

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN112618\  
 Data File : VN052461.D  
 Acq On : 26 Nov 2018 16:17  
 Operator : MD\SY  
 Sample : VN1126WBL01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Nov 27 00:58:41 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N112618W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Nov 27 00:48:33 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.20  | 128  | 174206   | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.59  | 114  | 1004909  | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.41 | 117  | 825757   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 8.03   | 65    | 358395   | 30.19    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 100.63% |
| 60) 4-Bromofluorobenzene  | 12.40  | 95    | 335800   | 26.60    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 88.67%  |
| 63) Toluene-d8            | 10.09  | 98    | 1185080  | 30.95    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 103.17% |

## Target Compounds

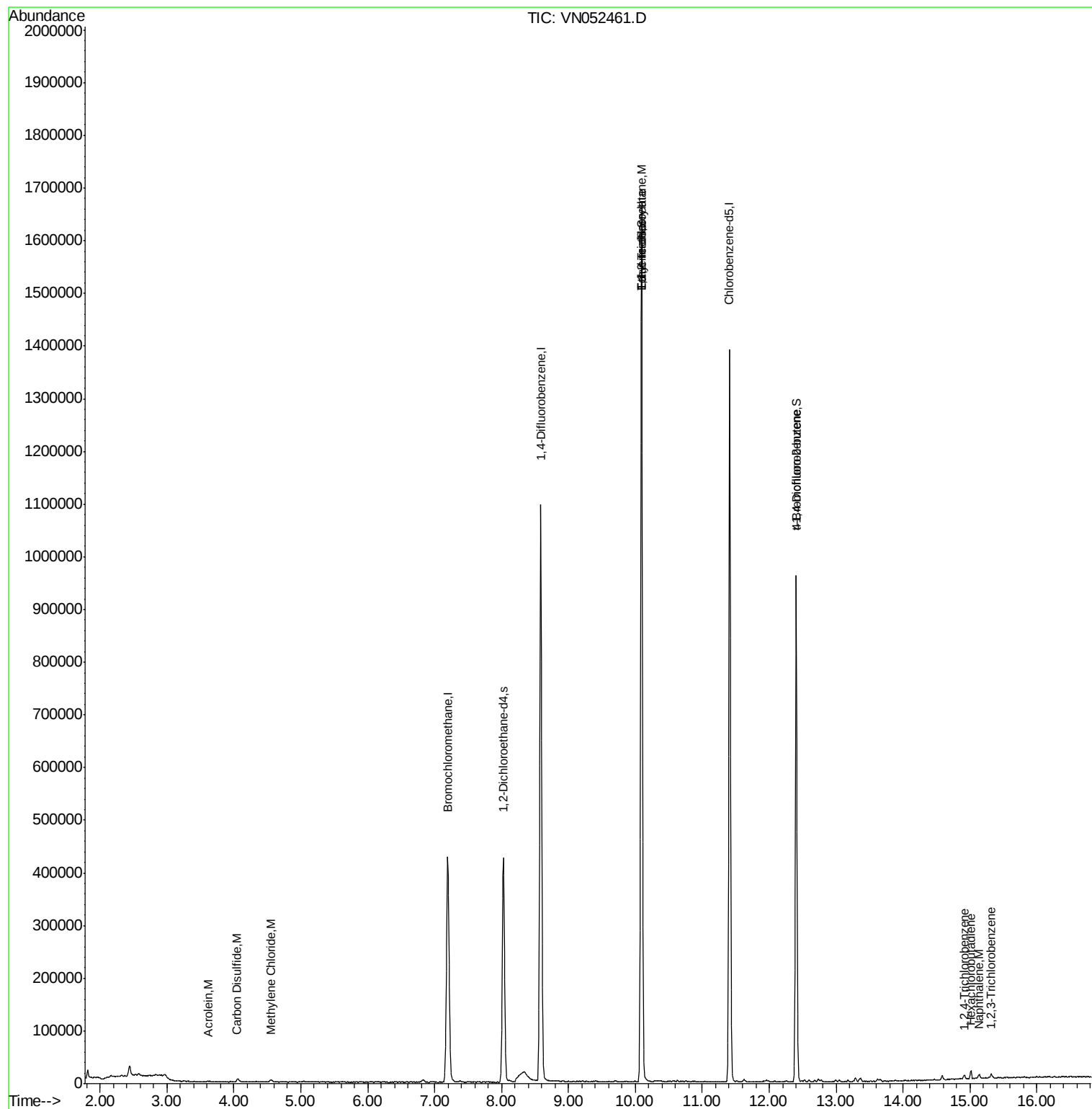
|                             |       |     |        |        | Ovalue |      |
|-----------------------------|-------|-----|--------|--------|--------|------|
| 13) Acrolein                | 3.61  | 56  | 890    | 0.913  | ug/l   | # 81 |
| 16) Carbon Disulfide        | 4.05  | 76  | 7375   | 0.238  | ug/l   | 99   |
| 18) Methylene Chloride      | 4.56  | 84  | 2533   | 0.224  | ug/l   | 83   |
| 50) 1,1,2-Trichloroethane   | 10.10 | 97  | 33908  | 3.579  | ug/l   | # 1  |
| 51) Ethyl methacrylate      | 10.09 | 69  | 3375   | 0.284  | ug/l   | 82   |
| 77) t-1,4-Dichloro-2-butene | 12.40 | 75  | 158987 | 57.098 | ug/l   | # 11 |
| 89) 1,2,4-Trichlorobenzene  | 14.91 | 180 | 2962   | 0.315  | ug/l   | 98   |
| 90) Hexachlorobutadiene     | 15.01 | 225 | 3515   | 0.569  | ug/l   | 95   |
| 91) Naphthalene             | 15.14 | 128 | 7607   | 0.400  | ug/l   | 97   |
| 92) 1,2,3-Trichlorobenzene  | 15.32 | 180 | 3611   | 0.416  | ug/l   | 84   |

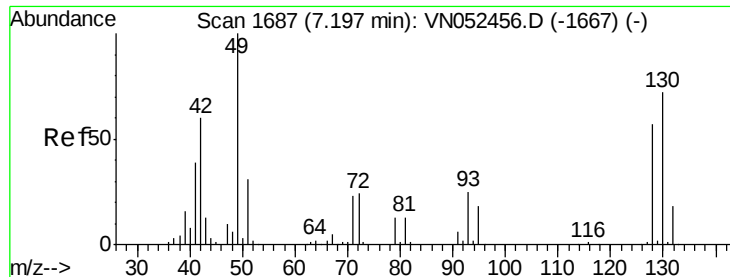
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_N  
ClientSampleId :

Quant Time: Nov 27 00:58:41 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA N\METHODS\624N112618W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Tue Nov 27 00:48:33 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.20 min Scan# 1687

Delta R.T. 0.00 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

Instrument :

MSVOA\_N

ClientSampled :

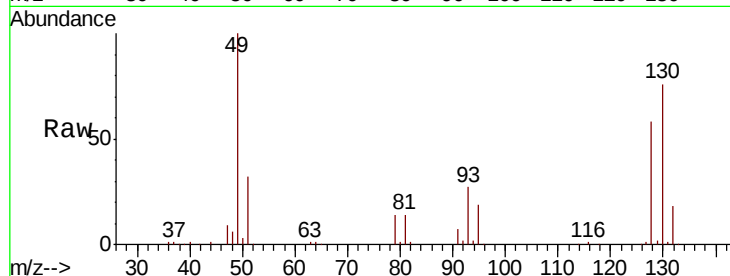
Tot Ion:128 Resp: 174206

Ion Ratio Lower Upper

128 100

49 168.3 0.0 431.8

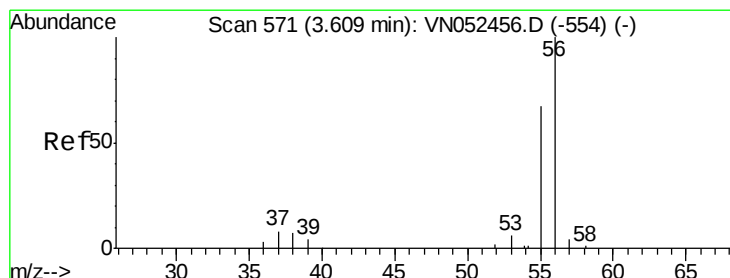
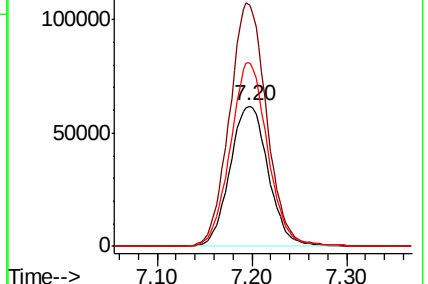
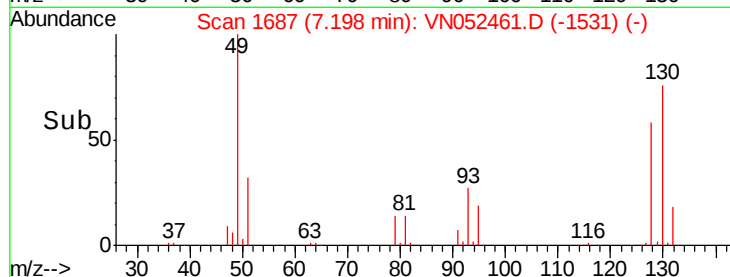
130 127.6 0.0 317.0



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): V

Ion 130.00 (129.70 to 130.70): V



#13

Acrolein

Concen: 0.913 ug/l

RT: 3.61 min Scan# 572

Delta R.T. 0.00 min

Lab File: VN052461.D

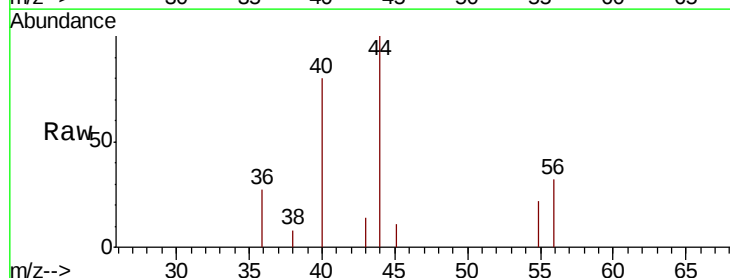
Acq: 26 Nov 2018 16:17

Tgt Ion: 56 Resp: 890

Ion Ratio Lower Upper

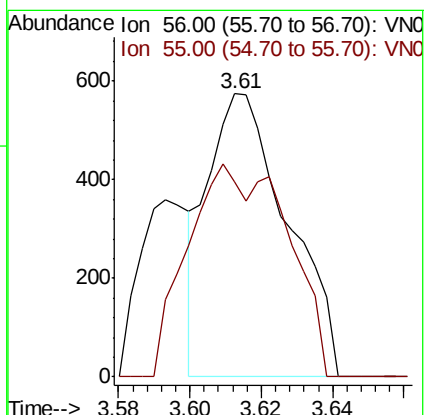
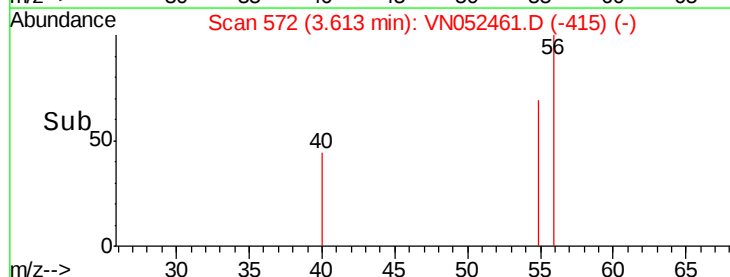
56 100

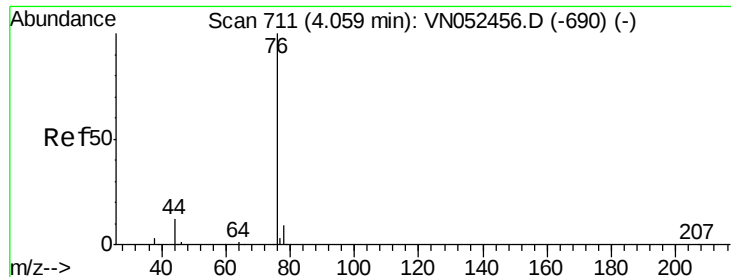
55 55.1 56.7 85.1#



Abundance Ion 56.00 (55.70 to 56.70): V

Ion 55.00 (54.70 to 55.70): V

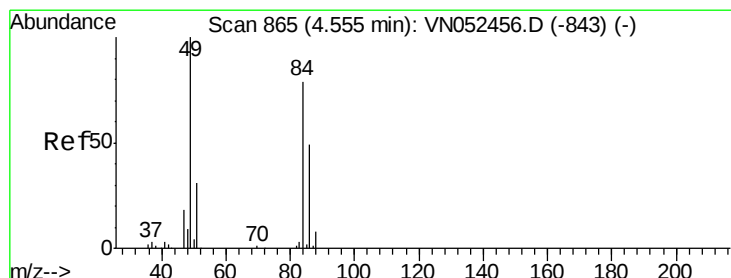
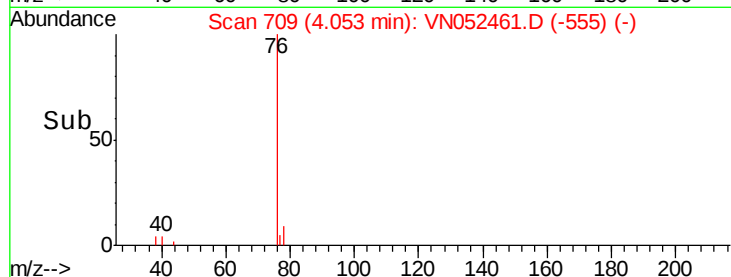
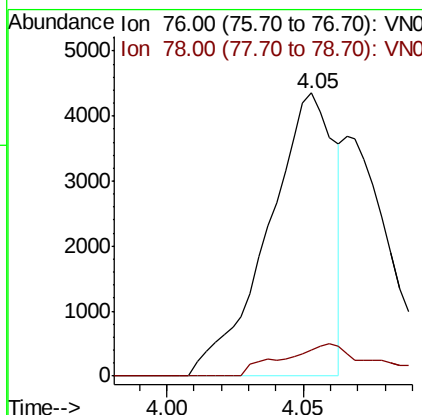
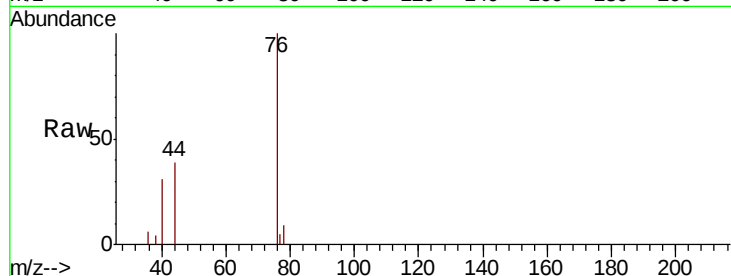




#16  
Carbon Disulfide  
Concen: 0.238 ug/l  
RT: 4.05 min Scan# 709  
Delta R.T. -0.01 min  
Lab File: VN052461.D  
Acq: 26 Nov 2018 16:17

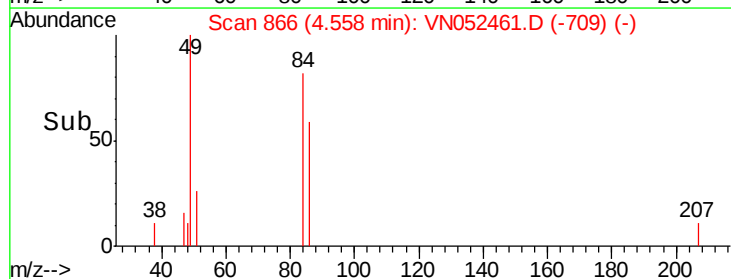
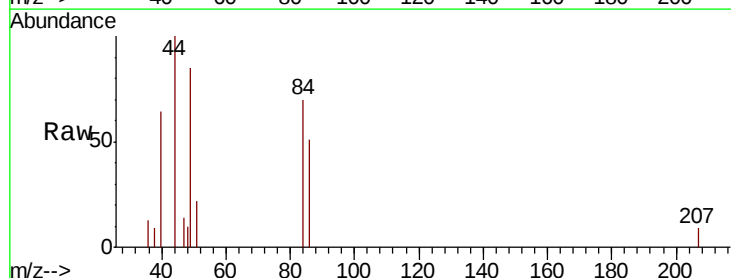
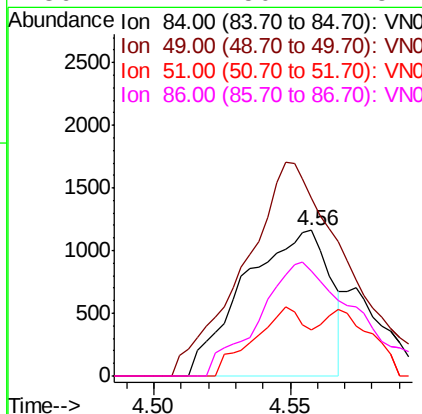
Instrument :  
MSVOA\_N  
ClientSampleId :

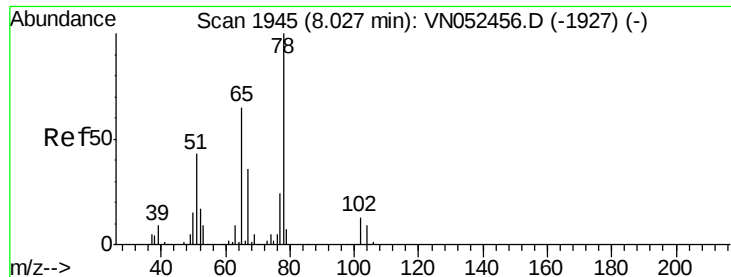
Tot Ion: 76 Resp: 7375  
Ion Ratio Lower Upper  
76 100  
78 9.4 7.3 10.9



#18  
Methylene Chloride  
Concen: 0.224 ug/l  
RT: 4.56 min Scan# 866  
Delta R.T. 0.00 min  
Lab File: VN052461.D  
Acq: 26 Nov 2018 16:17

Tgt Ion: 84 Resp: 2533  
Ion Ratio Lower Upper  
84 100  
49 103.1 101.4 152.0  
51 31.8 31.7 47.5  
86 72.4 50.1 75.1





#27

1,2-Dichloroethane-d4

Concen: Below ug/l

RT: 8.03 min Scan# 1945

Delta R.T. 0.00 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

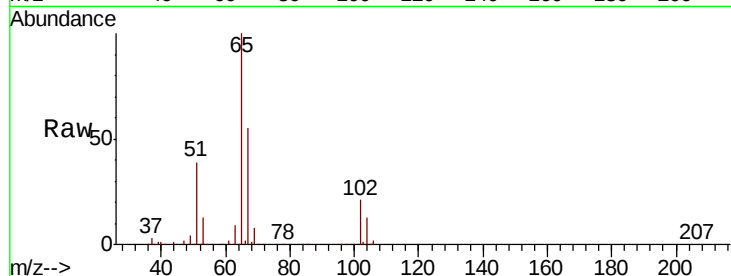
Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion: 65 Resp: 358395

Ion Ratio Lower Upper

65 100

67 54.5 44.6 66.8



Abundance Ion 65.00 (64.70 to 65.70): VN052456.D (-1927) (-)

Ion 67.00 (66.70 to 67.70): VN052456.D (-1927) (-)

8.03

150000

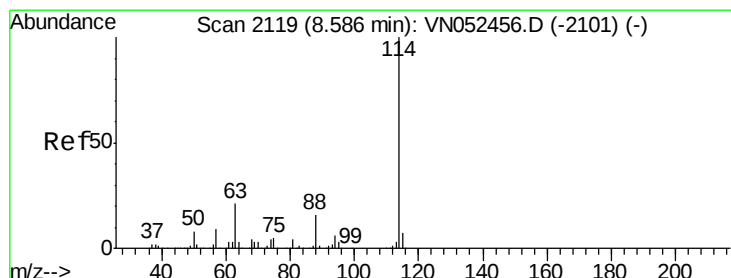
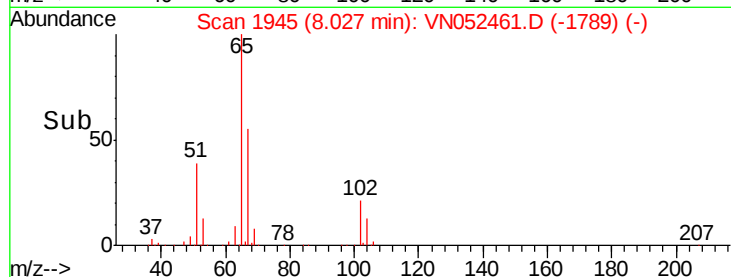
100000

50000

0

7.95 8.00 8.05 8.10

Time-->



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 8.59 min Scan# 2119

Delta R.T. 0.00 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

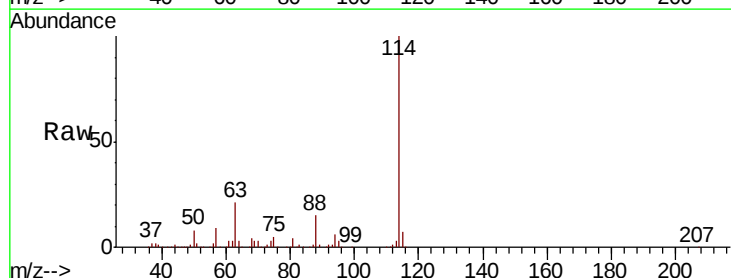
Tgt Ion: 114 Resp: 1004909

Ion Ratio Lower Upper

114 100

63 20.5 16.9 25.3

88 15.4 12.8 19.2



Abundance Ion 114.00 (113.70 to 114.70): VN052456.D (-2101) (-)

Ion 63.00 (62.70 to 63.70): VN052456.D (-2101) (-)

Ion 88.00 (87.70 to 88.70): VN052456.D (-2101) (-)

8.59

600000

500000

400000

300000

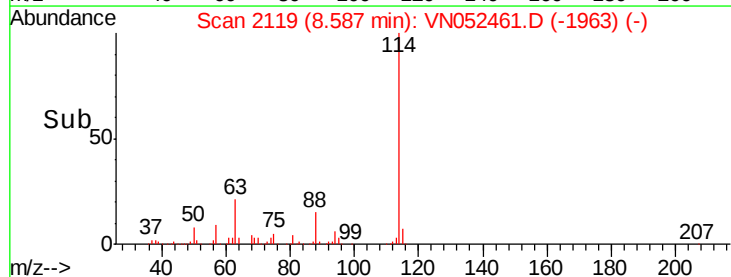
200000

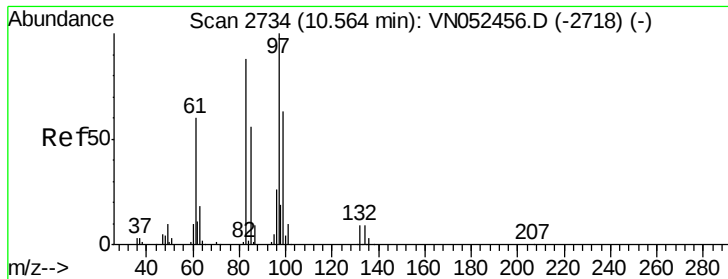
100000

0

8.50 8.60 8.70

Time-->





#50

1,1,2-Trichloroethane

Concen: 3.579 ug/l

RT: 10.10 min Scan# 2589

Delta R.T. -0.47 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

Instrument :

MSVOA\_N

ClientSampleId :

Tot Ion: 97 Resp: 33908

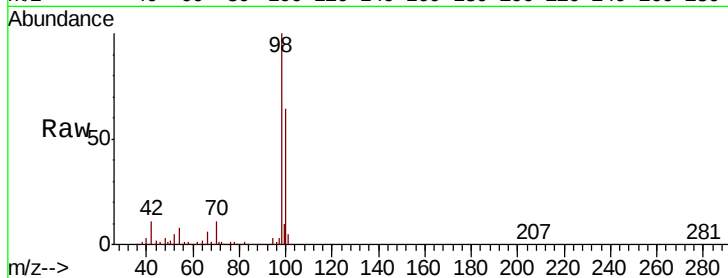
Ion Ratio Lower Upper

97 100

83 2.8 70.4 105.6#

85 0.0 45.0 67.6#

99 310.9 50.2 75.2#

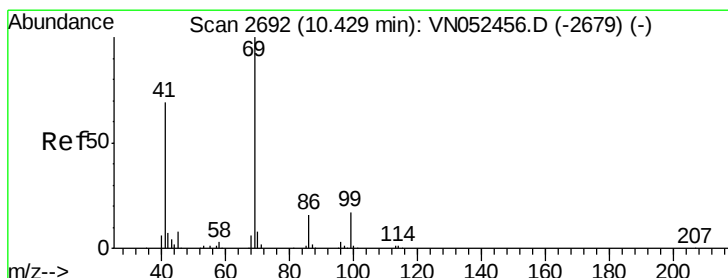
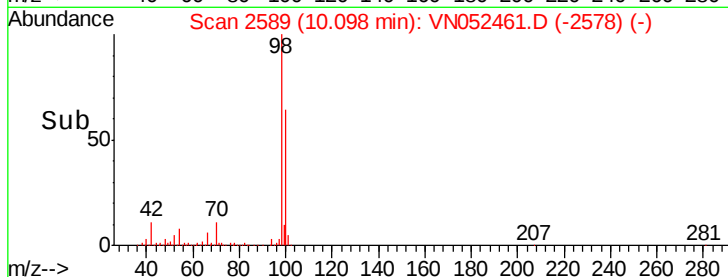
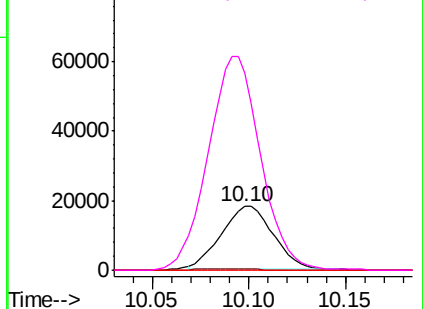


Abundance Ion 97.00 (96.70 to 97.70): VN0

Ion 82.95 (82.65 to 83.65): VN0

Ion 84.95 (84.65 to 85.65): VN0

Ion 98.95 (98.65 to 99.65): VN0



#51

Ethyl methacrylate

Concen: 0.284 ug/l

RT: 10.09 min Scan# 2588

Delta R.T. -0.33 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

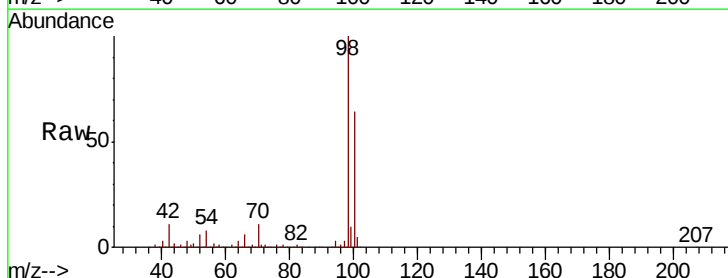
Tgt Ion: 69 Resp: 3375

Ion Ratio Lower Upper

69 100

41 87.1 34.4 103.3

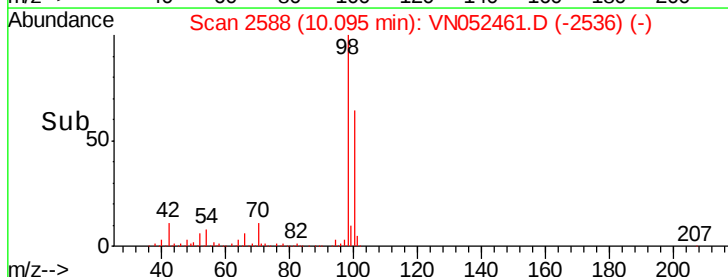
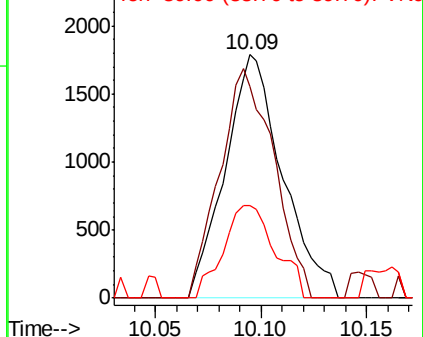
39 38.2 16.4 49.2

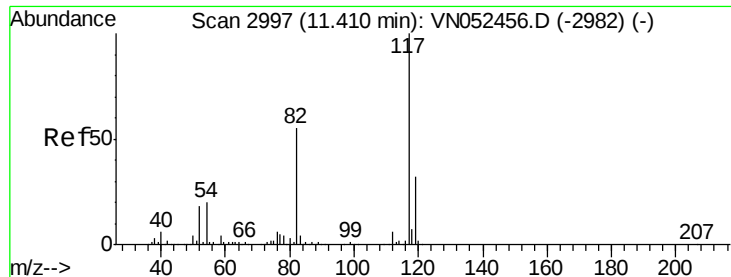


Abundance Ion 69.00 (68.70 to 69.70): VN0

Ion 41.00 (40.70 to 41.70): VN0

Ion 39.00 (38.70 to 39.70): VN0

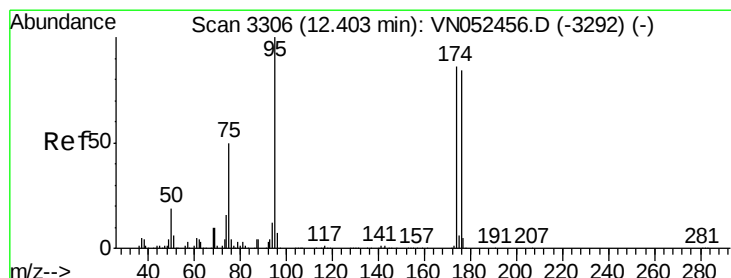
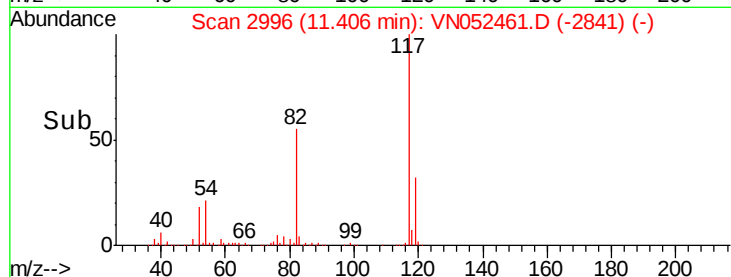
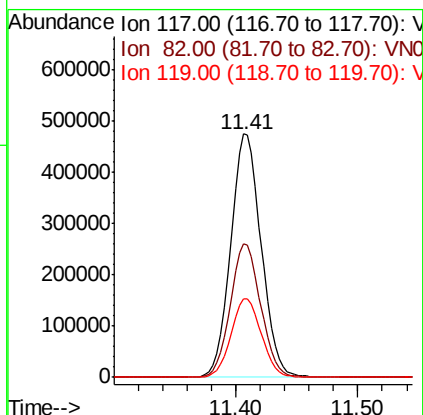
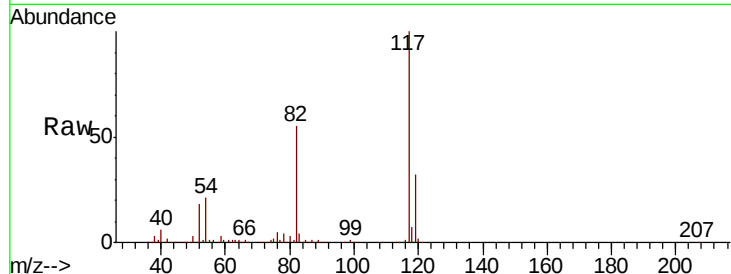




#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.41 min Scan# 2996  
Delta R.T. -0.00 min  
Lab File: VN052461.D  
Acq: 26 Nov 2018 16:17

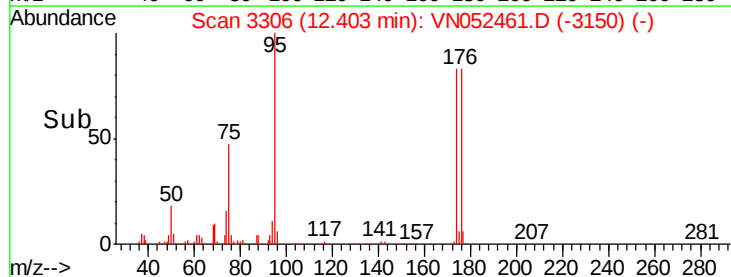
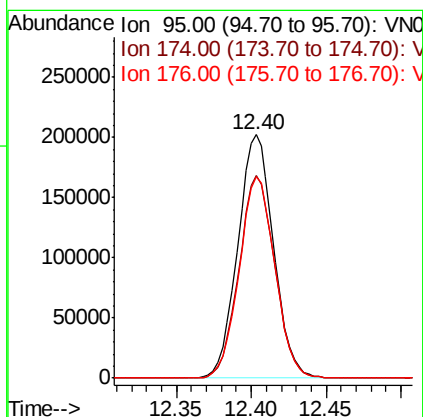
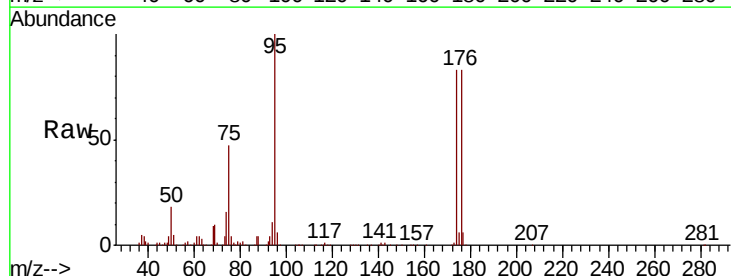
Instrument :  
MSVOA\_N  
ClientSampleId :

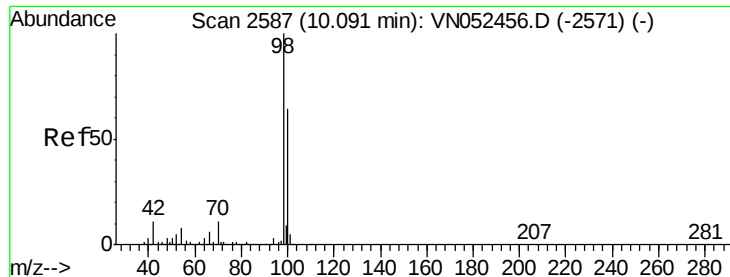
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 54.9  | 44.2  | 66.2  |
| 119     | 32.5  | 25.4  | 38.2  |



#60  
4-Bromofluorobenzene  
Concen: Below ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.00 min  
Lab File: VN052461.D  
Acq: 26 Nov 2018 16:17

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 83.5  | 67.9  | 101.9 |
| 176     | 82.7  | 66.4  | 99.6  |





#63

Toluene-d8

Concen: Below ug/l

RT: 10.09 min Scan# 2587

Delta R.T. 0.00 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

Instrument :

MSVOA\_N

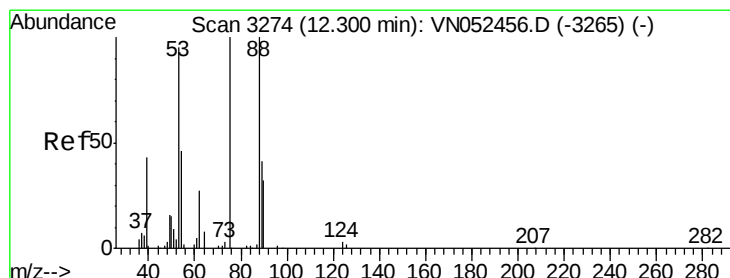
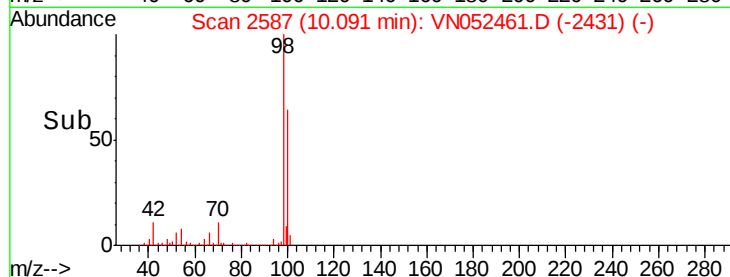
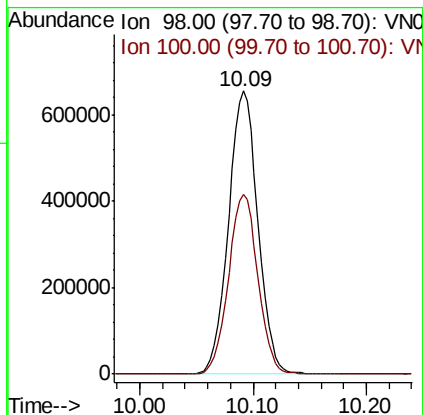
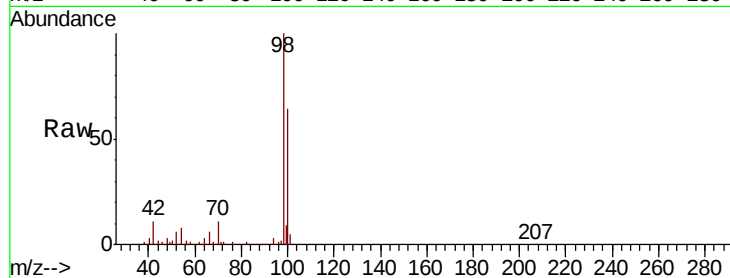
ClientSampleId :

Tot Ion: 98 Resp: 1185080

Ion Ratio Lower Upper

98 100

100 63.4 51.1 76.7



#77

t-1,4-Dichloro-2-butene

Concen: 57.098 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.10 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

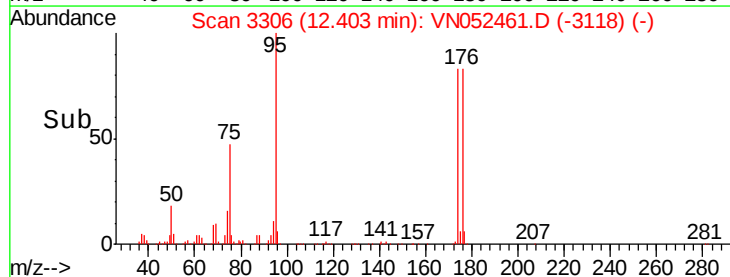
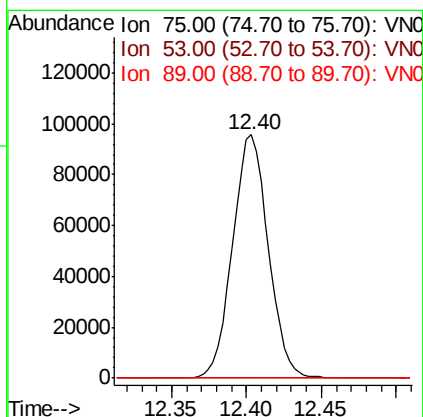
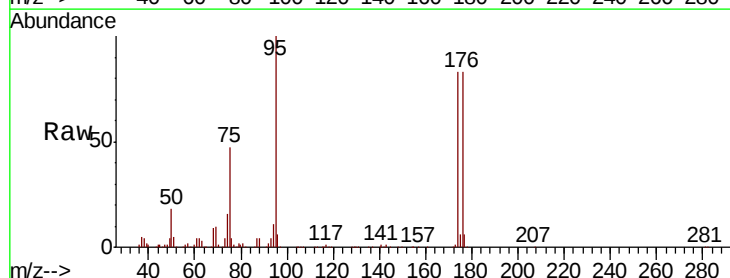
Tgt Ion: 75 Resp: 158987

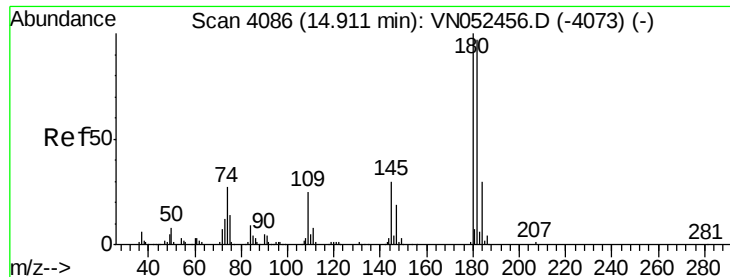
Ion Ratio Lower Upper

75 100

53 0.0 48.5 145.6#

89 0.0 21.7 65.1#

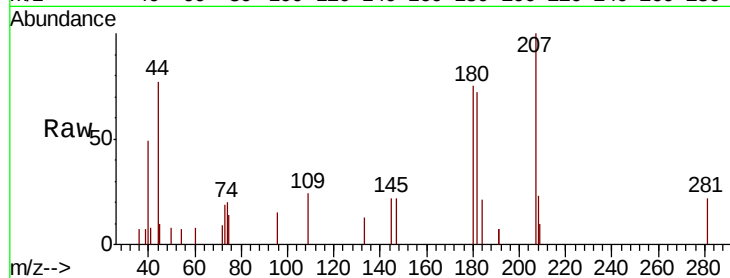




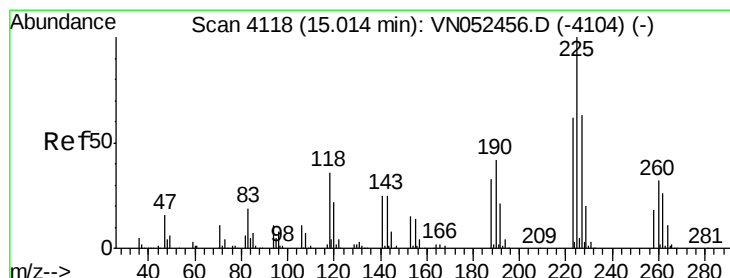
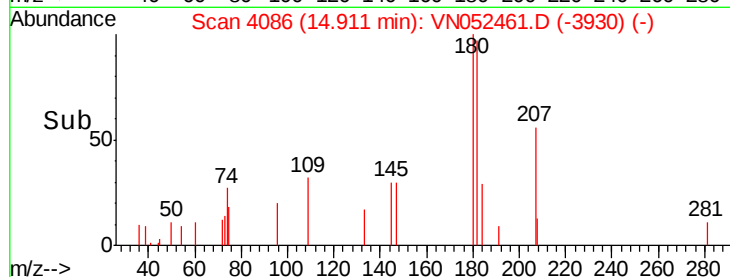
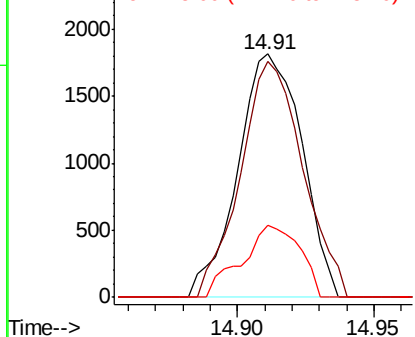
#89  
 1,2,4-Trichlorobenzene  
 Concen: 0.315 ug/l  
 RT: 14.91 min Scan# 4086  
 Delta R.T. 0.00 min  
 Lab File: VN052461.D  
 Acq: 26 Nov 2018 16:17

Instrument :  
 MSVOA\_N  
 ClientSampled :

Tot Ion:180 Resp: 2962  
 Ion Ratio Lower Upper  
 180 100  
 182 94.2 76.6 114.8  
 145 26.8 23.6 35.4

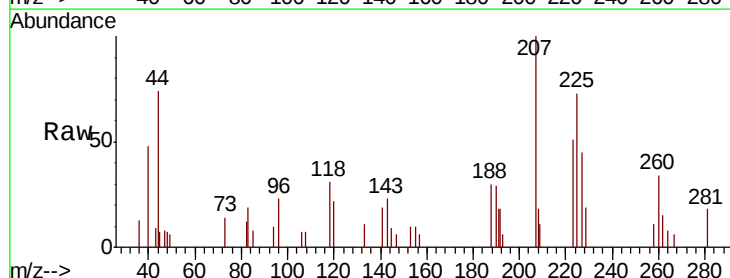


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 145.00 (144.70 to 145.70): V

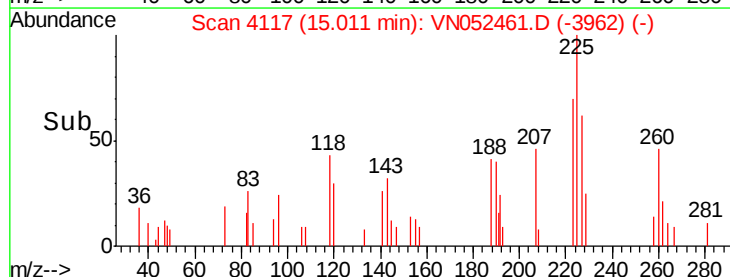
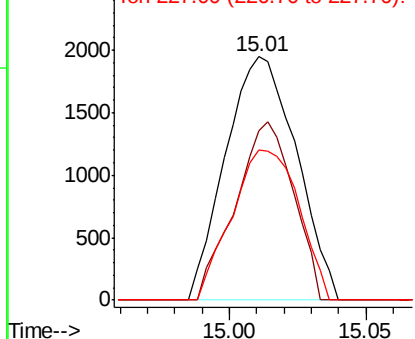


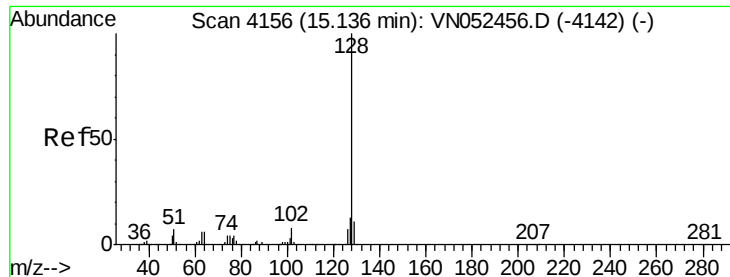
#90  
 Hexachlorobutadiene  
 Concen: 0.569 ug/l  
 RT: 15.01 min Scan# 4117  
 Delta R.T. -0.00 min  
 Lab File: VN052461.D  
 Acq: 26 Nov 2018 16:17

Tgt Ion:225 Resp: 3515  
 Ion Ratio Lower Upper  
 225 100  
 223 60.0 0.0 125.6  
 227 58.5 0.0 127.8



Abundance Ion 225.00 (224.70 to 225.70): V  
 Ion 223.00 (222.70 to 223.70): V  
 Ion 227.00 (226.70 to 227.70): V





#91

Naphthalene

Concen: 0.400 ug/l

RT: 15.14 min Scan# 4156

Delta R.T. 0.00 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

Instrument :

MSVOA\_N

ClientSampled :

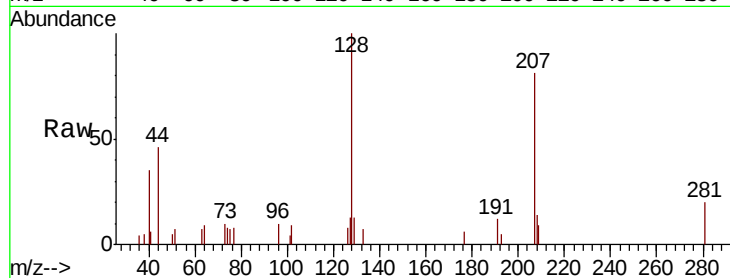
Tot Ion:128 Resp: 7607

Ion Ratio Lower Upper

128 100

127 12.5 9.9 14.9

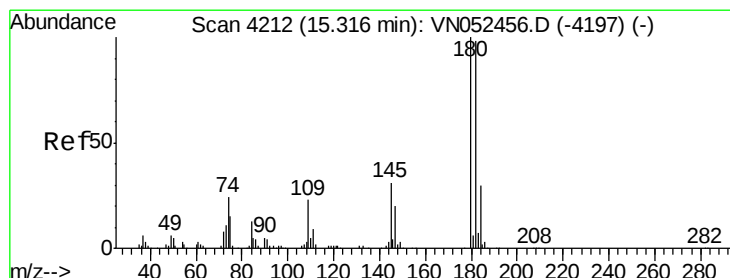
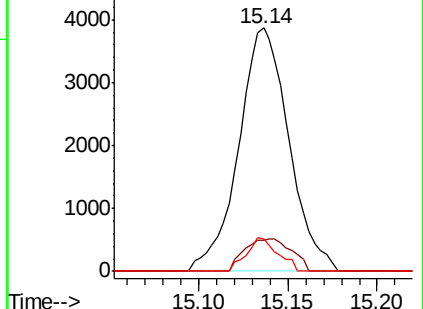
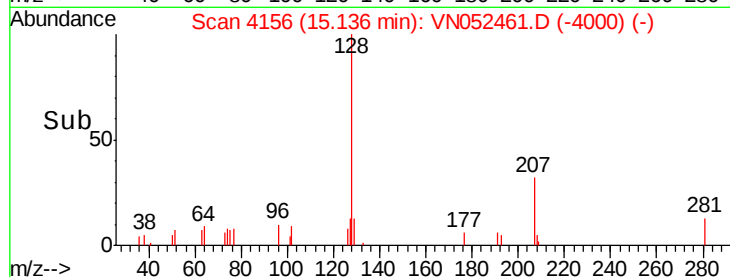
129 8.6 8.5 12.7



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#92

1,2,3-Trichlorobenzene

Concen: 0.416 ug/l

RT: 15.32 min Scan# 4214

Delta R.T. 0.01 min

Lab File: VN052461.D

Acq: 26 Nov 2018 16:17

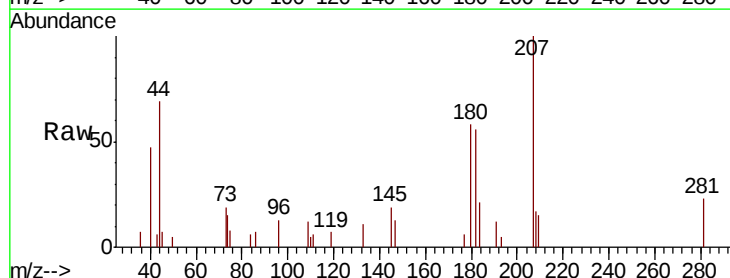
Tgt Ion:180 Resp: 3611

Ion Ratio Lower Upper

180 100

182 87.0 0.0 196.2

145 12.8 0.0 62.2



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

