

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD120519\  
 Data File : VD064432.D  
 Acq On : 05 Dec 2019 13:12  
 Operator : VA/SY  
 Sample : K6162-02  
 Misc : 5.07G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 TP2

Quant Time: Dec 06 05:54:14 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D112719S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Nov 29 07:18:03 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 650042   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 1052829  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 960981   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 461784   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|--------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.33  | 65   | 290305   | 49.34  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 98.68%  |          |
| 35) Dibromofluoromethane    | 7.92  | 113  | 322646   | 48.64  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 97.28%  |          |
| 50) Toluene-d8              | 10.34 | 98   | 1269714  | 50.81  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 101.62% |          |
| 62) 4-Bromofluorobenzene    | 12.64 | 95   | 408139   | 50.83  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 101.66% |          |

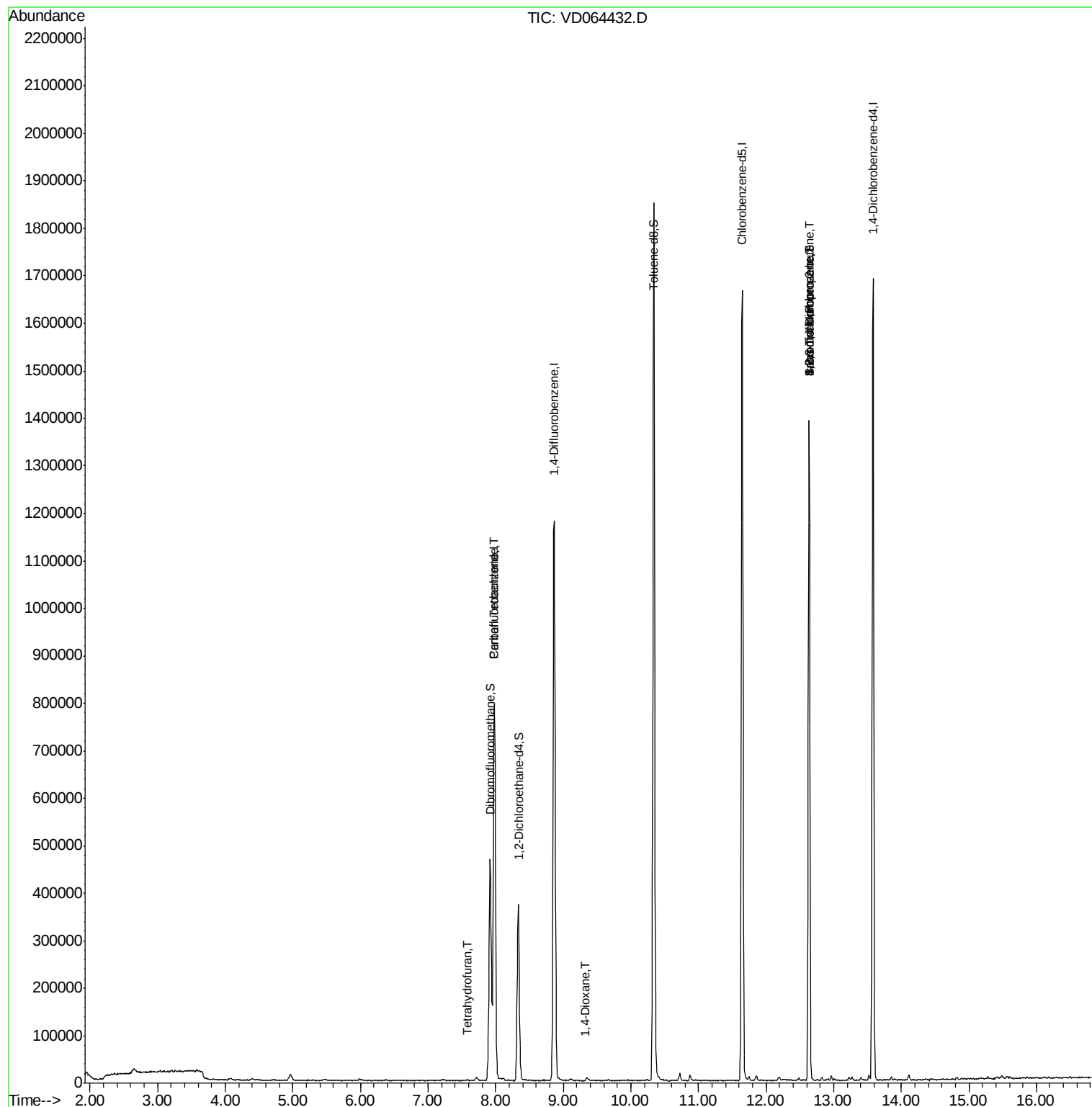
| Target Compounds               | R.T.  | QIon | Response | Conc         | Units | Qvalue |
|--------------------------------|-------|------|----------|--------------|-------|--------|
| 20) Methylene Chloride         | 4.96  | 84   | 8670     | Below Cal    |       | 95     |
| 29) Tetrahydrofuran            | 7.57  | 42   | 1147     | 1.072 ug/l   | #     | 52     |
| 31) Cyclohexane                | 7.98  | 56   | 15153    | Below Cal    | #     | 31     |
| 38) Carbon Tetrachloride       | 7.98  | 117  | 59045    | 5.618 ug/l   | #     | 15     |
| 49) 1,4-Dioxane                | 9.33  | 88   | 81       | 1.757 ug/l   | #     | 1      |
| 71) Bromoform                  | 12.64 | 173  | 4447     | 1.002 ug/l   | #     | 1      |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75   | 214800   | 56.563 ug/l  | #     | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.64 | 75   | 214800   | 123.336 ug/l | #     | 9      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.50 | 75   | 124      | Below Cal    | #     | 1      |

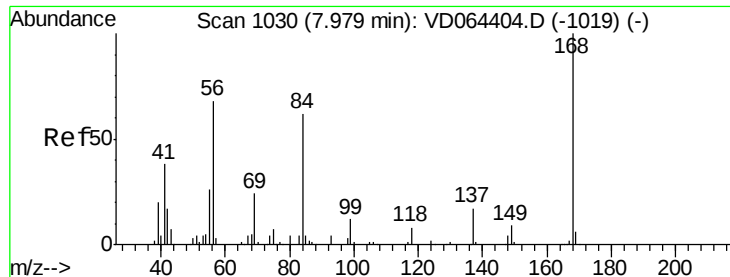
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_D  
ClientSampleId :  
TP2

Quant Time: Dec 06 05:54:14 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D112719S.M  
Quant Title : SW846 8260  
QLast Update : Fri Nov 29 07:18:03 2019  
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: VD064432.D

Acq: 05 Dec 2019 13:12

Instrument :

MSVOA\_D

ClientSampled :

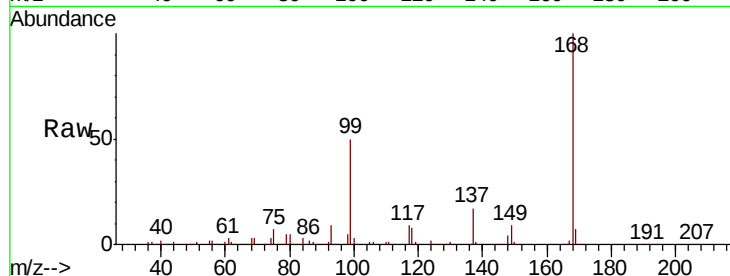
TP2

Tot Ion:168 Resp: 650042

Ion Ratio Lower Upper

168 100

99 50.4 40.7 61.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC

7.98

300000

250000

200000

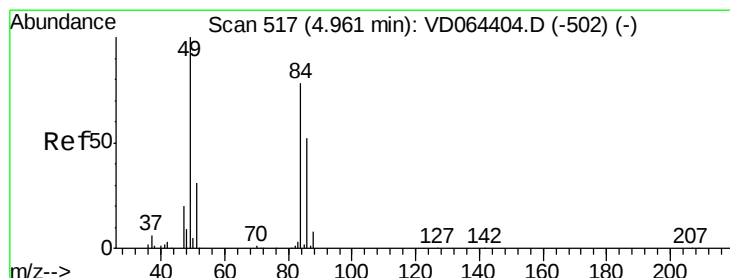
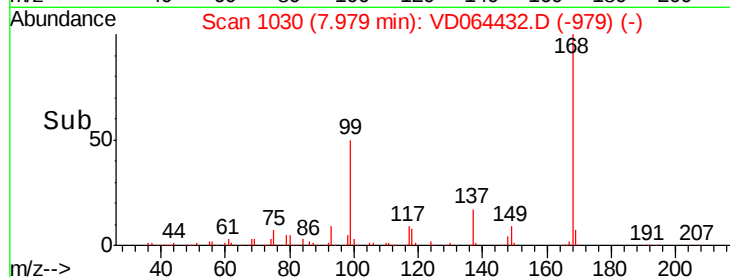
150000

100000

50000

0

Time-->



#20

Methylene Chloride

Concen: Below Cal

RT: 4.96 min Scan# 517

Delta R.T. 0.00 min

Lab File: VD064432.D

Acq: 05 Dec 2019 13:12

Tgt Ion: 84 Resp: 8670

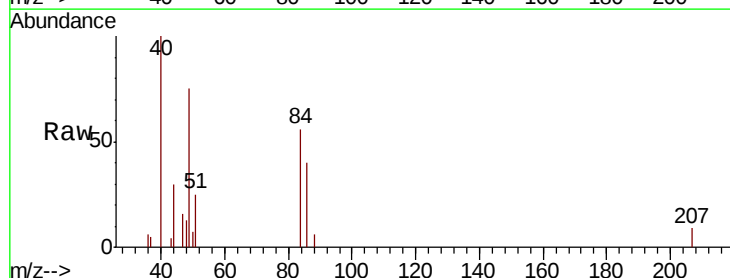
Ion Ratio Lower Upper

84 100

49 133.8 102.6 153.8

51 44.1 32.0 48.0

86 71.1 53.4 80.0



Abundance Ion 83.90 (83.60 to 84.60): VDC

Ion 48.90 (48.60 to 49.60): VDC

Ion 50.90 (50.60 to 51.60): VDC

Ion 85.90 (85.60 to 86.60): VDC

6000

5000

4000

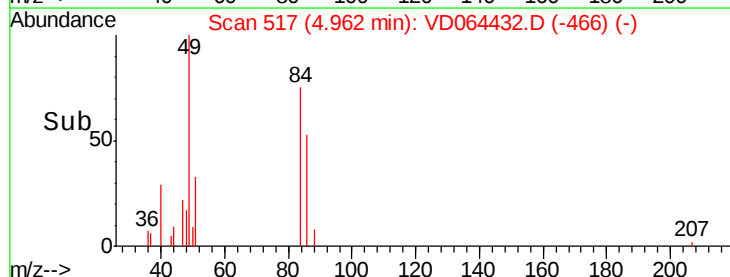
3000

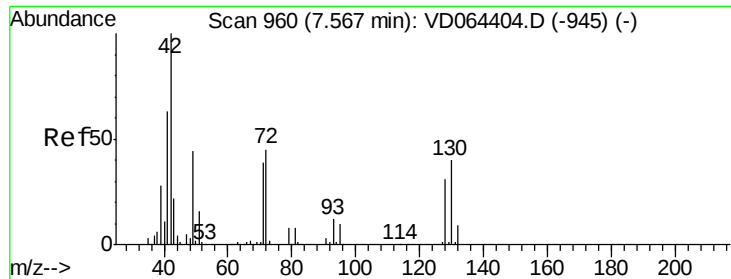
2000

1000

0

Time-->

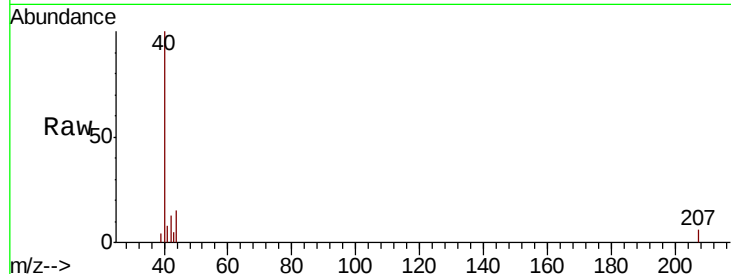




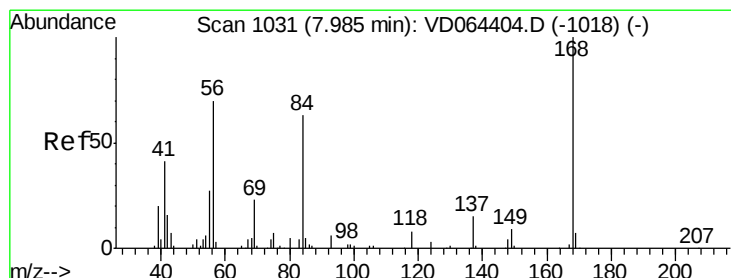
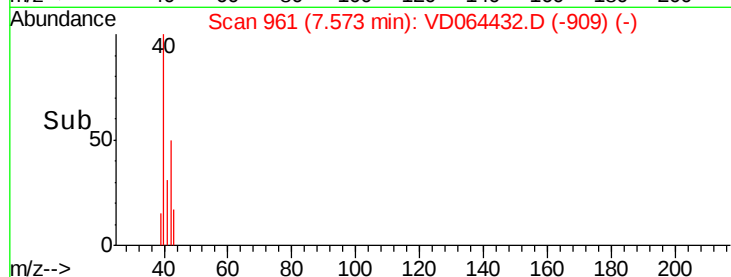
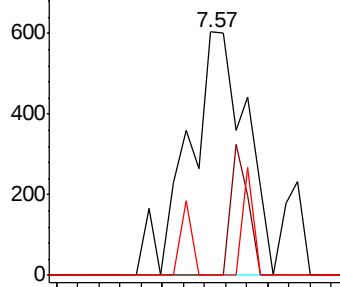
#29  
Tetrahydrofuran  
Concen: 1.072 ug/l  
RT: 7.57 min Scan# 961  
Delta R.T. 0.01 min  
Lab File: VD064432.D  
Acq: 05 Dec 2019 13:12

Instrument :  
MSVOA\_D  
ClientSampleId :  
TP2

Tot Ion: 42 Resp: 1147  
Ion Ratio Lower Upper  
42 100  
72 16.0 35.8 53.8#  
71 8.3 32.7 49.1#

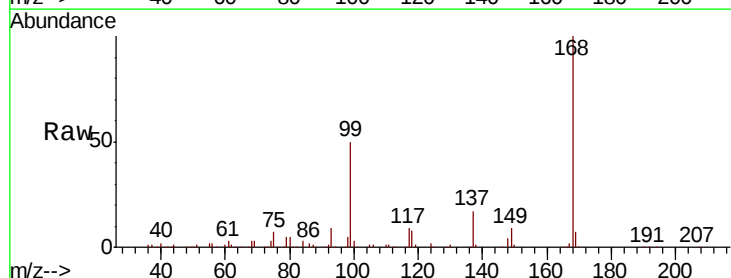


Abundance Ion 42.00 (41.70 to 42.70): VDC  
Ion 72.00 (71.70 to 72.70): VDC  
Ion 71.00 (70.70 to 71.70): VDC

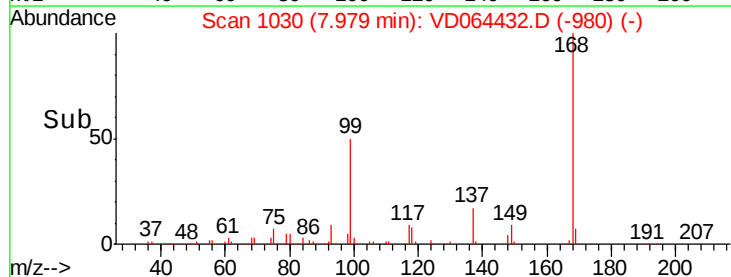
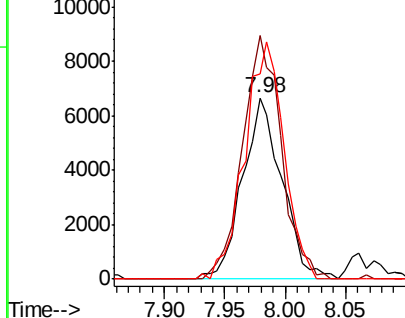


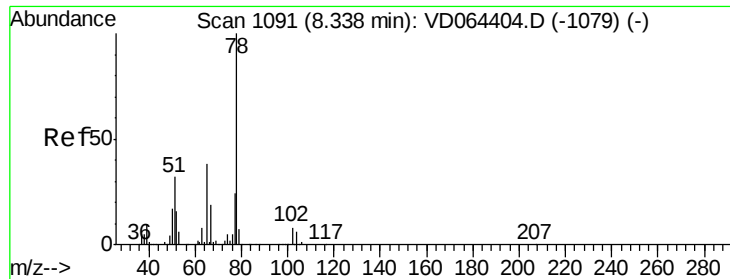
#31  
Cyclohexane  
Concen: Below Cal  
RT: 7.98 min Scan# 1030  
Delta R.T. -0.01 min  
Lab File: VD064432.D  
Acq: 05 Dec 2019 13:12

Tgt Ion: 56 Resp: 15153  
Ion Ratio Lower Upper  
56 100  
69 134.2 26.2 39.4#  
84 113.3 70.3 105.5#



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





#33

1,2-Dichloroethane-d4

Concen: 49.339 ug/l

RT: 8.33 min Scan# 1090

Delta R.T. -0.01 min

Lab File: VD064432.D

Acq: 05 Dec 2019 13:12

Instrument :

MSVOA\_D

ClientSampled :

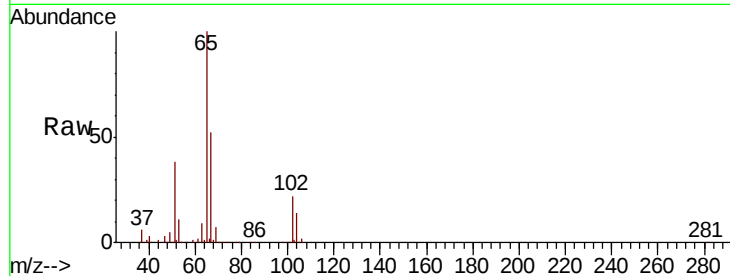
TP2

Tot Ion: 65 Resp: 290305

Ion Ratio Lower Upper

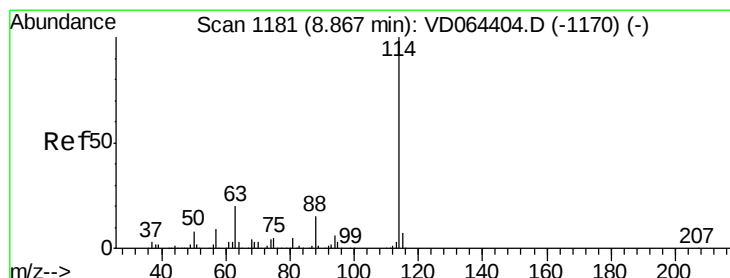
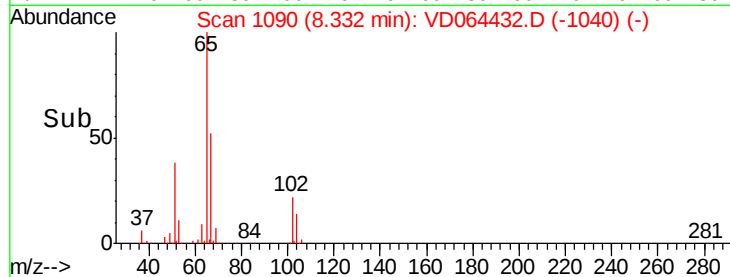
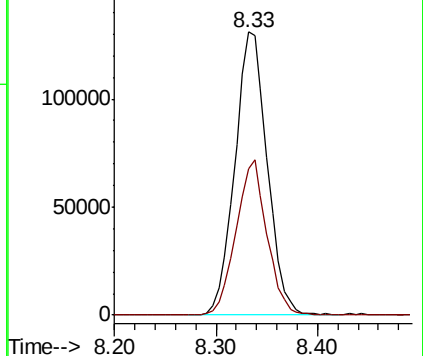
65 100

67 52.4 0.0 102.0



Abundance Ion 64.90 (64.60 to 65.60): VDC

Ion 66.90 (66.60 to 67.60): VDC



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.87 min Scan# 1181

Delta R.T. 0.00 min

Lab File: VD064432.D

Acq: 05 Dec 2019 13:12

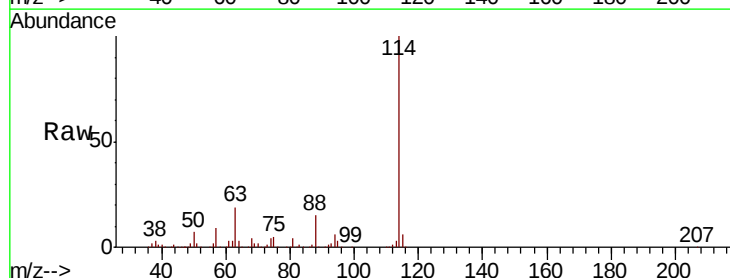
Tgt Ion: 114 Resp: 1052829

Ion Ratio Lower Upper

114 100

63 19.3 0.0 40.0

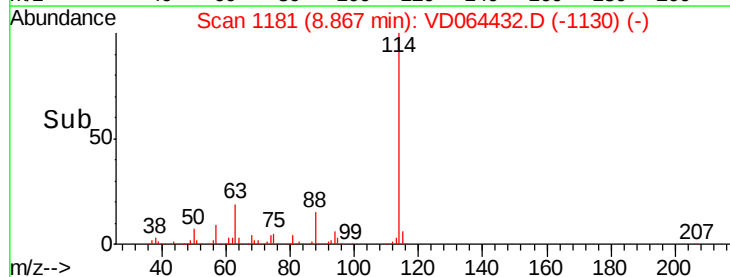
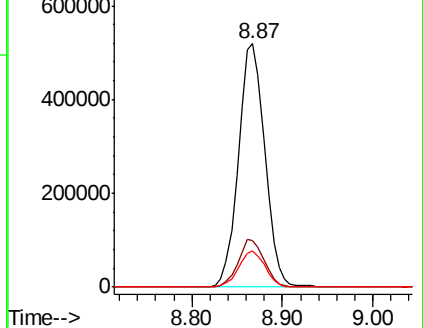
88 15.1 0.0 29.2

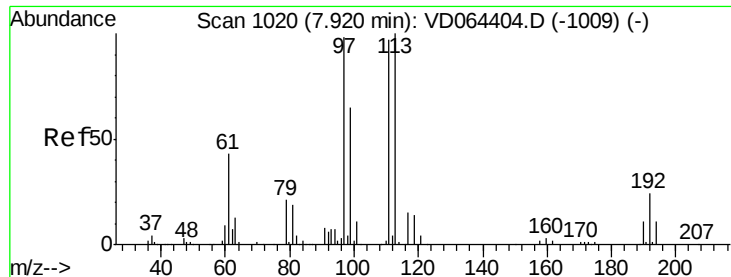


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VDC

Ion 87.90 (87.60 to 88.60): VDC

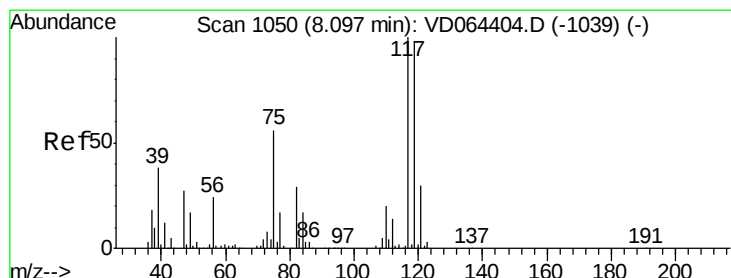
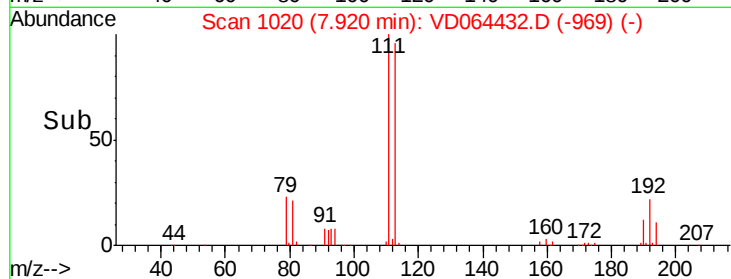
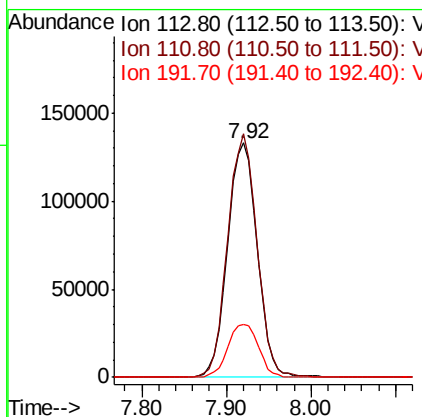
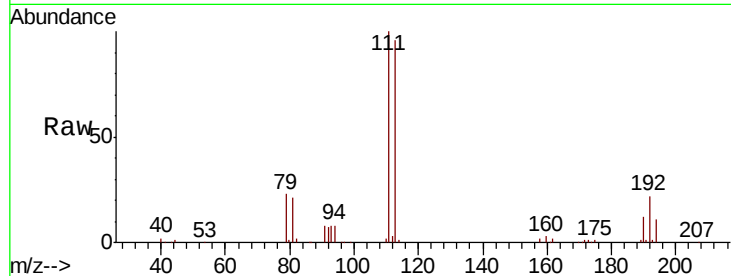




#35  
 Dibromofluoromethane  
 Concen: 48.640 ug/l  
 RT: 7.92 min Scan# 1020  
 Delta R.T. 0.00 min  
 Lab File: VD064432.D  
 Acq: 05 Dec 2019 13:12

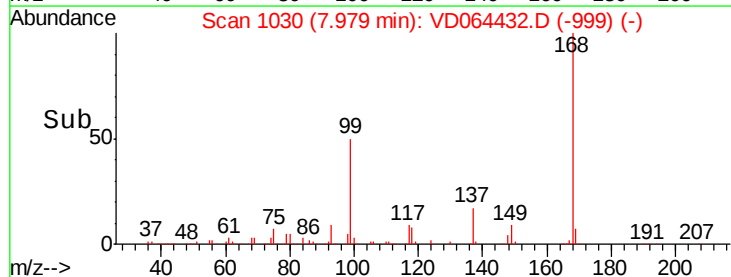
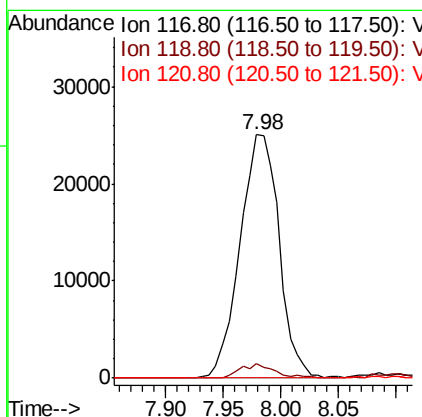
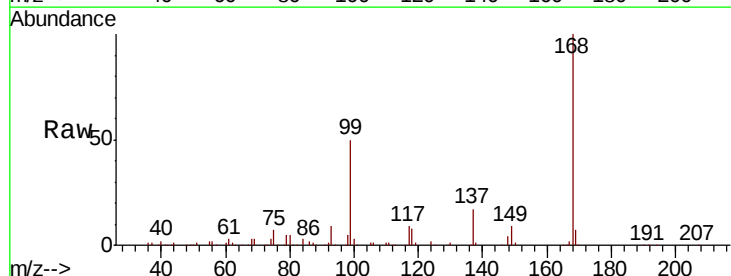
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 TP2

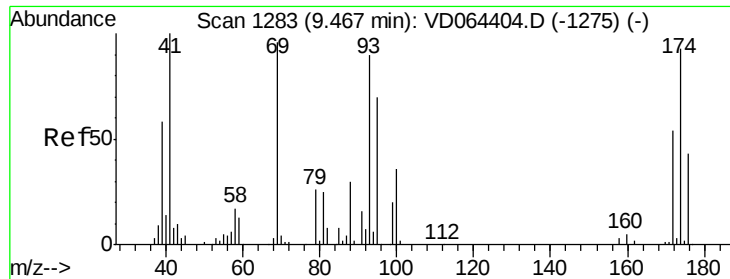
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.5 | 79.4  | 119.2 |
| 192     | 23.4  | 18.6  | 28.0  |



#38  
 Carbon Tetrachloride  
 Concen: 5.618 ug/l  
 RT: 7.98 min Scan# 1030  
 Delta R.T. -0.12 min  
 Lab File: VD064432.D  
 Acq: 05 Dec 2019 13:12

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 5.8   | 78.8  | 118.2# |
| 121     | 0.0   | 24.2  | 36.2#  |





#49

1,4-Dioxane

Concen: 1.757 ug/l

RT: 9.33 min Scan# 1259

Delta R.T. -0.14 min

Lab File: VD064432.D

Acq: 05 Dec 2019 13:12

Instrument :

MSVOA\_D

ClientSampled :

TP2

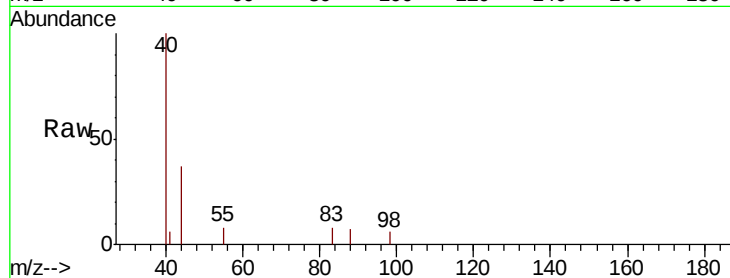
Tot Ion: 88 Resp: 81

Ion Ratio Lower Upper

88 100

43 260.5 26.7 40.1#

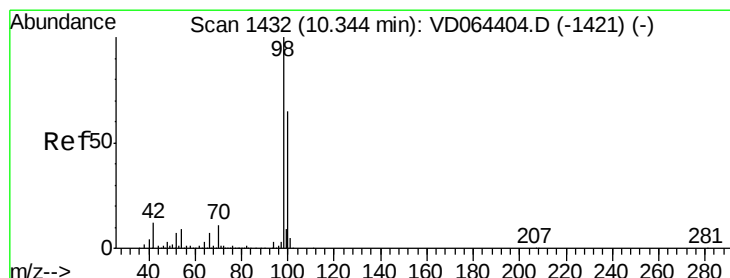
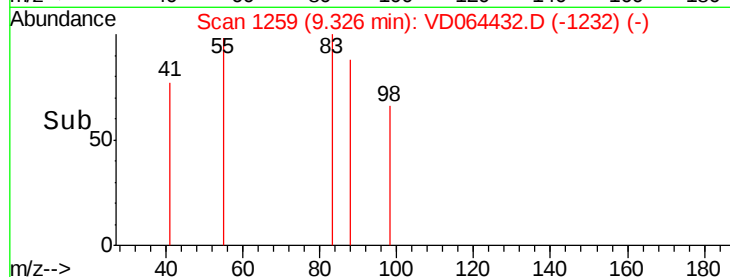
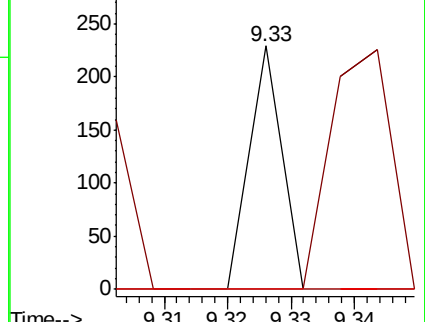
58 0.0 52.3 78.5#



Abundance Ion 88.00 (87.70 to 88.70): VDC

Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC



#50

Toluene-d8

Concen: 50.815 ug/l

RT: 10.34 min Scan# 1431

Delta R.T. -0.01 min

Lab File: VD064432.D

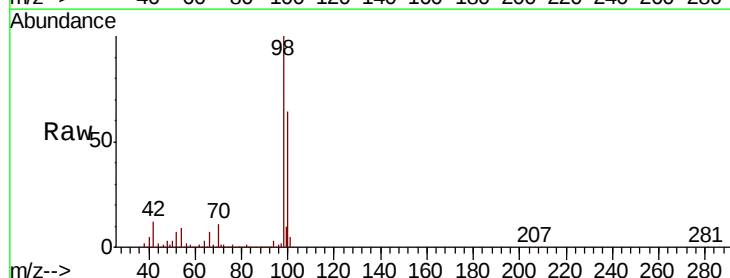
Acq: 05 Dec 2019 13:12

Tgt Ion: 98 Resp: 1269714

Ion Ratio Lower Upper

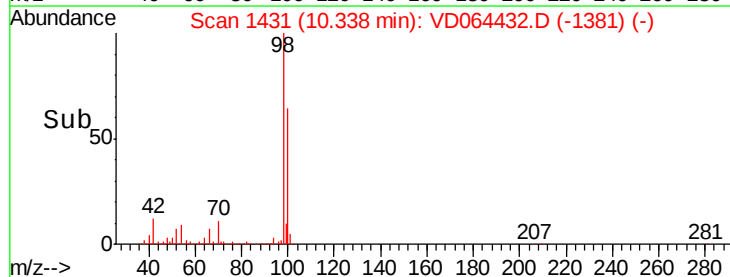
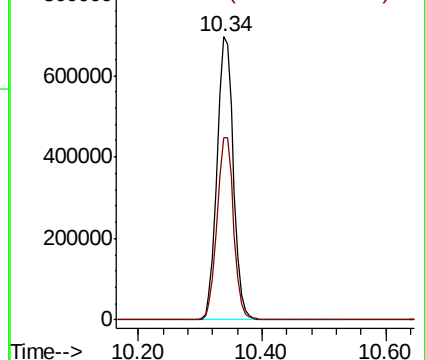
98 100

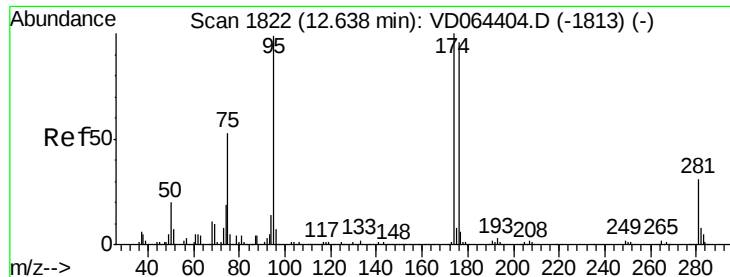
100 65.2 52.6 79.0



Abundance Ion 98.00 (97.70 to 98.70): VDC

Ion 100.00 (99.70 to 100.70): VDC

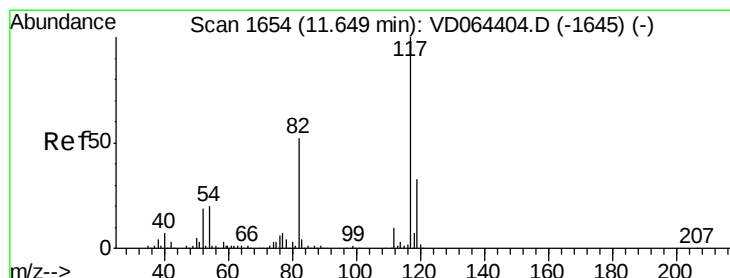
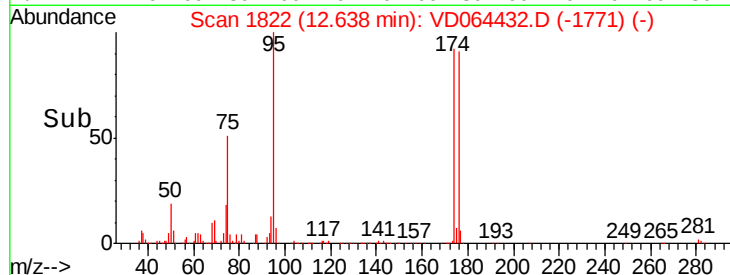
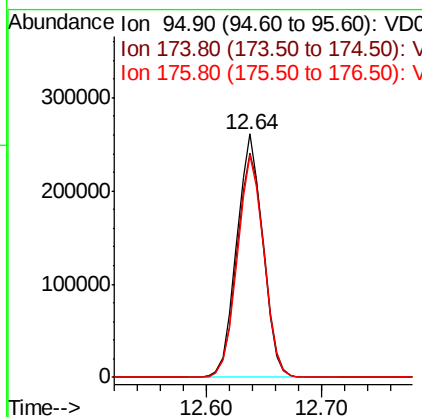
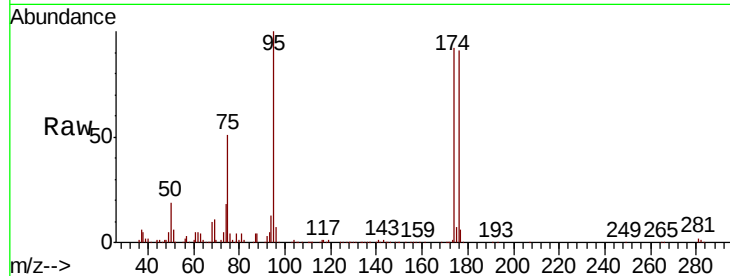




#62  
4-Bromofluorobenzene  
Concen: 50.826 ug/l  
RT: 12.64 min Scan# 1822  
Delta R.T. 0.00 min  
Lab File: VD064432.D  
Acq: 05 Dec 2019 13:12

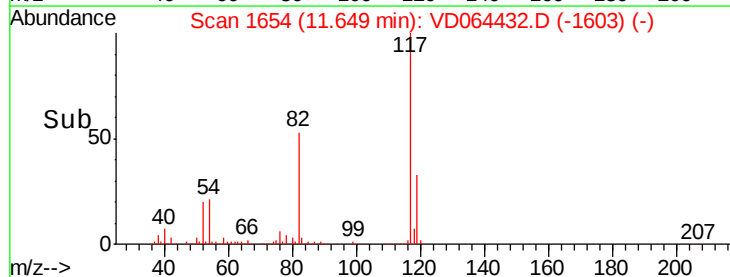
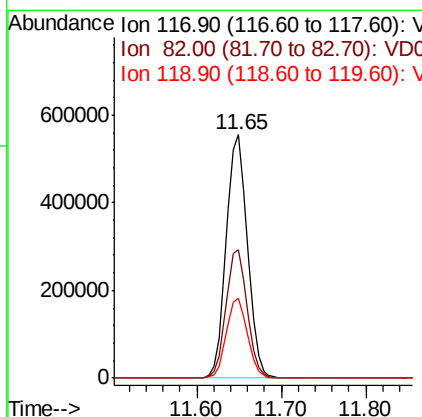
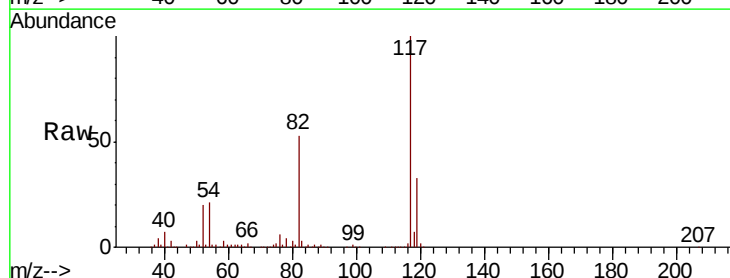
Instrument :  
MSVOA\_D  
ClientSampleId :  
TP2

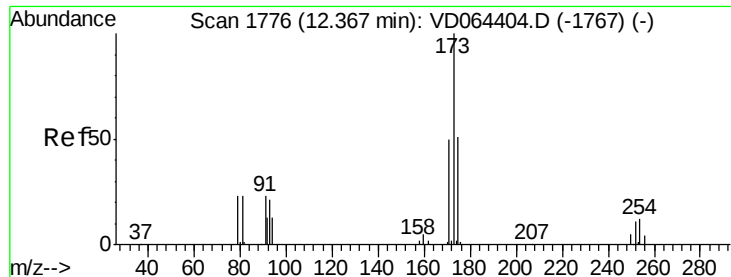
| Tot Ion   | 95    | Resp  | 408139 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 95        | 100   |       |        |
| 174       | 95.7  | 0.0   | 197.2  |
| 176       | 92.4  | 0.0   | 189.6  |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.65 min Scan# 1654  
Delta R.T. 0.00 min  
Lab File: VD064432.D  
Acq: 05 Dec 2019 13:12

| Tgt Ion   | 117   | Resp  | 960981 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 82        | 52.6  | 41.4  | 62.2   |
| 119       | 32.8  | 26.2  | 39.2   |





#71

Bromoform

Concen: 1.002 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.27 min

Lab File: VD064432.D

Acq: 05 Dec 2019 13:12

Instrument :

MSVOA\_D

ClientSampleId :

TP2

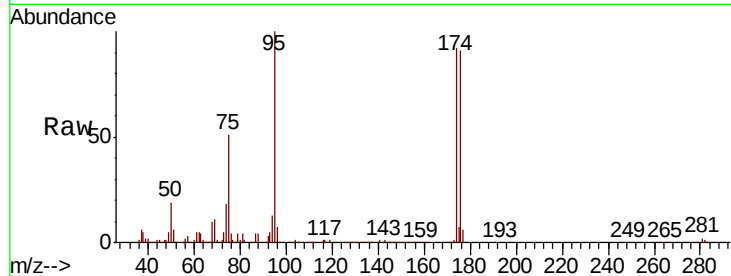
Tot Ion:173 Resp: 4447

Ion Ratio Lower Upper

173 100

175 526.6 25.3 75.8#

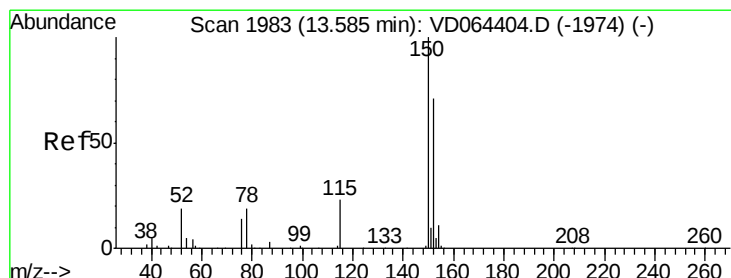
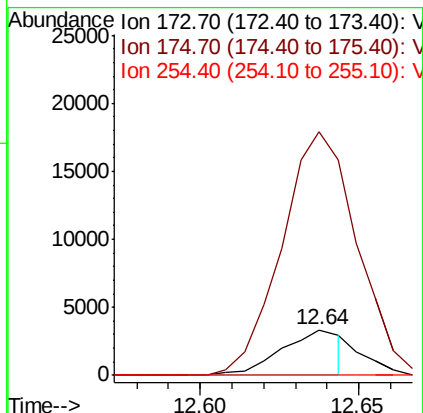
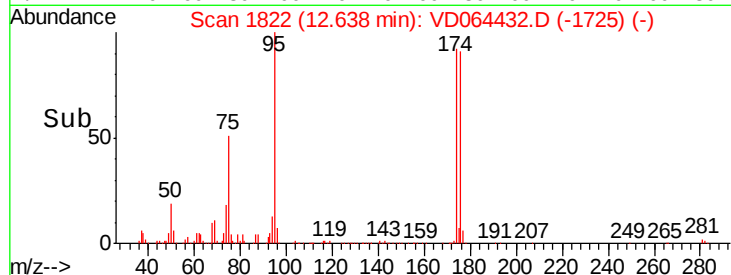
254 0.0 0.0 0.0



Abundance Ion 172.70 (172.40 to 173.40): V

Ion 174.70 (174.40 to 175.40): V

Ion 254.40 (254.10 to 255.10): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.58 min Scan# 1983

Delta R.T. 0.00 min

Lab File: VD064432.D

Acq: 05 Dec 2019 13:12

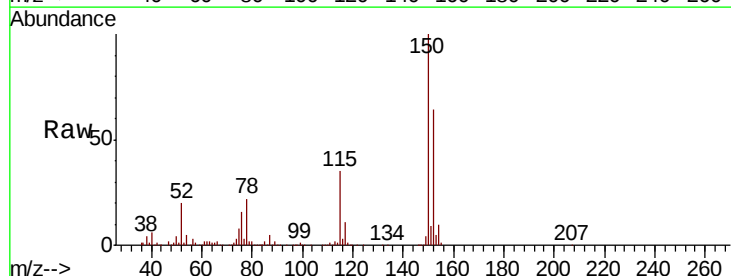
Tgt Ion:152 Resp: 461784

Ion Ratio Lower Upper

152 100

115 54.3 26.7 80.1

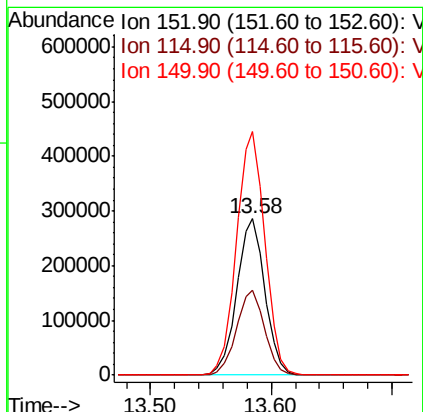
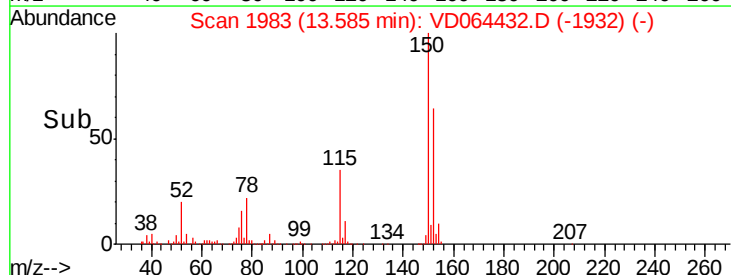
150 157.1 0.0 347.2

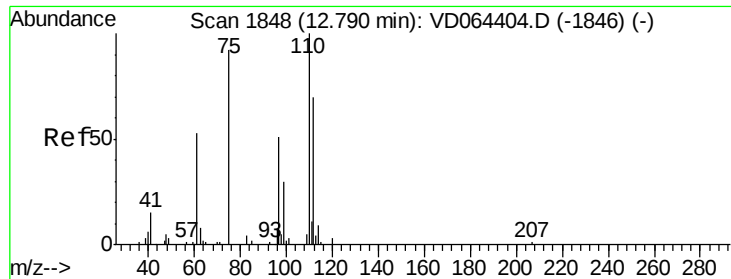


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V

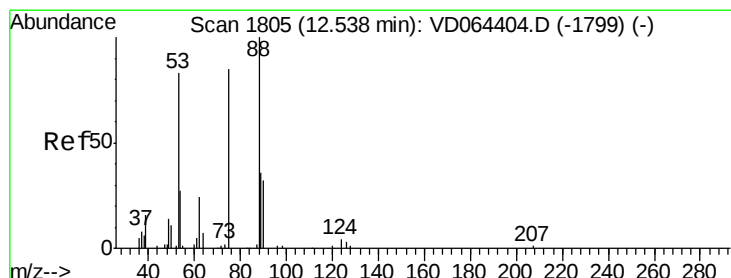
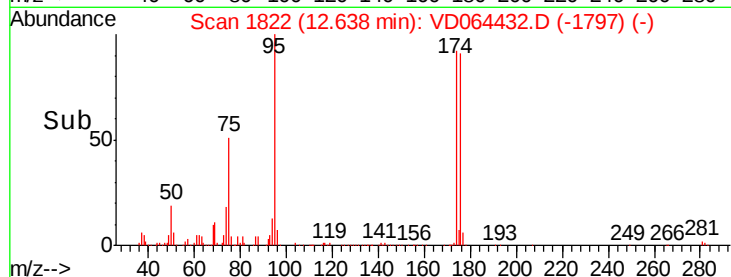
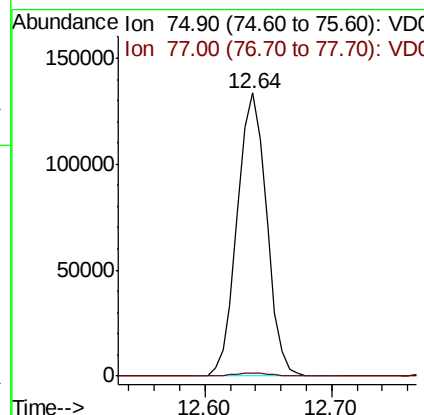
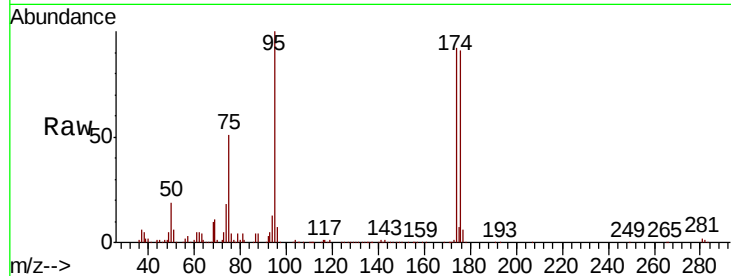




#76  
 1,2,3-Trichloropropane  
 Concen: 56.563 ug/l  
 RT: 12.64 min Scan# 1822  
 Delta R.T. -0.15 min  
 Lab File: VD064432.D  
 Acq: 05 Dec 2019 13:12

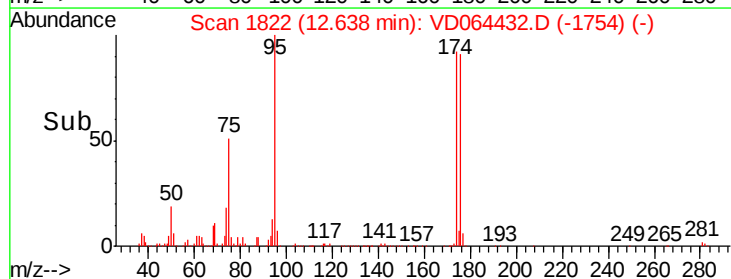
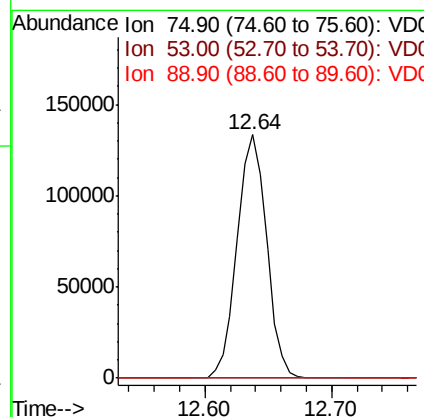
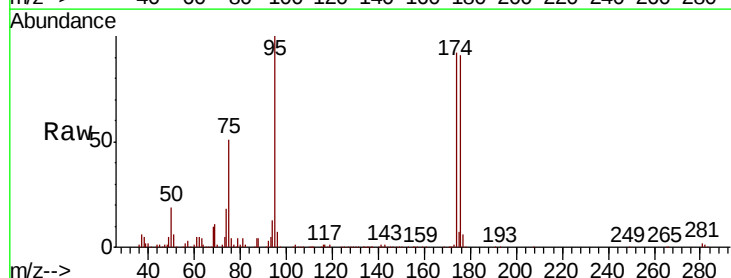
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 TP2

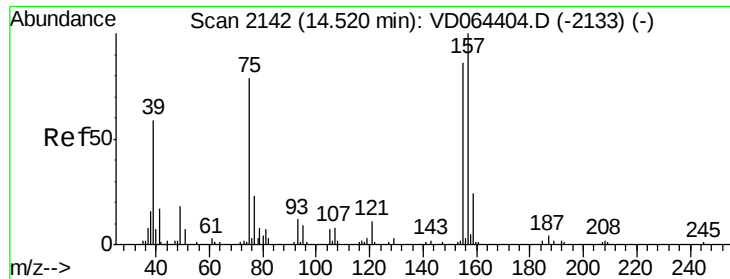
Tot Ion: 75 Resp: 214800  
 Ion Ratio Lower Upper  
 75 100  
 77 1.3 0.0 0.0#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 123.336 ug/l  
 RT: 12.64 min Scan# 1822  
 Delta R.T. 0.10 min  
 Lab File: VD064432.D  
 Acq: 05 Dec 2019 13:12

Tgt Ion: 75 Resp: 214800  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 81.0 121.6#  
 89 0.0 38.5 57.7#





#92

1,2-Dibromo-3-Chloropropane

Concen: Below Cal

RT: 14.50 min Scan# 2138

Delta R.T. -0.02 min

Lab File: VD064432.D

Acq: 05 Dec 2019 13:12

Instrument :

MSVOA\_D

ClientSampleId :

TP2

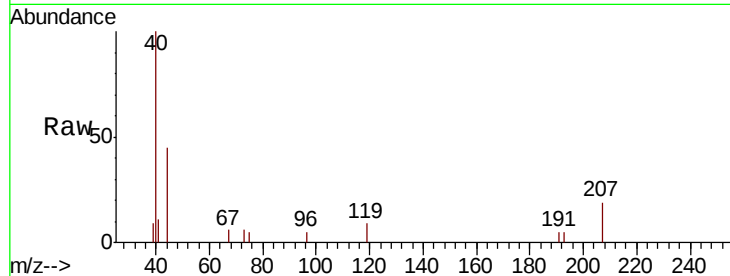
Tot Ion: 75 Resp: 124

Ion Ratio Lower Upper

75 100

155 0.0 51.9 155.7#

157 0.0 63.2 189.8#



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

