

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL112918\  
 Data File : VL032839.D  
 Acq On : 29 Nov 2018 18:00  
 Operator : SY/AP  
 Sample : J6088-02DL 10X  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IAS-4DL

Manual Integrations  
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 12/4/2018 8:38:45 AM

Quant Time: Nov 30 07:22:48 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL111418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov 14 2018  
 QLast Update : Wed Nov 14 07:00:23 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1466789  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3665355  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3455517  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2625257  | 10.16    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.60% |

| Target Compounds         | R.T. | QIon | Response | Conc  | Units  | Qvalue |
|--------------------------|------|------|----------|-------|--------|--------|
| 3) Chlorodifluoromethane | 3.02 | 51   | 18867m   | 0.162 | ppbv   |        |
| 9) Propene               | 3.06 | 41   | 8610m    | 0.185 | ppbv   |        |
| 13) Ethanol              | 3.67 | 45   | 27662    | 1.815 | ppbv   | 94     |
| 15) Acetone              | 3.92 | 43   | 207978   | 1.553 | ppbv   | 100    |
| 19) Isopropyl Alcohol    | 4.06 | 45   | 22297m   | 0.250 | ppbv   |        |
| 20) Methylene Chloride   | 4.42 | 84   | 23257m   | 0.335 | ppbv   |        |
| 26) Hexane               | 5.79 | 57   | 33043    | 0.238 | ppbv # | 44     |
| 34) 2-Butanone           | 5.36 | 43   | 33093    | 0.174 | ppbv   | 100    |
| 38) Trichloroethene      | 7.97 | 130  | 7032m    | 0.060 | ppbv   |        |
| 53) Toluene              | 9.96 | 91   | 68630m   | 0.225 | ppbv   |        |

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

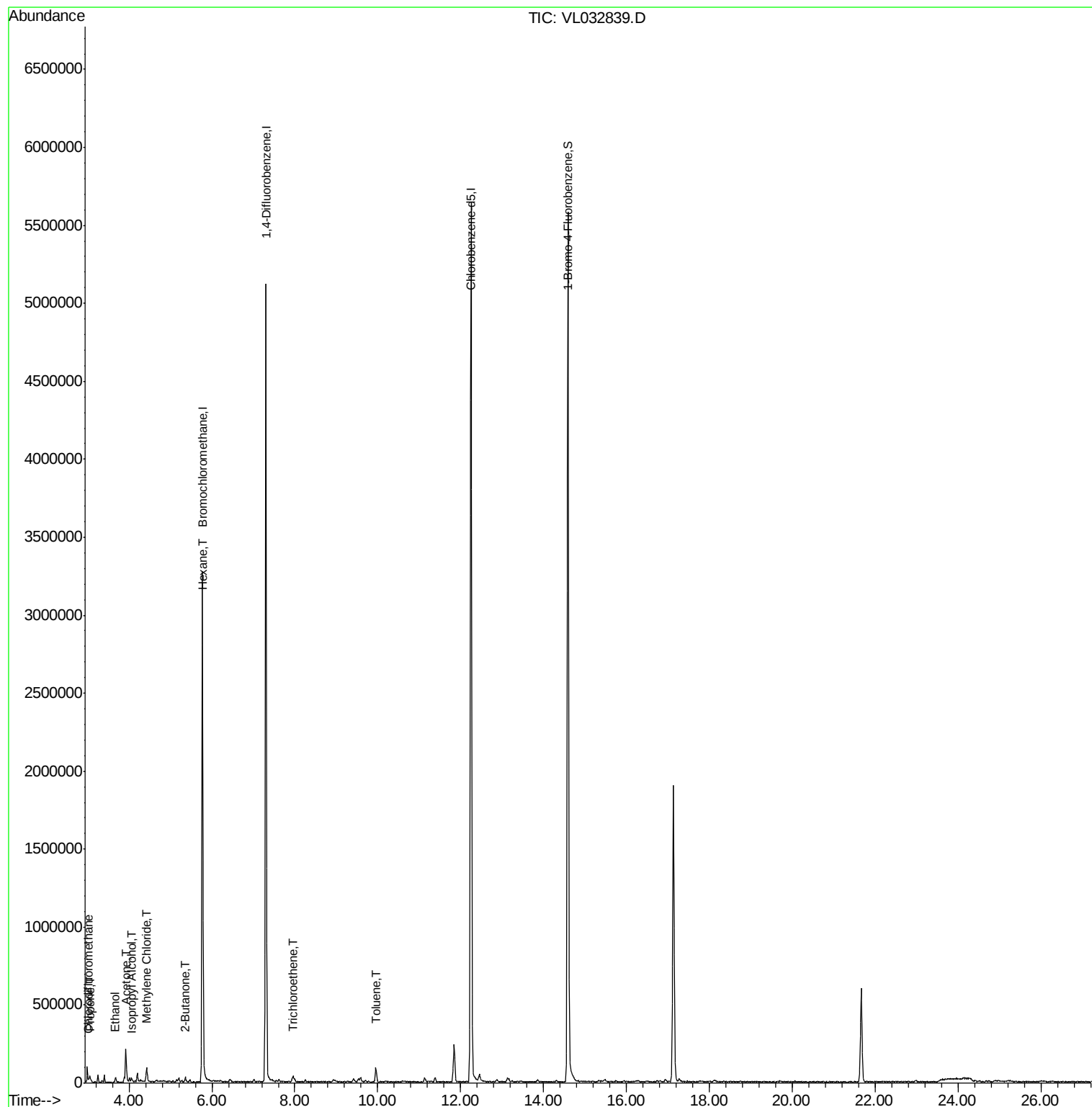
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA\_L\DATA\VL112918\  
Data File : VL032839.D  
Acq On : 29 Nov 2018 18:00  
Operator : SY/AP  
Sample : J6088-02DL 10X  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

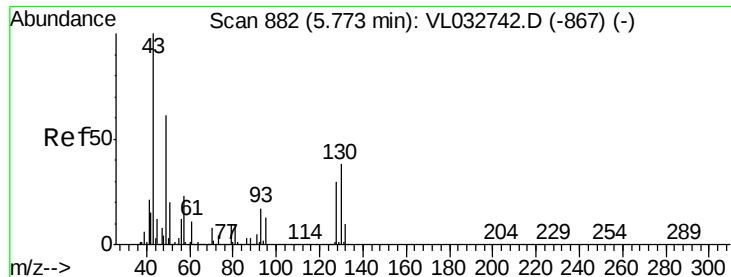
Instrument :  
MSVOA\_L  
ClientSampleId :  
IAS-4DL

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Quant Time: Nov 30 07:22:48 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_L\METHODS\VL111418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov  
QLast Update : Wed Nov 14 07:00:23 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.00 min

Lab File: VL032839.D

Acq: 29 Nov 2018 18:00

Instrument :

MSVOA\_L

ClientSampled :

IAS-4DL

Tgt Ion: 49 Resp: 1466789

Ion Ratio Lower Upper

49 100

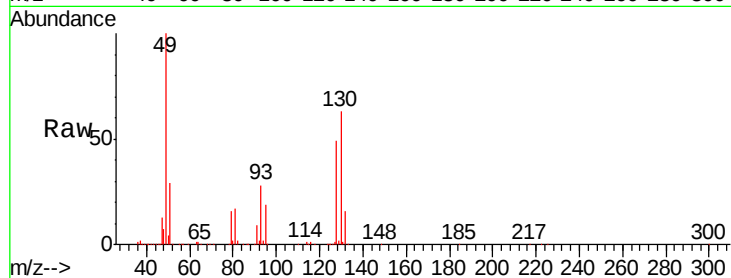
128 51.3 24.9 74.6

130 66.3 31.4 94.2

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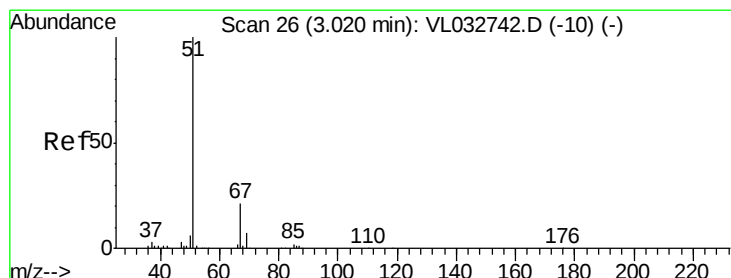
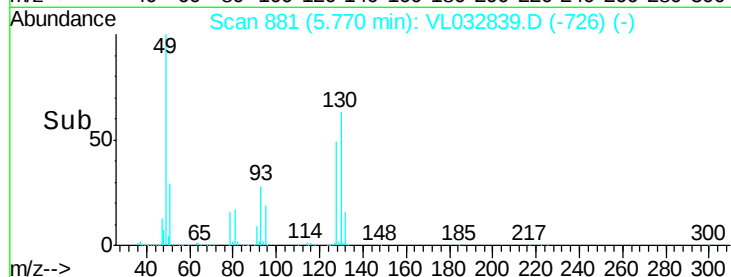
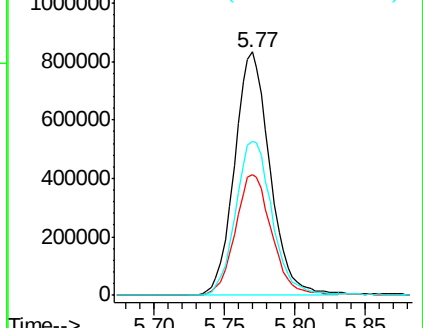
12/4/2018 8:38:45 AM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.162 ppbv m

RT: 3.02 min Scan# 26

Delta R.T. 0.00 min

Lab File: VL032839.D

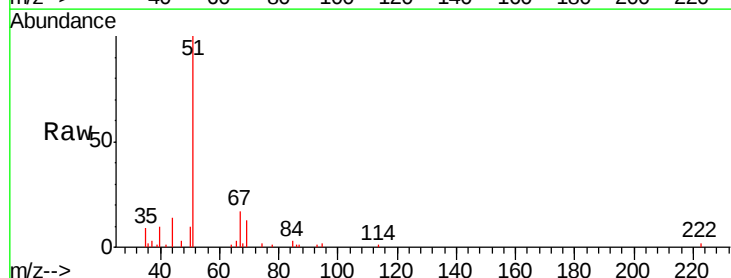
Acq: 29 Nov 2018 18:00

Tgt Ion: 51 Resp: 18867

Ion Ratio Lower Upper

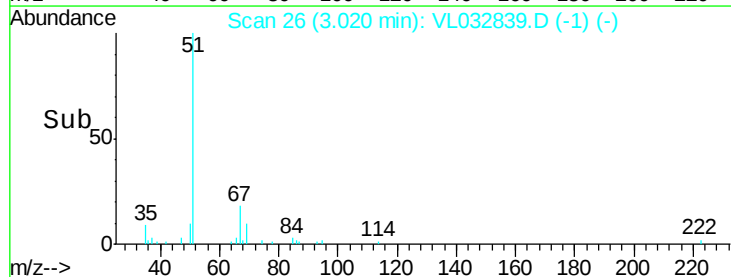
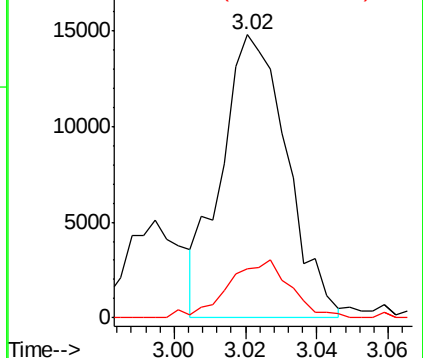
51 100

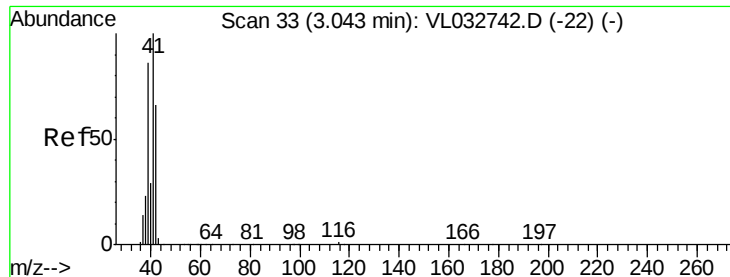
67 19.8 16.1 24.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 0.185 ppbv m

RT: 3.06 min Scan# 38

Delta R.T. 0.02 min

Lab File: VL032839.D

Acq: 29 Nov 2018 18:00

Instrument :

MSVOA\_L

ClientSampleId :

IAS-4DL

Tgt Ion: 41 Resp: 8610

Ion Ratio Lower Upper

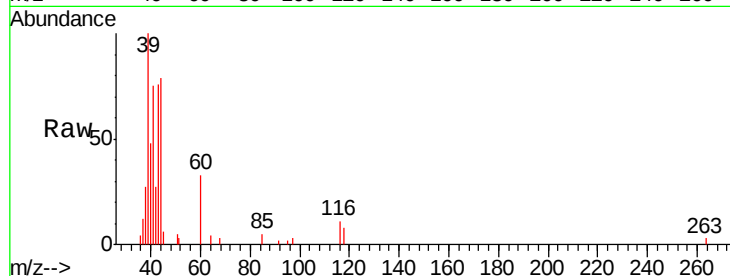
41 100

42 48.7 55.0 82.6#

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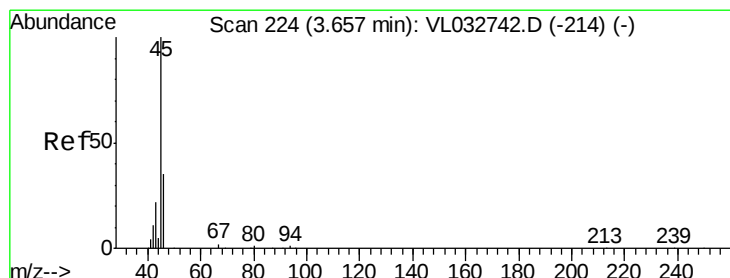
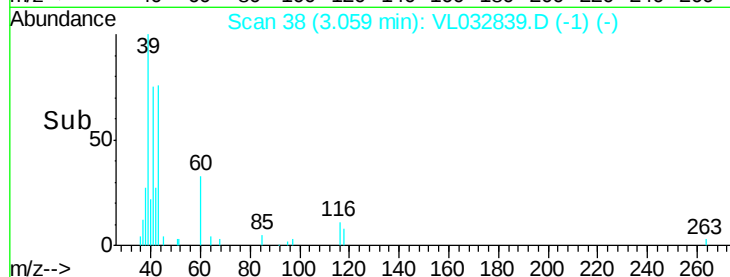
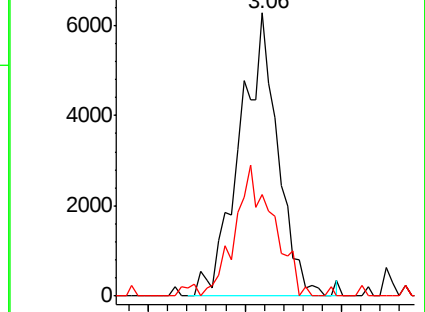
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#13

Ethanol

Concen: 1.815 ppbv

RT: 3.67 min Scan# 229

Delta R.T. 0.02 min

Lab File: VL032839.D

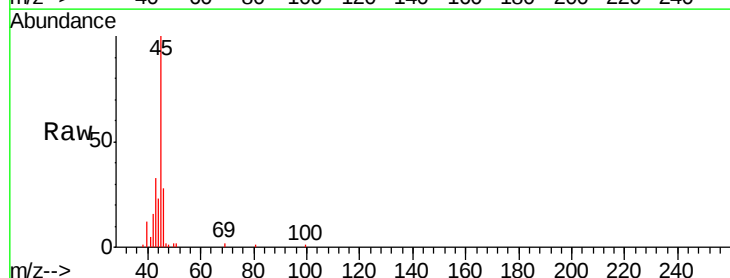
Acq: 29 Nov 2018 18:00

Tgt Ion: 45 Resp: 27662

Ion Ratio Lower Upper

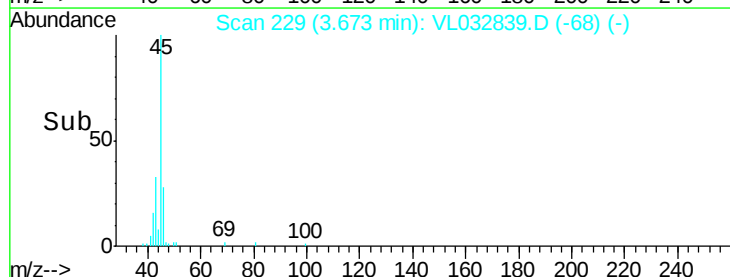
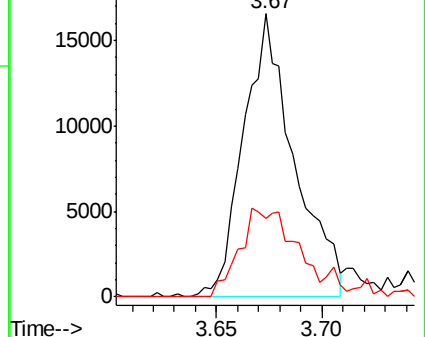
45 100

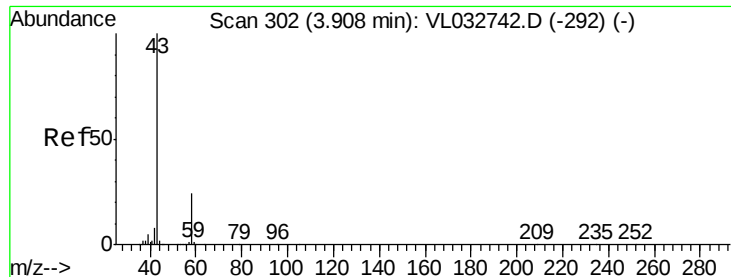
46 39.5 14.5 57.9



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 1.553 ppbv

RT: 3.92 min Scan# 305

Delta R.T. 0.01 min

Lab File: VL032839.D

Acq: 29 Nov 2018 18:00

Instrument :

MSVOA\_L

ClientSampled :

IAS-4DL

Tgt Ion: 43 Resp: 207978

Ion Ratio Lower Upper

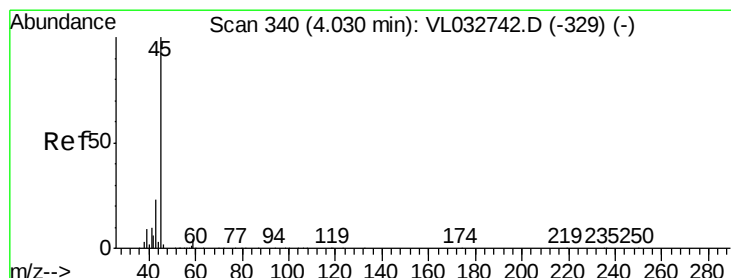
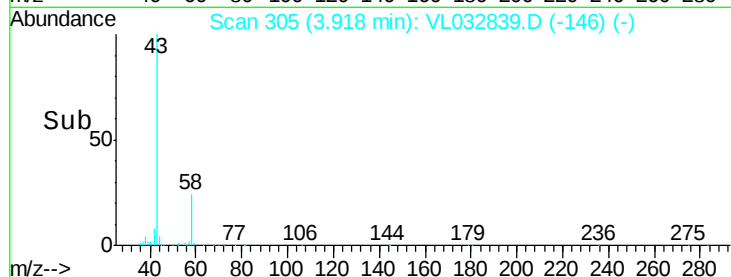
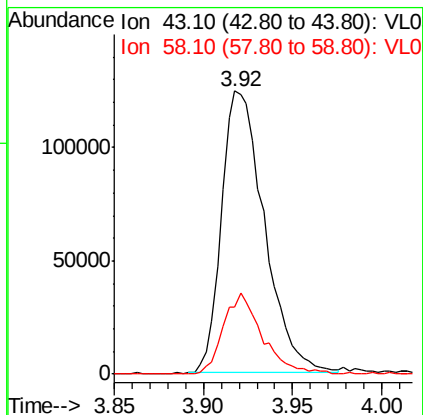
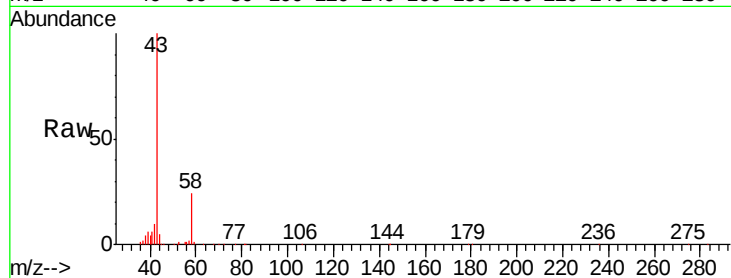
43 100

58 26.3 21.1 31.7

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#19

Isopropyl Alcohol

Concen: 0.250 ppbv m

RT: 4.06 min Scan# 350

Delta R.T. 0.03 min

Lab File: VL032839.D

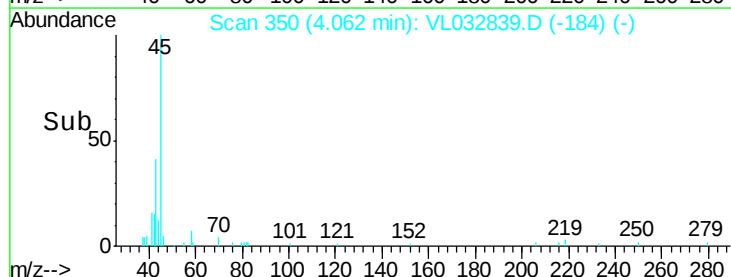
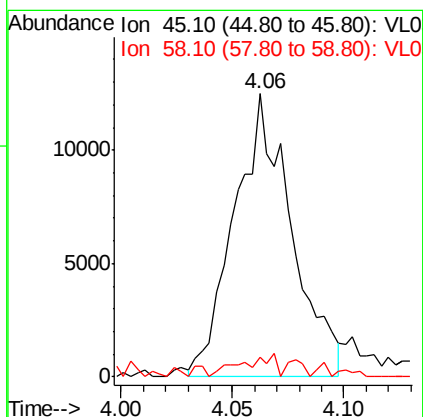
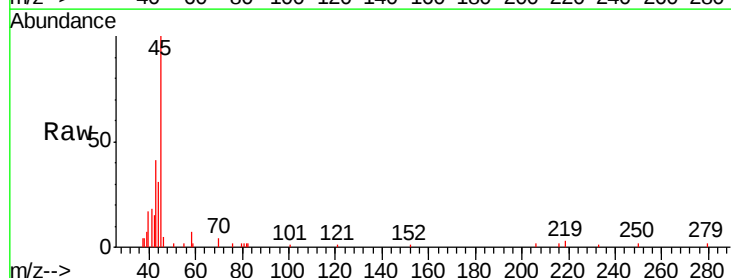
Acq: 29 Nov 2018 18:00

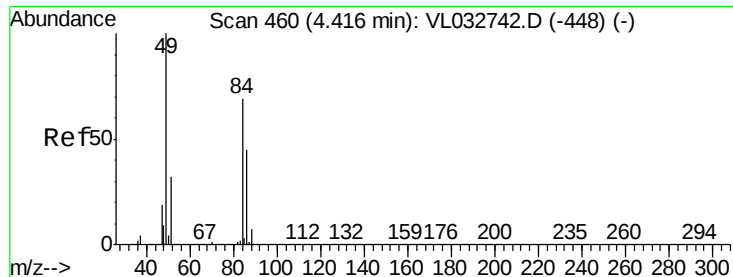
Tgt Ion: 45 Resp: 22297

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.0#





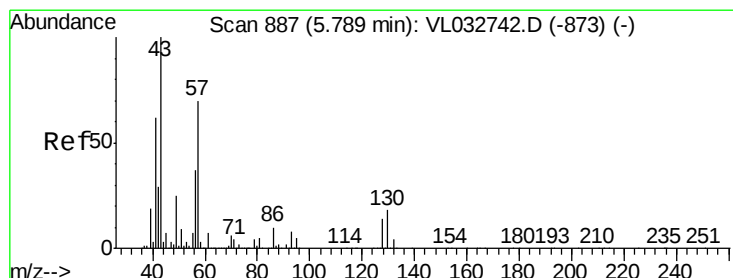
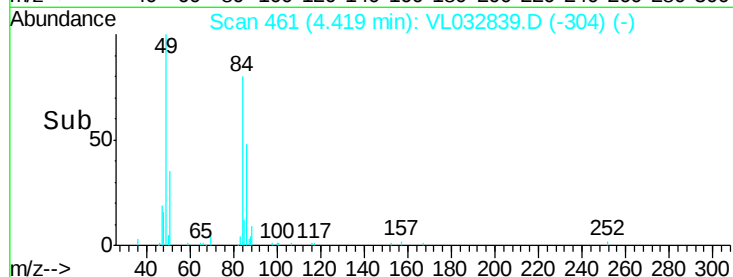
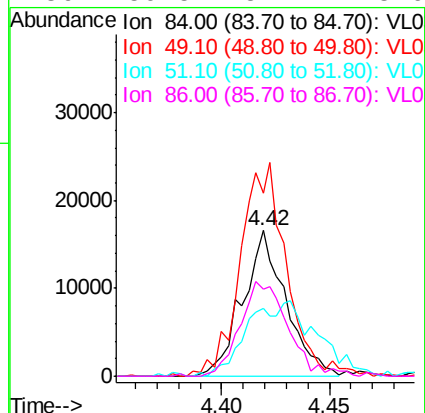
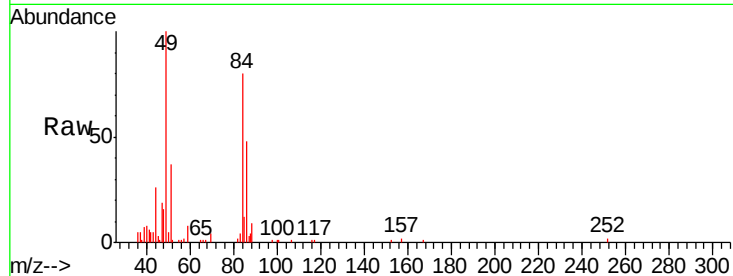
#20  
Methylene Chloride  
Concen: 0.335 ppbv  
RT: 4.42 min Scan# 461  
Delta R.T. 0.00 min  
Lab File: VL032839.D  
Acq: 29 Nov 2018 18:00

Instrument :  
MSVOA\_L  
ClientSampled :  
IAS-4DL

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 23257 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 125.3 | 115.8 | 173.6 |
| 51       | 46.1  | 36.9  | 55.3  |
| 86       | 59.5  | 52.4  | 78.6  |

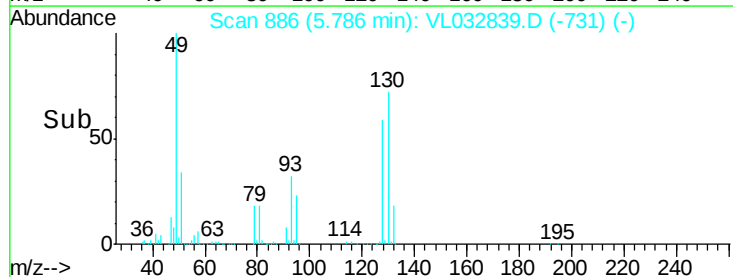
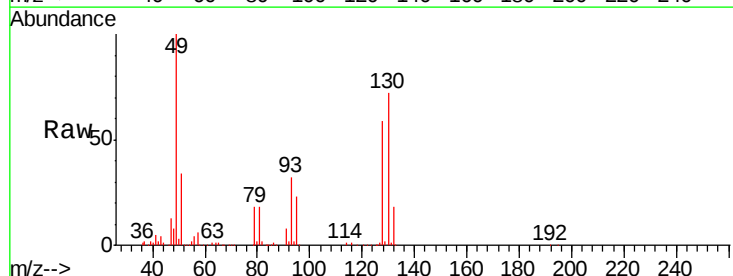
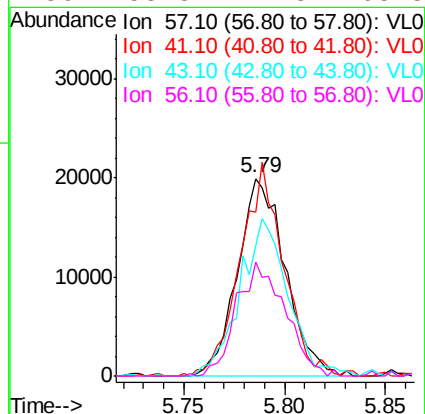
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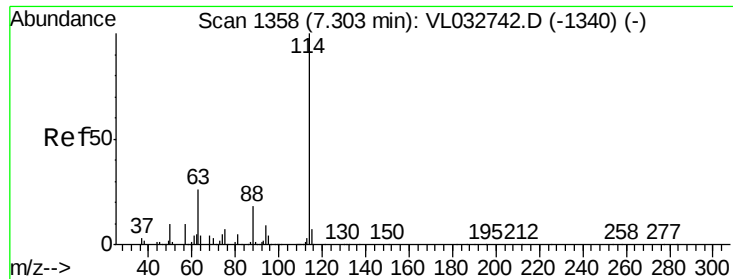
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#26  
Hexane  
Concen: 0.238 ppbv  
RT: 5.79 min Scan# 886  
Delta R.T. -0.00 min  
Lab File: VL032839.D  
Acq: 29 Nov 2018 18:00

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 33043  |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 98.6  | 70.3  | 105.5  |
| 43       | 81.0  | 174.0 | 261.0# |
| 56       | 58.8  | 42.3  | 63.5   |





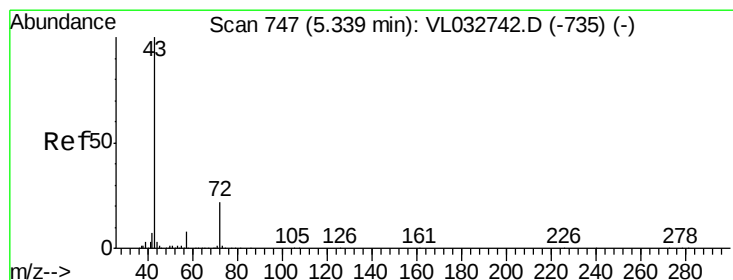
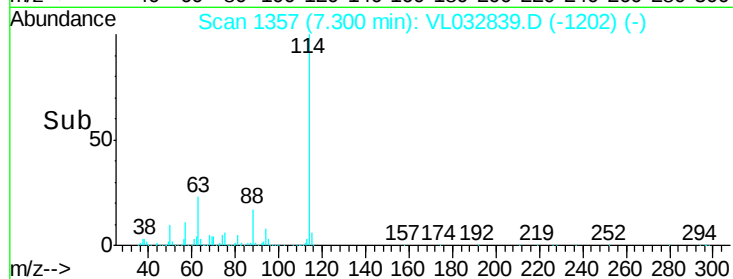
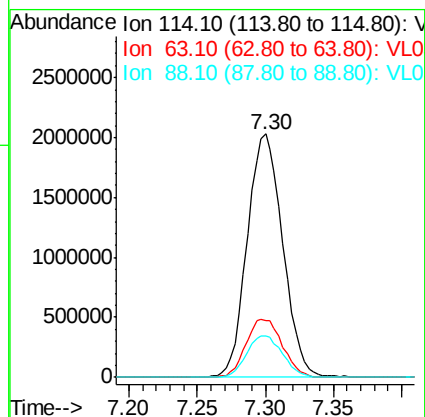
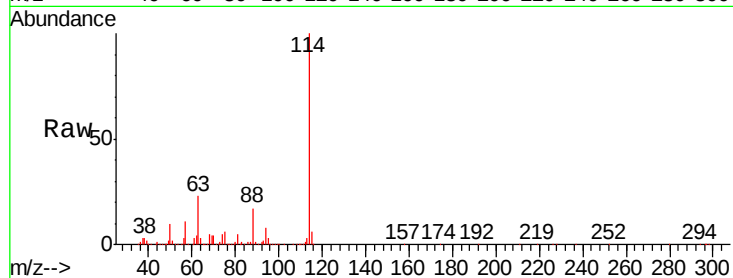
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.30 min Scan# 1357  
 Delta R.T. -0.00 min  
 Lab File: VL032839.D  
 Acq: 29 Nov 2018 18:00

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 IAS-4DL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 24.8  | 20.9  | 31.3  |
| 88      | 17.4  | 14.4  | 21.6  |

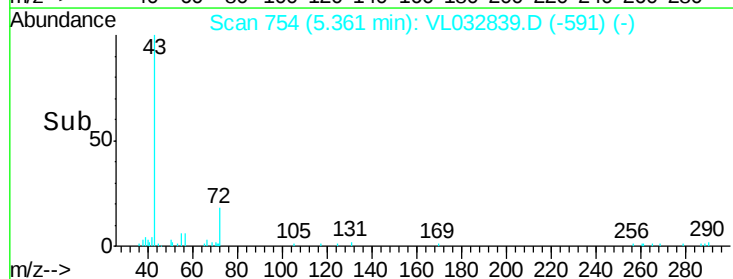
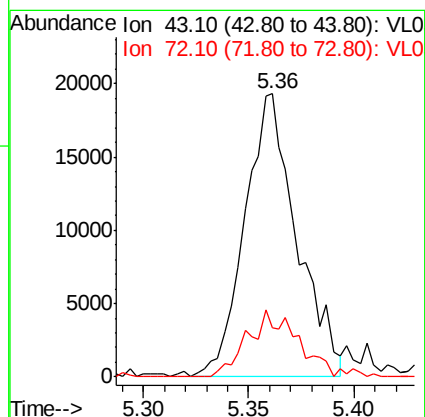
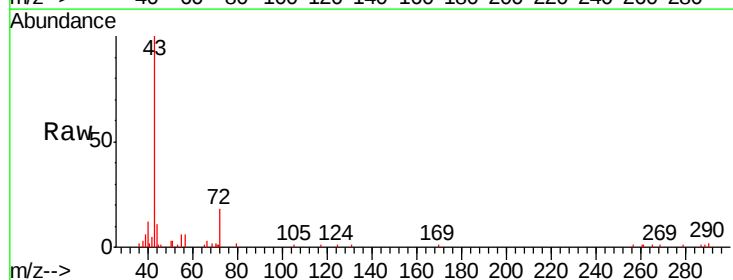
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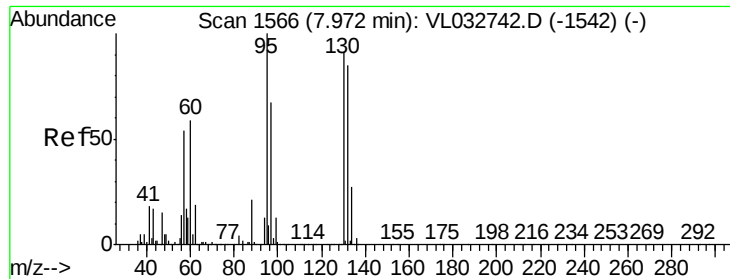
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#34  
 2-Butanone  
 Concen: 0.174 ppbv  
 RT: 5.36 min Scan# 754  
 Delta R.T. 0.02 min  
 Lab File: VL032839.D  
 Acq: 29 Nov 2018 18:00

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 23.2  | 18.4  | 27.6  |





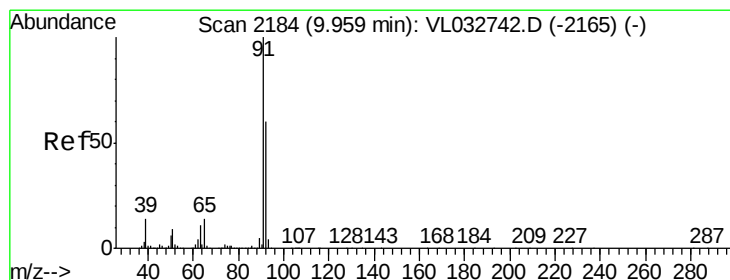
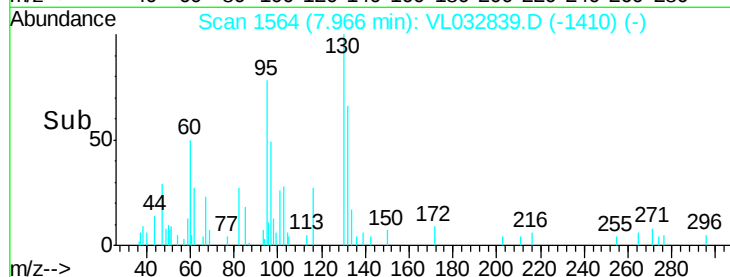
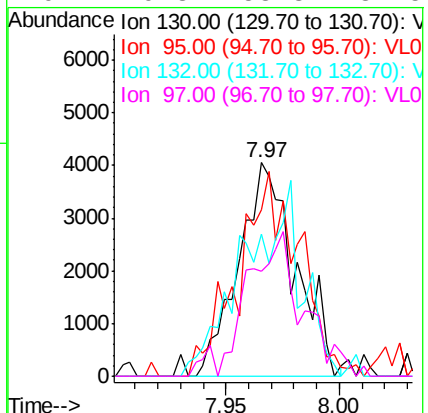
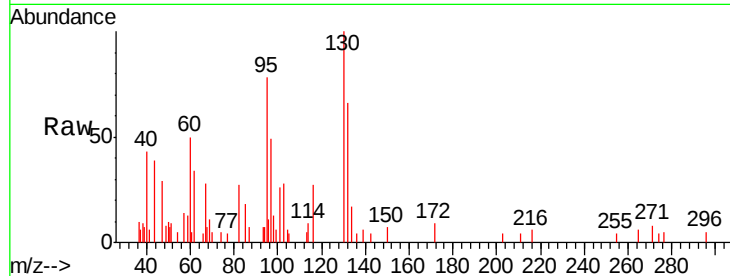
#38  
 Trichloroethene  
 Concen: 0.060 ppbv m  
 RT: 7.97 min Scan# 1564  
 Delta R.T. -0.01 min  
 Lab File: VL032839.D  
 Acq: 29 Nov 2018 18:00

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IAS-4DL

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 130     | 100   |       |        |
| 95      | 78.0  | 87.7  | 131.5# |
| 132     | 66.3  | 74.6  | 111.8# |
| 97      | 49.3  | 58.3  | 87.5#  |

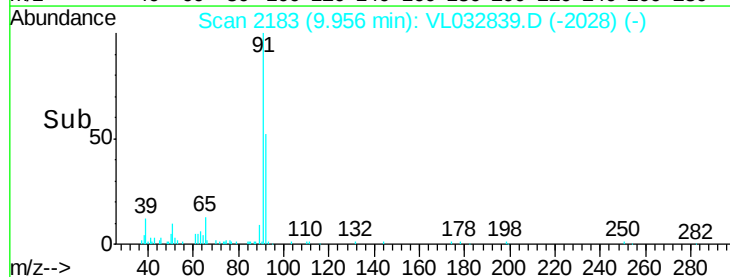
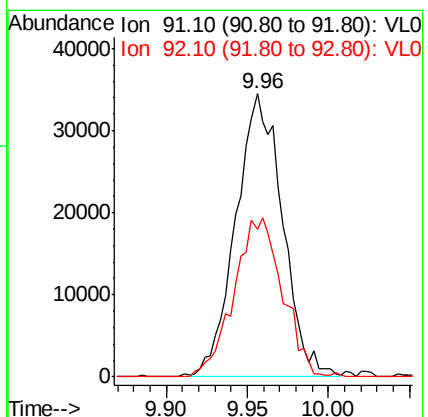
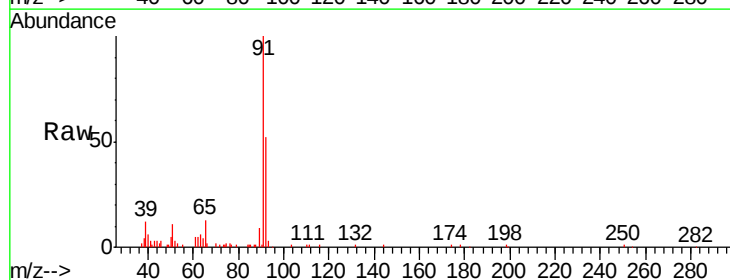
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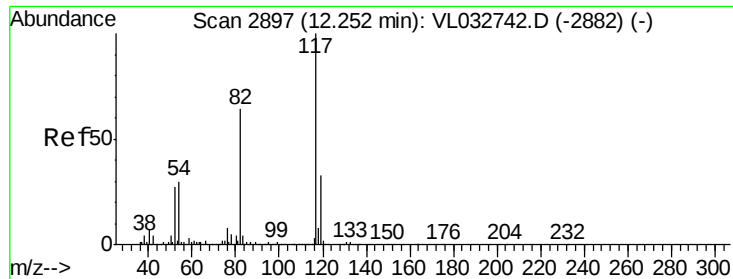
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#53  
 Toluene  
 Concen: 0.225 ppbv m  
 RT: 9.96 min Scan# 2183  
 Delta R.T. -0.00 min  
 Lab File: VL032839.D  
 Acq: 29 Nov 2018 18:00

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 58.6  | 47.9  | 71.9  |





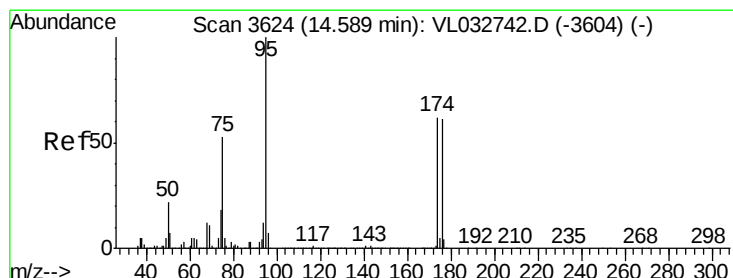
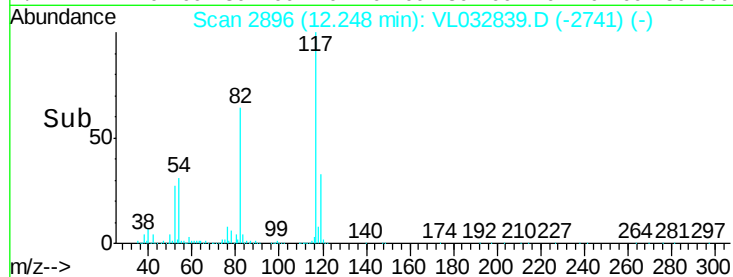
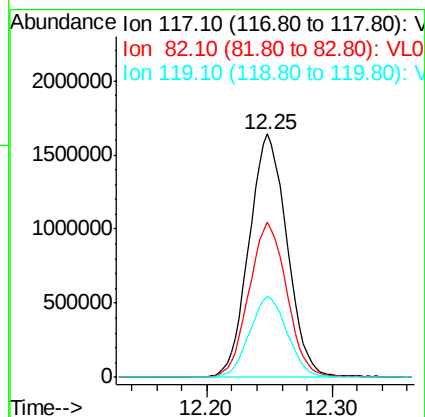
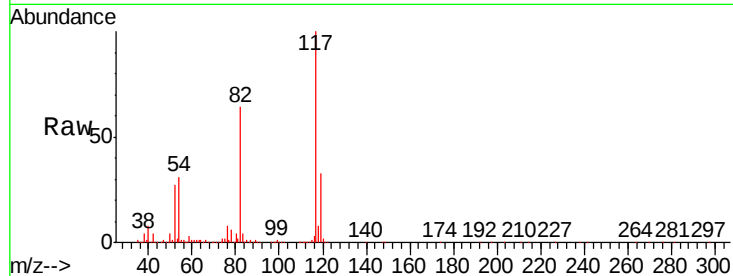
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.25 min Scan# 2896  
Delta R.T. -0.00 min  
Lab File: VL032839.D  
Acq: 29 Nov 2018 18:00

Instrument :  
MSVOA\_L  
ClientSampleId :  
IAS-4DL

Tgt Ion: 117 Resp: 345517  
Ion Ratio Lower Upper  
117 100  
82 64.1 51.0 76.6  
119 33.4 28.0 42.0

Manual Integrations  
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#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.158 ppbv  
RT: 14.59 min Scan# 3623  
Delta R.T. -0.00 min  
Lab File: VL032839.D  
Acq: 29 Nov 2018 18:00

Tgt Ion: 95 Resp: 2625257  
Ion Ratio Lower Upper  
95 100  
174 67.0 50.7 76.1  
175 5.0 3.8 5.6

