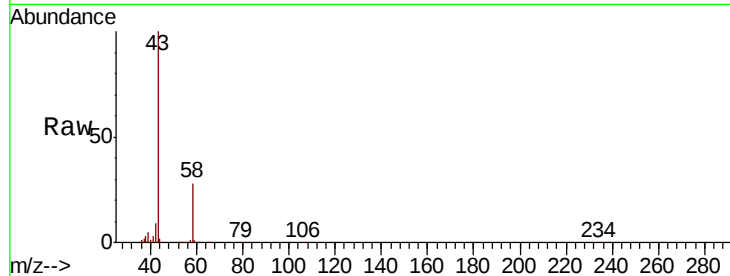
#15  
Acetone  
Concen: 45.270 ppbv  
RT: 3.82 min Scan# 322  
Delta R.T. -0.02 min  
Lab File: VL037013.D  
Acq: 20 May 2021 4:59

Instrument :  
MSVOA\_L  
ClientSampled :  
KSV-09

Tot Ion: 43 Resp: 4678882  
Ion Ratio Lower Upper  
43 100  
58 28.5 24.0 36.0

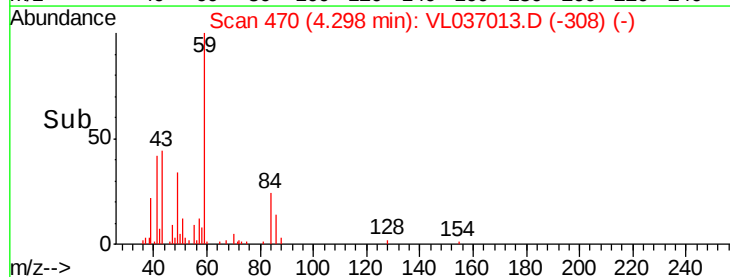
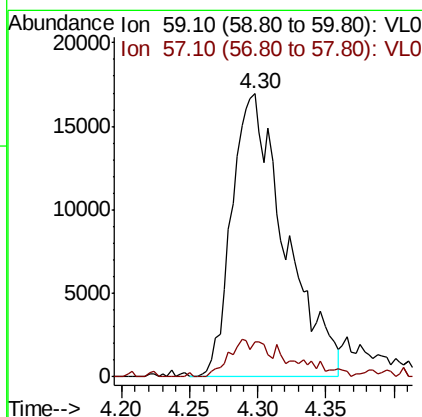
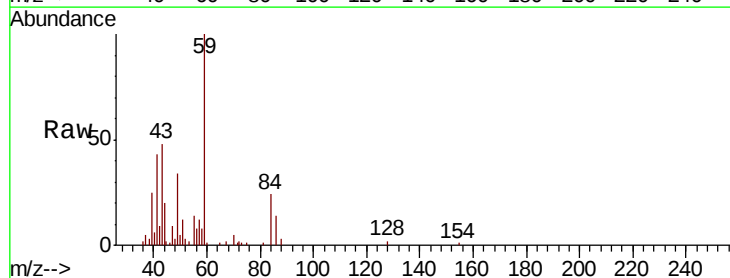
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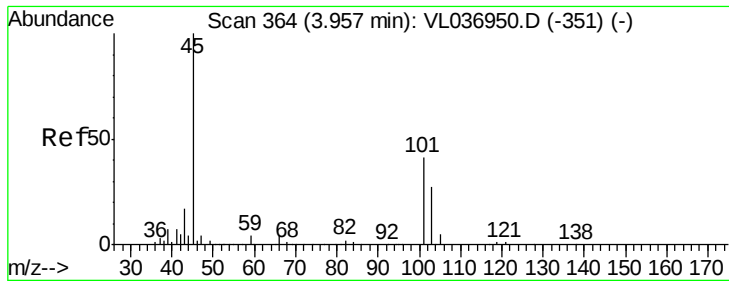
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#17  
tert-Butyl alcohol  
Concen: 0.488 ppbv m  
RT: 4.30 min Scan# 470  
Delta R.T. 0.02 min  
Lab File: VL037013.D  
Acq: 20 May 2021 4:59

Tgt Ion: 59 Resp: 46245  
Ion Ratio Lower Upper  
59 100  
57 14.5 8.3 12.5#





#19

Isopropyl Alcohol

Concen: 0.794 ppbv

RT: 3.96 min Scan# 366

Delta R.T. 0.01 min

Lab File: VL037013.D

Acq: 20 May 2021 4:59

Instrument :

MSVOA\_L

ClientSampled :

KSV-09

Tot Ion: 45 Resp: 44108

Ion Ratio Lower Upper

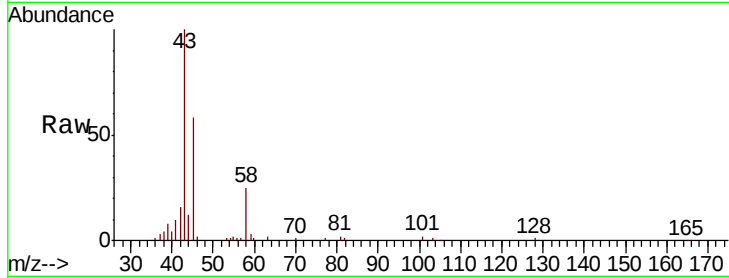
45 100

58 0.0 37.2 55.8#

Manual Integrations  
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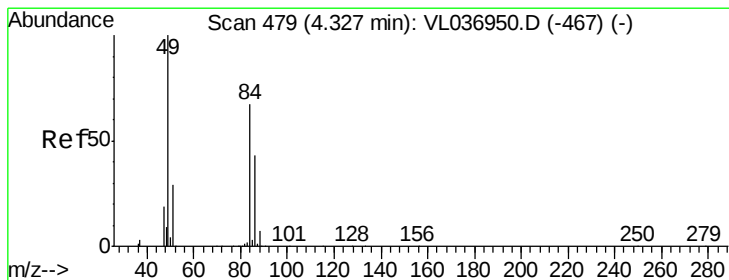
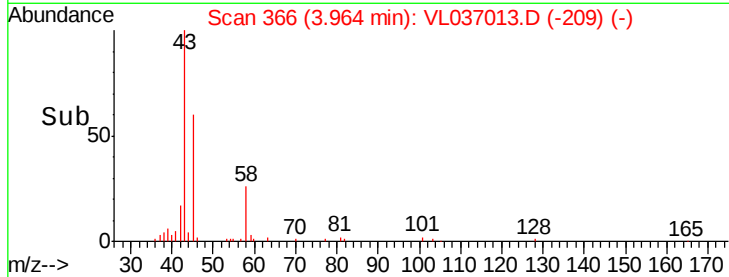
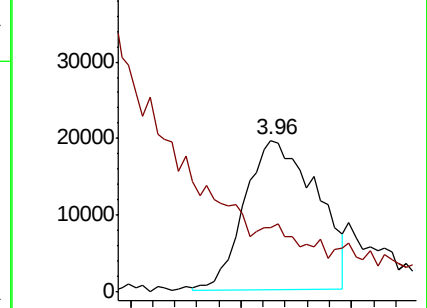
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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 1.613 ppbv

RT: 4.32 min Scan# 478

Delta R.T. -0.00 min

Lab File: VL037013.D

Acq: 20 May 2021 4:59

Tgt Ion: 84 Resp: 89369

Ion Ratio Lower Upper

84 100

49 144.6 119.8 179.6

51 43.3 35.1 52.7

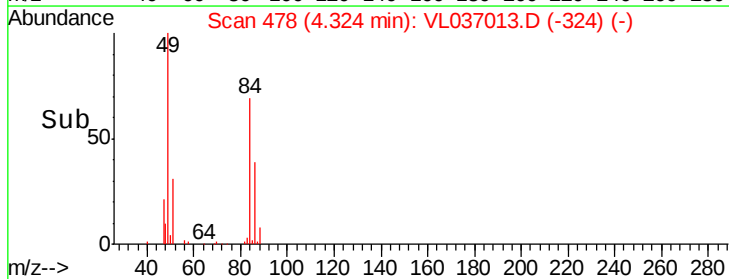
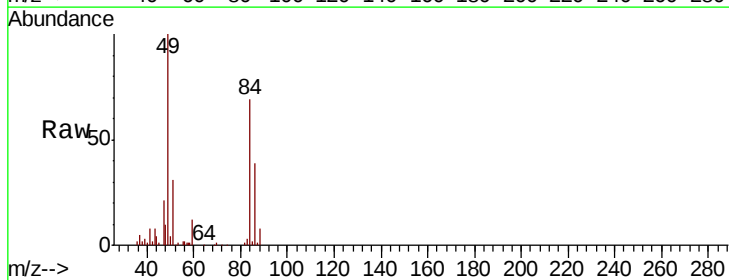
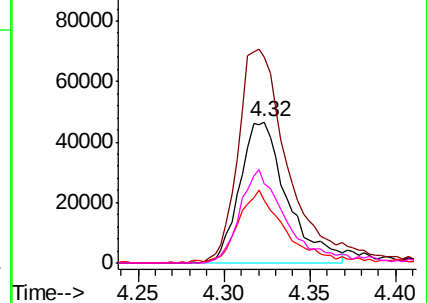
86 56.4 50.9 76.3

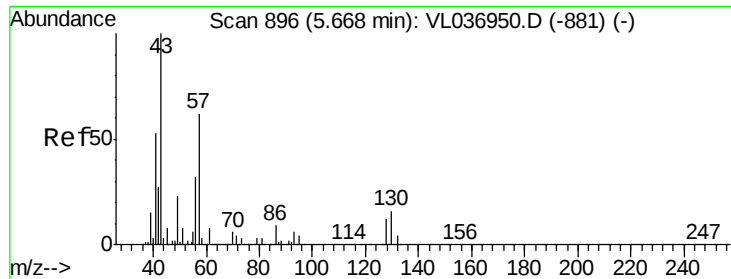
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#26

Hexane

Concen: 1.030 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL037013.D

Acq: 20 May 2021 4:59

Instrument :

MSVOA\_L

ClientSampleId :

KSV-09

Tot Ion: 57 Resp: 130741  
Ion Ratio Lower Upper

57 100

41 218.8 70.5 105.7#

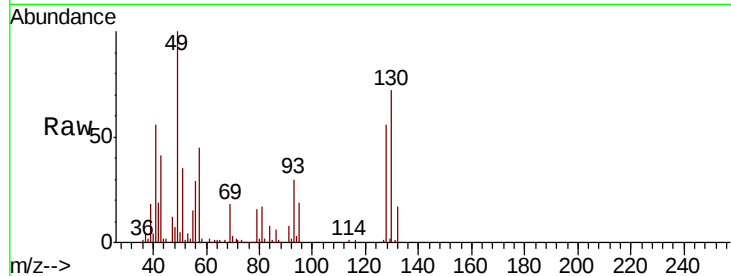
43 130.0 165.8 248.8#

56 98.0 42.2 63.4#

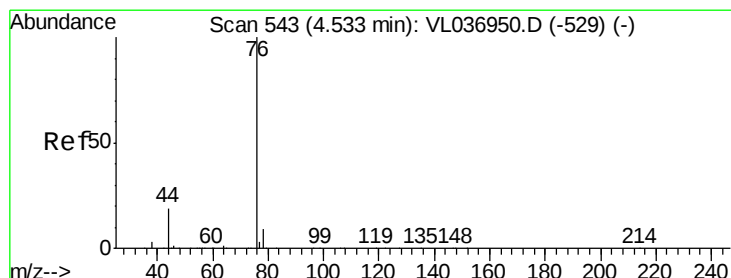
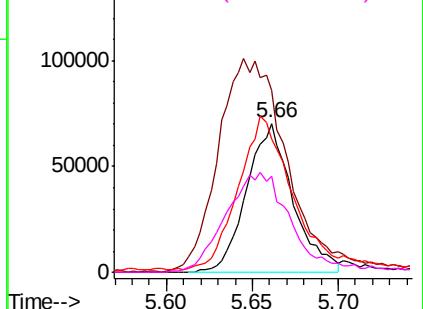
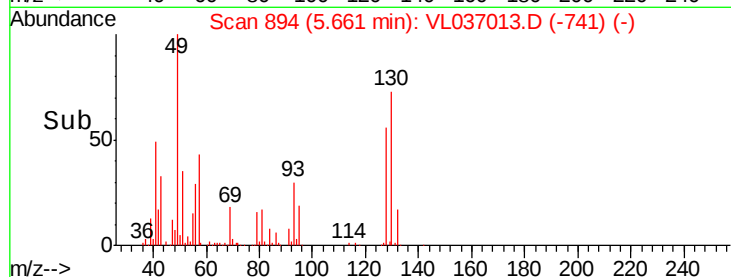
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Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.256 ppbv

RT: 4.52 min Scan# 540

Delta R.T. -0.01 min

Lab File: VL037013.D

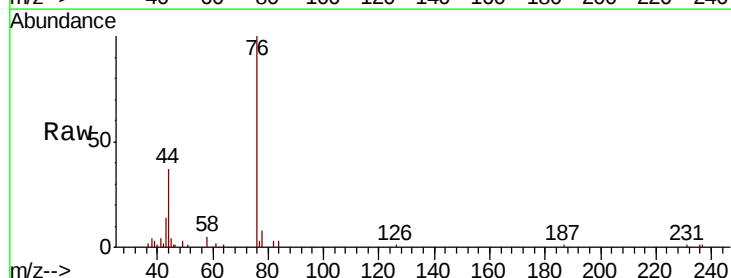
Acq: 20 May 2021 4:59

Tgt Ion: 76 Resp: 32721  
Ion Ratio Lower Upper

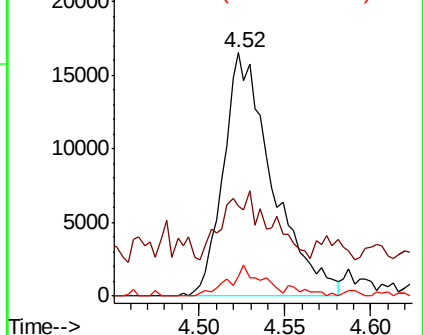
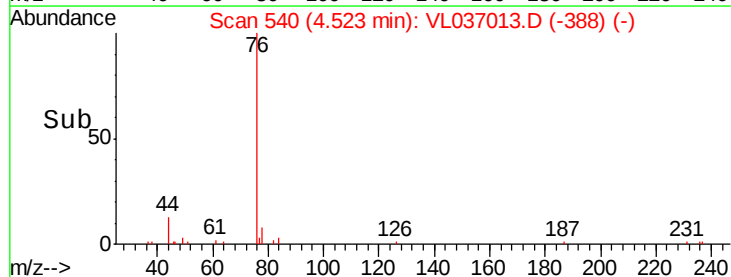
76 100

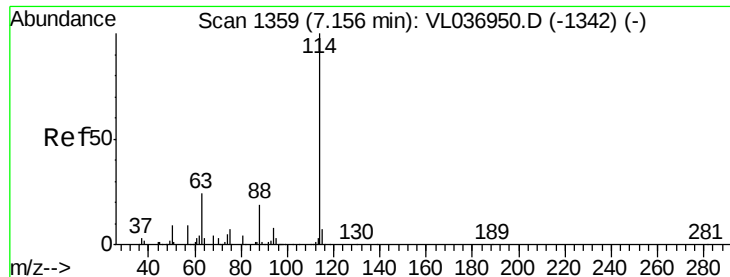
44 25.5 15.5 23.3#

78 10.0 7.8 11.6



Abundance Ion 76.00 (75.70 to 76.70): VL0  
Ion 44.10 (43.80 to 44.80): VL0  
Ion 78.00 (77.70 to 78.70): VL0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.15 min Scan# 1356

Delta R.T. -0.01 min

Lab File: VL037013.D

Acq: 20 May 2021 4:59

Instrument :

MSVOA\_L

ClientSampleId :

KSV-09

Tot Ion:114 Resp: 2897524

Ion Ratio Lower Upper

114 100

63 24.2 19.6 29.4

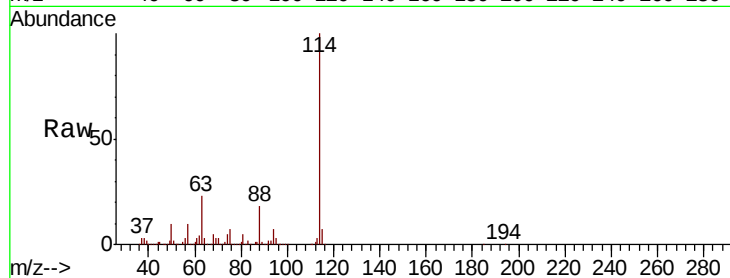
88 17.8 14.6 21.8

Manual Integrations

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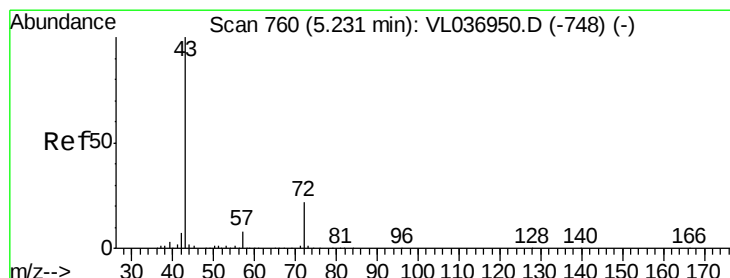
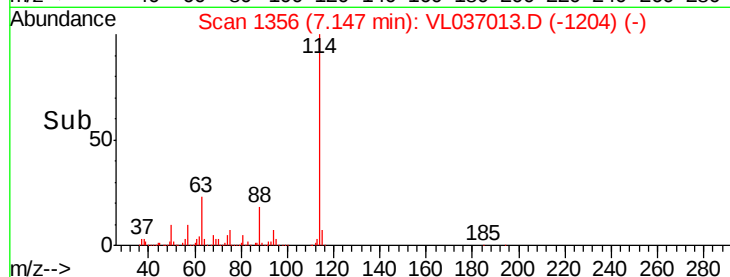
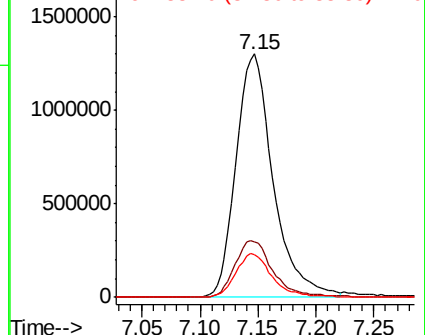
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Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 2.803 ppbv

RT: 5.22 min Scan# 757

Delta R.T. -0.01 min

Lab File: VL037013.D

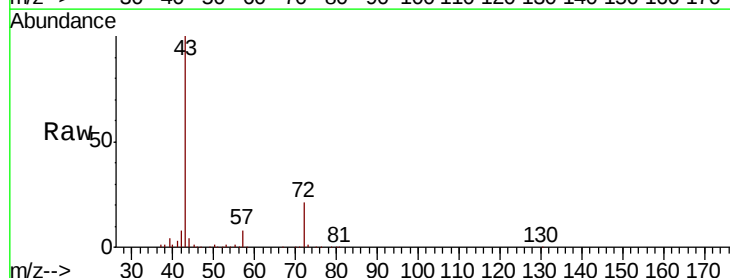
Acq: 20 May 2021 4:59

Tgt Ion: 43 Resp: 295749

Ion Ratio Lower Upper

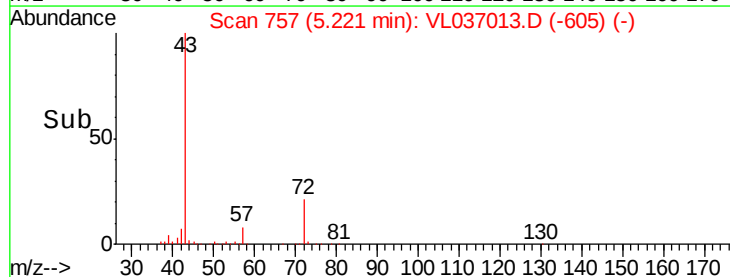
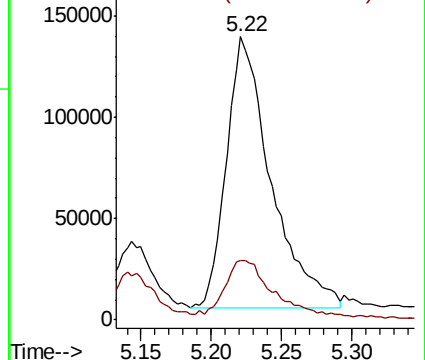
43 100

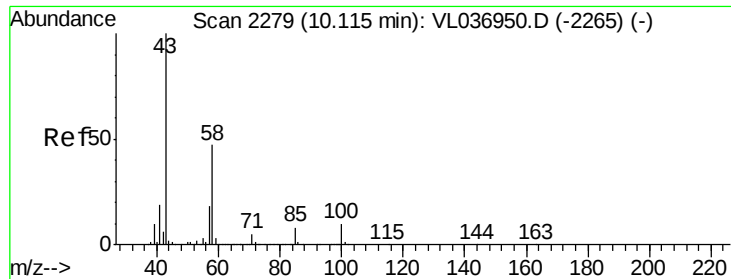
72 26.6 19.0 28.4



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





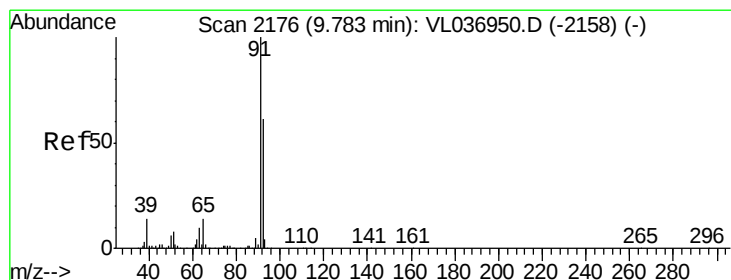
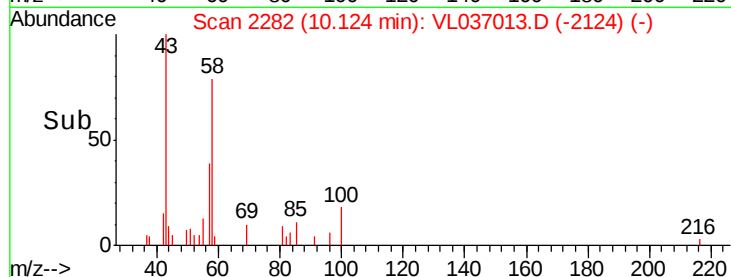
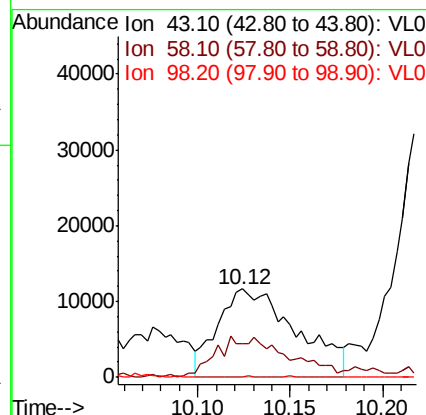
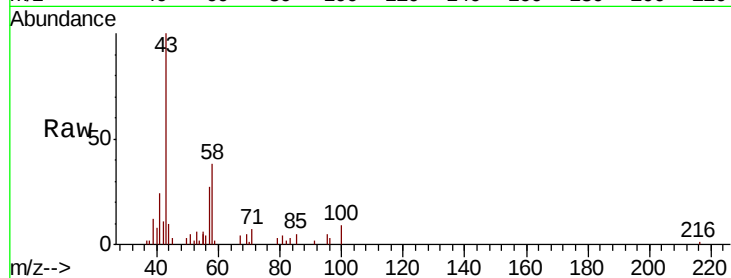
#51  
2-Hexanone  
Concen: 0.375 ppbv m  
RT: 10.12 min Scan# 2282  
Delta R.T. 0.01 min  
Lab File: VL037013.D  
Acq: 20 May 2021 4:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
KSV-09

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 48.8  | 41.1  | 61.7  |
| 98      | 0.0   | 0.1   | 0.1#  |

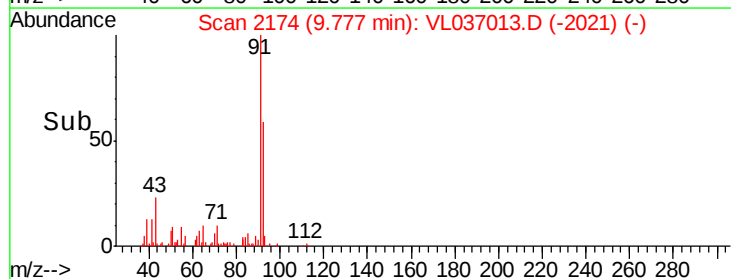
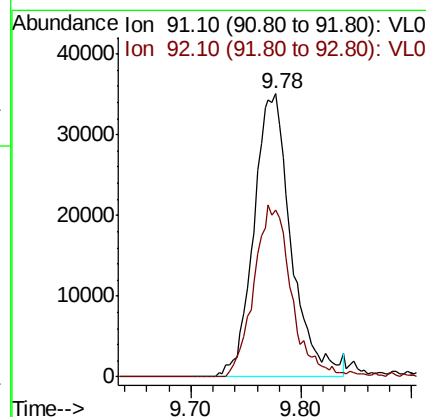
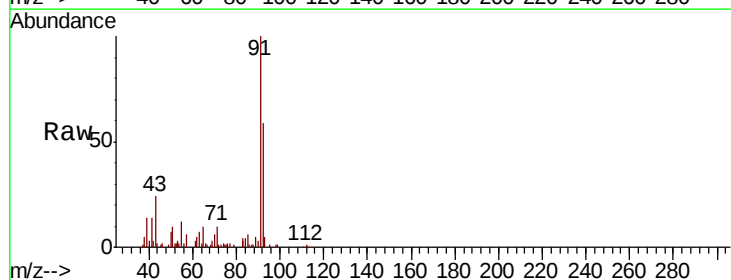
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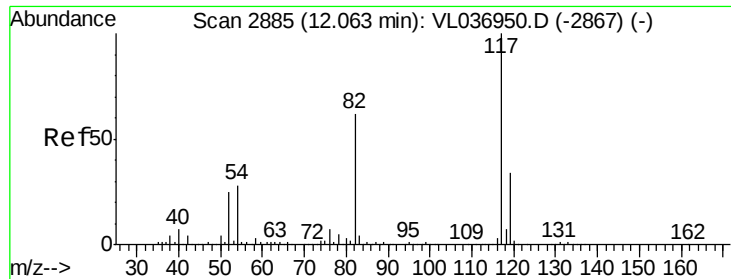
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#53  
Toluene  
Concen: 0.277 ppbv m  
RT: 9.78 min Scan# 2174  
Delta R.T. -0.01 min  
Lab File: VL037013.D  
Acq: 20 May 2021 4:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 60.9  | 49.5  | 74.3  |





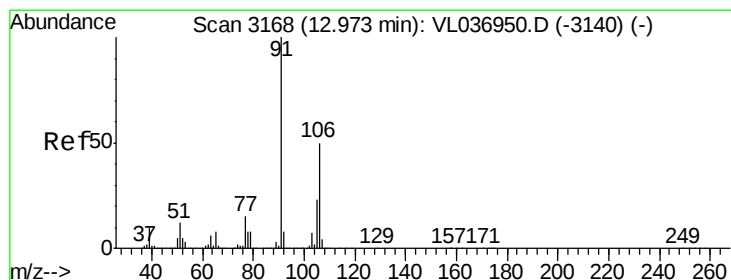
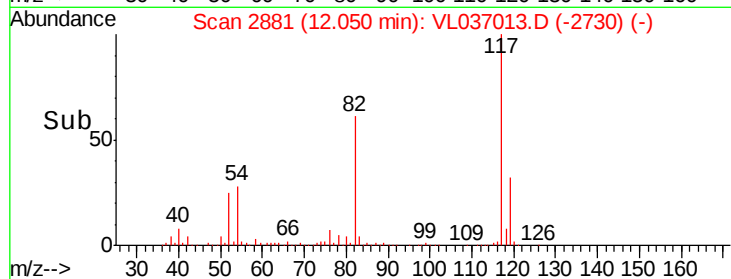
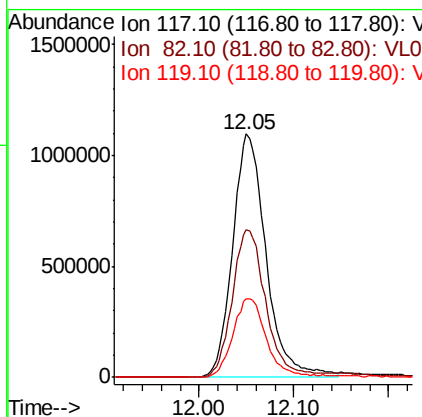
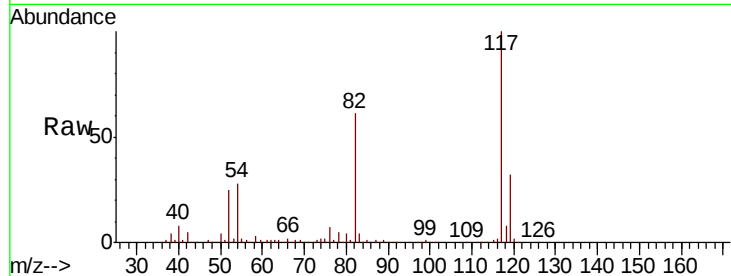
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.05 min Scan# 2881  
Delta R.T. -0.01 min  
Lab File: VL037013.D  
Acq: 20 May 2021 4:59

Instrument :  
MSVOA\_L  
ClientSampled :  
KSV-09

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 63.5  | 52.6  | 79.0  |
| 119     | 33.4  | 46.6  | 70.0# |

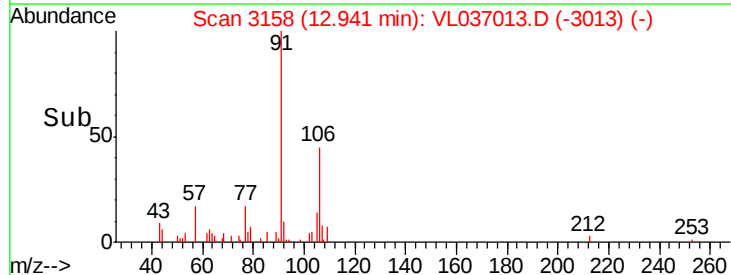
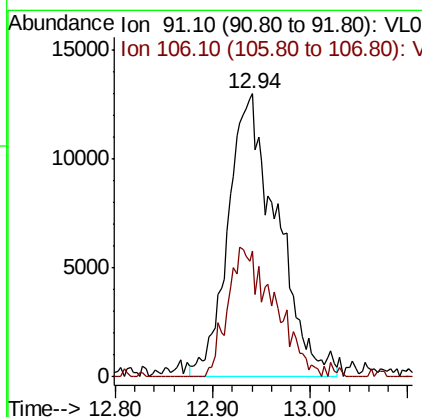
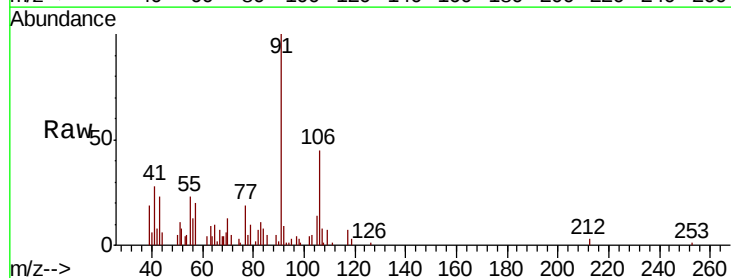
Manual Integrations  
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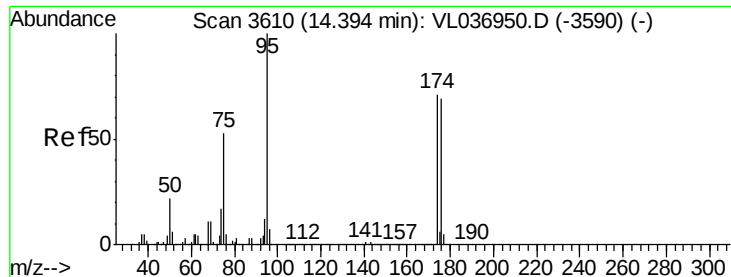
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#59  
m/p-Xylene  
Concen: 0.144 ppbv m  
RT: 12.94 min Scan# 3158  
Delta R.T. -0.03 min  
Lab File: VL037013.D  
Acq: 20 May 2021 4:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 0.0   | 37.4  | 56.2# |





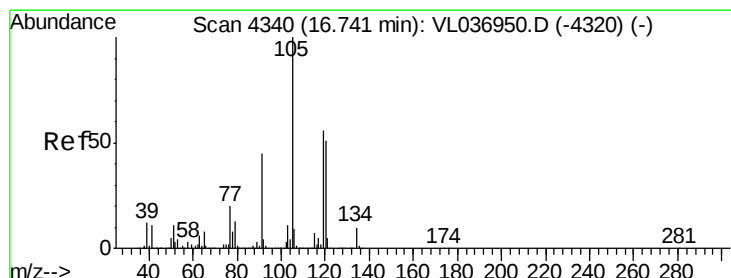
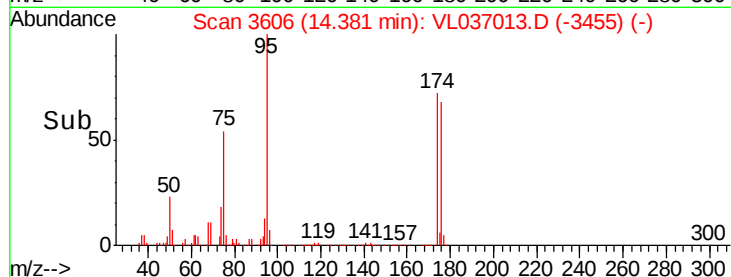
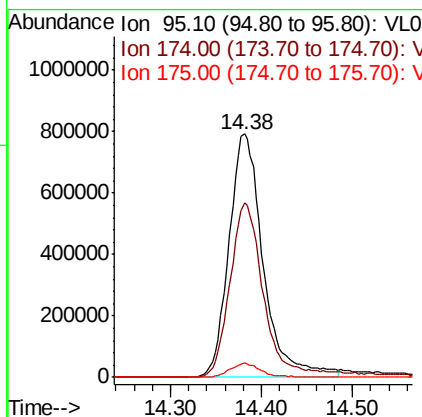
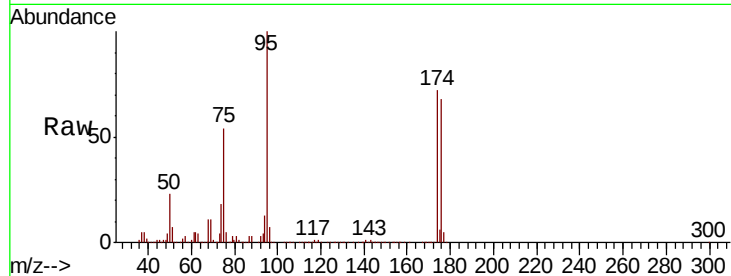
#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.233 ppbv  
 RT: 14.38 min Scan# 3606  
 Delta R.T. -0.01 min  
 Lab File: VL037013.D  
 Acq: 20 May 2021 4:59

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 KSV-09

Tot Ion: 95 Resp: 2071716  
 Ion Ratio Lower Upper  
 95 100  
 174 73.7 58.4 87.6  
 175 5.3 4.4 6.6

Manual Integrations  
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 5/24/2021 3:02:58 PM



#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.097 ppbv m  
 RT: 16.73 min Scan# 4335  
 Delta R.T. -0.02 min  
 Lab File: VL037013.D  
 Acq: 20 May 2021 4:59

Tgt Ion: 105 Resp: 33560  
 Ion Ratio Lower Upper  
 105 100  
 120 36.7 40.6 61.0#  
 91 14.5 37.4 56.0#  
 77 14.3 16.2 24.4#

