

Data Path : Z:\HPCHEM1\BNA G\DATA\BG121915\  
 Data File : BG020330.D  
 Acq On : 20 Dec 2015 2:54  
 Operator : UM/SJ  
 Sample : G4866-15  
 Misc :  
 ALS Vial : 61 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 E43M5

Manual Integrations  
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apatel  
 12/22/2015 2:14:34 PM

Quant Time: Dec 20 06:37:43 2015  
 Quant Method : Z:\HPCHEM1\BNA G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Sun Dec 20 05:53:46 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.09  | 152  | 23769    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.90 | 136  | 100499   | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.72 | 164  | 68722    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.47 | 188  | 156453   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.75 | 240  | 195165   | 20.00 | ng/ul | 0.01     |
| 86) Perylene-d12          | 25.02 | 264  | 191467   | 20.00 | ng/ul | 0.01     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.46  | 96  | 2003   | 4.65  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 7.24  | 99  | 52611  | 25.10 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.41  | 67  | 31454  | 25.15 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.62  | 132 | 42005  | 27.55 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.79  | 113 | 43556  | 24.30 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.26  | 128 | 21264  | 27.14 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.98  | 143 | 26413  | 30.30 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.52 | 165 | 47665  | 26.99 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 11.04 | 131 | 42319  | 21.33 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 14.12 | 166 | 151537 | 27.26 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.42 | 160 | 179145 | 27.70 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.91 | 143 | 20936  | 21.00 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.71 | 176 | 134343 | 26.65 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.83 | 200 | 20538  | 22.14 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.57 | 188 | 202985 | 28.16 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.85 | 212 | 239112 | 26.29 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 24.80 | 264 | 273055 | 28.59 | ng/ul | 0.02 |

## Target Compounds

|                            |       |     |         |              | Ovalue |
|----------------------------|-------|-----|---------|--------------|--------|
| 6) Phenol                  | 7.27  | 94  | 2670    | 1.19 ng/ul   | 96     |
| 28) Naphthalene            | 10.96 | 128 | 8247    | 1.57 ng/ul   | 99     |
| 45) Dimethylphthalate      | 14.17 | 163 | 53739   | 9.47 ng/ul   | 98     |
| 48) Acenaphthylene         | 14.45 | 152 | 10783   | 1.57 ng/ul   | 96     |
| 50) Acenaphthene           | 14.79 | 153 | 9237    | 2.00 ng/ul   | 98     |
| 54) Dibenzofuran           | 15.12 | 168 | 12522   | 1.82 ng/ul   | 92     |
| 59) Fluorene               | 15.77 | 166 | 21783   | 3.94 ng/ul   | 91     |
| 70) Phenanthrene           | 17.51 | 178 | 426983  | 49.89 ng/ul  | 99     |
| 72) Anthracene             | 17.60 | 178 | 101073  | 11.64 ng/ul  | 99     |
| 75) Carbazole              | 17.87 | 167 | 45432   | 6.23 ng/ul   | 97     |
| 77) Fluoranthene           | 19.52 | 202 | 1067557 | 106.74 ng/ul | 99     |
| 80) Pyrene                 | 19.88 | 202 | 852244  | 72.15 ng/ul  | 99     |
| 83) Benzo(a)anthracene     | 21.73 | 228 | 551681  | 48.45 ng/ul  | 97     |
| 85) Chrysene               | 21.80 | 228 | 555393  | 51.78 ng/ul  | 95     |
| 88) Benzo(b)fluoranthene   | 23.99 | 252 | 826953  | 71.76 ng/ul  | 95     |
| 89) Benzo(k)fluoranthene   | 24.05 | 252 | 282858m | 25.58 ng/ul  |        |
| 91) Benzo(a)pyrene         | 24.88 | 252 | 598613  | 54.80 ng/ul  | 96     |
| 92) Indeno(1,2,3-cd)pyrene | 28.78 | 276 | 480344  | 36.92 ng/ul  | 95     |
| 93) Dibenzo(a,h)anthracene | 28.81 | 278 | 100573  | 9.31 ng/ul   | 93     |
| 94) Benzo(g,h,i)perylene   | 29.95 | 276 | 440809  | 41.33 ng/ul  | 100    |

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

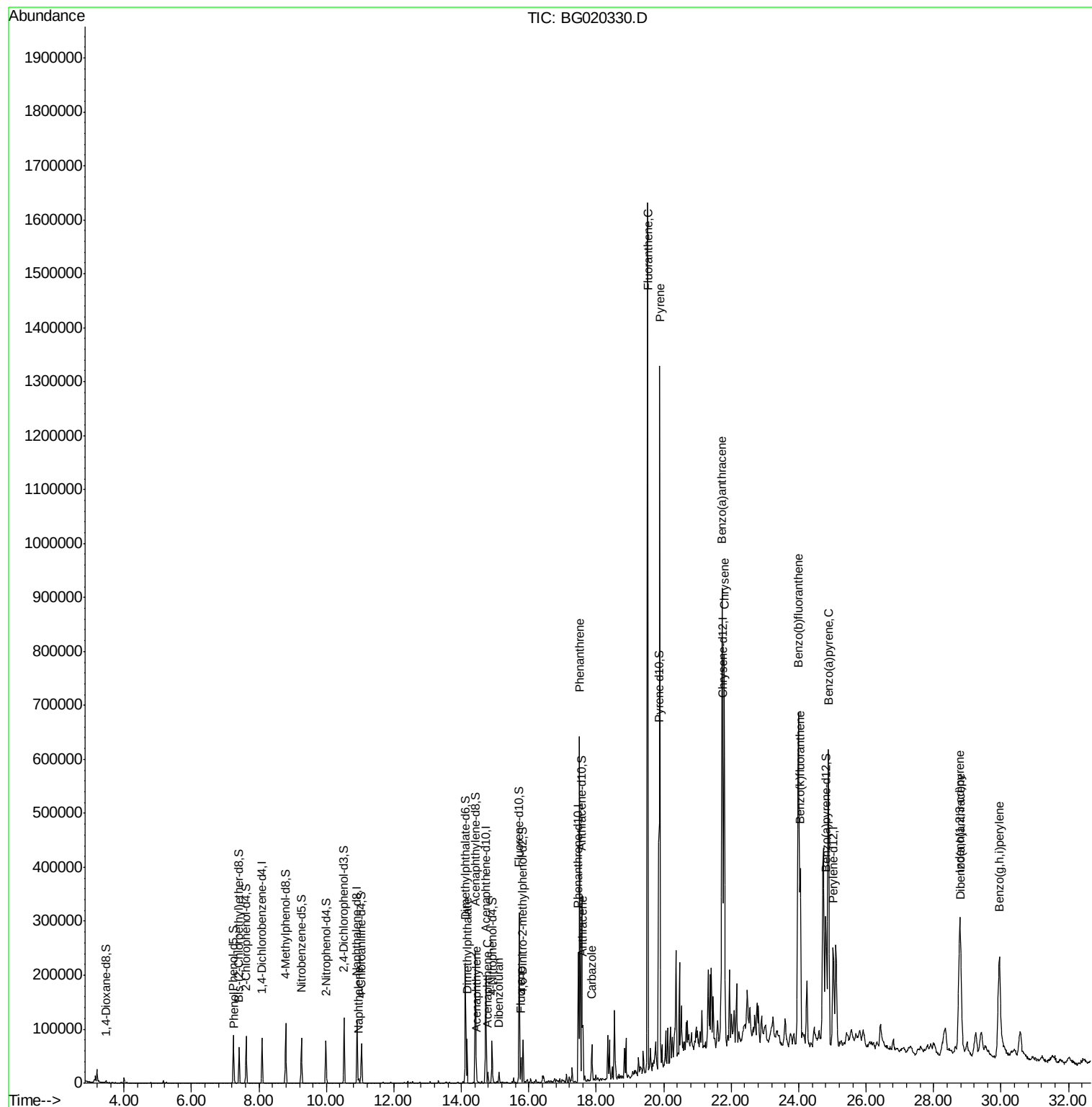
Data Path : Z:\HPCHEM1\BNA G\DATA\BG121915\  
Data File : BG020330.D  
Acq On : 20 Dec 2015 2:54  
Operator : UM/SJ  
Sample : G4866-15  
Misc :  
ALS Vial : 61 Sample Multiplier: 1

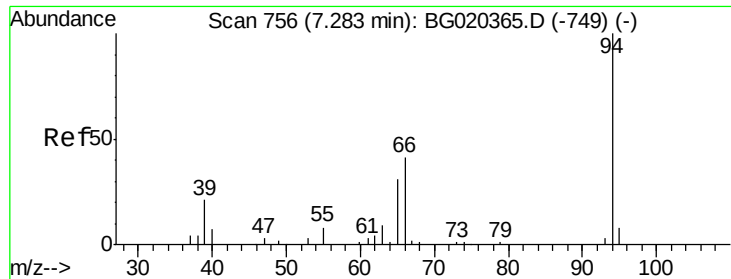
Instrument :  
BNA\_G  
ClientSampleId :  
E43M5

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Quant Time: Dec 20 06:37:43 2015  
Quant Method : Z:\HPCHEM1\BNA G\METHODS\SOM02.2-EPA-BG121415.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Sun Dec 20 05:53:46 2015  
Response via : Initial Calibration





#6

Phenol

Concen: 1.19 ng/ul

RT: 7.27 min Scan# 754

Delta R.T. -0.00 min

Lab File: BG020330.D

Acq: 20 Dec 2015 2:54

Instrument :

BNA\_G

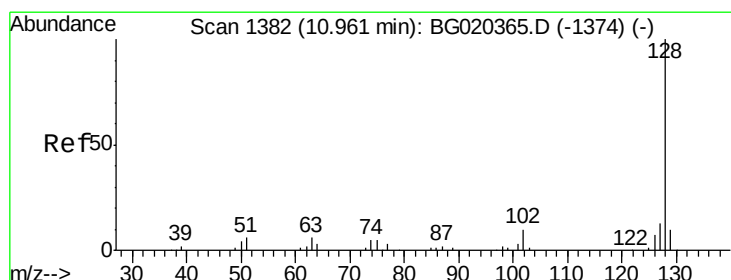
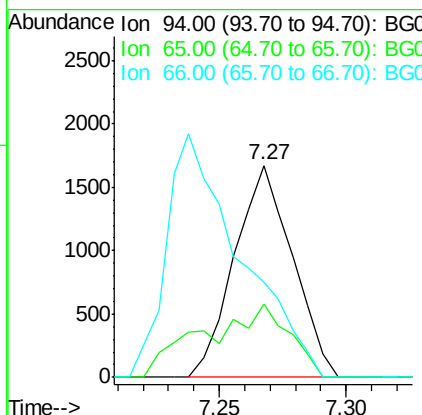
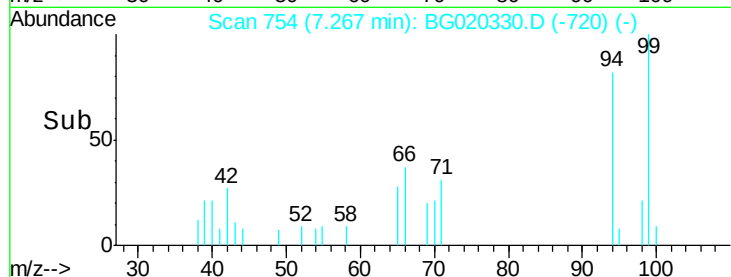
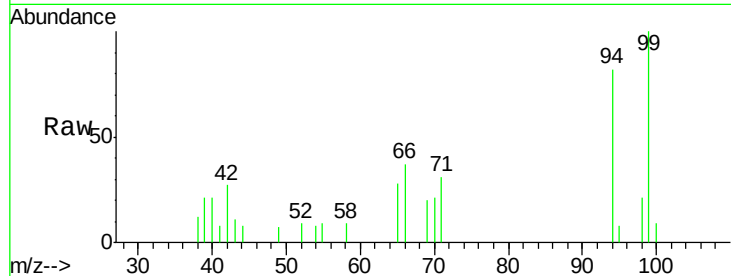
ClientSampled :

E43M5

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 94    | Resp: | 2670  |
| Ion      | Ratio | Lower | Upper |
| 94       | 100   |       |       |
| 65       | 34.6  | 26.3  | 39.5  |
| 66       | 44.9  | 33.3  | 49.9  |

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#28

Naphthalene

Concen: 1.57 ng/ul

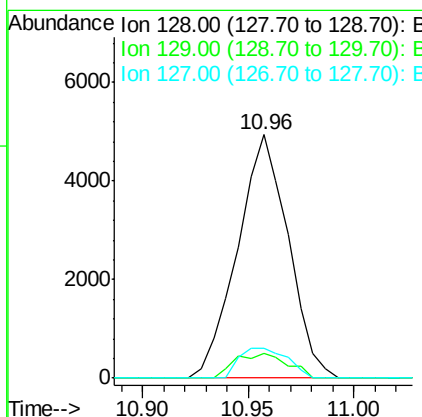
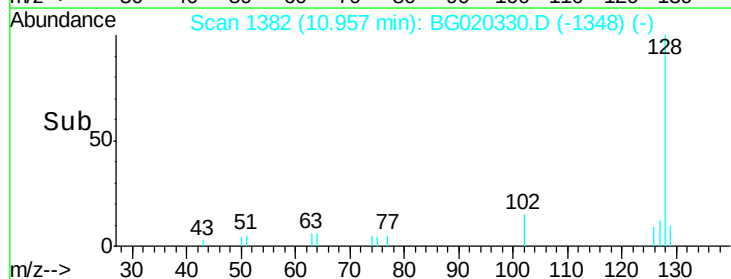
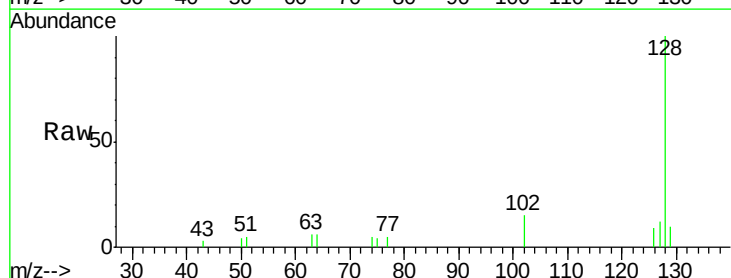
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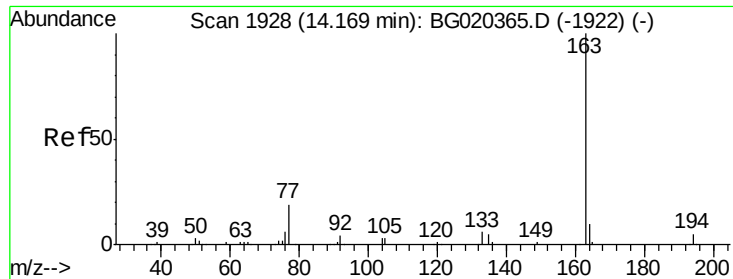
Delta R.T. -0.00 min

Lab File: BG020330.D

Acq: 20 Dec 2015 2:54

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 8247  |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 129      | 10.0  | 8.6   | 12.8  |
| 127      | 12.4  | 10.1  | 15.1  |





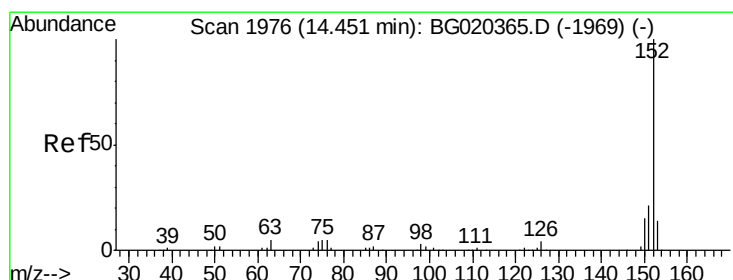
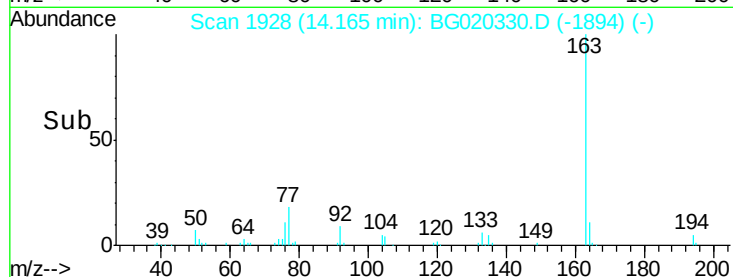
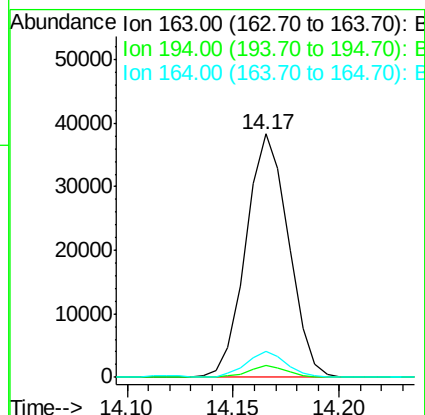
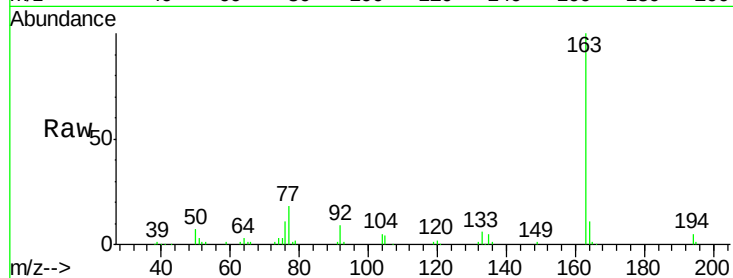
#45  
Dimethylphthalate  
Concen: 9.47 ng/ul  
RT: 14.17 min Scan# 1928  
Delta R.T. -0.00 min  
Lab File: BG020330.D  
Acq: 20 Dec 2015 2:54

Instrument :  
BNA\_G  
ClientSampleId :  
E43M5

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 163     | 100   | 53739 |       |       |
| 194     | 4.9   |       | 3.5   | 5.3   |
| 164     | 10.6  |       | 7.7   | 11.5  |

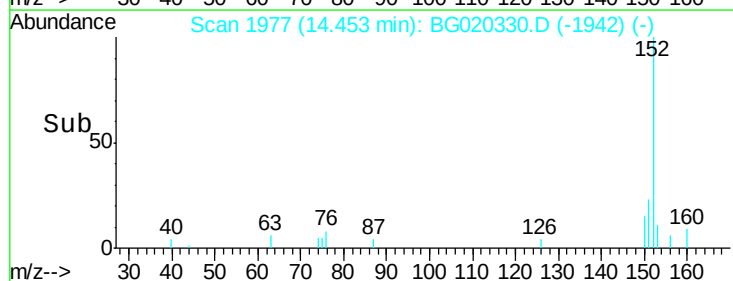
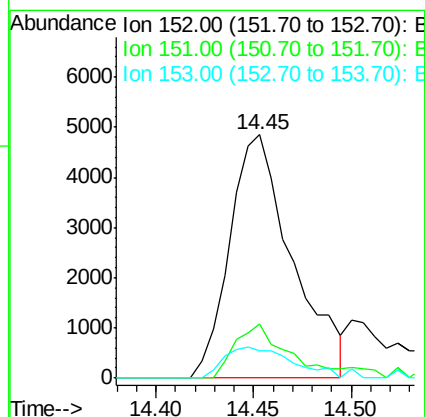
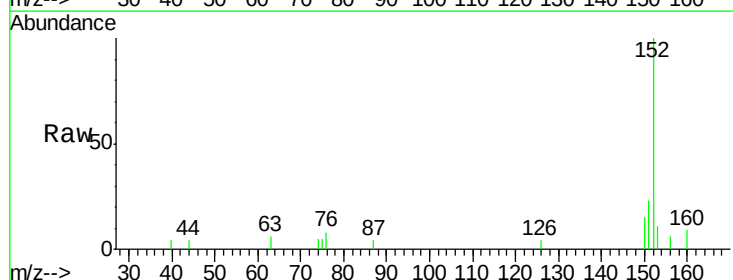
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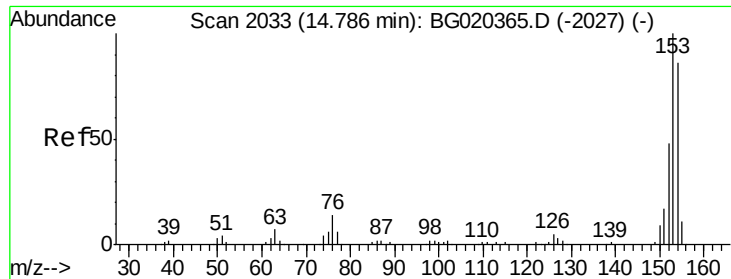
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#48  
Acenaphthylene  
Concen: 1.57 ng/ul  
RT: 14.45 min Scan# 1977  
Delta R.T. 0.00 min  
Lab File: BG020330.D  
Acq: 20 Dec 2015 2:54

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 152     | 100   | 10783 |       |       |
| 151     | 22.5  |       | 16.4  | 24.6  |
| 153     | 11.2  |       | 10.4  | 15.6  |





#50

Acenaphthene

Concen: 2.00 ng/ul

RT: 14.79 min Scan# 2034

Delta R.T. 0.00 min

Lab File: BG020330.D

Acq: 20 Dec 2015 2:54

Instrument :

BNA\_G

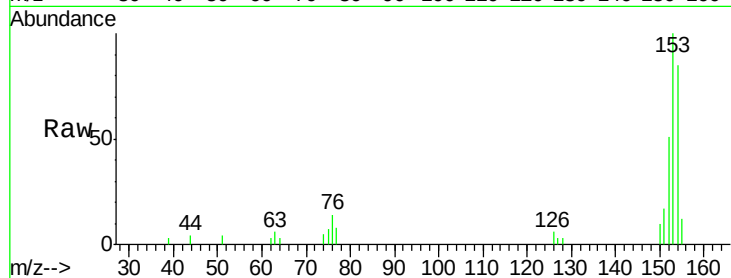
ClientSampleId :

E43M5

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 153   | Resp: | 9237  |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 51.1  | 37.6  | 56.4  |
| 154       | 85.0  | 67.9  | 101.9 |

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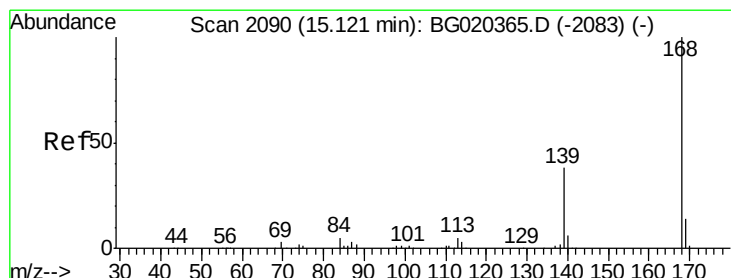
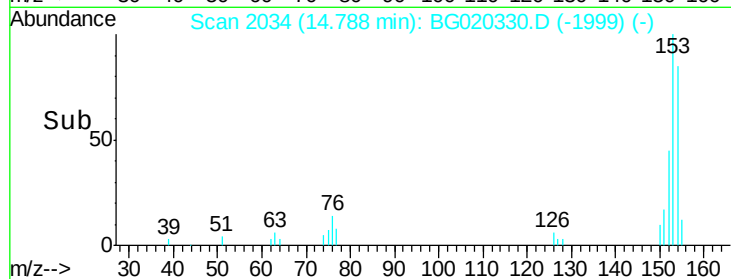
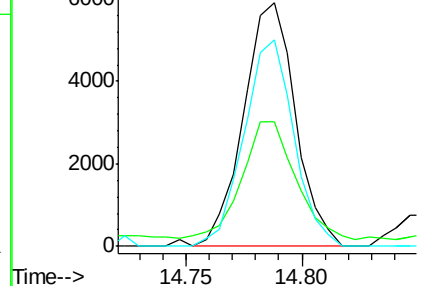
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Abundance Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E



#54

Dibenzofuran

Concen: 1.82 ng/ul

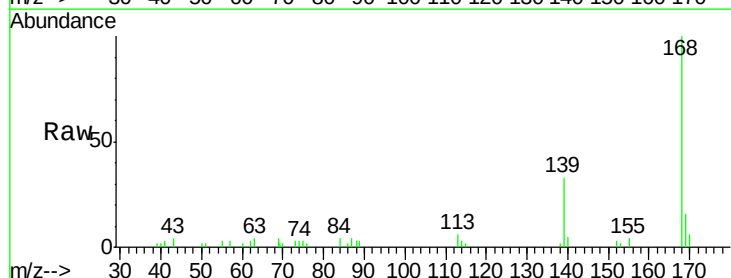
RT: 15.12 min Scan# 2090

Delta R.T. -0.00 min

Lab File: BG020330.D

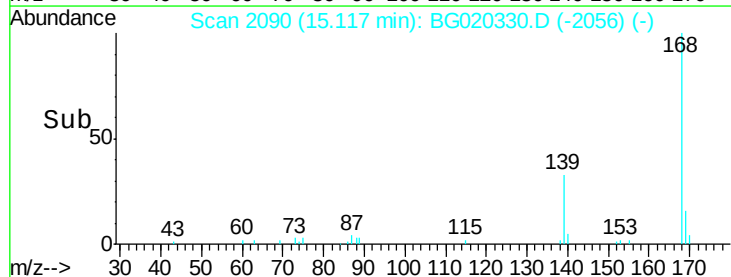
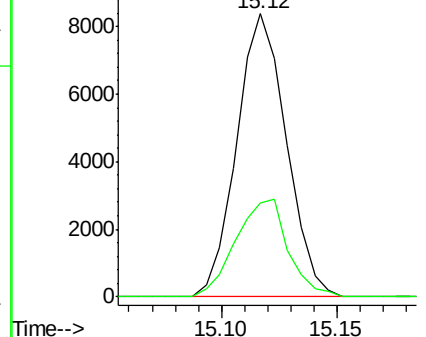
Acq: 20 Dec 2015 2:54

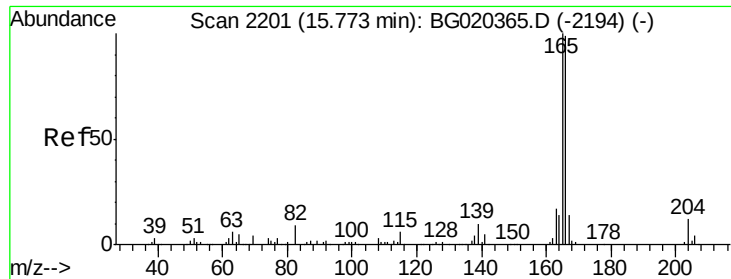
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 168   | Resp: | 12522 |
| Ion Ratio | Lower | Upper |       |
| 168       | 100   |       |       |
| 139       | 33.0  | 30.5  | 45.7  |



Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E





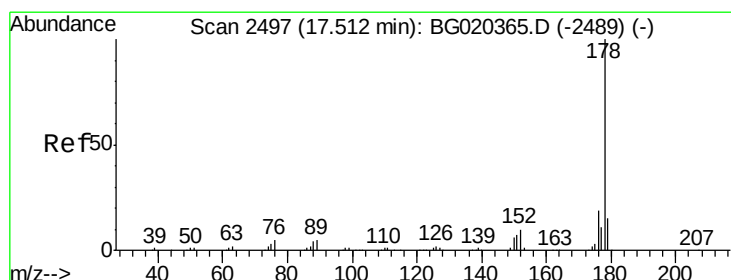
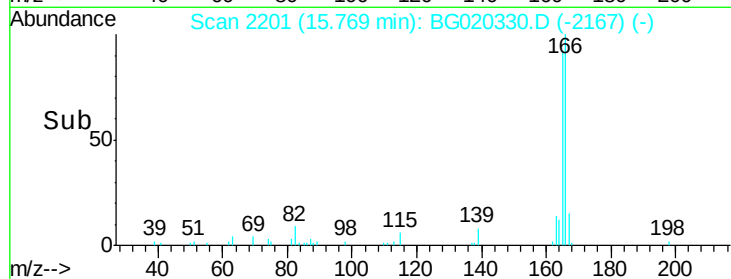
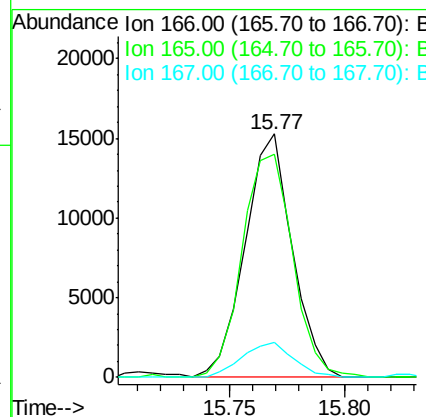
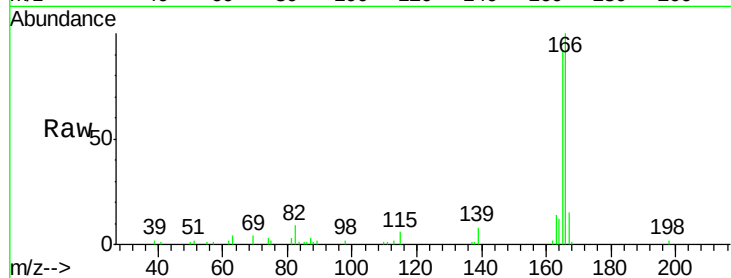
#59  
**Fluorene**  
 Concen: 3.94 ng/ul  
 RT: 15.77 min Scan# 2201  
 Delta R.T. -0.00 min  
 Lab File: BG020330.D  
 Acq: 20 Dec 2015 2:54

Instrument :  
 BNA\_G  
 ClientSampleId :  
 E43M5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 91.8  | 81.4  | 122.0 |
| 167     | 14.5  | 11.2  | 16.8  |

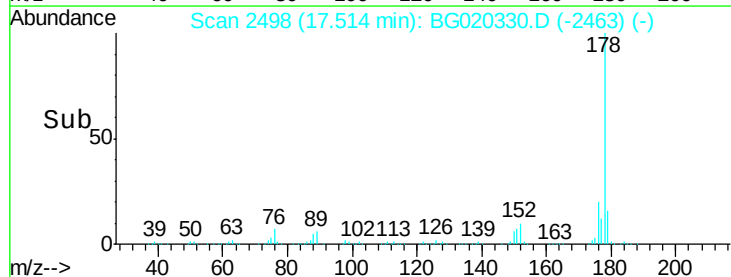
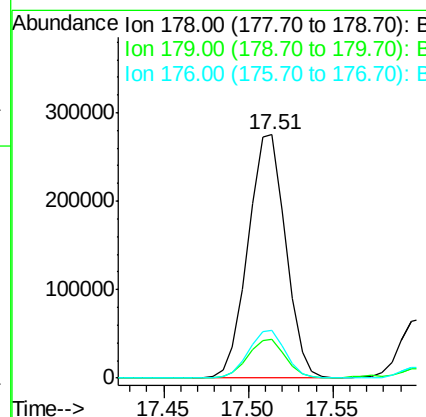
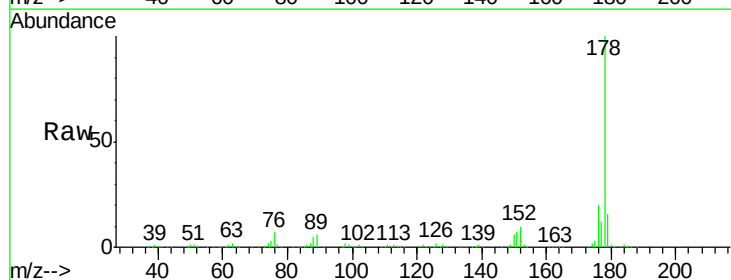
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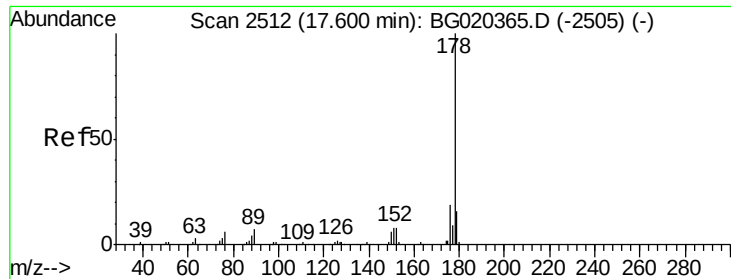
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#70  
**Phenanthrene**  
 Concen: 49.89 ng/ul  
 RT: 17.51 min Scan# 2498  
 Delta R.T. 0.00 min  
 Lab File: BG020330.D  
 Acq: 20 Dec 2015 2:54

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 16.1  | 12.9  | 19.3  |
| 176     | 19.5  | 15.3  | 22.9  |





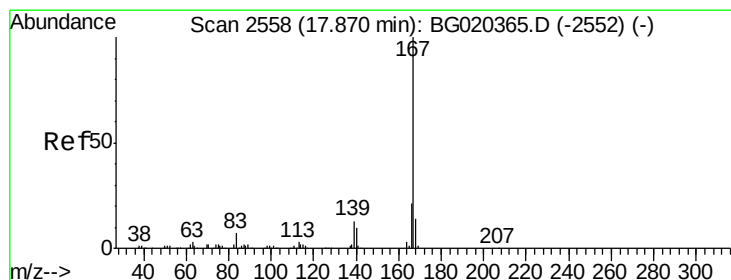
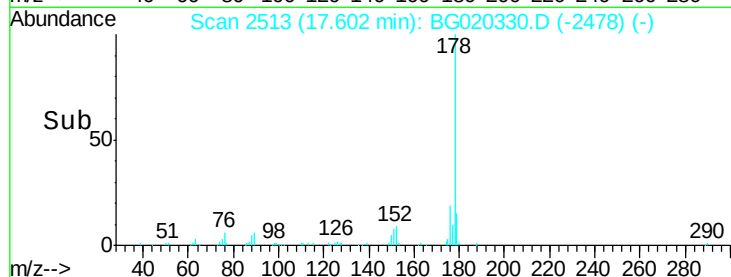
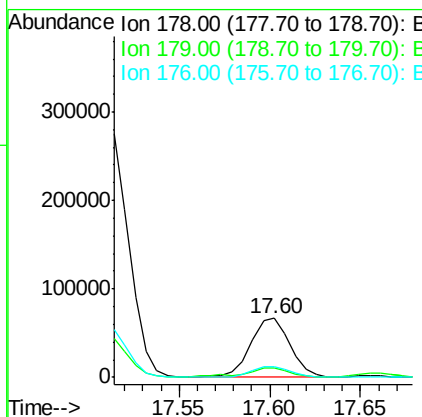
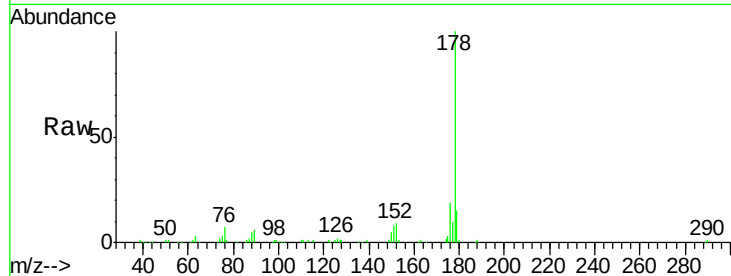
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 Anthracene  
 Concen: 11.64 ng/ul  
 RT: 17.60 min Scan# 2513  
 Delta R.T. 0.00 min  
 Lab File: BG020330.D  
 Acq: 20 Dec 2015 2:54

Instrument :  
 BNA\_G  
 ClientSampleId :  
 E43M5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.4  | 12.3  | 18.5  |
| 176     | 18.7  | 14.3  | 21.5  |

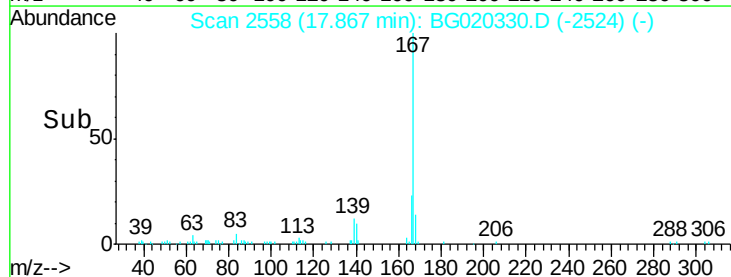
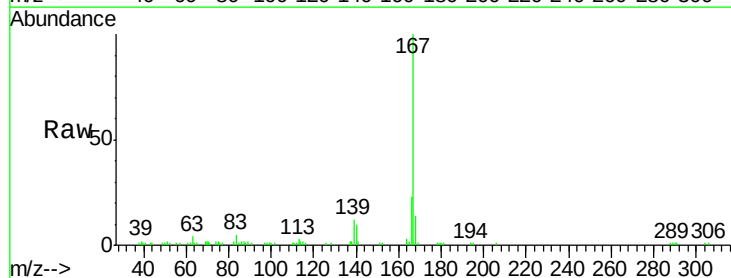
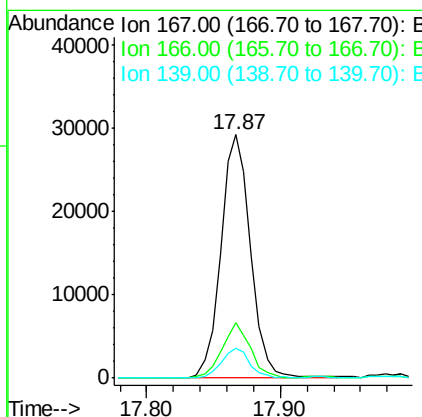
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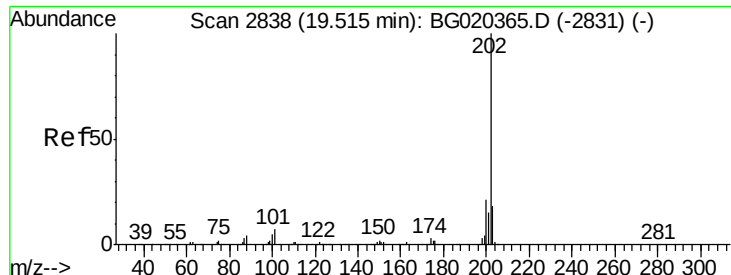
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#75  
 Carbazole  
 Concen: 6.23 ng/ul  
 RT: 17.87 min Scan# 2558  
 Delta R.T. -0.00 min  
 Lab File: BG020330.D  
 Acq: 20 Dec 2015 2:54

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 23.0  | 17.0  | 25.6  |
| 139     | 12.3  | 10.1  | 15.1  |





#77

Fluoranthene

Concen: 106.74 ng/ul

RT: 19.52 min Scan# 2840

Delta R.T. 0.01 min

Lab File: BG020330.D

Acq: 20 Dec 2015 2:54

Instrument :

BNA\_G

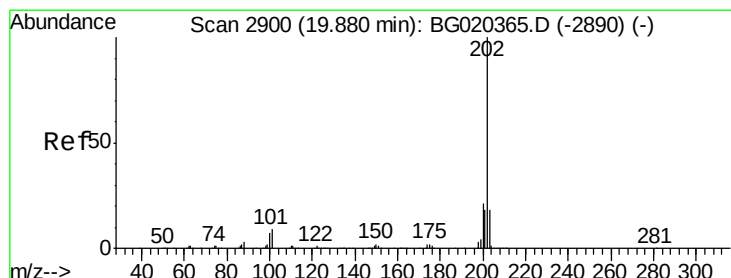
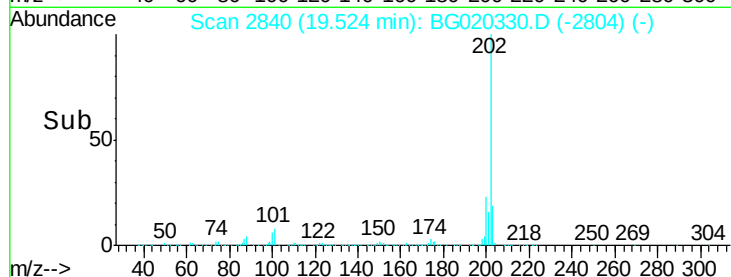
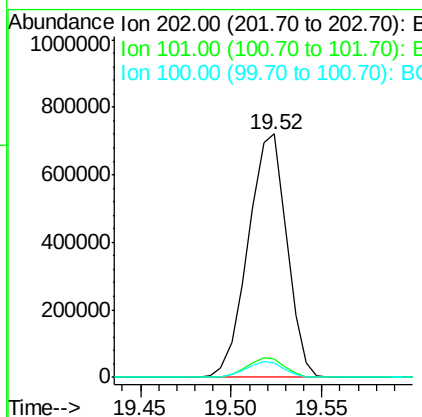
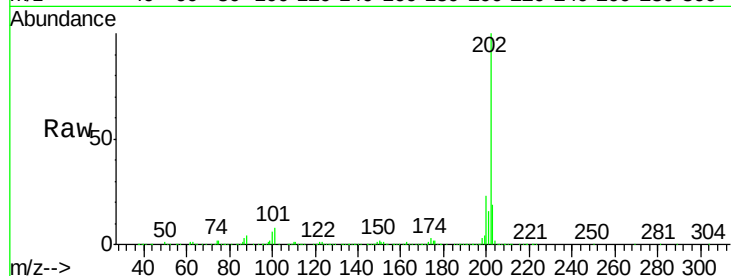
ClientSampleId :

E43M5

|           |       |       |         |
|-----------|-------|-------|---------|
| Tot Ion:  | 202   | Resp: | 1067557 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 7.7   | 6.2   | 9.4     |
| 100       | 6.1   | 5.1   | 7.7     |

Manual Integrations  
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#80

Pyrene

Concen: 72.15 ng/ul

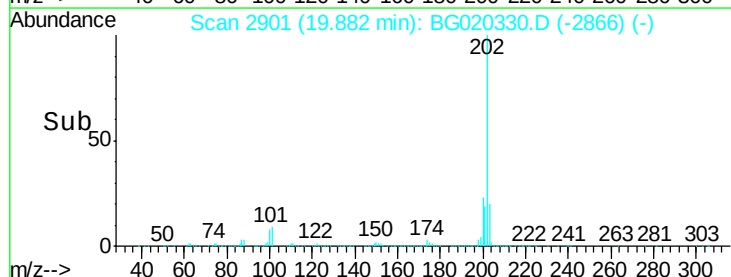
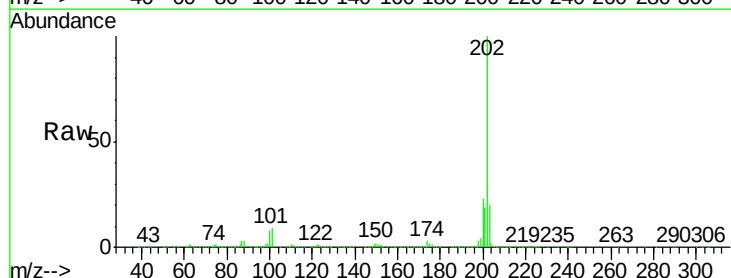
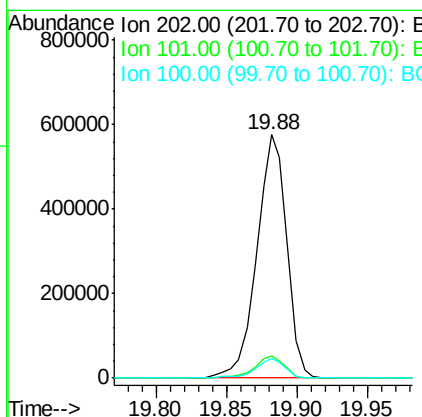
RT: 19.88 min Scan# 2901

Delta R.T. 0.00 min

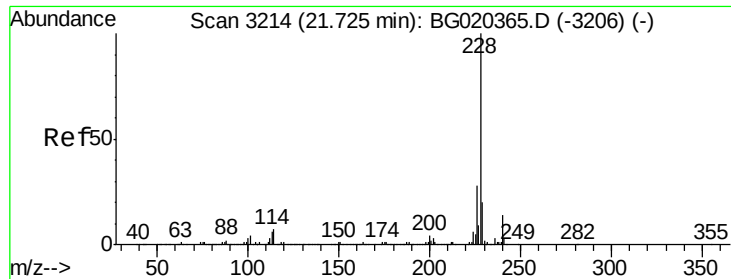
Lab File: BG020330.D

Acq: 20 Dec 2015 2:54

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 852244 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 9.2   | 7.0   | 10.4   |
| 100       | 8.1   | 6.4   | 9.6    |







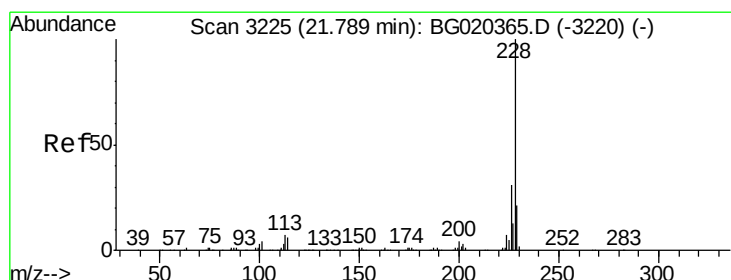
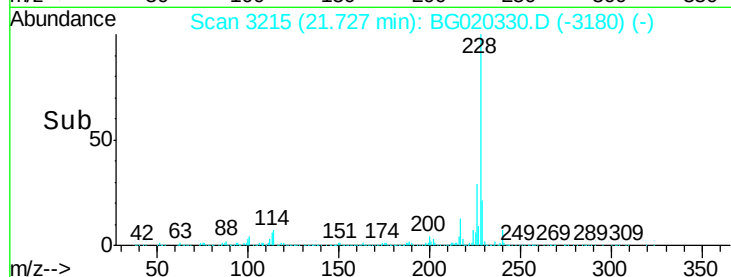
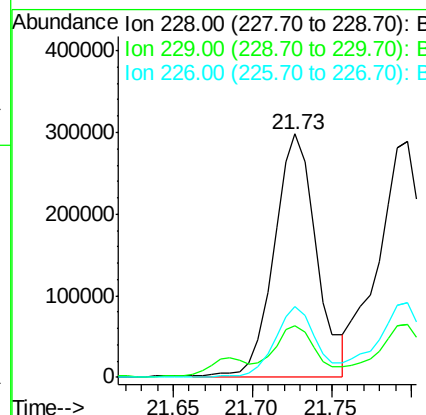
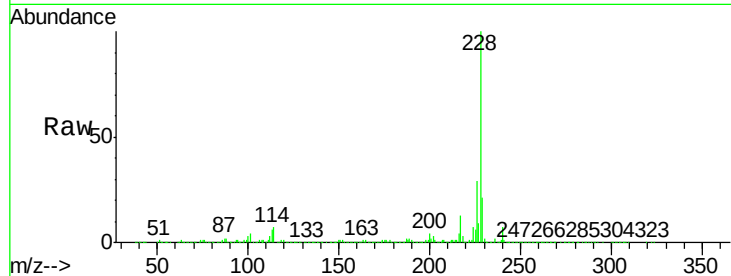
#83  
Benzo(a)anthracene  
Concen: 48.45 ng/ul  
RT: 21.73 min Scan# 3215  
Delta R.T. 0.00 min  
Lab File: BG020330.D  
Acq: 20 Dec 2015 2:54

Instrument :  
BNA\_G  
ClientSampleId :  
E43M5

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 551681 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 229       | 21.3  | 15.8  | 23.8   |
| 226       | 28.9  | 21.8  | 32.6   |

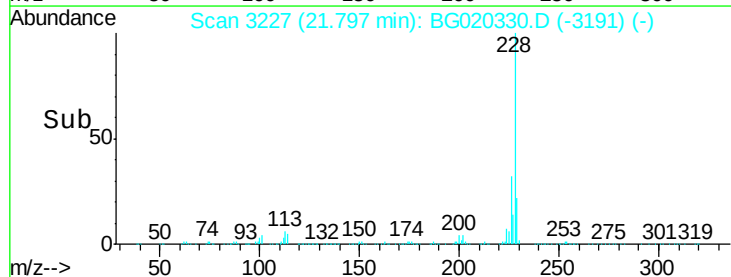
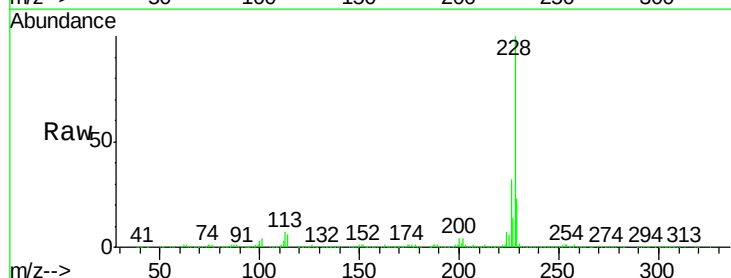
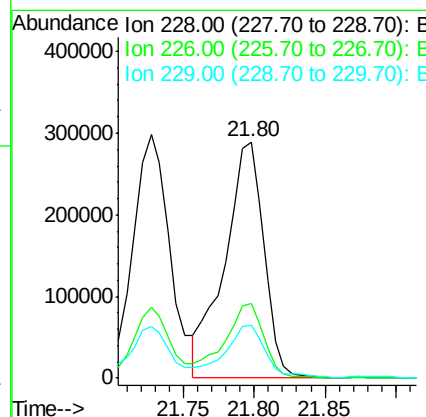
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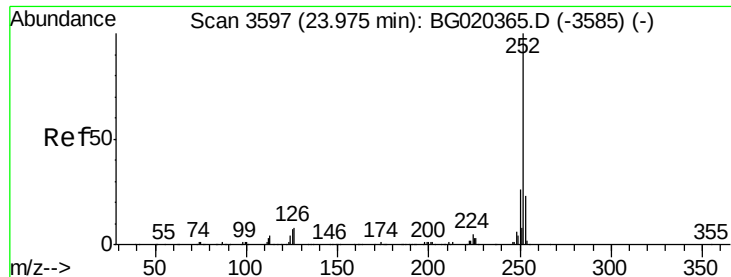
apatel  
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#85  
Chrysene  
Concen: 51.78 ng/ul  
RT: 21.80 min Scan# 3227  
Delta R.T. 0.01 min  
Lab File: BG020330.D  
Acq: 20 Dec 2015 2:54

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 555393 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 31.7  | 23.9  | 35.9   |
| 229       | 22.6  | 15.6  | 23.4   |





#88

Benzo(b)fluoranthene

Concen: 71.76 ng/ul

RT: 23.99 min Scan# 3600

Delta R.T. 0.02 min

Lab File: BG020330.D

Acq: 20 Dec 2015 2:54

Instrument :

BNA\_G

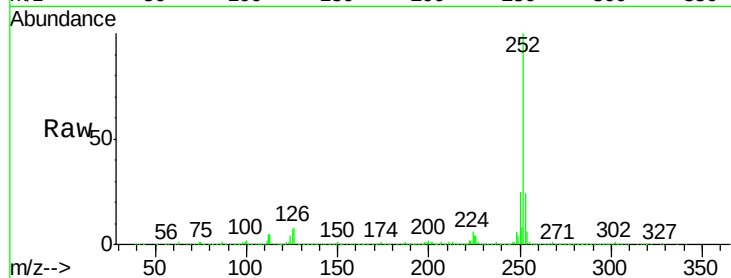
ClientSampleId :

E43M5

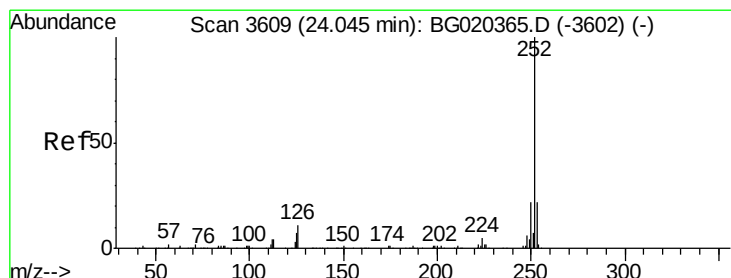
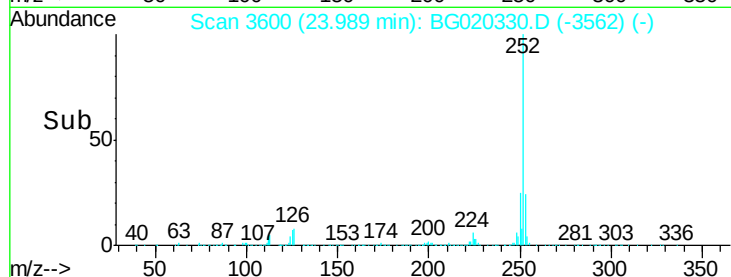
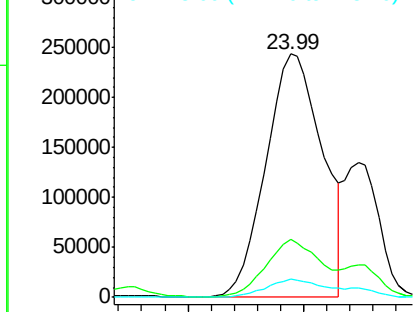
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 826953 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 23.9  | 16.7  | 25.1   |
| 125       | 7.4   | 6.2   | 9.2    |

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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



#89

Benzo(k)fluoranthene

Concen: 25.58 ng/ul m

RT: 24.05 min Scan# 3610

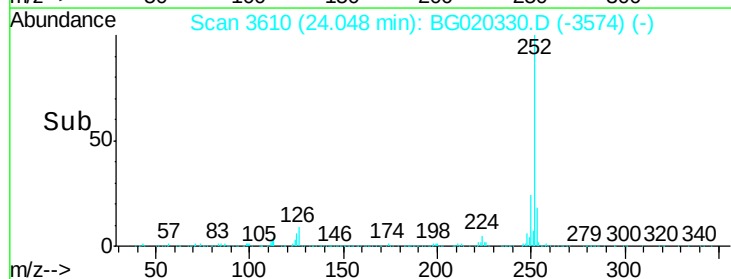
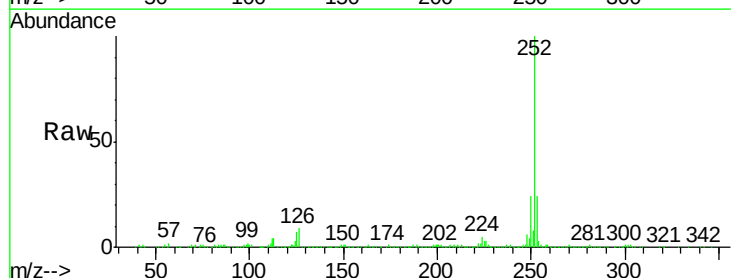
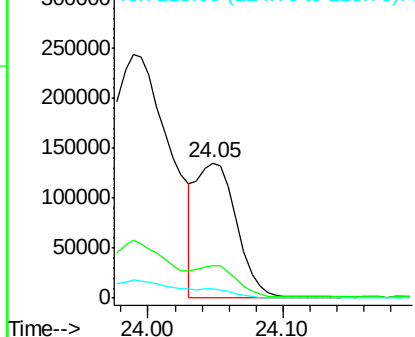
Delta R.T. 0.01 min

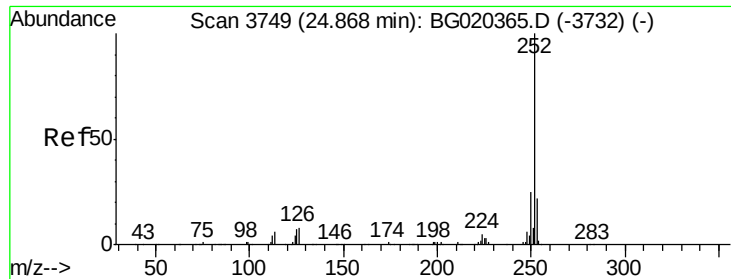
Lab File: BG020330.D

Acq: 20 Dec 2015 2:54

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 282858 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 23.9  | 17.9  | 26.9   |
| 125       | 6.5   | 5.8   | 8.6    |

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





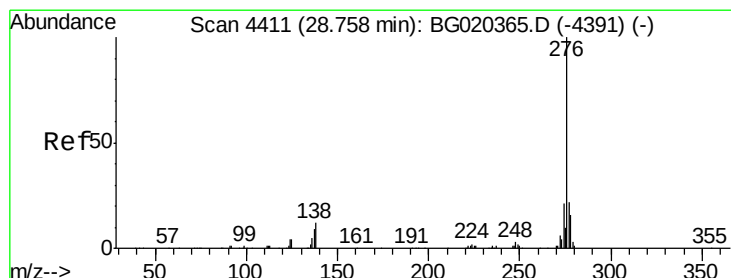
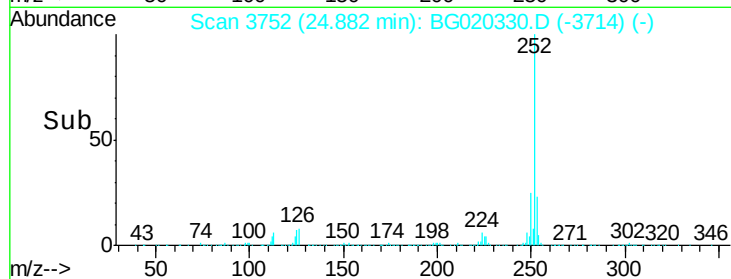
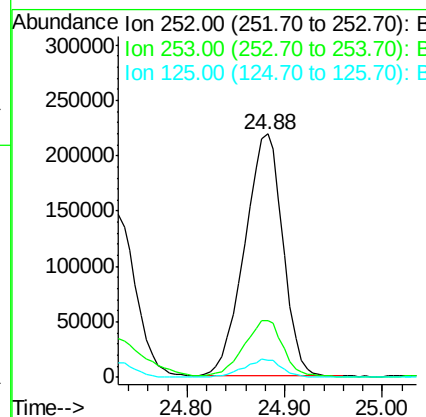
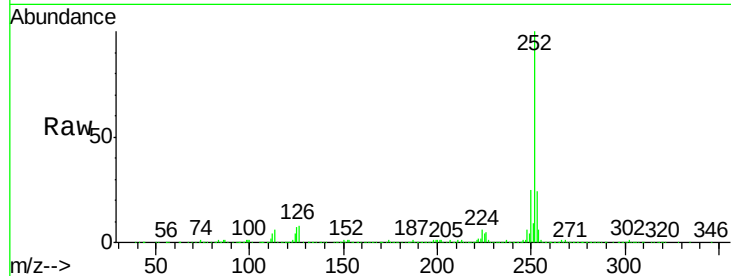
#91  
Benzo(a)pyrene  
Concen: 54.80 ng/ul  
RT: 24.88 min Scan# 3752  
Delta R.T. 0.02 min  
Lab File: BG020330.D  
Acq: 20 Dec 2015 2:54

Instrument :  
BNA\_G  
ClientSampled :  
E43M5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.5  | 17.0  | 25.4  |
| 125     | 7.0   | 6.2   | 9.4   |

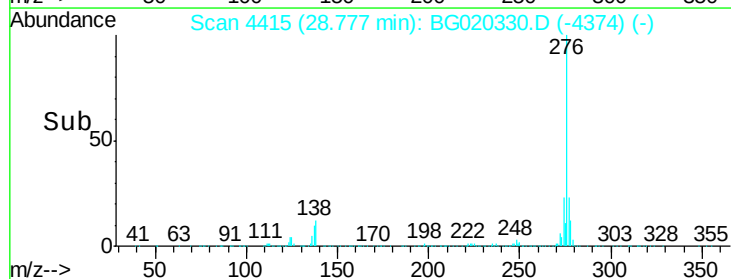
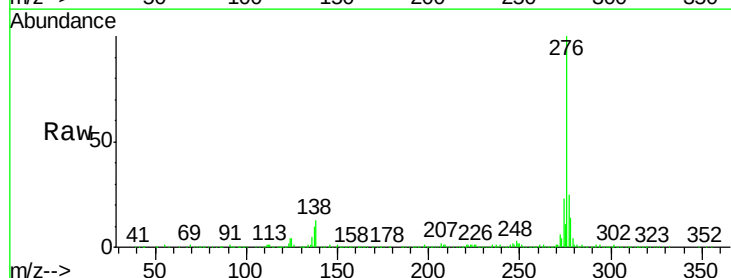
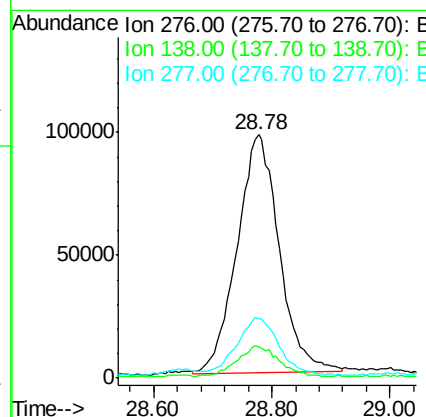
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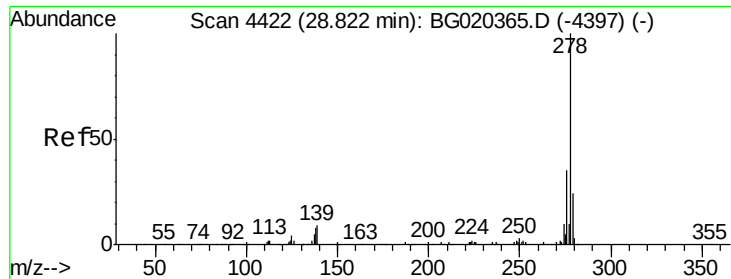
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#92  
Indeno(1,2,3-cd)pyrene  
Concen: 36.92 ng/ul  
RT: 28.78 min Scan# 4415  
Delta R.T. 0.04 min  
Lab File: BG020330.D  
Acq: 20 Dec 2015 2:54

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 12.6  | 11.4  | 17.0  |
| 277     | 24.6  | 17.4  | 26.0  |





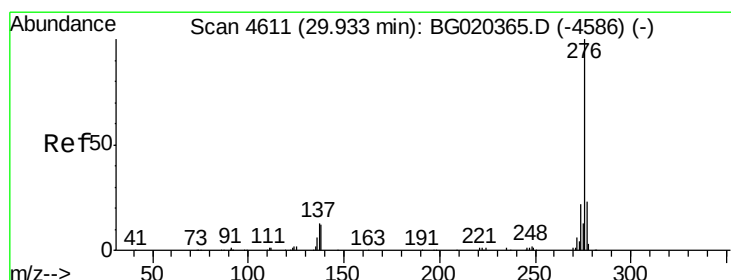
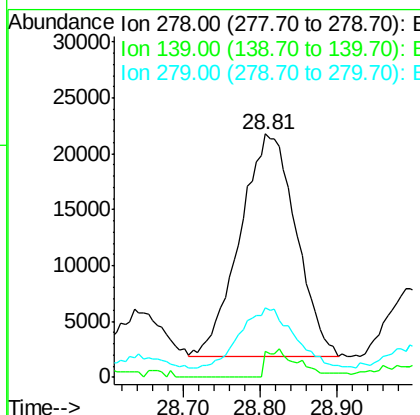
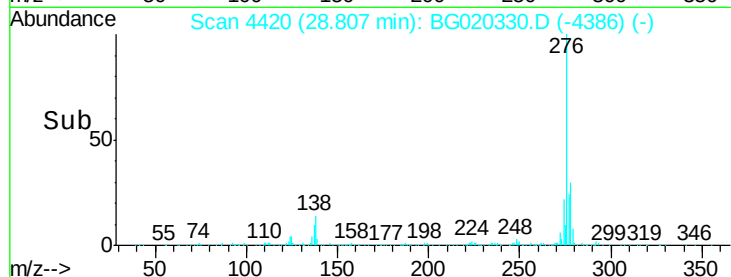
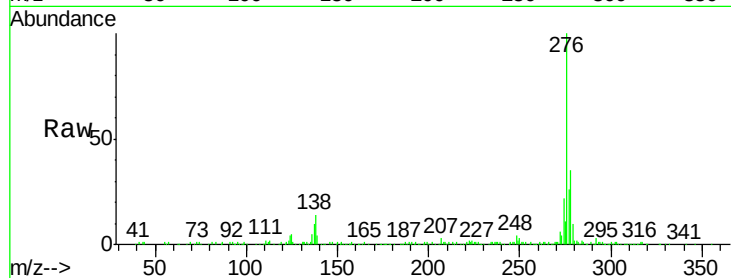
#93  
 Dibenzo(a,h)anthracene  
 Concen: 9.31 ng/ul  
 RT: 28.81 min Scan# 4420  
 Delta R.T. -0.00 min  
 Lab File: BG020330.D  
 Acq: 20 Dec 2015 2:54

Instrument :  
 BNA\_G  
 ClientSampleId :  
 E43M5

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 278     | 100  |       |       |       |
| 139     | 10.6 | 9.4   | 14.2  |       |
| 279     | 28.6 | 19.4  | 29.0  |       |

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#94  
 Benzo(g,h,i)perylene  
 Concen: 41.33 ng/ul  
 RT: 29.95 min Scan# 4614  
 Delta R.T. 0.03 min  
 Lab File: BG020330.D  
 Acq: 20 Dec 2015 2:54

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 276     | 100  |       |       |       |
| 138     | 13.4 | 10.8  | 16.2  |       |
| 277     | 25.2 | 19.9  | 29.9  |       |

