

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG022716\  
 Data File : BG021148.D  
 Acq On : 28 Feb 2016 12:40  
 Operator : UM/SJ  
 Sample : H1442-03 20X  
 Misc :  
 ALS Vial : 65 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 POST-EX-12-20160211

Quant Time: Feb 29 00:35:52 2016  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\8270-BG022616.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Feb 26 16:39:44 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.17  | 152  | 9662     | 20.00 | ng    | -0.01    |
| 21) Naphthalene-d8        | 10.97 | 136  | 46465    | 20.00 | ng    | -0.02    |
| 38) Acenaphthene-d10      | 14.77 | 164  | 27206    | 20.00 | ng    | -0.01    |
| 63) Phenanthrene-d10      | 17.51 | 188  | 60539    | 20.00 | ng    | -0.01    |
| 75) Chrysene-d12          | 21.77 | 240  | 62713    | 20.00 | ng    | -0.02    |
| 86) Perylene-d12          | 25.05 | 264  | 58356    | 20.00 | ng    | -0.03    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|------|-------|----------|
| 5) 2-Fluorophenol           | 5.72  | 112  | 3560     | 6.45 | ng    | -0.01    |
| 7) Phenol-d6                | 7.31  | 99   | 6456     | 7.86 | ng    | -0.02    |
| 23) Nitrobenzene-d5         | 9.33  | 82   | 4682     | 4.80 | ng    | -0.02    |
| 41) 2,4,6-Tribromophenol    | 16.25 | 330  | 1481     | 4.15 | ng    | -0.02    |
| 44) 2-Fluorobiphenyl        | 13.40 | 172  | 8012     | 3.77 | ng    | -0.02    |
| 78) Terphenyl-d14           | 20.09 | 244  | 9172     | 3.42 | ng    | -0.02    |

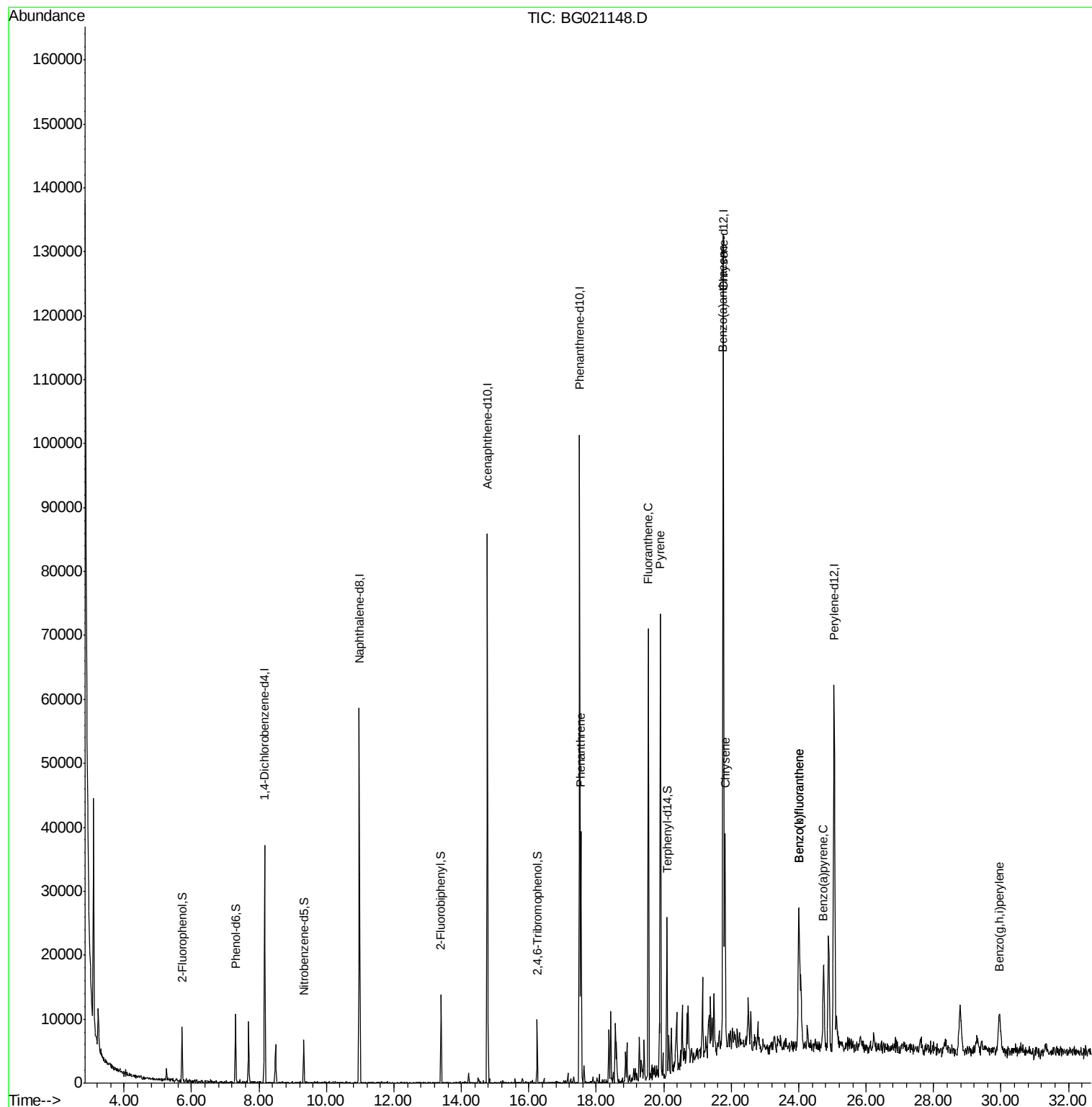
| Target Compounds         | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|--------------------------|-------|------|----------|-------|-------|--------|
| 70) Phenanthrene         | 17.55 | 178  | 23760    | 7.29  | ng    | 98     |
| 74) Fluoranthene         | 19.54 | 202  | 40272    | 9.86  | ng    | 99     |
| 77) Pyrene               | 19.91 | 202  | 43814    | 12.62 | ng    | 98     |
| 80) Benzo(a)anthracene   | 21.75 | 228  | 21970    | 6.09  | ng    | 96     |
| 82) Chrysene             | 21.82 | 228  | 22078    | 6.35  | ng    | 97     |
| 87) Benzo(b)fluoranthene | 24.01 | 252  | 25584    | 7.01  | ng    | # 93   |
| 88) Benzo(k)fluoranthene | 24.01 | 252  | 25584    | 7.12  | ng    | # 92   |
| 89) Benzo(a)pyrene       | 24.74 | 252  | 13989    | 4.00  | ng    | 96     |
| 91) Benzo(g,h,i)perylene | 29.95 | 276  | 13001    | 3.82  | ng    | # 86   |

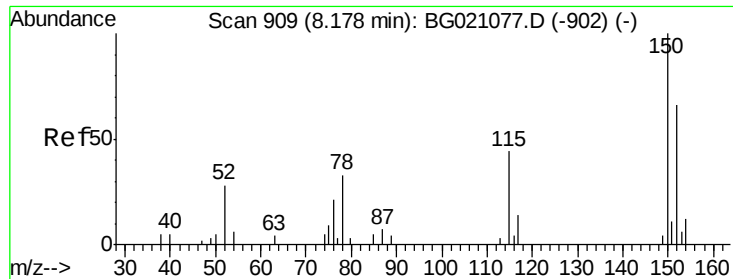
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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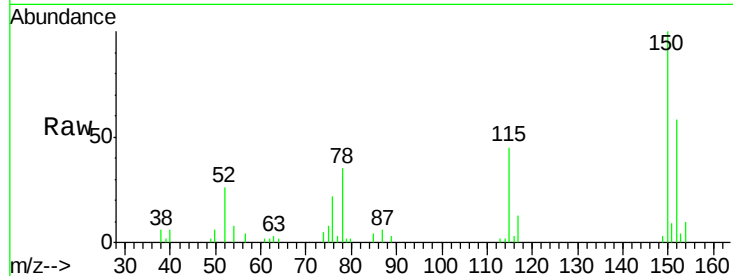


#1

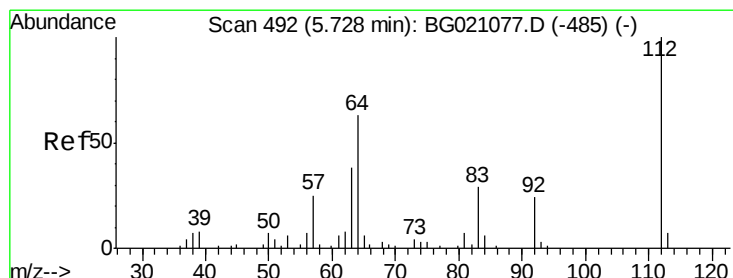
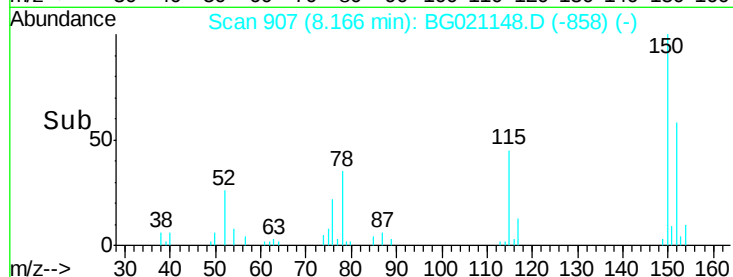
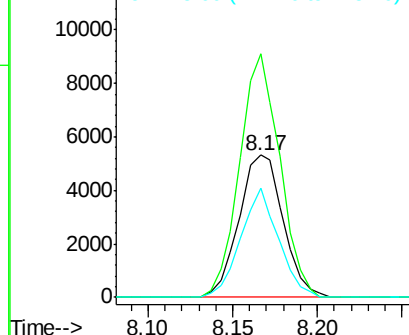
1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 8.17 min Scan# 907  
Delta R.T. -0.01 min  
Lab File: BG021148.D  
Acq: 28 Feb 2016 12:40

Instrument :  
BNA\_G  
ClientSampleId :  
POST-EX-12-20160211

Tgt Ion:152 Resp: 9662  
Ion Ratio Lower Upper  
152 100  
150 171.1 123.4 185.2  
115 76.3 43.3 64.9#



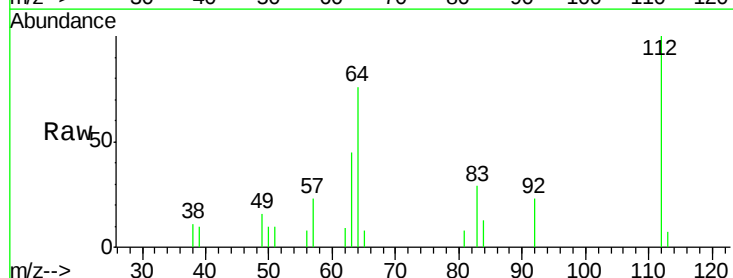
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



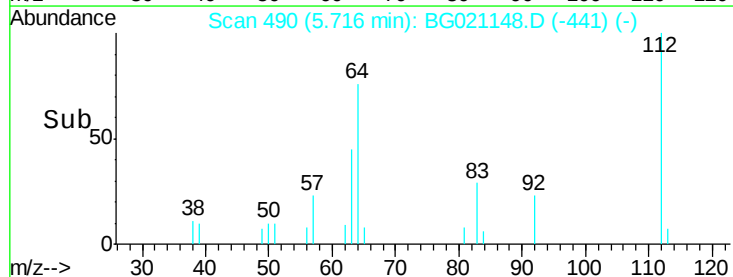
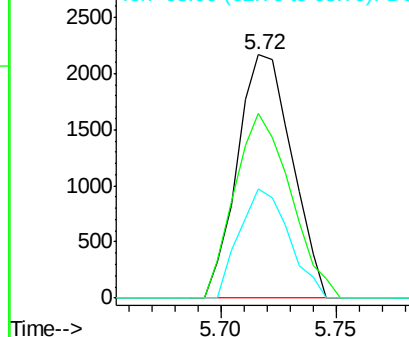
#5

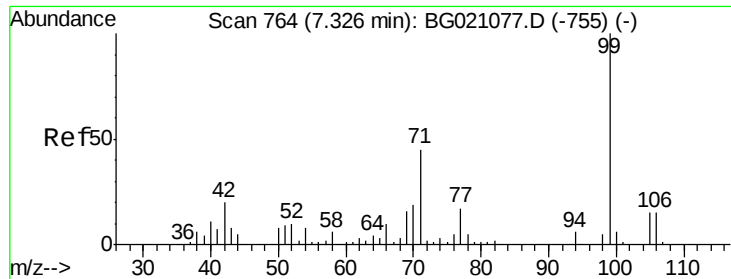
2-Fluorophenol  
Concen: 6.45 ng  
RT: 5.72 min Scan# 490  
Delta R.T. -0.01 min  
Lab File: BG021148.D  
Acq: 28 Feb 2016 12:40

Tgt Ion:112 Resp: 3560  
Ion Ratio Lower Upper  
112 100  
64 75.8 42.6 63.8#  
63 44.6 21.7 32.5#



Abundance Ion 112.00 (111.70 to 112.70): E  
Ion 64.00 (63.70 to 64.70): BGC  
Ion 63.00 (62.70 to 63.70): BGC





#7

Phenol-d6

Concen: 7.86 ng

RT: 7.31 min Scan# 761

Delta R.T. -0.02 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

Instrument :

BNA\_G

ClientSampleId :

POST-EX-12-20160211

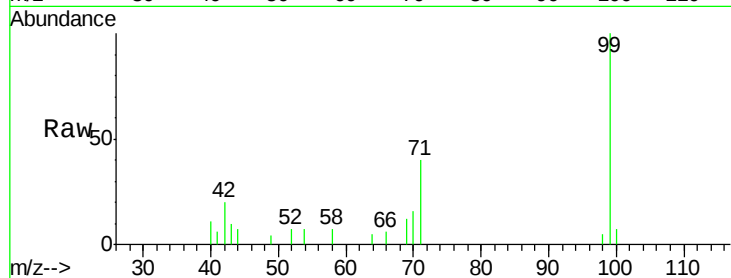
Tgt Ion: 99 Resp: 6456

Ion Ratio Lower Upper

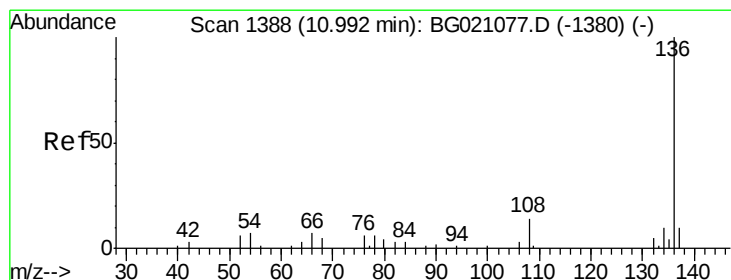
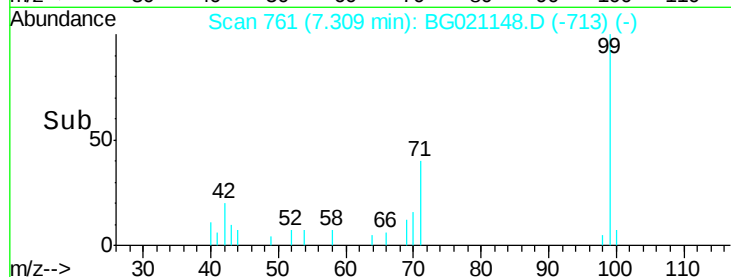
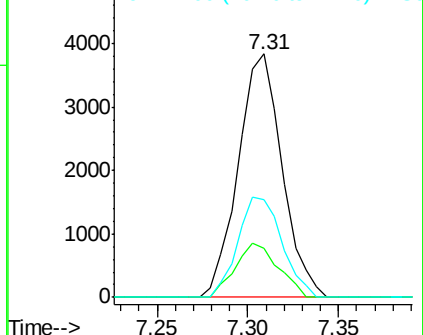
99 100

42 20.3 13.2 19.8#

71 40.3 25.2 37.8#



Abundance Ion 99.00 (98.70 to 99.70): BGC  
Ion 42.00 (41.70 to 42.70): BGC  
Ion 71.00 (70.70 to 71.70): BGC



#21

Naphthalene-d8

Concen: 20.00 ng

RT: 10.97 min Scan# 1385

Delta R.T. -0.02 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

Tgt Ion: 136 Resp: 46465

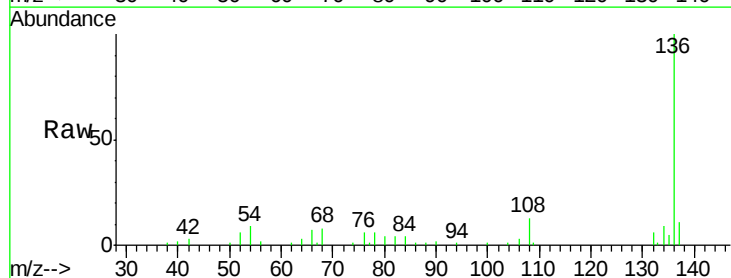
Ion Ratio Lower Upper

136 100

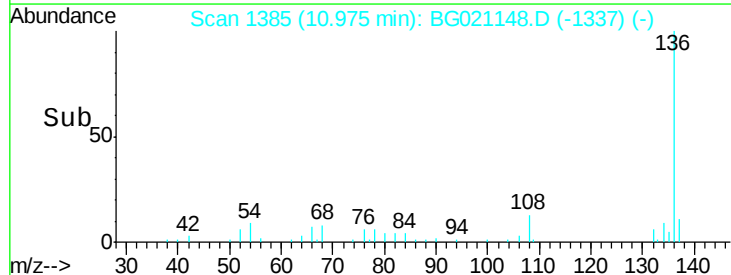
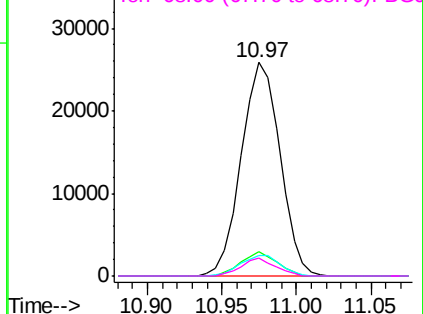
137 11.2 8.8 13.2

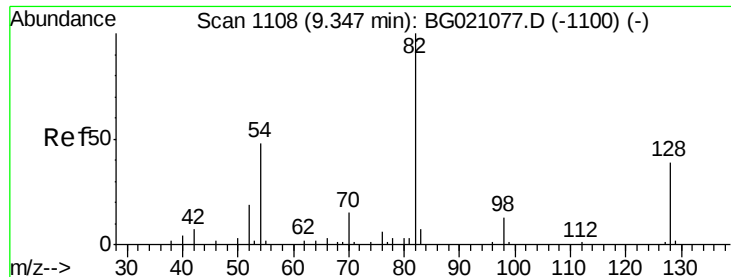
54 9.4 6.9 10.3

68 8.3 5.8 8.6



Abundance Ion 136.00 (135.70 to 136.70): BGC  
Ion 137.00 (136.70 to 137.70): BGC  
Ion 54.00 (53.70 to 54.70): BGC  
Ion 68.00 (67.70 to 68.70): BGC

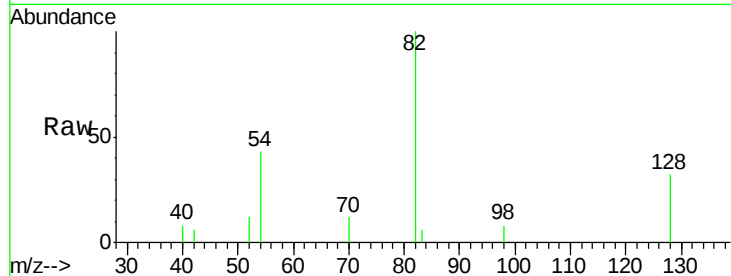




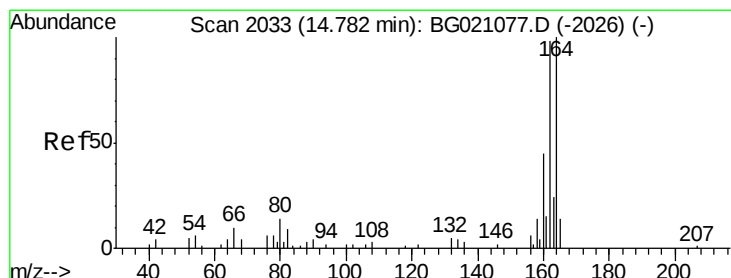
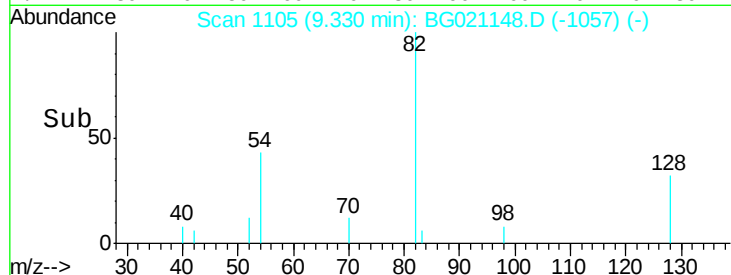
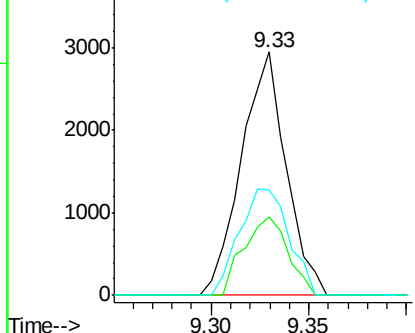
#23  
 Nitrobenzene-d5  
 Concen: 4.80 ng  
 RT: 9.33 min Scan# 1105  
 Delta R.T. -0.02 min  
 Lab File: BG021148.D  
 Acq: 28 Feb 2016 12:40

Instrument :  
 BNA\_G  
 ClientSampleId :  
 POST-EX-12-20160211

Tgt Ion: 82 Resp: 4682  
 Ion Ratio Lower Upper  
 82 100  
 128 32.3 36.3 54.5#  
 54 43.3 37.6 56.4

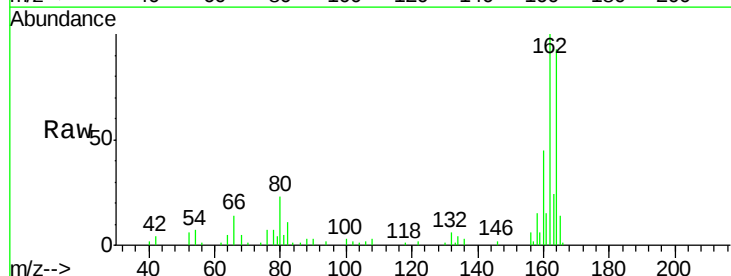


Abundance Ion 82.00 (81.70 to 82.70): BGC  
 Ion 128.00 (127.70 to 128.70): BGC  
 Ion 54.00 (53.70 to 54.70): BGC

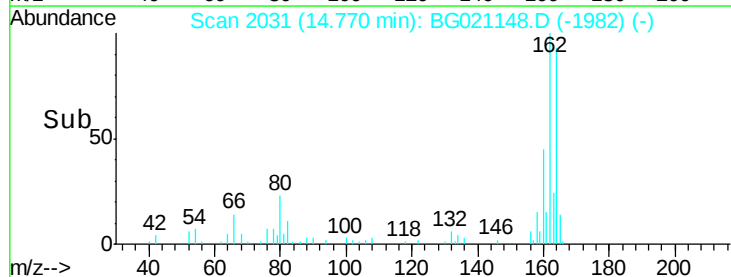
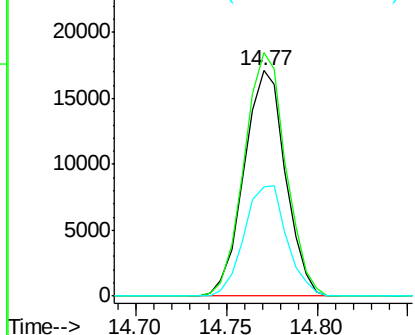


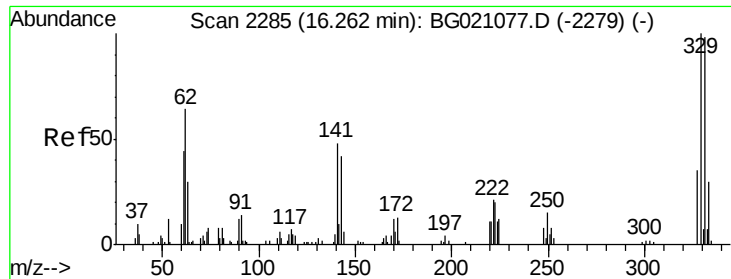
#38  
 Acenaphthene-d10  
 Concen: 20.00 ng  
 RT: 14.77 min Scan# 2031  
 Delta R.T. -0.01 min  
 Lab File: BG021148.D  
 Acq: 28 Feb 2016 12:40

Tgt Ion: 164 Resp: 27206  
 Ion Ratio Lower Upper  
 164 100  
 162 108.1 80.6 120.8  
 160 48.6 36.5 54.7



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

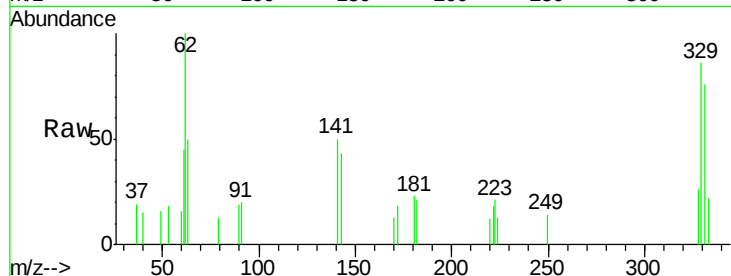




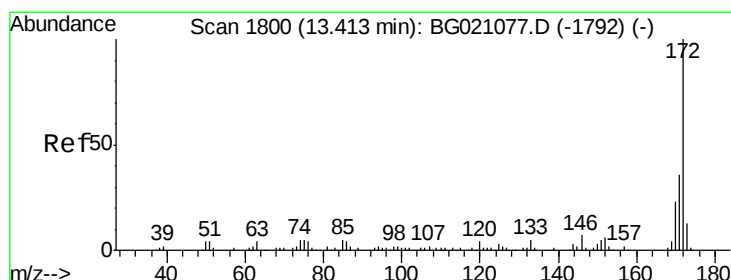
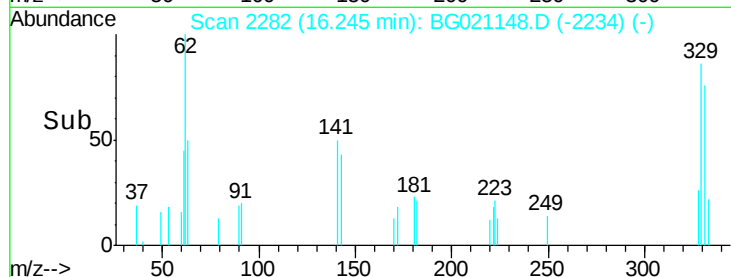
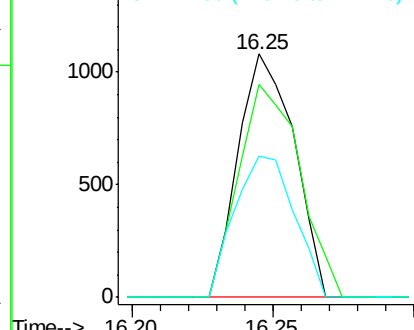
#41  
 2,4,6-Tribromophenol  
 Concen: 4.15 ng  
 RT: 16.25 min Scan# 2282  
 Delta R.T. -0.02 min  
 Lab File: BG021148.D  
 Acq: 28 Feb 2016 12:40

Instrument :  
 BNA\_G  
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 POST-EX-12-20160211

Tgt Ion:330 Resp: 1481  
 Ion Ratio Lower Upper  
 330 100  
 332 95.8 77.4 116.0  
 141 62.2 35.3 52.9#

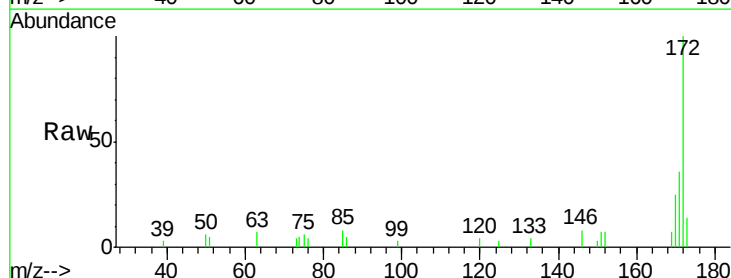


Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

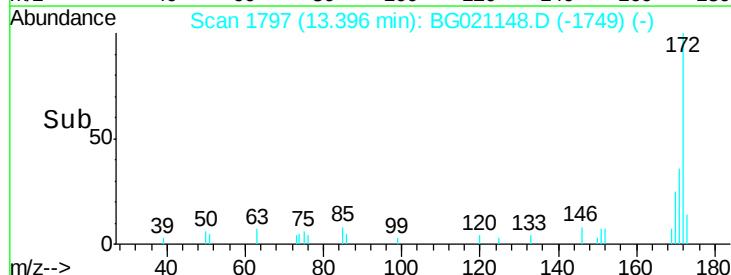
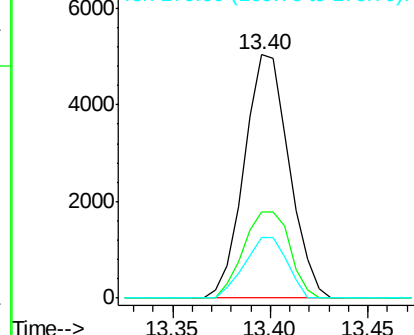


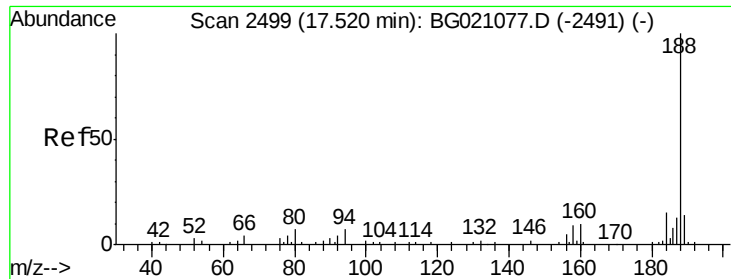
#44  
 2-Fluorobiphenyl  
 Concen: 3.77 ng  
 RT: 13.40 min Scan# 1797  
 Delta R.T. -0.02 min  
 Lab File: BG021148.D  
 Acq: 28 Feb 2016 12:40

Tgt Ion:172 Resp: 8012  
 Ion Ratio Lower Upper  
 172 100  
 171 35.5 29.4 44.0  
 170 25.1 19.8 29.8



Abundance Ion 172.00 (171.70 to 172.70): E  
 Ion 171.00 (170.70 to 171.70): E  
 Ion 170.00 (169.70 to 170.70): E

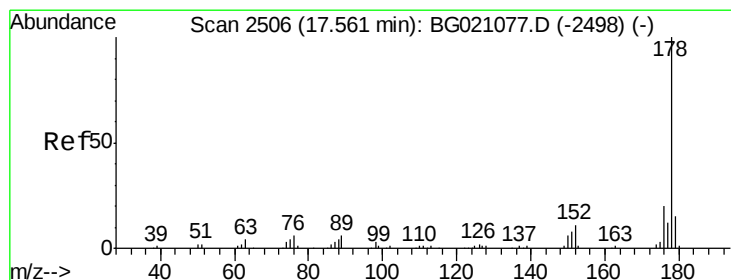
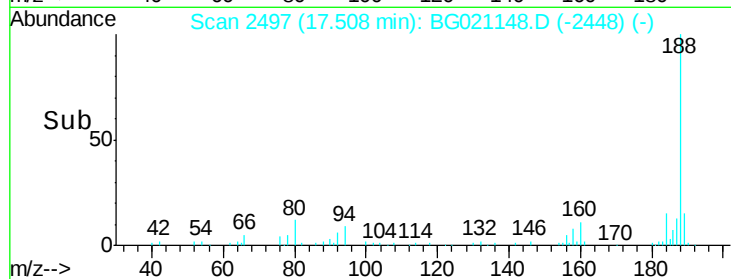
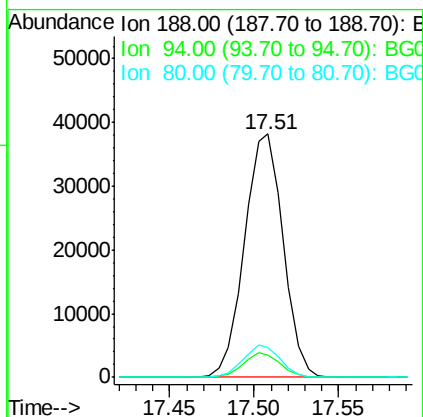
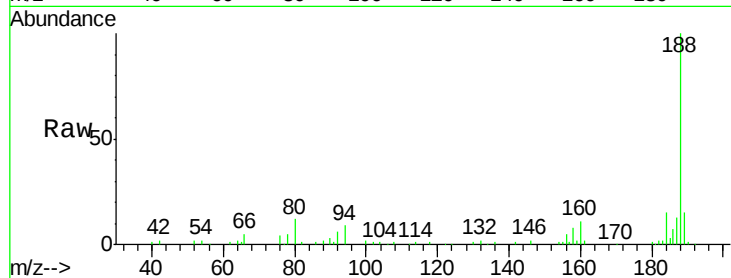




#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 17.51 min Scan# 2497  
Delta R.T. -0.01 min  
Lab File: BG021148.D  
Acq: 28 Feb 2016 12:40

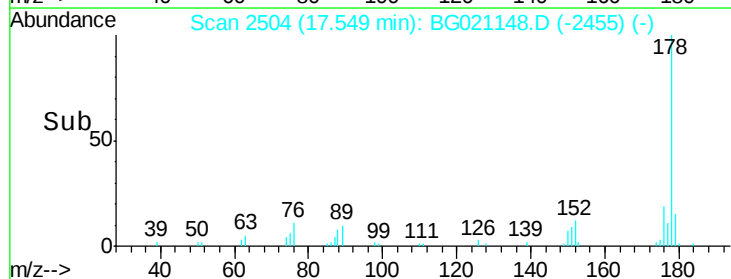
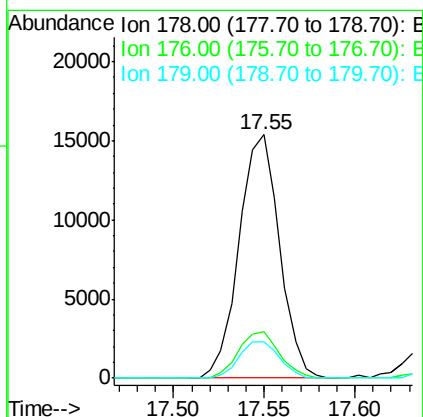
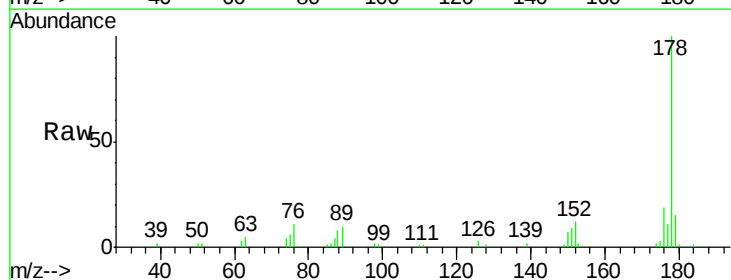
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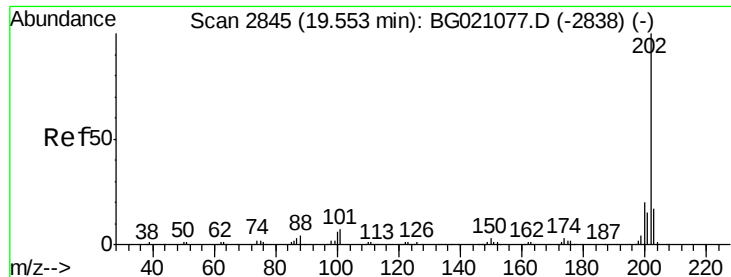
Tgt Ion:188 Resp: 60539  
Ion Ratio Lower Upper  
188 100  
94 9.1 8.2 12.4  
80 12.4 9.2 13.8



#70  
Phenanthrene  
Concen: 7.29 ng  
RT: 17.55 min Scan# 2504  
Delta R.T. -0.01 min  
Lab File: BG021148.D  
Acq: 28 Feb 2016 12:40

Tgt Ion:178 Resp: 23760  
Ion Ratio Lower Upper  
178 100  
176 19.3 16.2 24.4  
179 15.1 12.9 19.3





#74

Fluoranthene

Concen: 9.86 ng

RT: 19.54 min Scan# 2843

Delta R.T. -0.01 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

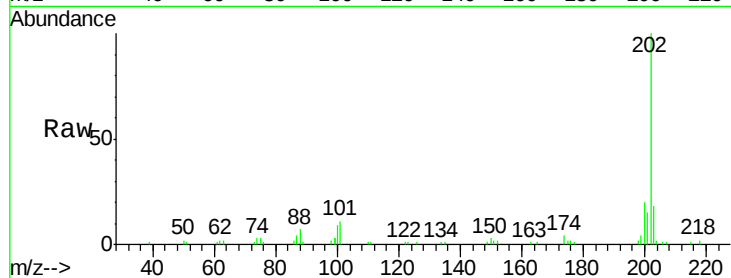
Instrument :

BNA\_G

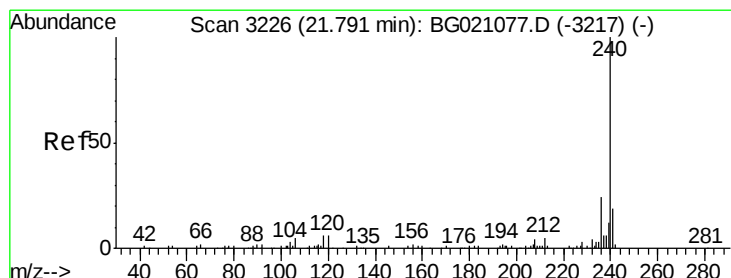
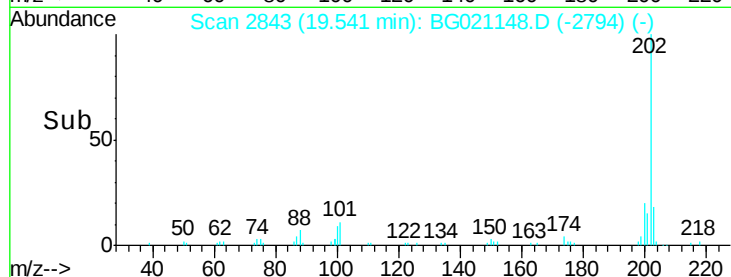
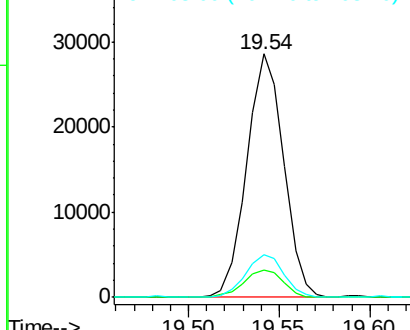
ClientSampleId :

POST-EX-12-20160211

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 202   | Resp: | 40272 |
| Ion      | Ratio | Lower | Upper |
| 202      | 100   |       |       |
| 101      | 11.4  | 0.0   | 32.5  |
| 203      | 17.6  | 0.0   | 37.6  |



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

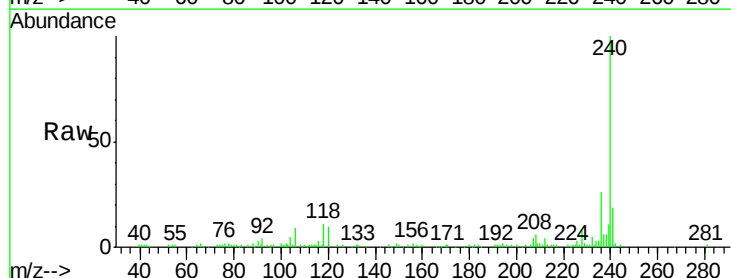
RT: 21.77 min Scan# 3222

Delta R.T. -0.02 min

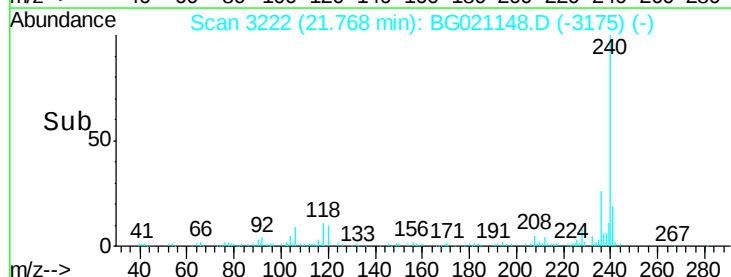
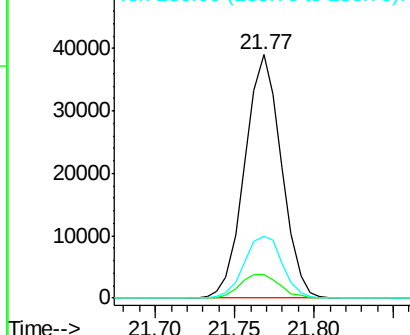
Lab File: BG021148.D

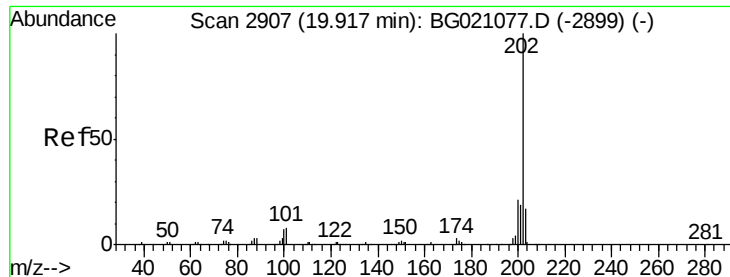
Acq: 28 Feb 2016 12:40

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 240   | Resp: | 62713 |
| Ion      | Ratio | Lower | Upper |
| 240      | 100   |       |       |
| 120      | 9.8   | 7.5   | 11.3  |
| 236      | 25.6  | 20.5  | 30.7  |



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

Pyrene

Concen: 12.62 ng

RT: 19.91 min Scan# 2905

Delta R.T. -0.01 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

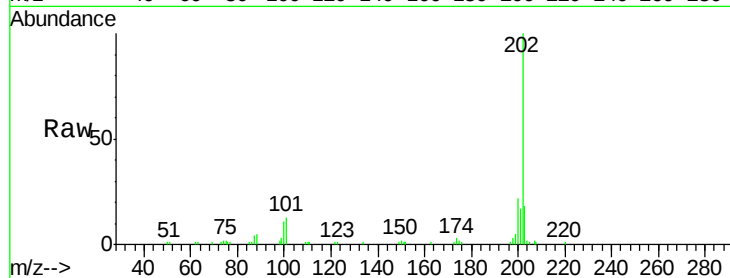
Instrument :

BNA\_G

ClientSampleId :

POST-EX-12-20160211

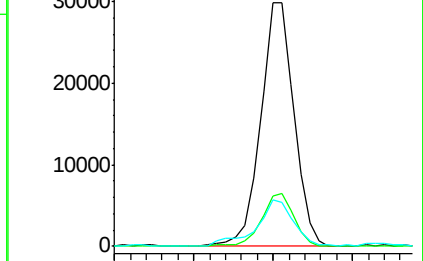
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 202   | Resp: | 43814 |
| Ion      | Ratio | Lower | Upper |
| 202      | 100   |       |       |
| 200      | 21.8  | 16.6  | 25.0  |
| 203      | 17.8  | 13.8  | 20.8  |



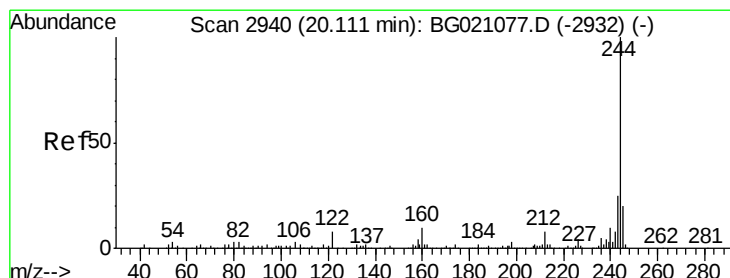
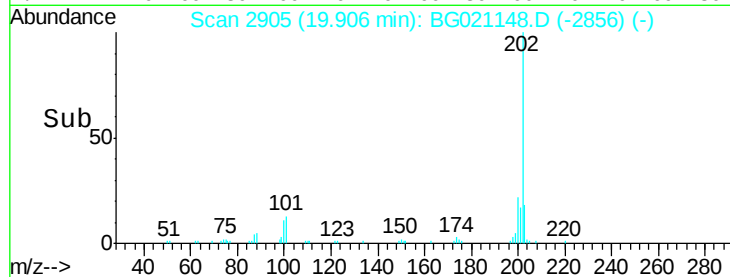
Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E



Time--> 19.80 19.85 19.90 19.95



#78

Terphenyl-d14

Concen: 3.42 ng

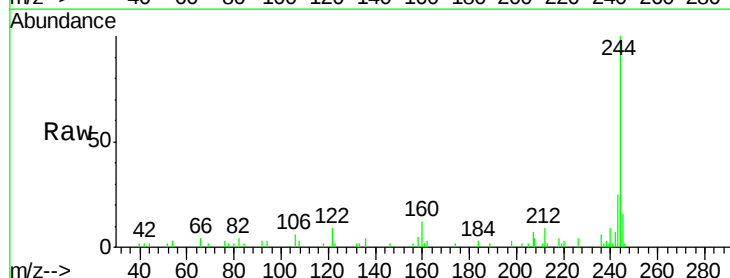
RT: 20.09 min Scan# 2937

Delta R.T. -0.02 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

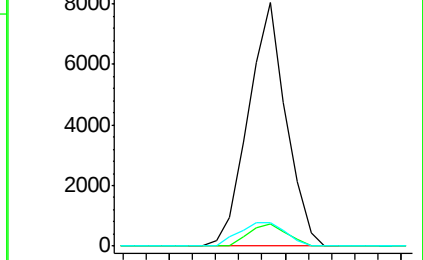
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 244   | Resp: | 9172  |
| Ion      | Ratio | Lower | Upper |
| 244      | 100   |       |       |
| 212      | 9.3   | 5.8   | 8.6#  |
| 122      | 9.4   | 8.3   | 12.5  |



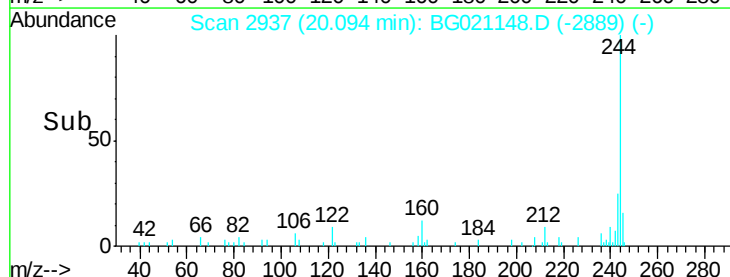
Abundance Ion 244.00 (243.70 to 244.70): E

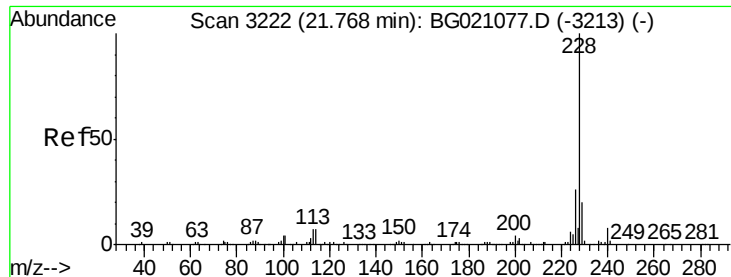
Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E



Time--> 20.05 20.10





#80

Benzo(a)anthracene

Concen: 6.09 ng

RT: 21.75 min Scan# 3219

Delta R.T. -0.02 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

Instrument :

BNA\_G

ClientSampleId :

POST-EX-12-20160211

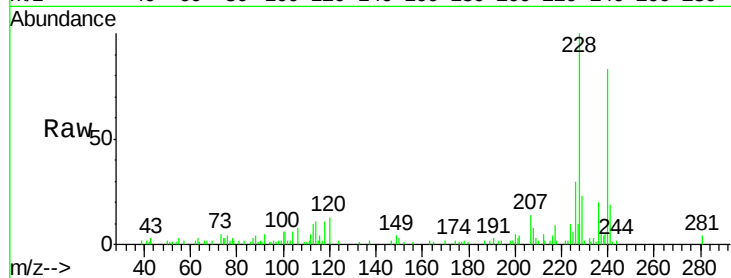
Tgt Ion:228 Resp: 21970

Ion Ratio Lower Upper

228 100

226 29.8 22.7 34.1

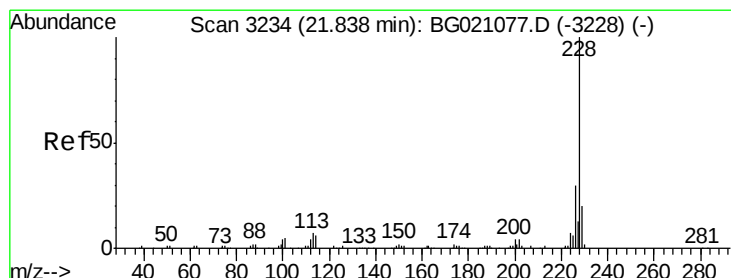
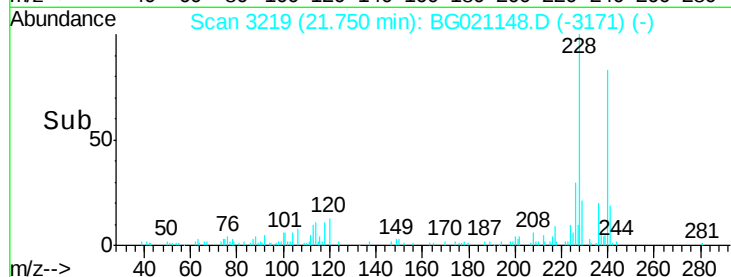
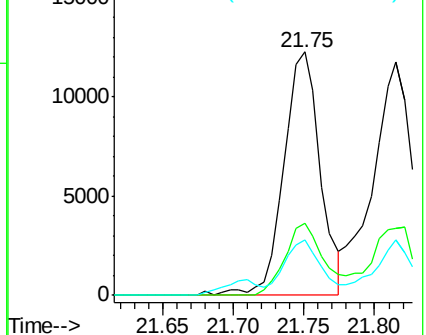
229 22.6 15.5 23.3



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



#82

Chrysene

Concen: 6.35 ng

RT: 21.82 min Scan# 3230

Delta R.T. -0.02 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

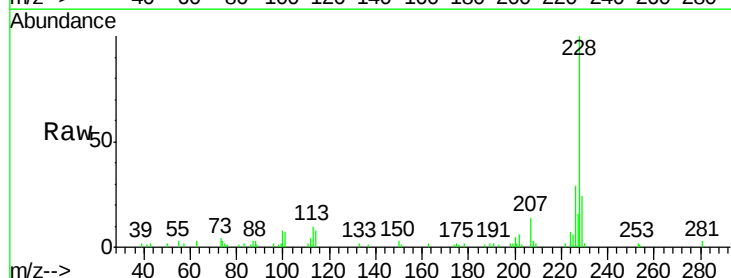
Tgt Ion:228 Resp: 22078

Ion Ratio Lower Upper

228 100

226 28.8 23.7 35.5

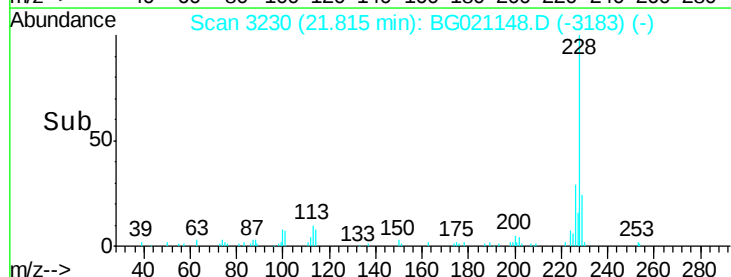
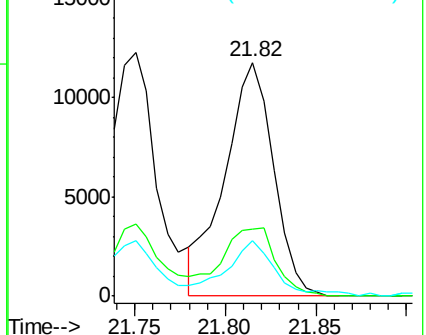
229 23.7 16.7 25.1

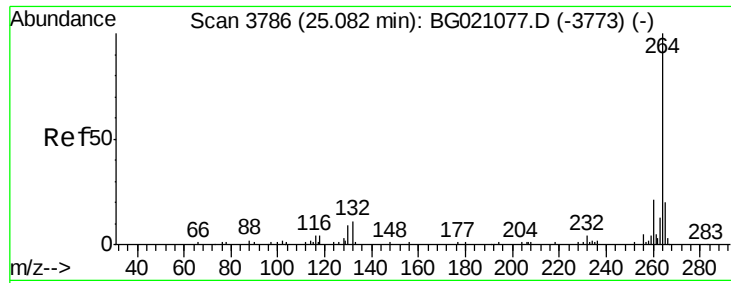


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



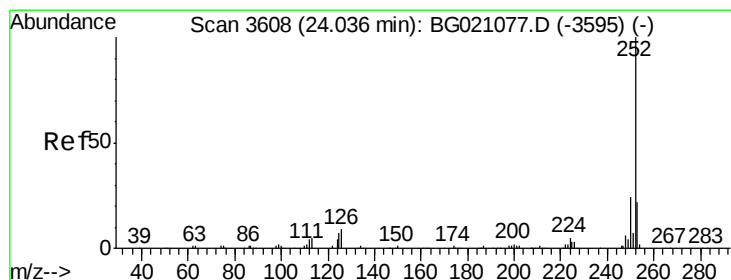
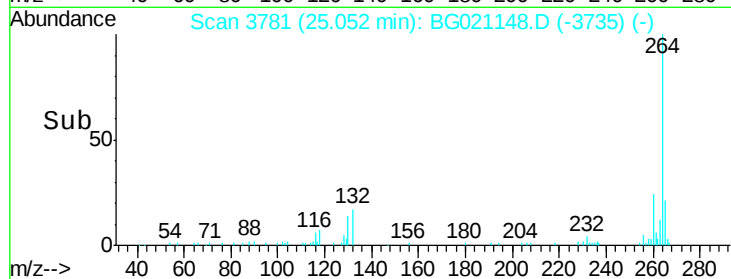
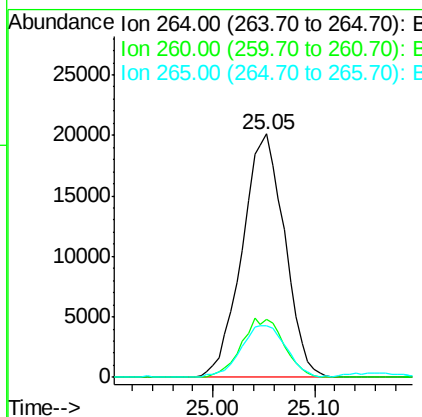
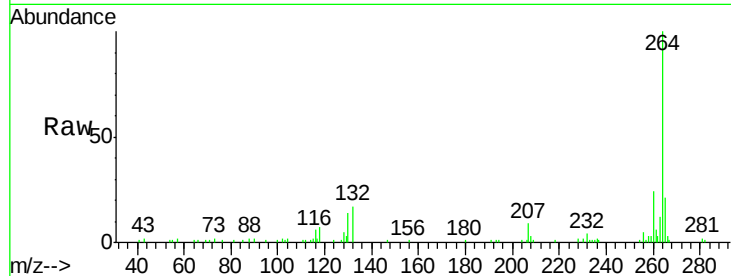


#86  
Perylene-d12  
Concen: 20.00 ng  
RT: 25.05 min Scan# 3781  
Delta R.T. -0.03 min  
Lab File: BG021148.D  
Acq: 28 Feb 2016 12:40

Instrument :  
BNA\_G  
ClientSampleId :  
POST-EX-12-20160211

Tgt Ion: 264 Resp: 58356  

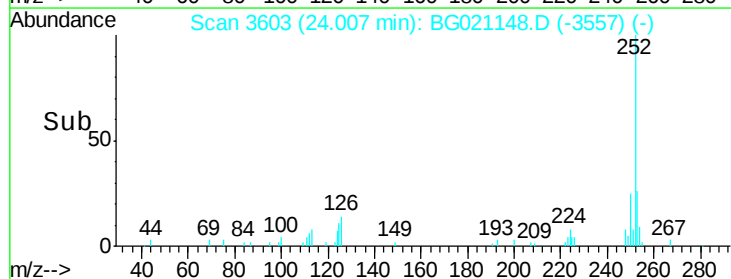
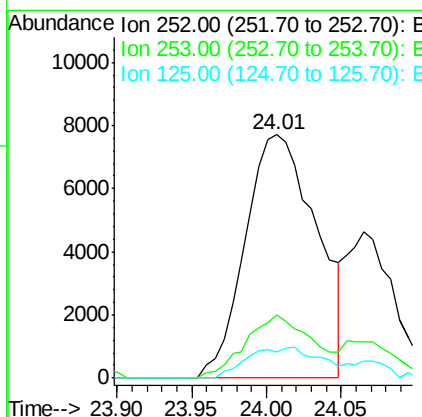
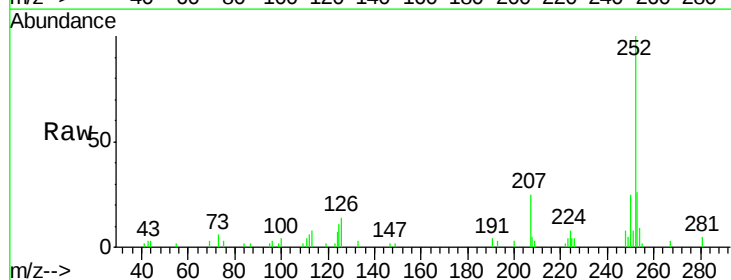
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 264 | 100   |       |       |
| 260 | 24.0  | 18.5  | 27.7  |
| 265 | 21.3  | 18.6  | 28.0  |

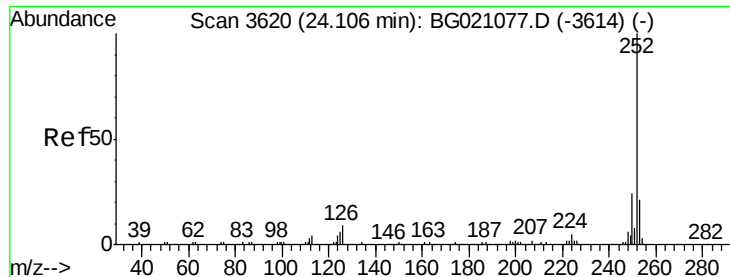


#87  
Benzo(b)fluoranthene  
Concen: 7.01 ng  
RT: 24.01 min Scan# 3603  
Delta R.T. -0.03 min  
Lab File: BG021148.D  
Acq: 28 Feb 2016 12:40

Tgt Ion: 252 Resp: 25584  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 25.9  | 16.8  | 25.2# |
| 125 | 10.5  | 8.2   | 12.2  |





#88

Benzo(k)fluoranthene

Concen: 7.12 ng

RT: 24.01 min Scan# 3603

Delta R.T. -0.10 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

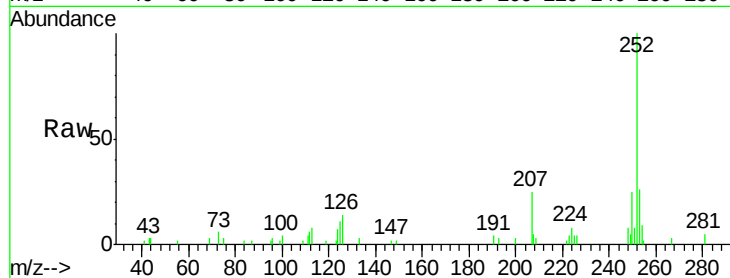
Instrument :

BNA\_G

ClientSampleId :

POST-EX-12-20160211

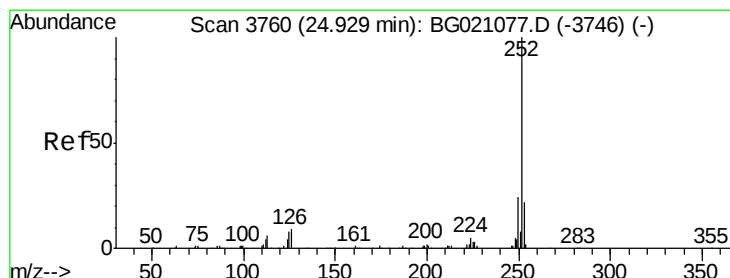
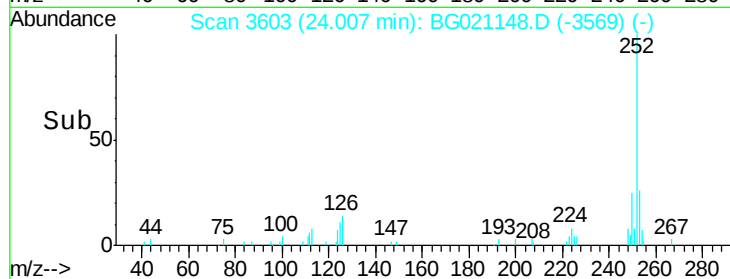
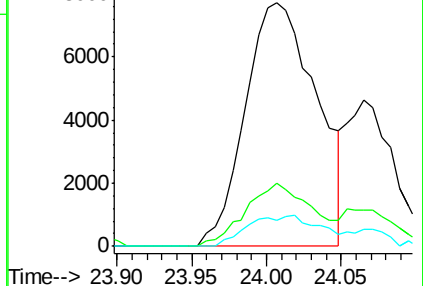
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 25584 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 25.9  | 16.4  | 24.6# |
| 125       | 10.5  | 8.2   | 12.2  |



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(a)pyrene

Concen: 4.00 ng

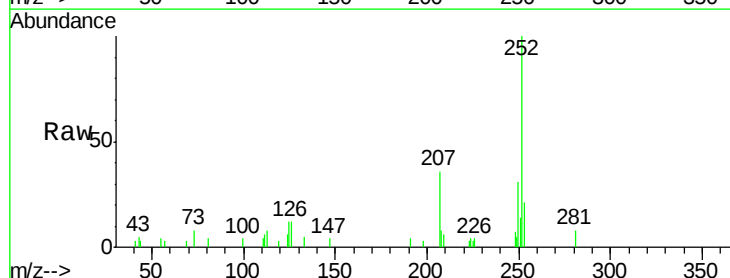
RT: 24.74 min Scan# 3728

Delta R.T. -0.19 min

Lab File: BG021148.D

Acq: 28 Feb 2016 12:40

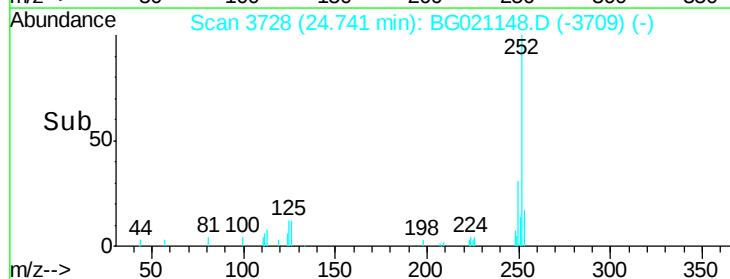
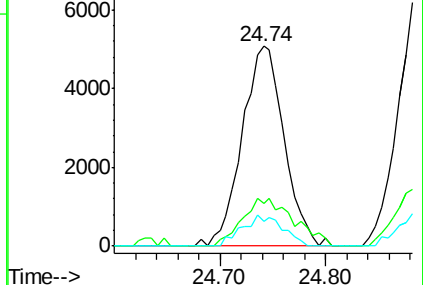
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 13989 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 21.3  | 15.8  | 23.8  |
| 125       | 12.5  | 8.4   | 12.6  |

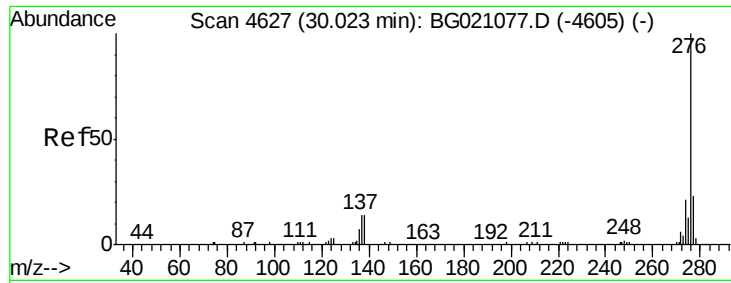


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#91

Benzo(g,h,i)perylene

Concen: 3.82 ng

RT: 29.95 min Scan# 4614

Delta R.T. -0.08 min

Lab File: BG021148.D

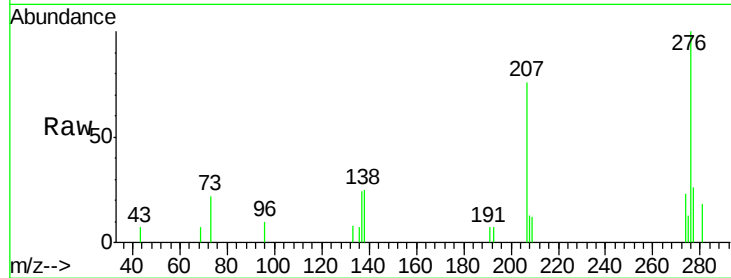
Acq: 28 Feb 2016 12:40

Instrument :

BNA\_G

ClientSampleId :

POST-EX-12-20160211



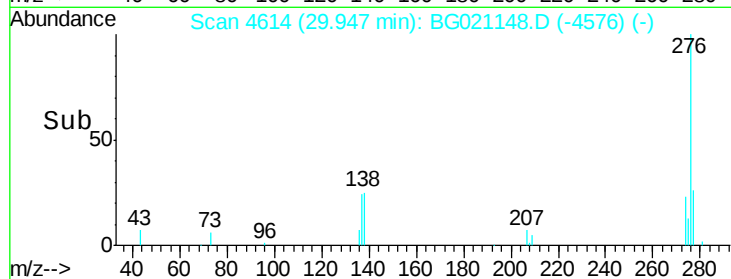
Tgt Ion: 276 Resp: 13001

Ion Ratio Lower Upper

276 100

277 26.2 16.6 25.0#

138 25.3 14.6 21.8#



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

