

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN101019\  
 Data File : VN058660.D  
 Acq On : 9 Oct 2019 22:50  
 Operator : JC/SP  
 Sample : K5184-05  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-4

Manual Integrations  
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 10/10/2019 3:19:54 PM

Quant Time: Oct 10 05:41:57 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N092719W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Sep 30 08:07:38 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 510159   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 801892   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 683431   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 290458   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.01  | 65   | 335287   | 44.97 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.94%  |          |
| 35) Dibromofluoromethane    | 7.57  | 113  | 245971   | 50.05 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.10% |          |
| 50) Toluene-d8              | 10.08 | 98   | 1010231  | 52.47 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.94% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 340857   | 48.96 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.92%  |          |

| Target Compounds           | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|----------------------------|-------|------|----------|---------|--------|--------|
| 3) Chloromethane           | 2.04  | 50   | 3683     | 0.599   | ug/l   | 96     |
| 16) Acetone                | 3.79  | 43   | 187305   | 73.702  | ug/l # | 88     |
| 25) 2-Butanone             | 6.81  | 43   | 72802    | 20.865  | ug/l   | 95     |
| 31) Cyclohexane            | 7.64  | 56   | 519193   | 50.321  | ug/l   | 98     |
| 39) Methylcyclohexane      | 9.07  | 83   | 319061   | 35.633  | ug/l   | 97     |
| 40) Benzene                | 8.03  | 78   | 1386644  | 62.914  | ug/l   | 99     |
| 52) Toluene                | 10.15 | 92   | 244318   | 17.611  | ug/l   | 99     |
| 67) Ethyl Benzene          | 11.51 | 91   | 240513   | 9.774   | ug/l   | 99     |
| 68) m/p-Xylenes            | 11.62 | 106  | 651118   | 70.331  | ug/l   | 97     |
| 69) o-Xylene               | 11.95 | 106  | 26954    | 3.024   | ug/l   | 99     |
| 73) Isopropylbenzene       | 12.25 | 105  | 3029289  | 141.123 | ug/l   | 97     |
| 78) n-propylbenzene        | 12.60 | 91   | 3132462  | 129.530 | ug/l   | 97     |
| 80) 1,3,5-Trimethylbenzene | 12.74 | 105  | 23838m   | 1.327   | ug/l   |        |
| 83) tert-Butylbenzene      | 13.00 | 119  | 26662    | 1.758   | ug/l   | 96     |
| 84) 1,2,4-Trimethylbenzene | 13.05 | 105  | 5199m    | 0.289   | ug/l   |        |
| 85) sec-Butylbenzene       | 13.18 | 105  | 168277   | 8.432   | ug/l # | 64     |
| 86) p-Isopropyltoluene     | 13.29 | 119  | 26060    | 1.483   | ug/l # | 75     |
| 89) n-Butylbenzene         | 13.62 | 91   | 204973   | 12.881  | ug/l # | 77     |
| 95) Naphthalene            | 15.13 | 128  | 50691    | 3.545   | ug/l   | 97     |

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

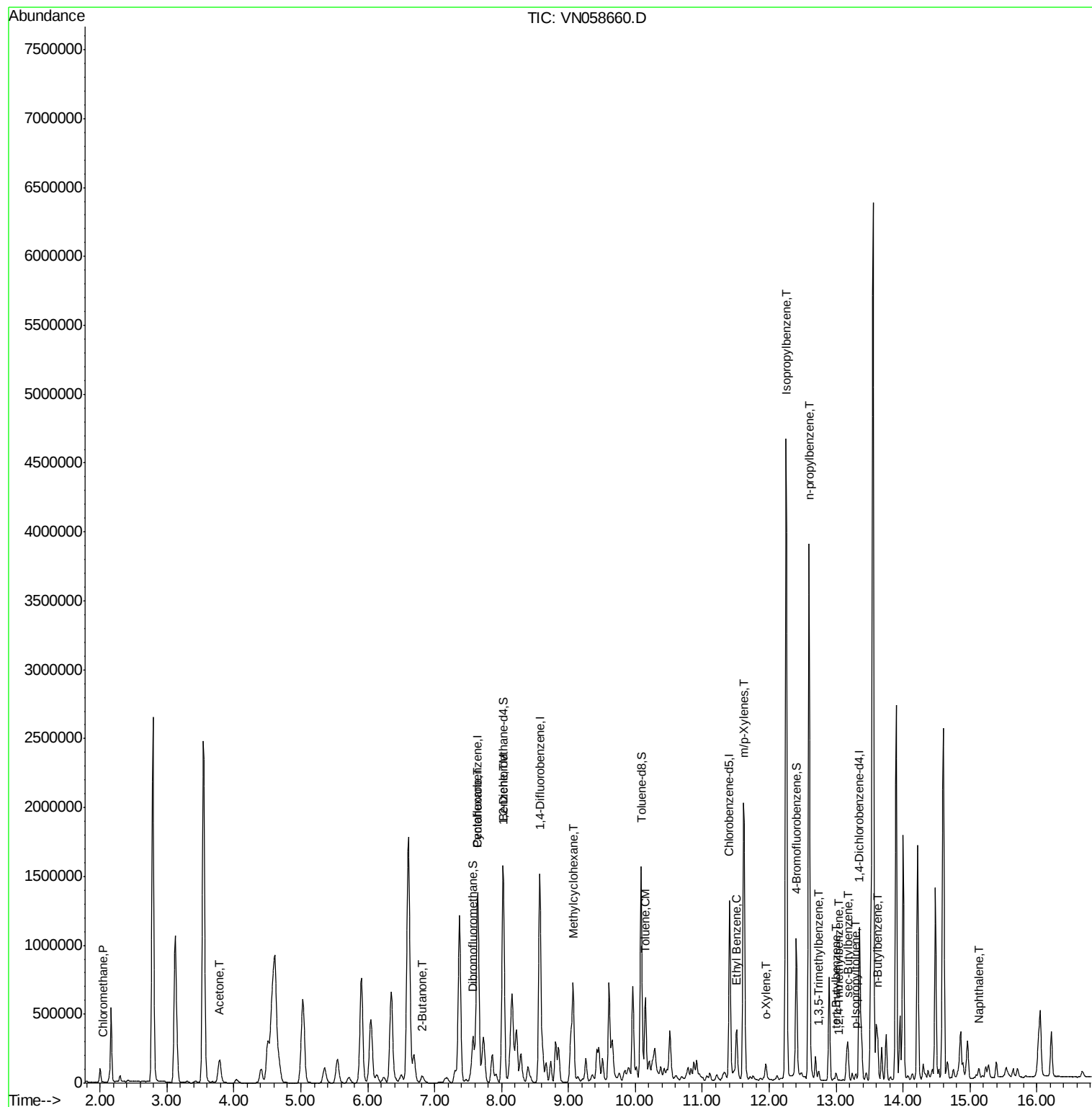
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN101019\  
Data File : VN058660.D  
Acq On : 9 Oct 2019 22:50  
Operator : JC/SP  
Sample : K5184-05  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 21 Sample Multiplier: 1

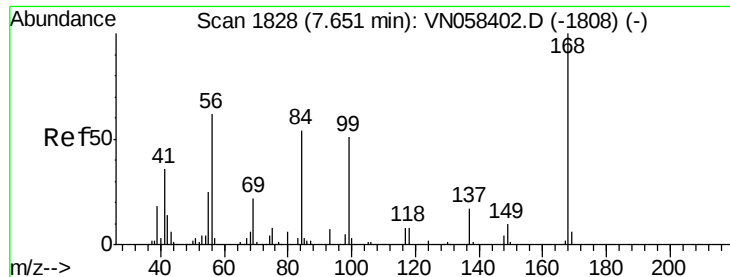
Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-4

Quant Time: Oct 10 05:41:57 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N092719W.M  
Quant Title : SW846 8260  
QLast Update : Mon Sep 30 08:07:38 2019  
Response via : Initial Calibration

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. -0.00 min

Lab File: VN058660.D

Acq: 9 Oct 2019 22:50

Instrument :

MSVOA\_N

ClientSampled :

MW-4

Tot Ion:168 Resp: 510159

Ion Ratio Lower Upper

168 100

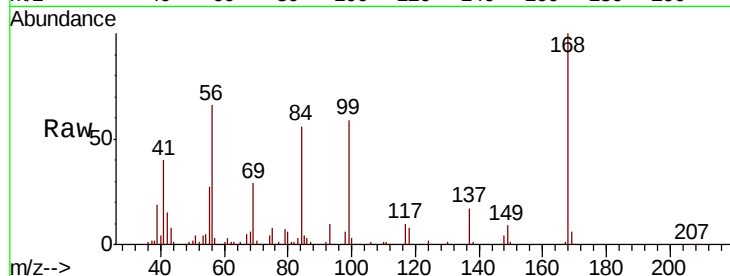
99 58.6 47.7 71.5

Manual Integrations

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Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

250000

200000

150000

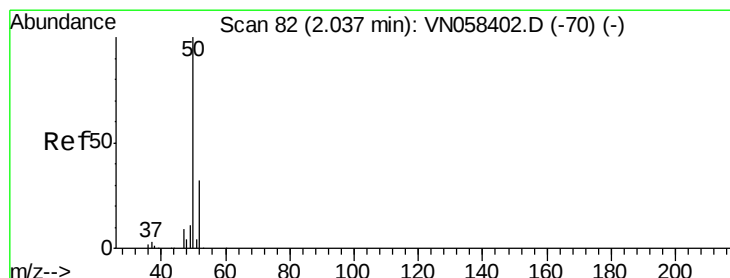
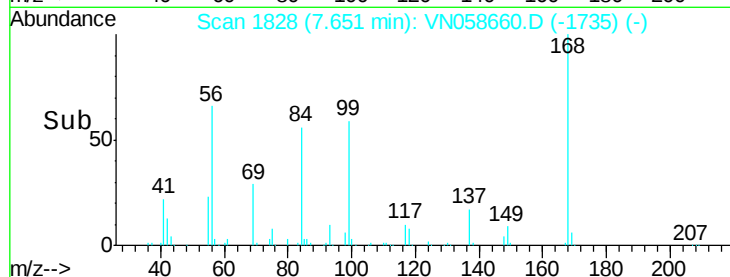
100000

50000

0

7.60 7.70 7.80

Time-->



#3

Chloromethane

Concen: 0.599 ug/l

RT: 2.04 min Scan# 83

Delta R.T. 0.00 min

Lab File: VN058660.D

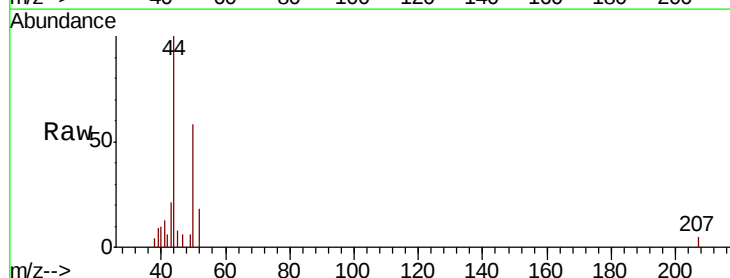
Acq: 9 Oct 2019 22:50

Tgt Ion: 50 Resp: 3683

Ion Ratio Lower Upper

50 100

52 30.4 25.9 38.9



Abundance Ion 49.90 (49.60 to 50.60): VNO

Ion 51.90 (51.60 to 52.60): VNO

2500

2000

1500

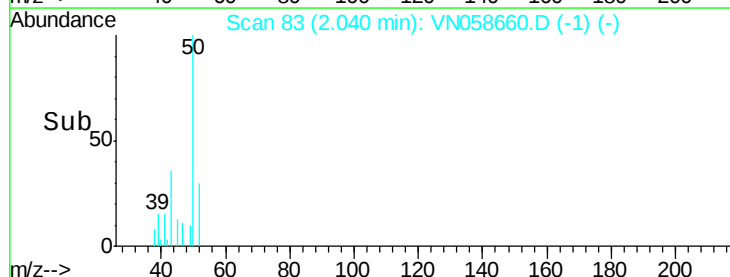
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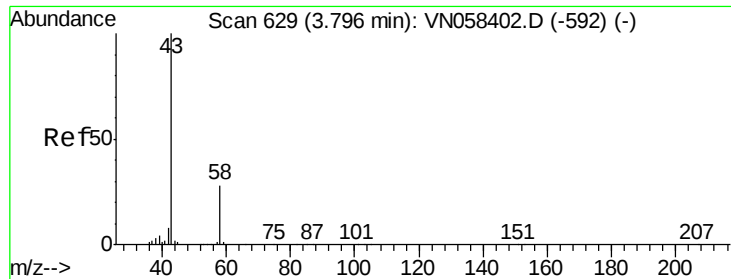
500

0

2.00 2.05 2.10

Time-->





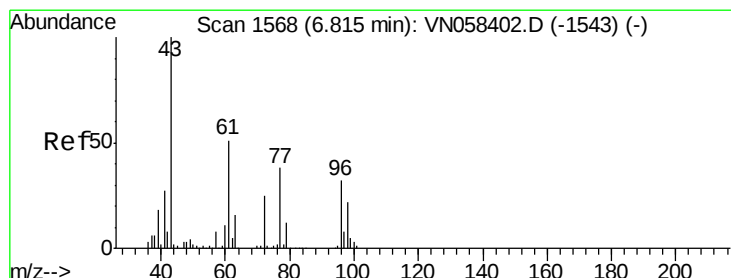
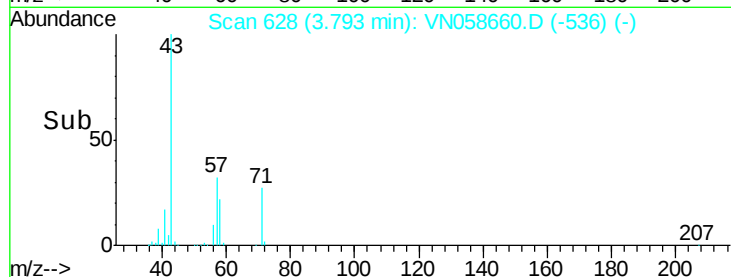
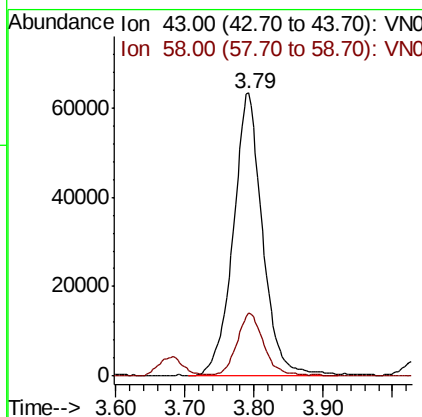
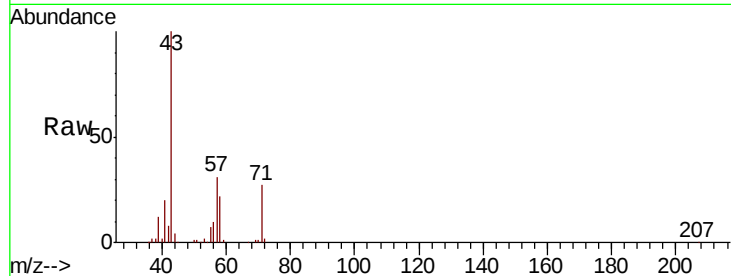
#16  
Acetone  
Concen: 73.702 ug/l  
RT: 3.79 min Scan# 628  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-4

Tot Ion: 43 Resp: 187305  
Ion Ratio Lower Upper  
43 100  
58 21.8 22.4 33.6#

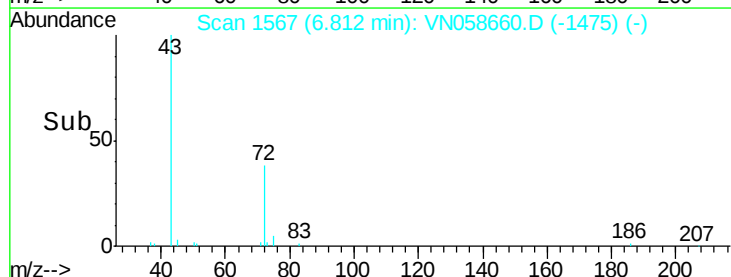
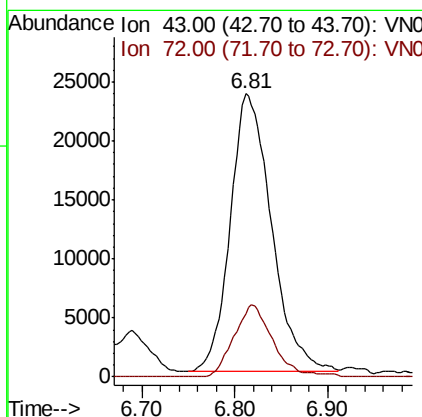
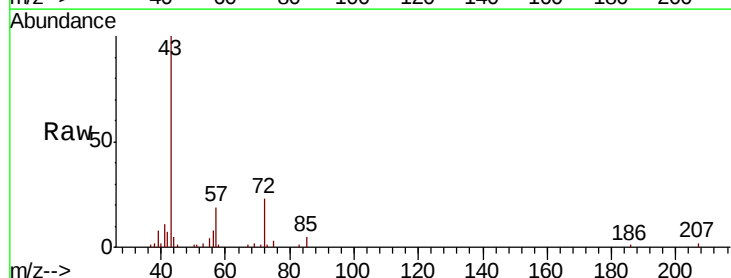
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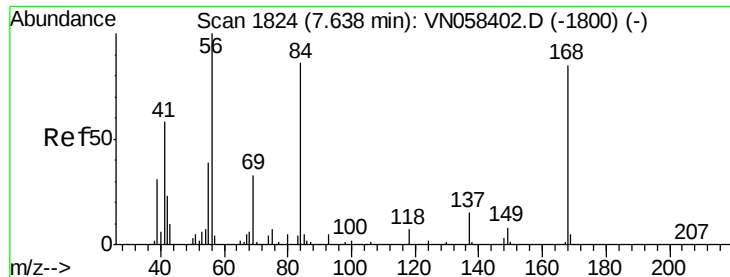
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#25  
2-Butanone  
Concen: 20.865 ug/l  
RT: 6.81 min Scan# 1567  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Tgt Ion: 43 Resp: 72802  
Ion Ratio Lower Upper  
43 100  
72 23.0 20.2 30.4





#31

Cyclohexane

Concen: 50.321 ug/l

RT: 7.64 min Scan# 1824

Delta R.T. -0.00 min

Lab File: VN058660.D

Acq: 9 Oct 2019 22:50

Instrument :

MSVOA\_N

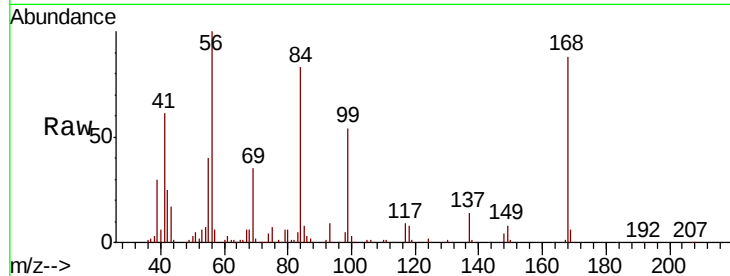
ClientSampled :

MW-4

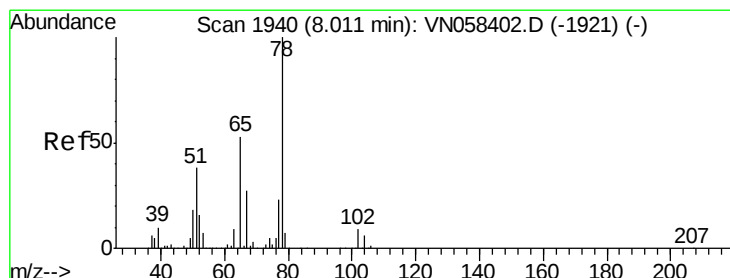
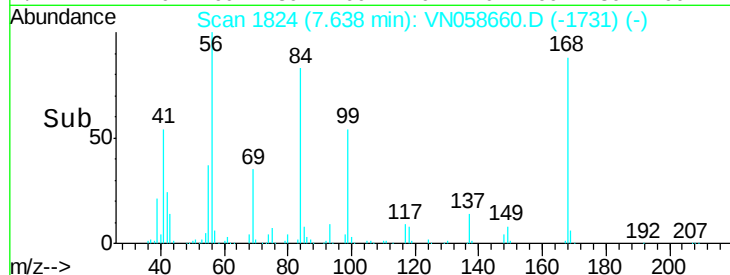
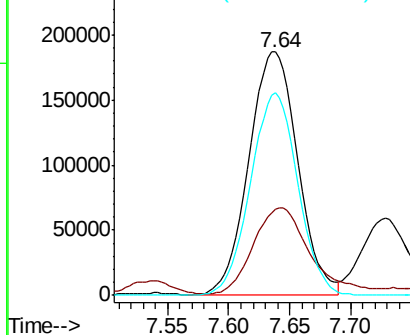
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 56    | Resp: | 519193 |
| Ion Ratio | Lower | Upper |        |
| 56        | 100   |       |        |
| 69        | 34.1  | 26.2  | 39.4   |
| 84        | 83.2  | 67.6  | 101.4  |

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



#33

1,2-Dichloroethane-d4

Concen: 44.974 ug/l

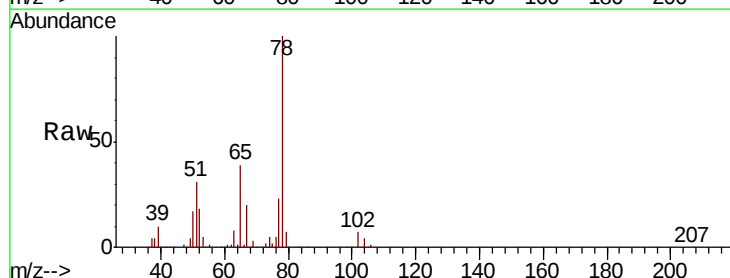
RT: 8.01 min Scan# 1940

Delta R.T. -0.00 min

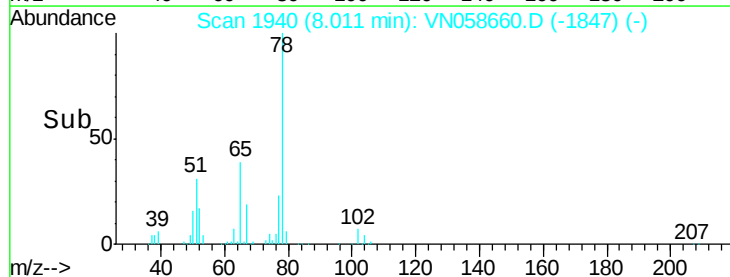
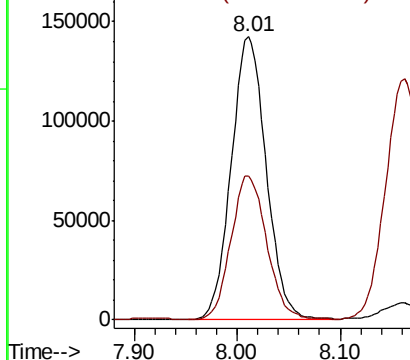
Lab File: VN058660.D

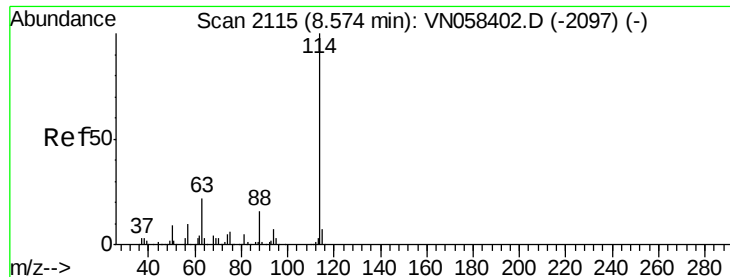
Acq: 9 Oct 2019 22:50

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 65    | Resp: | 335287 |
| Ion Ratio | Lower | Upper |        |
| 65        | 100   |       |        |
| 67        | 52.1  | 0.0   | 102.4  |



Abundance Ion 64.90 (64.60 to 65.60): VNO  
Ion 66.90 (66.60 to 67.60): VNO





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.57 min Scan# 2115

Delta R.T. -0.00 min

Lab File: VN058660.D

Acq: 9 Oct 2019 22:50

Instrument :

MSVOA\_N

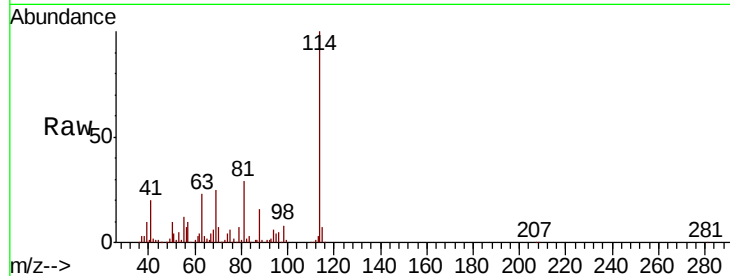
ClientSampled :

MW-4

|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 114  | Resp: | 801892 |
| Ion Ratio |      | Lower | Upper  |
| 114       | 100  |       |        |
| 63        | 22.8 | 0.0   | 45.0   |
| 88        | 15.9 | 0.0   | 32.2   |

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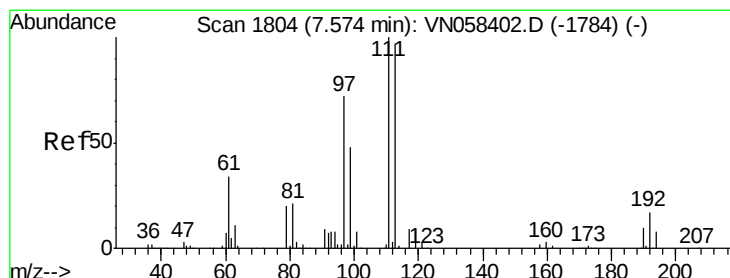
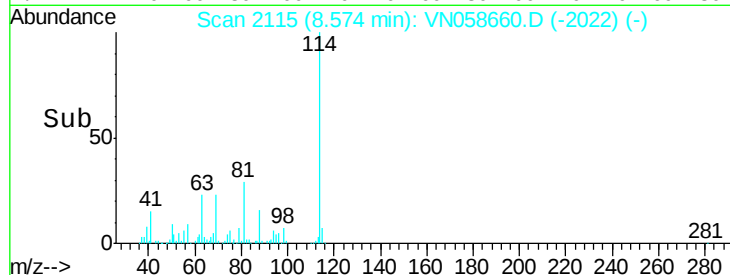
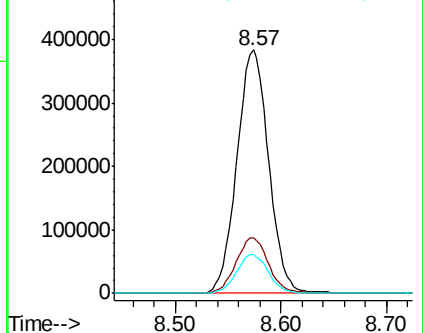
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Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VN

Ion 87.90 (87.60 to 88.60): VN



#35

Dibromofluoromethane

Concen: 50.048 ug/l

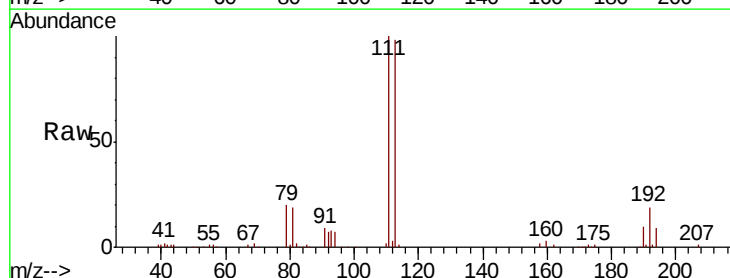
RT: 7.57 min Scan# 1804

Delta R.T. -0.00 min

Lab File: VN058660.D

Acq: 9 Oct 2019 22:50

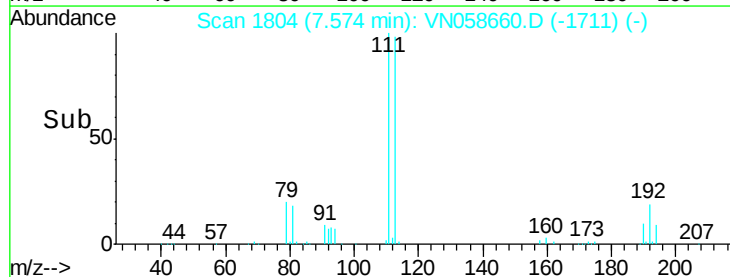
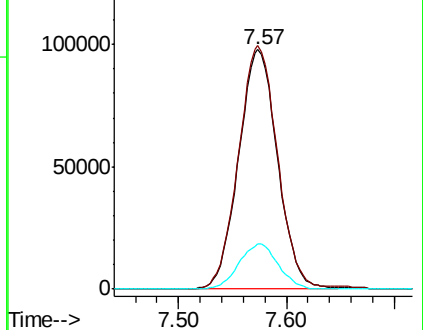
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 113   | Resp: | 245971 |
| Ion Ratio |       | Lower | Upper  |
| 113       | 100   |       |        |
| 111       | 102.7 | 83.4  | 125.2  |
| 192       | 19.1  | 14.9  | 22.3   |

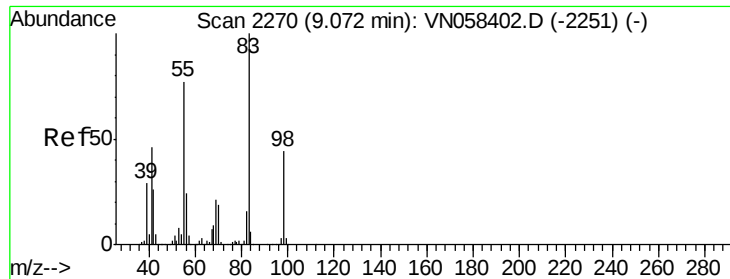


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





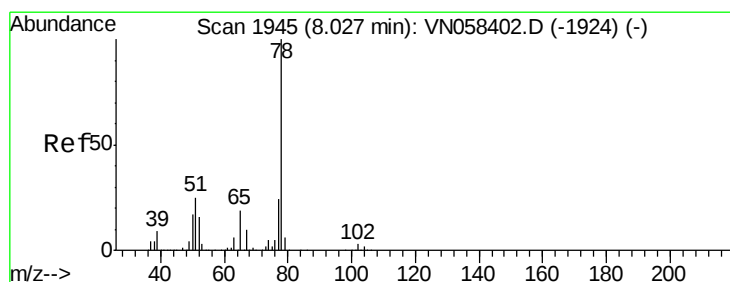
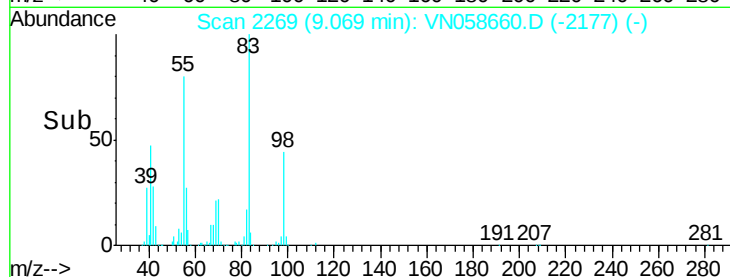
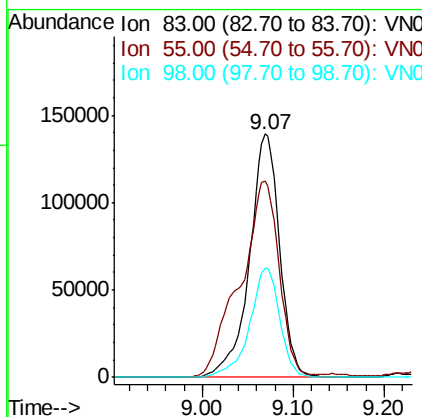
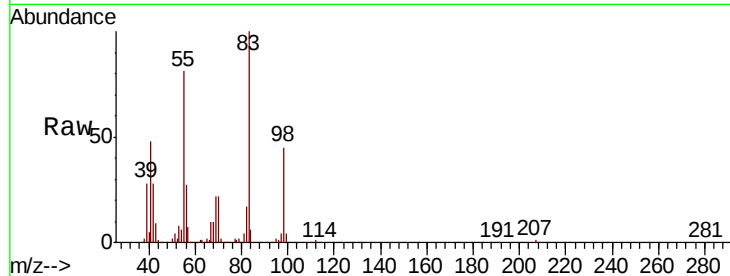
#39  
Methvlcvclohexane  
Concen: 35.633 ug/l  
RT: 9.07 min Scan# 2269  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 80.6  | 61.8  | 92.6  |
| 98      | 44.7  | 35.4  | 53.0  |

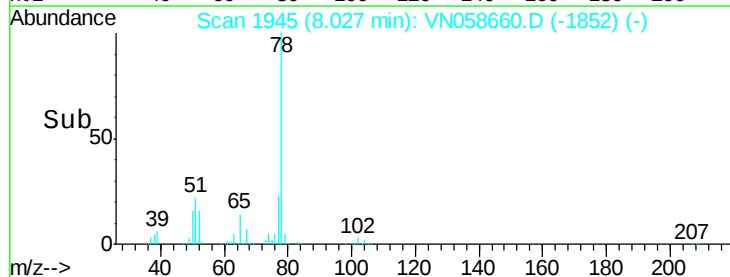
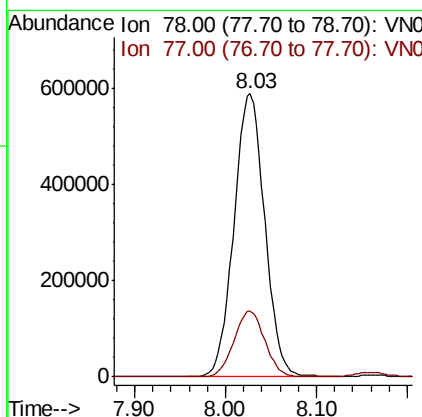
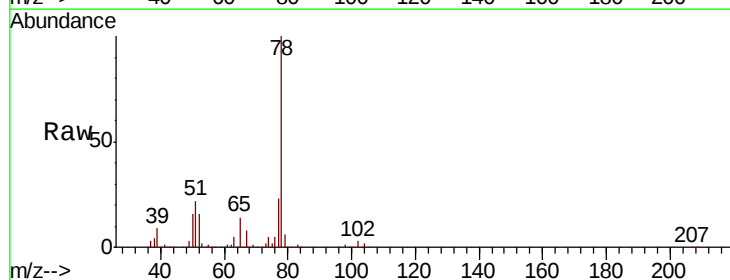
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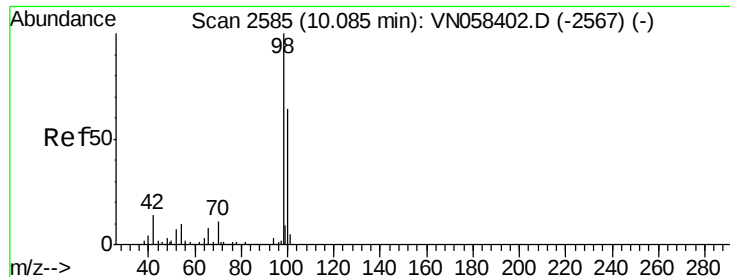
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10/10/2019 3:19:54 PM



#40  
Benzene  
Concen: 62.914 ug/l  
RT: 8.03 min Scan# 1945  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 23.2  | 18.9  | 28.3  |





#50

Toluene-d8

Concen: 52.471 ug/l

RT: 10.08 min Scan# 2585

Delta R.T. -0.00 min

Lab File: VN058660.D

Acq: 9 Oct 2019 22:50

Instrument :

MSVOA\_N

ClientSampleId :

MW-4

Tot Ion: 98 Resp: 1010231

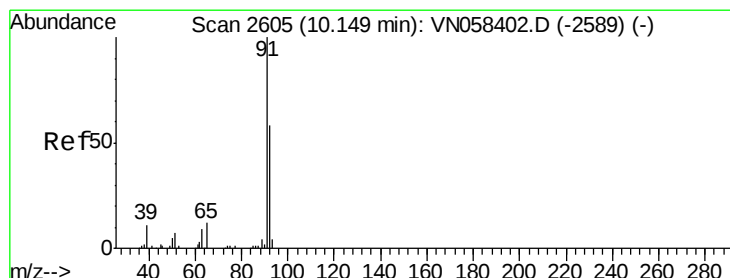
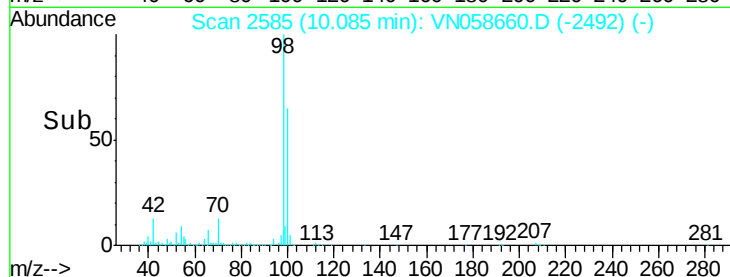
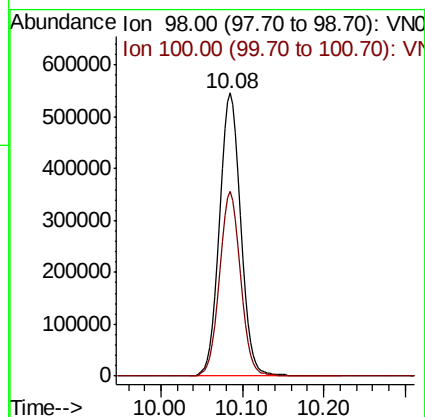
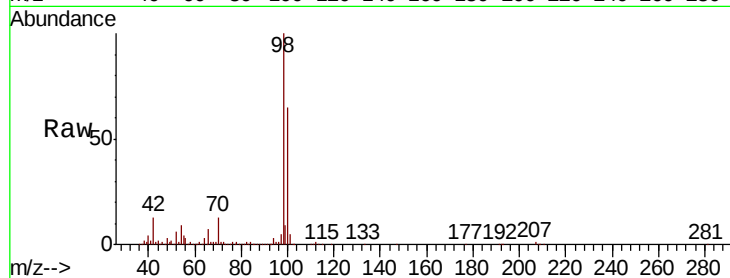
Ion Ratio Lower Upper

98 100

100 64.7 51.0 76.6

Manual Integrations  
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#52

Toluene

Concen: 17.611 ug/l

RT: 10.15 min Scan# 2605

Delta R.T. -0.00 min

Lab File: VN058660.D

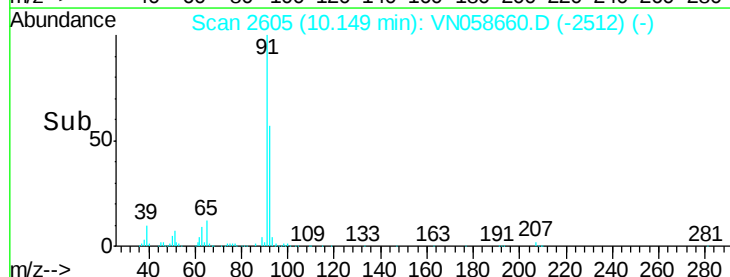
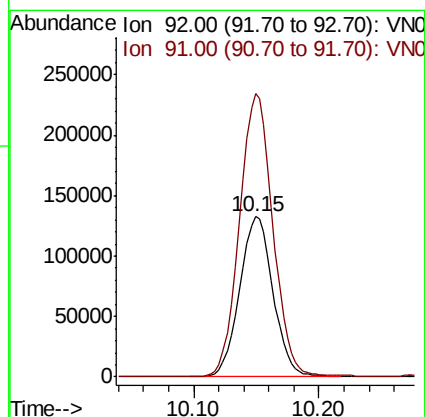
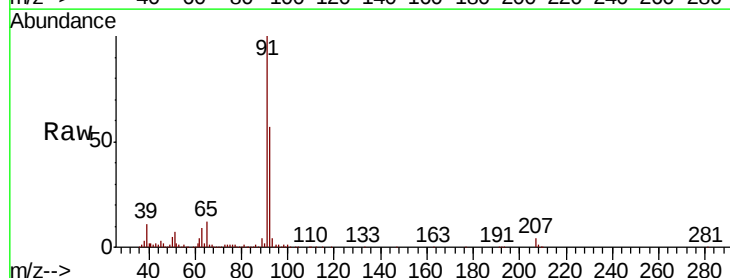
Acq: 9 Oct 2019 22:50

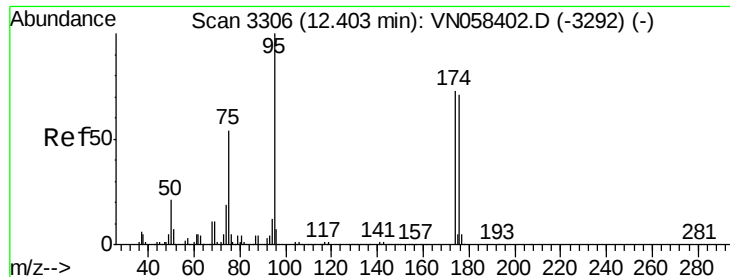
Tgt Ion: 92 Resp: 244318

Ion Ratio Lower Upper

92 100

91 177.2 140.2 210.4





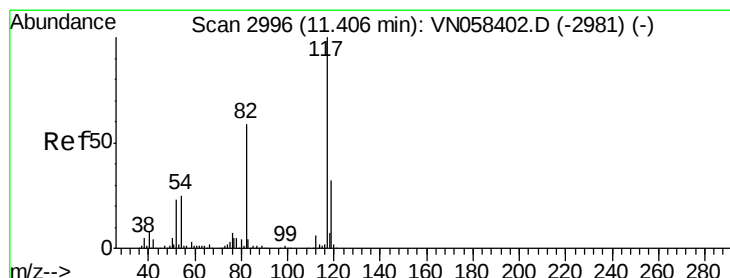
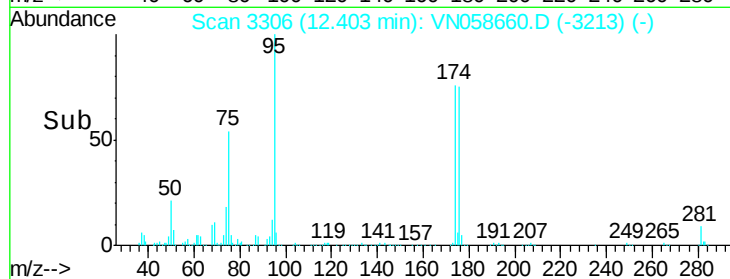
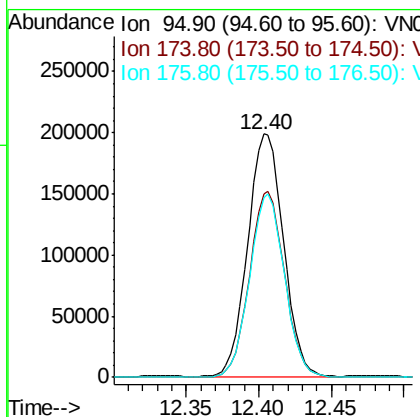
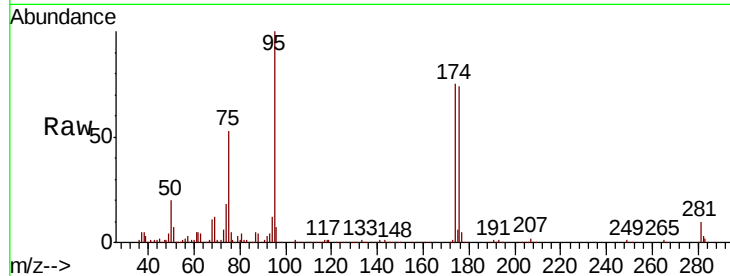
#62  
4-Bromofluorobenzene  
Concen: 48.963 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-4

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 95      | 100   | 340857 |       |       |
| 174     | 75.2  | 0.0    | 150.6 |       |
| 176     | 73.9  | 0.0    | 146.2 |       |

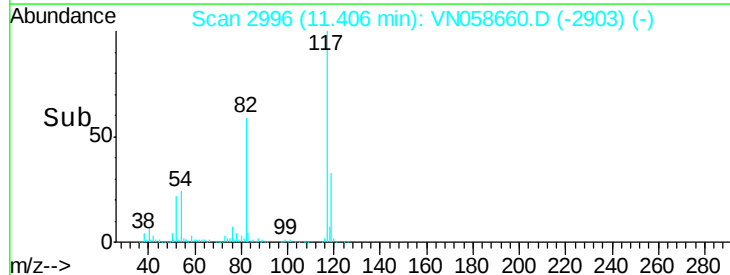
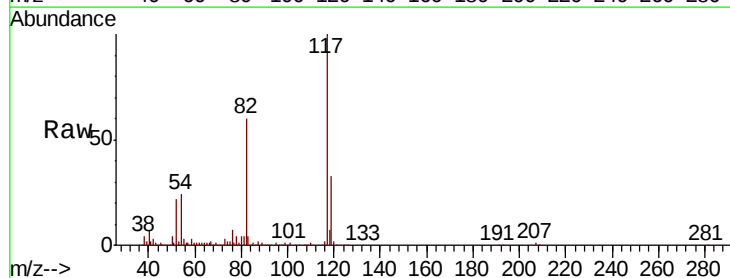
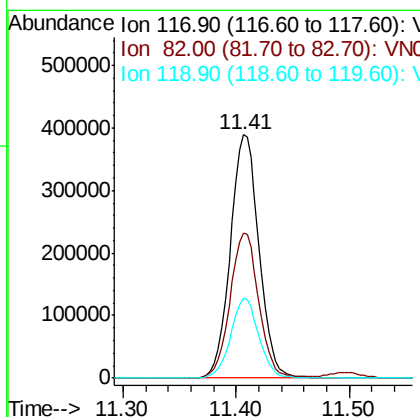
Manual Integrations  
APPROVED

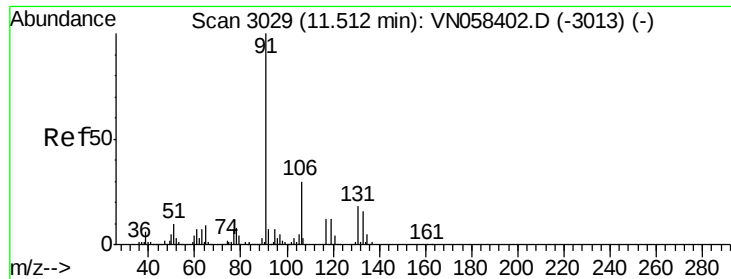
MMDadoda  
10/10/2019 3:19:54 PM



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2996  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 117     | 100   | 683431 |       |       |
| 82      | 59.6  | 47.4   | 71.0  |       |
| 119     | 32.5  | 25.5   | 38.3  |       |





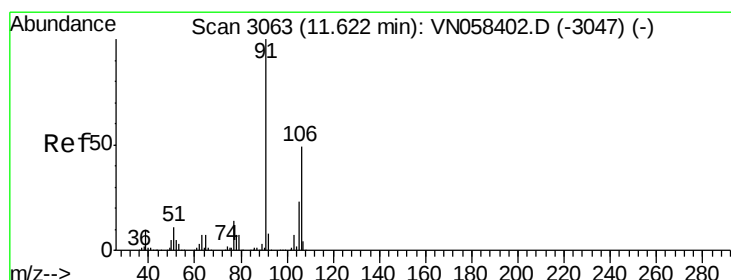
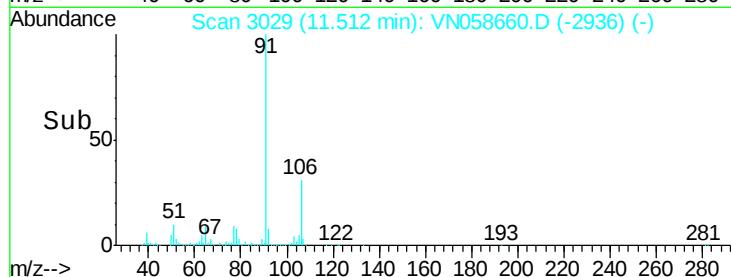
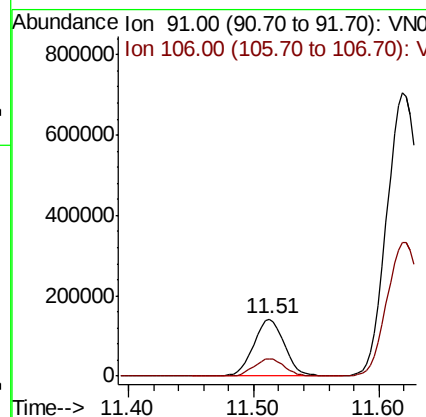
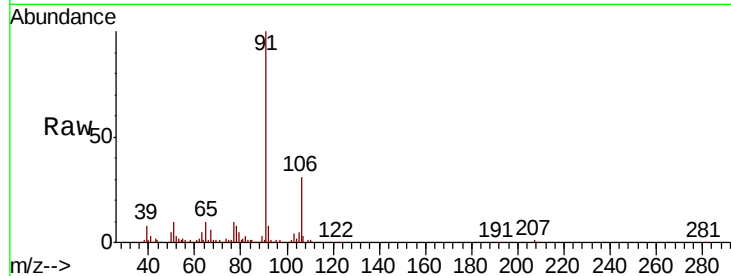
#67  
Ethyl Benzene  
Concen: 9.774 ug/l  
RT: 11.51 min Scan# 3029  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-4

Tot Ion: 91 Resp: 240513  
Ion Ratio Lower Upper  
91 100  
106 31.1 24.3 36.5

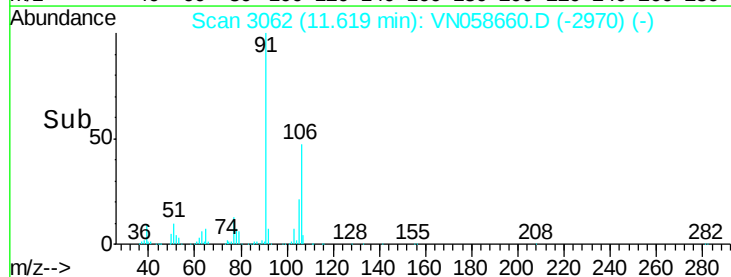
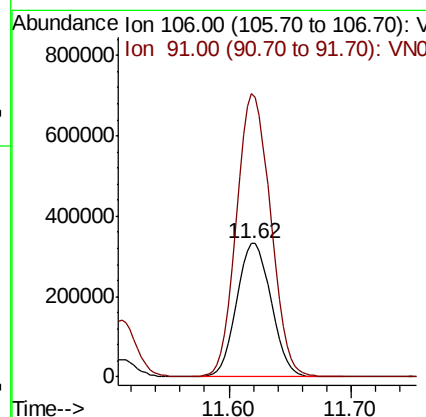
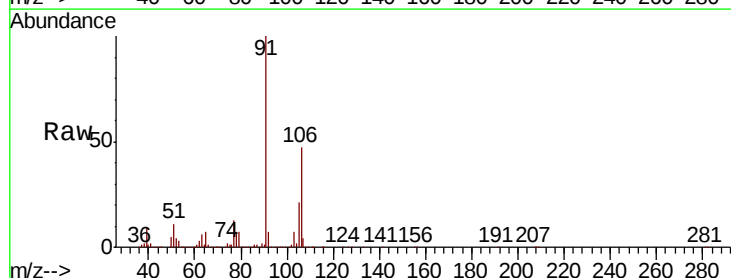
Manual Integrations  
APPROVED

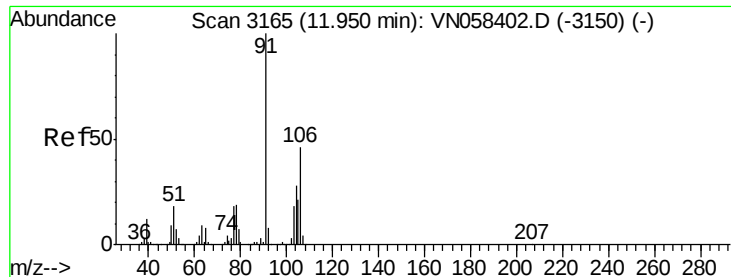
MMDadoda  
10/10/2019 3:19:54 PM



#68  
m/p-Xylenes  
Concen: 70.331 ug/l  
RT: 11.62 min Scan# 3062  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Tgt Ion: 106 Resp: 651118  
Ion Ratio Lower Upper  
106 100  
91 210.1 165.0 247.4





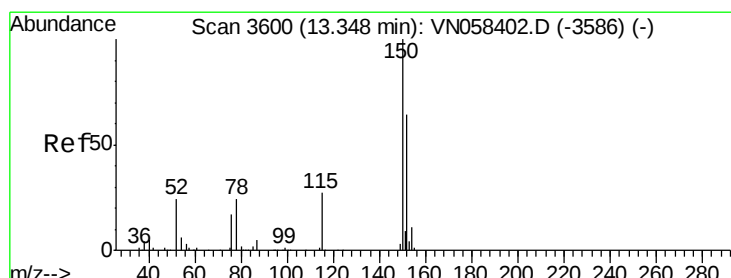
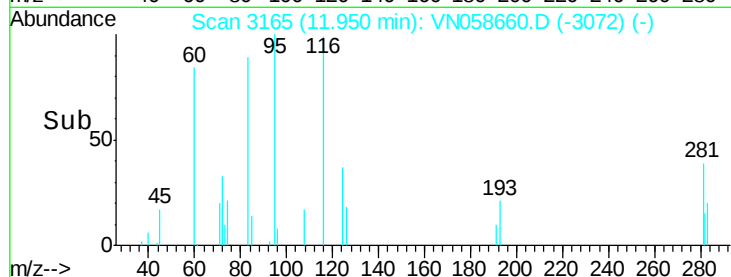
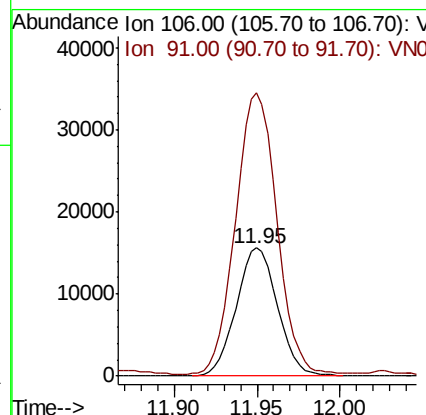
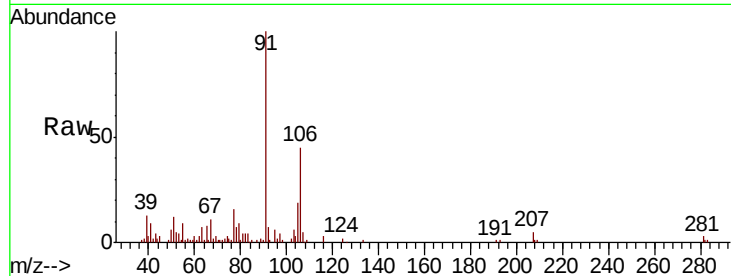
#69  
o-Xylene  
Concen: 3.024 ug/l  
RT: 11.95 min Scan# 3165  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 100   |       |       |
| 91      | 219.8 | 109.1 | 327.4 |

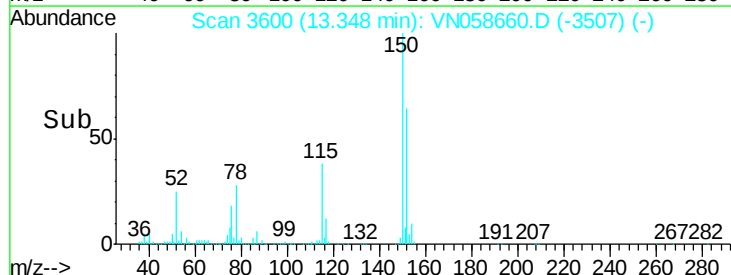
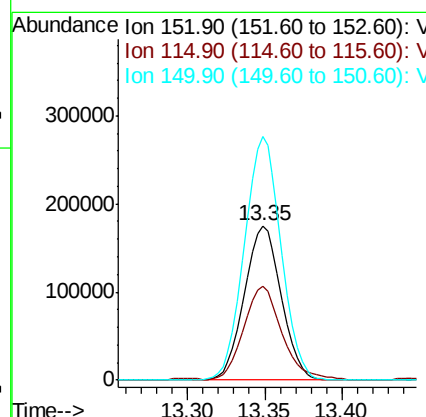
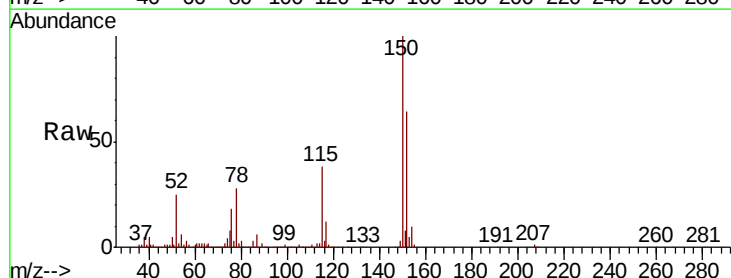
Manual Integrations  
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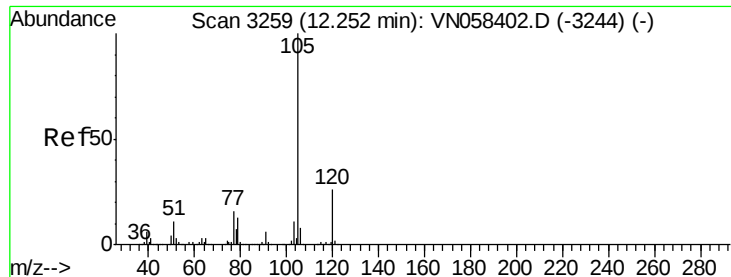
MMDadoda  
10/10/2019 3:19:54 PM



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.35 min Scan# 3600  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 62.2  | 30.0  | 90.0  |
| 150     | 156.7 | 0.0   | 348.2 |





#73

Isopropylbenzene

Concen: 141.123 ug/l

RT: 12.25 min Scan# 3259

Delta R.T. -0.00 min

Lab File: VN058660.D

Acq: 9 Oct 2019 22:50

Instrument :

MSVOA\_N

ClientSampled :

MW-4

Tot Ion:105 Resp: 3029289

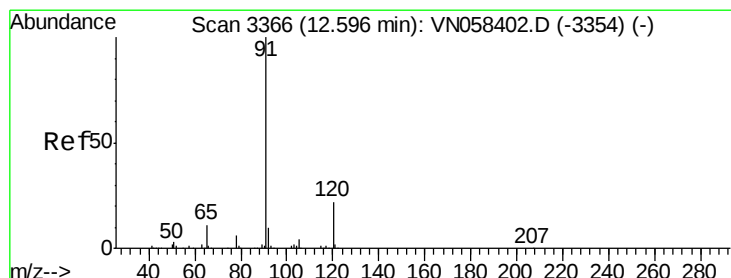
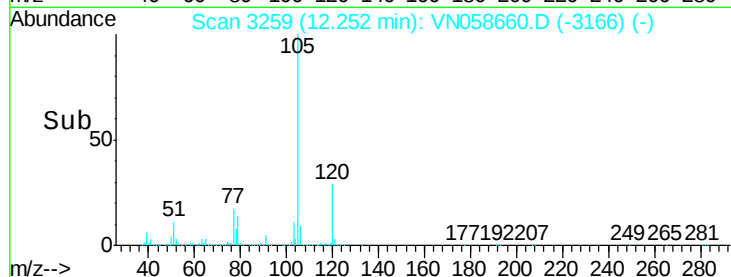
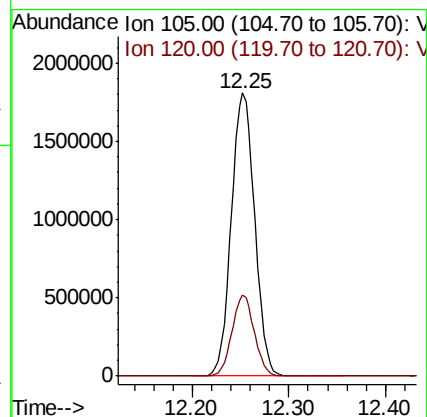
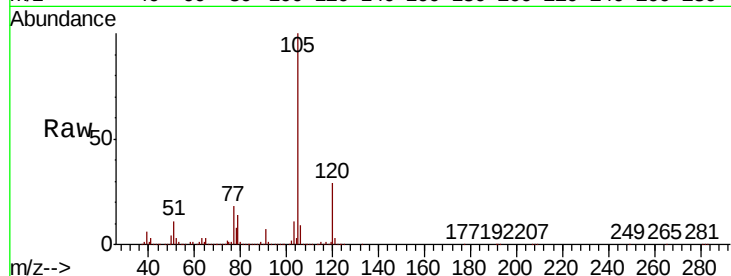
Ion Ratio Lower Upper

105 100

120 27.3 12.8 38.4

Manual Integrations  
APPROVED

MMDadoda  
10/10/2019 3:19:54 PM



#78

n-propylbenzene

Concen: 129.530 ug/l

RT: 12.60 min Scan# 3366

Delta R.T. -0.00 min

Lab File: VN058660.D

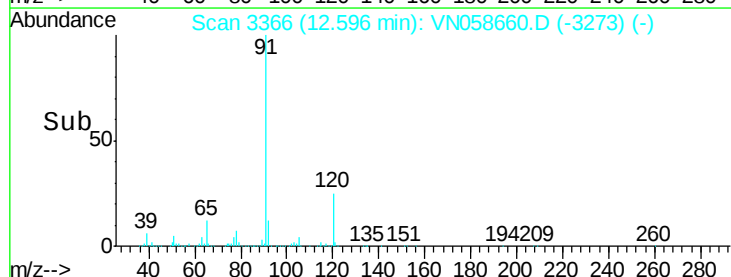
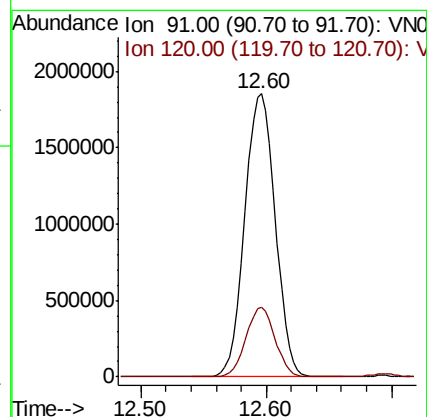
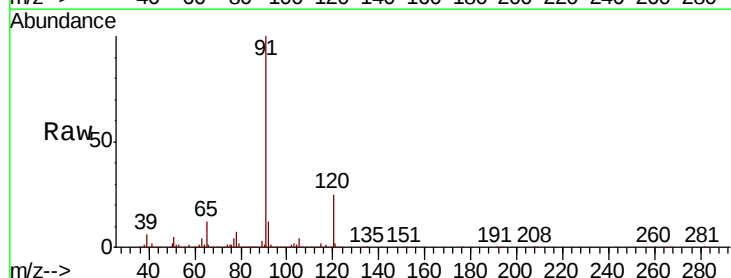
Acq: 9 Oct 2019 22:50

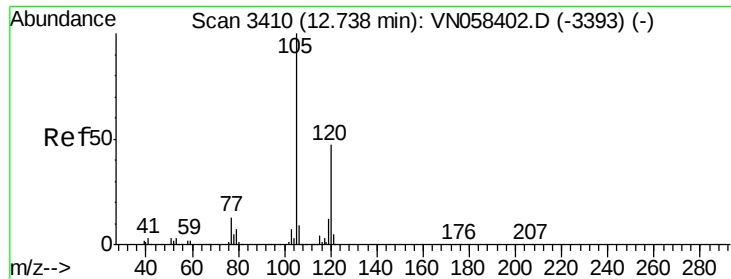
Tgt Ion: 91 Resp: 3132462

Ion Ratio Lower Upper

91 100

120 23.5 10.9 32.9





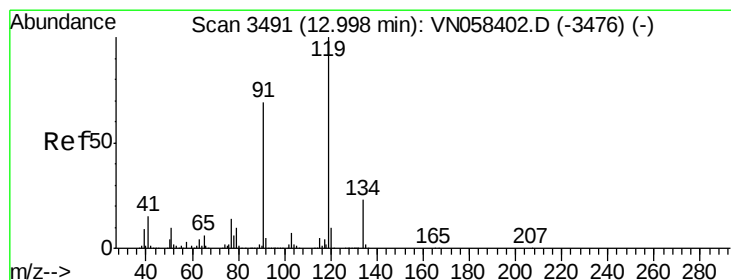
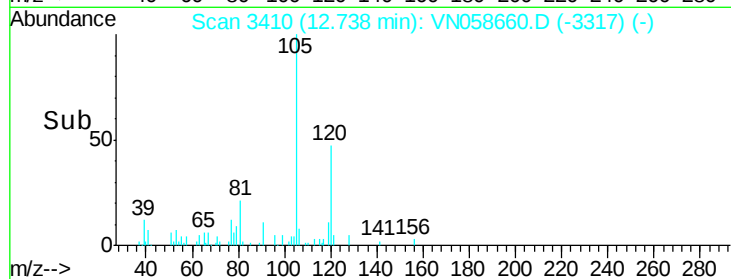
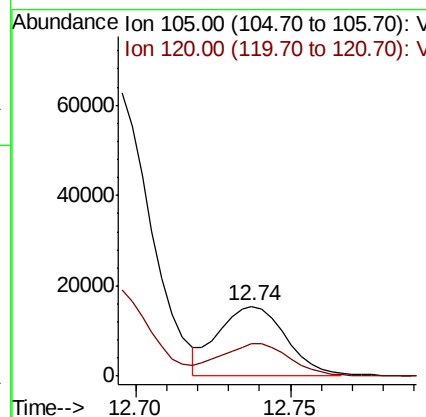
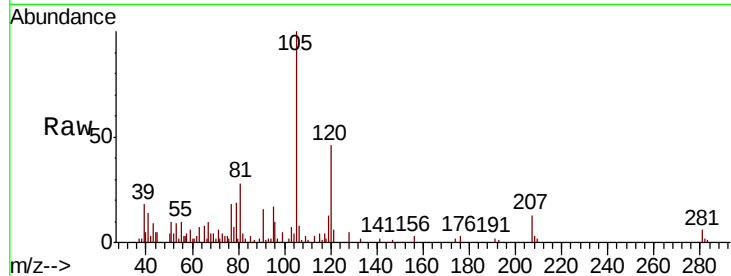
#80  
 1,3,5-Trimethylbenzene  
 Concen: 1.327 ug/l m  
 RT: 12.74 min Scan# 3410  
 Delta R.T. -0.00 min  
 Lab File: VN058660.D  
 Acq: 9 Oct 2019 22:50

Instrument :  
 MSVOA\_N  
 ClientSampled :  
 MW-4

Tot Ion:105 Resp: 23838  
 Ion Ratio Lower Upper  
 105 100  
 120 124.6 23.5 70.6#

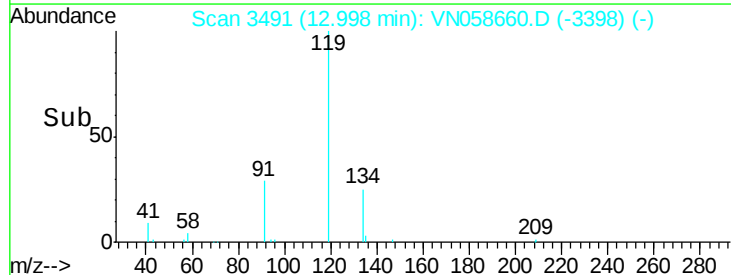
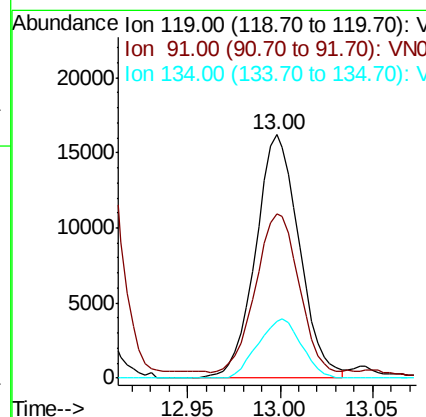
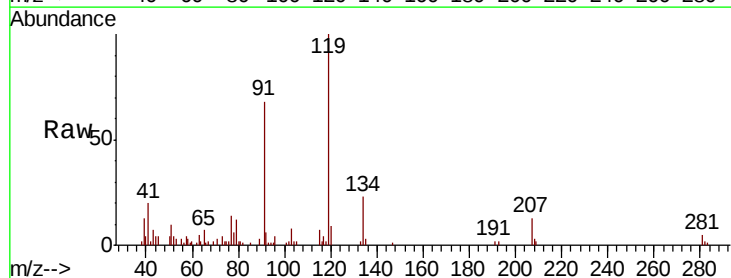
Manual Integrations  
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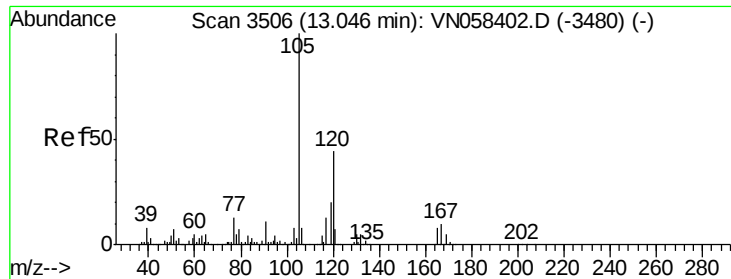
MMDadoda  
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#83  
 tert-Butylbenzene  
 Concen: 1.758 ug/l  
 RT: 13.00 min Scan# 3491  
 Delta R.T. -0.00 min  
 Lab File: VN058660.D  
 Acq: 9 Oct 2019 22:50

Tgt Ion:119 Resp: 26662  
 Ion Ratio Lower Upper  
 119 100  
 91 64.0 34.2 102.6  
 134 24.0 11.6 34.8





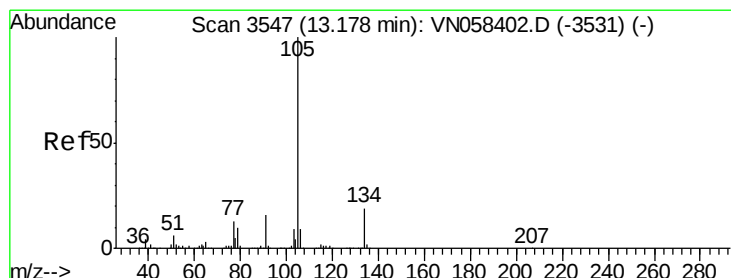
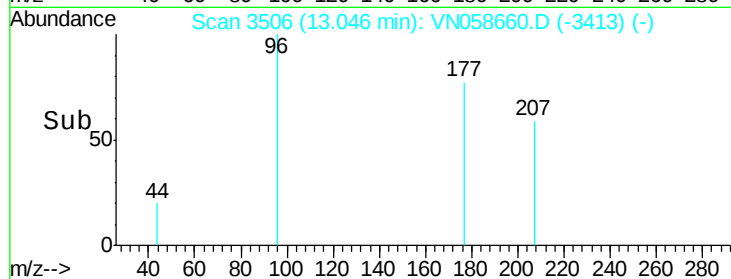
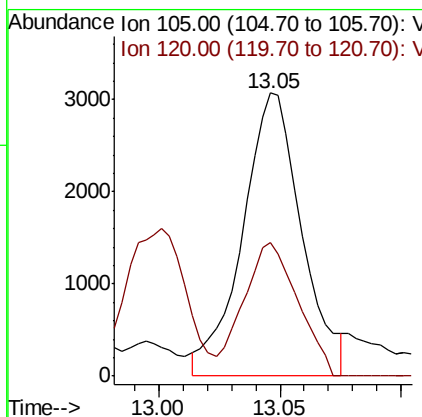
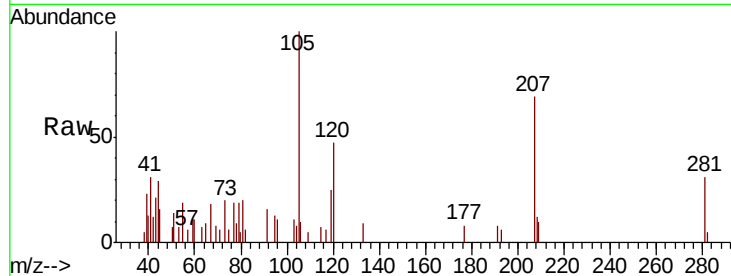
#84  
 1,2,4-Trimethylbenzene  
 Concen: 0.289 ug/l m  
 RT: 13.05 min Scan# 3506  
 Delta R.T. -0.00 min  
 Lab File: VN058660.D  
 Acq: 9 Oct 2019 22:50

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-4

Tot Ion:105 Resp: 5199  
 Ion Ratio Lower Upper  
 105 100  
 120 2793.1 21.7 65.1

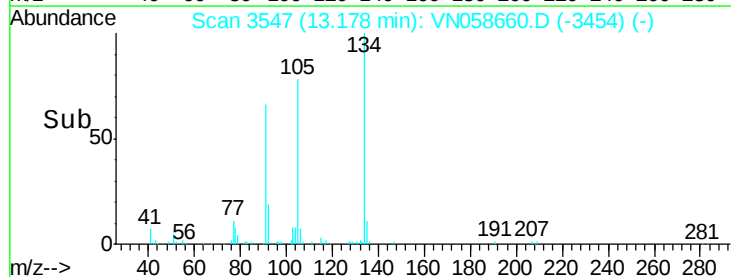
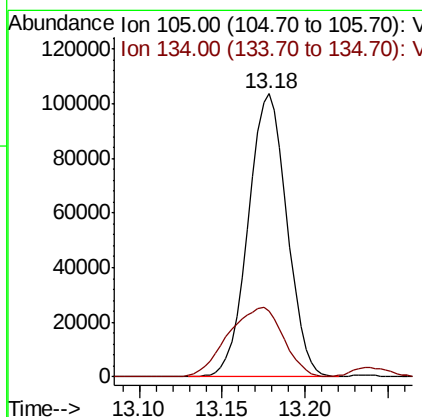
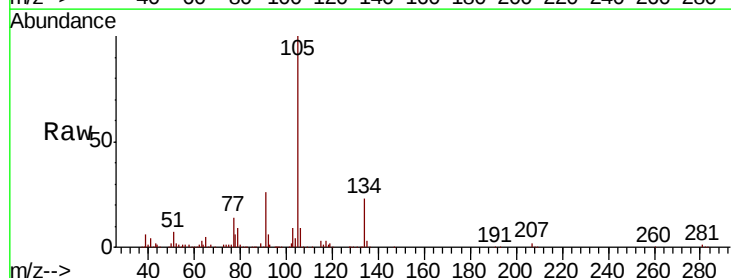
Manual Integrations  
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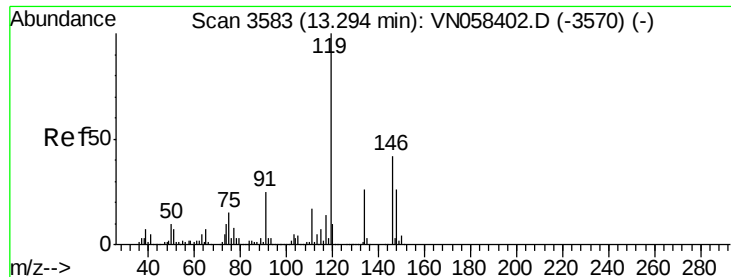
MMDadoda  
 10/10/2019 3:19:54 PM



#85  
 sec-Butylbenzene  
 Concen: 8.432 ug/l  
 RT: 13.18 min Scan# 3547  
 Delta R.T. -0.00 min  
 Lab File: VN058660.D  
 Acq: 9 Oct 2019 22:50

Tgt Ion:105 Resp: 168277  
 Ion Ratio Lower Upper  
 105 100  
 134 35.1 9.4 28.2#





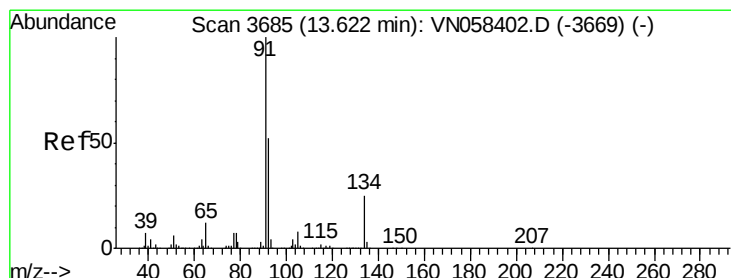
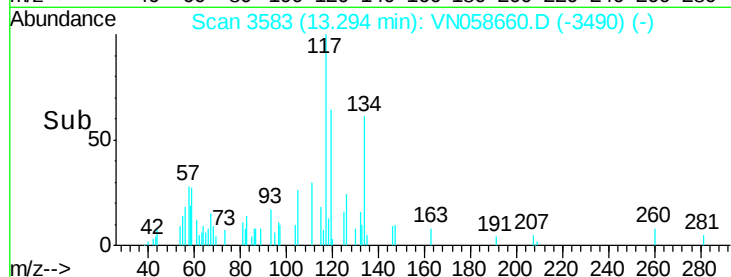
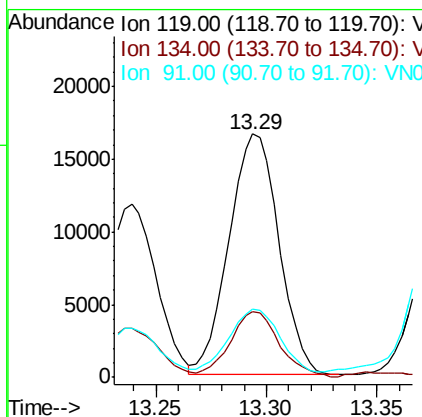
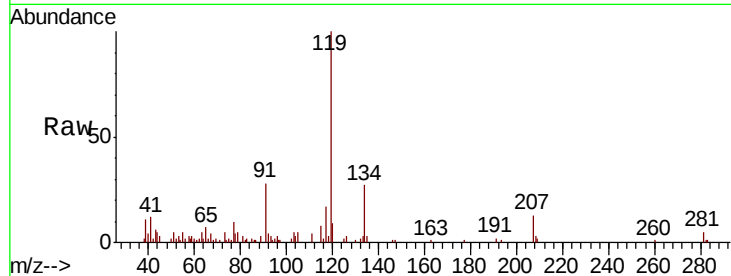
#86  
p-Isopropyltoluene  
Concen: 1.483 ug/l  
RT: 13.29 min Scan# 3583  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 27.0  | 13.0  | 39.0  |
| 91      | 0.0   | 12.4  | 37.0# |

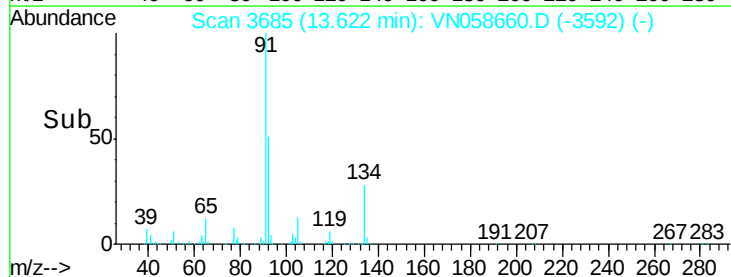
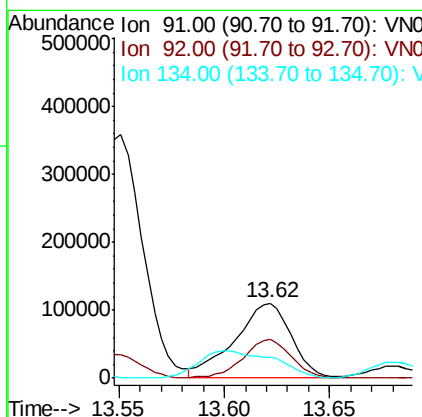
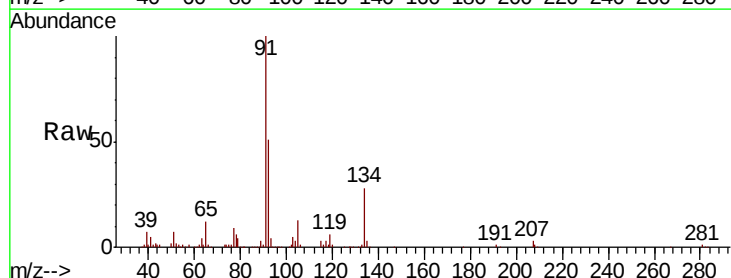
Manual Integrations  
APPROVED

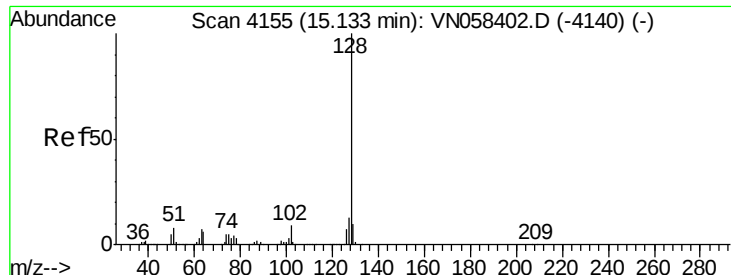
MMDadoda  
10/10/2019 3:19:54 PM



#89  
n-Butylbenzene  
Concen: 12.881 ug/l  
RT: 13.62 min Scan# 3685  
Delta R.T. -0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 44.2  | 25.7  | 77.1  |
| 134     | 0.0   | 12.2  | 36.6# |





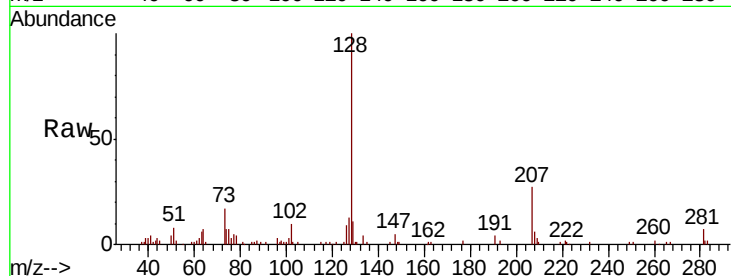
#95  
Naphthalene  
Concen: 3.545 ug/l  
RT: 15.13 min Scan# 4155  
Delta R.T. 0.00 min  
Lab File: VN058660.D  
Acq: 9 Oct 2019 22:50

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 14.8  | 10.2  | 15.4  |
| 129     | 10.9  | 8.3   | 12.5  |

Manual Integrations  
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Abundance Ion 128.00 (127.70 to 128.70): V  
Ion 127.00 (126.70 to 127.70): V  
Ion 129.00 (128.70 to 129.70): V

