

Data Path : Z:\HPCHEM1\BNA M\DATA\BM063016\  
 Data File : BM006168.D  
 Acq On : 30 Jun 2016 21:36  
 Operator : UM/SJ  
 Sample : H3780-10  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 D9YF9

Manual Integrations  
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 7/1/2016 7:15:38 PM

Quant Time: Jul 01 01:22:39 2016  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM062816.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Wed Jun 29 00:57:09 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.66  | 152  | 205009   | 20.00 | ng/ul | 0.00     |
| 7) Naphthalene-d8         | 10.44 | 136  | 799670   | 20.00 | ng/ul | 0.00     |
| 15) Acenaphthene-d10      | 14.30 | 164  | 408137   | 20.00 | ng/ul | 0.00     |
| 23) Phenanthrene-d10      | 17.06 | 188  | 866011   | 20.00 | ng/ul | 0.00     |
| 29) Chrysene-d12          | 21.26 | 240  | 909538   | 20.00 | ng/ul | 0.00     |
| 34) Perylene-d12          | 23.48 | 264  | 1012261  | 20.00 | ng/ul | 0.02     |

## System Monitoring Compounds

|                                |       |     |         |       |       |      |
|--------------------------------|-------|-----|---------|-------|-------|------|
| 2) 1,4-Dioxane-d8              | 3.18  | 96  | 5444    | 1.23  | ng/uL | 0.00 |
| 3) Phenol-d5                   | 6.83  | 99  | 352589  | 21.05 | ng/ul | 0.00 |
| 4) Bis-(2-Chloroethyl)ether-d  | 6.99  | 67  | 217136  | 21.99 | ng/ul | 0.00 |
| 5) 2-Chlorophenol-d4           | 7.19  | 132 | 275520  | 21.43 | ng/ul | 0.00 |
| 6) 4-Methylphenol-d8           | 8.37  | 113 | 278801  | 20.68 | ng/ul | 0.00 |
| 8) Nitrobenzene-d5             | 8.81  | 128 | 134279  | 24.93 | ng/ul | 0.00 |
| 9) 2-Nitrophenol-d4            | 9.53  | 143 | 148560  | 24.10 | ng/ul | 0.00 |
| 10) 2,4-Dichlorophenol-d3      | 10.06 | 165 | 262541  | 23.34 | ng/ul | 0.00 |
| 12) 4-Chloroaniline-d4         | 10.58 | 131 | 208876  | 23.49 | ng/ul | 0.00 |
| 16) Dimethylphthalate-d6       | 13.72 | 166 | 729399  | 24.93 | ng/ul | 0.00 |
| 17) Acenaphthylene-d8          | 14.00 | 160 | 949056  | 26.73 | ng/ul | 0.00 |
| 20) 4-Nitrophenol-d4           | 14.53 | 143 | 134109  | 24.16 | ng/ul | 0.02 |
| 21) Fluorene-d10               | 15.30 | 176 | 637551  | 25.54 | ng/ul | 0.00 |
| 24) 4,6-Dinitro-2-methylphenol | 15.44 | 200 | 88822   | 28.96 | ng/ul | 0.01 |
| 26) Anthracene-d10             | 17.16 | 188 | 970553  | 27.94 | ng/ul | 0.00 |
| 30) Pyrene-d10                 | 19.46 | 212 | 1044686 | 28.52 | ng/ul | 0.00 |
| 37) Benzo(a)pyrene-d12         | 23.34 | 264 | 1083396 | 26.89 | ng/ul | 0.02 |

## Target Compounds

|                            |       |     |         |       |        | Ovalue |
|----------------------------|-------|-----|---------|-------|--------|--------|
| 18) Acenaphthylene         | 14.03 | 152 | 66617   | 1.79  | ng/ul  | 99     |
| 19) Acenaphthene           | 14.37 | 153 | 24150   | 1.02  | ng/ul  | 98     |
| 25) Phenanthrene           | 17.10 | 178 | 446828  | 10.90 | ng/ul  | 99     |
| 27) Anthracene             | 17.19 | 178 | 156556  | 3.72  | ng/ul  | 98     |
| 28) Fluoranthene           | 19.12 | 202 | 1078853 | 21.49 | ng/ul  | 99     |
| 31) Pyrene                 | 19.49 | 202 | 1011827 | 21.09 | ng/ul  | 98     |
| 32) Benzo(a)anthracene     | 21.24 | 228 | 631316  | 13.35 | ng/ul  | 96     |
| 33) Chrysene               | 21.29 | 228 | 706961  | 16.24 | ng/ul  | 97     |
| 35) Benzo(b)fluoranthene   | 22.82 | 252 | 1108912 | 21.11 | ng/ul  | 97     |
| 36) Benzo(k)fluoranthene   | 22.85 | 252 | 305121m | 6.19  | ng/ul  |        |
| 38) Benzo(a)pyrene         | 23.39 | 252 | 708662  | 14.28 | ng/ul  | 98     |
| 39) Indeno(1,2,3-cd)pyrene | 25.71 | 276 | 557726m | 10.81 | ng/ul  |        |
| 40) Dibenzo(a,h)anthracene | 25.71 | 278 | 175377  | 4.11  | ng/ul# | 81     |
| 41) Benzo(g,h,i)perylene   | 26.40 | 276 | 542647  | 12.57 | ng/ul  | 97     |

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

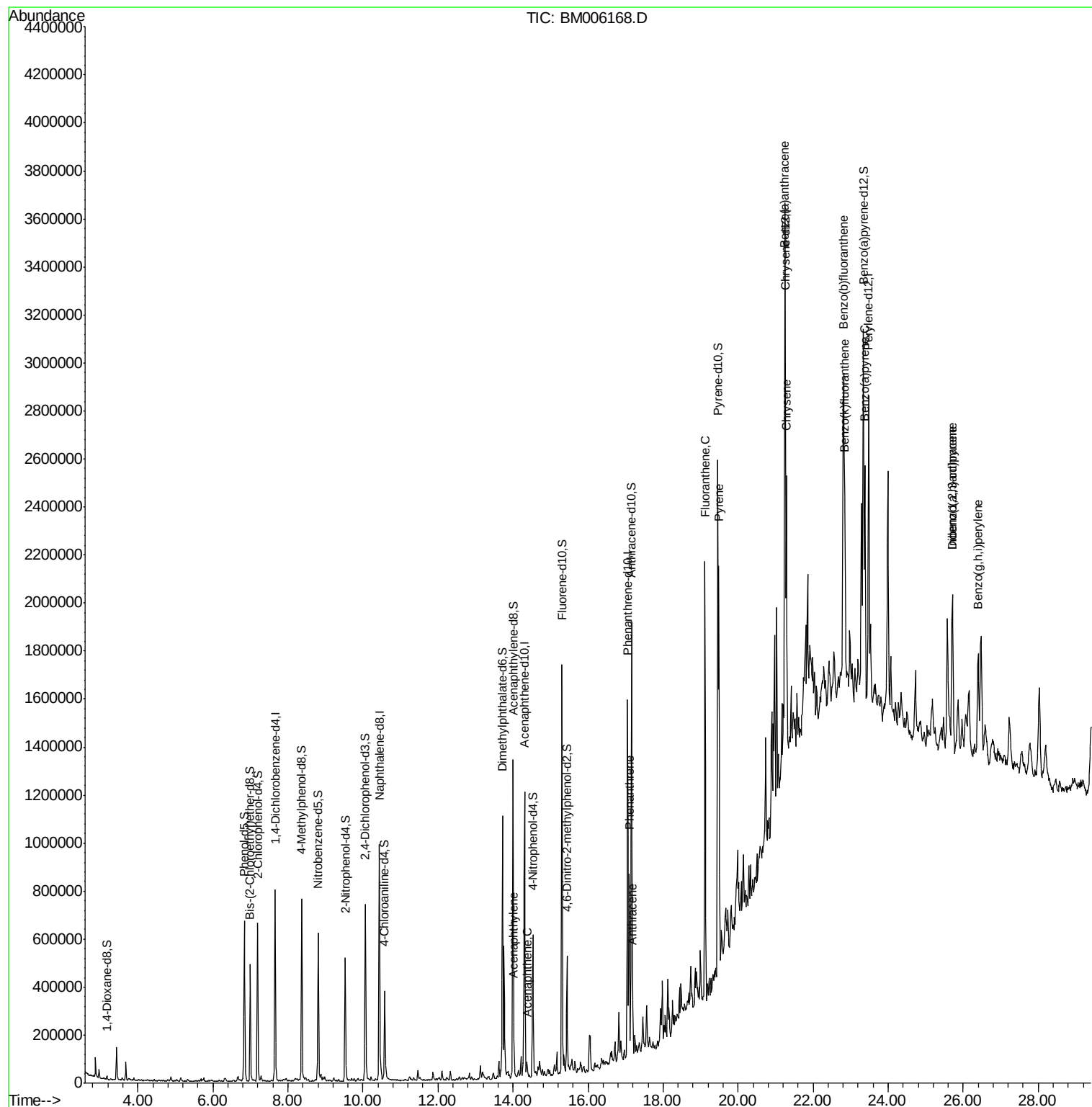
Data Path : Z:\HPCHEM1\BNA M\DATA\BM063016\  
Data File : BM006168.D  
Acq On : 30 Jun 2016 21:36  
Operator : UM/SJ  
Sample : H3780-10  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

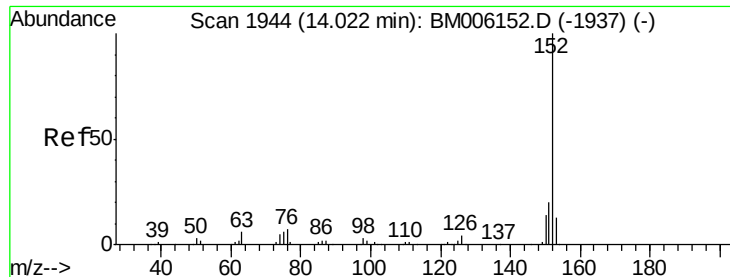
Instrument :  
BNA\_M  
ClientSampleId :  
D9YF9

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Quant Time: Jul 01 01:22:39 2016  
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM062816.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Wed Jun 29 00:57:09 2016  
Response via : Initial Calibration





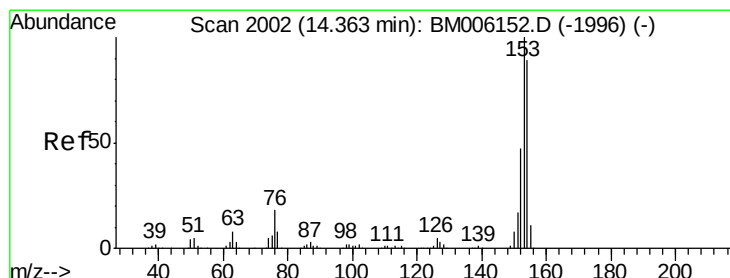
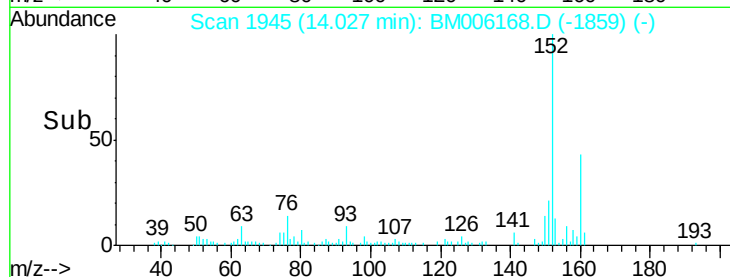
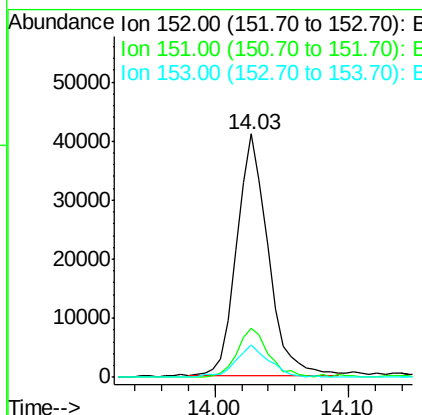
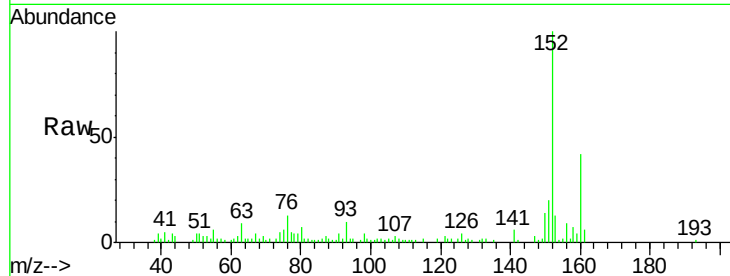
#18  
Acenaphthylene  
Concen: 1.79 ng/ul  
RT: 14.03 min Scan# 1945  
Delta R.T. 0.01 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

Instrument :  
BNA\_M  
ClientSampleId :  
D9YF9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 20.4  | 15.8  | 23.6  |
| 153     | 13.3  | 10.3  | 15.5  |

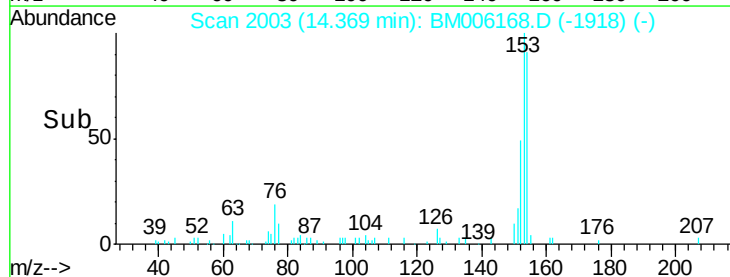
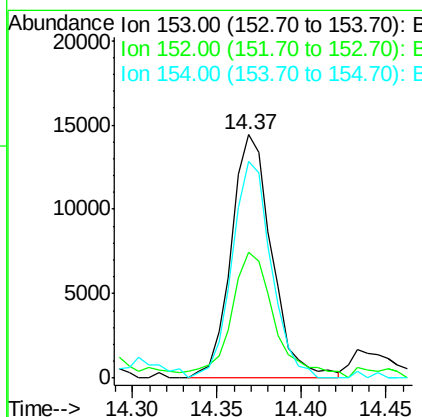
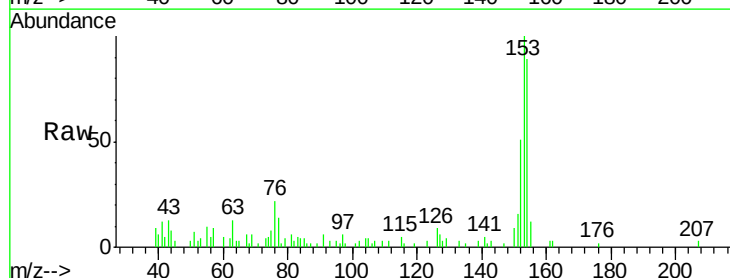
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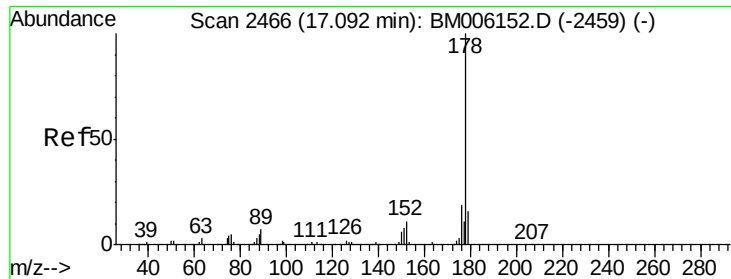
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#19  
Acenaphthene  
Concen: 1.02 ng/ul  
RT: 14.37 min Scan# 2003  
Delta R.T. 0.00 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 100   |       |       |
| 152     | 51.4  | 38.1  | 57.1  |
| 154     | 89.0  | 71.6  | 107.4 |





#25

Phenanthrene

Concen: 10.90 ng/ul

RT: 17.10 min Scan# 2467

Delta R.T. 0.01 min

Lab File: BM006168.D

Acq: 30 Jun 2016 21:36

Instrument :

BNA\_M

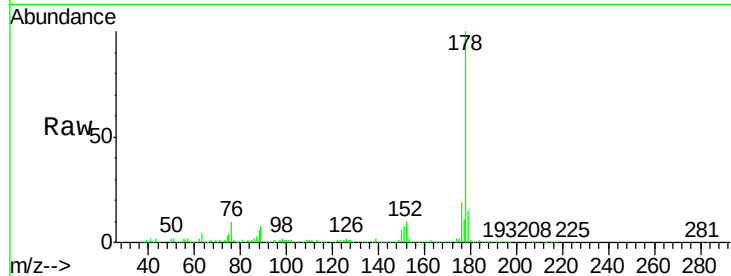
ClientSampleId :

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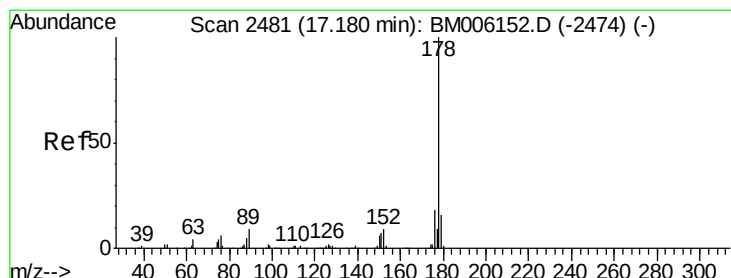
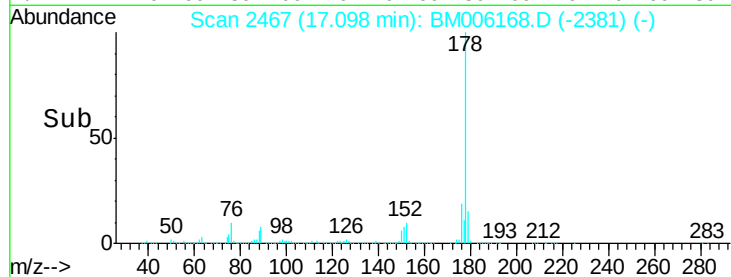
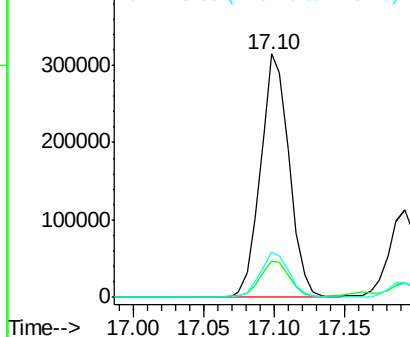
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 178   | Resp: | 446828 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 15.1  | 12.2  | 18.2   |
| 176       | 18.7  | 15.3  | 22.9   |

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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



#27

Anthracene

Concen: 3.72 ng/ul

RT: 17.19 min Scan# 2483

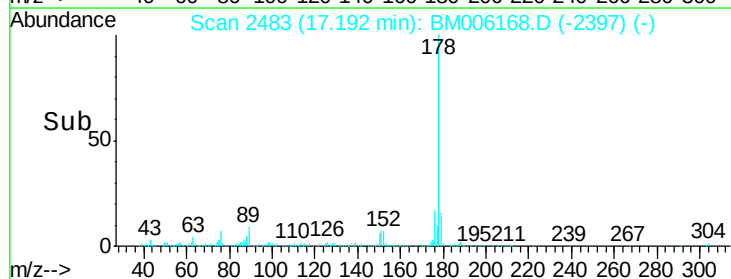
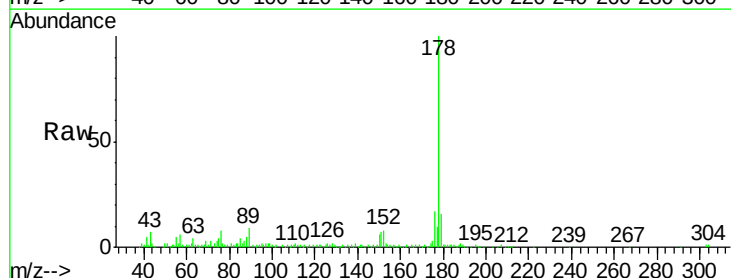
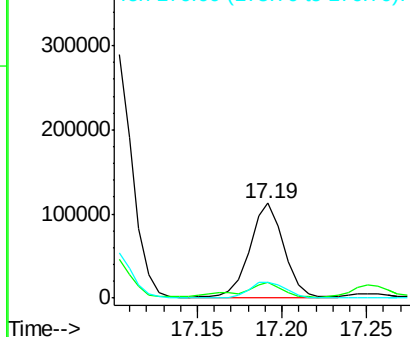
Delta R.T. 0.01 min

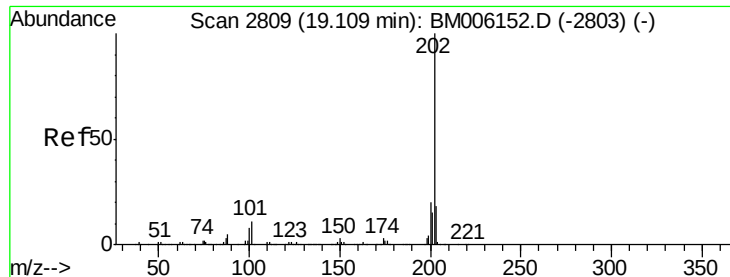
Lab File: BM006168.D

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|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 156556 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 16.0  | 12.3  | 18.5   |
| 176       | 17.3  | 14.6  | 22.0   |

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





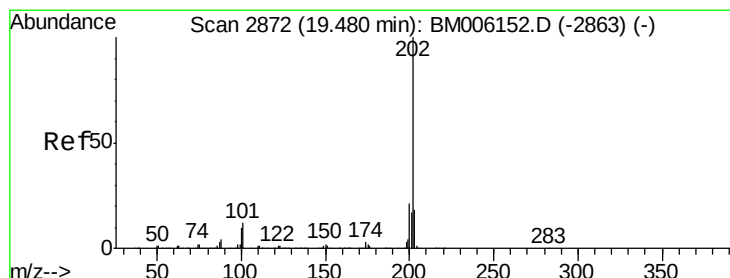
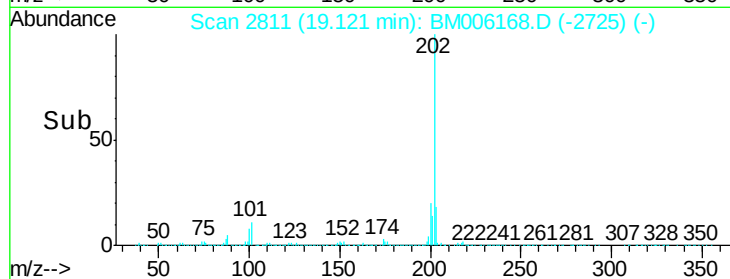
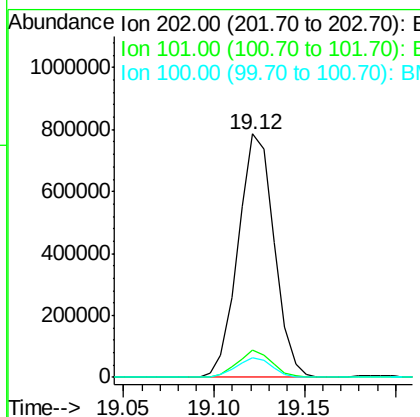
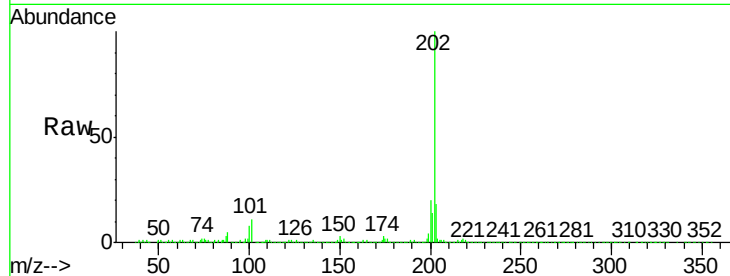
#28  
Fluoranthene  
Concen: 21.49 ng/ul  
RT: 19.12 min Scan# 2811  
Delta R.T. 0.01 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

Instrument :  
BNA\_M  
ClientSampleId :  
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| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 11.1  | 8.5   | 12.7  |
| 100     | 8.2   | 6.5   | 9.7   |

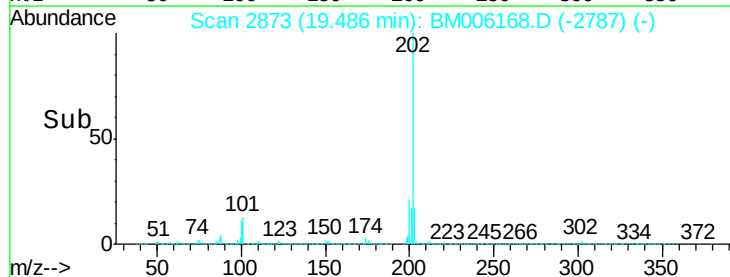
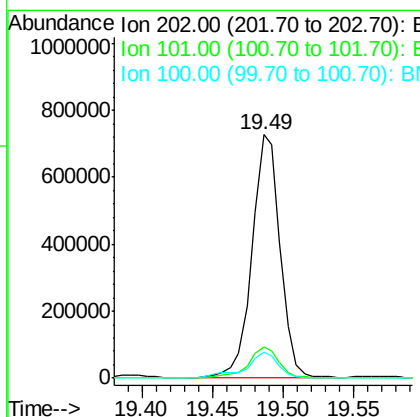
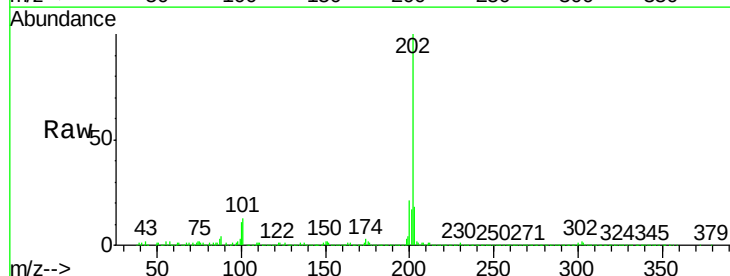
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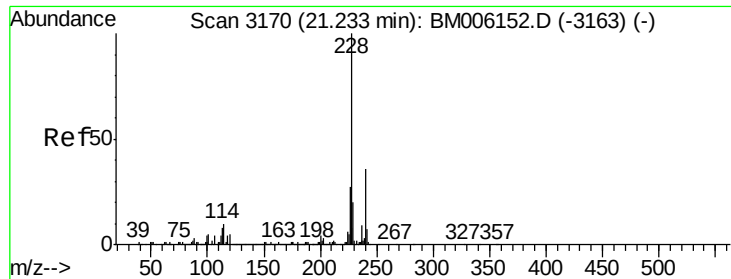
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#31  
Pyrene  
Concen: 21.09 ng/ul  
RT: 19.49 min Scan# 2873  
Delta R.T. 0.01 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 12.9  | 11.0  | 16.4  |
| 100     | 10.6  | 8.9   | 13.3  |





#32

Benzo(a)anthracene

Concen: 13.35 ng/ul

RT: 21.24 min Scan# 3171

Delta R.T. 0.01 min

Lab File: BM006168.D

Acq: 30 Jun 2016 21:36

Instrument :

BNA\_M

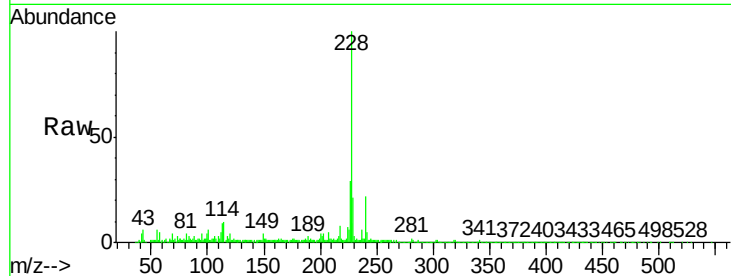
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D9YF9

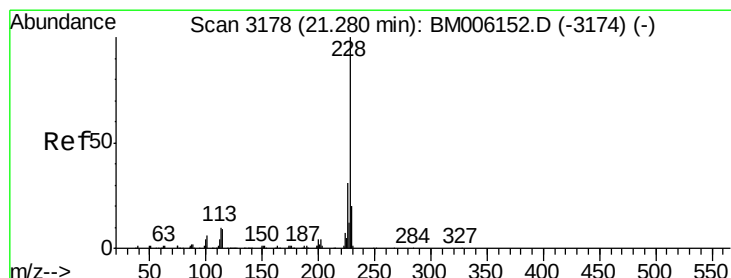
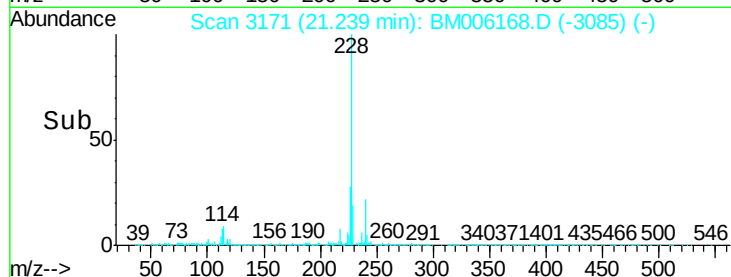
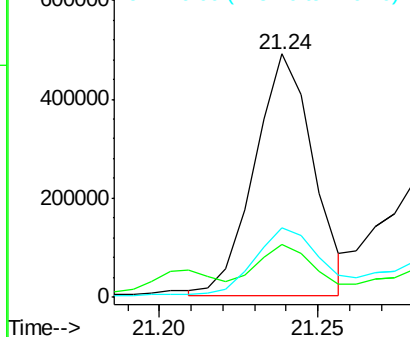
|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 228  | Resp: | 631316 |
| Ion Ratio |      | Lower | Upper  |
| 228       | 100  |       |        |
| 229       | 21.5 | 15.6  | 23.4   |
| 226       | 28.6 | 21.6  | 32.4   |

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Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 229.00 (228.70 to 229.70): E  
Ion 226.00 (225.70 to 226.70): E



#33

Chrysene

Concen: 16.24 ng/ul

RT: 21.29 min Scan# 3180

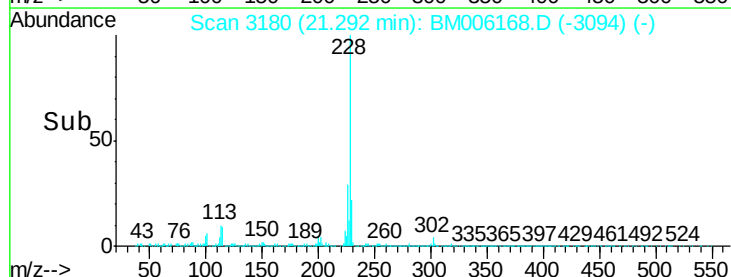
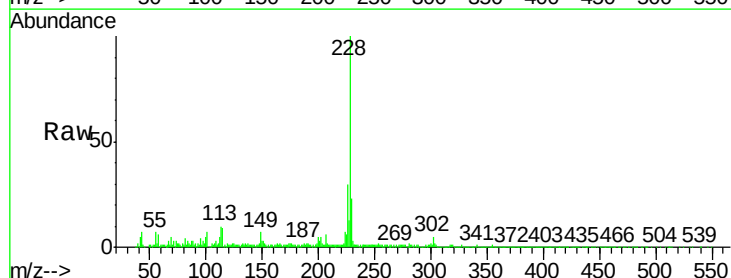
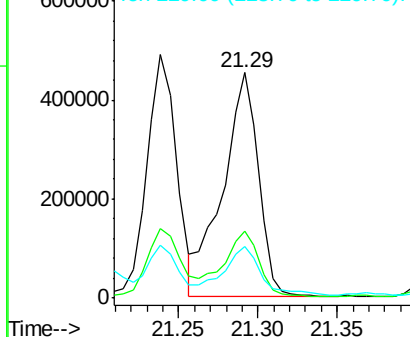
Delta R.T. 0.01 min

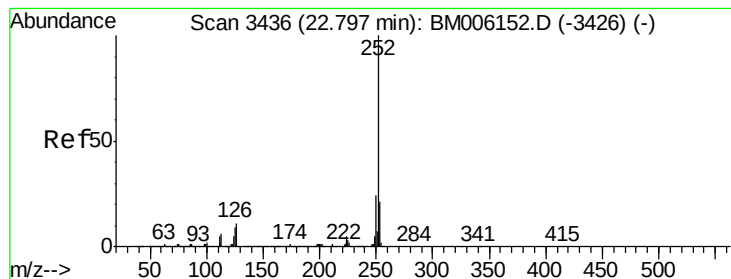
Lab File: BM006168.D

Acq: 30 Jun 2016 21:36

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 228  | Resp: | 706961 |
| Ion Ratio |      | Lower | Upper  |
| 228       | 100  |       |        |
| 226       | 29.9 | 23.8  | 35.6   |
| 229       | 23.1 | 15.8  | 23.6   |

Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E





#35

Benzo(b)fluoranthene

Concen: 21.11 ng/ul

RT: 22.82 min Scan# 3439

Delta R.T. 0.02 min

Lab File: BM006168.D

Acq: 30 Jun 2016 21:36

Instrument :

BNA\_M

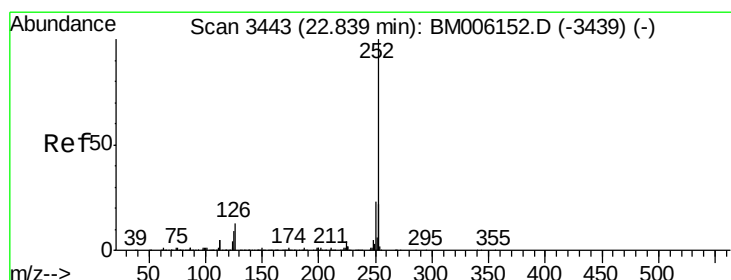
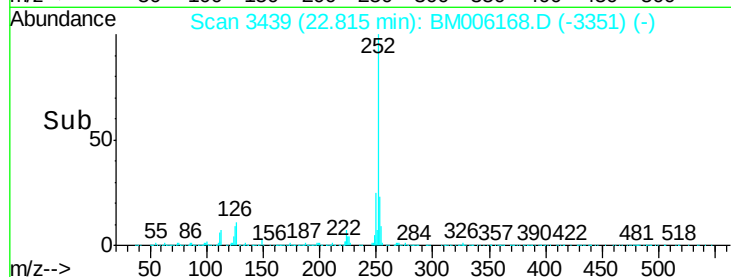
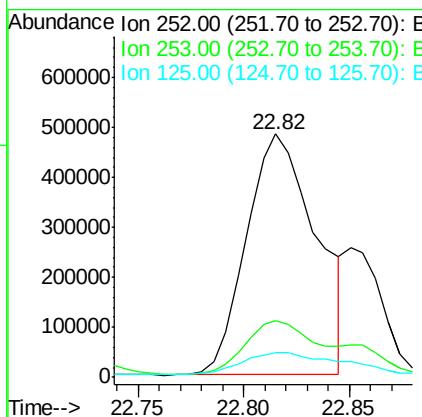
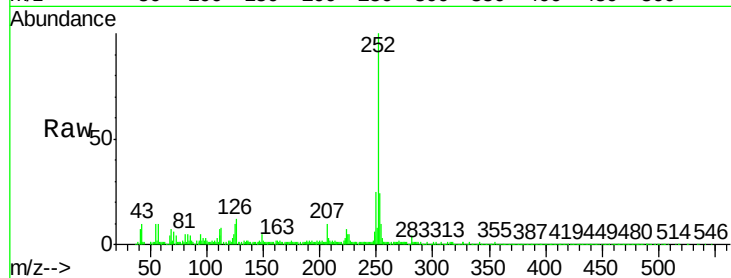
ClientSampleId :

D9YF9

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 252   | Resp: | 1108912 |
| Ion      | Ratio | Lower | Upper   |
| 252      | 100   |       |         |
| 253      | 23.5  | 17.2  | 25.8    |
| 125      | 10.1  | 7.8   | 11.6    |

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#36

Benzo(k)fluoranthene

Concen: 6.19 ng/ul m

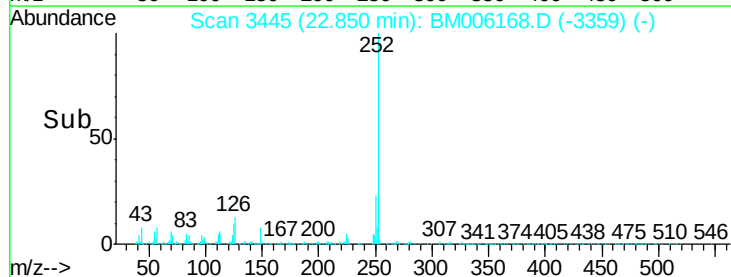
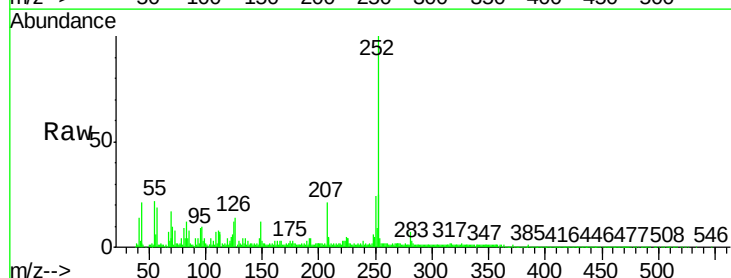
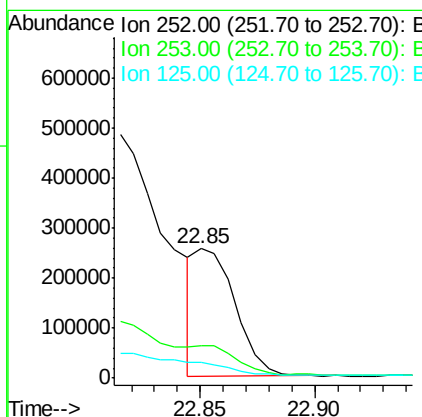
RT: 22.85 min Scan# 3445

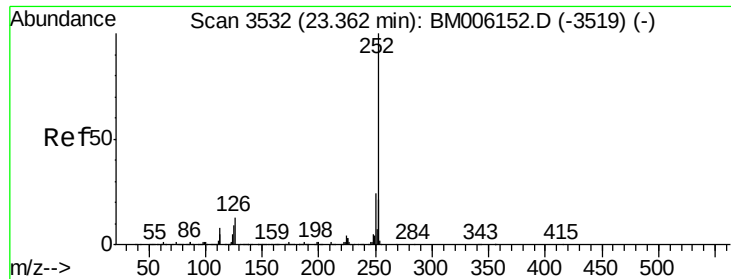
Delta R.T. 0.01 min

Lab File: BM006168.D

Acq: 30 Jun 2016 21:36

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 252   | Resp: | 305121 |
| Ion      | Ratio | Lower | Upper  |
| 252      | 100   |       |        |
| 253      | 24.8  | 17.6  | 26.4   |
| 125      | 12.5  | 8.1   | 12.1   |





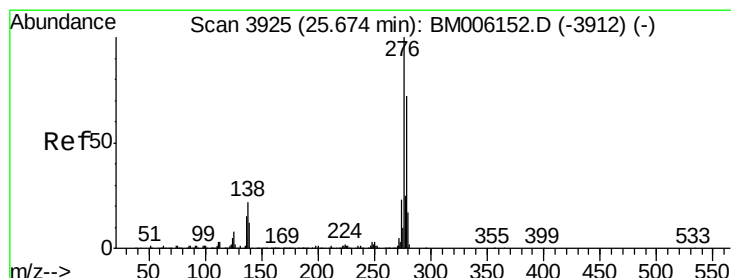
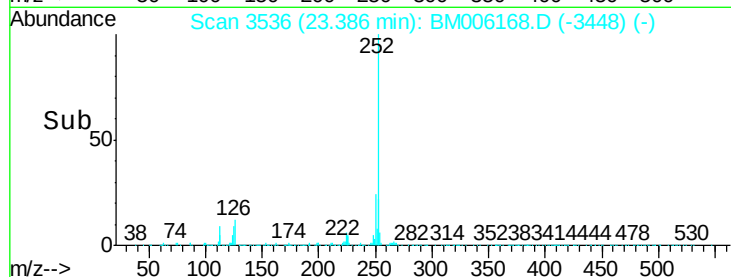
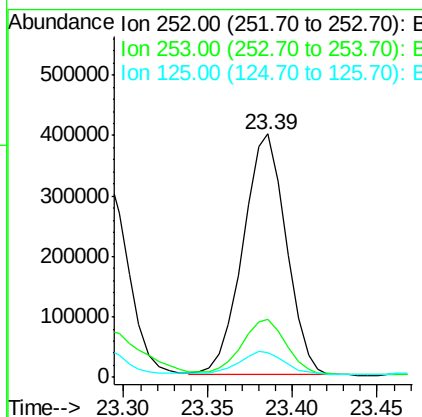
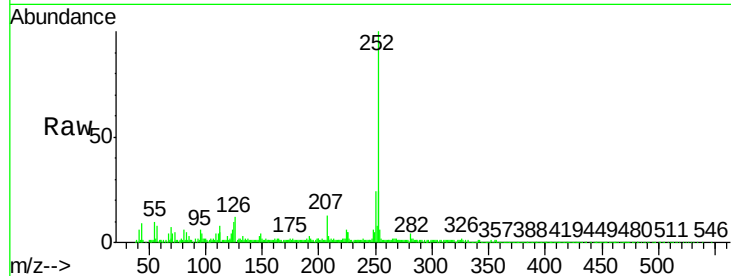
#38  
Benzo(a)pyrene  
Concen: 14.28 ng/ul  
RT: 23.39 min Scan# 3536  
Delta R.T. 0.02 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

Instrument :  
BNA\_M  
ClientSampleId :  
D9YF9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.6  | 17.8  | 26.6  |
| 125     | 10.4  | 8.7   | 13.1  |

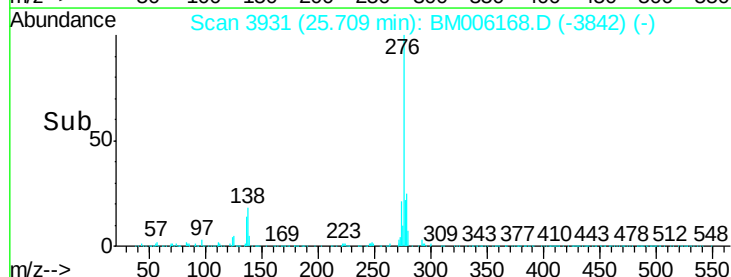
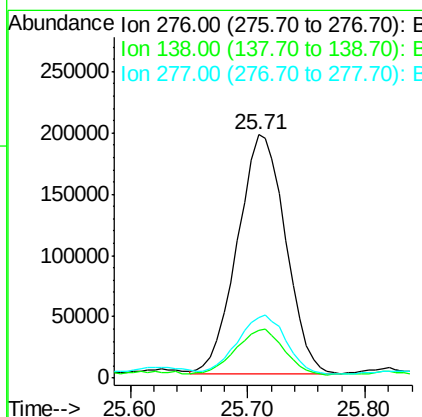
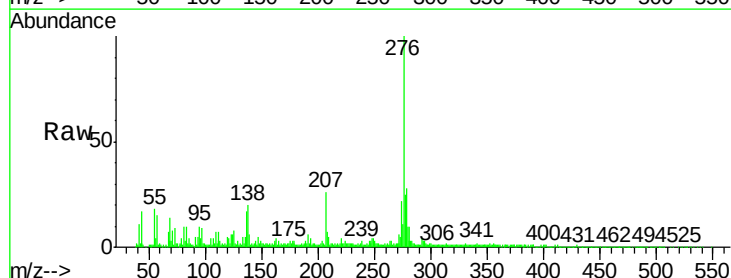
Manual Integrations  
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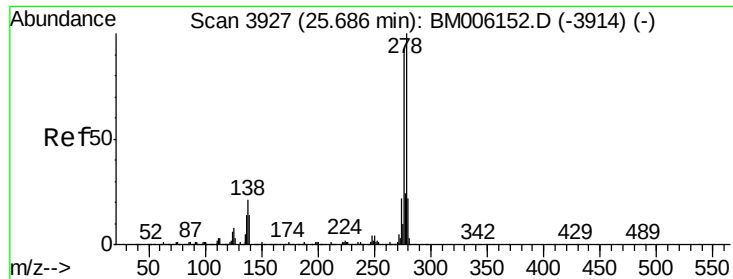


#39  
Indeno(1,2,3-cd)pyrene  
Concen: 10.81 ng/ul m  
RT: 25.71 min Scan# 3931  
Delta R.T. 0.02 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 19.7  | 20.4  | 30.6# |
| 277     | 25.0  | 20.6  | 30.8  |







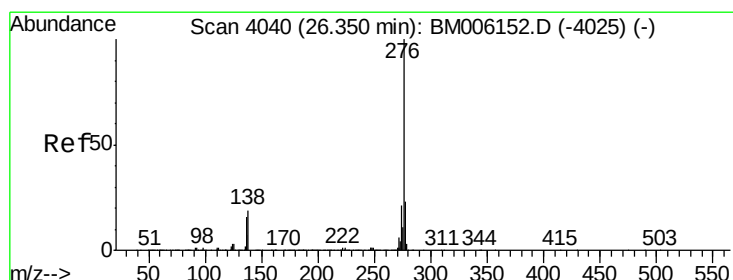
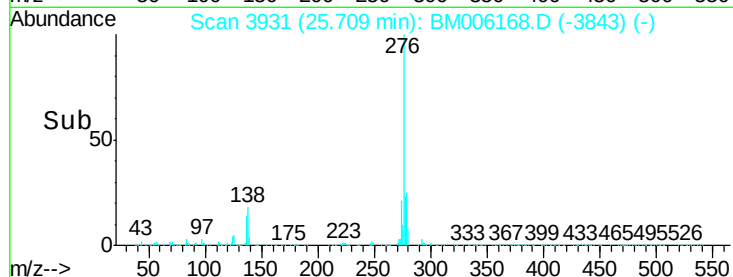
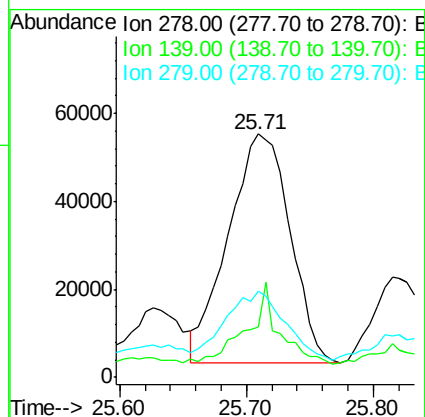
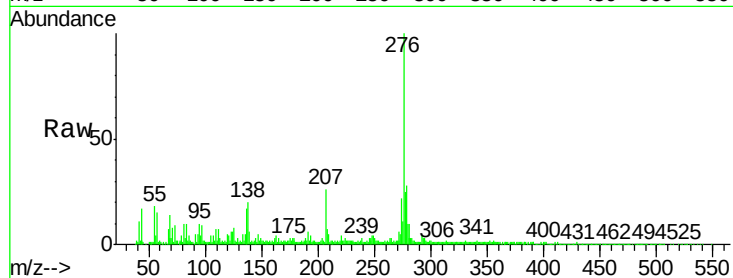
#40  
Dibenzo(a,h)anthracene  
Concen: 4.11 ng/ul  
RT: 25.71 min Scan# 3931  
Delta R.T. 0.02 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

Instrument :  
BNA\_M  
ClientSampleId :  
D9YF9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 20.8  | 13.0  | 19.4# |
| 279     | 35.5  | 18.8  | 28.2# |

Manual Integrations  
APPROVED

sohil  
7/1/2016 7:15:38 PM



#41  
Benzo(g,h,i)perylene  
Concen: 12.57 ng/ul  
RT: 26.40 min Scan# 4049  
Delta R.T. 0.05 min  
Lab File: BM006168.D  
Acq: 30 Jun 2016 21:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 20.1  | 16.6  | 25.0  |
| 277     | 26.0  | 18.9  | 28.3  |

