

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM011416\  
 Data File : BM004002.D  
 Acq On : 14 Jan 2016 02:16  
 Operator : SJ/UM  
 Sample : H1098-06  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BC9D2

Manual Integrations  
 APPROVED

MMdadoda  
 1/14/2016 5:56:48 PM

Quant Time: Jan 14 11:42:56 2016  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM010116.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Wed Jan 13 06:45:02 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.66  | 152  | 42192    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.45 | 136  | 204016   | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.32 | 164  | 121036   | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.07 | 188  | 271870   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.27 | 240  | 247575   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 23.51 | 264  | 206169   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.13  | 96  | 2904   | 3.08  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.84  | 99  | 68137  | 19.45 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.00  | 67  | 42265  | 21.34 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.20  | 132 | 59703  | 20.74 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.37  | 113 | 48306  | 17.02 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.82  | 128 | 30040  | 19.55 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.54  | 143 | 33259  | 19.74 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.08 | 165 | 59074  | 19.74 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.59 | 131 | 73511  | 18.60 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 13.73 | 166 | 208026 | 21.89 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.01 | 160 | 255285 | 22.05 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.54 | 143 | 24707  | 14.48 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.32 | 176 | 187154 | 23.22 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.45 | 200 | 20950  | 13.66 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.17 | 188 | 293550 | 23.35 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.47 | 212 | 311495 | 24.29 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 23.37 | 264 | 244626 | 23.76 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |        |       |        | Qvalue |
|----------------------------|-------|-----|--------|-------|--------|--------|
| 45) Dimethylphthalate      | 13.77 | 163 | 77775  | 8.03  | ng/ul  | 99     |
| 70) Phenanthrene           | 17.11 | 178 | 152603 | 9.98  | ng/ul  | 99     |
| 72) Anthracene             | 17.20 | 178 | 36246  | 2.31  | ng/ul  | 100    |
| 77) Fluoranthene           | 19.14 | 202 | 291547 | 18.35 | ng/ul  | 100    |
| 80) Pyrene                 | 19.50 | 202 | 310421 | 18.47 | ng/ul  | 99     |
| 83) Benzo(a)anthracene     | 21.26 | 228 | 142073 | 9.64  | ng/ul  | 98     |
| 85) Chrysene               | 21.31 | 228 | 148182 | 10.58 | ng/ul  | 98     |
| 88) Benzo(b)fluoranthene   | 22.84 | 252 | 137744 | 10.99 | ng/ul  | 98     |
| 89) Benzo(k)fluoranthene   | 22.87 | 252 | 44754m | 3.75  | ng/ul  |        |
| 91) Benzo(a)pyrene         | 23.41 | 252 | 105015 | 8.83  | ng/ul  | 96     |
| 92) Indeno(1,2,3-cd)pyrene | 25.76 | 276 | 59101  | 4.49  | ng/ul  | 96     |
| 93) Dibenzo(a,h)anthracene | 25.75 | 278 | 19180  | 1.74  | ng/ul# | 89     |
| 94) Benzo(g,h,i)perylene   | 26.44 | 276 | 58604  | 5.31  | ng/ul  | 99     |

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

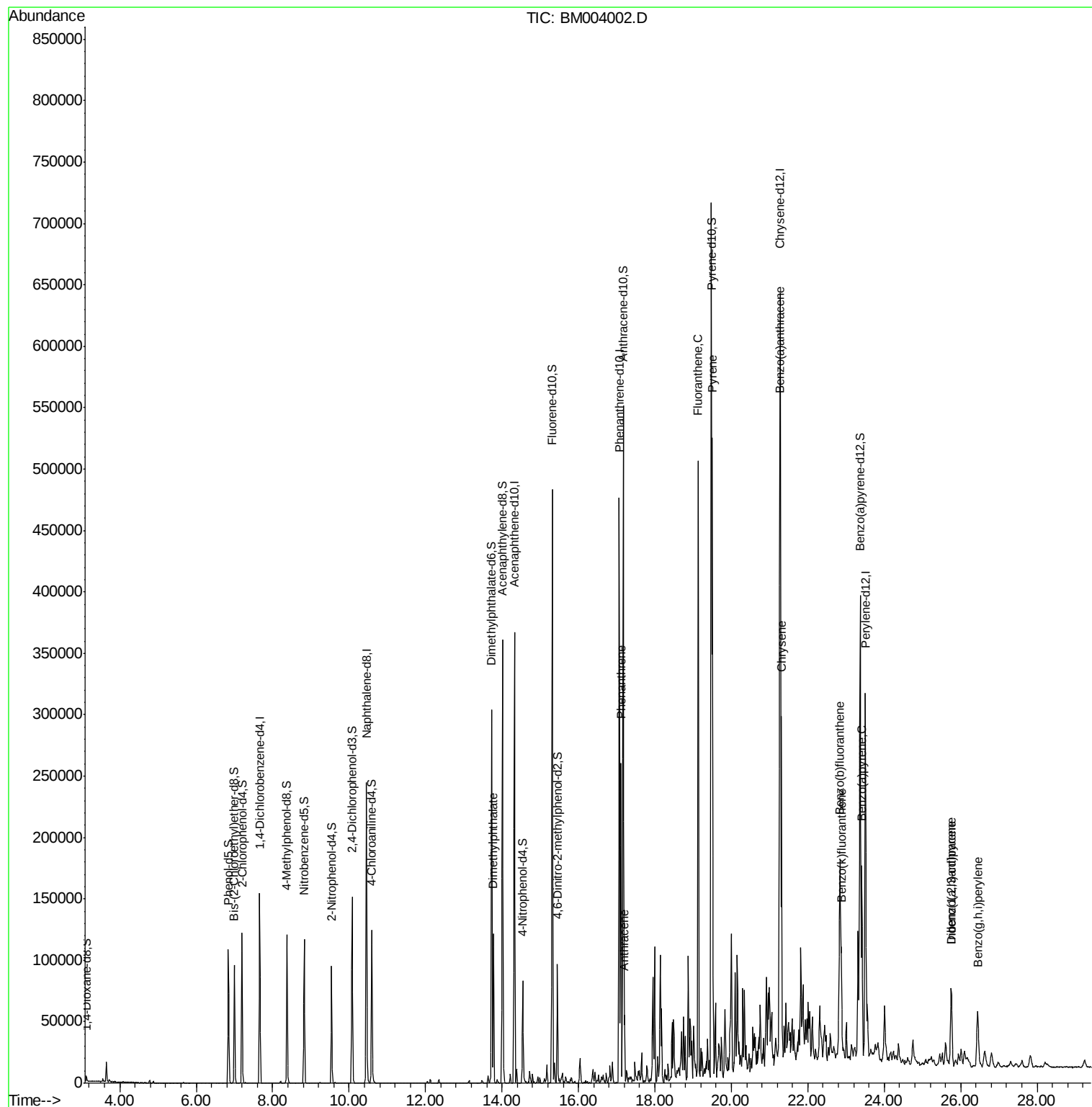
Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM011416\  
Data File : BM004002.D  
Acq On : 14 Jan 2016 02:16  
Operator : SJ/UM  
Sample : H1098-06  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

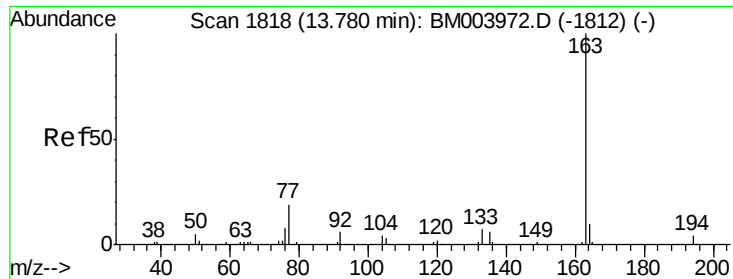
Instrument :  
BNA\_M  
ClientSampled :  
BC9D2

Manual Integrations  
APPROVED

MMdadoda  
1/14/2016 5:56:48 PM

Quant Time: Jan 14 11:42:56 2016  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM010116.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Wed Jan 13 06:45:02 2016  
Response via : Initial Calibration





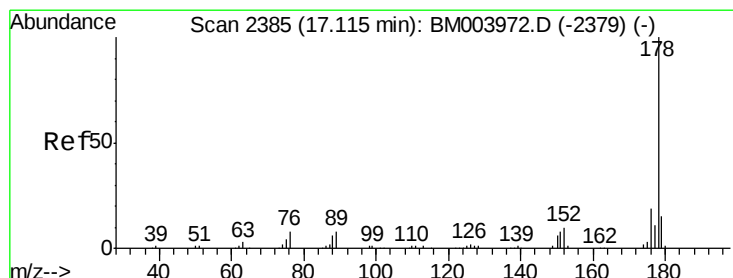
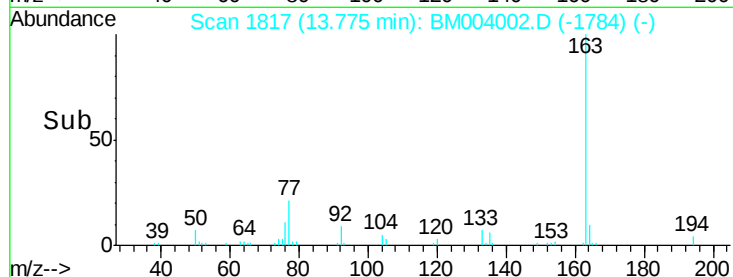
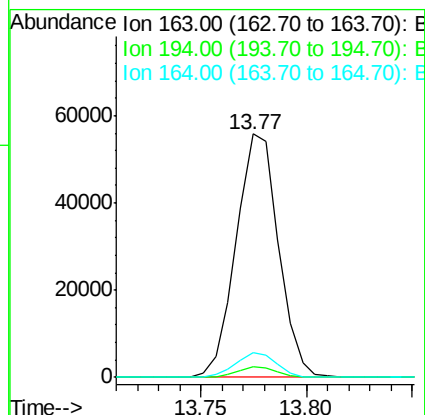
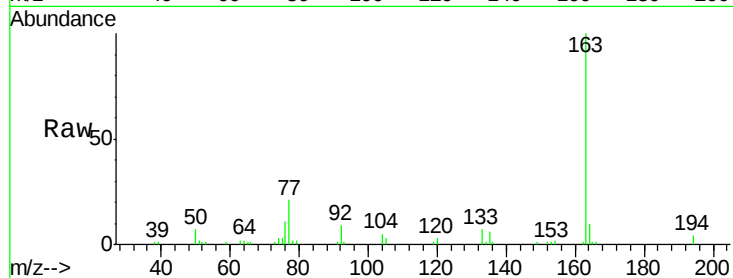
#45  
Dimethylphthalate  
Concen: 8.03 ng/ul  
RT: 13.77 min Scan# 1817  
Delta R.T. -0.01 min  
Lab File: BM004002.D  
Acq: 14 Jan 2016 02:16

Instrument :  
BNA\_M  
ClientSampleId :  
BC9D2

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 163     | 100   | 77775 |       |       |
| 194     | 4.1   |       | 3.2   | 4.8   |
| 164     | 10.1  |       | 7.8   | 11.8  |

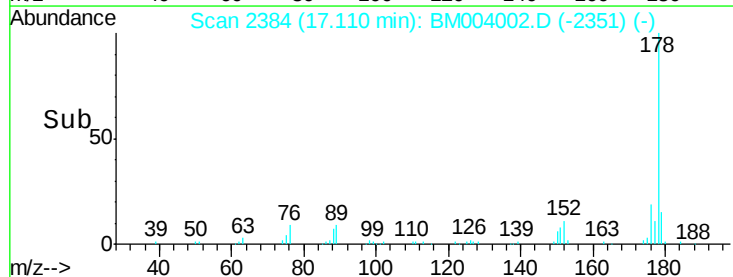
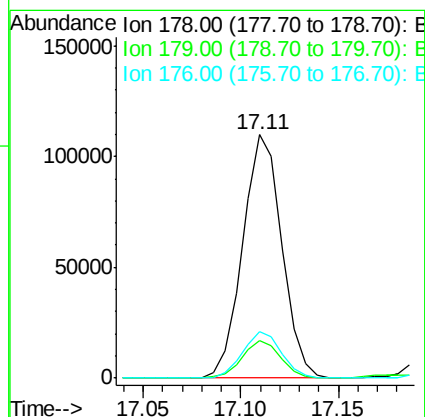
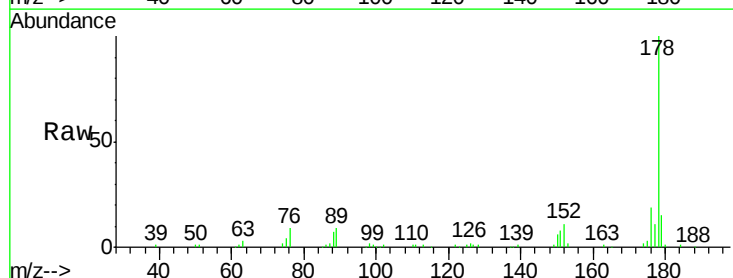
Manual Integrations  
APPROVED

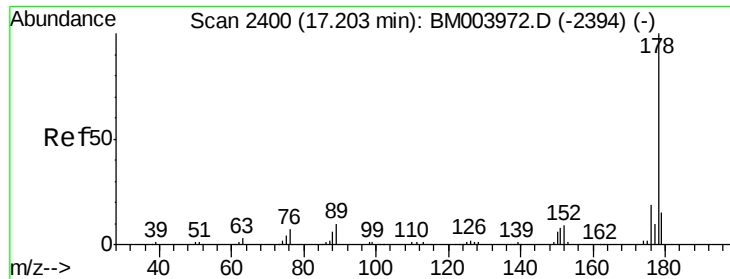
MMdadoda  
1/14/2016 5:56:48 PM



#70  
Phenanthrene  
Concen: 9.98 ng/ul  
RT: 17.11 min Scan# 2384  
Delta R.T. -0.01 min  
Lab File: BM004002.D  
Acq: 14 Jan 2016 02:16

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 178     | 100   | 152603 |       |       |
| 179     | 15.2  |        | 12.2  | 18.4  |
| 176     | 18.9  |        | 15.6  | 23.4  |





#72

Anthracene

Concen: 2.31 ng/ul

RT: 17.20 min Scan# 2400

Delta R.T. 0.00 min

Lab File: BM004002.D

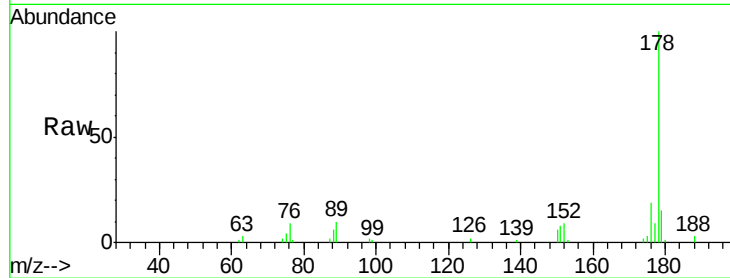
Acq: 14 Jan 2016 02:16

Instrument :

BNA\_M

ClientSampleId :

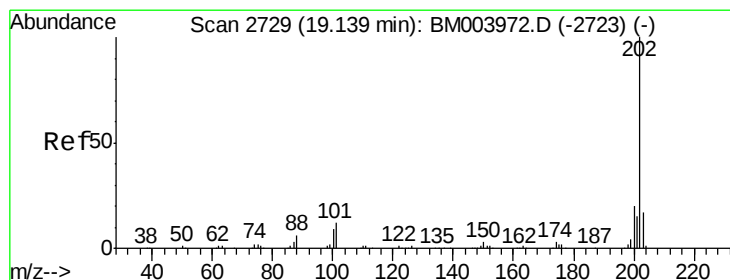
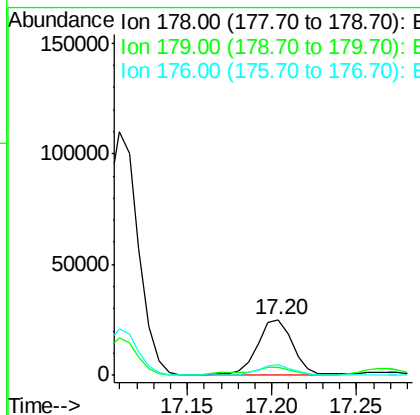
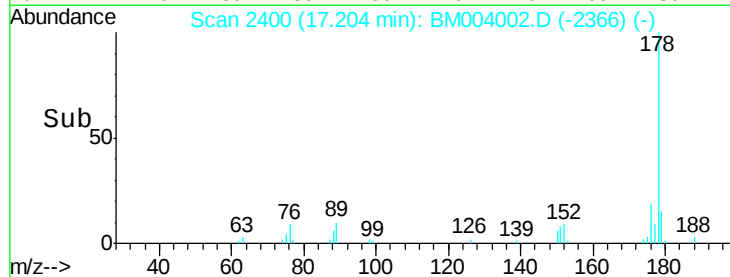
BC9D2



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 178   | Resp: | 36246 |
| Ion      | Ratio | Lower | Upper |
| 178      | 100   |       |       |
| 179      | 15.3  | 12.1  | 18.1  |
| 176      | 18.7  | 14.8  | 22.2  |

Manual Integrations  
APPROVED

MMdadoda  
1/14/2016 5:56:48 PM



#77

Fluoranthene

Concen: 18.35 ng/ul

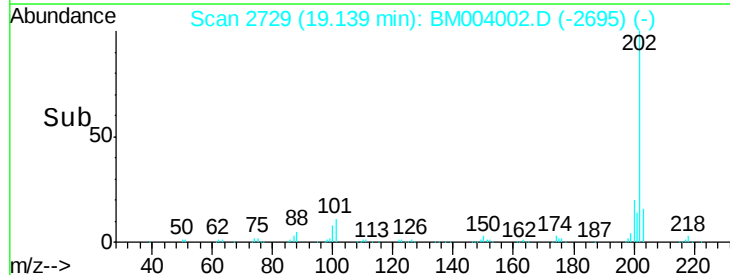
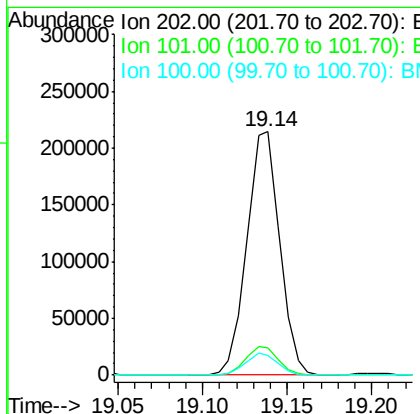
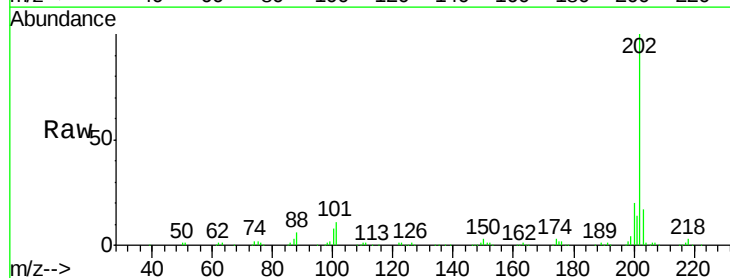
RT: 19.14 min Scan# 2729

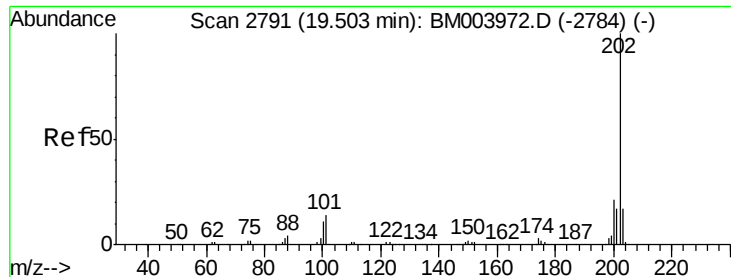
Delta R.T. 0.00 min

Lab File: BM004002.D

Acq: 14 Jan 2016 02:16

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 202   | Resp: | 291547 |
| Ion      | Ratio | Lower | Upper  |
| 202      | 100   |       |        |
| 101      | 11.2  | 8.8   | 13.2   |
| 100      | 8.2   | 6.6   | 9.8    |





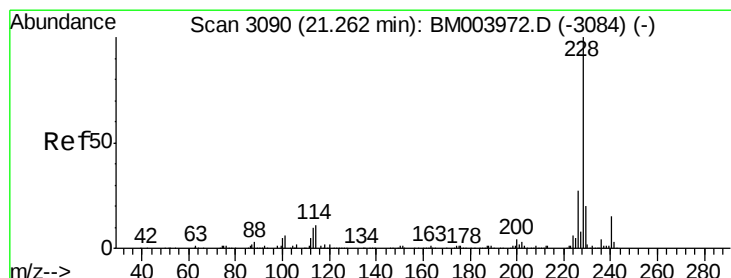
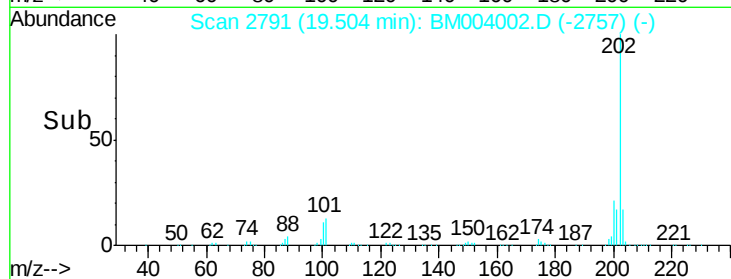
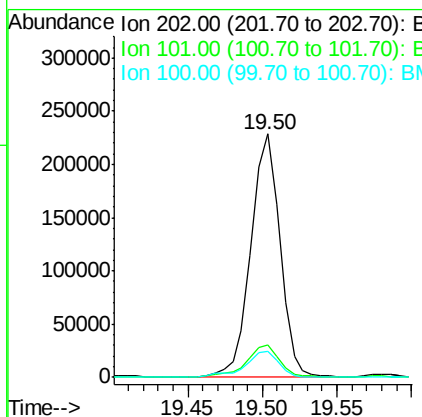
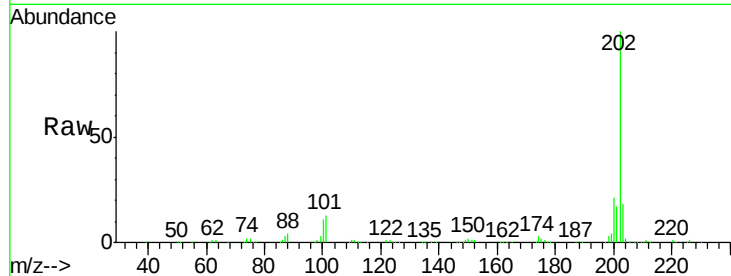
#80  
 Pyrene  
 Concen: 18.47 ng/u1  
 RT: 19.50 min Scan# 2791  
 Delta R.T. 0.00 min  
 Lab File: BM004002.D  
 Acq: 14 Jan 2016 02:16

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BC9D2

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 310421 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 13.2  | 10.2  | 15.2   |
| 100       | 10.8  | 8.5   | 12.7   |

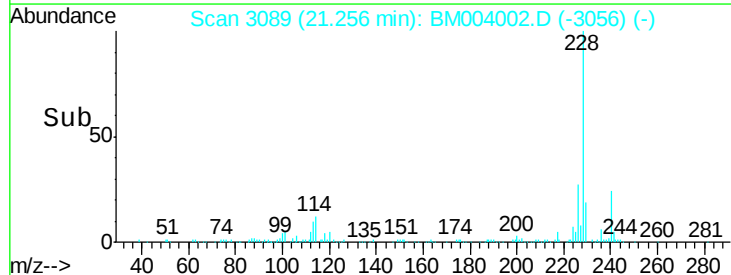
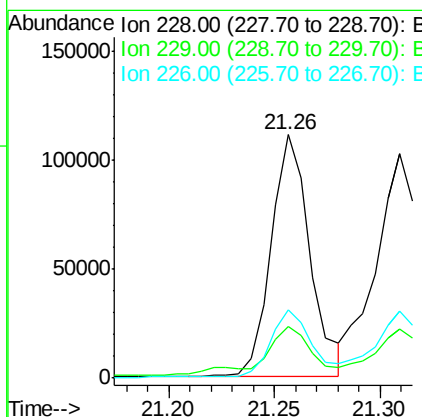
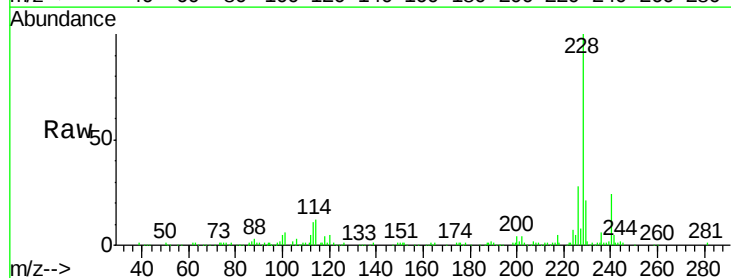
Manual Integrations  
 APPROVED

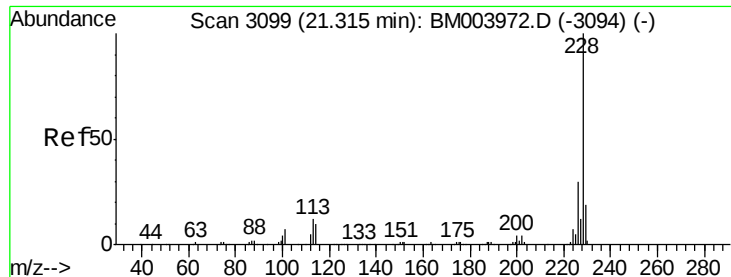
MMdadoda  
 1/14/2016 5:56:48 PM



#83  
 Benzo(a)anthracene  
 Concen: 9.64 ng/u1  
 RT: 21.26 min Scan# 3089  
 Delta R.T. -0.01 min  
 Lab File: BM004002.D  
 Acq: 14 Jan 2016 02:16

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 142073 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 229       | 21.0  | 15.7  | 23.5   |
| 226       | 27.9  | 21.8  | 32.6   |





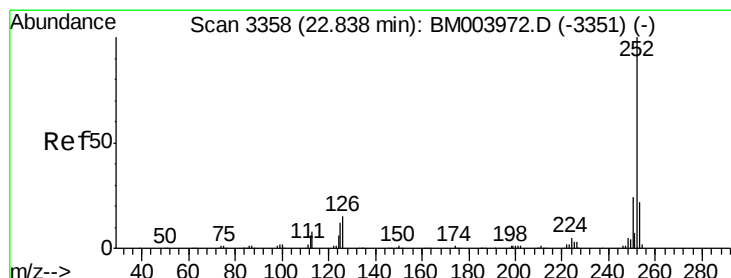
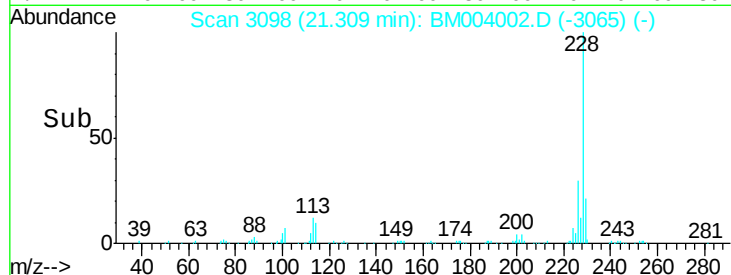
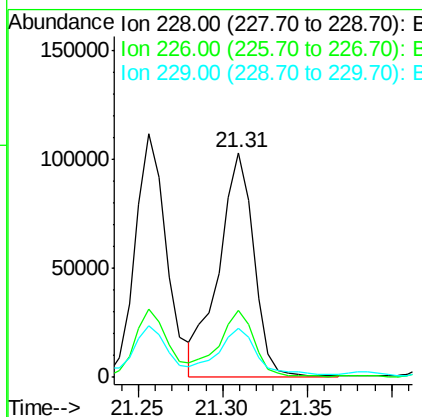
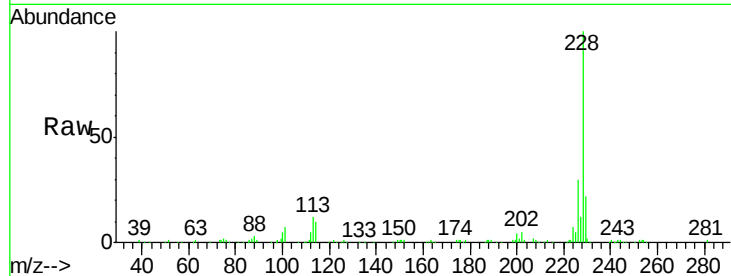
#85  
Chrysene  
Concen: 10.58 ng/u1  
RT: 21.31 min Scan# 3098  
Delta R.T. -0.01 min  
Lab File: BM004002.D  
Acq: 14 Jan 2016 02:16

Instrument :  
BNA\_M  
ClientSampleId :  
BC9D2

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.7  | 24.0  | 36.0  |
| 229     | 21.9  | 15.6  | 23.4  |

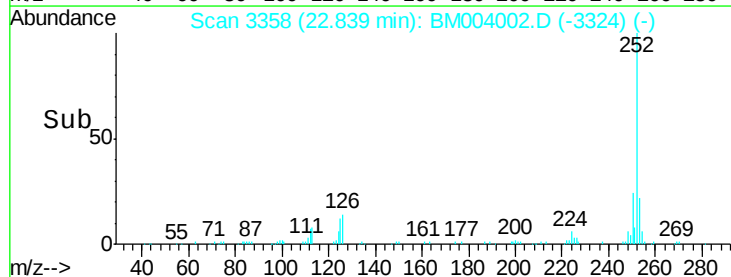
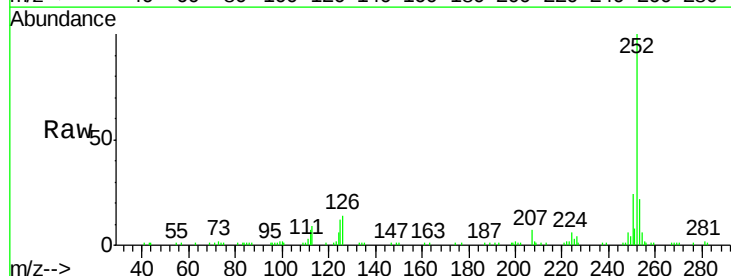
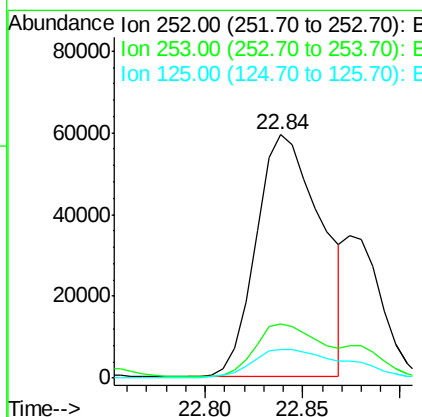
Manual Integrations  
APPROVED

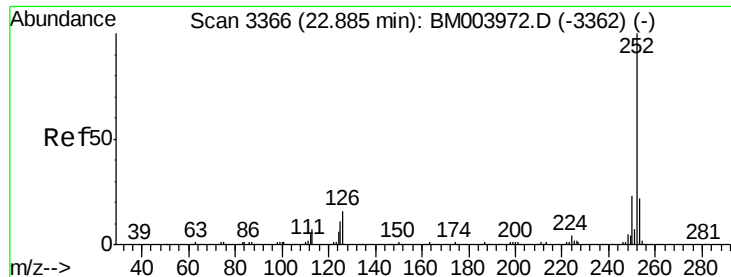
MMdadoda  
1/14/2016 5:56:48 PM



#88  
Benzo(b)fluoranthene  
Concen: 10.99 ng/u1  
RT: 22.84 min Scan# 3358  
Delta R.T. 0.00 min  
Lab File: BM004002.D  
Acq: 14 Jan 2016 02:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.5  | 17.5  | 26.3  |
| 125     | 11.8  | 8.5   | 12.7  |





#89

Benzo(k)fluoranthene

Concen: 3.75 ng/ul m

RT: 22.87 min Scan# 3364

Delta R.T. -0.01 min

Lab File: BM004002.D

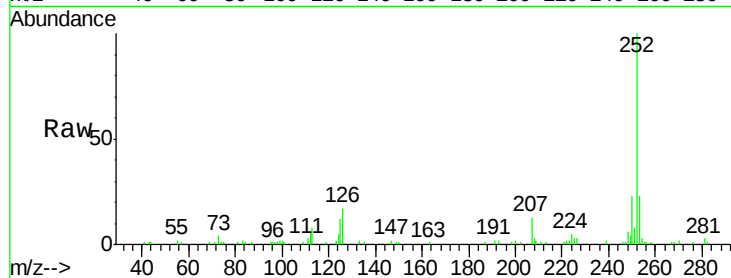
Acq: 14 Jan 2016 02:16

Instrument :

BNA\_M

ClientSampleId :

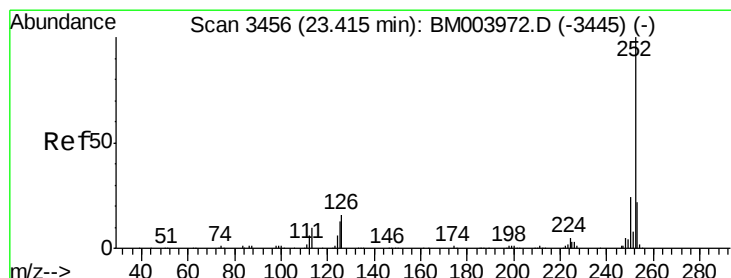
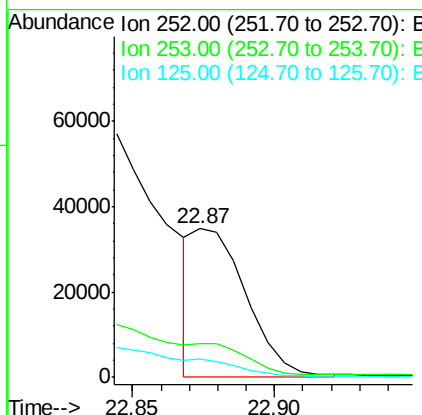
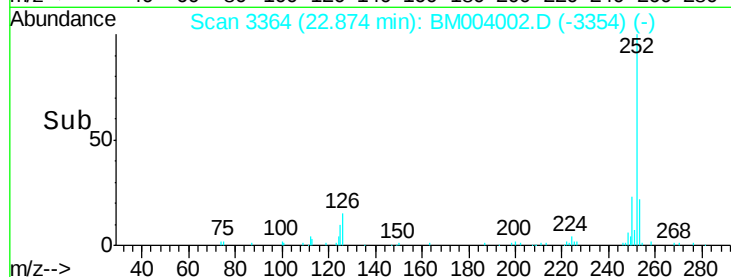
BC9D2



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 44754 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 22.6  | 17.3  | 25.9  |
| 125       | 12.3  | 8.2   | 12.2# |

Manual Integrations  
APPROVED

MMdadoda  
1/14/2016 5:56:48 PM



#91

Benzo(a)pyrene

Concen: 8.83 ng/ul

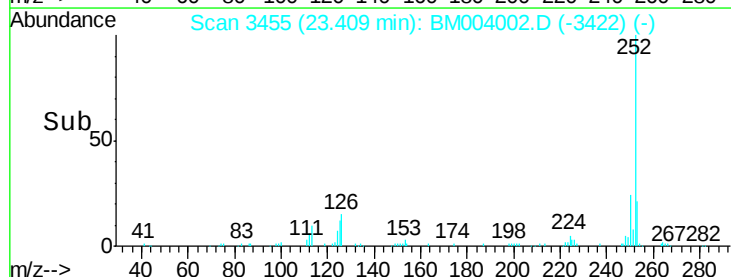
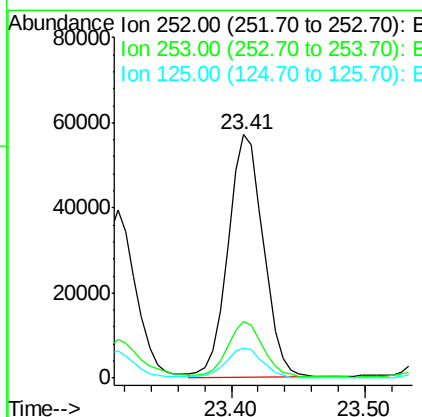
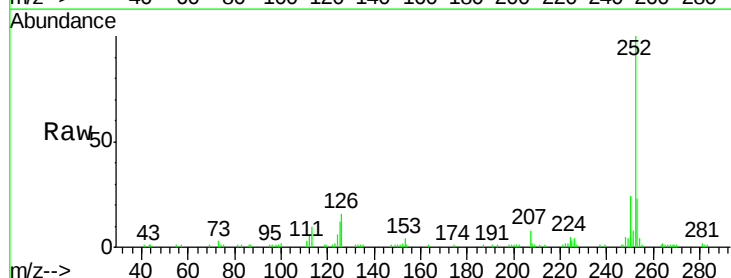
RT: 23.41 min Scan# 3455

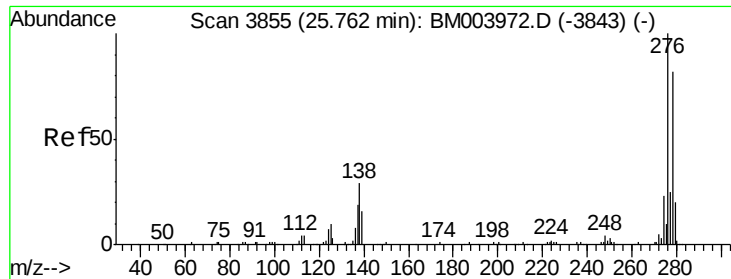
Delta R.T. -0.01 min

Lab File: BM004002.D

Acq: 14 Jan 2016 02:16

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 105015 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 23.4  | 17.2  | 25.8   |
| 125       | 12.4  | 9.0   | 13.6   |





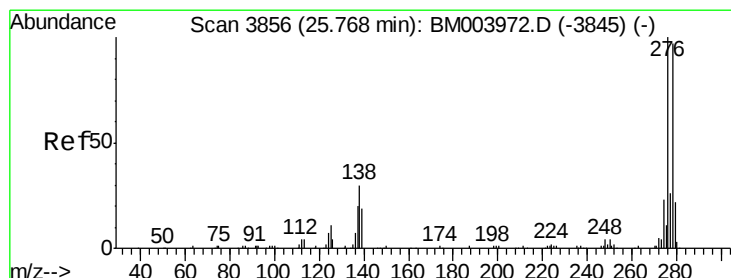
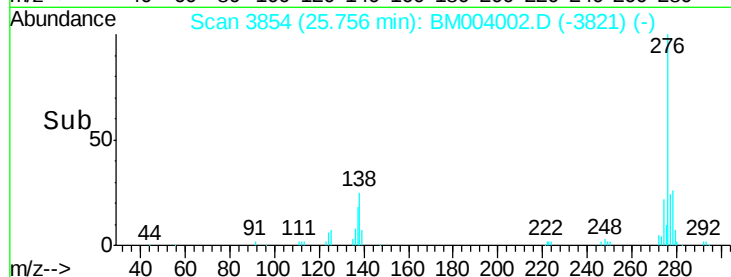
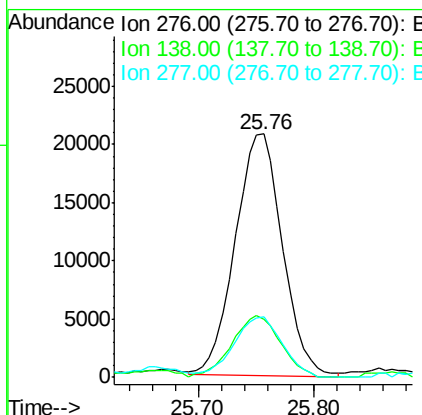
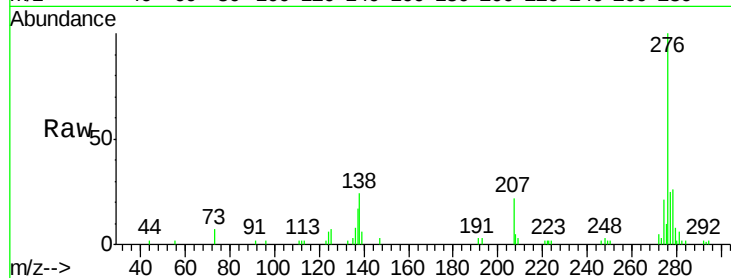
#92  
 Indeno(1,2,3-cd)pyrene  
 Concen: 4.49 ng/ul  
 RT: 25.76 min Scan# 3854  
 Delta R.T. -0.01 min  
 Lab File: BM004002.D  
 Acq: 14 Jan 2016 02:16

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BC9D2

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.8  | 22.3  | 33.5  |
| 277     | 24.9  | 20.2  | 30.2  |

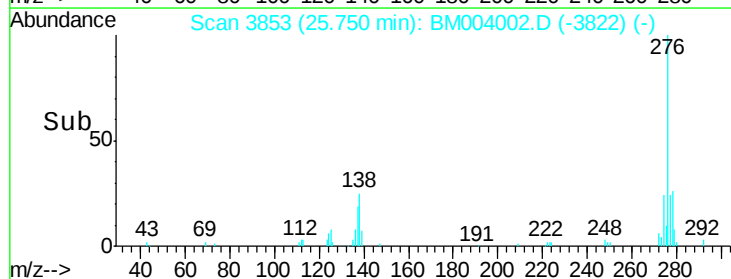
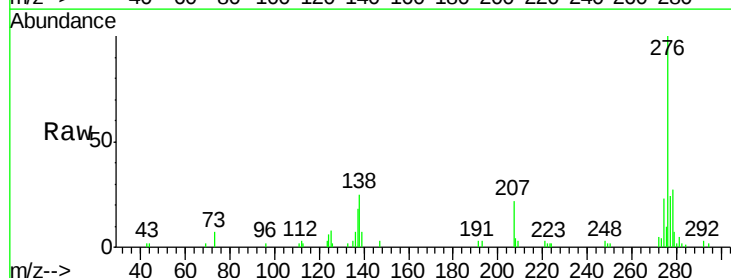
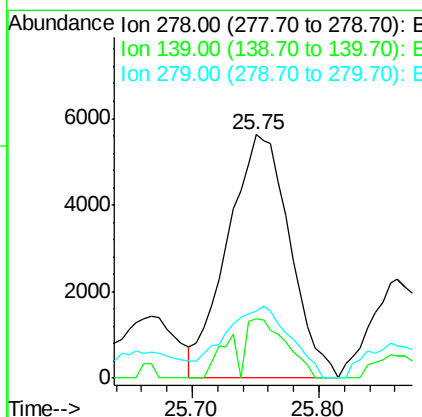
Manual Integrations  
 APPROVED

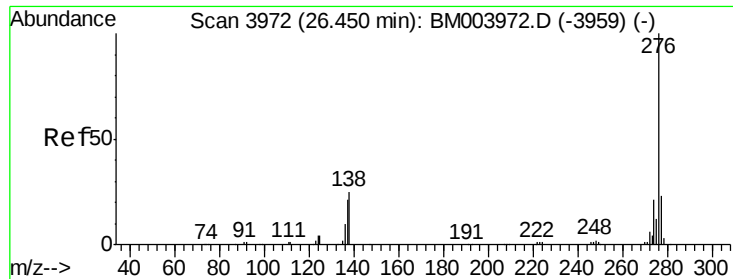
MMdadoda  
 1/14/2016 5:56:48 PM



#93  
 Dibenzo(a,h)anthracene  
 Concen: 1.74 ng/ul  
 RT: 25.75 min Scan# 3853  
 Delta R.T. -0.02 min  
 Lab File: BM004002.D  
 Acq: 14 Jan 2016 02:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 24.6  | 13.9  | 20.9# |
| 279     | 27.4  | 19.0  | 28.4  |





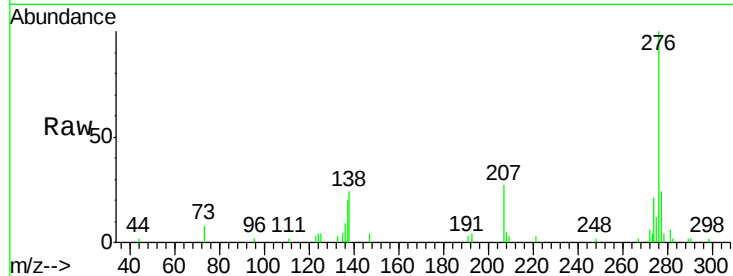
#94  
 Benzo(g,h,i)perylene  
 Concen: 5.31 ng/ul  
 RT: 26.44 min Scan# 3971  
 Delta R.T. -0.01 min  
 Lab File: BM004002.D  
 Acq: 14 Jan 2016 02:16

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BC9D2

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 58604 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 24.3  | 18.9  | 28.3  |
| 277       | 24.2  | 19.2  | 28.8  |

Manual Integrations  
 APPROVED

MMdadoda  
 1/14/2016 5:56:48 PM



Abundance Ion 276.00 (275.70 to 276.70): E  
 Ion 138.00 (137.70 to 138.70): E  
 Ion 277.00 (276.70 to 277.70): E

