

Data Path : Z:\VOASRV\HPCHEM1\MSVOA R\DATA\VR100318\  
 Data File : VR025941.D  
 Acq On : 3 Oct 2018 16:00  
 Operator : SY/MD  
 Sample : VSTDCCC005EC  
 Misc : 25mL/MSVOA R/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

Quant Time: Oct 04 08:46:39 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_R\METHODS\SOMRTR092718WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Thu Oct 04 08:45:53 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 8.46  | 114  | 468138   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 11.29 | 117  | 407354   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 13.22 | 152  | 150901   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 2.16   | 65    | 164050   | 4.44     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 88.80%  |
| 7) Chloroethane-d5             | 2.63   | 69    | 148834   | 4.93     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 98.60%  |
| 11) 1,1-Dichloroethene-d2      | 3.64   | 63    | 408814   | 4.72     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 94.40%  |
| 20) 2-Butanone-d5              | 6.59   | 46    | 215767   | 52.43    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 104.86% |
| 24) Chloroform-d               | 7.20   | 84    | 306199   | 4.77     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.40%  |
| 26) 1,2-Dichloroethane-d4      | 7.90   | 65    | 133963   | 4.85     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 97.00%  |
| 32) Benzene-d6                 | 7.85   | 84    | 578934   | 4.27     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 85.40%  |
| 36) 1,2-Dichloropropane-d6     | 8.90   | 67    | 157663   | 4.32     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 86.40%  |
| 41) Toluene-d8                 | 9.97   | 98    | 546503   | 4.29     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 85.80%  |
| 43) trans-1,3-Dichloropropene- | 10.24  | 79    | 39079    | 4.72     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 94.40%  |
| 46) 2-Hexanone-d5              | 10.59  | 63    | 165304   | 52.27    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 104.54% |
| 57) 1,1,2,2-Tetrachloroethane- | 12.36  | 84    | 72615    | 4.90     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 98.00%  |
| 64) 1,2-Dichlorobenzene-d4     | 13.51  | 152   | 111464   | 4.61     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 92.20%  |

## Target Compounds

|                                |      |     |        |        | Ovalue     |
|--------------------------------|------|-----|--------|--------|------------|
| 2) Dichlorodifluoromethane     | 1.84 | 85  | 127285 | 4.473  | ug/L 99    |
| 3) Chloromethane               | 2.02 | 50  | 201097 | 4.970  | ug/L 94    |
| 5) Vinyl chloride              | 2.17 | 62  | 196830 | 4.888  | ug/L 99    |
| 6) Bromomethane                | 2.52 | 94  | 124031 | 4.933  | ug/L 95    |
| 8) Chloroethane                | 2.66 | 64  | 116854 | 5.100  | ug/L 94    |
| 9) Trichlorofluoromethane      | 2.94 | 101 | 95426  | 1.707  | ug/L # 40  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 3.69 | 101 | 186112 | 5.445  | ug/L 95    |
| 12) 1,1-Dichloroethene         | 3.66 | 96  | 173409 | 4.907  | ug/L 93    |
| 13) Acetone                    | 3.70 | 43  | 148113 | 49.654 | ug/L 98    |
| 14) Carbon disulfide           | 3.96 | 76  | 381827 | 4.463  | ug/L 100   |
| 15) Methyl Acetate             | 4.19 | 43  | 36537  | 4.418  | ug/L 96    |
| 16) Methylene chloride         | 4.42 | 84  | 149698 | 4.607  | ug/L 87    |
| 17) Methyl tert-butyl Ether    | 4.90 | 73  | 166756 | 4.261  | ug/L 98    |
| 18) trans-1,2-Dichloroethene   | 4.89 | 96  | 124577 | 4.262  | ug/L 96    |
| 19) 1,1-Dichloroethane         | 5.69 | 63  | 246461 | 4.259  | ug/L 98    |
| 21) 2-Butanone                 | 6.69 | 43  | 181980 | 44.355 | ug/L 99    |
| 22) cis-1,2-Dichloroethene     | 6.68 | 96  | 121315 | 4.125  | ug/L # 100 |

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 Misc : 25mL/MSVOA R/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
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 VSTD00597

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 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Thu Oct 04 08:45:53 2018  
 Response via : Initial Calibration

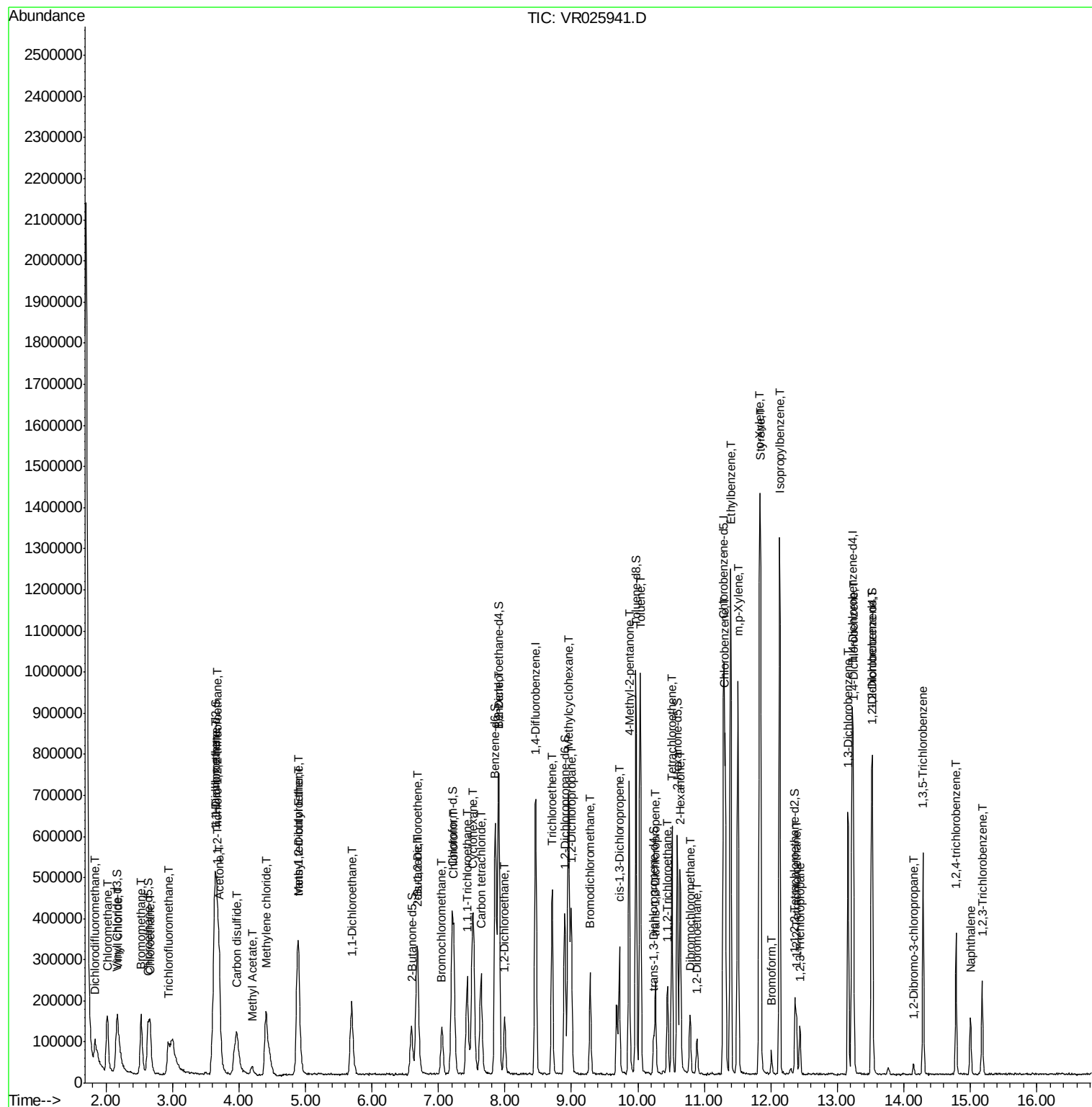
| Internal Standards              | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|---------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane          | 7.05  | 128  | 34349    | 4.305  | ug/L   | 89       |
| 25) Chloroform                  | 7.23  | 83   | 244494   | 4.339  | ug/L   | 100      |
| 27) 1,2-Dichloroethane          | 7.99  | 62   | 123700   | 4.399  | ug/L   | 99       |
| 29) 1,1,1-Trichloroethane       | 7.43  | 97   | 197682   | 4.315  | ug/L   | 96       |
| 30) Cyclohexane                 | 7.51  | 56   | 248343   | 4.339  | ug/L   | 97       |
| 31) Carbon tetrachloride        | 7.64  | 117  | 182866   | 4.610  | ug/L   | 98       |
| 33) Benzene                     | 7.91  | 78   | 567590   | 4.154  | ug/L   | 100      |
| 34) Trichloroethene             | 8.71  | 95   | 144910   | 4.025  | ug/L   | 92       |
| 35) Methylcyclohexane           | 8.96  | 83   | 246851   | 4.560  | ug/L   | 99       |
| 37) 1,2-Dichloropropane         | 9.00  | 63   | 126900   | 4.329  | ug/L # | 97       |
| 38) Bromodichloromethane        | 9.28  | 83   | 140675   | 4.448  | ug/L # | 98       |
| 39) cis-1,3-Dichloropropene     | 9.72  | 75   | 151272   | 4.603  | ug/L   | 95       |
| 40) 4-Methyl-2-pentanone        | 9.87  | 43   | 454683   | 44.115 | ug/L   | 96       |
| 42) Toluene                     | 10.04 | 91   | 611842   | 4.310  | ug/L   | 99       |
| 44) trans-1,3-Dichloropropene   | 10.26 | 75   | 101536   | 4.732  | ug/L   | 98       |
| 45) 1,1,2-Trichloroethane       | 10.45 | 97   | 53629    | 4.045  | ug/L   | 98       |
| 47) Tetrachloroethene           | 10.51 | 164  | 95297    | 4.296  | ug/L   | 94       |
| 48) 2-Hexanone                  | 10.63 | 43   | 308423   | 45.705 | ug/L   | 97       |
| 49) Dibromochloromethane        | 10.79 | 129  | 57634    | 4.284  | ug/L   | 99       |
| 50) 1,2-Dibromoethane           | 10.89 | 107  | 44702    | 4.273  | ug/L   | 95       |
| 51) Chlorobenzene               | 11.32 | 112  | 322953   | 4.288  | ug/L   | 96       |
| 52) Ethylbenzene                | 11.39 | 91   | 727864   | 4.492  | ug/L   | 99       |
| 53) m,p-Xylene                  | 11.50 | 106  | 253488   | 4.394  | ug/L   | 95       |
| 54) o-Xylene                    | 11.83 | 106  | 233639   | 4.351  | ug/L   | 96       |
| 55) Styrene                     | 11.84 | 104  | 372876   | 4.461  | ug/L   | 96       |
| 56) Isopropylbenzene            | 12.13 | 105  | 683904   | 4.617  | ug/L   | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 12.39 | 83   | 55847    | 4.372  | ug/L # | 98       |
| 59) 1,2,3-Trichloropropane      | 12.43 | 75   | 42173    | 4.436  | ug/L   | 98       |
| 61) Bromoform                   | 12.01 | 173  | 19837    | 4.348  | ug/L # | 95       |
| 62) 1,3-Dichlorobenzene         | 13.16 | 146  | 192317   | 4.361  | ug/L   | 87       |
| 63) 1,4-Dichlorobenzene         | 13.24 | 146  | 189196   | 4.194  | ug/L   | 100      |
| 65) 1,2-Dichlorobenzene         | 13.53 | 146  | 148652   | 4.195  | ug/L   | 96       |
| 66) 1,2-Dibromo-3-chloropropan  | 14.15 | 75   | 5597     | 3.756  | ug/L # | 89       |
| 67) 1,3,5-Trichlorobenzene      | 14.29 | 180  | 118225   | 4.500  | ug/L   | 96       |
| 68) 1,2,4-trichlorobenzene      | 14.78 | 180  | 70941    | 4.236  | ug/L   | 95       |
| 69) Naphthalene                 | 15.00 | 128  | 89069    | 4.167  | ug/L   | 98       |
| 70) 1,2,3-Trichlorobenzene      | 15.18 | 180  | 51464    | 4.429  | ug/L   | 97       |

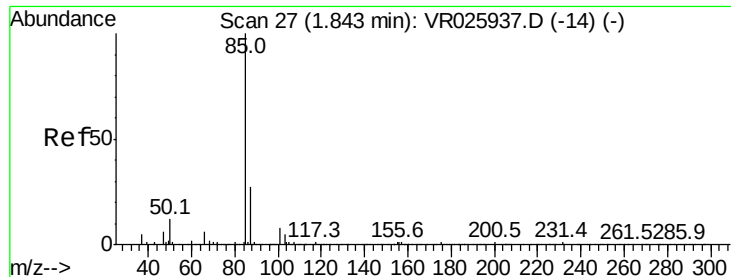
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Misc : 25mL/MSVOA R/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
VSTD00597

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Quant Title : TRACE VOA SOM01.0  
QLast Update : Thu Oct 04 08:45:53 2018  
Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 4.473 ug/L

RT: 1.84 min Scan# 26

Delta R.T. -0.01 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

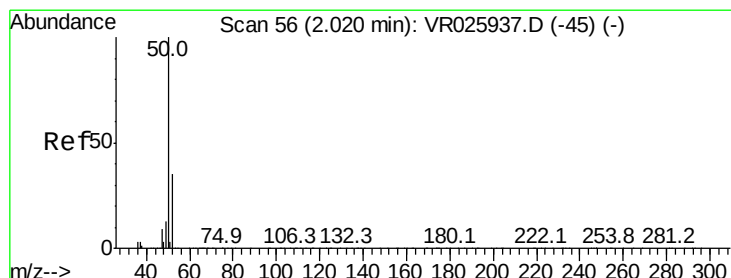
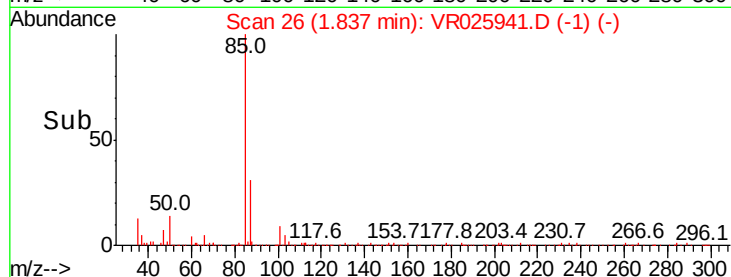
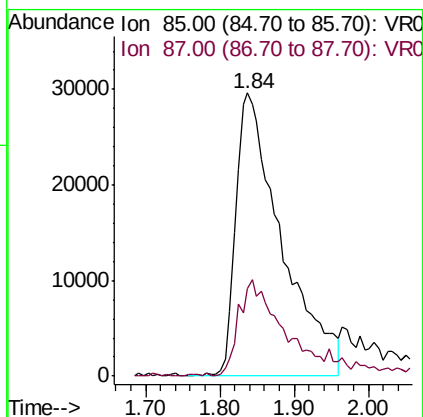
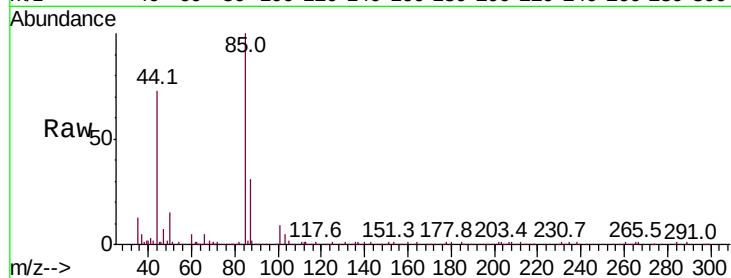
VSTD00597

Tot Ion: 85 Resp: 127285

Ion Ratio Lower Upper

85 100

87 31.8 25.1 37.7



#3

Chloromethane

Concen: 4.970 ug/L

RT: 2.02 min Scan# 56

Delta R.T. 0.00 min

Lab File: VR025941.D

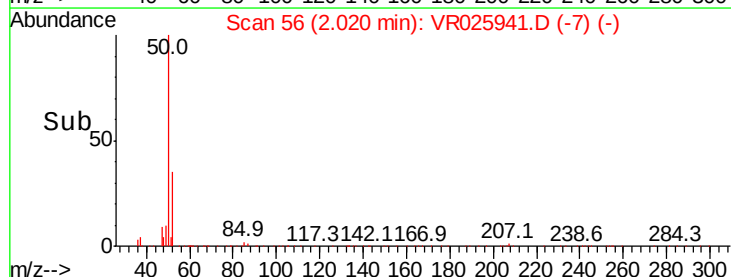
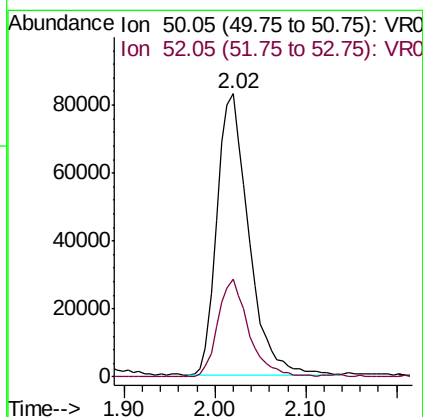
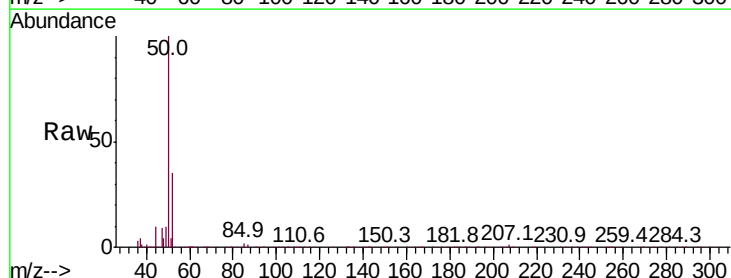
Acq: 3 Oct 2018 16:00

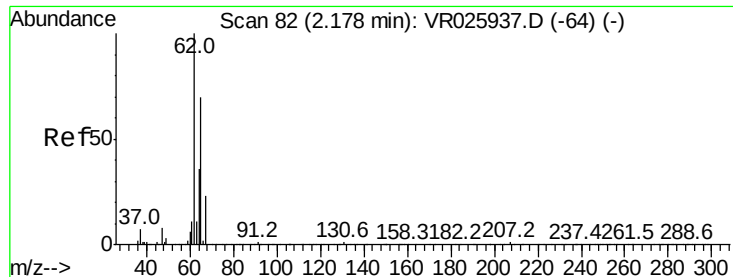
Tgt Ion: 50 Resp: 201097

Ion Ratio Lower Upper

50 100

52 34.8 22.1 41.1





#5

Vinyl chloride

Concen: 4.888 ug/L

RT: 2.17 min Scan# 81

Delta R.T. -0.01 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

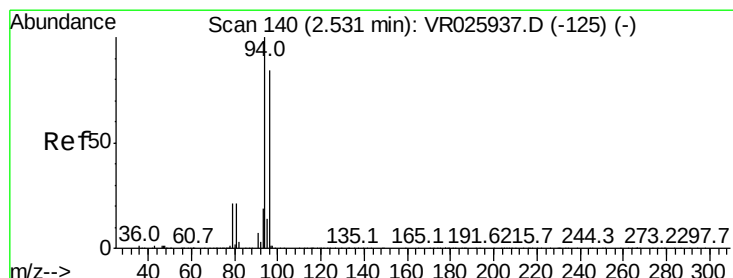
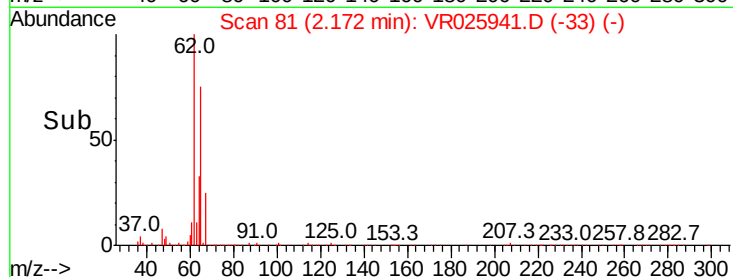
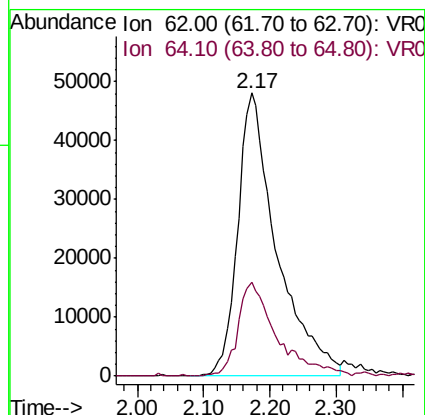
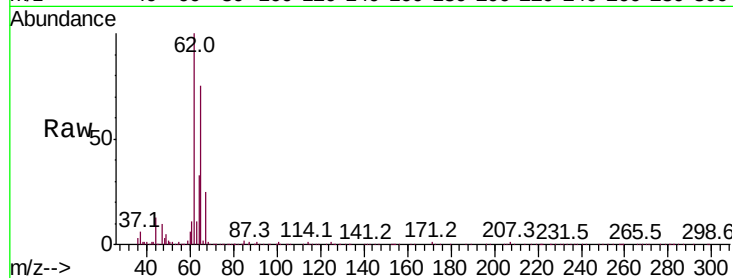
VSTD00597

Tot Ion: 62 Resp: 196830

Ion Ratio Lower Upper

62 100

64 33.1 23.5 43.7



#6

Bromomethane

Concen: 4.933 ug/L

RT: 2.52 min Scan# 139

Delta R.T. -0.01 min

Lab File: VR025941.D

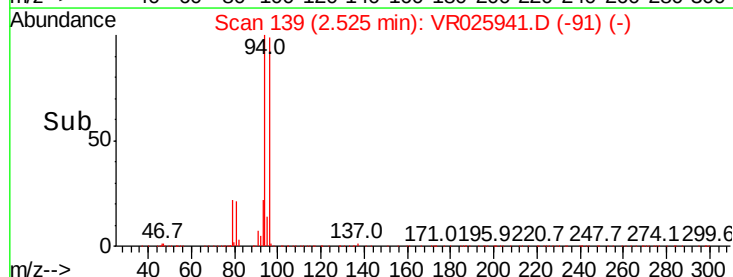
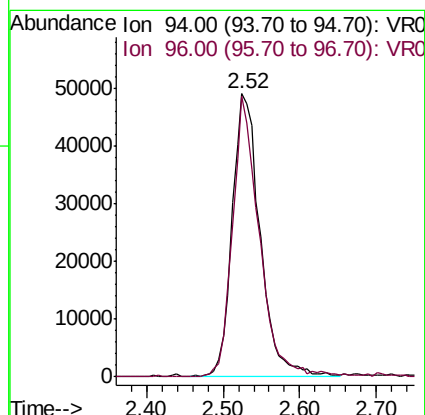
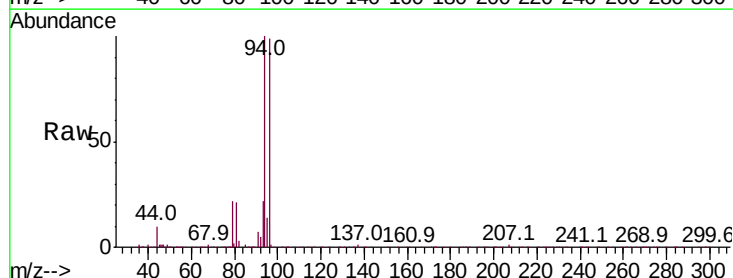
Acq: 3 Oct 2018 16:00

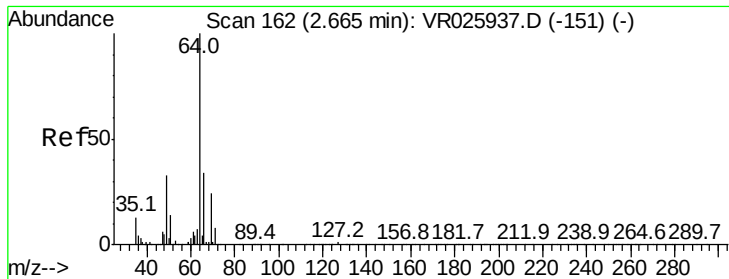
Tgt Ion: 94 Resp: 124031

Ion Ratio Lower Upper

94 100

96 99.3 66.1 122.8





#8

Chloroethane

Concen: 5.100 ug/L

RT: 2.66 min Scan# 162

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

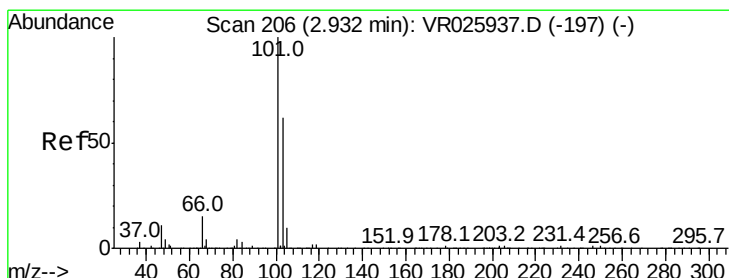
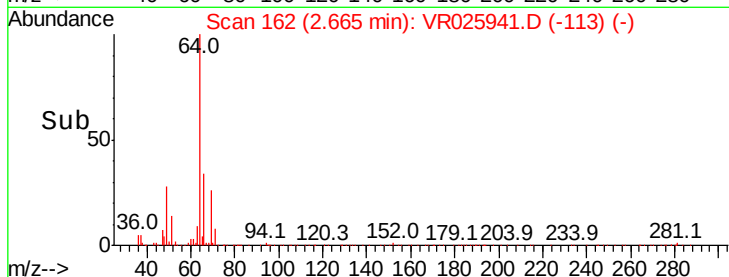
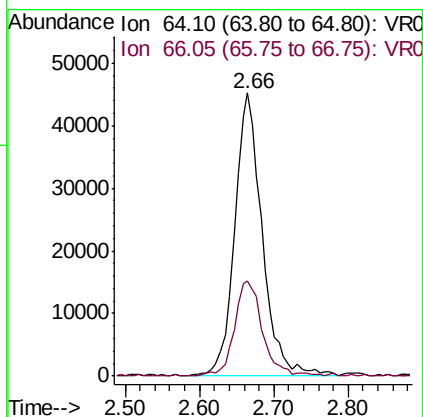
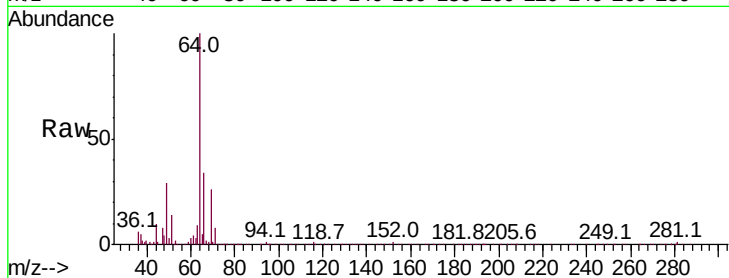
VSTD00597

Tot Ion: 64 Resp: 116854

Ion Ratio Lower Upper

64 100

66 33.7 21.3 39.5



#9

Trichlorofluoromethane

Concen: 1.707 ug/L

RT: 2.94 min Scan# 208

Delta R.T. 0.01 min

Lab File: VR025941.D

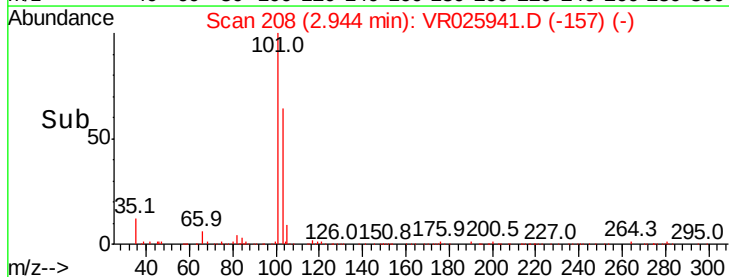
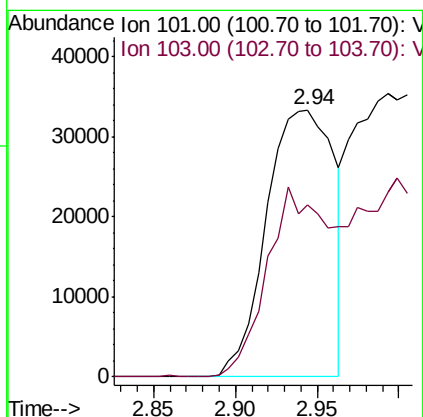
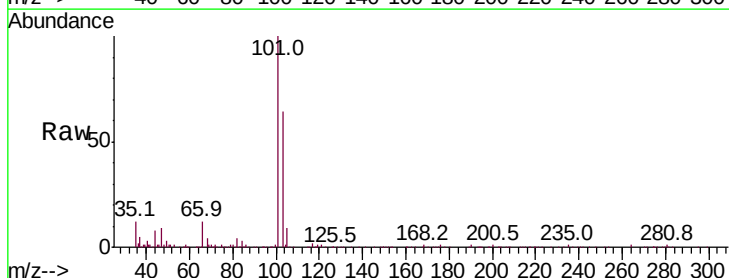
Acq: 3 Oct 2018 16:00

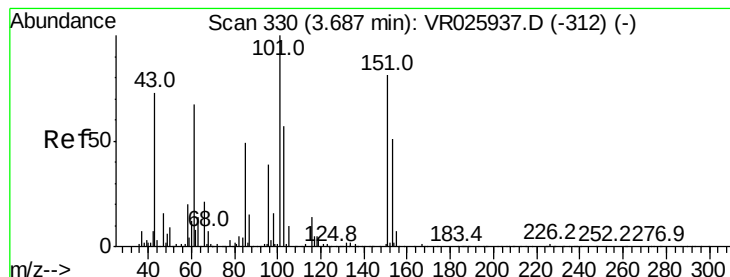
Tgt Ion: 101 Resp: 95426

Ion Ratio Lower Upper

101 100

103 58.9 22.1 33.1#





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 5.445 ug/L

RT: 3.69 min Scan# 330

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

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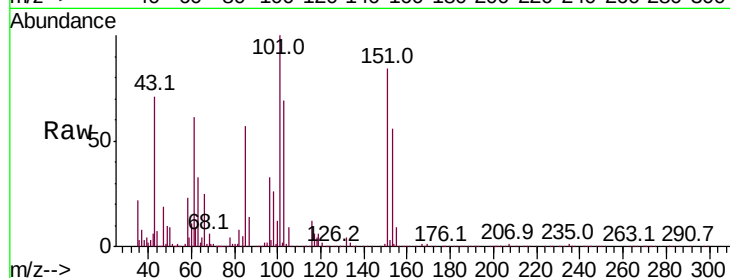
Tot Ion:101 Resp: 186112

Ion Ratio Lower Upper

101 100

85 47.7 38.2 57.4

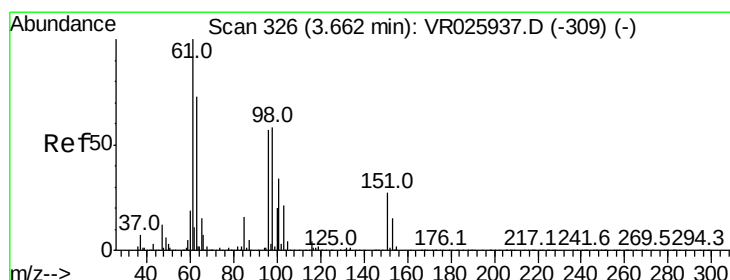
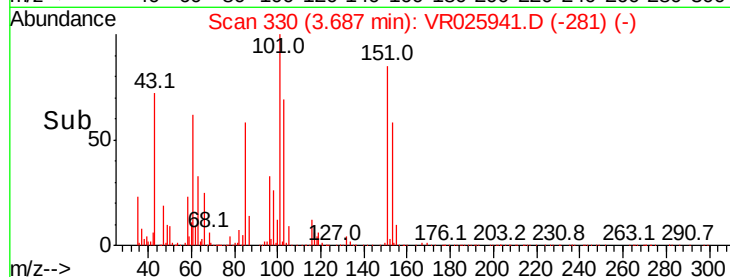
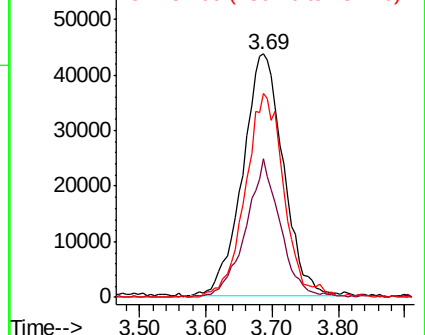
151 79.6 58.4 87.6



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VR0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 4.907 ug/L

RT: 3.66 min Scan# 325

Delta R.T. -0.01 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

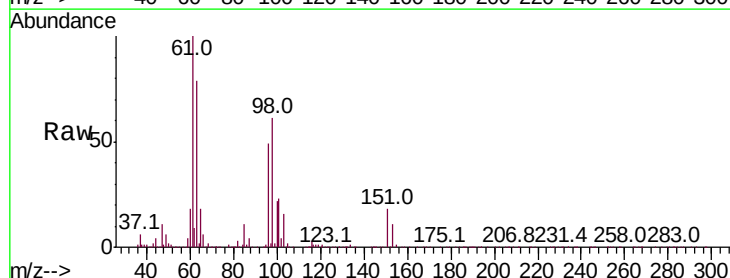
Tgt Ion: 96 Resp: 173409

Ion Ratio Lower Upper

96 100

61 202.9 145.0 269.4

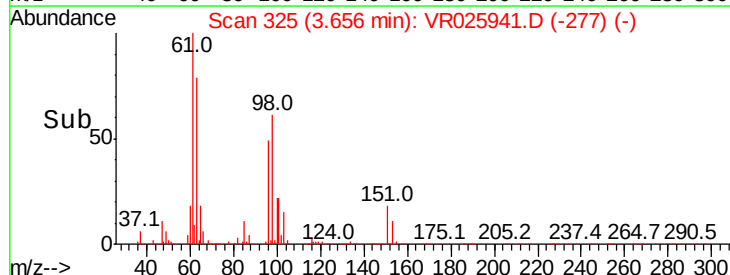
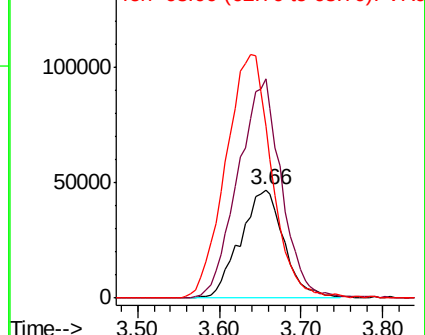
63 159.6 123.8 230.0



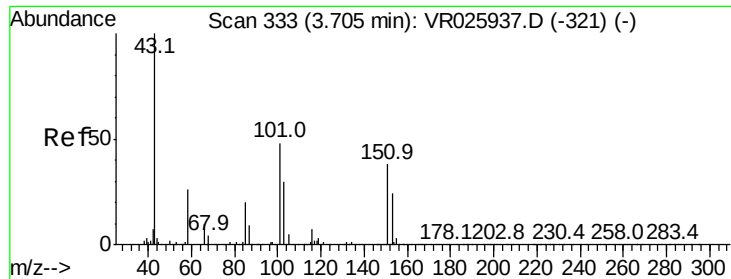
Abundance Ion 96.00 (95.70 to 96.70): VR0

Ion 61.05 (60.75 to 61.75): VR0

Ion 63.00 (62.70 to 63.70): VR0







#13

Acetone

Concen: 49.654 ug/L

RT: 3.70 min Scan# 333

Delta R.T. 0.00 min

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Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

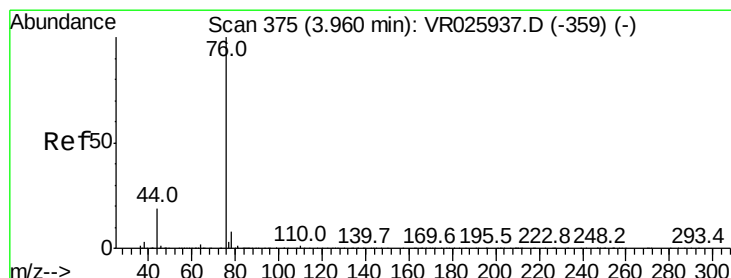
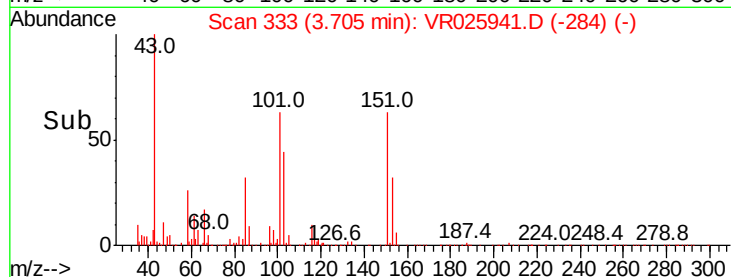
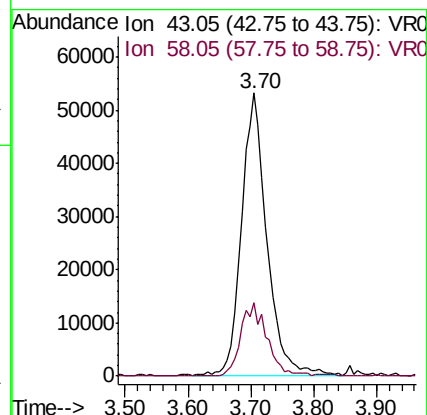
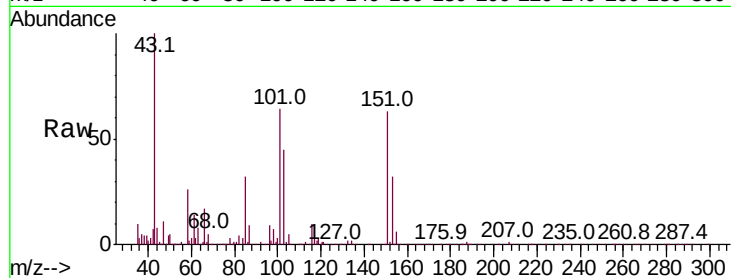
VSTD00597

Tot Ion: 43 Resp: 148113

Ion Ratio Lower Upper

43 100

58 26.6 0.0 51.4



#14

Carbon disulfide

Concen: 4.463 ug/L

RT: 3.96 min Scan# 375

Delta R.T. 0.00 min

Lab File: VR025941.D

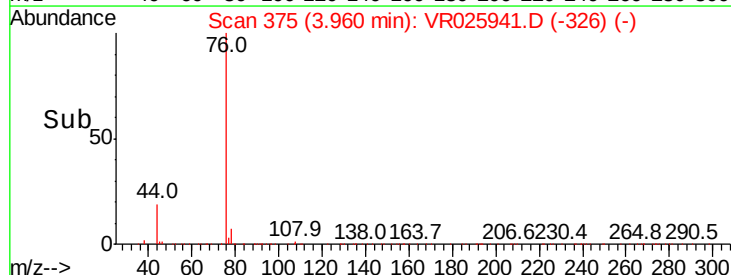
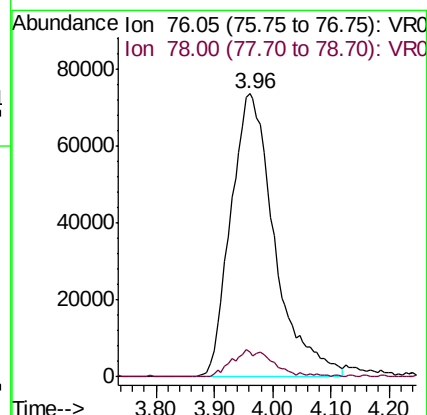
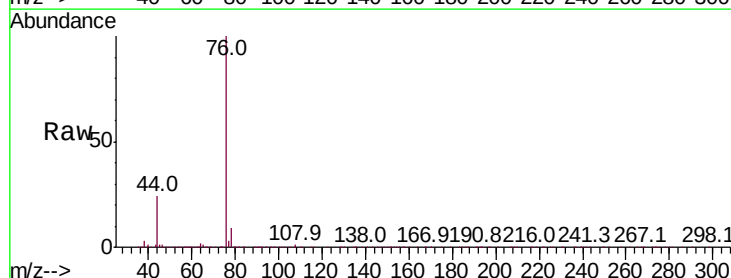
Acq: 3 Oct 2018 16:00

Tgt Ion: 76 Resp: 381827

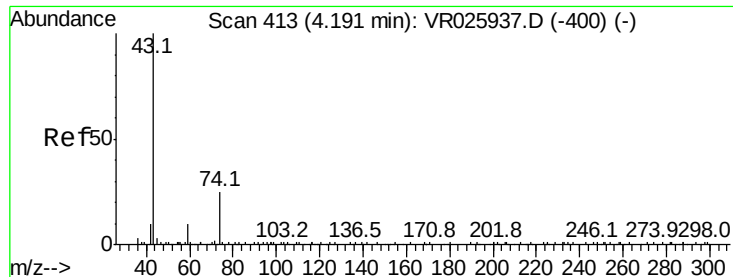
Ion Ratio Lower Upper

76 100

78 8.9 7.0 10.6



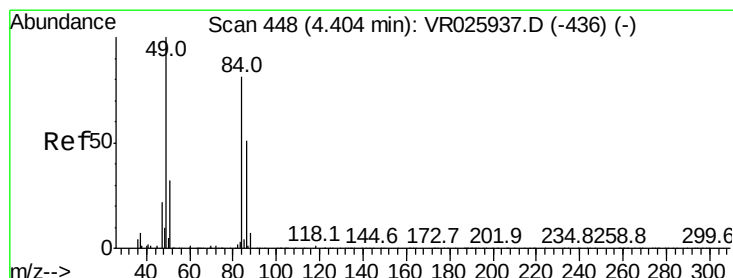
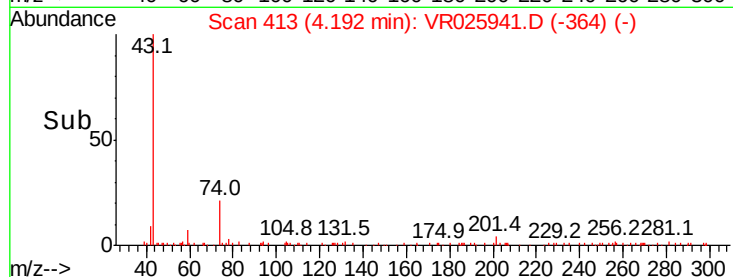
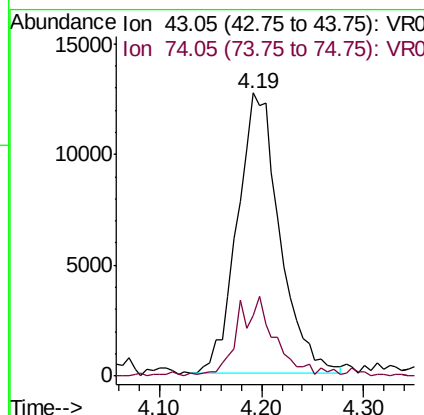
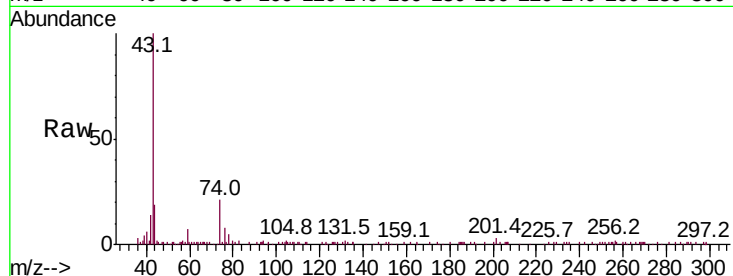




#15  
Methyl Acetate  
Concen: 4.418 ug/L  
RT: 4.19 min Scan# 413  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

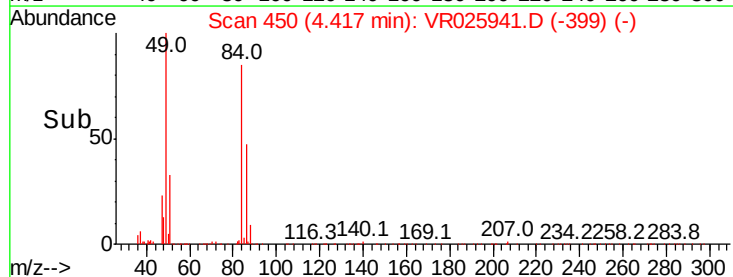
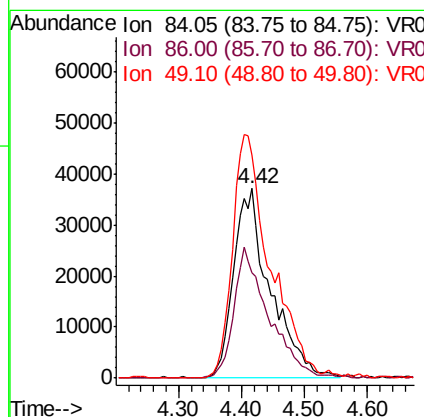
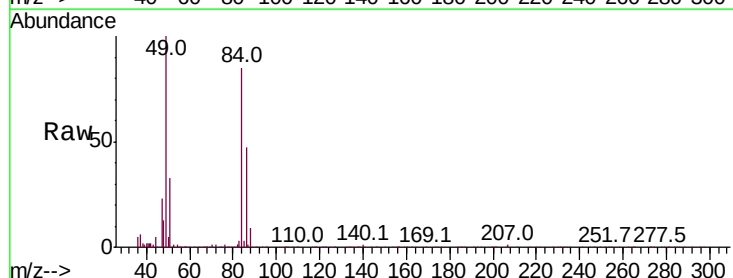
Instrument :  
MSVOA\_R  
ClientSampled :  
VSTD00597

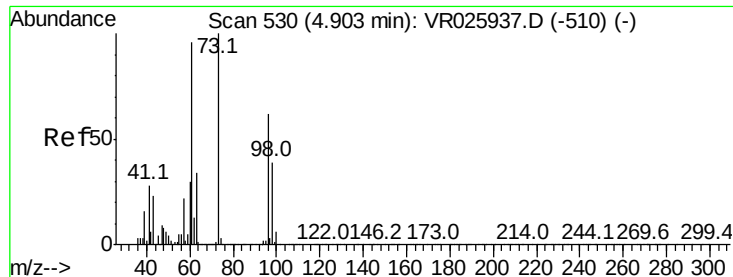
Tot Ion: 43 Resp: 36537  
Ion Ratio Lower Upper  
43 100  
74 25.4 19.0 28.4



#16  
Methylene chloride  
Concen: 4.607 ug/L  
RT: 4.42 min Scan# 450  
Delta R.T. 0.01 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

Tgt Ion: 84 Resp: 149698  
Ion Ratio Lower Upper  
84 100  
86 55.8 43.1 80.1  
49 118.1 95.5 177.3





#17

Methyl tert-butyl Ether

Concen: 4.261 ug/L

RT: 4.90 min Scan# 529

Delta R.T. -0.01 min

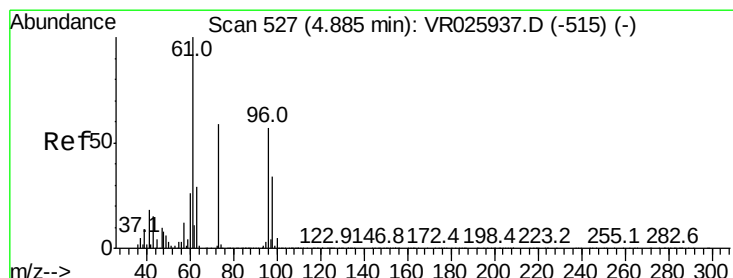
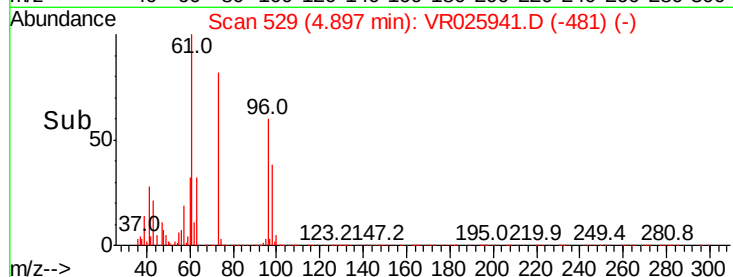
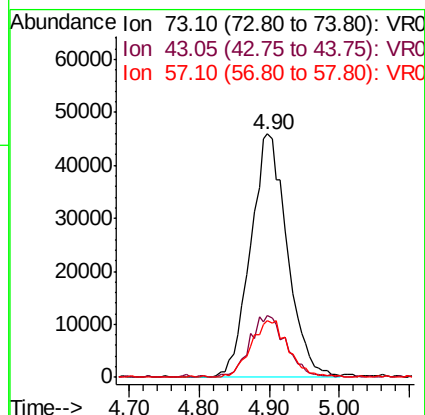
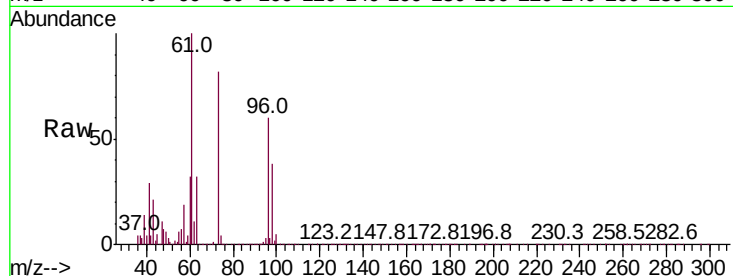
Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :  
MSVOA\_R  
ClientSampleID :  
VSTD00597

Tot Ion: 73 Resp: 166756

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 73  | 100   |       |       |
| 43  | 25.5  | 19.8  | 29.8  |
| 57  | 23.9  | 17.9  | 26.9  |



#18

trans-1,2-Dichloroethene

Concen: 4.262 ug/L

RT: 4.89 min Scan# 528

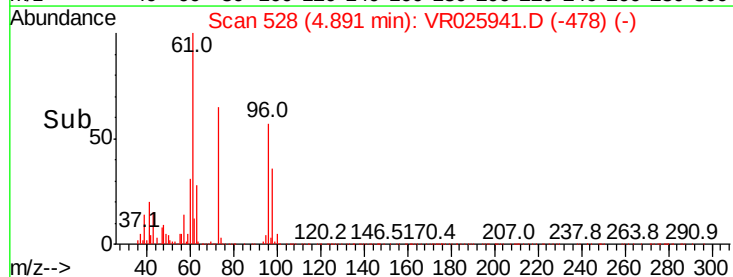
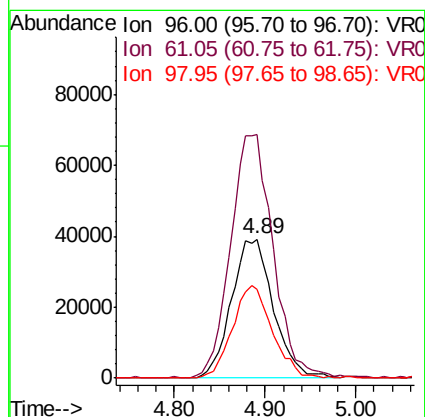
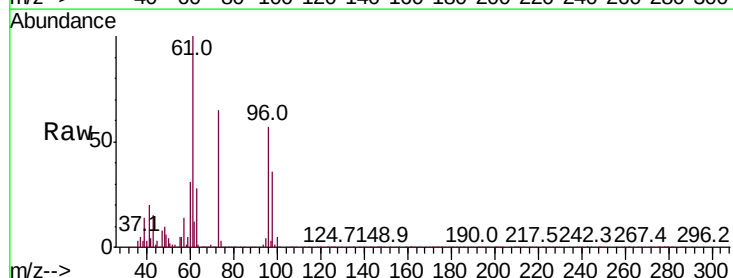
Delta R.T. 0.01 min

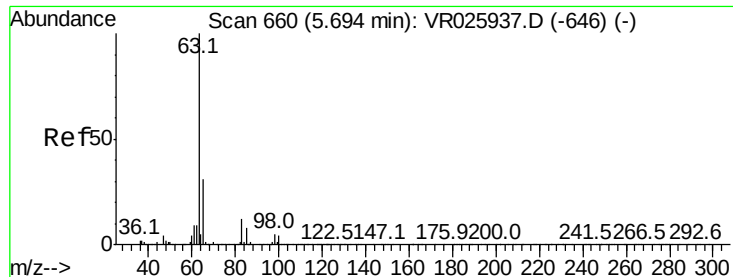
Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Tgt Ion: 96 Resp: 124577

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 96  | 100   |       |       |
| 61  | 174.9 | 127.4 | 236.6 |
| 98  | 63.4  | 43.8  | 81.3  |

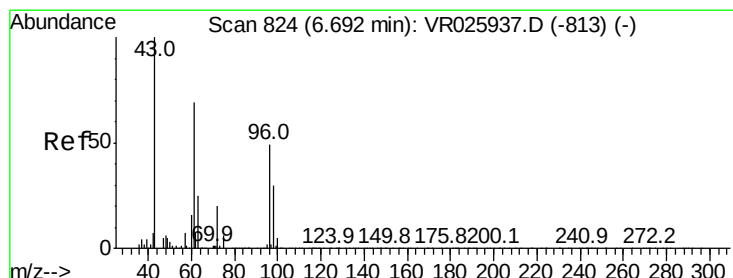
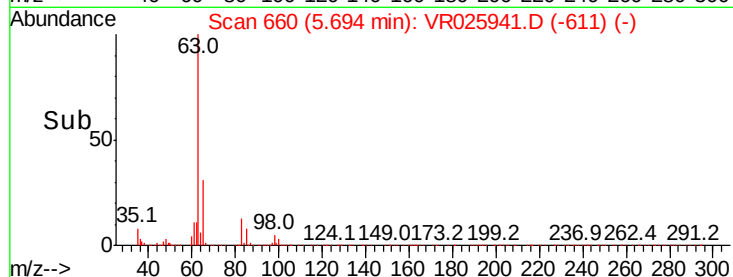
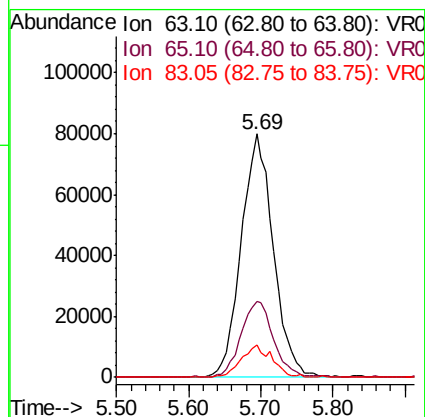
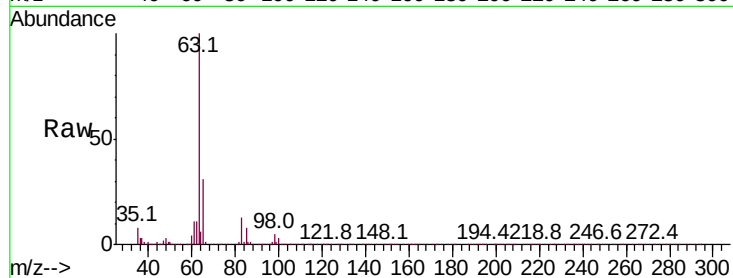




#19  
 1,1-Dichloroethane  
 Concen: 4.259 ug/L  
 RT: 5.69 min Scan# 660  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

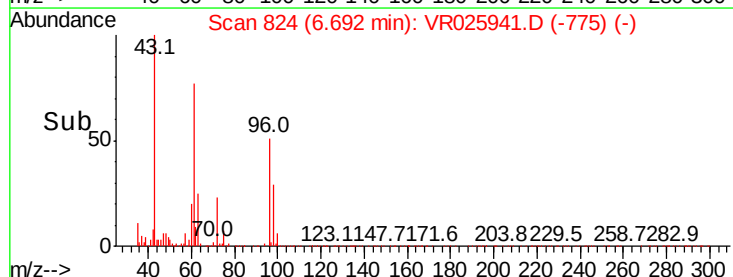
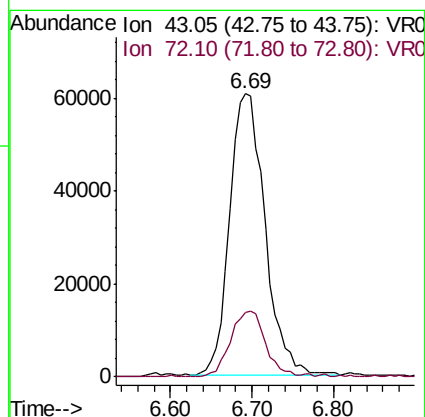
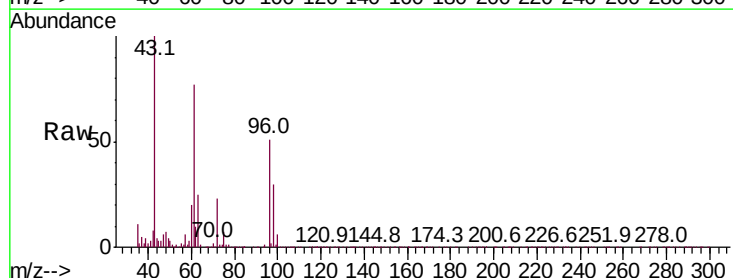
Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

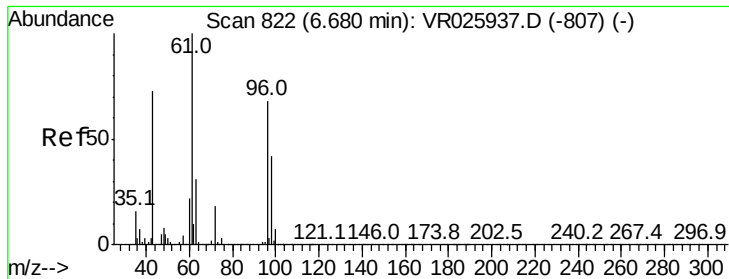
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 63    | Resp: | 246461 |
| Ion      | Ratio | Lower | Upper  |
| 63       | 100   |       |        |
| 65       | 31.1  | 21.1  | 39.1   |
| 83       | 13.3  | 8.9   | 16.5   |



#21  
 2-Butanone  
 Concen: 44.355 ug/L  
 RT: 6.69 min Scan# 824  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 181980 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 72       | 23.5  | 11.9  | 35.7   |



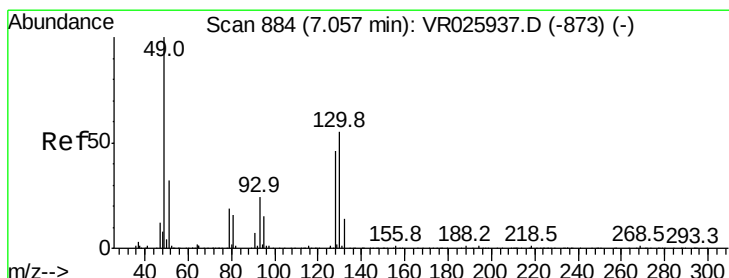
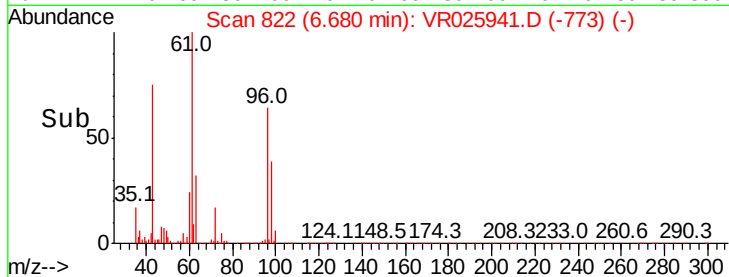
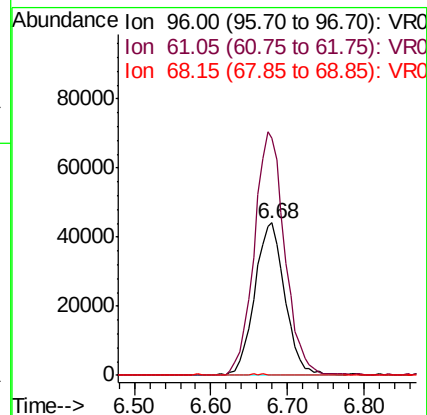
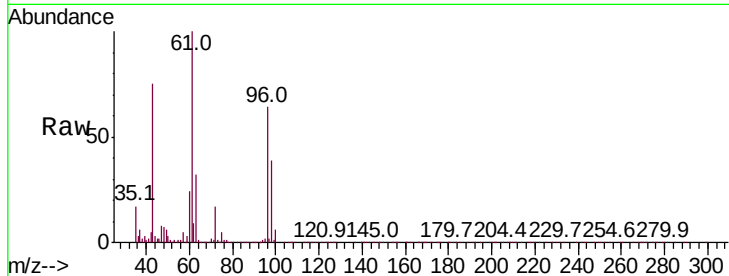


#22

cis-1,2-Dichloroethene  
 Concen: 4.125 ug/L  
 RT: 6.68 min Scan# 822  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

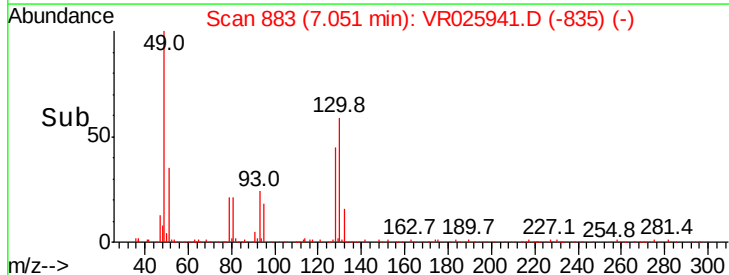
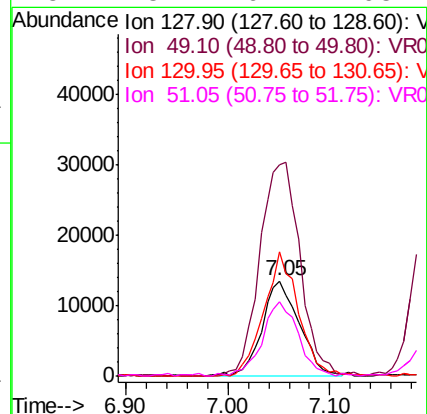
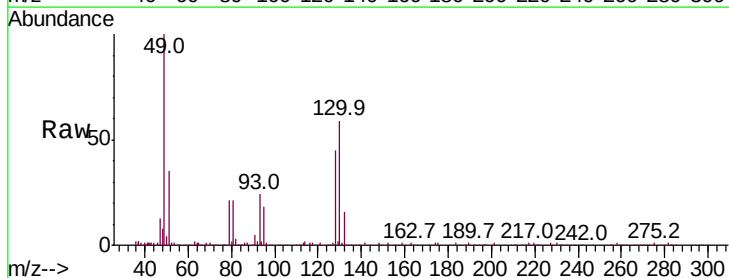
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 155.7 | 108.7 | 201.9 |
| 68      | 0.4   | 0.1   | 0.1#  |

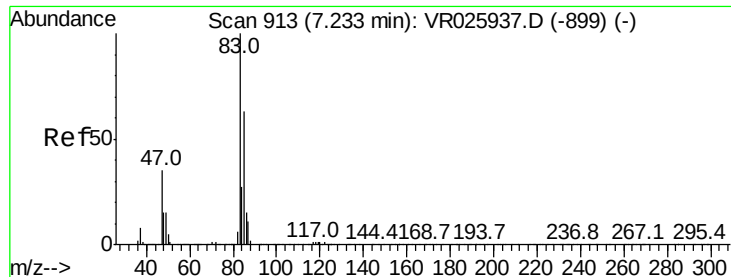


#23

Bromochloromethane  
 Concen: 4.305 ug/L  
 RT: 7.05 min Scan# 883  
 Delta R.T. -0.01 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 49      | 223.1 | 175.0 | 325.0 |
| 130     | 131.0 | 85.6  | 159.0 |
| 51      | 78.2  | 62.2  | 93.2  |

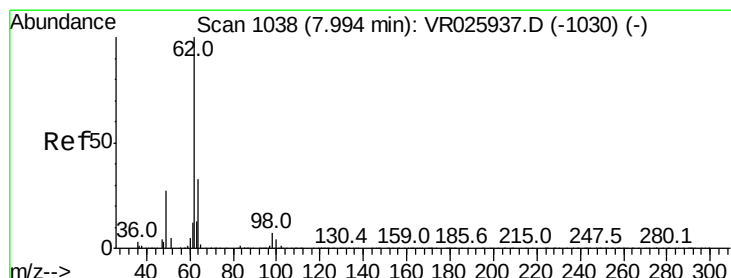
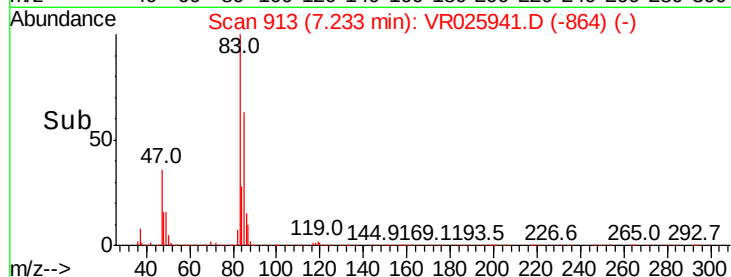
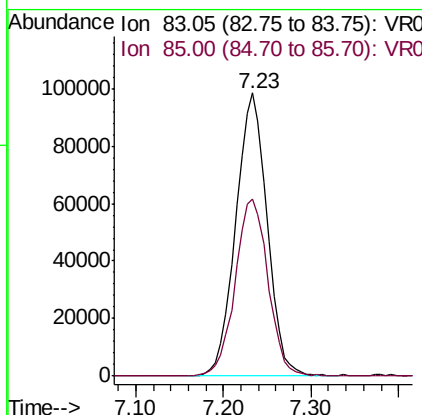
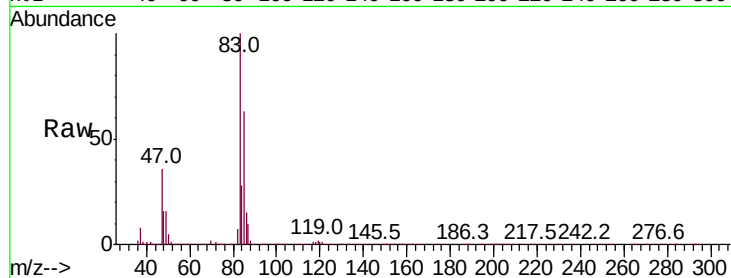




#25  
Chloroform  
Concen: 4.339 ug/L  
RT: 7.23 min Scan# 913  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

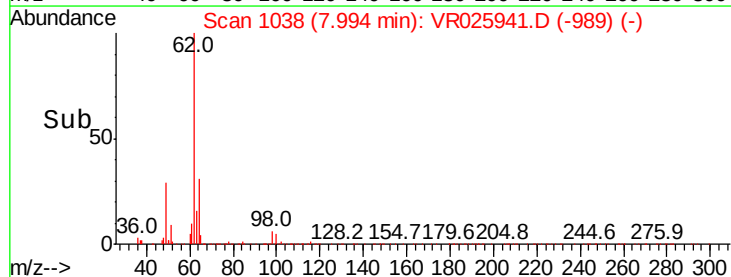
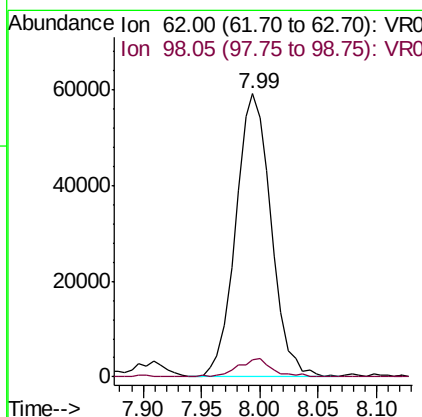
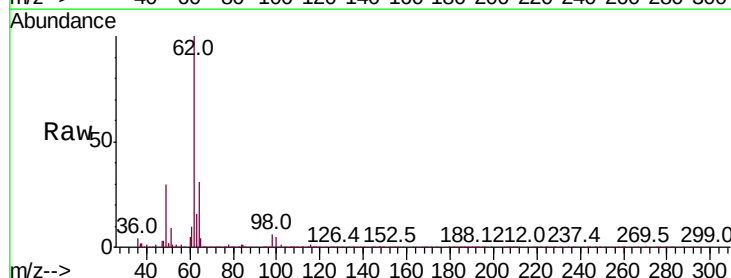
Instrument :  
MSVOA\_R  
ClientSampled :  
VSTD00597

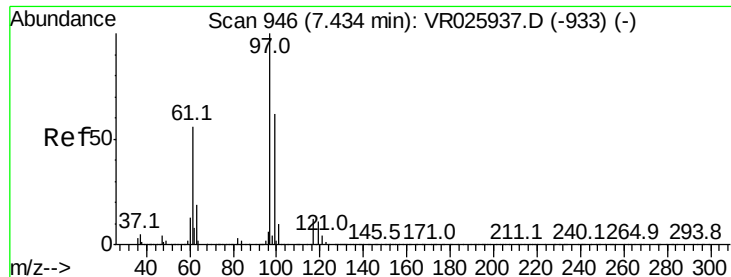
Tot Ion: 83 Resp: 244494  
Ion Ratio Lower Upper  
83 100  
85 62.8 43.8 81.4



#27  
1,2-Dichloroethane  
Concen: 4.399 ug/L  
RT: 7.99 min Scan# 1038  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

Tgt Ion: 62 Resp: 123700  
Ion Ratio Lower Upper  
62 100  
98 6.1 5.2 7.8

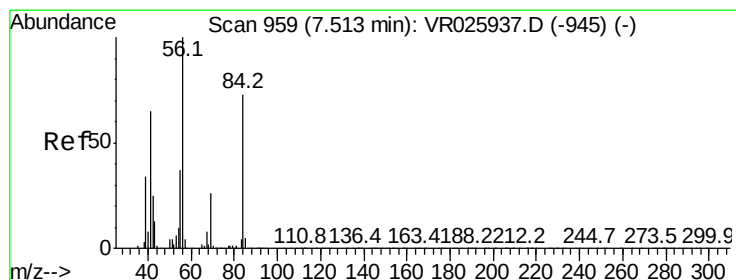
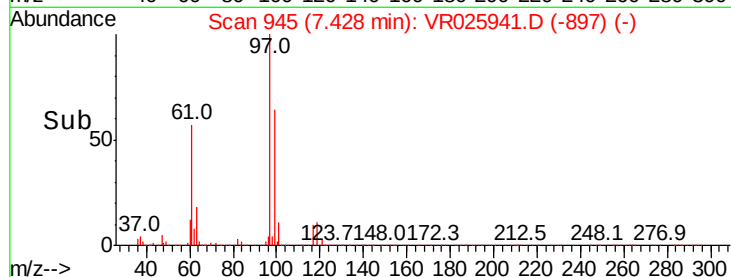
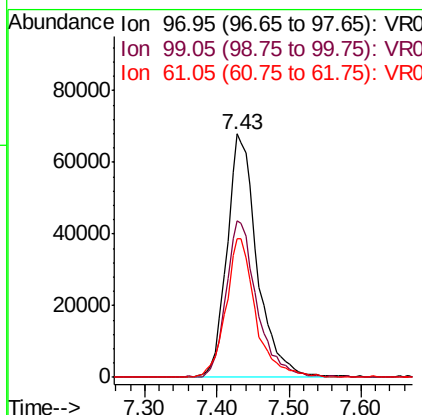
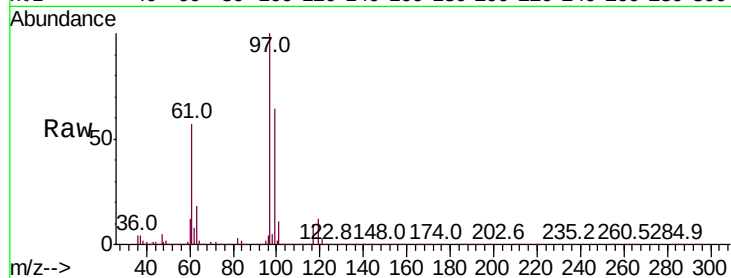




#29  
 1,1,1-Trichloroethane  
 Concen: 4.315 ug/L  
 RT: 7.43 min Scan# 945  
 Delta R.T. -0.01 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

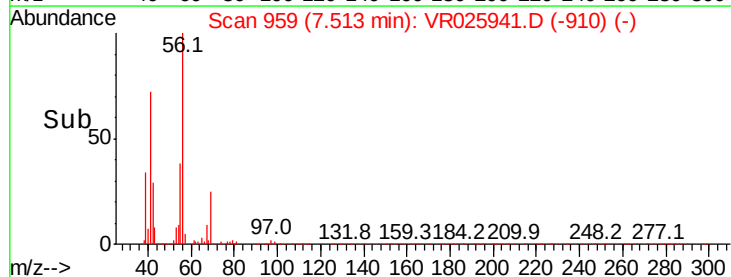
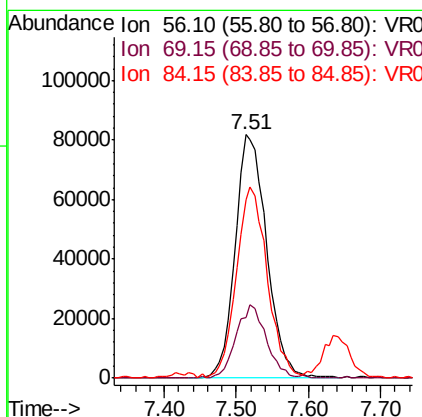
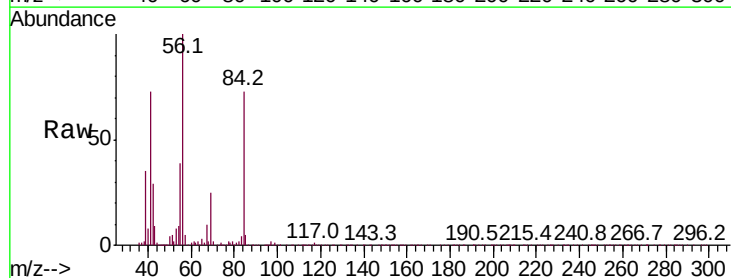
Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

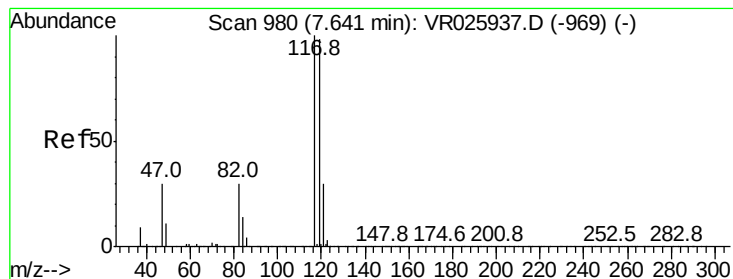
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 97    | Resp: | 197682 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 65.3  | 51.0  | 76.6   |
| 61       | 56.0  | 41.6  | 62.4   |



#30  
 Cyclohexane  
 Concen: 4.339 ug/L  
 RT: 7.51 min Scan# 959  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 56    | Resp: | 248343 |
| Ion      | Ratio | Lower | Upper  |
| 56       | 100   |       |        |
| 69       | 28.8  | 24.8  | 37.2   |
| 84       | 76.7  | 59.8  | 89.8   |





#31

Carbon tetrachloride

Concen: 4.610 ug/L

RT: 7.64 min Scan# 980

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

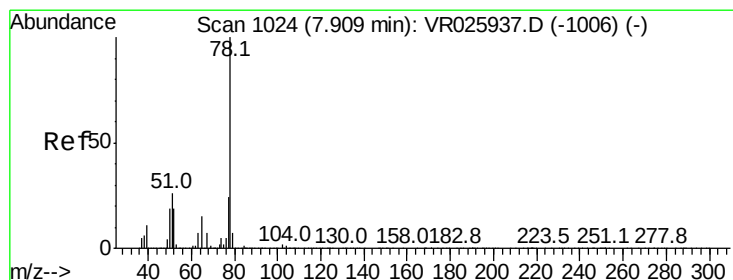
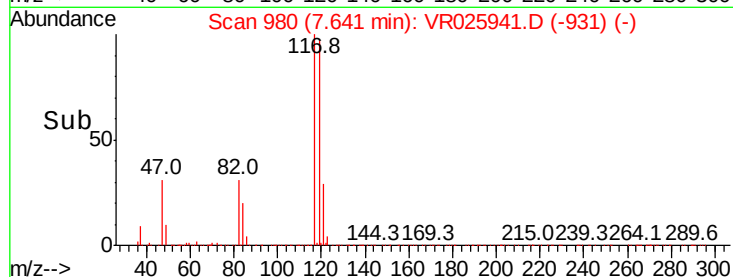
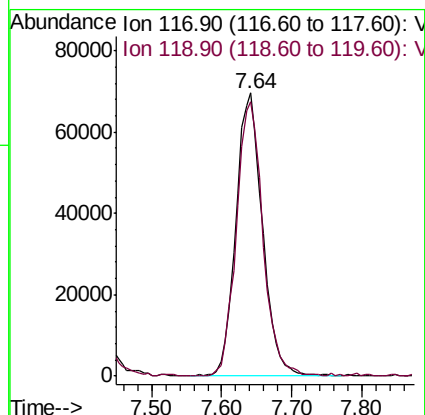
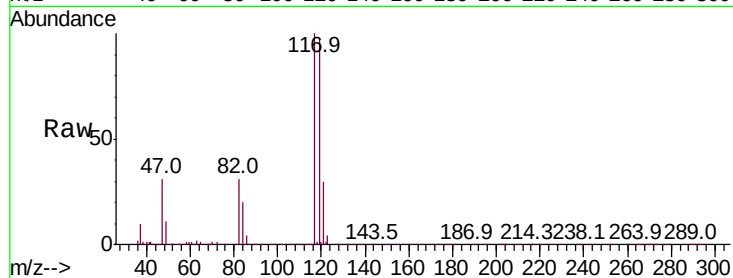
VSTD00597

Tot Ion:117 Resp: 182866

Ion Ratio Lower Upper

117 100

119 96.8 75.6 113.4



#33

Benzene

Concen: 4.154 ug/L

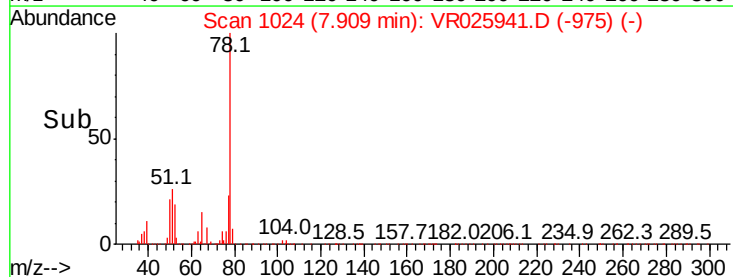
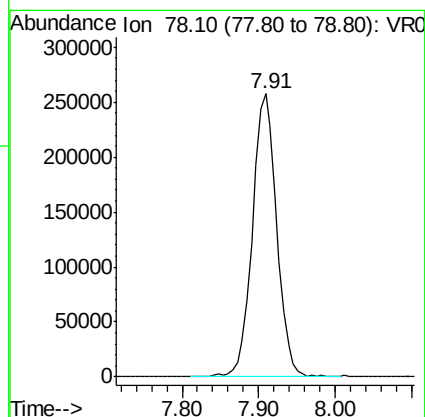
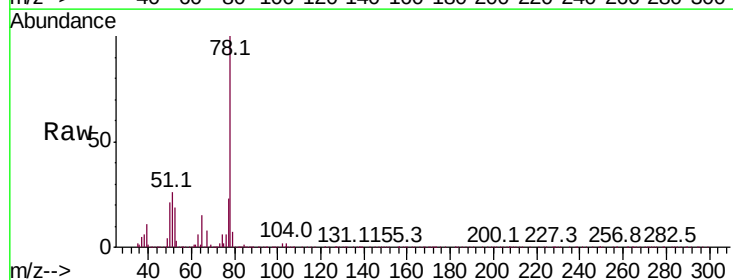
RT: 7.91 min Scan# 1024

Delta R.T. 0.00 min

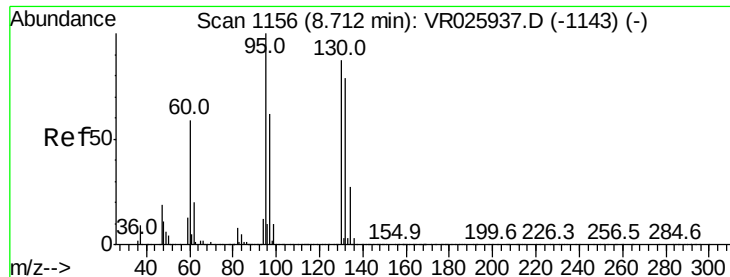
Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Tgt Ion: 78 Resp: 567590







#34

Trichloroethene

Concen: 4.025 ug/L

RT: 8.71 min Scan# 1156

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

VSTD00597

Tot Ion: 95 Resp: 144910

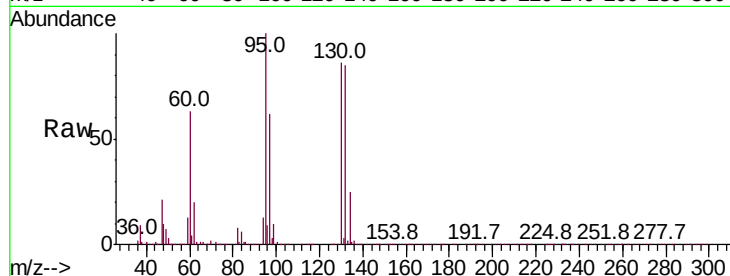
Ion Ratio Lower Upper

95 100

97 61.9 43.9 81.5

132 84.6 53.3 98.9

130 85.9 53.8 99.8

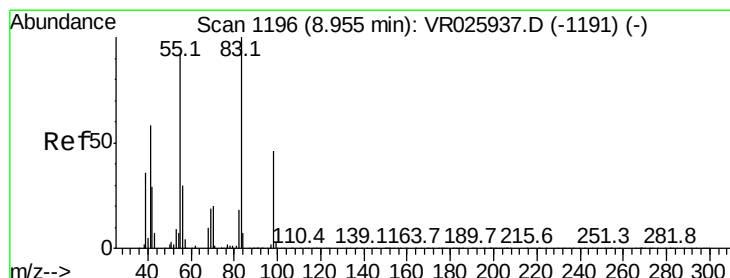
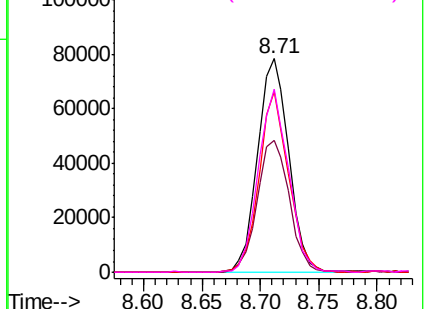
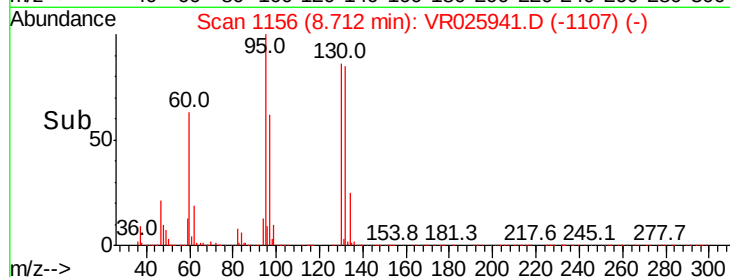


Abundance Ion 95.00 (94.70 to 95.70): VR0

Ion 96.95 (96.65 to 97.65): VR0

Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V



#35

Methylcyclohexane

Concen: 4.560 ug/L

RT: 8.96 min Scan# 1196

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

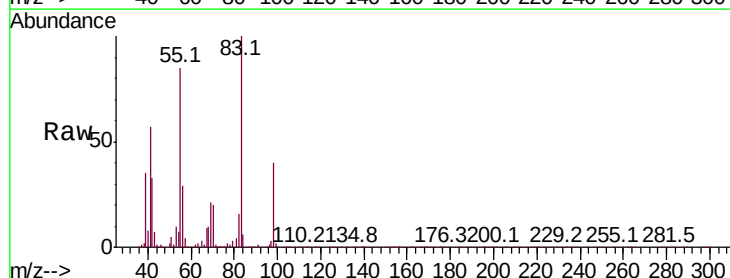
Tgt Ion: 83 Resp: 246851

Ion Ratio Lower Upper

83 100

55 88.4 71.8 107.6

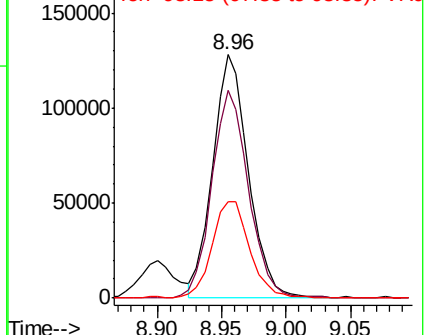
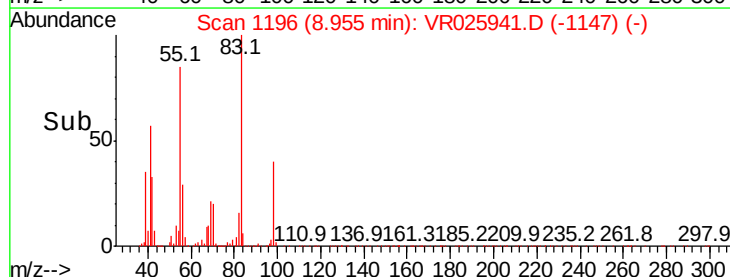
98 42.2 34.2 51.4

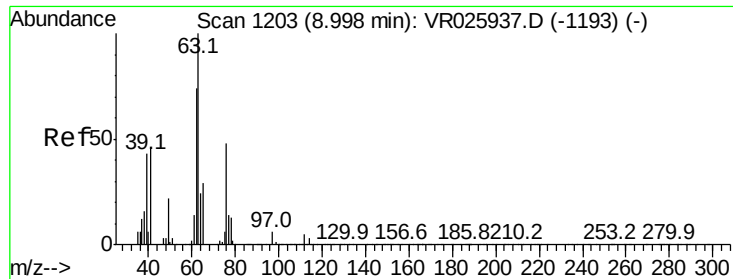


Abundance Ion 83.15 (82.85 to 83.85): VR0

Ion 55.10 (54.80 to 55.80): VR0

Ion 98.15 (97.85 to 98.85): VR0

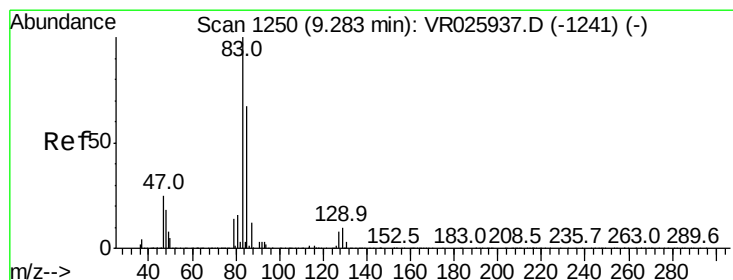
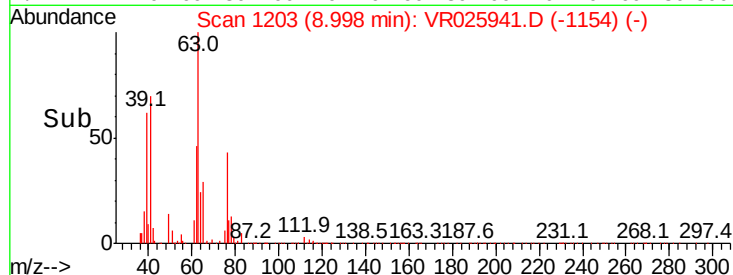
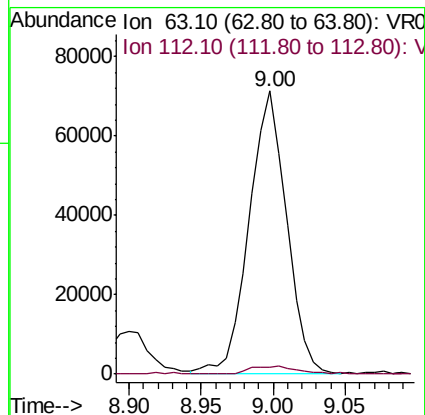
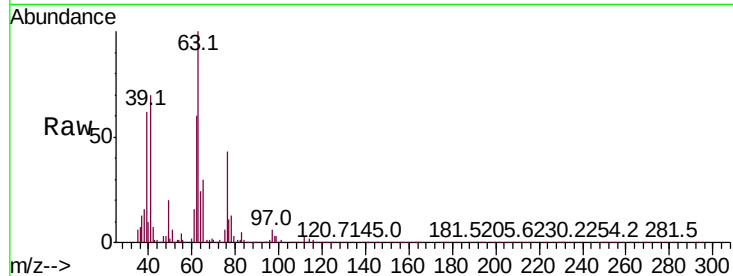




#37  
 1,2-Dichloropropane  
 Concen: 4.329 ug/L  
 RT: 9.00 min Scan# 1203  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

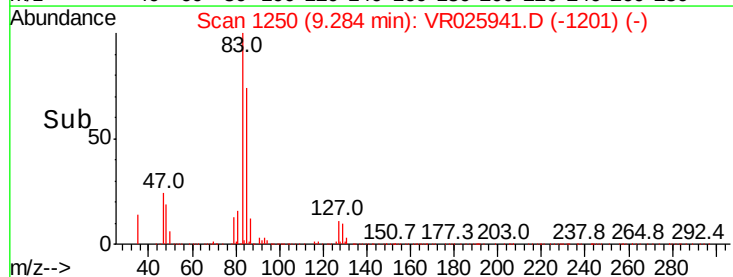
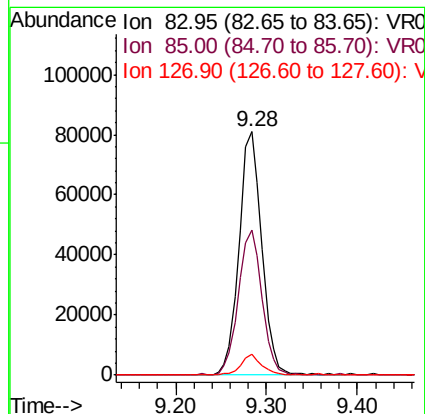
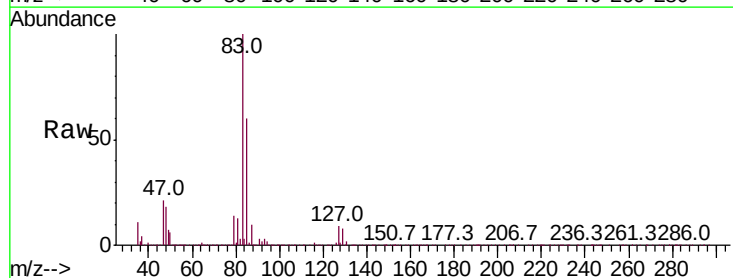
Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

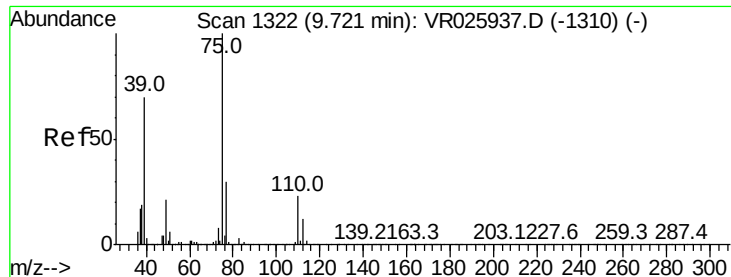
Tot Ion: 63 Resp: 126900  
 Ion Ratio Lower Upper  
 63 100  
 112 4.0 2.5 3.7#



#38  
 Bromodichloromethane  
 Concen: 4.448 ug/L  
 RT: 9.28 min Scan# 1250  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

Tgt Ion: 83 Resp: 140675  
 Ion Ratio Lower Upper  
 83 100  
 85 59.7 42.8 79.4  
 127 8.8 5.6 8.4#



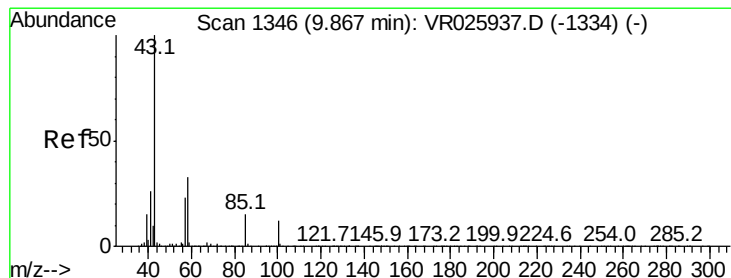
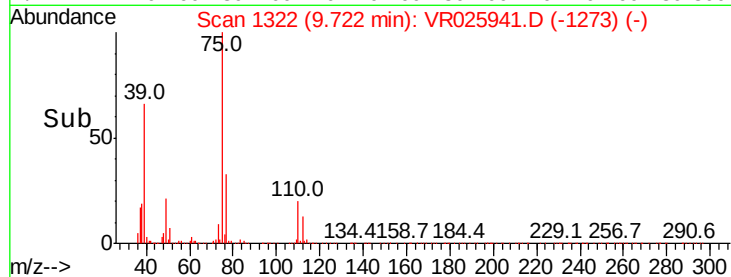
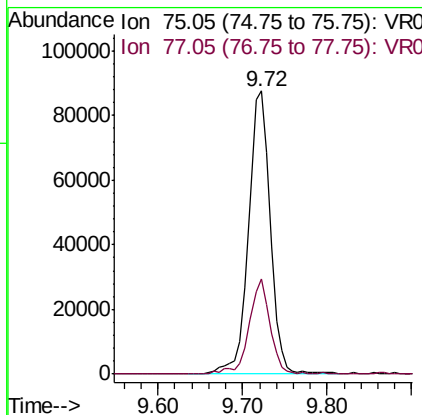
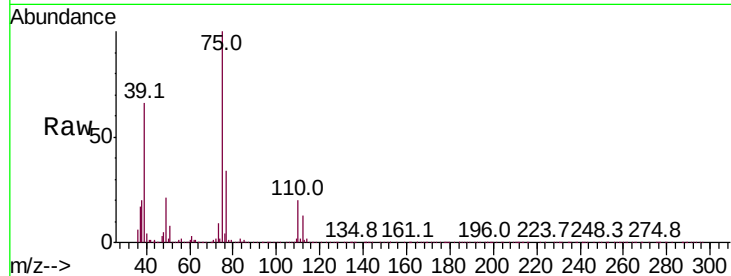


#39

cis-1,3-Dichloropropene  
 Concen: 4.603 ug/L  
 RT: 9.72 min Scan# 1322  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

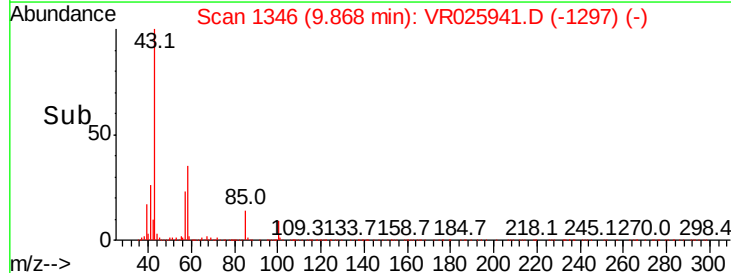
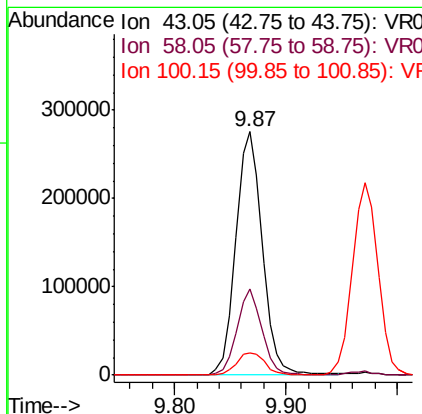
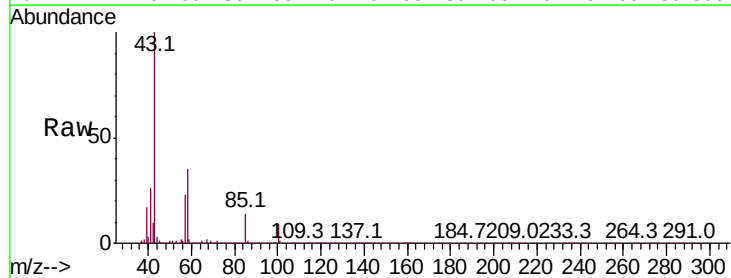
Tot Ion: 75 Resp: 151272  
 Ion Ratio Lower Upper  
 75 100  
 77 33.5 21.5 39.9

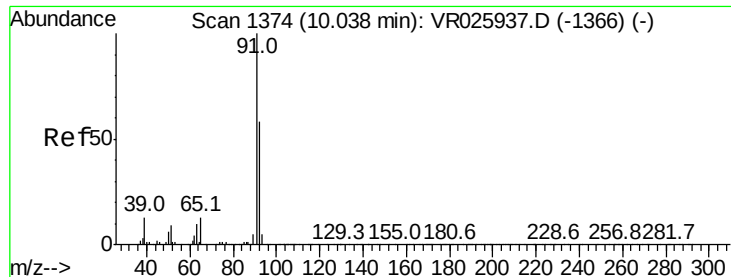


#40

4-Methyl-2-pentanone  
 Concen: 44.115 ug/L  
 RT: 9.87 min Scan# 1346  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

Tgt Ion: 43 Resp: 454683  
 Ion Ratio Lower Upper  
 43 100  
 58 33.3 28.6 43.0  
 100 10.0 9.0 13.4





#42

Toluene

Concen: 4.310 ug/L

RT: 10.04 min Scan# 1374

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

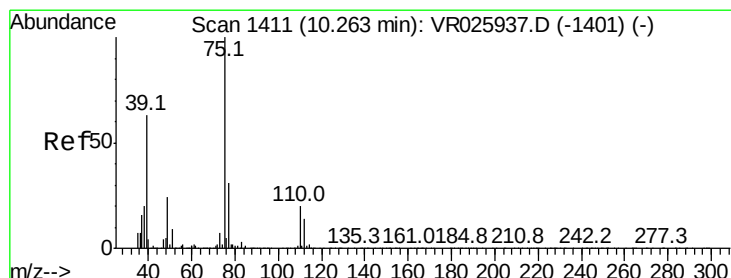
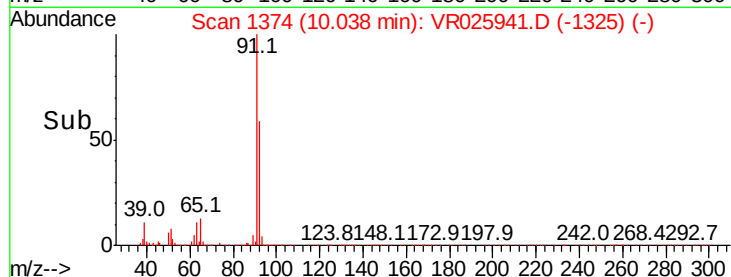
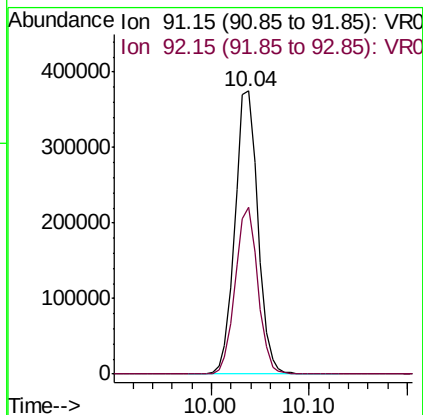
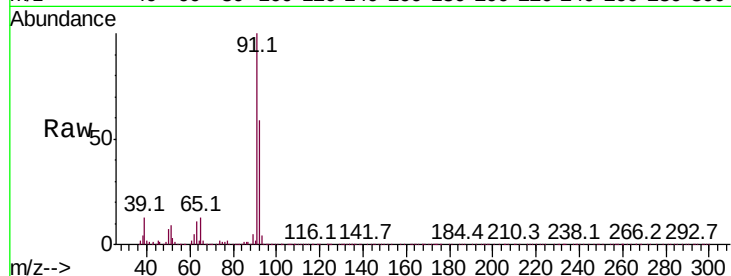
VSTD00597

Tot Ion: 91 Resp: 611842

Ion Ratio Lower Upper

91 100

92 58.9 41.8 77.6



#44

trans-1,3-Dichloropropene

Concen: 4.732 ug/L

RT: 10.26 min Scan# 1411

Delta R.T. 0.00 min

Lab File: VR025941.D

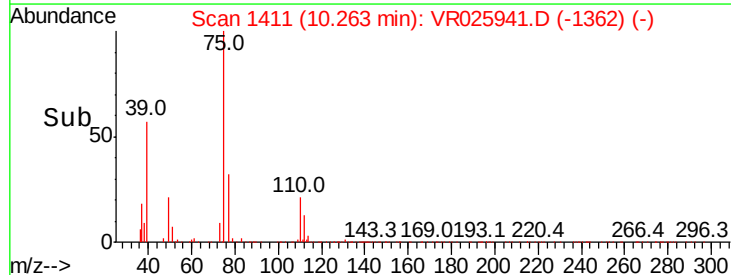
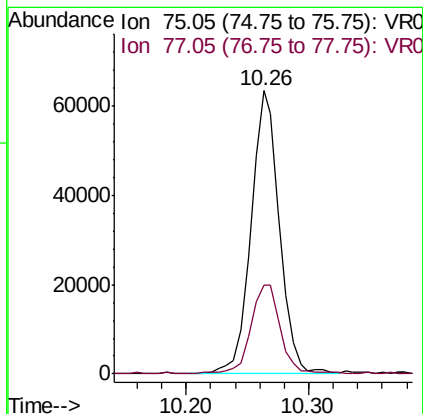
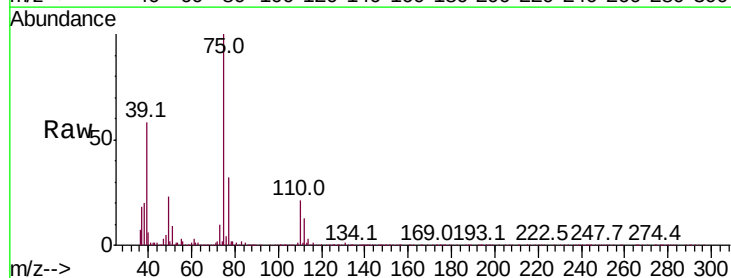
Acq: 3 Oct 2018 16:00

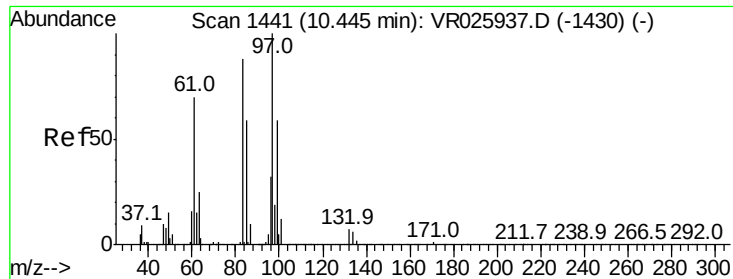
Tgt Ion: 75 Resp: 101536

Ion Ratio Lower Upper

75 100

77 31.5 23.0 42.8





#45

1,1,2-Trichloroethane

Concen: 4.045 ug/L

RT: 10.45 min Scan# 1441

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

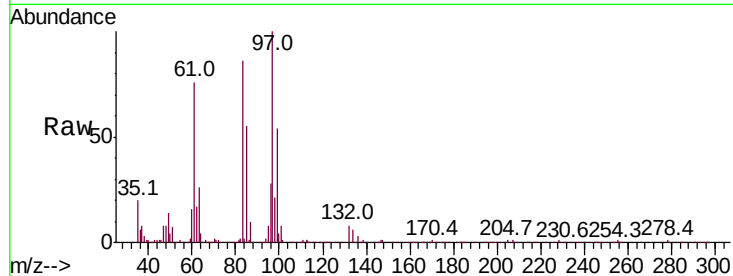
MSVOA\_R

ClientSampled :

VSTD00597

Tot Ion: 97 Resp: 53629

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 97  | 100   |       |       |
| 99  | 54.0  | 39.6  | 73.6  |
| 83  | 86.5  | 62.2  | 115.6 |
| 85  | 55.4  | 39.1  | 72.7  |



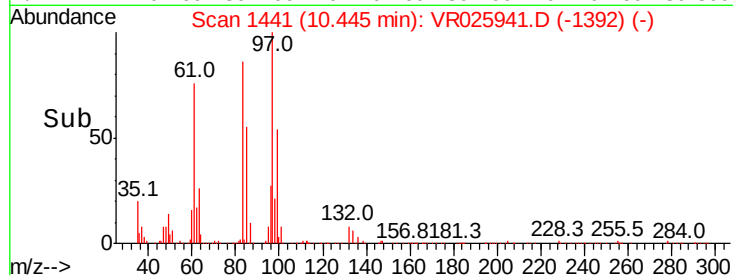
Abundance

Ion 96.95 (96.65 to 97.65): VR0

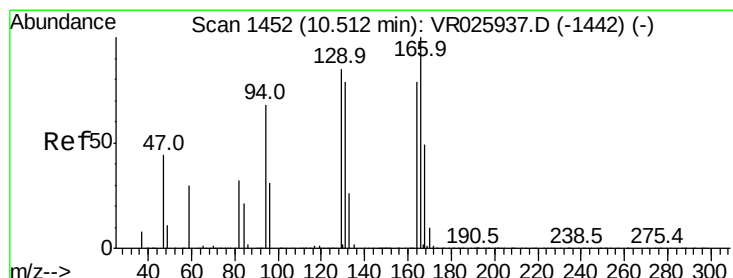
Ion 99.05 (98.75 to 99.75): VR0

Ion 82.95 (82.65 to 83.65): VR0

Ion 85.00 (84.70 to 85.70): VR0



Time-->



#47

Tetrachloroethene

Concen: 4.296 ug/L

RT: 10.51 min Scan# 1452

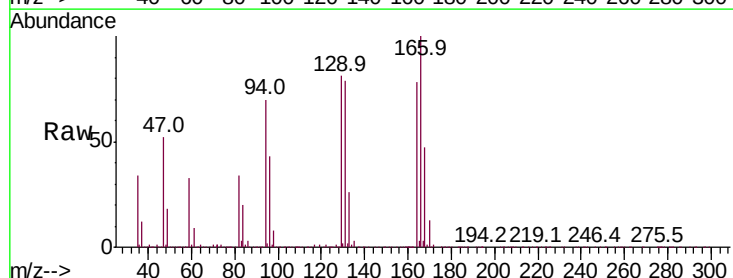
Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Tgt Ion: 164 Resp: 95297

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 129 | 103.6 | 80.8  | 150.2 |
| 131 | 100.9 | 74.5  | 138.3 |
| 166 | 128.2 | 92.5  | 171.7 |



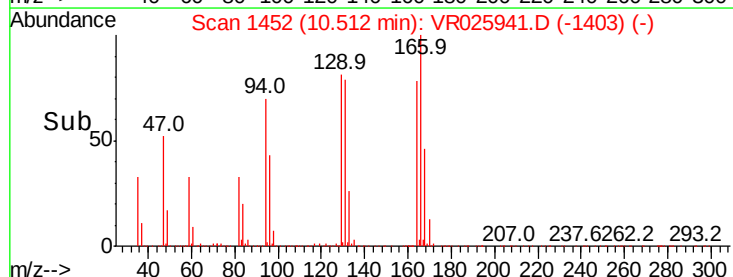
Abundance

Ion 163.90 (163.60 to 164.60): V

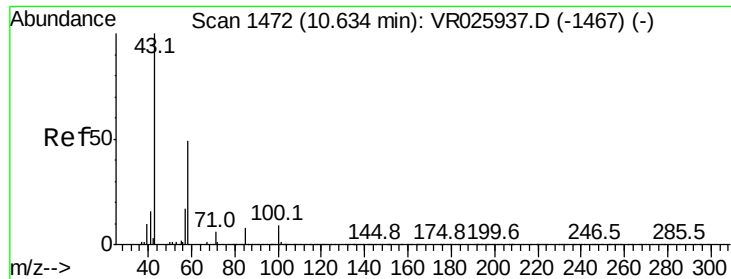
Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V



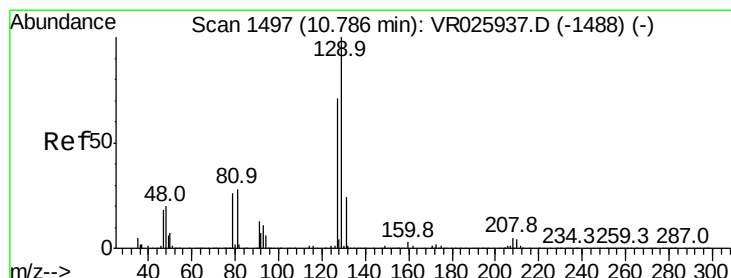
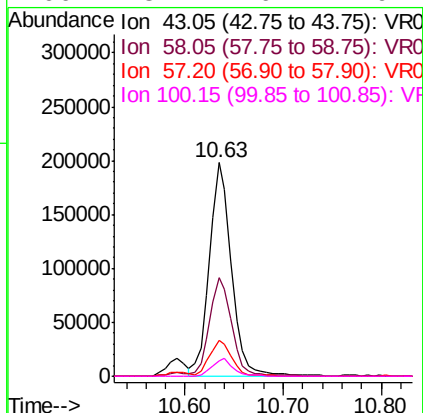
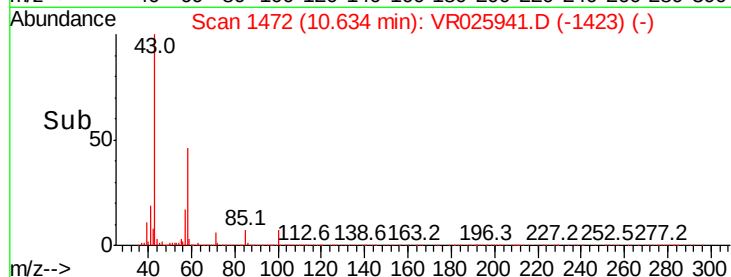
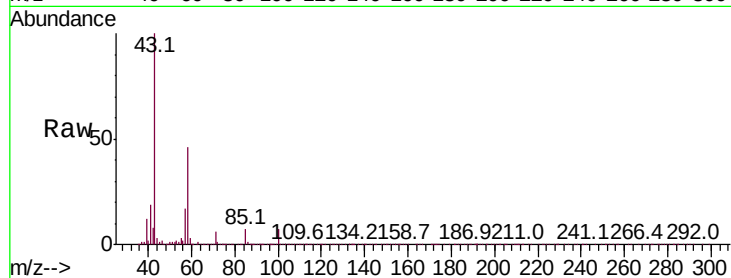
Time-->



#48  
2-Hexanone  
Concen: 45.705 ug/L  
RT: 10.63 min Scan# 1472  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

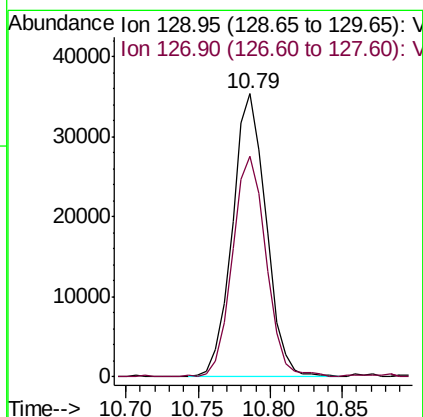
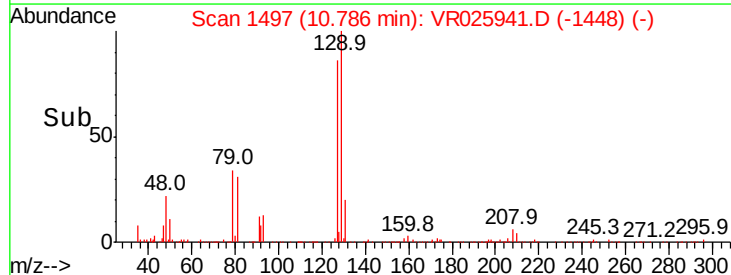
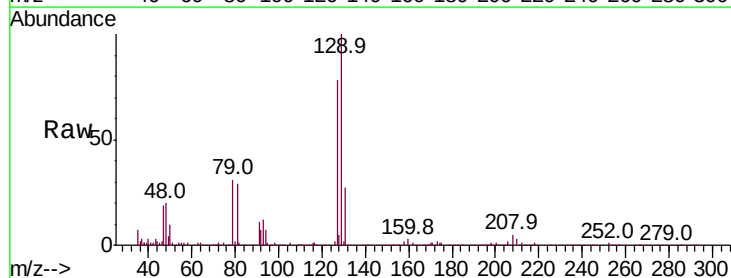
Instrument :  
MSVOA\_R  
ClientSampleId :  
VSTD00597

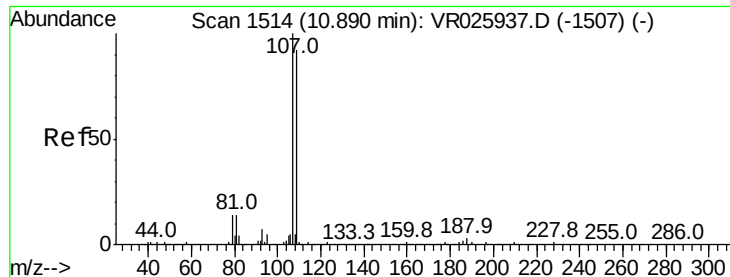
Tot Ion: 43 Resp: 308423  
Ion Ratio Lower Upper  
43 100  
58 46.7 39.5 59.3  
57 16.8 14.6 21.8  
100 8.1 6.7 10.1



#49  
Dibromochloromethane  
Concen: 4.284 ug/L  
RT: 10.79 min Scan# 1497  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

Tgt Ion: 129 Resp: 57634  
Ion Ratio Lower Upper  
129 100  
127 77.8 54.1 100.5

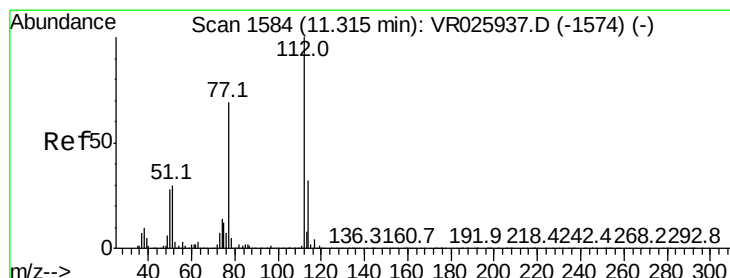
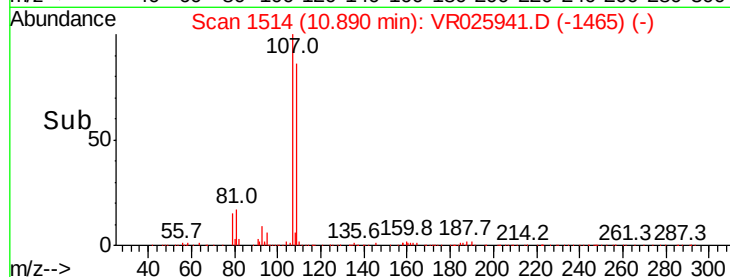
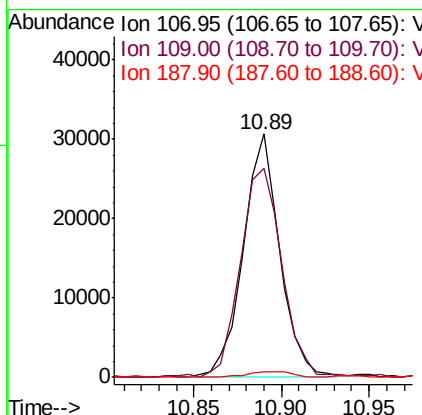
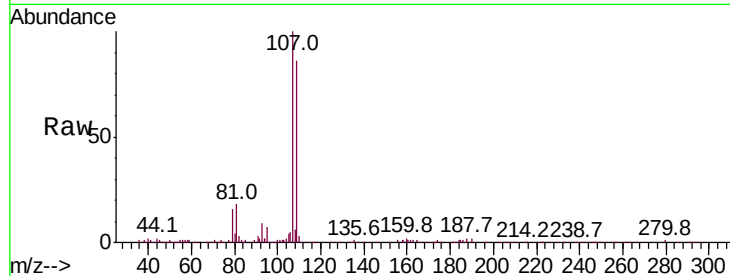




#50  
1,2-Dibromoethane  
Concen: 4.273 ug/L  
RT: 10.89 min Scan# 1514  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

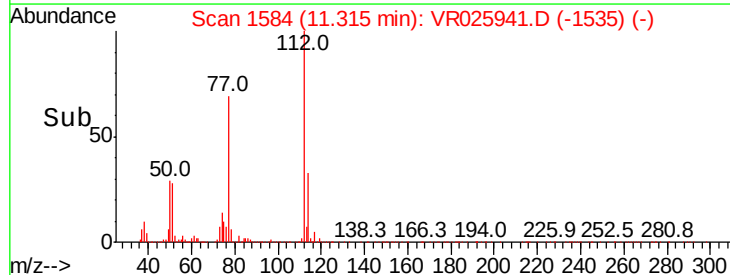
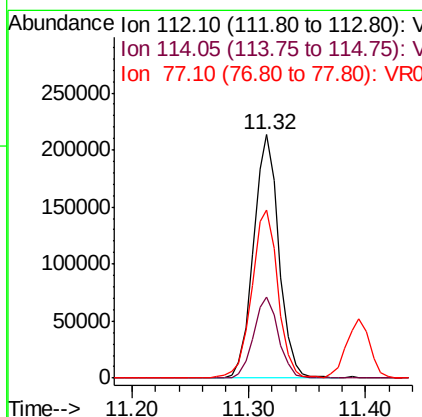
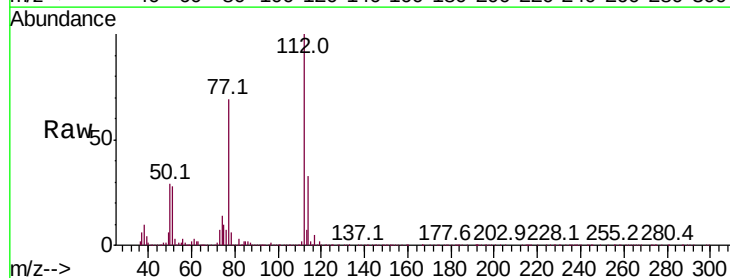
Instrument :  
MSVOA\_R  
ClientSampleId :  
VSTD00597

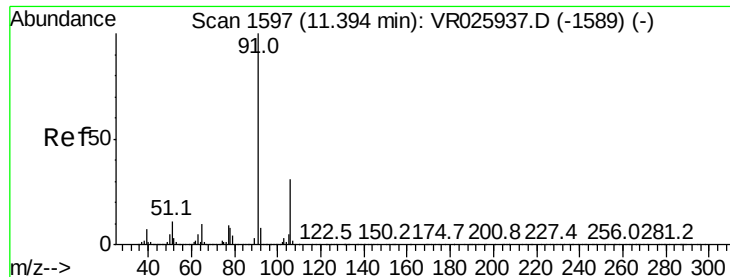
Tot Ion:107 Resp: 44702  
Ion Ratio Lower Upper  
107 100  
109 85.9 63.5 117.9  
188 2.4 1.7 2.5



#51  
Chlorobenzene  
Concen: 4.288 ug/L  
RT: 11.32 min Scan# 1584  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

Tgt Ion:112 Resp: 322953  
Ion Ratio Lower Upper  
112 100  
114 33.1 22.7 42.3  
77 69.0 58.5 87.7





#52

Ethylbenzene

Concen: 4.492 ug/L

RT: 11.39 min Scan# 1597

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

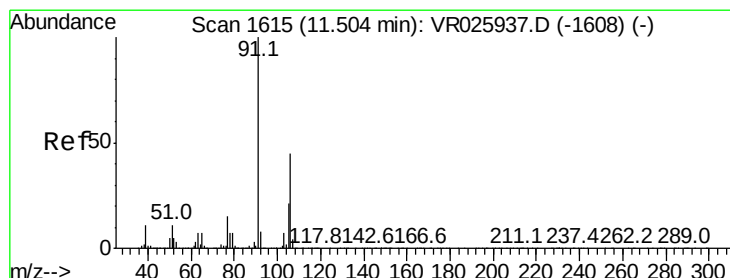
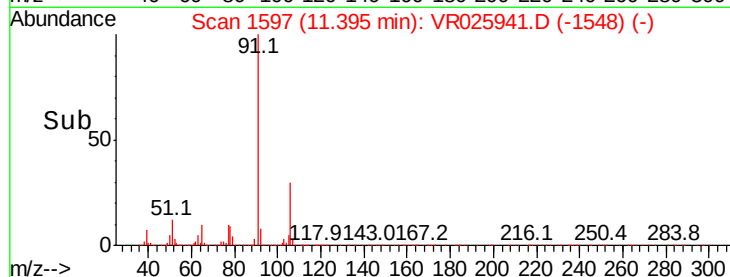
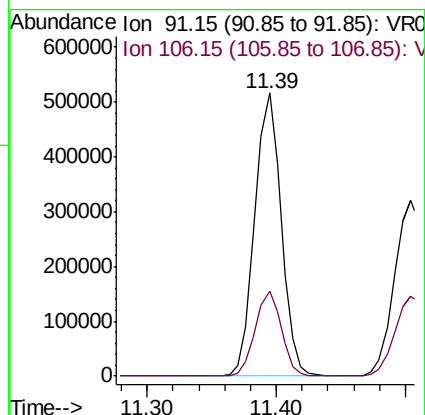
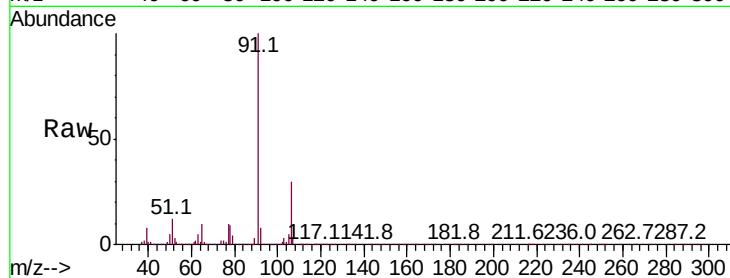
VSTD00597

Tot Ion: 91 Resp: 727864

Ion Ratio Lower Upper

91 100

106 29.9 20.6 38.4



#53

m,p-Xylene

Concen: 4.394 ug/L

RT: 11.50 min Scan# 1615

Delta R.T. 0.00 min

Lab File: VR025941.D

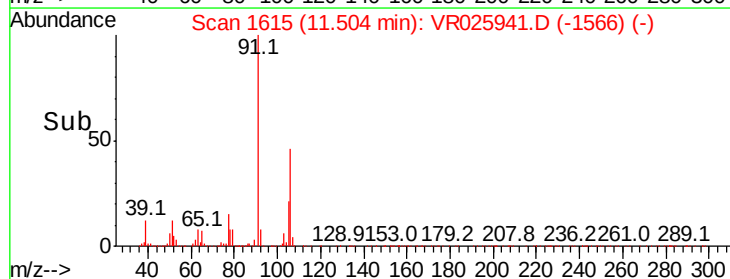
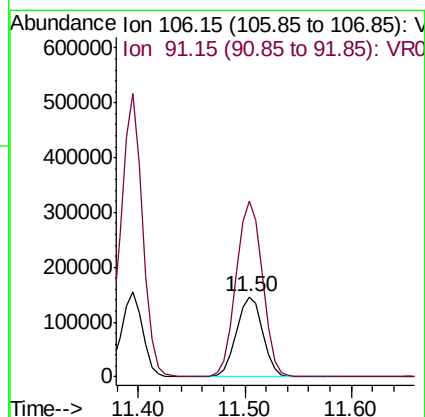
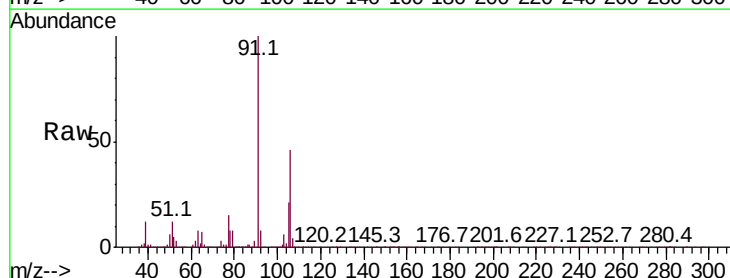
Acq: 3 Oct 2018 16:00

Tgt Ion: 106 Resp: 253488

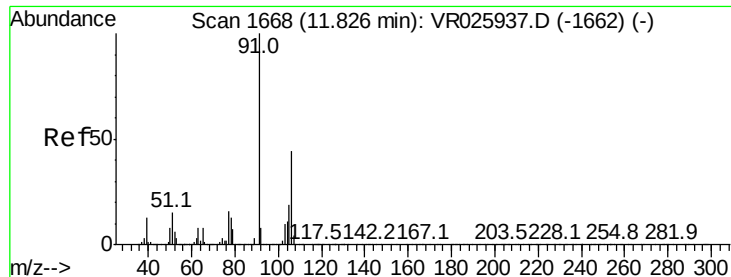
Ion Ratio Lower Upper

106 100

91 219.1 159.7 296.5



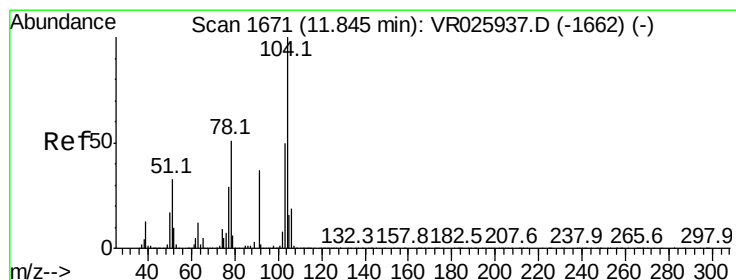
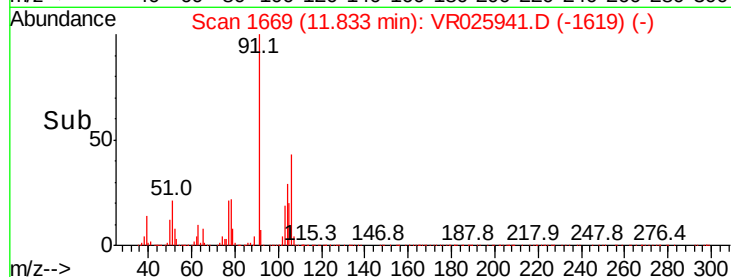
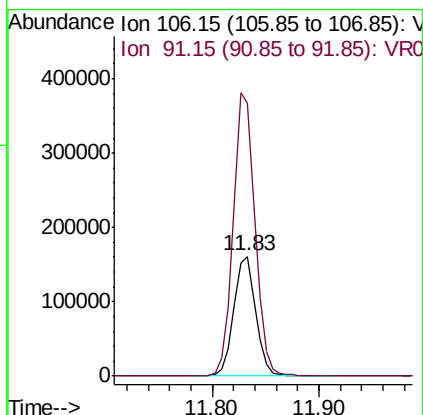
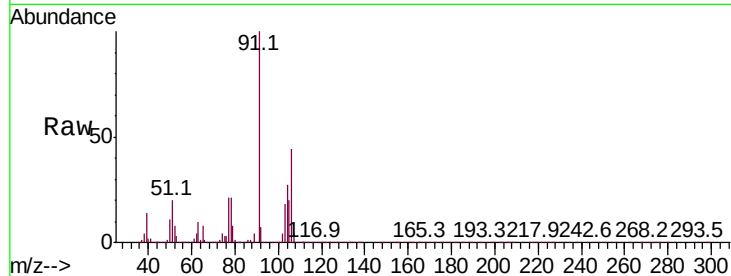




#54  
o-Xylene  
Concen: 4.351 ug/L  
RT: 11.83 min Scan# 1669  
Delta R.T. 0.01 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

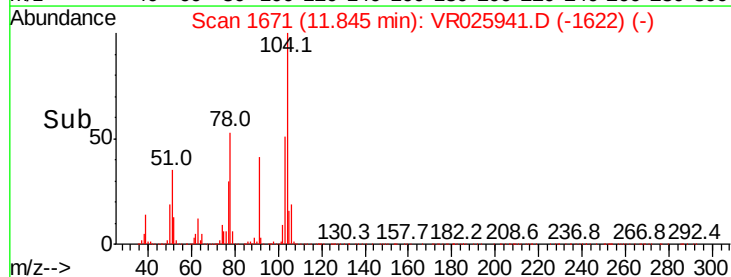
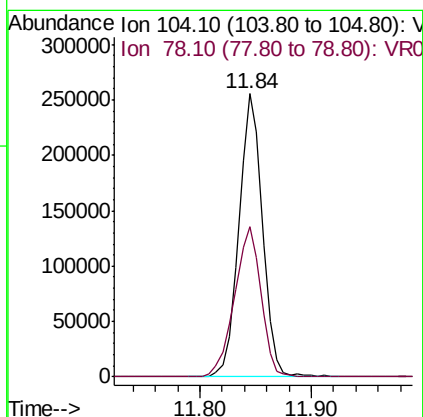
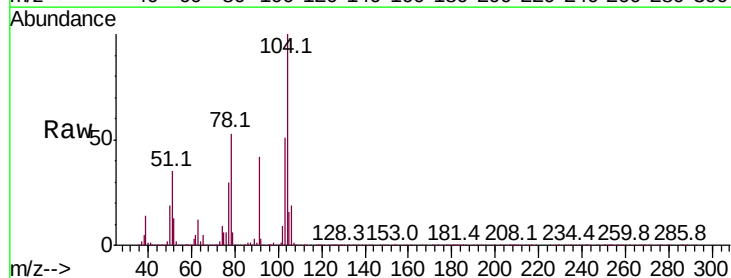
Instrument :  
MSVOA\_R  
ClientSampleId :  
VSTD00597

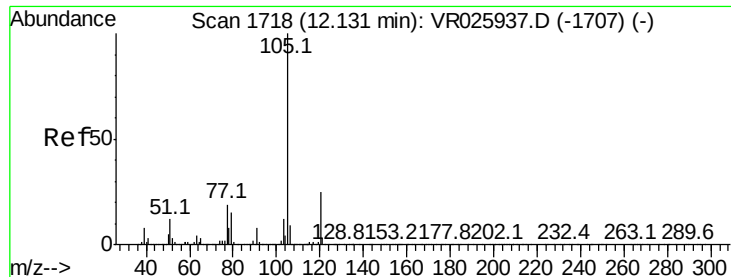
Tot Ion:106 Resp: 233639  
Ion Ratio Lower Upper  
106 100  
91 228.3 164.5 305.5



#55  
Styrene  
Concen: 4.461 ug/L  
RT: 11.84 min Scan# 1671  
Delta R.T. 0.00 min  
Lab File: VR025941.D  
Acq: 3 Oct 2018 16:00

Tgt Ion:104 Resp: 372876  
Ion Ratio Lower Upper  
104 100  
78 53.1 39.3 72.9





#56

Isopropylbenzene

Concen: 4.617 ug/L

RT: 12.13 min Scan# 1718

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

VSTD00597

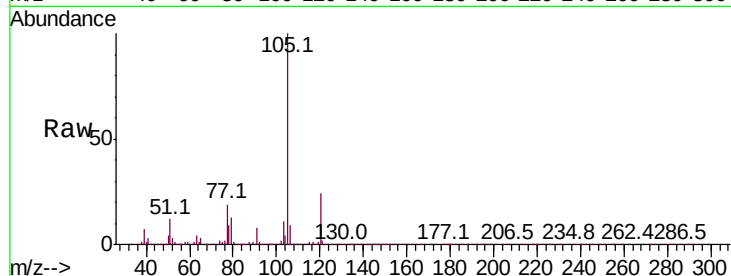
Tot Ion:105 Resp: 683904

Ion Ratio Lower Upper

105 100

120 25.1 19.8 29.8

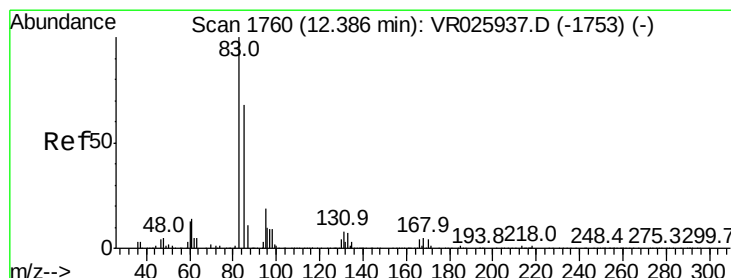
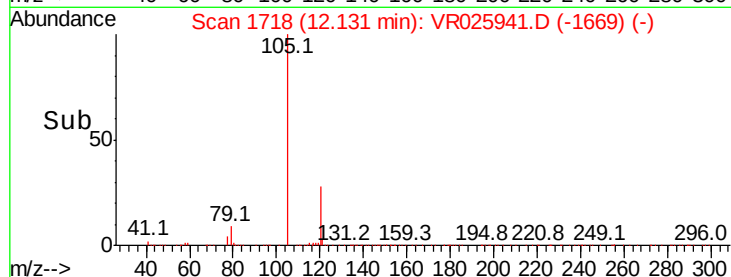
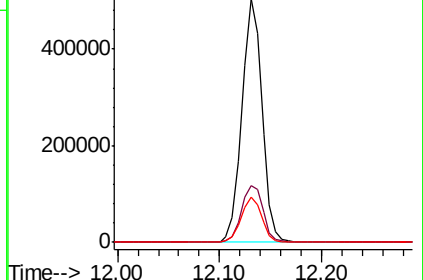
77 19.0 15.5 23.3



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): VR0



#58

1,1,2,2-Tetrachloroethane

Concen: 4.372 ug/L

RT: 12.39 min Scan# 1760

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

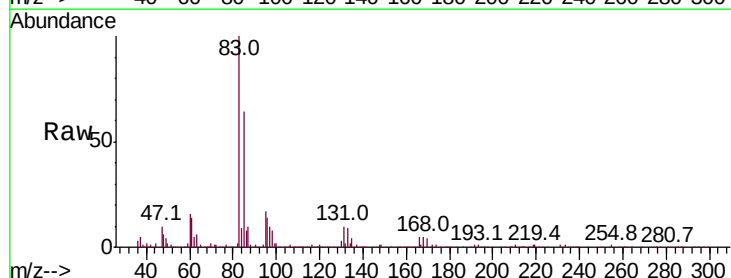
Tgt Ion: 83 Resp: 55847

Ion Ratio Lower Upper

83 100

85 63.8 45.8 85.0

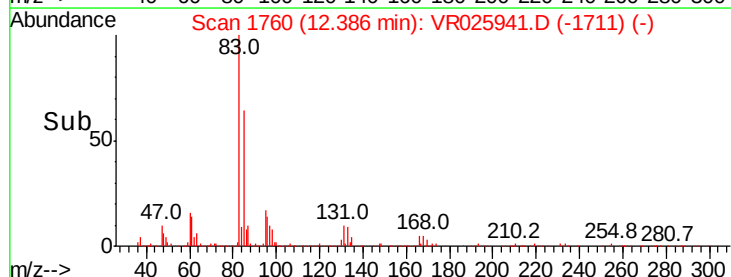
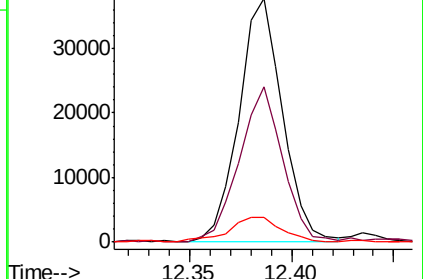
131 10.2 6.6 9.8#

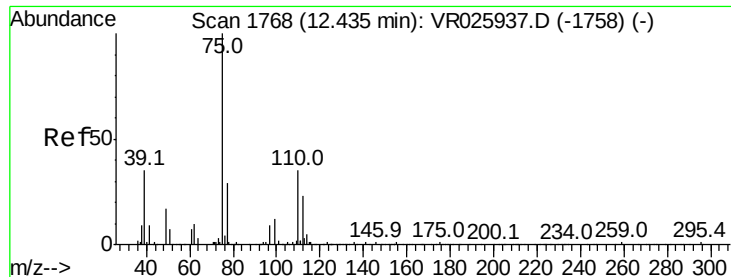


Abundance Ion 82.95 (82.65 to 83.65): VR0

Ion 85.00 (84.70 to 85.70): VR0

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 4.436 ug/L

RT: 12.43 min Scan# 1768

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

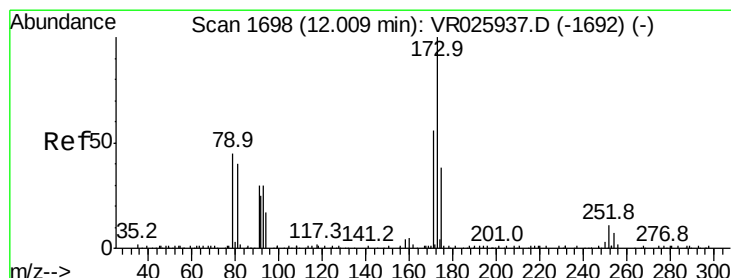
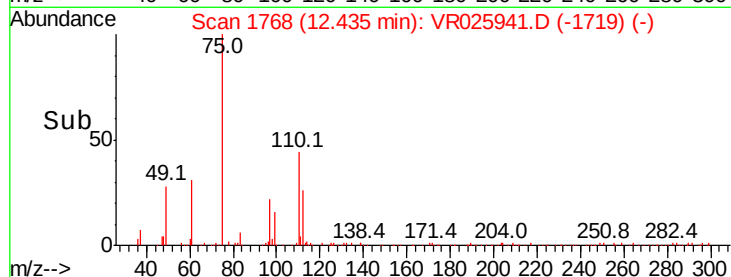
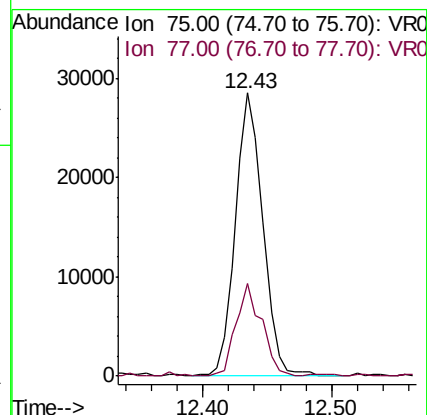
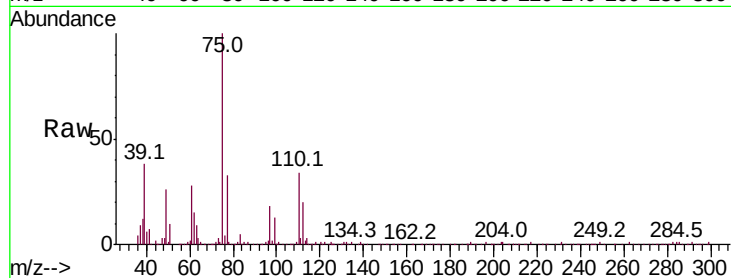
VSTD00597

Tot Ion: 75 Resp: 42173

Ion Ratio Lower Upper

75 100

77 30.9 25.8 38.6



#61

Bromoform

Concen: 4.348 ug/L

RT: 12.01 min Scan# 1698

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

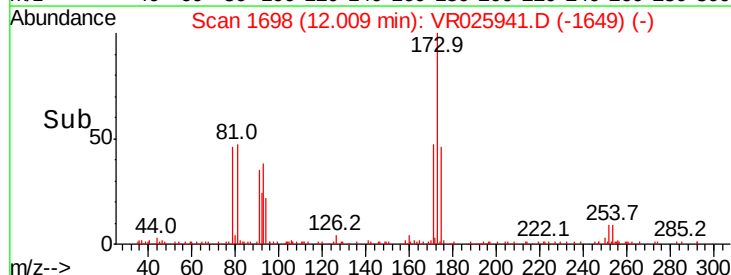
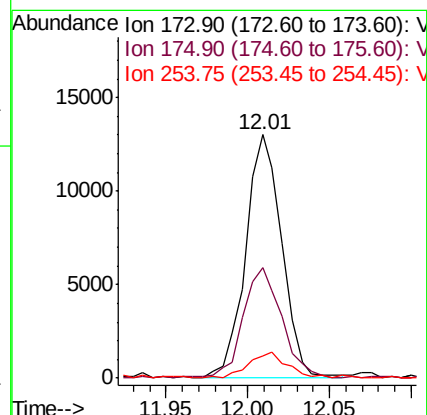
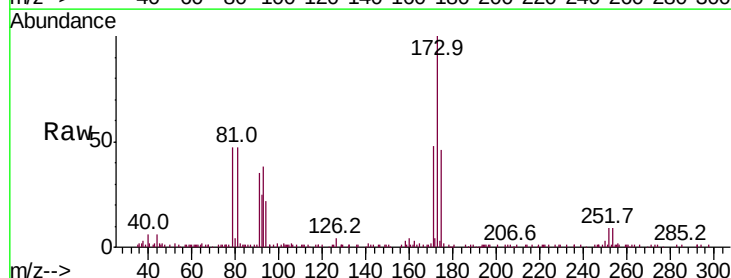
Tgt Ion: 173 Resp: 19837

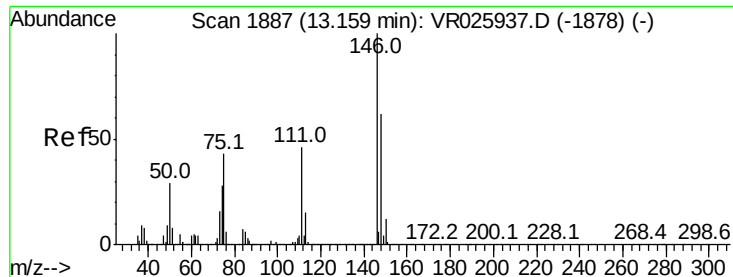
Ion Ratio Lower Upper

173 100

175 49.2 36.9 55.3

254 11.5 6.6 10.0#





#62

1,3-Dichlorobenzene

Concen: 4.361 ug/L

RT: 13.16 min Scan# 1888

Delta R.T. 0.01 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

VSTD00597

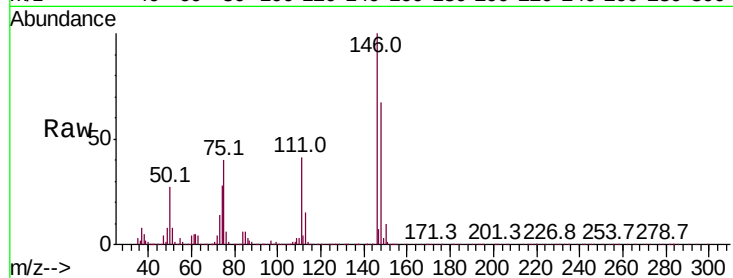
Tot Ion:146 Resp: 192317

Ion Ratio Lower Upper

146 100

111 41.2 36.6 68.0

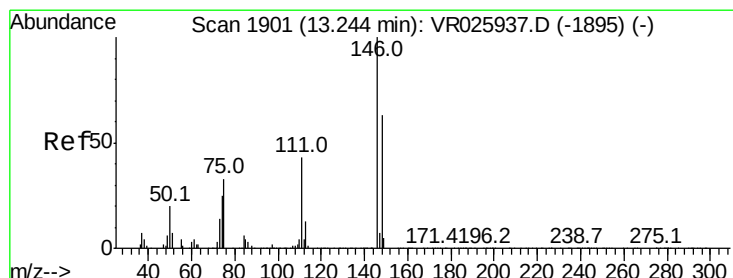
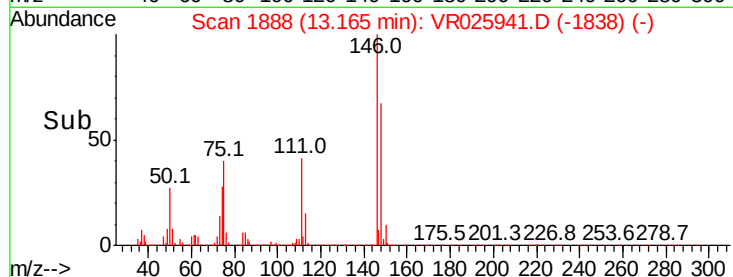
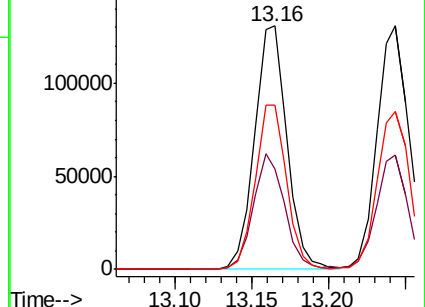
148 67.5 41.9 77.7



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



#63

1,4-Dichlorobenzene

Concen: 4.194 ug/L

RT: 13.24 min Scan# 1901

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

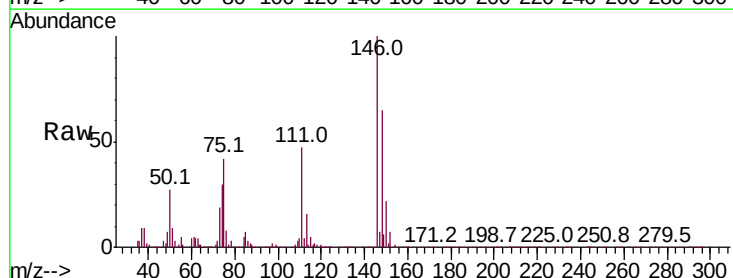
Tgt Ion:146 Resp: 189196

Ion Ratio Lower Upper

146 100

111 46.8 32.9 61.1

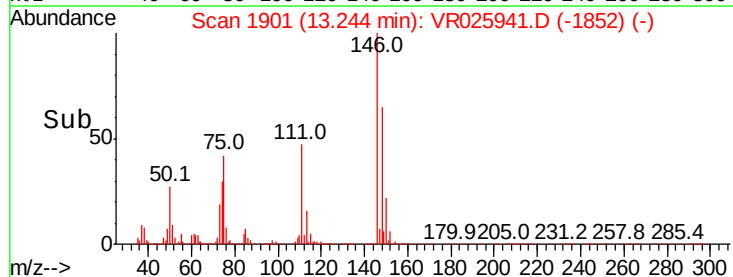
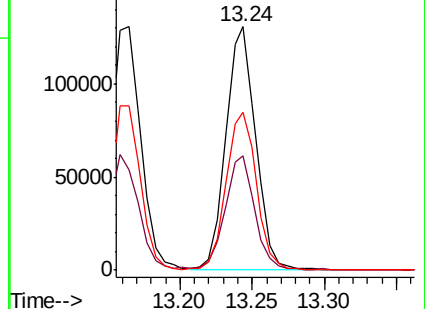
148 64.8 45.5 84.5

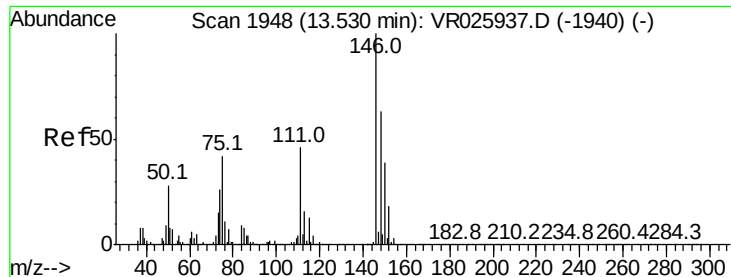


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V

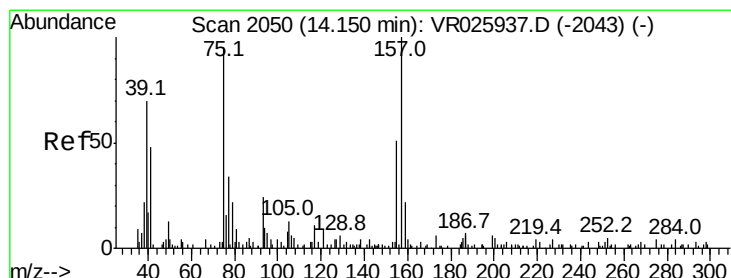
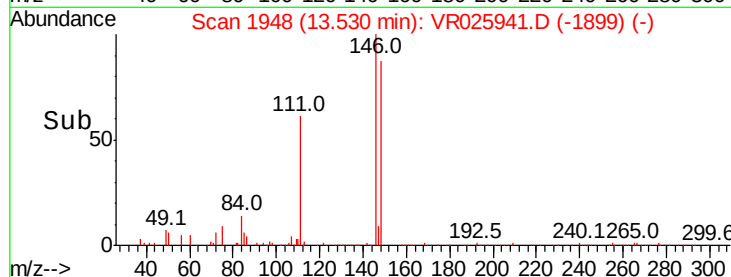
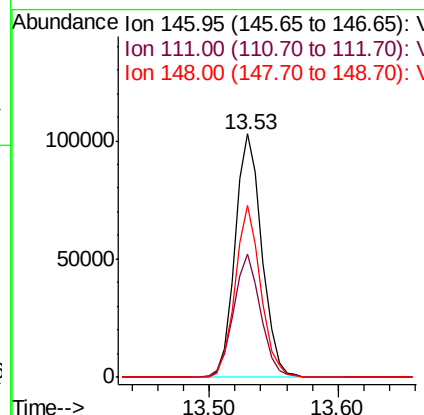
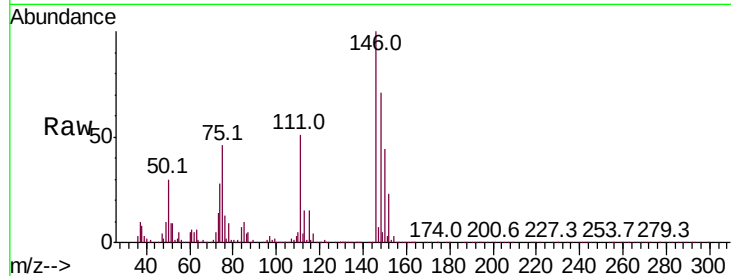




#65  
 1,2-Dichlorobenzene  
 Concen: 4.195 ug/L  
 RT: 13.53 min Scan# 1948  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

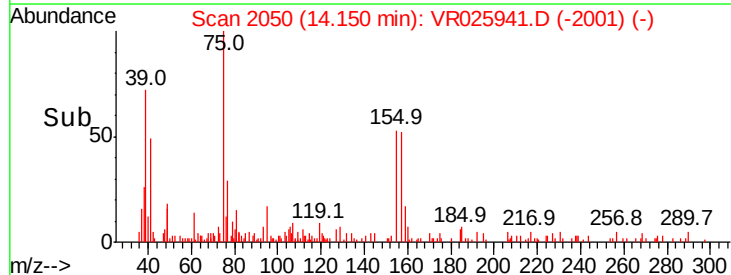
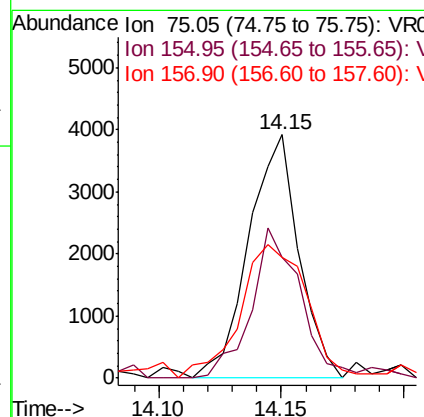
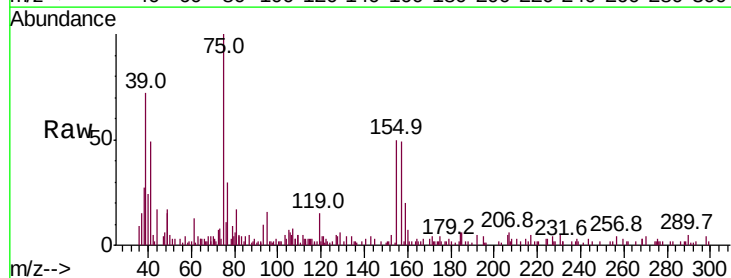
Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

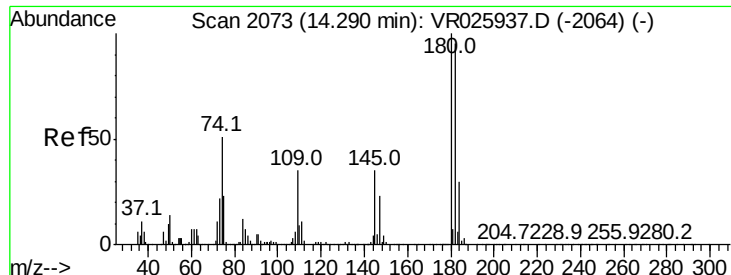
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 50.9  | 39.4  | 59.0  |
| 148     | 70.6  | 53.5  | 80.3  |



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 3.756 ug/L  
 RT: 14.15 min Scan# 2050  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 155     | 49.8  | 37.8  | 56.6  |
| 157     | 49.4  | 49.7  | 74.5# |

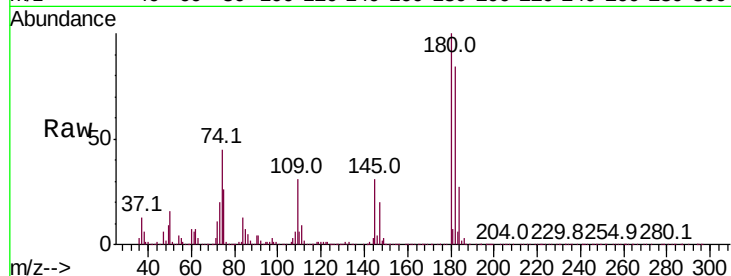




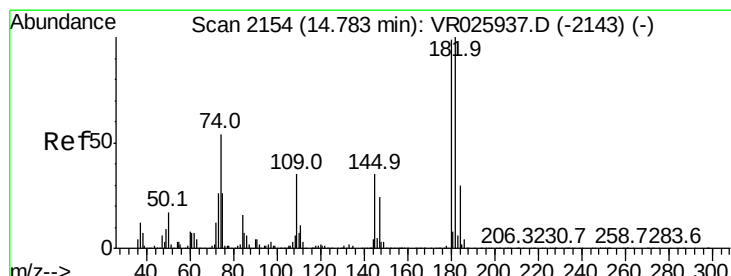
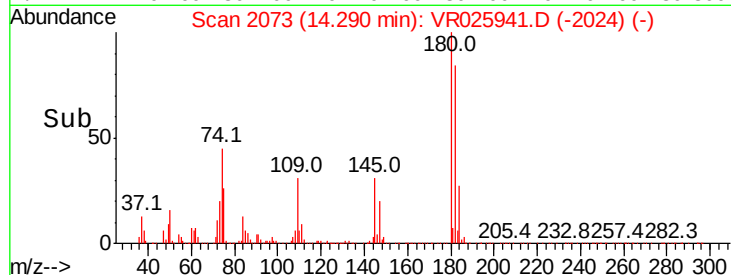
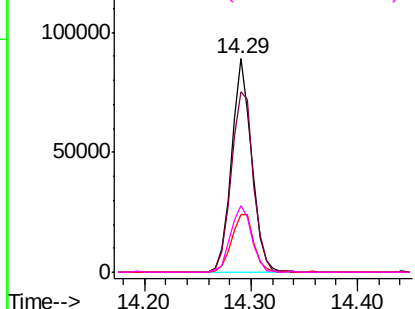
#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.500 ug/L  
 RT: 14.29 min Scan# 2073  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

Instrument :  
 MSVOA\_R  
 ClientSampleId :  
 VSTD00597

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 180   | Resp: | 118225 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 93.0  | 77.2  | 115.8  |
| 184      | 30.0  | 24.5  | 36.7   |
| 145      | 33.2  | 31.1  | 46.7   |

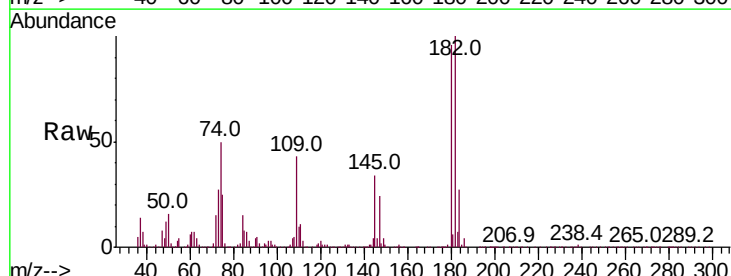


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

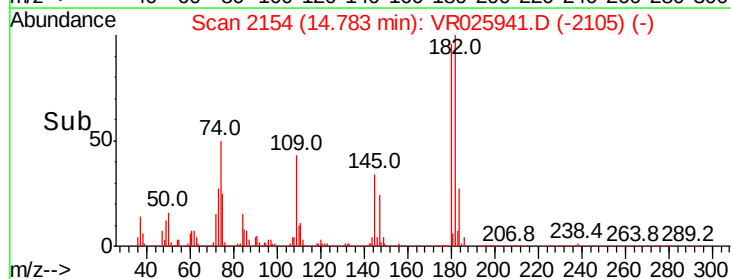
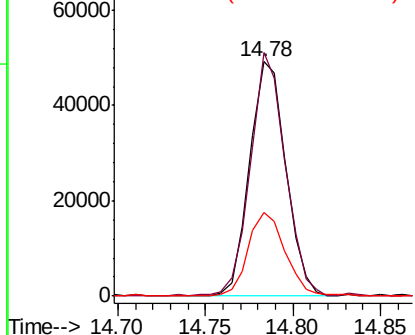


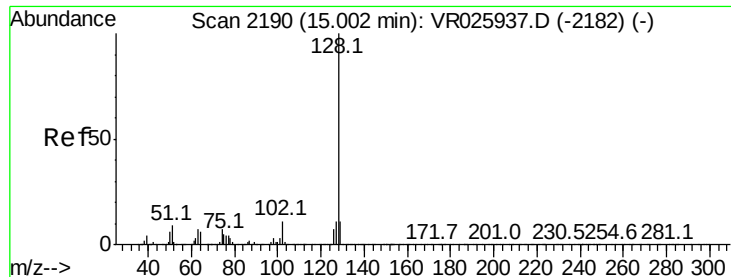
#68  
 1,2,4-trichlorobenzene  
 Concen: 4.236 ug/L  
 RT: 14.78 min Scan# 2154  
 Delta R.T. 0.00 min  
 Lab File: VR025941.D  
 Acq: 3 Oct 2018 16:00

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 70941 |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 99.5  | 75.2  | 112.8 |
| 145      | 36.6  | 30.5  | 45.7  |



Abundance Ion 179.90 (179.60 to 180.60): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 4.167 ug/L

RT: 15.00 min Scan# 2190

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

Instrument :

MSVOA\_R

ClientSampleId :

VSTD00597

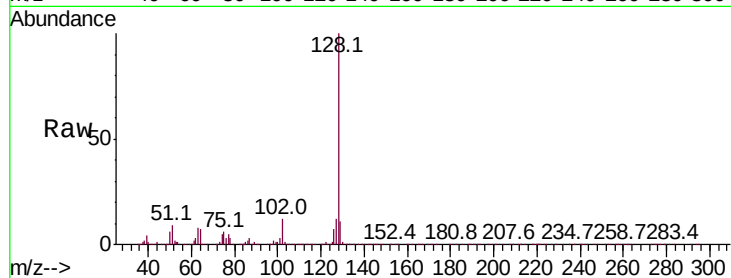
Tot Ion:128 Resp: 89069

Ion Ratio Lower Upper

128 100

127 13.7 10.5 15.7

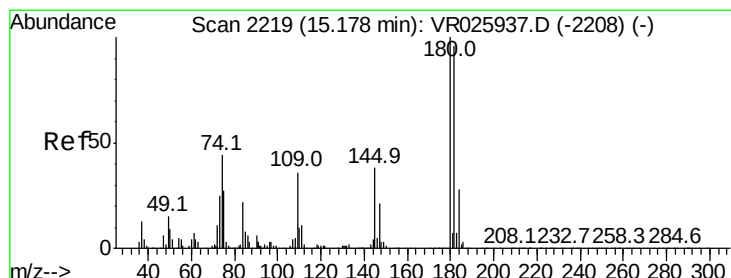
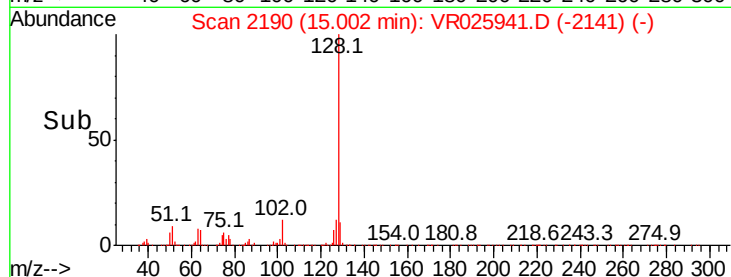
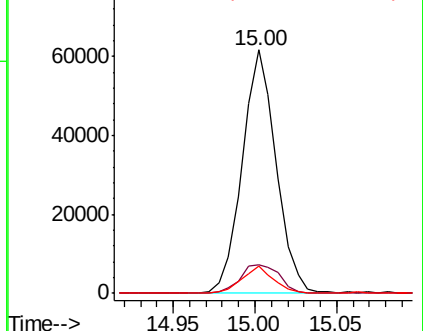
129 10.7 9.4 14.2



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



#70

1,2,3-Trichlorobenzene

Concen: 4.429 ug/L

RT: 15.18 min Scan# 2219

Delta R.T. 0.00 min

Lab File: VR025941.D

Acq: 3 Oct 2018 16:00

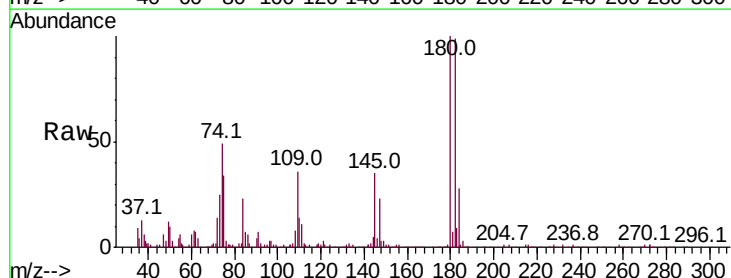
Tgt Ion:180 Resp: 51464

Ion Ratio Lower Upper

180 100

182 94.6 74.7 112.1

145 35.6 31.3 46.9



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

