

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX101019\  
 Data File : VX013000.D  
 Acq On : 10 Oct 2019 16:53  
 Operator : JC/SP  
 Sample : K5111-07 0.2PPB  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 LOD-MDL-WATER-01-QT4-2019

Manual Integrations  
 APPROVED

MMDadoda  
 10/14/2019 2:47:41 PM

Quant Time: Oct 11 09:43:09 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X100819W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 11 09:36:38 2019  
 Response via : Initial Calibration

| Internal Standards           | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|------------------------------|-------|------|----------|-------|---------|----------|
| 1) Pentafluorobenzene        | 5.65  | 168  | 161472   | 50.00 | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.85  | 114  | 277540   | 50.00 | ug/l    | 0.00     |
| 63) Chlorobenzene-d5         | 10.11 | 117  | 242784   | 50.00 | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.07 | 152  | 100374   | 50.00 | ug/l    | 0.00     |
| System Monitoring Compounds  |       |      |          |       |         |          |
| 33) 1,2-Dichloroethane-d4    | 6.06  | 65   | 107088   | 53.06 | ug/l    | 0.00     |
| Spiked Amount 50.000         |       |      | Recovery | =     | 106.12% |          |
| 35) Dibromofluoromethane     | 5.49  | 113  | 79931    | 50.18 | ug/l    | 0.00     |
| Spiked Amount 50.000         |       |      | Recovery | =     | 100.36% |          |
| 50) Toluene-d8               | 8.71  | 98   | 304142   | 48.95 | ug/l    | 0.00     |
| Spiked Amount 50.000         |       |      | Recovery | =     | 97.90%  |          |
| 62) 4-Bromofluorobenzene     | 11.14 | 95   | 106852   | 44.26 | ug/l    | 0.00     |
| Spiked Amount 50.000         |       |      | Recovery | =     | 88.52%  |          |
| Target Compounds             |       |      |          |       |         |          |
|                              |       |      |          |       | Qvalue  |          |
| 2) Dichlorodifluoromethane   | 1.19  | 85   | 341      | 0.207 | ug/l    | 100      |
| 3) Chloromethane             | 1.32  | 50   | 550      | 0.307 | ug/l    | 99       |
| 5) Bromomethane              | 1.64  | 94   | 448      | 0.583 | ug/l #  | 66       |
| 6) Chloroethane              | 1.73  | 64   | 3573     | 3.283 | ug/l #  | 60       |
| 7) Trichlorofluoromethane    | 1.93  | 101  | 557      | 0.223 | ug/l    | 100      |
| 8) Diethyl Ether             | 2.18  | 74   | 266      | 0.264 | ug/l #  | 47       |
| 11) Tert butyl alcohol       | 3.01  | 59   | 2809     | 5.250 | ug/l #  | 72       |
| 12) 1,1-Dichloroethene       | 2.36  | 96   | 417      | 0.256 | ug/l #  | 37       |
| 13) Acrolein                 | 2.28  | 56   | 325      | 0.855 | ug/l #  | 77       |
| 14) Allyl chloride           | 2.73  | 41   | 618      | 0.213 | ug/l    | 95       |
| 15) Acrylonitrile            | 3.13  | 53   | 904      | 0.892 | ug/l    | 95       |
| 16) Acetone                  | 2.44  | 43   | 1362     | 1.280 | ug/l #  | 83       |
| 17) Carbon Disulfide         | 2.57  | 76   | 1023     | 0.220 | ug/l #  | 75       |
| 18) Methyl Acetate           | 2.76  | 43   | 739      | 0.293 | ug/l #  | 73       |
| 19) Methyl tert-butyl Ether  | 3.19  | 73   | 1247     | 0.221 | ug/l #  | 76       |
| 20) Methylene Chloride       | 2.85  | 84   | 884      | 0.452 | ug/l #  | 69       |
| 21) trans-1,2-Dichloroethene | 3.16  | 96   | 614      | 0.351 | ug/l    | 94       |
| 23) Vinyl Acetate            | 3.81  | 43   | 3492     | 0.726 | ug/l #  | 86       |
| 25) 2-Butanone               | 4.67  | 43   | 1540     | 1.043 | ug/l #  | 77       |
| 26) 2,2-Dichloropropane      | 4.58  | 77   | 556m     | 0.211 | ug/l    |          |
| 27) cis-1,2-Dichloroethene   | 4.58  | 96   | 770m     | 0.382 | ug/l    |          |
| 29) Tetrahydrofuran          | 5.13  | 42   | 933m     | 1.027 | ug/l    |          |
| 30) Chloroform               | 5.21  | 83   | 951      | 0.296 | ug/l #  | 77       |
| 31) Cyclohexane              | 5.56  | 56   | 783      | 0.267 | ug/l #  | 55       |
| 37) Ethyl Acetate            | 4.85  | 43   | 591m     | 0.217 | ug/l    |          |
| 39) Methylcyclohexane        | 7.45  | 83   | 774      | 0.262 | ug/l #  | 72       |
| 40) Benzene                  | 6.14  | 78   | 1602     | 0.222 | ug/l #  | 85       |
| 42) 1,2-Dichloroethane       | 6.19  | 62   | 605      | 0.234 | ug/l #  | 73       |
| 44) Trichloroethene          | 7.22  | 130  | 460      | 0.230 | ug/l    | 78       |
| 45) 1,2-Dichloropropane      | 7.51  | 63   | 408      | 0.222 | ug/l #  | 44       |
| 48) Methyl methacrylate      | 7.78  | 41   | 430m     | 0.201 | ug/l    |          |
| 49) 1,4-Dioxane              | 7.76  | 88   | 40       | 0.775 | ug/l #  | 70       |
| 51) 4-Methyl-2-Pentanone     | 8.64  | 43   | 2673     | 0.979 | ug/l    | 91       |
| 52) Toluene                  | 8.78  | 92   | 986      | 0.214 | ug/l    | 94       |

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 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 LOD-MDL-WATER-01-QT4-2019

Manual Integrations  
 APPROVED

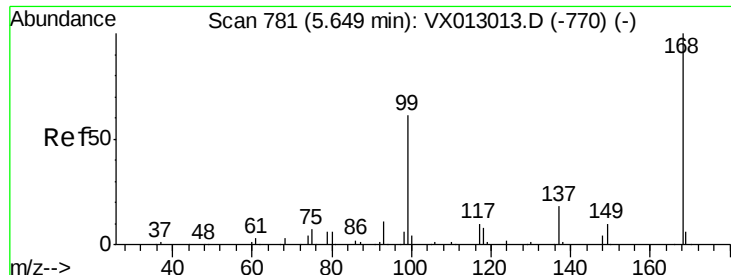
MMDadoda  
 10/14/2019 2:47:41 PM

Quant Time: Oct 11 09:43:09 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X100819W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 11 09:36:38 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 54) cis-1,3-Dichloropropene   | 8.43  | 75   | 604      | 0.206 | ug/l   | 96       |
| 58) 2-Chloroethyl Vinyl ether | 8.31  | 63   | 996      | 0.743 | ug/l # | 81       |
| 59) 2-Hexanone                | 9.50  | 43   | 1692     | 0.796 | ug/l   | 99       |
| 64) Tetrachloroethene         | 9.33  | 164  | 465      | 0.276 | ug/l # | 77       |
| 65) Chlorobenzene             | 10.14 | 112  | 1054     | 0.219 | ug/l # | 80       |
| 67) Ethyl Benzene             | 10.25 | 91   | 1730     | 0.202 | ug/l # | 79       |
| 68) m/p-Xylenes               | 10.35 | 106  | 1241     | 0.388 | ug/l   | 94       |
| 73) Isopropylbenzene          | 11.01 | 105  | 1632     | 0.221 | ug/l   | 92       |
| 75) 1,1,2,2-Tetrachloroethane | 11.26 | 83   | 553      | 0.225 | ug/l # | 92       |
| 76) 1,2,3-Trichloropropane    | 11.29 | 75   | 449m     | 0.202 | ug/l   |          |
| 77) Bromobenzene              | 11.26 | 156  | 472      | 0.271 | ug/l   | 79       |
| 88) 1,4-Dichlorobenzene       | 12.09 | 146  | 764m     | 0.234 | ug/l   |          |
| 91) 1,2-Dichlorobenzene       | 12.39 | 146  | 704      | 0.222 | ug/l   | 94       |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion:168 Resp: 161472

Ion Ratio Lower Upper

168 100

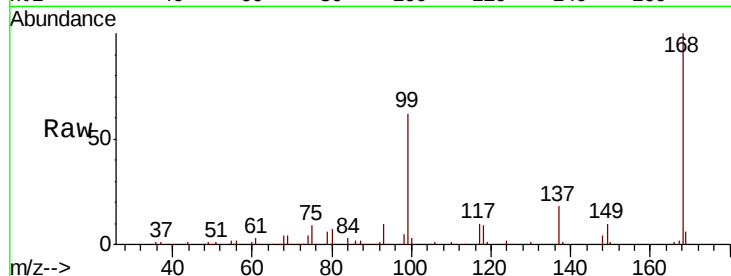
99 62.2 49.4 74.0

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Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

60000

50000

40000

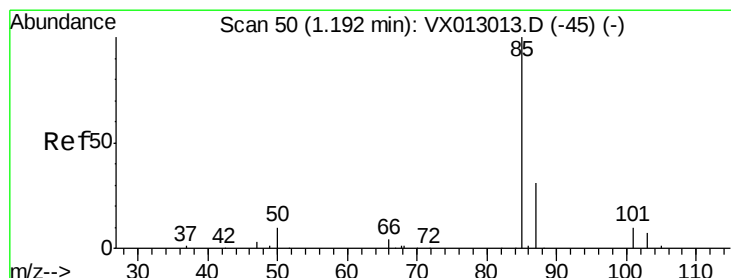
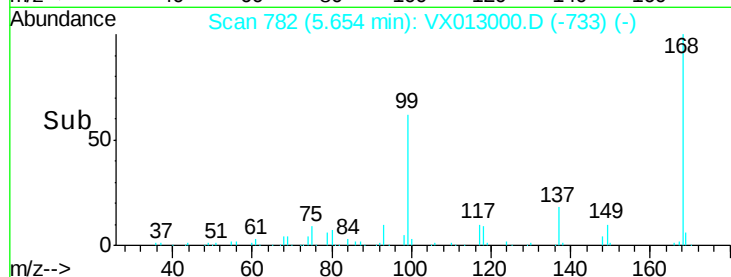
30000

20000

10000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.207 ug/l

RT: 1.19 min Scan# 50

Delta R.T. -0.00 min

Lab File: VX013000.D

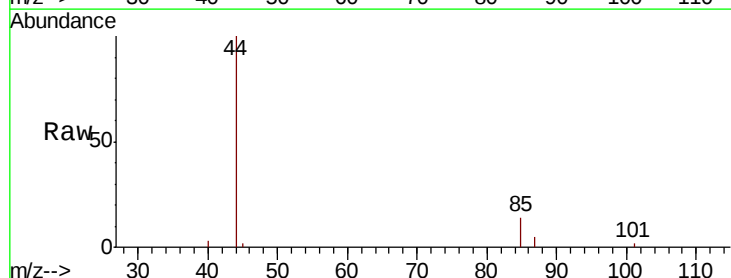
Acq: 10 Oct 2019 16:53

Tgt Ion: 85 Resp: 341

Ion Ratio Lower Upper

85 100

87 33.0 16.4 49.4



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

1.19

500

400

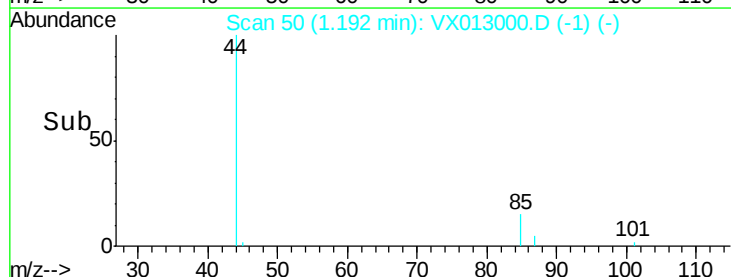
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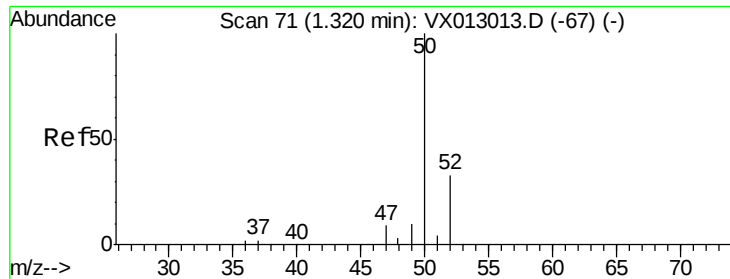
200

100

0

Time-->





#3

Chloromethane

Concen: 0.307 ug/l

RT: 1.32 min Scan# 71

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 50 Resp: 550

Ion Ratio Lower Upper

50 100

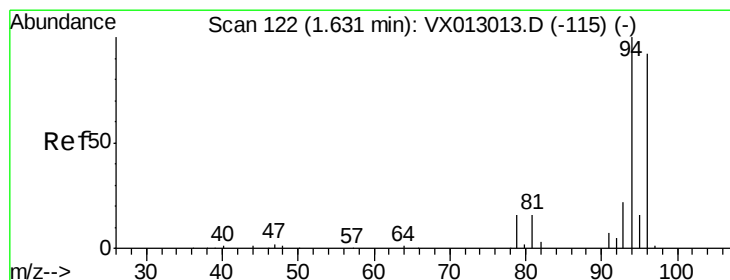
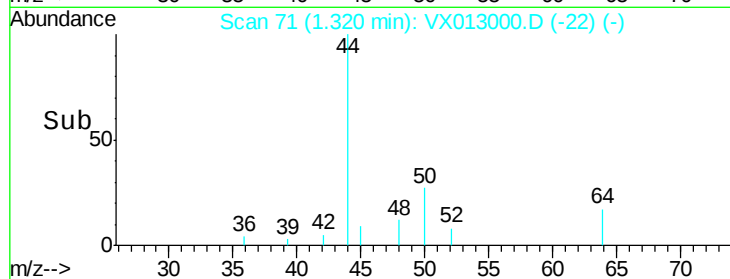
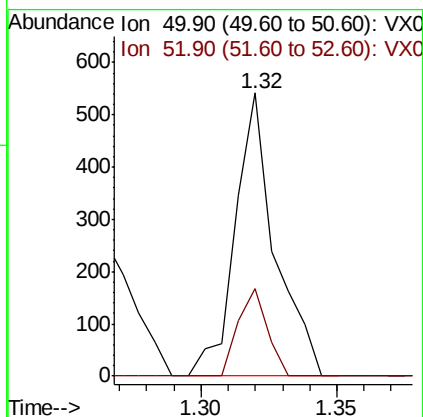
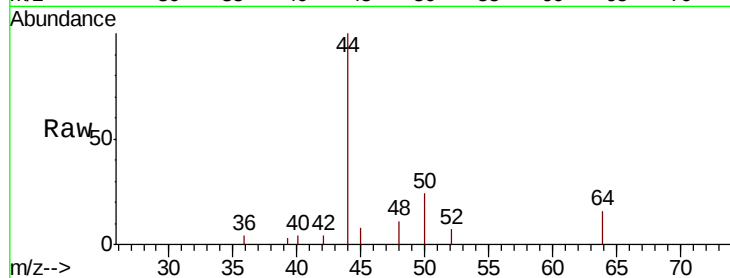
52 30.8 25.2 37.8

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#5

Bromomethane

Concen: 0.583 ug/l

RT: 1.64 min Scan# 124

Delta R.T. 0.01 min

Lab File: VX013000.D

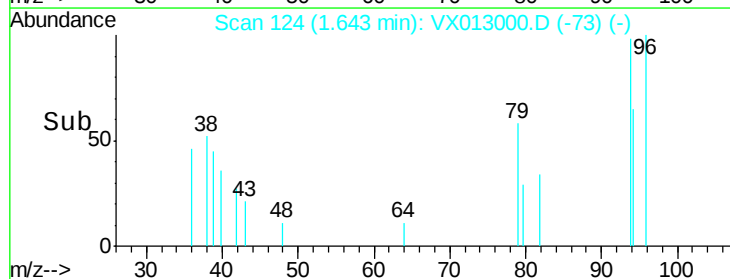
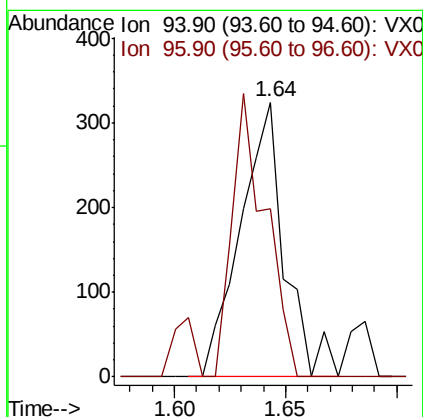
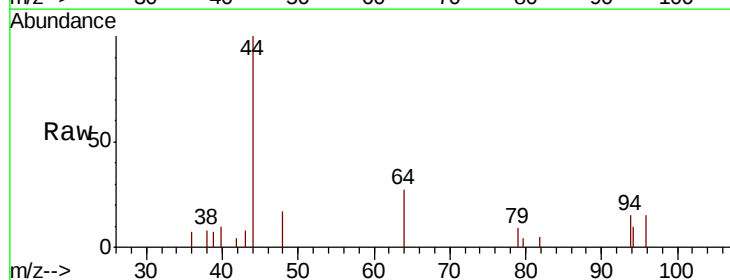
Acq: 10 Oct 2019 16:53

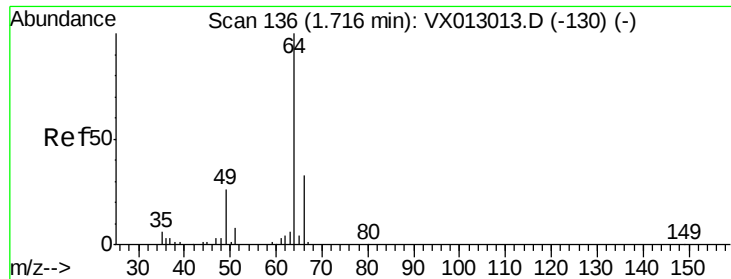
Tgt Ion: 94 Resp: 448

Ion Ratio Lower Upper

94 100

96 61.1 74.7 112.1#





#6

Chloroethane

Concen: 3.283 ug/l

RT: 1.73 min Scan# 138

Delta R.T. 0.02 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 64 Resp: 3573

Ion Ratio Lower Upper

64 100

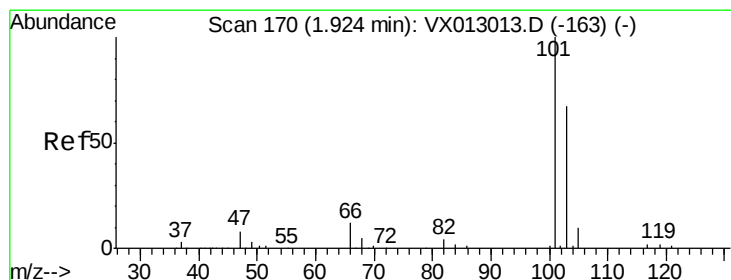
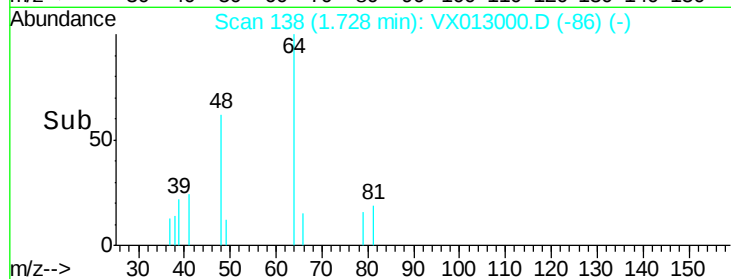
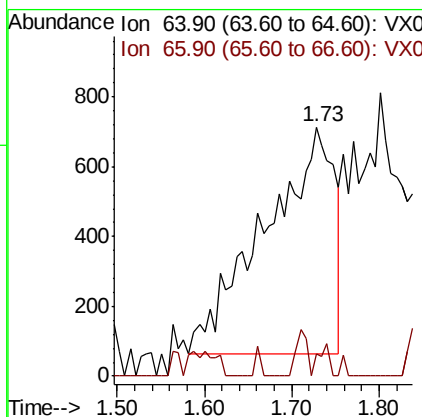
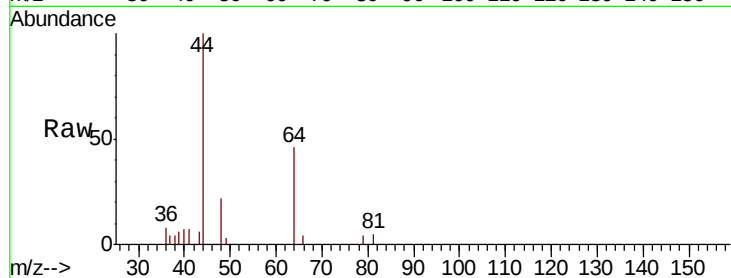
66 9.7 25.6 38.4#

Manual Integrations

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#7

Trichlorofluoromethane

Concen: 0.223 ug/l

RT: 1.93 min Scan# 171

Delta R.T. 0.01 min

Lab File: VX013000.D

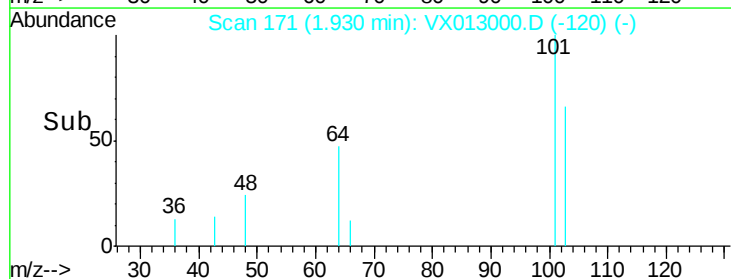
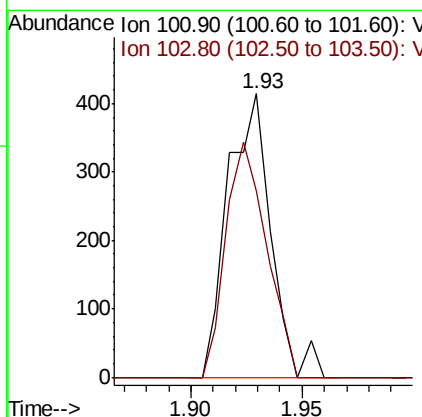
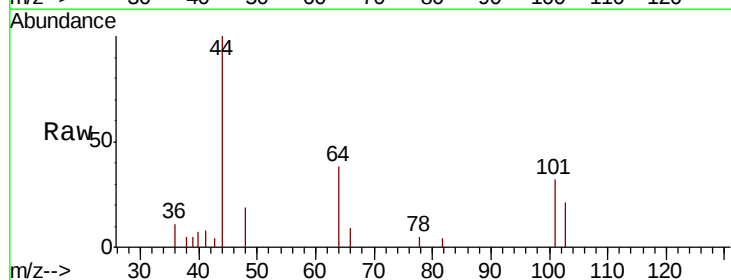
Acq: 10 Oct 2019 16:53

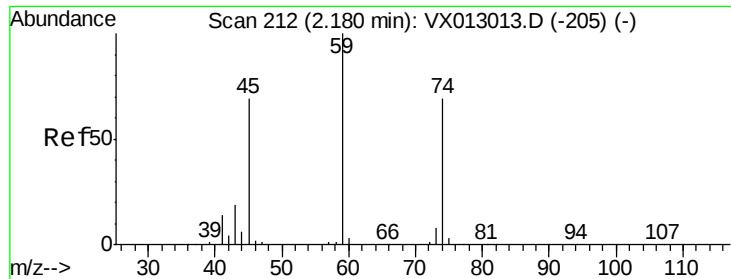
Tgt Ion: 101 Resp: 557

Ion Ratio Lower Upper

101 100

103 65.9 52.5 78.7





#8

Diethyl Ether

Concen: 0.264 ug/l

RT: 2.18 min Scan# 212

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 74 Resp: 266

Ion Ratio Lower Upper

74 100

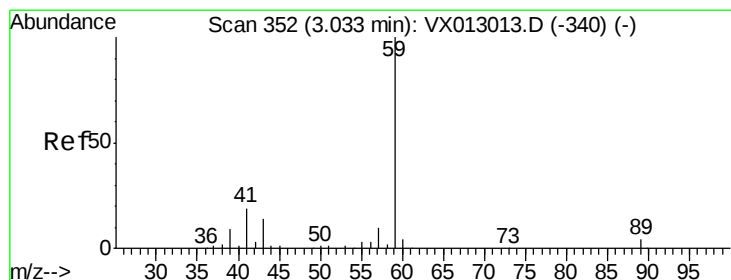
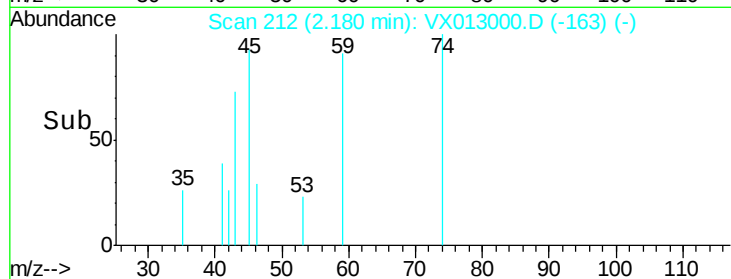
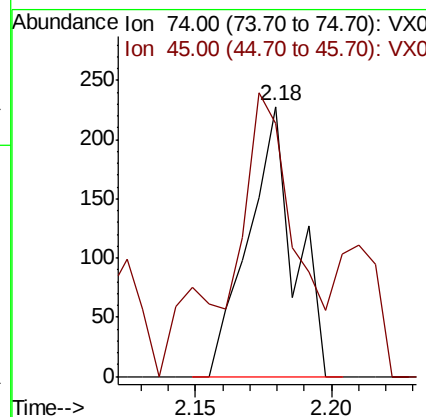
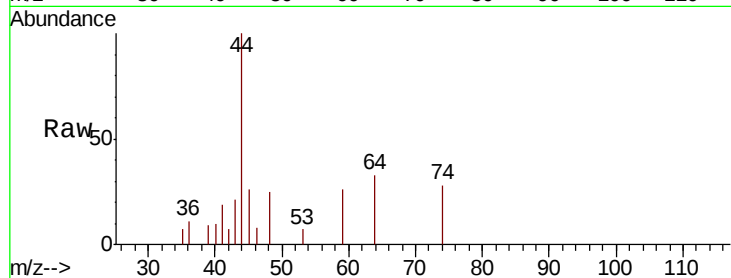
45 147.7 47.8 143.4#

Manual Integrations

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#11

Tert butyl alcohol

Concen: 5.250 ug/l

RT: 3.01 min Scan# 349

Delta R.T. -0.02 min

Lab File: VX013000.D

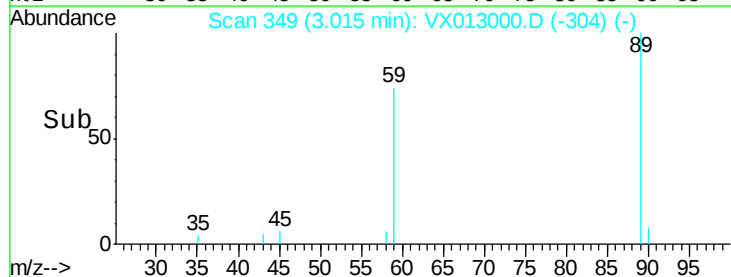
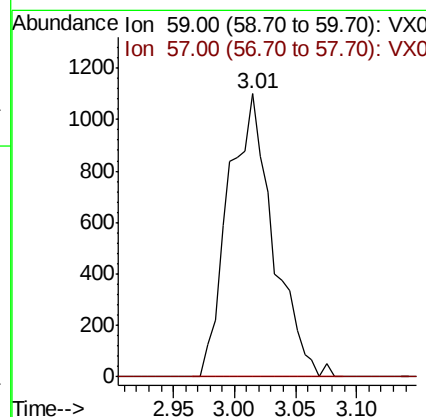
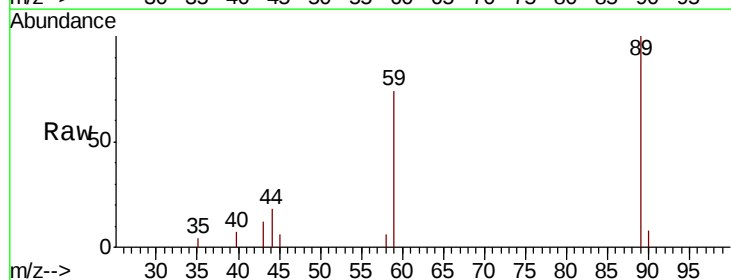
Acq: 10 Oct 2019 16:53

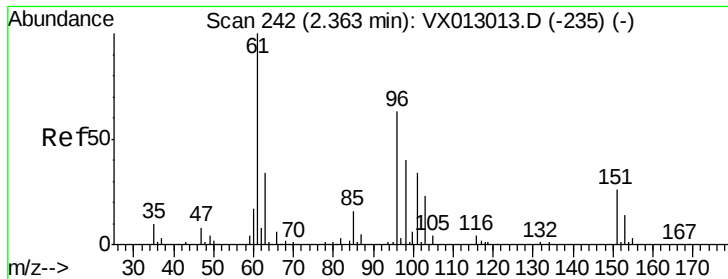
Tgt Ion: 59 Resp: 2809

Ion Ratio Lower Upper

59 100

57 0.0 8.3 12.5#





#12

1,1-Dichloroethene

Concen: 0.256 ug/l

RT: 2.36 min Scan# 241

Delta R.T. -0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

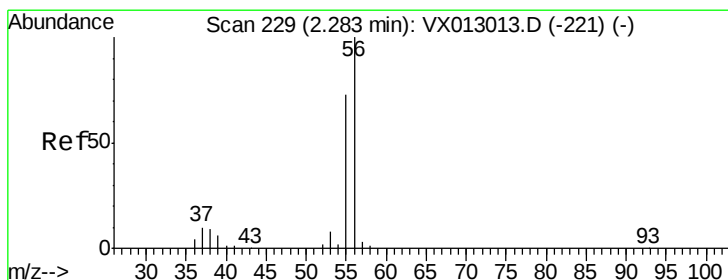
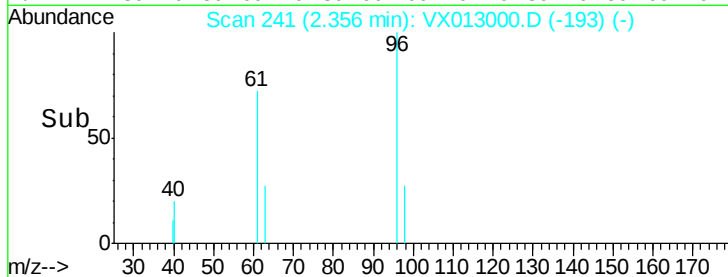
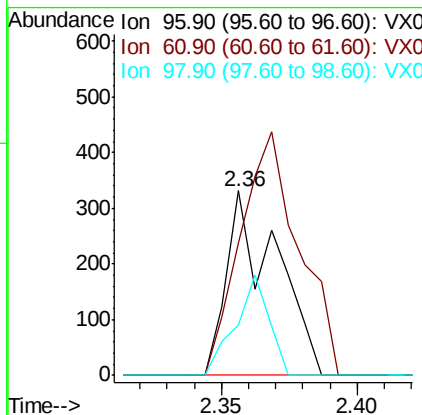
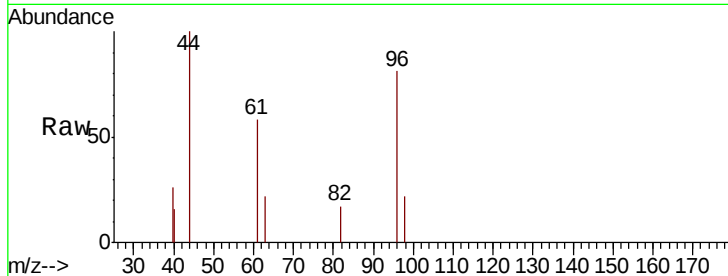
ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 96    | Resp: | 417    |
| Ion      | Ratio | Lower | Upper  |
| 96       | 100   |       |        |
| 61       | 71.6  | 132.2 | 198.4# |
| 98       | 27.2  | 50.5  | 75.7#  |

Manual Integrations  
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#13

Acrolein

Concen: 0.855 ug/l

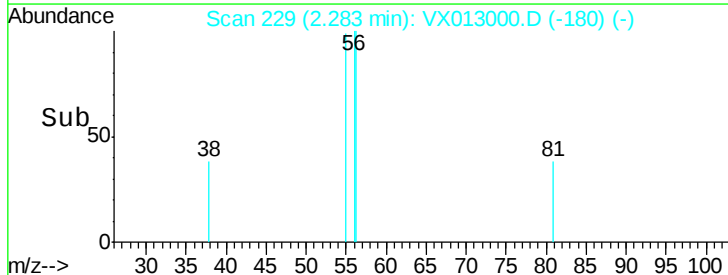
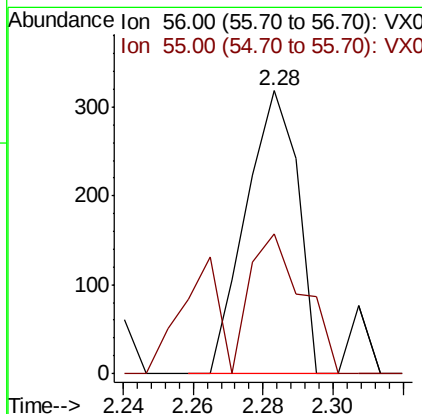
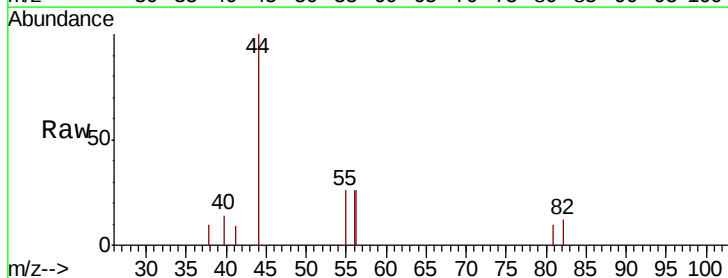
RT: 2.28 min Scan# 229

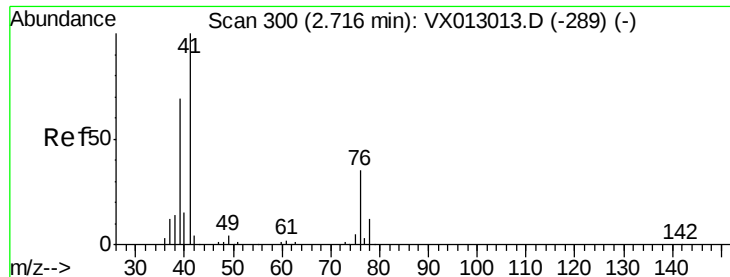
Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 56    | Resp: | 325   |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 55       | 51.7  | 56.6  | 85.0# |





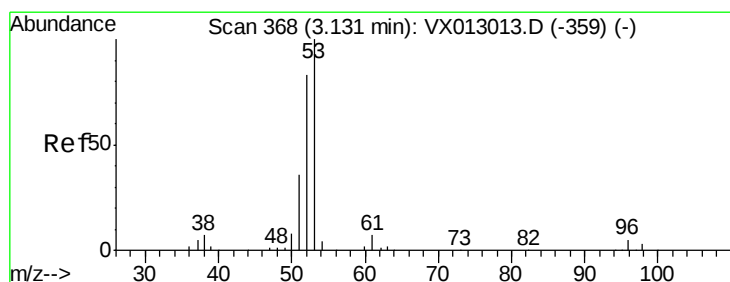
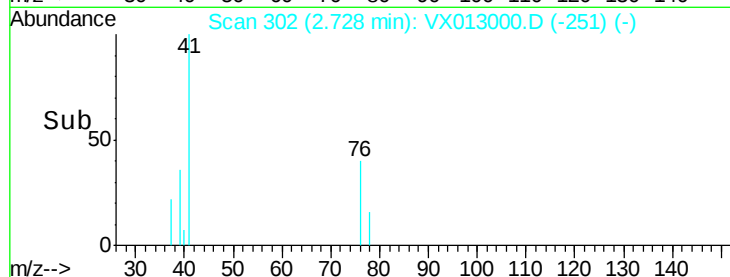
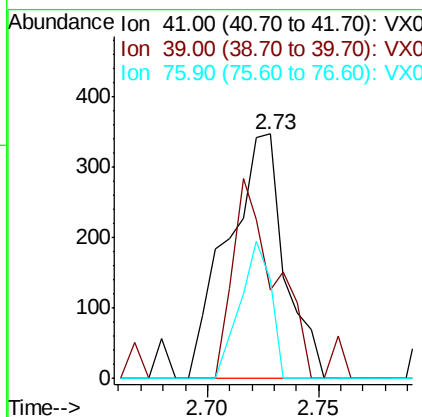
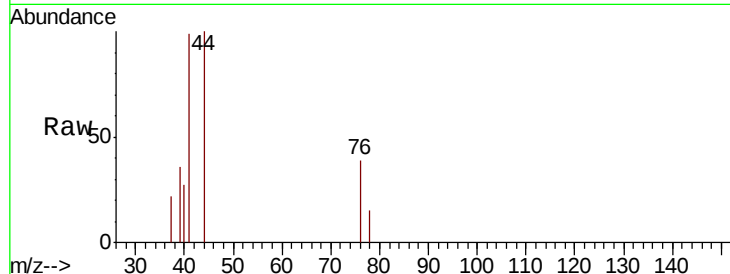
#14  
Allvl chloride  
Concen: 0.213 ug/l  
RT: 2.73 min Scan# 302  
Delta R.T. 0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 41    | Resp: | 618   |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 60.2  | 51.0  | 76.6  |
| 76       | 30.3  | 26.2  | 39.4  |

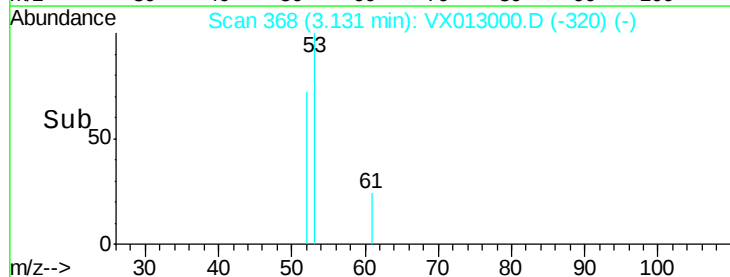
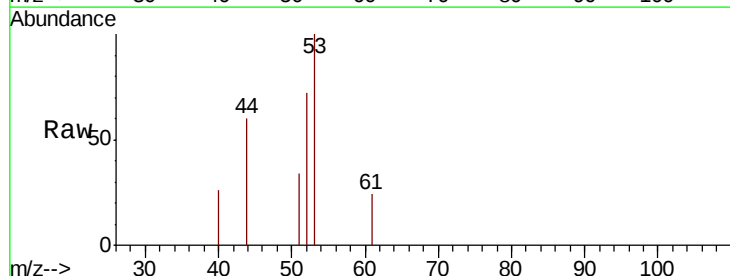
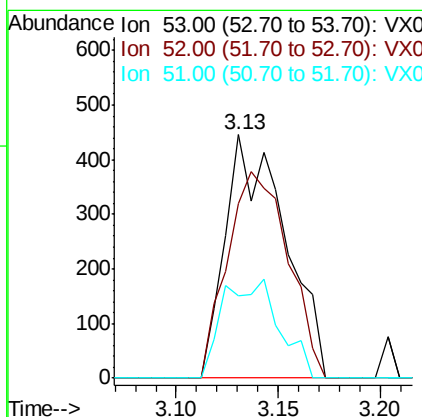
Manual Integrations  
APPROVED

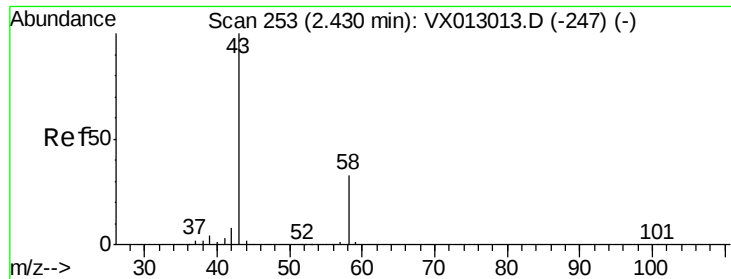
MMDadoda  
10/14/2019 2:47:41 PM



#15  
Acrylonitrile  
Concen: 0.892 ug/l  
RT: 3.13 min Scan# 368  
Delta R.T. -0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 53    | Resp: | 904   |
| Ion      | Ratio | Lower | Upper |
| 53       | 100   |       |       |
| 52       | 86.5  | 66.2  | 99.2  |
| 51       | 38.6  | 28.2  | 42.4  |





#16

Acetone

Concen: 1.280 ug/l

RT: 2.44 min Scan# 254

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 43 Resp: 1362

Ion Ratio Lower Upper

43 100

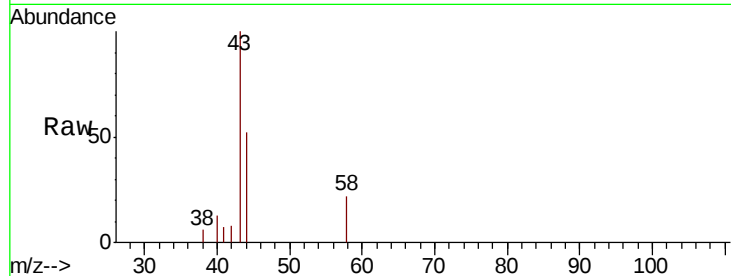
58 22.2 25.4 38.2#

Manual Integrations

APPROVED

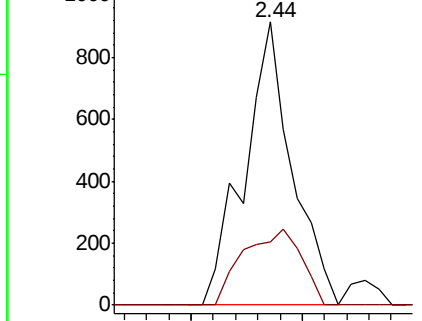
MMDadoda

10/14/2019 2:47:41 PM

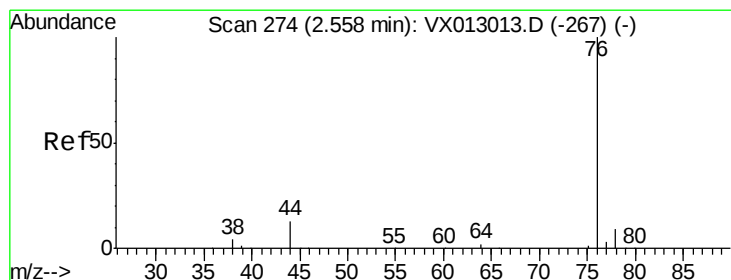
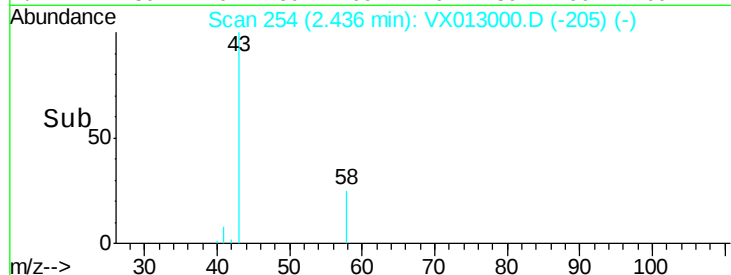


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



Time-->



#17

Carbon Disulfide

Concen: 0.220 ug/l

RT: 2.57 min Scan# 276

Delta R.T. 0.01 min

Lab File: VX013000.D

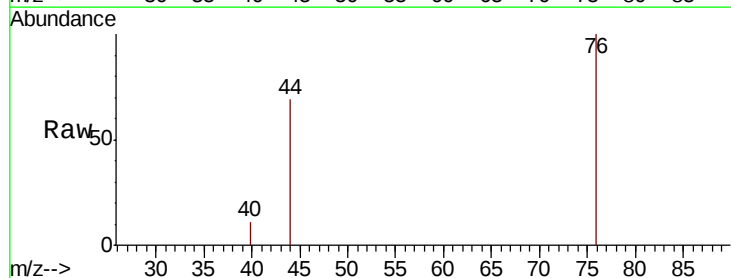
Acq: 10 Oct 2019 16:53

Tgt Ion: 76 Resp: 1023

Ion Ratio Lower Upper

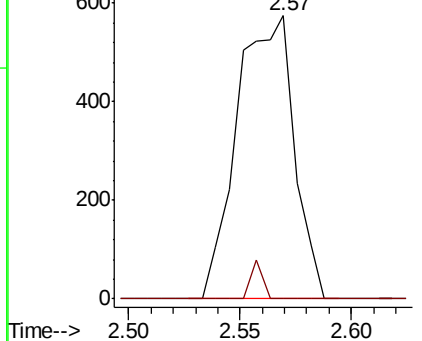
76 100

78 0.0 7.1 10.7#

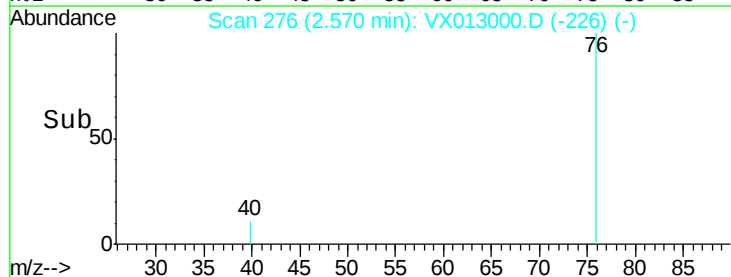


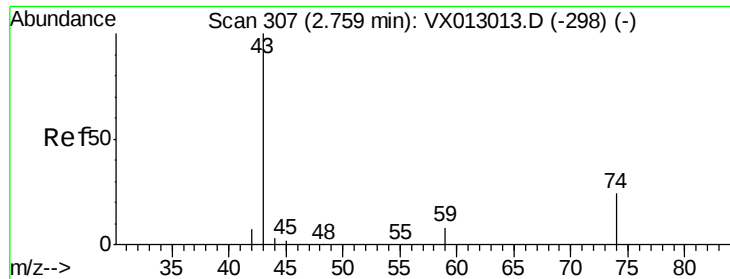
Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0



Time-->





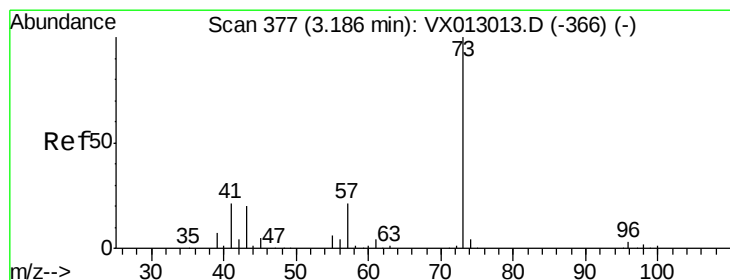
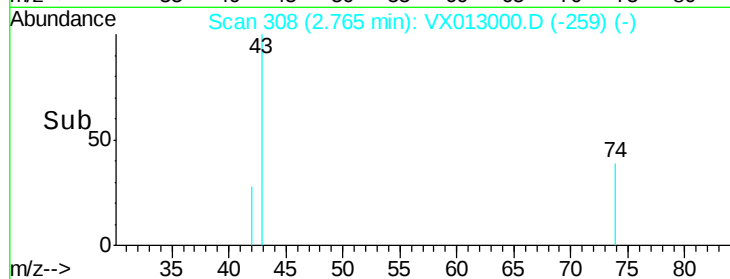
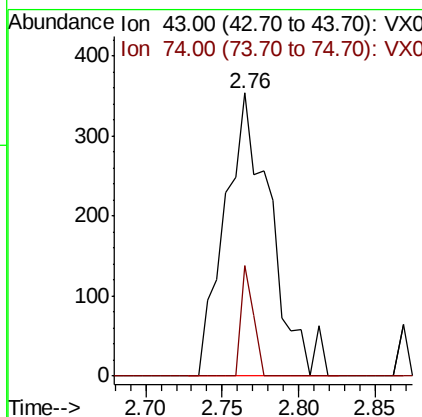
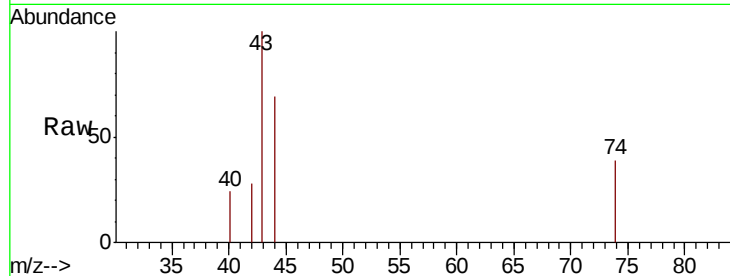
#18  
Methyl Acetate  
Concen: 0.293 ug/l  
RT: 2.76 min Scan# 308  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

Tot Ion: 43 Resp: 739  
Ion Ratio Lower Upper  
43 100  
74 10.6 19.2 28.8#

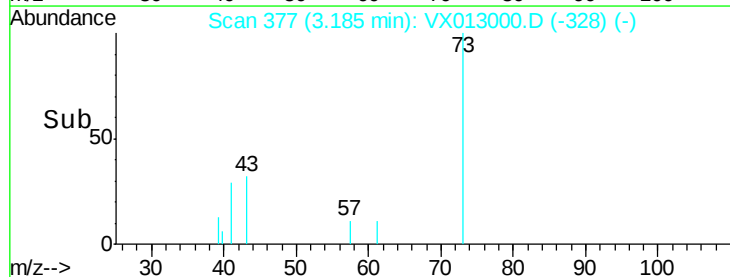
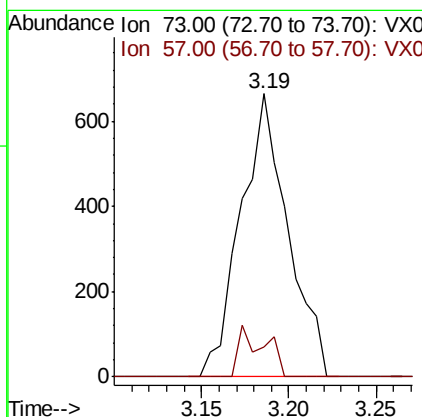
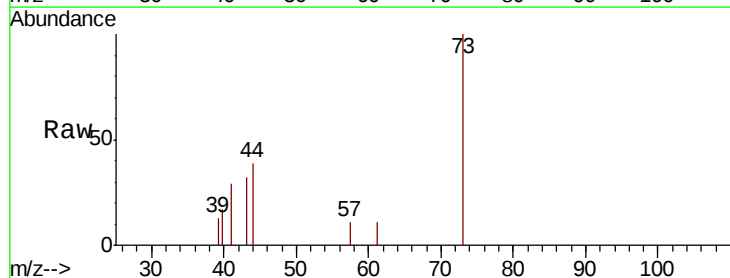
Manual Integrations  
APPROVED

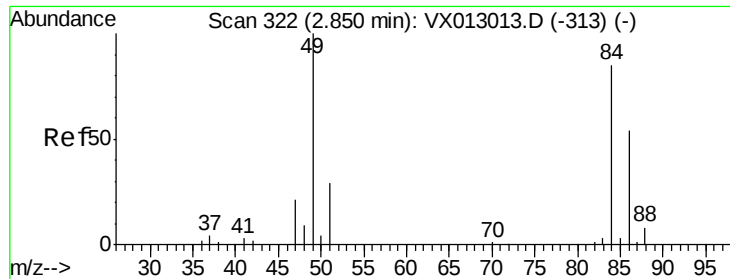
MMDadoda  
10/14/2019 2:47:41 PM



#19  
Methyl tert-butyl Ether  
Concen: 0.221 ug/l  
RT: 3.19 min Scan# 377  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Tgt Ion: 73 Resp: 1247  
Ion Ratio Lower Upper  
73 100  
57 10.7 17.8 26.6#





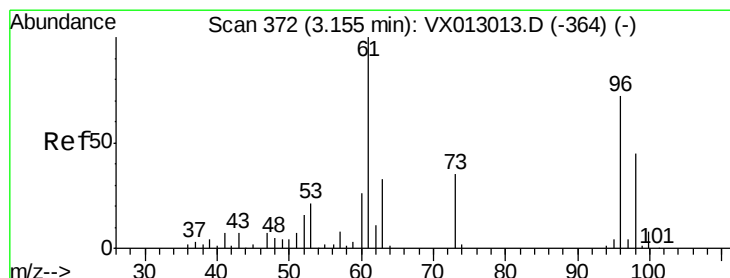
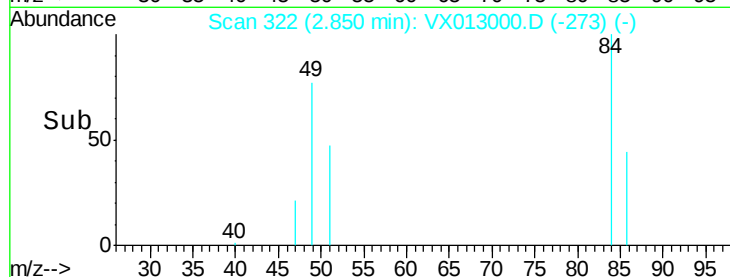
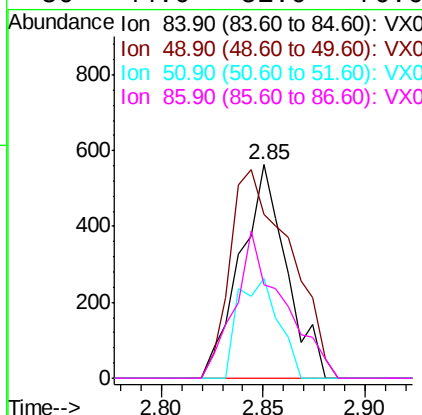
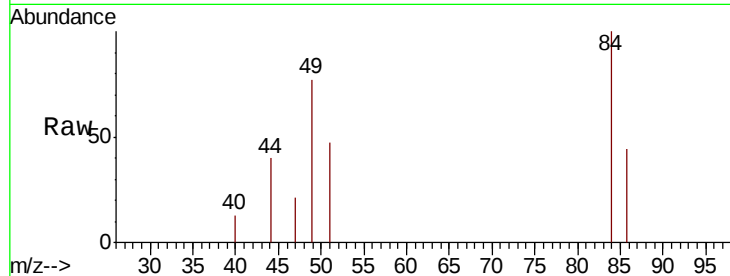
#20  
Methvlene Chloride  
Concen: 0.452 ug/l  
RT: 2.85 min Scan# 322  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 84      | 100   |       |        |
| 49      | 76.6  | 96.6  | 144.8# |
| 51      | 46.5  | 30.7  | 46.1#  |
| 86      | 44.0  | 51.0  | 76.6#  |

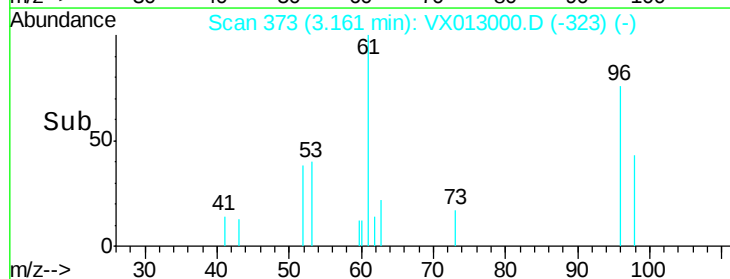
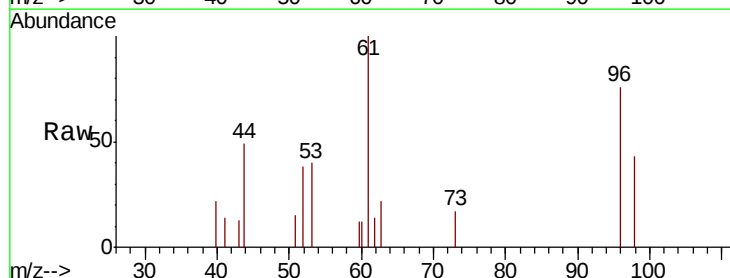
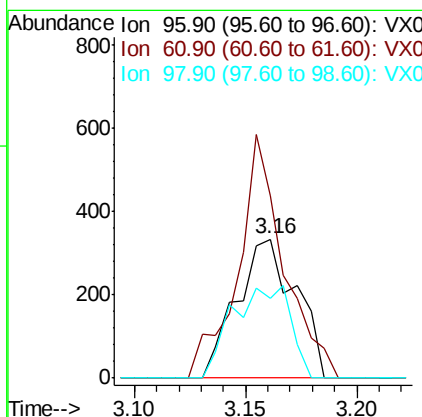
Manual Integrations  
APPROVED

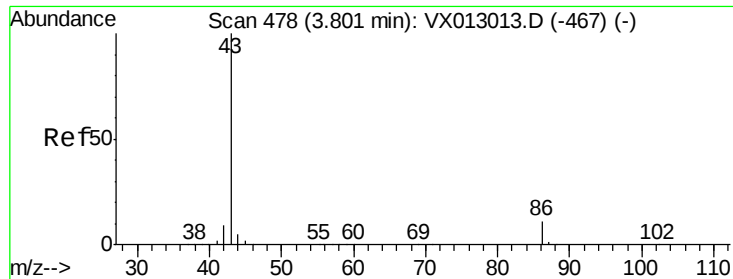
MMDadoda  
10/14/2019 2:47:41 PM



#21  
trans-1,2-Dichloroethene  
Concen: 0.351 ug/l  
RT: 3.16 min Scan# 373  
Delta R.T. 0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 131.8 | 110.4 | 165.6 |
| 98      | 57.1  | 51.5  | 77.3  |





#23

Vinyl Acetate

Concen: 0.726 ug/l

RT: 3.81 min Scan# 480

Delta R.T. 0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 43 Resp: 3492

Ion Ratio Lower Upper

43 100

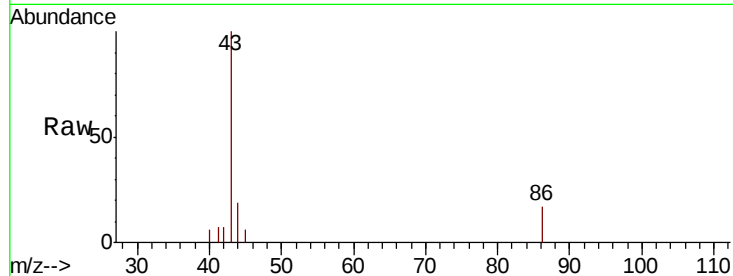
86 16.7 9.0 13.6#

Manual Integrations

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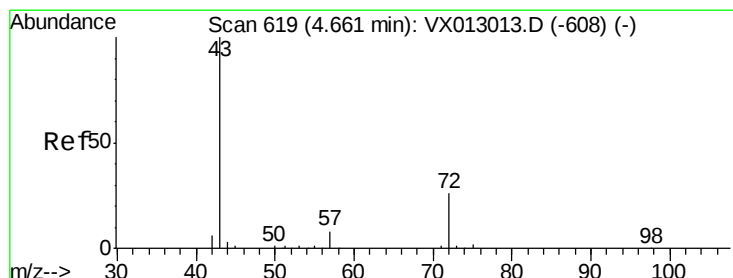
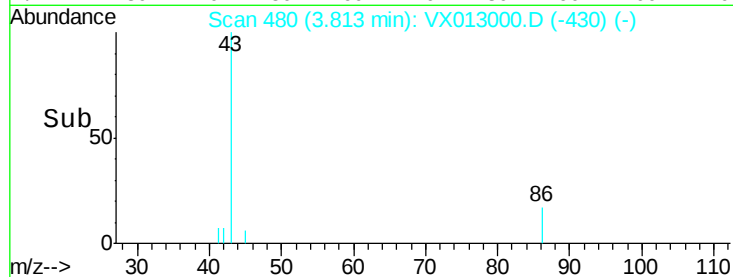
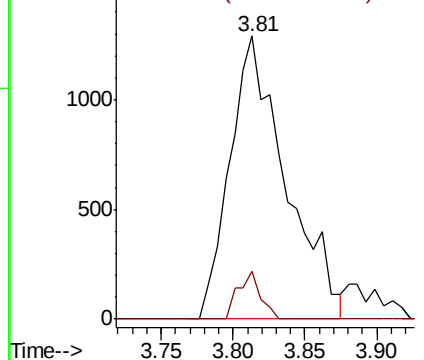
MMDadoda

10/14/2019 2:47:41 PM



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 86.00 (85.70 to 86.70): VX0



#25

2-Butanone

Concen: 1.043 ug/l

RT: 4.67 min Scan# 621

Delta R.T. 0.01 min

Lab File: VX013000.D

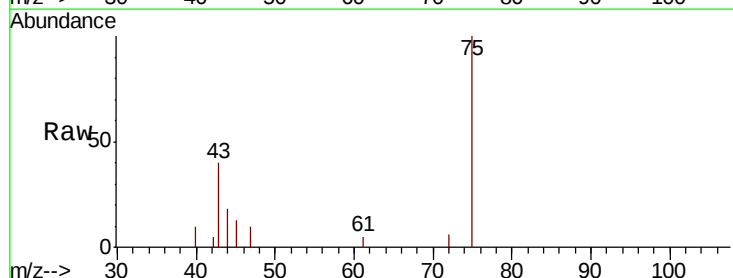
Acq: 10 Oct 2019 16:53

Tgt Ion: 43 Resp: 1540

Ion Ratio Lower Upper

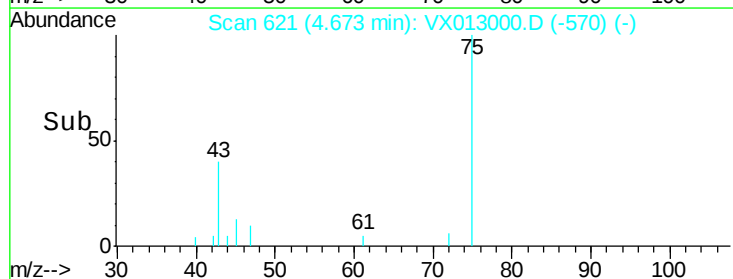
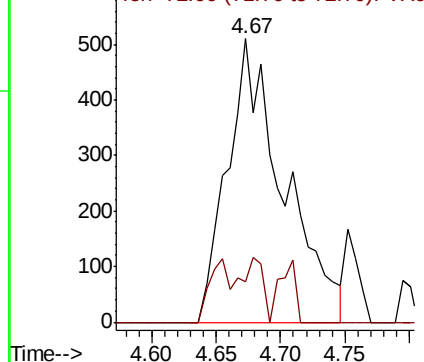
43 100

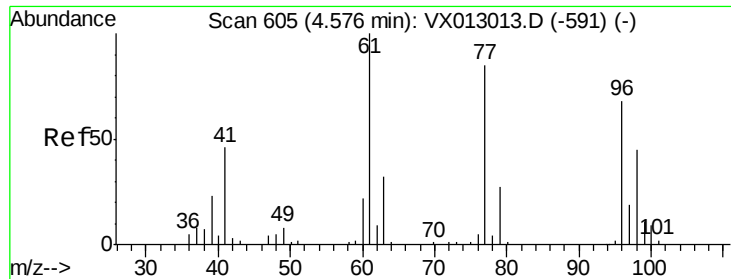
72 14.3 21.0 31.6#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0





#26

2,2-Dichloropropane

Concen: 0.211 ug/l m

RT: 4.58 min Scan# 606

Delta R.T. 0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 77 Resp: 556

Ion Ratio Lower Upper

77 100

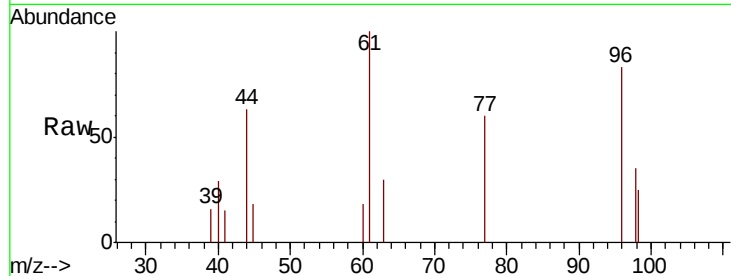
97 4.5 11.3 33.9#

Manual Integrations

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MMDadoda

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Abundance Ion 76.90 (76.60 to 77.60): VX0

Ion 96.90 (96.60 to 97.60): VX0

250

200

150

100

50

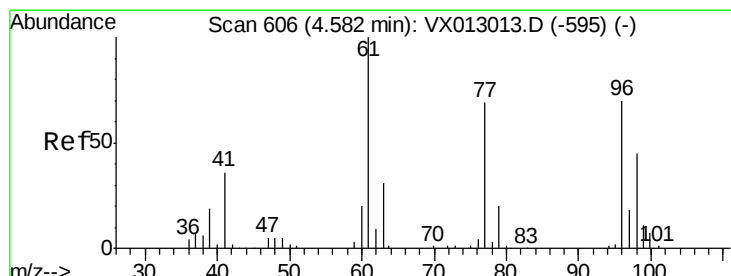
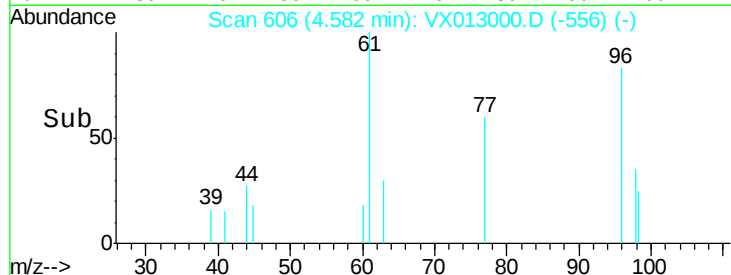
0

4.50

4.55

4.60

Time-->



#27

cis-1,2-Dichloroethene

Concen: 0.382 ug/l m

RT: 4.58 min Scan# 606

Delta R.T. -0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

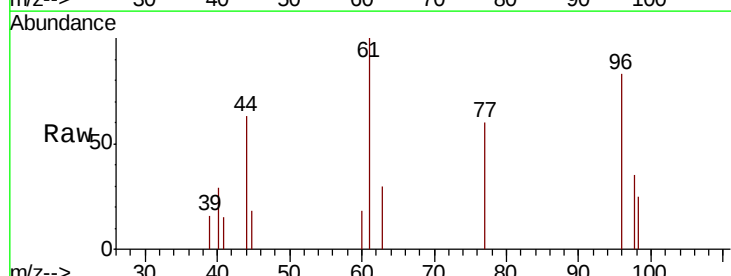
Tgt Ion: 96 Resp: 770

Ion Ratio Lower Upper

96 100

61 133.1 0.0 290.6

98 35.2 0.0 128.8



Abundance Ion 95.90 (95.60 to 96.60): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 97.90 (97.60 to 98.60): VX0

500

400

300

200

100

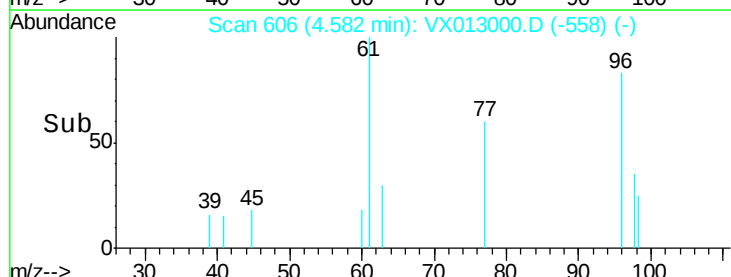
0

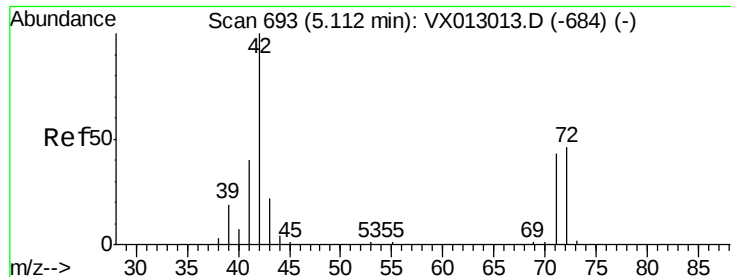
4.55

4.60

4.65

Time-->





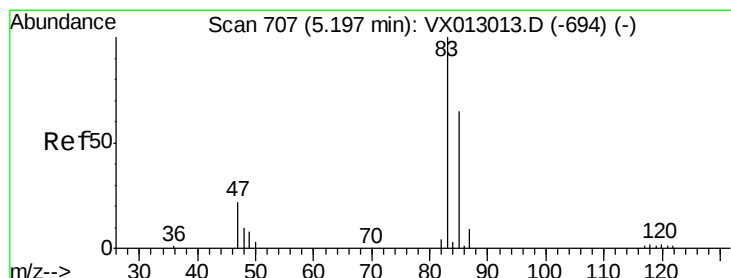
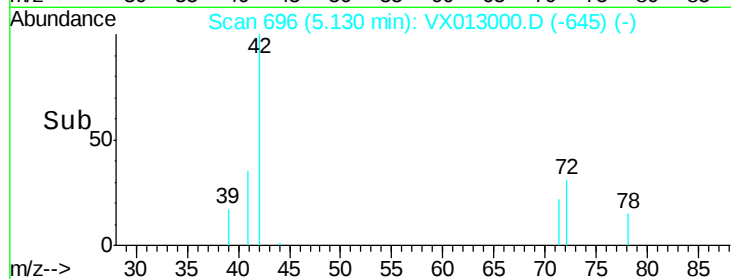
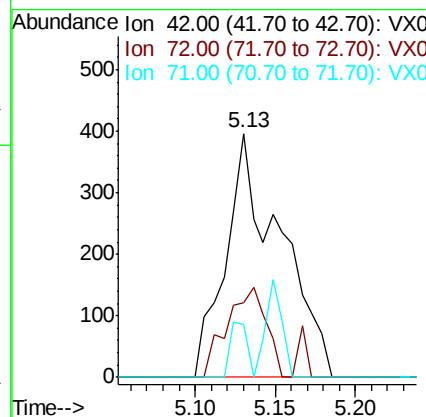
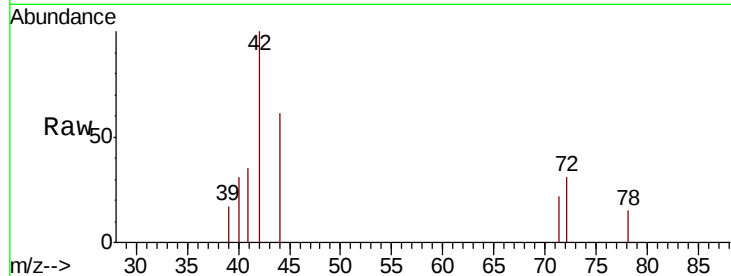
#29  
Tetrahydrofuran  
Concen: 1.027 ug/l m  
RT: 5.13 min Scan# 696  
Delta R.T. 0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 26.9  | 36.9  | 55.3# |
| 71      | 7.0   | 33.5  | 50.3# |

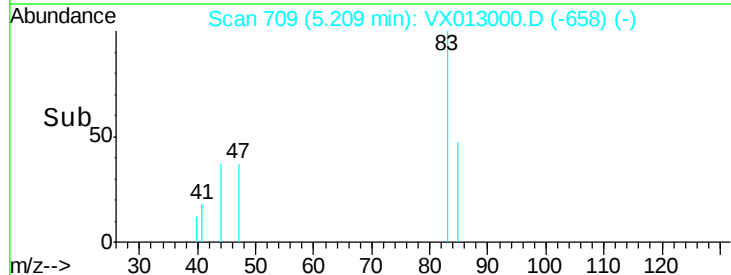
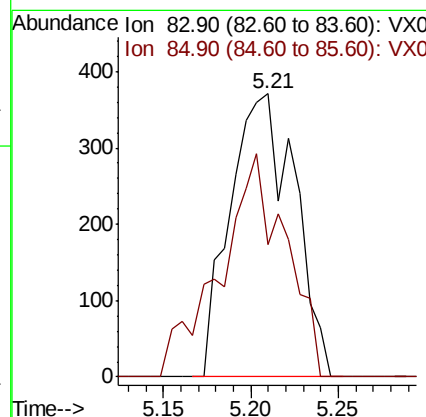
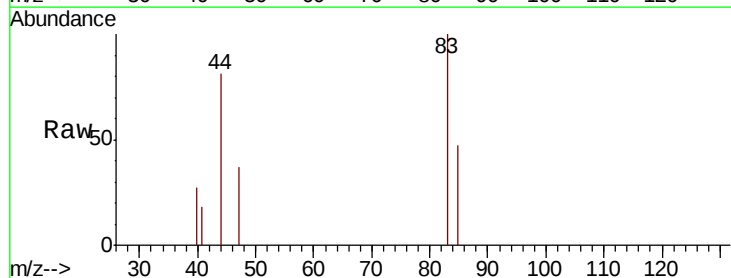
Manual Integrations  
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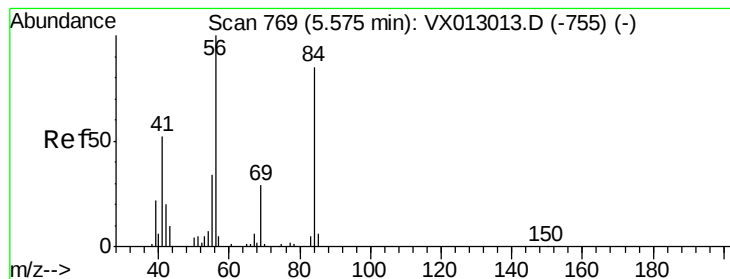
MMDadoda  
10/14/2019 2:47:41 PM



#30  
Chloroform  
Concen: 0.296 ug/l  
RT: 5.21 min Scan# 709  
Delta R.T. 0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 46.6  | 51.5  | 77.3# |





#31

Cyclohexane

Concen: 0.267 ug/l

RT: 5.56 min Scan# 766

Delta R.T. -0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

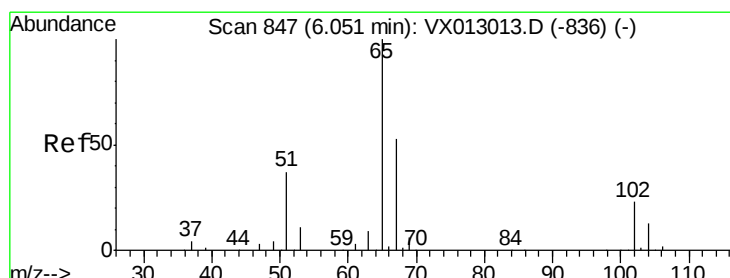
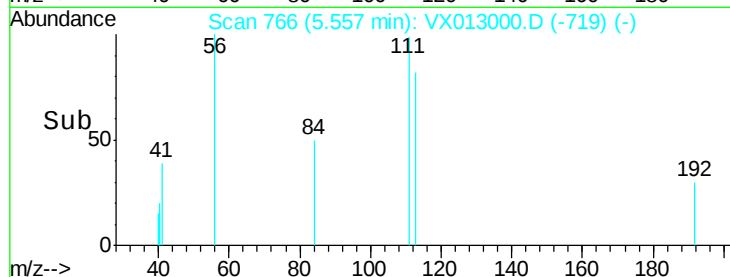
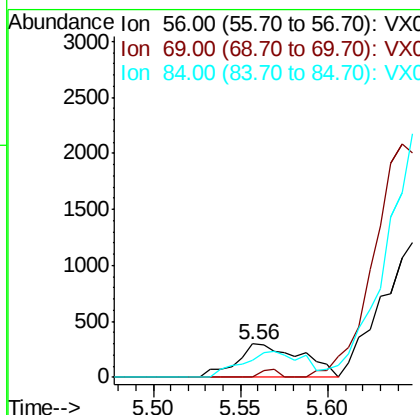
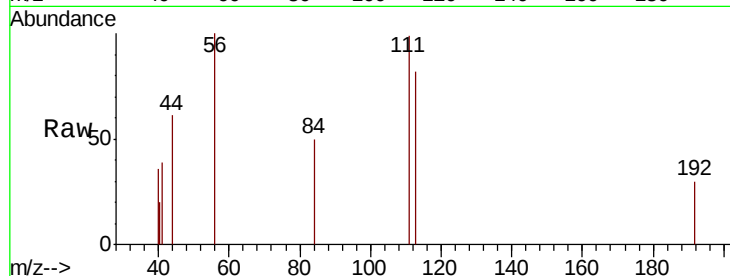
ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 56    | Resp: | 783    |
| Ion Ratio | Lower | Upper |        |
| 56        | 100   |       |        |
| 69        | 0.0   | 25.2  | 37.8#  |
| 84        | 50.3  | 71.3  | 106.9# |

Manual Integrations  
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MMDadoda  
10/14/2019 2:47:41 PM



#33

1,2-Dichloroethane-d4

Concen: 53.061 ug/l

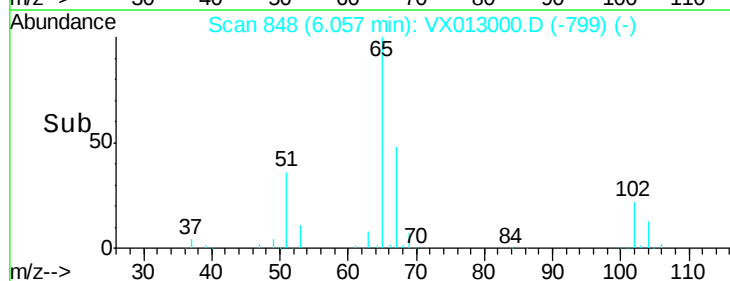
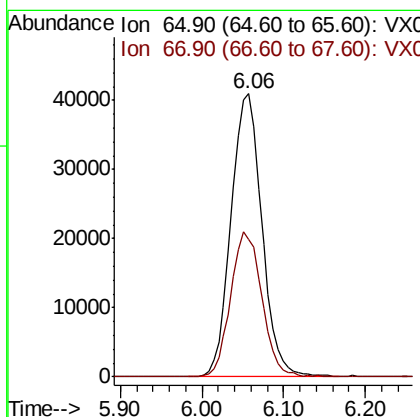
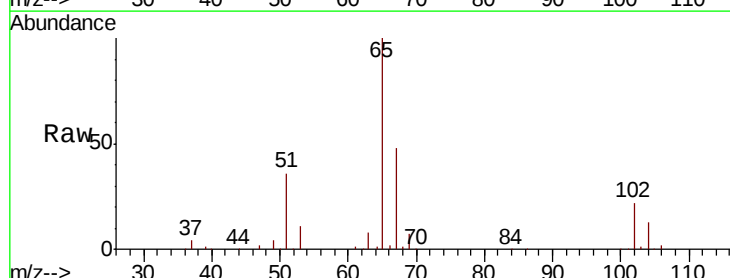
RT: 6.06 min Scan# 848

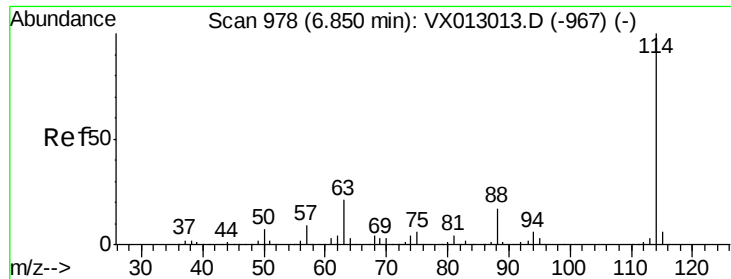
Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 65    | Resp: | 107088 |
| Ion Ratio | Lower | Upper |        |
| 65        | 100   |       |        |
| 67        | 51.8  | 0.0   | 104.4  |





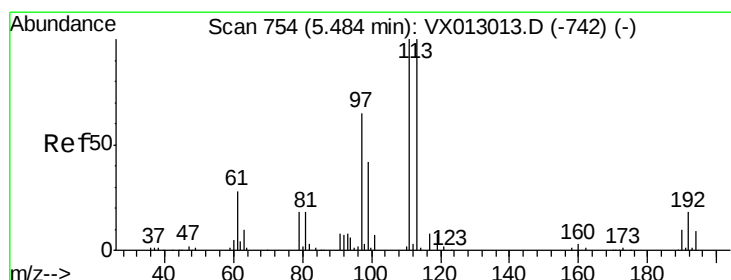
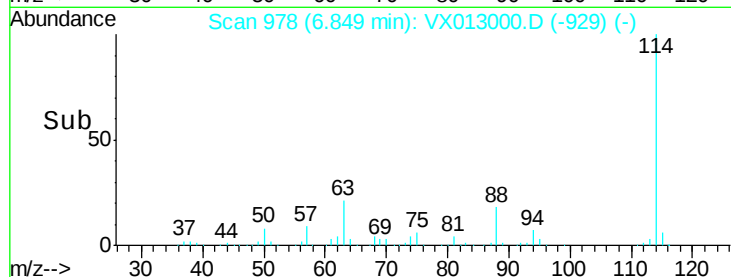
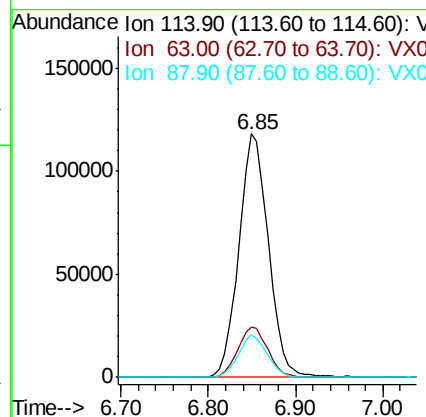
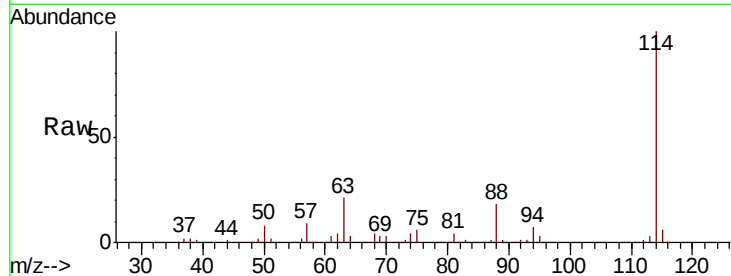
#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 6.85 min Scan# 978  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 114     | 100   | 277540 |       |       |
| 63      | 20.7  |        | 0.0   | 40.8  |
| 88      | 17.8  |        | 0.0   | 33.8  |

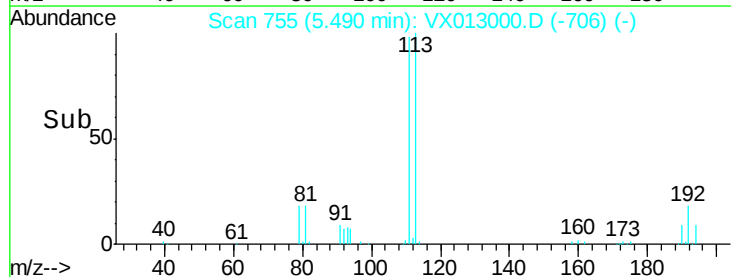
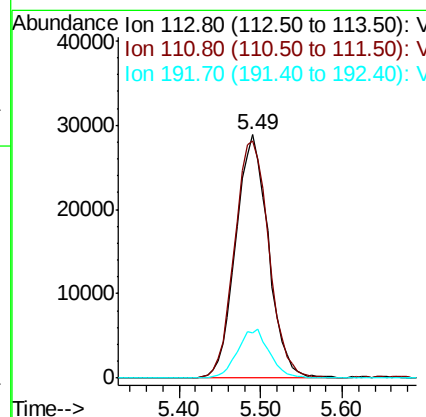
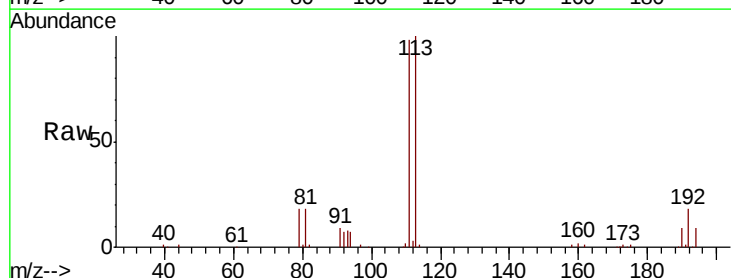
Manual Integrations  
APPROVED

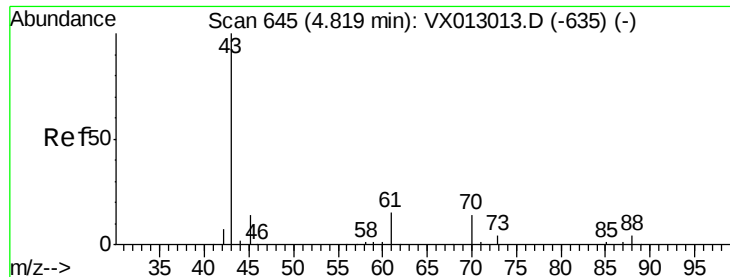
MMDadoda  
10/14/2019 2:47:41 PM



#35  
Dibromofluoromethane  
Concen: 50.179 ug/l  
RT: 5.49 min Scan# 755  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 113     | 100   | 79931 |       |       |
| 111     | 102.7 |       | 83.2  | 124.8 |
| 192     | 19.5  |       | 15.4  | 23.2  |





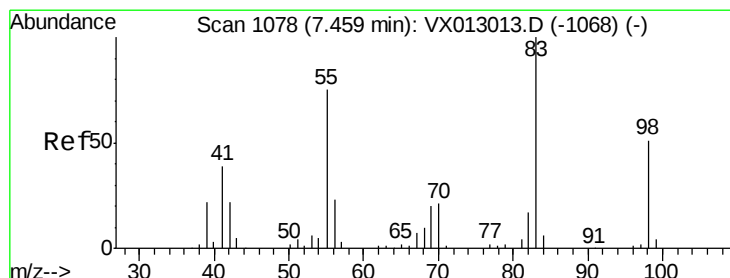
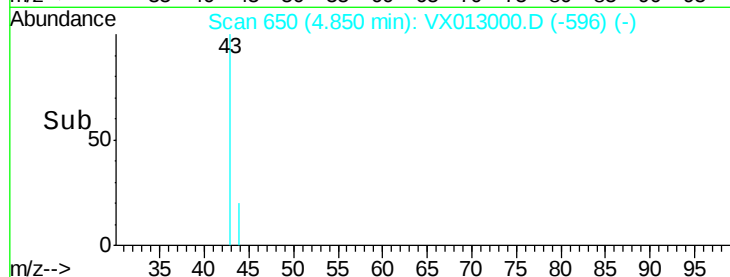
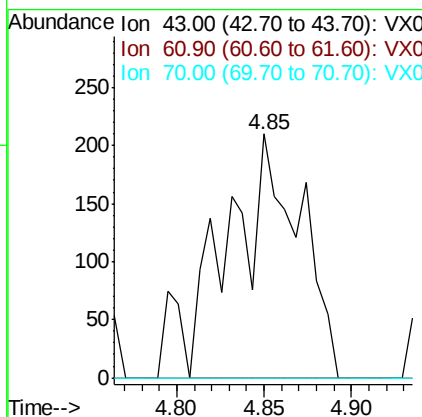
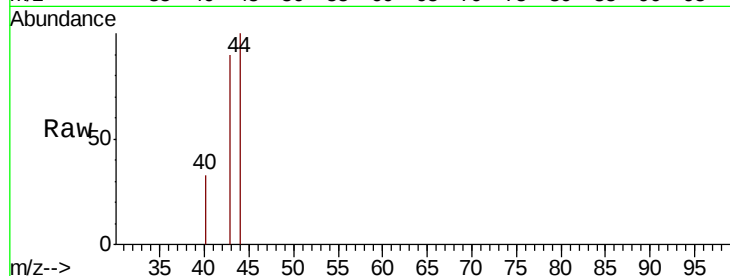
#37  
Ethyl Acetate  
Concen: 0.217 ug/l m  
RT: 4.85 min Scan# 650  
Delta R.T. 0.03 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 61      | 0.0   | 11.4  | 17.0# |
| 70      | 0.0   | 9.8   | 14.6# |

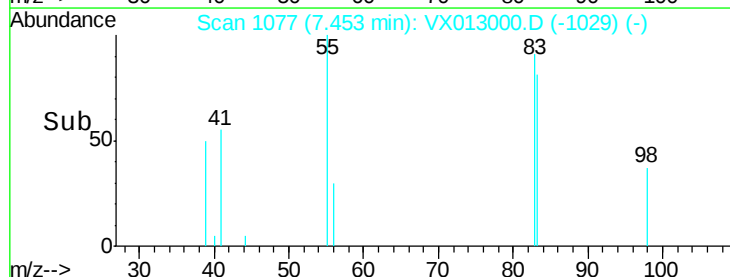
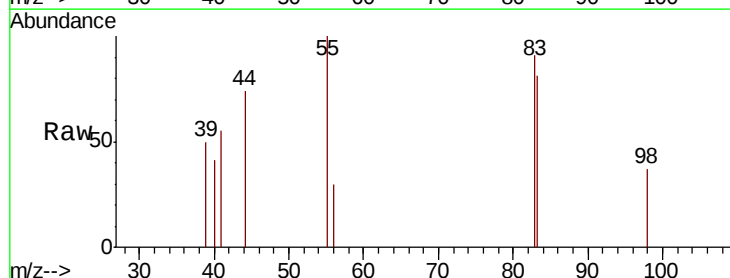
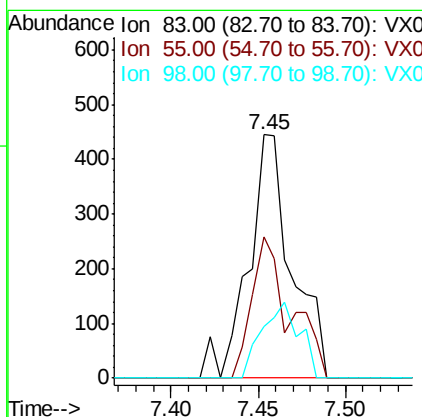
Manual Integrations  
APPROVED

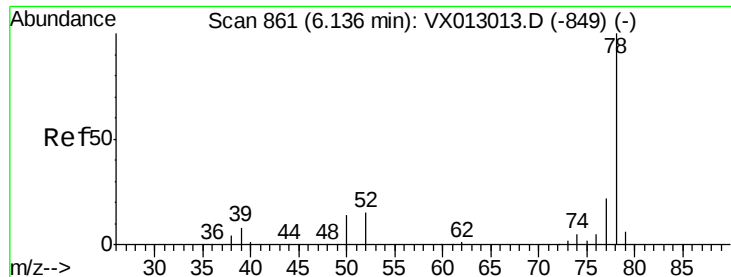
MMDadoda  
10/14/2019 2:47:41 PM



#39  
Methylcyclohexane  
Concen: 0.262 ug/l  
RT: 7.45 min Scan# 1077  
Delta R.T. -0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 58.0  | 60.2  | 90.4# |
| 98      | 21.3  | 38.5  | 57.7# |





#40

Benzene

Concen: 0.222 ug/l

RT: 6.14 min Scan# 861

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 78 Resp: 1602

Ion Ratio Lower Upper

78 100

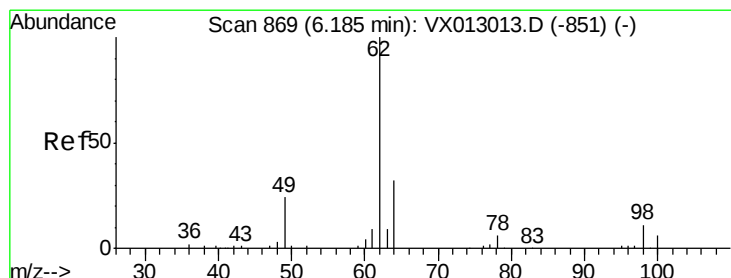
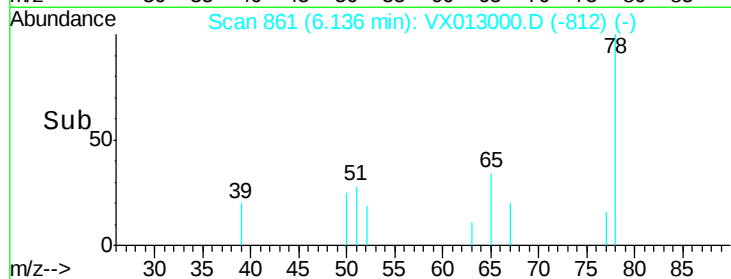
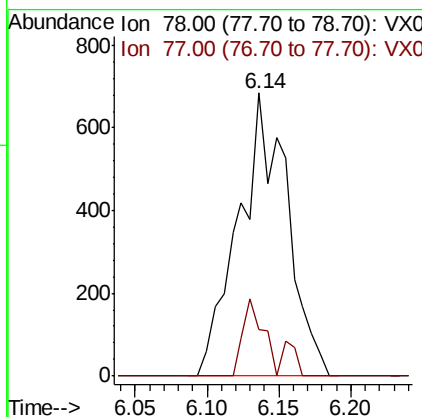
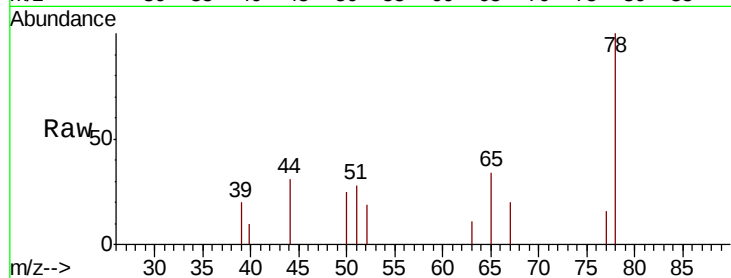
77 16.4 19.0 28.4#

Manual Integrations

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#42

1,2-Dichloroethane

Concen: 0.234 ug/l

RT: 6.19 min Scan# 870

Delta R.T. 0.01 min

Lab File: VX013000.D

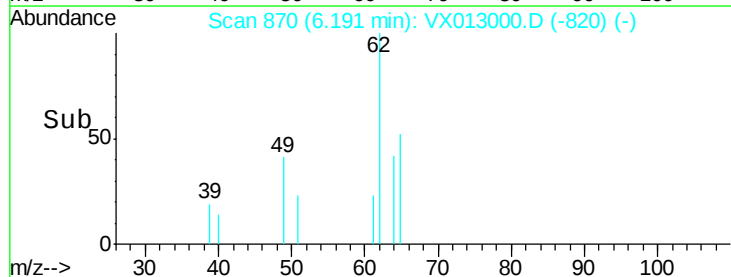
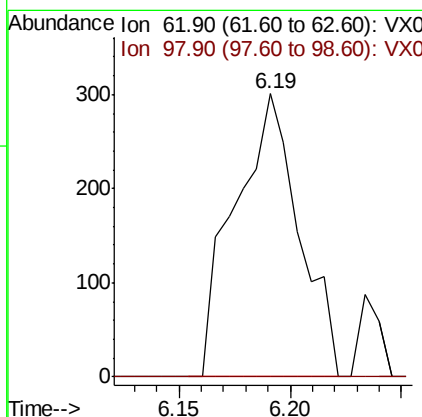
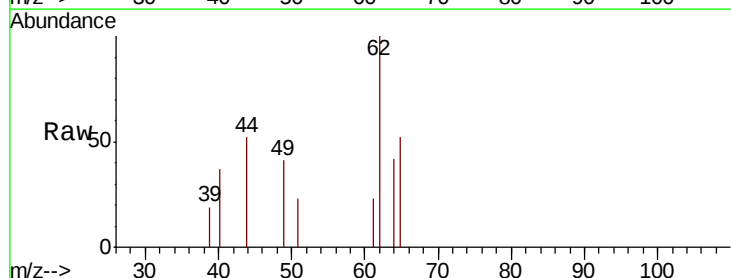
Acq: 10 Oct 2019 16:53

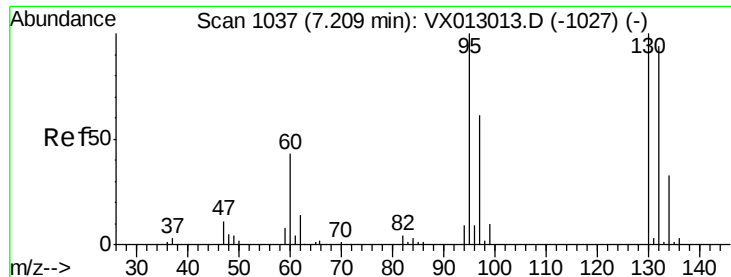
Tgt Ion: 62 Resp: 605

Ion Ratio Lower Upper

62 100

98 0.0 0.0 20.4





#44

Trichloroethene

Concen: 0.230 ug/l

RT: 7.22 min Scan# 1038

Delta R.T. 0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion:130 Resp: 460

Ion Ratio Lower Upper

130 100

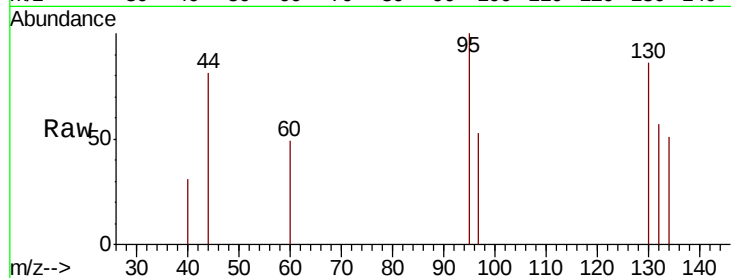
95 115.8 0.0 189.2

Manual Integrations

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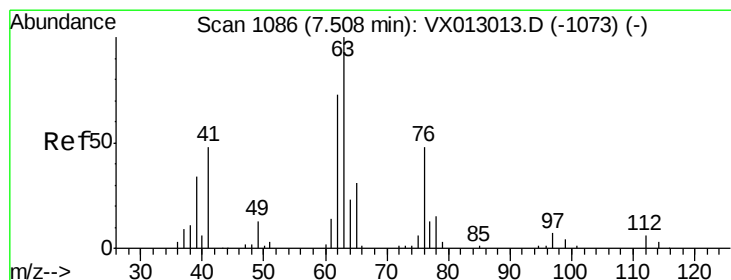
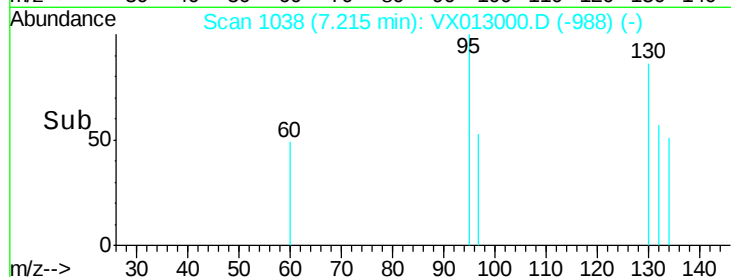
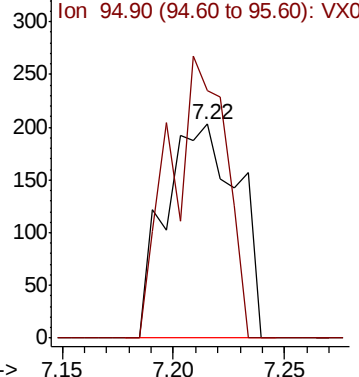
MMDadoda

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Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0



#45

1,2-Dichloropropane

Concen: 0.222 ug/l

RT: 7.51 min Scan# 1086

Delta R.T. -0.00 min

Lab File: VX013000.D

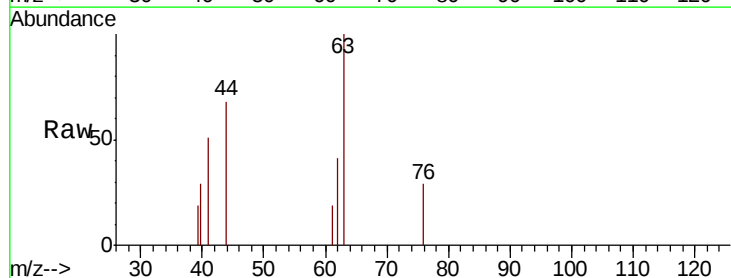
Acq: 10 Oct 2019 16:53

Tgt Ion: 63 Resp: 408

Ion Ratio Lower Upper

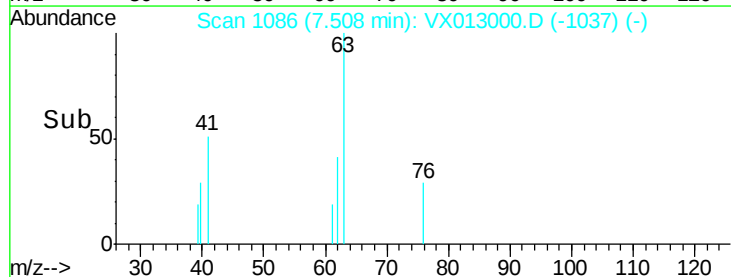
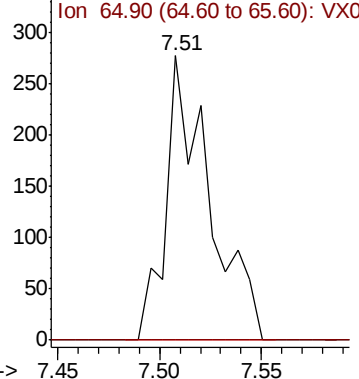
63 100

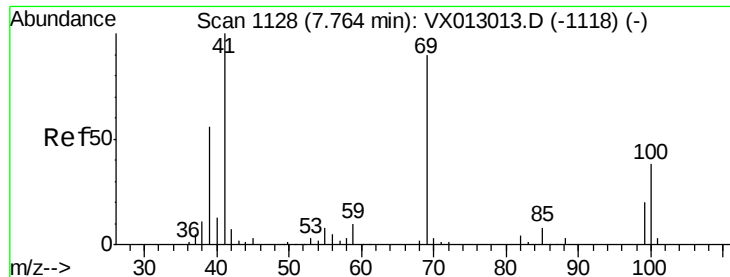
65 0.0 24.6 37.0#



Abundance Ion 62.90 (62.60 to 63.60): VX0

Ion 64.90 (64.60 to 65.60): VX0





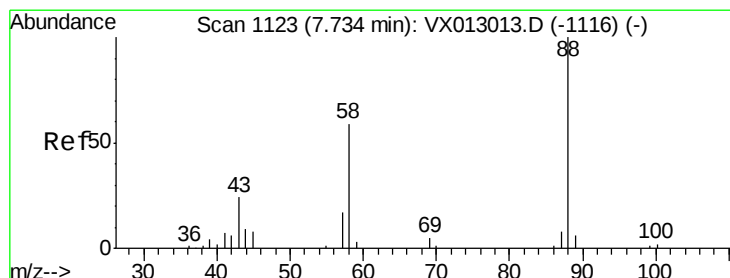
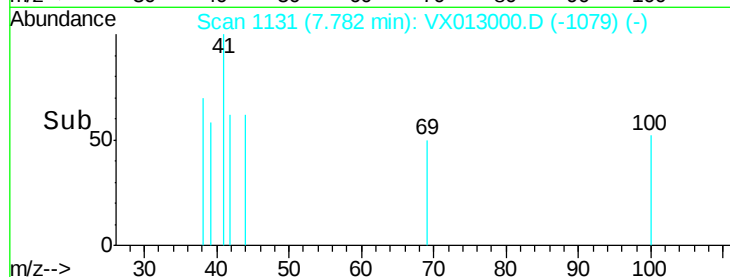
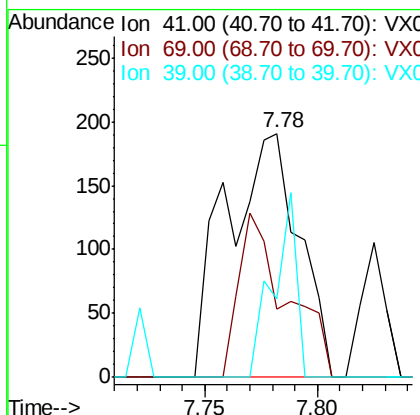
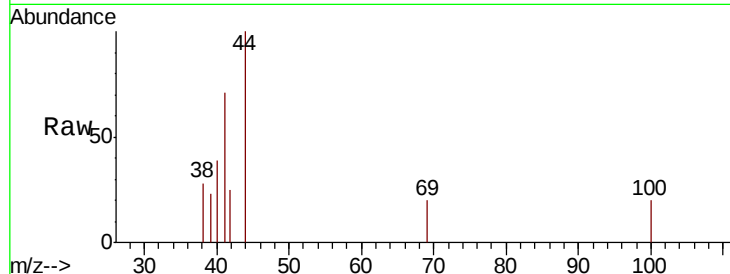
#48  
Methvl methacrylate  
Concen: 0.201 ug/l m  
RT: 7.78 min Scan# 1131  
Delta R.T. 0.02 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 41      | 100   |       |        |
| 69      | 43.7  | 68.7  | 103.1# |
| 39      | 0.0   | 44.3  | 66.5#  |

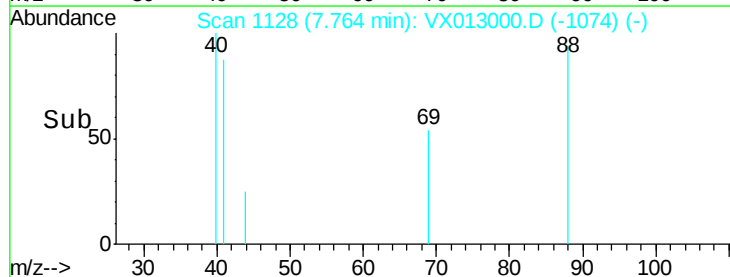
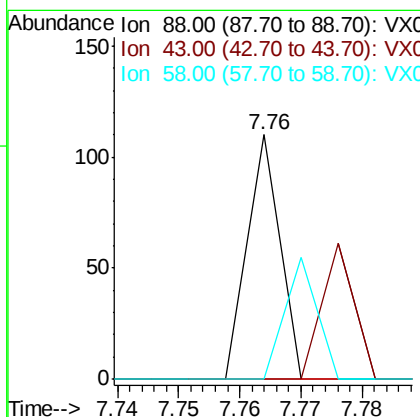
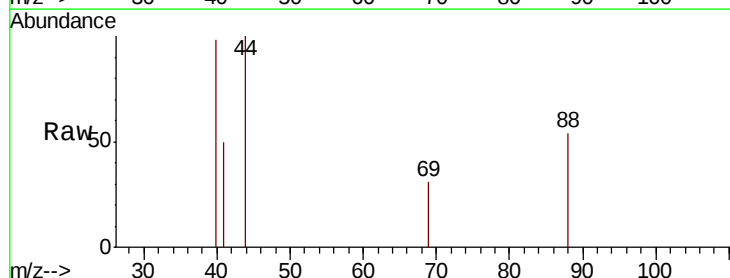
Manual Integrations  
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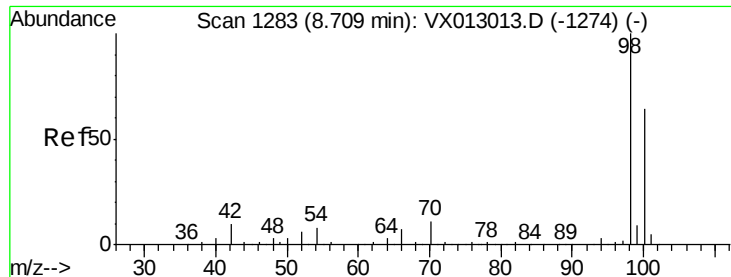
MMDadoda  
10/14/2019 2:47:41 PM



#49  
1,4-Dioxane  
Concen: 0.775 ug/l  
RT: 7.76 min Scan# 1128  
Delta R.T. 0.03 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 88      | 100   |       |       |
| 43      | 55.0  | 25.0  | 37.6# |
| 58      | 50.0  | 55.4  | 83.2# |





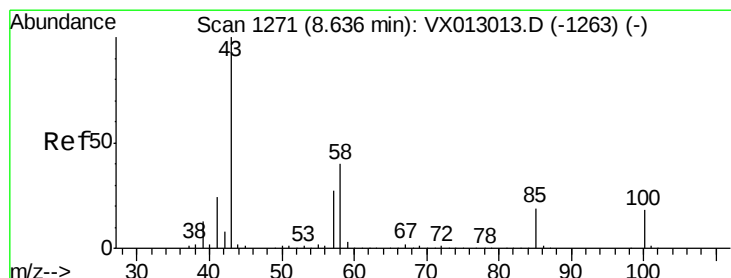
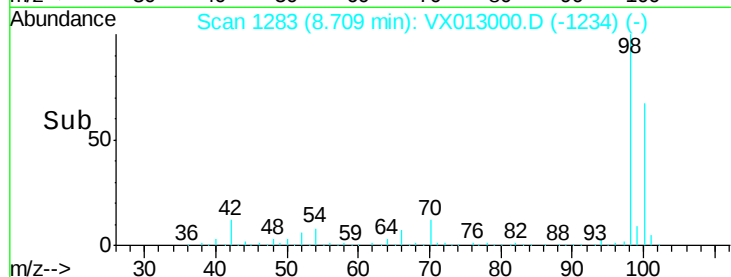
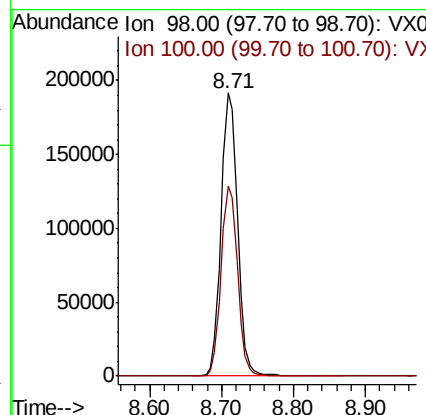
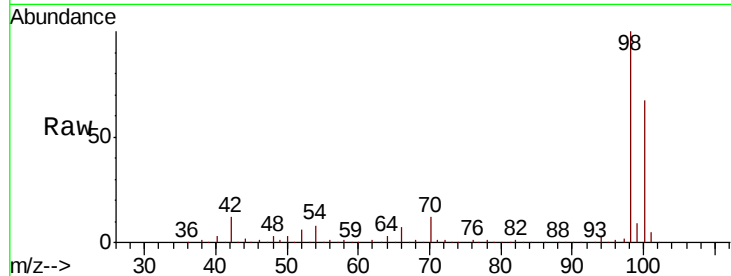
#50  
Toluene-d8  
Concen: 48.954 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

Tot Ion: 98 Resp: 304142  
Ion Ratio Lower Upper  
98 100  
100 67.3 53.4 80.2

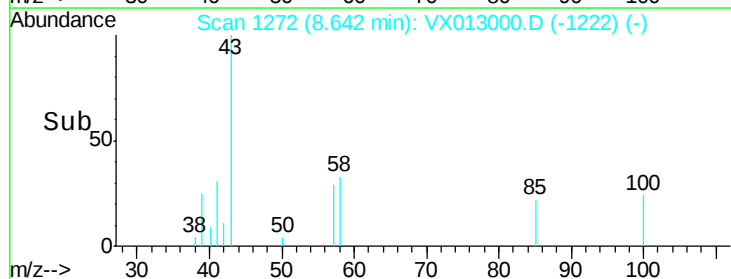
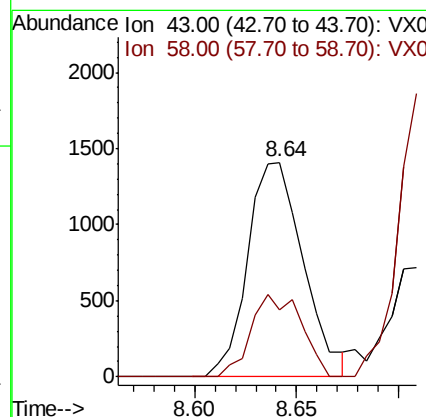
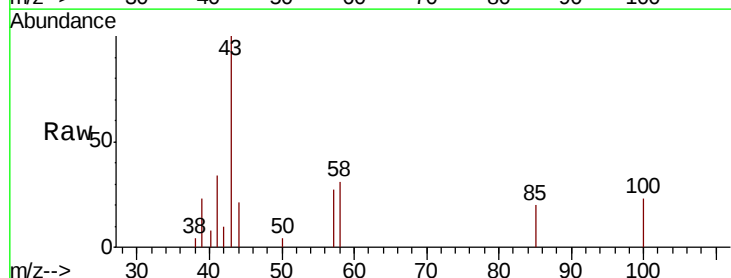
Manual Integrations  
APPROVED

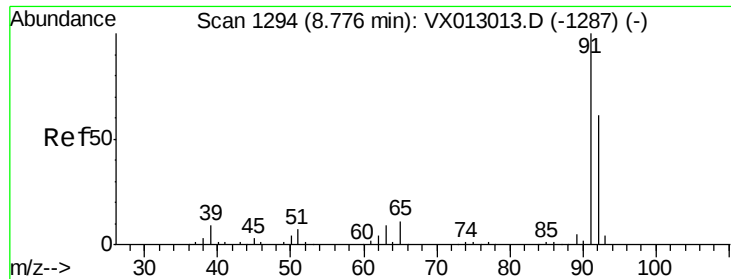
MMDadoda  
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#51  
4-Methyl-2-Pentanone  
Concen: 0.979 ug/l  
RT: 8.64 min Scan# 1272  
Delta R.T. 0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Tgt Ion: 43 Resp: 2673  
Ion Ratio Lower Upper  
43 100  
58 34.8 32.4 48.6





#52

Toluene

Concen: 0.214 ug/l

RT: 8.78 min Scan# 1295

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion: 92 Resp: 986

Ion Ratio Lower Upper

92 100

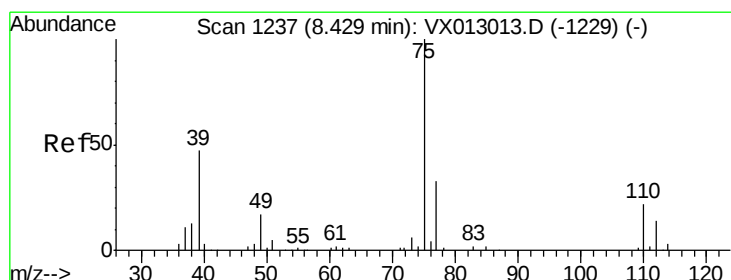
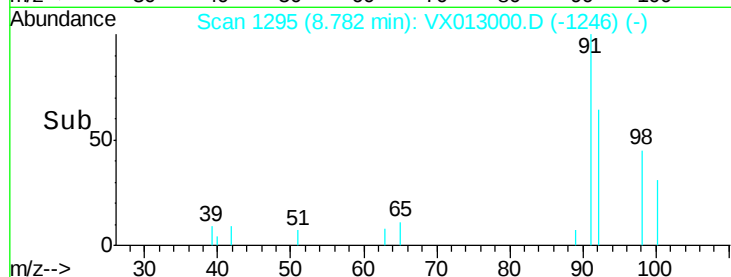
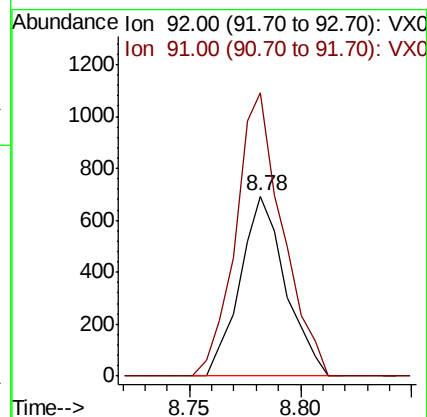
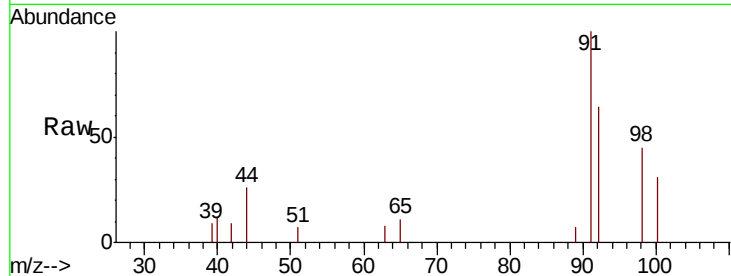
91 162.2 135.9 203.9

Manual Integrations

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#54

cis-1,3-Dichloropropene

Concen: 0.206 ug/l

RT: 8.43 min Scan# 1238

Delta R.T. 0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

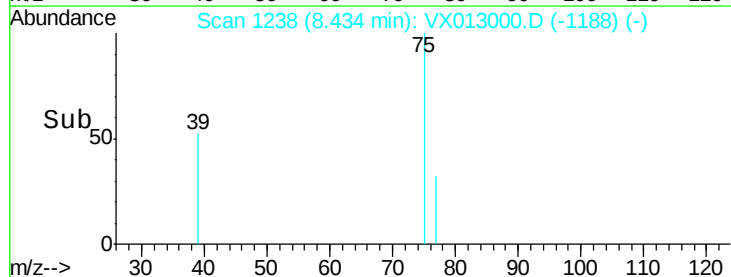
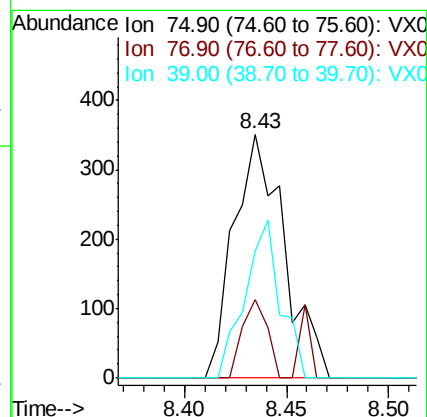
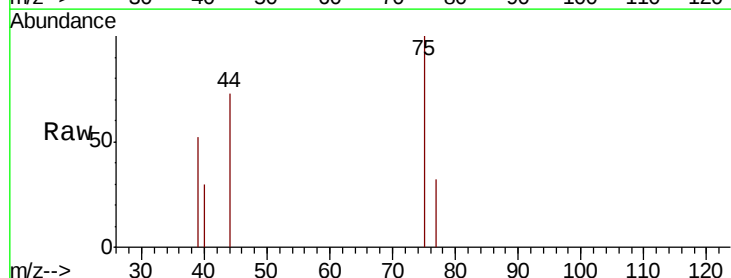
Tgt Ion: 75 Resp: 604

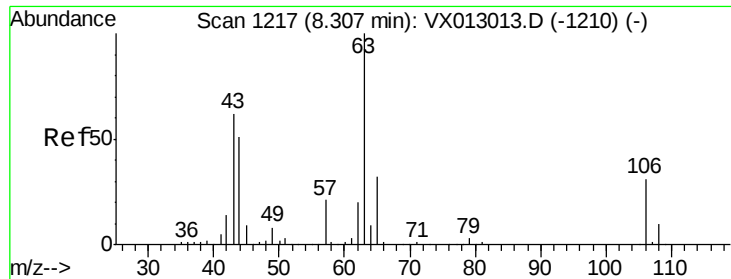
Ion Ratio Lower Upper

75 100

77 31.9 25.8 38.8

39 51.9 38.2 57.2





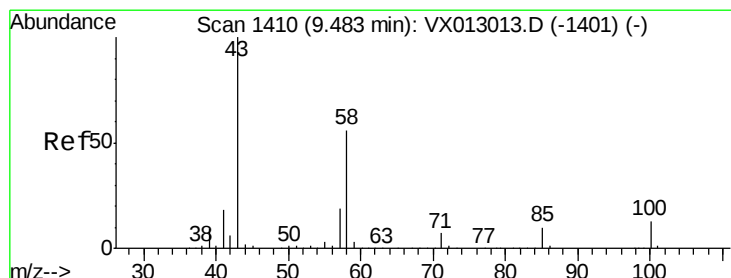
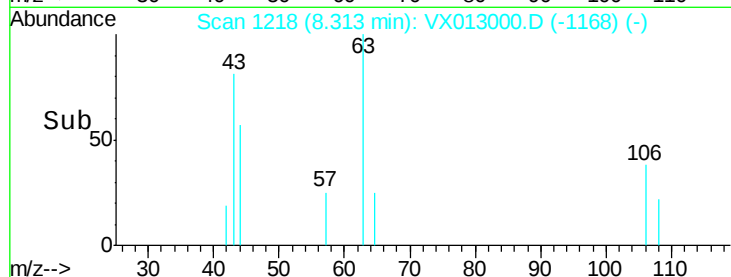
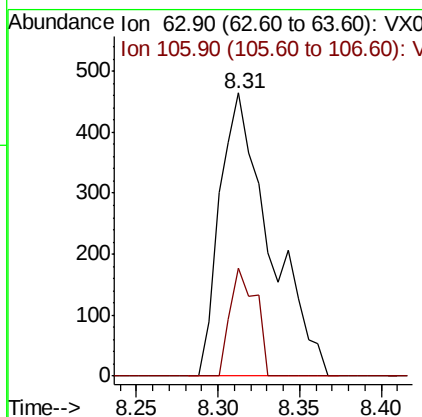
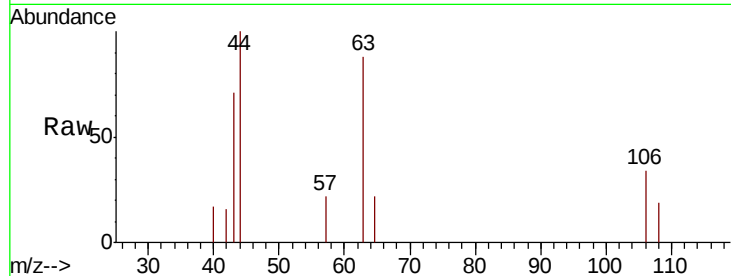
#58  
 2-Chloroethyl Vinyl ether  
 Concen: 0.743 ug/l  
 RT: 8.31 min Scan# 1218  
 Delta R.T. 0.01 min  
 Lab File: VX013000.D  
 Acq: 10 Oct 2019 16:53

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 LOD-MDL-WATER-01-QT4-2019

Tot Ion: 63 Resp: 996  
 Ion Ratio Lower Upper  
 63 100  
 106 19.6 23.8 35.8#

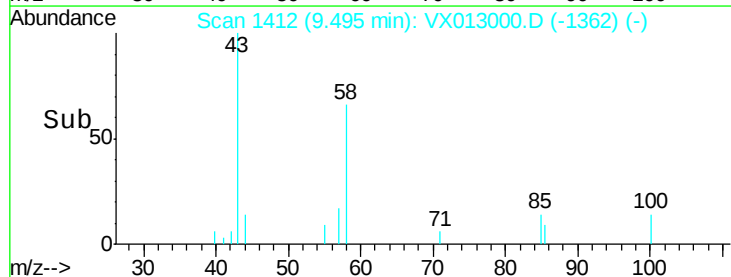
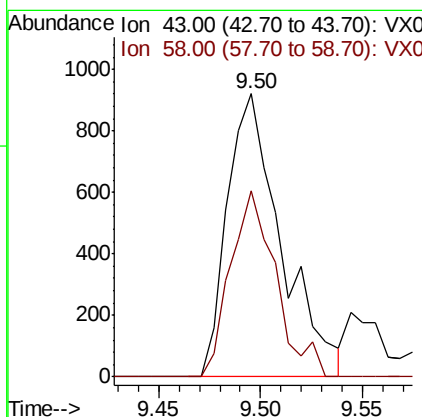
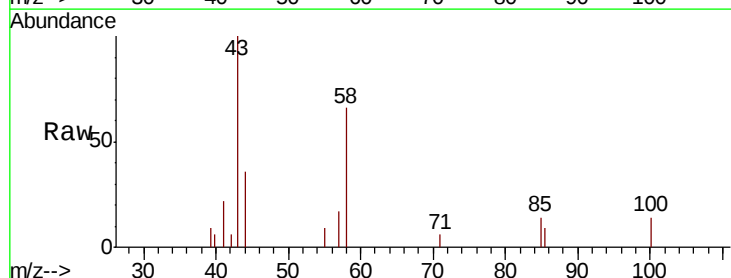
Manual Integrations  
 APPROVED

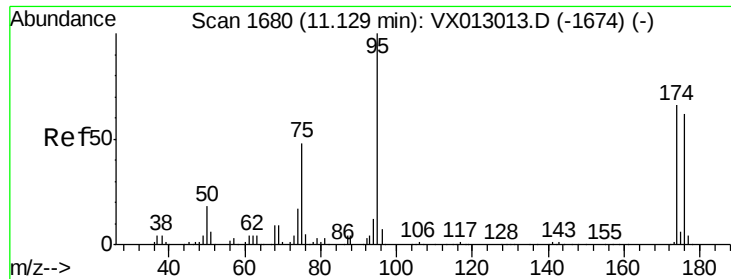
MMDadoda  
 10/14/2019 2:47:41 PM



#59  
 2-Hexanone  
 Concen: 0.796 ug/l  
 RT: 9.50 min Scan# 1412  
 Delta R.T. 0.01 min  
 Lab File: VX013000.D  
 Acq: 10 Oct 2019 16:53

Tgt Ion: 43 Resp: 1692  
 Ion Ratio Lower Upper  
 43 100  
 58 55.2 28.1 84.3





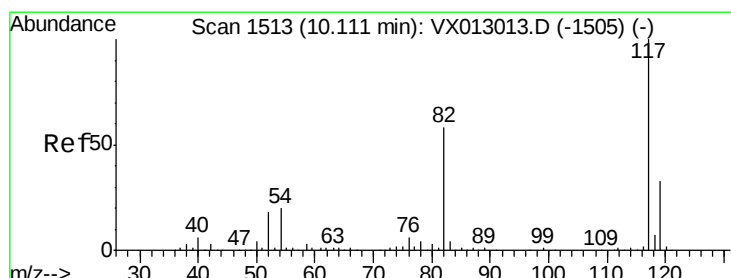
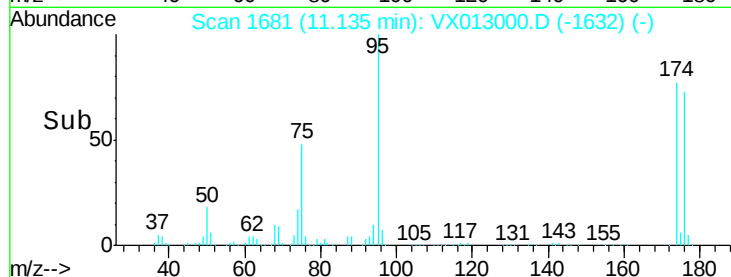
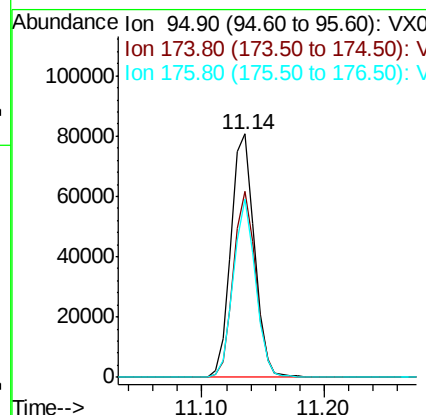
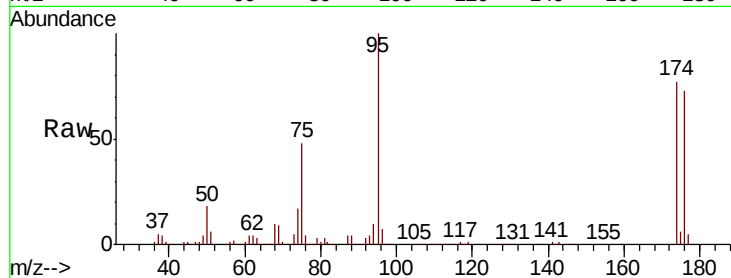
#62  
4-Bromofluorobenzene  
Concen: 44.263 ug/l  
RT: 11.14 min Scan# 1681  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 95      | 100   | 106852 |       |       |
| 174     | 73.2  | 0.0    | 143.4 |       |
| 176     | 69.0  | 0.0    | 136.0 |       |

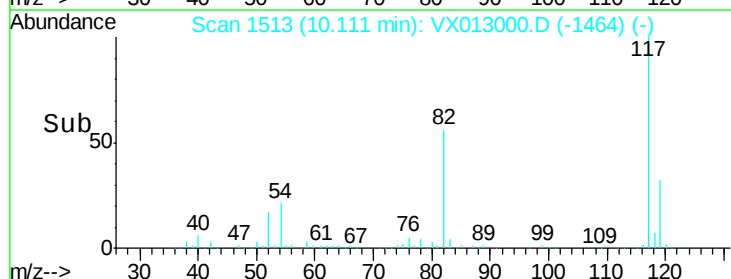
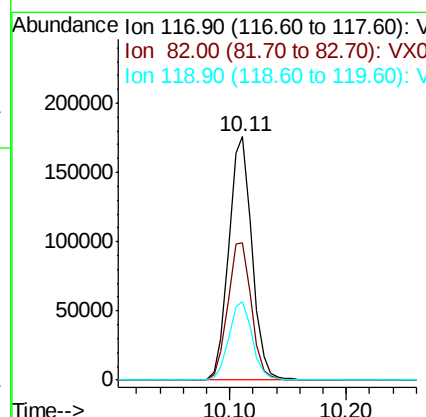
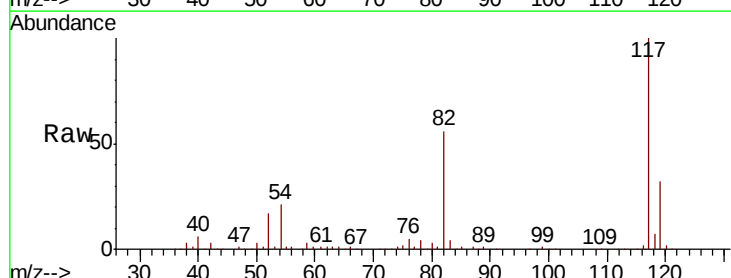
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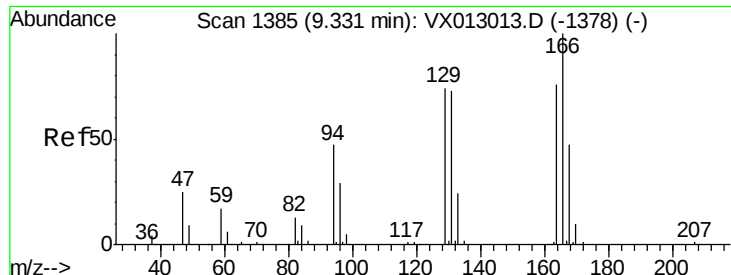
MMDadoda  
10/14/2019 2:47:41 PM



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1513  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 117     | 100   | 242784 |       |       |
| 82      | 56.4  | 44.1   | 66.1  |       |
| 119     | 32.3  | 25.8   | 38.8  |       |





#64

Tetrachloroethene

Concen: 0.276 ug/l

RT: 9.33 min Scan# 1385

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion:164 Resp: 465

Ion Ratio Lower Upper

164 100

166 156.9 96.9 145.3#

129 104.1 77.9 116.9

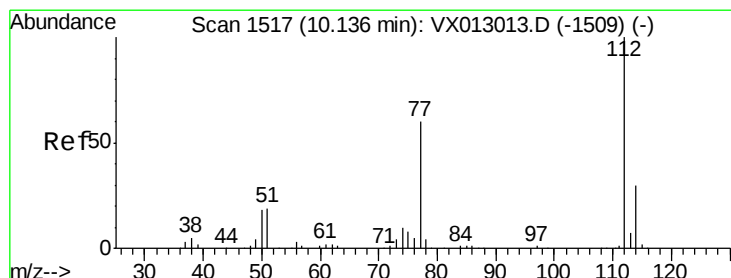
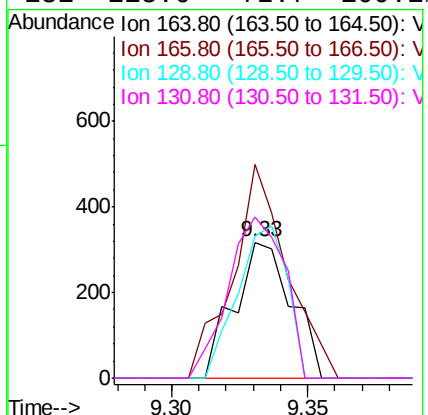
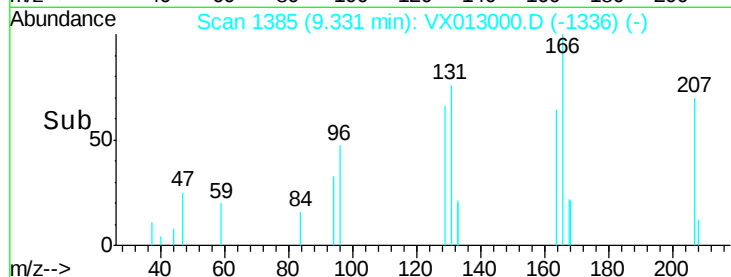
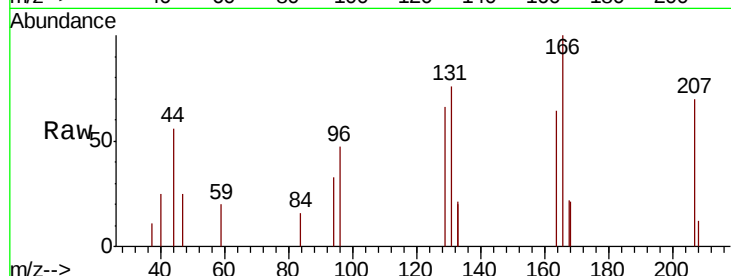
131 118.6 72.7 109.1#

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#65

Chlorobenzene

Concen: 0.219 ug/l

RT: 10.14 min Scan# 1517

Delta R.T. -0.00 min

Lab File: VX013000.D

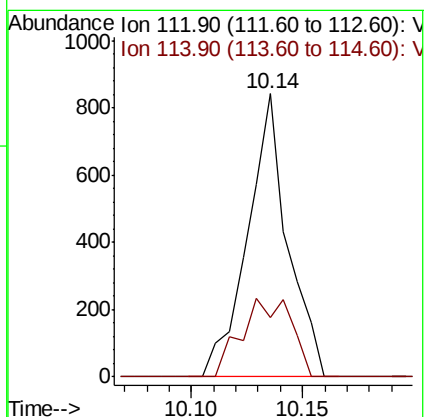
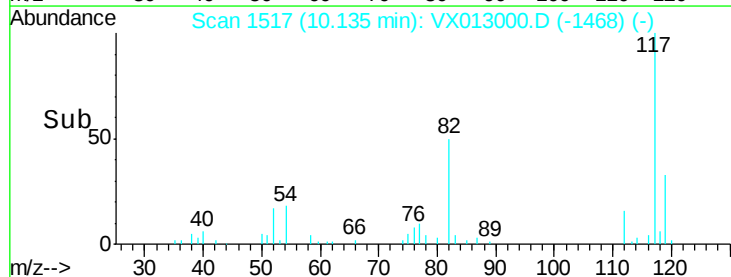
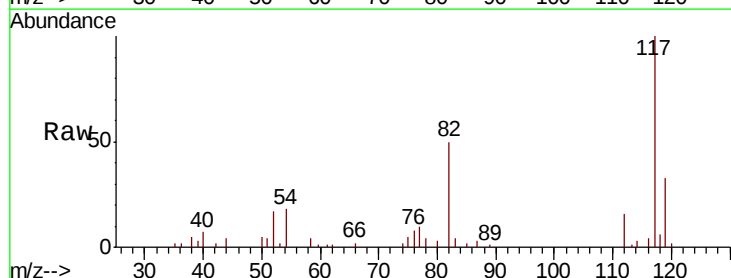
Acq: 10 Oct 2019 16:53

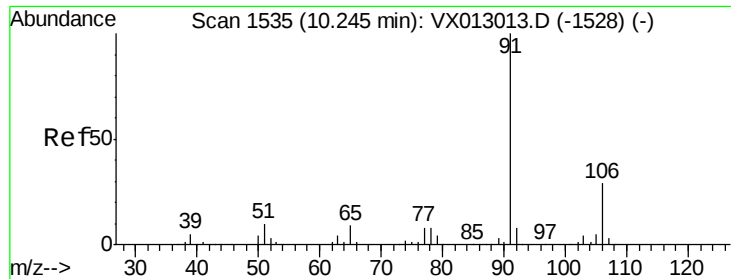
Tgt Ion:112 Resp: 1054

Ion Ratio Lower Upper

112 100

114 21.1 25.7 38.5#





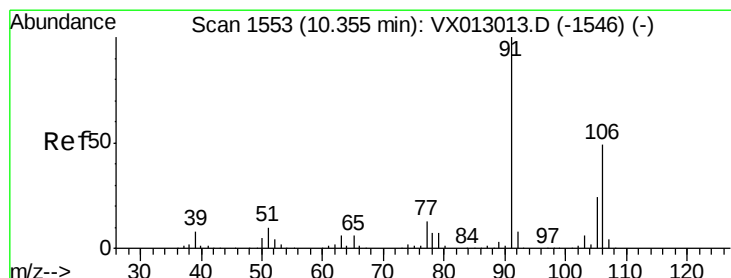
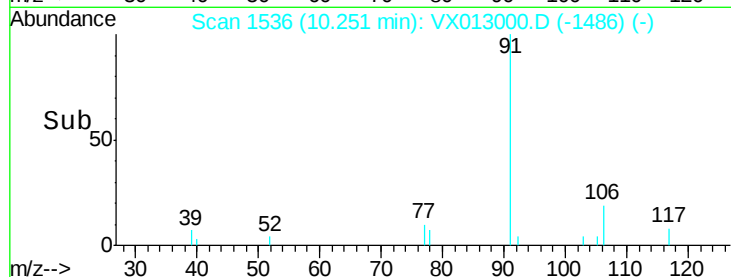
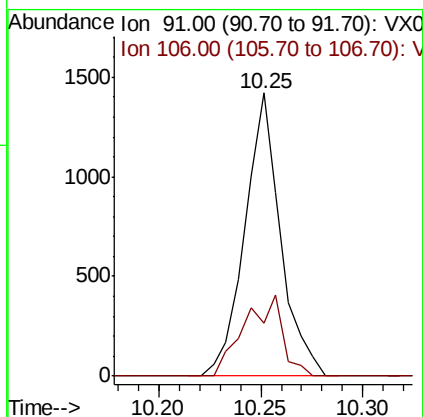
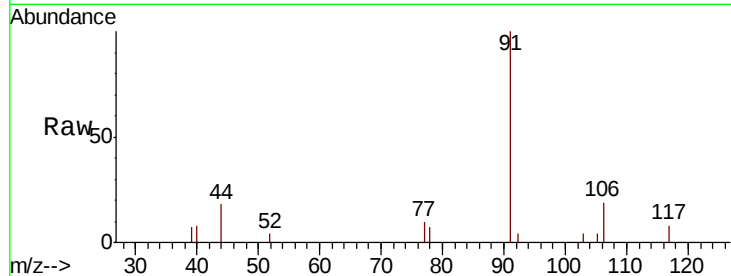
#67  
Ethyl Benzene  
Concen: 0.202 ug/l  
RT: 10.25 min Scan# 1536  
Delta R.T. 0.01 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
LOD-MDL-WATER-01-QT4-2019

Tot Ion: 91 Resp: 1730  
Ion Ratio Lower Upper  
91 100  
106 18.6 23.9 35.9#

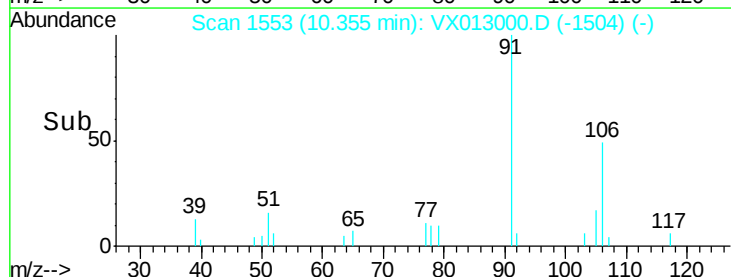
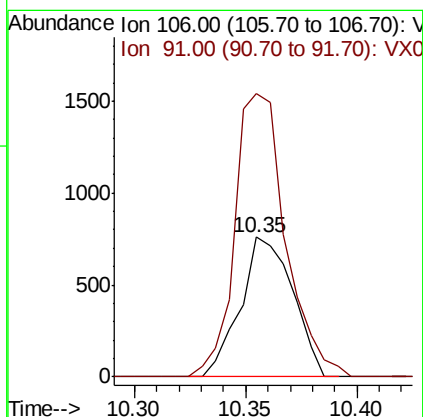
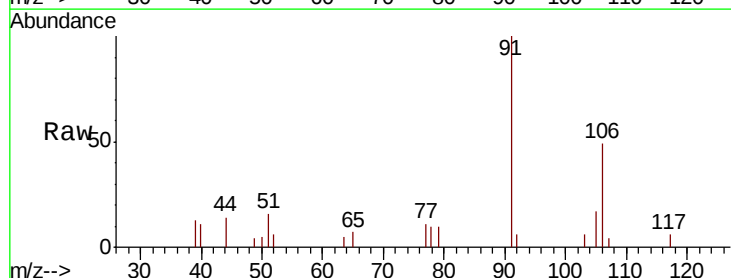
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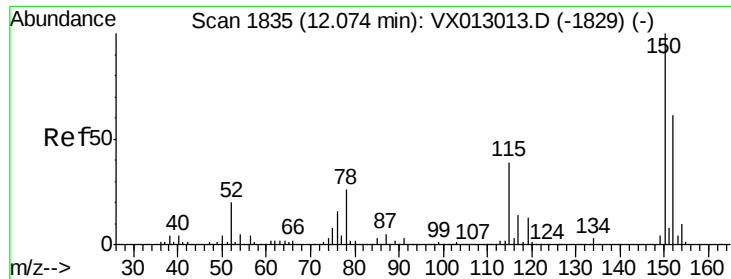
MMDadoda  
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#68  
m/p-Xylenes  
Concen: 0.388 ug/l  
RT: 10.35 min Scan# 1553  
Delta R.T. -0.00 min  
Lab File: VX013000.D  
Acq: 10 Oct 2019 16:53

Tgt Ion: 106 Resp: 1241  
Ion Ratio Lower Upper  
106 100  
91 198.0 165.3 247.9





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1835

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

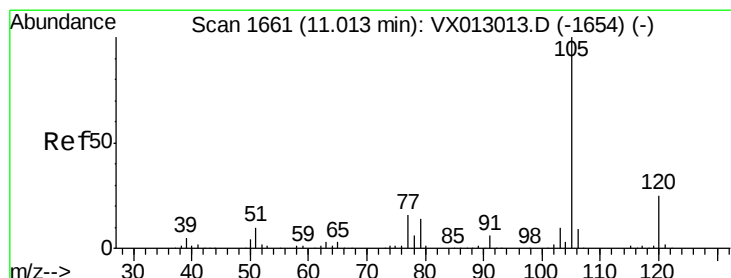
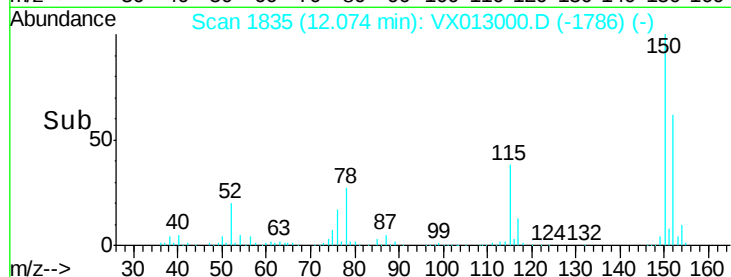
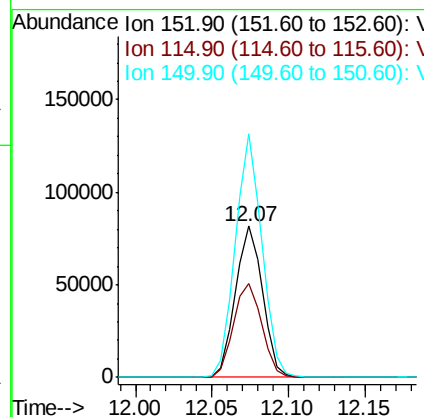
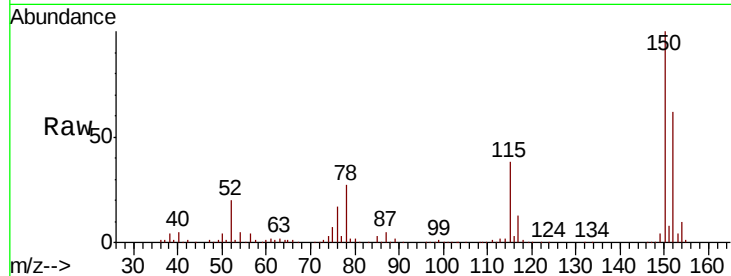
ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 152   | Resp: | 100374 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 64.6  | 44.5  | 133.5  |
| 150       | 157.9 | 0.0   | 353.4  |

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#73

Isopropylbenzene

Concen: 0.221 ug/l

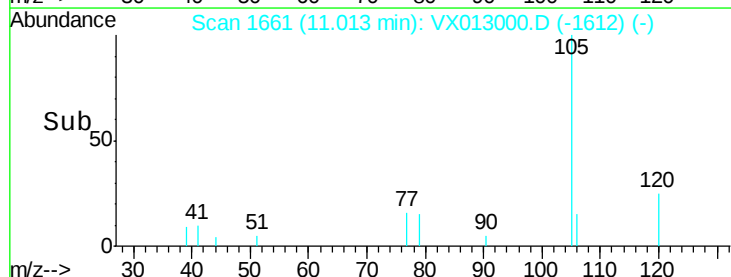
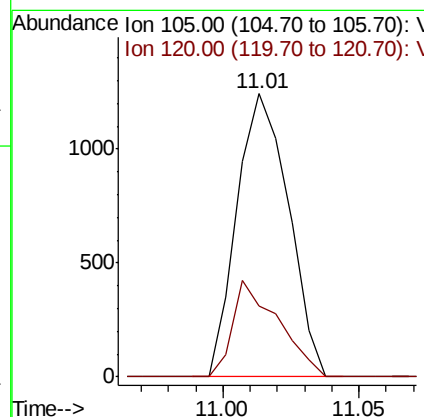
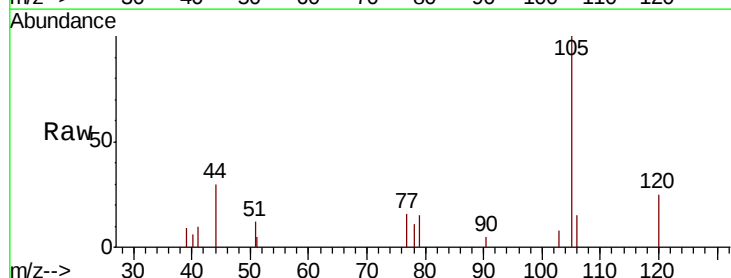
RT: 11.01 min Scan# 1661

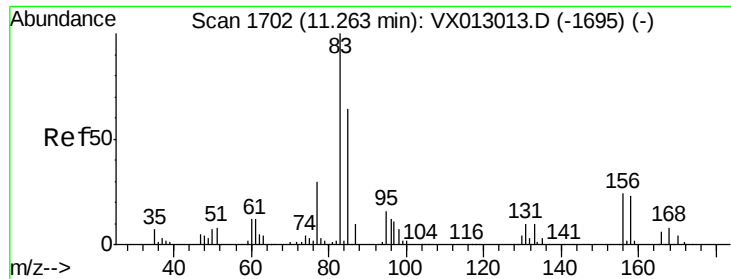
Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 105   | Resp: | 1632 |
| Ion Ratio | Lower | Upper |      |
| 105       | 100   |       |      |
| 120       | 30.1  | 13.0  | 39.0 |





#75

1,1,2,2-Tetrachloroethane

Concen: 0.225 ug/l

RT: 11.26 min Scan# 1702

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

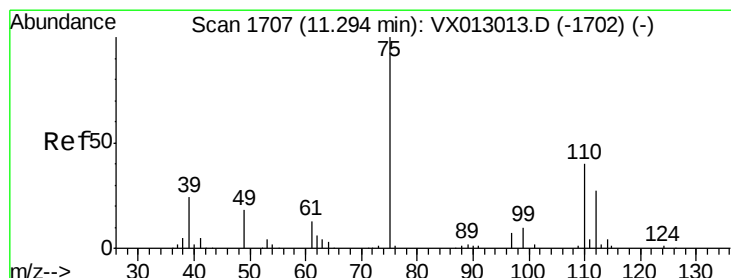
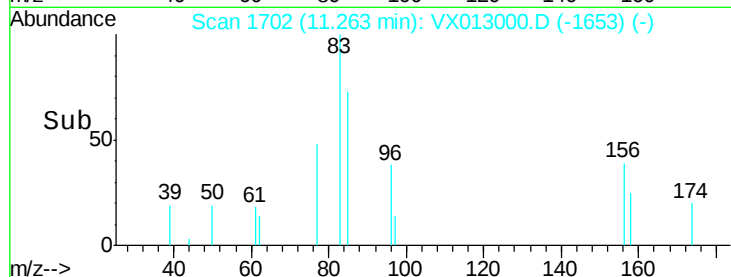
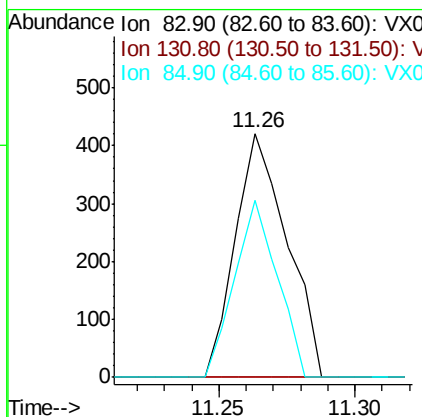
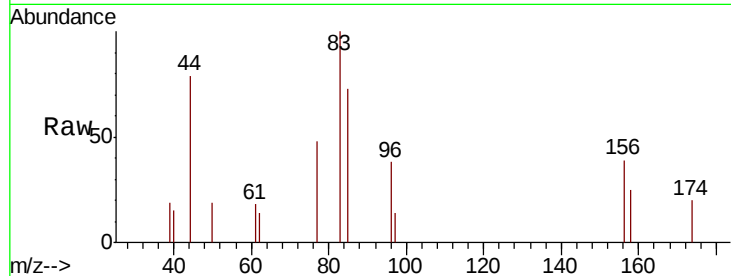
ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 0.0   | 5.1   | 15.3# |
| 85      | 60.2  | 32.1  | 96.5  |

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#76

1,2,3-Trichloropropane

Concen: 0.202 ug/l m

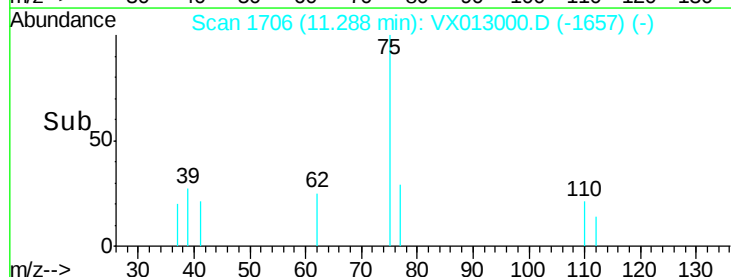
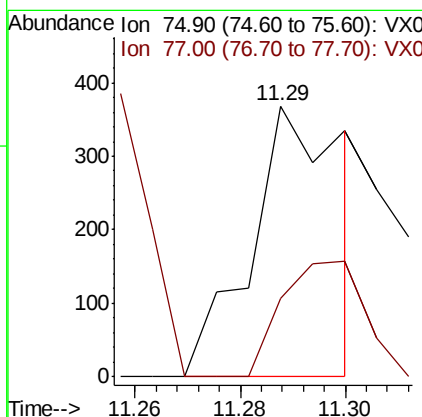
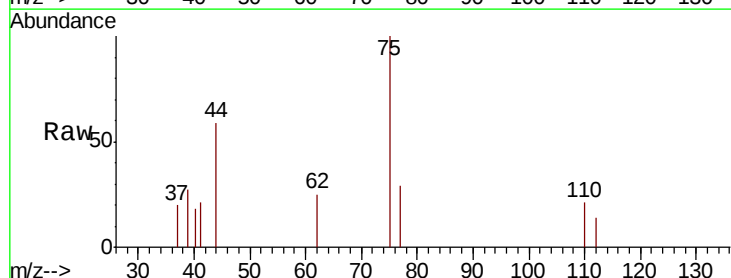
RT: 11.29 min Scan# 1706

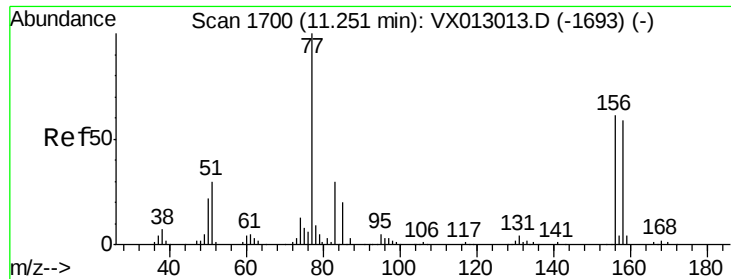
Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 160.1 | 22.9  | 68.8# |





#77

Bromobenzene

Concen: 0.271 ug/l

RT: 11.26 min Scan# 1701

Delta R.T. 0.01 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

Instrument :

MSVOA\_X

ClientSampleId :

LOD-MDL-WATER-01-QT4-2019

Tot Ion:156 Resp: 472

Ion Ratio Lower Upper

156 100

77 134.5 83.7 251.0

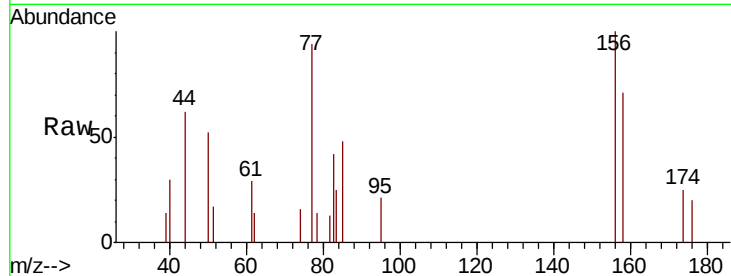
158 82.6 48.6 145.9

Manual Integrations

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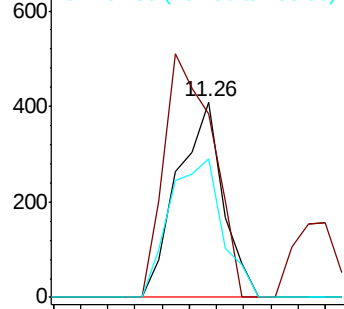
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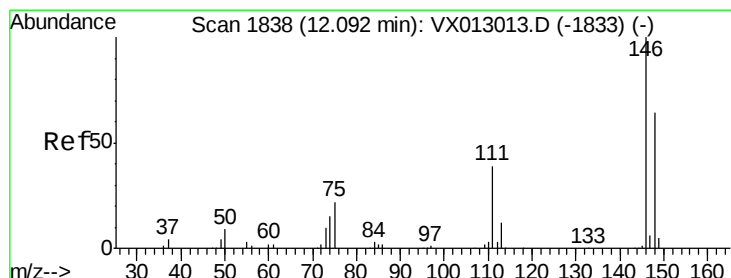
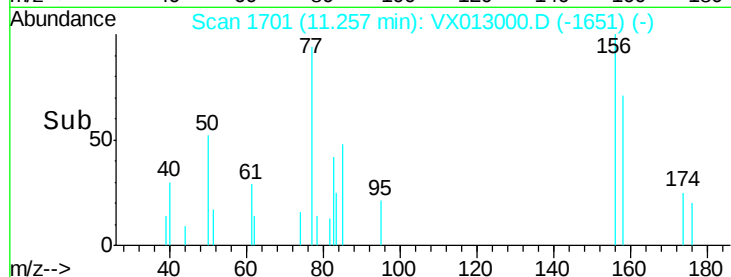
Abundance Ion 155.80 (155.50 to 156.50): V

Ion 77.00 (76.70 to 77.70): VX0

Ion 157.80 (157.50 to 158.50): V



Time--> 11.20



#88

1,4-Dichlorobenzene

Concen: 0.234 ug/l m

RT: 12.09 min Scan# 1838

Delta R.T. -0.00 min

Lab File: VX013000.D

Acq: 10 Oct 2019 16:53

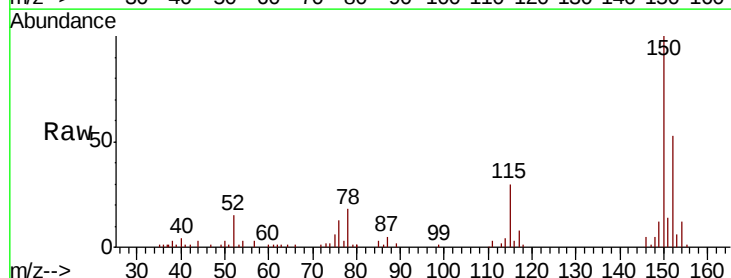
Tgt Ion:146 Resp: 764

Ion Ratio Lower Upper

146 100

111 36.9 21.4 64.3

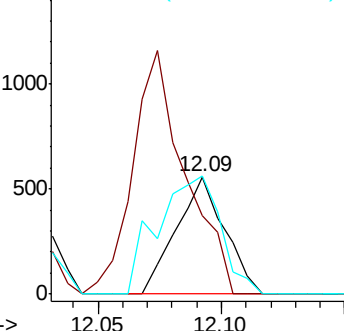
148 67.4 32.1 96.5



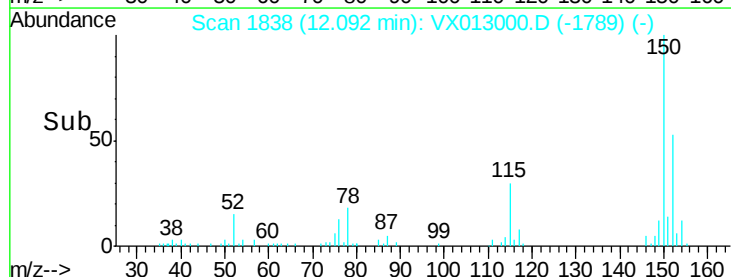
Abundance Ion 145.90 (145.60 to 146.60): V

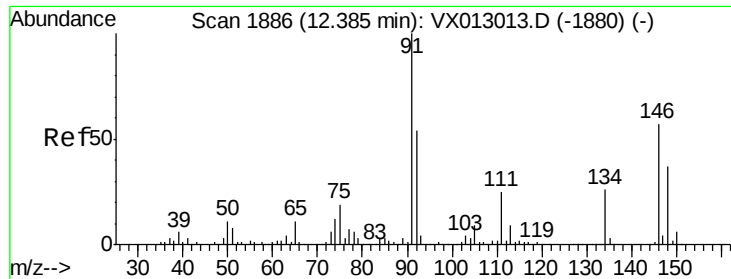
Ion 110.90 (110.60 to 111.60): V

Ion 147.90 (147.60 to 148.60): V



Time--> 12.05





#91  
 1,2-Dichlorobenzene  
 Concen: 0.222 ug/l  
 RT: 12.39 min Scan# 1887  
 Delta R.T. 0.01 min  
 Lab File: VX013000.D  
 Acq: 10 Oct 2019 16:53

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 LOD-MDL-WATER-01-QT4-2019

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 46.4  | 22.7  | 68.0  |
| 148     | 69.7  | 31.6  | 94.7  |

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