

Data Path : Z:\HPCHEM1\BNA G\DATA\BG060916\  
 Data File : BG022266.D  
 Acq On : 9 Jun 2016 13:13  
 Operator : UM/SJ  
 Sample : H3402-11 2X  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 SS-45

Quant Time: Jun 09 17:50:26 2016  
 Quant Method : Z:\HPCHEM1\BNA G\METHODS\8270-BG060616.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Jun 06 16:12:45 2016  
 Response via : Initial Calibration

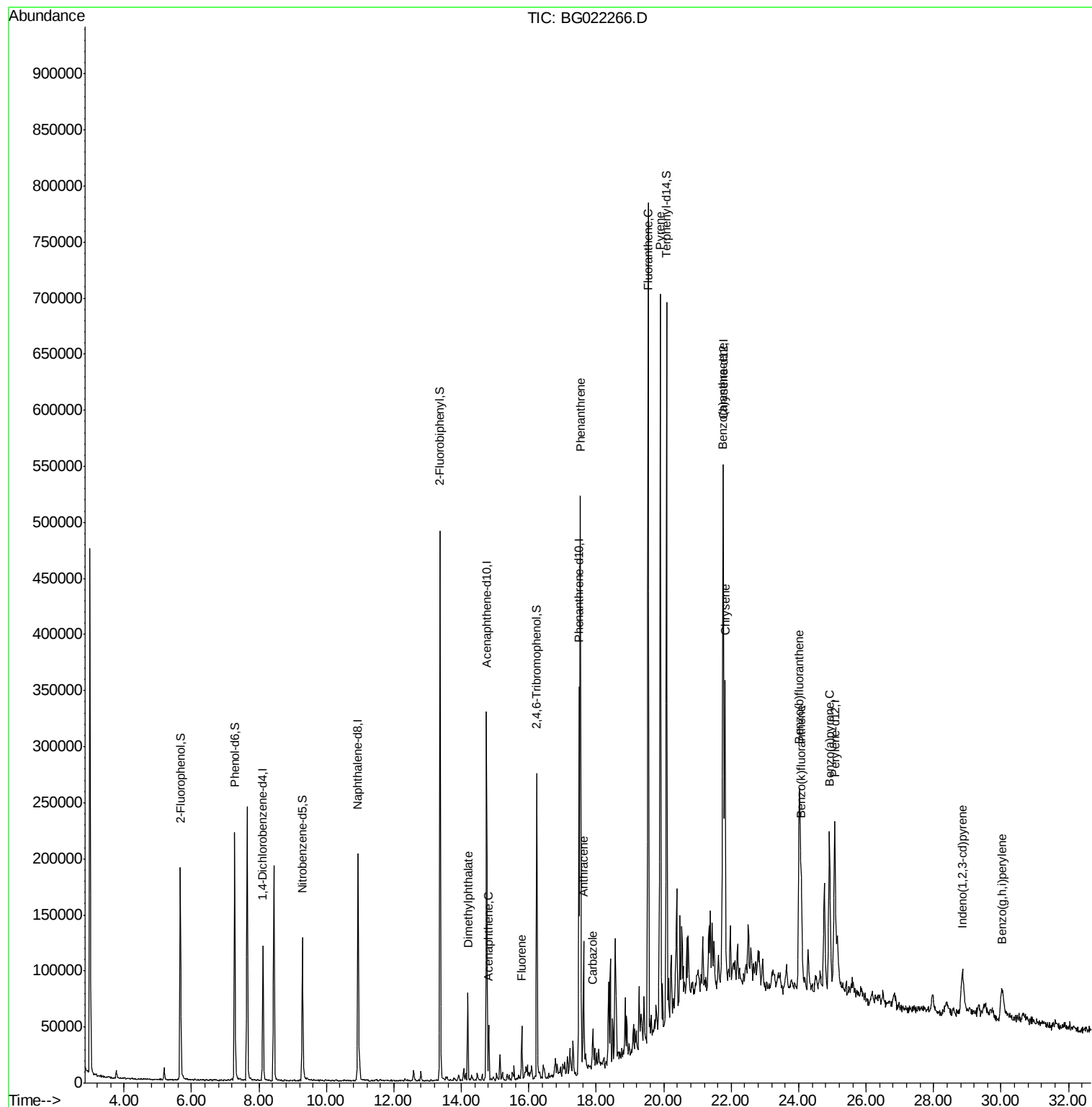
| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 8.12  | 152  | 45630    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8          | 10.93 | 136  | 228224   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10        | 14.75 | 164  | 124452   | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10        | 17.49 | 188  | 239182   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12            | 21.77 | 240  | 196200   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12            | 25.07 | 264  | 190967   | 20.00 | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |       |       |          |
| 5) 2-Fluorophenol           | 5.66  | 112  | 129267   | 54.77 | ng    | 0.00     |
| 7) Phenol-d6                | 7.28  | 99   | 194988   | 52.55 | ng    | 0.00     |
| 23) Nitrobenzene-d5         | 9.29  | 82   | 107045   | 32.70 | ng    | 0.00     |
| 41) 2,4,6-Tribromophenol    | 16.23 | 330  | 59374    | 42.22 | ng    | 0.00     |
| 44) 2-Fluorobiphenyl        | 13.37 | 172  | 292749   | 35.85 | ng    | 0.00     |
| 78) Terphenyl-d14           | 20.08 | 244  | 286883   | 34.71 | ng    | 0.00     |
| Target Compounds            |       |      |          |       |       | Qvalue   |
| 49) Dimethylphthalate       | 14.19 | 163  | 60883    | 5.90  | ng    | 99       |
| 51) Acenaphthene            | 14.81 | 154  | 20326    | 2.69  | ng    | 97       |
| 57) Fluorene                | 15.79 | 166  | 25899    | 2.55  | ng    | 97       |
| 70) Phenanthrene            | 17.53 | 178  | 355355   | 27.35 | ng    | 98       |
| 71) Anthracene              | 17.62 | 178  | 84328    | 6.55  | ng    | 97       |
| 72) Carbazole               | 17.90 | 167  | 28077m   | 2.30  | ng    |          |
| 74) Fluoranthene            | 19.54 | 202  | 489734   | 32.79 | ng    | 96       |
| 77) Pyrene                  | 19.90 | 202  | 452705   | 37.12 | ng    | 99       |
| 80) Benzo(a)anthracene      | 21.74 | 228  | 233462   | 21.22 | ng    | 99       |
| 82) Chrysene                | 21.82 | 228  | 195836   | 18.29 | ng    | 96       |
| 85) Indeno(1,2,3-cd)pyrene  | 28.84 | 276  | 101216m  | 8.43  | ng    |          |
| 87) Benzo(b)fluoranthene    | 24.02 | 252  | 224764m  | 20.18 | ng    |          |
| 88) Benzo(k)fluoranthene    | 24.07 | 252  | 103033m  | 9.40  | ng    |          |
| 89) Benzo(a)pyrene          | 24.91 | 252  | 164857m  | 15.48 | ng    |          |
| 91) Benzo(a,h,i)perylene    | 30.04 | 276  | 84150m   | 8.06  | ng    |          |

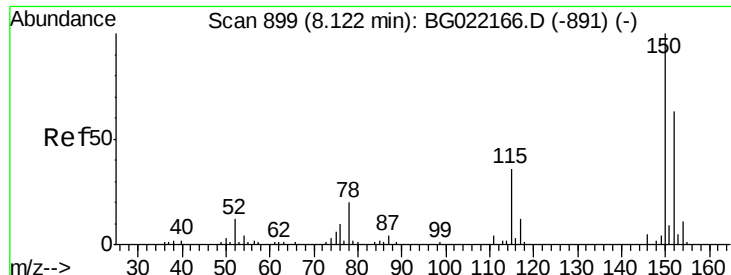
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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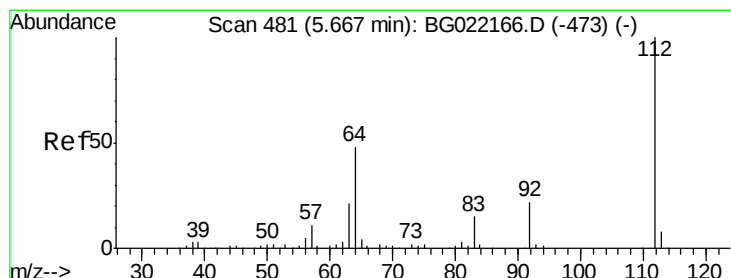
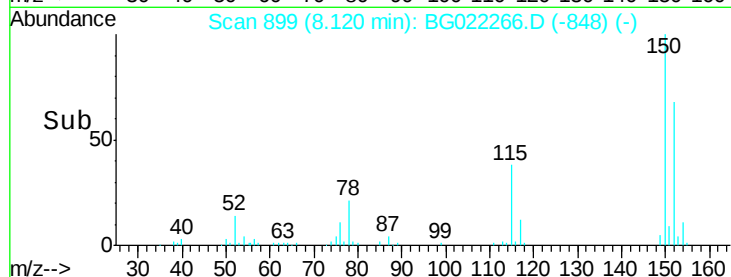
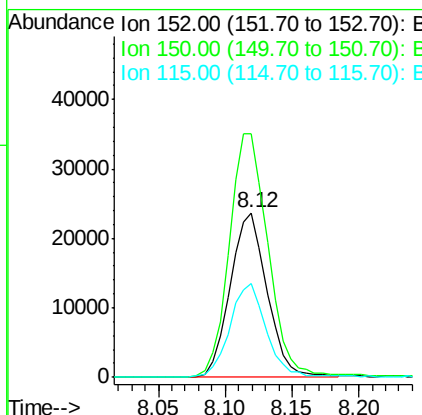
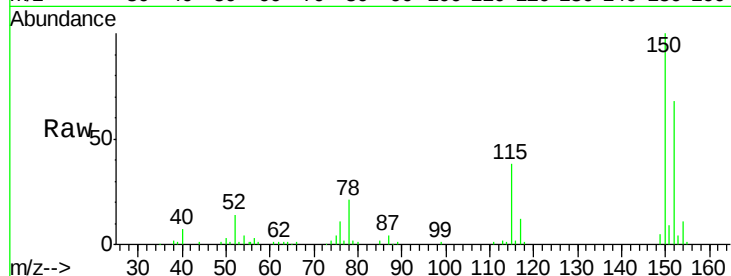


#1

1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 8.12 min Scan# 899  
Delta R.T. -0.00 min  
Lab File: BG022266.D  
Acq: 9 Jun 2016 13:13

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BNA\_G  
ClientSampleId :  
SS-45

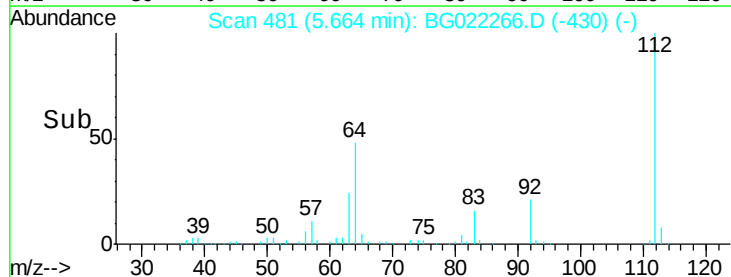
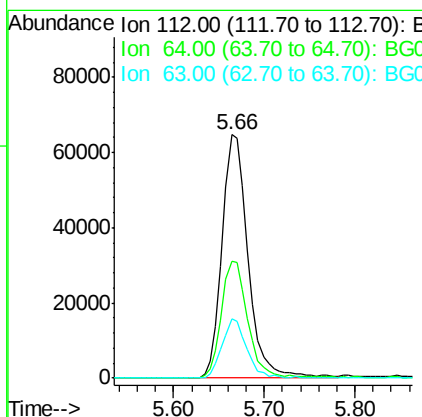
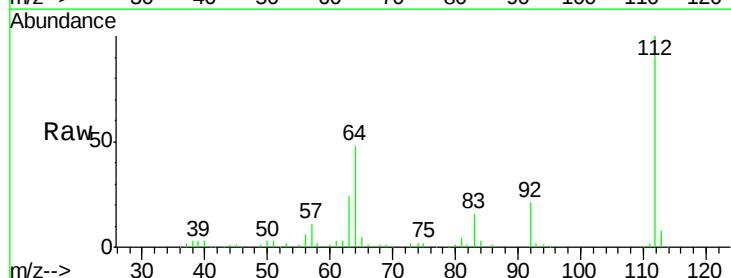
Tot Ion:152 Resp: 45630  
Ion Ratio Lower Upper  
152 100  
150 148.0 130.1 195.1  
115 56.9 62.2 93.2#



#5

2-Fluorophenol  
Concen: 54.77 ng  
RT: 5.66 min Scan# 481  
Delta R.T. -0.00 min  
Lab File: BG022266.D  
Acq: 9 Jun 2016 13:13

Tgt Ion:112 Resp: 129267  
Ion Ratio Lower Upper  
112 100  
64 48.1 51.1 76.7#  
63 24.1 24.6 37.0#





#7

Phenol-d6

Concen: 52.55 ng

RT: 7.28 min Scan# 756

Delta R.T. 0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampleId :

SS-45

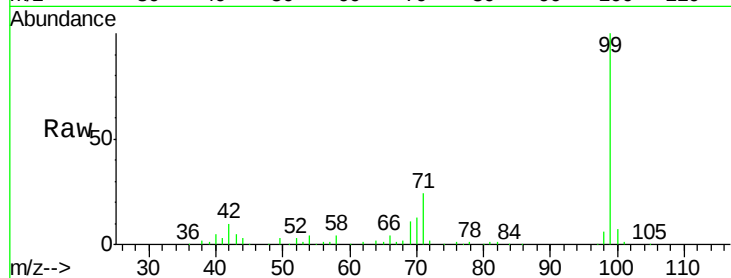
Tot Ion: 99 Resp: 194988

Ion Ratio Lower Upper

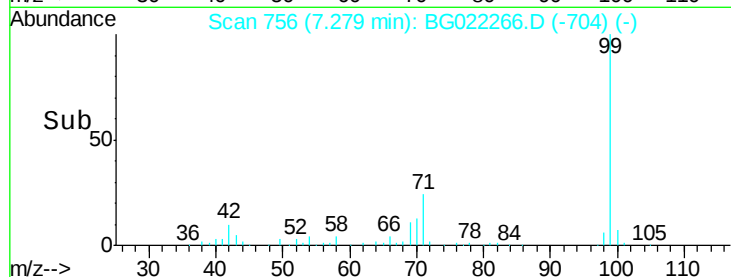
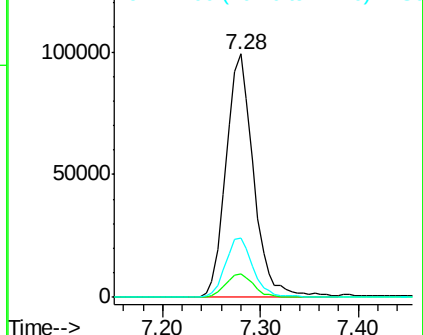
99 100

42 9.6 16.4 24.6#

71 24.3 25.0 37.4#



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: 10.93 min Scan# 1378

Delta R.T. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Tgt Ion: 136 Resp: 228224

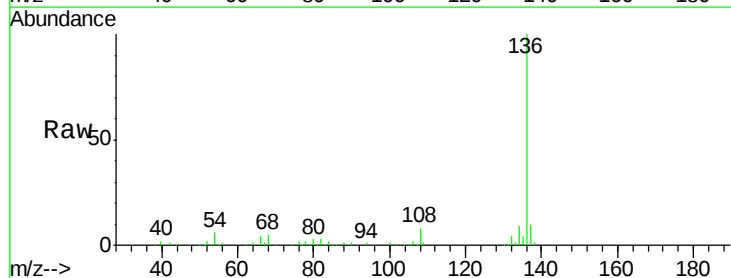
Ion Ratio Lower Upper

136 100

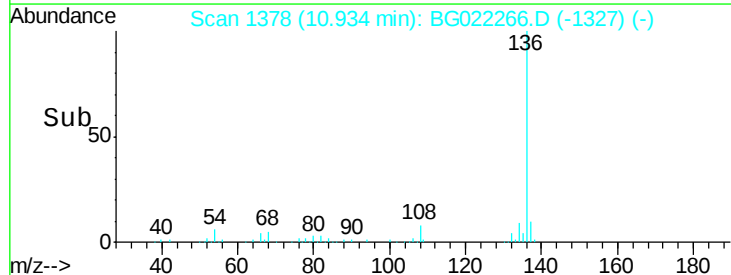
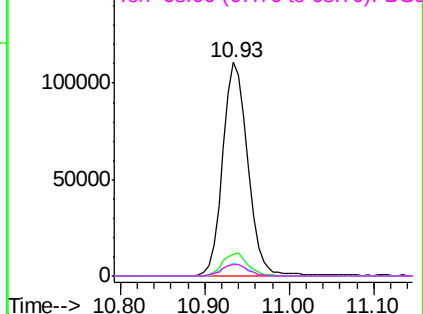
137 10.3 9.0 13.4

54 5.9 9.6 14.4#

68 5.4 6.4 9.6#



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

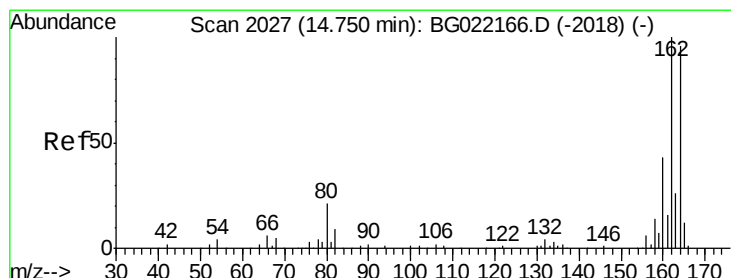
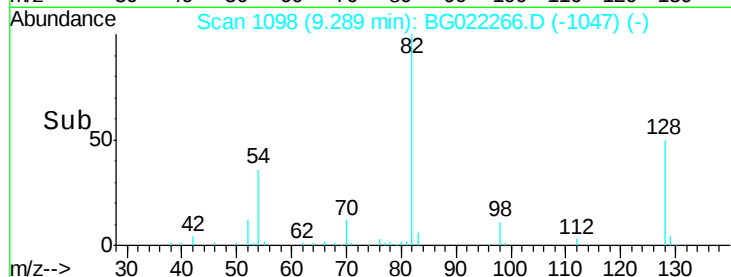
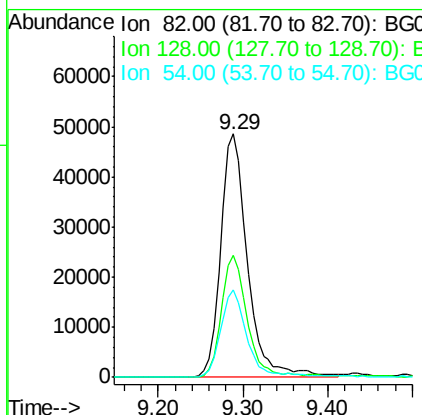
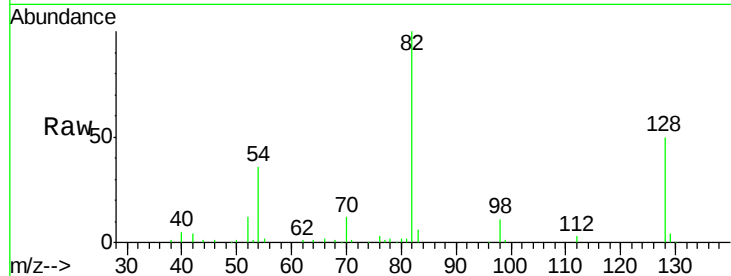




#23  
 Nitrobenzene-d5  
 Concen: 32.70 ng  
 RT: 9.29 min Scan# 1098  
 Delta R.T. -0.00 min  
 Lab File: BG022266.D  
 Acq: 9 Jun 2016 13:13

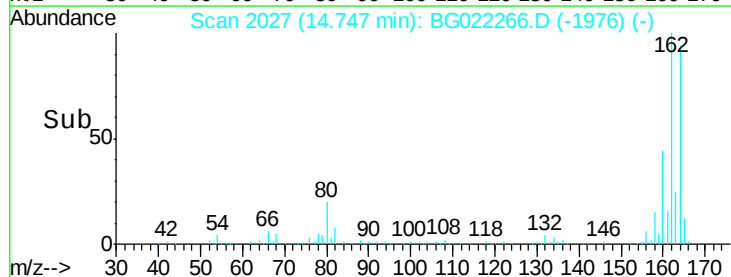
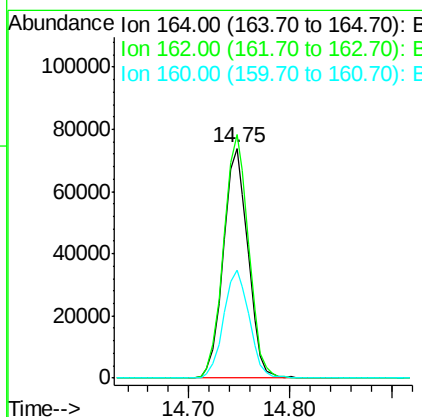
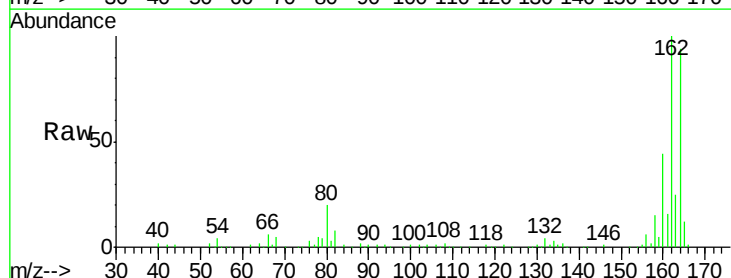
Instrument :  
 BNA\_G  
 ClientSampleId :  
 SS-45

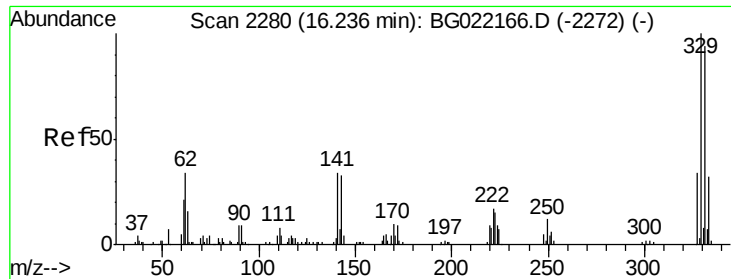
Tot Ion: 82 Resp: 107045  
 Ion Ratio Lower Upper  
 82 100  
 128 50.2 33.4 50.0#  
 54 36.0 46.1 69.1#



#38  
 Acenaphthene-d10  
 Concen: 20.00 ng  
 RT: 14.75 min Scan# 2027  
 Delta R.T. -0.00 min  
 Lab File: BG022266.D  
 Acq: 9 Jun 2016 13:13

Tgt Ion:164 Resp: 124452  
 Ion Ratio Lower Upper  
 164 100  
 162 106.1 78.0 117.0  
 160 46.9 32.9 49.3

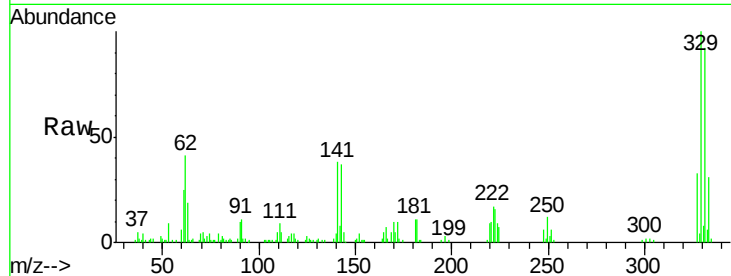




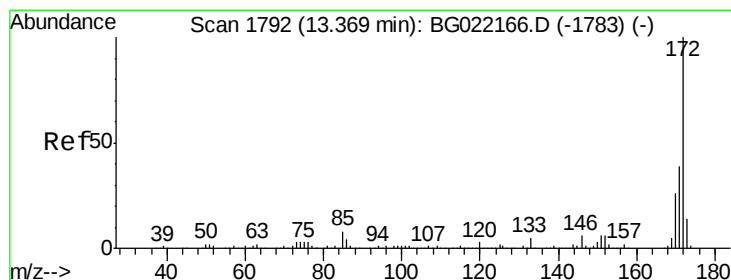
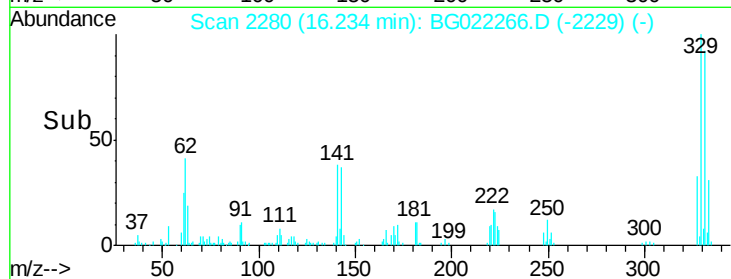
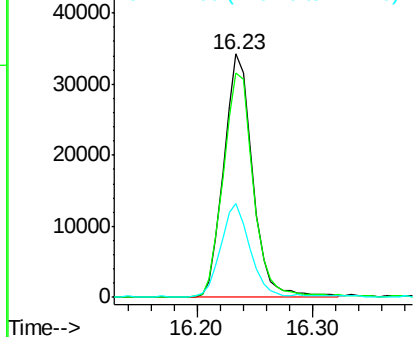
#41  
 2,4,6-Tribromophenol  
 Concen: 42.22 ng  
 RT: 16.23 min Scan# 2280  
 Delta R.T. -0.00 min  
 Lab File: BG022266.D  
 Acq: 9 Jun 2016 13:13

Instrument :  
 BNA\_G  
 ClientSampleId :  
 SS-45

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 96.6  | 78.0  | 117.0 |
| 141     | 38.8  | 33.8  | 50.8  |

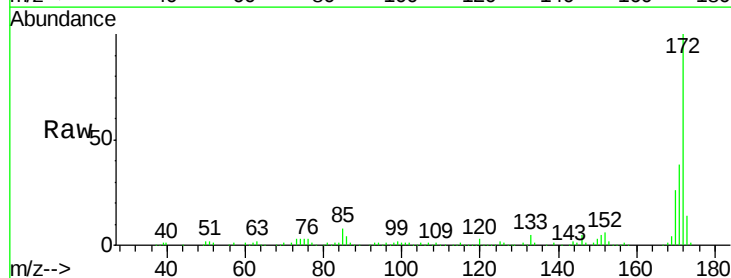


Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

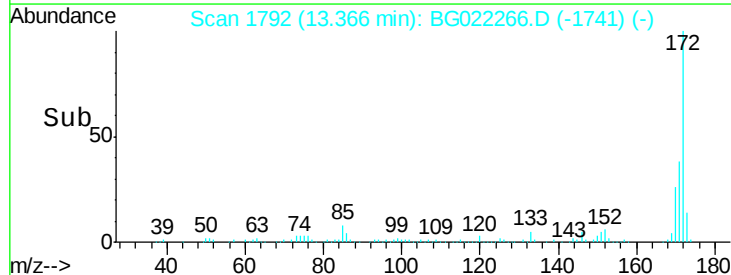
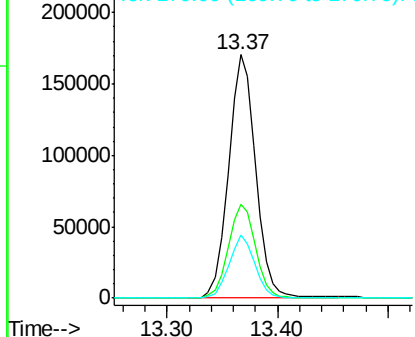


#44  
 2-Fluorobiphenyl  
 Concen: 35.85 ng  
 RT: 13.37 min Scan# 1792  
 Delta R.T. -0.00 min  
 Lab File: BG022266.D  
 Acq: 9 Jun 2016 13:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 38.5  | 27.8  | 41.6  |
| 170     | 25.9  | 19.6  | 29.4  |



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

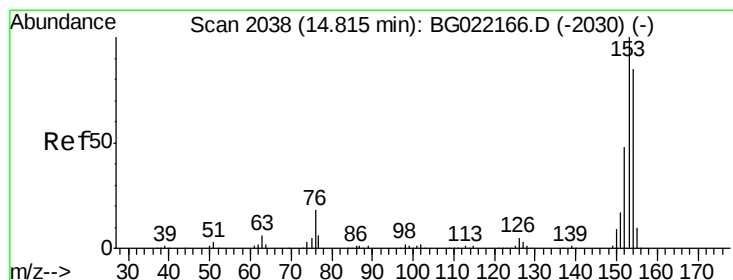
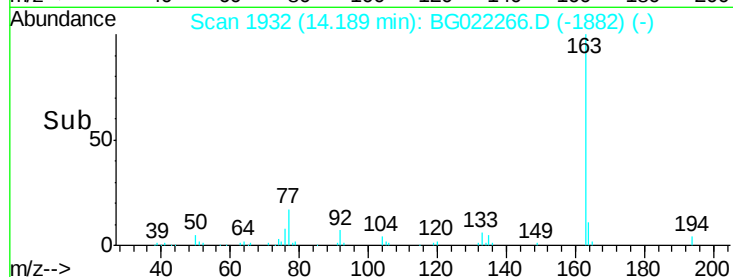
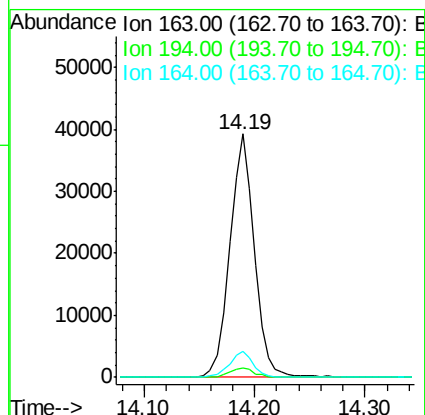
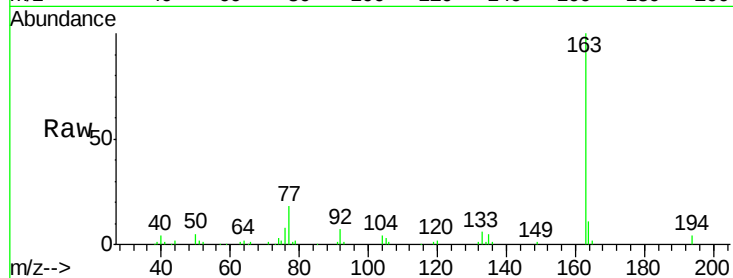




#49  
Dimethylphthalate  
Concen: 5.90 ng  
RT: 14.19 min Scan# 1932  
Delta R.T. -0.01 min  
Lab File: BG022266.D  
Acq: 9 Jun 2016 13:13

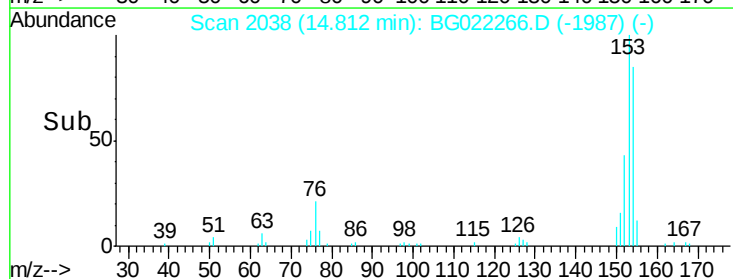
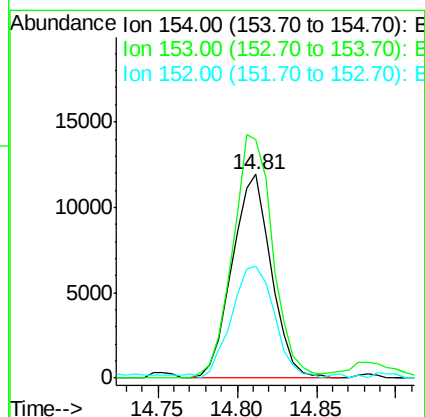
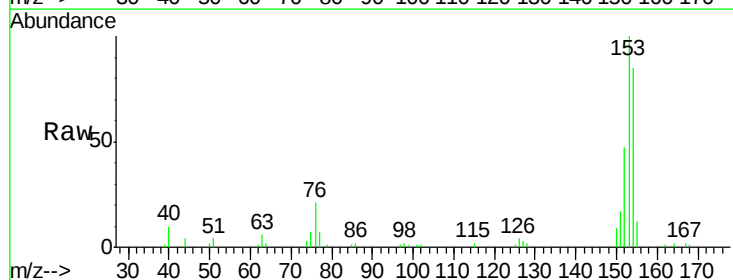
Instrument :  
BNA\_G  
ClientSampled :  
SS-45

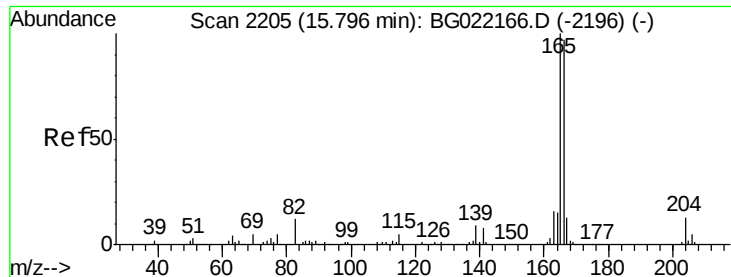
Tot Ion:163 Resp: 60883  
Ion Ratio Lower Upper  
163 100  
194 3.8 3.0 4.6  
164 10.7 8.1 12.1



#51  
Acenaphthene  
Concen: 2.69 ng  
RT: 14.81 min Scan# 2038  
Delta R.T. -0.00 min  
Lab File: BG022266.D  
Acq: 9 Jun 2016 13:13

Tgt Ion:154 Resp: 20326  
Ion Ratio Lower Upper  
154 100  
153 117.3 91.9 137.9  
152 55.0 42.0 63.0

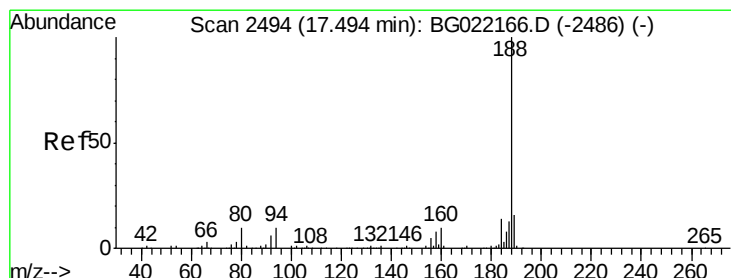
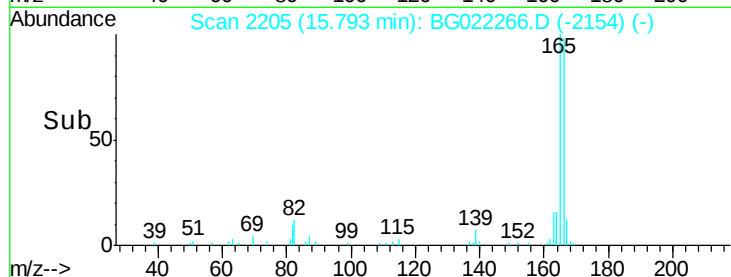
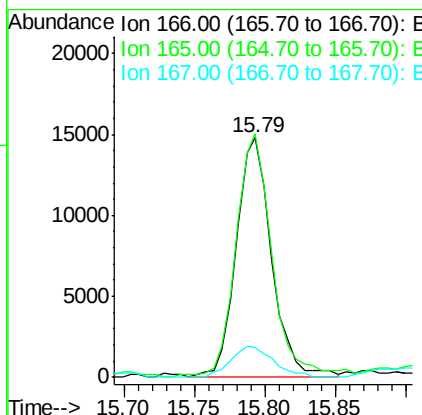
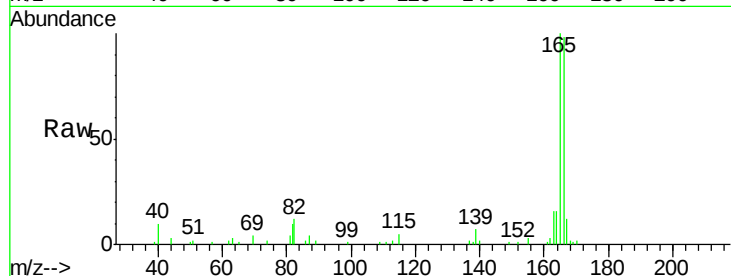




#57  
**Fluorene**  
 Concen: 2.55 ng  
 RT: 15.79 min Scan# 2205  
 Delta R.T. -0.00 min  
 Lab File: BG022266.D  
 Acq: 9 Jun 2016 13:13

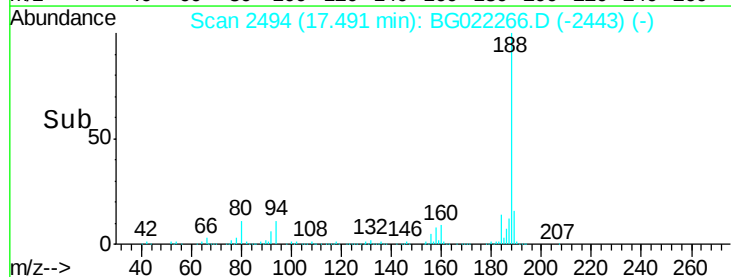
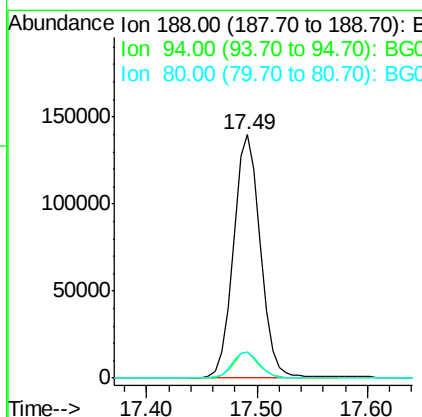
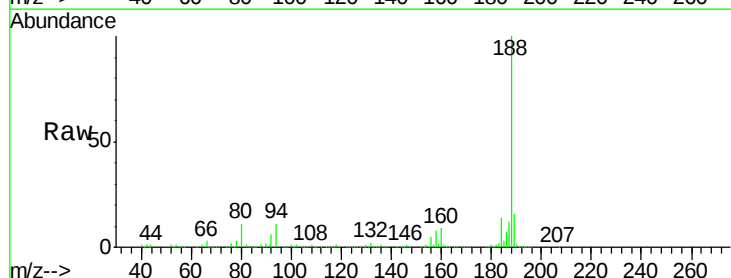
Instrument :  
 BNA\_G  
 ClientSampleId :  
 SS-45

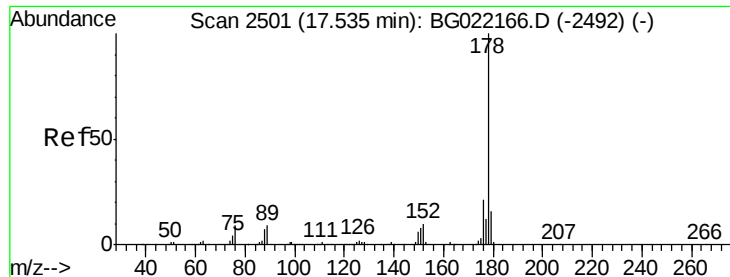
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 101.7 | 79.0  | 118.4 |
| 167     | 12.5  | 10.7  | 16.1  |



#63  
**Phenanthrene-d10**  
 Concen: 20.00 ng  
 RT: 17.49 min Scan# 2494  
 Delta R.T. -0.00 min  
 Lab File: BG022266.D  
 Acq: 9 Jun 2016 13:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 10.6  | 7.5   | 11.3  |
| 80      | 10.7  | 8.6   | 13.0  |





#70

Phenanthrene

Concen: 27.35 ng

RT: 17.53 min Scan# 2501

Delta R.T. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampled :

SS-45

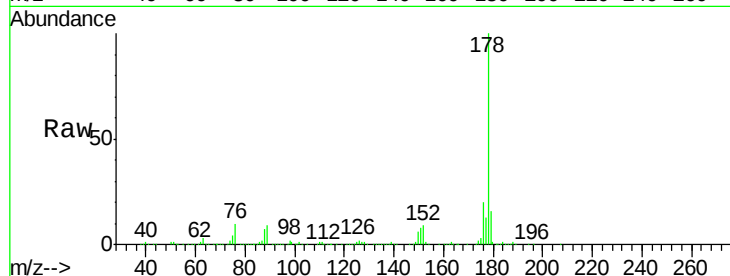
Tot Ion:178 Resp: 355355

Ion Ratio Lower Upper

178 100

176 19.8 16.2 24.4

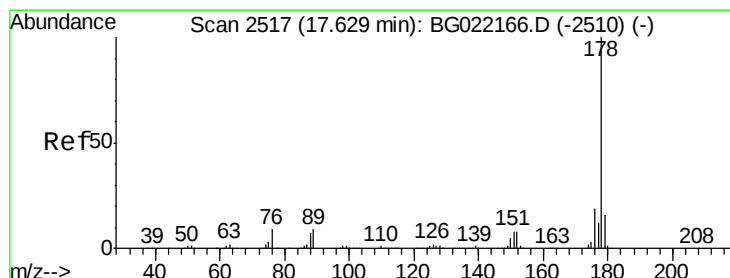
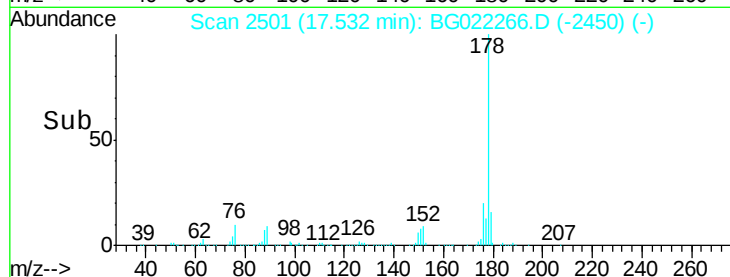
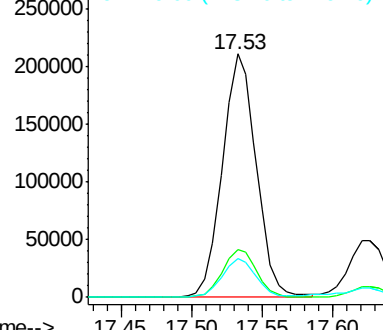
179 16.0 12.0 18.0



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: 6.55 ng

RT: 17.62 min Scan# 2516

Delta R.T. -0.01 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

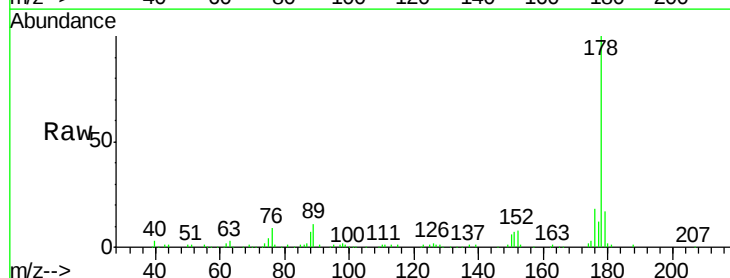
Tgt Ion:178 Resp: 84328

Ion Ratio Lower Upper

178 100

176 18.2 15.0 22.4

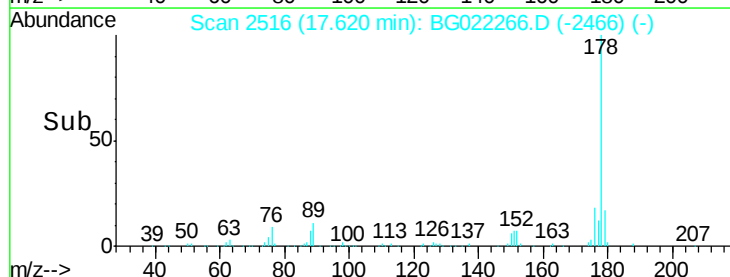
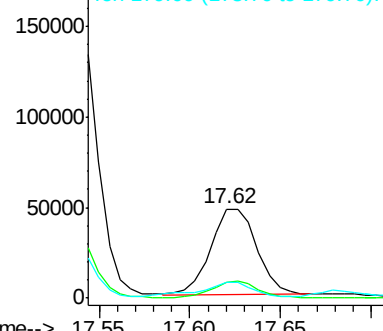
179 17.4 12.2 18.4

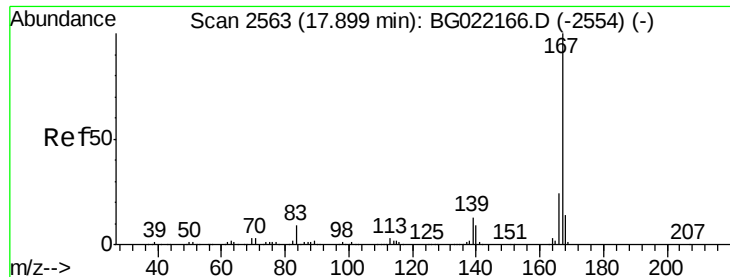


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#72

Carbazole

Concen: 2.30 ng/mL

RT: 17.90 min Scan# 2563

Delta R.T. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampleId :

SS-45

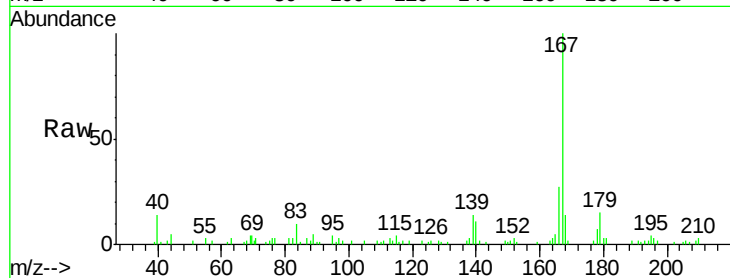
Tot Ion:167 Resp: 28077

Ion Ratio Lower Upper

167 100

166 27.0 18.6 27.8

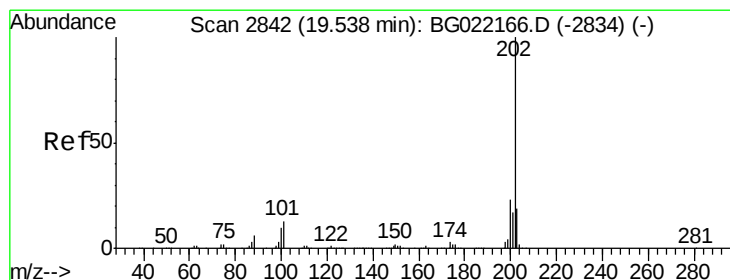
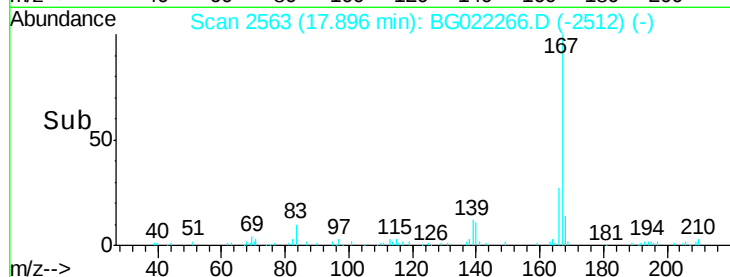
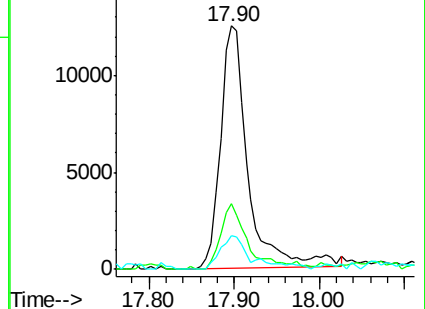
139 13.8 10.6 15.8



Abundance Ion 167.00 (166.70 to 167.70): E

Ion 166.00 (165.70 to 166.70): E

Ion 139.00 (138.70 to 139.70): E



#74

Fluoranthene

Concen: 32.79 ng/mL

RT: 19.54 min Scan# 2842

Delta R.T. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

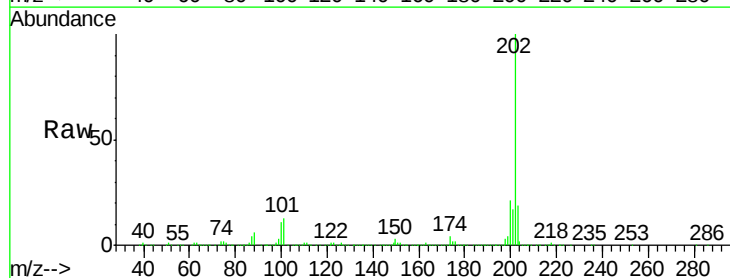
Tgt Ion:202 Resp: 489734

Ion Ratio Lower Upper

202 100

101 13.0 0.0 31.0

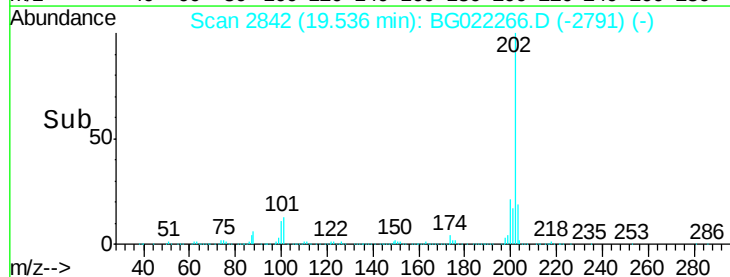
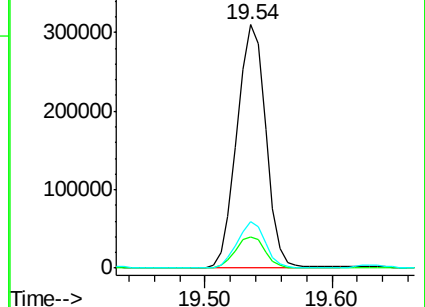
203 19.0 0.0 37.9

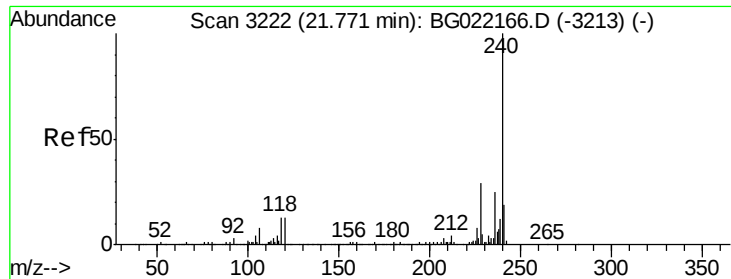


Abundance Ion 202.00 (201.70 to 202.70): E

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. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampleId :

SS-45

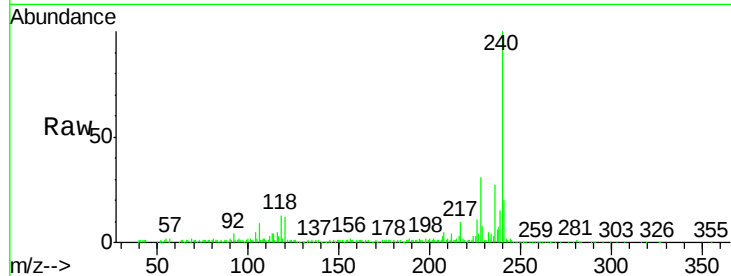
Tot Ion:240 Resp: 196200

Ion Ratio Lower Upper

240 100

120 12.3 8.4 12.6

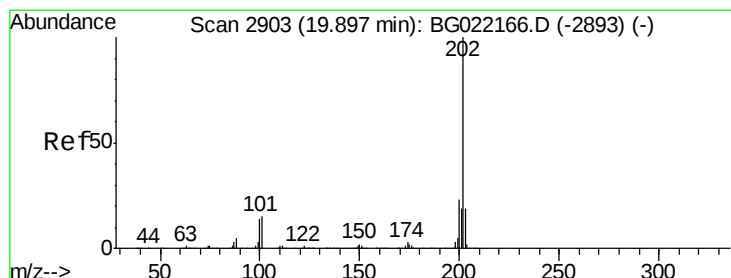
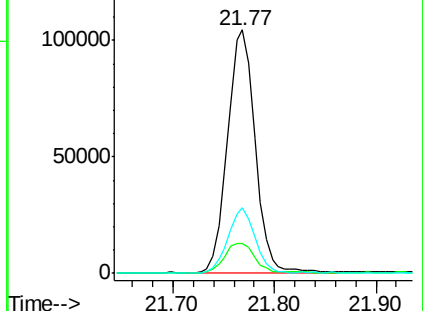
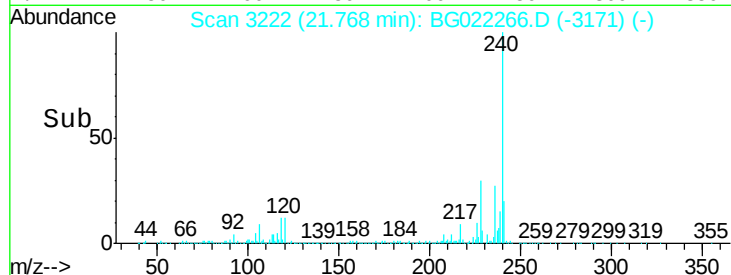
236 26.9 19.6 29.4



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

Pyrene

Concen: 37.12 ng

RT: 19.90 min Scan# 2904

Delta R.T. 0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

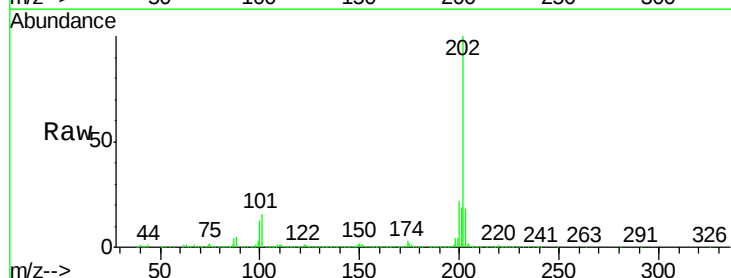
Tgt Ion:202 Resp: 452705

Ion Ratio Lower Upper

202 100

200 22.0 18.2 27.2

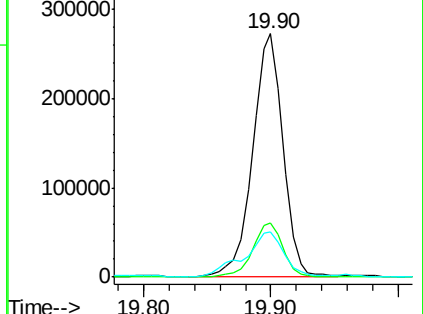
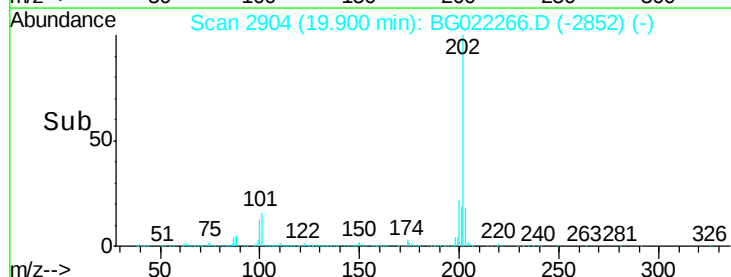
203 18.4 15.0 22.4

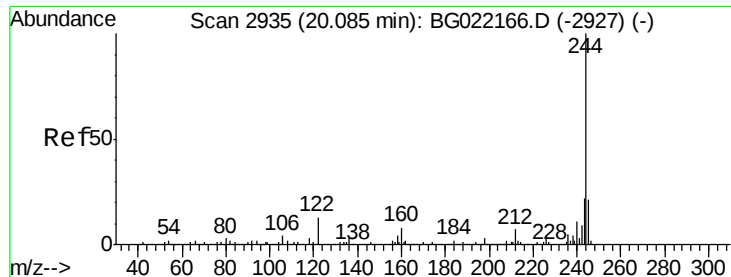


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





#78

Terphenyl-d14

Concen: 34.71 ng

RT: 20.08 min Scan# 2935

Delta R.T. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampleId :

SS-45

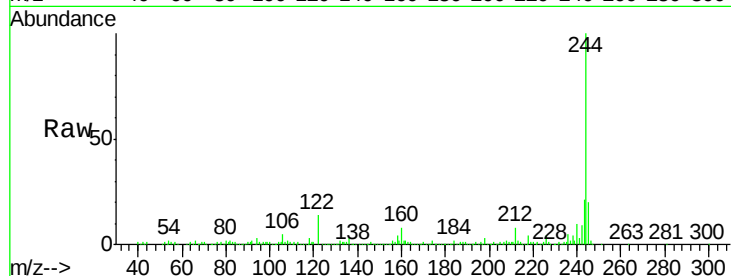
Tot Ion:244 Resp: 286883

Ion Ratio Lower Upper

244 100

212 7.6 6.5 9.7

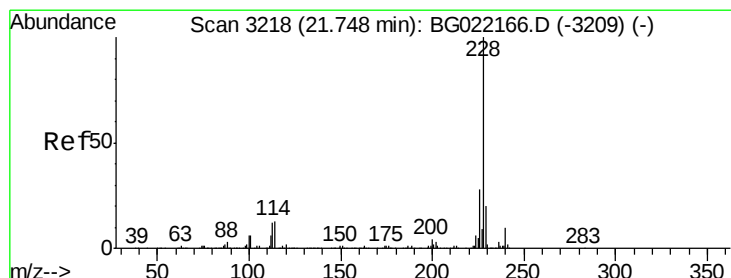
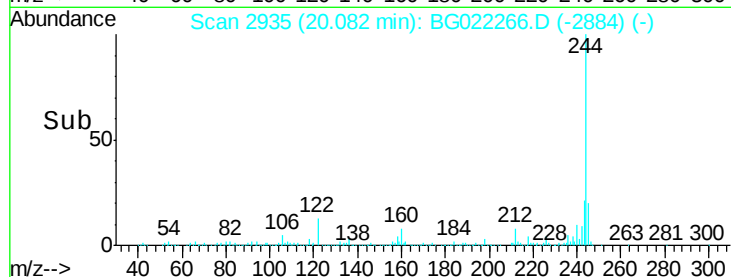
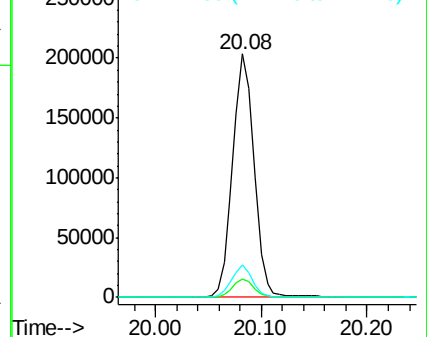
122 13.5 8.6 12.8#



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



#80

Benzo(a)anthracene

Concen: 21.22 ng

RT: 21.74 min Scan# 3218

Delta R.T. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

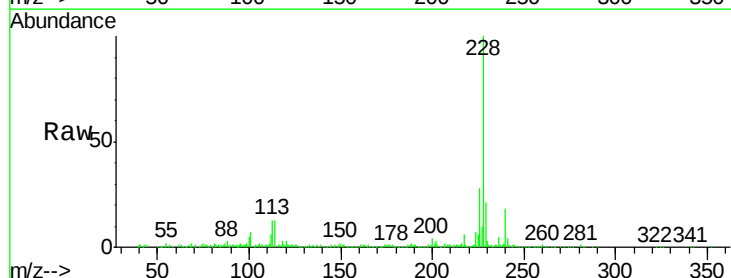
Tgt Ion:228 Resp: 233462

Ion Ratio Lower Upper

228 100

226 28.3 22.6 34.0

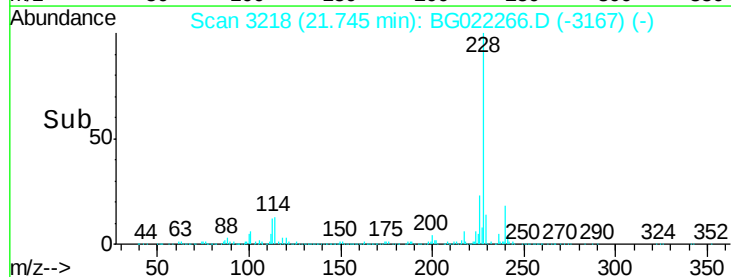
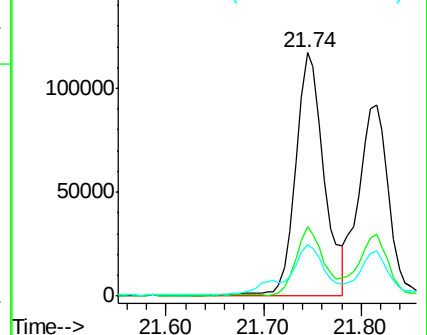
229 21.4 16.1 24.1

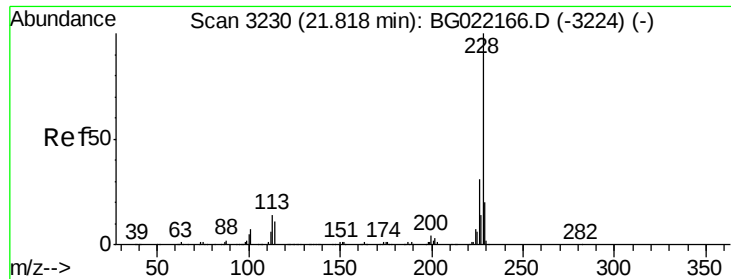


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#82

Chrysene

Concen: 18.29 ng

RT: 21.82 min Scan# 3230

Delta R.T. -0.00 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampleId :

SS-45

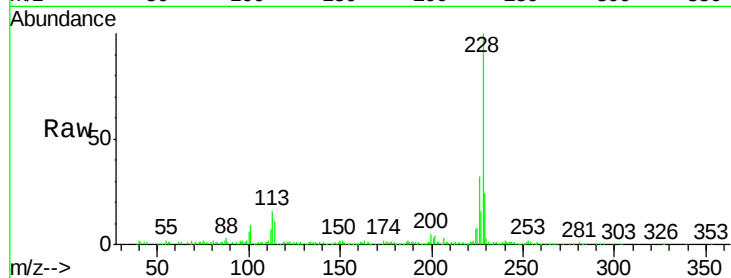
Tot Ion:228 Resp: 195836

Ion Ratio Lower Upper

228 100

226 32.2 25.4 38.0

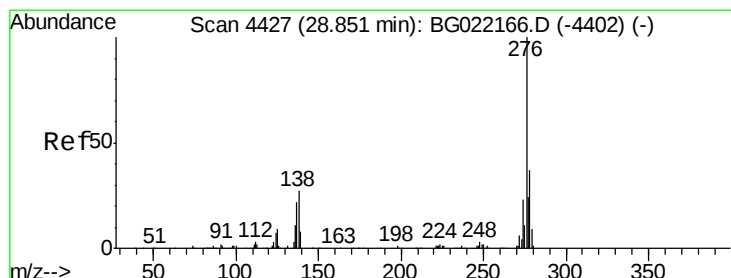
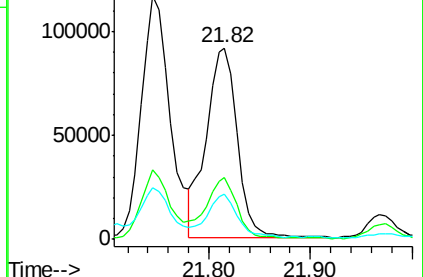
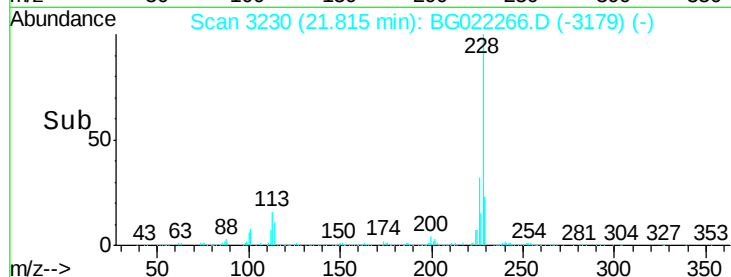
229 23.9 15.9 23.9



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



#85

Indeno(1,2,3-cd)pyrene

Concen: 8.43 ng m

RT: 28.84 min Scan# 4426

Delta R.T. -0.01 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

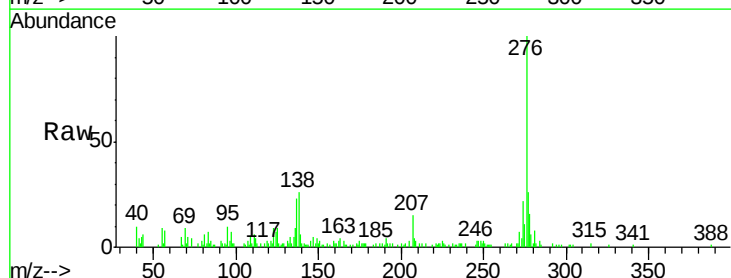
Tgt Ion:276 Resp: 101216

Ion Ratio Lower Upper

276 100

138 10.8 14.0 21.0#

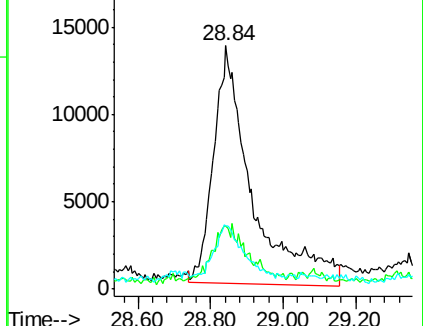
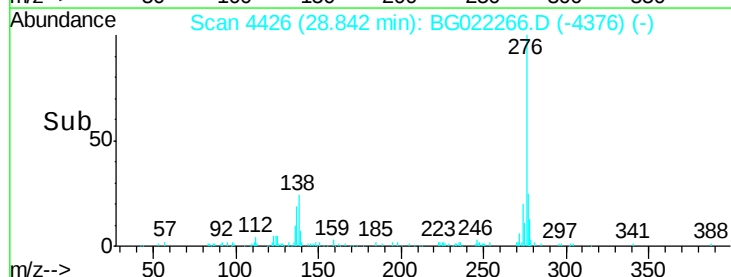
277 17.1 20.6 30.8#

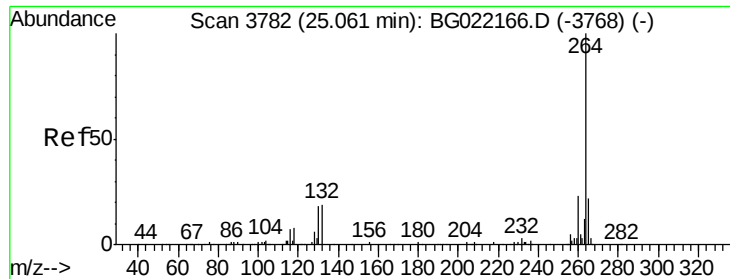


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E





#86

Pervlene-d12

Concen: 20.00 ng

RT: 25.07 min Scan# 3784

Delta R.T. 0.01 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampleId :

SS-45

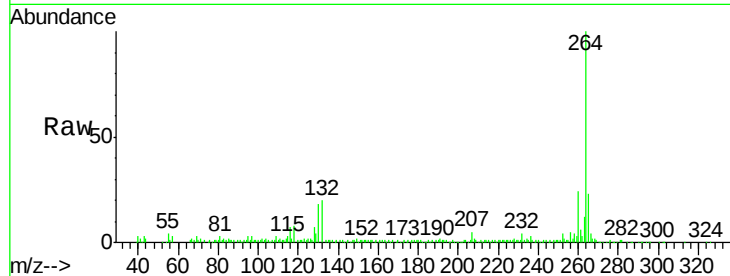
Tot Ion:264 Resp: 190967

Ion Ratio Lower Upper

264 100

260 23.7 20.2 30.4

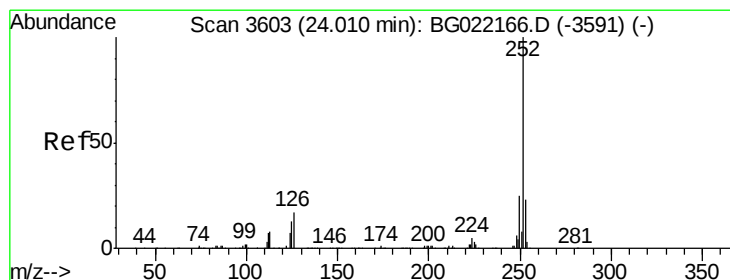
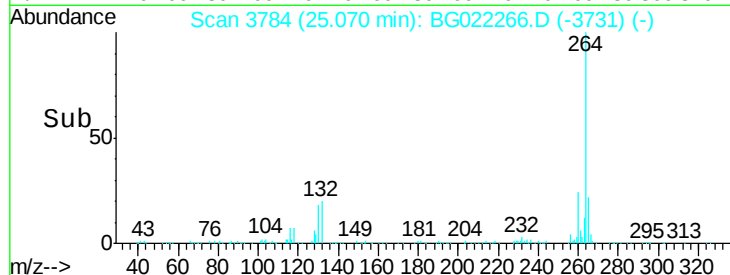
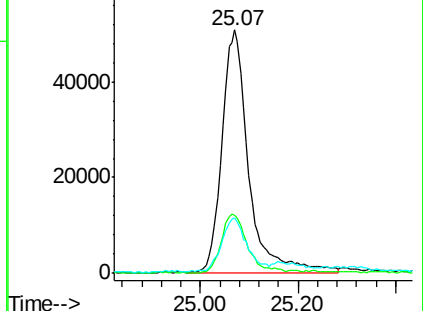
265 22.6 17.8 26.8



Abundance Ion 264.00 (263.70 to 264.70): E

Ion 260.00 (259.70 to 260.70): E

Ion 265.00 (264.70 to 265.70): E



#87

Benzo(b)fluoranthene

Concen: 20.18 ng m

RT: 24.02 min Scan# 3606

Delta R.T. 0.01 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

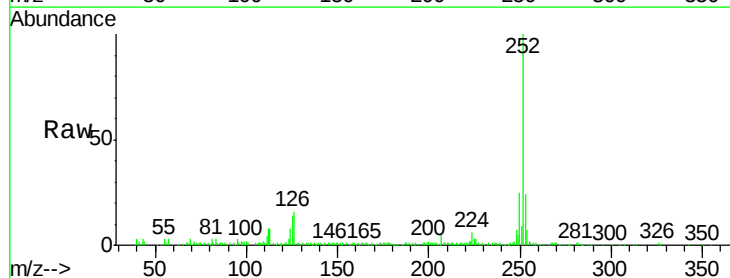
Tgt Ion:252 Resp: 224764

Ion Ratio Lower Upper

252 100

253 23.9 17.5 26.3

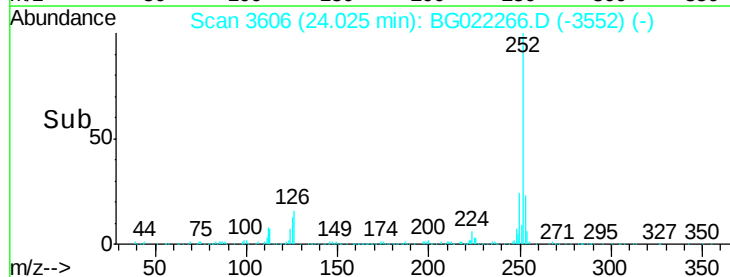
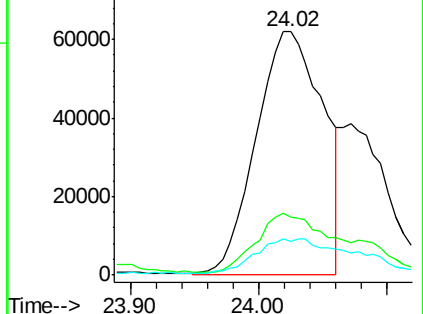
125 13.7 8.6 13.0#

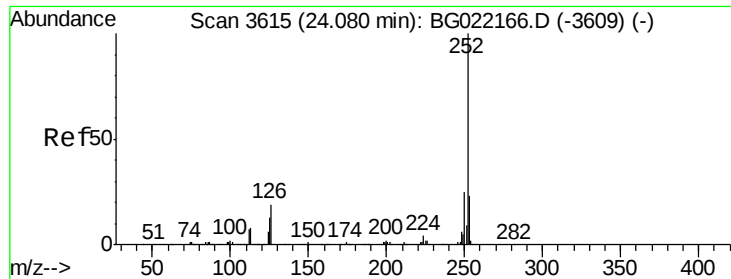


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E

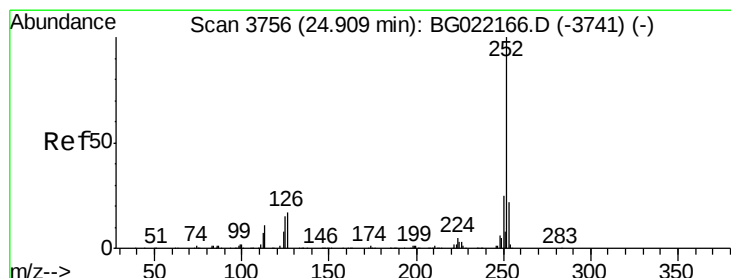
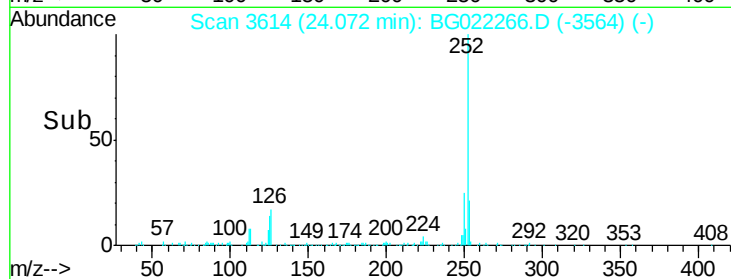
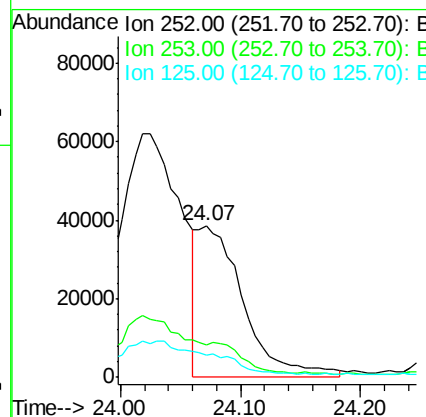
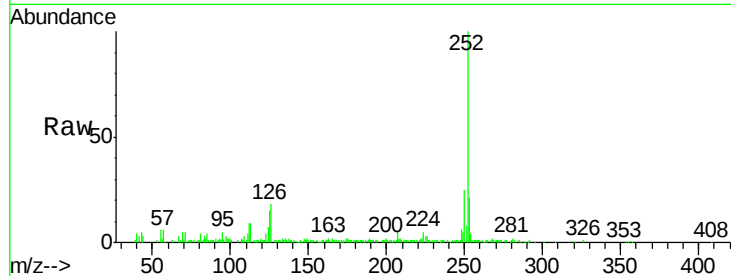




#88  
Benzo(k)fluoranthene  
Concen: 9.40 ng m  
RT: 24.07 min Scan# 3614  
Delta R.T. -0.01 min  
Lab File: BG022266.D  
Acq: 9 Jun 2016 13:13

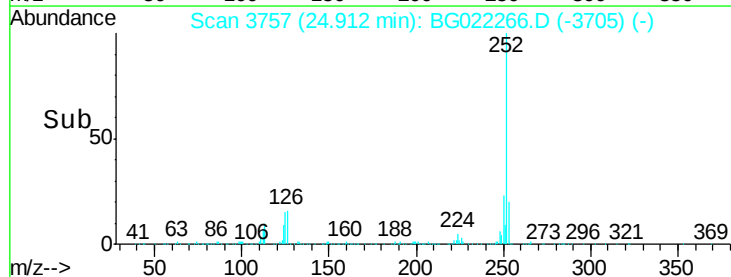
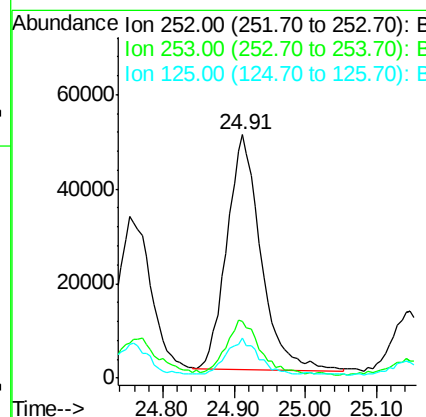
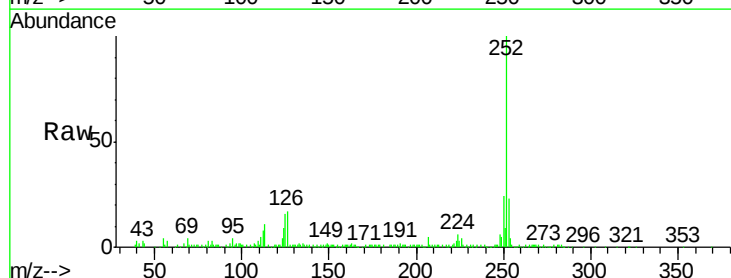
Instrument :  
BNA\_G  
ClientSampleId :  
SS-45

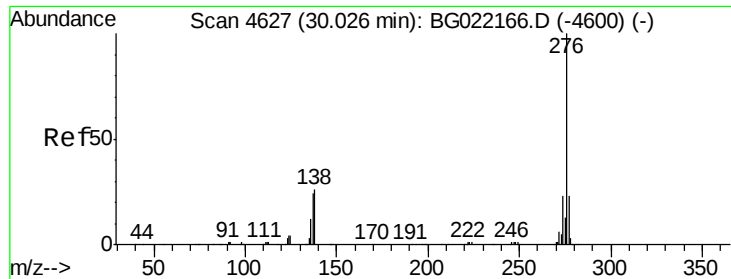
Tot Ion:252 Resp: 103033  
Ion Ratio Lower Upper  
252 100  
253 21.4 17.8 26.8  
125 14.6 8.3 12.5#



#89  
Benzo(a)pyrene  
Concen: 15.48 ng m  
RT: 24.91 min Scan# 3757  
Delta R.T. 0.00 min  
Lab File: BG022266.D  
Acq: 9 Jun 2016 13:13

Tgt Ion:252 Resp: 164857  
Ion Ratio Lower Upper  
252 100  
253 23.4 17.1 25.7  
125 16.3 9.6 14.4#





#91

Benzo(a,h,i)perylene

Concen: 8.06 ng/mL

RT: 30.04 min Scan# 4629

Delta R.T. 0.01 min

Lab File: BG022266.D

Acq: 9 Jun 2016 13:13

Instrument :

BNA\_G

ClientSampleId :

SS-45

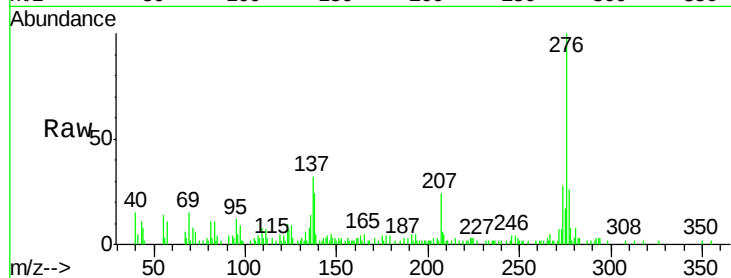
Tot Ion: 276 Resp: 84150

Ion Ratio Lower Upper

276 100

277 26.5 19.4 29.2

138 24.2 17.4 26.0



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

