

Data Path : \\74.0.250.170\SV0ASRV\HPCHEM1\BNA G\DATA\BG062217\  
 Data File : BG027602.D  
 Acq On : 22 Jun 2017 18:54  
 Operator : SJ/JU  
 Sample : PB100013BS  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 PB100013BS

Quant Time: Jun 23 02:38:30 2017  
 Quant Method : Z:\HPCHEM1\BNA G\METHODS\8270-BG062117.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Jun 21 18:52:15 2017  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.51  | 152  | 22968    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 11.32 | 136  | 95285    | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10      | 15.09 | 164  | 56621    | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10      | 17.84 | 188  | 147859   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12          | 22.21 | 240  | 199075   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12          | 25.84 | 264  | 193880   | 20.00 | ng    | 0.00     |

## System Monitoring Compounds

|                          |       |     |        |       |    |      |
|--------------------------|-------|-----|--------|-------|----|------|
| 5) 2-Fluorophenol        | 0.00  | 112 | 0      | 0.00  | ng |      |
| 7) Phenol-d6             | 0.00  | 99  | 0      | 0.00  | ng |      |
| 23) Nitrobenzene-d5      | 0.00  | 82  | 0      | 0.00  | ng |      |
| 41) 2,4,6-Tribromophenol | 0.00  | 330 | 0      | 0.00  | ng |      |
| 44) 2-Fluorobiphenyl     | 13.71 | 172 | 171167 | 41.29 | ng | 0.00 |
| 78) Terphenyl-d14        | 0.00  | 244 | 0      | 0.00  | ng |      |

## Target Compounds

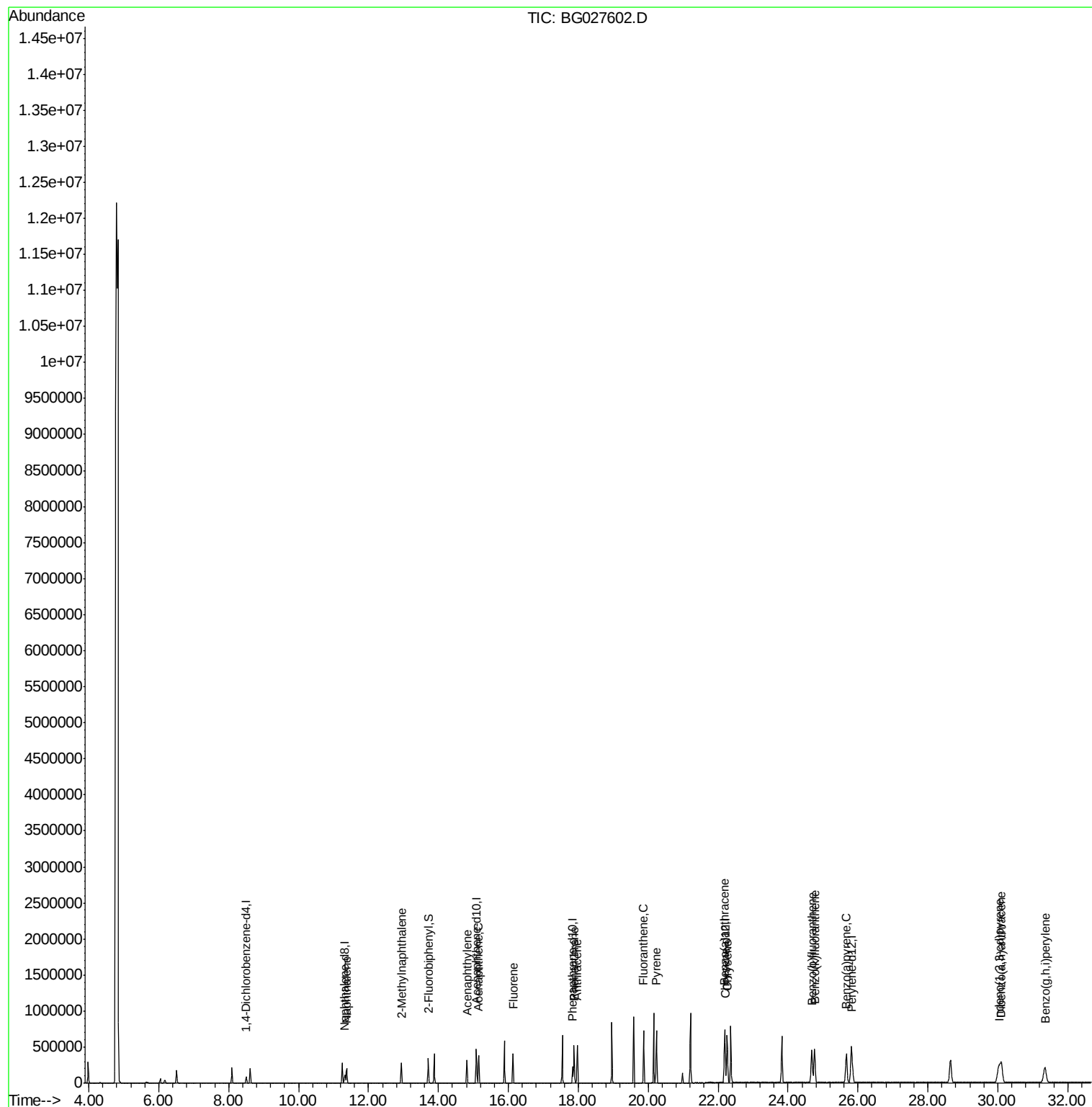
|                            |       |     |        |       |    | Qvalue |
|----------------------------|-------|-----|--------|-------|----|--------|
| 31) Naphthalene            | 11.37 | 128 | 176401 | 34.25 | ng | 100    |
| 37) 2-Methylnaphthalene    | 12.94 | 142 | 134354 | 35.90 | ng | 99     |
| 48) Acenaphthylene         | 14.82 | 152 | 228399 | 37.12 | ng | 96     |
| 51) Acenaphthene           | 15.15 | 154 | 144168 | 33.63 | ng | 98     |
| 57) Fluorene               | 16.13 | 166 | 188509 | 35.65 | ng | 97     |
| 70) Phenanthrene           | 17.88 | 178 | 341915 | 40.65 | ng | 93     |
| 71) Anthracene             | 17.97 | 178 | 348995 | 41.21 | ng | 96     |
| 74) Fluoranthene           | 19.87 | 202 | 468747 | 47.83 | ng | 95     |
| 77) Pyrene                 | 20.23 | 202 | 481099 | 39.76 | ng | 95     |
| 80) Benzo(a)anthracene     | 22.18 | 228 | 505921 | 42.36 | ng | 93     |
| 82) Chrysene               | 22.26 | 228 | 475035 | 41.97 | ng | 93     |
| 85) Indeno(1,2,3-cd)pyrene | 30.03 | 276 | 584985 | 45.36 | ng | # 97   |
| 87) Benzo(b)fluoranthene   | 24.68 | 252 | 506644 | 40.87 | ng | # 96   |
| 88) Benzo(k)fluoranthene   | 24.76 | 252 | 499757 | 41.21 | ng | # 95   |
| 89) Benzo(a)pyrene         | 25.67 | 252 | 485652 | 41.51 | ng | # 95   |
| 90) Dibenzo(a,h)anthracene | 30.10 | 278 | 497189 | 41.73 | ng | # 98   |
| 91) Benzo(g,h,i)perylene   | 31.34 | 276 | 478561 | 41.35 | ng | # 93   |

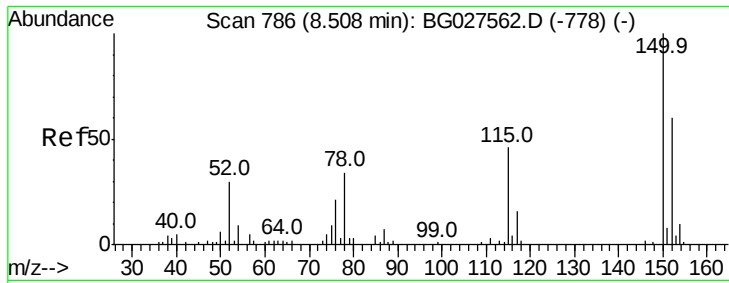
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA G\DATA\BG062217\  
Data File : BG027602.D  
Acq On : 22 Jun 2017 18:54  
Operator : SJ/JU  
Sample : PB100013BS  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
BNA\_G  
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Quant Time: Jun 23 02:38:30 2017  
Quant Method : Z:\HPCHEM1\BNA G\METHODS\8270-BG062117.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Jun 21 18:52:15 2017  
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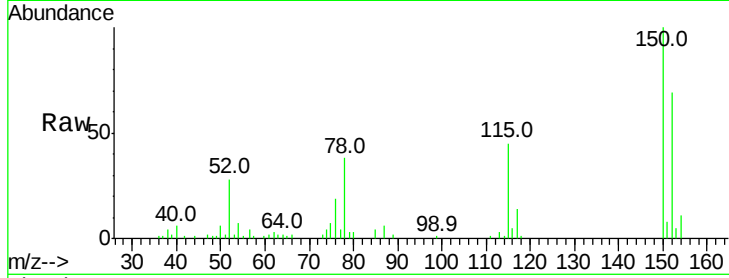


#1

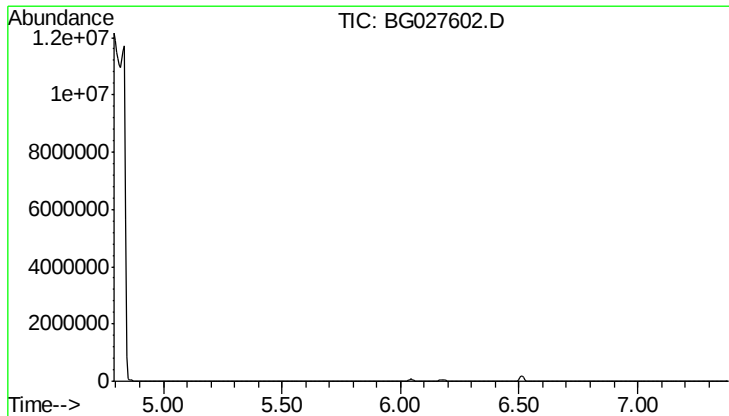
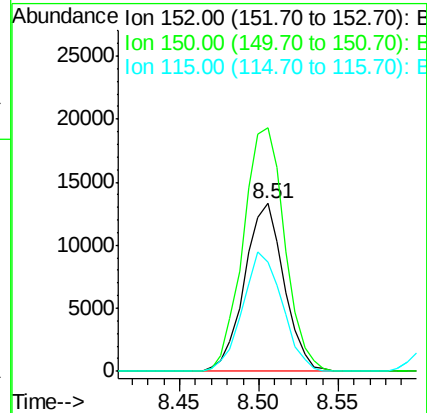
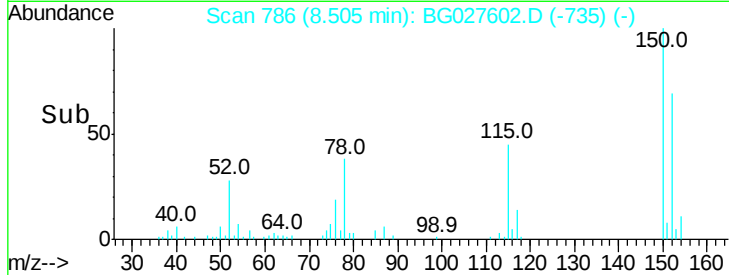
1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 8.51 min Scan# 786  
Delta R.T. -0.00 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Instrument :  
BNA\_G  
ClientSampleId :  
PB100013BS

Tot Ion:152 Resp: 22968  
Ion Ratio Lower Upper  
152 100  
150 145.1 114.0 171.0  
115 65.1 48.1 72.1



Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E

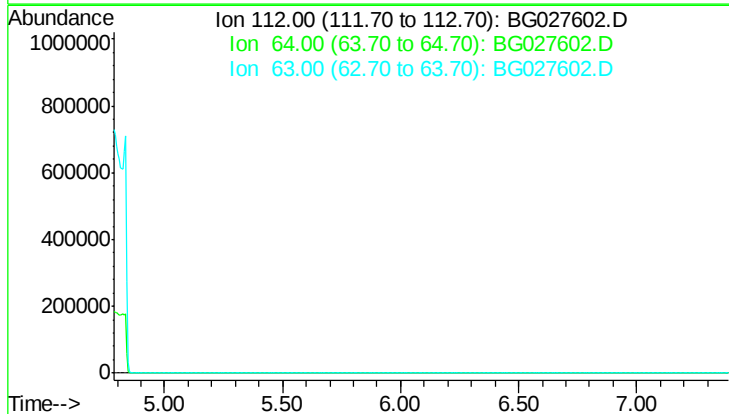


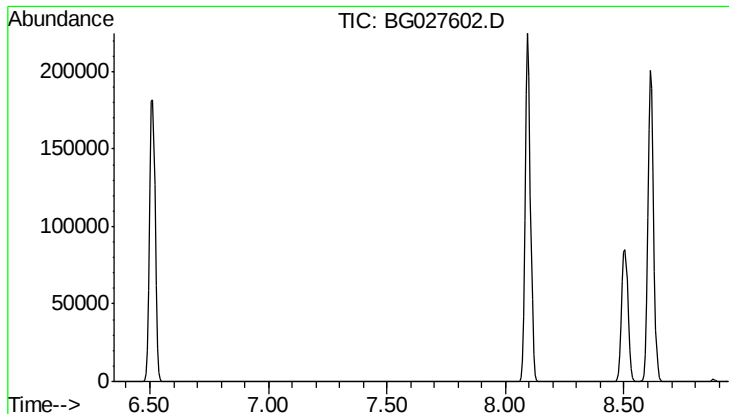
#5

2-Fluorophenol  
Concen: 0.00 ng  
Expected RT: 6.09 min

Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Tgt Ion: 112  
Sig Exp Ratio  
112 100  
64 77.2  
63 46.5





#7

Phenol-d6

Concen: 0.00 ng

Expected RT: 7.64 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

Instrument :

BNA\_G

ClientSampleId :

PB100013BS

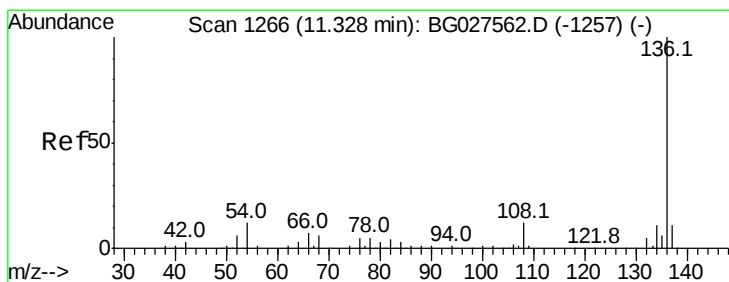
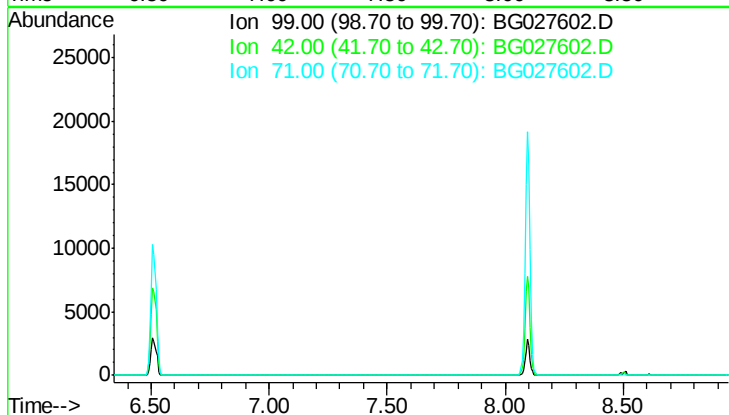
Tot Ion: 99

Sig Exp Ratio

99 100

42 25.6

71 47.0



#21

Naphthalene-d8

Concen: 20.00 ng

RT: 11.32 min Scan# 1265

Delta R.T. -0.01 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

Tgt Ion:136 Resp: 95285

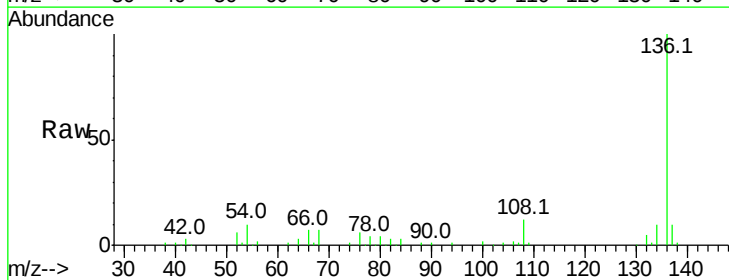
Ion Ratio Lower Upper

136 100

137 10.4 8.9 13.3

54 9.7 9.3 13.9

68 6.7 5.1 7.7

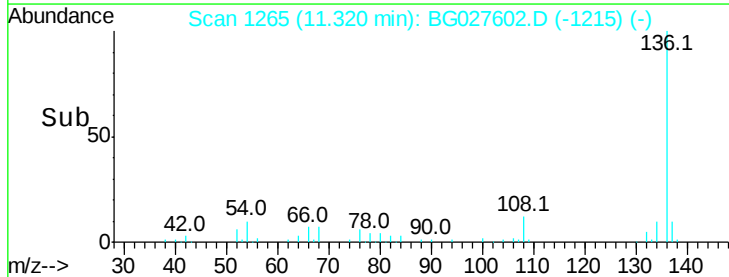
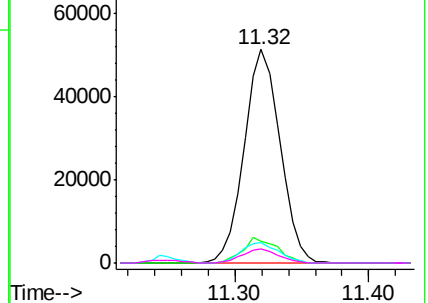


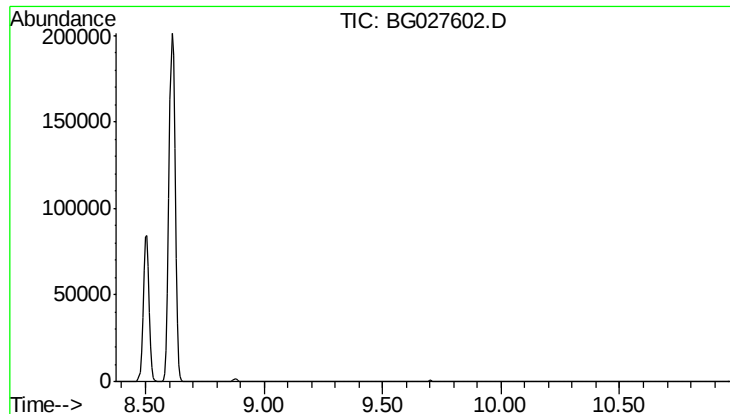
Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BGC

Ion 68.00 (67.70 to 68.70): BGC

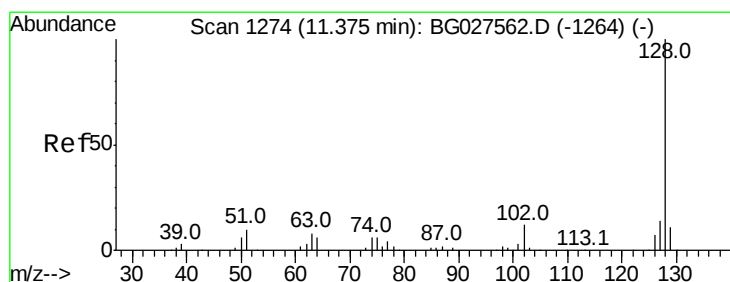
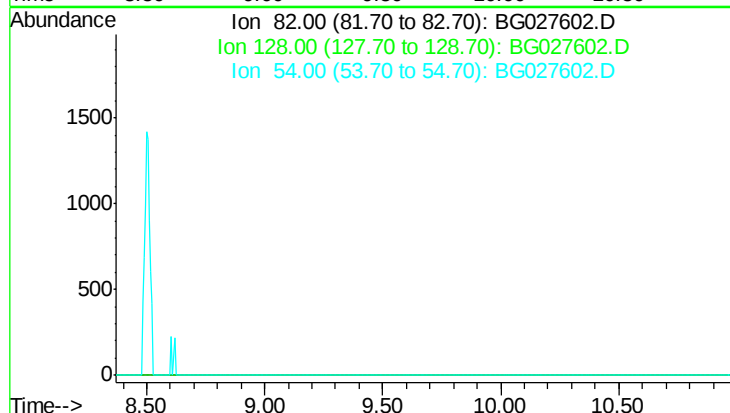




#23  
 Nitrobenzene-d5  
 Concen: 0.00 ng  
 Expected RT: 9.67 min  
 Lab File: BG027602.D  
 Acq: 22 Jun 2017 18:54

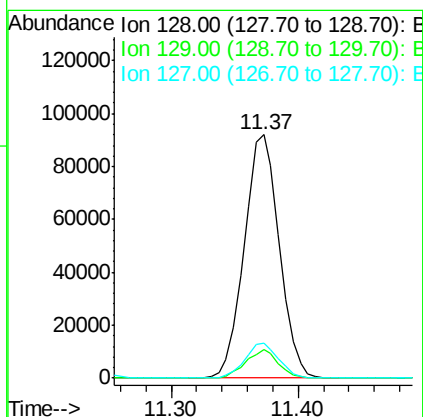
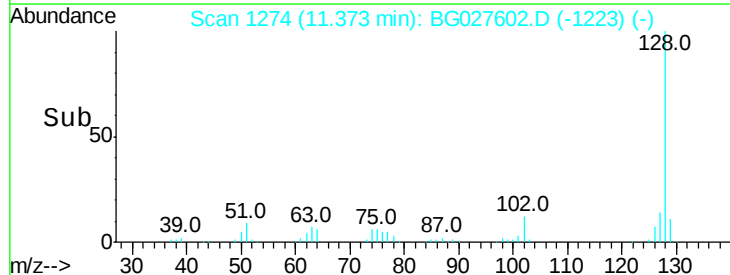
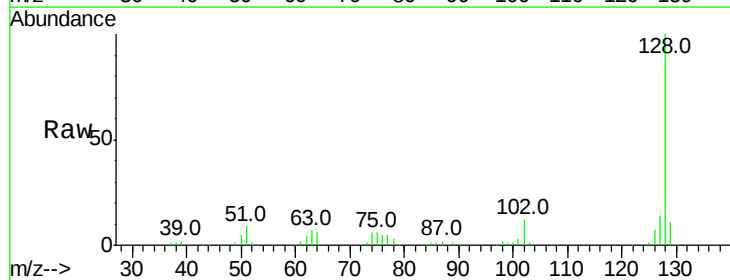
Instrument :  
 BNA\_G  
 ClientSampleId :  
 PB100013BS

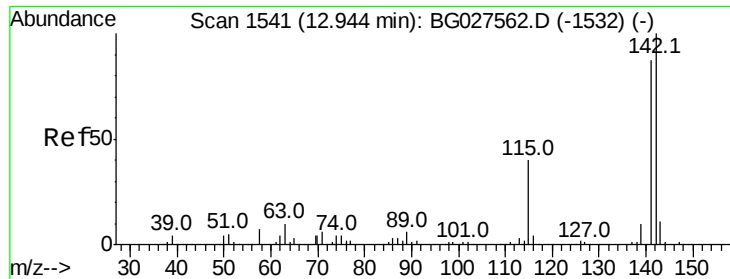
Tot Ion: 82  
 Sig Exp Ratio  
 82 100  
 128 33.0  
 54 61.8



#31  
 Naphthalene  
 Concen: 34.25 ng  
 RT: 11.37 min Scan# 1274  
 Delta R.T. -0.00 min  
 Lab File: BG027602.D  
 Acq: 22 Jun 2017 18:54

Tgt Ion:128 Resp: 176401  
 Ion Ratio Lower Upper  
 128 100  
 129 11.5 9.3 13.9  
 127 14.1 11.4 17.0

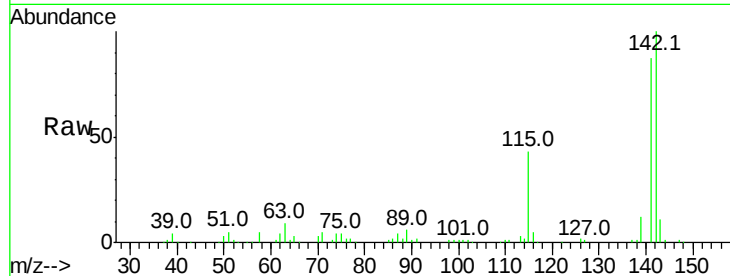




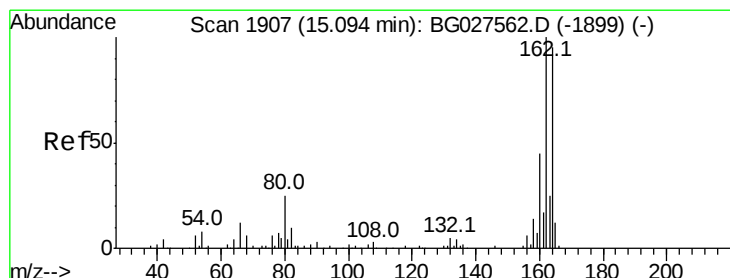
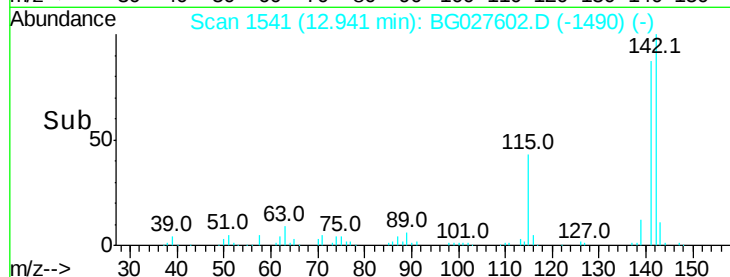
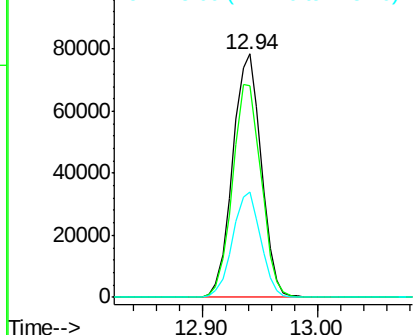
#37  
2-Methylnaphthalene  
Concen: 35.90 ng  
RT: 12.94 min Scan# 1541  
Delta R.T. -0.00 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Instrument :  
BNA\_G  
ClientSampleId :  
PB100013BS

Tot Ion:142 Resp: 134354  
Ion Ratio Lower Upper  
142 100  
141 87.2 70.4 105.6  
115 43.1 35.5 53.3

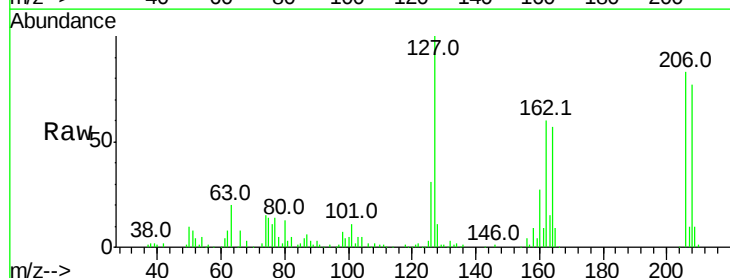


Abundance Ion 142.00 (141.70 to 142.70): E  
Ion 141.00 (140.70 to 141.70): E  
Ion 115.00 (114.70 to 115.70): E

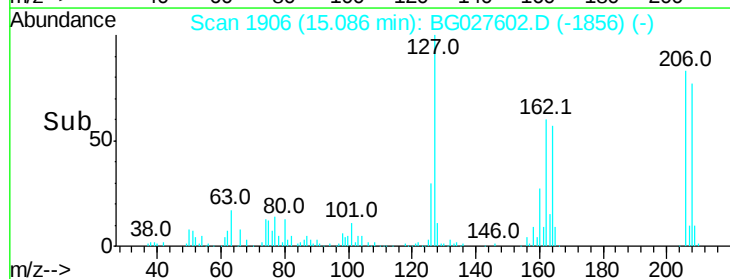
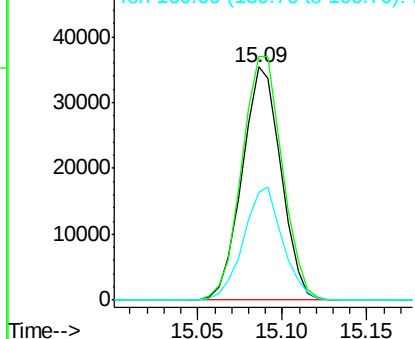


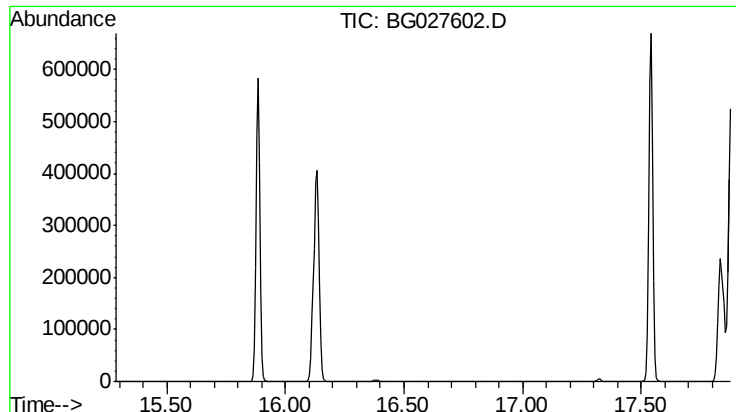
#38  
Acenaphthene-d10  
Concen: 20.00 ng  
RT: 15.09 min Scan# 1906  
Delta R.T. -0.01 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Tgt Ion:164 Resp: 56621  
Ion Ratio Lower Upper  
164 100  
162 104.4 85.1 127.7  
160 46.3 34.7 52.1



Abundance Ion 164.00 (163.70 to 164.70): E  
Ion 162.00 (161.70 to 162.70): E  
Ion 160.00 (159.70 to 160.70): E

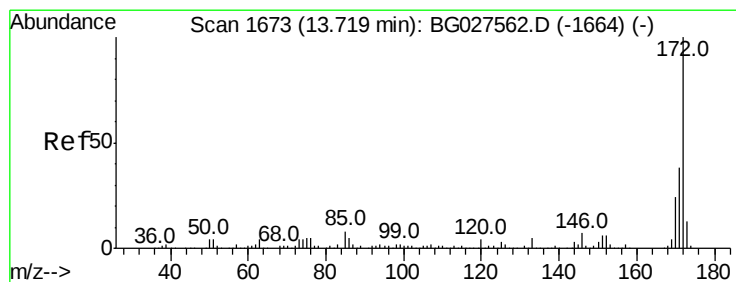
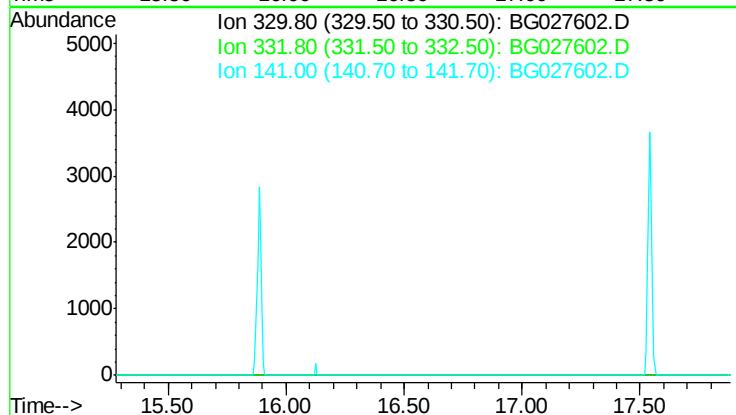




#41  
 2,4,6-Tribromophenol  
 Concen: 0.00 ng  
 Expected RT: 16.58 min  
 Lab File: BG027602.D  
 Acq: 22 Jun 2017 18:54

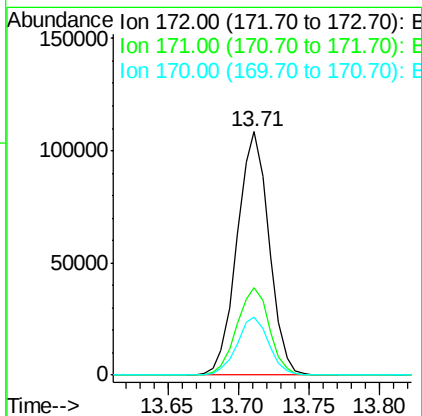
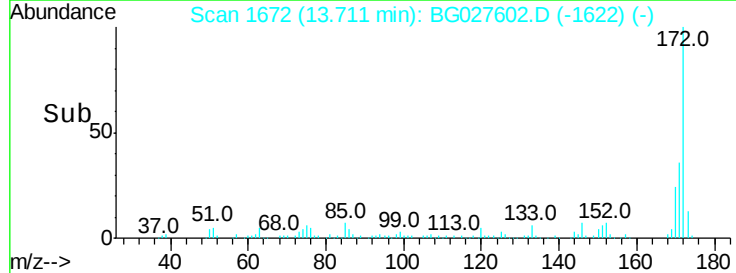
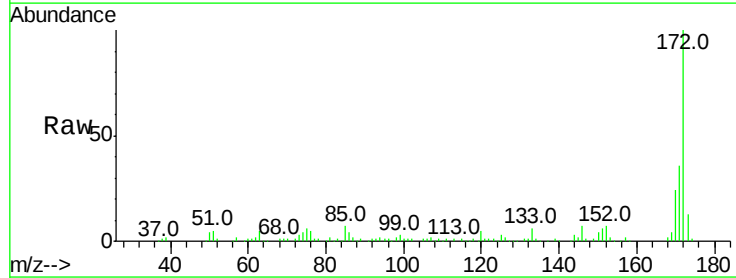
Instrument :  
 BNA\_G  
 ClientSampleId :  
 PB100013BS

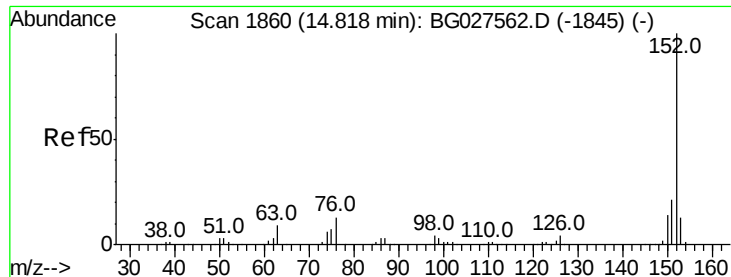
Tot Ion: 330  
 Sig Exp Ratio  
 330 100  
 332 96.6  
 141 40.1



#44  
 2-Fluorobiphenyl  
 Concen: 41.29 ng  
 RT: 13.71 min Scan# 1672  
 Delta R.T. -0.01 min  
 Lab File: BG027602.D  
 Acq: 22 Jun 2017 18:54

Tgt Ion: 172 Resp: 171167  
 Ion Ratio Lower Upper  
 172 100  
 171 36.2 32.2 48.2  
 170 23.8 21.8 32.6





#48

Acenaphthylene

Concen: 37.12 ng

RT: 14.82 min Scan# 1860

Delta R.T. -0.00 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

Instrument :

BNA\_G

ClientSampleId :

PB100013BS

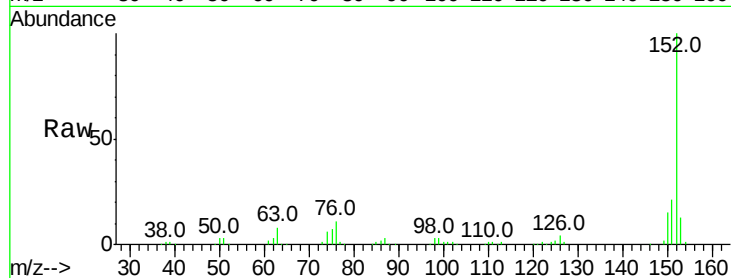
Tot Ion:152 Resp: 228399

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 152 | 100   |       |       |
| 151 | 20.5  | 18.2  | 27.2  |
| 153 | 13.0  | 11.3  | 16.9  |

152 100

151 20.5 18.2 27.2

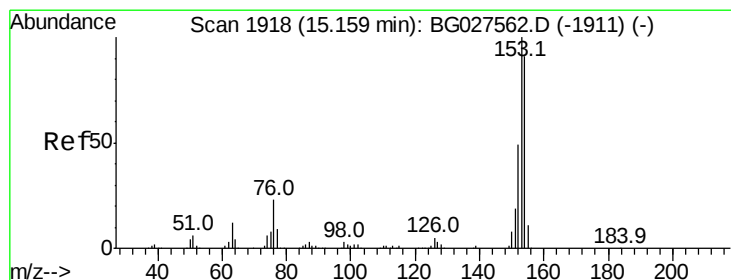
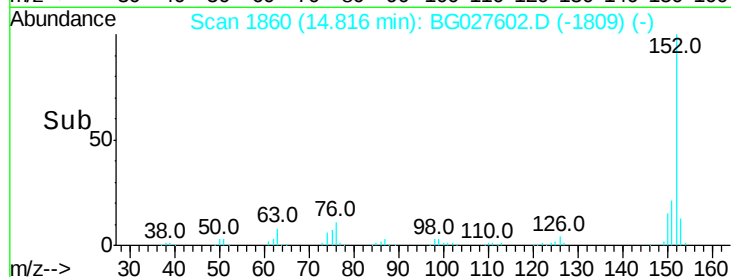
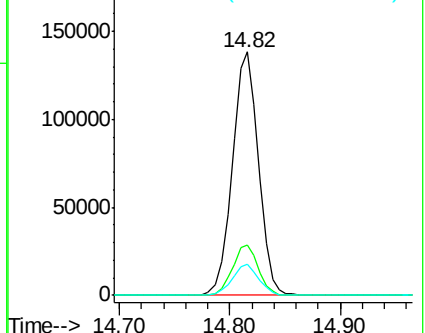
153 13.0 11.3 16.9



Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E



#51

Acenaphthene

Concen: 33.63 ng

RT: 15.15 min Scan# 1917

Delta R.T. -0.01 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

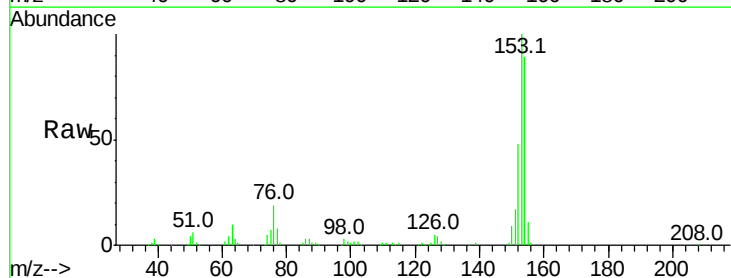
Tgt Ion:154 Resp: 144168

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 154 | 100   |       |       |
| 153 | 112.9 | 87.8  | 131.6 |
| 152 | 53.7  | 42.2  | 63.4  |

154 100

153 112.9 87.8 131.6

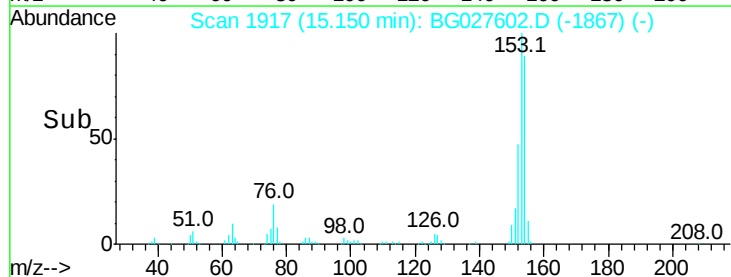
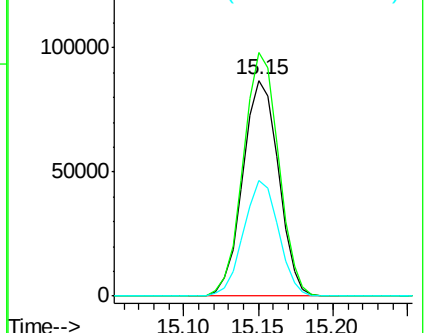
152 53.7 42.2 63.4

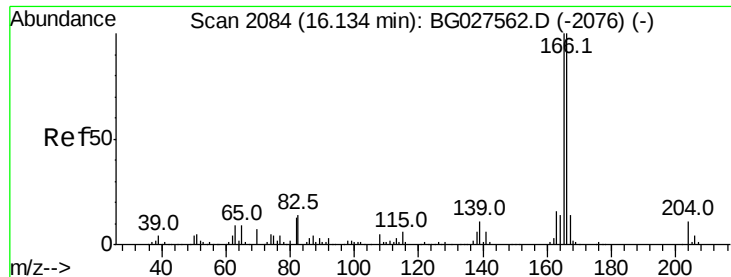


Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E





#57

Fluorene

Concen: 35.65 ng

RT: 16.13 min Scan# 2084

Delta R.T. -0.00 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

Instrument :

BNA\_G

ClientSampleId :

PB100013BS

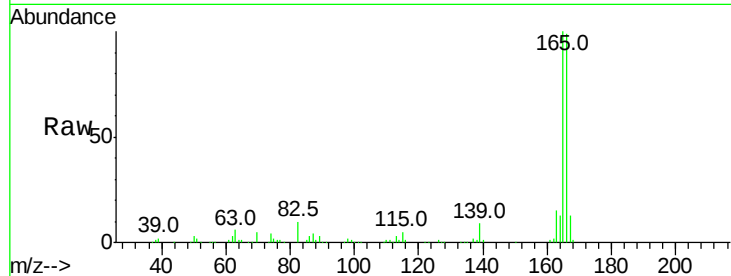
Tot Ion:166 Resp: 188509

Ion Ratio Lower Upper

166 100

165 101.3 78.6 117.8

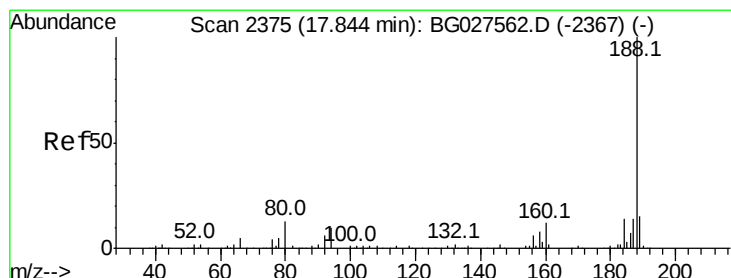
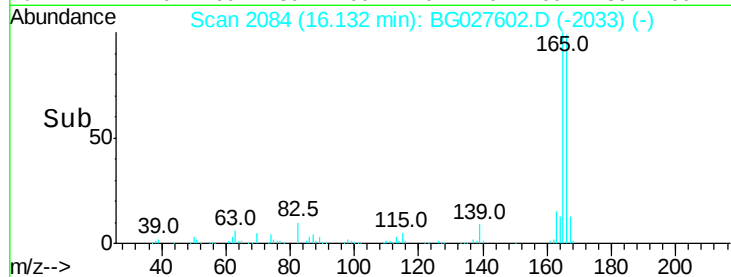
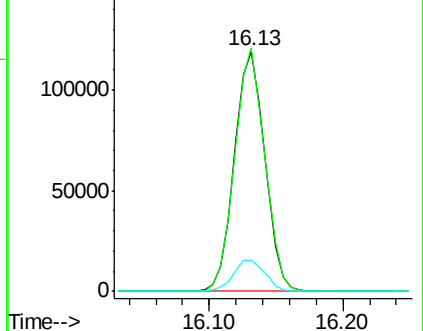
167 13.2 11.6 17.4



Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E



#63

Phenanthrene-d10

Concen: 20.00 ng

RT: 17.84 min Scan# 2374

Delta R.T. -0.01 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

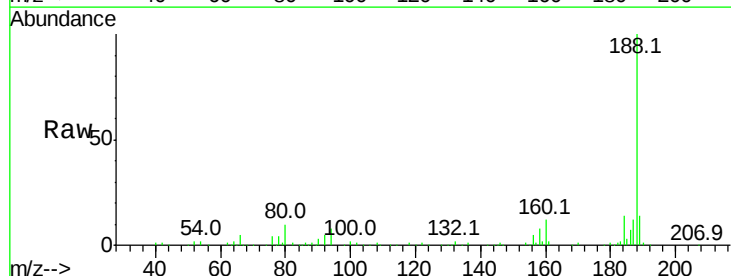
Tgt Ion:188 Resp: 147859

Ion Ratio Lower Upper

188 100

94 8.3 5.8 8.8

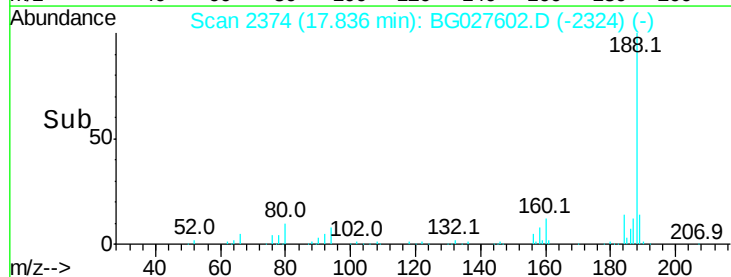
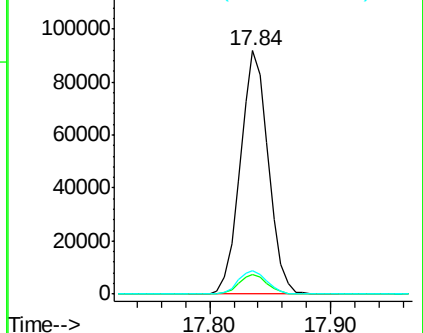
80 9.7 7.5 11.3

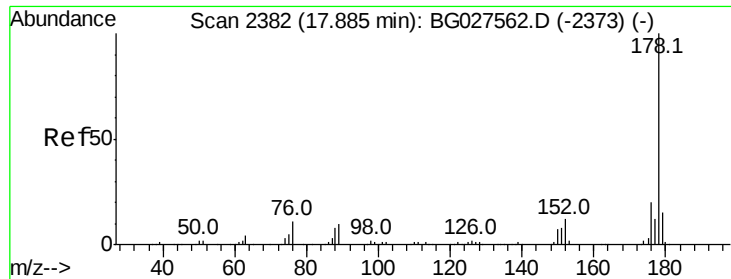


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BG0

Ion 80.00 (79.70 to 80.70): BG0

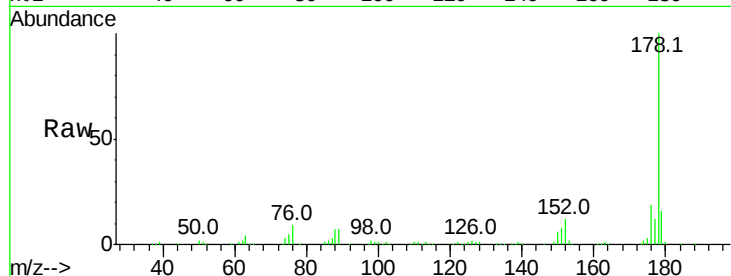




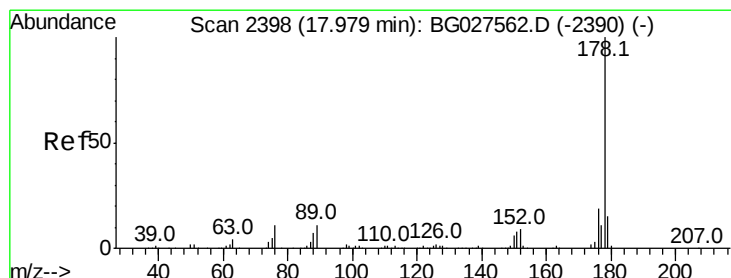
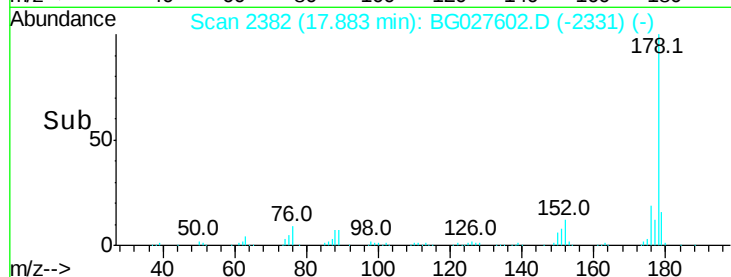
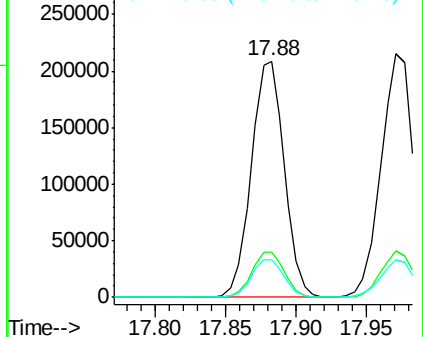
#70  
Phenanthrene  
Concen: 40.65 ng  
RT: 17.88 min Scan# 2382  
Delta R.T. -0.00 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Instrument :  
BNA\_G  
ClientSampleId :  
PB100013BS

Tot Ion:178 Resp: 341915  
Ion Ratio Lower Upper  
178 100  
176 19.1 17.7 26.5  
179 15.7 15.0 22.6

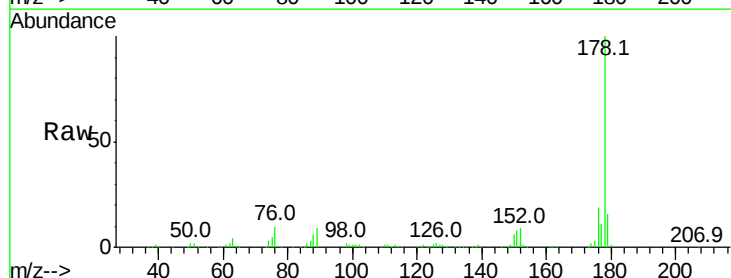


Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 176.00 (175.70 to 176.70): E  
Ion 179.00 (178.70 to 179.70): E

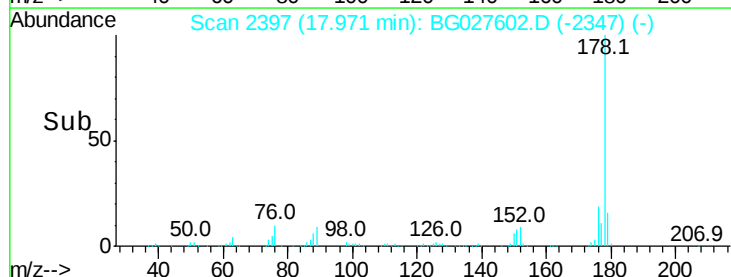
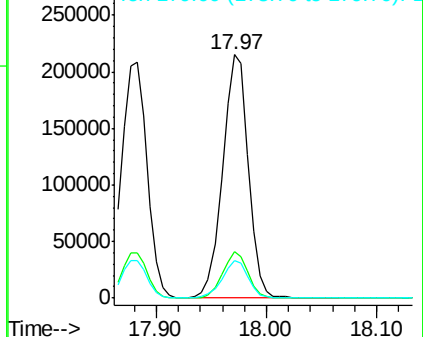


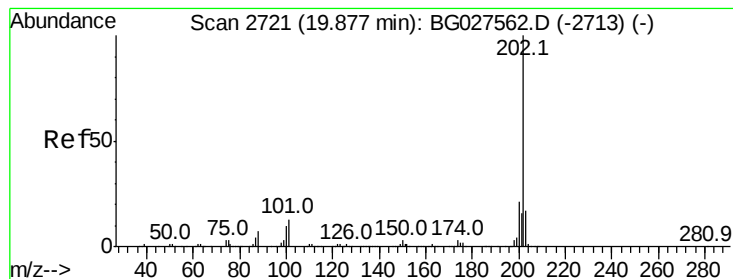
#71  
Anthracene  
Concen: 41.21 ng  
RT: 17.97 min Scan# 2397  
Delta R.T. -0.01 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Tgt Ion:178 Resp: 348995  
Ion Ratio Lower Upper  
178 100  
176 19.1 16.4 24.6  
179 15.6 13.8 20.8



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





#74

Fluoranthene

Concen: 47.83 ng

RT: 19.87 min Scan# 2721

Delta R.T. -0.00 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

Instrument :

BNA\_G

ClientSampleId :

PB100013BS

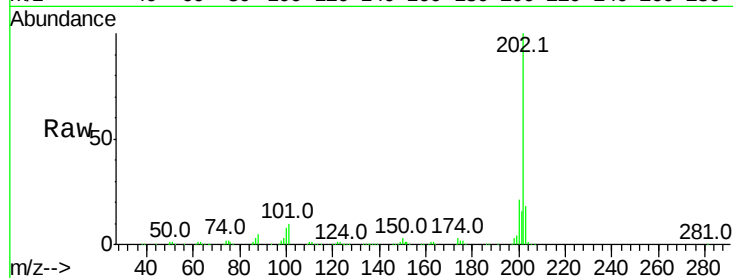
Tot Ion:202 Resp: 468747

Ion Ratio Lower Upper

202 100

101 9.6 0.0 30.1

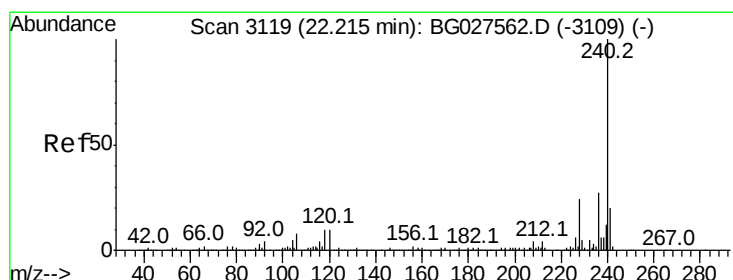
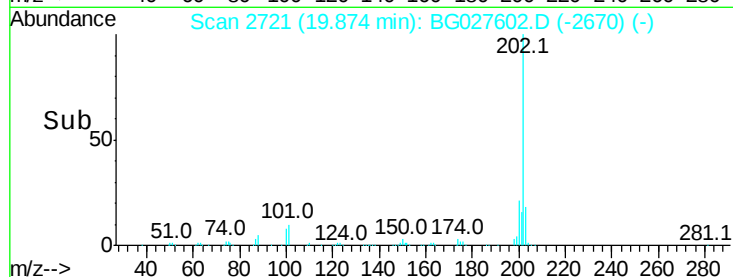
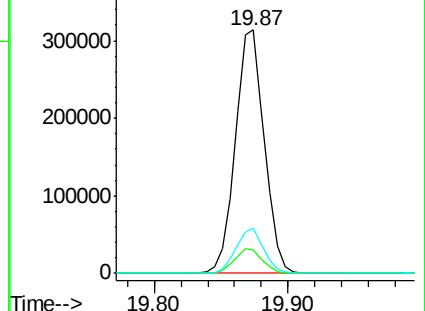
203 18.4 1.3 41.3



Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E



#75

Chrysene-d12

Concen: 20.00 ng

RT: 22.21 min Scan# 3118

Delta R.T. -0.01 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

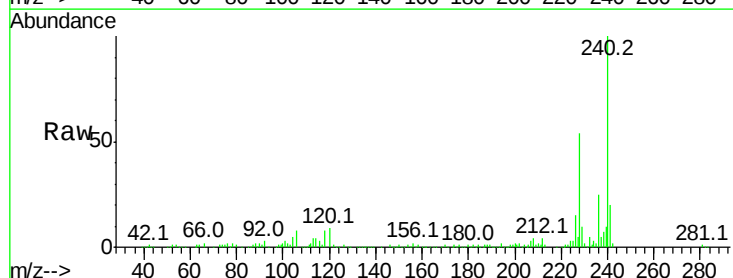
Tgt Ion:240 Resp: 199075

Ion Ratio Lower Upper

240 100

120 9.5 5.7 8.5#

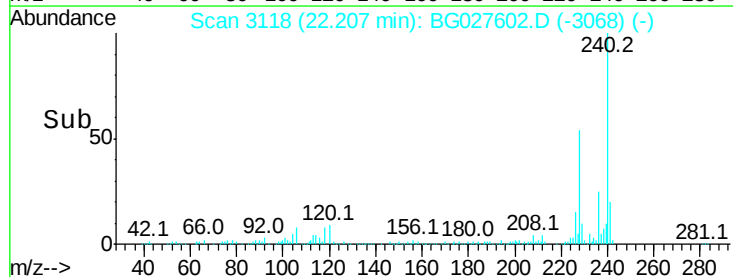
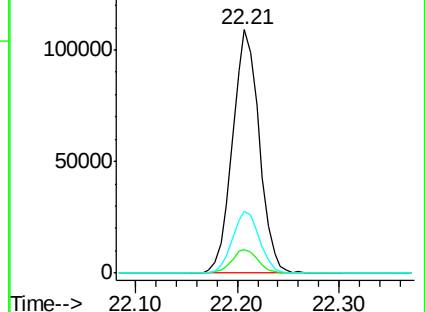
236 25.4 22.2 33.4

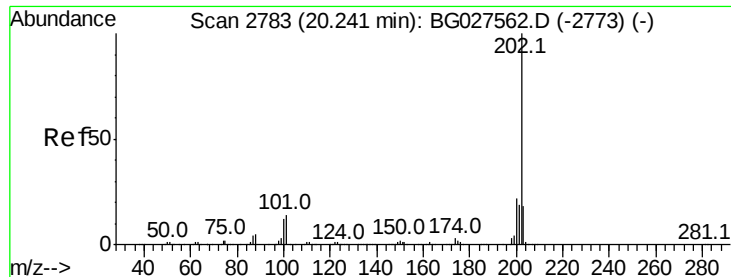


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E





#77

Pvrene

Concen: 39.76 ng

RT: 20.23 min Scan# 2782

Delta R.T. -0.01 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

Instrument :

BNA\_G

ClientSampleId :

PB100013BS

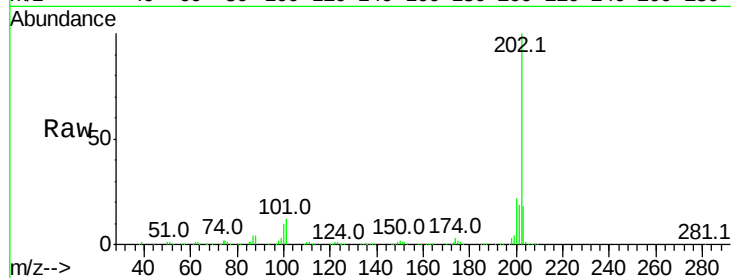
Tot Ion: 202 Resp: 481099

Ion Ratio Lower Upper

202 100

200 21.7 19.6 29.4

203 18.1 15.8 23.8

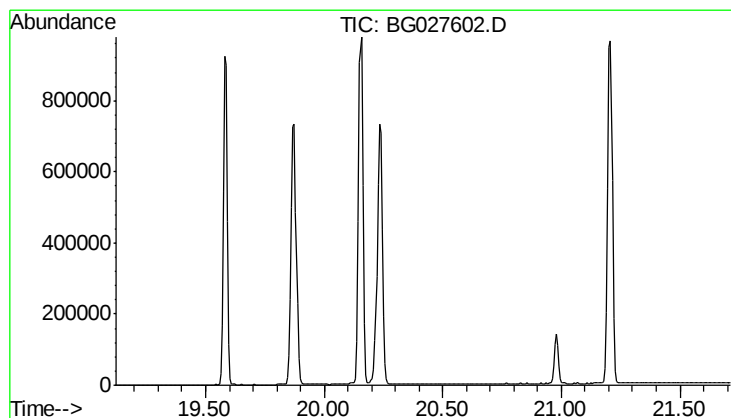
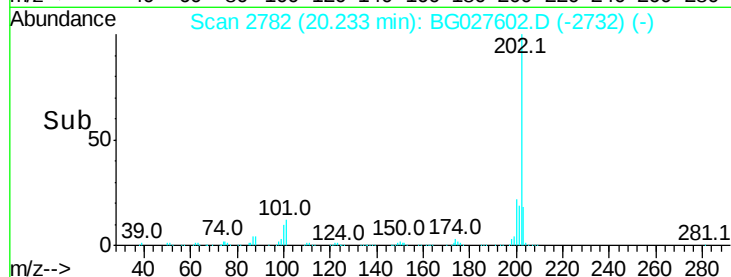
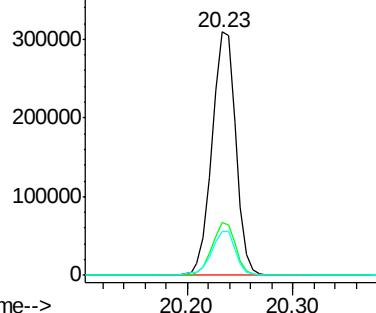


Abundance

Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E



#78

Terphenyl-d14

Concen: 0.00 ng

Expected RT: 20.42 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

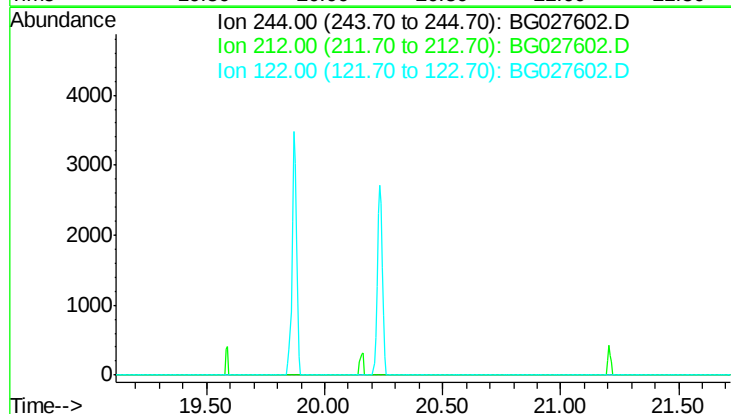
Tgt Ion: 244

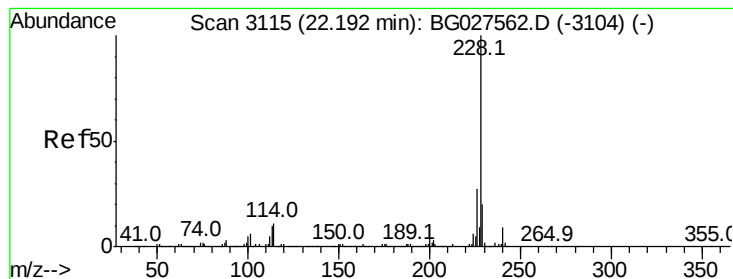
Sig Exp Ratio

244 100

212 12.5

122 10.7

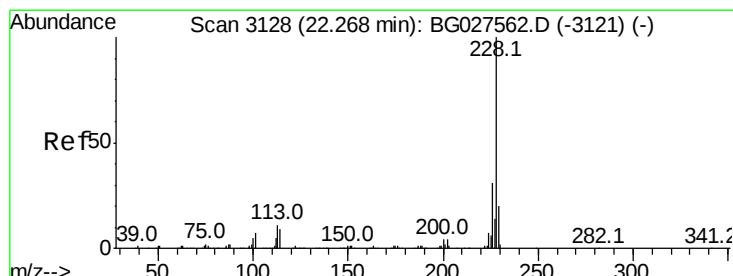
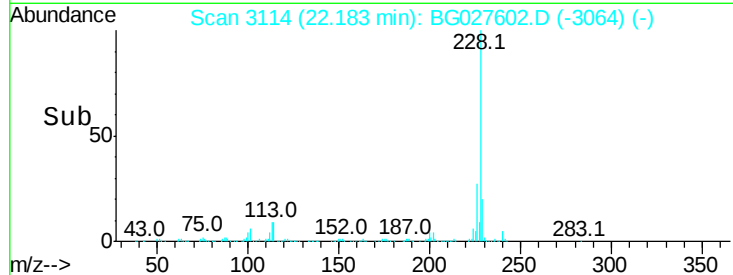
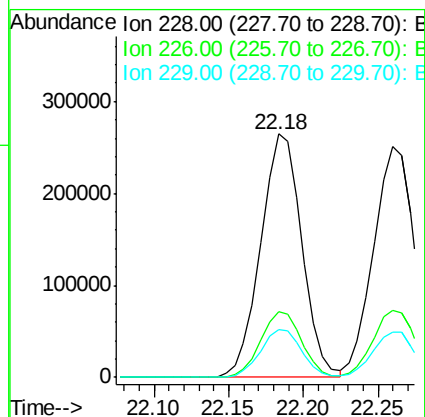
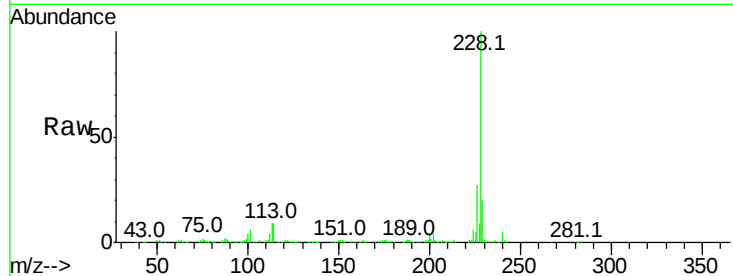




#80  
Benzo(a)anthracene  
Concen: 42.36 ng  
RT: 22.18 min Scan# 3114  
Delta R.T. -0.01 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

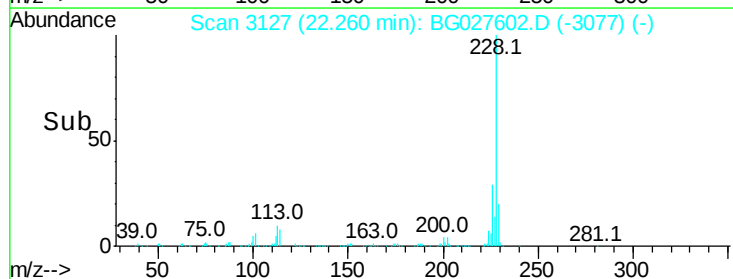
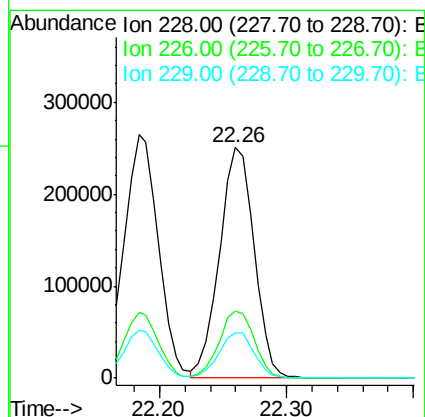
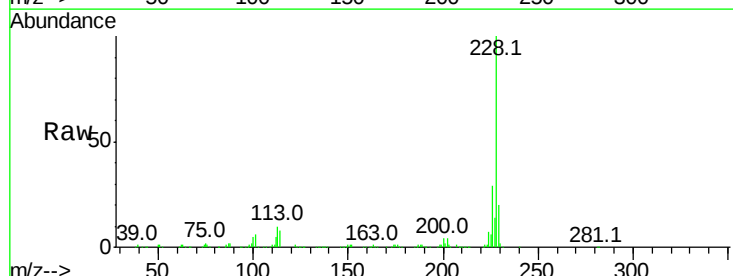
Instrument :  
BNA\_G  
ClientSampleId :  
PB100013BS

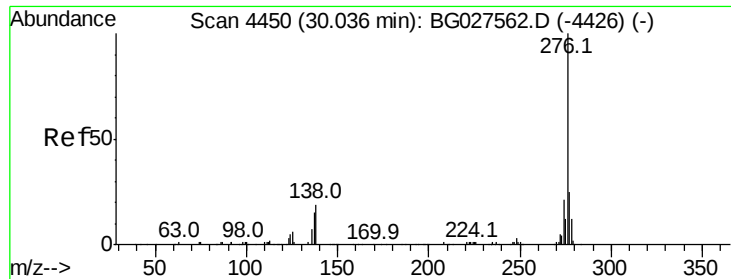
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.0  | 24.9  | 37.3  |
| 229     | 19.8  | 18.2  | 27.2  |



#82  
Chrysene  
Concen: 41.97 ng  
RT: 22.26 min Scan# 3127  
Delta R.T. -0.01 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.1  | 27.0  | 40.4  |
| 229     | 19.7  | 17.8  | 26.6  |

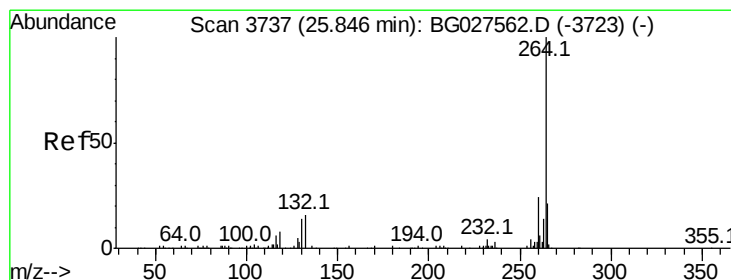
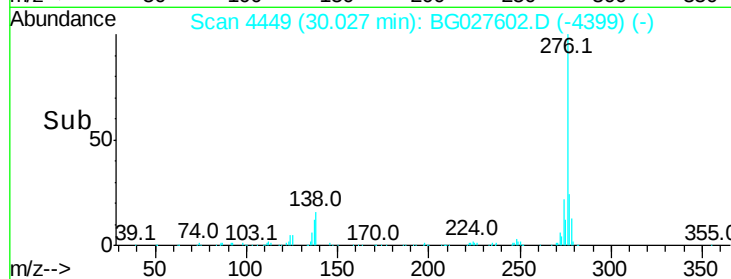
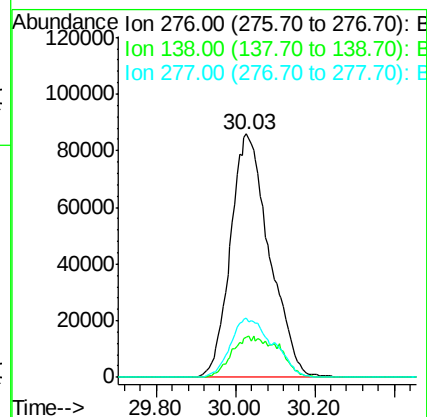
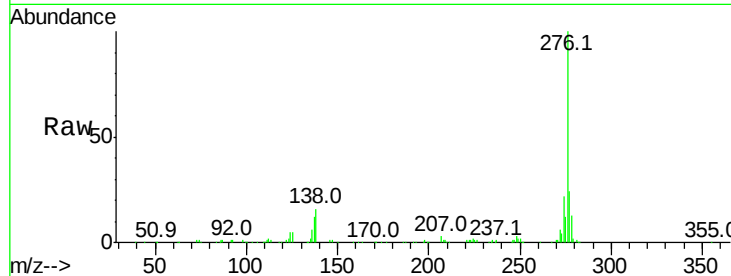




#85  
Indeno(1,2,3-cd)pyrene  
Concen: 45.36 ng  
RT: 30.03 min Scan# 4449  
Delta R.T. -0.01 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

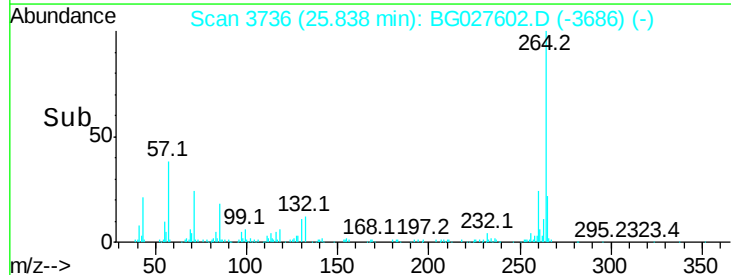
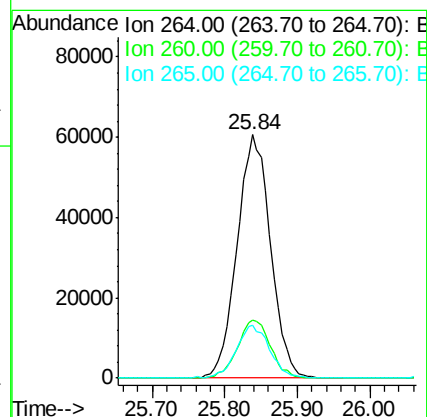
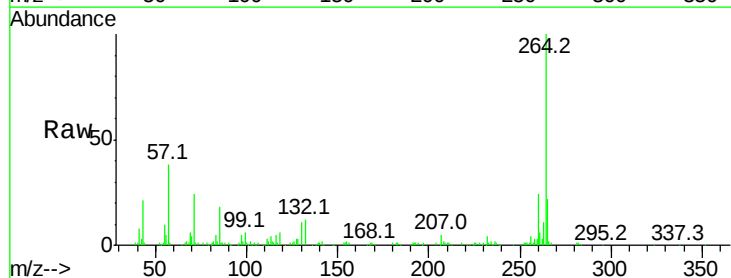
Instrument :  
BNA\_G  
ClientSampleId :  
PB100013BS

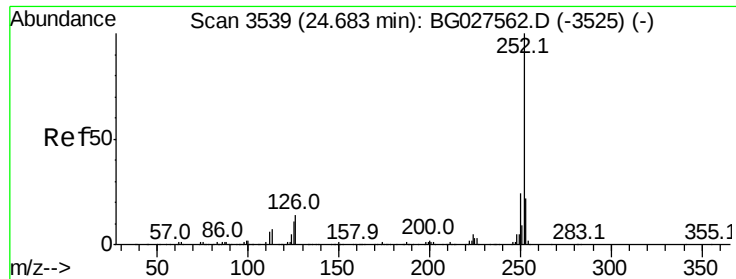
Tot Ion:276 Resp: 584985  
Ion Ratio Lower Upper  
276 100  
138 8.7 4.7 7.1#  
277 26.5 20.6 31.0



#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 25.84 min Scan# 3736  
Delta R.T. -0.01 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Tgt Ion:264 Resp: 193880  
Ion Ratio Lower Upper  
264 100  
260 24.1 21.8 32.8  
265 21.6 18.2 27.4

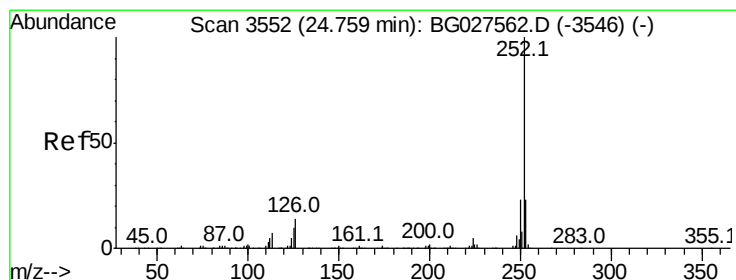
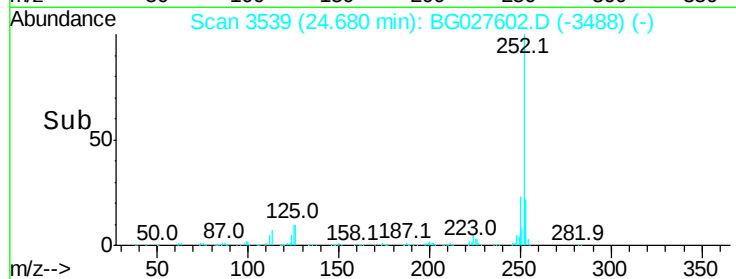
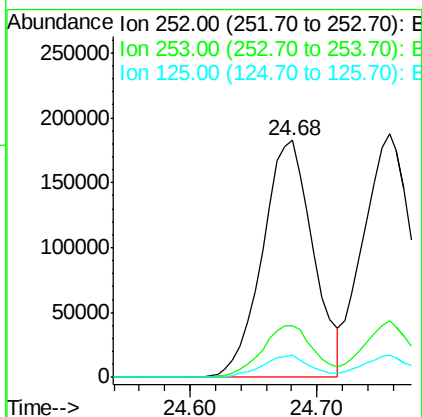
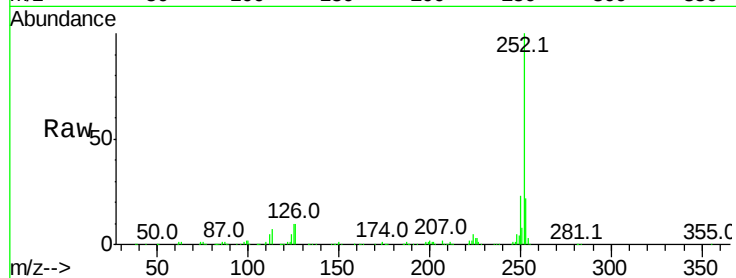




#87  
Benzo(b)fluoranthene  
Concen: 40.87 ng  
RT: 24.68 min Scan# 3539  
Delta R.T. -0.00 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

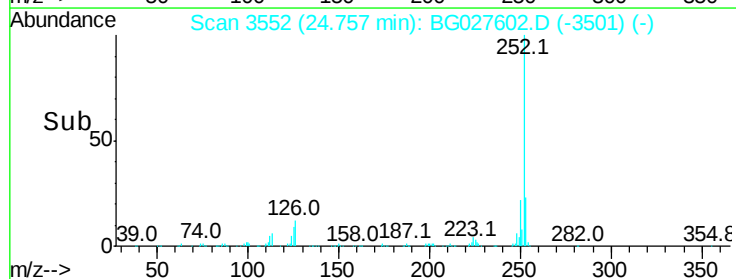
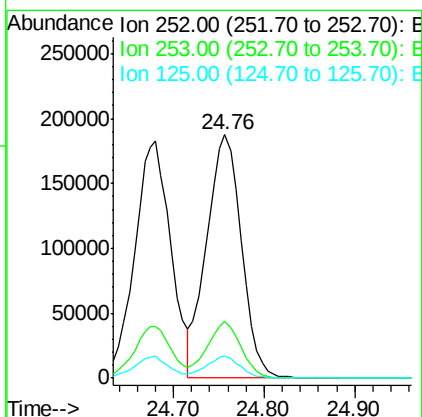
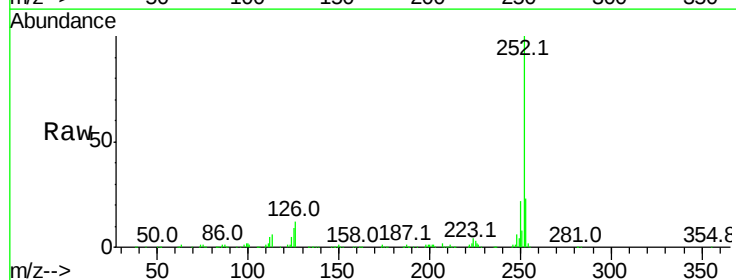
Instrument :  
BNA\_G  
ClientSampleId :  
PB100013BS

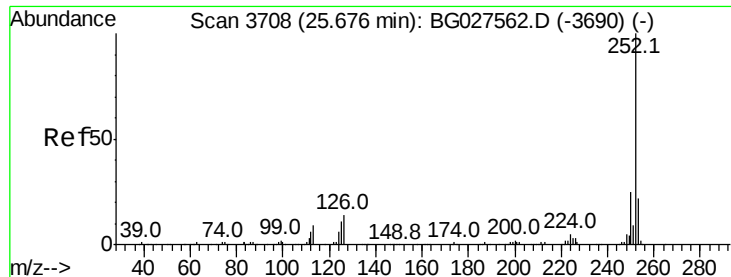
Tot Ion:252 Resp: 506644  
Ion Ratio Lower Upper  
252 100  
253 21.9 18.7 28.1  
125 9.6 5.3 7.9#



#88  
Benzo(k)fluoranthene  
Concen: 41.21 ng  
RT: 24.76 min Scan# 3552  
Delta R.T. -0.00 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Tgt Ion:252 Resp: 499757  
Ion Ratio Lower Upper  
252 100  
253 23.1 20.2 30.2  
125 9.3 5.1 7.7#

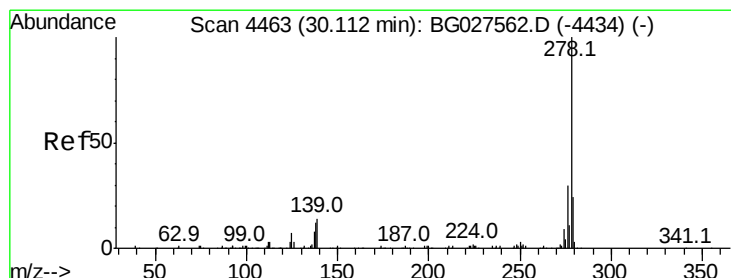
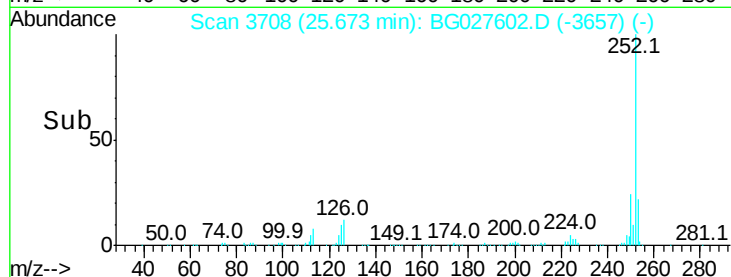
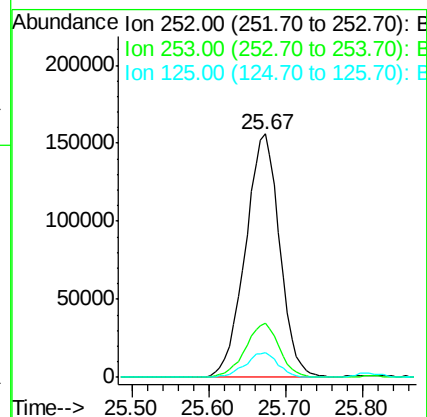
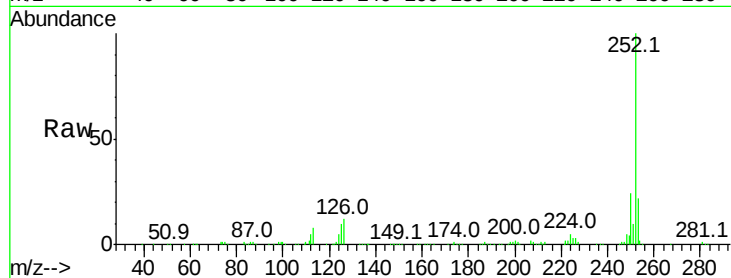




#89  
Benzo(a)pyrene  
Concen: 41.51 ng  
RT: 25.67 min Scan# 3708  
Delta R.T. -0.00 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

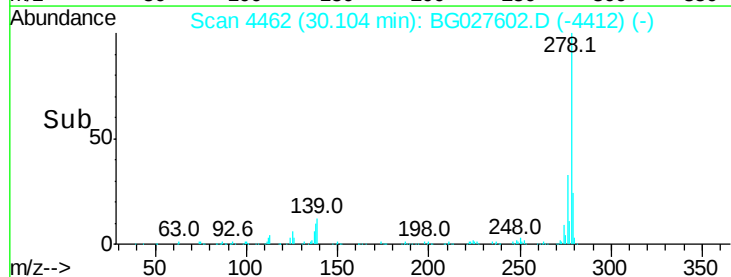
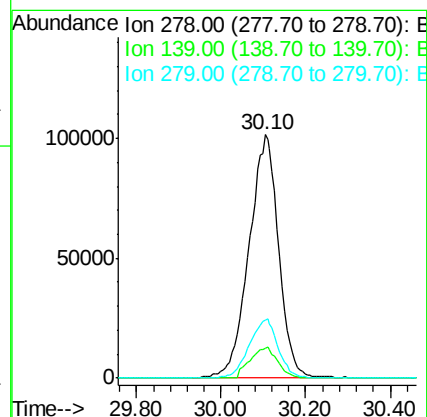
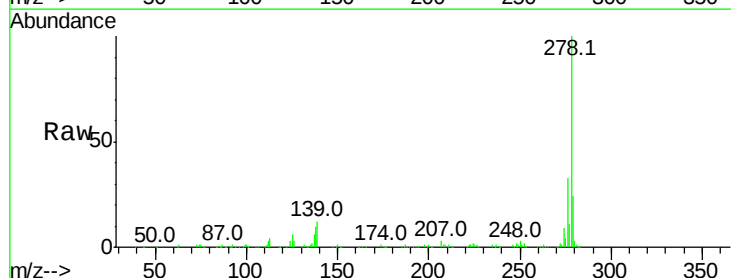
Instrument :  
BNA\_G  
ClientSampleId :  
PB100013BS

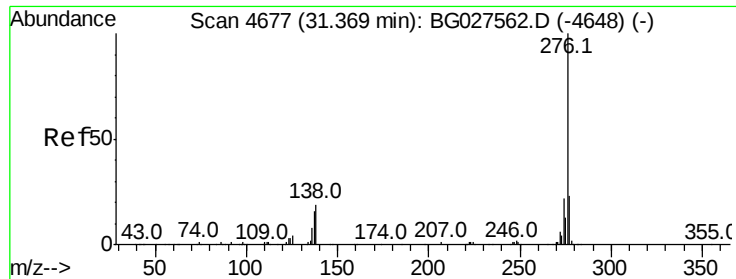
Tot Ion:252 Resp: 485652  
Ion Ratio Lower Upper  
252 100  
253 22.5 19.2 28.8  
125 10.3 5.4 8.0#



#90  
Dibenzo(a,h)anthracene  
Concen: 41.73 ng  
RT: 30.10 min Scan# 4462  
Delta R.T. -0.01 min  
Lab File: BG027602.D  
Acq: 22 Jun 2017 18:54

Tgt Ion:278 Resp: 497189  
Ion Ratio Lower Upper  
278 100  
139 12.2 7.7 11.5#  
279 23.6 19.1 28.7





#91

Benzo(a,h,i)perylene

Concen: 41.35 ng

RT: 31.34 min Scan# 4673

Delta R.T. -0.03 min

Lab File: BG027602.D

Acq: 22 Jun 2017 18:54

Instrument :

BNA\_G

ClientSampleId :

PB100013BS

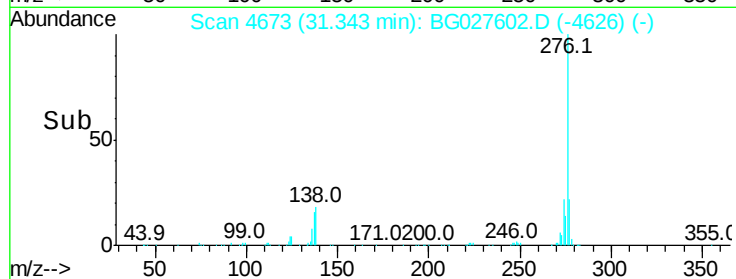
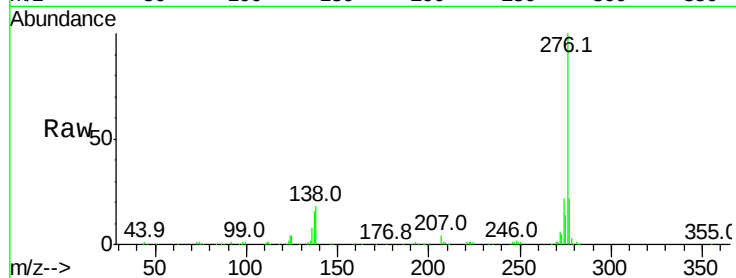
Tot Ion:276 Resp: 478561

Ion Ratio Lower Upper

276 100

277 22.2 18.6 27.8

138 17.5 8.1 12.1#



Abundance Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

