

Data Path : Z:\HPCHEM1\BNA M\DATA\BM121915\  
 Data File : BM003624.D  
 Acq On : 19 Dec 2015 17:44  
 Operator : UM/SJ  
 Sample : G4801-16  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 G9C64

Manual Integrations  
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apatel  
 12/22/2015 11:57:13 AM

Quant Time: Jan 08 12:27:40 2016  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM121915.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Sun Dec 20 01:33:56 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.70  | 152  | 23227    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.49 | 136  | 124472   | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.35 | 164  | 87270    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.10 | 188  | 214153   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.30 | 240  | 286497   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 23.55 | 264  | 317619   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.16  | 96  | 1743   | 4.04  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.87  | 99  | 45664  | 23.33 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.03  | 67  | 27125  | 26.01 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.23  | 132 | 39862  | 24.95 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.40  | 113 | 42483  | 25.06 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.86  | 128 | 21688  | 24.02 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.57  | 143 | 24732  | 24.34 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.12 | 165 | 43399  | 23.40 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.63 | 131 | 49596  | 20.08 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 13.76 | 166 | 175428 | 24.32 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.05 | 160 | 198713 | 24.20 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.56 | 143 | 33894  | 24.12 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.35 | 176 | 152128 | 25.49 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.47 | 200 | 25262  | 20.93 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.20 | 188 | 254297 | 26.10 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.50 | 212 | 314601 | 25.14 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 23.41 | 264 | 419623 | 26.60 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |              | Ovalue |
|----------------------------|-------|-----|---------|--------------|--------|
| 6) Phenol                  | 6.90  | 94  | 2853    | 1.38 ng/ul#  | 95     |
| 28) Naphthalene            | 10.55 | 128 | 1357021 | 211.61 ng/ul | 99     |
| 34) 2-Methylnaphthalene    | 12.16 | 142 | 443748  | 92.66 ng/ul  | 100    |
| 41) 1,1'-Biphenyl          | 13.18 | 154 | 51473   | 7.26 ng/ul   | 100    |
| 45) Dimethylphthalate      | 13.81 | 163 | 107682  | 14.59 ng/ul  | 100    |
| 48) Acenaphthylene         | 14.07 | 152 | 44102   | 4.91 ng/ul#  | 90     |
| 50) Acenaphthene           | 14.42 | 153 | 48109   | 8.02 ng/ul   | 99     |
| 54) Dibenzofuran           | 14.75 | 168 | 12986   | 1.52 ng/ul#  | 86     |
| 59) Fluorene               | 15.40 | 166 | 82300   | 11.98 ng/ul  | 99     |
| 70) Phenanthrene           | 17.14 | 178 | 523373  | 44.18 ng/ul  | 100    |
| 72) Anthracene             | 17.23 | 178 | 108180  | 8.95 ng/ul   | 99     |
| 77) Fluoranthene           | 19.16 | 202 | 194166  | 14.26 ng/ul  | 99     |
| 80) Pyrene                 | 19.53 | 202 | 312735  | 18.97 ng/ul  | 98     |
| 83) Benzo(a)anthracene     | 21.29 | 228 | 137224m | 7.95 ng/ul   |        |
| 85) Chrysene               | 21.34 | 228 | 129464  | 7.77 ng/ul   | 97     |
| 88) Benzo(b)fluoranthene   | 22.87 | 252 | 90079   | 4.70 ng/ul   | 98     |
| 89) Benzo(k)fluoranthene   | 22.91 | 252 | 32681m  | 1.80 ng/ul   |        |
| 91) Benzo(a)pyrene         | 23.45 | 252 | 114250  | 6.24 ng/ul   | 98     |
| 92) Indeno(1,2,3-cd)pyrene | 25.80 | 276 | 41276m  | 2.09 ng/ul   |        |
| 94) Benzo(g,h,i)perylene   | 26.50 | 276 | 43798m  | 2.71 ng/ul   |        |

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

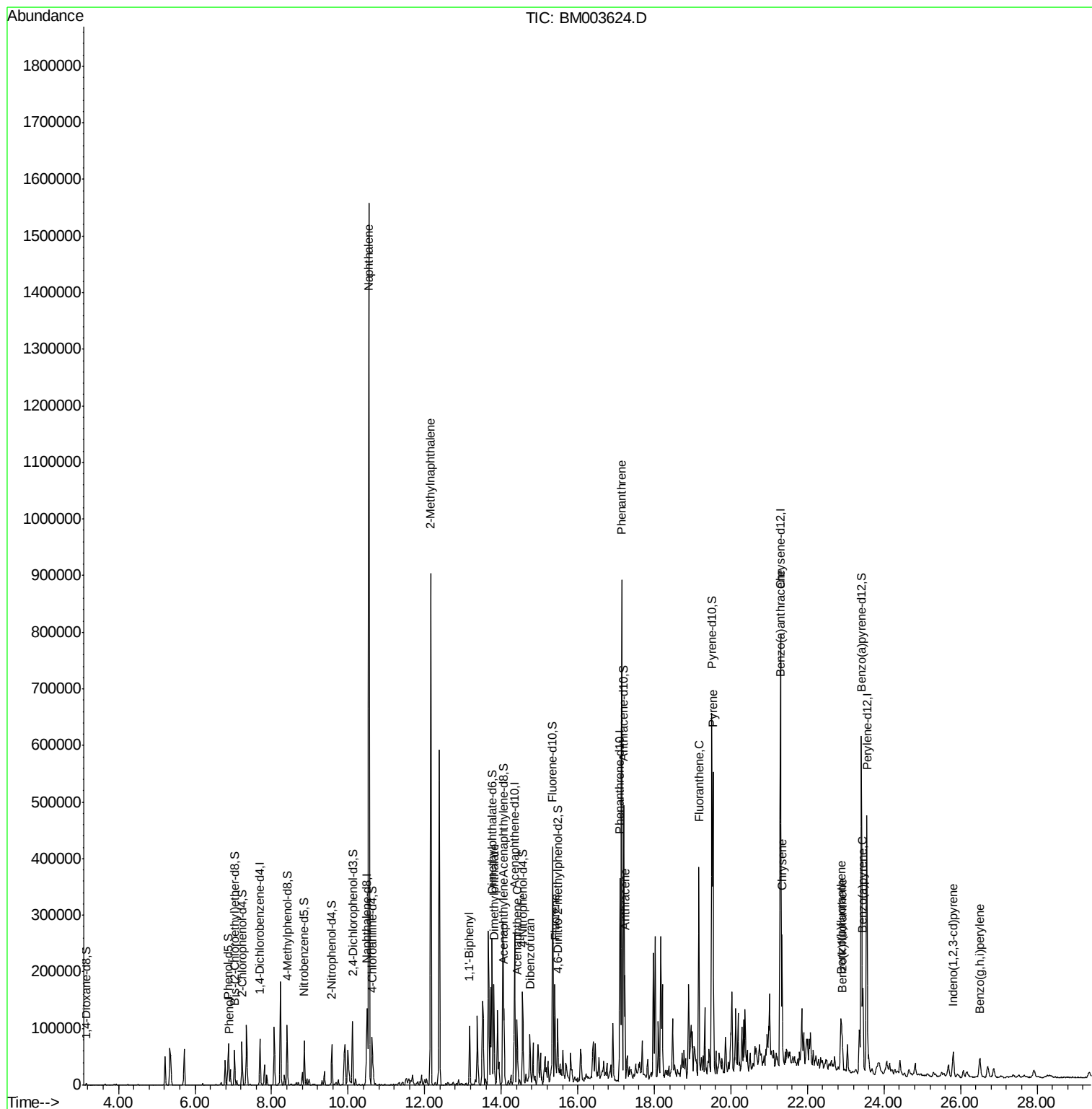
Data Path : Z:\HPCHEM1\BNA M\DATA\BM121915\  
Data File : BM003624.D  
Acq On : 19 Dec 2015 17:44  
Operator : UM/SJ  
Sample : G4801-16  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

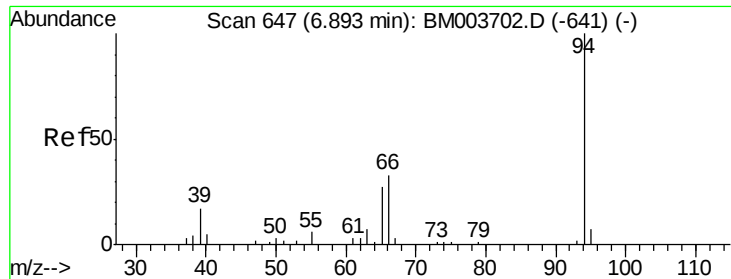
Instrument :  
BNA\_M  
ClientSampleId :  
G9C64

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Quant Time: Jan 08 12:27:40 2016  
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM121915.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Sun Dec 20 01:33:56 2015  
Response via : Initial Calibration





#6

Phenol

Concen: 1.38 ng/ul

RT: 6.90 min Scan# 648

Delta R.T. 0.00 min

Lab File: BM003624.D

Acq: 19 Dec 2015 17:44

Instrument :

BNA\_M

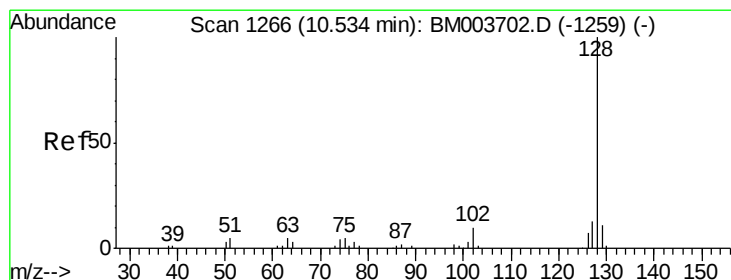
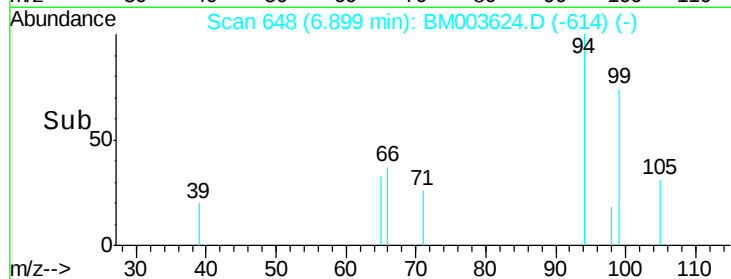
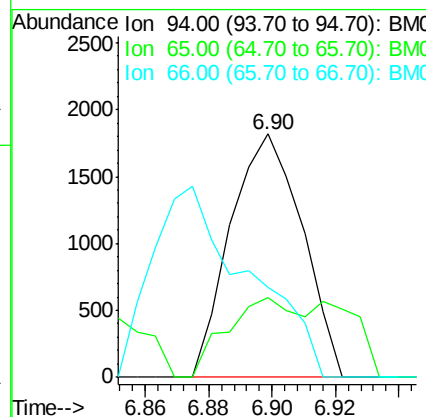
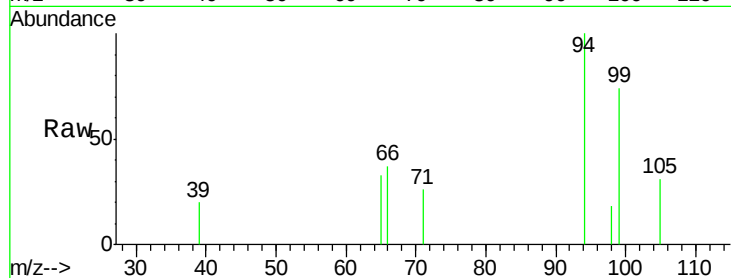
ClientSampleID :

G9C64

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 94    | Resp: | 2853  |
| Ion      | Ratio | Lower | Upper |
| 94       | 100   |       |       |
| 65       | 32.6  | 21.0  | 31.6# |
| 66       | 36.9  | 29.3  | 43.9  |

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#28

Naphthalene

Concen: 211.61 ng/ul

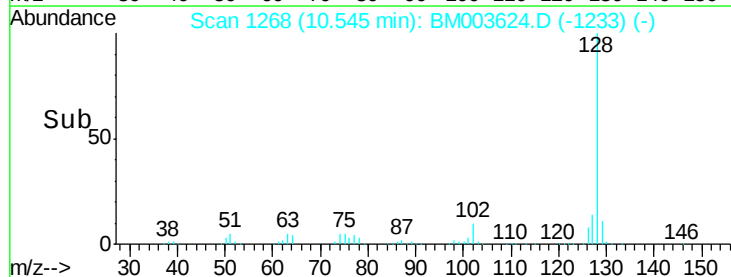
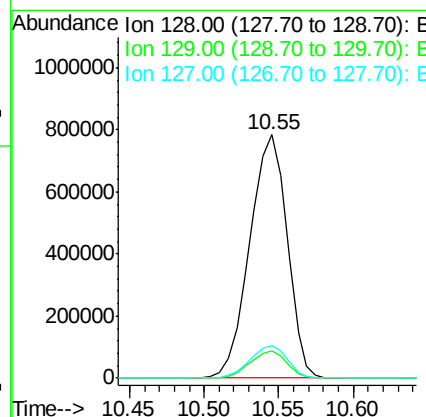
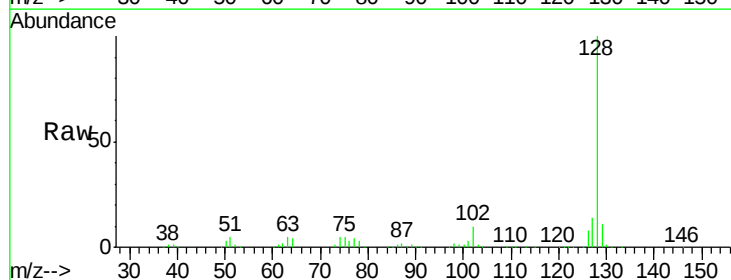
RT: 10.55 min Scan# 1268

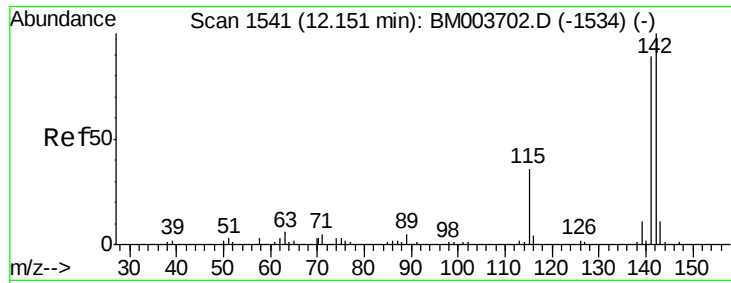
Delta R.T. 0.01 min

Lab File: BM003624.D

Acq: 19 Dec 2015 17:44

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 128   | Resp: | 1357021 |
| Ion      | Ratio | Lower | Upper   |
| 128      | 100   |       |         |
| 129      | 11.0  | 8.8   | 13.2    |
| 127      | 13.5  | 10.5  | 15.7    |





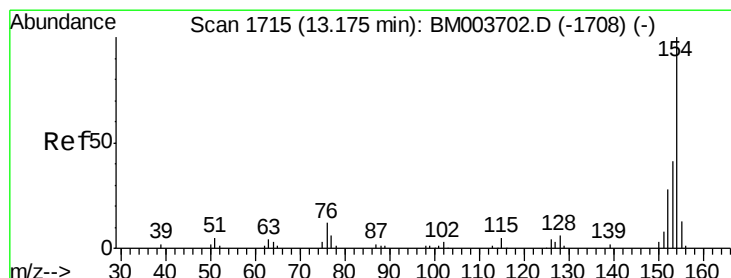
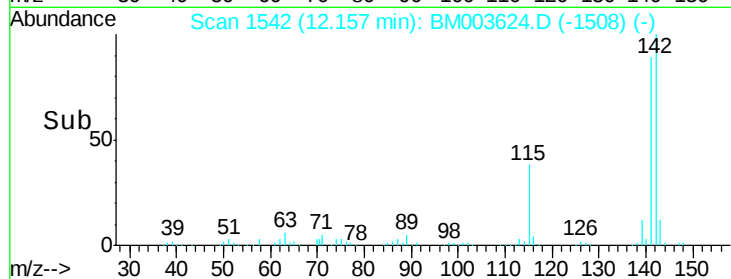
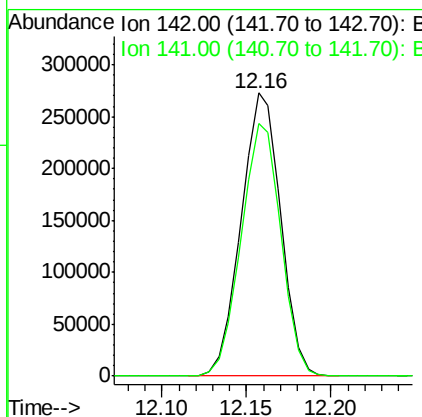
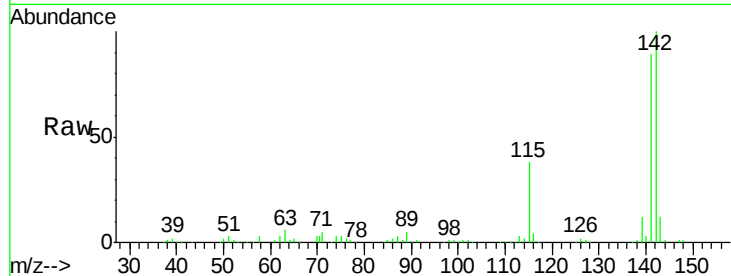
#34  
 2-Methylnaphthalene  
 Concen: 92.66 ng/ul  
 RT: 12.16 min Scan# 1542  
 Delta R.T. 0.00 min  
 Lab File: BM003624.D  
 Acq: 19 Dec 2015 17:44

Instrument :  
 BNA\_M  
 ClientSampleId :  
 G9C64

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 89.1  | 71.6  | 107.4 |

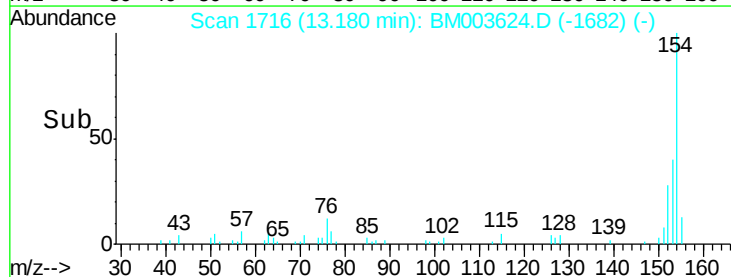
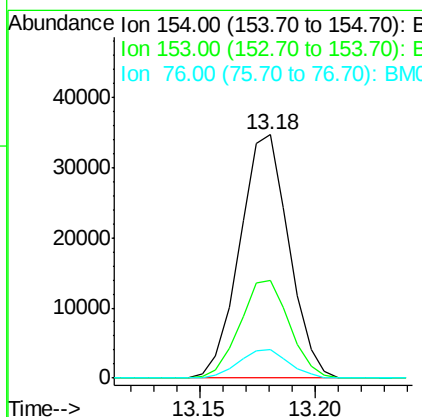
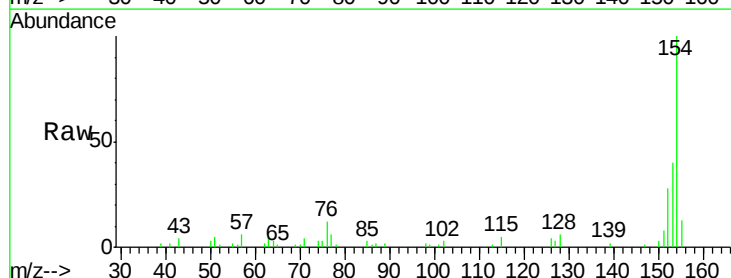
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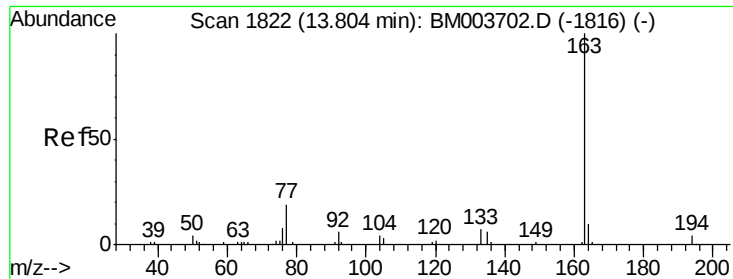
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#41  
 1,1'-Biphenyl  
 Concen: 7.26 ng/ul  
 RT: 13.18 min Scan# 1716  
 Delta R.T. 0.00 min  
 Lab File: BM003624.D  
 Acq: 19 Dec 2015 17:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 40.0  | 32.1  | 48.1  |
| 76      | 11.7  | 9.5   | 14.3  |





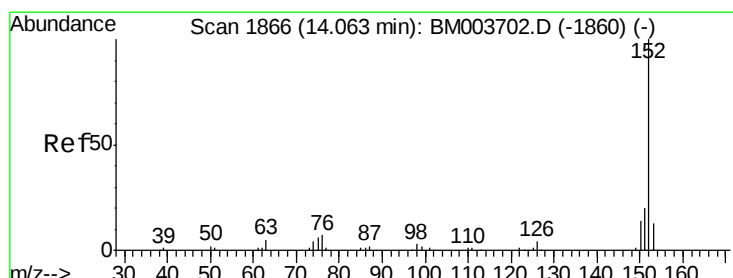
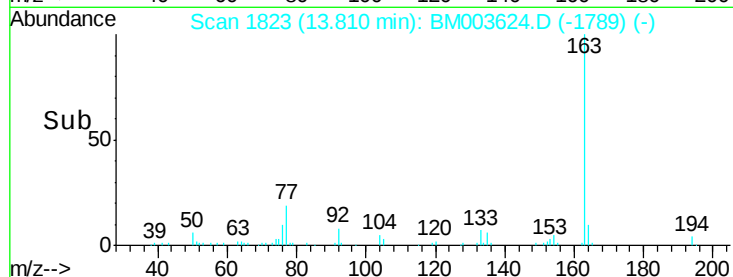
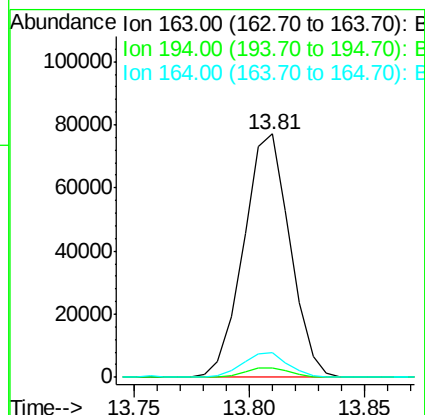
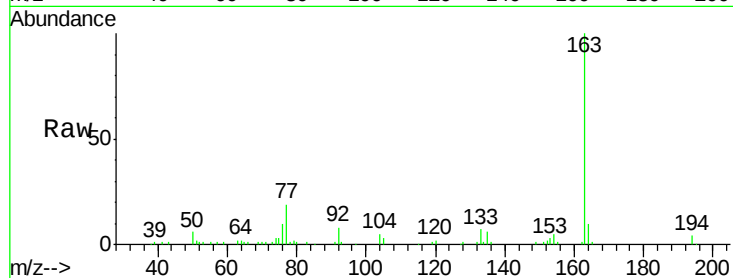
#45  
Dimethylphthalate  
Concen: 14.59 ng/ul  
RT: 13.81 min Scan# 1823  
Delta R.T. 0.00 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

Instrument :  
BNA\_M  
ClientSampled :  
G9C64

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 163     | 100   | 107682 |       |       |
| 194     | 4.0   |        | 3.2   | 4.8   |
| 164     | 10.0  |        | 7.8   | 11.8  |

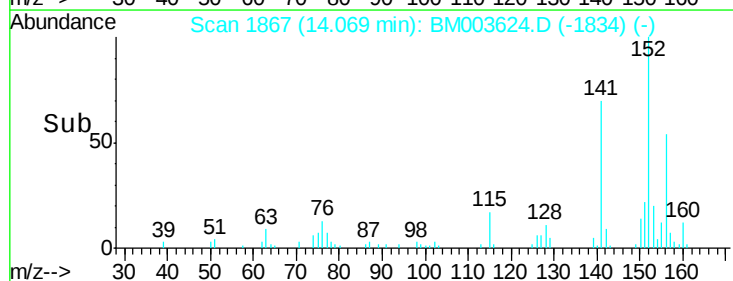
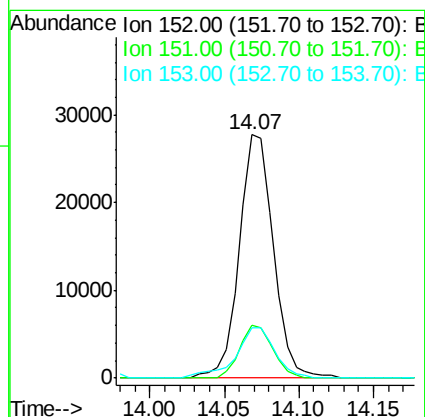
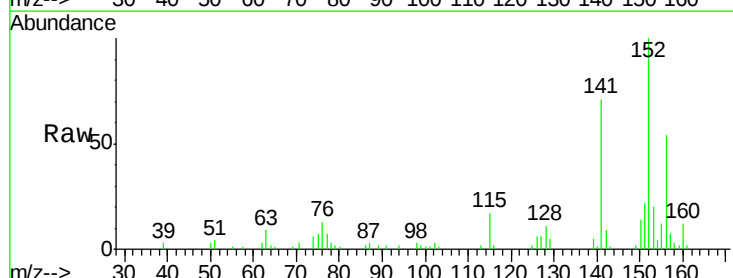
Manual Integrations  
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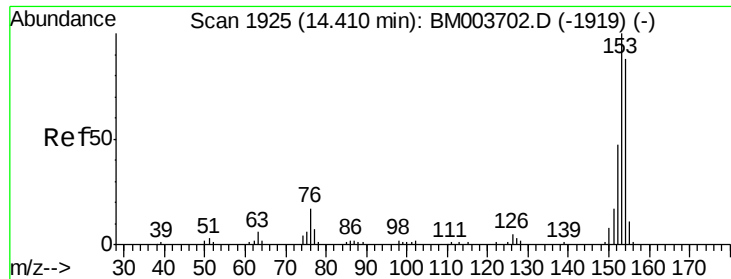
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#48  
Acenaphthylene  
Concen: 4.91 ng/ul  
RT: 14.07 min Scan# 1867  
Delta R.T. -0.01 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 152     | 100   | 44102 |       |       |
| 151     | 21.6  |       | 15.7  | 23.5  |
| 153     | 20.4  |       | 10.5  | 15.7# |





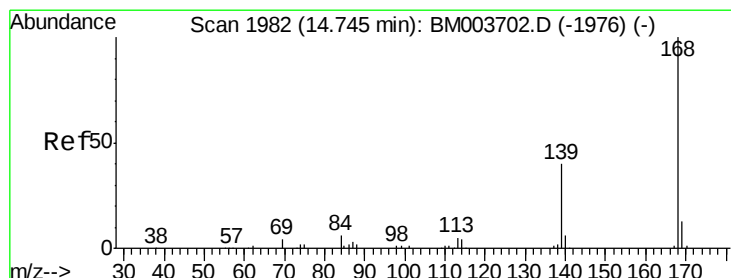
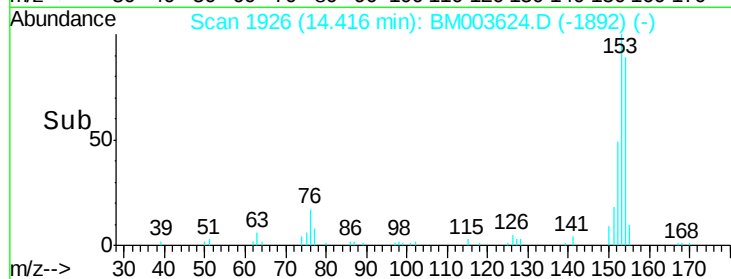
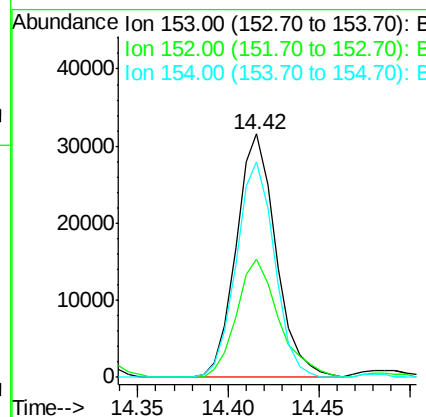
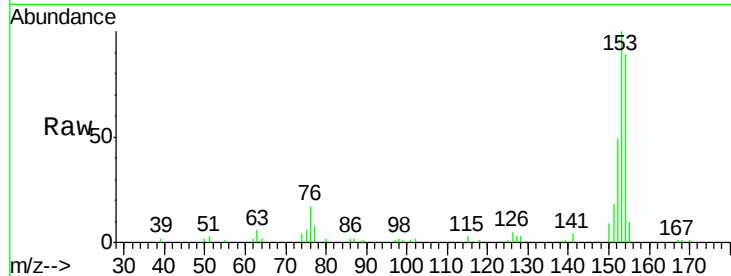
#50  
Acenaphthene  
Concen: 8.02 ng/ul  
RT: 14.42 min Scan# 1926  
Delta R.T. 0.00 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

Instrument :  
BNA\_M  
ClientSampleId :  
G9C64

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 100   |       |       |
| 152     | 48.7  | 38.3  | 57.5  |
| 154     | 88.7  | 71.8  | 107.8 |

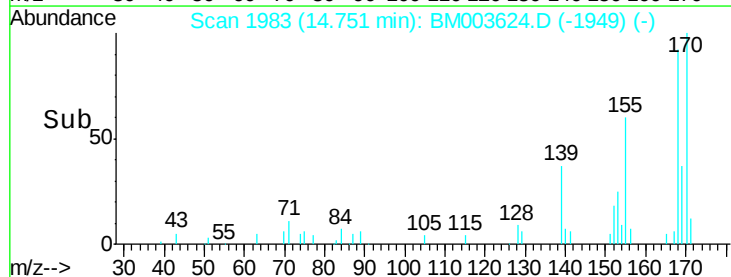
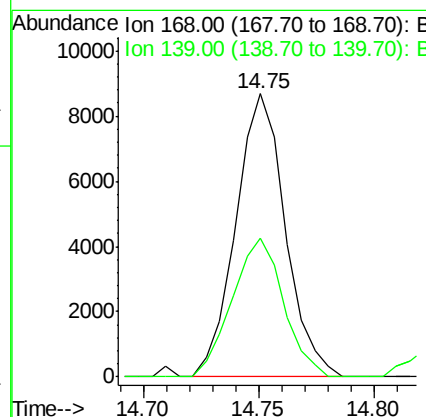
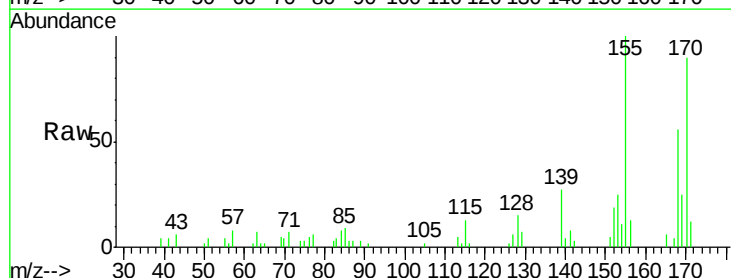
Manual Integrations  
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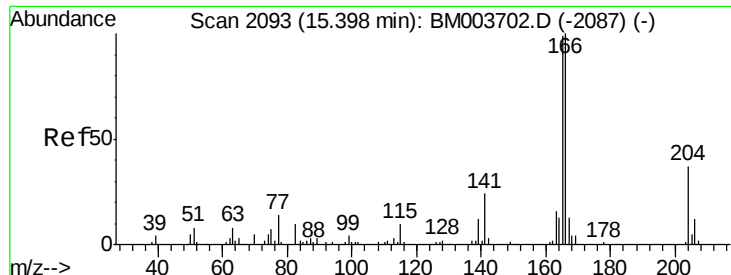
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12/22/2015 11:57:13 AM



#54  
Dibenzofuran  
Concen: 1.52 ng/ul  
RT: 14.75 min Scan# 1983  
Delta R.T. 0.00 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 100   |       |       |
| 139     | 48.8  | 32.2  | 48.2  |





#59

Fluorene

Concen: 11.98 ng/ul

RT: 15.40 min Scan# 2094

Delta R.T. 0.00 min

Lab File: BM003624.D

Acq: 19 Dec 2015 17:44

Instrument :

BNA\_M

ClientSampleId :

G9C64

Tot Ion:166 Resp: 82300

Ion Ratio Lower Upper

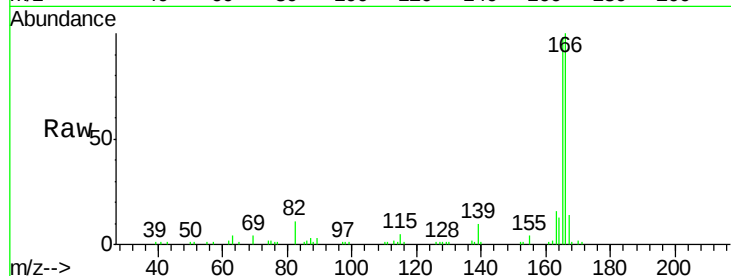
166 100

165 98.4 78.5 117.7

167 14.2 10.7 16.1

Manual Integrations  
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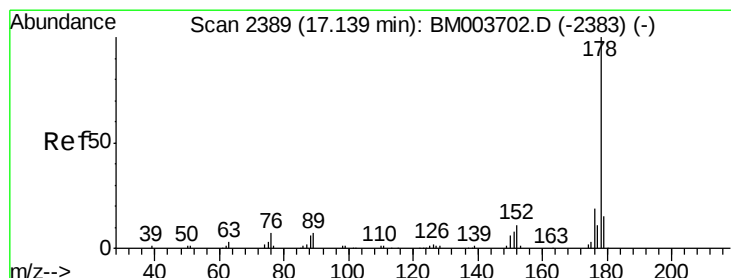
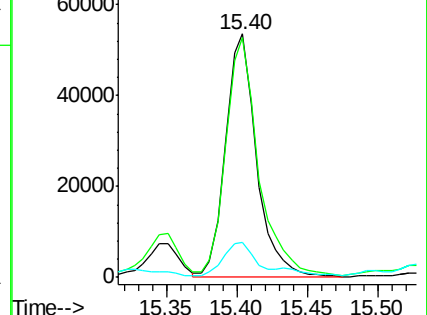
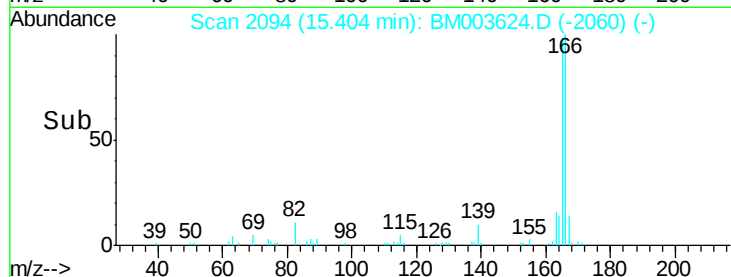
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12/22/2015 11:57:13 AM



Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E



#70

Phenanthrene

Concen: 44.18 ng/ul

RT: 17.14 min Scan# 2390

Delta R.T. 0.01 min

Lab File: BM003624.D

Acq: 19 Dec 2015 17:44

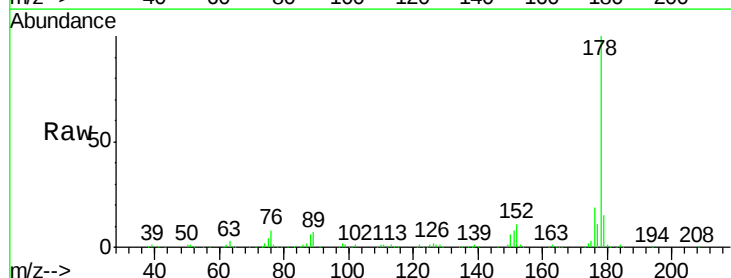
Tgt Ion:178 Resp: 523373

Ion Ratio Lower Upper

178 100

179 15.2 12.2 18.4

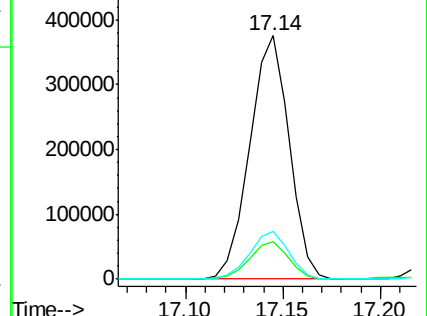
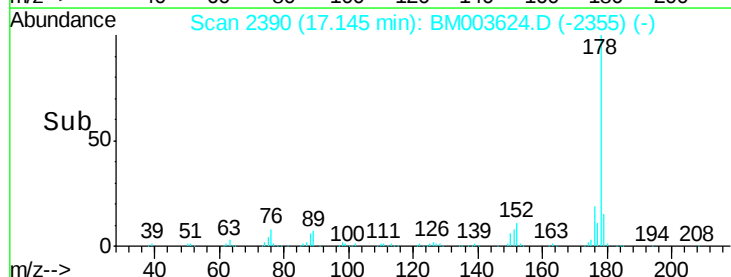
176 19.4 15.6 23.4

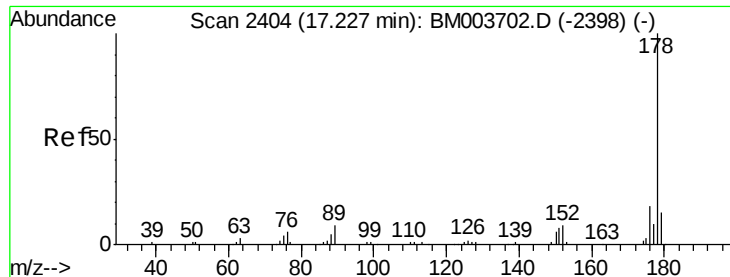


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 179.00 (178.70 to 179.70): E

Ion 176.00 (175.70 to 176.70): E





#72

Anthracene

Concen: 8.95 ng/ul

RT: 17.23 min Scan# 2405

Delta R.T. 0.00 min

Lab File: BM003624.D

Acq: 19 Dec 2015 17:44

Instrument :

BNA\_M

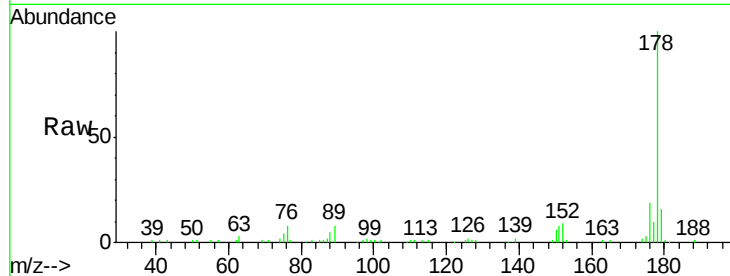
ClientSampleId :

G9C64

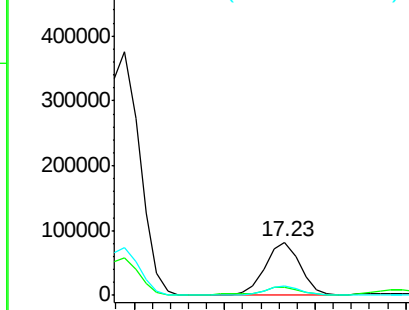
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 178   | Resp: | 108180 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 15.6  | 12.1  | 18.1   |
| 176       | 18.7  | 14.8  | 22.2   |

Manual Integrations  
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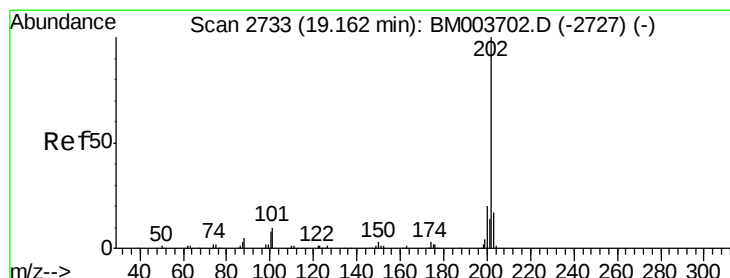
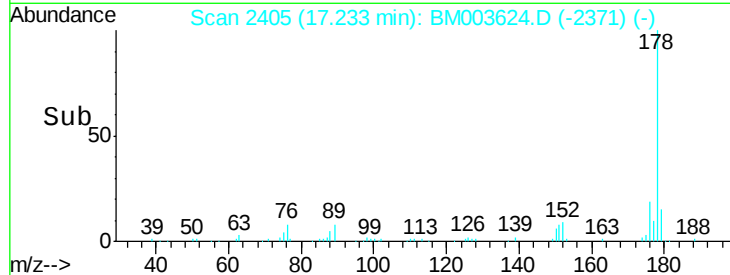
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12/22/2015 11:57:13 AM



Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 179.00 (178.70 to 179.70): E  
Ion 176.00 (175.70 to 176.70): E



Time--> 17.15 17.20 17.25



#77

Fluoranthene

Concen: 14.26 ng/ul

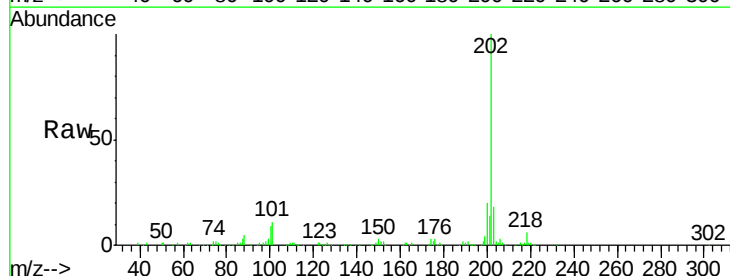
RT: 19.16 min Scan# 2733

Delta R.T. 0.00 min

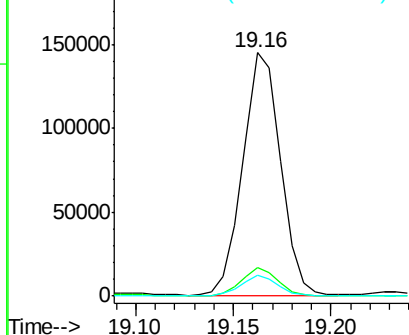
Lab File: BM003624.D

Acq: 19 Dec 2015 17:44

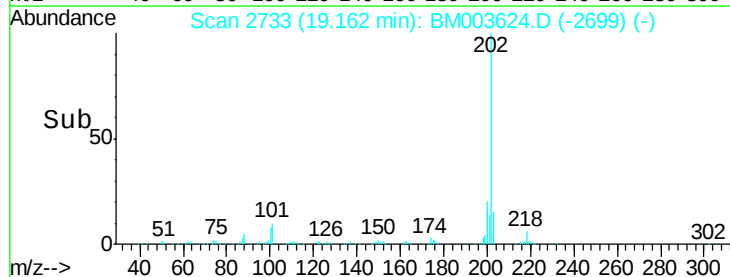
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 194166 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 11.5  | 8.8   | 13.2   |
| 100       | 8.7   | 6.6   | 9.8    |

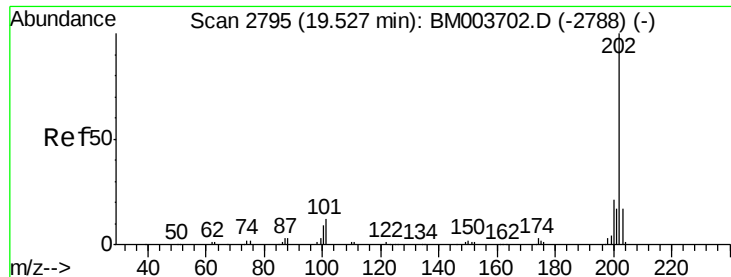


Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 100.00 (99.70 to 100.70): B



Time--> 19.10 19.15 19.20





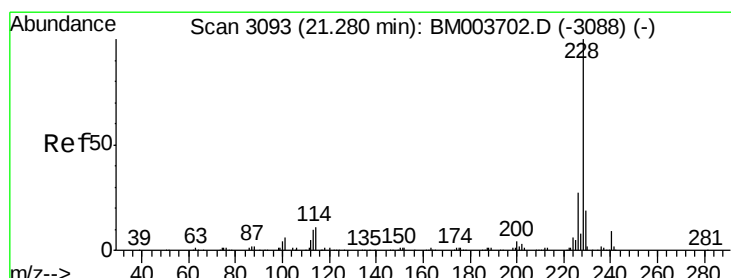
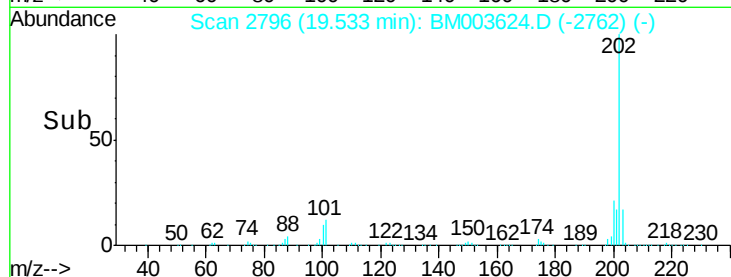
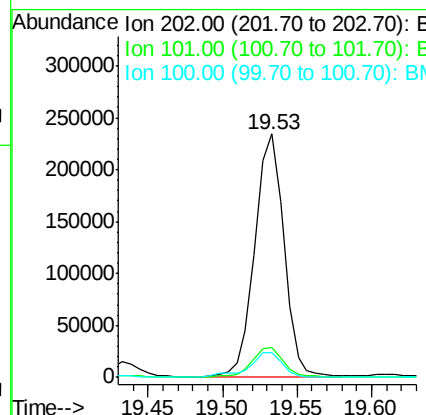
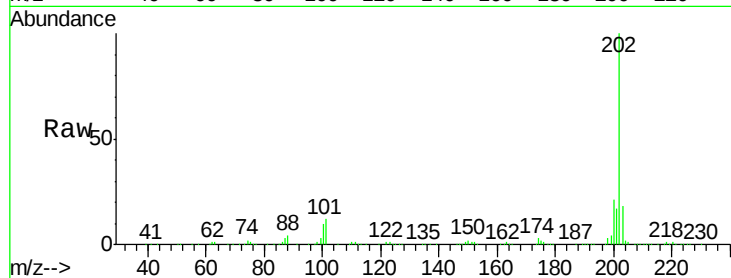
#80  
Pvrene  
Concen: 18.97 ng/ul  
RT: 19.53 min Scan# 2796  
Delta R.T. 0.00 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

Instrument :  
BNA\_M  
ClientSampleId :  
G9C64

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 12.0  | 10.2  | 15.2  |
| 100     | 10.0  | 8.5   | 12.7  |

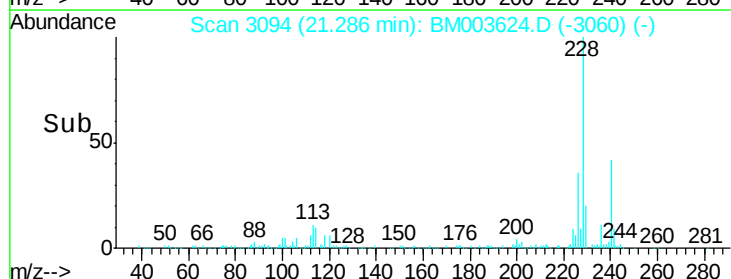
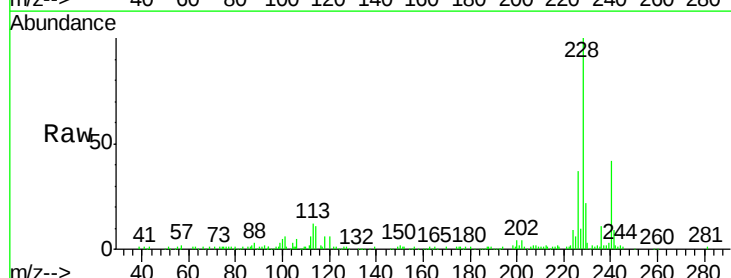
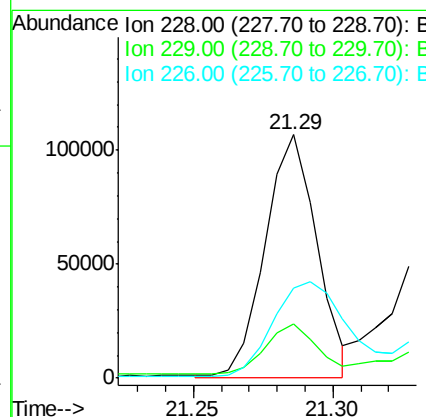
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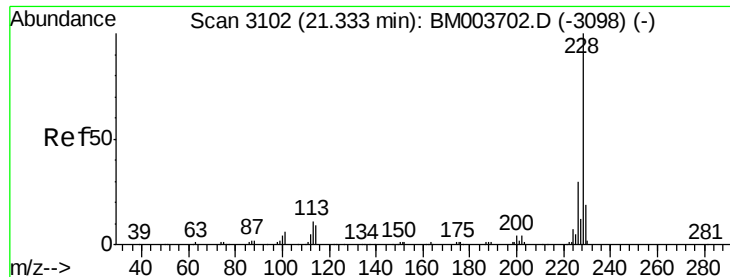
apatel  
12/22/2015 11:57:13 AM



#83  
Benzo(a)anthracene  
Concen: 7.95 ng/ul m  
RT: 21.29 min Scan# 3094  
Delta R.T. 0.00 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 22.1  | 15.7  | 23.5  |
| 226     | 36.8  | 21.8  | 32.6# |





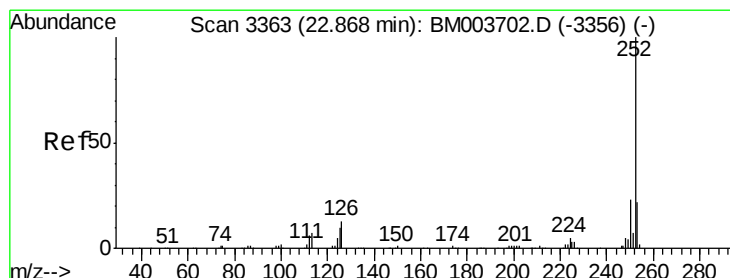
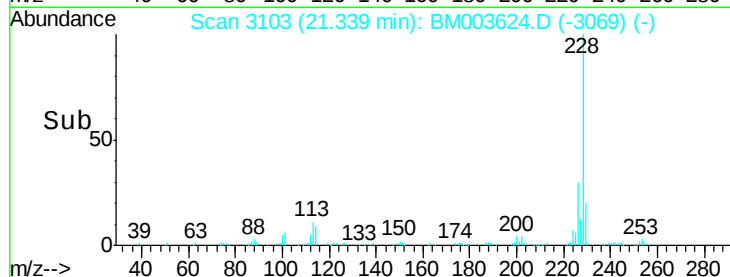
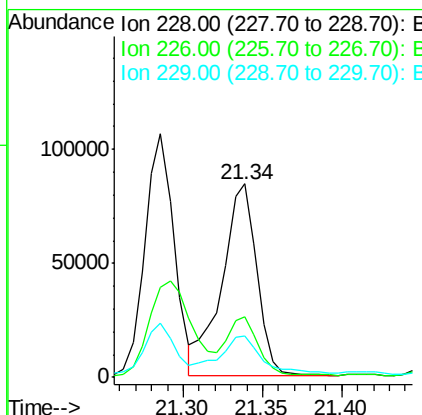
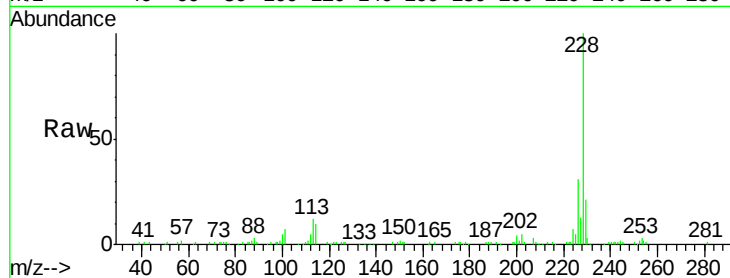
#85  
 Chrvsene  
 Concen: 7.77 ng/ul  
 RT: 21.34 min Scan# 3103  
 Delta R.T. 0.00 min  
 Lab File: BM003624.D  
 Acq: 19 Dec 2015 17:44

Instrument :  
 BNA\_M  
 ClientSampled :  
 G9C64

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 129464 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 31.2  | 24.0  | 36.0   |
| 229       | 21.2  | 15.6  | 23.4   |

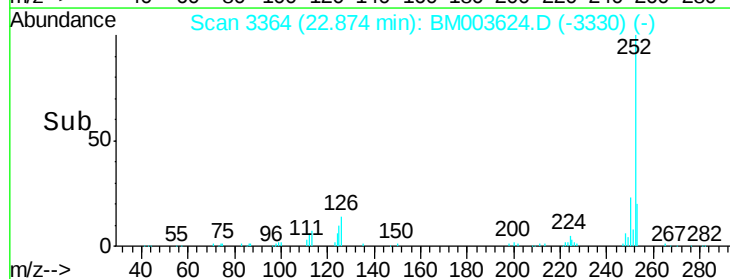
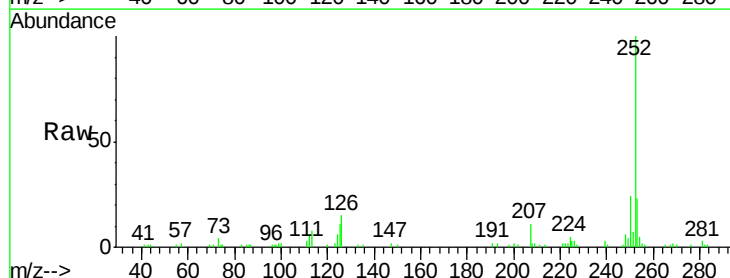
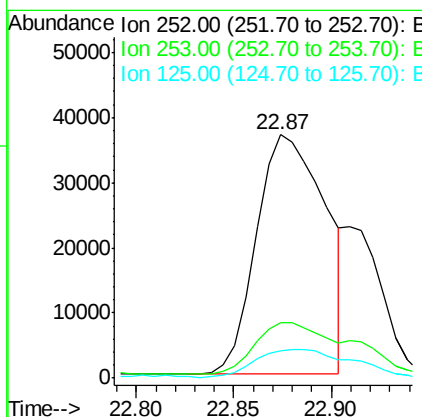
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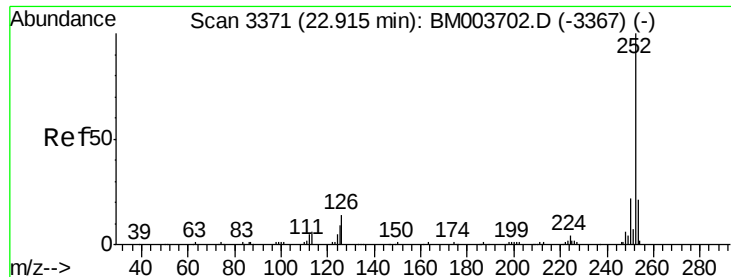
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#88  
 Benzo(b)fluoranthene  
 Concen: 4.70 ng/ul  
 RT: 22.87 min Scan# 3364  
 Delta R.T. 0.00 min  
 Lab File: BM003624.D  
 Acq: 19 Dec 2015 17:44

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 90079 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 23.0  | 17.5  | 26.3  |
| 125       | 11.1  | 8.5   | 12.7  |





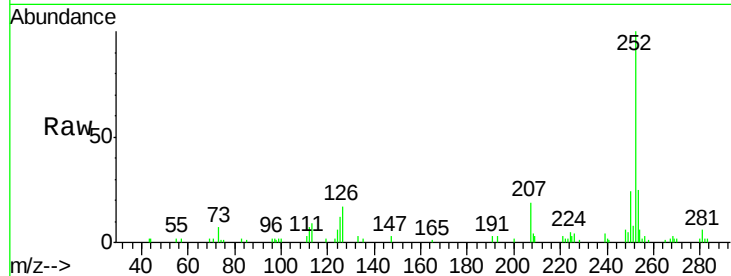
#89  
Benzo(k)fluoranthene  
Concen: 1.80 ng/ul m  
RT: 22.91 min Scan# 3370  
Delta R.T. -0.01 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

Instrument :  
BNA\_M  
ClientSampled :  
G9C64

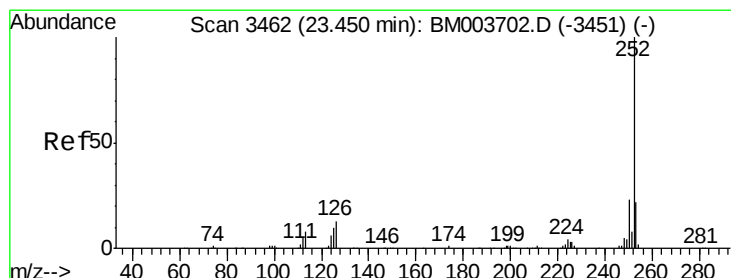
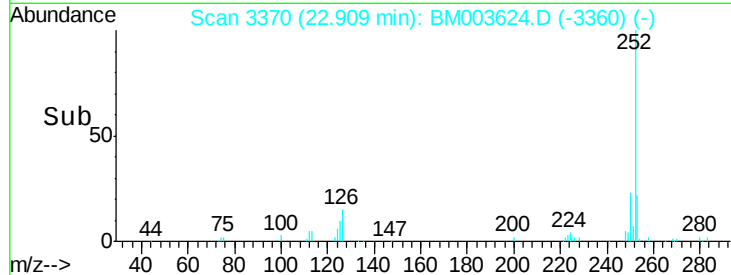
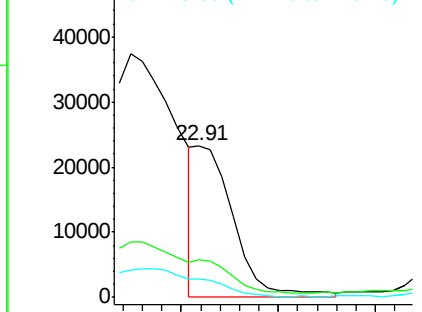
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.2  | 17.3  | 25.9  |
| 125     | 12.3  | 8.2   | 12.2# |

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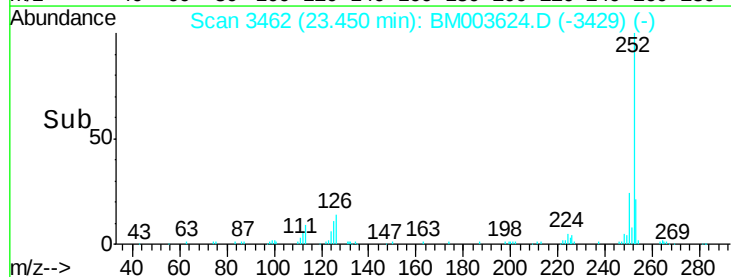
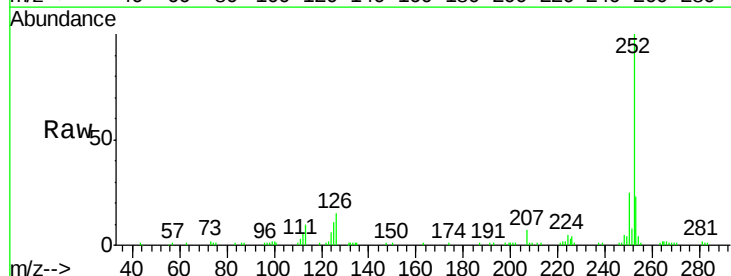
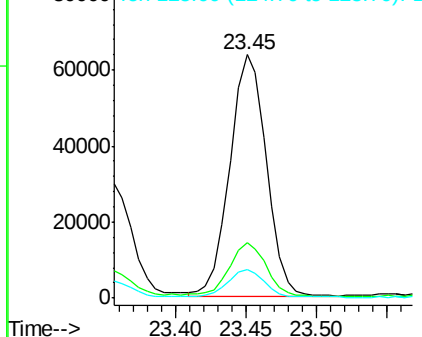
Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E

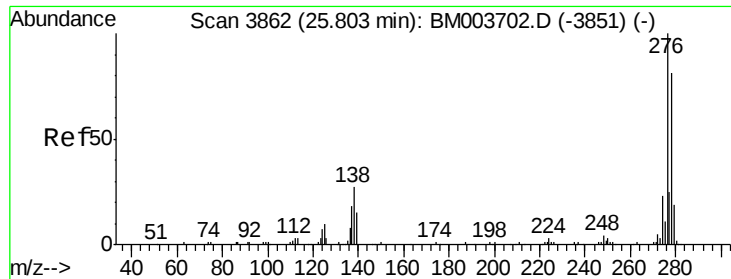


#91  
Benzo(a)pyrene  
Concen: 6.24 ng/ul  
RT: 23.45 min Scan# 3462  
Delta R.T. -0.01 min  
Lab File: BM003624.D  
Acq: 19 Dec 2015 17:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.6  | 17.2  | 25.8  |
| 125     | 11.5  | 9.0   | 13.6  |

Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E





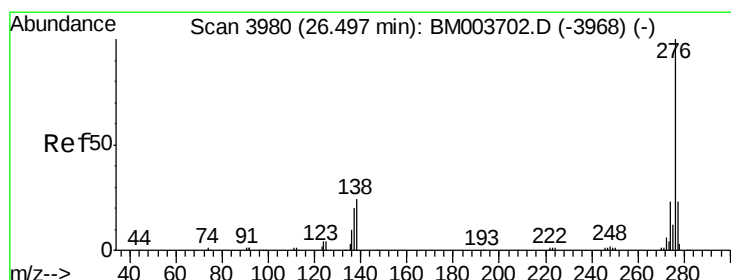
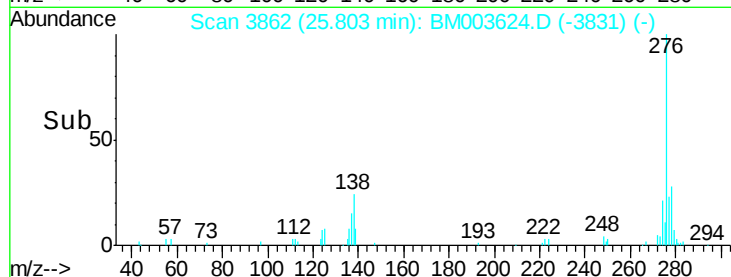
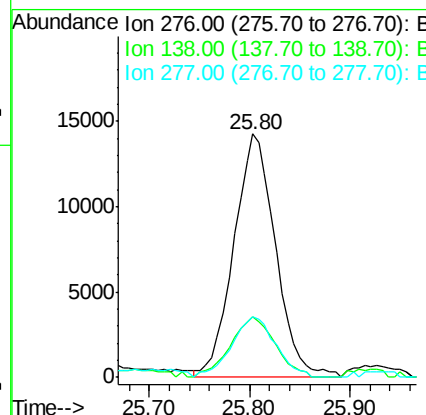
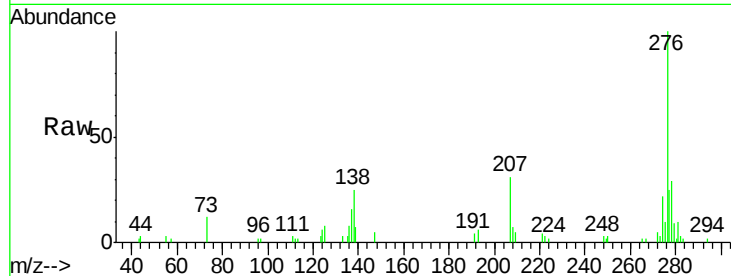
#92  
 Indeno(1,2,3-cd)pyrene  
 Concen: 2.09 ng/ul m  
 RT: 25.80 min Scan# 3862  
 Delta R.T. -0.02 min  
 Lab File: BM003624.D  
 Acq: 19 Dec 2015 17:44

Instrument :  
 BNA\_M  
 ClientSampleId :  
 G9C64

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 24.8  | 22.3  | 33.5  |
| 277     | 24.9  | 20.2  | 30.2  |

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#94  
 Benzo(g,h,i)perylene  
 Concen: 2.71 ng/ul m  
 RT: 26.50 min Scan# 3981  
 Delta R.T. -0.01 min  
 Lab File: BM003624.D  
 Acq: 19 Dec 2015 17:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 24.2  | 18.9  | 28.3  |
| 277     | 24.3  | 19.2  | 28.8  |

