

Data File : VV010824.D  
Acq On : 10 May 2019 20:10  
Operator : SY/MD  
Sample : VSTDCCC025  
Misc : 5.00G/10ML/MSVOA\_V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

Quant Time: May 10 23:04:59 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM050719S.M  
Quant Title : VOC Analysis  
QLast Update : Fri May 10 22:59:03 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 89777    | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.90  | 117  | 92952    | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 46332    | 25.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |        |
|--------------------------------|--------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 28881    | 20.71    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 82.84% |
| 7) Chloroethane-d5             | 1.57   | 69    | 25795    | 22.48    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 89.92% |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 65362    | 21.61    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 86.44% |
| 20) 2-Butanone-d5              | 4.03   | 46    | 162      | 0.39     | ug/L | 0.10   |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 0.78%# |
| 24) Chloroform-d               | 4.40   | 84    | 58150    | 23.76    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 95.04% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 37409    | 24.47    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 97.88% |
| 29) Benzene-d6                 | 5.10   | 84    | 108297   | 22.14    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 88.56% |
| 33) 1,2-Dichloropropane-d6     | 6.12   | 67    | 35512    | 22.78    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 91.12% |
| 37) Toluene-d8                 | 7.36   | 98    | 97956    | 20.91    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 83.64% |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 15406    | 21.68    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 86.72% |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 14271    | 43.74    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 87.48% |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 34593    | 23.61    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 94.44% |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 39188    | 21.84    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 87.36% |

#### Target Compounds

|                                |      |     |       |        | Qvalue   |
|--------------------------------|------|-----|-------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 26311 | 21.161 | ug/L 96  |
| 3) Chloromethane               | 1.25 | 50  | 33455 | 22.118 | ug/L 99  |
| 5) Vinyl chloride              | 1.32 | 62  | 40101 | 22.833 | ug/L 99  |
| 6) Bromomethane                | 1.51 | 94  | 21569 | 25.324 | ug/L 99  |
| 8) Chloroethane                | 1.59 | 64  | 26731 | 24.439 | ug/L 98  |
| 9) Trichlorofluoromethane      | 1.76 | 101 | 63171 | 23.894 | ug/L 99  |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.13 | 101 | 37152 | 24.614 | ug/L 98  |
| 12) 1,1-Dichloroethene         | 2.13 | 96  | 33436 | 23.657 | ug/L 90  |
| 13) Acetone                    | 2.19 | 43  | 25765 | 39.766 | ug/L 97  |
| 14) Carbon disulfide           | 2.31 | 76  | 78539 | 22.613 | ug/L 98  |
| 15) Methyl Acetate             | 2.46 | 43  | 17368 | 22.439 | ug/L 97  |
| 16) Methylene chloride         | 2.53 | 84  | 33761 | 24.321 | ug/L 97  |
| 17) Methyl tert-butyl Ether    | 2.81 | 73  | 88261 | 24.939 | ug/L 100 |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 30229 | 23.661 | ug/L 98  |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 61051 | 24.753 | ug/L 99  |
| 21) 2-Butanone                 | 4.02 | 43  | 25968 | 42.288 | ug/L 93  |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 34757 | 23.815 | ug/L 97  |

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ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

Quant Time: May 10 23:04:59 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM050719S.M  
Quant Title : VOC Analysis  
QLast Update : Fri May 10 22:59:03 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane         | 4.30  | 128  | 15756    | 24.017 | ug/L  | 96       |
| 25) Chloroform                 | 4.42  | 83   | 66001    | 24.291 | ug/L  | 97       |
| 27) 1,2-Dichloroethane         | 5.18  | 62   | 49479    | 24.914 | ug/L  | 98       |
| 30) Cyclohexane                | 4.72  | 56   | 52227    | 22.403 | ug/L  | 100      |
| 31) 1,1,1-Trichloroethane      | 4.66  | 97   | 54228    | 23.398 | ug/L  | 99       |
| 32) Carbon tetrachloride       | 4.87  | 117  | 47329    | 23.444 | ug/L  | 99       |
| 34) Benzene                    | 5.14  | 78   | 131474   | 24.094 | ug/L  | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 35608    | 23.297 | ug/L  | 98       |
| 36) Methylcyclohexane          | 6.17  | 83   | 55504    | 22.657 | ug/L  | 100      |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 35884    | 24.721 | ug/L  | 98       |
| 41) Bromodichloromethane       | 6.55  | 83   | 47334    | 23.732 | ug/L  | 97       |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 54534    | 23.752 | ug/L  | 96       |
| 43) 4-Methyl-2-pentanone       | 7.27  | 43   | 54320    | 44.456 | ug/L  | 98       |
| 44) Toluene                    | 7.43  | 91   | 149168   | 24.070 | ug/L  | 99       |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 46433    | 24.017 | ug/L  | 94       |
| 46) 1,1,2-Trichloroethane      | 7.88  | 97   | 28001    | 23.481 | ug/L  | 98       |
| 47) Tetrachloroethene          | 8.02  | 164  | 24924    | 22.516 | ug/L  | 93       |
| 49) 2-Hexanone                 | 8.18  | 43   | 39212    | 42.210 | ug/L  | 99       |
| 50) Dibromochloromethane       | 8.29  | 129  | 32765    | 23.893 | ug/L  | 99       |
| 51) 1,2-Dibromoethane          | 8.40  | 107  | 26957    | 23.405 | ug/L  | 98       |
| 52) Chlorobenzene              | 8.93  | 112  | 95580    | 23.607 | ug/L  | 98       |
| 53) Ethylbenzene               | 9.05  | 91   | 169213   | 23.548 | ug/L  | 98       |
| 54) m,p-Xylene                 | 9.18  | 106  | 60221    | 22.431 | ug/L  | 99       |
| 55) o-xylene                   | 9.59  | 106  | 62762    | 23.569 | ug/L  | 97       |
| 56) Styrene                    | 9.60  | 104  | 108981   | 24.197 | ug/L  | 100      |
| 57) Isopropylbenzene           | 9.97  | 105  | 168261   | 23.683 | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.29 | 83   | 36291    | 23.229 | ug/L  | 96       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 28316    | 23.223 | ug/L  | 98       |
| 62) Bromoform                  | 9.77  | 173  | 16766    | 21.251 | ug/L  | 98       |
| 63) 1,3-Dichlorobenzene        | 11.22 | 146  | 72124    | 22.363 | ug/L  | 99       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 74596    | 22.643 | ug/L  | 96       |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146  | 72521    | 23.152 | ug/L  | 96       |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 6085     | 20.935 | ug/L  | 90       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 51472    | 22.156 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 40166    | 22.345 | ug/L  | 98       |
| 69) Naphthalene                | 13.55 | 128  | 80854    | 21.014 | ug/L  | 98       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 39320    | 23.319 | ug/L  | 99       |

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

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```
ALS Vial      : 1      Sample Multiplier: 1
```

**Instrument :**  
MSVOA\_V  
**ClientSampleId :**  
VSTD02594

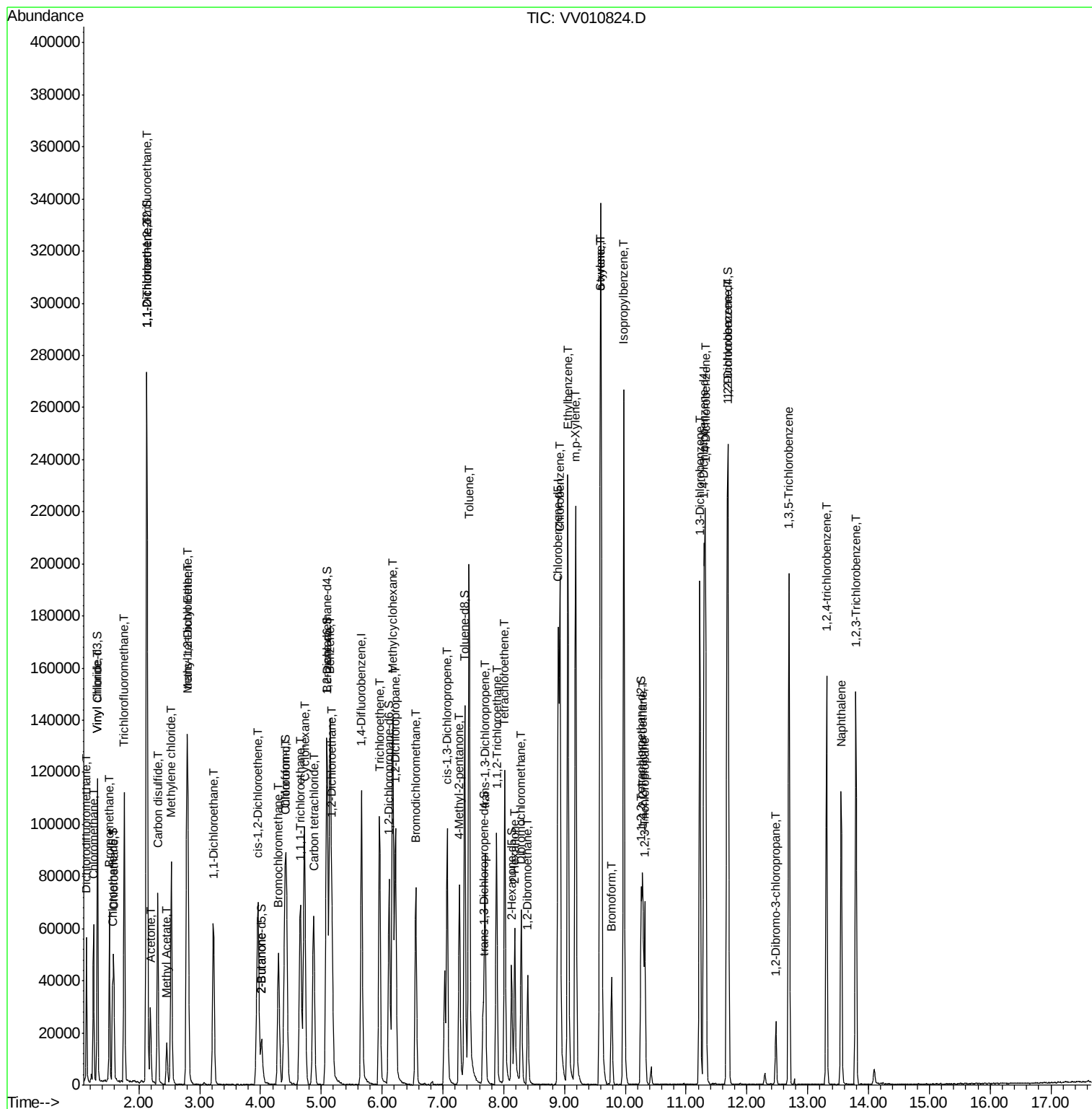
Quant Time: May 10 23:04:59 2019

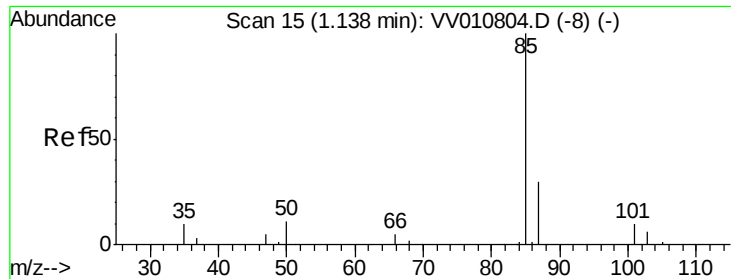
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A\_V\METHOD\S0M2VLM050719S.M

Quant Title : VOC Analysis

QLast Update : Fri May 10 22:59:03 2019

Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 21.161 ug/L

RT: 1.14 min Scan# 15

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

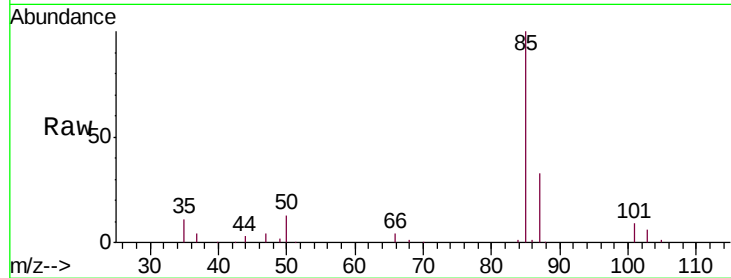
VSTD02594

Tgt Ion: 85 Resp: 26311

Ion Ratio Lower Upper

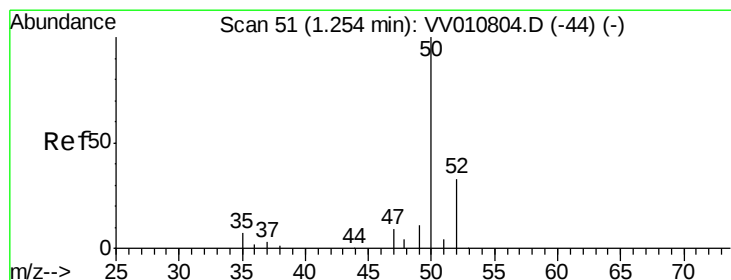
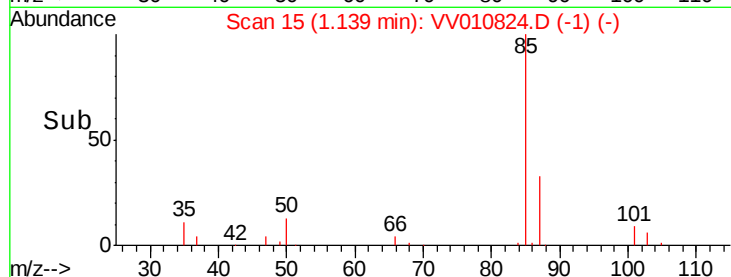
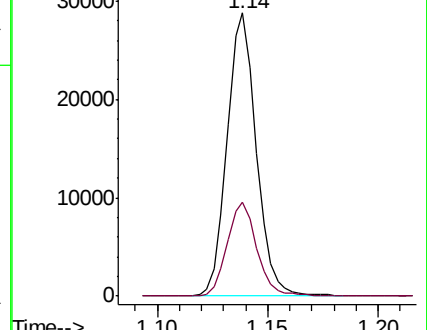
85 100

87 33.8 21.9 40.7



Abundance Ion 85.00 (84.70 to 85.70): VV010804.D (-8) (-)

Ion 87.00 (86.70 to 87.70): VV010804.D (-8) (-)



#3

Chloromethane

Concen: 22.118 ug/L

RT: 1.25 min Scan# 50

Delta R.T. -0.00 min

Lab File: VV010824.D

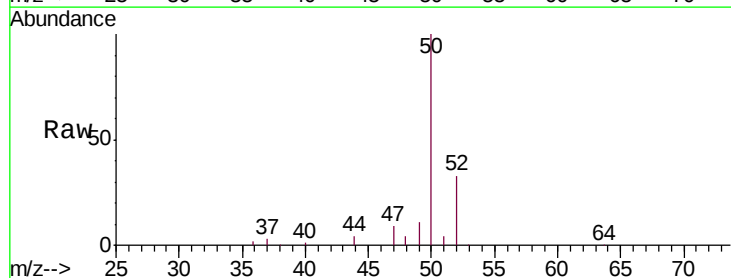
Acq: 10 May 2019 20:10

Tgt Ion: 50 Resp: 33455

Ion Ratio Lower Upper

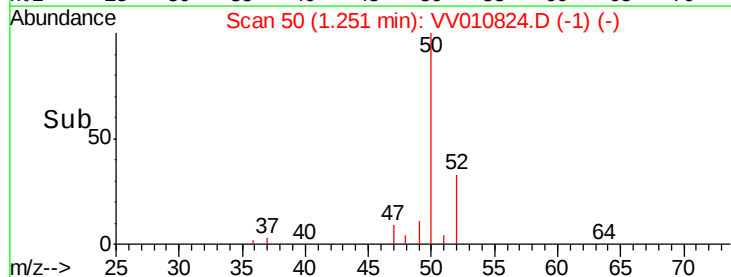
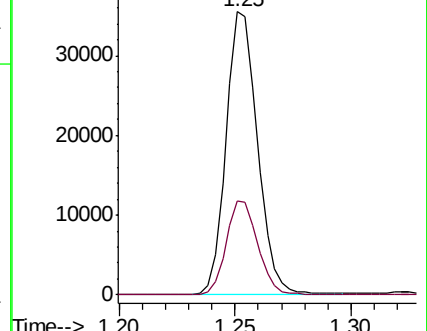
50 100

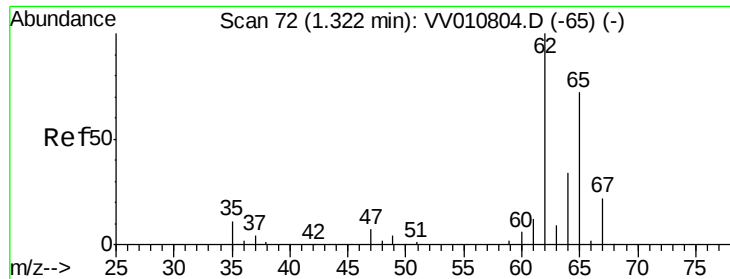
52 33.3 23.7 43.9



Abundance Ion 50.00 (49.70 to 50.70): VV010804.D (-44) (-)

Ion 52.00 (51.70 to 52.70): VV010804.D (-44) (-)





#5

Vinyl chloride

Concen: 22.833 ug/L

RT: 1.32 min Scan# 72

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

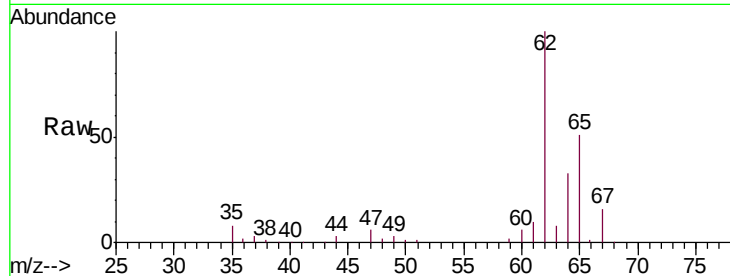
VSTD02594

Tgt Ion: 62 Resp: 40101

Ion Ratio Lower Upper

62 100

64 33.1 22.9 42.5



Abundance Ion 62.00 (61.70 to 62.70): VV010824.D (-65) (-)

Ion 64.00 (63.70 to 64.70): VV010824.D (-65) (-)

1.32

40000

30000

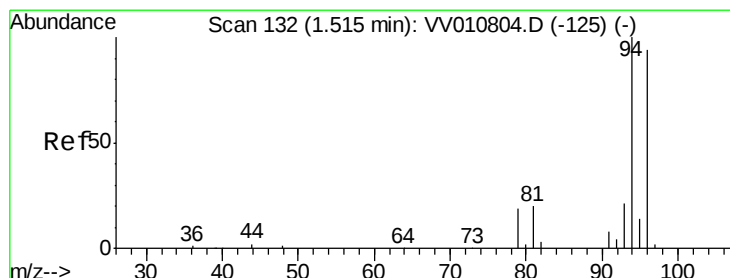
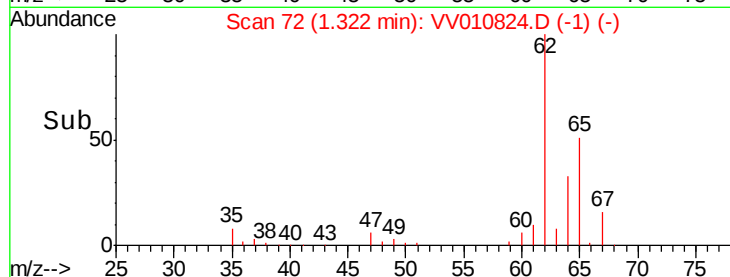
20000

10000

0

1.30 1.35

Time-->



#6

Bromomethane

Concen: 25.324 ug/L

RT: 1.51 min Scan# 132

Delta R.T. 0.00 min

Lab File: VV010824.D

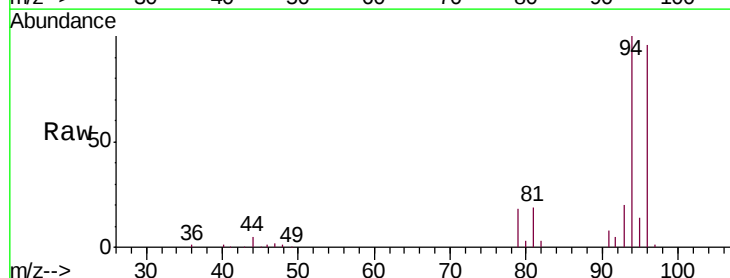
Acq: 10 May 2019 20:10

Tgt Ion: 94 Resp: 21569

Ion Ratio Lower Upper

94 100

96 95.2 9.4 179.0



Abundance Ion 94.00 (93.70 to 94.70): VV010824.D (-125) (-)

Ion 96.00 (95.70 to 96.70): VV010824.D (-125) (-)

1.51

25000

20000

15000

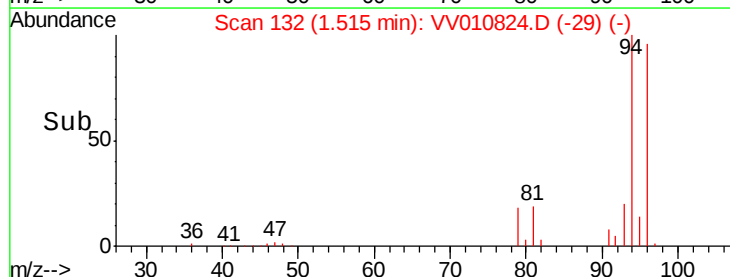
10000

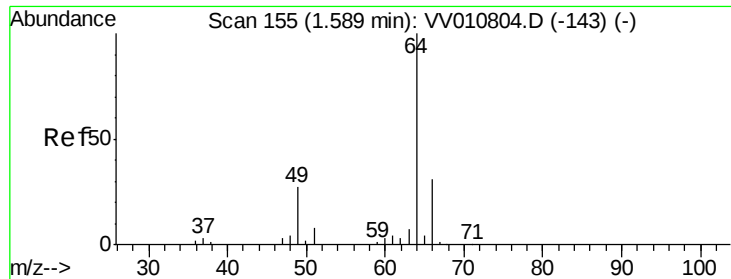
5000

0

1.50 1.55

Time-->





#8

Chloroethane

Concen: 24.439 ug/L

RT: 1.59 min Scan# 154

Delta R.T. -0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

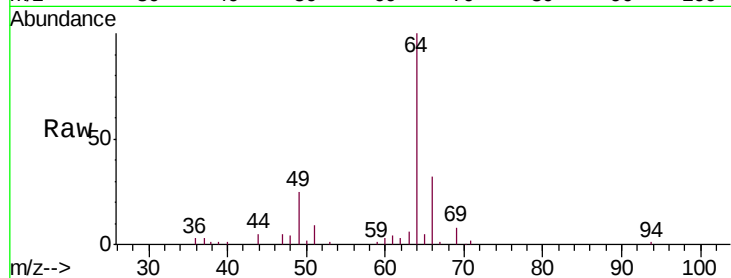
VSTD02594

Tgt Ion: 64 Resp: 26731

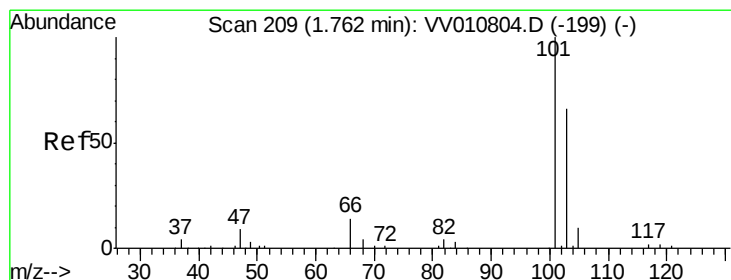
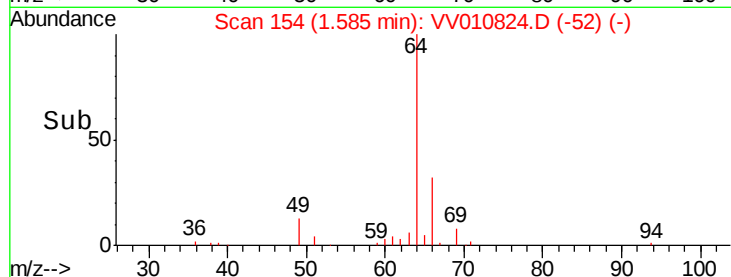
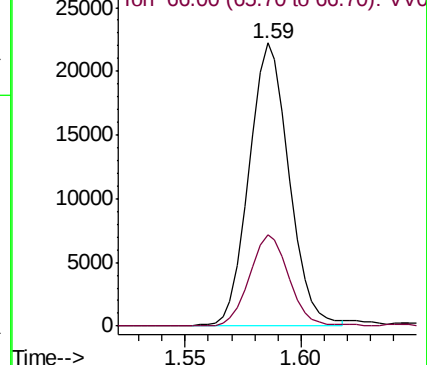
Ion Ratio Lower Upper

64 100

66 32.1 21.8 40.4



Abundance Ion 64.00 (63.70 to 64.70): VV010824.D (-143) (-)



#9

Trichlorofluoromethane

Concen: 23.894 ug/L

RT: 1.76 min Scan# 208

Delta R.T. -0.00 min

Lab File: VV010824.D

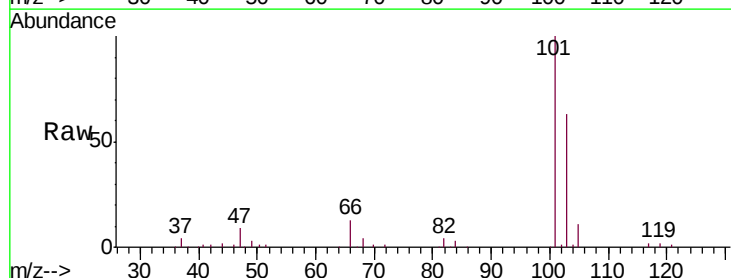
Acq: 10 May 2019 20:10

Tgt Ion: 101 Resp: 63171

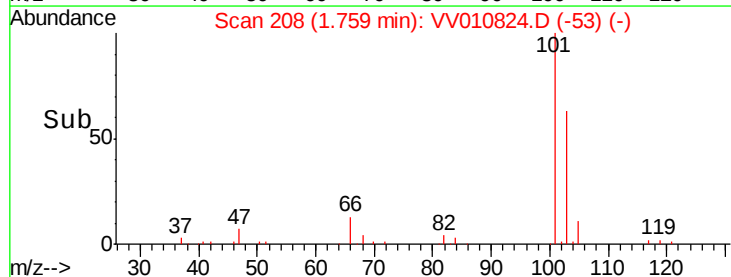
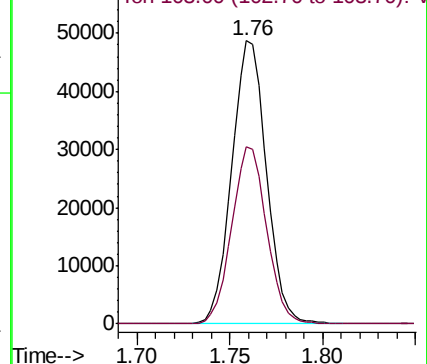
Ion Ratio Lower Upper

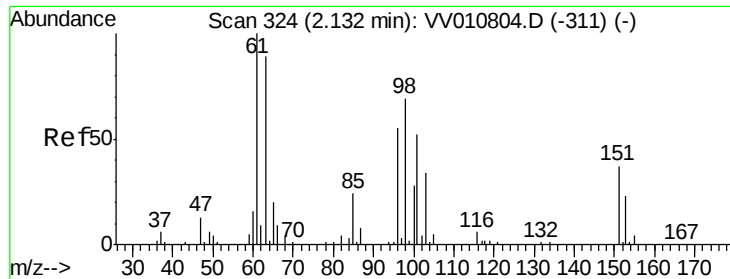
101 100

103 62.8 44.7 82.9



Abundance Ion 101.00 (100.70 to 101.70): VV010824.D (-199) (-)





#11

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

Concen: 24.614 ug/L

RT: 2.13 min Scan# 324

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02594

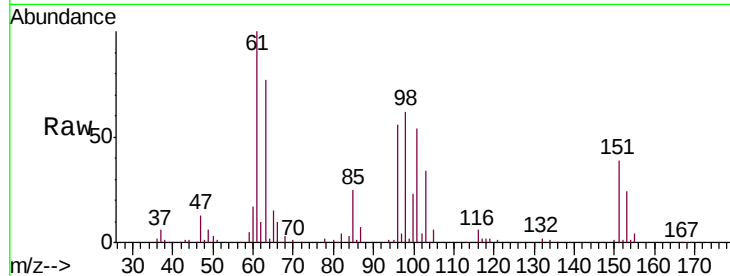
Tgt Ion:101 Resp: 37152

Ion Ratio Lower Upper

101 100

85 46.1 36.0 54.0

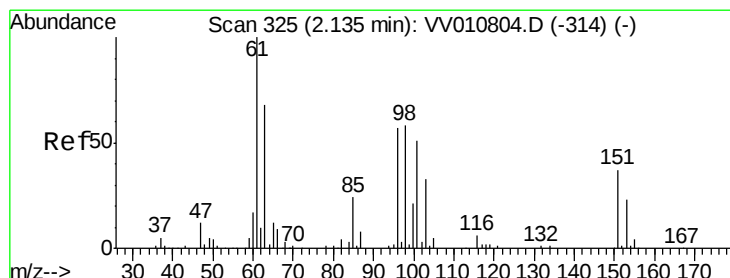
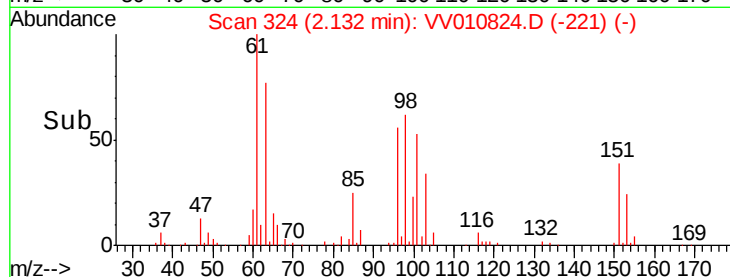
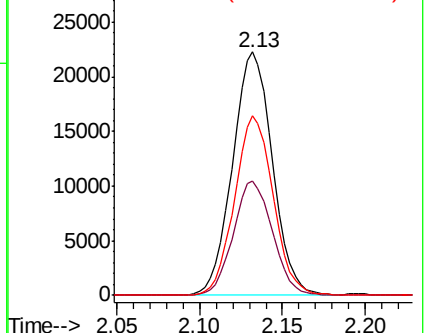
151 71.4 58.5 87.7



Abundance Ion 101.00 (100.70 to 101.70): VV010824.D (-221) (-)

Ion 85.00 (84.70 to 85.70): VV010824.D (-221) (-)

Ion 151.00 (150.70 to 151.70): VV010824.D (-221) (-)



#12

1,1-Dichloroethene

Concen: 23.657 ug/L

RT: 2.13 min Scan# 324

Delta R.T. -0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

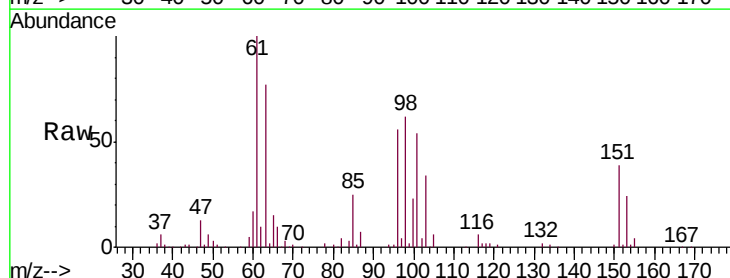
Tgt Ion: 96 Resp: 33436

Ion Ratio Lower Upper

96 100

61 178.0 120.3 223.3

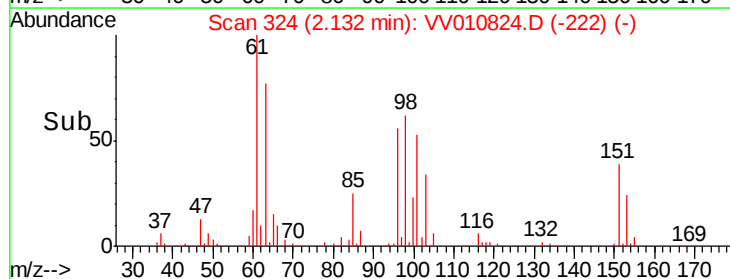
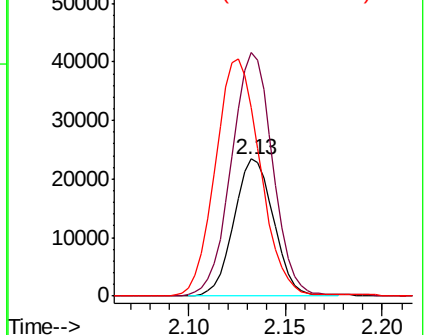
63 137.8 82.9 153.9

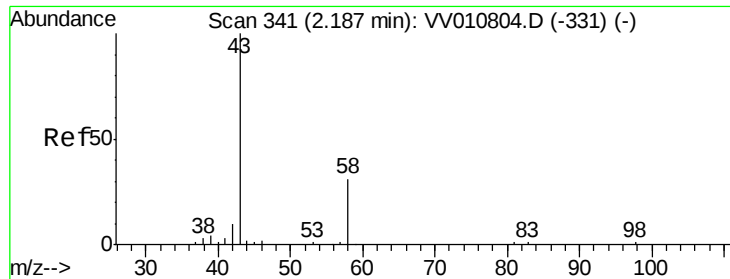


Abundance Ion 96.00 (95.70 to 96.70): VV010824.D (-222) (-)

Ion 61.00 (60.70 to 61.70): VV010824.D (-222) (-)

Ion 63.00 (62.70 to 63.70): VV010824.D (-222) (-)





#13

Acetone

Concen: 39.766 ug/L

RT: 2.19 min Scan# 342

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

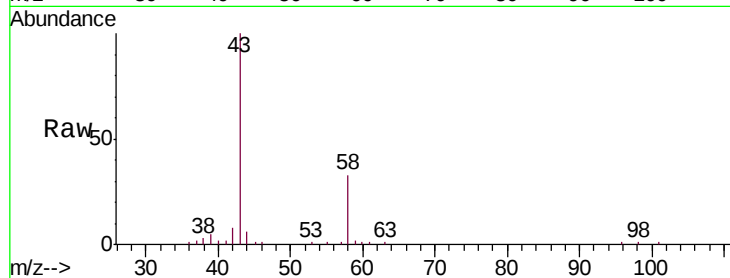
VSTD02594

Tgt Ion: 43 Resp: 25765

Ion Ratio Lower Upper

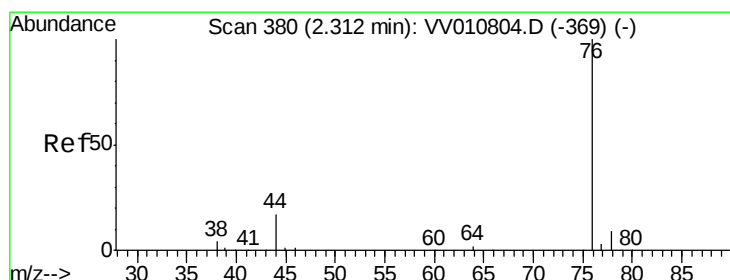
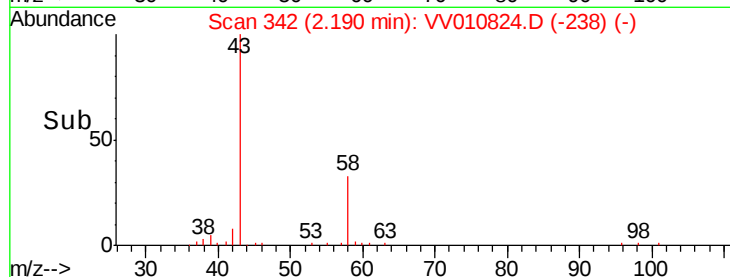
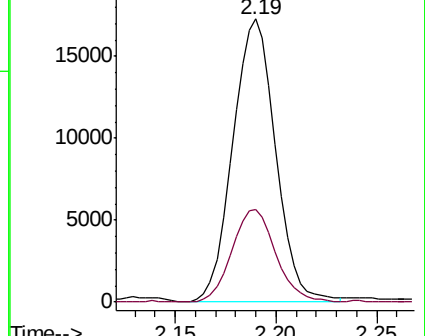
43 100

58 33.3 0.0 63.4



Abundance Ion 43.00 (42.70 to 43.70): VV010824.D (-331) (-)

Ion 58.00 (57.70 to 58.70): VV010824.D (-331) (-)



#14

Carbon disulfide

Concen: 22.613 ug/L

RT: 2.31 min Scan# 379

Delta R.T. -0.00 min

Lab File: VV010824.D

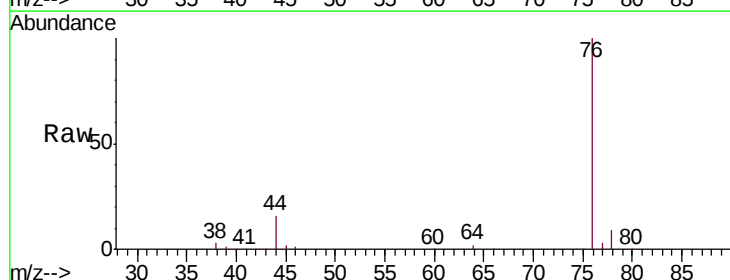
Acq: 10 May 2019 20:10

Tgt Ion: 76 Resp: 78539

Ion Ratio Lower Upper

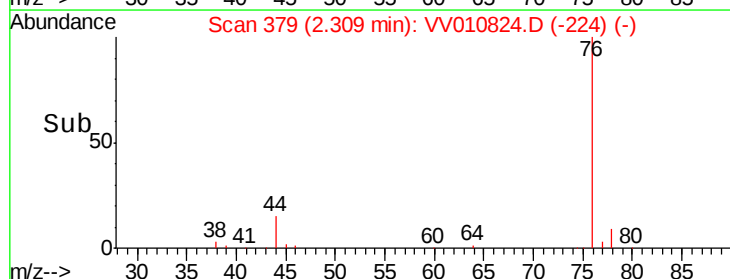
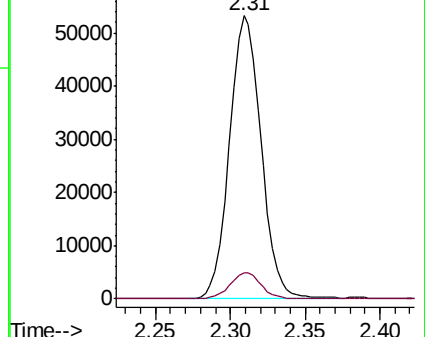
76 100

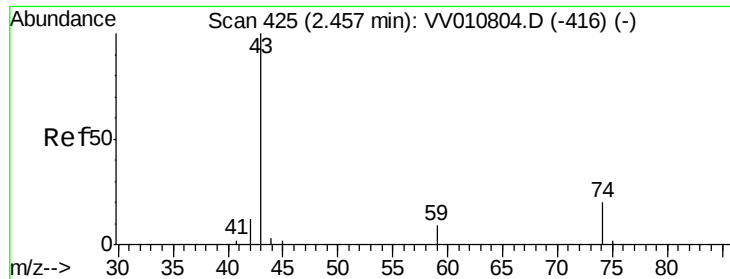
78 9.1 7.8 11.8



Abundance Ion 76.00 (75.70 to 76.70): VV010824.D (-369) (-)

Ion 78.00 (77.70 to 78.70): VV010824.D (-369) (-)

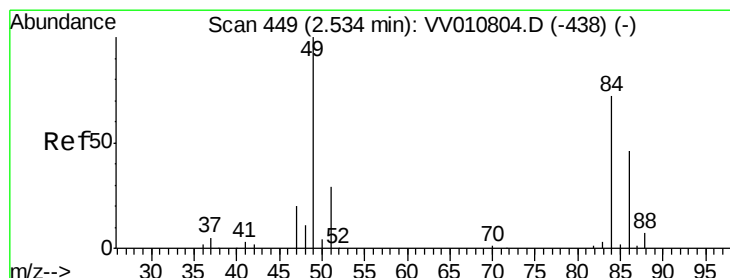
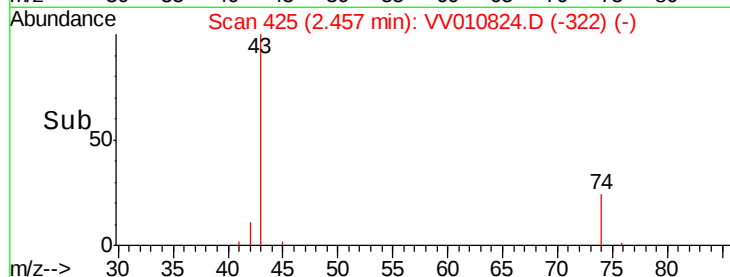
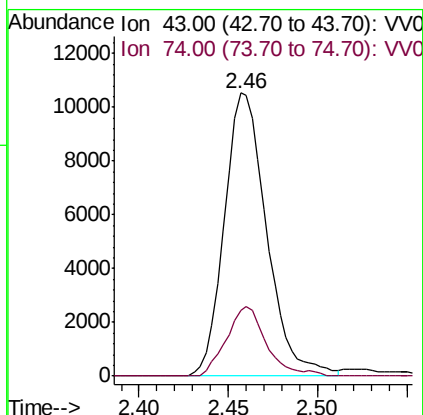
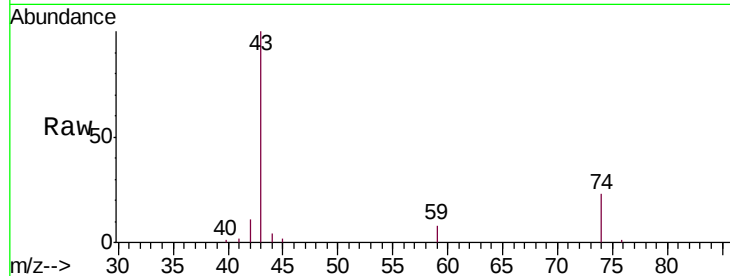




#15  
Methyl Acetate  
Concen: 22.439 ug/L  
RT: 2.46 min Scan# 425  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

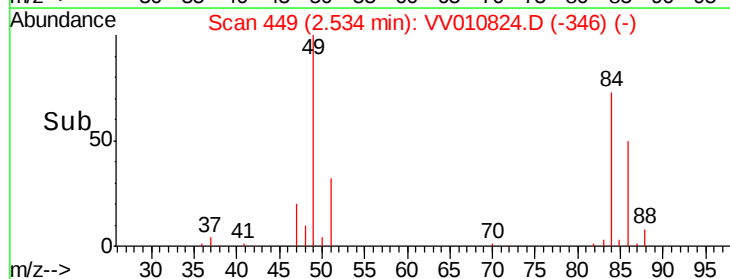
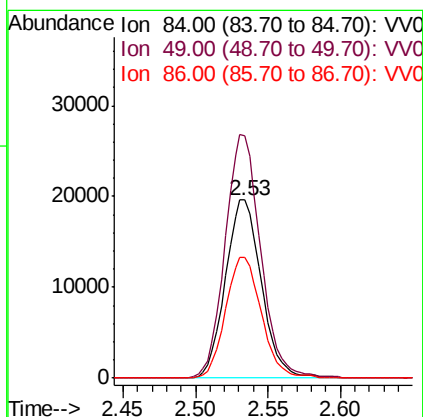
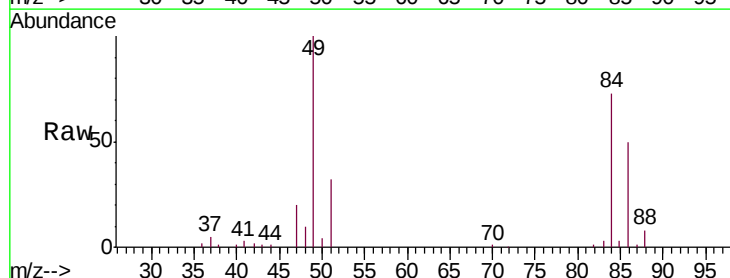
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

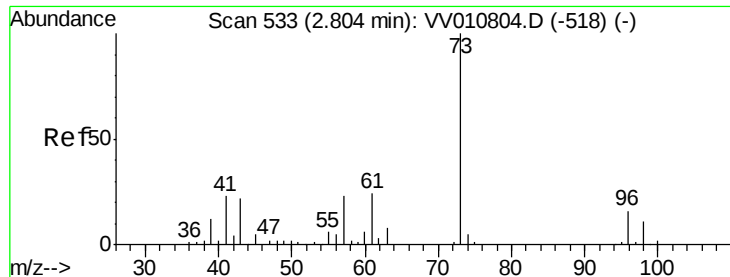
Tgt Ion: 43 Resp: 17368  
Ion Ratio Lower Upper  
43 100  
74 22.6 17.0 25.4



#16  
Methylene chloride  
Concen: 24.321 ug/L  
RT: 2.53 min Scan# 449  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

Tgt Ion: 84 Resp: 33761  
Ion Ratio Lower Upper  
84 100  
49 136.3 92.9 172.5  
86 68.1 46.5 86.5

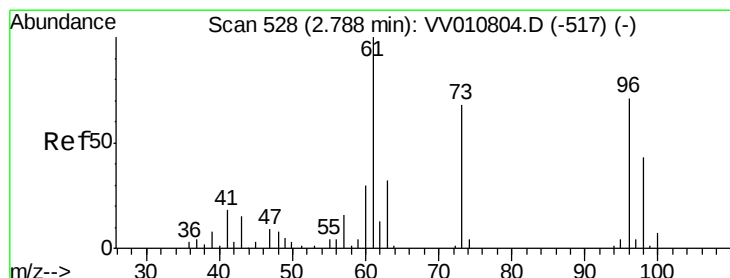
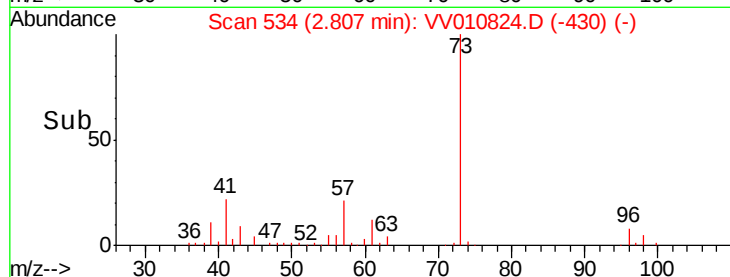
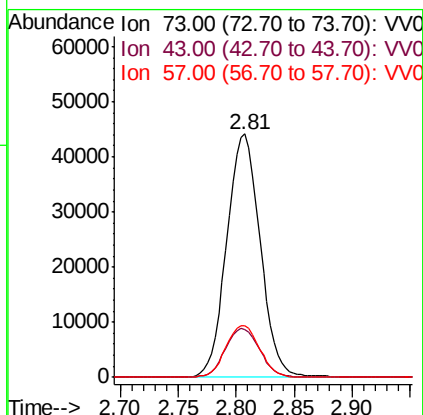
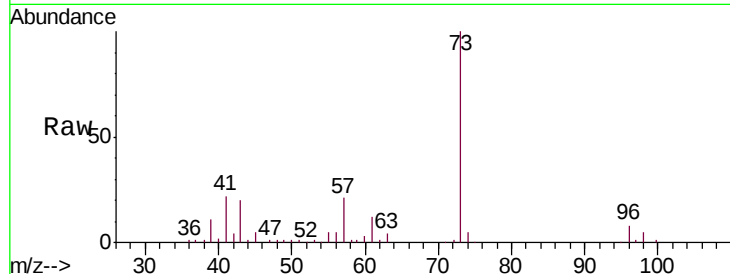




#17  
Methyl tert-butyl Ether  
Concen: 24.939 ug/L  
RT: 2.81 min Scan# 534  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

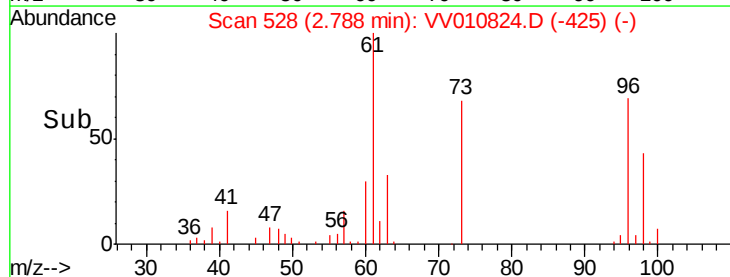
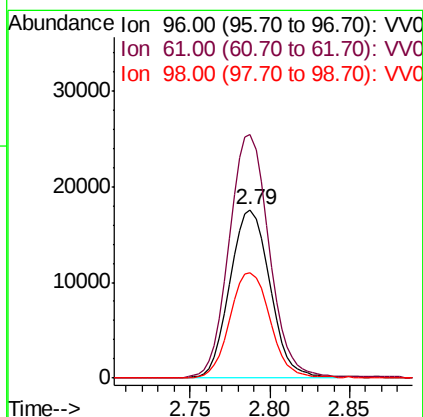
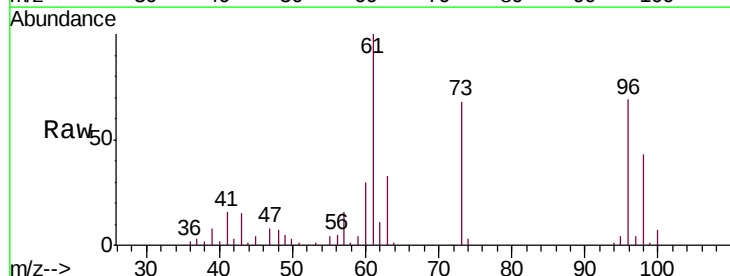
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

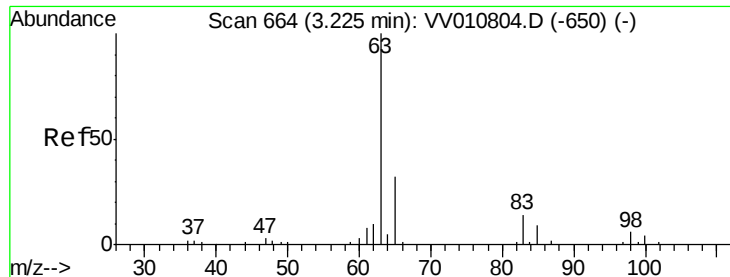
Tgt Ion: 73 Resp: 88261  
Ion Ratio Lower Upper  
73 100  
43 20.7 16.6 25.0  
57 21.5 17.4 26.2



#18  
trans-1,2-Dichloroethene  
Concen: 23.661 ug/L  
RT: 2.79 min Scan# 528  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

Tgt Ion: 96 Resp: 30229  
Ion Ratio Lower Upper  
96 100  
61 144.3 102.8 190.8  
98 62.5 44.0 81.6

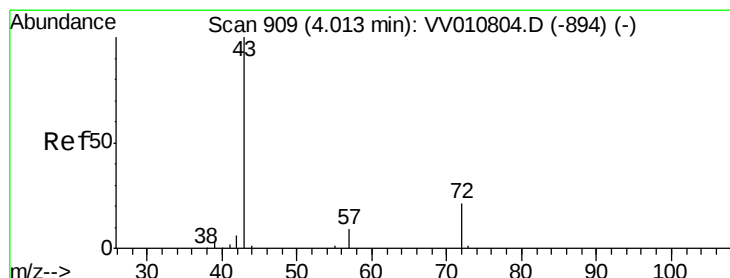
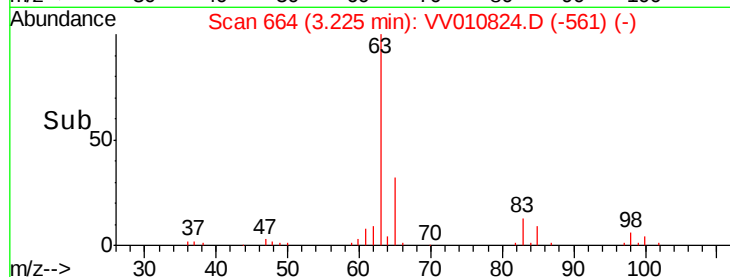
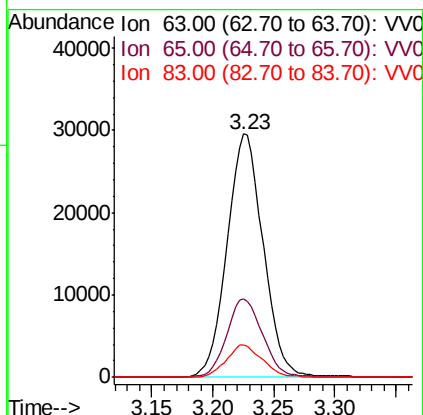
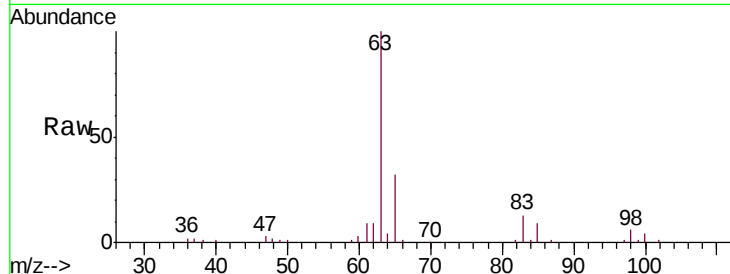




#19  
 1,1-Dichloroethane  
 Concen: 24.753 ug/L  
 RT: 3.23 min Scan# 664  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

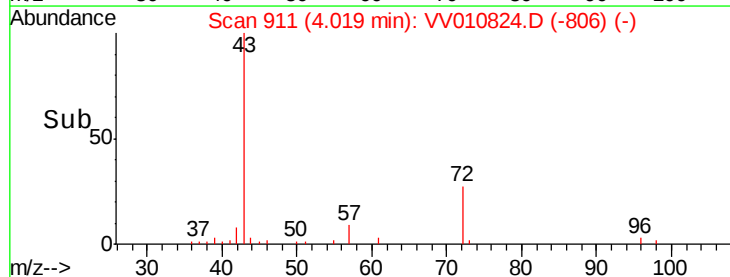
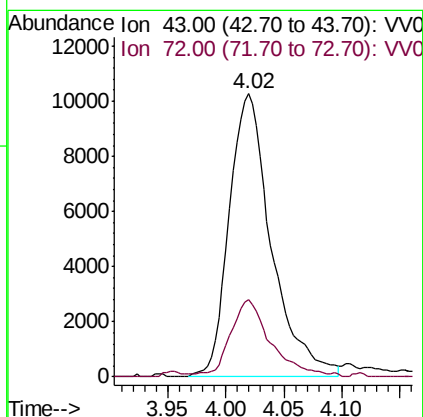
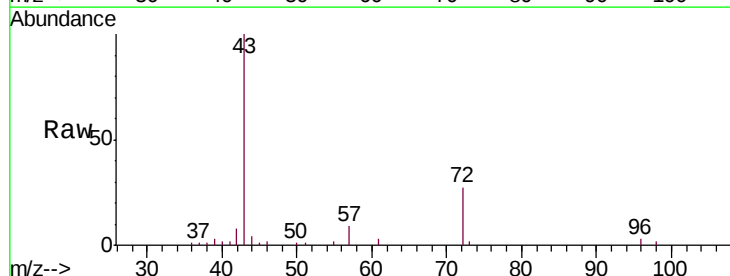
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

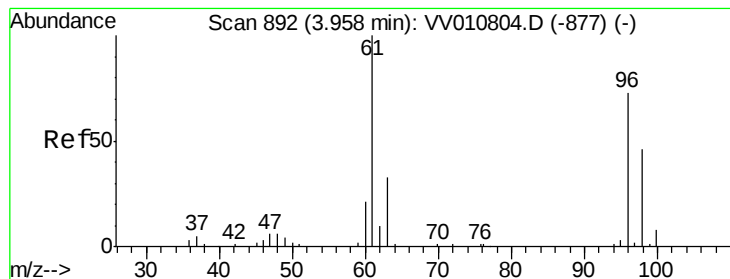
Tgt Ion: 63 Resp: 61051  
 Ion Ratio Lower Upper  
 63 100  
 65 32.2 22.5 41.7  
 83 13.4 10.3 19.1



#21  
 2-Butanone  
 Concen: 42.288 ug/L  
 RT: 4.02 min Scan# 911  
 Delta R.T. 0.01 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Tgt Ion: 43 Resp: 25968  
 Ion Ratio Lower Upper  
 43 100  
 72 25.7 11.2 33.6



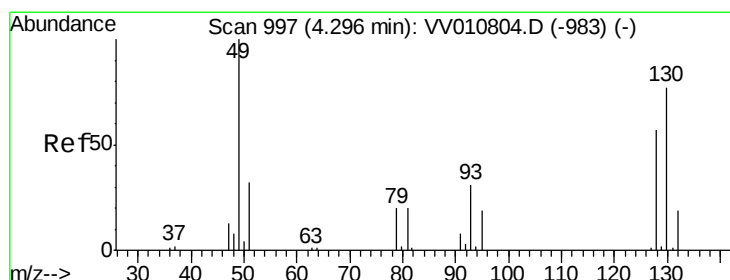
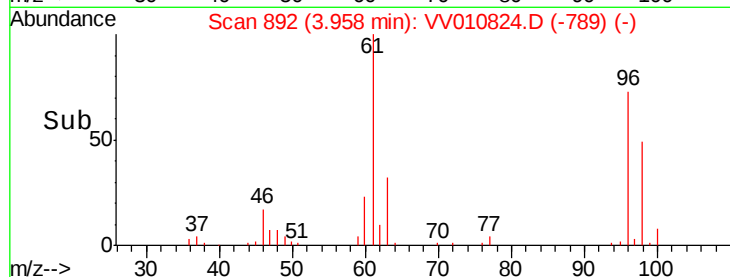
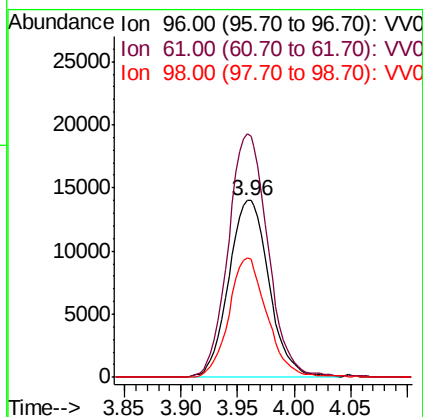
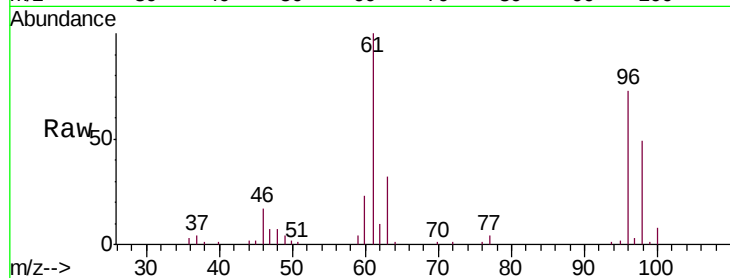


#22

cis-1,2-Dichloroethene  
 Concen: 23.815 ug/L  
 RT: 3.96 min Scan# 892  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

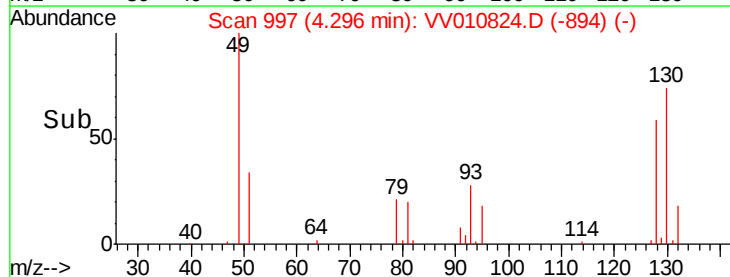
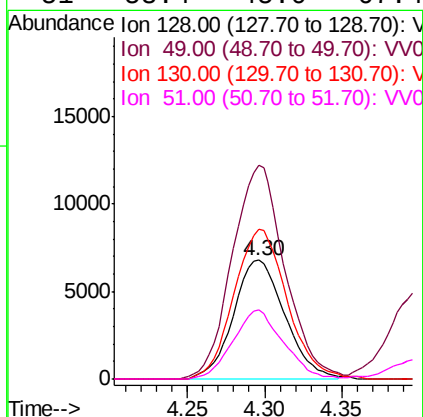
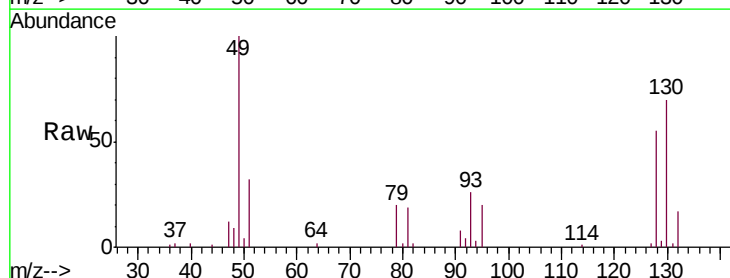
Tgt Ion: 96 Resp: 34757  
 Ion Ratio Lower Upper  
 96 100  
 61 137.9 93.9 174.5  
 98 67.8 46.5 86.5

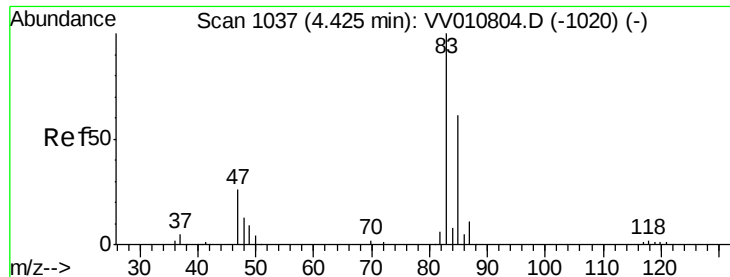


#23

Bromochloromethane  
 Concen: 24.017 ug/L  
 RT: 4.30 min Scan# 997  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Tgt Ion: 128 Resp: 15756  
 Ion Ratio Lower Upper  
 128 100  
 49 180.3 122.6 227.8  
 130 126.2 84.0 156.0  
 51 58.4 45.0 67.4

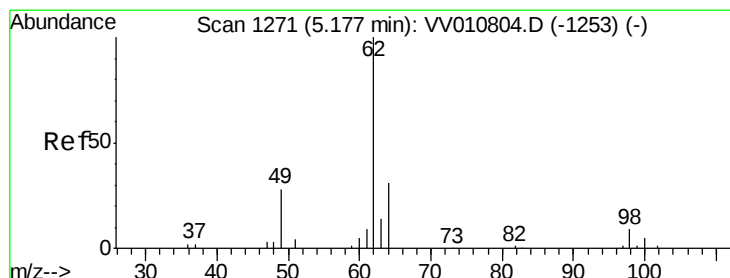
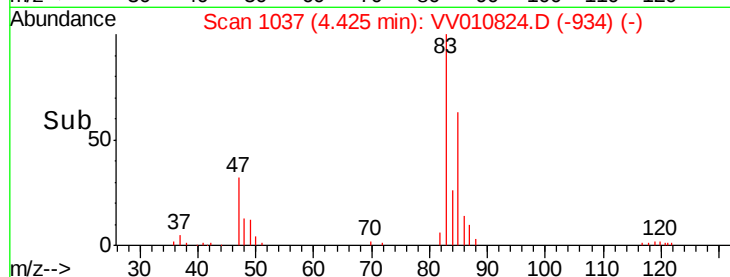
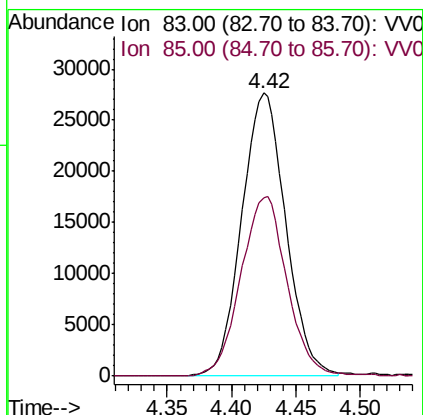
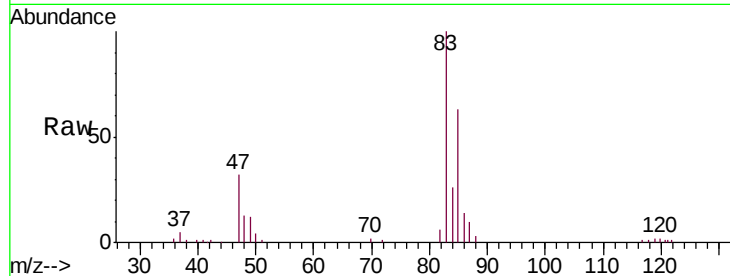




#25  
Chloroform  
Concen: 24.291 ug/L  
RT: 4.42 min Scan# 1037  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

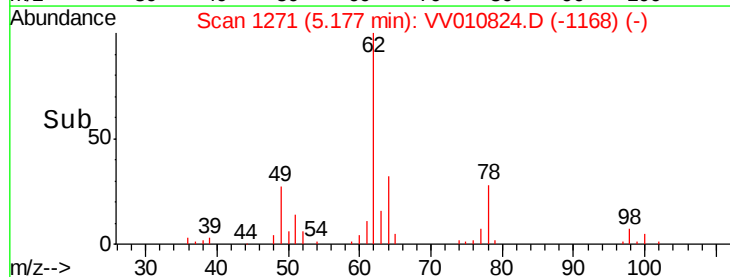
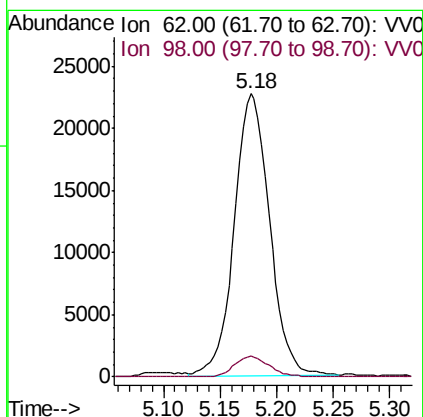
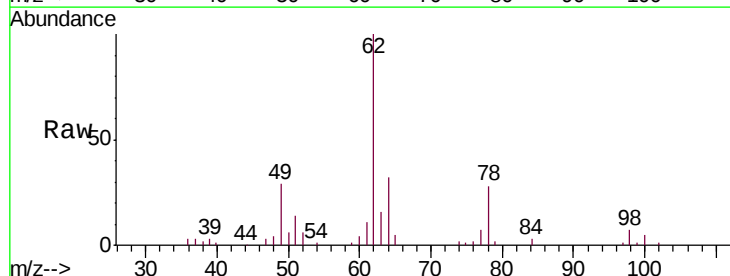
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

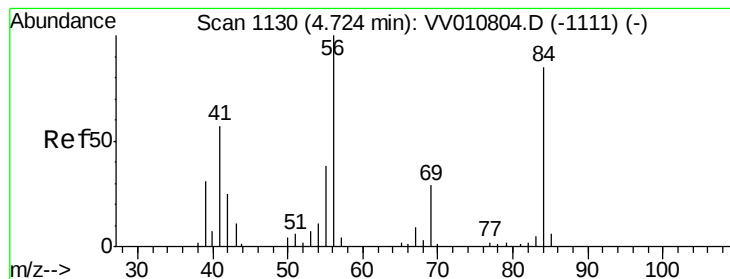
Tgt Ion: 83 Resp: 66001  
Ion Ratio Lower Upper  
83 100  
85 66.2 44.6 82.8



#27  
1,2-Dichloroethane  
Concen: 24.914 ug/L  
RT: 5.18 min Scan# 1271  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

Tgt Ion: 62 Resp: 49479  
Ion Ratio Lower Upper  
62 100  
98 7.2 6.3 9.5





#30

Cyclohexane

Concen: 22.403 ug/L

RT: 4.72 min Scan# 1130

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02594

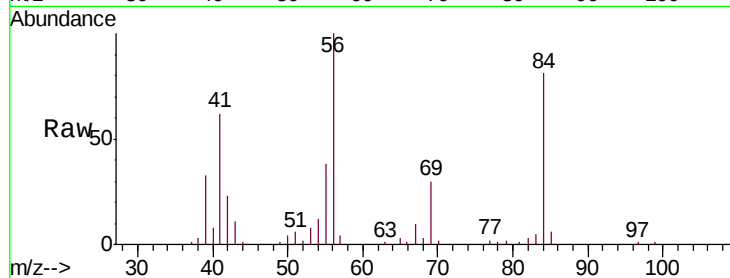
Tgt Ion: 56 Resp: 52227

Ion Ratio Lower Upper

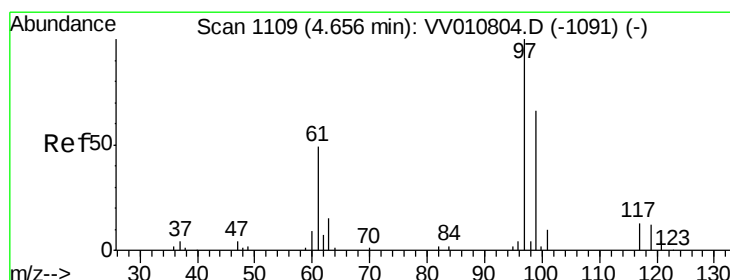
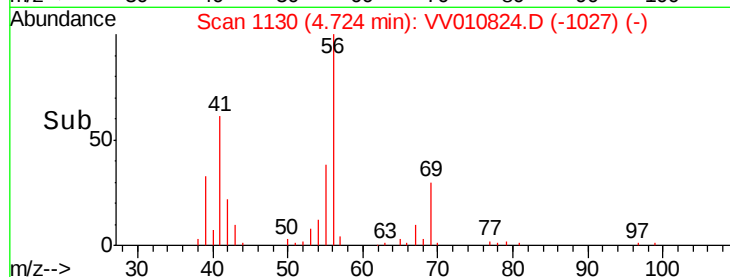
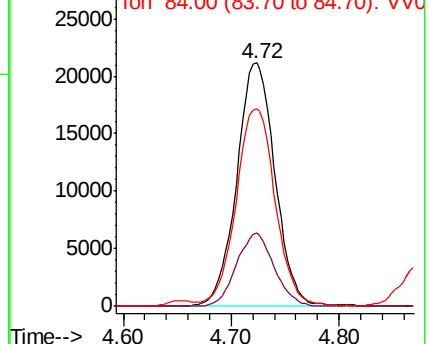
56 100

69 29.5 24.2 36.4

84 83.0 66.5 99.7



Abundance Ion 56.00 (55.70 to 56.70): VV0  
Ion 69.00 (68.70 to 69.70): VV0  
Ion 84.00 (83.70 to 84.70): VV0



#31

1,1,1-Trichloroethane

Concen: 23.398 ug/L

RT: 4.66 min Scan# 1109

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

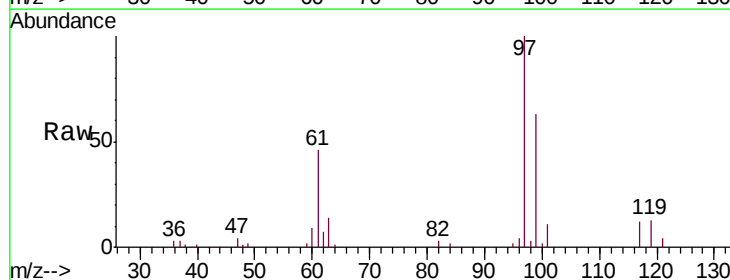
Tgt Ion: 97 Resp: 54228

Ion Ratio Lower Upper

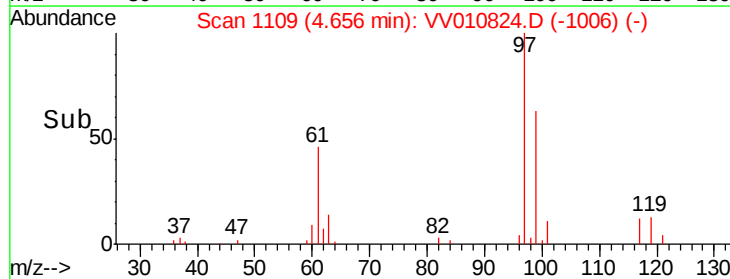
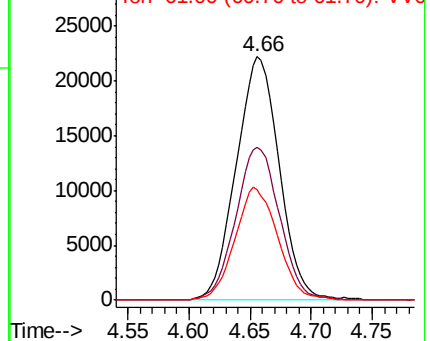
97 100

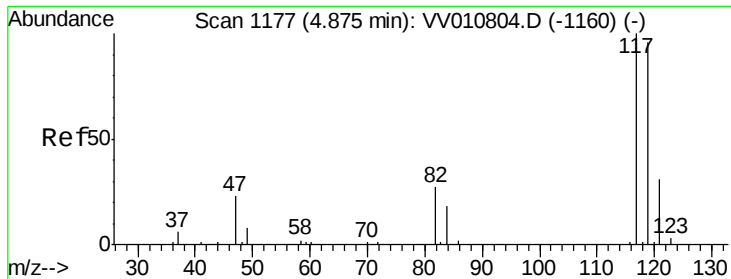
99 64.2 50.2 75.2

61 46.2 36.7 55.1



Abundance Ion 97.00 (96.70 to 97.70): VV0  
Ion 99.00 (98.70 to 99.70): VV0  
Ion 61.00 (60.70 to 61.70): VV0





#32

Carbon tetrachloride

Concen: 23.444 ug/L

RT: 4.87 min Scan# 1177

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

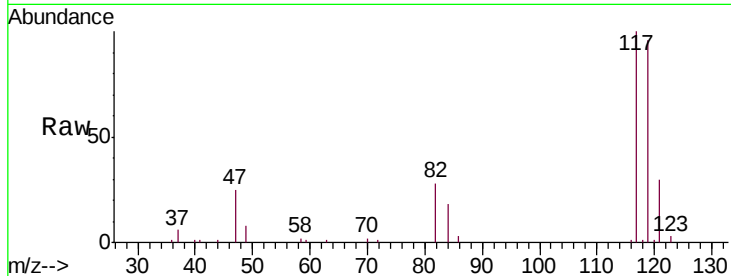
VSTD02594

Tgt Ion:117 Resp: 47329

Ion Ratio Lower Upper

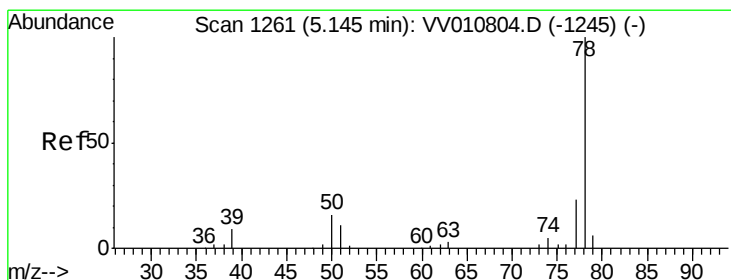
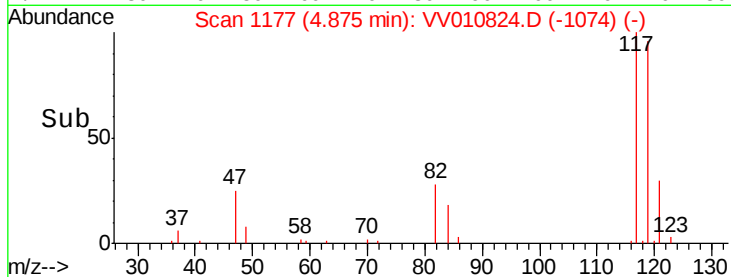
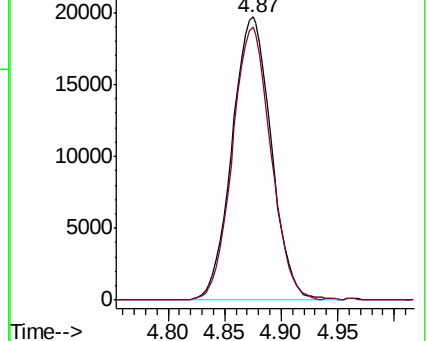
117 100

119 94.7 74.9 112.3



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#34

Benzene

Concen: 24.094 ug/L

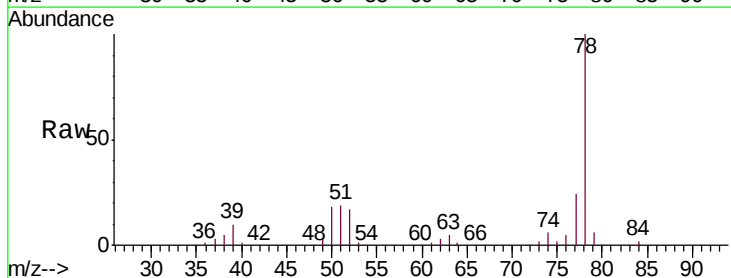
RT: 5.14 min Scan# 1261

Delta R.T. 0.00 min

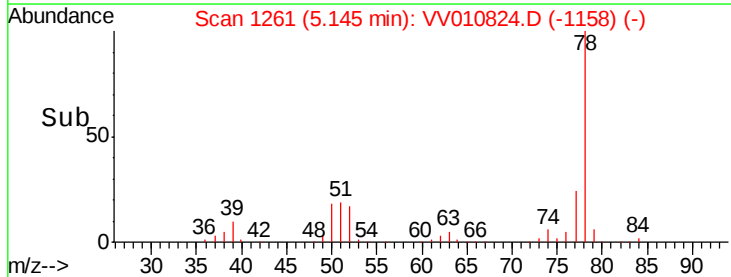
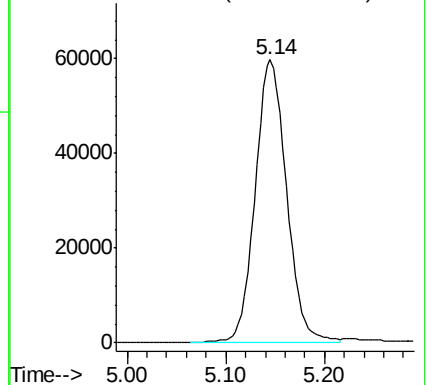
Lab File: VV010824.D

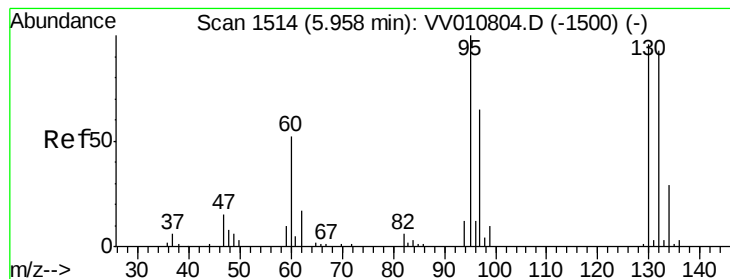
Acq: 10 May 2019 20:10

Tgt Ion: 78 Resp: 131474



Abundance Ion 78.00 (77.70 to 78.70): VV0





#35

Trichloroethene

Concen: 23.297 ug/L

RT: 5.96 min Scan# 1514

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02594

Tgt Ion: 95 Resp: 35608

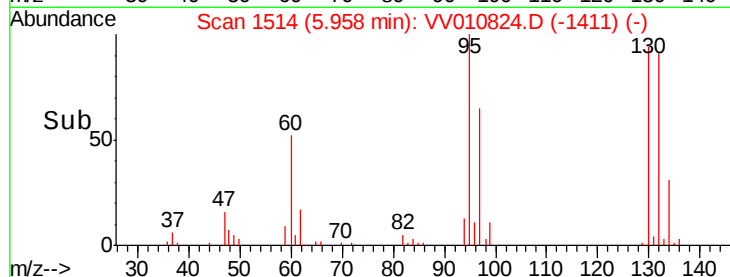
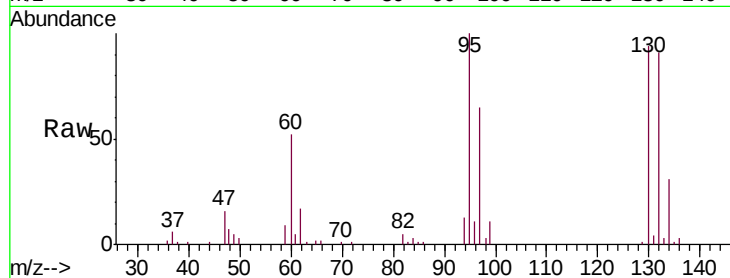
Ion Ratio Lower Upper

95 100

97 62.6 44.3 82.3

132 88.8 62.4 115.8

130 93.8 68.5 127.3



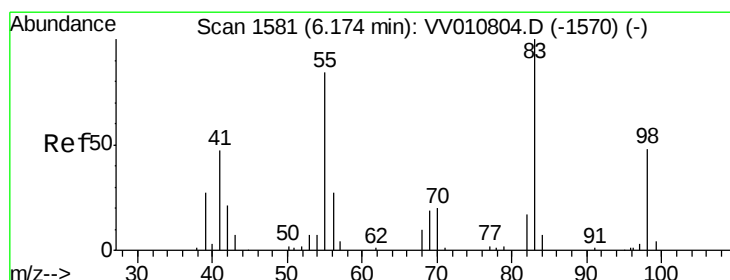
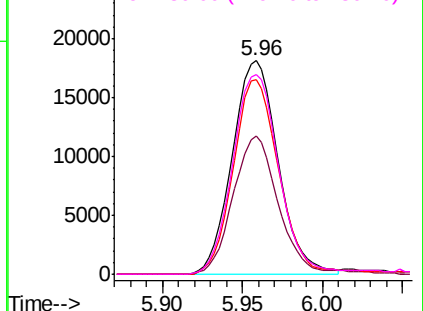
Abundance

Ion 95.00 (94.70 to 95.70): VV0

Ion 97.00 (96.70 to 97.70): VV0

Ion 132.00 (131.70 to 132.70): VV0

Ion 130.00 (129.70 to 130.70): VV0



#36

Methylcyclohexane

Concen: 22.657 ug/L

RT: 6.17 min Scan# 1581

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

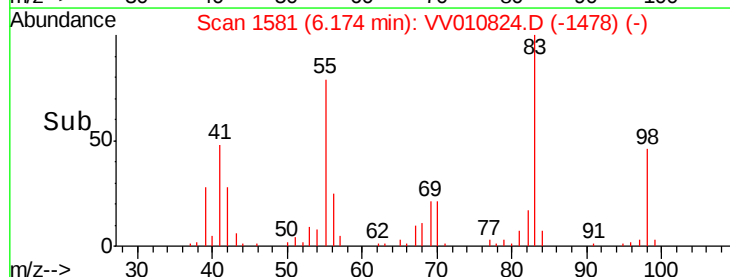
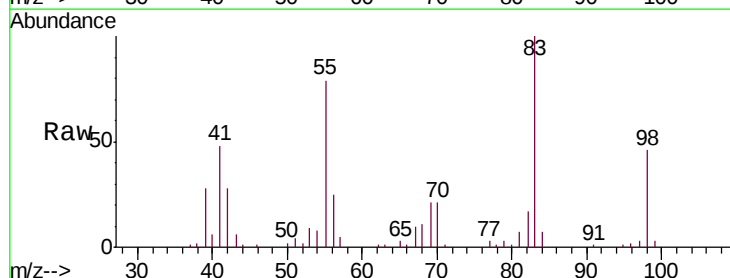
Tgt Ion: 83 Resp: 55504

Ion Ratio Lower Upper

83 100

55 80.5 64.6 96.8

98 46.7 37.7 56.5

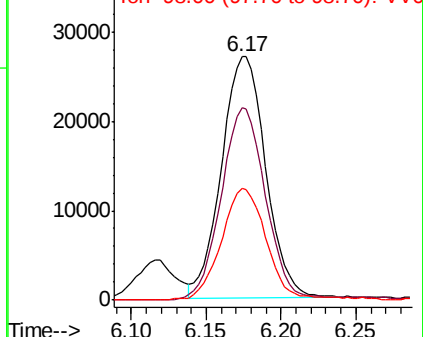


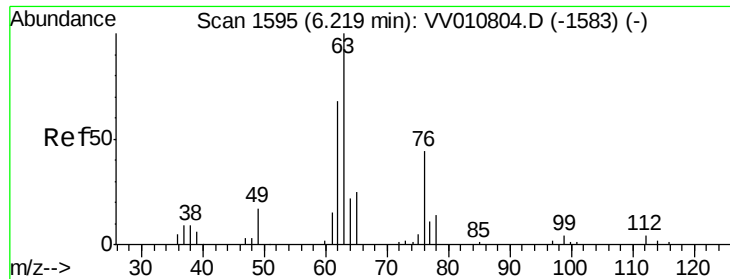
Abundance

Ion 83.00 (82.70 to 83.70): VV0

Ion 55.00 (54.70 to 55.70): VV0

Ion 98.00 (97.70 to 98.70): VV0

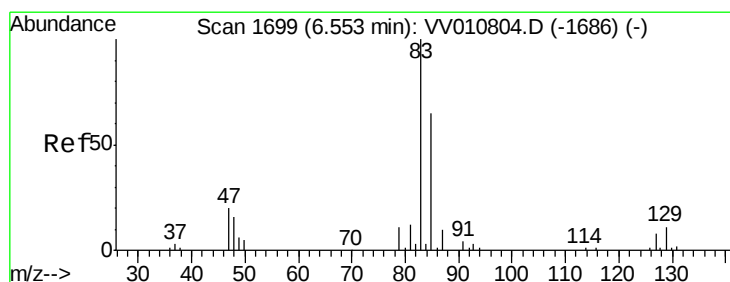
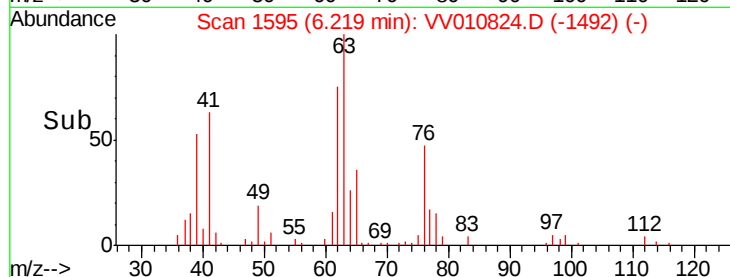
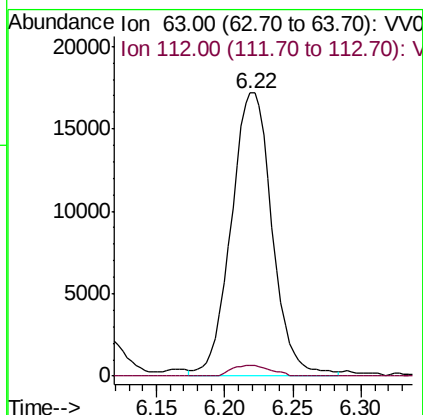
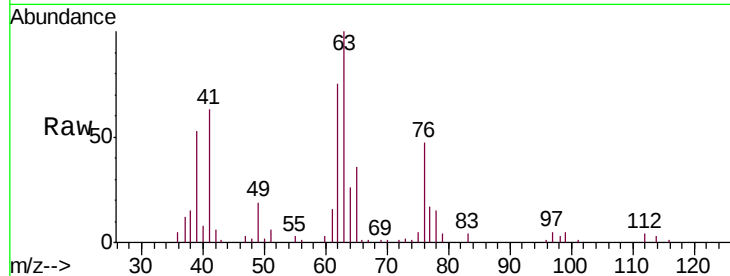




#40  
 1,2-Dichloropropane  
 Concen: 24.721 ug/L  
 RT: 6.22 min Scan# 1595  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

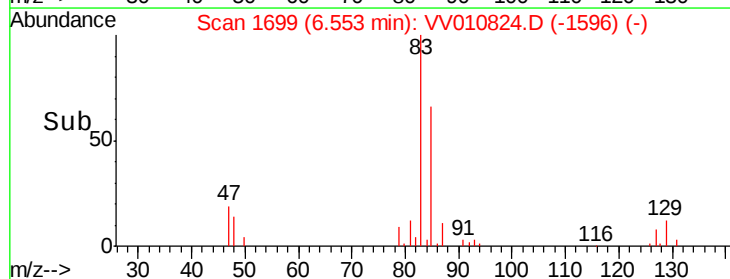
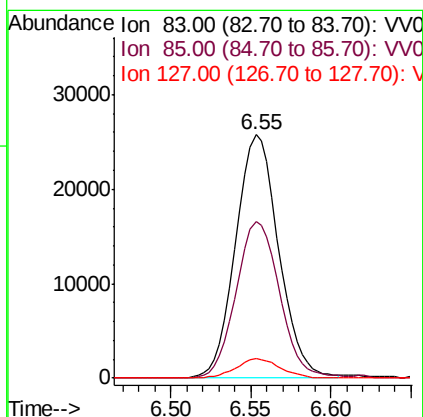
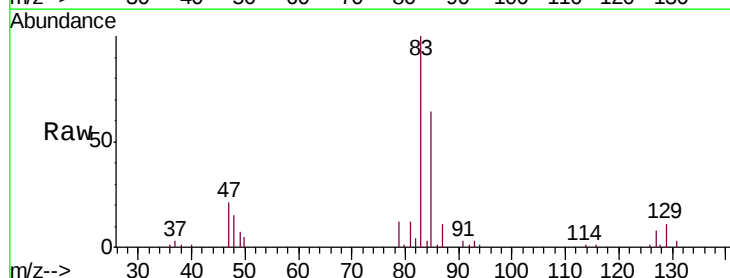
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

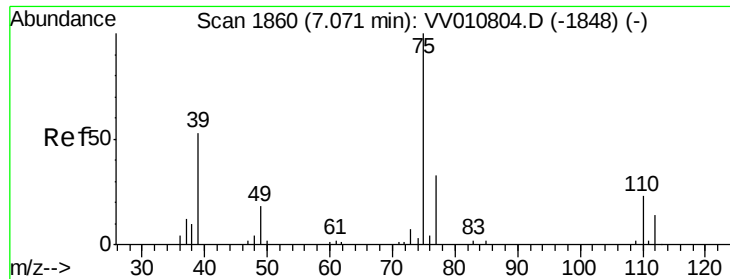
Tgt Ion: 63 Resp: 35884  
 Ion Ratio Lower Upper  
 63 100  
 112 3.5 3.4 5.2



#41  
 Bromodichloromethane  
 Concen: 23.732 ug/L  
 RT: 6.55 min Scan# 1699  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Tgt Ion: 83 Resp: 47334  
 Ion Ratio Lower Upper  
 83 100  
 85 64.3 43.5 80.7  
 127 7.9 6.2 9.4



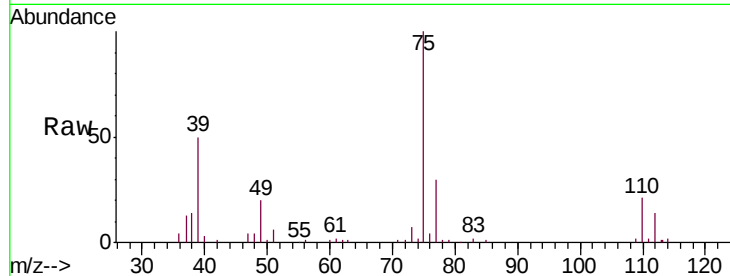


#42

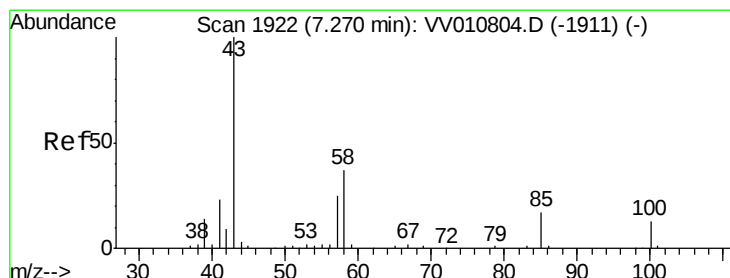
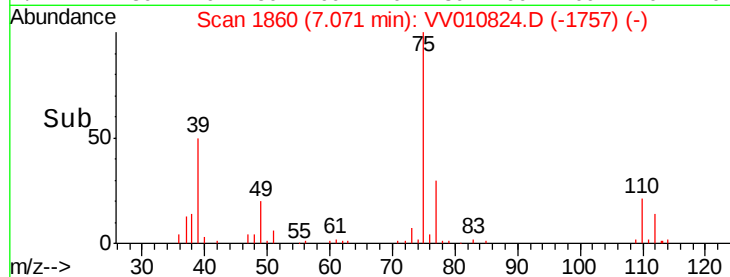
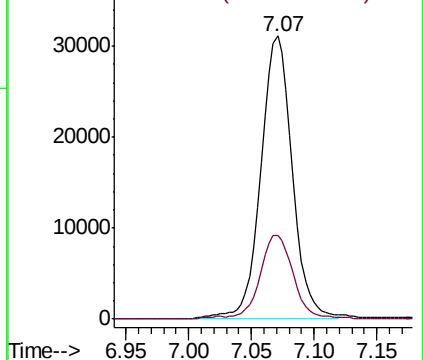
cis-1,3-Dichloropropene  
 Concen: 23.752 ug/L  
 RT: 7.07 min Scan# 1860  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

Tgt Ion: 75 Resp: 54534  
 Ion Ratio Lower Upper  
 75 100  
 77 29.7 22.3 41.3



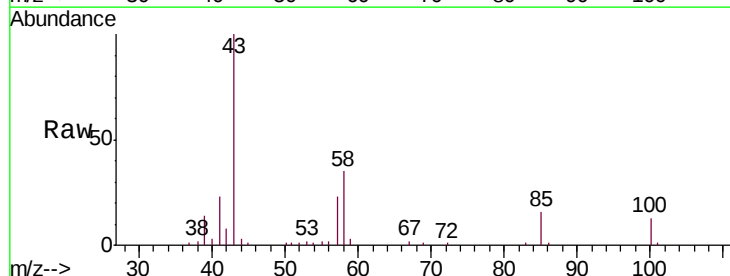
Abundance Ion 75.00 (74.70 to 75.70): VV010824.D (-1848) (-)  
 Ion 77.00 (76.70 to 77.70): VV010824.D (-1848) (-)



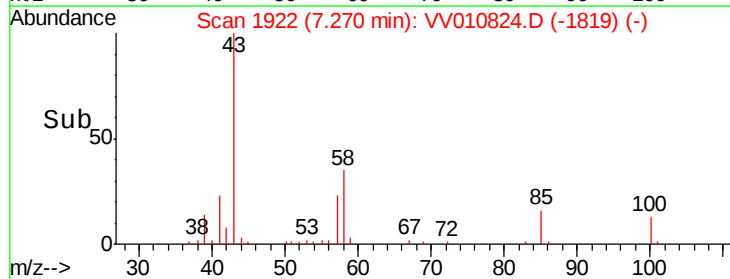
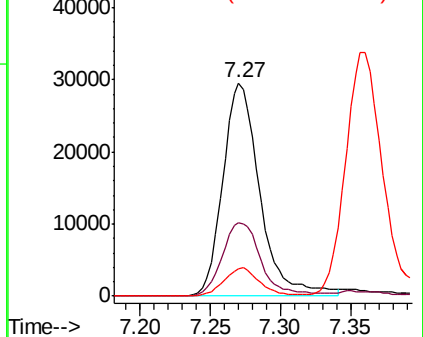
#43

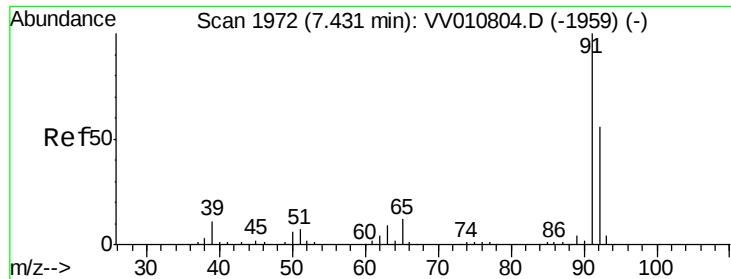
4-Methyl-2-pentanone  
 Concen: 44.456 ug/L  
 RT: 7.27 min Scan# 1922  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Tgt Ion: 43 Resp: 54320  
 Ion Ratio Lower Upper  
 43 100  
 58 36.4 28.1 42.1  
 100 12.6 11.0 16.6



Abundance Ion 43.00 (42.70 to 43.70): VV010824.D (-1819) (-)  
 Ion 58.00 (57.70 to 58.70): VV010824.D (-1819) (-)  
 Ion 100.00 (99.70 to 100.70): VV010824.D (-1819) (-)





#44

Toluene

Concen: 24.070 ug/L

RT: 7.43 min Scan# 1972

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

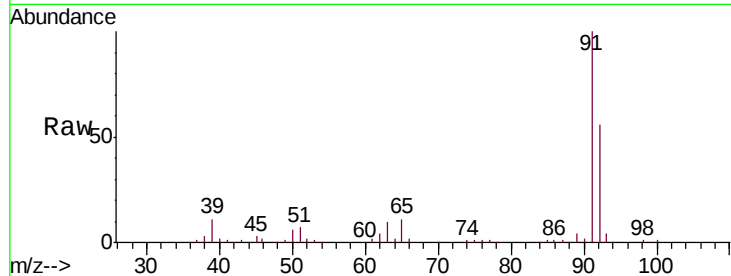
VSTD02594

Tgt Ion: 91 Resp: 149168

Ion Ratio Lower Upper

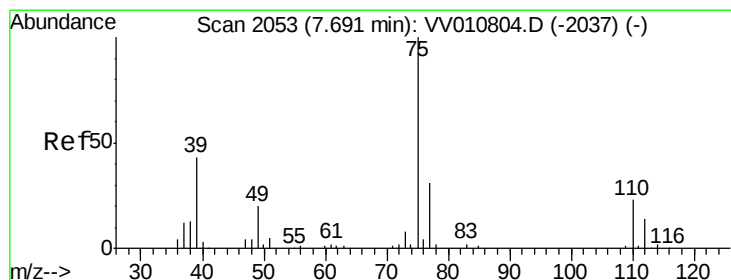
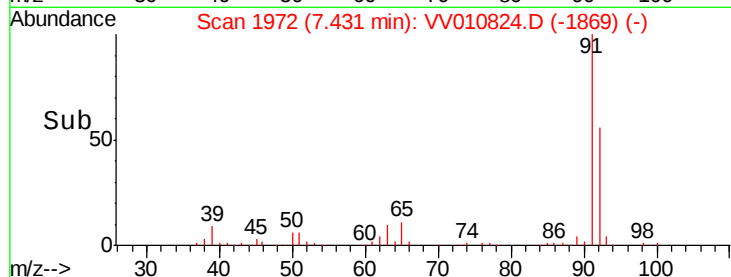
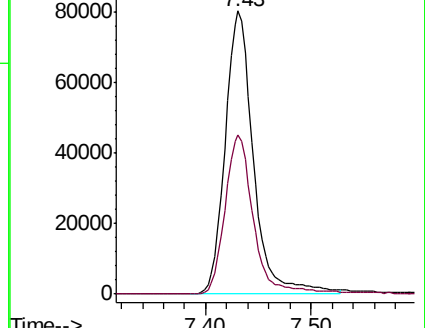
91 100

92 56.4 40.1 74.5



Abundance Ion 91.00 (90.70 to 91.70): VV010824.D (-1959) (-)

Ion 92.00 (91.70 to 92.70): VV010824.D (-1959) (-)



#45

trans-1,3-Dichloropropene

Concen: 24.017 ug/L

RT: 7.69 min Scan# 2053

Delta R.T. 0.00 min

Lab File: VV010824.D

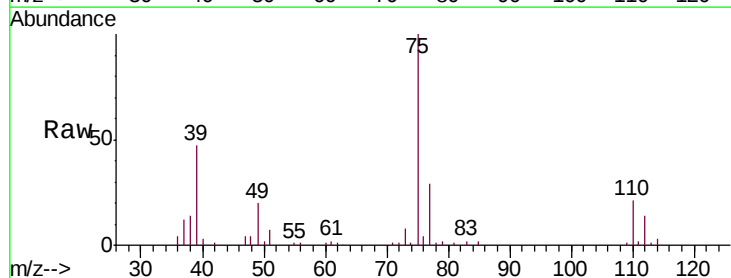
Acq: 10 May 2019 20:10

Tgt Ion: 75 Resp: 46433

Ion Ratio Lower Upper

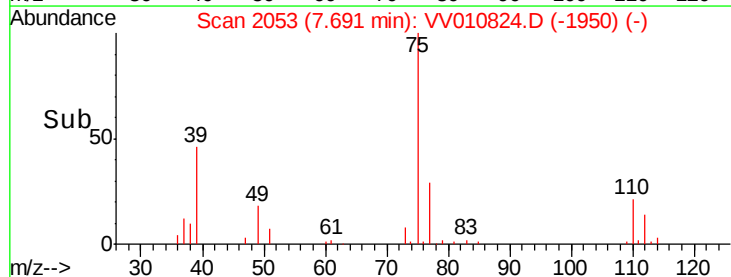
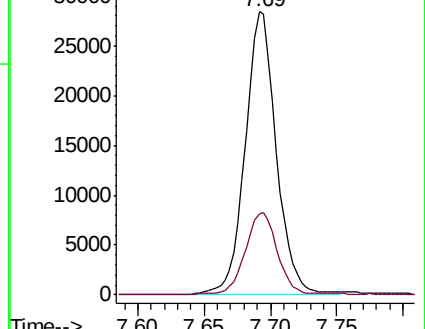
75 100

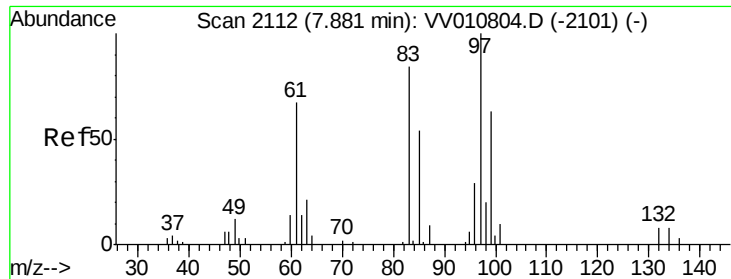
77 28.7 22.3 41.3



Abundance Ion 75.00 (74.70 to 75.70): VV010824.D (-2037) (-)

Ion 77.00 (76.70 to 77.70): VV010824.D (-2037) (-)

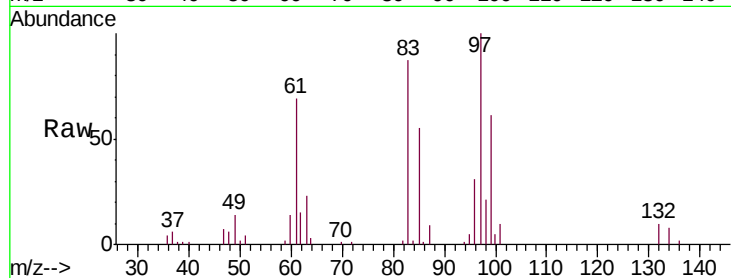




#46  
 1,1,2-Trichloroethane  
 Concen: 23.481 ug/L  
 RT: 7.88 min Scan# 2112  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 28001 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 83       | 87.2  | 62.8  | 116.6 |
| 85       | 54.8  | 40.2  | 74.6  |
| 99       | 60.6  | 42.6  | 79.0  |



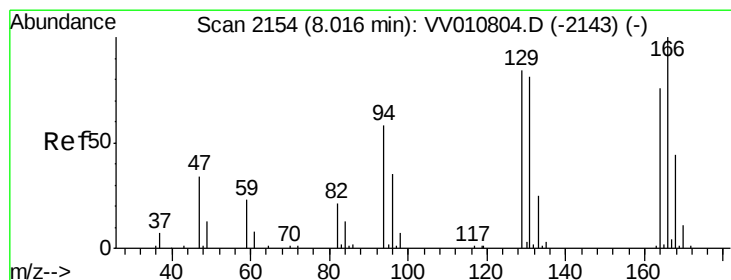
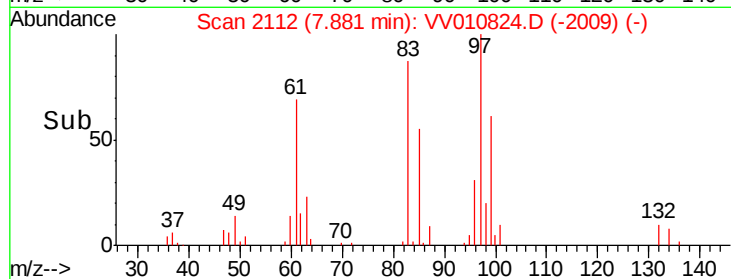
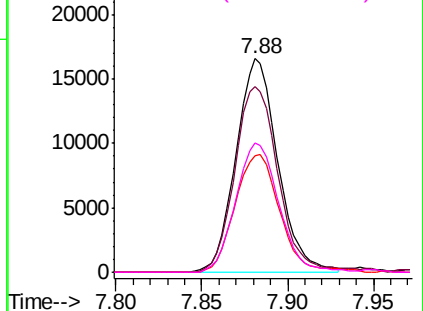
Abundance

Ion 97.00 (96.70 to 97.70): VV0

Ion 83.00 (82.70 to 83.70): VV0

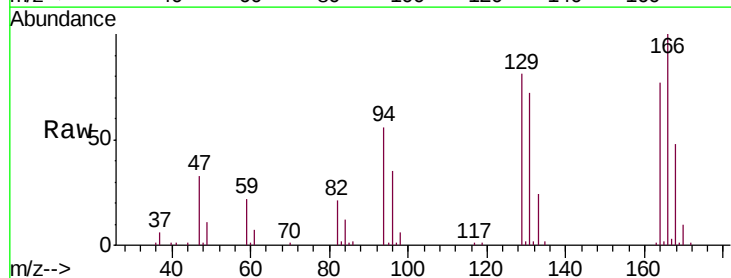
Ion 85.00 (84.70 to 85.70): VV0

Ion 99.00 (98.70 to 99.70): VV0



#47  
 Tetrachloroethene  
 Concen: 22.516 ug/L  
 RT: 8.02 min Scan# 2155  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 24924 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 105.0 | 69.3  | 128.7 |
| 131      | 94.3  | 67.3  | 125.1 |
| 166      | 130.2 | 81.1  | 150.7 |



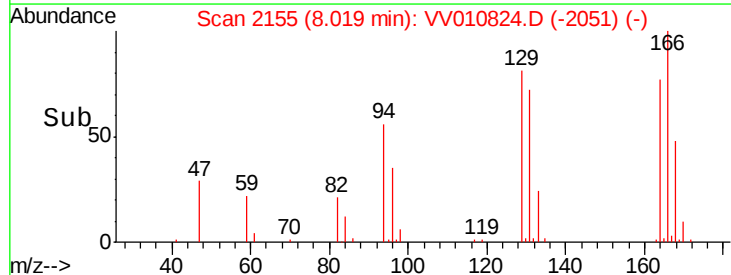
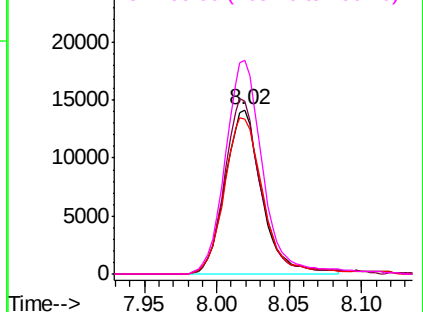
Abundance

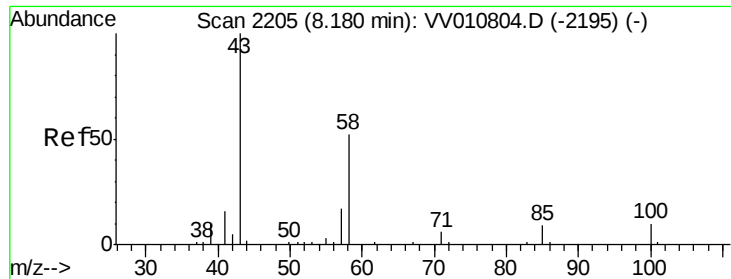
Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V

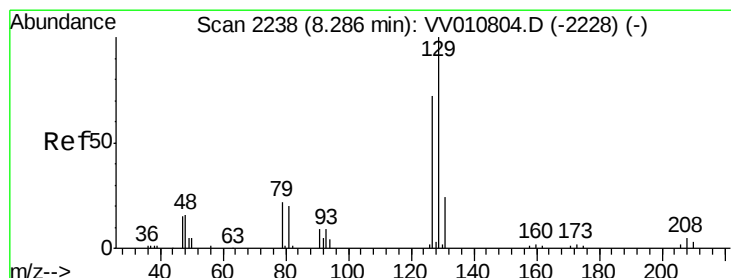
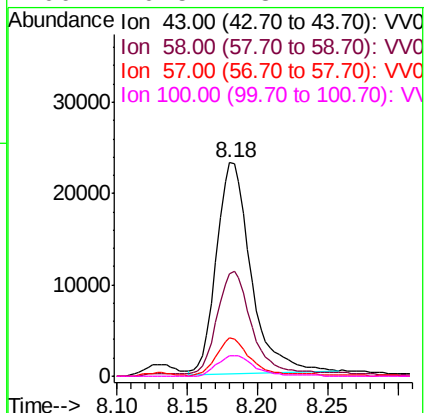
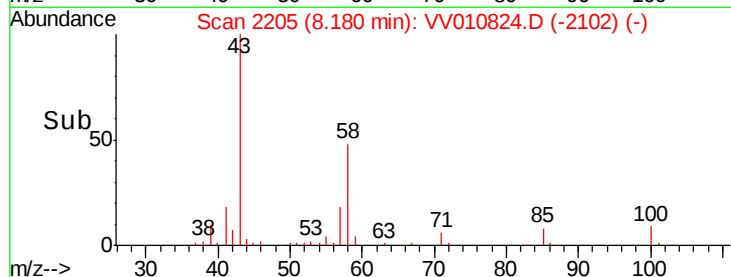
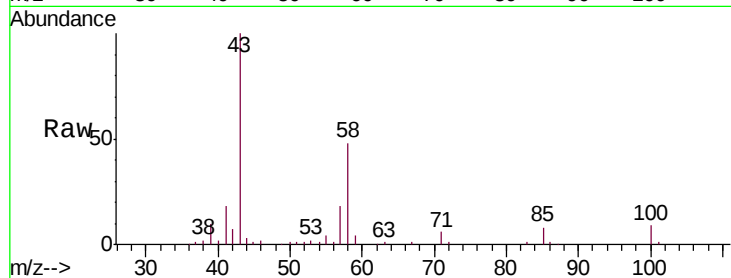




#49  
2-Hexanone  
Concen: 42.210 ug/L  
RT: 8.18 min Scan# 2205  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

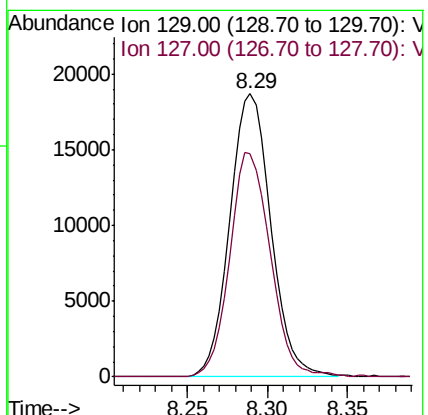
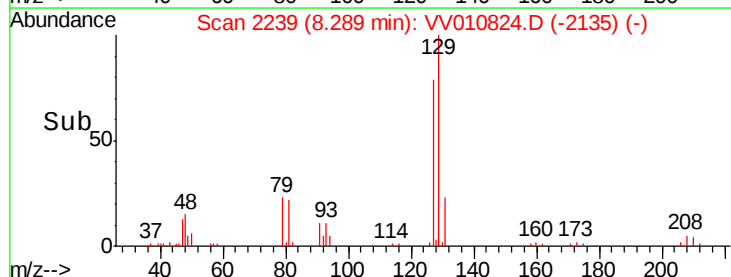
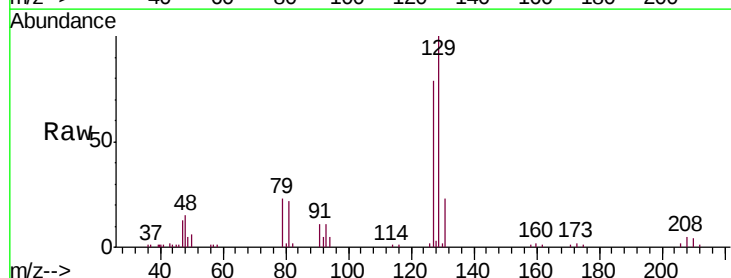
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

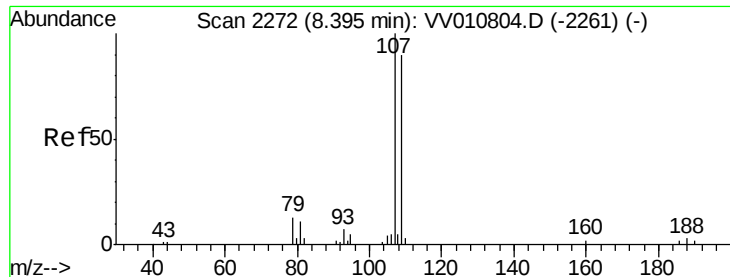
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 39212 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 50.0  | 39.4  | 59.0  |
| 57       | 17.8  | 14.2  | 21.4  |
| 100      | 10.5  | 8.2   | 12.2  |



#50  
Dibromochloromethane  
Concen: 23.893 ug/L  
RT: 8.29 min Scan# 2239  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 32765 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 78.7  | 54.5  | 101.1 |

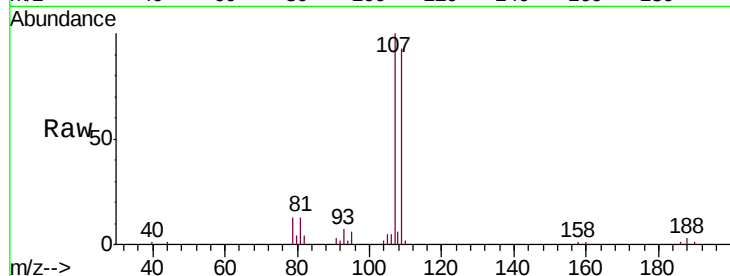




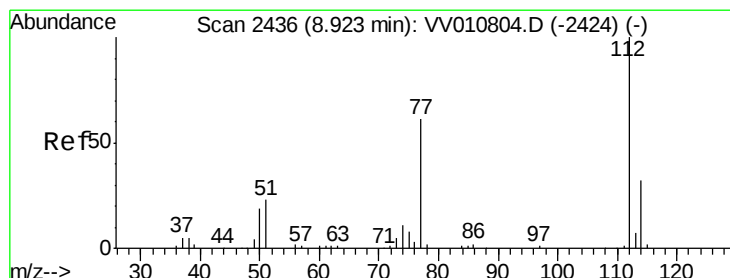
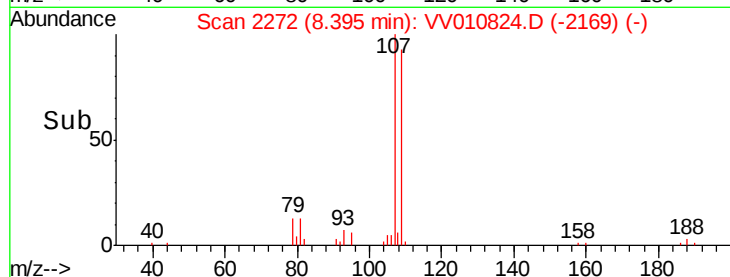
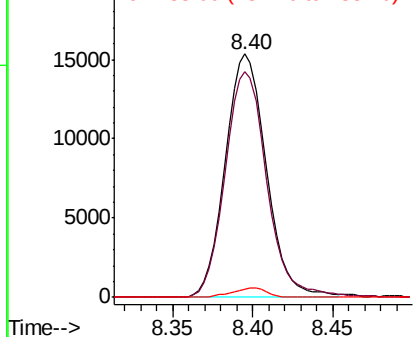
#51  
1,2-Dibromoethane  
Concen: 23.405 ug/L  
RT: 8.40 min Scan# 2272  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

Tgt Ion:107 Resp: 26957  
Ion Ratio Lower Upper  
107 100  
109 92.7 66.6 123.6  
188 3.4 2.7 4.1

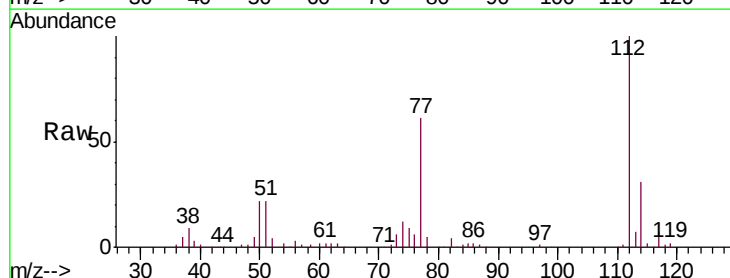


Abundance Ion 107.00 (106.70 to 107.70): V  
Ion 109.00 (108.70 to 109.70): V  
Ion 188.00 (187.70 to 188.70): V

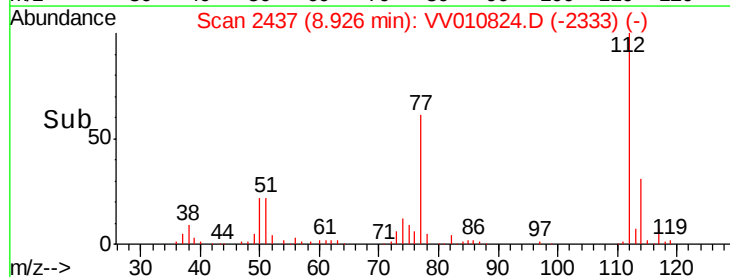
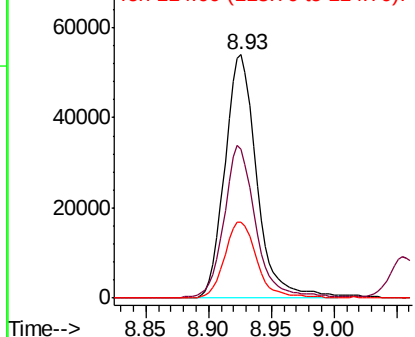


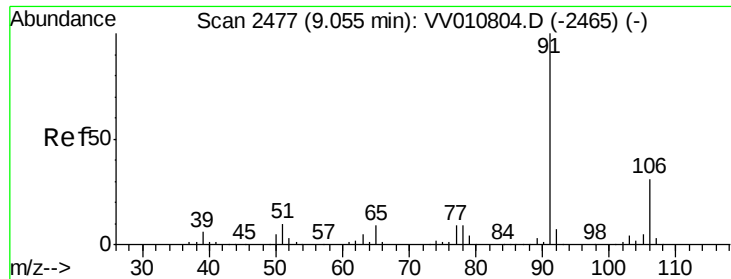
#52  
Chlorobenzene  
Concen: 23.607 ug/L  
RT: 8.93 min Scan# 2437  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

Tgt Ion:112 Resp: 95580  
Ion Ratio Lower Upper  
112 100  
77 61.3 47.7 71.5  
114 31.4 22.1 41.1



Abundance Ion 112.00 (111.70 to 112.70): V  
Ion 77.00 (76.70 to 77.70): V  
Ion 114.00 (113.70 to 114.70): V





#53

Ethylbenzene

Concen: 23.548 ug/L

RT: 9.05 min Scan# 2477

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

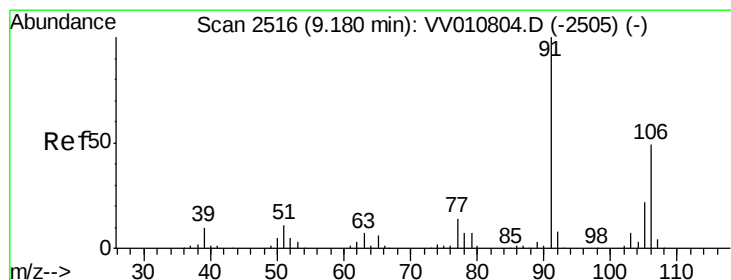
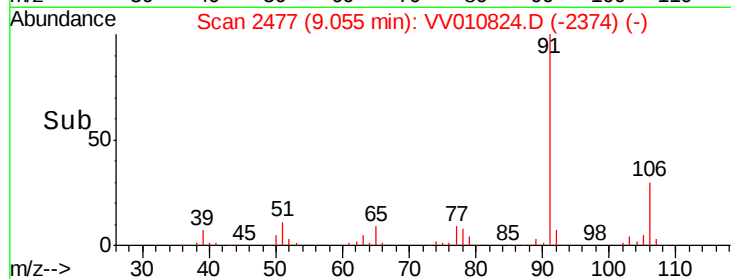
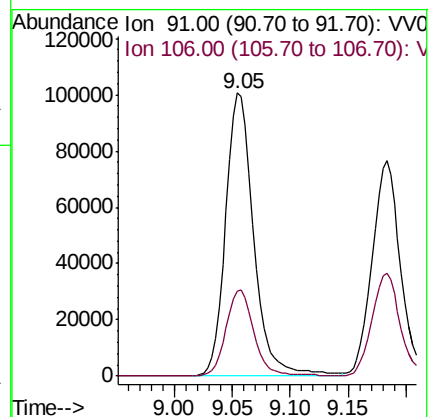
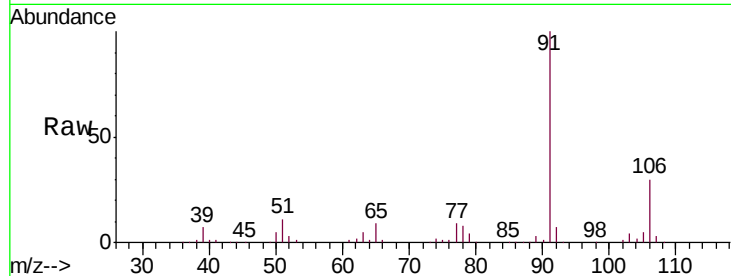
VSTD02594

Tgt Ion: 91 Resp: 169213

Ion Ratio Lower Upper

91 100

106 30.2 21.8 40.6



#54

m,p-Xylene

Concen: 22.431 ug/L

RT: 9.18 min Scan# 2517

Delta R.T. 0.00 min

Lab File: VV010824.D

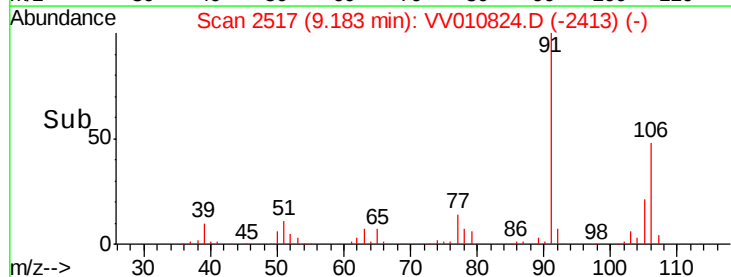
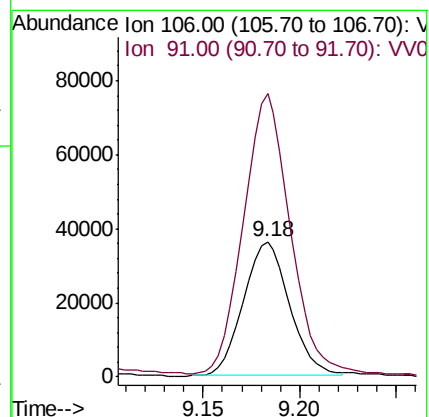
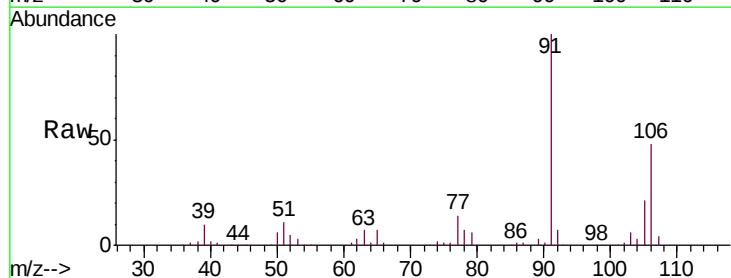
Acq: 10 May 2019 20:10

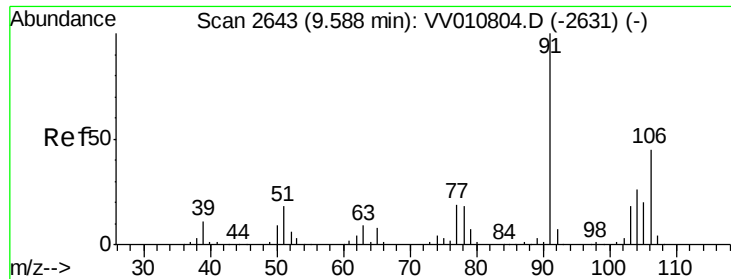
Tgt Ion: 106 Resp: 60221

Ion Ratio Lower Upper

106 100

91 209.5 145.4 270.0

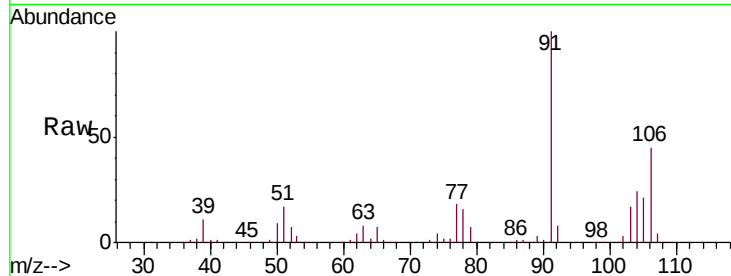




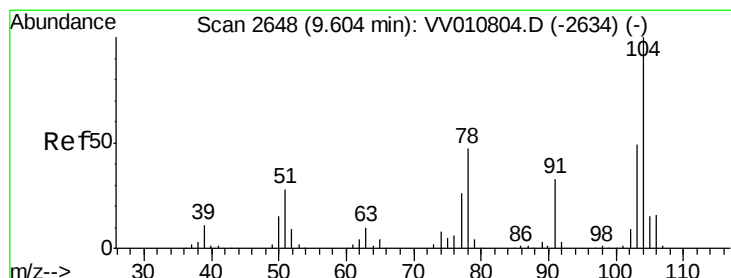
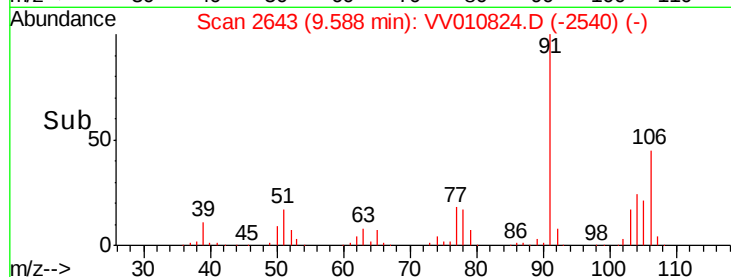
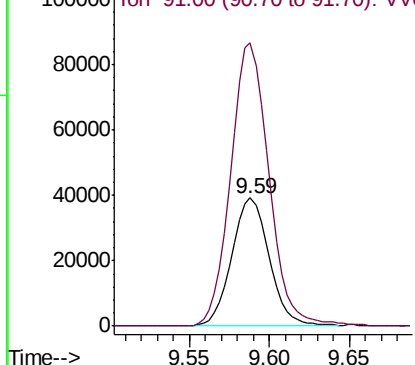
#55  
o-xylene  
Concen: 23.569 ug/L  
RT: 9.59 min Scan# 2643  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02594

Tgt Ion:106 Resp: 62762  
Ion Ratio Lower Upper  
106 100  
91 221.3 151.0 280.4

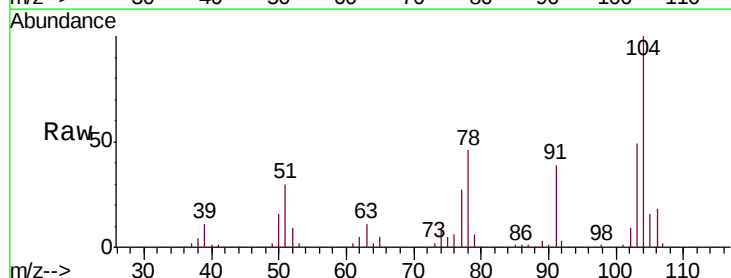


Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VV0

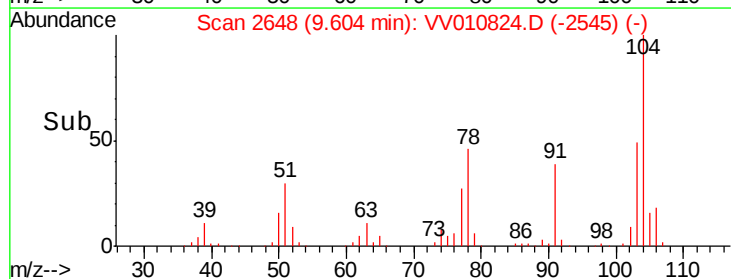
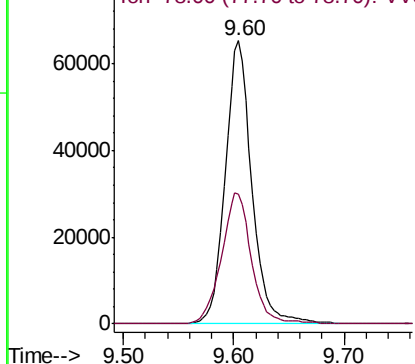


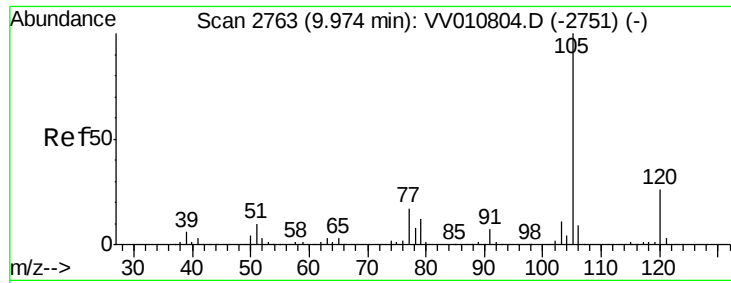
#56  
Styrene  
Concen: 24.197 ug/L  
RT: 9.60 min Scan# 2648  
Delta R.T. 0.00 min  
Lab File: VV010824.D  
Acq: 10 May 2019 20:10

Tgt Ion:104 Resp: 108981  
Ion Ratio Lower Upper  
104 100  
78 46.1 32.2 59.8



Abundance Ion 104.00 (103.70 to 104.70): V  
Ion 78.00 (77.70 to 78.70): VV0





#57

Isopropylbenzene

Concen: 23.683 ug/L

RT: 9.97 min Scan# 2763

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampled :

VSTD02594

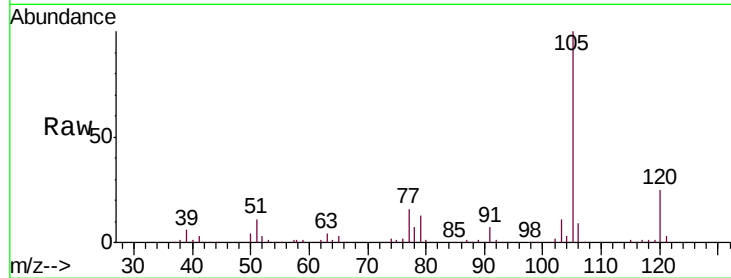
Tgt Ion: 105 Resp: 168261

Ion Ratio Lower Upper

105 100

120 25.7 20.9 31.3

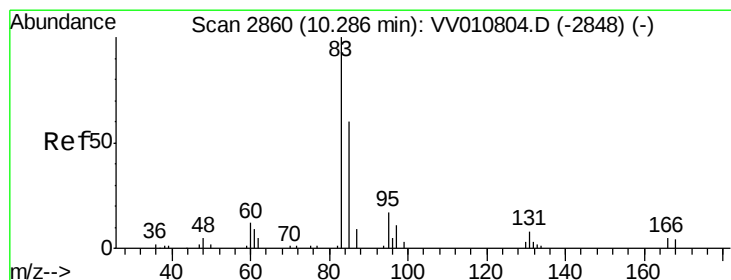
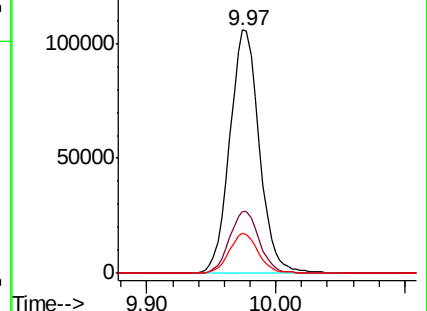
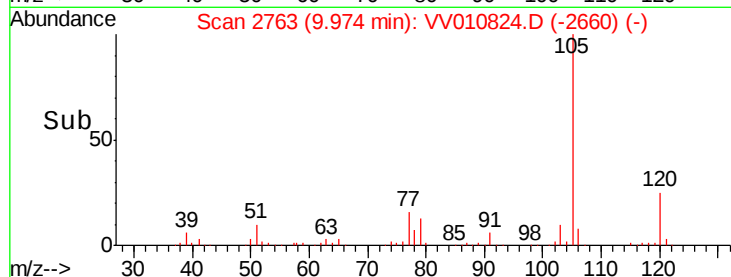
77 16.3 12.8 19.2



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 23.229 ug/L

RT: 10.29 min Scan# 2860

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

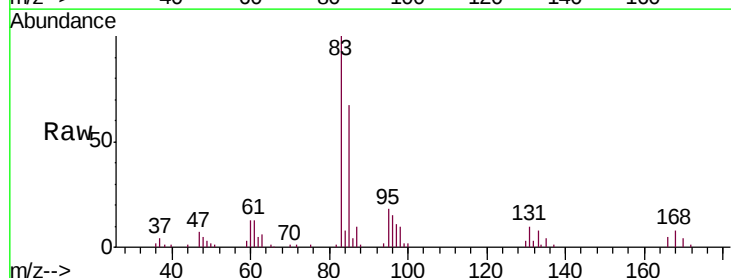
Tgt Ion: 83 Resp: 36291

Ion Ratio Lower Upper

83 100

85 67.4 44.6 82.8

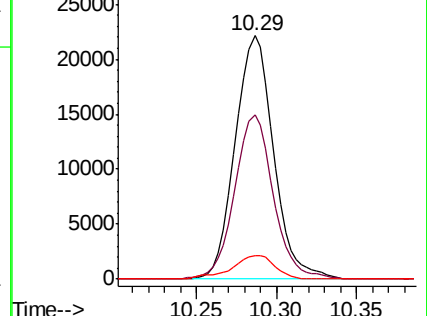
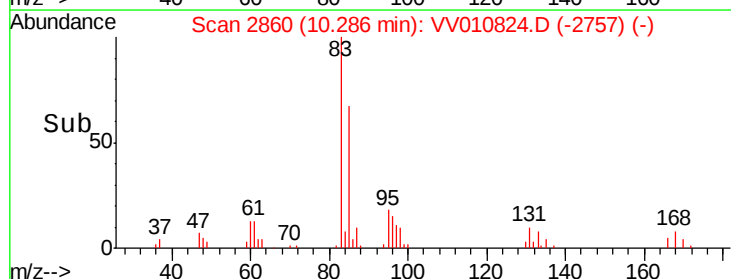
131 9.6 7.9 11.9

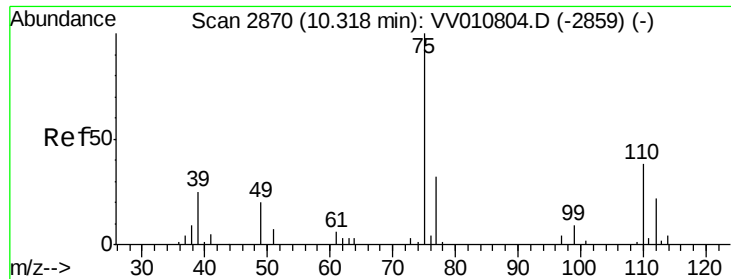


Abundance Ion 83.00 (82.70 to 83.70): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 131.00 (130.70 to 131.70): V

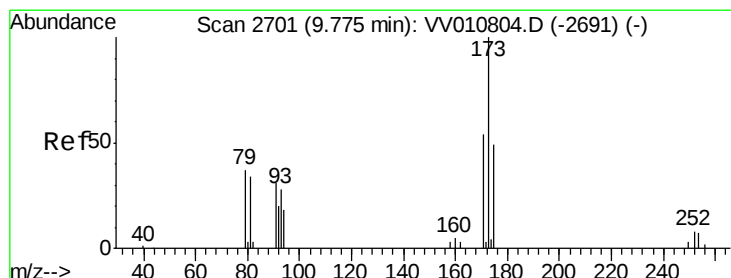
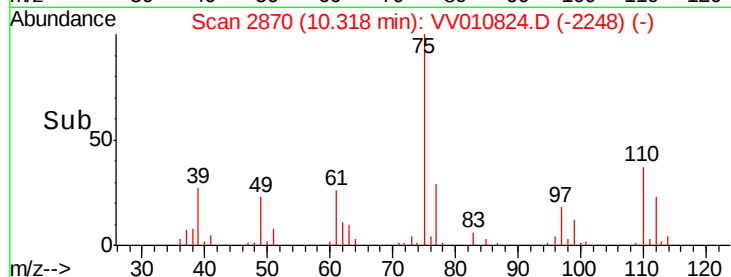
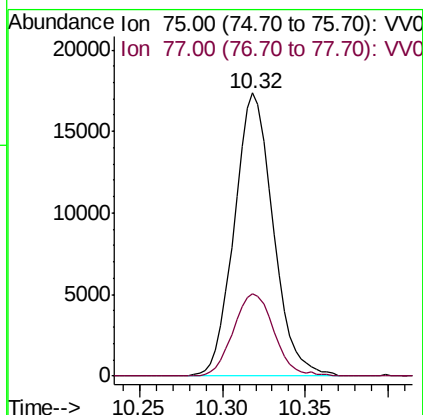
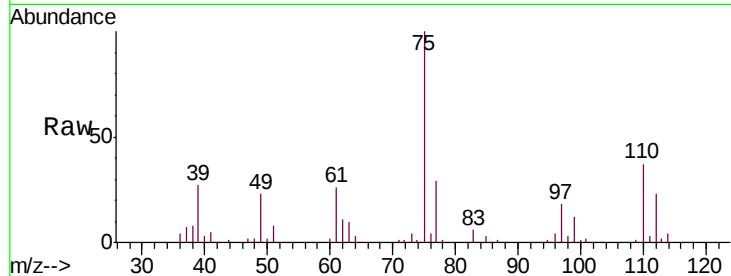




#59  
 1,2,3-Trichloropropane  
 Concen: 23.223 ug/L  
 RT: 10.32 min Scan# 2870  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

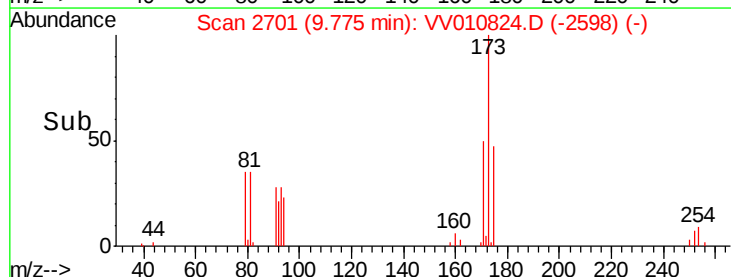
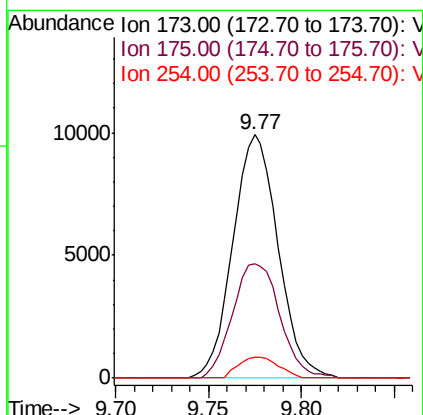
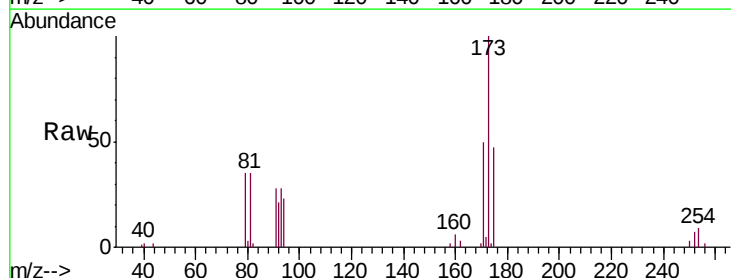
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

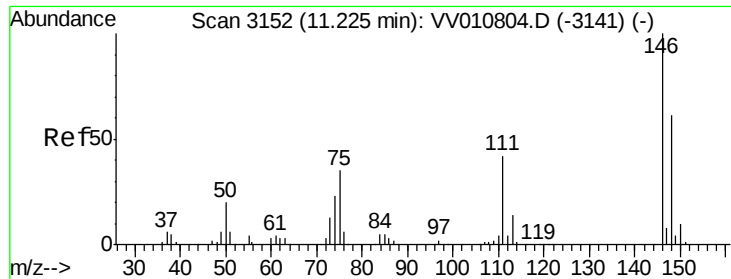
Tgt Ion: 75 Resp: 28316  
 Ion Ratio Lower Upper  
 75 100  
 77 30.0 25.0 37.6



#62  
 Bromoform  
 Concen: 21.251 ug/L  
 RT: 9.77 min Scan# 2701  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Tgt Ion: 173 Resp: 16766  
 Ion Ratio Lower Upper  
 173 100  
 175 49.5 38.6 58.0  
 254 7.6 6.5 9.7

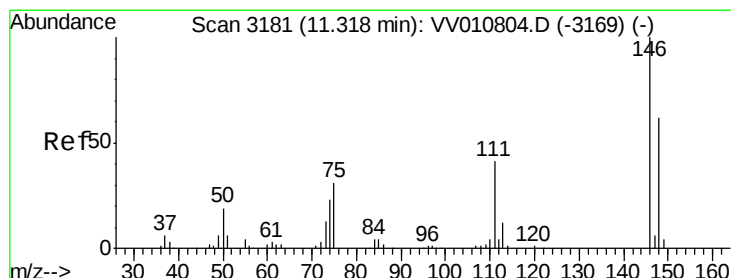
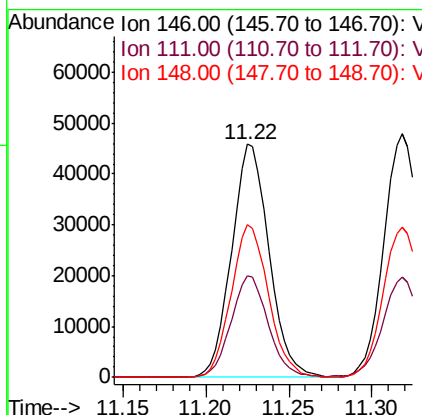
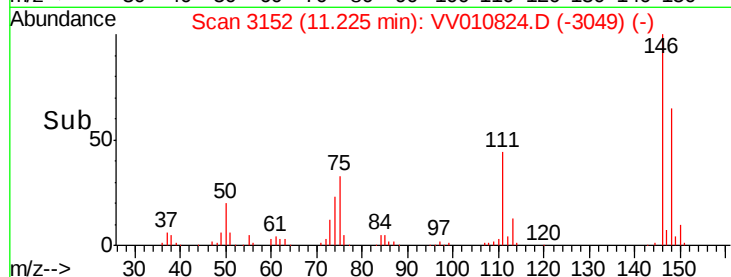
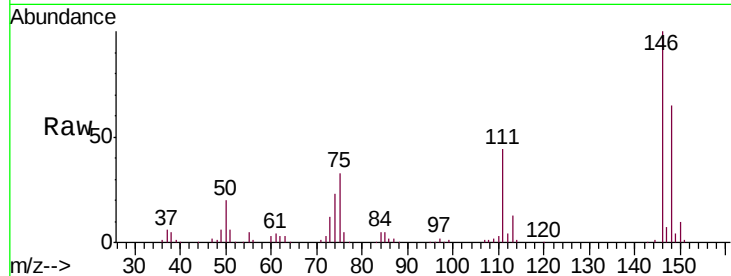




#63  
 1,3-Dichlorobenzene  
 Concen: 22.363 ug/L  
 RT: 11.22 min Scan# 3152  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

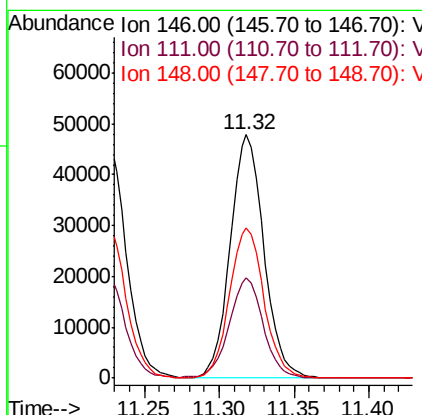
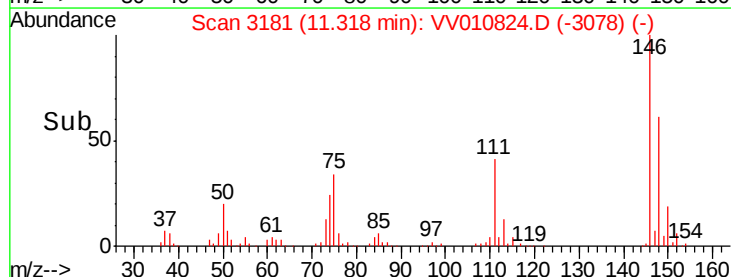
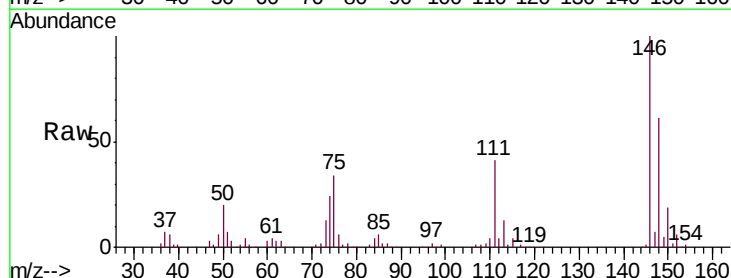
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

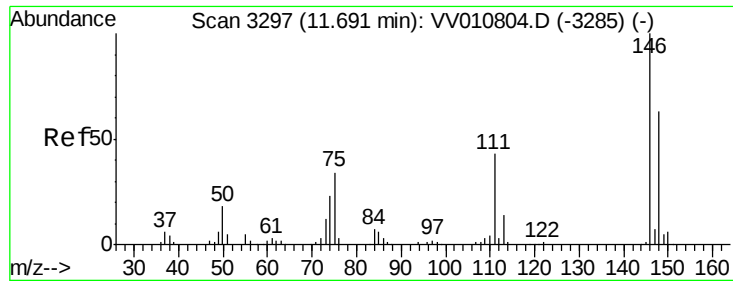
Tgt Ion:146 Resp: 72124  
 Ion Ratio Lower Upper  
 146 100  
 111 43.7 30.6 56.8  
 148 65.3 44.9 83.5



#64  
 1,4-Dichlorobenzene  
 Concen: 22.643 ug/L  
 RT: 11.32 min Scan# 3181  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Tgt Ion:146 Resp: 74596  
 Ion Ratio Lower Upper  
 146 100  
 111 41.2 27.4 50.8  
 148 61.5 45.1 83.9





#65

1,2-Dichlorobenzene

Concen: 23.152 ug/L

RT: 11.69 min Scan# 3297

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02594

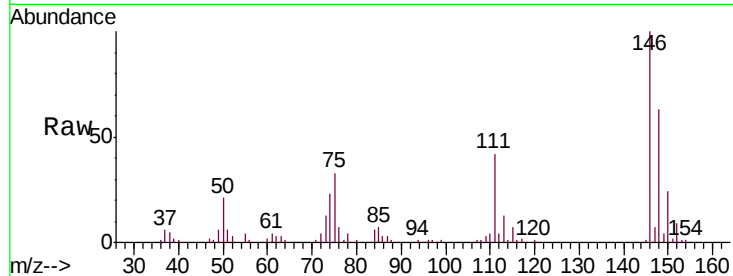
Tgt Ion:146 Resp: 72521

Ion Ratio Lower Upper

146 100

111 41.6 37.0 55.4

148 62.8 51.3 76.9

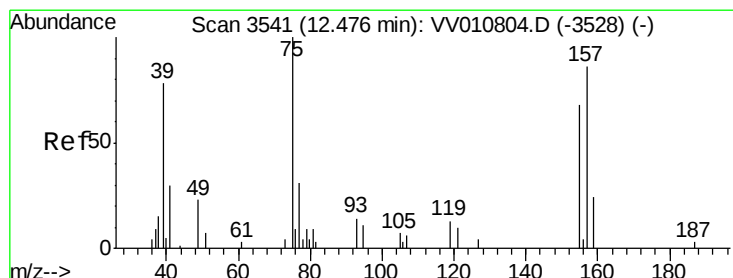
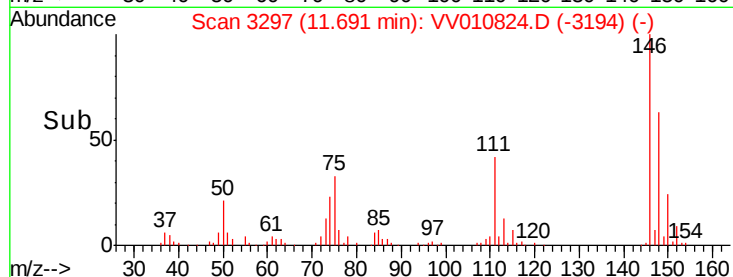
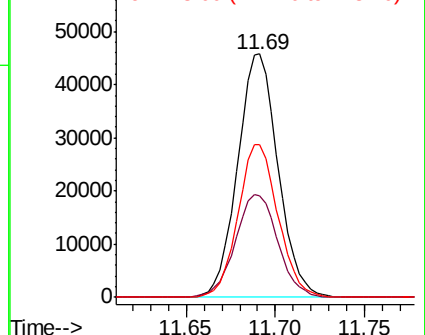


Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 20.935 ug/L

RT: 12.48 min Scan# 3541

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

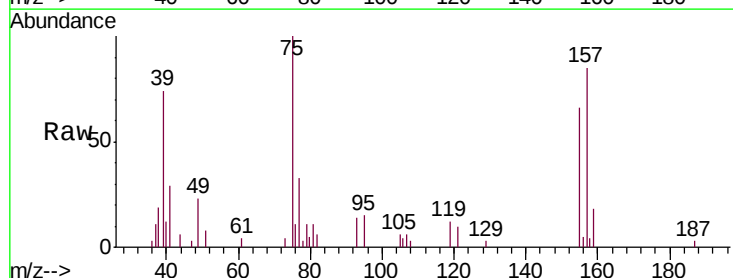
Tgt Ion: 75 Resp: 6085

Ion Ratio Lower Upper

75 100

157 84.7 76.9 115.3

155 66.2 57.9 86.9

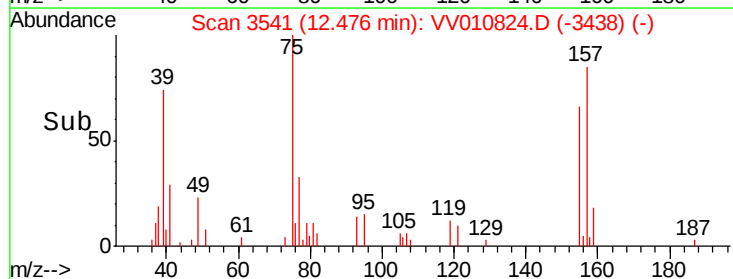
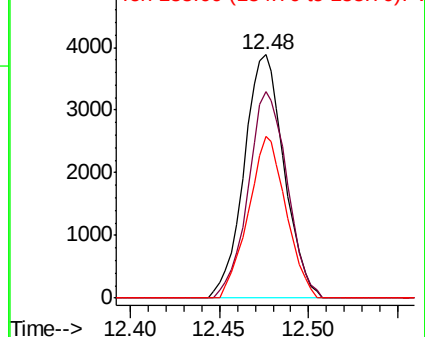


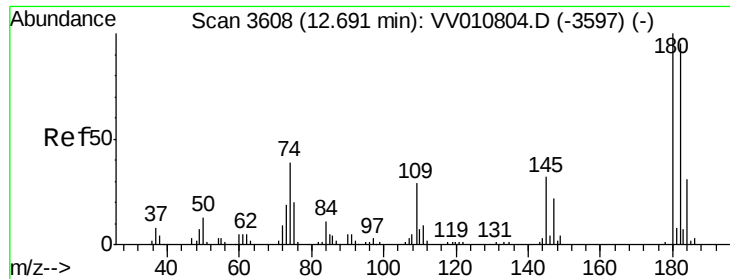
Abundance

Ion 75.00 (74.70 to 75.70): VV0

Ion 157.00 (156.70 to 157.70): V

Ion 155.00 (154.70 to 155.70): V

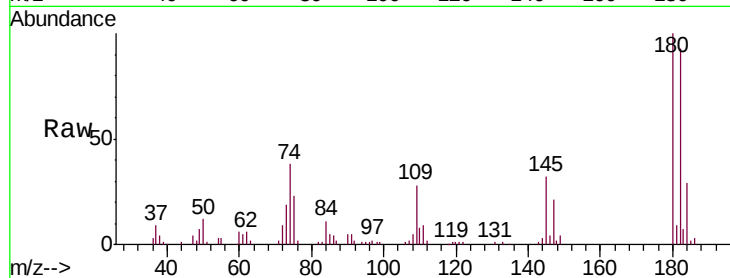




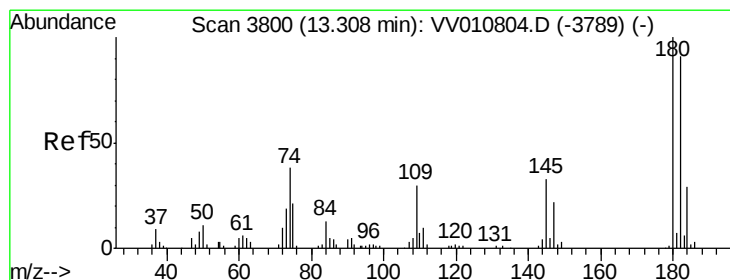
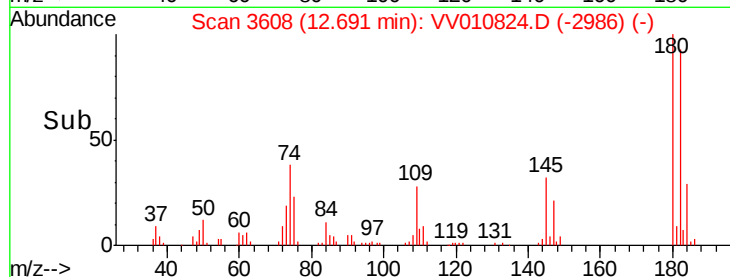
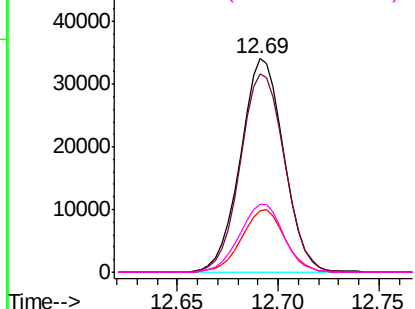
#67  
 1,3,5-Trichlorobenzene  
 Concen: 22.156 ug/L  
 RT: 12.69 min Scan# 3608  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02594

Tgt Ion:180 Resp: 51472  
 Ion Ratio Lower Upper  
 180 100  
 182 94.8 74.7 112.1  
 184 29.1 23.7 35.5  
 145 32.3 26.0 39.0

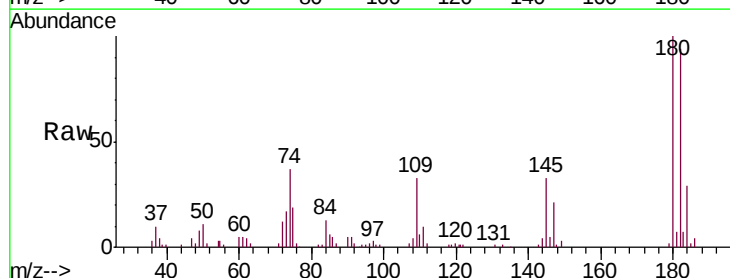


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

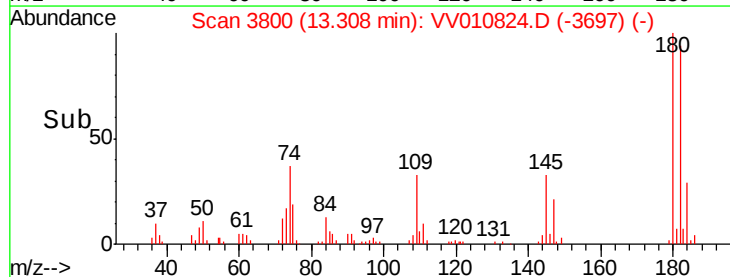
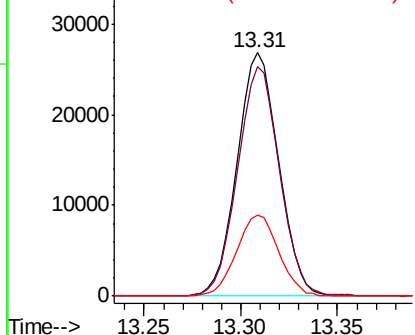


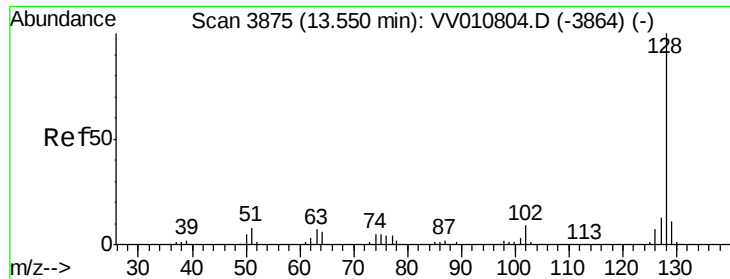
#68  
 1,2,4-trichlorobenzene  
 Concen: 22.345 ug/L  
 RT: 13.31 min Scan# 3800  
 Delta R.T. 0.00 min  
 Lab File: VV010824.D  
 Acq: 10 May 2019 20:10

Tgt Ion:180 Resp: 40166  
 Ion Ratio Lower Upper  
 180 100  
 182 94.9 77.1 115.7  
 145 33.5 28.3 42.5



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





#69

Naphthalene

Concen: 21.014 ug/L

RT: 13.55 min Scan# 3875

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02594

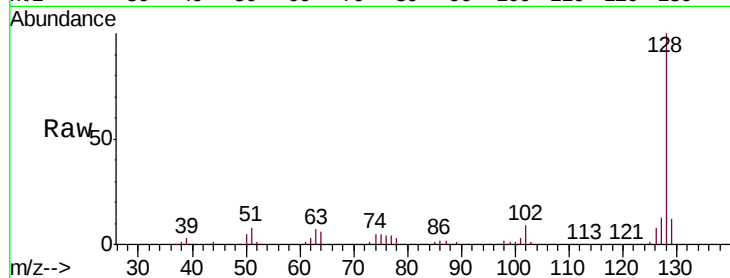
Tgt Ion:128 Resp: 80854

Ion Ratio Lower Upper

128 100

129 11.1 8.3 12.5

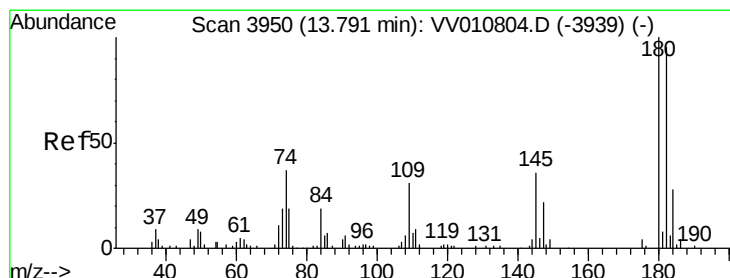
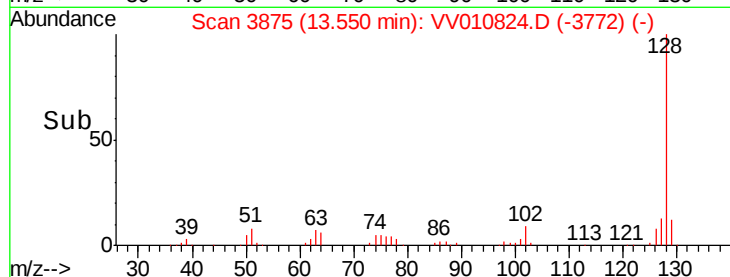
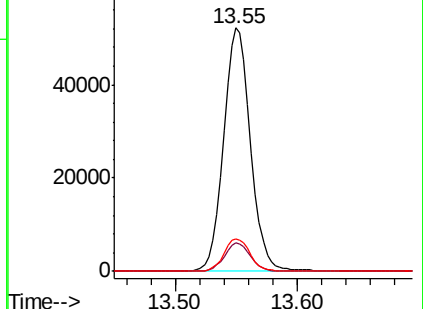
127 12.8 10.8 16.2



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 23.319 ug/L

RT: 13.79 min Scan# 3951

Delta R.T. 0.00 min

Lab File: VV010824.D

Acq: 10 May 2019 20:10

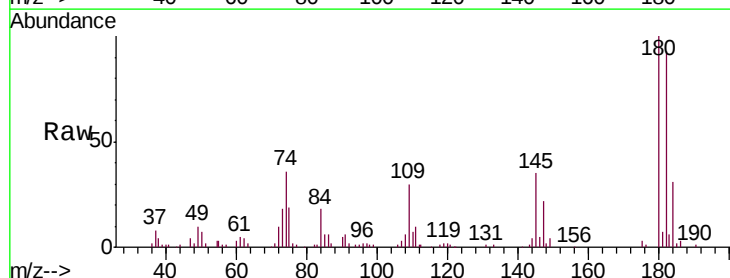
Tgt Ion:180 Resp: 39320

Ion Ratio Lower Upper

180 100

182 93.7 74.3 111.5

145 35.4 28.5 42.7



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

