

Data Path : S:\HPCHEM1\BNA\_M\DATA\BM072015\  
 Data File : BM001990.D  
 Acq On : 21 Jul 2015 01:02  
 Operator : TP/UM  
 Sample : G3000-19  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 C02J3

Manual Integrations  
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 7/22/2015 1:54:37 PM

Quant Time: Jul 21 02:39:49 2015  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM071315.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Tue Jul 21 01:37:44 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.66  | 152  | 108449   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.45 | 136  | 458714   | 20.00 | ng/ul | 0.00     |
| 35) Acenaphthene-d10      | 14.32 | 164  | 279105   | 20.00 | ng/ul | 0.00     |
| 61) Phenanthrene-d10      | 17.06 | 188  | 593988   | 20.00 | ng/ul | 0.00     |
| 77) Chrysene-d12          | 21.26 | 240  | 503537   | 20.00 | ng/ul | 0.00     |
| 85) Perylene-d12          | 23.49 | 264  | 467545   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.13  | 96  | 2925   | 1.32  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.83  | 99  | 81845  | 9.24  | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 6.99  | 67  | 46893  | 9.72  | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.19  | 132 | 69471  | 9.88  | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.36  | 113 | 57740  | 7.94  | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.82  | 128 | 33671  | 9.83  | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.53  | 143 | 33719  | 8.88  | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.07 | 165 | 76786  | 10.01 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.59 | 131 | 66505  | 8.42  | ng/ul | 0.00 |
| 43) Dimethylphthalate-d6       | 13.73 | 166 | 251556 | 11.17 | ng/ul | 0.00 |
| 46) Acenaphthylene-d8          | 14.00 | 160 | 274007 | 10.12 | ng/ul | 0.00 |
| 51) 4-Nitrophenol-d4           | 14.52 | 143 | 33280  | 8.73  | ng/ul | 0.00 |
| 57) Fluorene-d10               | 15.31 | 176 | 195432 | 10.16 | ng/ul | 0.00 |
| 62) 4,6-Dinitro-2-methylphenol | 15.44 | 200 | 3141   | 0.82  | ng/ul | 0.00 |
| 70) Anthracene-d10             | 17.16 | 188 | 282243 | 10.12 | ng/ul | 0.00 |
| 78) Pyrene-d10                 | 19.46 | 212 | 258161 | 11.22 | ng/ul | 0.00 |
| 89) Benzo(a)pyrene-d12         | 23.34 | 264 | 194603 | 8.23  | ng/ul | 0.00 |

## Target Compounds

|                                |       |     |        |       |        | Qvalue |
|--------------------------------|-------|-----|--------|-------|--------|--------|
| 14) Acetophenone               | 8.48  | 105 | 33824  | 2.94  | ng/ul  | 96     |
| 28) Naphthalene                | 10.49 | 128 | 136179 | 5.88  | ng/ul  | 98     |
| 34) 2-Methylnaphthalene        | 12.12 | 142 | 39793  | 2.31  | ng/ul  | 99     |
| 44) Dimethylphthalate          | 13.77 | 163 | 235725 | 10.29 | ng/ul  | 98     |
| 49) Acenaphthene               | 14.37 | 153 | 52356  | 2.83  | ng/ul  | 99     |
| 53) Dibenzofuran               | 14.71 | 168 | 36040  | 1.35  | ng/ul  | 91     |
| 58) Fluorene                   | 15.36 | 166 | 51390  | 2.30  | ng/ul# | 98     |
| 69) Phenanthrene               | 17.10 | 178 | 328077 | 10.19 | ng/ul  | 98     |
| 71) Anthracene                 | 17.20 | 178 | 70129  | 2.11  | ng/ul  | 96     |
| 74) Carbazole                  | 17.47 | 167 | 38755  | 1.35  | ng/ul# | 89     |
| 75) Di-n-butylphthalate        | 18.03 | 149 | 353218 | 10.23 | ng/ul  | 99     |
| 76) Fluoranthene               | 19.13 | 202 | 370194 | 9.84  | ng/ul  | 100    |
| 79) Pyrene                     | 19.49 | 202 | 339387 | 11.27 | ng/ul  | 97     |
| 82) Benzo(a)anthracene         | 21.24 | 228 | 121267 | 4.05  | ng/ul# | 94     |
| 83) Bis(2-ethylhexyl)phthalate | 21.17 | 149 | 93760  | 5.58  | ng/ul  | 97     |
| 84) Chrysene                   | 21.30 | 228 | 134600 | 4.80  | ng/ul# | 92     |
| 87) Benzo(b)fluoranthene       | 22.82 | 252 | 159516 | 5.57  | ng/ul# | 87     |
| 88) Benzo(k)fluoranthene       | 22.86 | 252 | 59116m | 2.15  | ng/ul  |        |
| 90) Benzo(a)pyrene             | 23.39 | 252 | 104871 | 3.90  | ng/ul# | 86     |
| 91) Indeno(1,2,3-cd)pyrene     | 25.73 | 276 | 78697  | 2.78  | ng/ul  | 98     |
| 93) Benzo(g,h,i)perylene       | 26.43 | 276 | 75082  | 3.23  | ng/ul# | 91     |

Data Path : S:\HPCHEM1\BNA\_M\DATA\BM072015\  
Data File : BM001990.D  
Acq On : 21 Jul 2015 01:02  
Operator : TP/UM  
Sample : G3000-19  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
C02J3

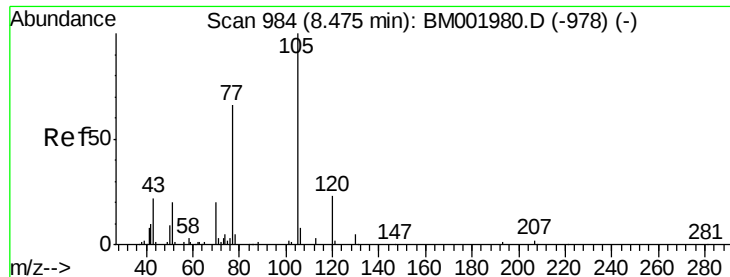
Manual Integrations  
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7/22/2015 1:54:37 PM

Quant Time: Jul 21 02:39:49 2015  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM071315.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Tue Jul 21 01:37:44 2015  
Response via : Initial Calibration

| Internal Standards                                                         | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------------------------------------------------------|------|------|----------|------|-------|----------|
| -----                                                                      |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |





#14

Acetophenone

Concen: 2.94 ng/ul

RT: 8.48 min Scan# 985

Delta R.T. 0.01 min

Lab File: BM001990.D

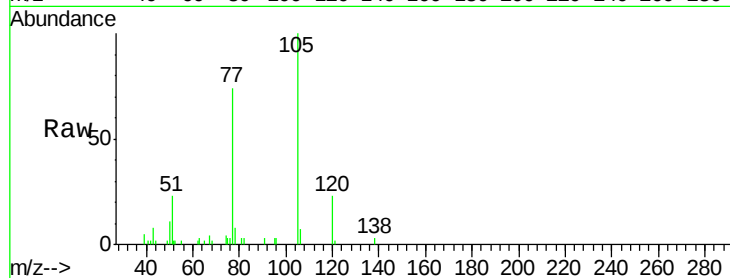
Acq: 21 Jul 2015 01:02

Instrument :

BNA\_M

ClientSampleId :

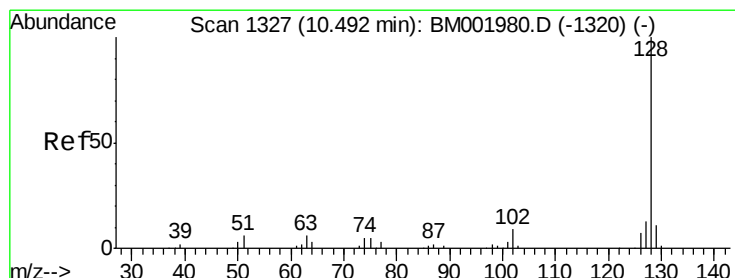
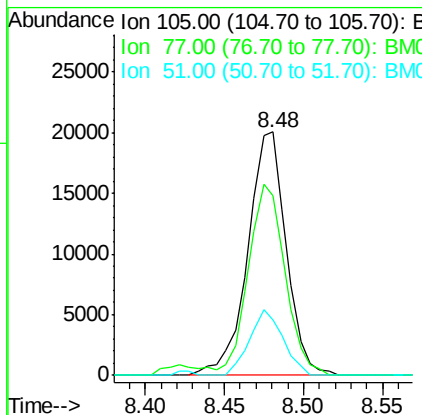
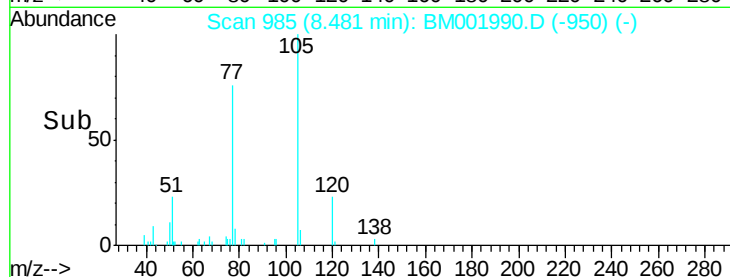
C02J3



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 105   | Resp: | 33824 |
| Ion Ratio | Lower | Upper |       |
| 105       | 100   |       |       |
| 77        | 74.0  | 61.7  | 92.5  |
| 51        | 22.9  | 20.2  | 30.4  |

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#28

Naphthalene

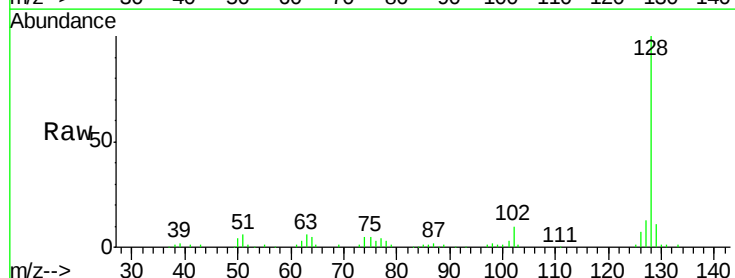
Concen: 5.88 ng/ul

RT: 10.49 min Scan# 1327

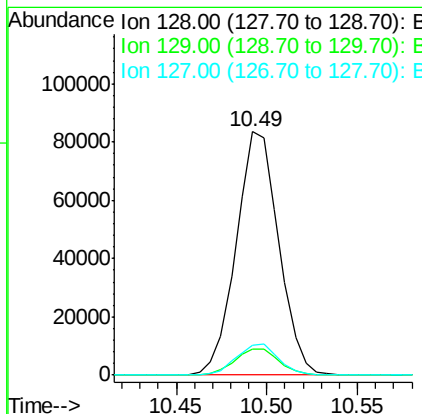
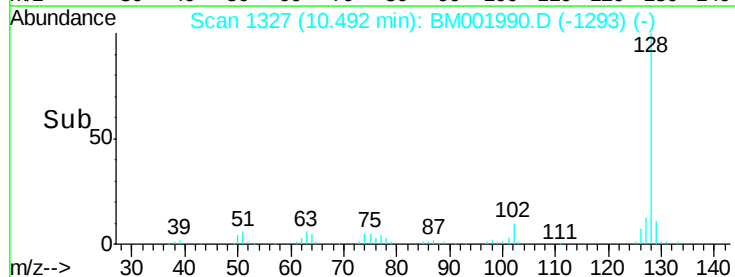
Delta R.T. -0.00 min

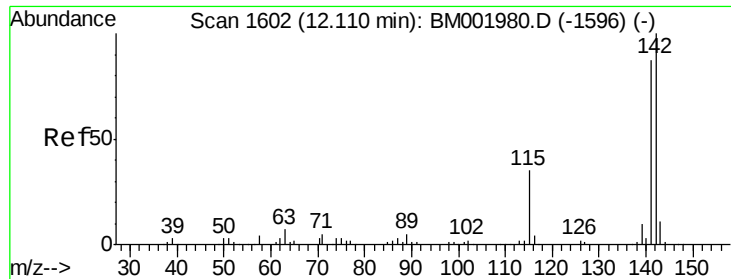
Lab File: BM001990.D

Acq: 21 Jul 2015 01:02



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 128   | Resp: | 136179 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 129       | 10.8  | 9.0   | 13.4   |
| 127       | 12.5  | 10.7  | 16.1   |





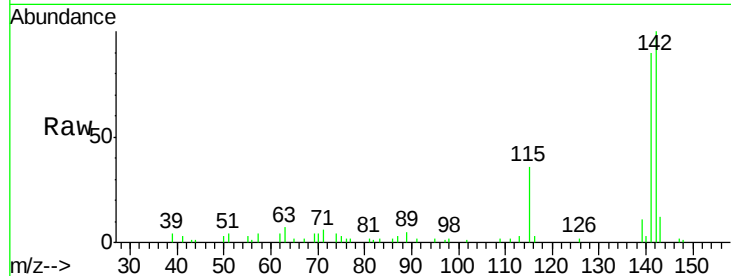
#34  
2-Methylnaphthalene  
Concen: 2.31 ng/ul  
RT: 12.12 min Scan# 1603  
Delta R.T. 0.01 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

Instrument :  
BNA\_M  
ClientSampleId :  
C02J3

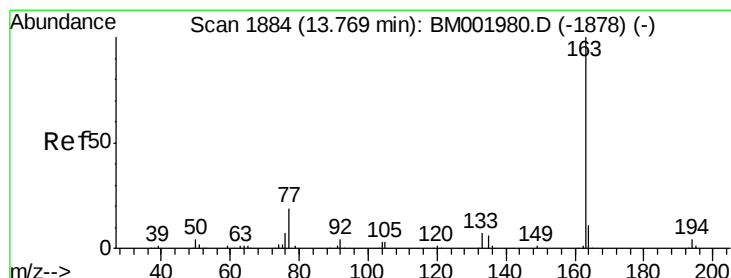
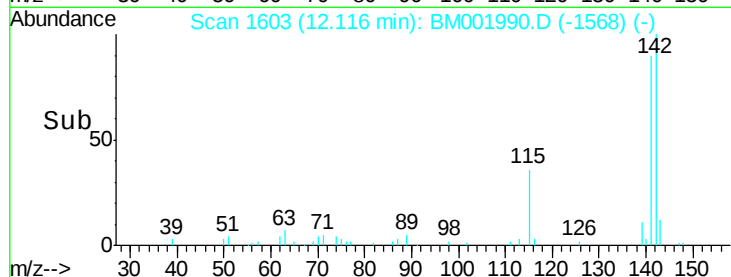
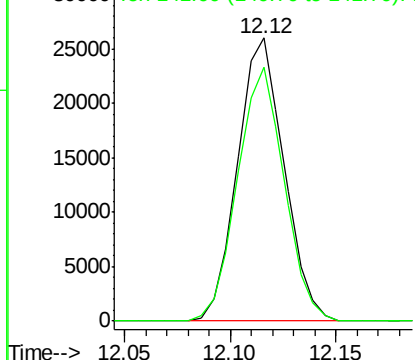
Tgt Ion:142 Resp: 39793  
Ion Ratio Lower Upper  
142 100  
141 89.8 71.3 106.9

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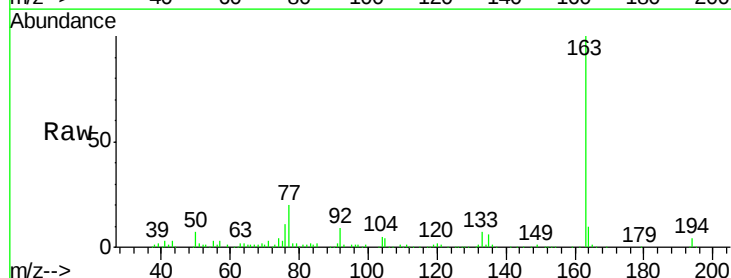


Abundance Ion 142.00 (141.70 to 142.70): E  
Ion 141.00 (140.70 to 141.70): E

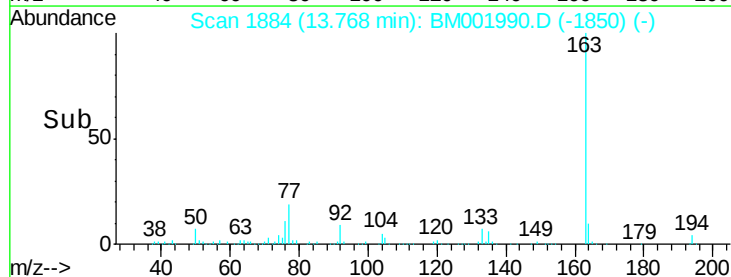
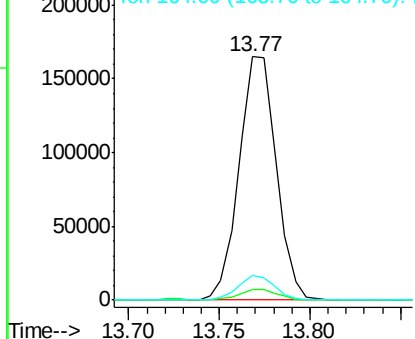


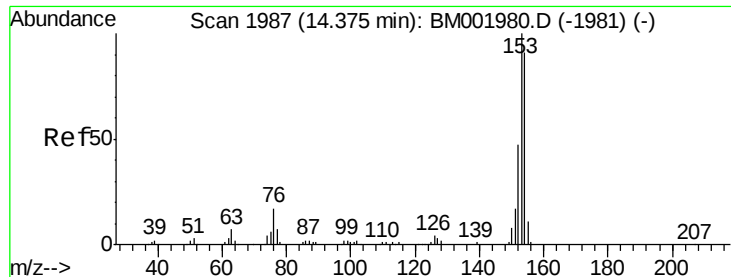
#44  
Dimethylphthalate  
Concen: 10.29 ng/ul  
RT: 13.77 min Scan# 1884  
Delta R.T. -0.00 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

Tgt Ion:163 Resp: 235725  
Ion Ratio Lower Upper  
163 100  
194 4.4 3.3 4.9  
164 10.3 7.6 11.4



Abundance Ion 163.00 (162.70 to 163.70): E  
Ion 194.00 (193.70 to 194.70): E  
Ion 164.00 (163.70 to 164.70): E





#49

Acenaphthene

Concen: 2.83 ng/ul

RT: 14.37 min Scan# 1987

Delta R.T. -0.00 min

Lab File: BM001990.D

Acq: 21 Jul 2015 01:02

Instrument :

BNA\_M

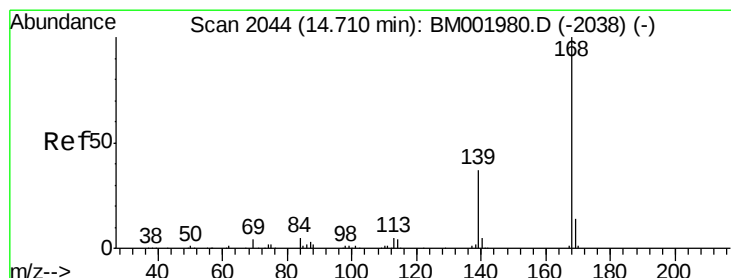
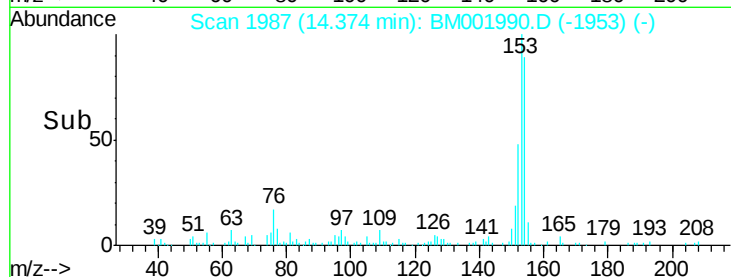
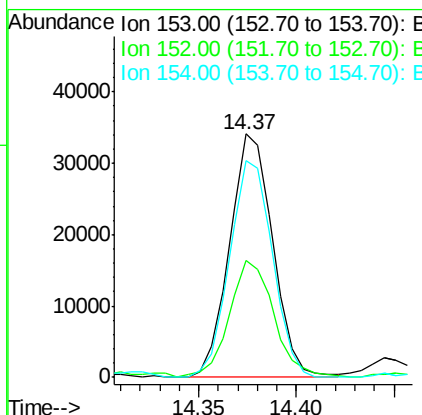
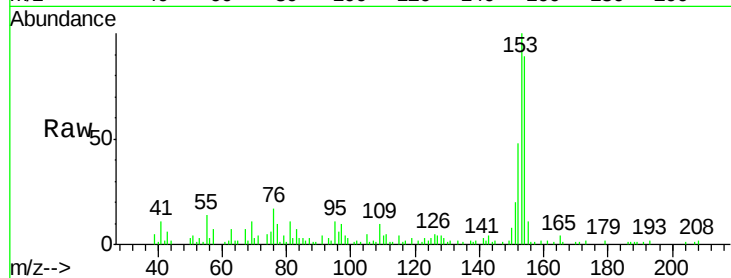
ClientSampleId :

C02J3

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 153   | Resp: | 52356 |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 48.1  | 36.6  | 55.0  |
| 154       | 88.8  | 71.1  | 106.7 |

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#53

Dibenzofuran

Concen: 1.35 ng/ul

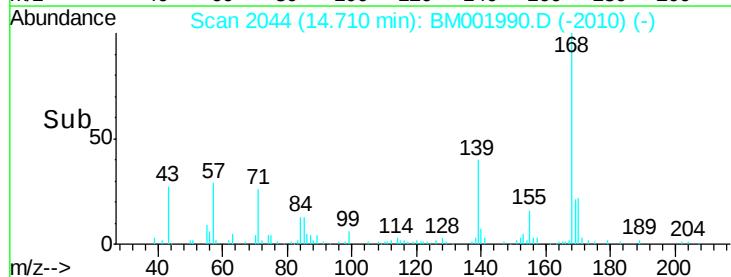
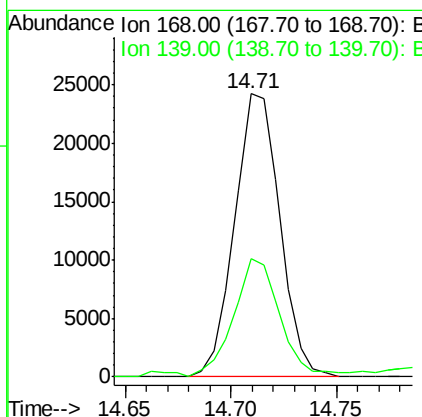
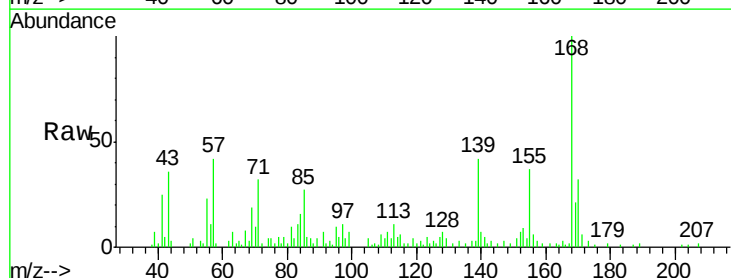
RT: 14.71 min Scan# 2044

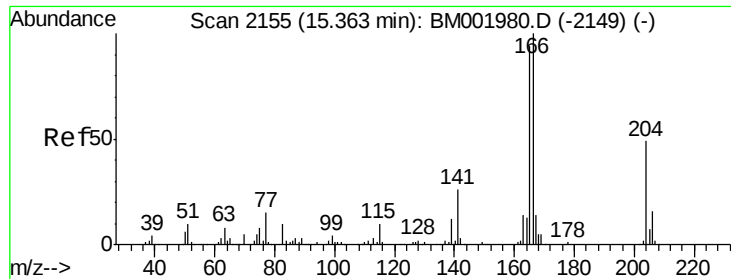
Delta R.T. -0.00 min

Lab File: BM001990.D

Acq: 21 Jul 2015 01:02

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 168   | Resp: | 36040 |
| Ion Ratio | Lower | Upper |       |
| 168       | 100   |       |       |
| 139       | 41.9  | 29.2  | 43.8  |





#58

Fluorene

Concen: 2.30 ng/ul

RT: 15.36 min Scan# 2155

Delta R.T. -0.00 min

Lab File: BM001990.D

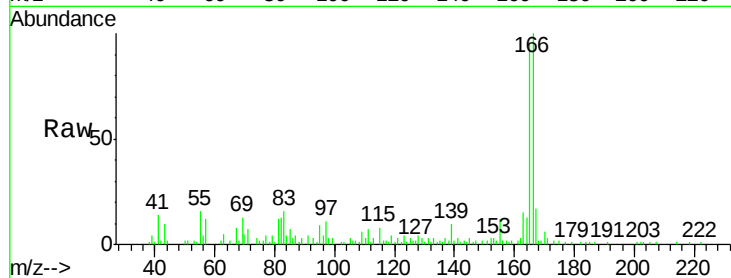
Acq: 21 Jul 2015 01:02

Instrument :

BNA\_M

ClientSampleId :

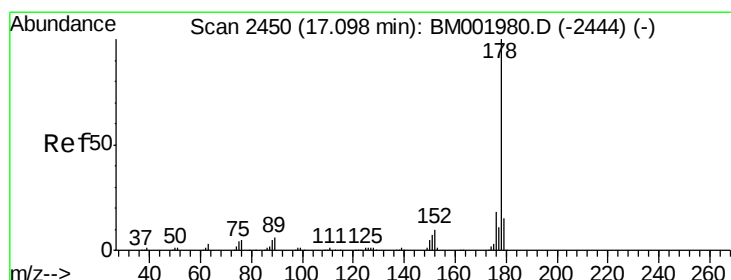
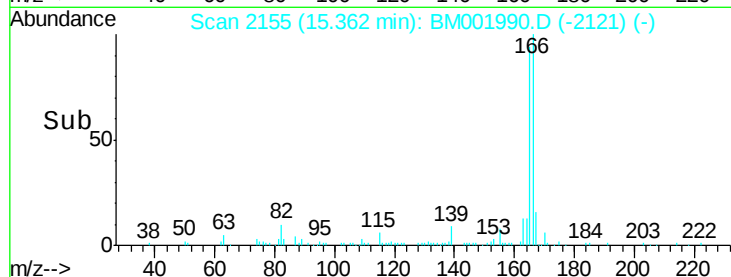
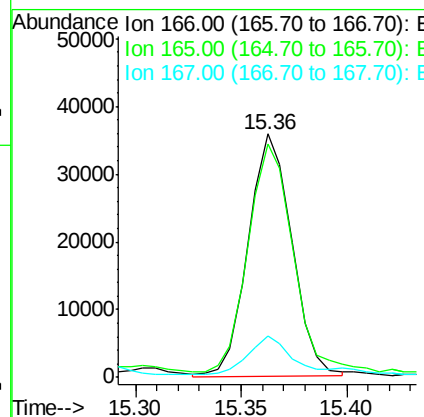
C02J3



|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 166  | Resp: | 51390 |
| Ion Ratio |      | Lower | Upper |
| 166       | 100  |       |       |
| 165       | 96.1 | 75.8  | 113.8 |
| 167       | 17.2 | 10.7  | 16.1# |

Manual Integrations  
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#69

Phenanthrene

Concen: 10.19 ng/ul

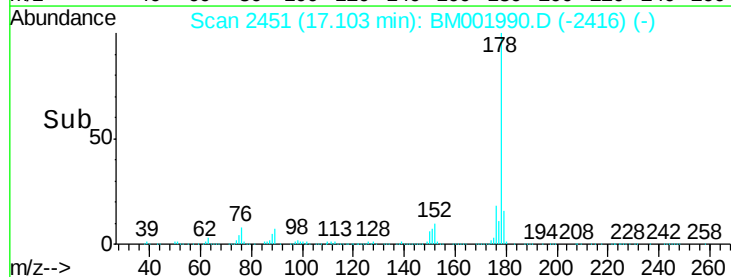
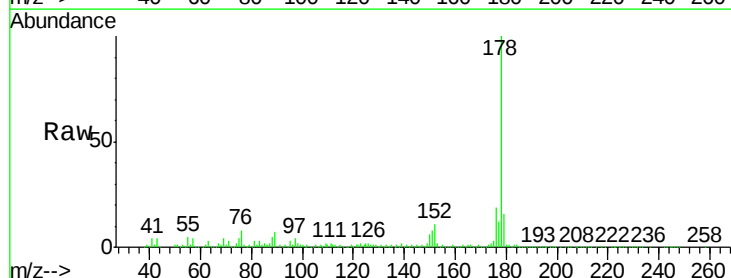
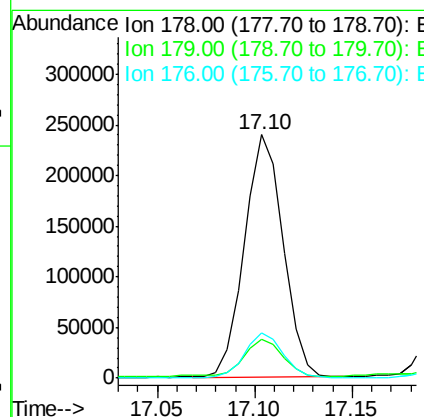
RT: 17.10 min Scan# 2451

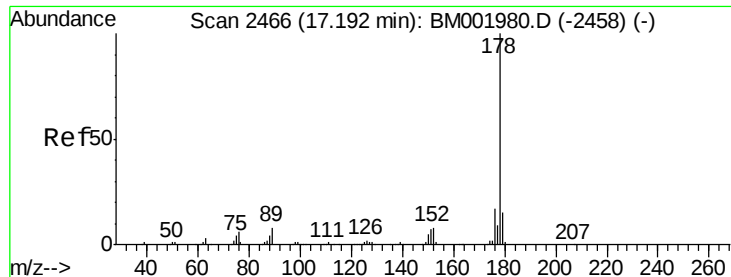
Delta R.T. 0.01 min

Lab File: BM001990.D

Acq: 21 Jul 2015 01:02

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 178  | Resp: | 328077 |
| Ion Ratio |      | Lower | Upper  |
| 178       | 100  |       |        |
| 179       | 16.1 | 12.2  | 18.2   |
| 176       | 18.6 | 14.5  | 21.7   |





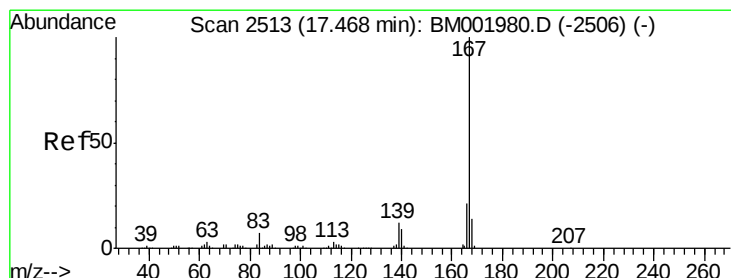
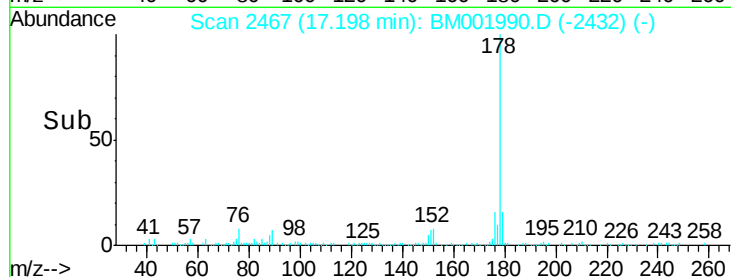
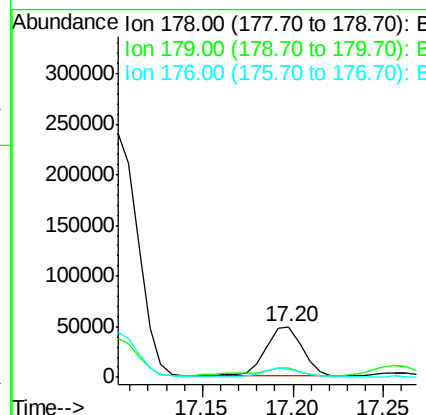
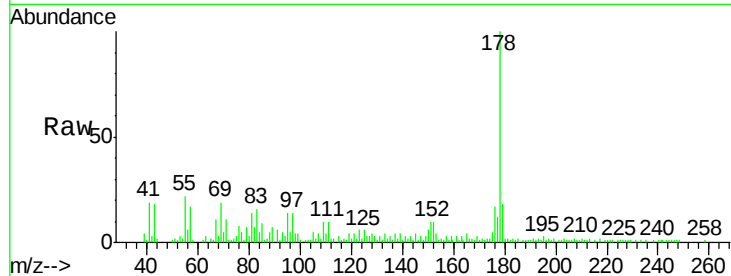
#71  
 Anthracene  
 Concen: 2.11 ng/ul  
 RT: 17.20 min Scan# 2467  
 Delta R.T. 0.01 min  
 Lab File: BM001990.D  
 Acq: 21 Jul 2015 01:02

Instrument :  
 BNA\_M  
 ClientSampleId :  
 C02J3

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 17.8  | 12.4  | 18.6  |
| 176     | 16.7  | 14.2  | 21.4  |

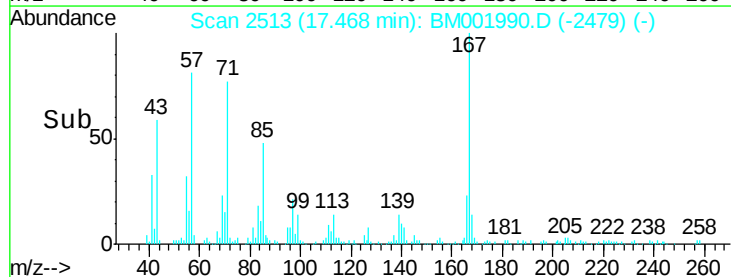
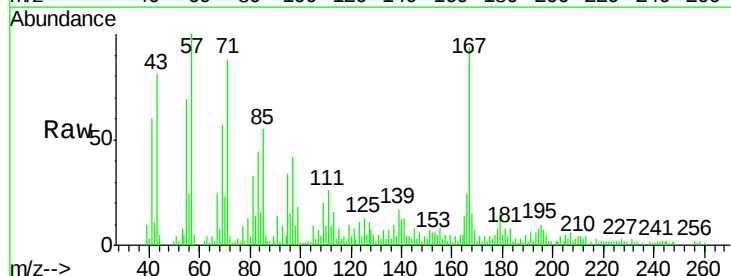
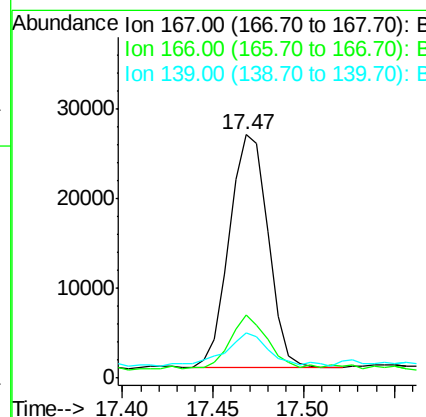
Manual Integrations  
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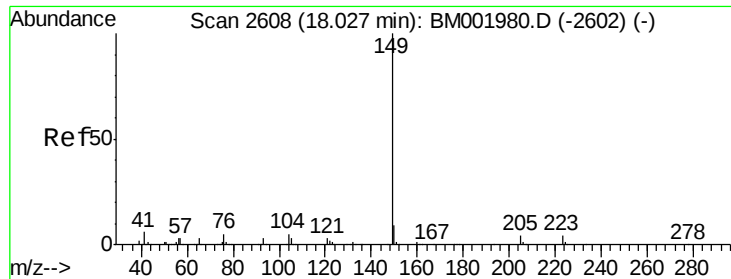
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 7/22/2015 1:54:37 PM



#74  
 Carbazole  
 Concen: 1.35 ng/ul  
 RT: 17.47 min Scan# 2513  
 Delta R.T. -0.00 min  
 Lab File: BM001990.D  
 Acq: 21 Jul 2015 01:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 25.9  | 17.1  | 25.7# |
| 139     | 18.4  | 10.0  | 15.0# |





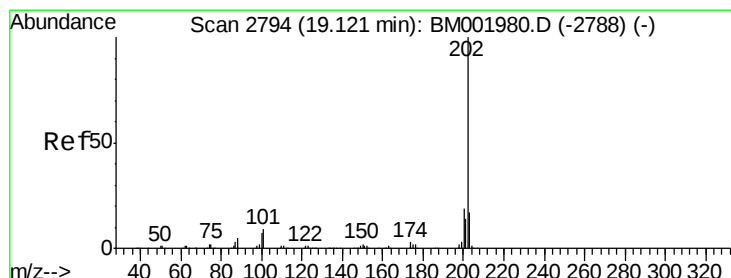
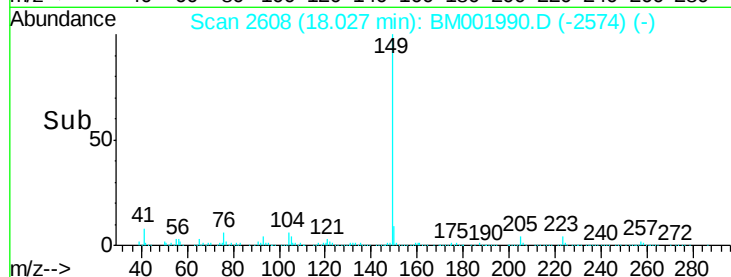
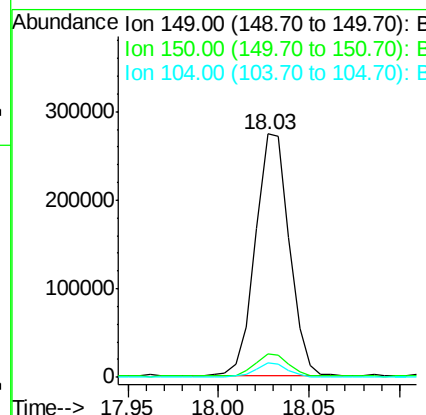
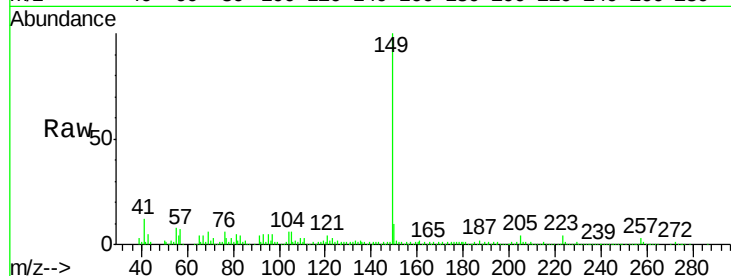
#75  
Di-n-butylphthalate  
Concen: 10.23 ng/ul  
RT: 18.03 min Scan# 2608  
Delta R.T. -0.00 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

Instrument :  
BNA\_M  
ClientSampleId :  
C02J3

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 149     | 100   |            |            |
| 150     | 9.6   | 7.3        | 10.9       |
| 104     | 5.7   | 4.5        | 6.7        |

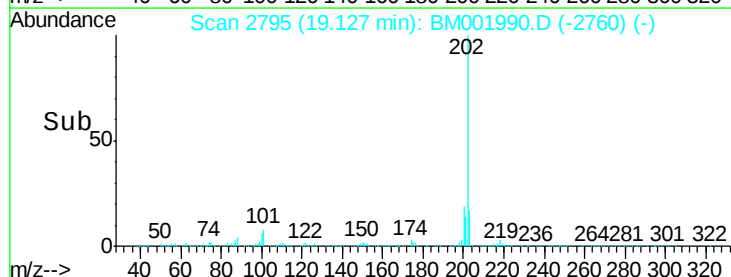
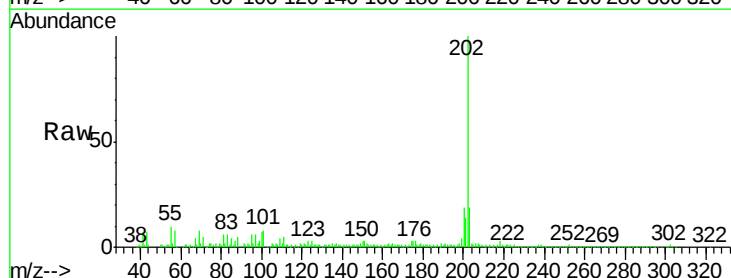
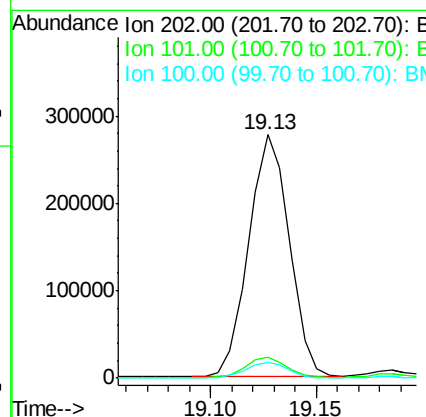
Manual Integrations  
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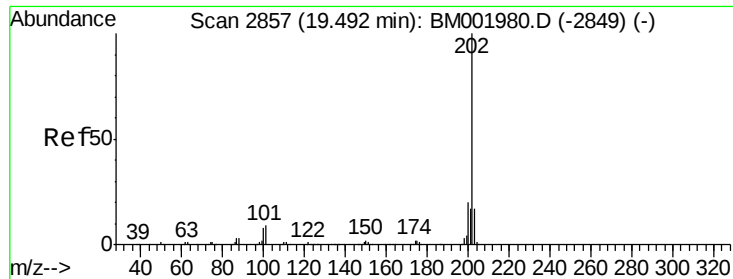
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#76  
Fluoranthene  
Concen: 9.84 ng/ul  
RT: 19.13 min Scan# 2795  
Delta R.T. 0.01 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 202     | 100   |            |            |
| 101     | 8.4   | 6.6        | 9.8        |
| 100     | 6.6   | 5.2        | 7.8        |





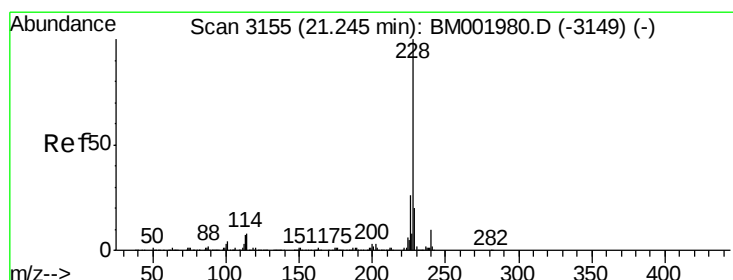
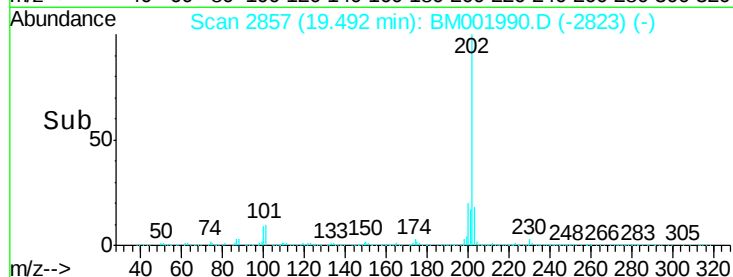
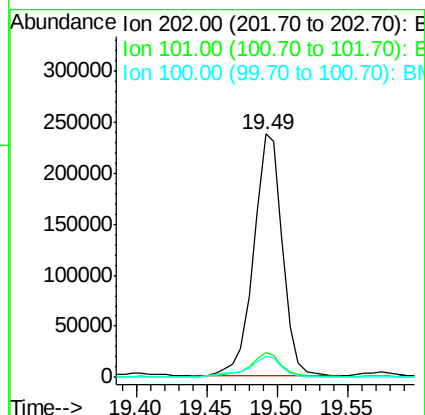
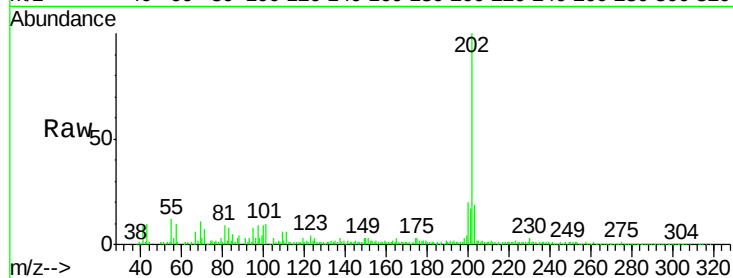
#79  
Pyrene  
Concen: 11.27 ng/ul  
RT: 19.49 min Scan# 2857  
Delta R.T. -0.00 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

Instrument :  
BNA\_M  
ClientSampleId :  
C02J3

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 202     | 100   | 339387 |       |       |
| 101     | 10.1  | 7.4    | 11.0  |       |
| 100     | 8.6   | 5.9    | 8.9   |       |

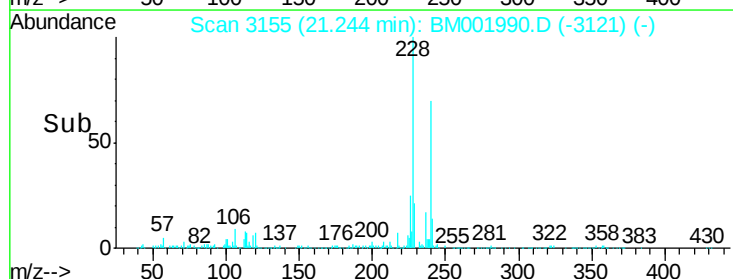
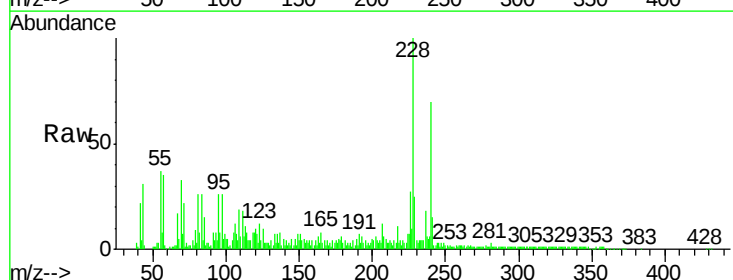
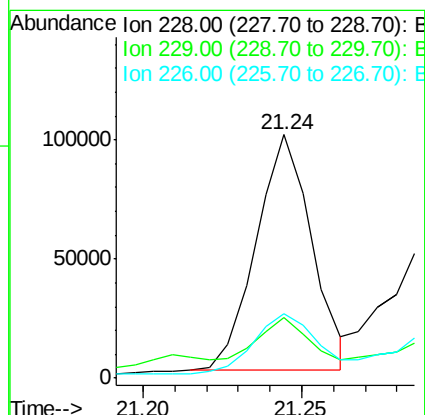
Manual Integrations  
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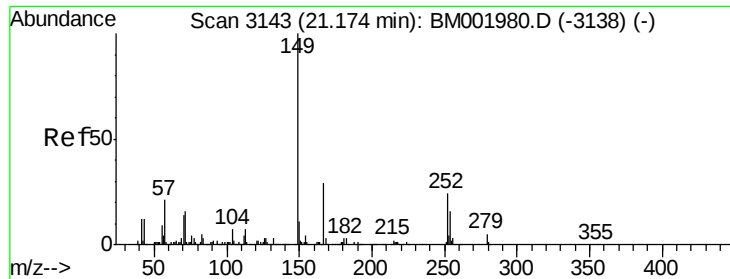
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#82  
Benzo(a)anthracene  
Concen: 4.05 ng/ul  
RT: 21.24 min Scan# 3155  
Delta R.T. -0.00 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 228     | 100   | 121267 |       |       |
| 229     | 24.9  | 15.2   | 22.8# |       |
| 226     | 26.7  | 20.8   | 31.2  |       |





#83

Bis(2-ethylhexyl)phthalate

Concen: 5.58 ng/ul

RT: 21.17 min Scan# 3142

Delta R.T. -0.01 min

Lab File: BM001990.D

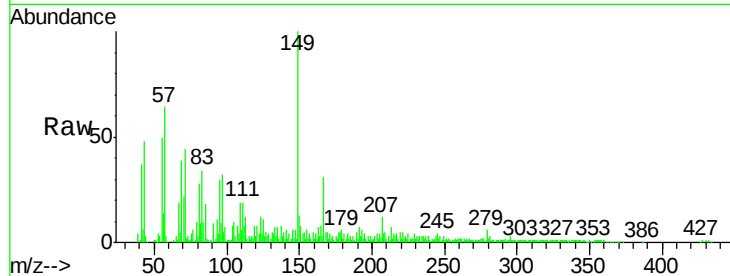
Acq: 21 Jul 2015 01:02

Instrument :

BNA\_M

ClientSampleId :

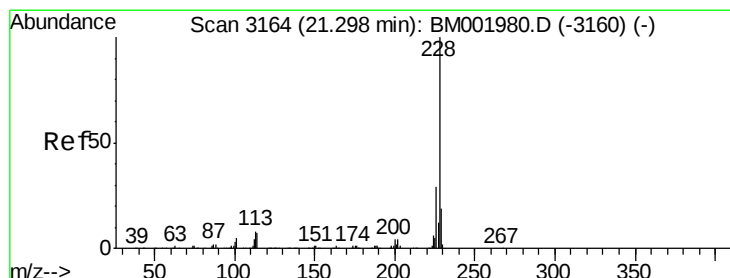
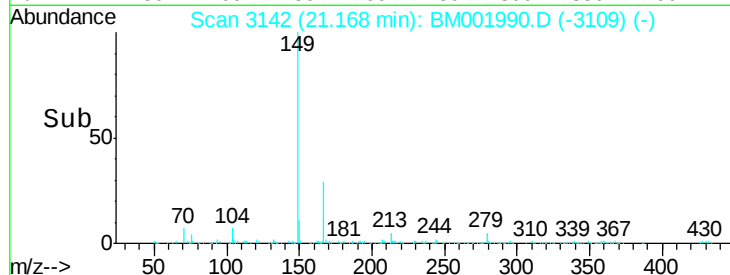
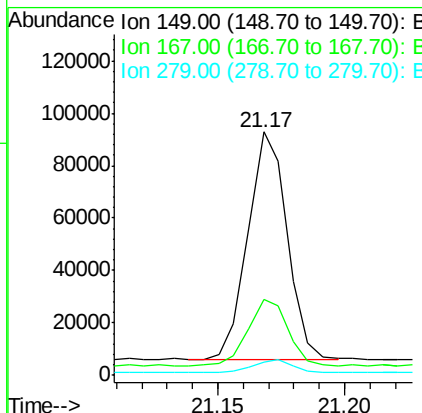
C02J3



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 167     | 31.1  | 23.4  | 35.0  |
| 279     | 5.6   | 4.0   | 6.0   |

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#84

Chrysene

Concen: 4.80 ng/ul

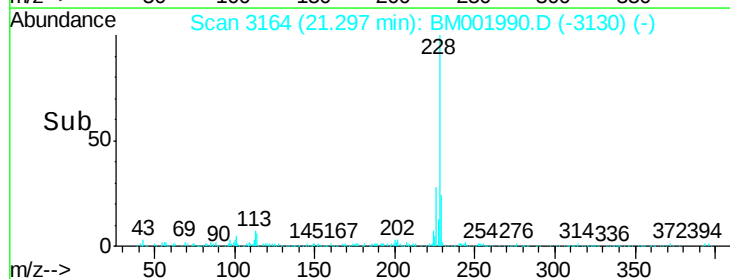
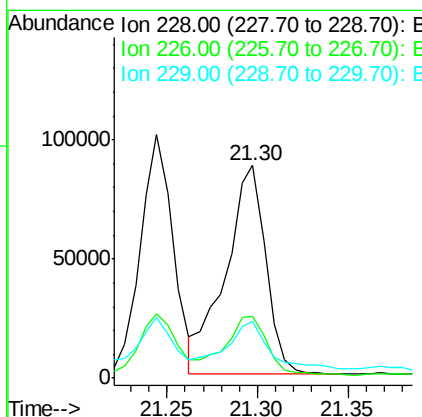
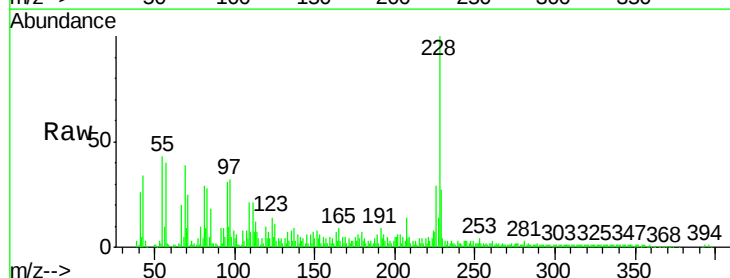
RT: 21.30 min Scan# 3164

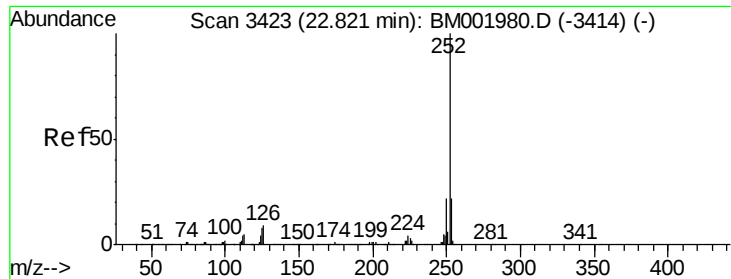
Delta R.T. -0.00 min

Lab File: BM001990.D

Acq: 21 Jul 2015 01:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.1  | 22.6  | 33.8  |
| 229     | 26.5  | 15.4  | 23.0  |





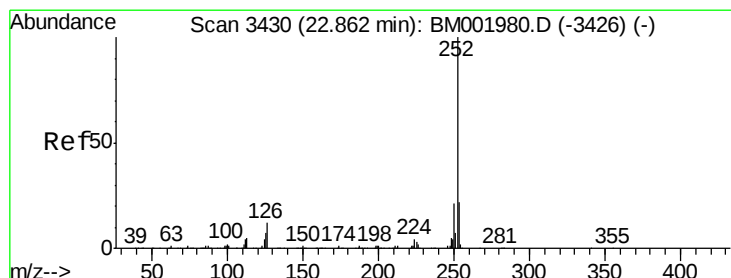
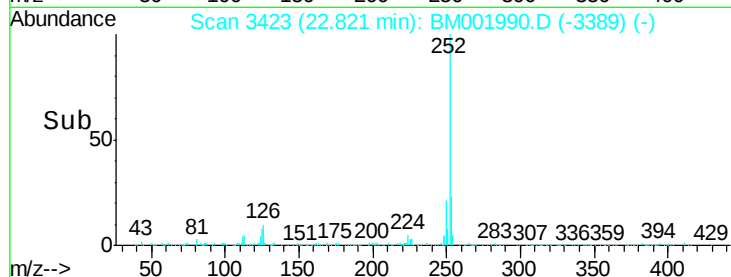
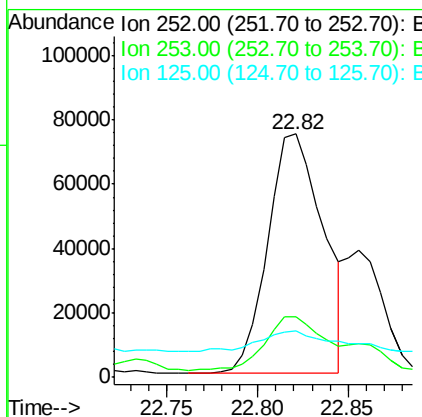
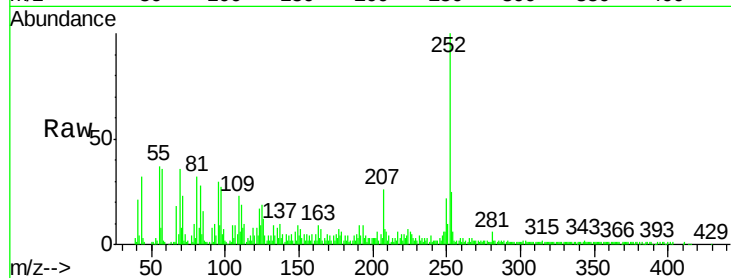
#87  
Benzo(b)fluoranthene  
Concen: 5.57 ng/ul  
RT: 22.82 min Scan# 3423  
Delta R.T. -0.00 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

Instrument :  
BNA\_M  
ClientSampled :  
C02J3

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 252     | 100   |            |       |
| 253     | 24.9  | 17.6       | 26.4  |
| 125     | 18.9  | 6.1        | 9.1   |

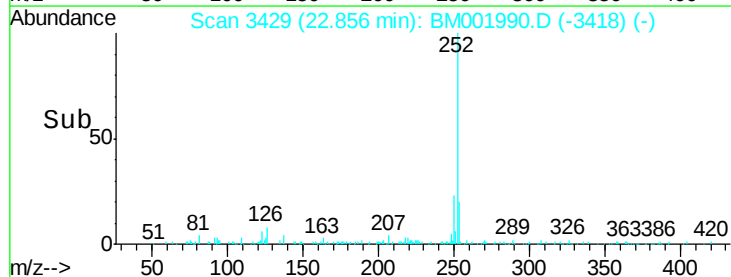
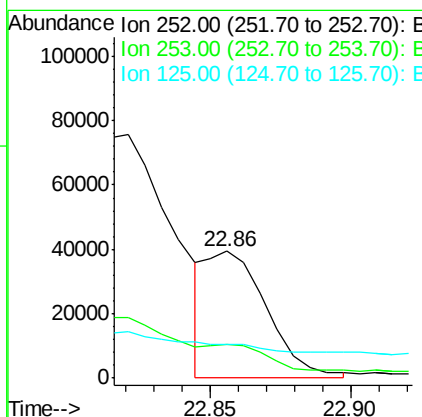
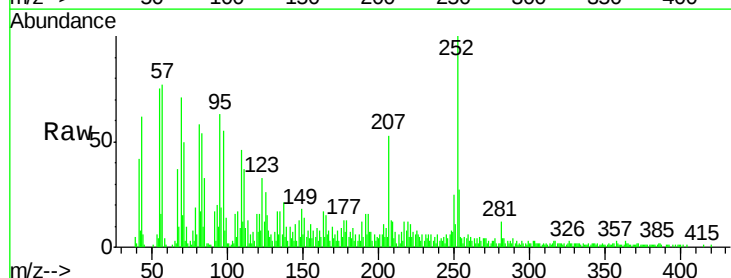
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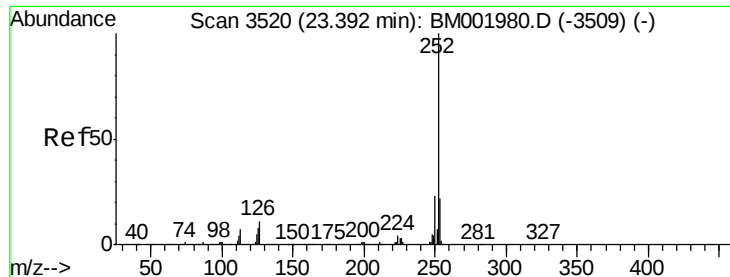
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#88  
Benzo(k)fluoranthene  
Concen: 2.15 ng/ul m  
RT: 22.86 min Scan# 3429  
Delta R.T. -0.01 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 252     | 100   |            |       |
| 253     | 26.8  | 17.1       | 25.7  |
| 125     | 26.3  | 5.6        | 8.4   |





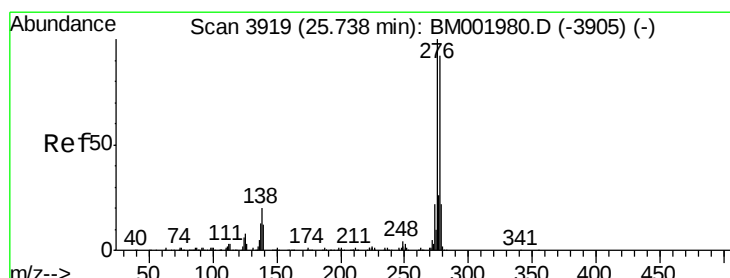
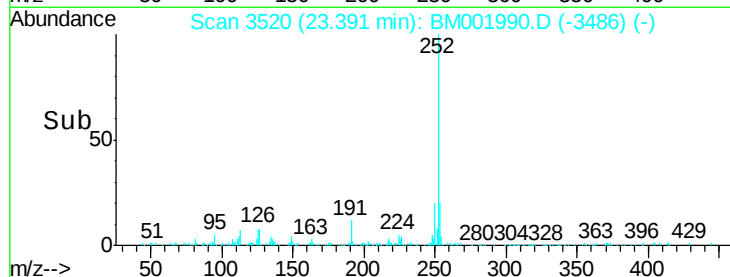
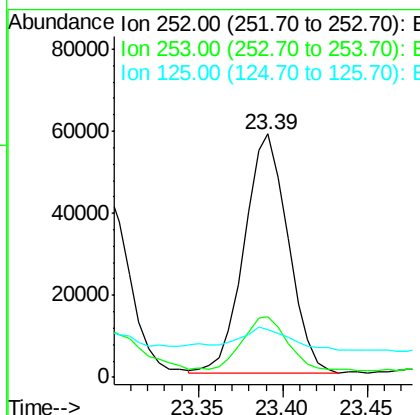
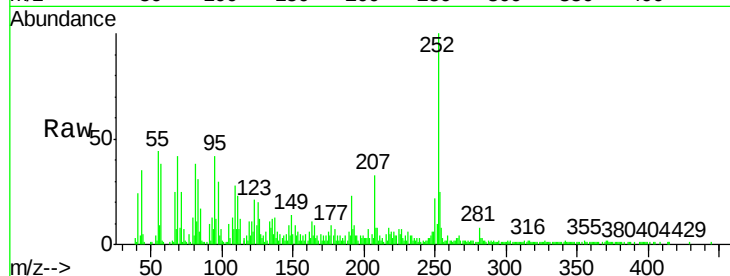
#90  
Benzo(a)pyrene  
Concen: 3.90 ng/ul  
RT: 23.39 min Scan# 3520  
Delta R.T. -0.00 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

Instrument :  
BNA\_M  
ClientSampleId :  
C02J3

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.9  | 17.4  | 26.2  |
| 125     | 19.9  | 6.4   | 9.6   |

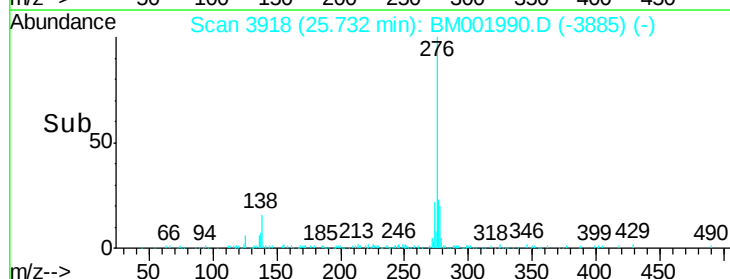
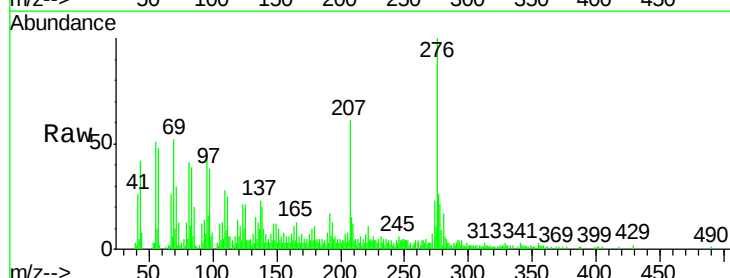
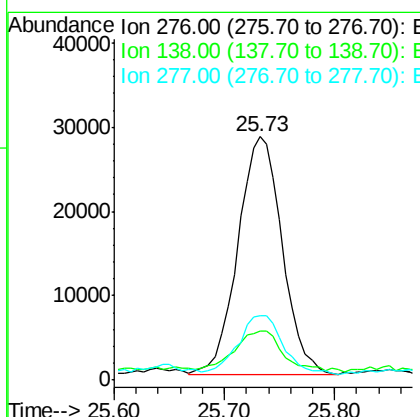
Manual Integrations  
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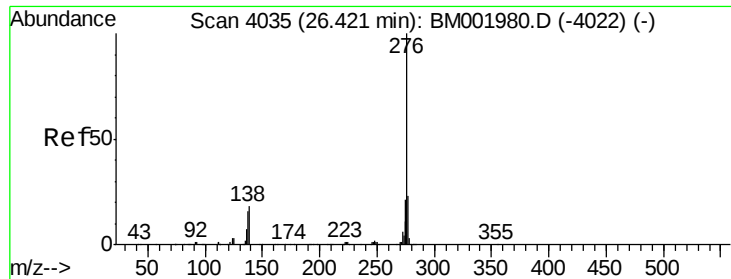
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#91  
Indeno(1,2,3-cd)pyrene  
Concen: 2.78 ng/ul  
RT: 25.73 min Scan# 3918  
Delta R.T. -0.01 min  
Lab File: BM001990.D  
Acq: 21 Jul 2015 01:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 20.0  | 15.4  | 23.0  |
| 277     | 26.2  | 19.9  | 29.9  |





#93  
 Benzo(g,h,i)perylene  
 Concen: 3.23 ng/ul  
 RT: 26.43 min Scan# 4036  
 Delta R.T. 0.01 min  
 Lab File: BM001990.D  
 Acq: 21 Jul 2015 01:02

Instrument :  
 BNA\_M  
 ClientSampleId :  
 C02J3

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.0  | 13.3  | 19.9# |
| 277     | 25.6  | 18.6  | 27.8  |

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