

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV101618\  
 Data File : VV008321.D  
 Acq On : 17 Oct 2018 03:12  
 Operator : SY/MD  
 Sample : J5463-08  
 Misc : 25.0 mL/MSVOA V/WATER  
 ALS Vial : 38 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 C0JB9

Manual Integrations  
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apatel  
 10/19/2018 2:50:33 PM

Quant Time: Oct 17 07:12:29 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR101518WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Oct 17 05:02:19 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.69  | 114  | 79810m   | 5.00 | ug/L  | 0.02     |
| 28) Chlorobenzene-d5       | 8.91  | 117  | 79670    | 5.00 | ug/L  | 0.01     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 39180    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |           |
|--------------------------------|--------|-------|----------|----------|------|-----------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 24505    | 5.43     | ug/L | 0.00      |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 108.60%   |
| 7) Chloroethane-d5             | 1.58   | 69    | 15575    | 4.38     | ug/L | 0.00      |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 87.60%    |
| 11) 1,1-Dichloroethene-d2      | 2.14   | 63    | 58451    | 6.75     | ug/L | 0.00      |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 135.00%#  |
| 20) 2-Butanone-d5              | 4.00   | 46    | 72798    | 48.12    | ug/L | 0.02      |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 96.24%    |
| 24) Chloroform-d               | 4.43   | 84    | 49923    | 4.95     | ug/L | 0.02      |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 99.00%    |
| 26) 1,2-Dichloroethane-d4      | 5.11   | 65    | 25013    | 4.89     | ug/L | 0.02      |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 97.80%    |
| 32) Benzene-d6                 | 5.16   | 84    | 95025m   | 4.06     | ug/L | 0.06      |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 81.20%    |
| 36) 1,2-Dichloropropane-d6     | 5.99   | 67    | 760043m  | 98.69    | ug/L | -0.13     |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 1973.80%# |
| 41) Toluene-d8                 | 7.39   | 98    | 87209    | 4.11     | ug/L | 0.03      |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 82.20%    |
| 43) trans-1,3-Dichloropropene- | 7.69   | 79    | 13182    | 4.13     | ug/L | 0.02      |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 82.60%    |
| 46) 2-Hexanone-d5              | 8.15   | 63    | 64662    | 57.73    | ug/L | 0.00      |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 115.46%   |
| 57) 1,1,2,2-Tetrachloroethane- | 10.27  | 84    | 26203    | 5.12     | ug/L | 0.00      |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 102.40%   |
| 64) 1,2-Dichlorobenzene-d4     | 11.68  | 152   | 31675    | 4.26     | ug/L | 0.00      |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 85.20%    |

## Target Compounds

| Target Compounds             | R.T. | QIon | Response   | Conc      | Units  | Ovalue |
|------------------------------|------|------|------------|-----------|--------|--------|
| 5) Vinyl chloride            | 1.32 | 62   | 472210     | 79.520    | ug/L   | 99     |
| 12) 1,1-Dichloroethene       | 2.15 | 96   | 43225      | 11.274    | ug/L   | 84     |
| 13) Acetone                  | 2.21 | 43   | 5511       | 6.733     | ug/L   | 88     |
| 14) Carbon disulfide         | 2.33 | 76   | 4327       | 0.328     | ug/L # | 86     |
| 16) Methylene chloride       | 2.55 | 84   | 1493       | 0.336     | ug/L   | 78     |
| 18) trans-1,2-Dichloroethene | 2.80 | 96   | 124018     | 30.065    | ug/L   | 95     |
| 19) 1,1-Dichloroethane       | 3.24 | 63   | 78342      | 9.193     | ug/L   | 96     |
| 22) cis-1,2-Dichloroethene   | 3.99 | 96   | 26383351   | 3961.500  | ug/L # | 91     |
| 25) Chloroform               | 4.45 | 83   | 168774     | 16.157    | ug/L   | 98     |
| 29) 1,1,1-Trichloroethane    | 4.70 | 97   | 63451      | 6.395     | ug/L   | 98     |
| 31) Carbon tetrachloride     | 4.94 | 117  | 3306m      | 0.396     | ug/L   |        |
| 33) Benzene                  | 5.23 | 78   | 12066m     | 0.449     | ug/L   |        |
| 34) Trichloroethene          | 5.99 | 95   | 164898200m | 22163.836 | ug/L   |        |
| 42) Toluene                  | 7.46 | 91   | 6175671    | 220.679   | ug/L   | 98     |
| 45) 1,1,2-Trichloroethane    | 7.90 | 97   | 168340     | 37.434    | ug/L   | 97     |
| 47) Tetrachloroethene        | 8.04 | 164  | 1278999    | 274.379   | ug/L   | 97     |
| 52) Ethylbenzene             | 9.07 | 91   | 598448     | 19.448    | ug/L   | 99     |

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Sample : J5463-08  
Misc : 25.0 mL/MSVOA V/WATER  
ALS Vial : 38 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
C0JB9

Manual Integrations  
APPROVED

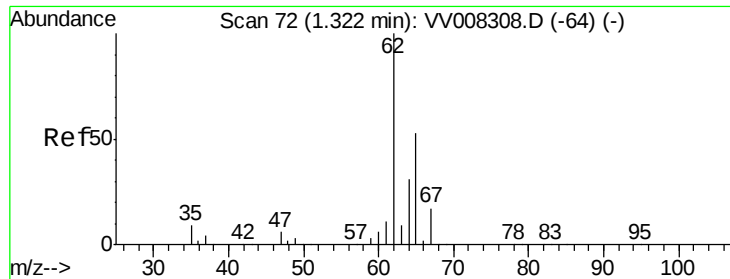
apatel  
10/19/2018 2:50:33 PM

Quant Time: Oct 17 07:12:29 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR101518WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Oct 17 05:02:19 2018  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|-------|----------|
| 53) m,p-xylene          | 9.19  | 106  | 475501   | 42.722 | ug/L  | 98       |
| 54) o-xylene            | 9.60  | 106  | 245388   | 22.129 | ug/L  | 99       |
| 56) Isopropylbenzene    | 9.98  | 105  | 28978    | 0.992  | ug/L  | 97       |
| 65) 1,2-Dichlorobenzene | 11.70 | 146  | 2890     | 0.227  | ug/L  | 92       |

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





#5

Vinyl chloride

Concen: 79.520 ug/L

RT: 1.32 min Scan# 72

Delta R.T. 0.00 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

Instrument :

MSVOA\_V

ClientSampled :

C0JB9

Tot Ion: 62 Resp: 472210

Ion Ratio Lower Upper

62 100

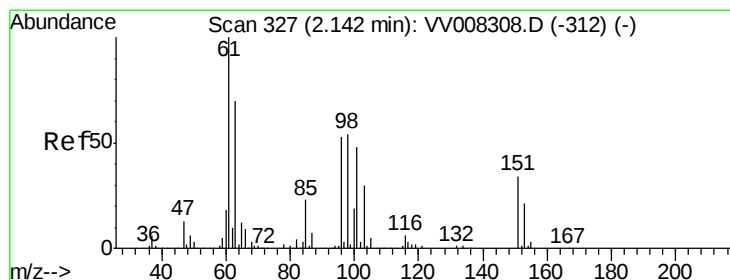
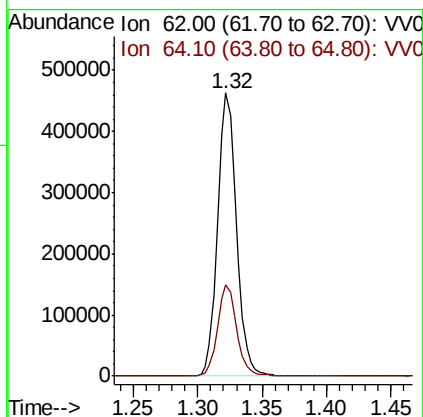
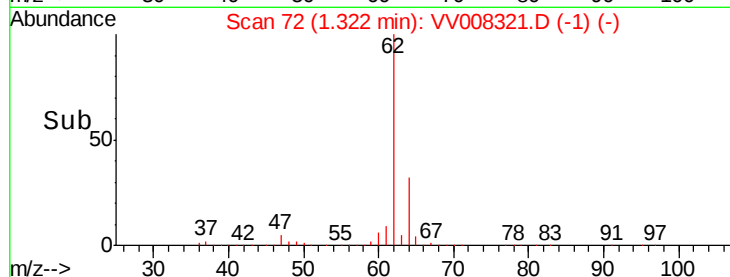
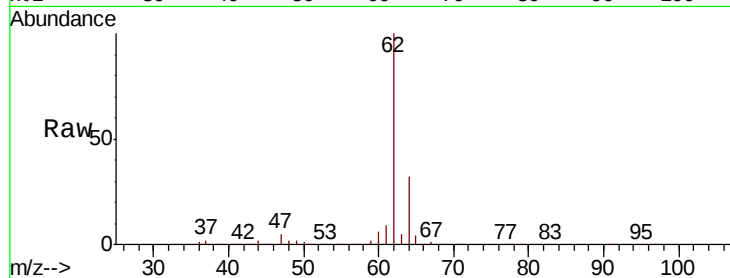
64 32.2 22.9 42.5

Manual Integrations

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#12

1,1-Dichloroethene

Concen: 11.274 ug/L

RT: 2.15 min Scan# 329

Delta R.T. 0.01 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

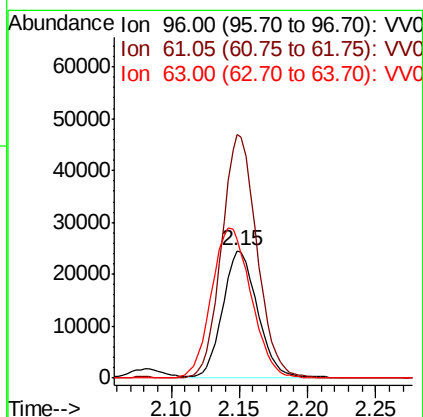
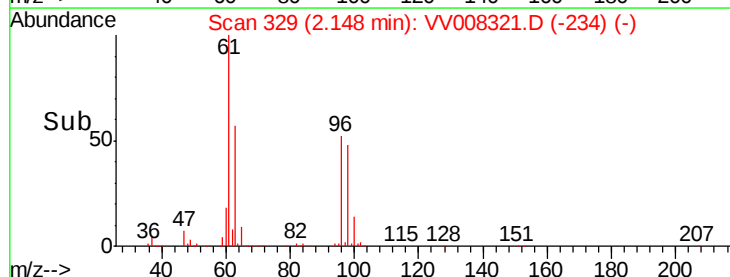
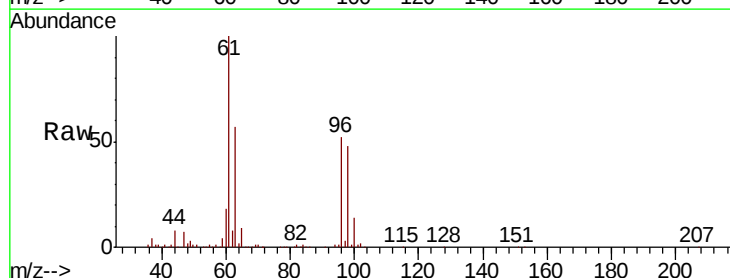
Tgt Ion: 96 Resp: 43225

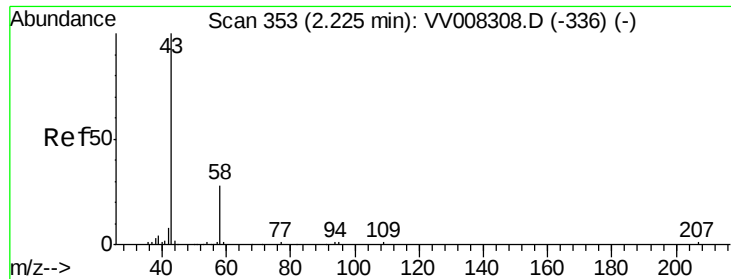
Ion Ratio Lower Upper

96 100

61 191.2 129.9 241.3

63 109.3 103.0 191.4





#13

Acetone

Concen: 6.733 ug/L

RT: 2.21 min Scan# 349

Delta R.T. -0.01 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

Instrument :

MSVOA\_V

ClientSampled :

C0JB9

Tot Ion: 43 Resp: 5511

Ion Ratio Lower Upper

43 100

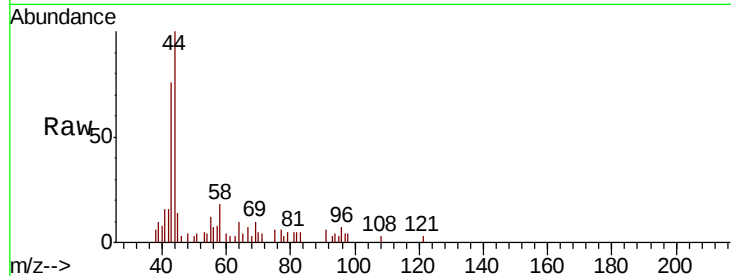
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Manual Integrations

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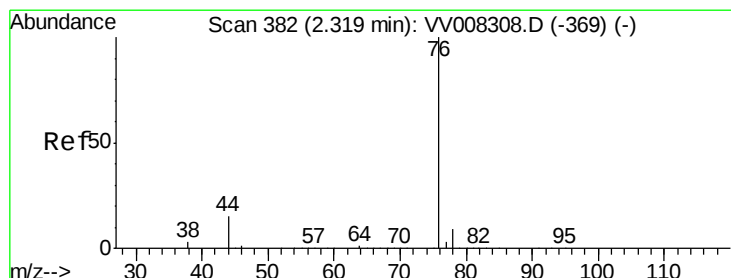
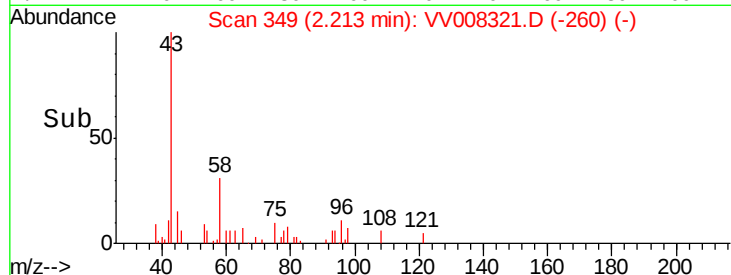
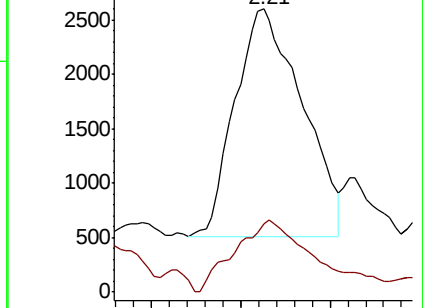
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Abundance Ion 43.05 (42.75 to 43.75): VV008308.D (-336) (-)

Ion 58.05 (57.75 to 58.75): VV008308.D (-336) (-)



#14

Carbon disulfide

Concen: 0.328 ug/L

RT: 2.33 min Scan# 385

Delta R.T. 0.01 min

Lab File: VV008321.D

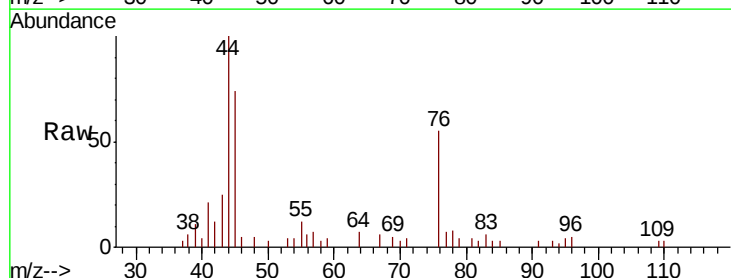
Acq: 17 Oct 2018 03:12

Tgt Ion: 76 Resp: 4327

Ion Ratio Lower Upper

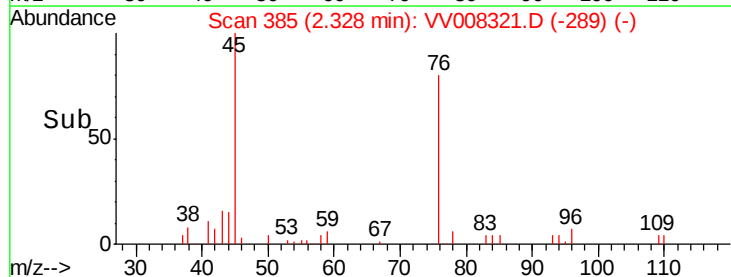
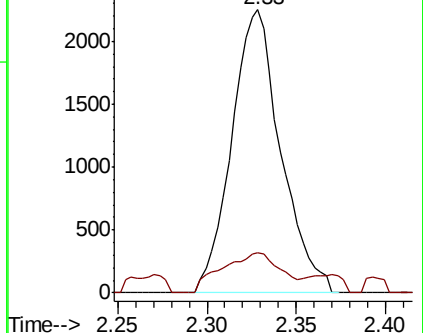
76 100

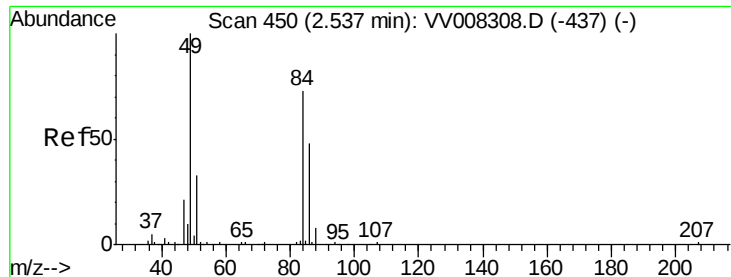
78 14.4 7.4 11.2#



Abundance Ion 76.05 (75.75 to 76.75): VV008308.D (-369) (-)

Ion 78.00 (77.70 to 78.70): VV008308.D (-369) (-)





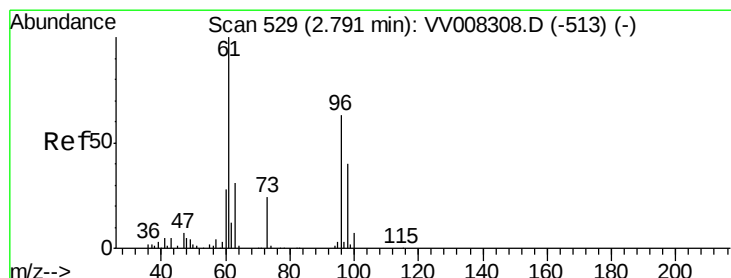
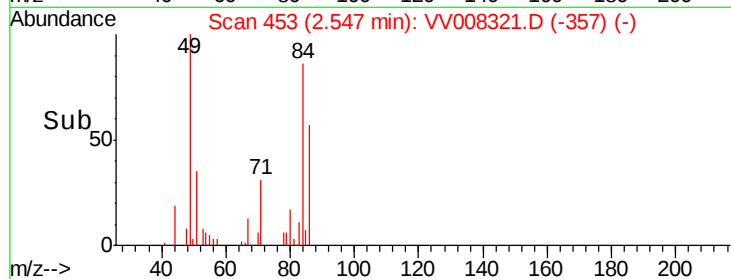
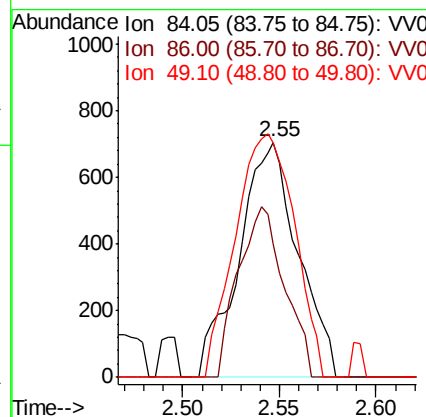
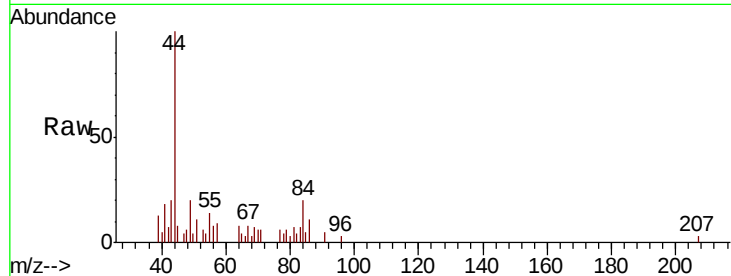
#16  
Methvlene chloride  
Concen: 0.336 ug/L  
RT: 2.55 min Scan# 453  
Delta R.T. 0.01 min  
Lab File: VV008321.D  
Acq: 17 Oct 2018 03:12

Instrument :  
MSVOA\_V  
ClientSampleId :  
C0JB9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 86      | 56.6  | 45.0  | 83.6  |
| 49      | 99.7  | 92.9  | 172.5 |

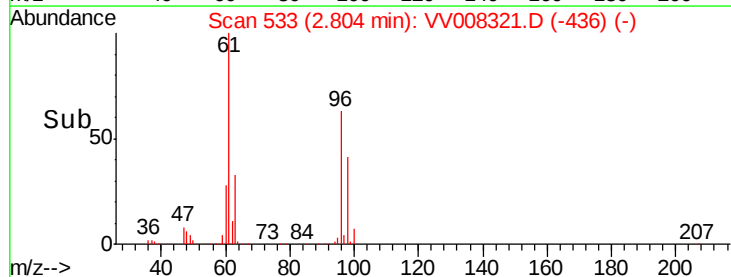
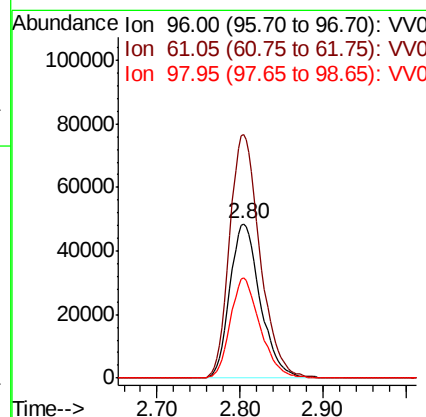
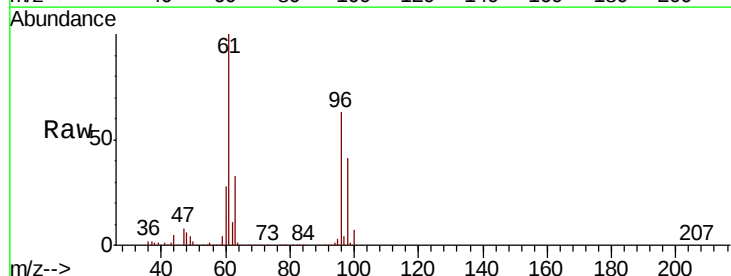
Manual Integrations  
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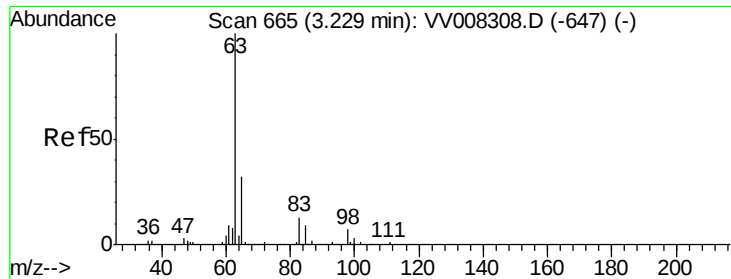
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#18  
trans-1,2-Dichloroethene  
Concen: 30.065 ug/L  
RT: 2.80 min Scan# 533  
Delta R.T. 0.01 min  
Lab File: VV008321.D  
Acq: 17 Oct 2018 03:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 157.7 | 104.6 | 194.2 |
| 98      | 65.3  | 44.1  | 81.9  |





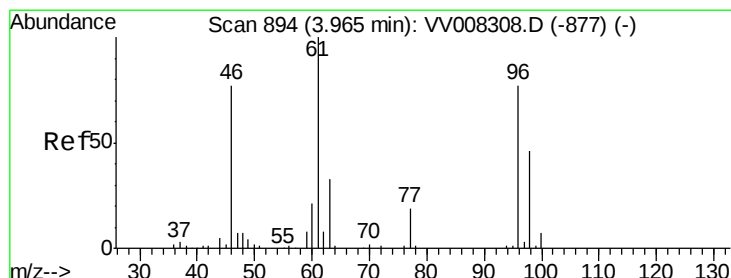
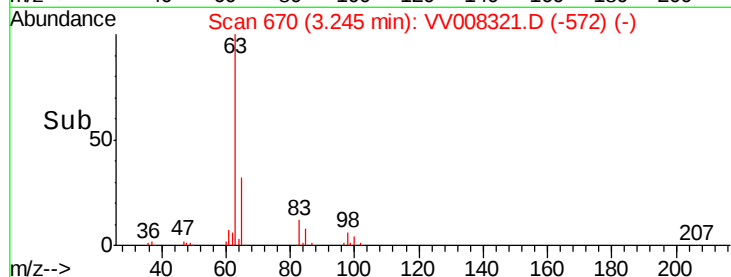
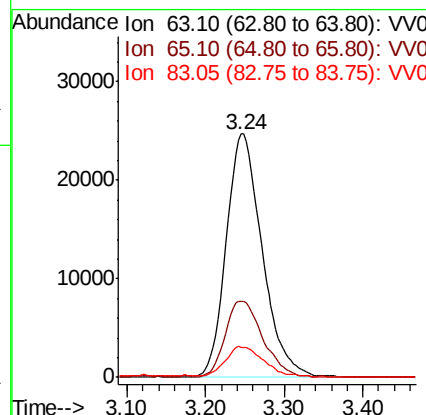
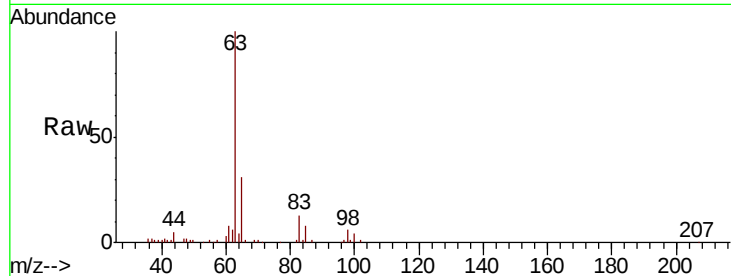
#19  
 1,1-Dichloroethane  
 Concen: 9.193 ug/L  
 RT: 3.24 min Scan# 670  
 Delta R.T. 0.02 min  
 Lab File: VV008321.D  
 Acq: 17 Oct 2018 03:12

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 C0JB9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 65      | 31.4  | 22.6  | 42.0  |
| 83      | 12.5  | 11.0  | 20.4  |

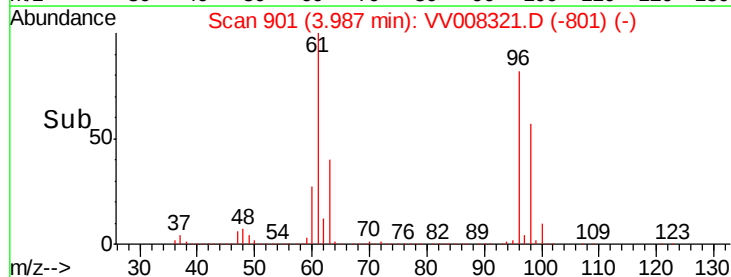
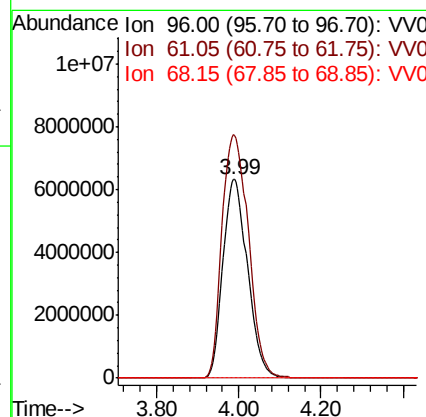
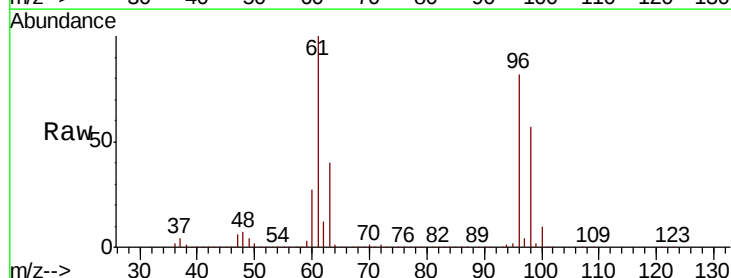
Manual Integrations  
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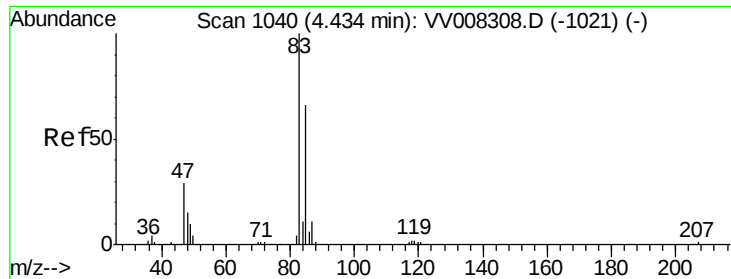
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#22  
 cis-1,2-Dichloroethene  
 Concen: 3961.500 ug/L  
 RT: 3.99 min Scan# 901  
 Delta R.T. 0.02 min  
 Lab File: VV008321.D  
 Acq: 17 Oct 2018 03:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 122.6 | 93.7  | 174.1 |
| 68      | 0.0   | 0.6   | 1.2#  |





#25

Chloroform

Concen: 16.157 ug/L

RT: 4.45 min Scan# 1045

Delta R.T. 0.02 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

Instrument :

MSVOA\_V

ClientSampled :

C0JB9

Tot Ion: 83 Resp: 168774

Ion Ratio Lower Upper

83 100

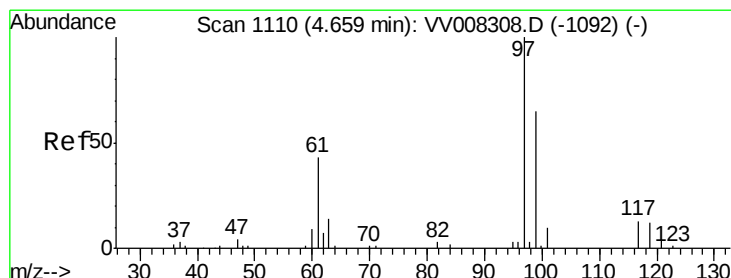
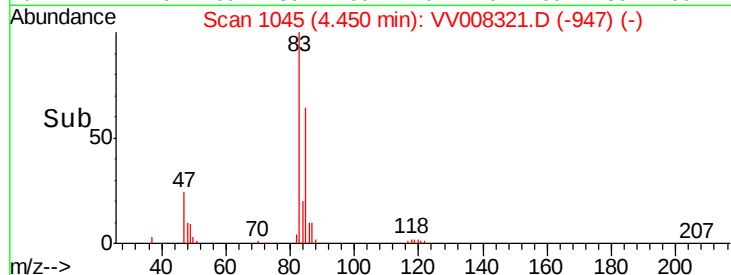
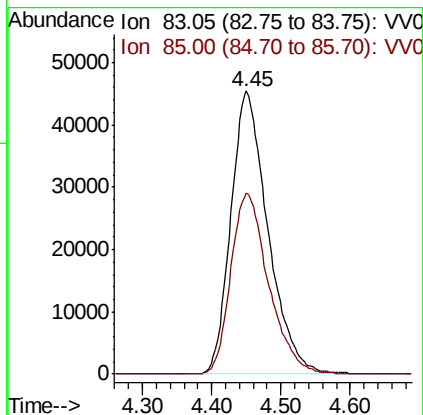
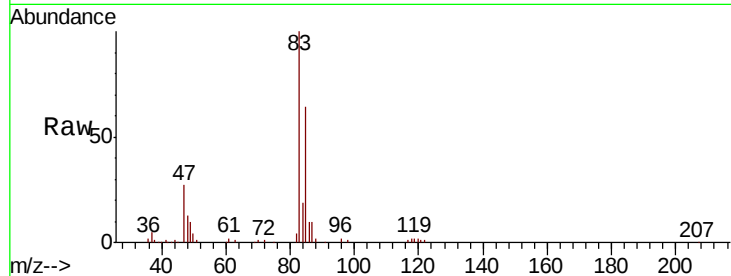
85 63.9 43.4 80.6

Manual Integrations

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#29

1,1,1-Trichloroethane

Concen: 6.395 ug/L

RT: 4.70 min Scan# 1122

Delta R.T. 0.04 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

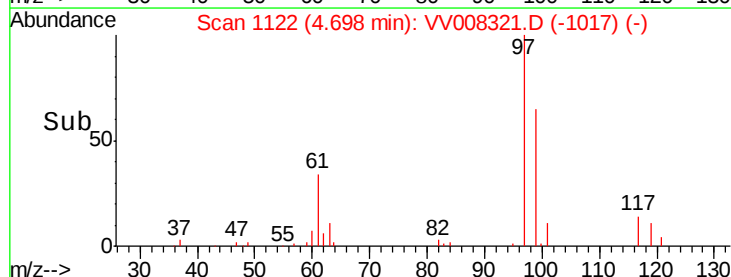
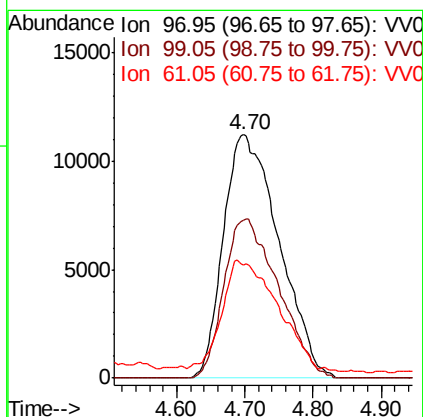
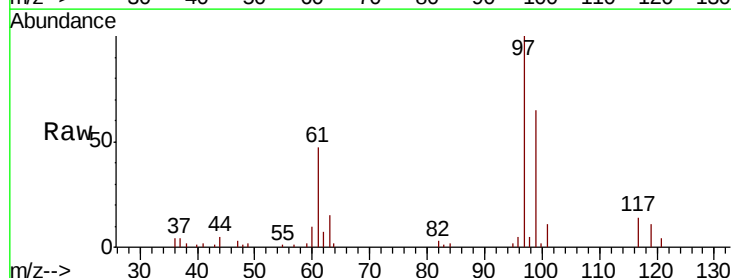
Tgt Ion: 97 Resp: 63451

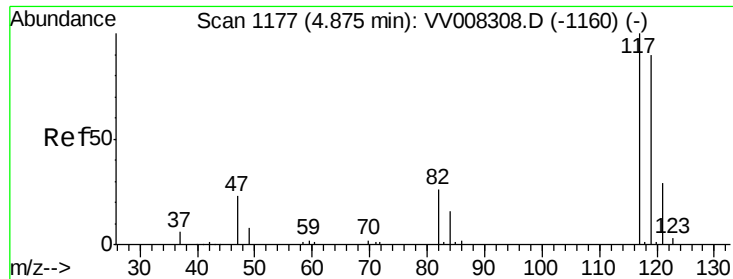
Ion Ratio Lower Upper

97 100

99 64.2 51.6 77.4

61 43.3 37.0 55.6





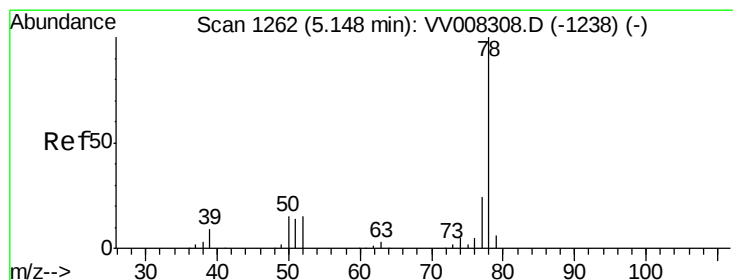
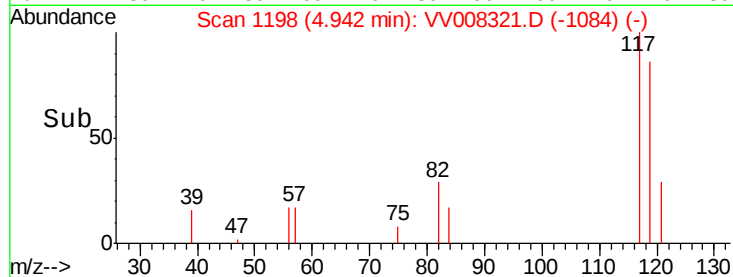
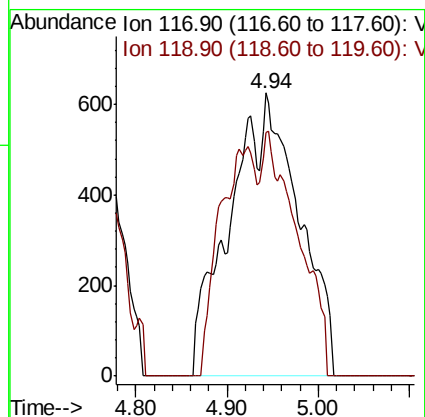
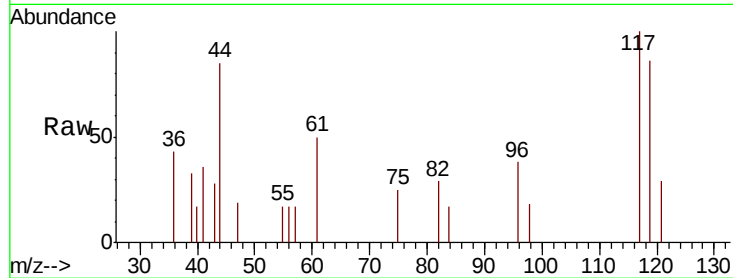
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Carbon tetrachloride  
Concen: 0.396 ug/L m  
RT: 4.94 min Scan# 1198  
Delta R.T. 0.07 min  
Lab File: VV008321.D  
Acq: 17 Oct 2018 03:12

Instrument :  
MSVOA\_V  
ClientSampleId :  
C0JB9

Tot Ion:117 Resp: 3306  
Ion Ratio Lower Upper  
117 100  
119 44.1 75.5 113.3#

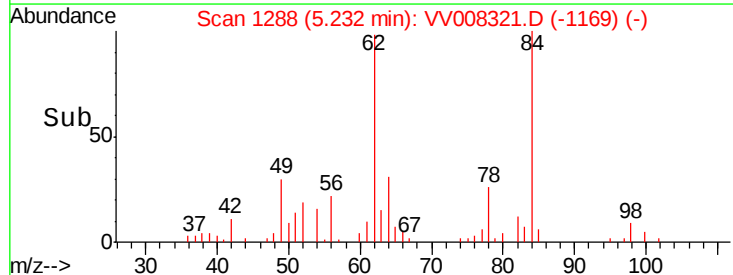
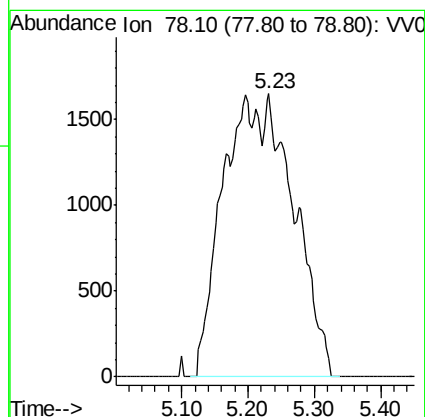
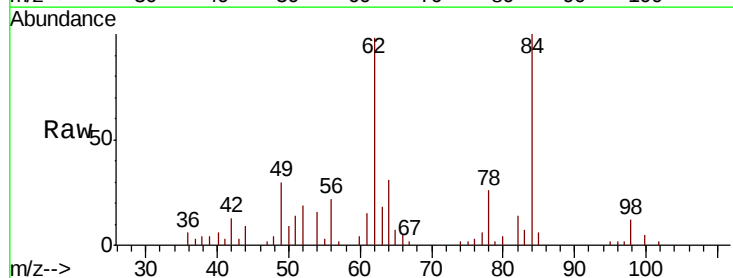
Manual Integrations  
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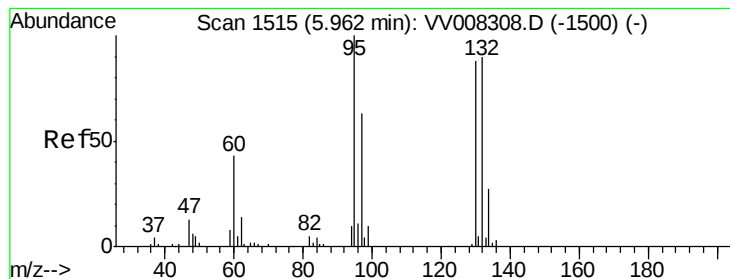
apatel  
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#33  
Benzene  
Concen: 0.449 ug/L m  
RT: 5.23 min Scan# 1288  
Delta R.T. 0.08 min  
Lab File: VV008321.D  
Acq: 17 Oct 2018 03:12

Tgt Ion: 78 Resp: 12066





#34

Trichloroethene

Concen: 22163.836 ug/L m

RT: 5.99 min Scan# 1525

Delta R.T. 0.03 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

Instrument :

MSVOA\_V

ClientSampleId :

C0JB9

Tot Ion: 95 Resp:16489820

Ion Ratio Lower Upper

95 100

97 75.6 44.4 82.4

132 93.8 60.4 112.2

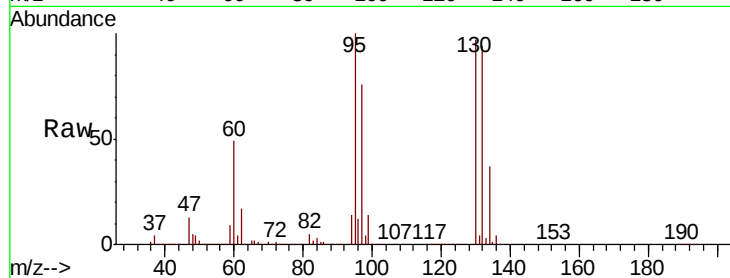
130 96.8 65.5 121.7

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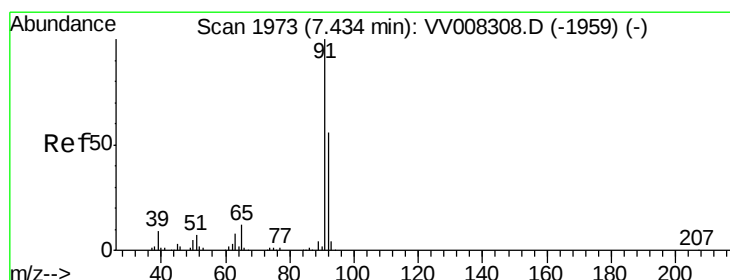
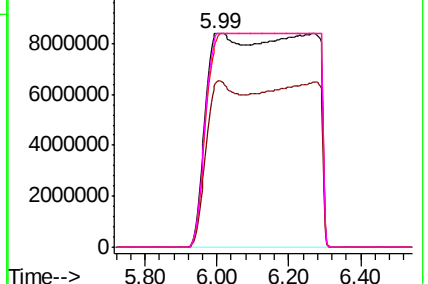
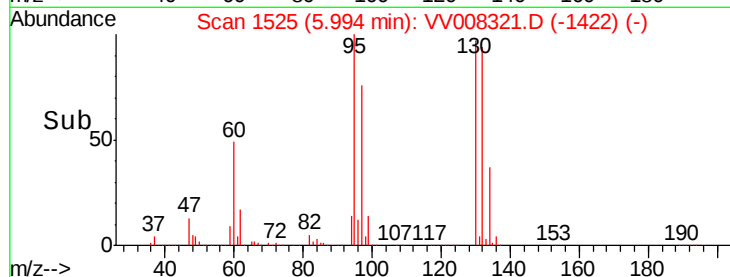


Abundance Ion 95.00 (94.70 to 95.70): VV008308.D (-1500) (-)

Ion 96.95 (96.65 to 97.65): VV008308.D (-1500) (-)

Ion 131.95 (131.65 to 132.65): VV008308.D (-1500) (-)

Ion 129.95 (129.65 to 130.65): VV008308.D (-1500) (-)



#42

Toluene

Concen: 220.679 ug/L

RT: 7.46 min Scan# 1982

Delta R.T. 0.03 min

Lab File: VV008321.D

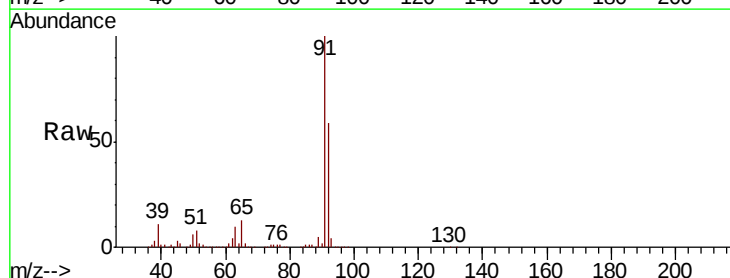
Acq: 17 Oct 2018 03:12

Tgt Ion: 91 Resp: 6175671

Ion Ratio Lower Upper

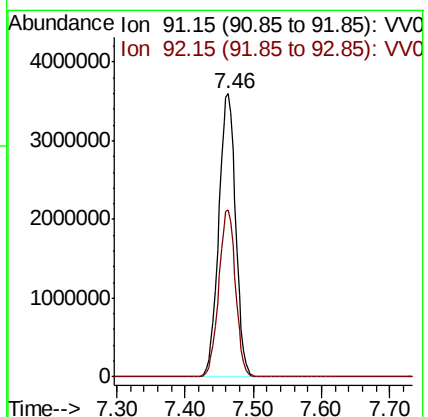
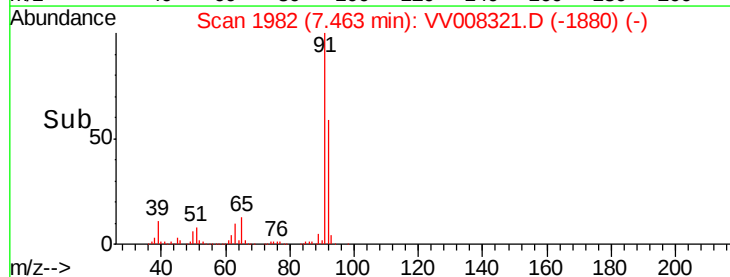
91 100

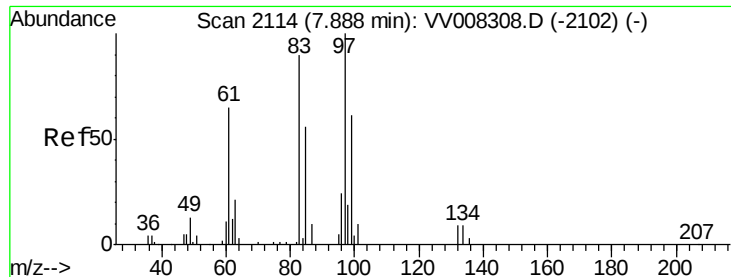
92 59.1 40.1 74.5



Abundance Ion 91.15 (90.85 to 91.85): VV008308.D (-1959) (-)

Ion 92.15 (91.85 to 92.85): VV008308.D (-1959) (-)





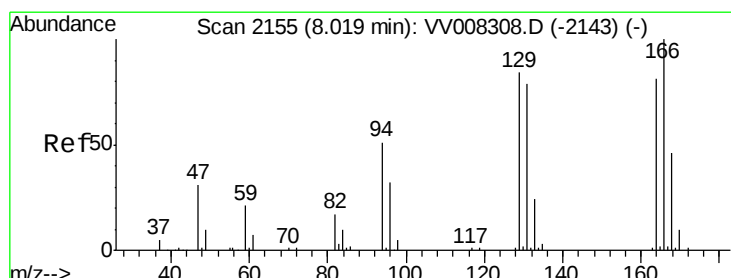
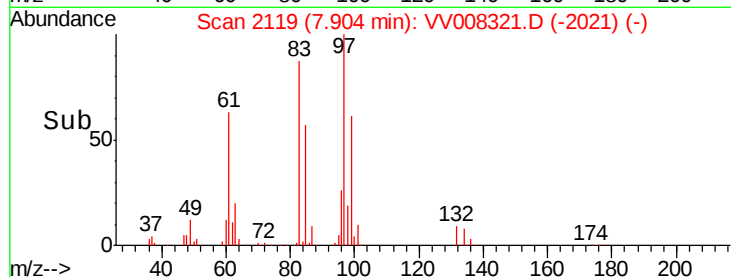
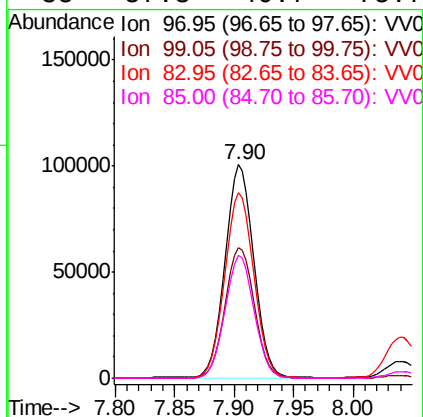
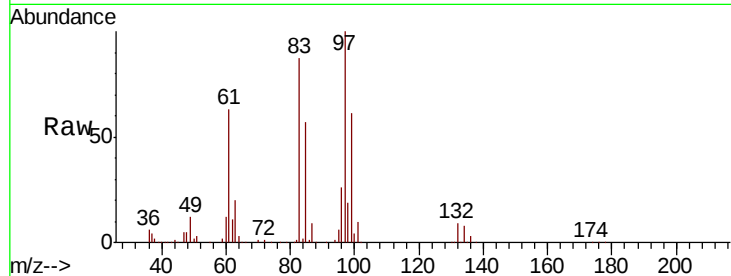
#45  
1,1,2-Trichloroethane  
Concen: 37.434 ug/L  
RT: 7.90 min Scan# 2119  
Delta R.T. 0.02 min  
Lab File: VV008321.D  
Acq: 17 Oct 2018 03:12

Instrument :  
MSVOA\_V  
ClientSampleId :  
C0JB9

| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 97      | 100  |       | 168340 |       |       |
| 99      | 60.9 | 44.1  | 81.9   |       |       |
| 83      | 87.1 | 63.7  | 118.3  |       |       |
| 85      | 57.3 | 40.7  | 75.7   |       |       |

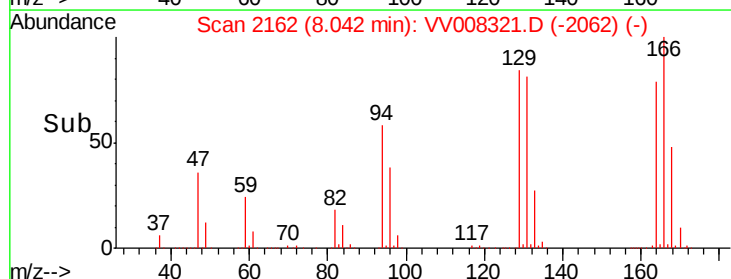
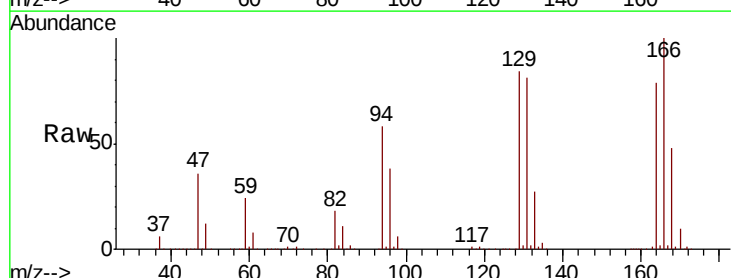
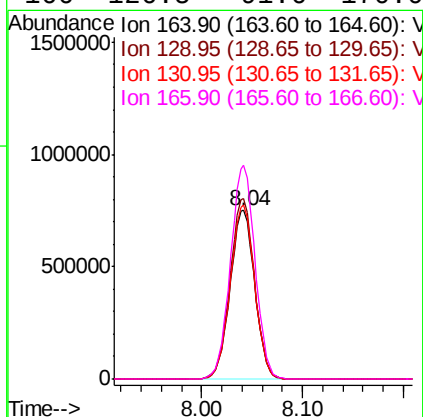
Manual Integrations  
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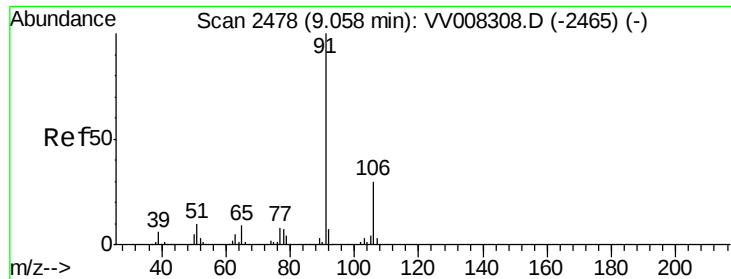
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#47  
Tetrachloroethene  
Concen: 274.379 ug/L  
RT: 8.04 min Scan# 2162  
Delta R.T. 0.02 min  
Lab File: VV008321.D  
Acq: 17 Oct 2018 03:12

| Tgt Ion | Ion   | Ratio | Resp    | Lower | Upper |
|---------|-------|-------|---------|-------|-------|
| 164     | 100   |       | 1278999 |       |       |
| 129     | 106.7 | 76.5  | 142.1   |       |       |
| 131     | 102.8 | 74.7  | 138.7   |       |       |
| 166     | 126.5 | 91.6  | 170.0   |       |       |





#52

Ethylbenzene

Concen: 19.448 ug/L

RT: 9.07 min Scan# 2481

Delta R.T. 0.01 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

Instrument :

MSVOA\_V

ClientSampleId :

C0JB9

Tot Ion: 91 Resp: 598448

Ion Ratio Lower Upper

91 100

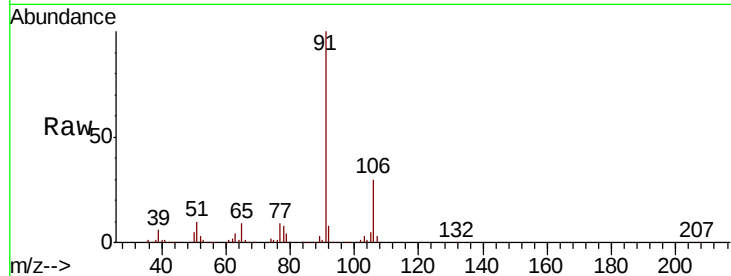
106 30.5 21.6 40.2

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Abundance Ion 91.15 (90.85 to 91.85): VV008308.D (-2465) (-)

Ion 106.15 (105.85 to 106.85): VV008308.D (-2465) (-)

600000

400000

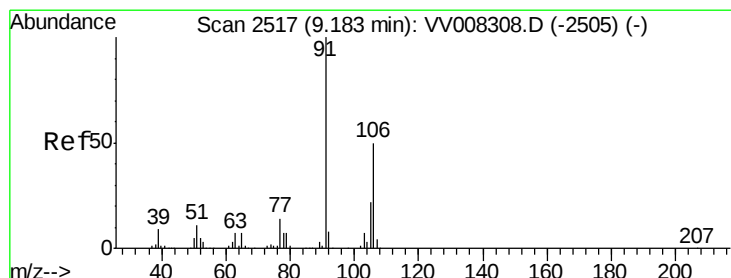
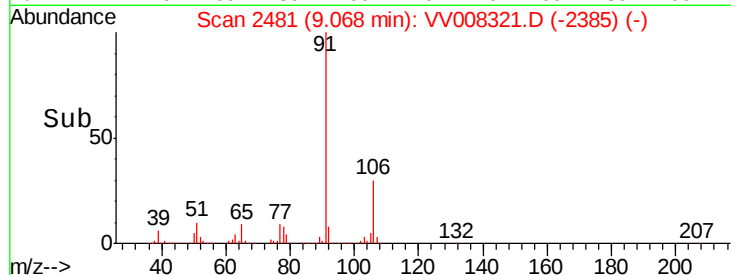
200000

0

9.07

9.00 9.05 9.10 9.15

Time-->



#53

m,p-xylene

Concen: 42.722 ug/L

RT: 9.19 min Scan# 2520

Delta R.T. 0.01 min

Lab File: VV008321.D

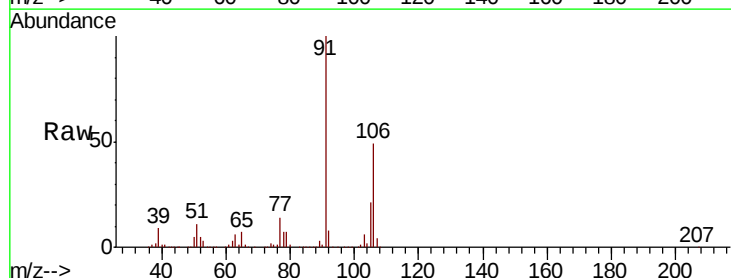
Acq: 17 Oct 2018 03:12

Tgt Ion: 106 Resp: 475501

Ion Ratio Lower Upper

106 100

91 203.9 145.2 269.6



Abundance Ion 106.15 (105.85 to 106.85): VV008308.D (-2505) (-)

Ion 91.15 (90.85 to 91.85): VV008308.D (-2505) (-)

600000

400000

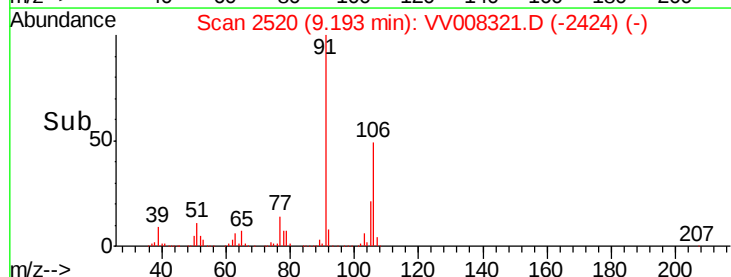
200000

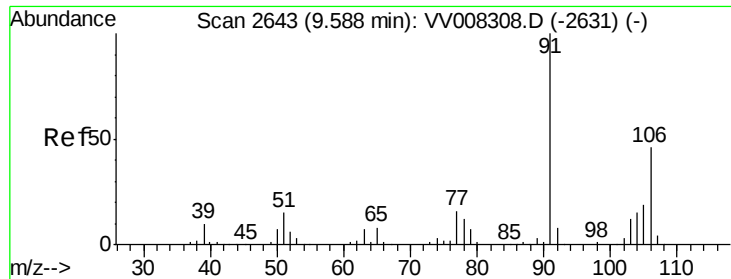
0

9.19

9.10 9.20 9.30

Time-->





#54

o-xylene

Concen: 22.129 ug/L

RT: 9.60 min Scan# 2646

Delta R.T. 0.01 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

Instrument :

MSVOA\_V

ClientSampled :

C0JB9

Tot Ion:106 Resp: 245388

Ion Ratio Lower Upper

106 100

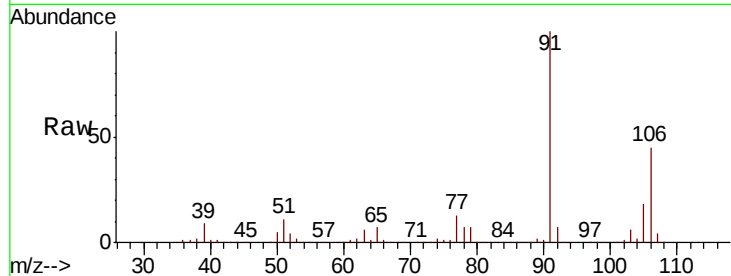
91 219.9 153.2 284.4

Manual Integrations

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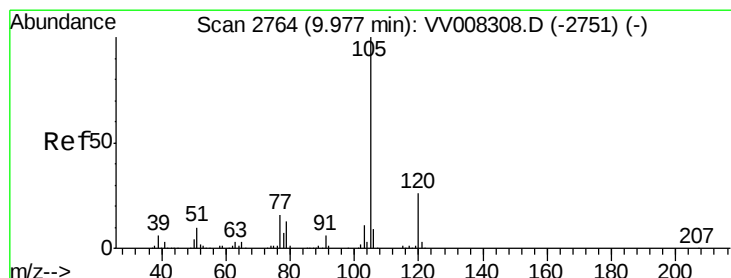
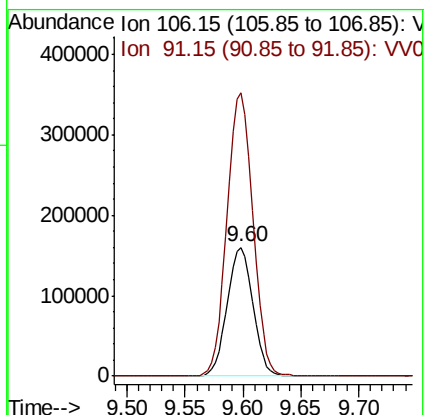
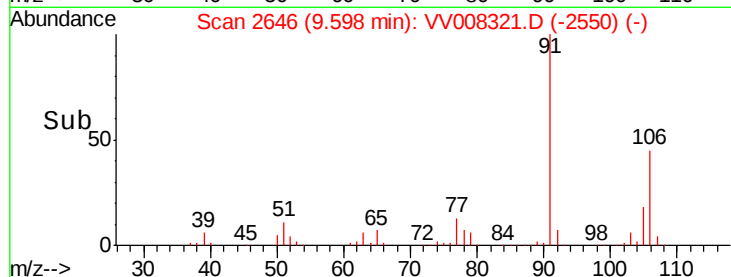
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Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0



#56

Isopropylbenzene

Concen: 0.992 ug/L

RT: 9.98 min Scan# 2766

Delta R.T. 0.01 min

Lab File: VV008321.D

Acq: 17 Oct 2018 03:12

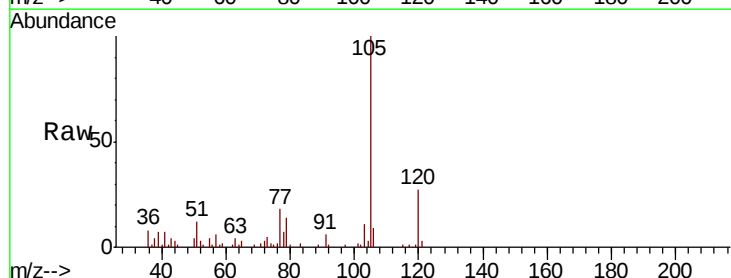
Tgt Ion:105 Resp: 28978

Ion Ratio Lower Upper

105 100

120 25.6 21.2 31.8

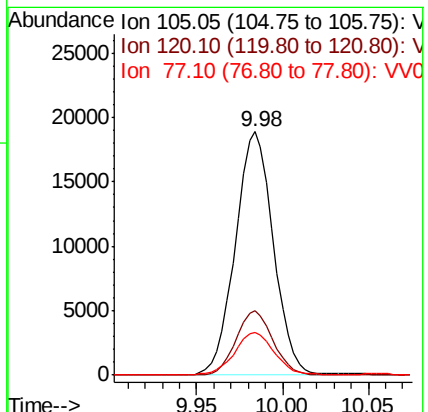
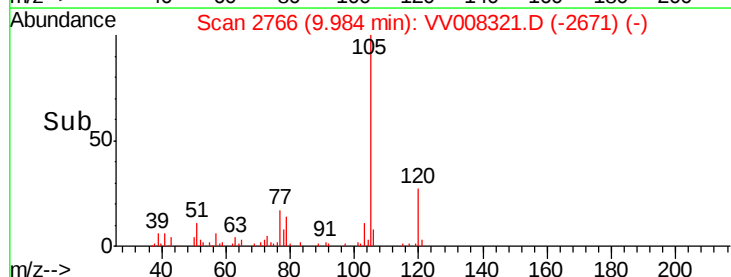
77 18.4 13.0 19.6

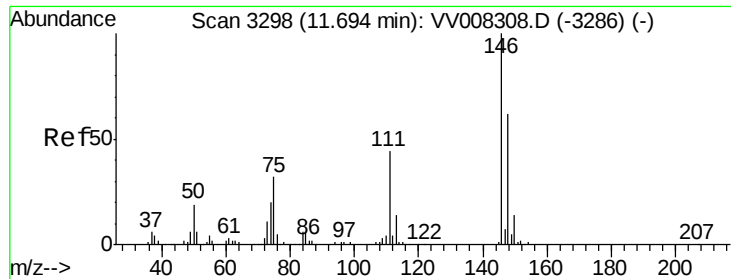


Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): VV0





#65  
 1,2-Dichlorobenzene  
 Concen: 0.227 ug/L  
 RT: 11.70 min Scan# 3299  
 Delta R.T. 0.00 min  
 Lab File: VV008321.D  
 Acq: 17 Oct 2018 03:12

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 C0JB9

|           |       |       |      |
|-----------|-------|-------|------|
| Tot Ion:  | 146   | Resp: | 2890 |
| Ion Ratio | Lower | Upper |      |
| 146       | 100   |       |      |
| 111       | 51.6  | 35.5  | 53.3 |
| 148       | 68.6  | 51.5  | 77.3 |

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