

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV052720\  
 Data File : VV016247.D  
 Acq On : 27 May 2020 23:22  
 Operator : SY/MD  
 Sample : L2766-04  
 Misc : 25.0mL/MSVOA V/WATER  
 ALS Vial : 35 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :

Quant Time: May 28 06:33:50 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR052620WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Thu May 28 06:30:54 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.64  | 114  | 80870    | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.87  | 117  | 79730    | 5.00 | ug/L  | 0.00     |
| 61) 1,4-Dichlorobenzene-d4 | 11.27 | 152  | 39501    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 24770    | 4.77     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 95.40%  |
| 7) Chloroethane-d5             | 1.58   | 69    | 23167    | 5.08     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 101.60% |
| 11) 1,1-Dichloroethene-d2      | 2.13   | 63    | 36402    | 3.73     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 74.60%  |
| 20) 2-Butanone-d5              | 3.94   | 46    | 73165    | 56.79    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 113.58% |
| 24) Chloroform-d               | 4.38   | 84    | 51929    | 5.02     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 100.40% |
| 26) 1,2-Dichloroethane-d4      | 5.06   | 65    | 27841    | 5.09     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 101.80% |
| 32) Benzene-d6                 | 5.08   | 84    | 101387   | 5.13     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 102.60% |
| 36) 1,2-Dichloropropane-d6     | 6.10   | 67    | 31655    | 5.18     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 103.60% |
| 41) Toluene-d8                 | 7.34   | 98    | 89291    | 4.74     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 94.80%  |
| 45) trans-1,3-Dichloropropene- | 7.65   | 79    | 10100    | 4.43     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 88.60%  |
| 48) 2-Hexanone-d5              | 8.12   | 63    | 50283    | 48.14    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 96.28%  |
| 59) 1,1,2,2-Tetrachloroethane- | 10.24  | 84    | 22627    | 5.01     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 100.20% |
| 65) 1,2-Dichlorobenzene-d4     | 11.65  | 152   | 34834    | 5.28     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 105.60% |

## Target Compounds

| Target Compounds              | R.T.  | QIon | Response | Conc    | Units  | Ovalue |
|-------------------------------|-------|------|----------|---------|--------|--------|
| 8) Chloroethane               | 1.60  | 64   | 4304     | 1.088   | ug/L # | 70     |
| 13) Acetone                   | 2.22  | 43   | 2080     | 2.608   | ug/L   | 98     |
| 17) Methyl tert-butyl Ether   | 2.79  | 73   | 7728     | 0.658   | ug/L # | 47     |
| 25) Chloroform                | 4.41  | 83   | 2546     | 0.243   | ug/L   | 98     |
| 27) 1,2-Dichloroethane        | 5.13  | 62   | 32364    | 4.717   | ug/L # | 79     |
| 30) Cyclohexane               | 4.70  | 56   | 4860     | 0.479   | ug/L   | 97     |
| 33) Benzene                   | 5.13  | 78   | 3312787  | 144.388 | ug/L   | 100    |
| 35) Methylcyclohexane         | 6.15  | 83   | 2849     | 0.283   | ug/L # | 73     |
| 37) 1,2-Dichloropropane       | 6.10  | 63   | 3769     | 0.670   | ug/L # | 93     |
| 39) cis-1,3-Dichloropropene   | 7.01  | 75   | 868      | 0.109   | ug/L # | 57     |
| 42) Toluene                   | 7.41  | 91   | 32662    | 1.305   | ug/L   | 100    |
| 43) 1,3,5-Trimethylbenzene    | 10.56 | 105  | 52000    | 2.283   | ug/L   | 100    |
| 44) 1,2,4-Trimethylbenzene    | 10.94 | 105  | 180487   | 7.693   | ug/L   | 99     |
| 46) trans-1,3-Dichloropropene | 7.64  | 75   | 506      | 0.076   | ug/L # | 69     |
| 53) Chlorobenzene             | 8.90  | 112  | 348612   | 22.548  | ug/L   | 99     |
| 54) Ethylbenzene              | 9.04  | 91   | 110952   | 3.978   | ug/L   | 98     |
| 55) m,p-xylene                | 9.16  | 106  | 913799   | 87.377  | ug/L   | 99     |

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MSVOA\_V  
ClientSampleId :

Quant Time: May 28 06:33:50 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR052620WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Thu May 28 06:30:54 2020  
Response via : Initial Calibration

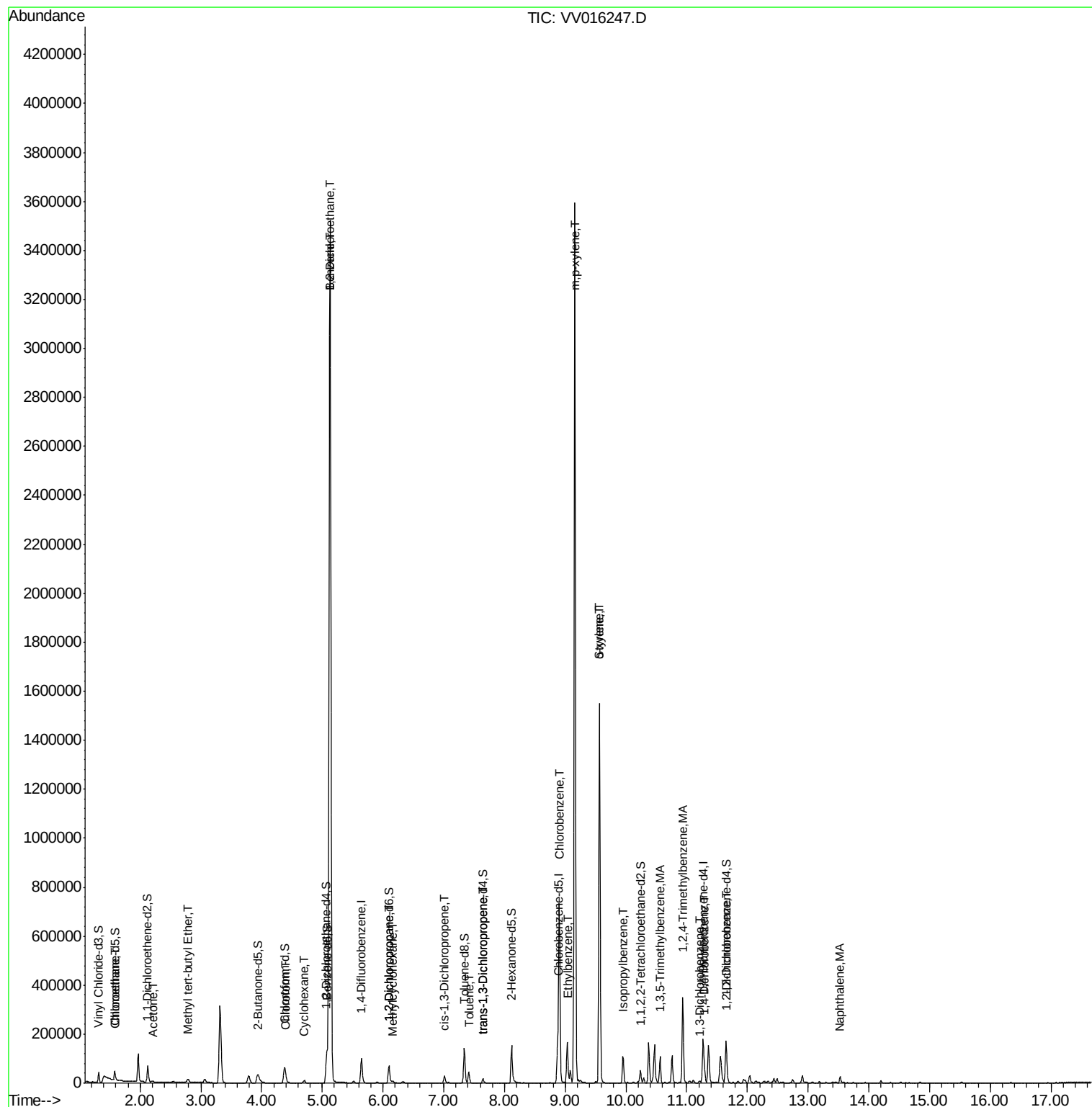
| Internal Standards      | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------|-------|------|----------|--------|--------|----------|
| 56) o-xylene            | 9.57  | 106  | 378137   | 37.942 | ug/L   | 99       |
| 57) Styrene             | 9.57  | 104  | 18292    | 1.103  | ug/L # | 1        |
| 58) Isopropylbenzene    | 9.95  | 105  | 65031    | 2.382  | ug/L   | 98       |
| 63) 1,3-Dichlorobenzene | 11.21 | 146  | 1419     | 0.118  | ug/L   | 95       |
| 64) 1,4-Dichlorobenzene | 11.30 | 146  | 19757    | 1.613  | ug/L   | 96       |
| 66) 1,2-Dichlorobenzene | 11.67 | 146  | 5109     | 0.469  | ug/L   | 98       |
| 70) Naphthalene         | 13.53 | 128  | 20267    | 1.238  | ug/L   | 99       |

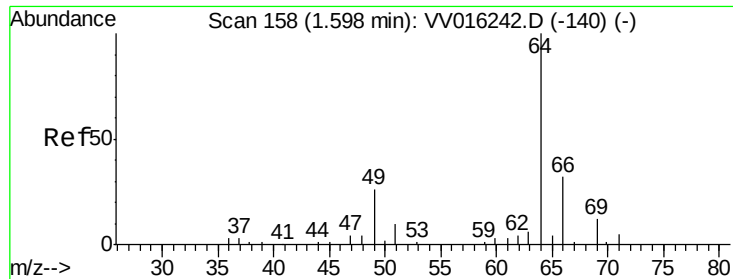
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#8

Chloroethane

Concen: 1.088 ug/L

RT: 1.60 min Scan# 158

Delta R.T. 0.00 min

Lab File: VV016247.D

Acq: 27 May 2020 23:22

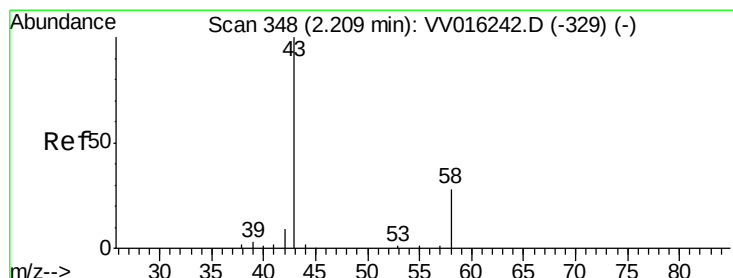
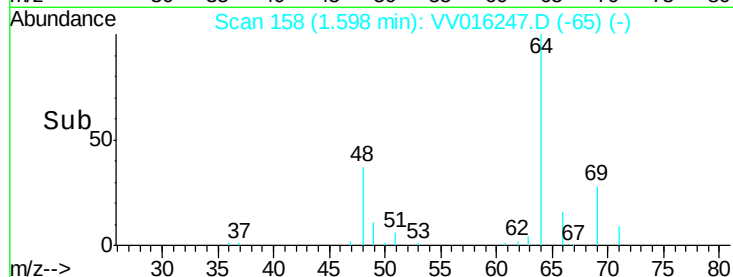
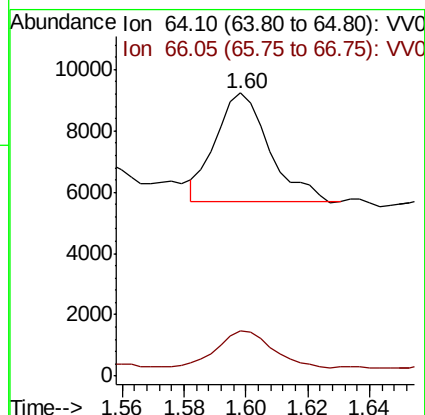
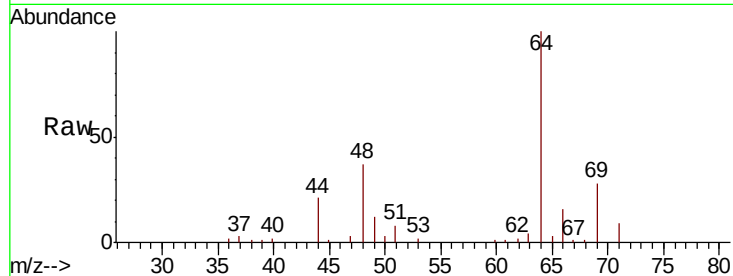
Instrument :  
MSVOA\_V  
ClientSampled :

Tot Ion: 64 Resp: 4304

Ion Ratio Lower Upper

64 100

66 16.1 22.9 42.5#



#13

Acetone

Concen: 2.608 ug/L

RT: 2.22 min Scan# 351

Delta R.T. 0.01 min

Lab File: VV016247.D

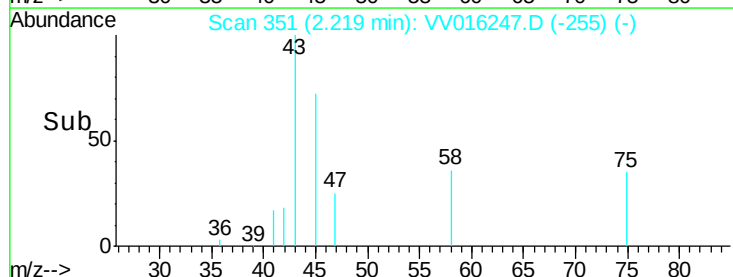
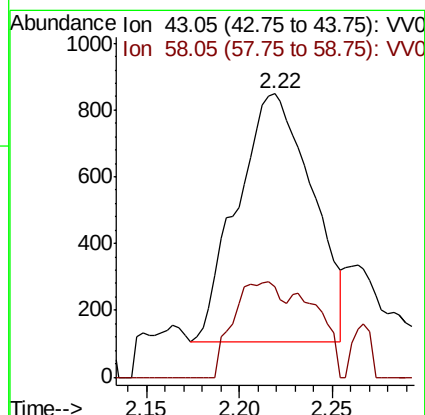
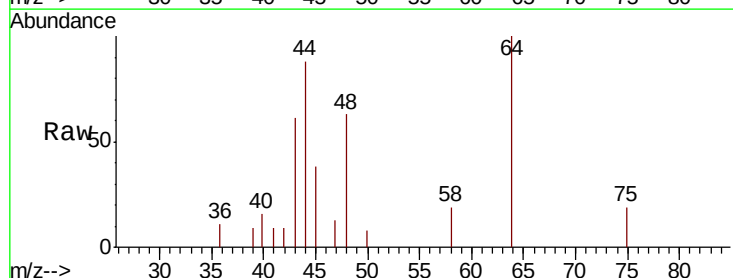
Acq: 27 May 2020 23:22

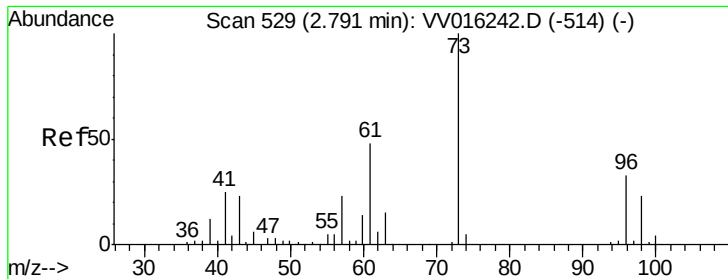
Tgt Ion: 43 Resp: 2080

Ion Ratio Lower Upper

43 100

58 25.5 0.0 48.8

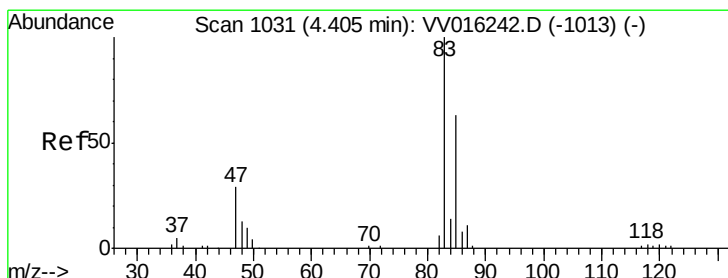
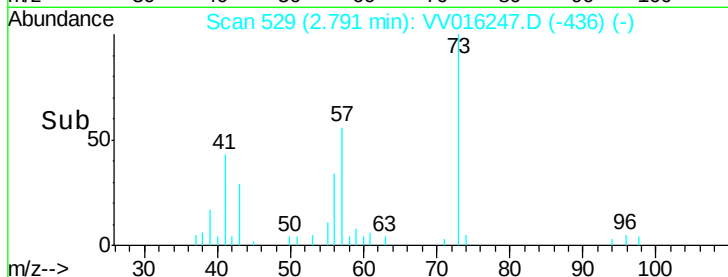
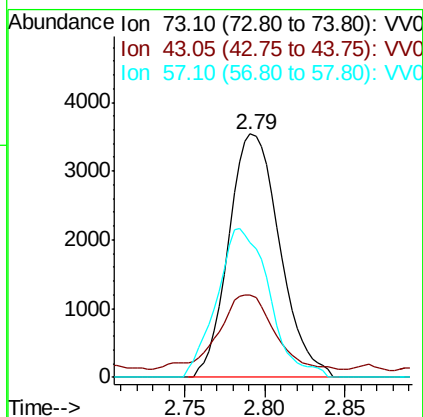
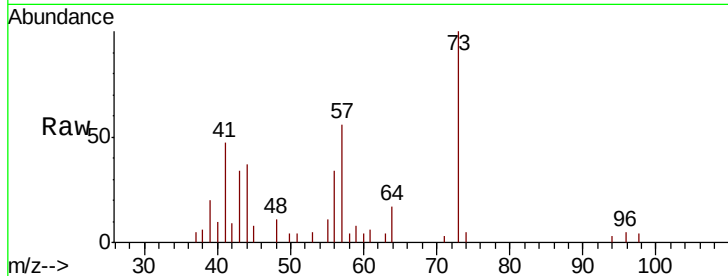




#17  
Methyl tert-butyl Ether  
Concen: 0.658 ug/L  
RT: 2.79 min Scan# 529  
Delta R.T. -0.00 min  
Lab File: VV016247.D  
Acq: 27 May 2020 23:22

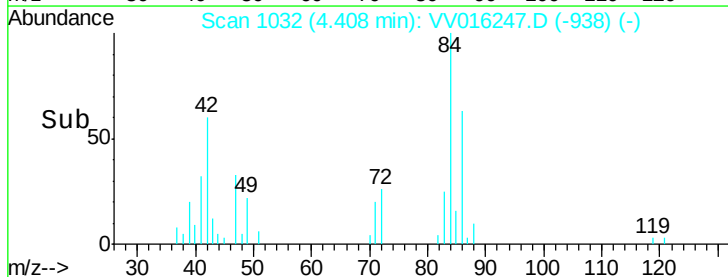
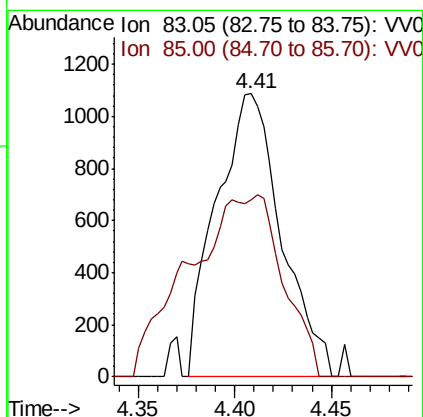
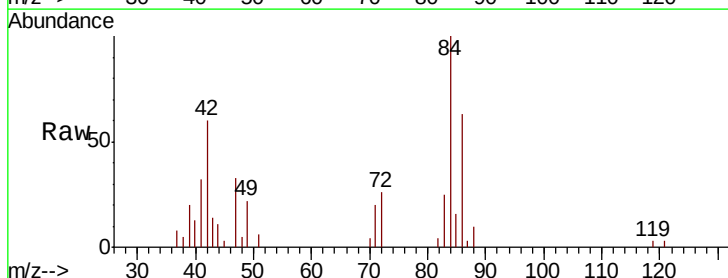
Instrument :  
MSVOA\_V  
ClientSampled :

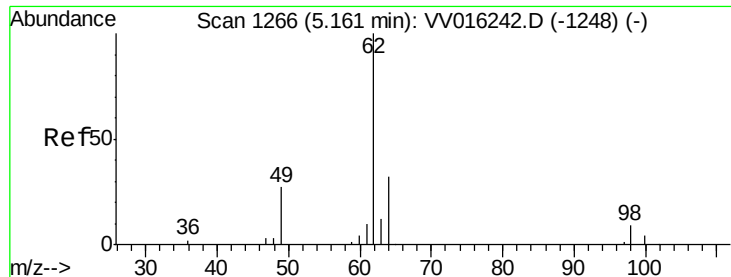
Tot Ion: 73 Resp: 7728  
Ion Ratio Lower Upper  
73 100  
43 33.5 17.8 26.8#  
57 63.2 18.9 28.3#



#25  
Chloroform  
Concen: 0.243 ug/L  
RT: 4.41 min Scan# 1032  
Delta R.T. 0.00 min  
Lab File: VV016247.D  
Acq: 27 May 2020 23:22

Tgt Ion: 83 Resp: 2546  
Ion Ratio Lower Upper  
83 100  
85 62.6 45.1 83.7

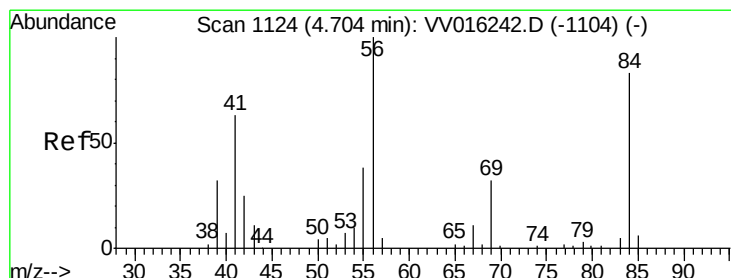
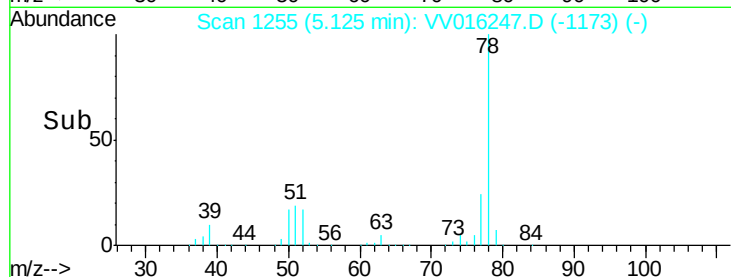
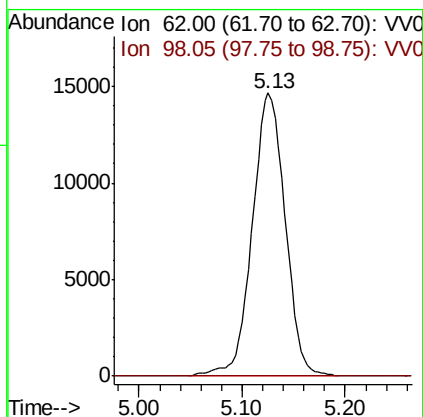
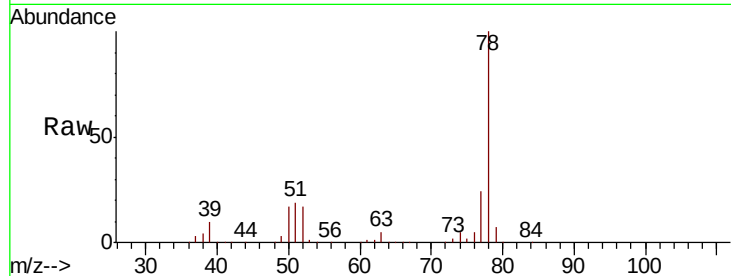




#27  
 1,2-Dichloroethane  
 Concen: 4.717 ug/L  
 RT: 5.13 min Scan# 1255  
 Delta R.T. -0.04 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

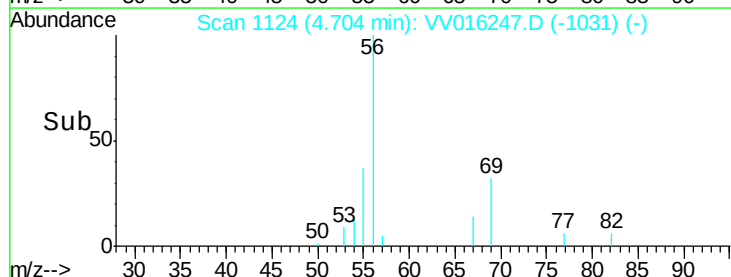
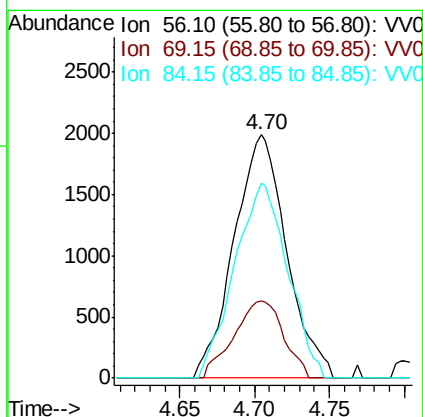
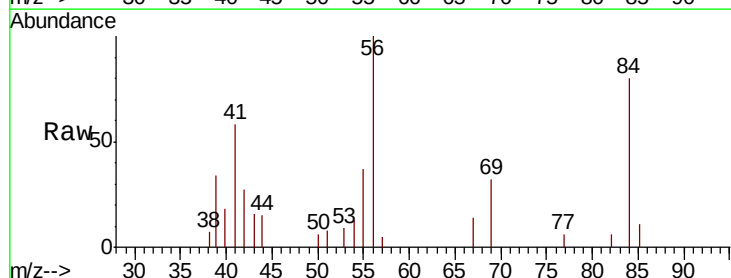
Instrument :  
 MSVOA\_V  
 ClientSampleId :

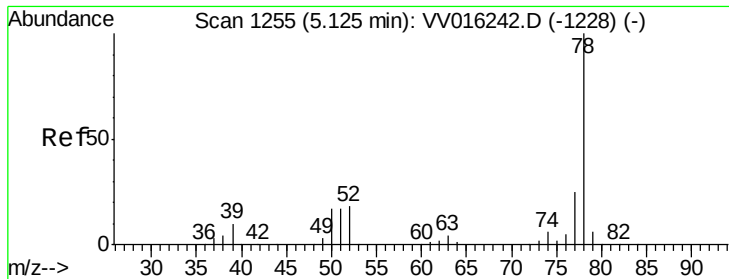
Tot Ion: 62 Resp: 32364  
 Ion Ratio Lower Upper  
 62 100  
 98 0.0 5.7 8.5#



#30  
 Cyclohexane  
 Concen: 0.479 ug/L  
 RT: 4.70 min Scan# 1124  
 Delta R.T. 0.00 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

Tgt Ion: 56 Resp: 4860  
 Ion Ratio Lower Upper  
 56 100  
 69 30.0 24.6 36.8  
 84 80.9 67.1 100.7

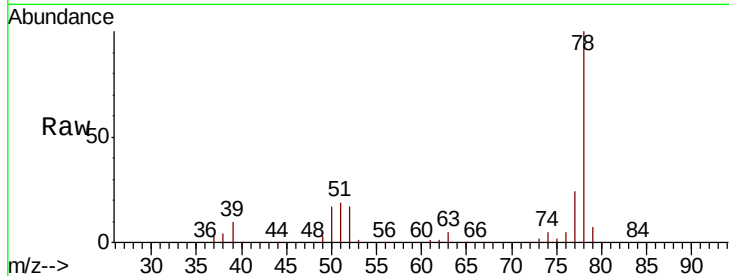




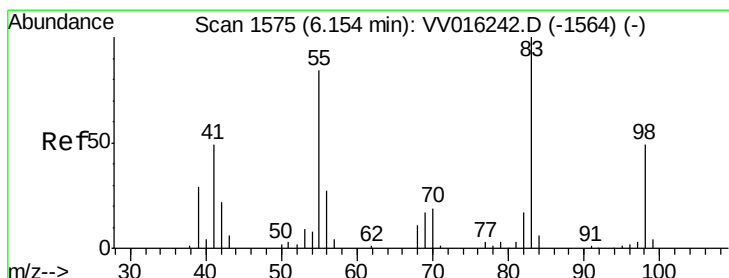
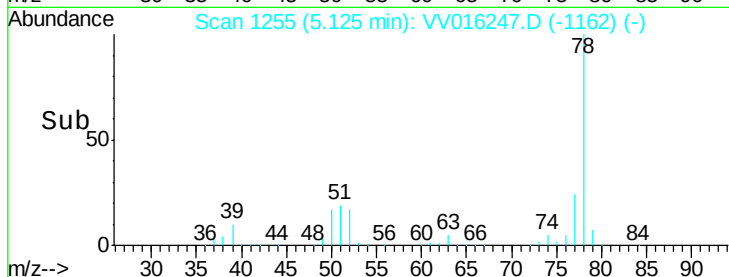
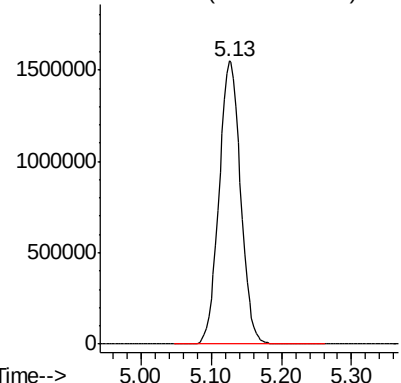
#33  
Benzene  
Concen: 144.388 ug/L  
RT: 5.13 min Scan# 1255  
Delta R.T. -0.00 min  
Lab File: VV016247.D  
Acq: 27 May 2020 23:22

Instrument :  
MSVOA\_V  
ClientSampled :

Tgt Ion: 78 Resp: 3312787

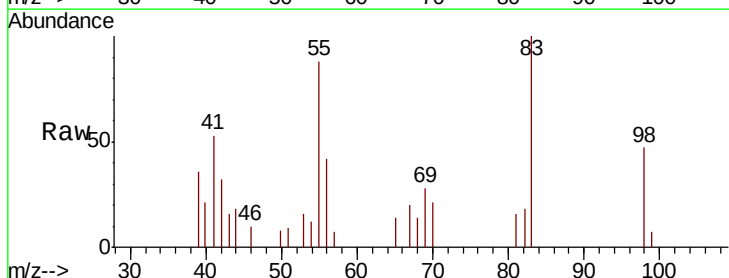


Abundance Ion 78.10 (77.80 to 78.80): VV0

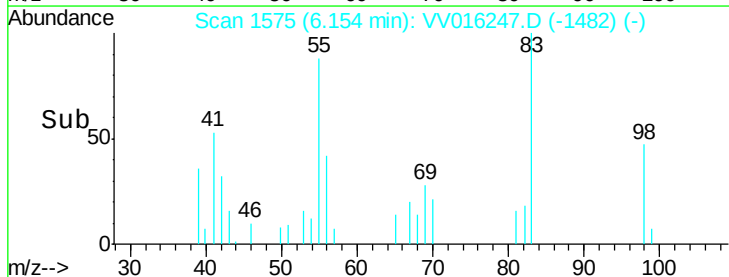
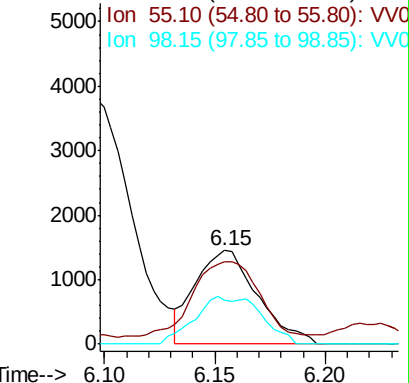


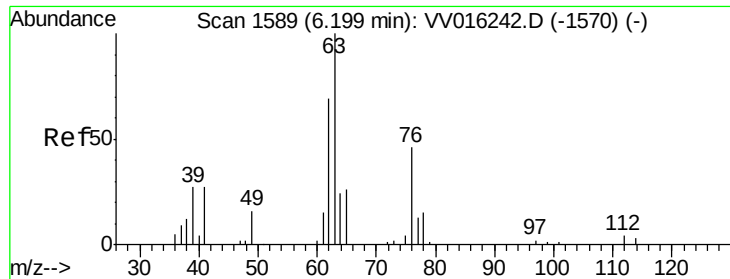
#35  
Methylcyclohexane  
Concen: 0.283 ug/L  
RT: 6.15 min Scan# 1575  
Delta R.T. -0.00 min  
Lab File: VV016247.D  
Acq: 27 May 2020 23:22

Tgt Ion: 83 Resp: 2849  
Ion Ratio Lower Upper  
83 100  
55 105.4 65.4 98.0#  
98 30.6 39.3 58.9#



Abundance Ion 83.15 (82.85 to 83.85): VV0

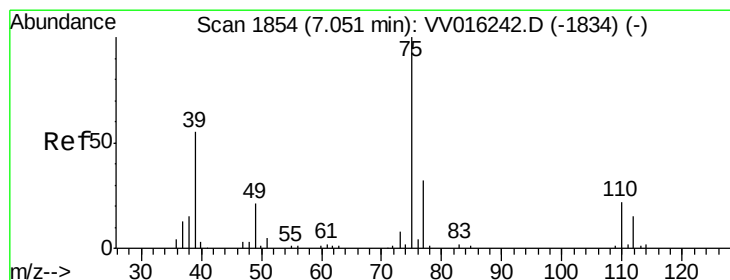
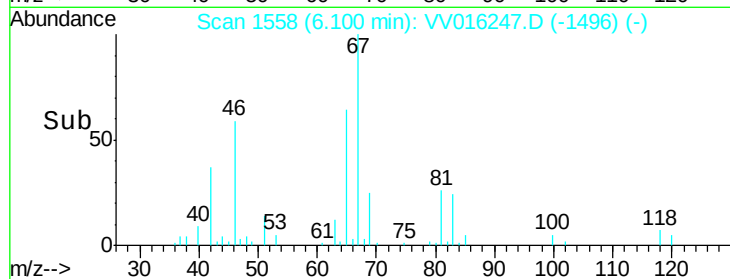
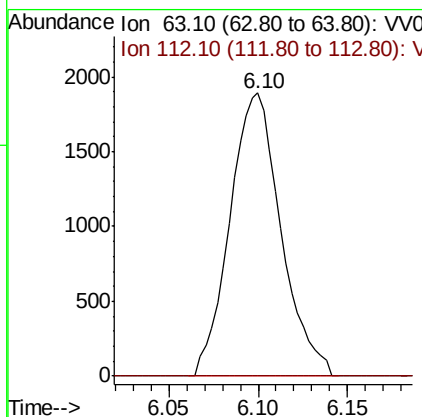
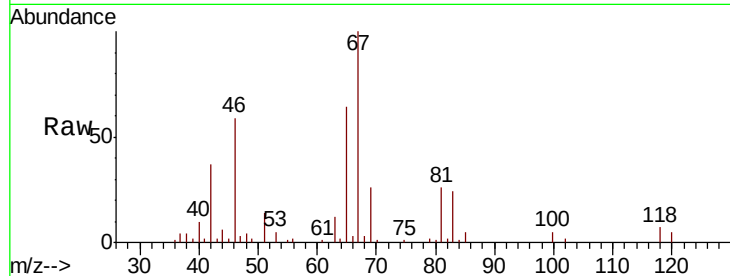




#37  
 1,2-Dichloropropane  
 Concen: 0.670 ug/L  
 RT: 6.10 min Scan# 1558  
 Delta R.T. -0.10 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

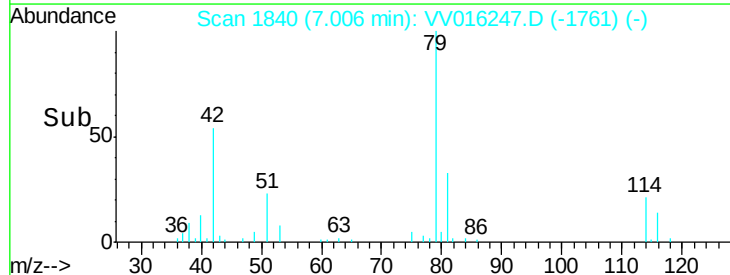
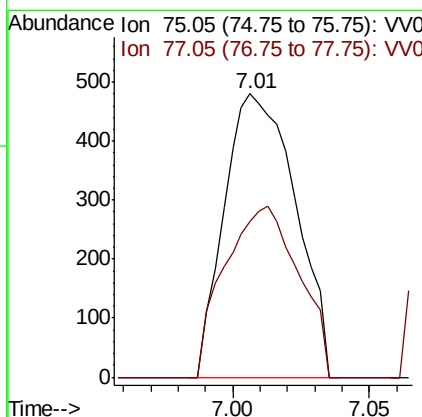
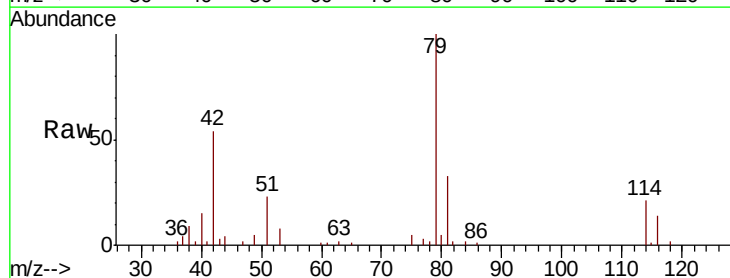
Instrument :  
 MSVOA\_V  
 ClientSampleId :

Tot Ion: 63 Resp: 3769  
 Ion Ratio Lower Upper  
 63 100  
 112 1.7 3.1 4.7#

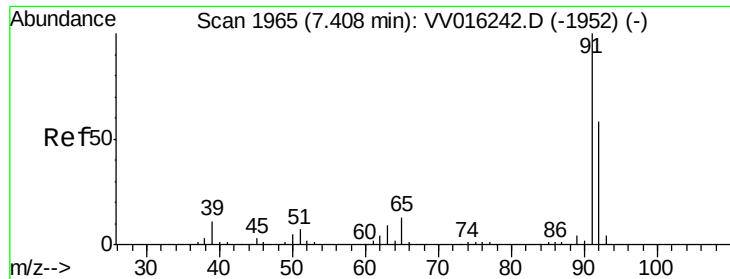


#39  
 cis-1,3-Dichloropropene  
 Concen: 0.109 ug/L  
 RT: 7.01 min Scan# 1840  
 Delta R.T. -0.05 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

Tgt Ion: 75 Resp: 868  
 Ion Ratio Lower Upper  
 75 100  
 77 54.8 21.7 40.3#







#42

Toluene

Concen: 1.305 ug/L

RT: 7.41 min Scan# 1966

Delta R.T. 0.00 min

Lab File: VV016247.D

Acq: 27 May 2020 23:22

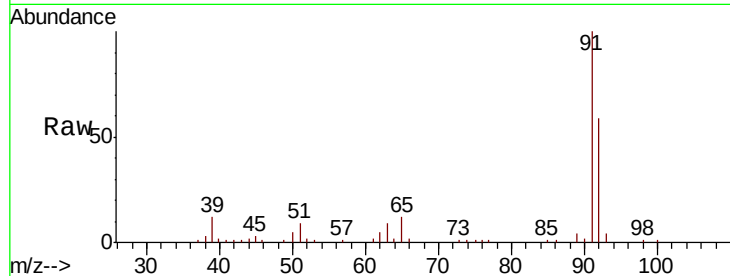
Instrument :  
MSVOA\_V  
ClientSampleId :

Tot Ion: 91 Resp: 32662

Ion Ratio Lower Upper

91 100

92 58.6 40.9 76.0



Abundance Ion 91.15 (90.85 to 91.85): VV0

Ion 92.15 (91.85 to 92.85): VV0

7.41

20000

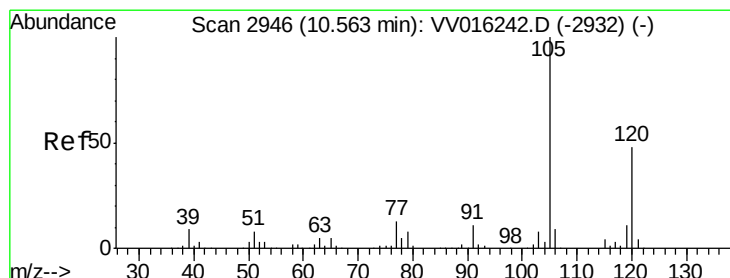
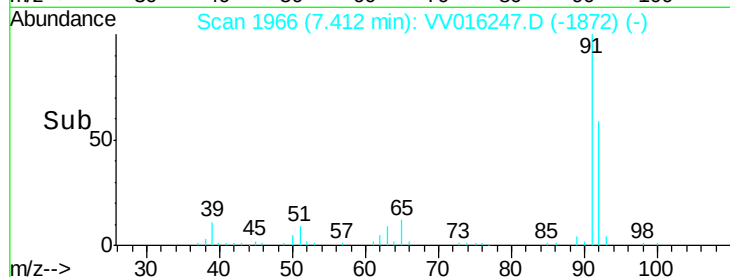
15000

10000

5000

0

Time-->



#43

1,3,5-Trimethylbenzene

Concen: 2.283 ug/L

RT: 10.56 min Scan# 2946

Delta R.T. 0.00 min

Lab File: VV016247.D

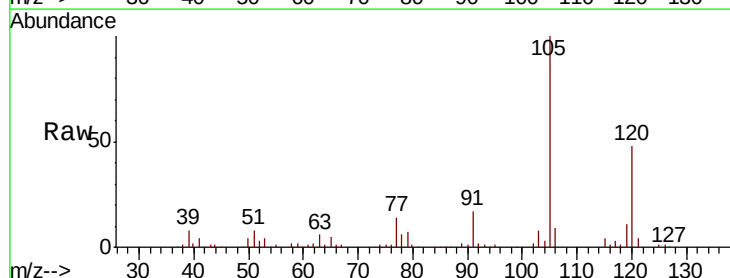
Acq: 27 May 2020 23:22

Tgt Ion:105 Resp: 52000

Ion Ratio Lower Upper

105 100

120 46.7 37.4 56.0



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

40000

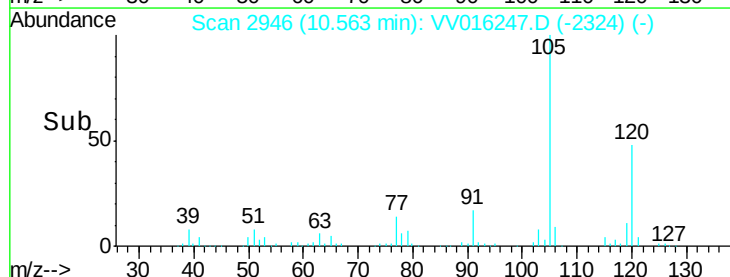
30000

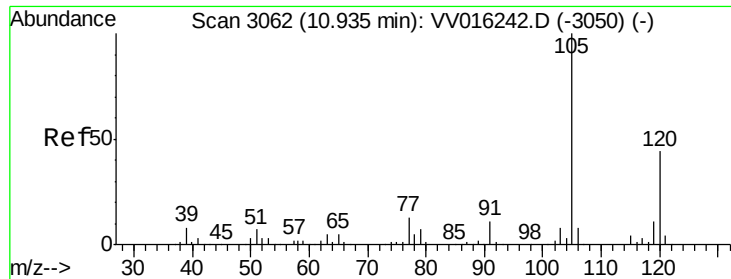
20000

10000

0

Time-->

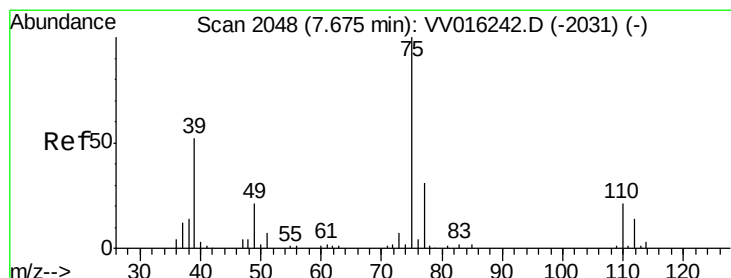
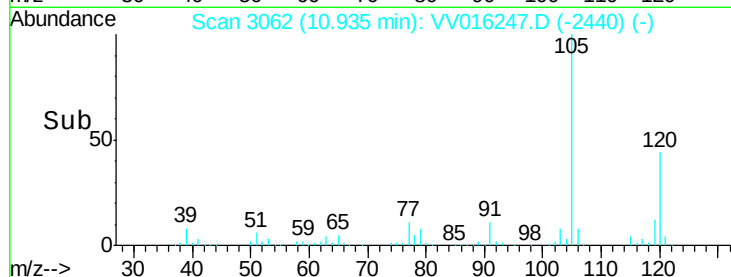
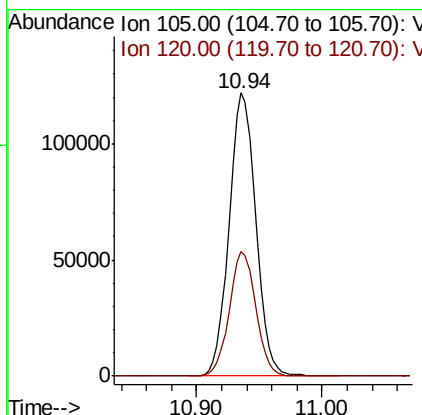
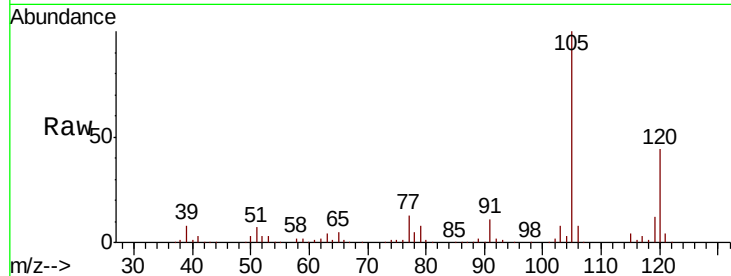




#44  
 1,2,4-Trimethylbenzene  
 Concen: 7.693 ug/L  
 RT: 10.94 min Scan# 3062  
 Delta R.T. -0.00 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

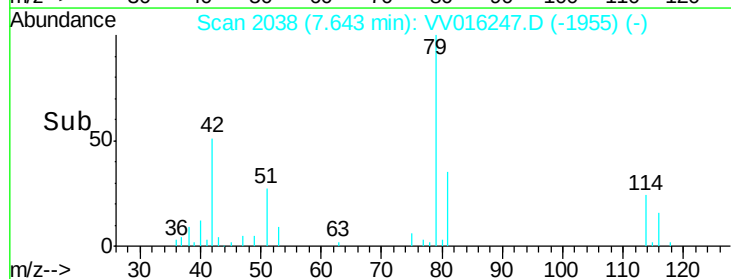
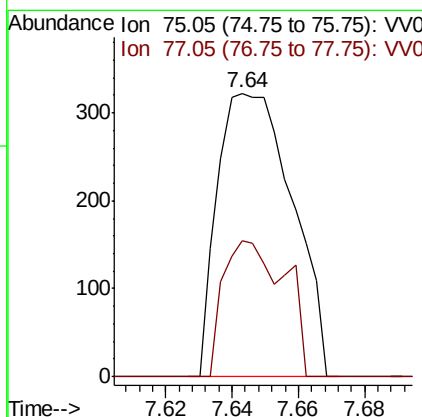
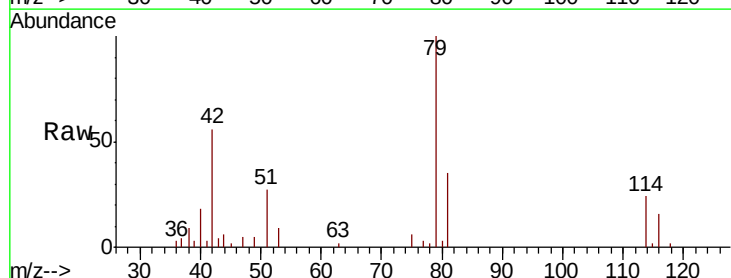
Instrument :  
 MSVOA\_V  
 ClientSampleId :

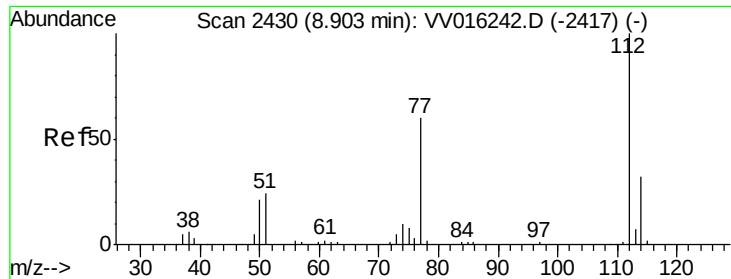
Tot Ion:105 Resp: 180487  
 Ion Ratio Lower Upper  
 105 100  
 120 43.7 34.6 52.0



#46  
 trans-1,3-Dichloropropene  
 Concen: 0.076 ug/L  
 RT: 7.64 min Scan# 2038  
 Delta R.T. -0.03 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

Tgt Ion: 75 Resp: 506  
 Ion Ratio Lower Upper  
 75 100  
 77 47.8 21.7 40.3#

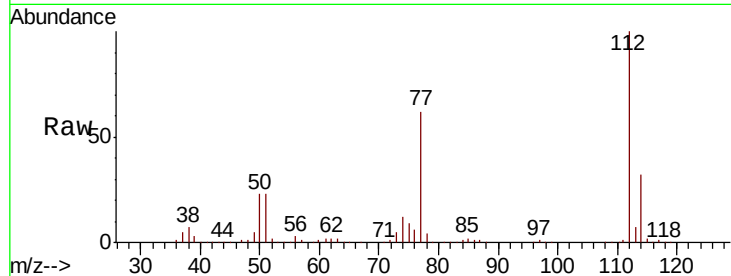




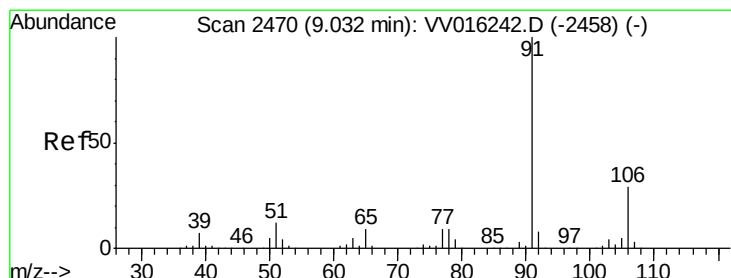
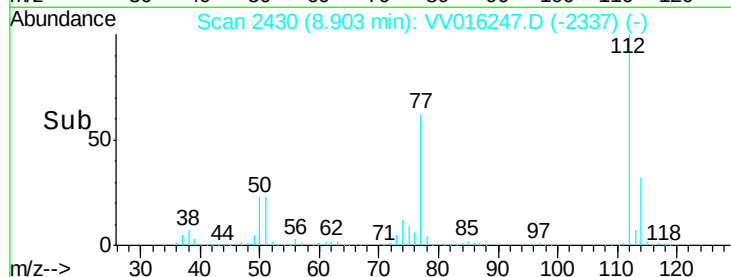
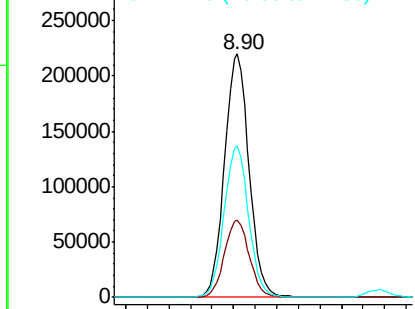
#53  
Chlorobenzene  
Concen: 22.548 ug/L  
RT: 8.90 min Scan# 2430  
Delta R.T. -0.00 min  
Lab File: VV016247.D  
Acq: 27 May 2020 23:22

Instrument :  
MSVOA\_V  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 31.8  | 22.3  | 41.3  |
| 77      | 62.1  | 50.7  | 76.1  |

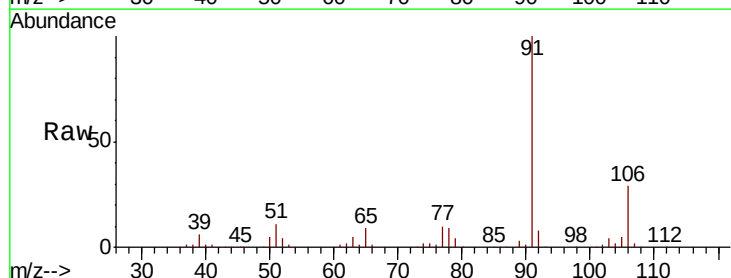


Abundance Ion 112.10 (111.80 to 112.80): V  
Ion 114.05 (113.75 to 114.75): V  
Ion 77.10 (76.80 to 77.80): V

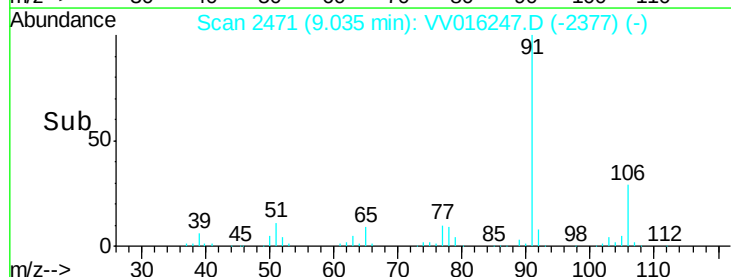
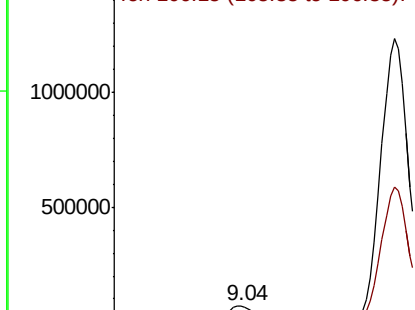


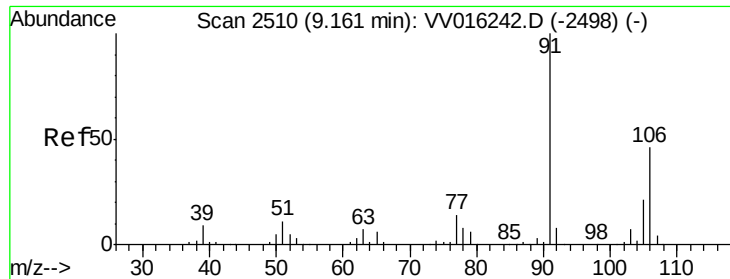
#54  
Ethylbenzene  
Concen: 3.978 ug/L  
RT: 9.04 min Scan# 2471  
Delta R.T. 0.00 min  
Lab File: VV016247.D  
Acq: 27 May 2020 23:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 28.9  | 21.0  | 39.0  |



Abundance Ion 91.15 (90.85 to 91.85): V  
Ion 106.15 (105.85 to 106.85): V





#55

m,p-xylene

Concen: 87.377 ug/L

RT: 9.16 min Scan# 2509

Delta R.T. -0.00 min

Lab File: VV016247.D

Acq: 27 May 2020 23:22

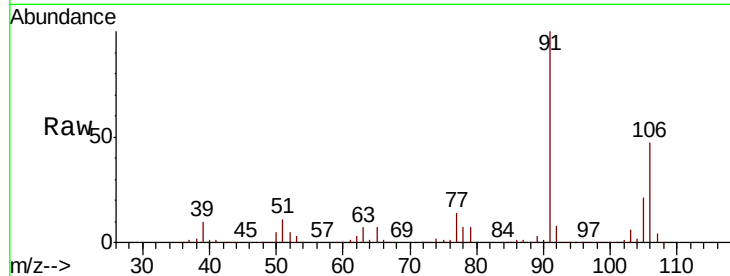
Instrument :  
MSVOA\_V  
ClientSampled :

Tot Ion:106 Resp: 913799

Ion Ratio Lower Upper

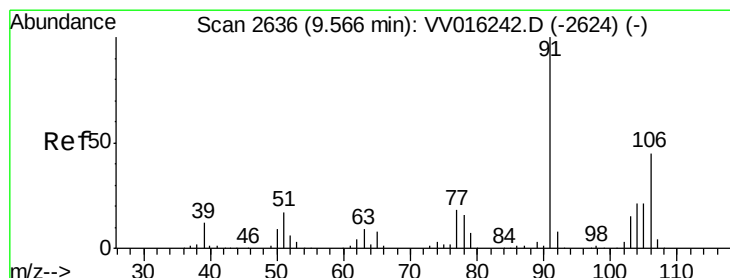
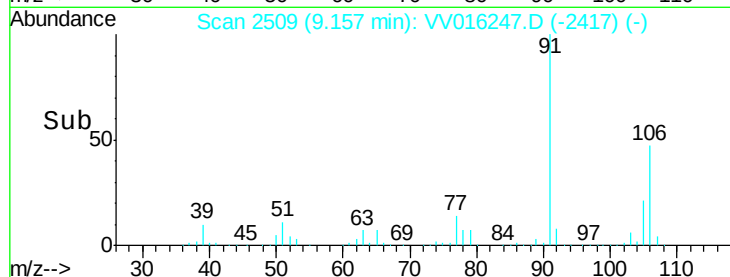
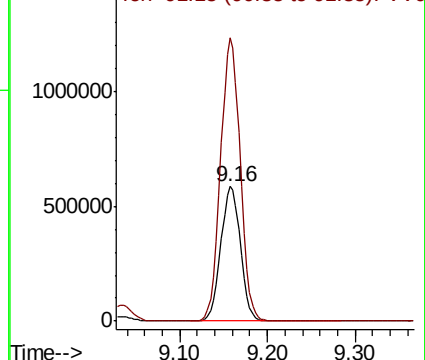
106 100

91 210.7 148.1 275.0



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0



#56

o-xylene

Concen: 37.942 ug/L

RT: 9.57 min Scan# 2636

Delta R.T. -0.00 min

Lab File: VV016247.D

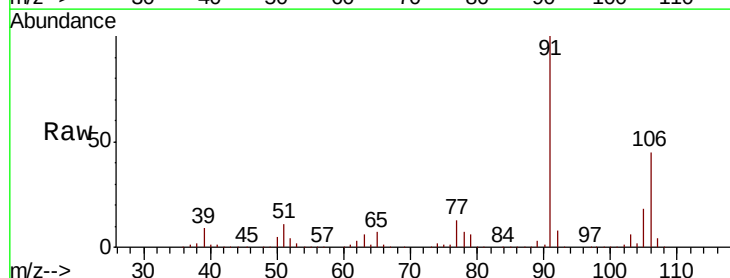
Acq: 27 May 2020 23:22

Tgt Ion:106 Resp: 378137

Ion Ratio Lower Upper

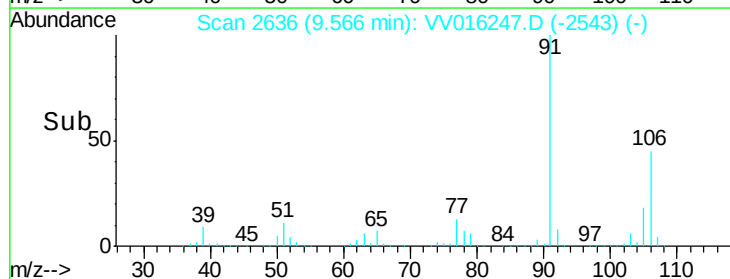
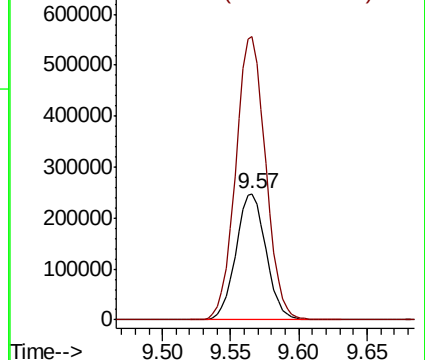
106 100

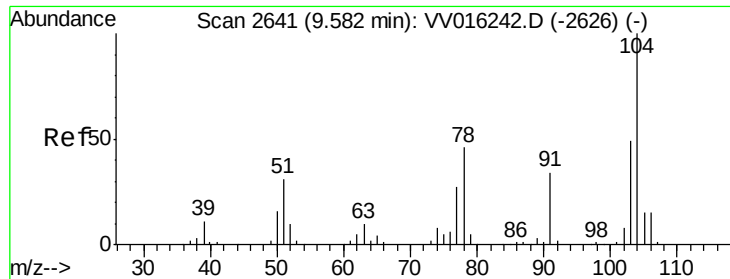
91 224.7 158.8 294.8



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0





#57

Stvrene

Concen: 1.103 ug/L

RT: 9.57 min Scan# 2636

Delta R.T. -0.02 min

Lab File: VV016247.D

Acq: 27 May 2020 23:22

Instrument :

MSVOA\_V

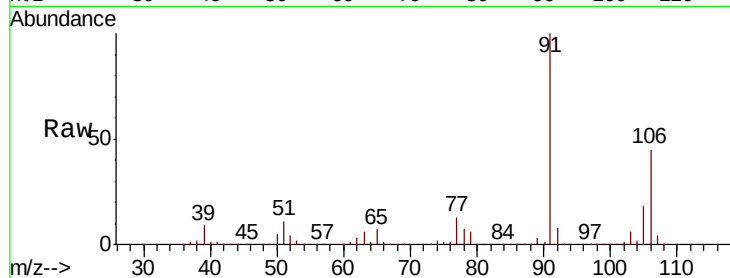
ClientSampled :

Tot Ion:104 Resp: 18292

Ion Ratio Lower Upper

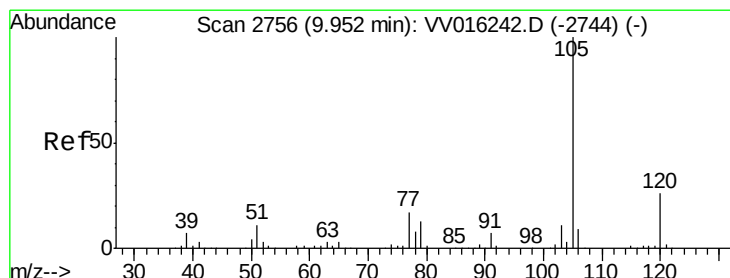
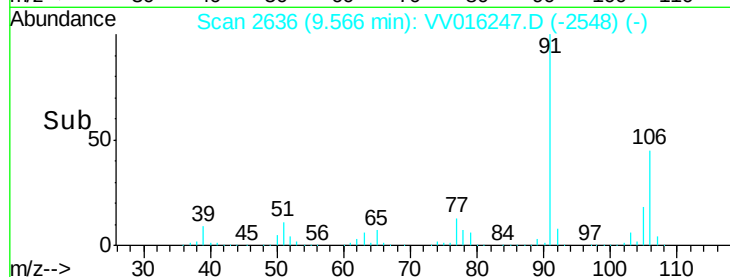
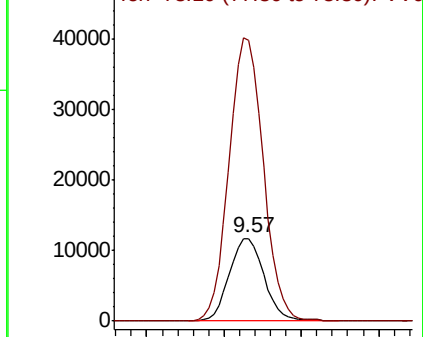
104 100

78 341.3 33.2 61.7#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VV0



#58

Isopropylbenzene

Concen: 2.382 ug/L

RT: 9.95 min Scan# 2756

Delta R.T. -0.00 min

Lab File: VV016247.D

Acq: 27 May 2020 23:22

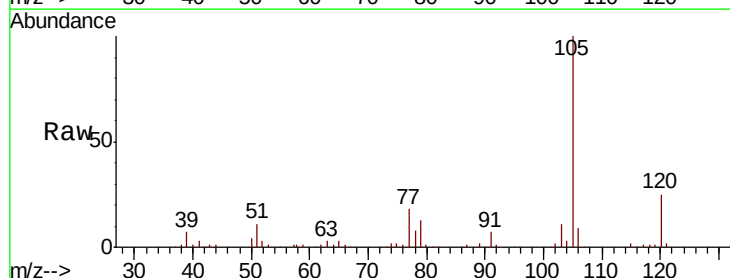
Tgt Ion:105 Resp: 65031

Ion Ratio Lower Upper

105 100

120 24.6 20.9 31.3

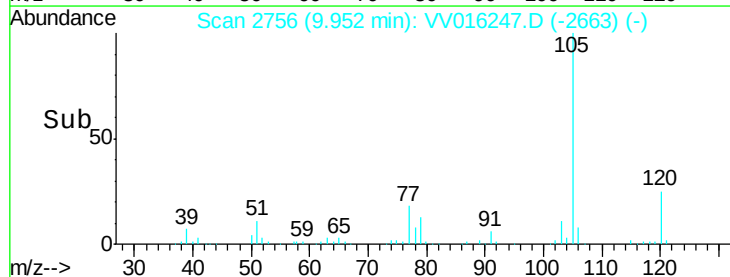
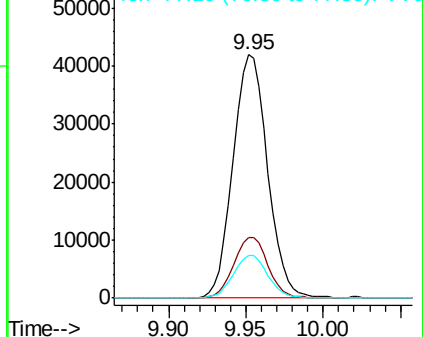
77 17.5 13.9 20.9

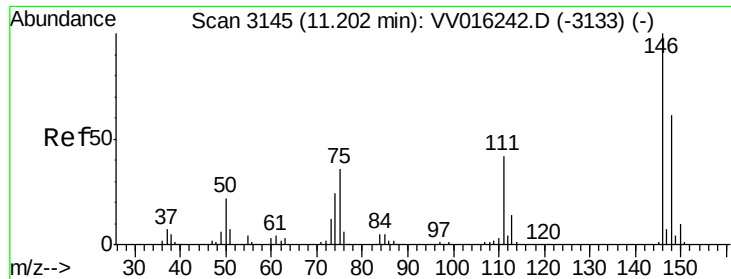


Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): VV0

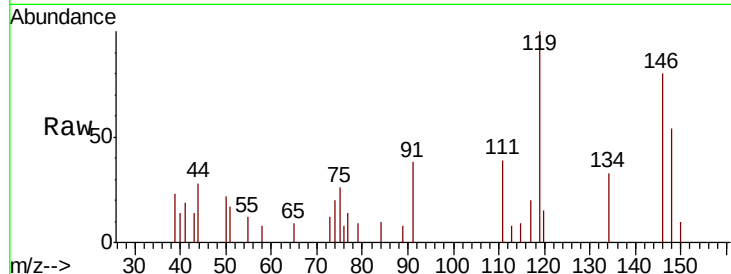




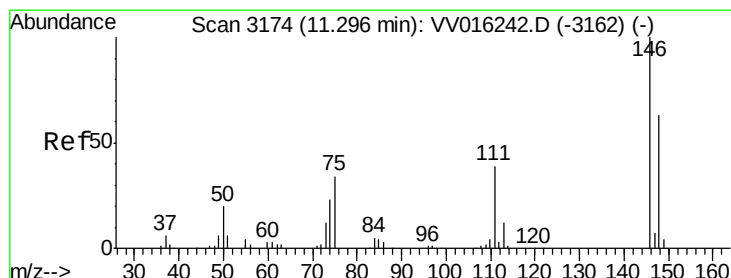
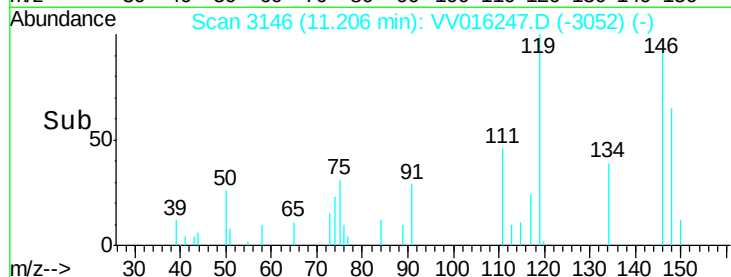
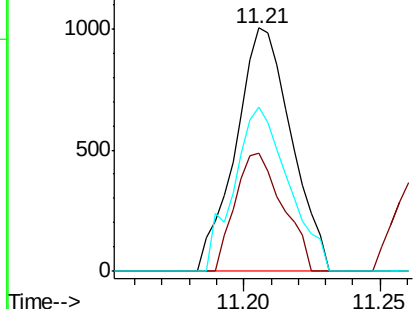
#63  
 1,3-Dichlorobenzene  
 Concen: 0.118 ug/L  
 RT: 11.21 min Scan# 3146  
 Delta R.T. 0.00 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

Instrument :  
 MSVOA\_V  
 ClientSampled :

Tot Ion:146 Resp: 1419  
 Ion Ratio Lower Upper  
 146 100  
 111 48.4 29.7 55.1  
 148 67.5 45.9 85.3

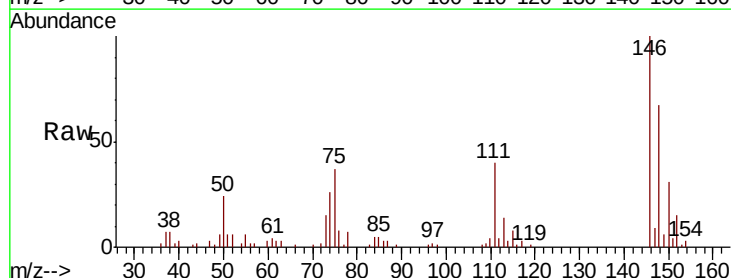


Abundance Ion 145.95 (145.65 to 146.65): V  
 Ion 111.00 (110.70 to 111.70): V  
 Ion 148.00 (147.70 to 148.70): V

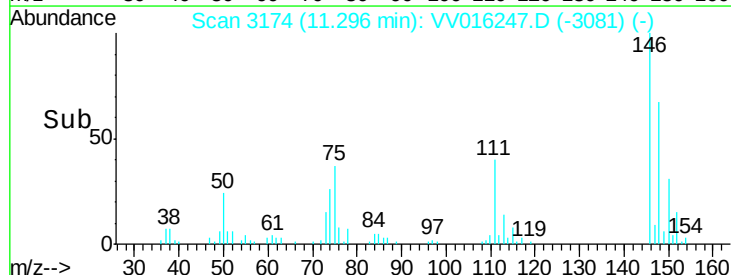
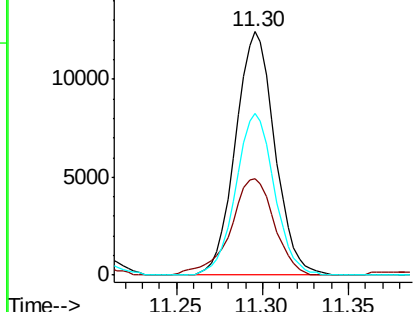


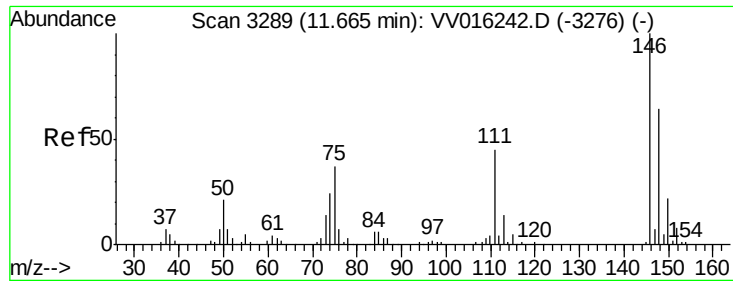
#64  
 1,4-Dichlorobenzene  
 Concen: 1.613 ug/L  
 RT: 11.30 min Scan# 3174  
 Delta R.T. -0.00 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

Tgt Ion:146 Resp: 19757  
 Ion Ratio Lower Upper  
 146 100  
 111 39.7 28.3 52.7  
 148 66.6 43.3 80.3



Abundance Ion 145.95 (145.65 to 146.65): V  
 Ion 111.00 (110.70 to 111.70): V  
 Ion 148.00 (147.70 to 148.70): V

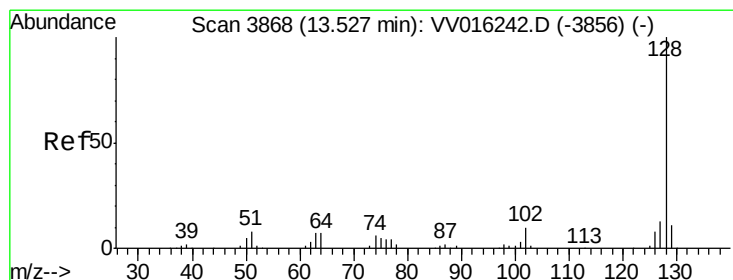
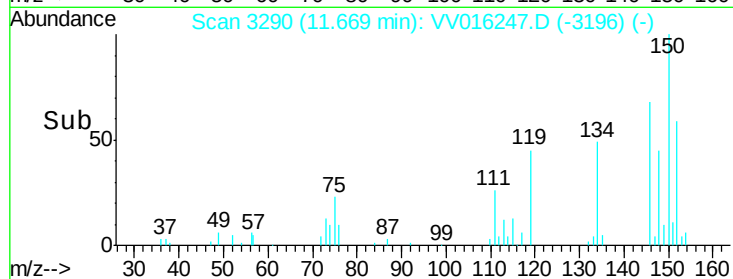
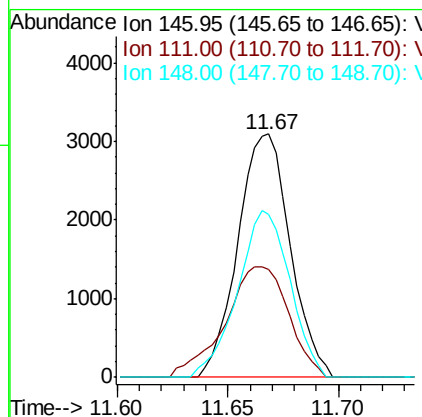
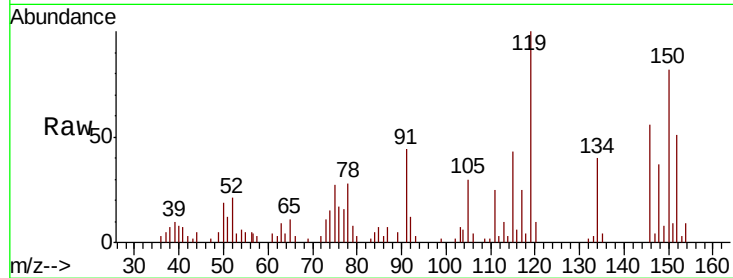




#66  
 1,2-Dichlorobenzene  
 Concen: 0.469 ug/L  
 RT: 11.67 min Scan# 3290  
 Delta R.T. 0.00 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

Instrument :  
 MSVOA\_V  
 ClientSampled :

Tot Ion:146 Resp: 5109  
 Ion Ratio Lower Upper  
 146 100  
 111 44.2 35.7 53.5  
 148 67.0 51.3 76.9



#70  
 Naphthalene  
 Concen: 1.238 ug/L  
 RT: 13.53 min Scan# 3868  
 Delta R.T. -0.00 min  
 Lab File: VV016247.D  
 Acq: 27 May 2020 23:22

Tgt Ion:128 Resp: 20267  
 Ion Ratio Lower Upper  
 128 100  
 129 11.0 8.6 13.0  
 127 12.8 10.6 15.8

