

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL082018\  
 Data File : VL032415.D  
 Acq On : 20 Aug 2018 22:01  
 Operator : SY/AP  
 Sample : J4472-02DL 40X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Aug 21 01:43:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081518AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Aug 15 14:58:02 2018  
 QLast Update : Wed Aug 15 14:58:02 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.81  | 49   | 1684046  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.35  | 114  | 3228495  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.30 | 117  | 3259614  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.64  | 95    | 2449228  | 9.85     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.50% |

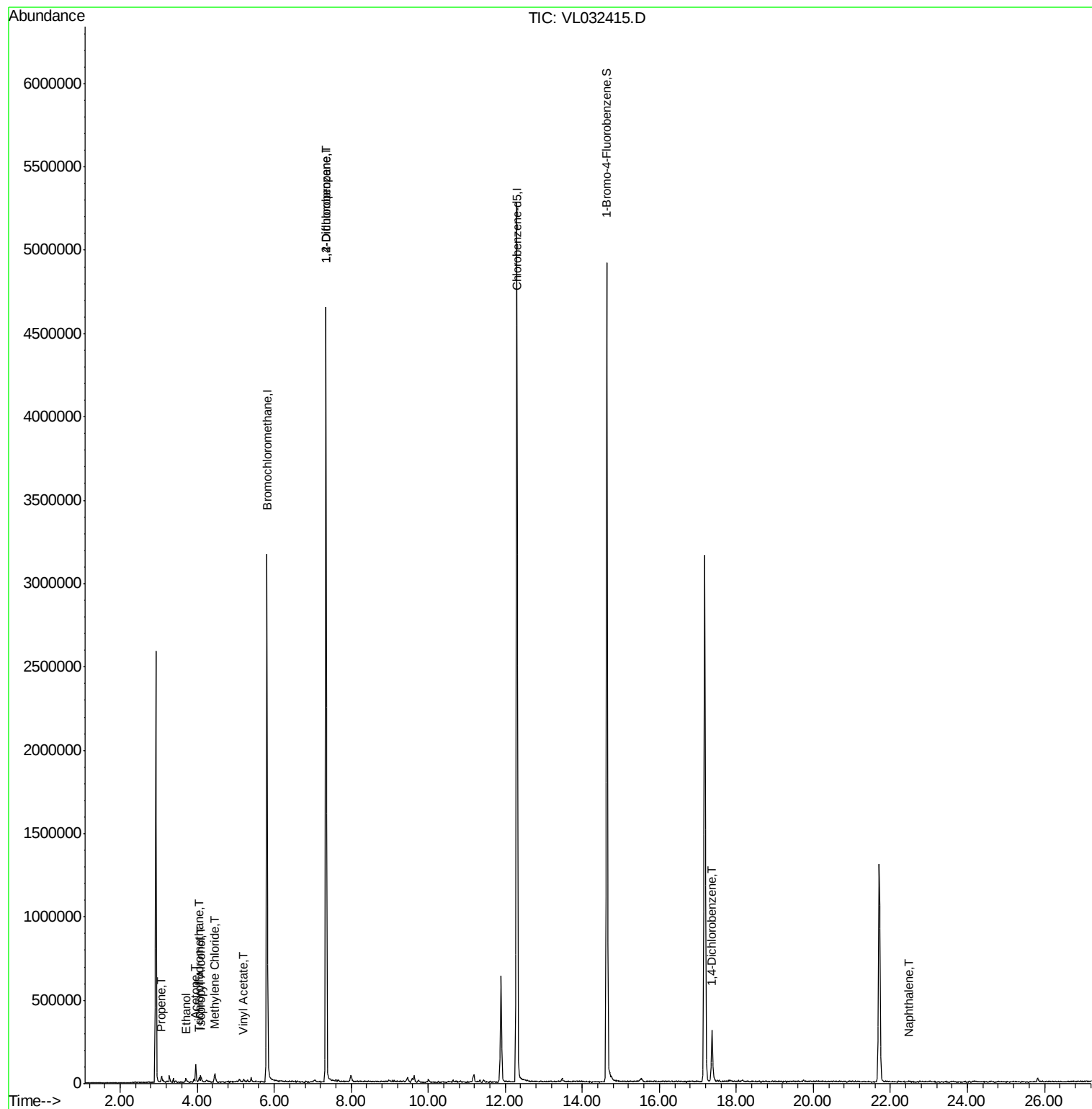
| Target Compounds           | R.T.  | QIon | Response | Conc      | Units  | Ovalue |
|----------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane | 3.12  | 85   | 1239     | Below Cal |        | 97     |
| 9) Propene                 | 3.07  | 41   | 10560    | 0.158     | ppbv   | 92     |
| 11) Trichlorofluoromethane | 4.05  | 101  | 16498    | 0.088     | ppbv   | 94     |
| 13) Ethanol                | 3.71  | 45   | 7423     | 0.433     | ppbv # | 36     |
| 15) Acetone                | 3.96  | 43   | 95211    | 0.595     | ppbv   | 96     |
| 19) Isopropyl Alcohol      | 4.09  | 45   | 43178    | 0.401     | ppbv # | 85     |
| 20) Methylene Chloride     | 4.45  | 84   | 14008    | 0.232     | ppbv   | 86     |
| 23) Vinyl Acetate          | 5.20  | 43   | 11491    | 0.042     | ppbv # | 82     |
| 39) 1,2-Dichloropropane    | 7.34  | 63   | 895544   | 7.833     | ppbv # | 25     |
| 76) 1,4-Dichlorobenzene    | 17.37 | 146  | 106571   | 0.501     | ppbv # | 60     |
| 79) Naphthalene            | 22.48 | 128  | 706      | 0.329     | ppbv # | 1      |

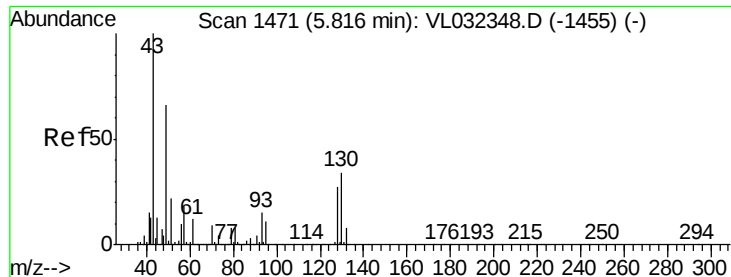
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL082018\  
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Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :

Quant Time: Aug 21 01:43:27 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL081518AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Aug 15 14:58:02 2018  
QLast Update : Wed Aug 15 14:58:02 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.81 min Scan# 1469

Delta R.T. -0.01 min

Lab File: VL032415.D

Acq: 20 Aug 2018 22:01

Instrument :  
MSVOA\_L  
ClientSampleId :

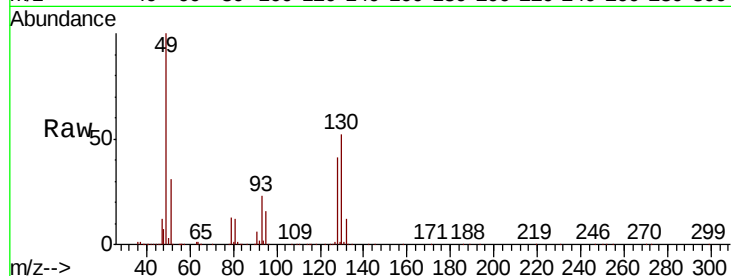
Tot Ion: 49 Resp: 1684046

Ion Ratio Lower Upper

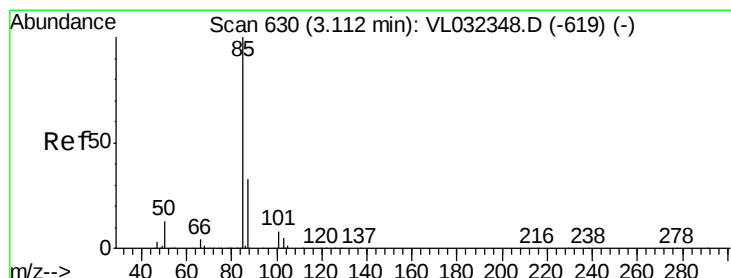
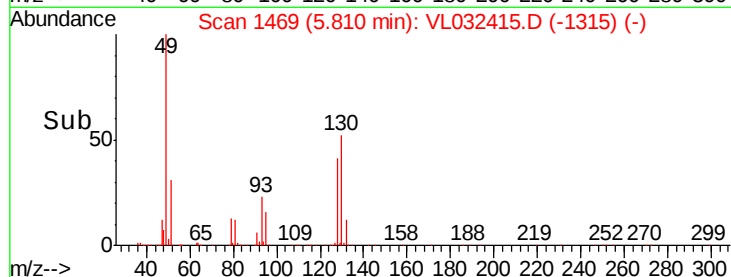
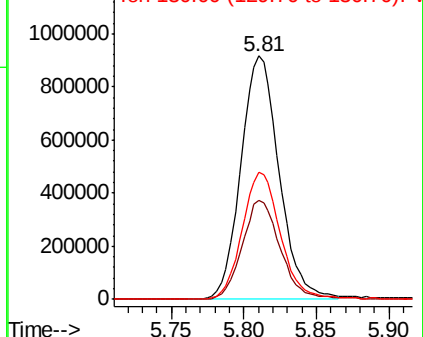
49 100

128 41.2 20.5 61.6

130 52.7 26.2 78.5



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



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 3.12 min Scan# 633

Delta R.T. 0.01 min

Lab File: VL032415.D

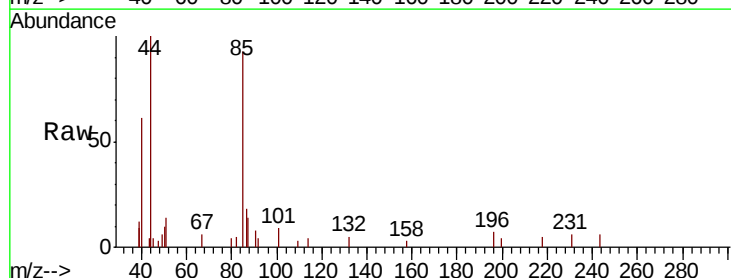
Acq: 20 Aug 2018 22:01

Tgt Ion: 85 Resp: 1239

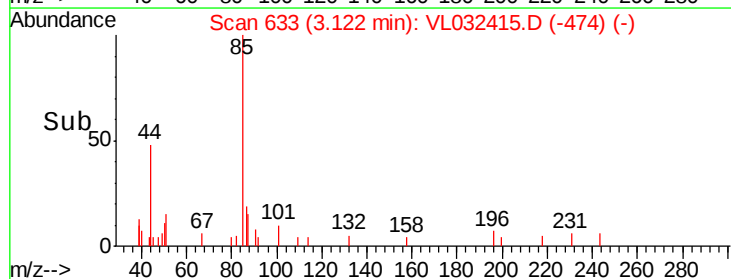
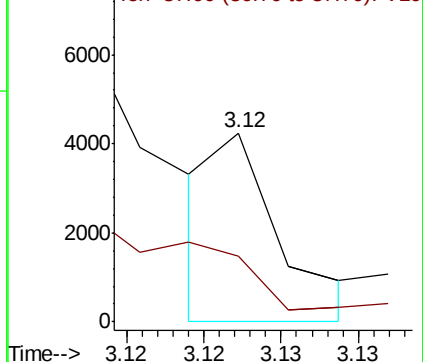
Ion Ratio Lower Upper

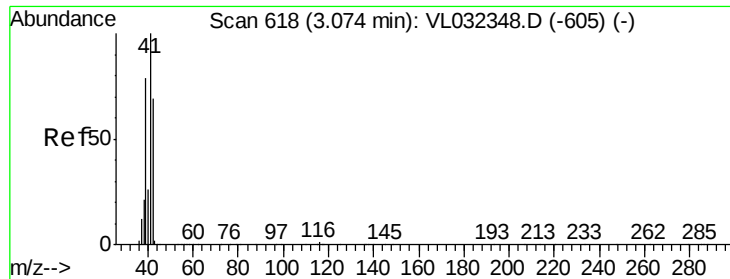
85 100

87 34.4 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0  
Ion 87.00 (86.70 to 87.70): VL0





#9

Propene

Concen: 0.158 ppbv

RT: 3.07 min Scan# 617

Delta R.T. -0.00 min

Lab File: VL032415.D

Acq: 20 Aug 2018 22:01

Instrument :

MSVOA\_L

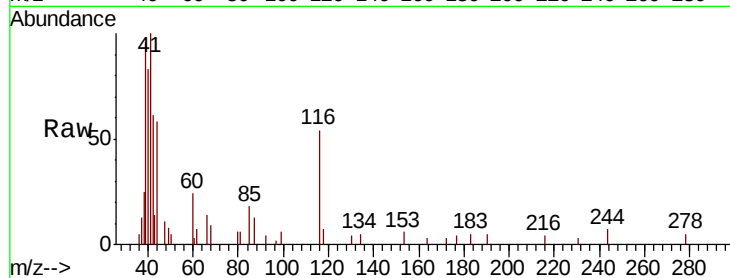
ClientSampleId :

Tot Ion: 41 Resp: 10560

Ion Ratio Lower Upper

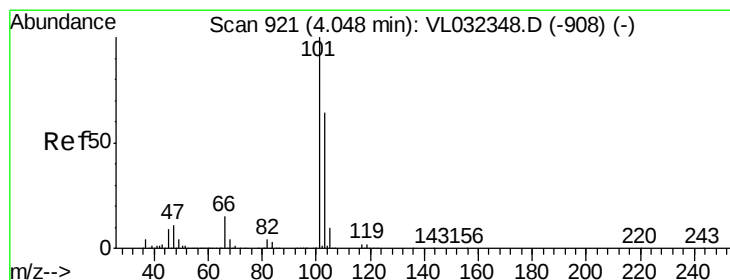
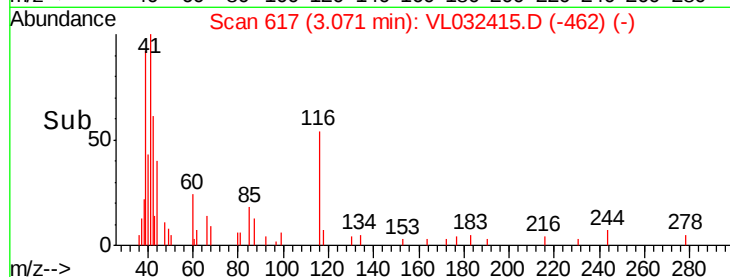
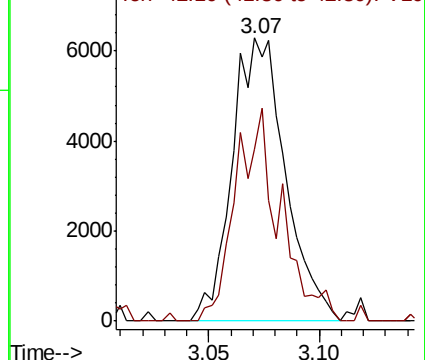
41 100

42 63.5 55.9 83.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.088 ppbv

RT: 4.05 min Scan# 920

Delta R.T. -0.00 min

Lab File: VL032415.D

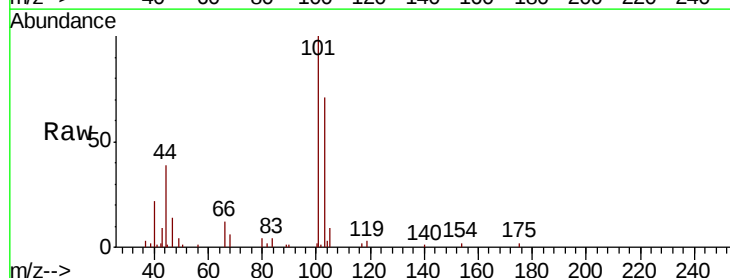
Acq: 20 Aug 2018 22:01

Tgt Ion: 101 Resp: 16498

Ion Ratio Lower Upper

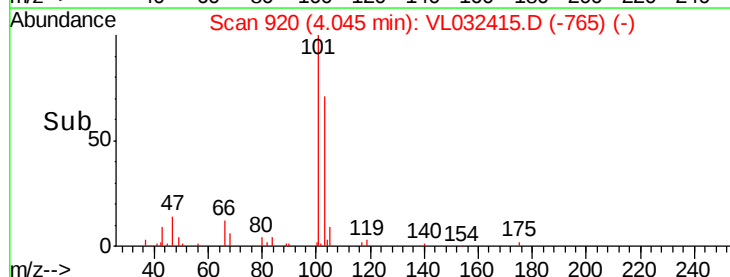
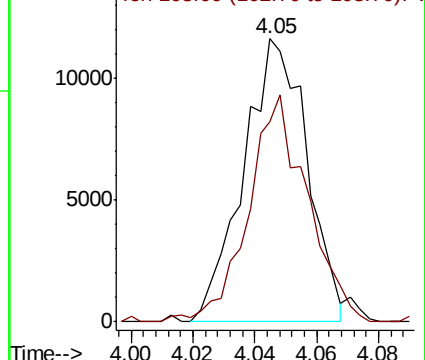
101 100

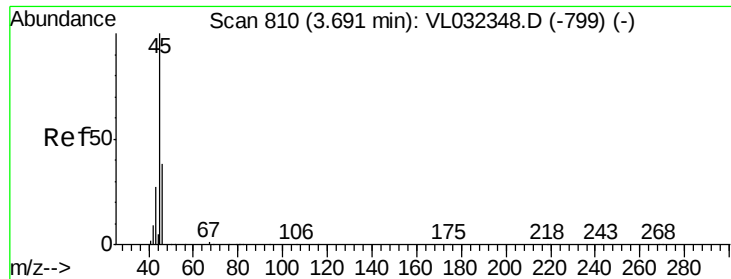
103 69.1 51.4 77.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

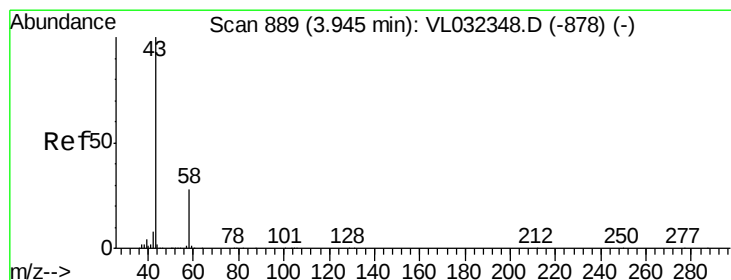
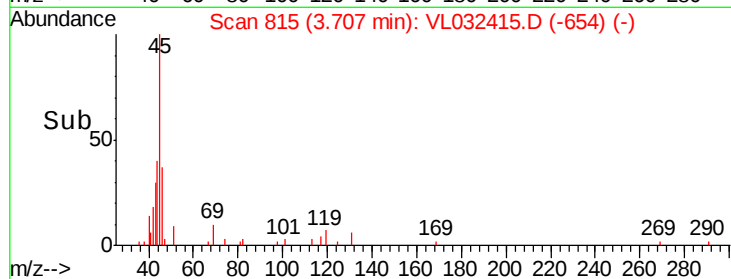
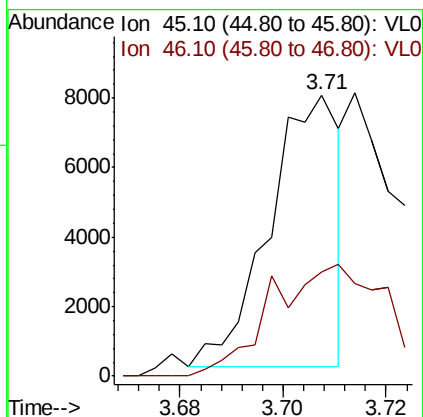
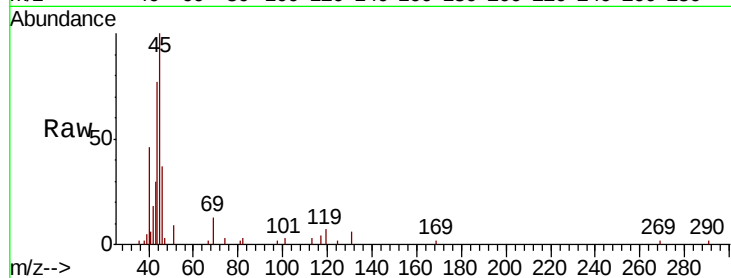




#13  
Ethanol  
Concen: 0.433 ppbv  
RT: 3.71 min Scan# 815  
Delta R.T. 0.02 min  
Lab File: VL032415.D  
Acq: 20 Aug 2018 22:01

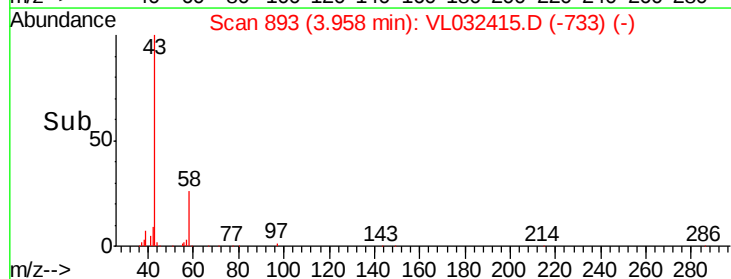
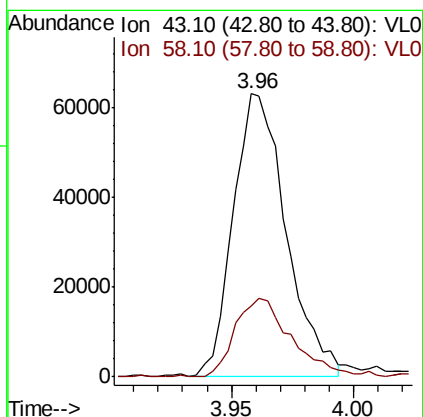
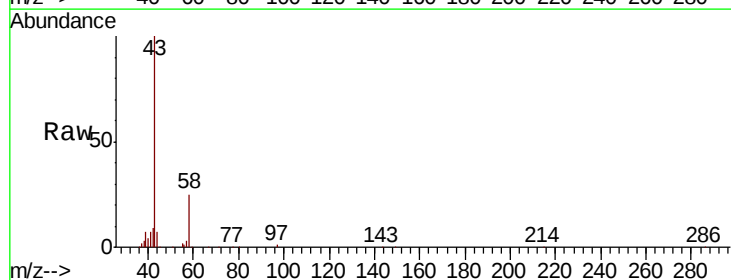
Instrument :  
MSVOA\_L  
ClientSampled :

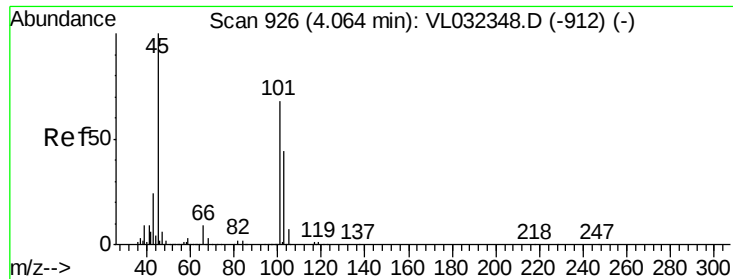
Tot Ion: 45 Resp: 7423  
Ion Ratio Lower Upper  
45 100  
46 0.0 15.6 62.4#



#15  
Acetone  
Concen: 0.595 ppbv  
RT: 3.96 min Scan# 893  
Delta R.T. 0.01 min  
Lab File: VL032415.D  
Acq: 20 Aug 2018 22:01

Tgt Ion: 43 Resp: 95211  
Ion Ratio Lower Upper  
43 100  
58 30.1 22.4 33.6





#19

Isopropyl Alcohol

Concen: 0.401 ppbv

RT: 4.09 min Scan# 934

Delta R.T. 0.03 min

Lab File: VL032415.D

Acq: 20 Aug 2018 22:01

Instrument :

MSVOA\_L

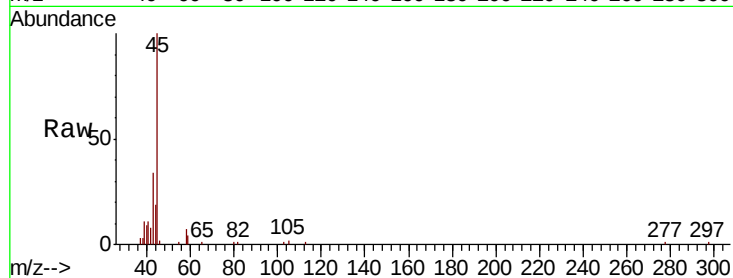
ClientSampleId :

Tot Ion: 45 Resp: 43178

Ion Ratio Lower Upper

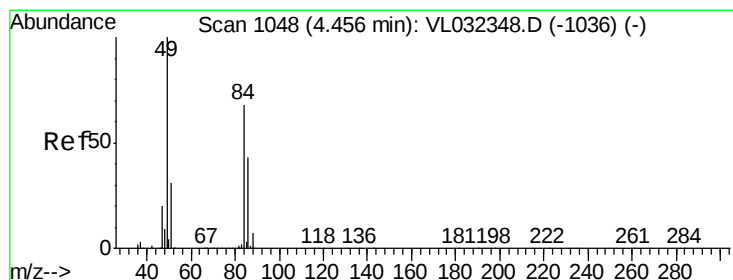
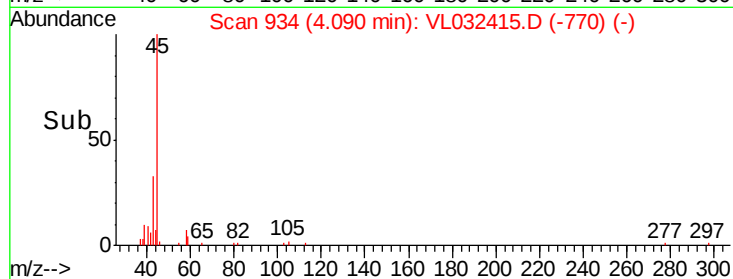
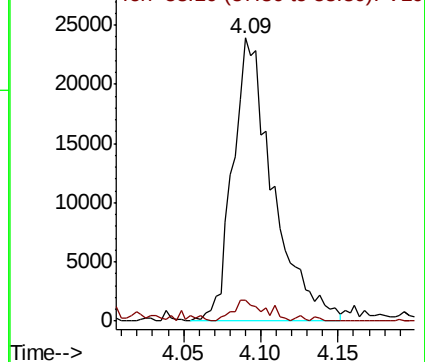
45 100

58 7.1 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.232 ppbv

RT: 4.45 min Scan# 1047

Delta R.T. -0.00 min

Lab File: VL032415.D

Acq: 20 Aug 2018 22:01

Tgt Ion: 84 Resp: 14008

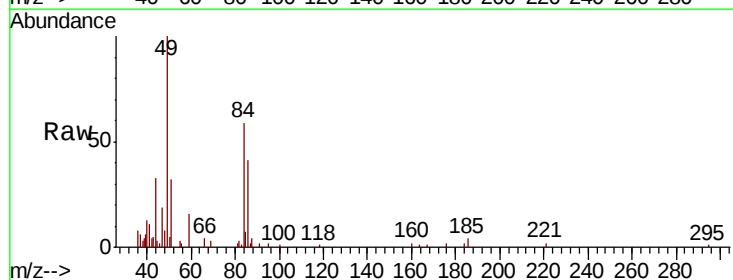
Ion Ratio Lower Upper

84 100

49 166.7 117.3 175.9

51 54.8 36.6 55.0

86 68.8 49.8 74.8

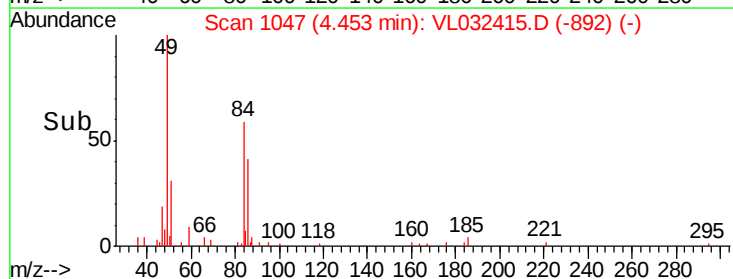
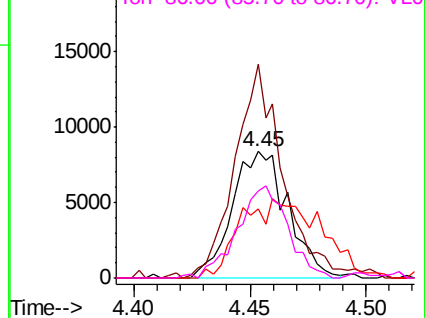


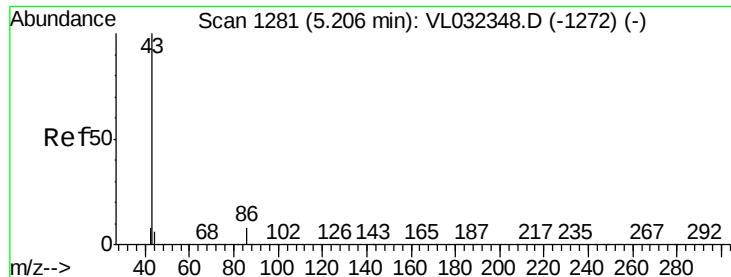
Abundance Ion 84.00 (83.70 to 84.70): VL0

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

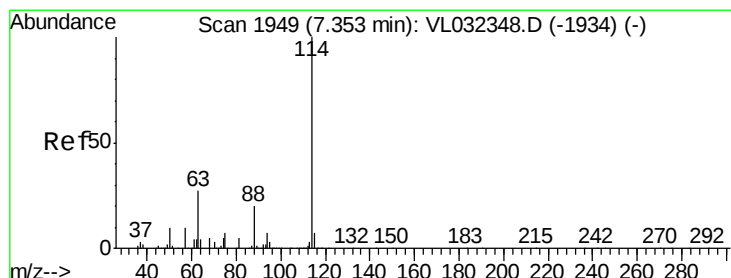
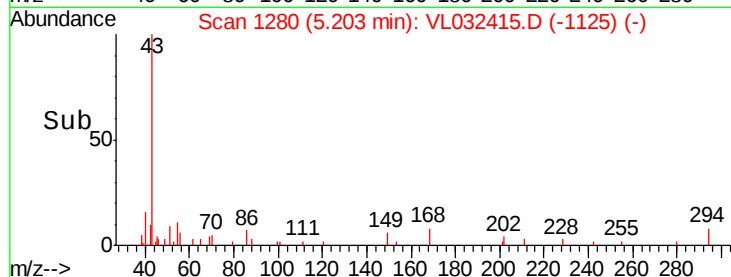
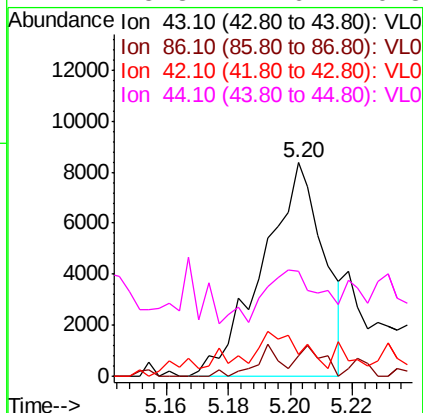
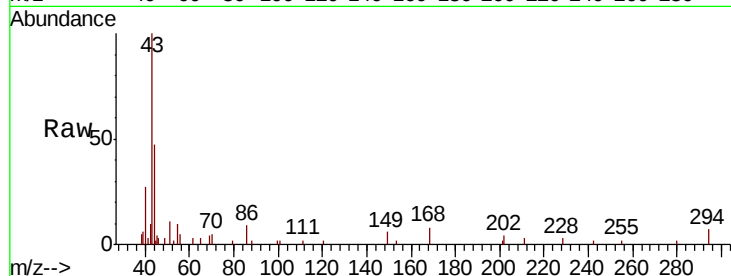




#23  
 Vinyl Acetate  
 Concen: 0.042 ppbv  
 RT: 5.20 min Scan# 1280  
 Delta R.T. -0.00 min  
 Lab File: VL032415.D  
 Acq: 20 Aug 2018 22:01

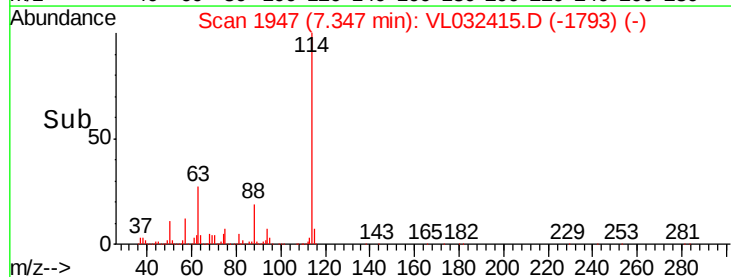
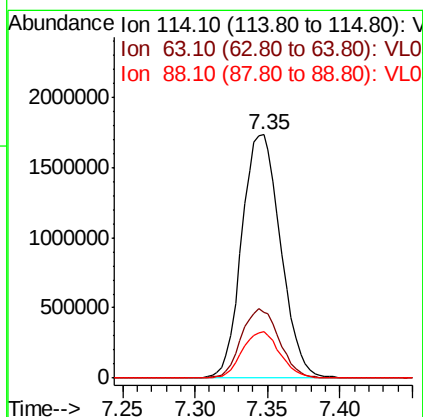
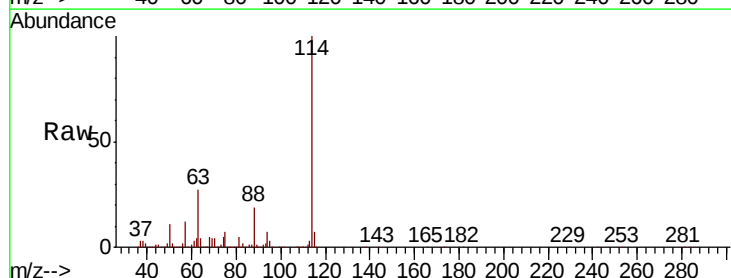
Instrument :  
 MSVOA\_L  
 ClientSampleId :

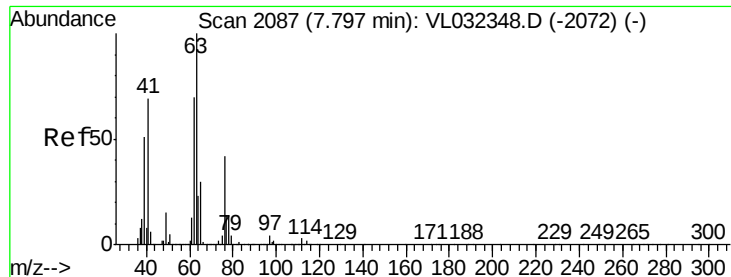
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 11491 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 9.4   | 5.5   | 8.3#  |
| 42       | 1.5   | 7.0   | 10.6# |
| 44       | 15.3  | 4.6   | 6.8#  |



#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.35 min Scan# 1947  
 Delta R.T. -0.01 min  
 Lab File: VL032415.D  
 Acq: 20 Aug 2018 22:01

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 114   | Resp: | 3228495 |
| Ion      | Ratio | Lower | Upper   |
| 114      | 100   |       |         |
| 63       | 28.1  | 22.0  | 33.0    |
| 88       | 18.6  | 15.3  | 22.9    |





#39

1,2-Dichloropropane

Concen: 7.833 ppbv

RT: 7.34 min Scan# 1946

Delta R.T. -0.45 min

Lab File: VL032415.D

Acq: 20 Aug 2018 22:01

Instrument :

MSVOA\_L

ClientSampleId :

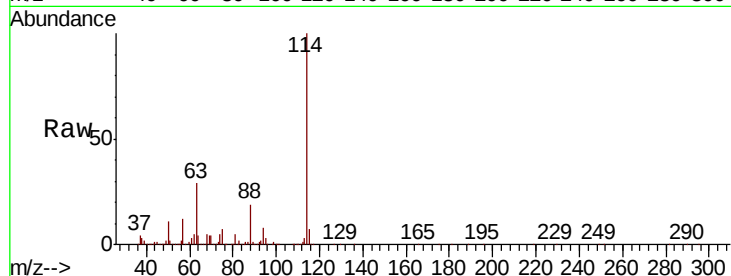
Tot Ion: 63 Resp: 895544

Ion Ratio Lower Upper

63 100

41 0.3 55.5 83.3#

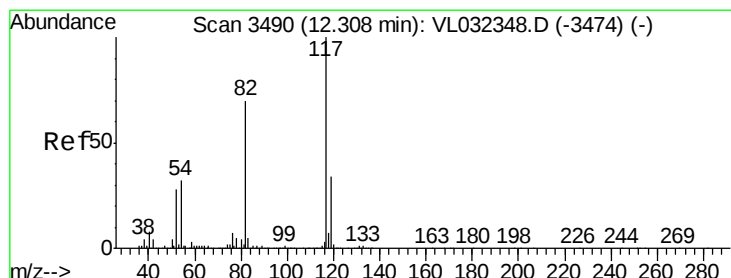
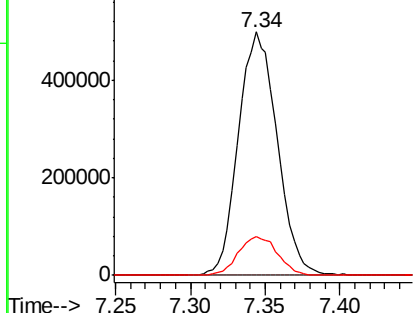
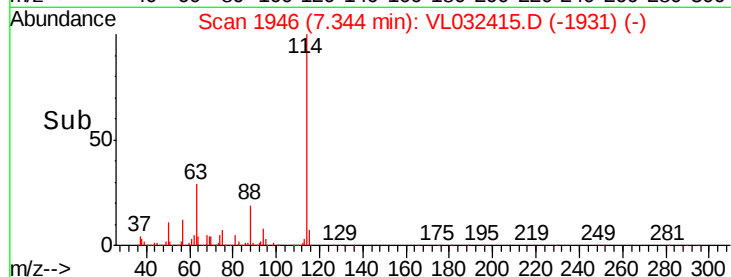
62 15.9 56.3 84.5#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.30 min Scan# 3487

Delta R.T. -0.01 min

Lab File: VL032415.D

Acq: 20 Aug 2018 22:01

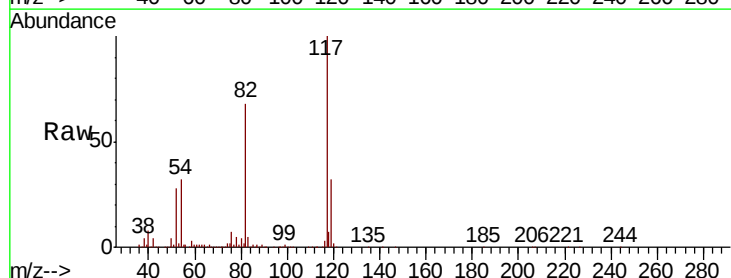
Tgt Ion: 117 Resp: 3259614

Ion Ratio Lower Upper

117 100

82 68.0 55.1 82.7

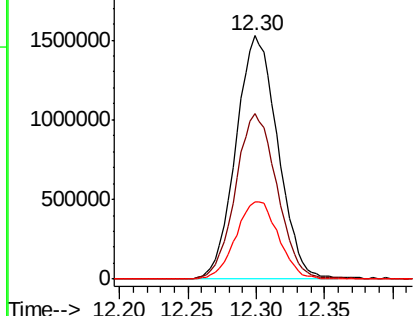
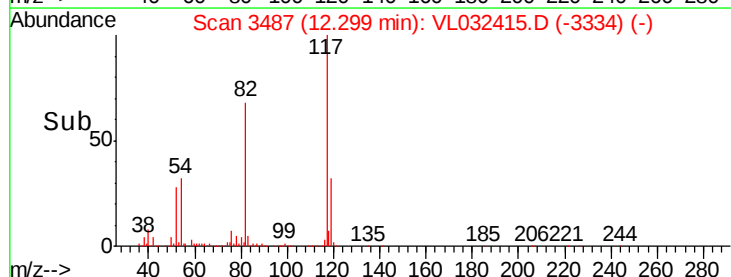
119 32.4 46.0 69.0#

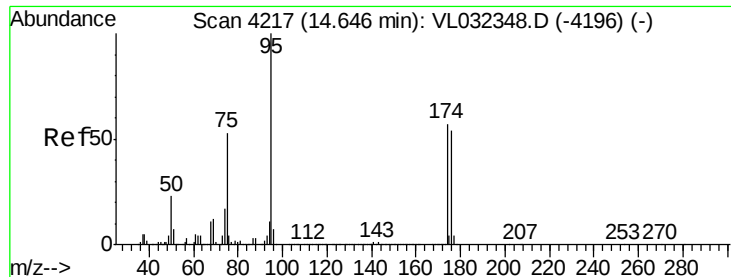


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

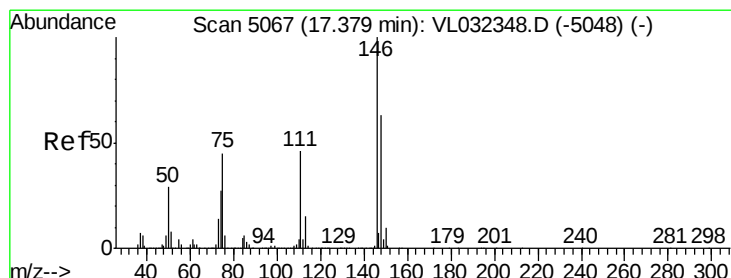
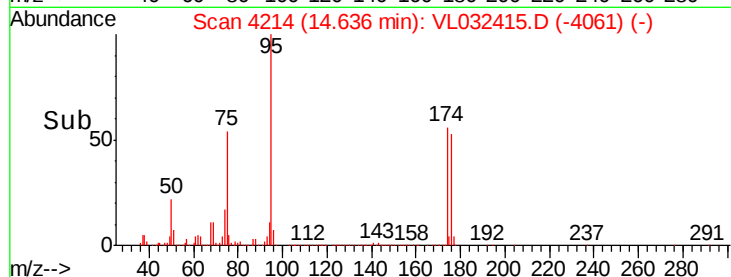
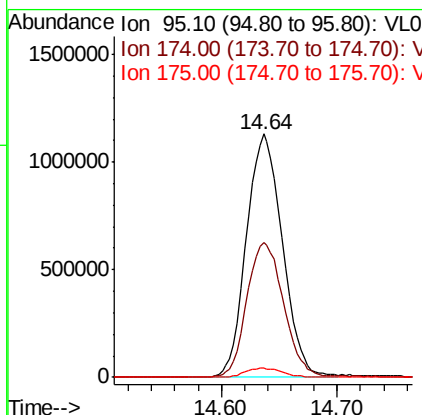
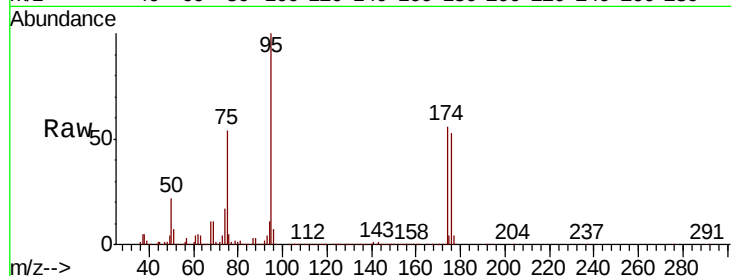




#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 9.849 ppbv  
 RT: 14.64 min Scan# 4214  
 Delta R.T. -0.01 min  
 Lab File: VL032415.D  
 Acq: 20 Aug 2018 22:01

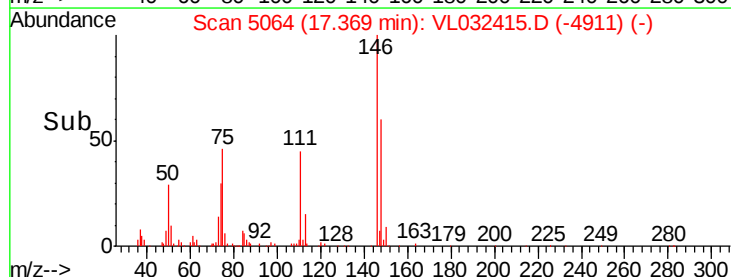
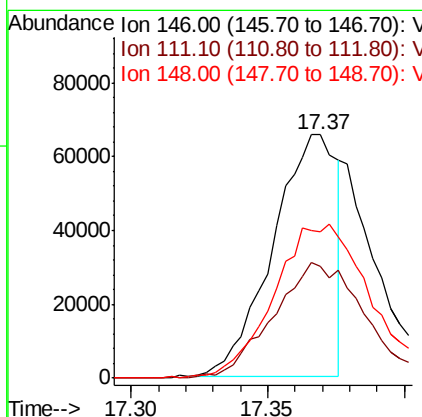
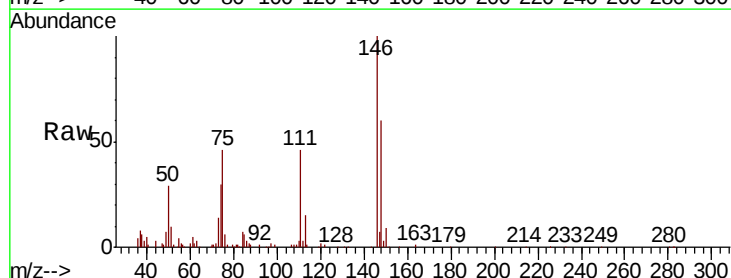
Instrument :  
 MSVOA\_L  
 ClientSampled :

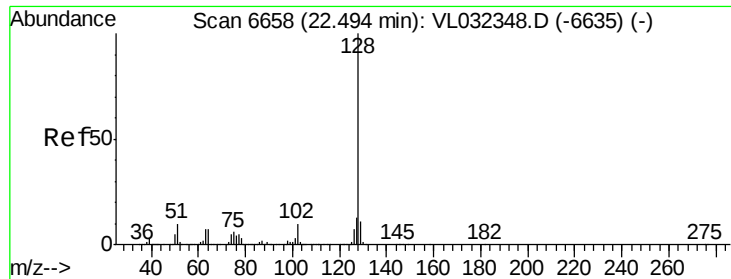
Tot Ion: 95 Resp: 2449228  
 Ion Ratio Lower Upper  
 95 100  
 174 57.3 46.2 69.4  
 175 4.0 3.4 5.0



#76  
 1,4-Dichlorobenzene  
 Concen: 0.501 ppbv  
 RT: 17.37 min Scan# 5064  
 Delta R.T. -0.01 min  
 Lab File: VL032415.D  
 Acq: 20 Aug 2018 22:01

Tgt Ion: 146 Resp: 106571  
 Ion Ratio Lower Upper  
 146 100  
 111 70.8 23.8 71.4  
 148 99.2 32.2 96.6#





#79

Naphthalene

Concen: 0.329 ppbv

RT: 22.48 min Scan# 6655

Delta R.T. -0.01 min

Lab File: VL032415.D

Acq: 20 Aug 2018 22:01

Instrument :

MSVOA\_L

ClientSampleId :

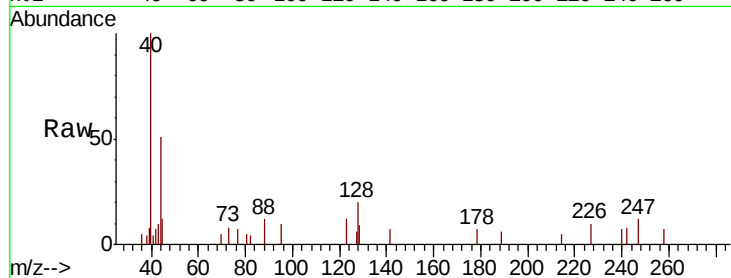
Tot Ion:128 Resp: 706

Ion Ratio Lower Upper

128 100

127 90.6 10.3 15.5#

129 0.0 8.6 13.0#



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V

