

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD091420\  
 Data File : VD066690.D  
 Acq On : 15 Sep 2020 00:43  
 Operator : VA/SY  
 Sample : L3981-10  
 Misc : 11.76G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Sep 15 02:42:07 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D090320S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 04 01:57:04 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 362707   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.86  | 114  | 682801   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 649583   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 272751   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.33   | 65  | 243135   | 55.40 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 110.80% |      |
| 35) Dibromofluoromethane  | 7.91   | 113 | 237977   | 51.66 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.32% |      |
| 50) Toluene-d8            | 10.34  | 98  | 851792   | 51.74 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.48% |      |
| 62) 4-Bromofluorobenzene  | 12.63  | 95  | 276037   | 50.56 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.12% |      |

## Target Compounds

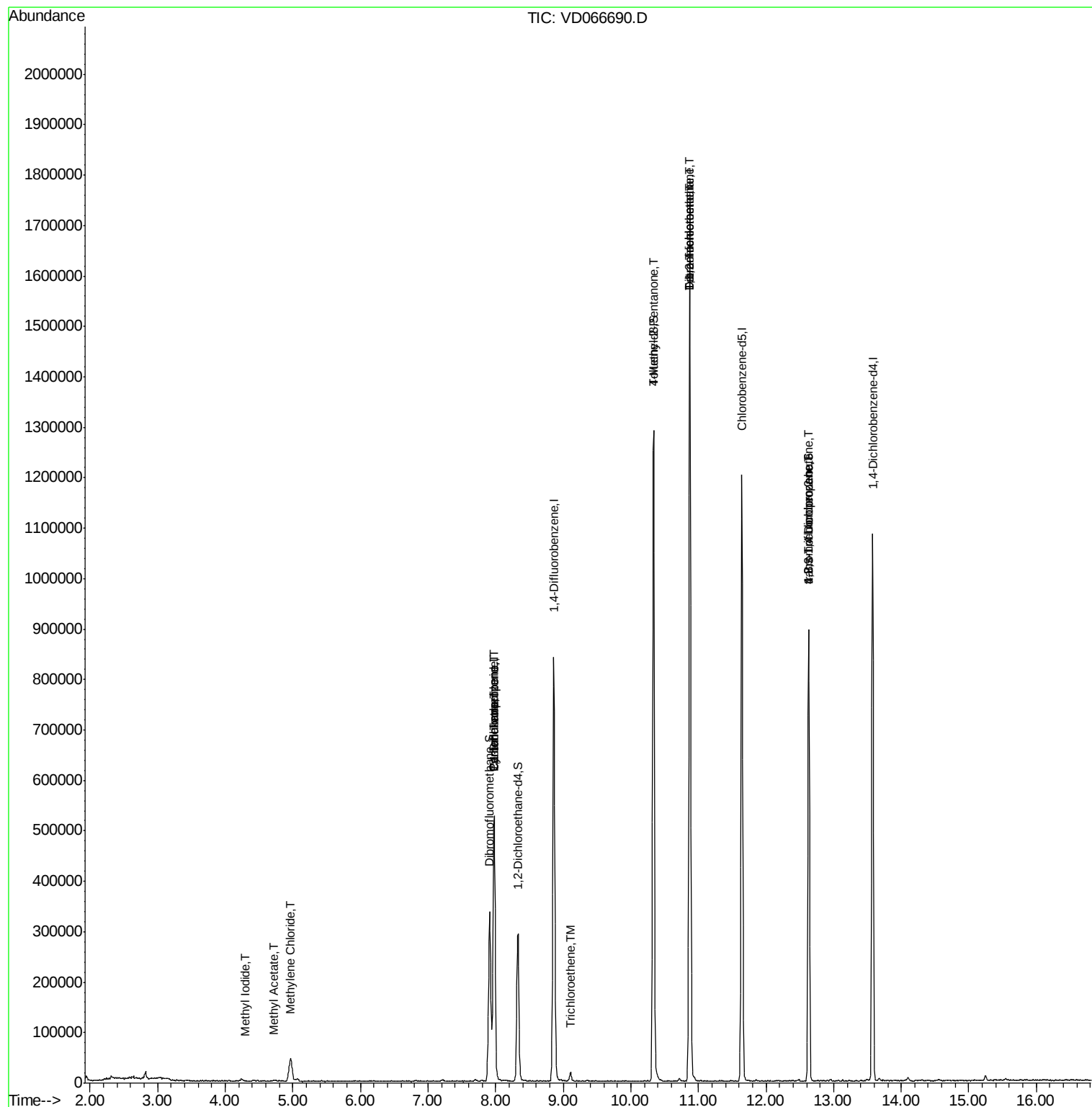
|                                |       |     |        |           | Qvalue |     |
|--------------------------------|-------|-----|--------|-----------|--------|-----|
| 2) Dichlorodifluoromethane     | 1.99  | 85  | 90     | Below Cal | #      | 46  |
| 5) Bromomethane                | 2.79  | 94  | 911    | Below Cal |        | 85  |
| 10) Methyl Iodide              | 4.29  | 142 | 488    | 4.144     | ug/l # | 35  |
| 11) Tert butyl alcohol         | 5.18  | 59  | 124    | Below Cal | #      | 74  |
| 18) Methyl Acetate             | 4.71  | 43  | 2008   | 1.043     | ug/l # | 61  |
| 20) Methylene Chloride         | 4.96  | 84  | 34527  | 1.415     | ug/l # | 91  |
| 31) Cyclohexane                | 7.98  | 56  | 10371  | 1.449     | ug/l # | 46  |
| 36) 1,1-Dichloropropene        | 7.98  | 75  | 33231  | 4.677     | ug/l # | 51  |
| 38) Carbon Tetrachloride       | 7.98  | 117 | 42798  | 5.698     | ug/l # | 17  |
| 44) Trichloroethene            | 9.11  | 130 | 5776   | 1.131     | ug/l   | 90  |
| 51) 4-Methyl-2-Pentanone       | 10.33 | 43  | 4499   | 1.645     | ug/l # | 1   |
| 55) 1,1,2-Trichloroethane      | 10.87 | 97  | 4641   | 1.337     | ug/l # | 16  |
| 60) Dibromochloromethane       | 10.87 | 129 | 352642 | 76.813    | ug/l # | 10  |
| 64) Tetrachloroethene          | 10.87 | 164 | 367482 | 84.022    | ug/l   | 97  |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75  | 155896 | 59.431    | ug/l # | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.63 | 75  | 155896 | 138.751   | ug/l # | 7   |

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

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Quant Title : SW846 8260  
QLast Update : Fri Sep 04 01:57:04 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

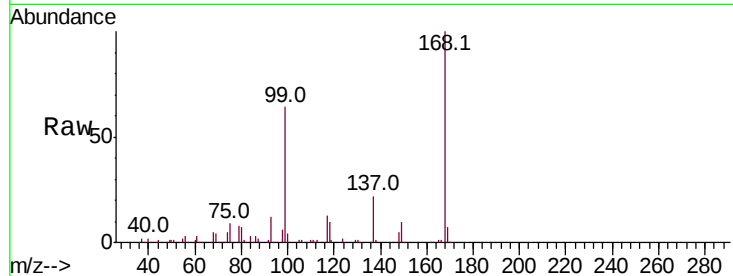
Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion:168 Resp: 362707

Ion Ratio Lower Upper

168 100

99 63.9 50.5 75.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC

7.98

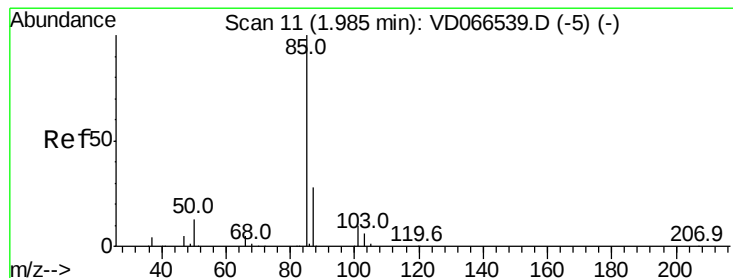
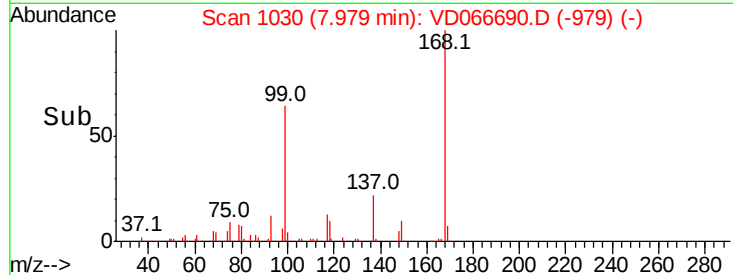
150000

100000

50000

0

Time-->



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.99 min Scan# 11

Delta R.T. 0.00 min

Lab File: VD066690.D

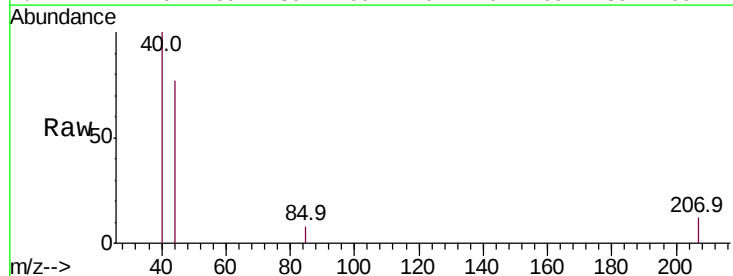
Acq: 15 Sep 2020 00:43

Tgt Ion: 85 Resp: 90

Ion Ratio Lower Upper

85 100

87 0.0 14.2 42.6#



Abundance Ion 84.90 (84.60 to 85.60): VDC

Ion 86.90 (86.60 to 87.60): VDC

1.99

300

250

200

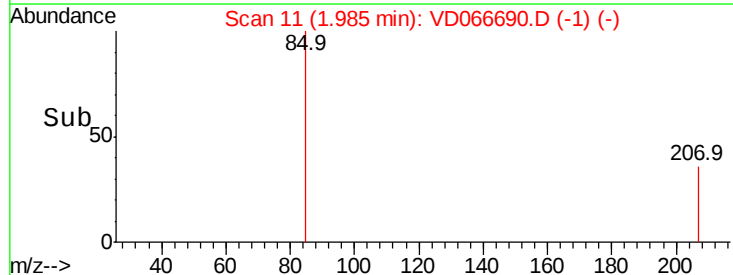
150

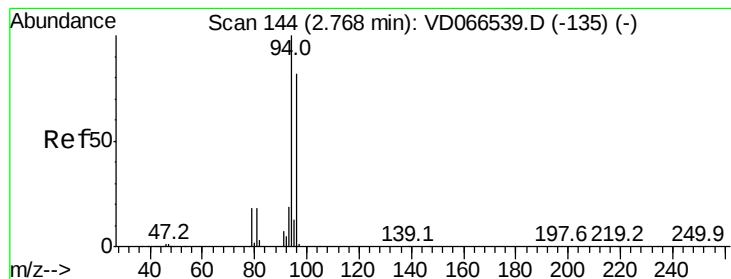
100

50

0

Time-->





#5

Bromomethane

Concen: Below Cal

RT: 2.79 min Scan# 148

Delta R.T. 0.02 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

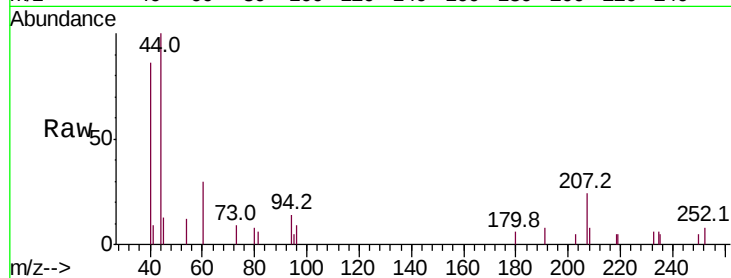
ClientSampled :

Tot Ion: 94 Resp: 911

Ion Ratio Lower Upper

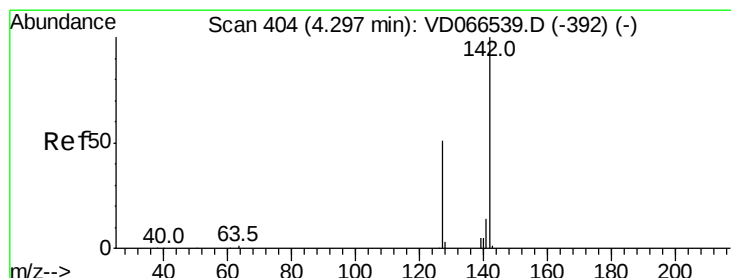
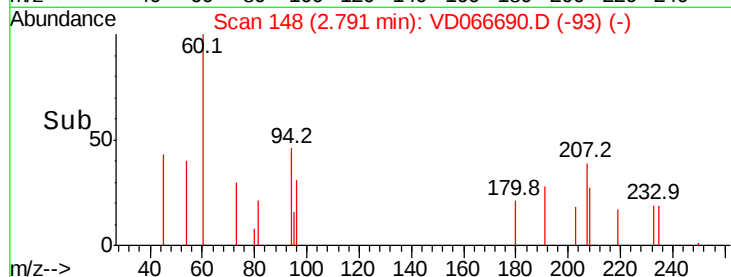
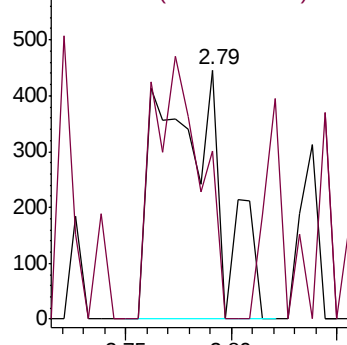
94 100

96 67.7 65.2 97.8



Abundance Ion 93.90 (93.60 to 94.60): VDC

Ion 95.90 (95.60 to 96.60): VDC



#10

Methyl Iodide

Concen: 4.144 ug/l

RT: 4.29 min Scan# 403

Delta R.T. -0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

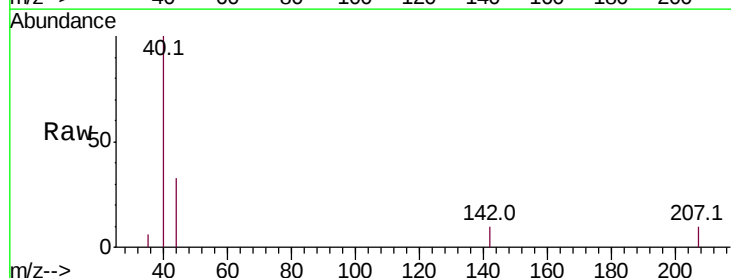
Tgt Ion: 142 Resp: 488

Ion Ratio Lower Upper

142 100

127 0.0 40.6 61.0#

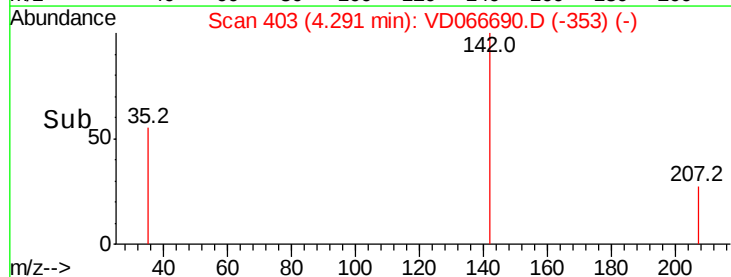
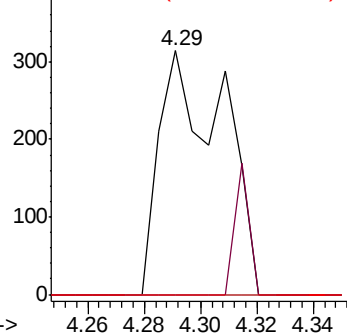
141 0.0 12.2 18.4#

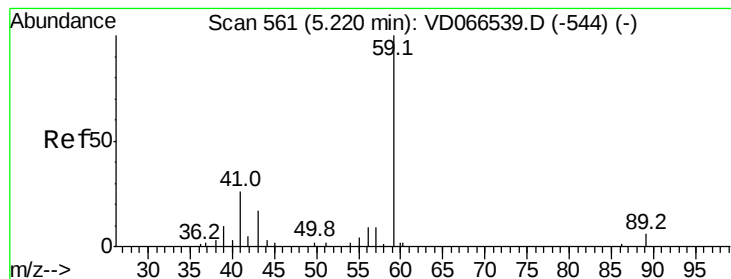


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



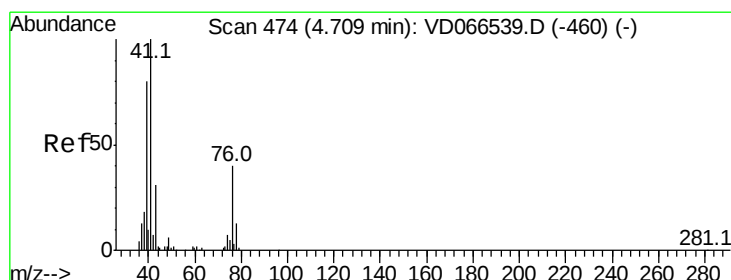
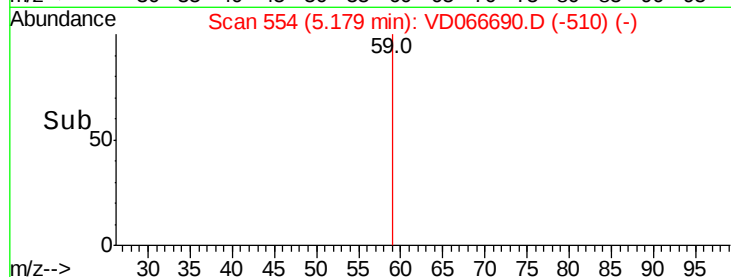
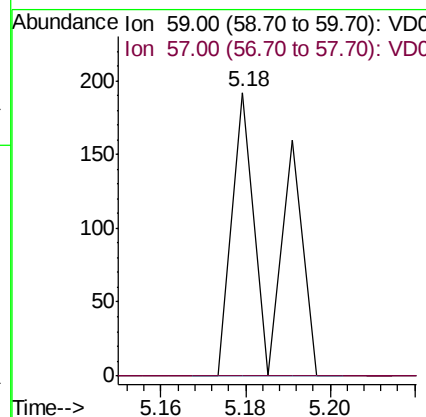
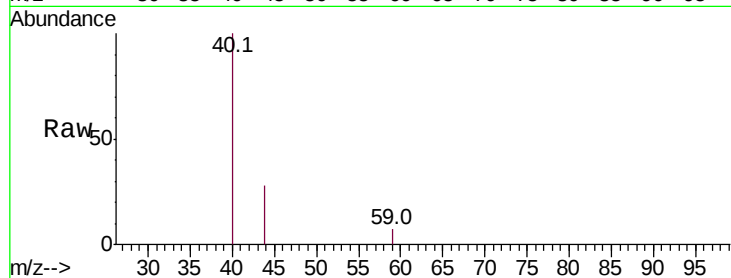


#11

Tert butyl alcohol  
 Concen: Below Cal  
 RT: 5.18 min Scan# 554  
 Delta R.T. -0.04 min  
 Lab File: VD066690.D  
 Acq: 15 Sep 2020 00:43

Instrument :  
 MSVOA\_D  
 ClientSampleId :

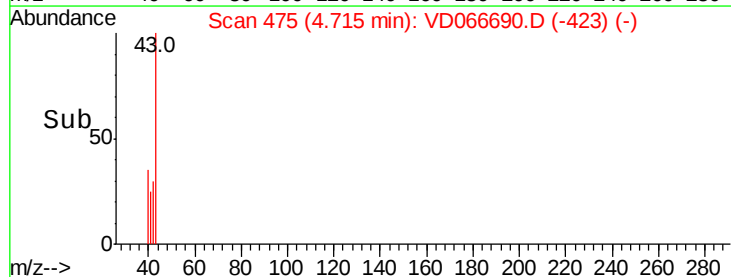
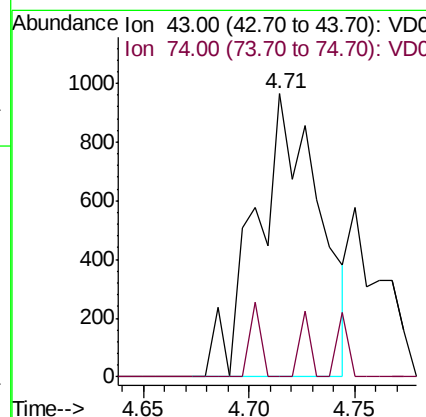
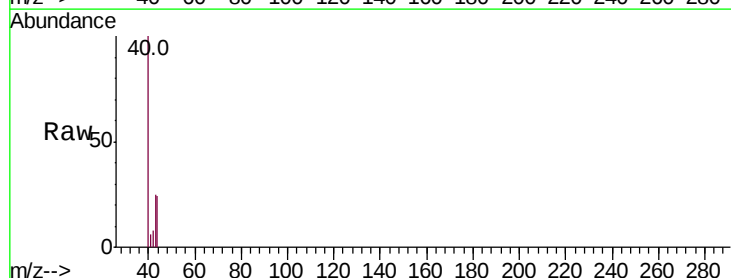
Tot Ion: 59 Resp: 124  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 7.6 11.4#

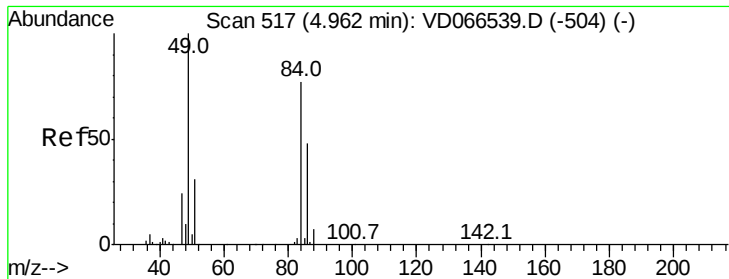


#18

Methyl Acetate  
 Concen: 1.043 ug/l  
 RT: 4.71 min Scan# 475  
 Delta R.T. 0.01 min  
 Lab File: VD066690.D  
 Acq: 15 Sep 2020 00:43

Tgt Ion: 43 Resp: 2008  
 Ion Ratio Lower Upper  
 43 100  
 74 3.9 18.0 27.0#





#20

Methylene Chloride

Concen: 1.415 ug/l

RT: 4.96 min Scan# 517

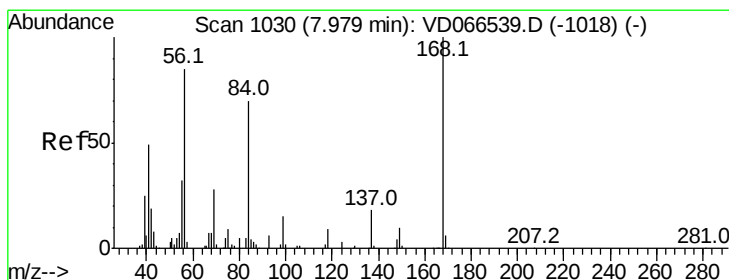
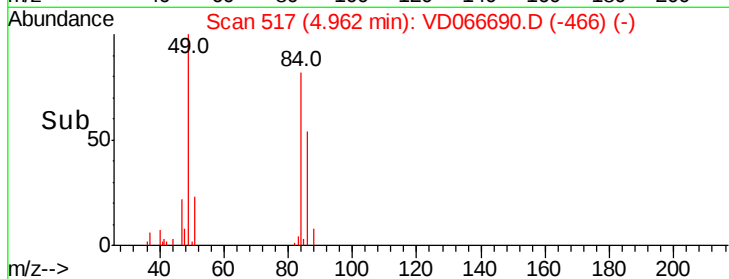
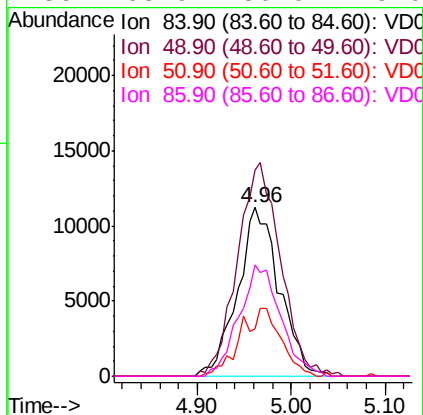
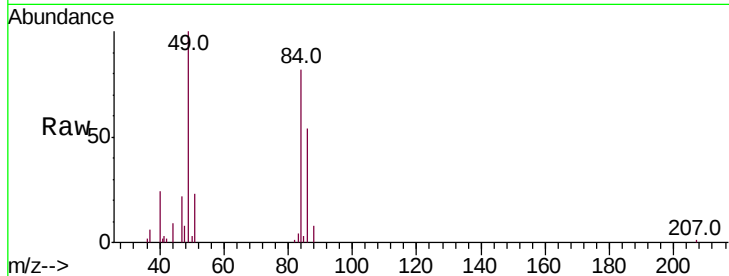
Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :  
MSVOA\_D  
ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 34527 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 122.0 | 104.3 | 156.5 |
| 51       | 28.2  | 32.2  | 48.4# |
| 86       | 65.9  | 50.0  | 75.0  |



#31

Cyclohexane

Concen: 1.449 ug/l

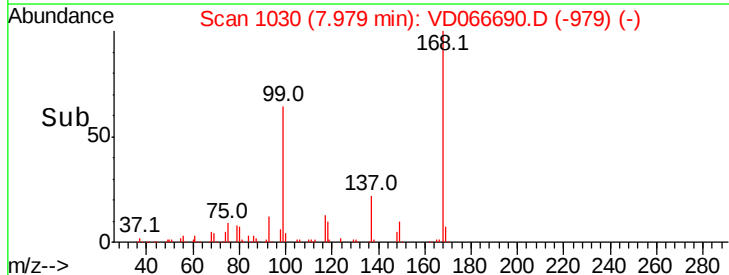
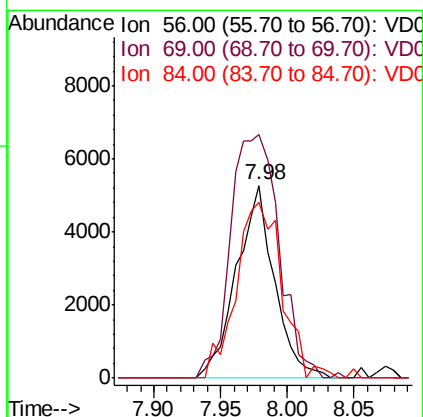
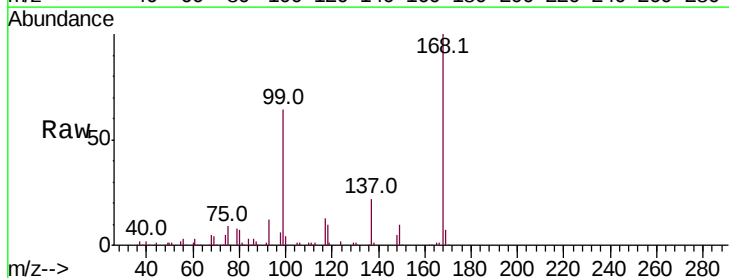
RT: 7.98 min Scan# 1030

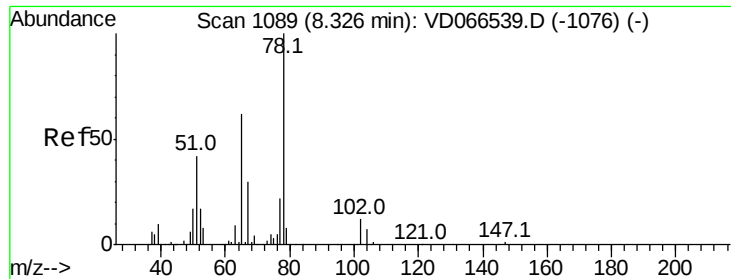
Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 56    | Resp: | 10371 |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 69       | 126.4 | 26.3  | 39.5# |
| 84       | 91.3  | 66.1  | 99.1  |





#33

1,2-Dichloroethane-d4

Concen: 55.404 ug/l

RT: 8.33 min Scan# 1090

Delta R.T. 0.01 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

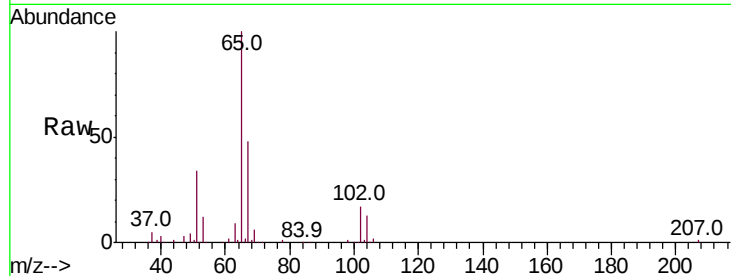
ClientSampleId :

Tot Ion: 65 Resp: 243135

Ion Ratio Lower Upper

65 100

67 50.3 0.0 102.8



Abundance Ion 64.90 (64.60 to 65.60): VDC

Ion 66.90 (66.60 to 67.60): VDC

8.33

120000

100000

80000

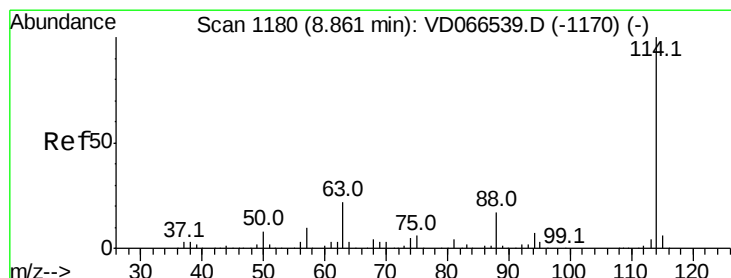
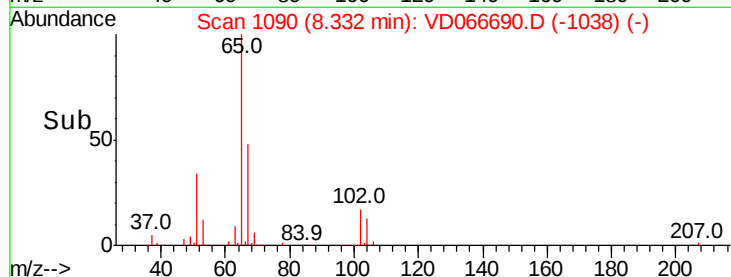
60000

40000

20000

0

Time--> 8.20 8.30 8.40



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.86 min Scan# 1180

Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

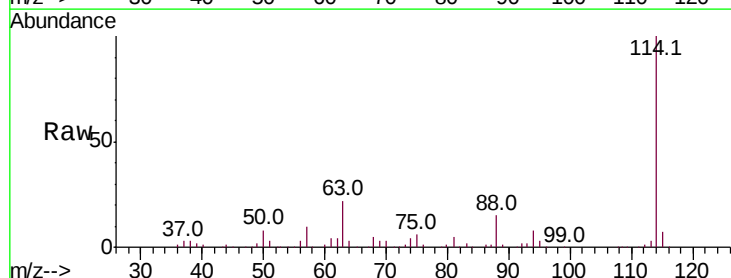
Tgt Ion: 114 Resp: 682801

Ion Ratio Lower Upper

114 100

63 21.9 0.0 43.2

88 15.2 0.0 33.2



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VDC

Ion 87.90 (87.60 to 88.60): VDC

8.86

400000

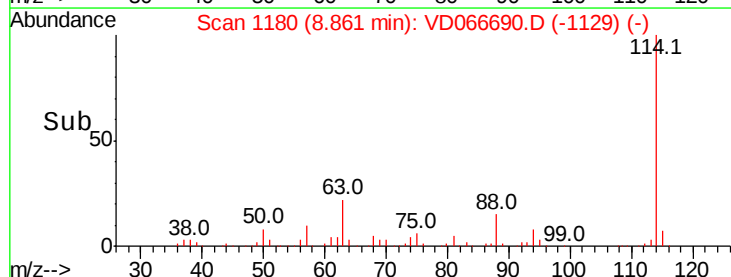
300000

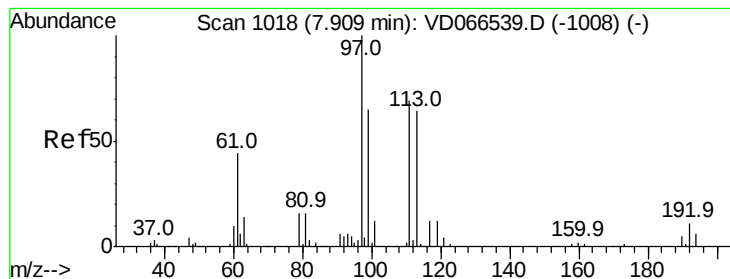
200000

100000

0

Time--> 8.80 8.90





#35

Dibromofluoromethane

Concen: 51.664 ug/l

RT: 7.91 min Scan# 1018

Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

ClientSampled :

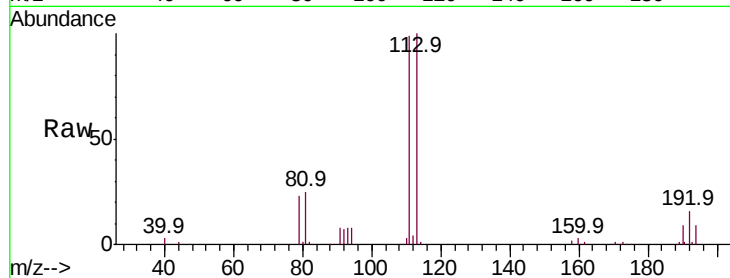
Tot Ion:113 Resp: 237977

Ion Ratio Lower Upper

113 100

111 102.6 83.2 124.8

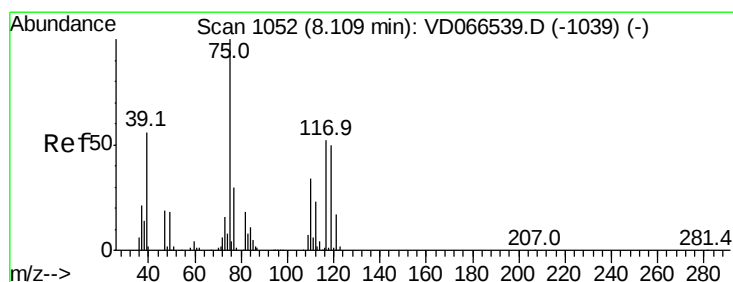
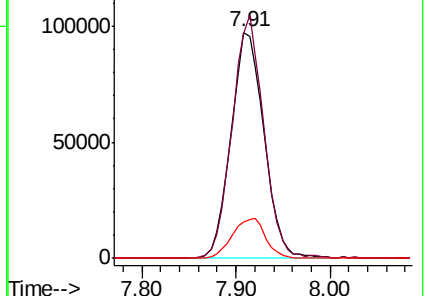
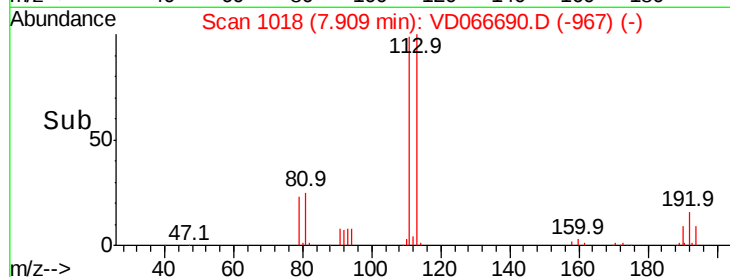
192 17.8 13.7 20.5



Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V



#36

1,1-Dichloropropene

Concen: 4.677 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.13 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

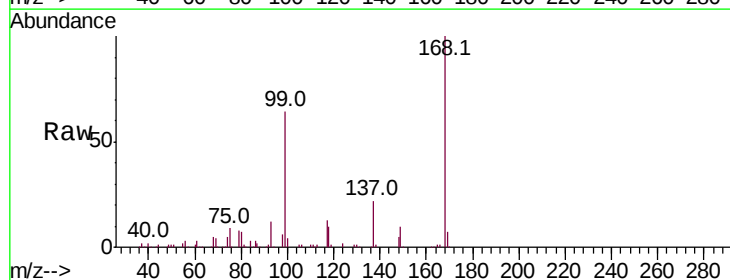
Tgt Ion: 75 Resp: 33231

Ion Ratio Lower Upper

75 100

110 10.5 17.3 52.0#

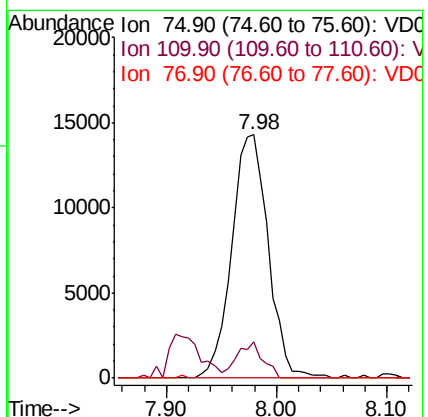
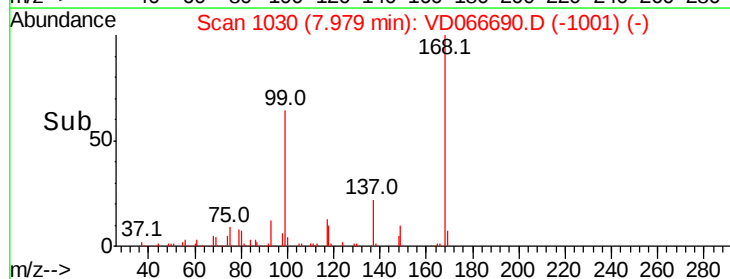
77 0.0 25.1 37.7#

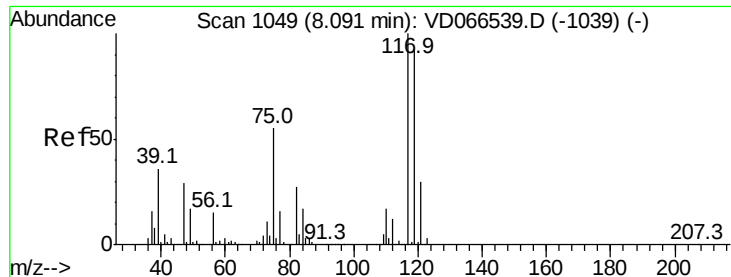


Abundance Ion 74.90 (74.60 to 75.60): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): V





#38

Carbon Tetrachloride

Concen: 5.698 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.11 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

ClientSampled :

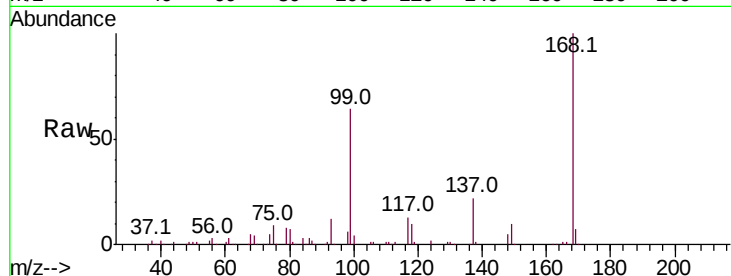
Tot Ion:117 Resp: 42798

Ion Ratio Lower Upper

117 100

119 4.4 73.9 110.9#

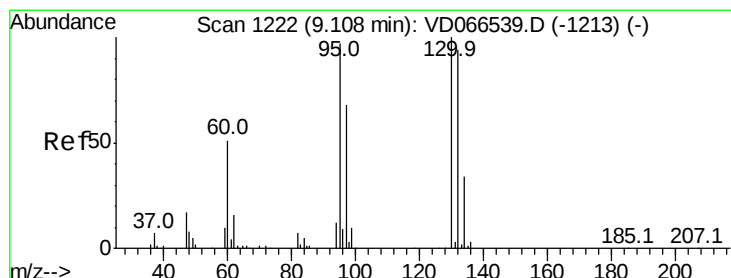
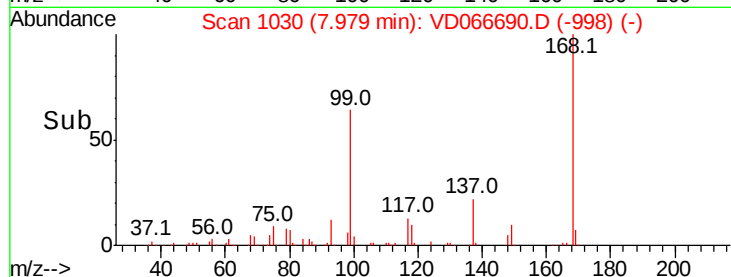
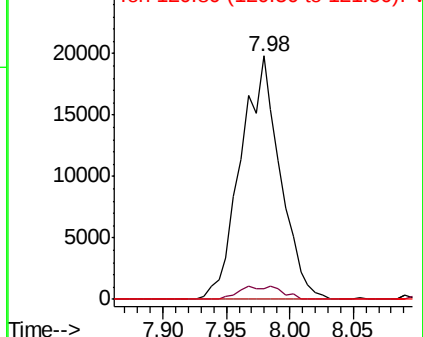
121 0.0 24.1 36.1#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#44

Trichloroethene

Concen: 1.131 ug/l

RT: 9.11 min Scan# 1222

Delta R.T. 0.00 min

Lab File: VD066690.D

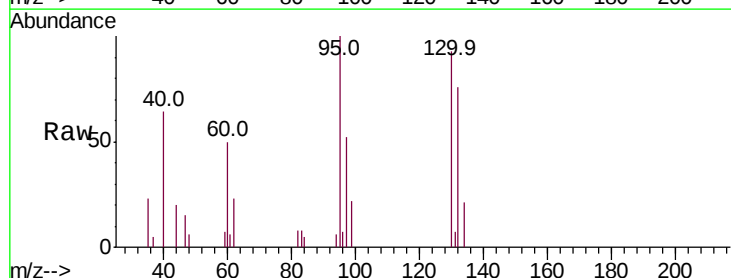
Acq: 15 Sep 2020 00:43

Tgt Ion:130 Resp: 5776

Ion Ratio Lower Upper

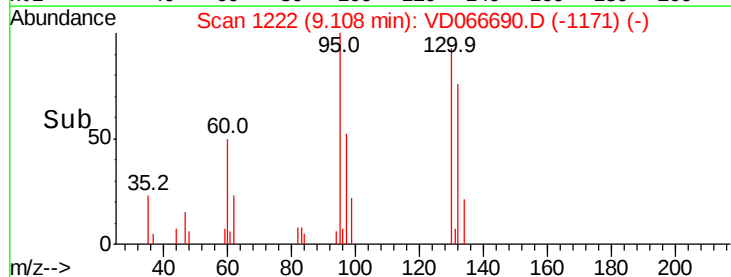
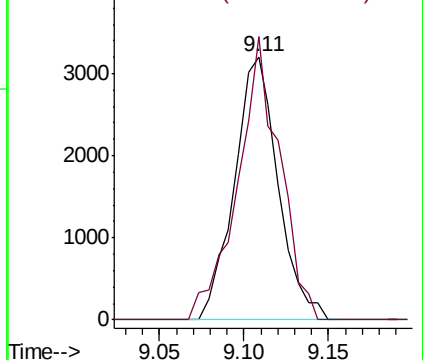
130 100

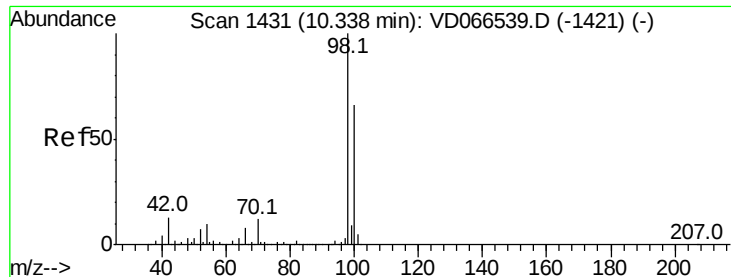
95 107.5 0.0 194.4



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): V

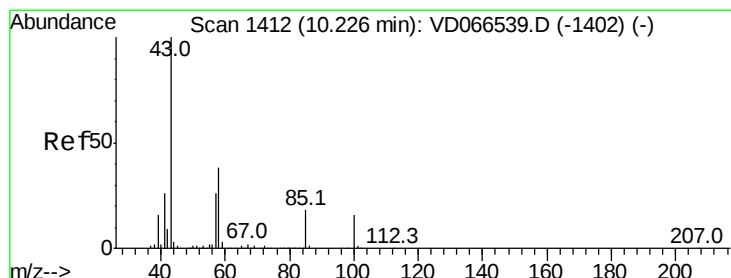
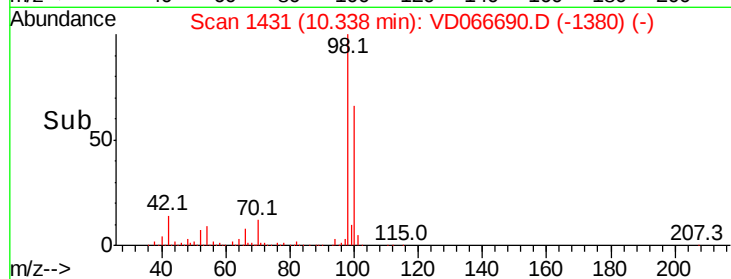
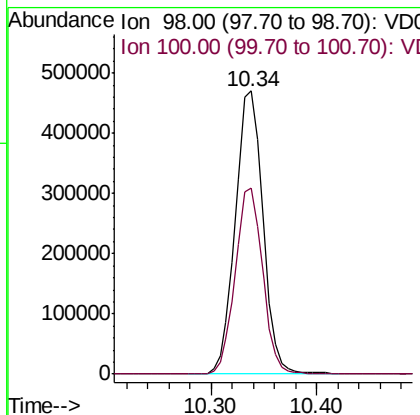
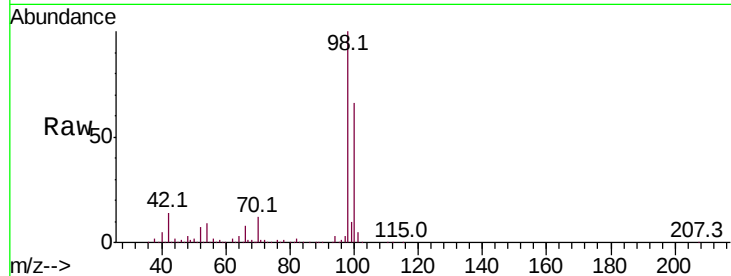




#50  
Toluene-d8  
Concen: 51.739 ug/l  
RT: 10.34 min Scan# 1431  
Delta R.T. 0.00 min  
Lab File: VD066690.D  
Acq: 15 Sep 2020 00:43

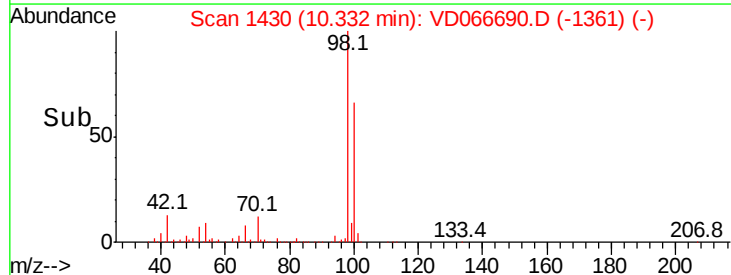
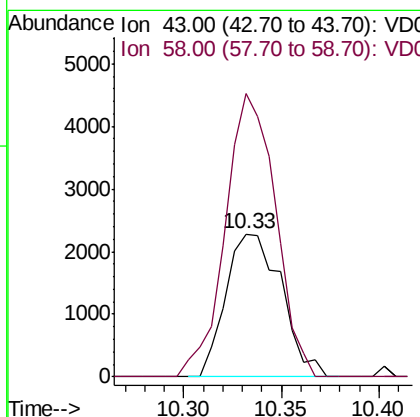
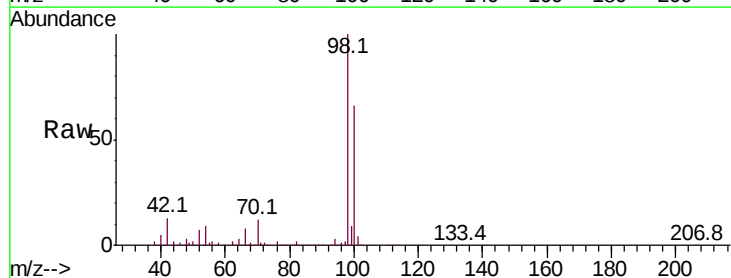
Instrument :  
MSVOA\_D  
ClientSampleId :

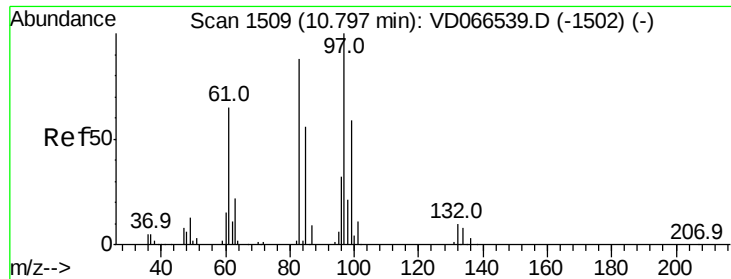
Tot Ion: 98 Resp: 851792  
Ion Ratio Lower Upper  
98 100  
100 65.2 52.9 79.3



#51  
4-Methyl-2-Pentanone  
Concen: 1.645 ug/l  
RT: 10.33 min Scan# 1430  
Delta R.T. 0.11 min  
Lab File: VD066690.D  
Acq: 15 Sep 2020 00:43

Tgt Ion: 43 Resp: 4499  
Ion Ratio Lower Upper  
43 100  
58 179.3 30.5 45.7#





#55

1,1,2-Trichloroethane

Concen: 1.337 ug/l

RT: 10.87 min Scan# 1521

Delta R.T. 0.07 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

ClientSampled :

Tot Ion: 97 Resp: 4641

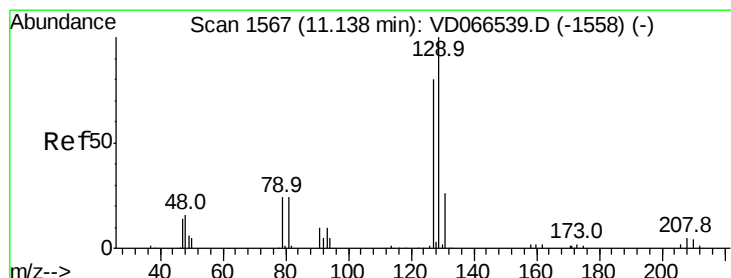
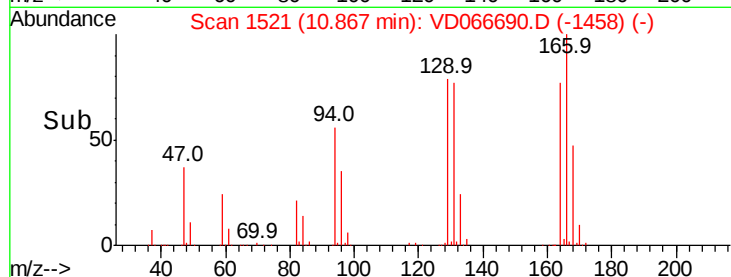
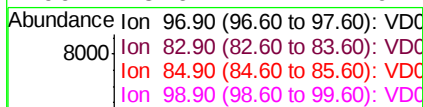
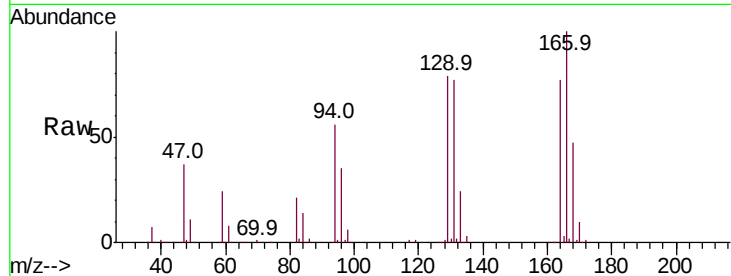
Ion Ratio Lower Upper

97 100

83 211.5 70.1 105.1#

85 31.9 44.5 66.7#

99 15.6 47.1 70.7#



#60

Dibromochloromethane

Concen: 76.813 ug/l

RT: 10.87 min Scan# 1522

Delta R.T. -0.26 min

Lab File: VD066690.D

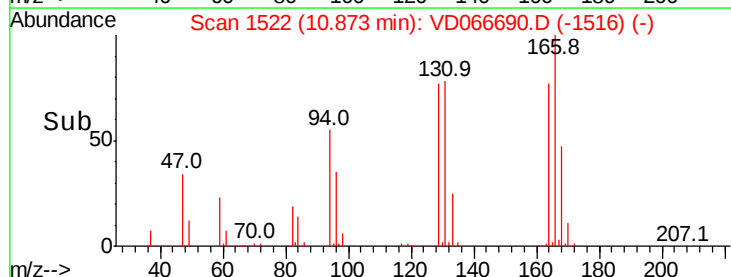
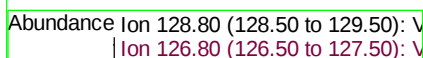
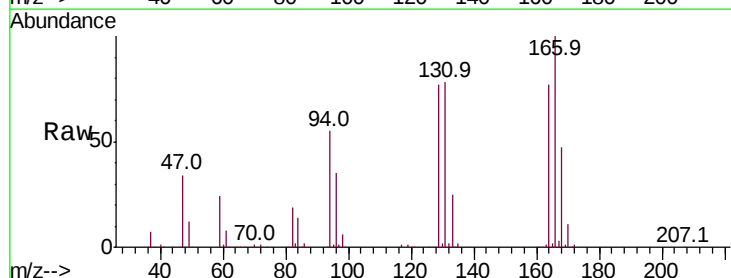
Acq: 15 Sep 2020 00:43

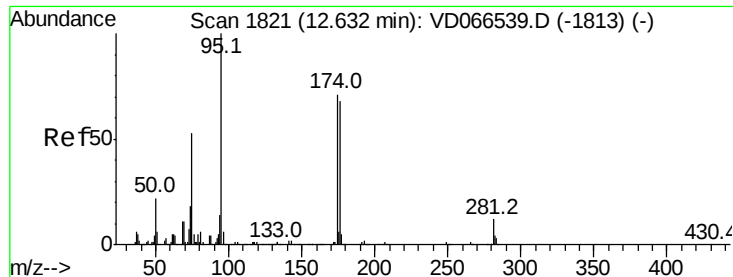
Tgt Ion: 129 Resp: 352642

Ion Ratio Lower Upper

129 100

127 0.1 39.5 118.3#





#62

4-Bromofluorobenzene

Concen: 50.565 ug/l

RT: 12.63 min Scan# 1821

Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

ClientSampleId :

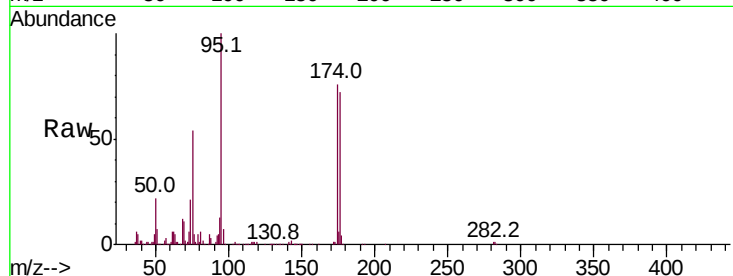
Tot Ion: 95 Resp: 276037

Ion Ratio Lower Upper

95 100

174 76.6 0.0 155.8

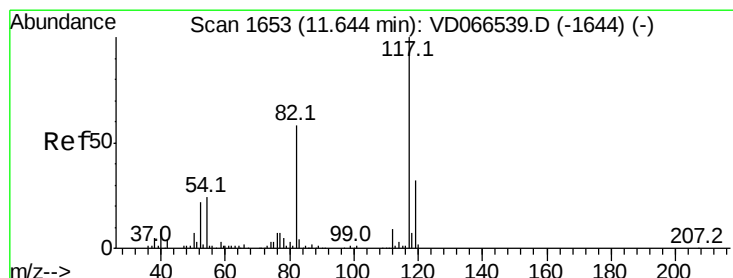
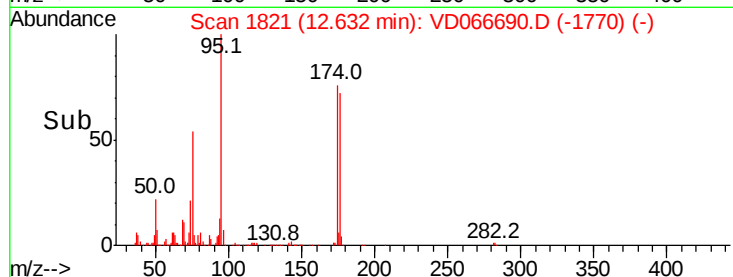
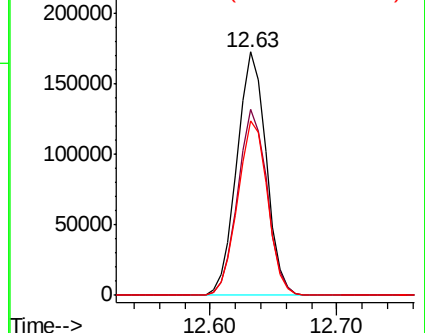
176 73.1 0.0 148.6



Abundance Ion 94.90 (94.60 to 95.60): V

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.64 min Scan# 1653

Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

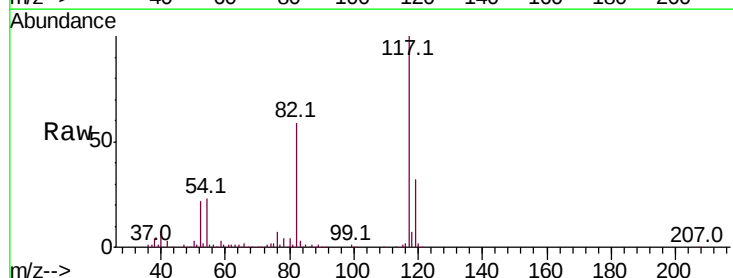
Tgt Ion: 117 Resp: 649583

Ion Ratio Lower Upper

117 100

82 58.5 46.2 69.2

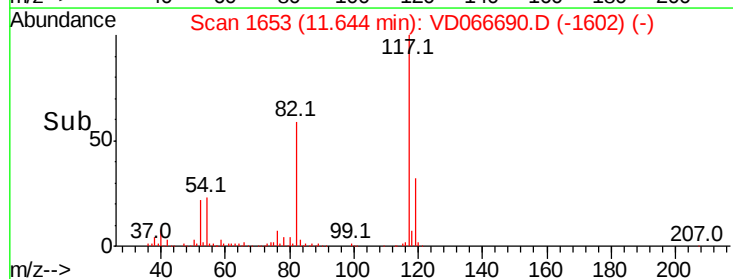
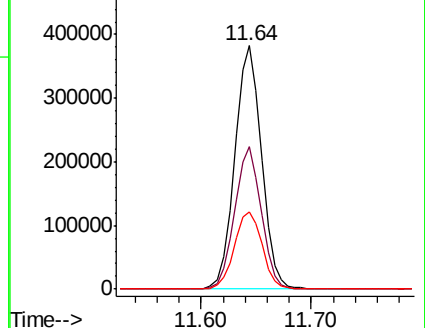
119 32.0 25.8 38.8

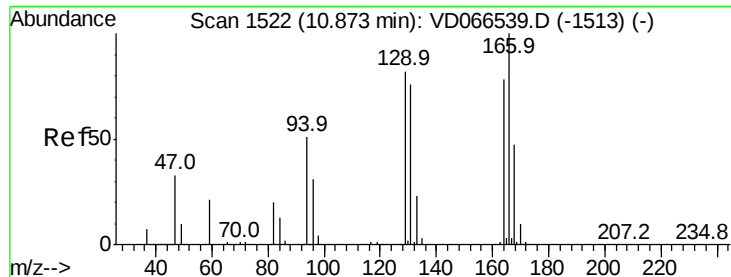


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): V

Ion 118.90 (118.60 to 119.60): V





#64

Tetrachloroethene

Concen: 84.022 ug/l

RT: 10.87 min Scan# 1522

Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

ClientSampleId :

Tot Ion:164 Resp: 367482

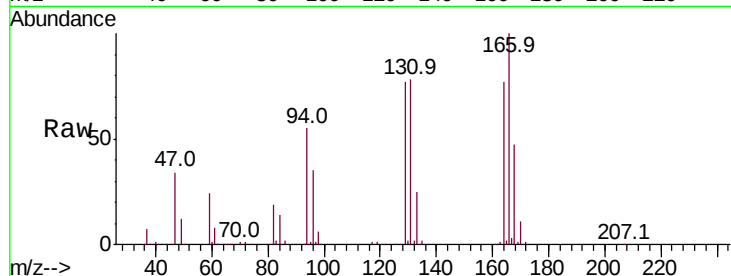
Ion Ratio Lower Upper

164 100

166 130.1 103.2 154.8

129 100.6 84.5 126.7

131 101.9 78.9 118.3

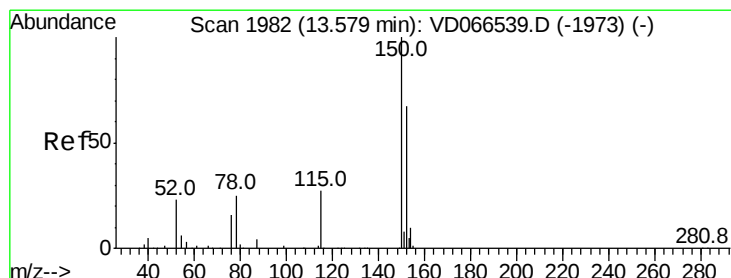
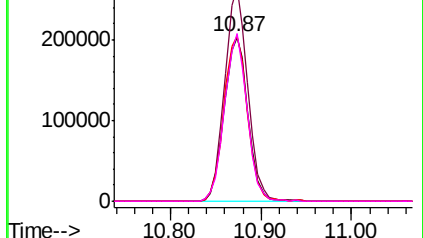
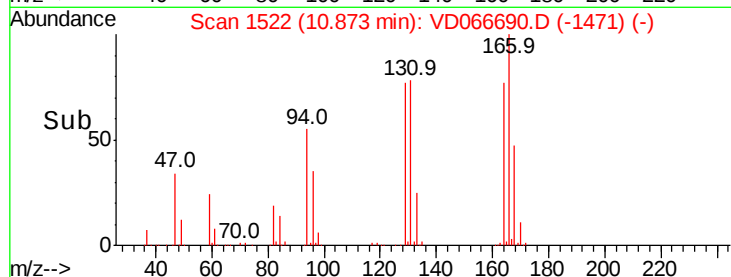


Abundance Ion 163.80 (163.50 to 164.50): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.80 (128.50 to 129.50): V

Ion 130.80 (130.50 to 131.50): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.58 min Scan# 1982

Delta R.T. 0.00 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

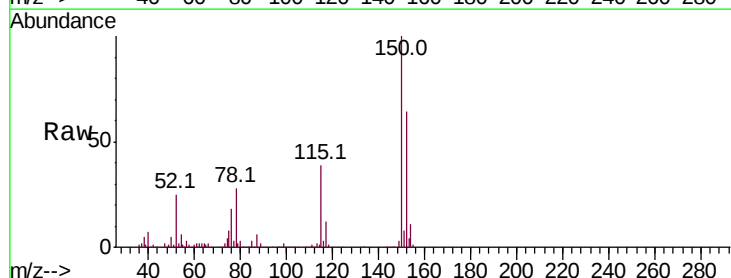
Tgt Ion:152 Resp: 272751

Ion Ratio Lower Upper

152 100

115 61.3 30.4 91.2

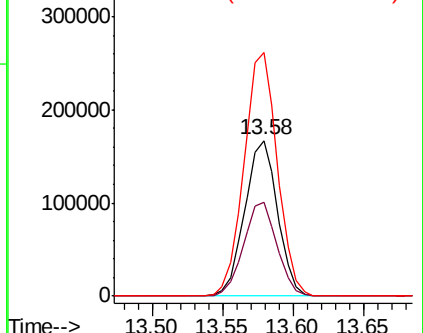
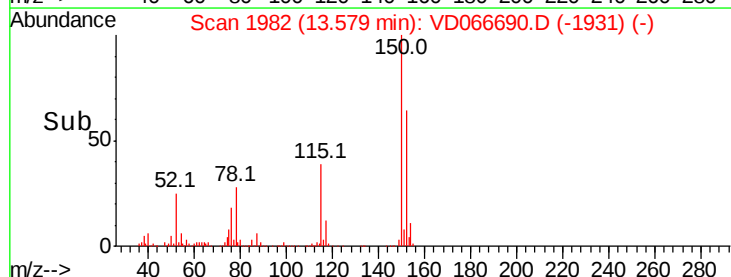
150 158.5 0.0 345.8

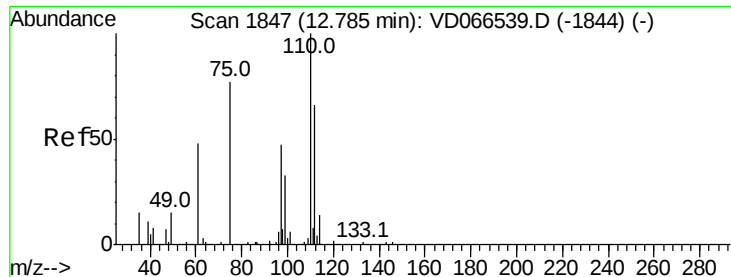


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 59.431 ug/l

RT: 12.63 min Scan# 1821

Delta R.T. -0.15 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

Instrument :

MSVOA\_D

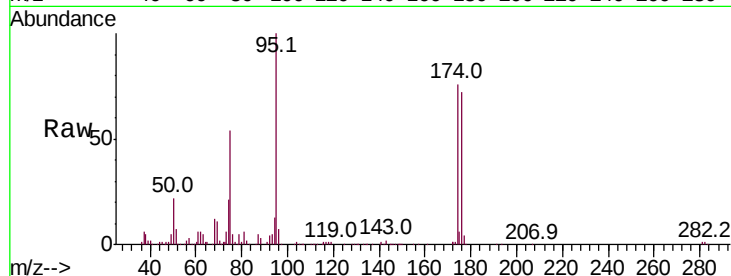
ClientSampled :

Tot Ion: 75 Resp: 155896

Ion Ratio Lower Upper

75 100

77 1.3 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 77.00 (76.70 to 77.70): VDC

12.63

100000

80000

60000

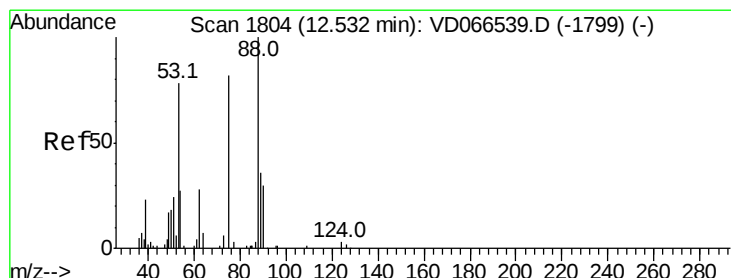
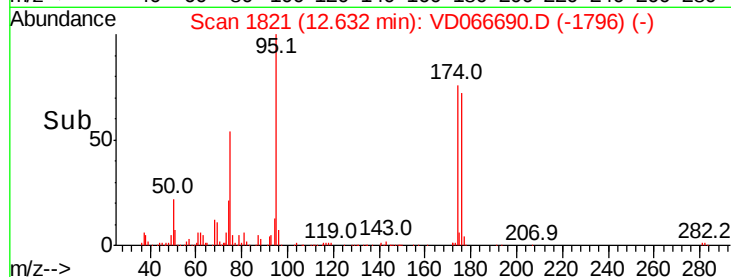
40000

20000

0

Time-->

12.55 12.60 12.65 12.70



#81

trans-1,4-Dichloro-2-butene

Concen: 138.751 ug/l

RT: 12.63 min Scan# 1821

Delta R.T. 0.10 min

Lab File: VD066690.D

Acq: 15 Sep 2020 00:43

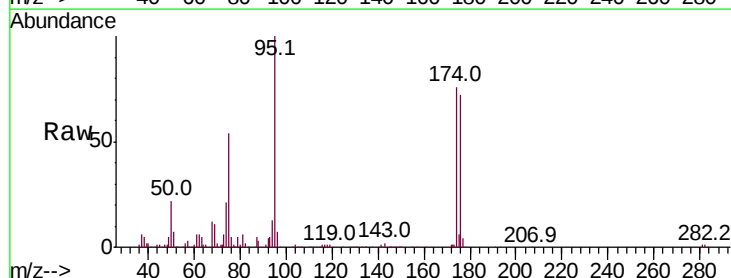
Tgt Ion: 75 Resp: 155896

Ion Ratio Lower Upper

75 100

53 0.2 87.0 130.4#

89 0.0 37.1 55.7#



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 88.90 (88.60 to 89.60): VDC

12.63

120000

100000

80000

60000

40000

20000

0

Time-->

12.55 12.60 12.65 12.70

