

Data File : VV014445.D  
Acq On : 31 Jan 2020 09:53  
Operator : SY/MD  
Sample : VSTDCCC005  
Misc : 25.0mL/MSVOA\_V/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00554

Quant Time: Jan 31 23:05:53 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR012920WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Jan 31 07:45:41 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 228853   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 208674   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 99400    | 5.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |        |
|--------------------------------|--------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 55966    | 4.23     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 84.60% |
| 7) Chloroethane-d5             | 1.59   | 69    | 39122    | 4.24     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 84.80% |
| 11) 1,1-Dichloroethene-d2      | 2.13   | 63    | 83066    | 4.31     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 86.20% |
| 20) 2-Butanone-d5              | 3.94   | 46    | 95044    | 35.62    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 71.24% |
| 24) Chloroform-d               | 4.40   | 84    | 126172   | 4.41     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 88.20% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 55560    | 4.37     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 87.40% |
| 32) Benzene-d6                 | 5.09   | 84    | 264789   | 4.45     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 89.00% |
| 36) 1,2-Dichloropropane-d6     | 6.11   | 67    | 80378    | 4.48     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 89.60% |
| 41) Toluene-d8                 | 7.35   | 98    | 241060   | 4.37     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 87.40% |
| 43) trans-1,3-Dichloropropene- | 7.66   | 79    | 32600    | 4.40     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 88.00% |
| 46) 2-Hexanone-d5              | 8.13   | 63    | 123426   | 45.80    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 91.60% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.25  | 84    | 55900    | 4.56     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 91.20% |
| 64) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 82648    | 4.64     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 92.80% |

#### Target Compounds

|                                |      |     |        |        | Qvalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 87945  | 4.759  | ug/L 99  |
| 3) Chloromethane               | 1.25 | 50  | 71190  | 5.007  | ug/L 98  |
| 5) Vinyl chloride              | 1.32 | 62  | 68347  | 4.792  | ug/L 97  |
| 6) Bromomethane                | 1.54 | 94  | 25068  | 5.263  | ug/L 94  |
| 8) Chloroethane                | 1.60 | 64  | 33353  | 4.687  | ug/L 99  |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 93471  | 5.023  | ug/L 97  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101 | 46799  | 4.653  | ug/L 97  |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 43292  | 4.708  | ug/L 96  |
| 13) Acetone                    | 2.20 | 43  | 51063  | 31.313 | ug/L 72  |
| 14) Carbon disulfide           | 2.32 | 76  | 215936 | 4.598  | ug/L 100 |
| 15) Methyl Acetate             | 2.47 | 43  | 16777  | 4.004  | ug/L 95  |
| 16) Methylene chloride         | 2.54 | 84  | 86331  | 4.825  | ug/L 98  |
| 17) Methyl tert-butyl Ether    | 2.80 | 73  | 154388 | 4.620  | ug/L 99  |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 75574  | 4.724  | ug/L 96  |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 137572 | 4.728  | ug/L 99  |
| 21) 2-Butanone                 | 4.03 | 43  | 104728 | 35.113 | ug/L 84  |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 82107  | 4.748  | ug/L 100 |

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Acq On : 31 Jan 2020 09:53  
Operator : SY/MD  
Sample : VSTDCCC005  
Misc : 25.0mL/MSVOA\_V/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00554

Quant Time: Jan 31 23:05:53 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR012920WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Jan 31 07:45:41 2020  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane         | 4.30  | 128  | 30513    | 4.742  | ug/L  | 98       |
| 25) Chloroform                 | 4.42  | 83   | 140553   | 4.810  | ug/L  | 97       |
| 27) 1,2-Dichloroethane         | 5.18  | 62   | 69766    | 4.440  | ug/L  | 98       |
| 29) 1,1,1-Trichloroethane      | 4.65  | 97   | 119465   | 4.831  | ug/L  | 99       |
| 30) Cyclohexane                | 4.72  | 56   | 135125   | 4.736  | ug/L  | 99       |
| 31) Carbon tetrachloride       | 4.87  | 117  | 101655   | 4.834  | ug/L  | 100      |
| 33) Benzene                    | 5.14  | 78   | 313968   | 4.807  | ug/L  | 100      |
| 34) Trichloroethene            | 5.95  | 95   | 81002    | 4.722  | ug/L  | 96       |
| 35) Methylcyclohexane          | 6.17  | 83   | 142350   | 4.824  | ug/L  | 99       |
| 37) 1,2-Dichloropropane        | 6.22  | 63   | 75467    | 4.687  | ug/L  | 100      |
| 38) Bromodichloromethane       | 6.55  | 83   | 95533    | 4.844  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene    | 7.07  | 75   | 117421   | 4.814  | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone       | 7.27  | 43   | 400968   | 45.410 | ug/L  | 98       |
| 42) Toluene                    | 7.43  | 91   | 339310   | 4.886  | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene  | 7.69  | 75   | 87627    | 4.768  | ug/L  | 99       |
| 45) 1,1,2-Trichloroethane      | 7.88  | 97   | 49827    | 4.747  | ug/L  | 98       |
| 47) Tetrachloroethene          | 8.01  | 164  | 59419    | 4.821  | ug/L  | 97       |
| 48) 2-Hexanone                 | 8.18  | 43   | 285077   | 46.342 | ug/L  | 98       |
| 49) Dibromochloromethane       | 8.28  | 129  | 60659    | 4.858  | ug/L  | 98       |
| 50) 1,2-Dibromoethane          | 8.39  | 107  | 46164    | 4.761  | ug/L  | 100      |
| 51) Chlorobenzene              | 8.92  | 112  | 206306   | 4.787  | ug/L  | 99       |
| 52) Ethylbenzene               | 9.05  | 91   | 374404   | 4.800  | ug/L  | 99       |
| 53) m,p-xylene                 | 9.18  | 106  | 142273   | 4.897  | ug/L  | 99       |
| 54) o-xylene                   | 9.58  | 106  | 136397   | 4.808  | ug/L  | 96       |
| 55) Styrene                    | 9.60  | 104  | 224708   | 4.824  | ug/L  | 97       |
| 56) Isopropylbenzene           | 9.97  | 105  | 362063   | 4.868  | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.28 | 83   | 59009    | 4.837  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.31 | 75   | 41234    | 4.605  | ug/L  | 98       |
| 61) Bromoform                  | 9.77  | 173  | 30025    | 4.976  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.22 | 146  | 159099   | 4.925  | ug/L  | 98       |
| 63) 1,4-Dichlorobenzene        | 11.31 | 146  | 157150   | 4.879  | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene        | 11.68 | 146  | 139921   | 4.799  | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan | 12.47 | 75   | 9372     | 4.072  | ug/L  | 99       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 116635   | 4.892  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.30 | 180  | 97633    | 4.871  | ug/L  | 100      |
| 69) Naphthalene                | 13.55 | 128  | 168253   | 4.768  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 84678    | 4.885  | ug/L  | 99       |

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

Data File : VV014445.D

Acq On : 31 Jan 2020 09:53

Operator : SY/MD

Sample : VSTDCCC005

Misc : 25.0mL/MSVOA V/WATER

```
ALS Vial      : 2      Sample Multiplier: 1
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**Instrument :**  
MSVOA\_V  
**ClientSampleId :**  
VSTD00554

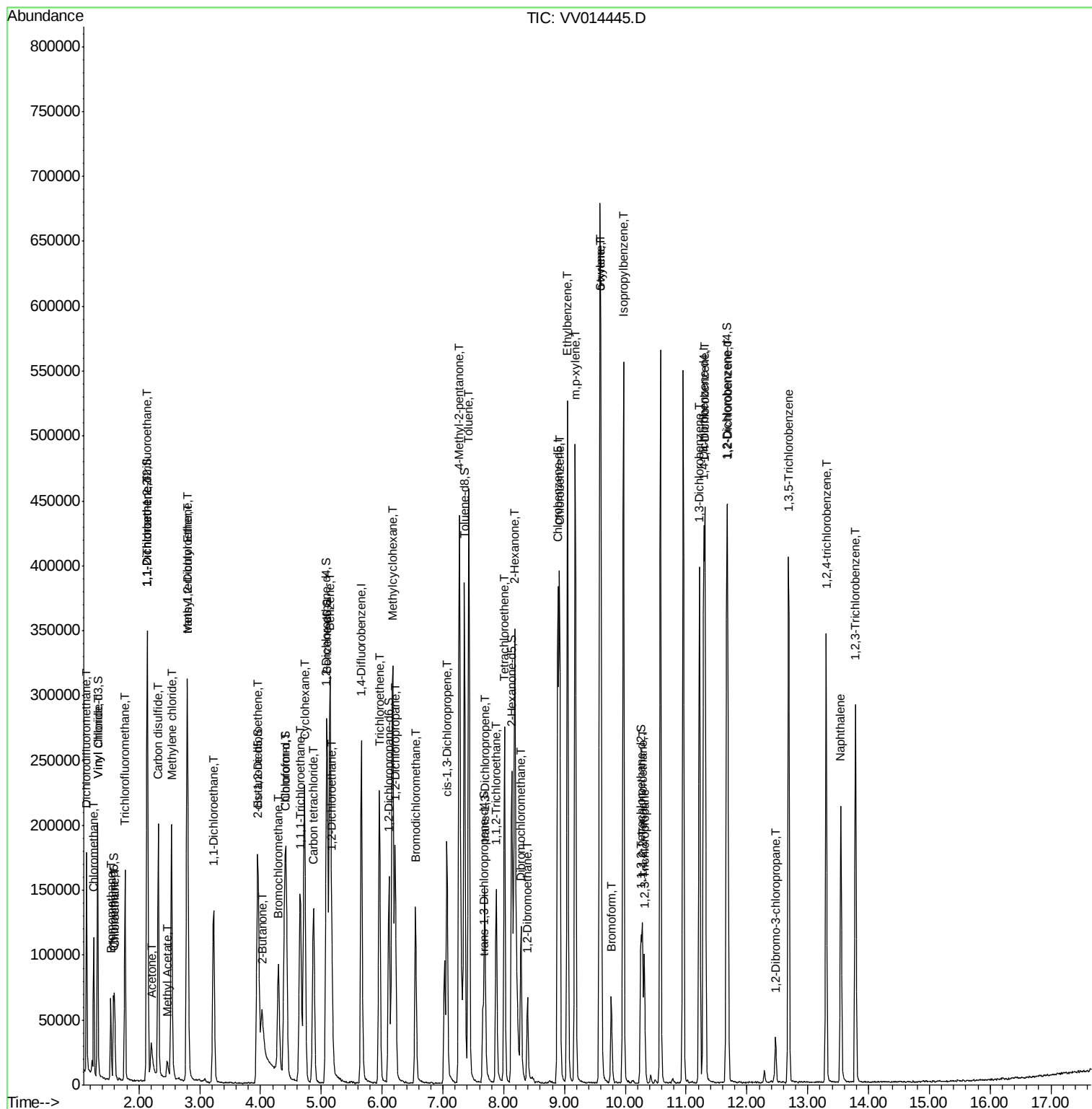
Quant Time: Jan 31 23:05:53 2020

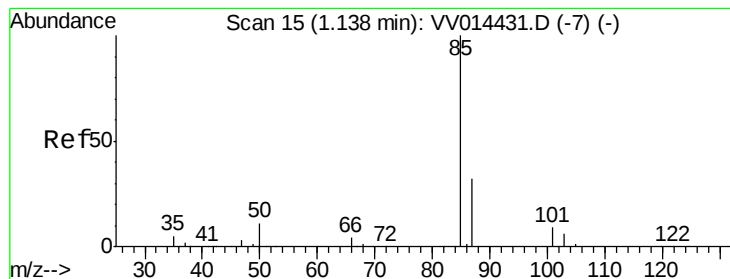
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR012920WMA.M

Quant Title : TRACE VOA SOM01.0

QLast Update : Fri Jan 31 07:45:41 2020

Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 4.759 ug/L

RT: 1.14 min Scan# 15

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

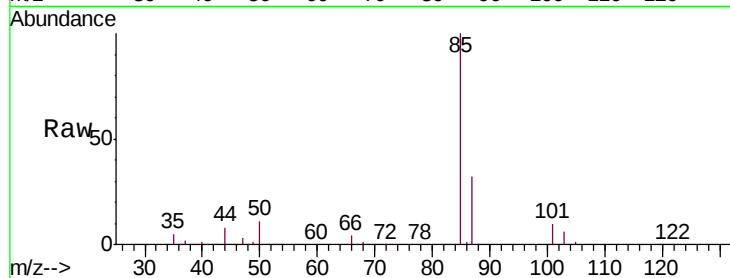
VSTD00554

Tgt Ion: 85.00 Resp: 87945

Ion Ratio Lower Upper

85 100

87 32.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VV014431.D (-7) (-)

Ion 87.00 (86.70 to 87.70): VV014431.D (-7) (-)

1.14

100000

80000

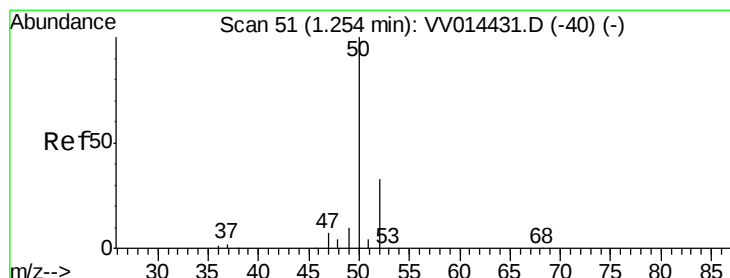
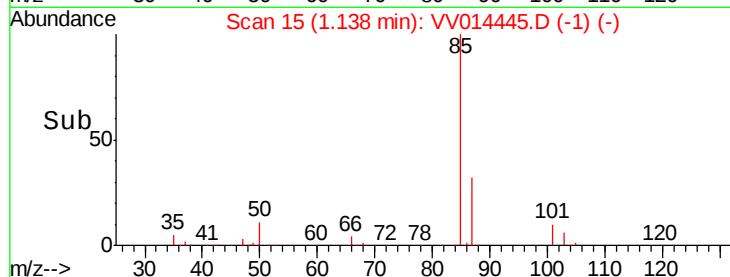
60000

40000

20000

0

Time-->



#3

Chloromethane

Concen: 5.007 ug/L

RT: 1.25 min Scan# 51

Delta R.T. 0.00 min

Lab File: VV014445.D

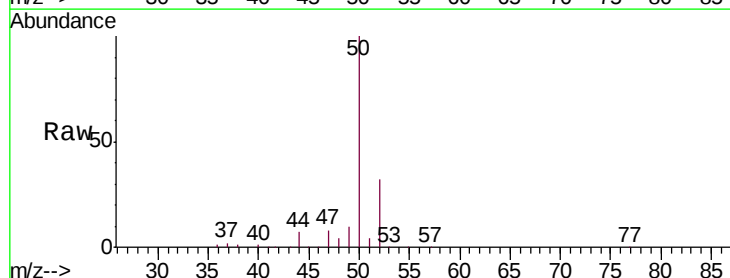
Acq: 31 Jan 2020 09:53

Tgt Ion: 50.00 Resp: 71190

Ion Ratio Lower Upper

50 100

52 32.3 23.4 43.6



Abundance Ion 50.05 (49.75 to 50.75): VV014431.D (-40) (-)

Ion 52.05 (51.75 to 52.75): VV014431.D (-40) (-)

1.25

80000

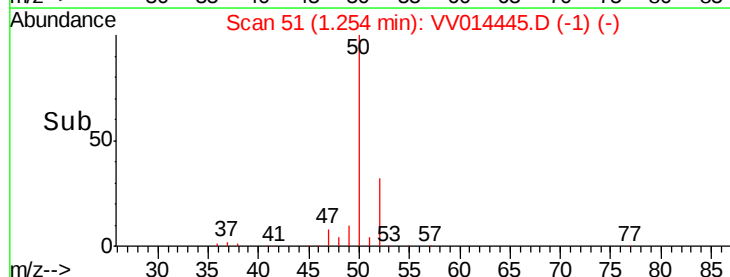
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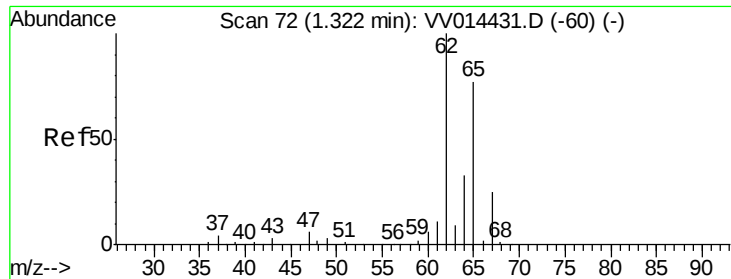
40000

20000

0

Time-->





#5

Vinyl chloride

Concen: 4.792 ug/L

RT: 1.32 min Scan# 72

Delta R.T. -0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

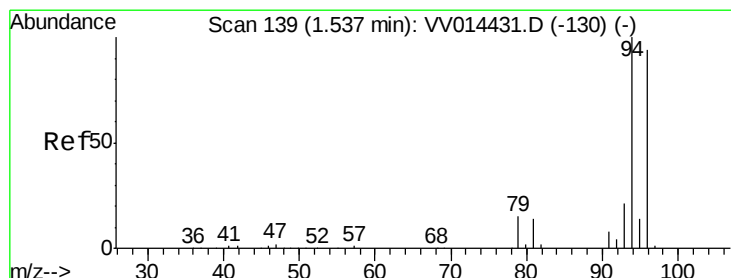
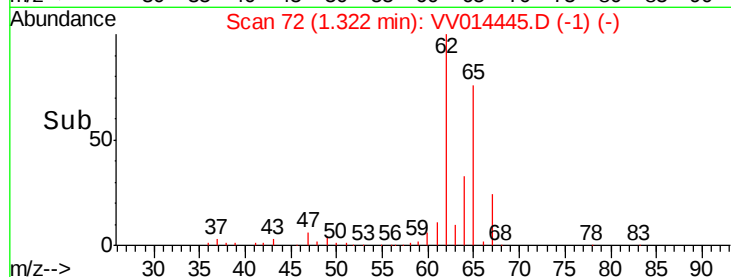
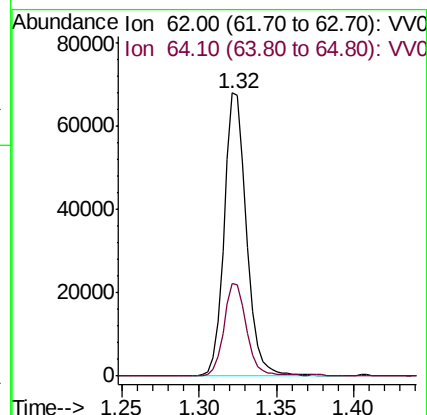
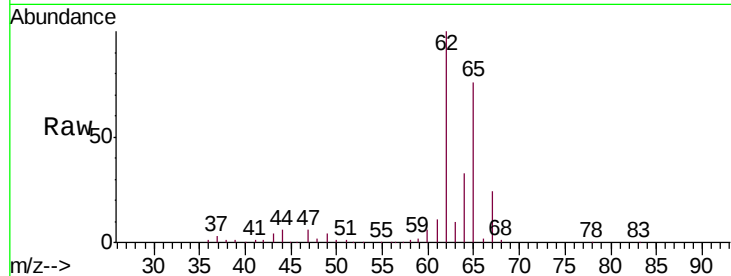
VSTD00554

Tgt Ion: 62 Resp: 68347

Ion Ratio Lower Upper

62 100

64 32.8 24.0 44.6



#6

Bromomethane

Concen: 5.263 ug/L

RT: 1.54 min Scan# 139

Delta R.T. 0.00 min

Lab File: VV014445.D

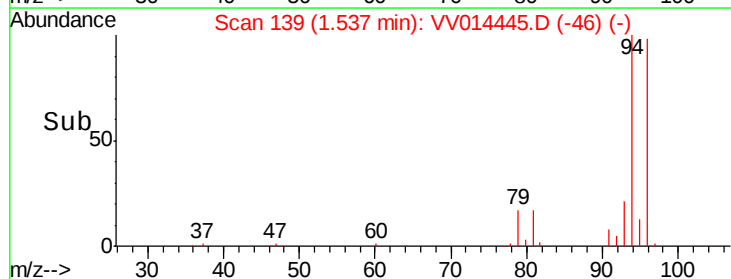
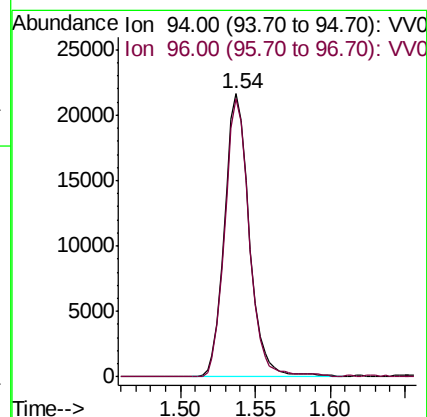
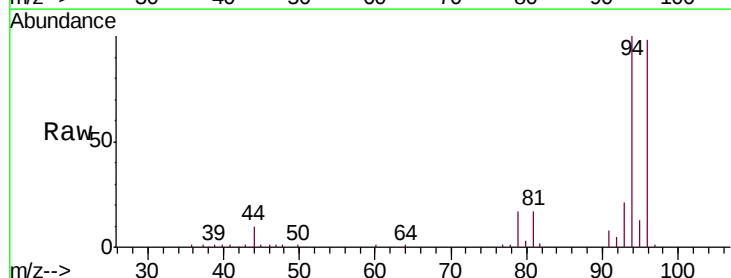
Acq: 31 Jan 2020 09:53

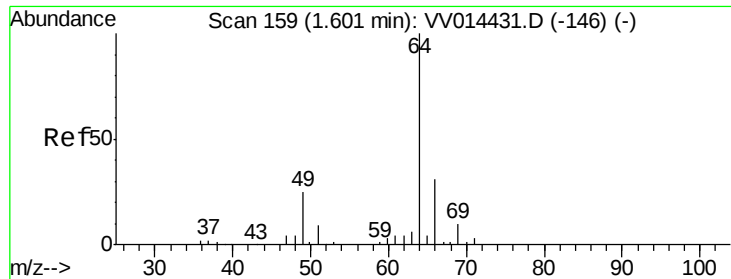
Tgt Ion: 94 Resp: 25068

Ion Ratio Lower Upper

94 100

96 98.3 65.1 120.9





#8

Chloroethane

Concen: 4.687 ug/L

RT: 1.60 min Scan# 159

Delta R.T. -0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

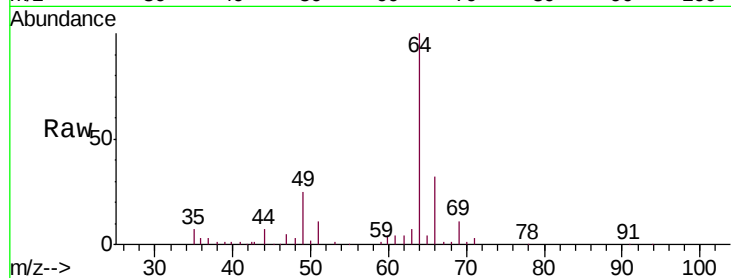
VSTD00554

Tgt Ion: 64 Resp: 33353

Ion Ratio Lower Upper

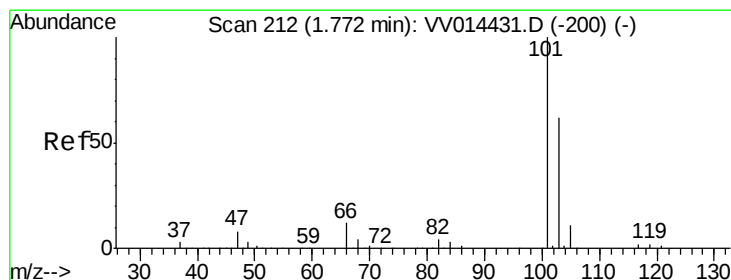
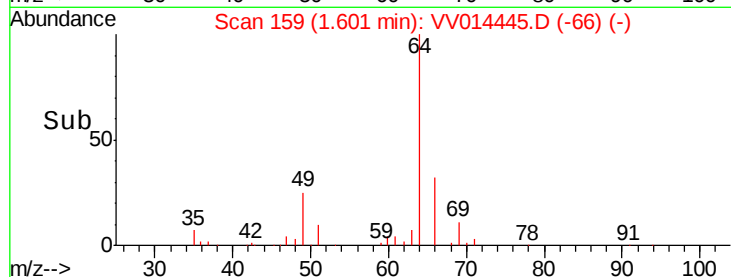
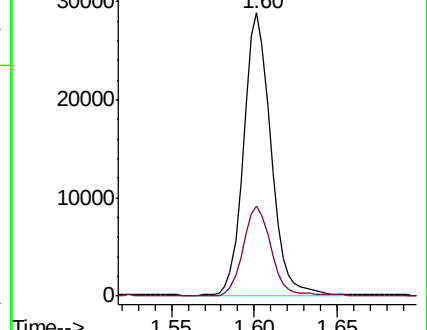
64 100

66 31.7 21.7 40.3



Abundance Ion 64.10 (63.80 to 64.80): VV014431.D (-146) (-)

Ion 66.05 (65.75 to 66.75): VV014431.D (-146) (-)



#9

Trichlorofluoromethane

Concen: 5.023 ug/L

RT: 1.77 min Scan# 212

Delta R.T. 0.00 min

Lab File: VV014445.D

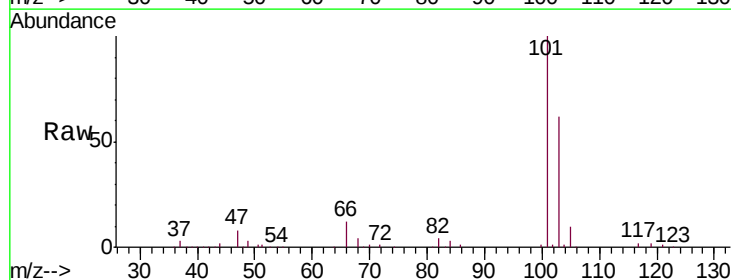
Acq: 31 Jan 2020 09:53

Tgt Ion: 101 Resp: 93471

Ion Ratio Lower Upper

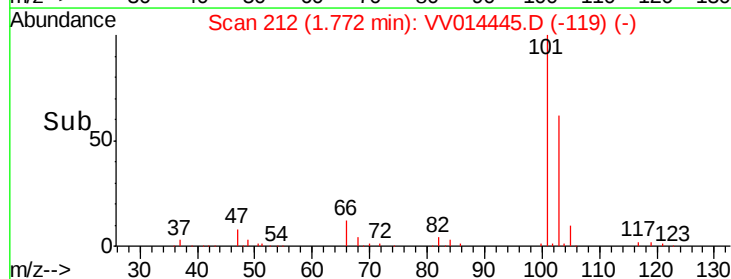
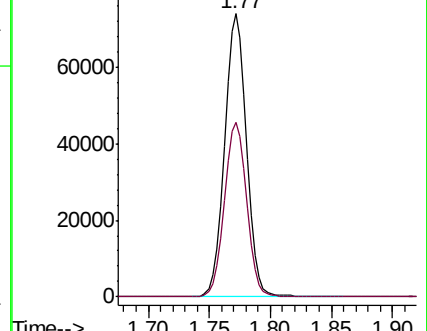
101 100

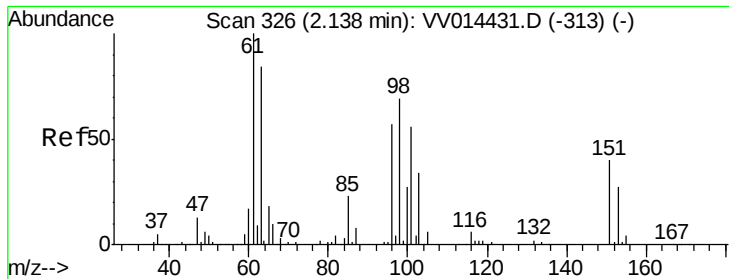
103 62.9 52.5 78.7



Abundance Ion 101.00 (100.70 to 101.70): VV014431.D (-200) (-)

Ion 103.00 (102.70 to 103.70): VV014431.D (-200) (-)





#10

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

Concen: 4.653 ug/L

RT: 2.14 min Scan# 327

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00554

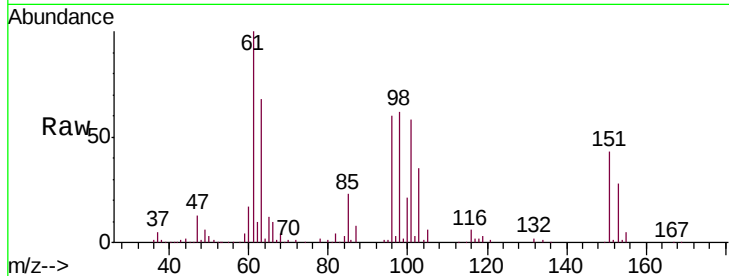
Tgt Ion: 101 Resp: 46799

Ion Ratio Lower Upper

101 100

85 42.1 33.2 49.8

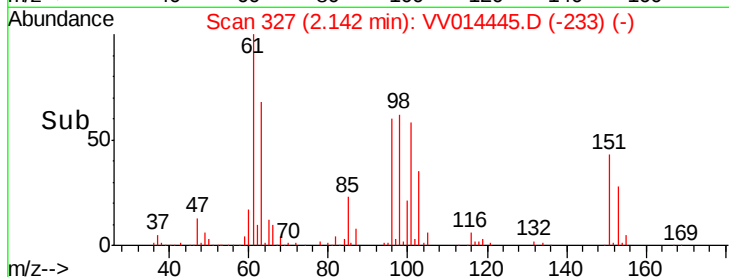
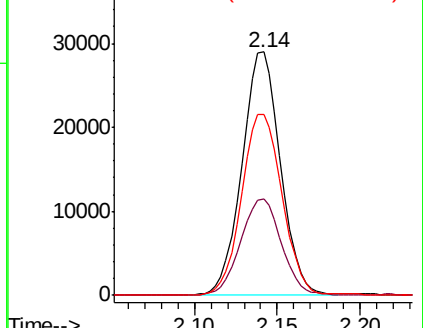
151 78.5 59.6 89.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VV0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 4.708 ug/L

RT: 2.14 min Scan# 327

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

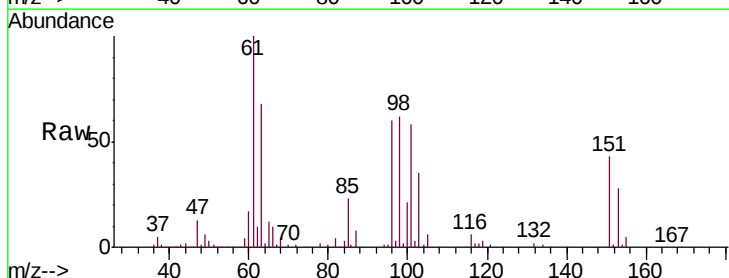
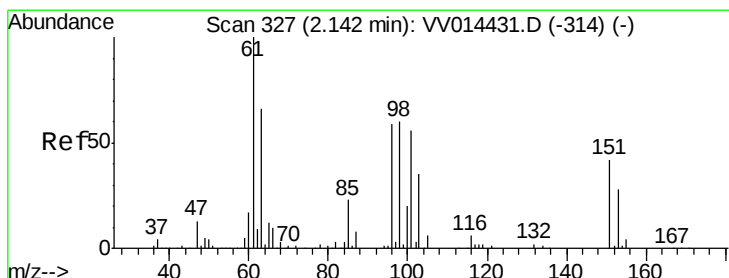
Tgt Ion: 96 Resp: 43292

Ion Ratio Lower Upper

96 100

61 165.9 120.0 223.0

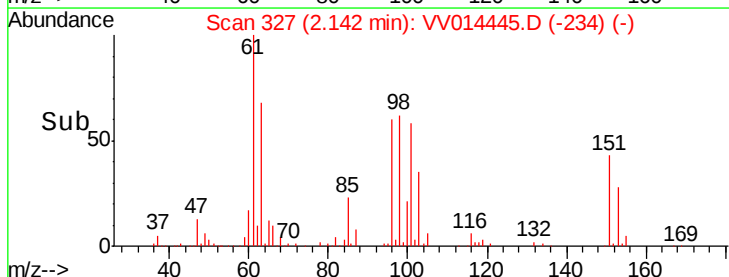
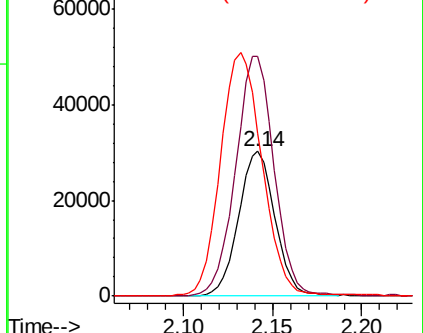
63 112.8 82.4 153.0

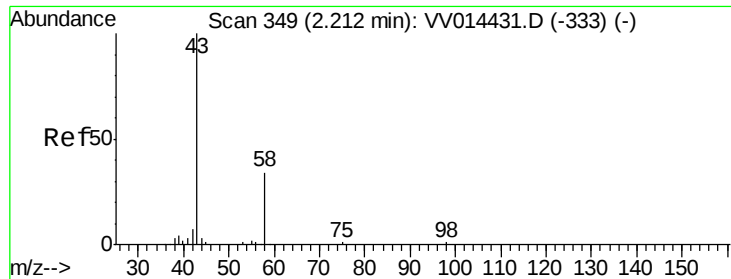


Abundance Ion 96.00 (95.70 to 96.70): VV0

Ion 61.05 (60.75 to 61.75): VV0

Ion 63.00 (62.70 to 63.70): VV0





#13

Acetone

Concen: 31.313 ug/L

RT: 2.20 min Scan# 346

Delta R.T. -0.01 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

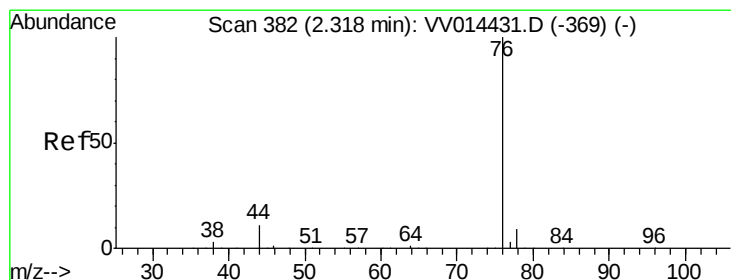
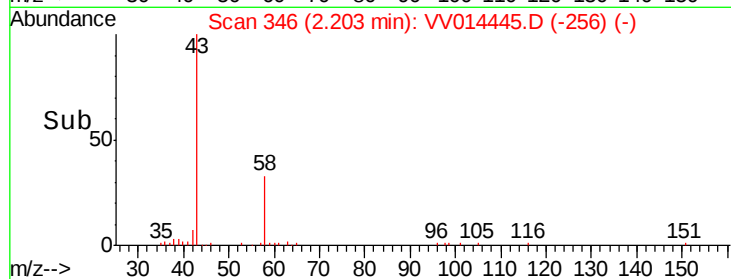
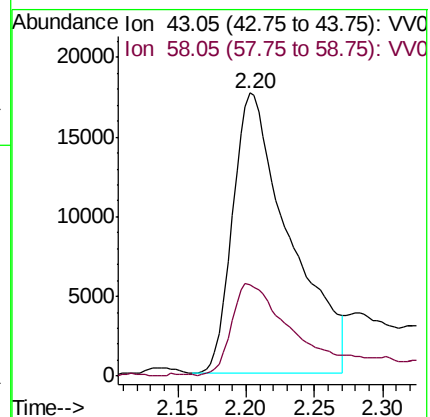
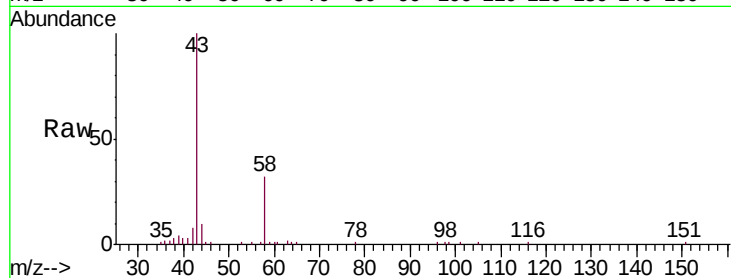
VSTD00554

Tgt Ion: 43 Resp: 51063

Ion Ratio Lower Upper

43 100

58 37.3 0.0 47.0



#14

Carbon disulfide

Concen: 4.598 ug/L

RT: 2.32 min Scan# 382

Delta R.T. 0.00 min

Lab File: VV014445.D

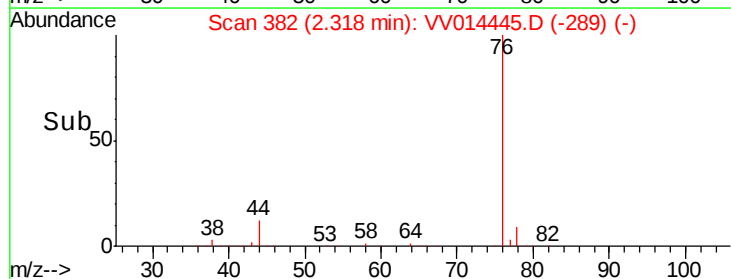
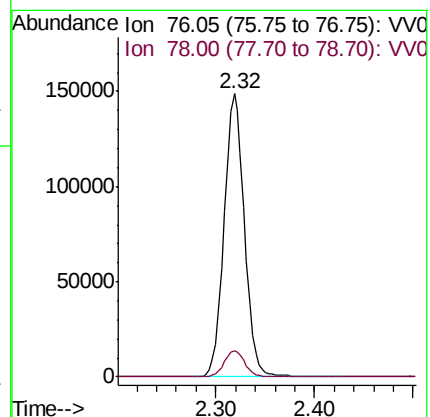
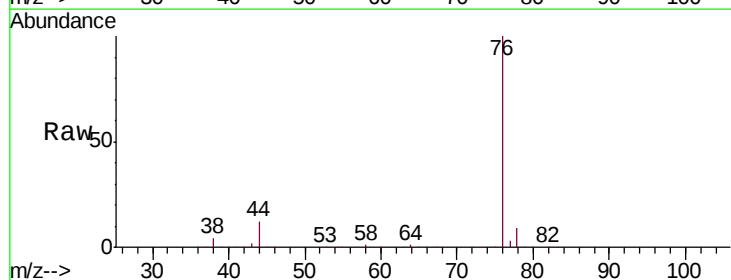
Acq: 31 Jan 2020 09:53

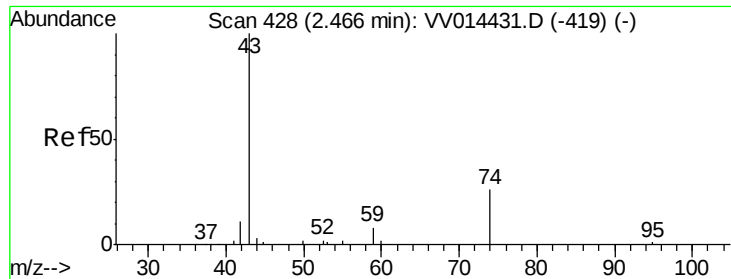
Tgt Ion: 76 Resp: 215936

Ion Ratio Lower Upper

76 100

78 9.2 7.4 11.0





#15

Methyl Acetate

Concen: 4.004 ug/L

RT: 2.47 min Scan# 428

Delta R.T. -0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

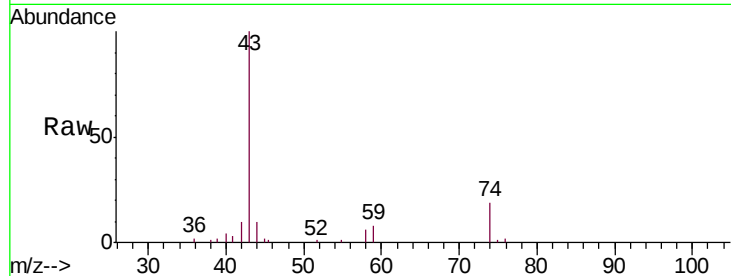
VSTD00554

Tgt Ion: 43 Resp: 16777

Ion Ratio Lower Upper

43 100

74 25.9 18.8 28.2



Abundance Ion 43.05 (42.75 to 43.75): VV0

Ion 74.05 (73.75 to 74.75): VV0

12000

10000

8000

6000

4000

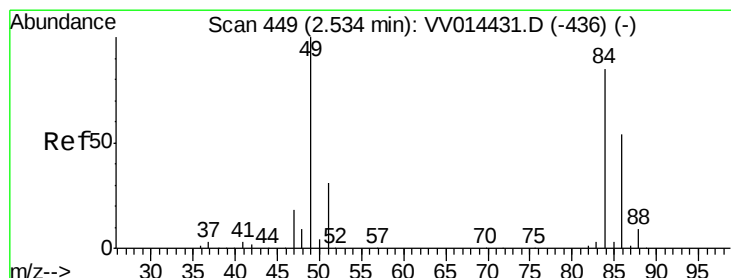
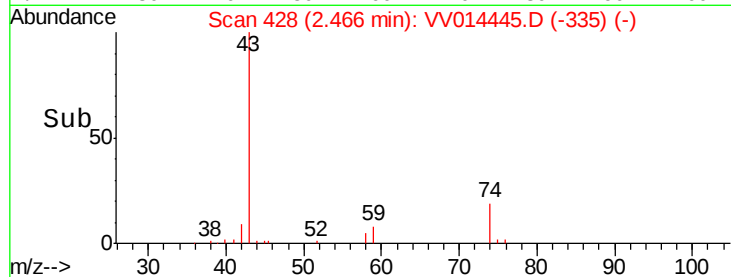
2000

0

Time-->

2.40 2.45 2.50 2.55

2.47



#16

Methylene chloride

Concen: 4.825 ug/L

RT: 2.54 min Scan# 450

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

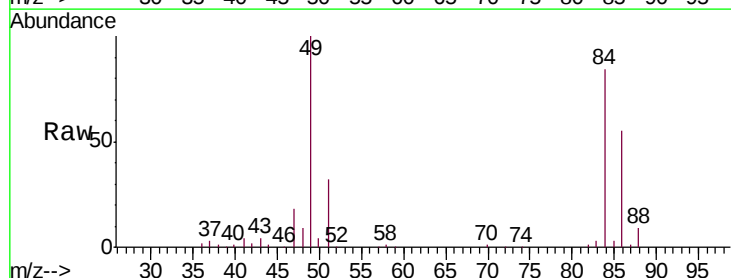
Tgt Ion: 84 Resp: 86331

Ion Ratio Lower Upper

84 100

86 65.3 45.6 84.6

49 119.7 86.1 159.9



Abundance Ion 84.05 (83.75 to 84.75): VV0

Ion 86.00 (85.70 to 86.70): VV0

Ion 49.10 (48.80 to 49.80): VV0

80000

60000

40000

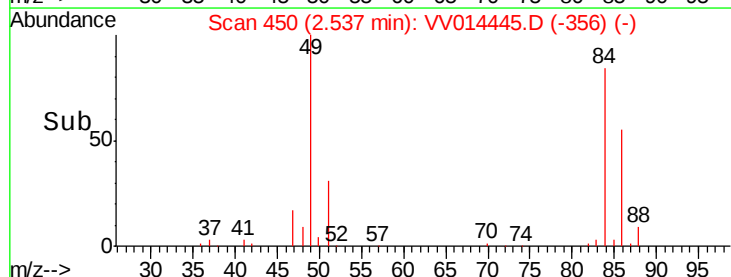
20000

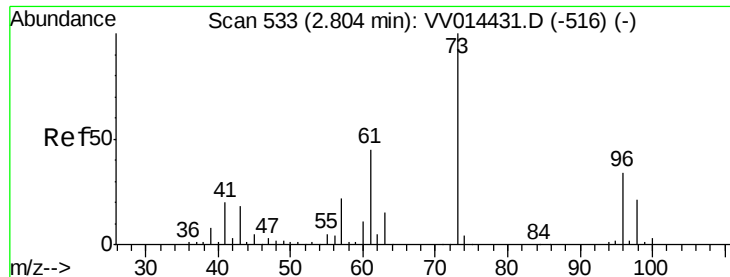
0

Time-->

2.45 2.50 2.55 2.60 2.65

2.54

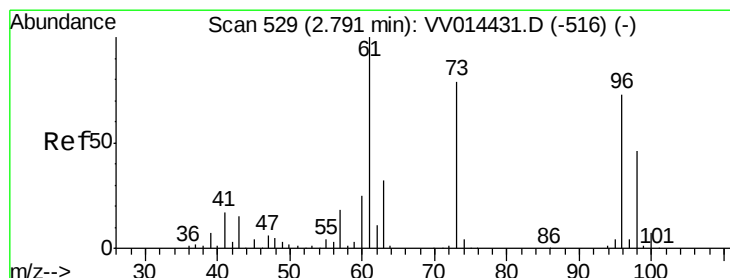
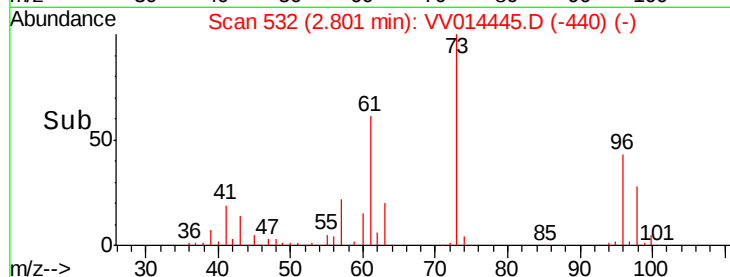
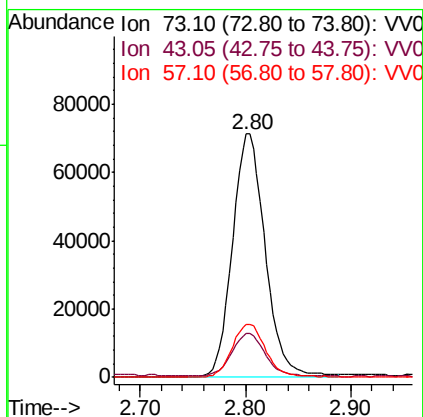
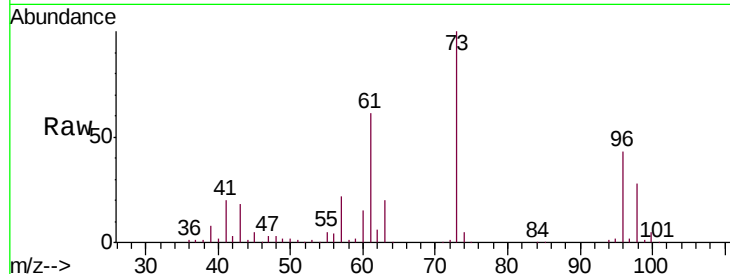




#17  
Methyl tert-butyl Ether  
Concen: 4.620 ug/L  
RT: 2.80 min Scan# 532  
Delta R.T. -0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

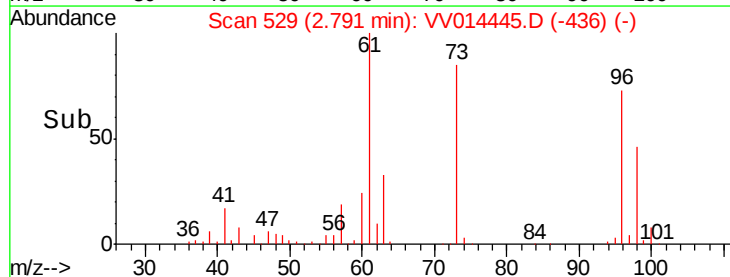
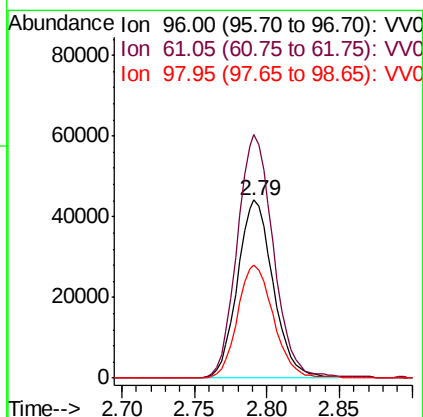
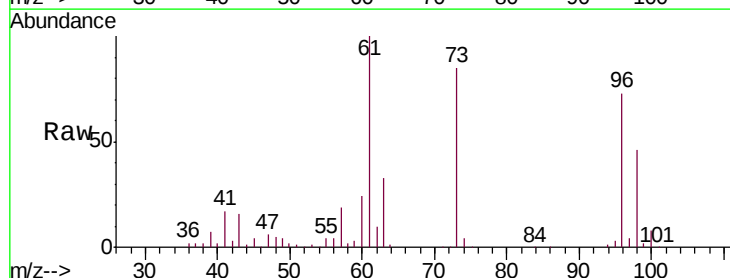
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00554

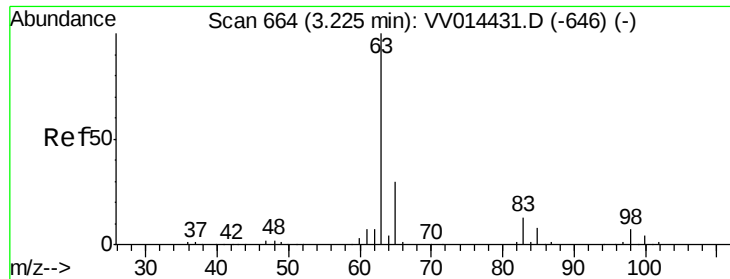
Tgt Ion: 73 Resp: 154388  
Ion Ratio Lower Upper  
73 100  
43 17.7 14.2 21.2  
57 22.2 18.5 27.7



#18  
trans-1,2-Dichloroethene  
Concen: 4.724 ug/L  
RT: 2.79 min Scan# 529  
Delta R.T. 0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

Tgt Ion: 96 Resp: 75574  
Ion Ratio Lower Upper  
96 100  
61 136.8 99.9 185.5  
98 63.2 45.4 84.4

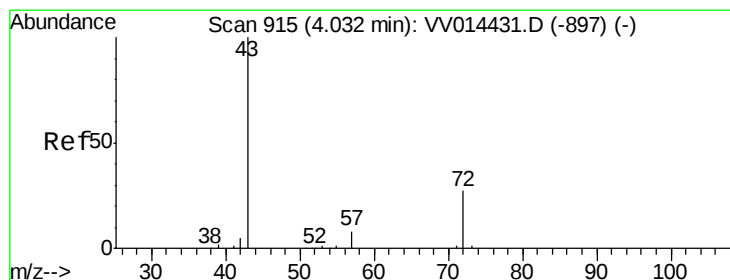
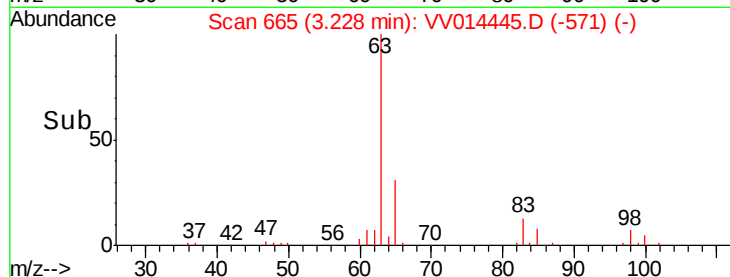
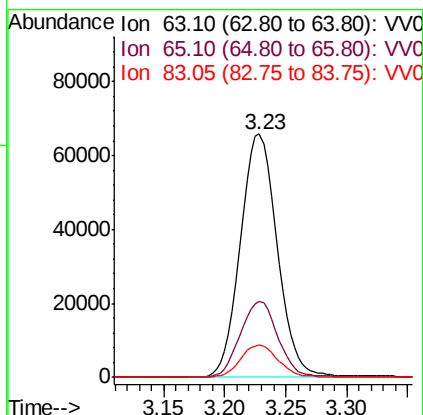
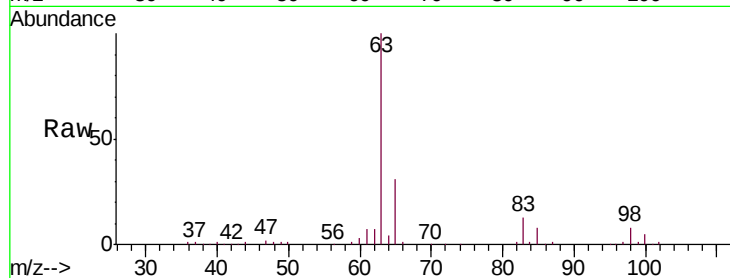




#19  
 1,1-Dichloroethane  
 Concen: 4.728 ug/L  
 RT: 3.23 min Scan# 665  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

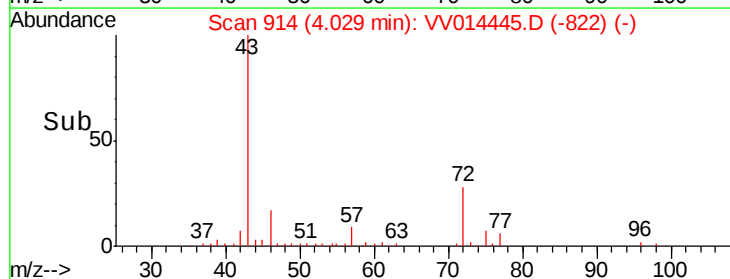
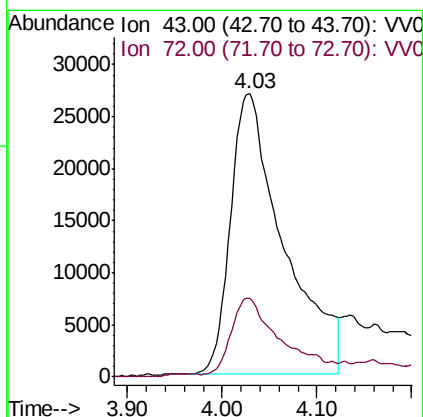
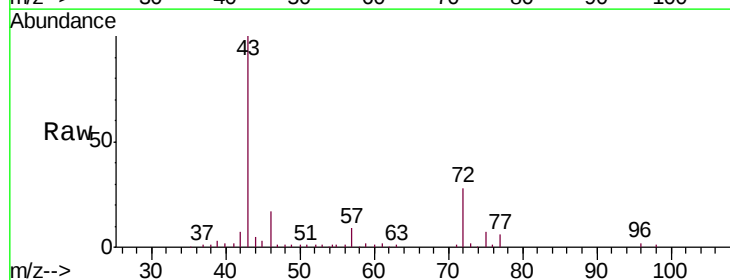
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00554

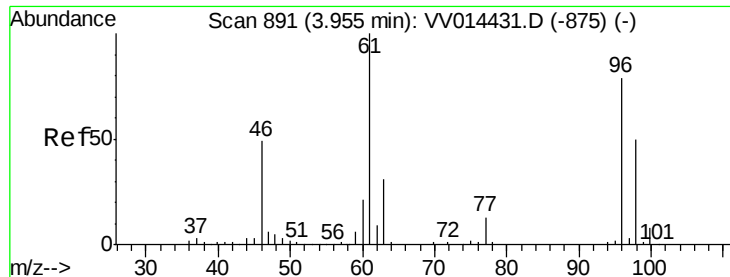
Tgt Ion: 63 Resp: 137572  
 Ion Ratio Lower Upper  
 63 100  
 65 31.2 22.4 41.6  
 83 13.1 9.2 17.2



#21  
 2-Butanone  
 Concen: 35.113 ug/L  
 RT: 4.03 min Scan# 914  
 Delta R.T. -0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Tgt Ion: 43 Resp: 104728  
 Ion Ratio Lower Upper  
 43 100  
 72 25.6 9.2 27.6



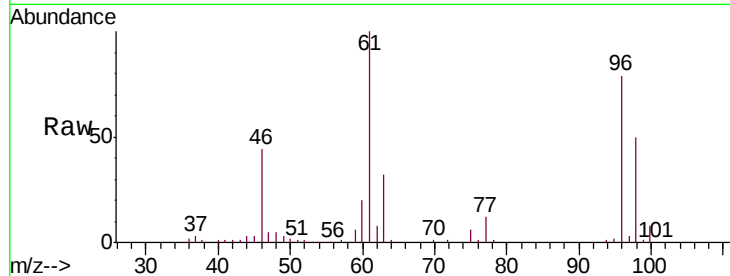


#22

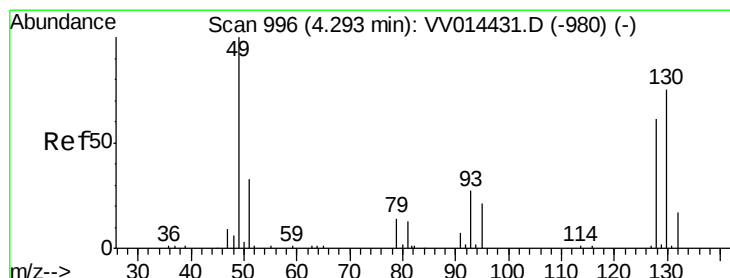
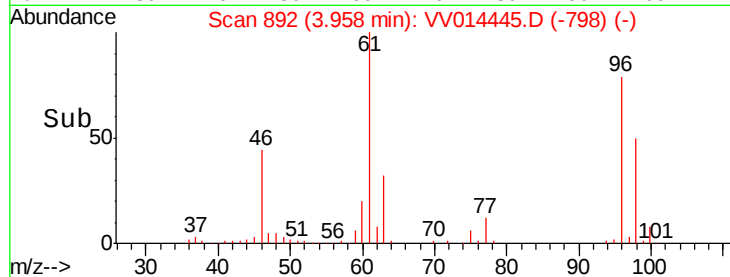
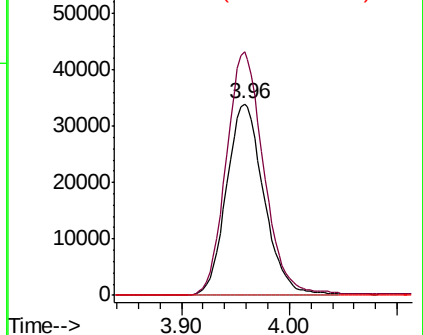
cis-1,2-Dichloroethene  
 Concen: 4.748 ug/L  
 RT: 3.96 min Scan# 892  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00554

Tgt Ion: 96 Resp: 82107  
 Ion Ratio Lower Upper  
 96 100  
 61 127.0 88.5 164.4  
 68 0.0 0.0 0.0



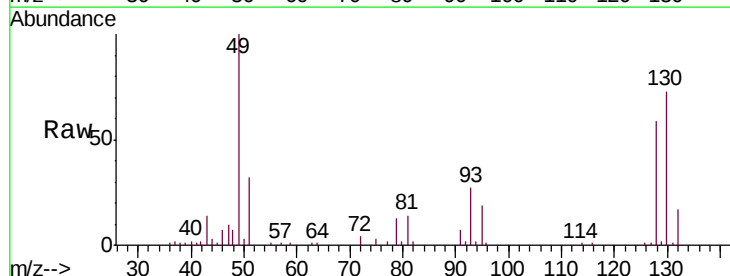
Abundance Ion 96.00 (95.70 to 96.70): VV0  
 Ion 61.05 (60.75 to 61.75): VV0  
 Ion 68.15 (67.85 to 68.85): VV0



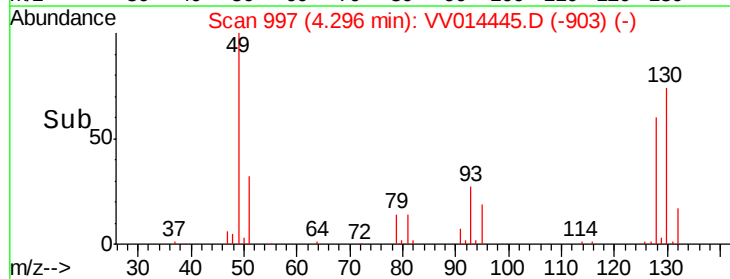
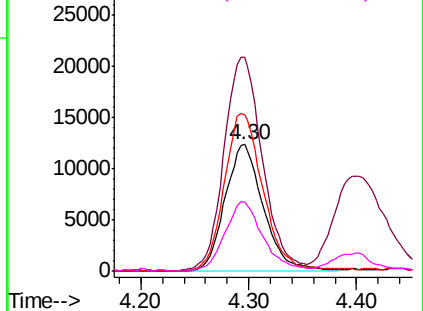
#23

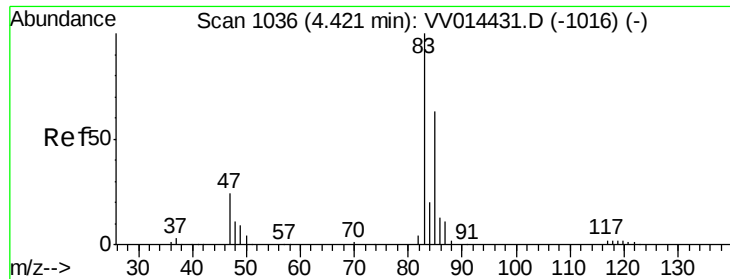
Bromochloromethane  
 Concen: 4.742 ug/L  
 RT: 4.30 min Scan# 997  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Tgt Ion: 128 Resp: 30513  
 Ion Ratio Lower Upper  
 128 100  
 49 168.8 114.9 213.5  
 130 123.2 85.7 159.1  
 51 54.5 42.6 64.0



Abundance Ion 127.90 (127.60 to 128.60): V  
 Ion 49.10 (48.80 to 49.80): VV0  
 Ion 129.95 (129.65 to 130.65): V  
 Ion 51.05 (50.75 to 51.75): VV0

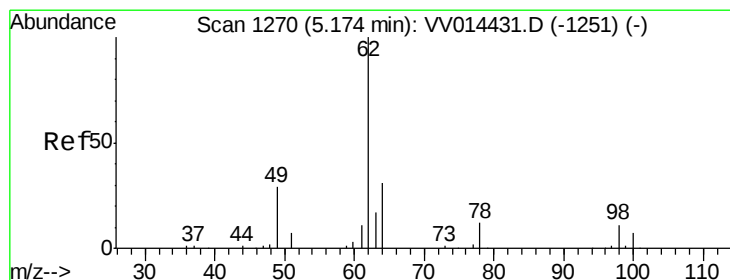
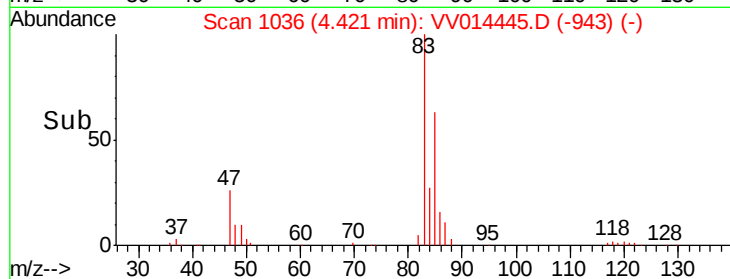
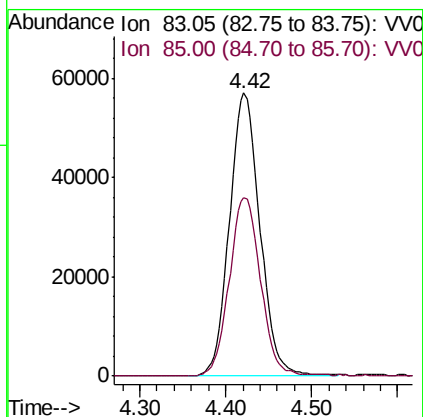
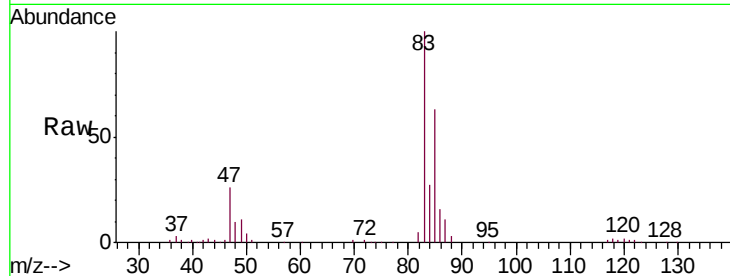




#25  
Chloroform  
Concen: 4.810 ug/L  
RT: 4.42 min Scan# 1036  
Delta R.T. 0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

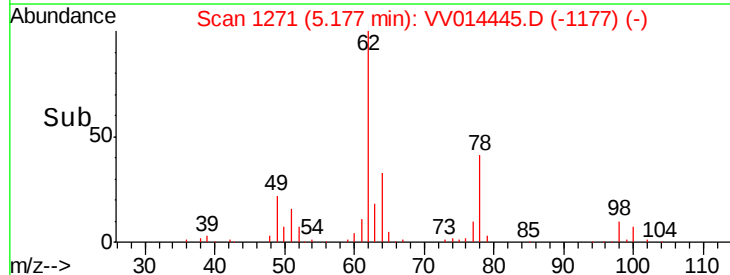
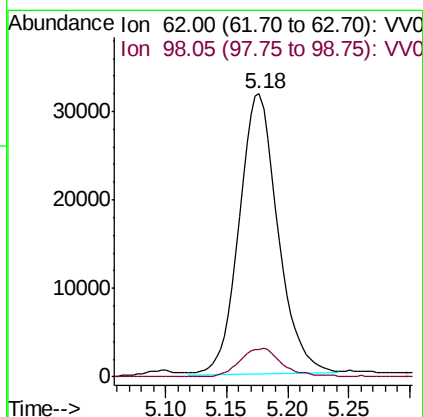
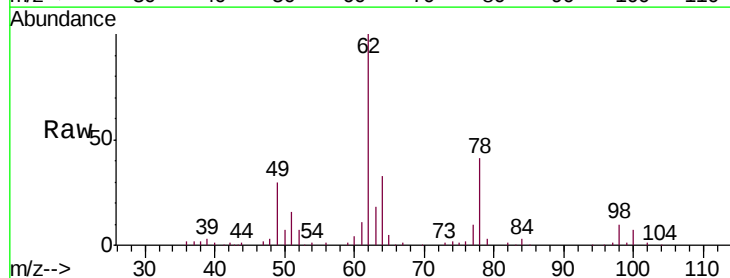
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00554

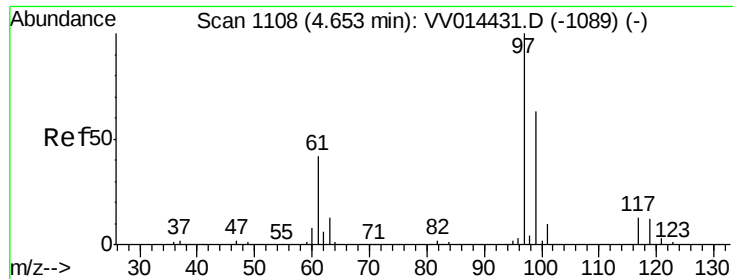
Tgt Ion: 83 Resp: 140553  
Ion Ratio Lower Upper  
83 100  
85 63.1 45.9 85.3



#27  
1,2-Dichloroethane  
Concen: 4.440 ug/L  
RT: 5.18 min Scan# 1271  
Delta R.T. 0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

Tgt Ion: 62 Resp: 69766  
Ion Ratio Lower Upper  
62 100  
98 9.8 8.5 12.7

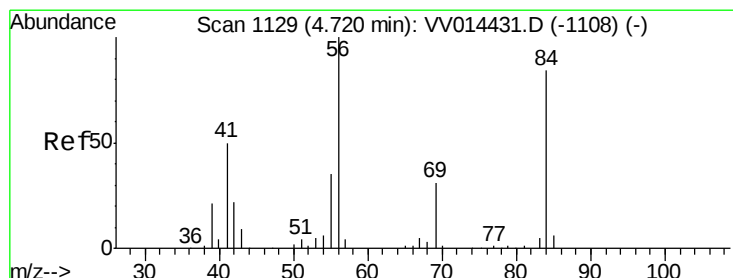
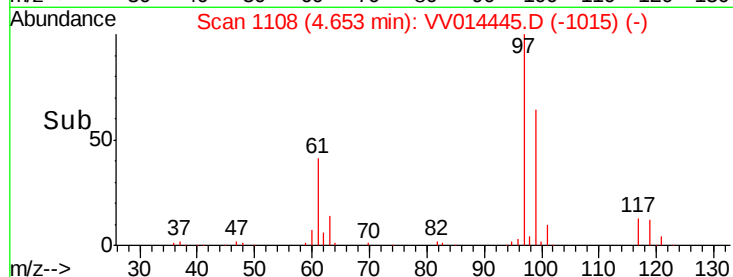
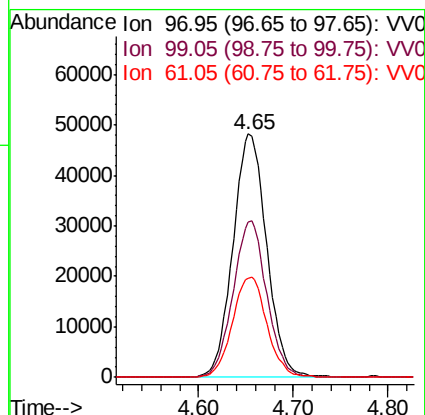
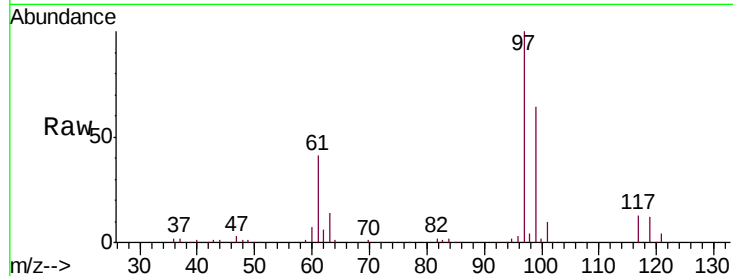




#29  
 1,1,1-Trichloroethane  
 Concen: 4.831 ug/L  
 RT: 4.65 min Scan# 1108  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

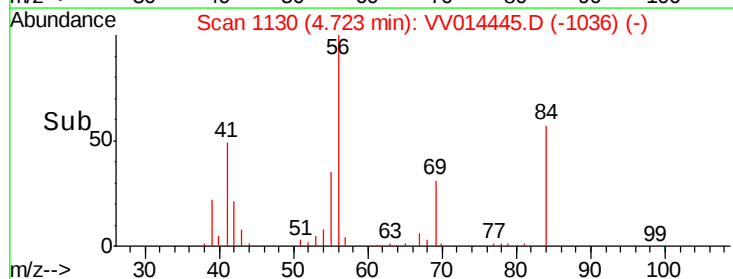
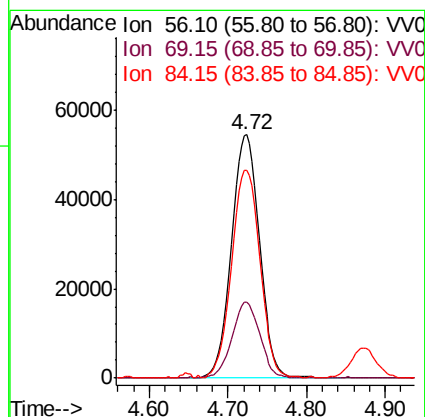
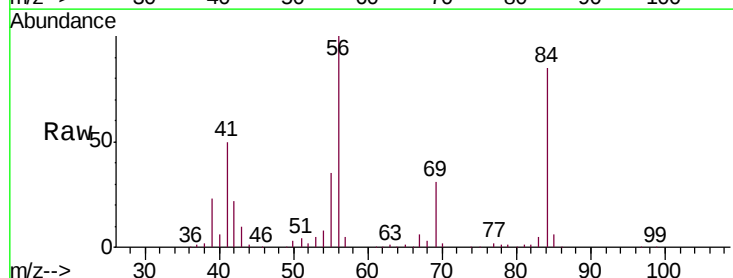
Instrument :  
 MSVOA\_V  
 ClientSampled :  
 VSTD00554

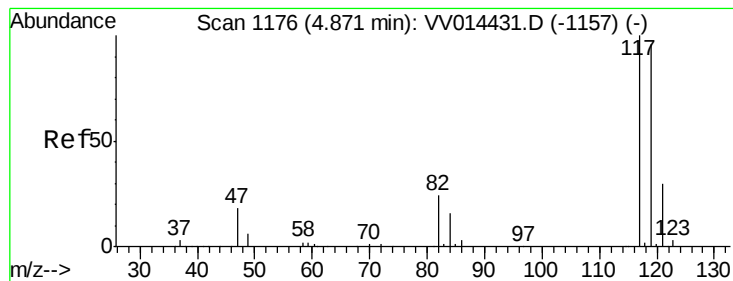
Tgt Ion: 97 Resp: 119465  
 Ion Ratio Lower Upper  
 97 100  
 99 64.3 51.1 76.7  
 61 42.3 34.2 51.2



#30  
 Cyclohexane  
 Concen: 4.736 ug/L  
 RT: 4.72 min Scan# 1130  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Tgt Ion: 56 Resp: 135125  
 Ion Ratio Lower Upper  
 56 100  
 69 30.9 24.1 36.1  
 84 86.7 68.8 103.2





#31

Carbon tetrachloride

Concen: 4.834 ug/L

RT: 4.87 min Scan# 1177

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

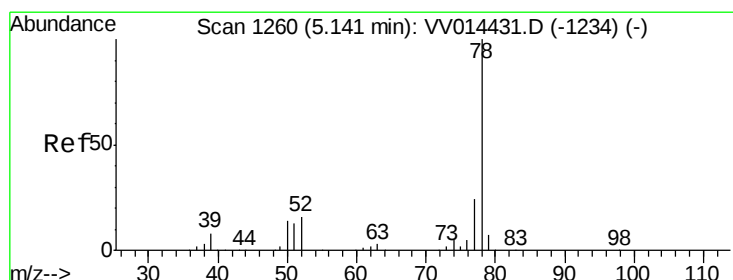
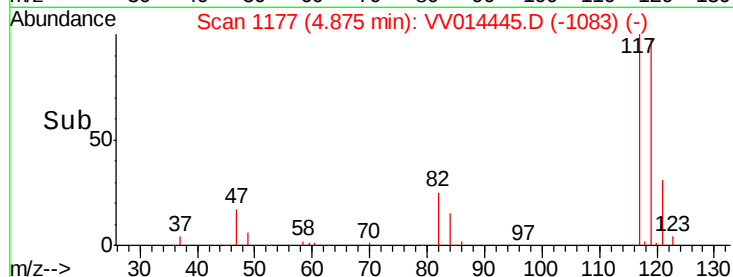
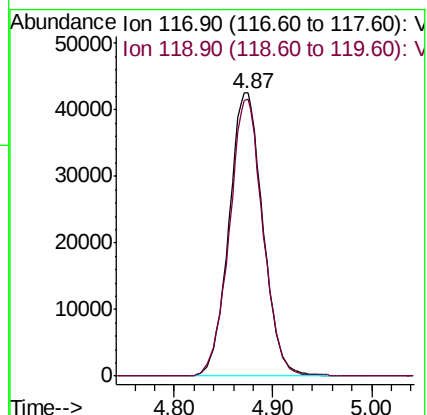
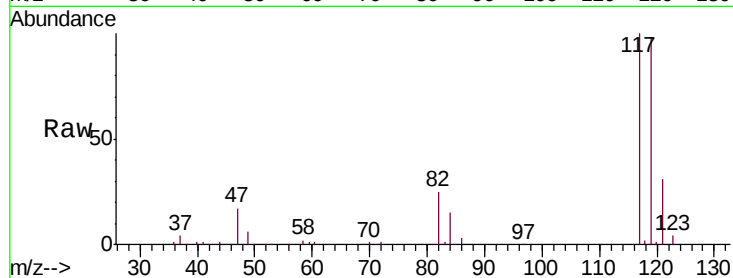
VSTD00554

Tgt Ion:117 Resp: 101655

Ion Ratio Lower Upper

117 100

119 96.7 77.5 116.3



#33

Benzene

Concen: 4.807 ug/L

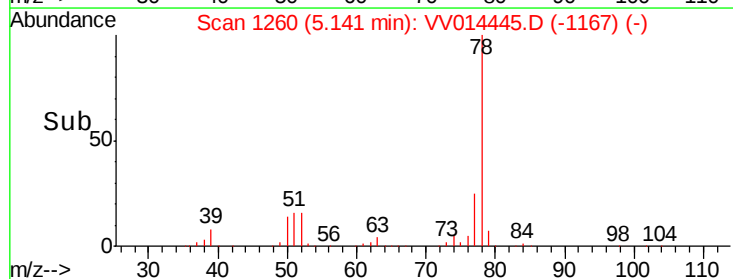
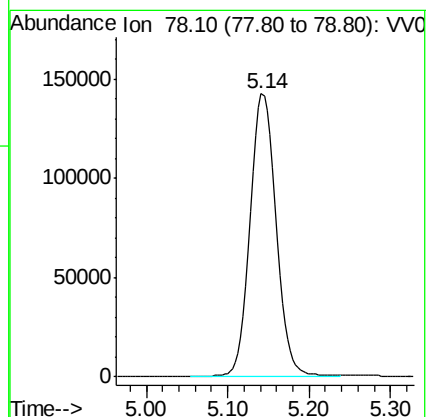
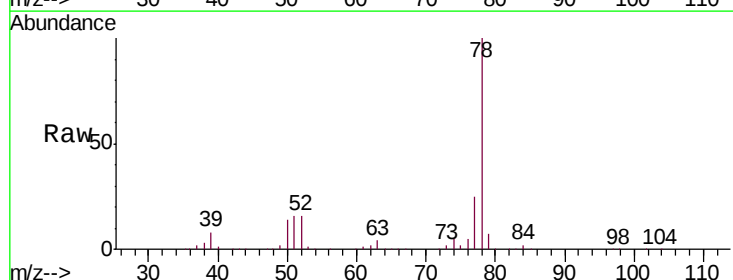
RT: 5.14 min Scan# 1260

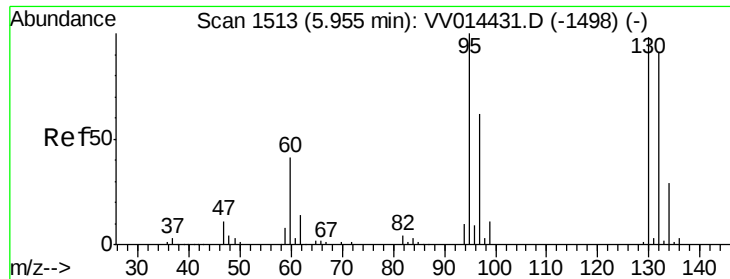
Delta R.T. -0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Tgt Ion: 78 Resp: 313968





#34

Trichloroethene

Concen: 4.722 ug/L

RT: 5.95 min Scan# 1513

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00554

Tgt Ion: 95 Resp: 81002

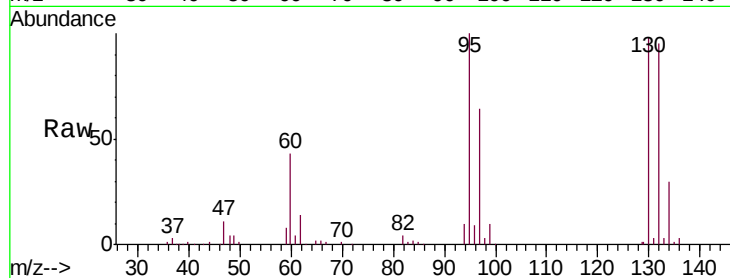
Ion Ratio Lower Upper

95 100

97 64.4 43.6 81.0

132 95.4 63.3 117.7

130 98.2 66.0 122.6

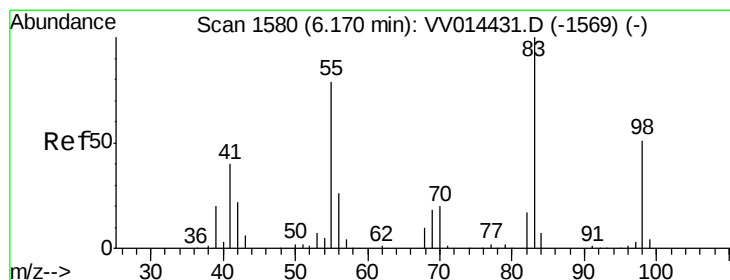
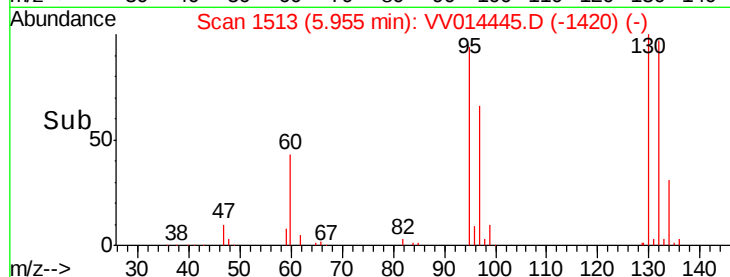
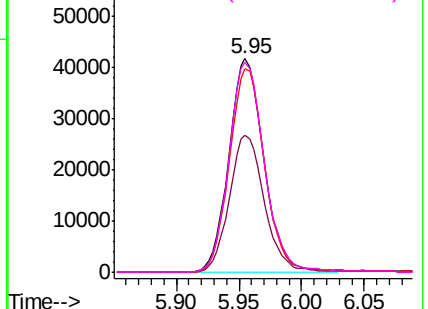


Abundance Ion 95.00 (94.70 to 95.70): VV0

Ion 96.95 (96.65 to 97.65): VV0

Ion 131.95 (131.65 to 132.65): VV0

Ion 129.95 (129.65 to 130.65): VV0



#35

Methylcyclohexane

Concen: 4.824 ug/L

RT: 6.17 min Scan# 1581

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

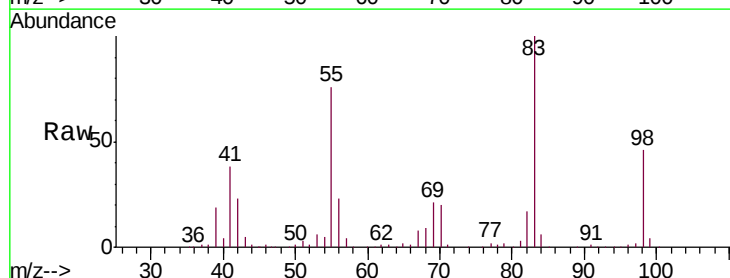
Tgt Ion: 83 Resp: 142350

Ion Ratio Lower Upper

83 100

55 75.6 61.3 91.9

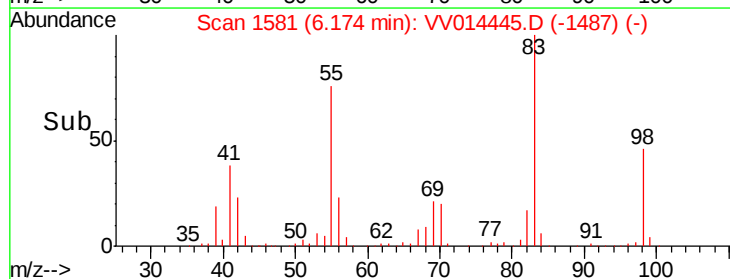
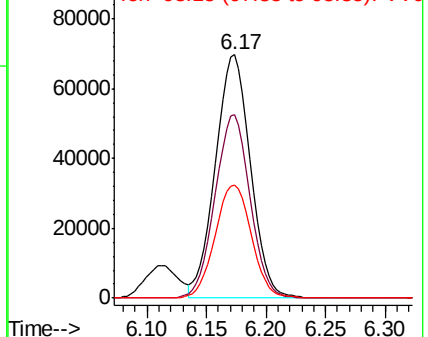
98 48.3 37.5 56.3

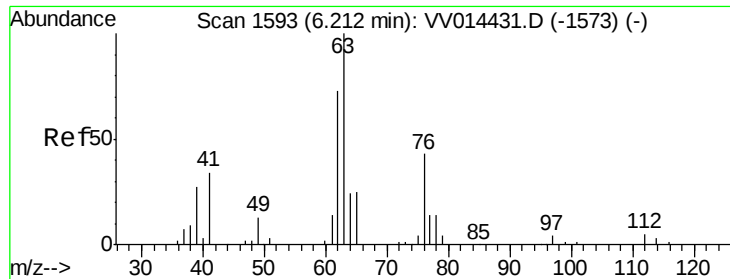


Abundance Ion 83.15 (82.85 to 83.85): VV0

Ion 55.10 (54.80 to 55.80): VV0

Ion 98.15 (97.85 to 98.85): VV0





#37

1,2-Dichloropropane

Concen: 4.687 ug/L

RT: 6.22 min Scan# 1594

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

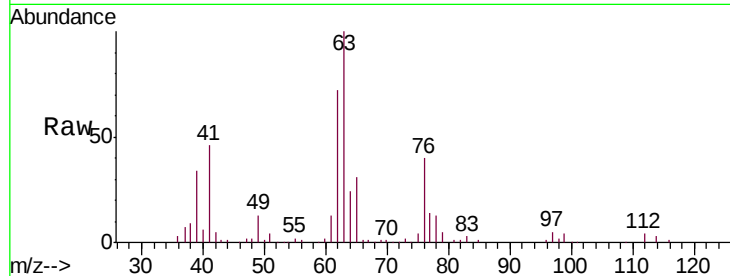
VSTD00554

Tgt Ion: 63 Resp: 75467

Ion Ratio Lower Upper

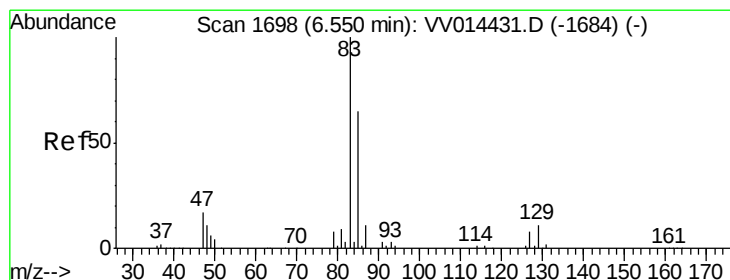
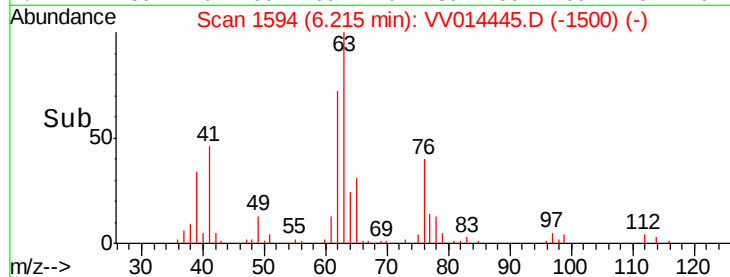
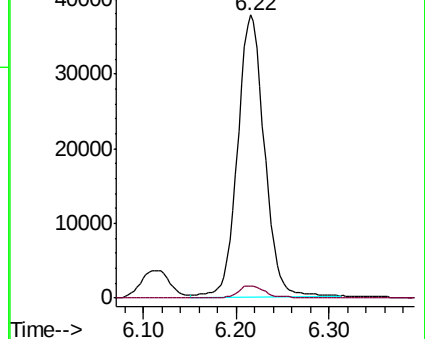
63 100

112 4.5 3.5 5.3



Abundance Ion 63.10 (62.80 to 63.80): VV014445.D (-1500) (-)

Ion 112.10 (111.80 to 112.80): VV014445.D (-1500) (-)



#38

Bromodichloromethane

Concen: 4.844 ug/L

RT: 6.55 min Scan# 1698

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

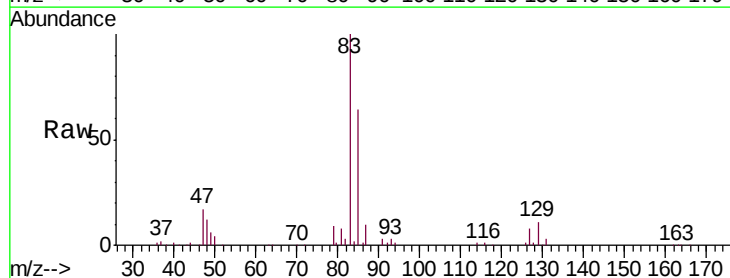
Tgt Ion: 83 Resp: 95533

Ion Ratio Lower Upper

83 100

85 64.2 44.5 82.7

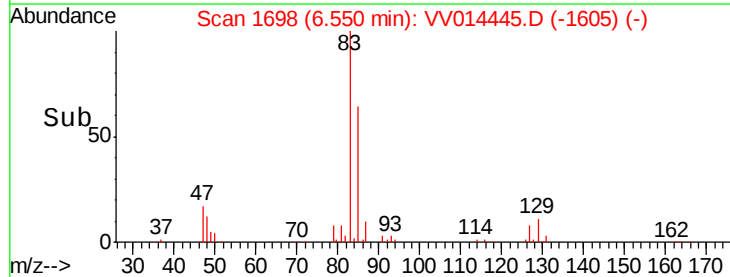
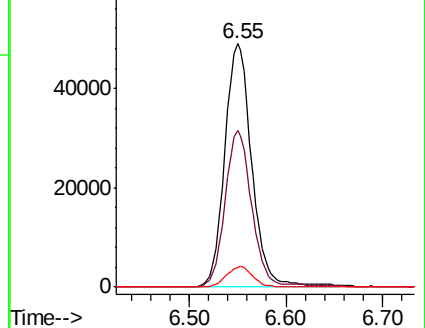
127 8.1 6.6 10.0

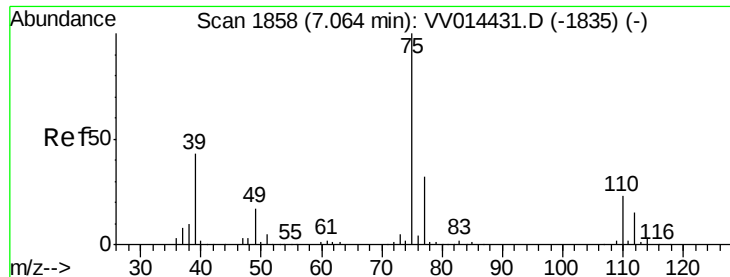


Abundance Ion 82.95 (82.65 to 83.65): VV014445.D (-1605) (-)

Ion 85.00 (84.70 to 85.70): VV014445.D (-1605) (-)

Ion 126.90 (126.60 to 127.60): VV014445.D (-1605) (-)

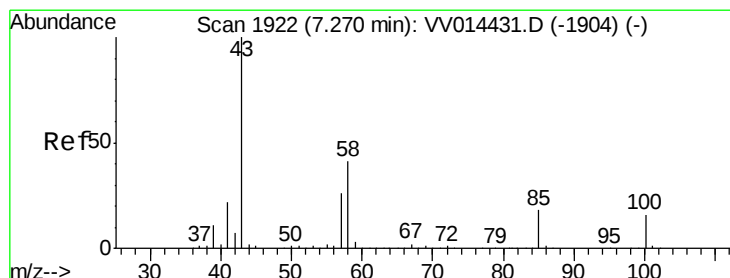
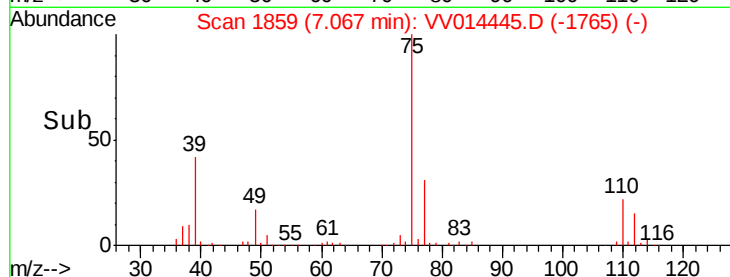
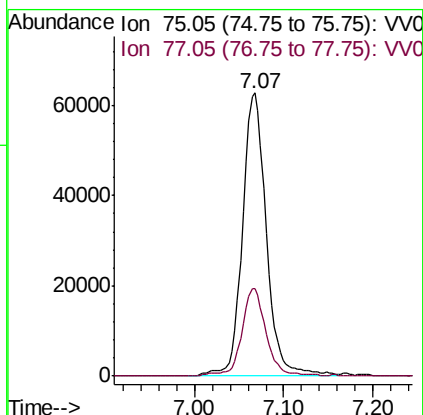
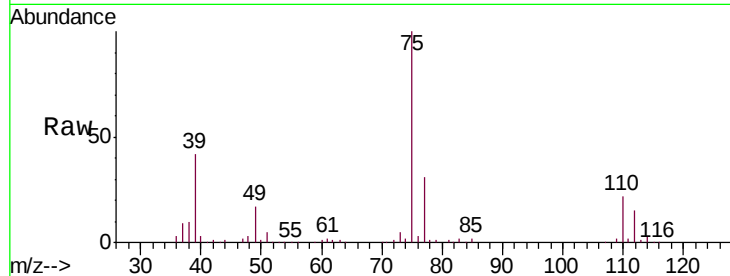




#39  
 cis-1,3-Dichloropropene  
 Concen: 4.814 ug/L  
 RT: 7.07 min Scan# 1859  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

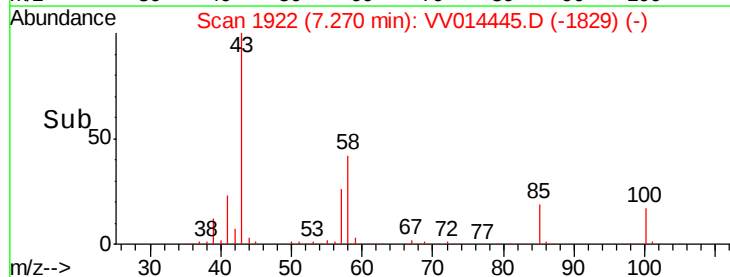
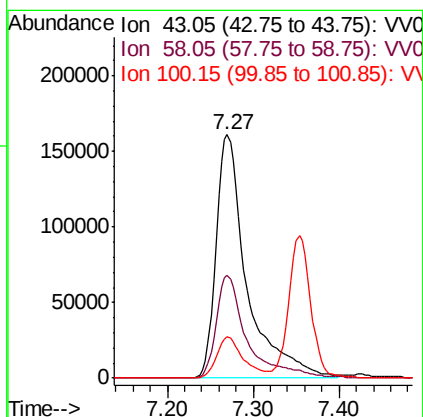
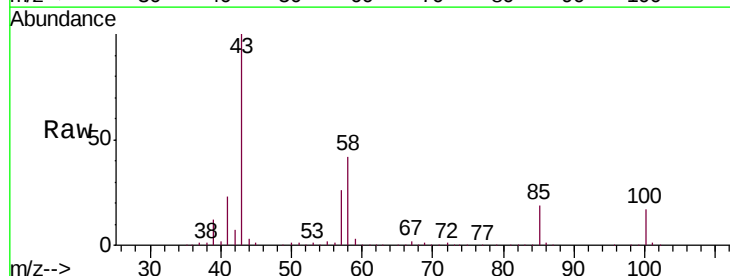
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00554

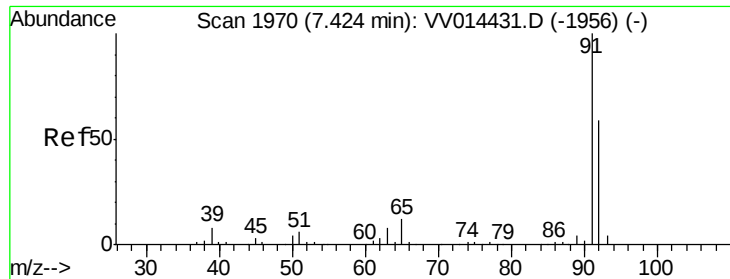
Tgt Ion: 75 Resp: 117421  
 Ion Ratio Lower Upper  
 75 100  
 77 31.1 22.1 41.1



#40  
 4-Methyl-2-pentanone  
 Concen: 45.410 ug/L  
 RT: 7.27 min Scan# 1922  
 Delta R.T. -0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Tgt Ion: 43 Resp: 400968  
 Ion Ratio Lower Upper  
 43 100  
 58 42.7 33.1 49.7  
 100 14.9 12.1 18.1





#42

Toluene

Concen: 4.886 ug/L

RT: 7.43 min Scan# 1971

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

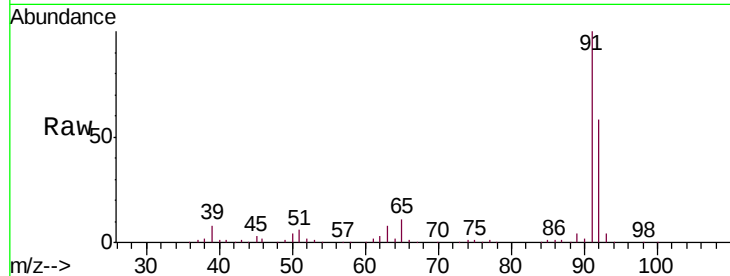
VSTD00554

Tgt Ion: 91 Resp: 339310

Ion Ratio Lower Upper

91 100

92 57.8 40.9 76.0



Abundance Ion 91.15 (90.85 to 91.85): VV0

Ion 92.15 (91.85 to 92.85): VV0

7.43

200000

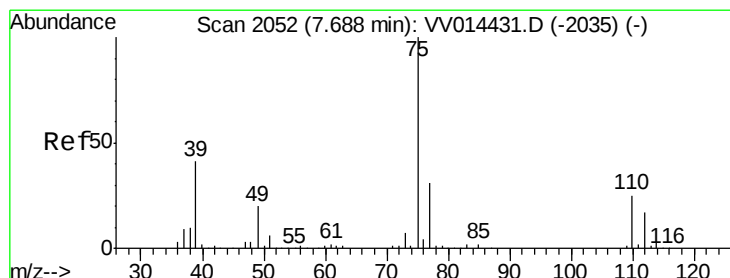
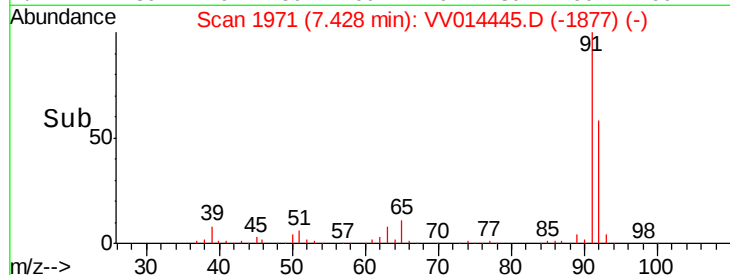
150000

100000

50000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 4.768 ug/L

RT: 7.69 min Scan# 2052

Delta R.T. 0.00 min

Lab File: VV014445.D

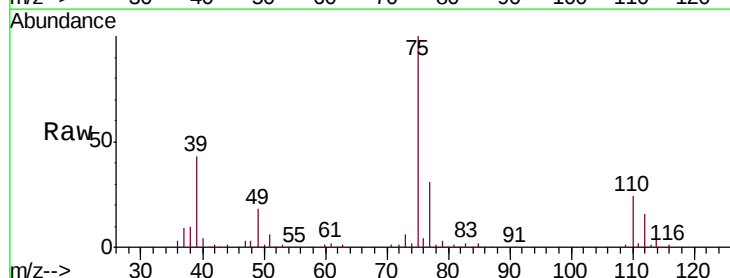
Acq: 31 Jan 2020 09:53

Tgt Ion: 75 Resp: 87627

Ion Ratio Lower Upper

75 100

77 30.8 22.0 41.0



Abundance Ion 75.05 (74.75 to 75.75): VV0

Ion 77.05 (76.75 to 77.75): VV0

7.69

50000

40000

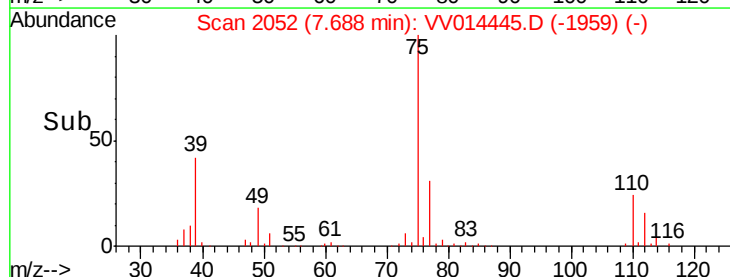
30000

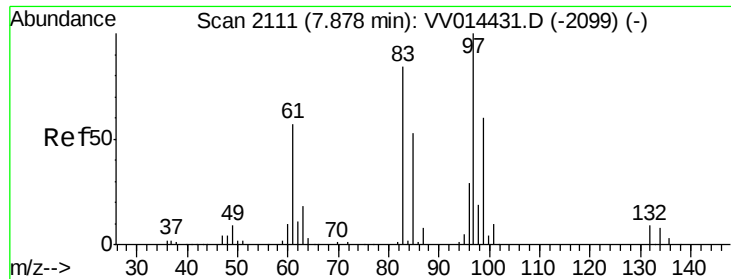
20000

10000

0

Time-->

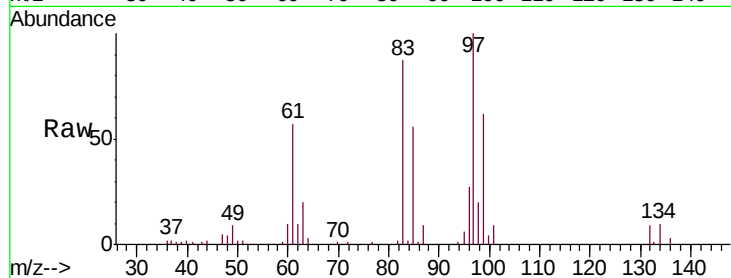




#45  
 1,1,2-Trichloroethane  
 Concen: 4.747 ug/L  
 RT: 7.88 min Scan# 2111  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00554

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 49827 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 62.4  | 42.5  | 78.9  |
| 83       | 86.6  | 59.8  | 111.0 |
| 85       | 56.3  | 38.4  | 71.4  |



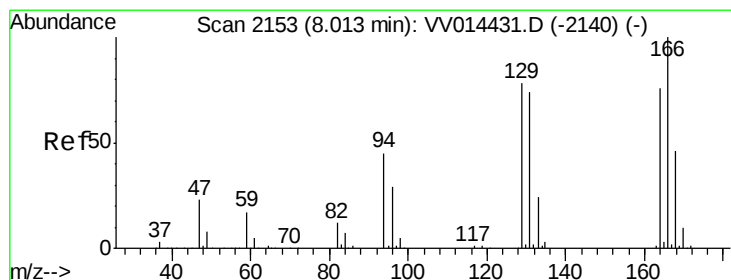
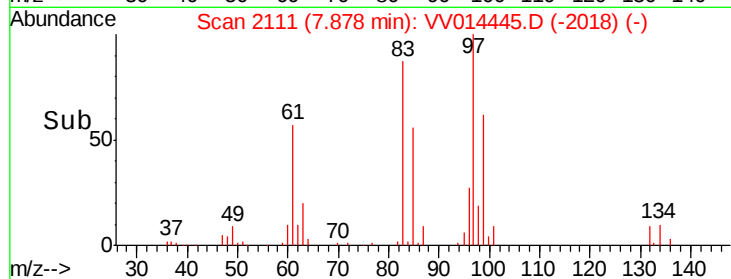
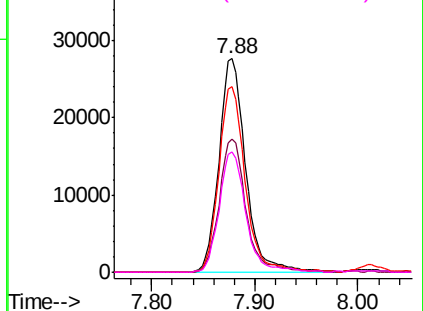
Abundance

Ion 96.95 (96.65 to 97.65): VV0

Ion 99.05 (98.75 to 99.75): VV0

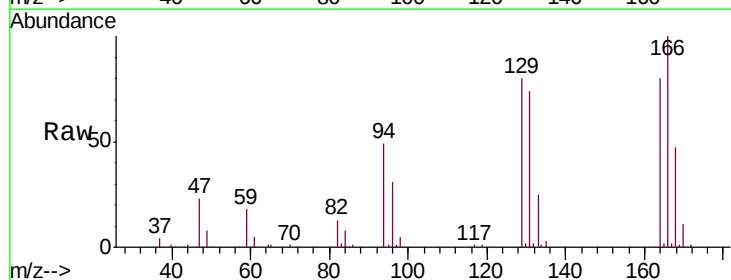
Ion 82.95 (82.65 to 83.65): VV0

Ion 85.00 (84.70 to 85.70): VV0



#47  
 Tetrachloroethene  
 Concen: 4.821 ug/L  
 RT: 8.01 min Scan# 2153  
 Delta R.T. -0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 59419 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 100.4 | 69.9  | 129.7 |
| 131      | 92.7  | 67.5  | 125.3 |
| 166      | 125.6 | 90.6  | 168.3 |



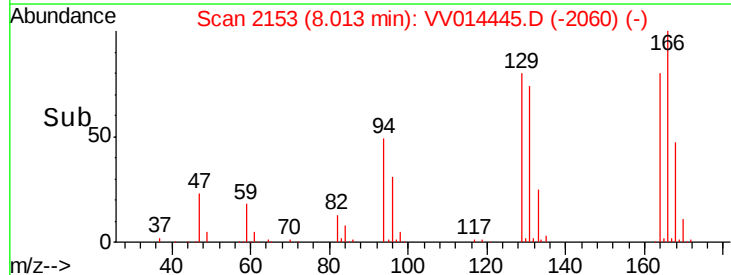
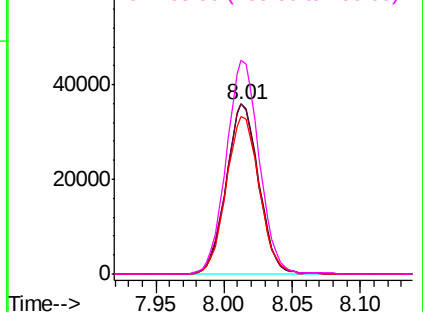
Abundance

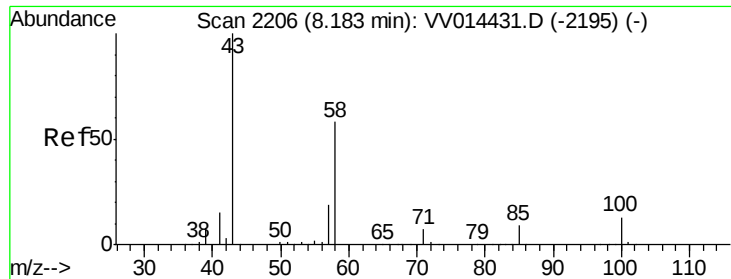
Ion 163.90 (163.60 to 164.60): V

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

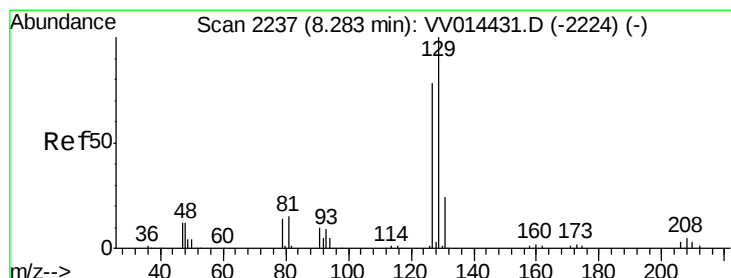
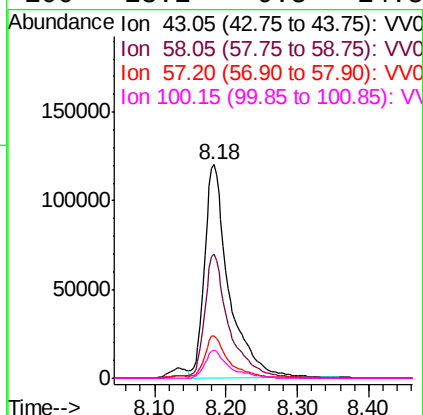
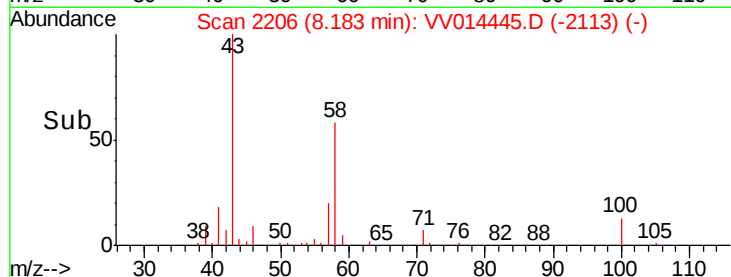
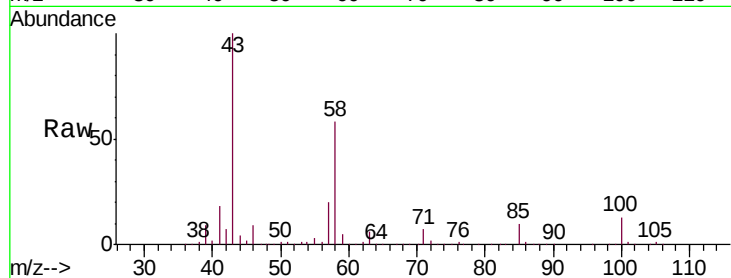




#48  
2-Hexanone  
Concen: 46.342 ug/L  
RT: 8.18 min Scan# 2206  
Delta R.T. 0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

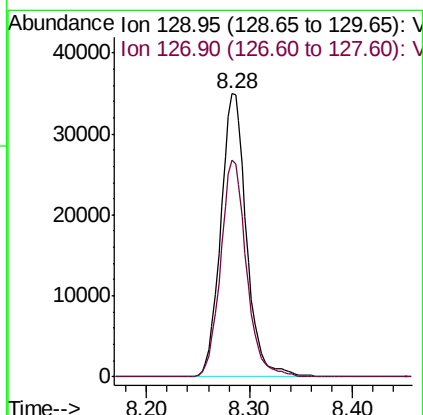
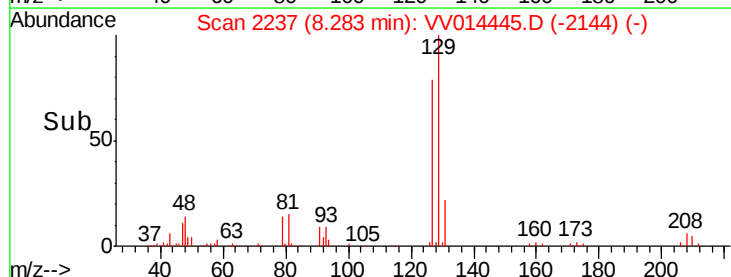
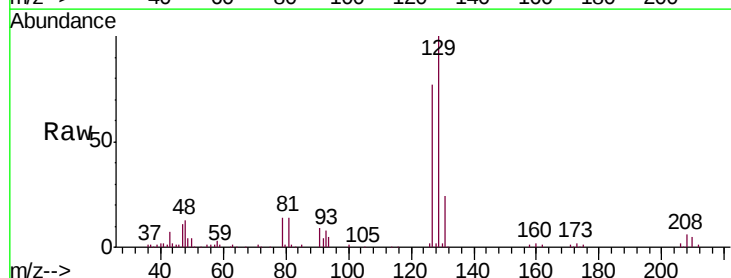
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00554

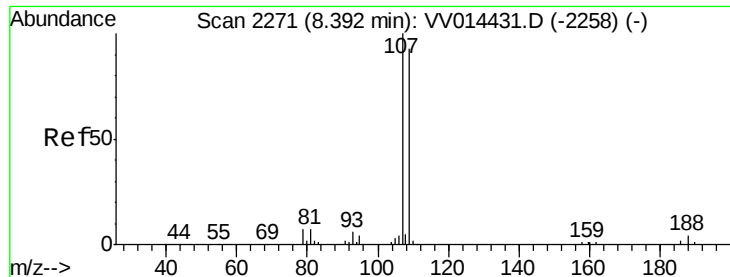
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 285077 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 59.3  | 45.8  | 68.6   |
| 57       | 18.9  | 15.4  | 23.0   |
| 100      | 13.1  | 9.8   | 14.8   |



#49  
Dibromochloromethane  
Concen: 4.858 ug/L  
RT: 8.28 min Scan# 2237  
Delta R.T. 0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 60659 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 76.8  | 54.9  | 102.1 |

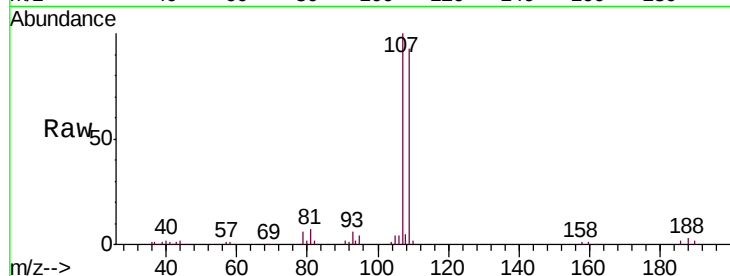




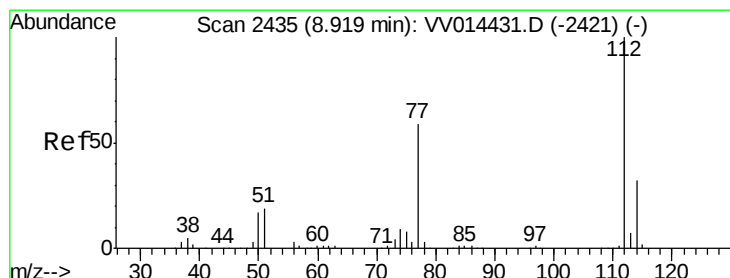
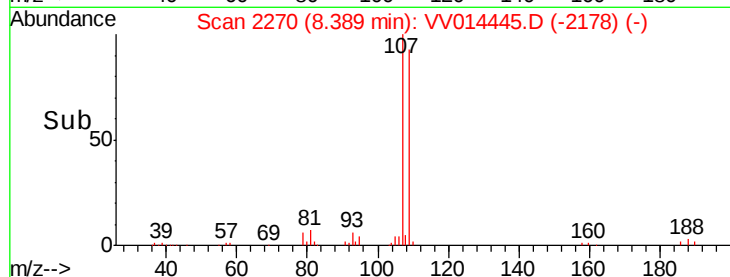
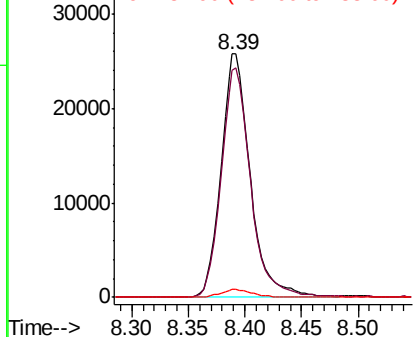
#50  
1,2-Dibromoethane  
Concen: 4.761 ug/L  
RT: 8.39 min Scan# 2270  
Delta R.T. -0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00554

Tgt Ion:107 Resp: 46164  
Ion Ratio Lower Upper  
107 100  
109 93.0 65.0 120.6  
188 3.3 2.7 4.1

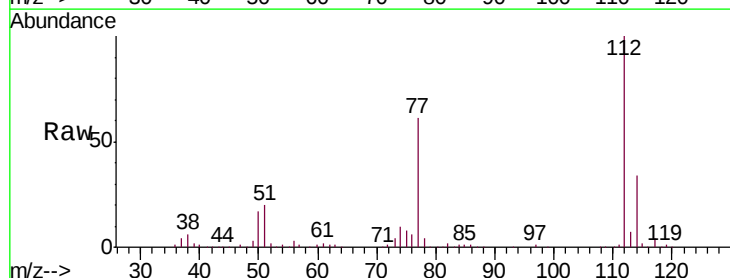


Abundance Ion 106.95 (106.65 to 107.65): V  
Ion 109.00 (108.70 to 109.70): V  
Ion 187.90 (187.60 to 188.60): V

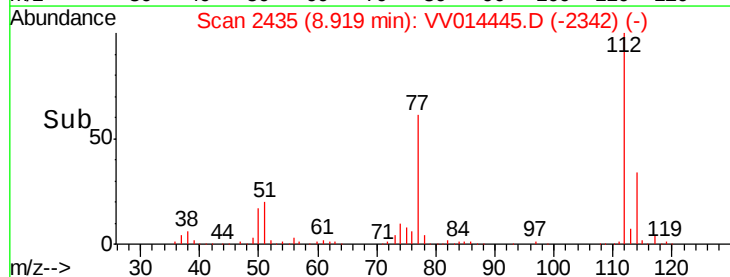
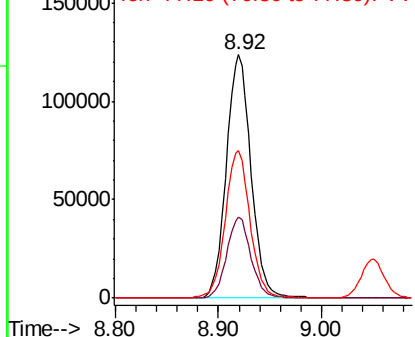


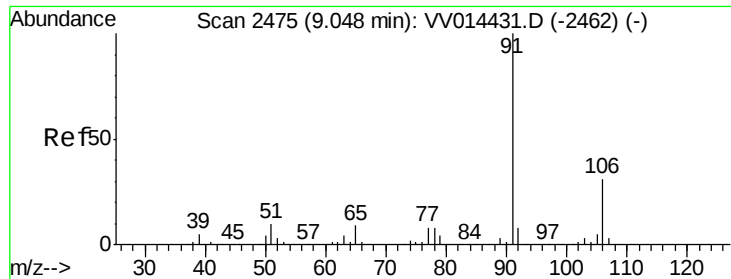
#51  
Chlorobenzene  
Concen: 4.787 ug/L  
RT: 8.92 min Scan# 2435  
Delta R.T. -0.00 min  
Lab File: VV014445.D  
Acq: 31 Jan 2020 09:53

Tgt Ion:112 Resp: 206306  
Ion Ratio Lower Upper  
112 100  
114 33.5 21.8 40.6  
77 60.6 48.5 72.7



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





#52

Ethylbenzene

Concen: 4.800 ug/L

RT: 9.05 min Scan# 2475

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

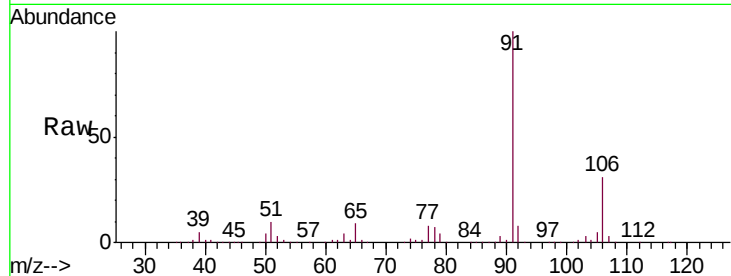
VSTD00554

Tgt Ion: 91 Resp: 374404

Ion Ratio Lower Upper

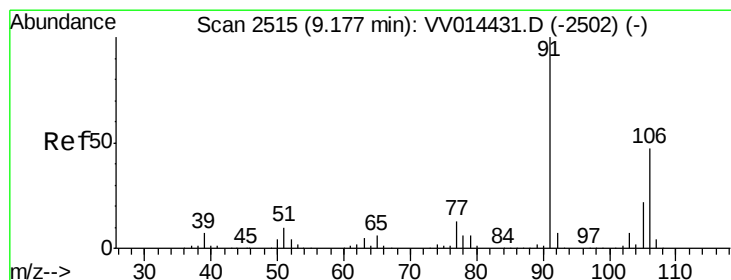
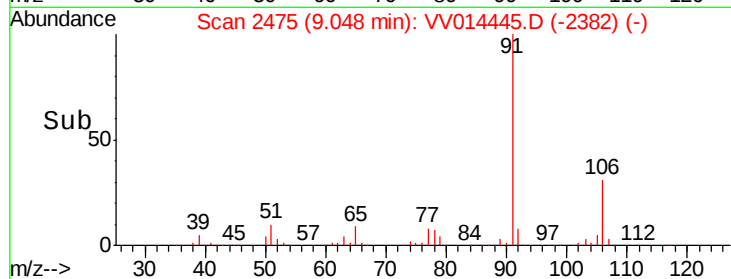
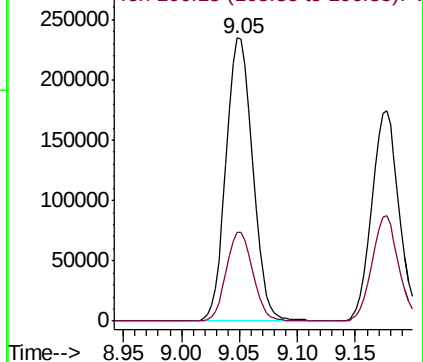
91 100

106 31.2 21.3 39.6



Abundance Ion 91.15 (90.85 to 91.85): VV0

Ion 106.15 (105.85 to 106.85): V



#53

m,p-xylene

Concen: 4.897 ug/L

RT: 9.18 min Scan# 2515

Delta R.T. 0.00 min

Lab File: VV014445.D

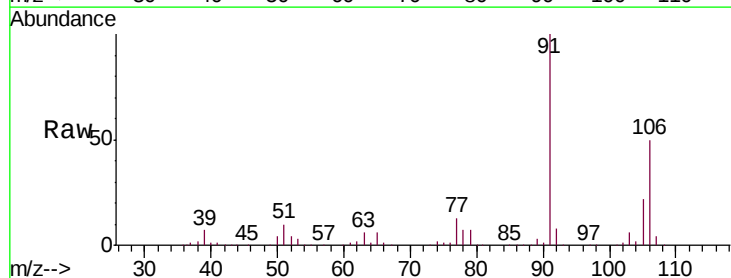
Acq: 31 Jan 2020 09:53

Tgt Ion: 106 Resp: 142273

Ion Ratio Lower Upper

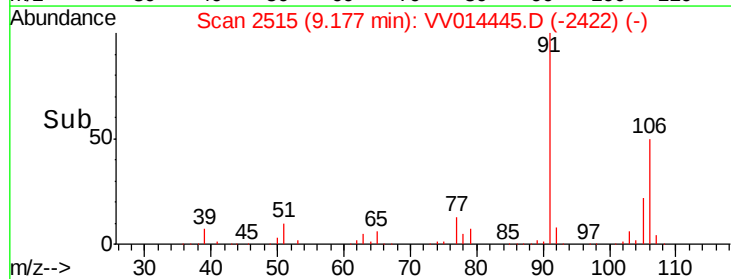
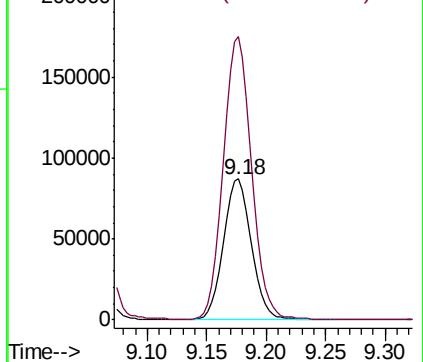
106 100

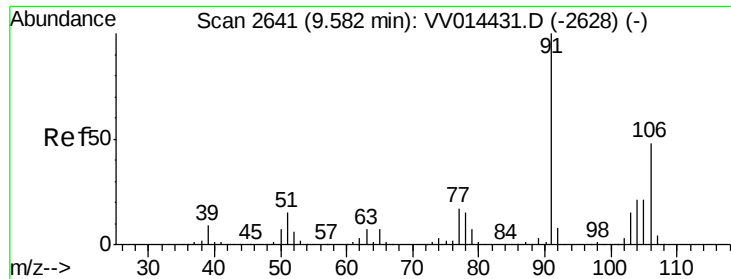
91 200.7 139.9 259.9



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0





#54

o-xylene

Concen: 4.808 ug/L

RT: 9.58 min Scan# 2641

Delta R.T. -0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

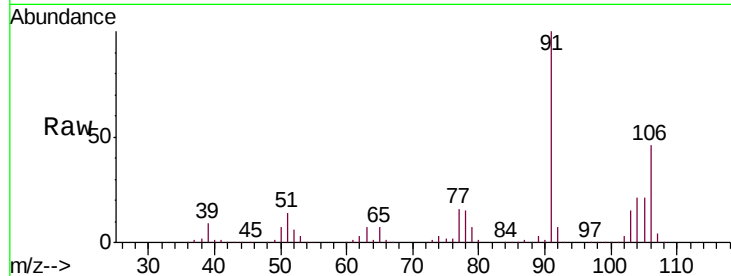
VSTD00554

Tgt Ion:106 Resp: 136397

Ion Ratio Lower Upper

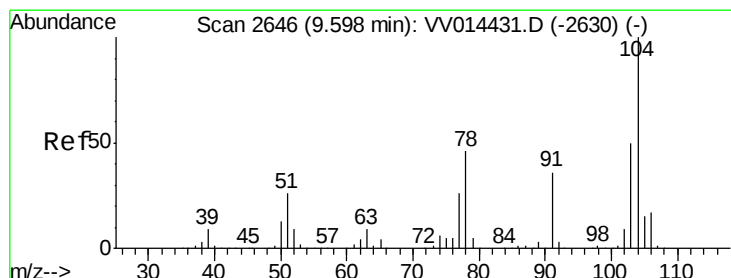
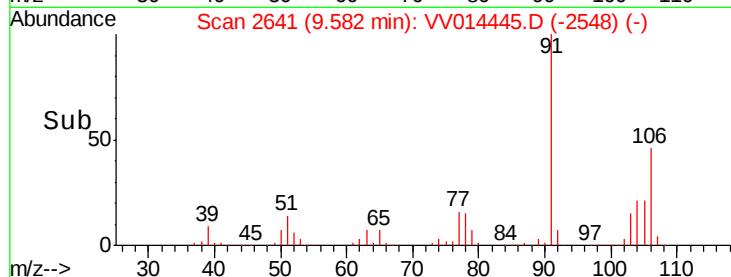
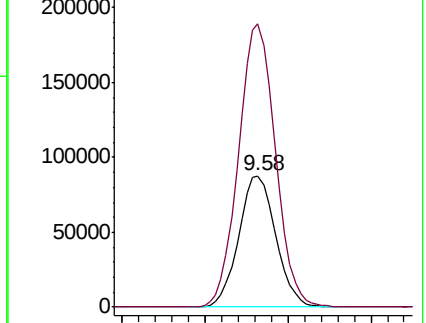
106 100

91 215.2 145.9 271.1



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0



#55

Styrene

Concen: 4.824 ug/L

RT: 9.60 min Scan# 2646

Delta R.T. 0.00 min

Lab File: VV014445.D

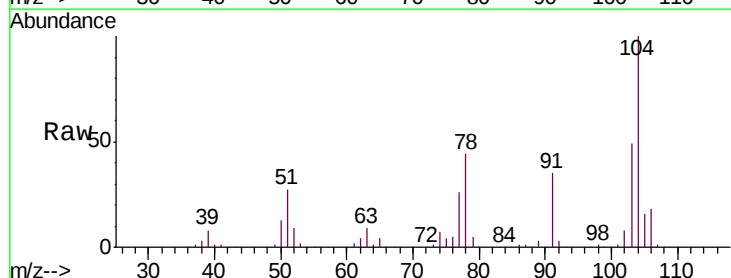
Acq: 31 Jan 2020 09:53

Tgt Ion:104 Resp: 224708

Ion Ratio Lower Upper

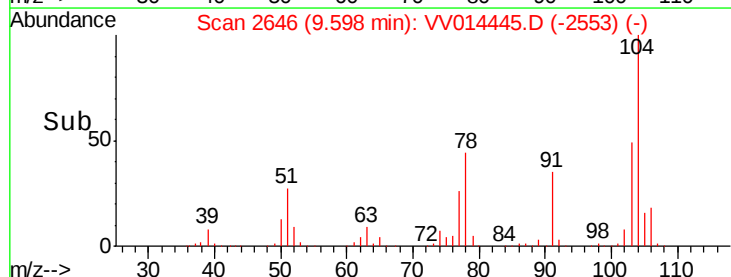
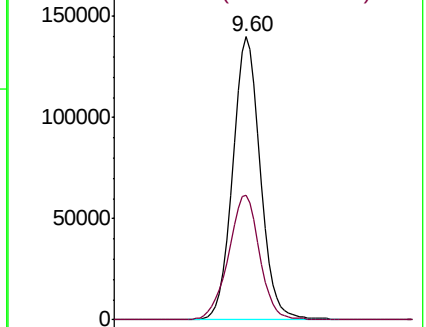
104 100

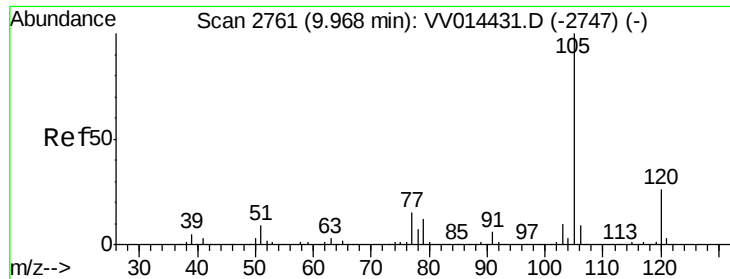
78 44.2 32.3 60.1



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VV0





#56

Isopropylbenzene

Concen: 4.868 ug/L

RT: 9.97 min Scan# 2761

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00554

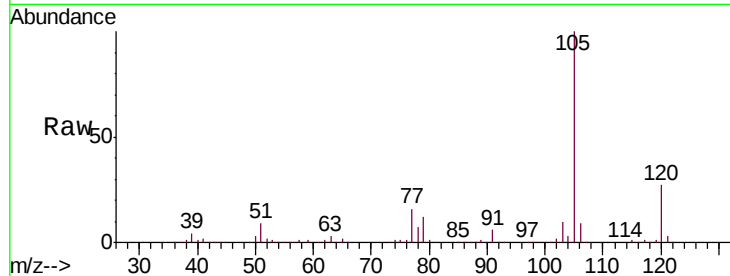
Tgt Ion: 105 Resp: 362063

Ion Ratio Lower Upper

105 100

120 26.7 21.3 31.9

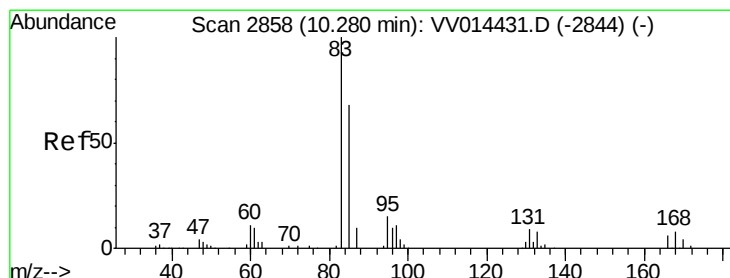
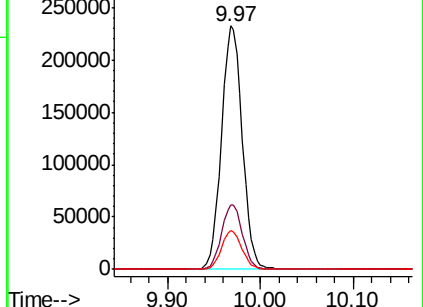
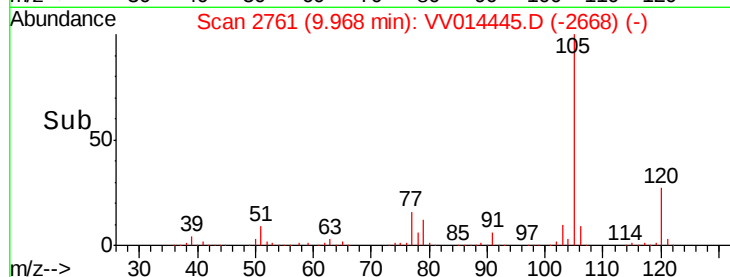
77 15.6 12.8 19.2



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): V



#58

1,1,2,2-Tetrachloroethane

Concen: 4.837 ug/L

RT: 10.28 min Scan# 2858

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

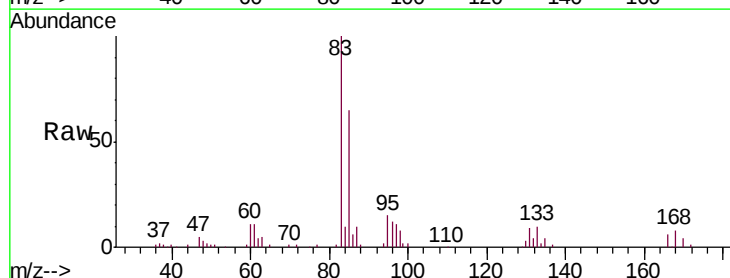
Tgt Ion: 83 Resp: 59009

Ion Ratio Lower Upper

83 100

85 64.6 45.3 84.1

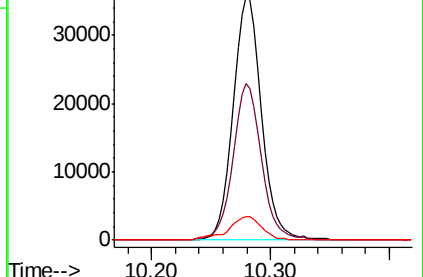
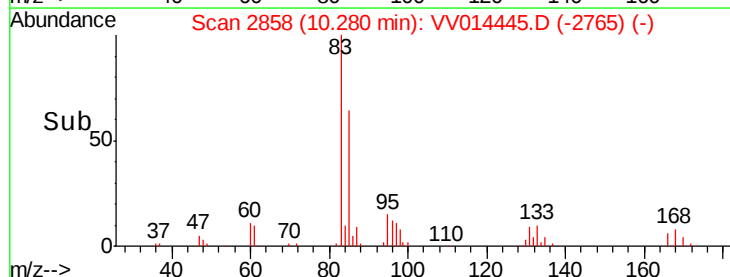
131 9.5 7.9 11.9

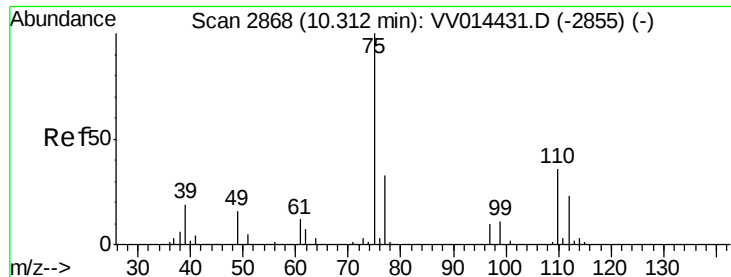


Abundance Ion 82.95 (82.65 to 83.65): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 4.605 ug/L

RT: 10.31 min Scan# 2869

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

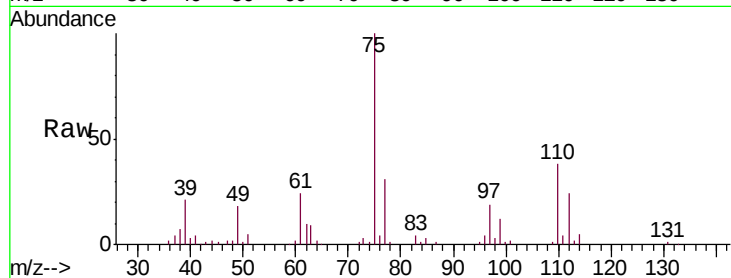
VSTD00554

Tgt Ion: 75 Resp: 41234

Ion Ratio Lower Upper

75 100

77 33.4 26.0 39.0



Abundance Ion 75.00 (74.70 to 75.70): VV014431.D (-2855) (-)

Ion 77.00 (76.70 to 77.70): VV014431.D (-2855) (-)

10.31

25000

20000

15000

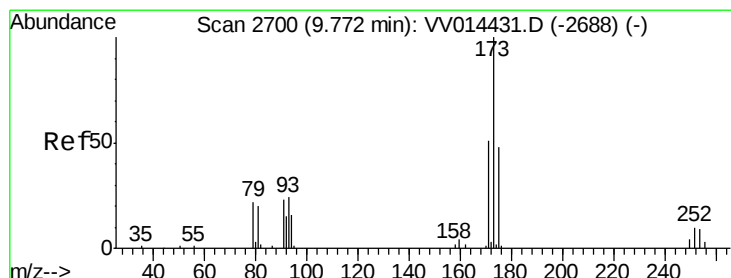
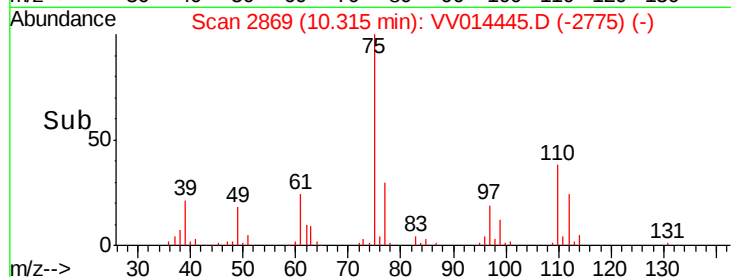
10000

5000

0

Time-->

10.25 10.30 10.35



#61

Bromoform

Concen: 4.976 ug/L

RT: 9.77 min Scan# 2699

Delta R.T. -0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

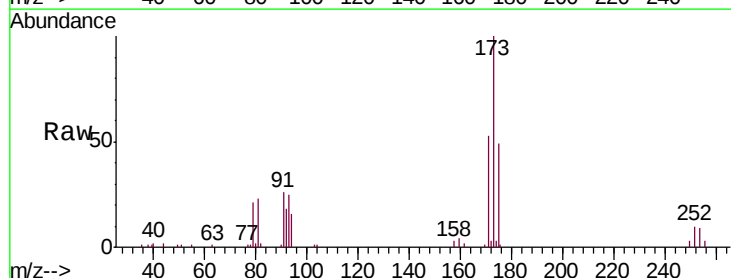
Tgt Ion: 173 Resp: 30025

Ion Ratio Lower Upper

173 100

175 48.3 38.9 58.3

254 9.2 7.0 10.4



Abundance Ion 172.90 (172.60 to 173.60): VV014431.D (-2688) (-)

Ion 174.90 (174.60 to 175.60): VV014431.D (-2688) (-)

Ion 253.75 (253.45 to 254.45): VV014431.D (-2688) (-)

9.77

20000

15000

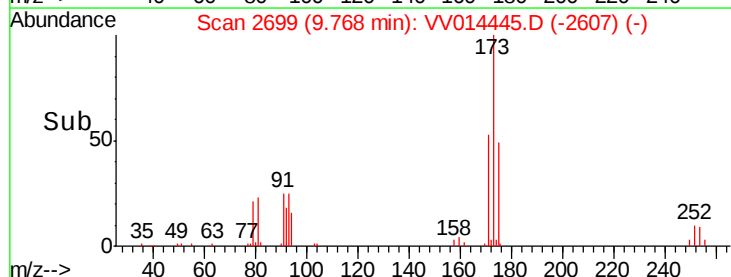
10000

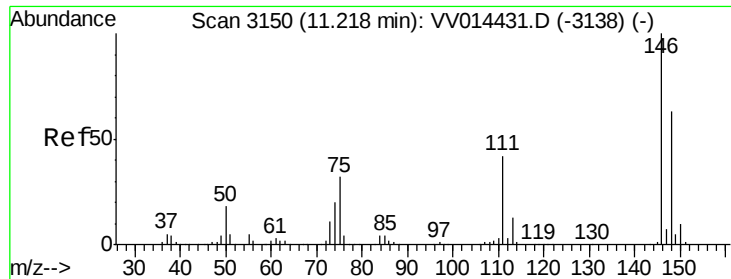
5000

0

Time-->

9.70 9.75 9.80 9.85

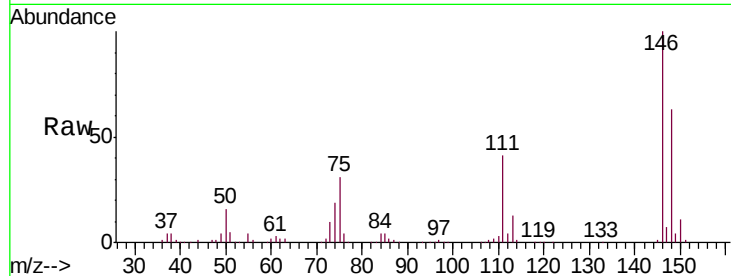




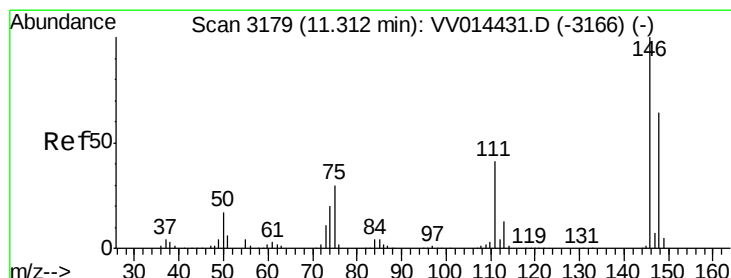
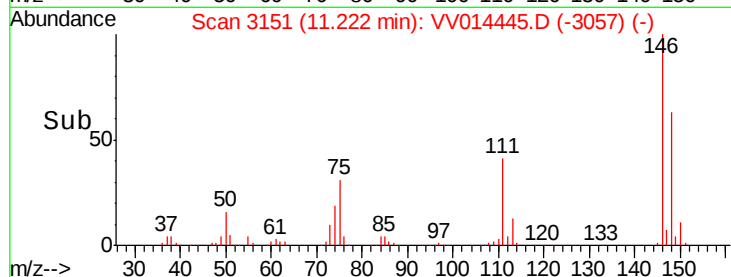
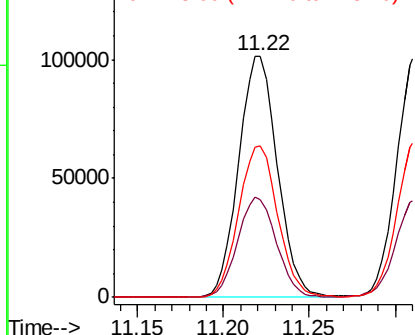
#62  
 1,3-Dichlorobenzene  
 Concen: 4.925 ug/L  
 RT: 11.22 min Scan# 3151  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00554

Tgt Ion:146 Resp: 159099  
 Ion Ratio Lower Upper  
 146 100  
 111 40.6 29.5 54.7  
 148 62.8 44.7 83.1

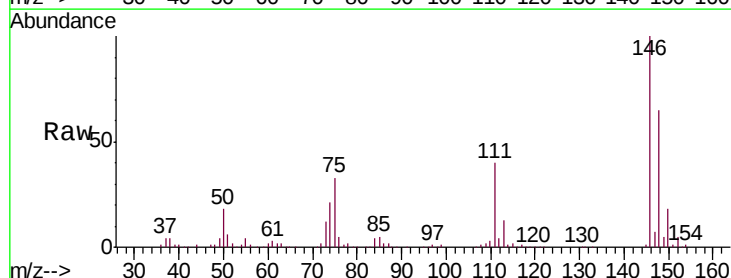


Abundance Ion 145.95 (145.65 to 146.65): V  
 Ion 111.00 (110.70 to 111.70): V  
 Ion 148.00 (147.70 to 148.70): V

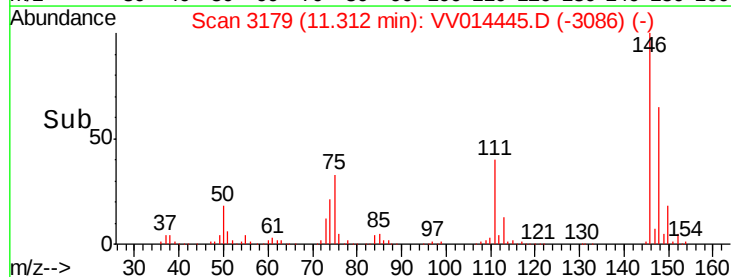
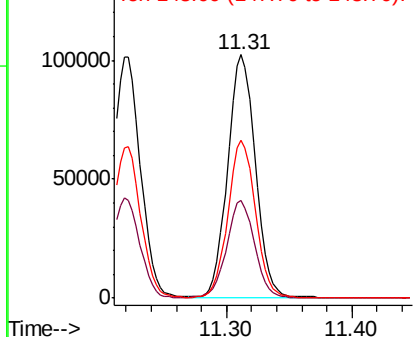


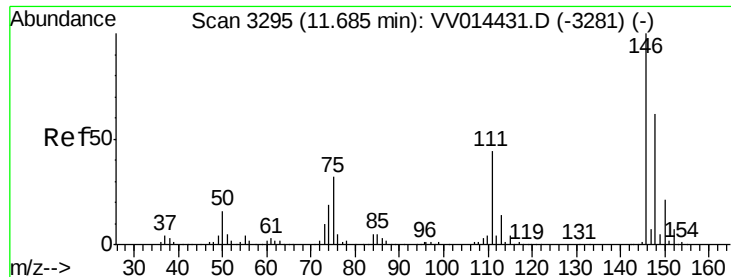
#63  
 1,4-Dichlorobenzene  
 Concen: 4.879 ug/L  
 RT: 11.31 min Scan# 3179  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

Tgt Ion:146 Resp: 157150  
 Ion Ratio Lower Upper  
 146 100  
 111 40.2 27.9 51.7  
 148 64.9 44.3 82.3



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





#65

1,2-Dichlorobenzene

Concen: 4.799 ug/L

RT: 11.68 min Scan# 3295

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00554

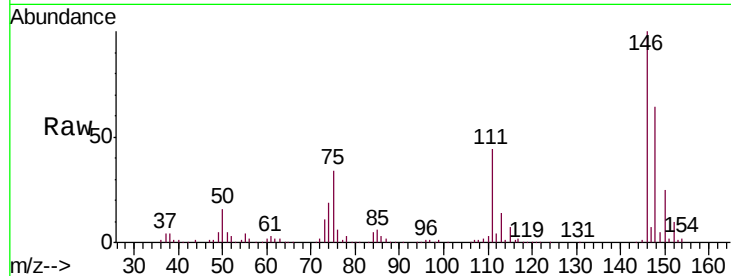
Tgt Ion: 146 Resp: 139921

Ion Ratio Lower Upper

146 100

111 43.7 35.0 52.6

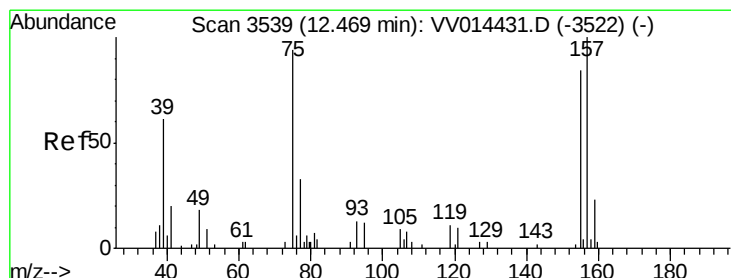
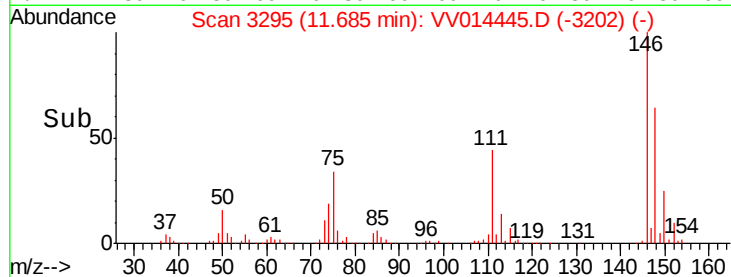
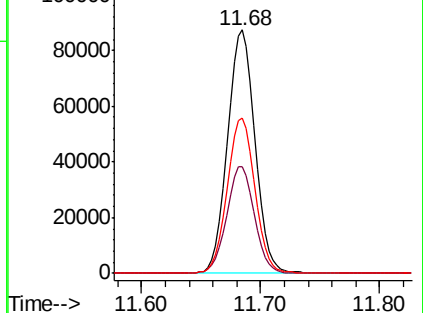
148 64.0 50.9 76.3



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 4.072 ug/L

RT: 12.47 min Scan# 3539

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

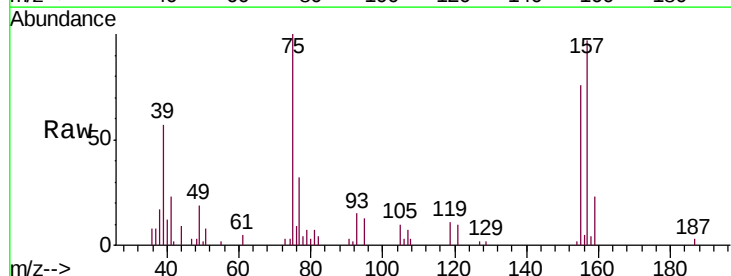
Tgt Ion: 75 Resp: 9372

Ion Ratio Lower Upper

75 100

155 76.1 61.8 92.8

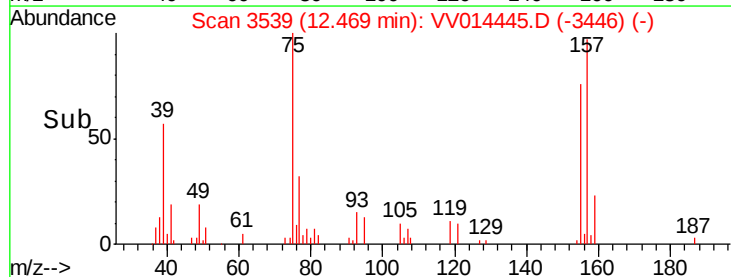
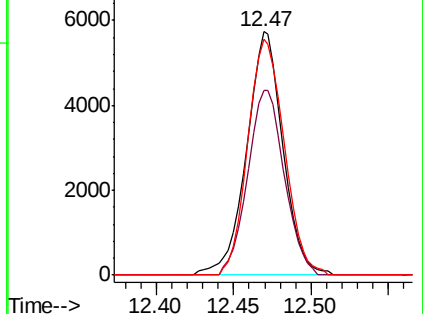
157 96.9 76.6 114.8

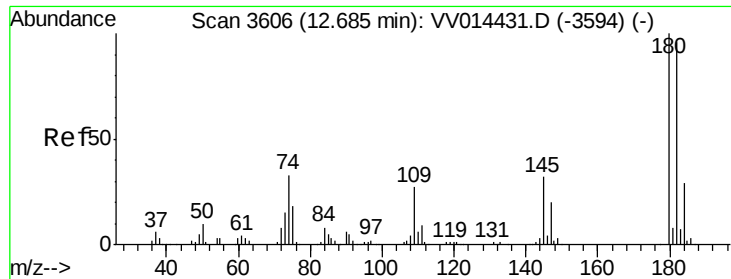


Abundance Ion 75.05 (74.75 to 75.75): VV0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

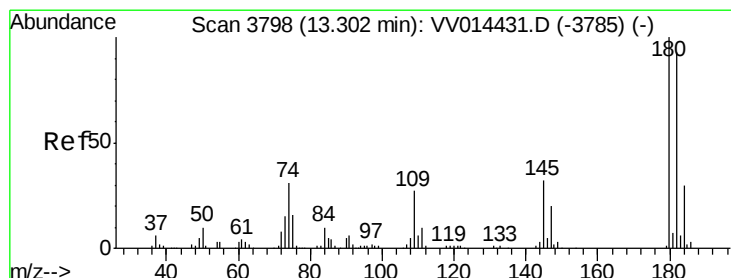
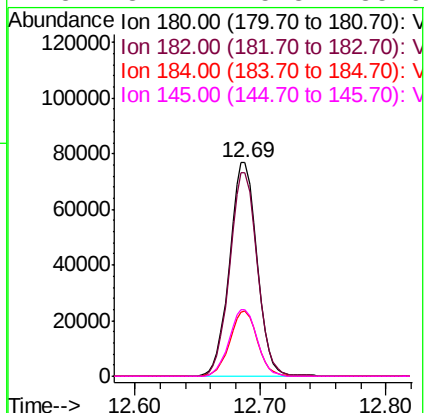
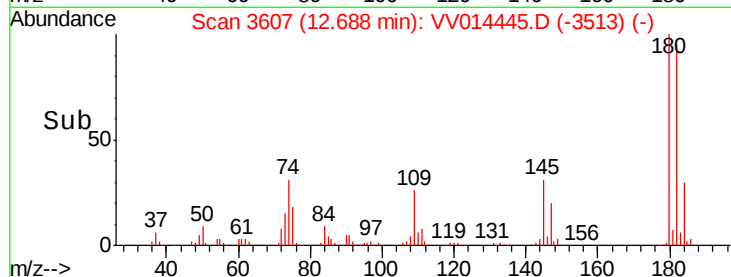
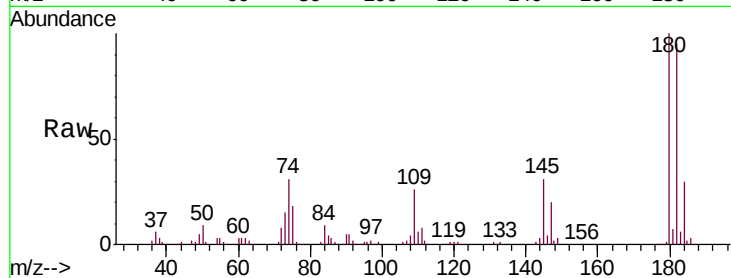




#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.892 ug/L  
 RT: 12.69 min Scan# 3607  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

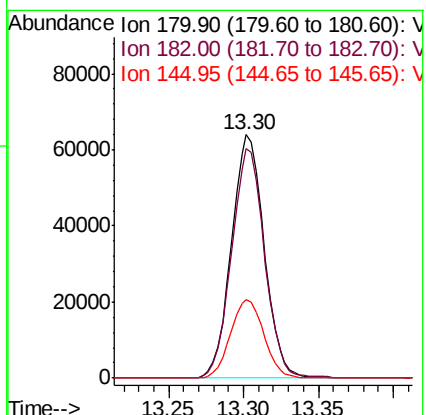
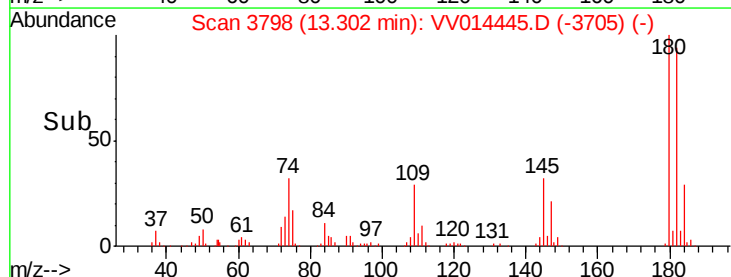
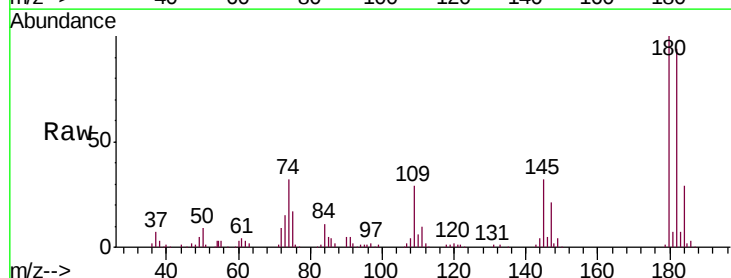
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00554

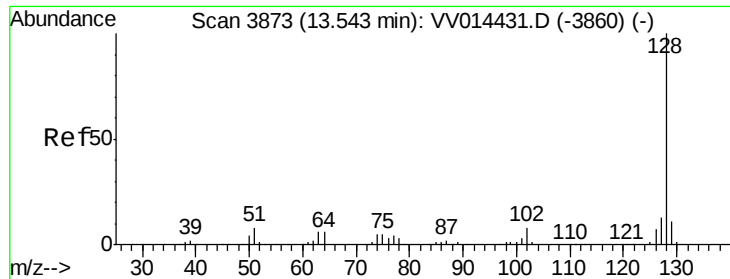
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.8  | 76.5  | 114.7 |
| 184     | 30.3  | 23.7  | 35.5  |
| 145     | 31.7  | 25.8  | 38.6  |



#68  
 1,2,4-trichlorobenzene  
 Concen: 4.871 ug/L  
 RT: 13.30 min Scan# 3798  
 Delta R.T. 0.00 min  
 Lab File: VV014445.D  
 Acq: 31 Jan 2020 09:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.6  | 75.5  | 113.3 |
| 145     | 32.9  | 26.8  | 40.2  |





#69

Naphthalene

Concen: 4.768 ug/L

RT: 13.55 min Scan# 3874

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00554

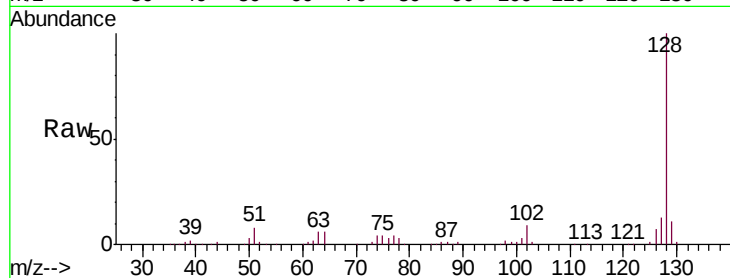
Tgt Ion:128 Resp: 168253

Ion Ratio Lower Upper

128 100

129 10.9 9.0 13.6

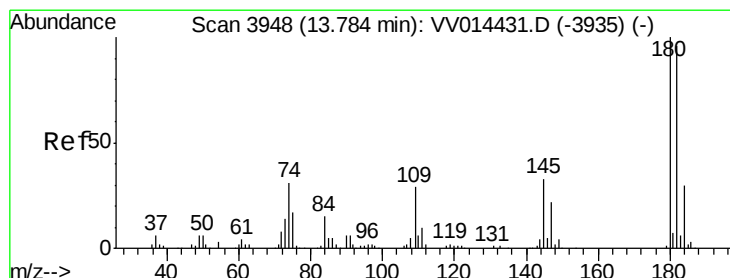
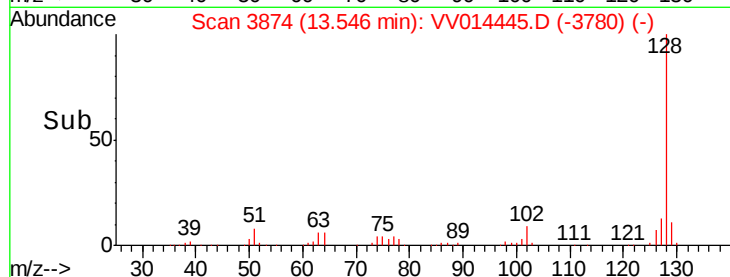
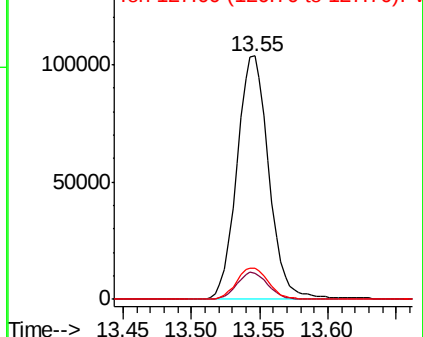
127 13.1 10.3 15.5



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: 4.885 ug/L

RT: 13.79 min Scan# 3949

Delta R.T. 0.00 min

Lab File: VV014445.D

Acq: 31 Jan 2020 09:53

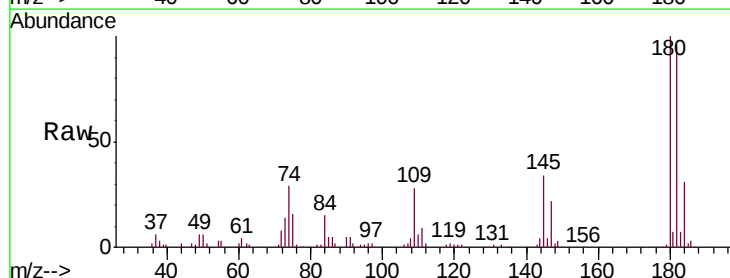
Tgt Ion:180 Resp: 84678

Ion Ratio Lower Upper

180 100

182 95.9 76.0 114.0

145 34.7 27.6 41.4



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

