

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG122815\  
 Data File : BG020585.D  
 Acq On : 29 Dec 2015 4:59  
 Operator : UM/SJ  
 Sample : G4802-13DL 30X  
 Misc :  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D88DL

Quant Time: Dec 29 06:38:13 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG122415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Tue Dec 29 05:04:12 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.07  | 152  | 13577    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.89 | 136  | 62223    | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.71 | 164  | 49852    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.45 | 188  | 136962   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.73 | 240  | 170105   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 24.99 | 264  | 164614   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |      |      |       |      |
|--------------------------------|-------|-----|------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 0.00  | 96  | 0    | 0.00 | ng/uL |      |
| 5) Phenol-d5                   | 7.24  | 99  | 324  | 0.30 | ng/ul | 0.01 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.39  | 67  | 178  | 0.28 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.60  | 132 | 455  | 0.54 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 0.00  | 113 | 0    | 0.00 | ng/ul |      |
| 19) Nitrobenzene-d5            | 9.24  | 128 | 274  | 0.56 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 0.00  | 143 | 0    | 0.00 | ng/ul |      |
| 26) 2,4-Dichlorophenol-d3      | 10.52 | 165 | 337  | 0.31 | ng/ul | 0.02 |
| 29) 4-Chloroaniline-d4         | 11.03 | 131 | 73   | 0.06 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 14.10 | 166 | 4227 | 1.03 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.40 | 160 | 4867 | 1.02 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.91 | 143 | 62   | 0.09 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.69 | 176 | 4633 | 1.25 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 0.00  | 200 | 0    | 0.00 | ng/ul |      |
| 71) Anthracene-d10             | 17.55 | 188 | 7796 | 1.22 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.83 | 212 | 8565 | 1.16 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 24.77 | 264 | 8609 | 1.03 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |        |        |        | Qvalue |
|----------------------------|-------|-----|--------|--------|--------|--------|
| 17) Hexachloroethane       | 9.17  | 117 | 784    | 2.13   | ng/ul# | 1      |
| 28) Naphthalene            | 10.94 | 128 | 371623 | 112.35 | ng/ul  | 98     |
| 30) 4-Chloroaniline        | 10.94 | 127 | 50775  | 41.08  | ng/ul# | 3      |
| 34) 2-Methylnaphthalene    | 12.54 | 142 | 223619 | 91.37  | ng/ul  | 99     |
| 35) 1-Methylnaphthalene    | 12.76 | 142 | 159043 | 68.41  | ng/ul  | 97     |
| 41) 1,1'-Biphenyl          | 13.54 | 154 | 26063  | 6.77   | ng/ul  | 98     |
| 43) 2-Nitroaniline         | 13.73 | 65  | 980    | 1.13   | ng/ul# | 35     |
| 48) Acenaphthylene         | 14.43 | 152 | 12093  | 2.42   | ng/ul# | 75     |
| 50) Acenaphthene           | 14.77 | 153 | 113048 | 33.42  | ng/ul  | 98     |
| 54) Dibenzofuran           | 15.10 | 168 | 14543  | 2.89   | ng/ul  | 91     |
| 59) Fluorene               | 15.75 | 166 | 81055  | 19.87  | ng/ul  | 96     |
| 61) 4-Nitroaniline         | 15.75 | 138 | 898    | 1.02   | ng/ul# | 10     |
| 65) N-Nitrosodiphenylamine | 15.95 | 169 | 4180   | 1.09   | ng/ul# | 1      |
| 70) Phenanthrene           | 17.50 | 178 | 448826 | 58.90  | ng/ul  | 99     |
| 72) Anthracene             | 17.59 | 178 | 108674 | 13.95  | ng/ul  | 99     |
| 77) Fluoranthene           | 19.50 | 202 | 138089 | 14.41  | ng/ul  | 99     |
| 80) Pyrene                 | 19.87 | 202 | 232725 | 24.19  | ng/ul  | 98     |
| 83) Benzo(a)anthracene     | 21.70 | 228 | 73603  | 7.37   | ng/ul  | 97     |
| 85) Chrysene               | 21.77 | 228 | 70120  | 7.37   | ng/ul  | 94     |
| 88) Benzo(b)fluoranthene   | 23.95 | 252 | 19995  | 2.02   | ng/ul# | 91     |
| 89) Benzo(k)fluoranthene   | 23.95 | 252 | 19995  | 2.09   | ng/ul  | 93     |
| 91) Benzo(a)pyrene         | 24.83 | 252 | 44842  | 4.72   | ng/ul  | 98     |

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG122815\  
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Operator : UM/SJ  
Sample : G4802-13DL 30X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
G9D88DL

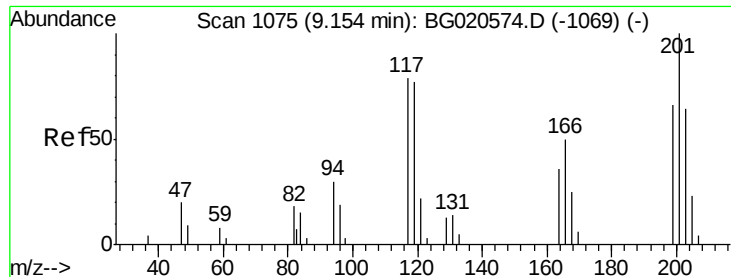
Quant Time: Dec 29 06:38:13 2015  
Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG122415.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Tue Dec 29 05:04:12 2015  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

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

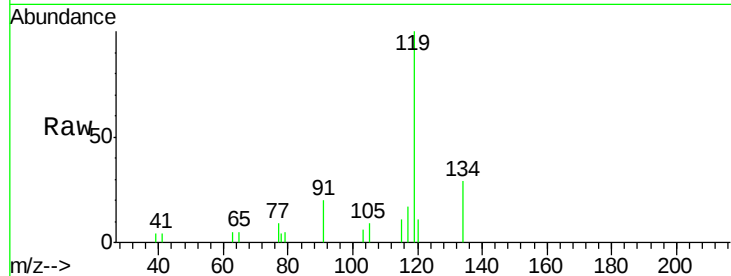
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Data Path : Z:\HPCHEM1\BNA_G\DATA\BG122815\  
Data File : BG020585.D  
Acq On    : 29 Dec 2015    4:59  
Operator  : UM/SJ  
Sample    : G4802-13DL 30X  
Misc      :  
ALS Vial  : 20    Sample Multiplier: 1
```



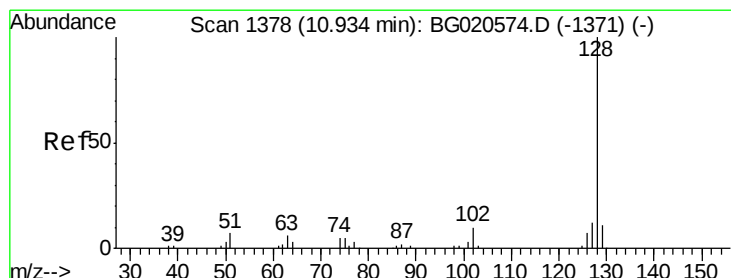
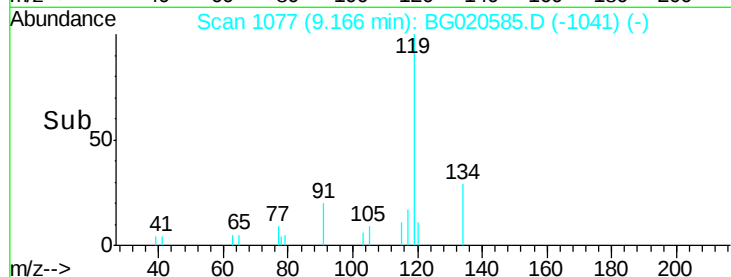
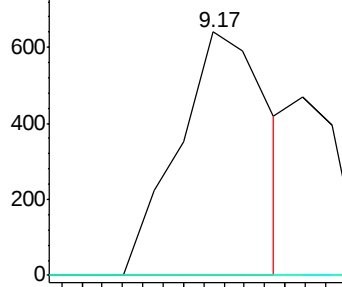
#17  
Hexachloroethane  
Concen: 2.13 ng/ul  
RT: 9.17 min Scan# 1077  
Delta R.T. 0.01 min  
Lab File: BG020585.D  
Acq: 29 Dec 2015 4:59

Instrument :  
BNA\_G  
ClientSampleId :  
G9D88DL

Tgt Ion:117 Resp: 784  
Ion Ratio Lower Upper  
117 100  
201 0.0 102.7 154.1#  
199 0.0 65.8 98.8#

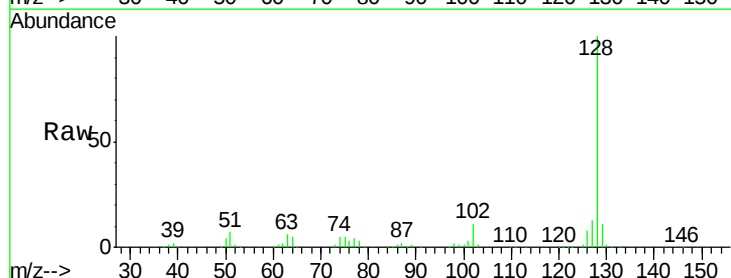


Abundance Ion 117.00 (116.70 to 117.70): E  
Ion 201.00 (200.70 to 201.70): E  
Ion 199.00 (198.70 to 199.70): E

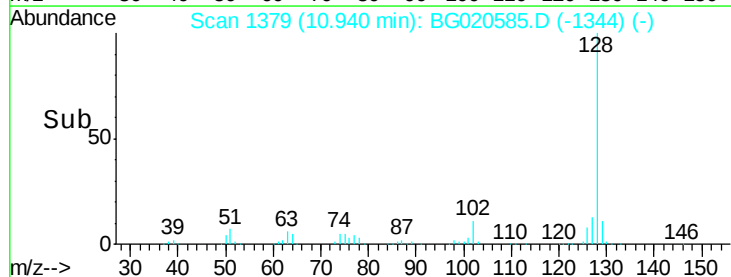
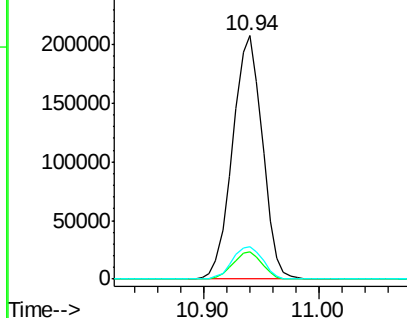


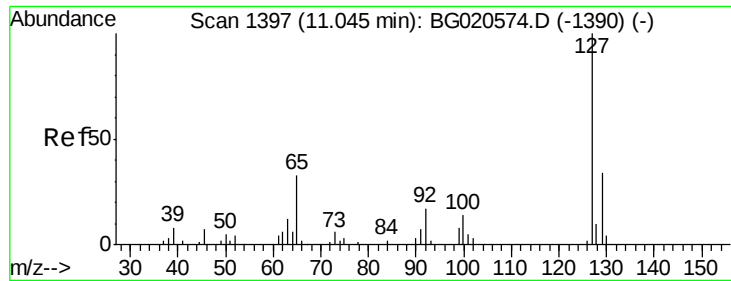
#28  
Naphthalene  
Concen: 112.35 ng/ul  
RT: 10.94 min Scan# 1379  
Delta R.T. 0.01 min  
Lab File: BG020585.D  
Acq: 29 Dec 2015 4:59

Tgt Ion:128 Resp: 371623  
Ion Ratio Lower Upper  
128 100  
129 11.5 8.6 12.8  
127 13.3 10.1 15.1



Abundance Ion 128.00 (127.70 to 128.70): E  
Ion 129.00 (128.70 to 129.70): E  
Ion 127.00 (126.70 to 127.70): E

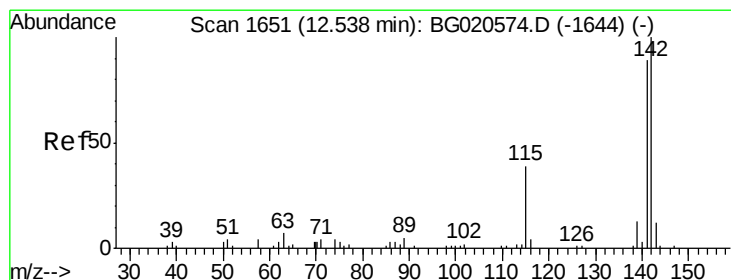
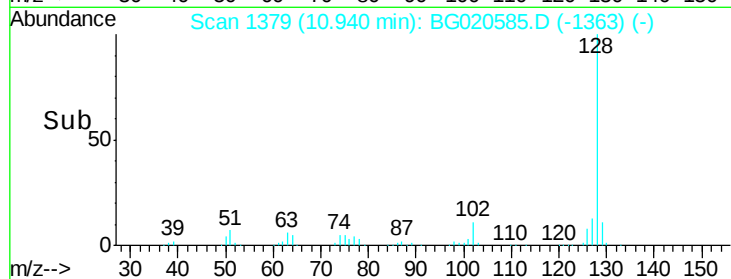
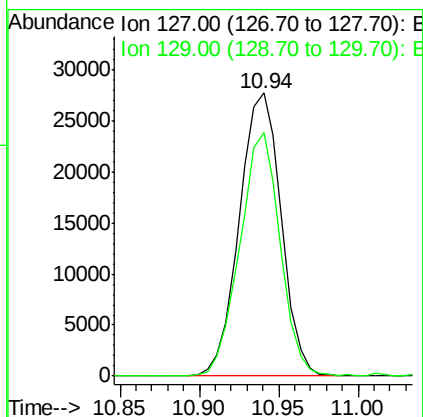
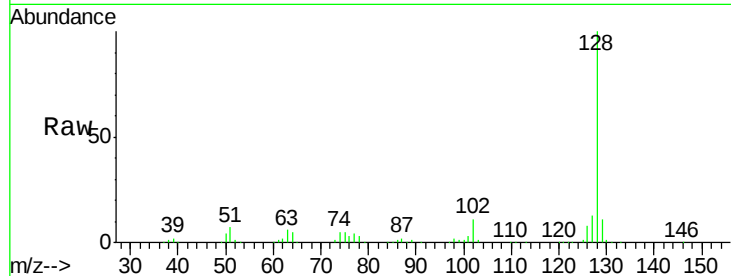




#30  
 4-Chloroaniline  
 Concen: 41.08 ng/ul  
 RT: 10.94 min Scan# 1379  
 Delta R.T. -0.11 min  
 Lab File: BG020585.D  
 Acq: 29 Dec 2015 4:59

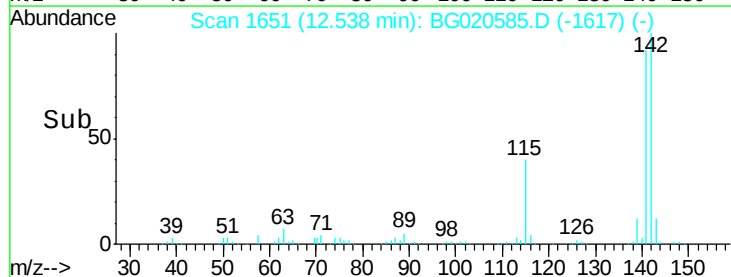
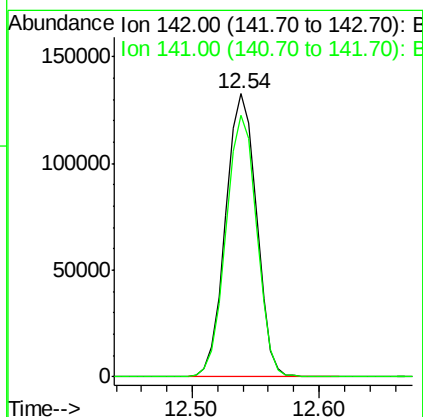
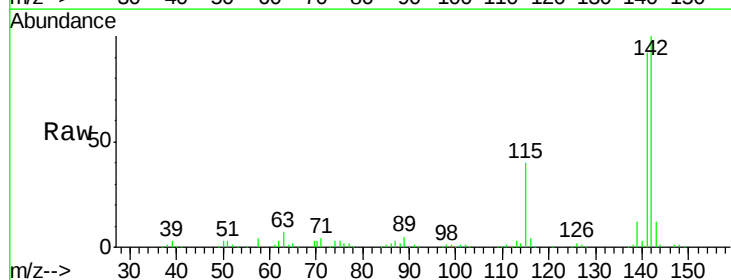
Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D88DL

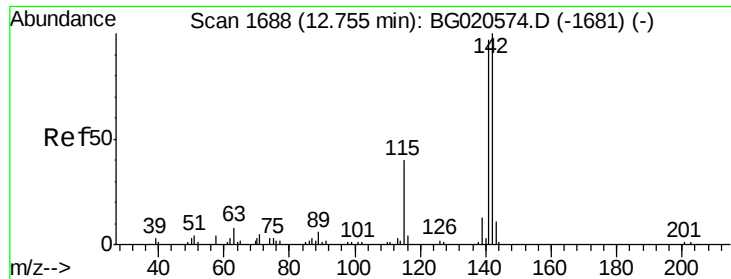
Tgt Ion:127 Resp: 50775  
 Ion Ratio Lower Upper  
 127 100  
 129 86.0 25.7 38.5#



#34  
 2-Methylnaphthalene  
 Concen: 91.37 ng/ul  
 RT: 12.54 min Scan# 1651  
 Delta R.T. 0.00 min  
 Lab File: BG020585.D  
 Acq: 29 Dec 2015 4:59

Tgt Ion:142 Resp: 223619  
 Ion Ratio Lower Upper  
 142 100  
 141 92.3 74.9 112.3

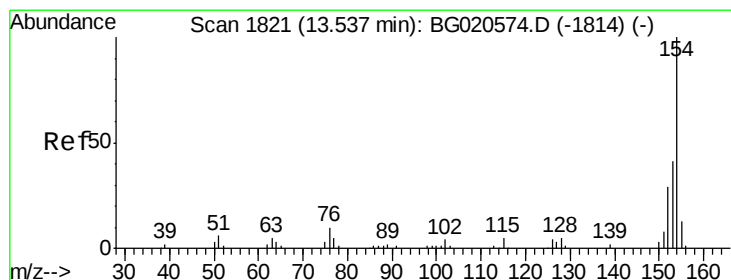
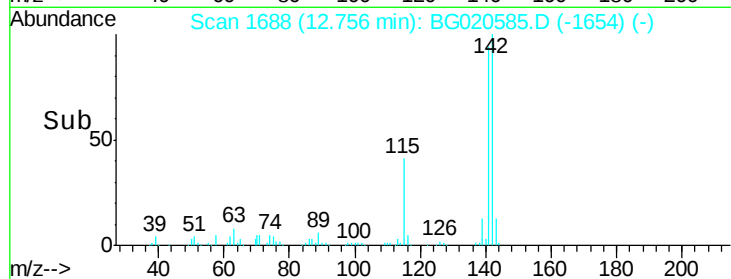
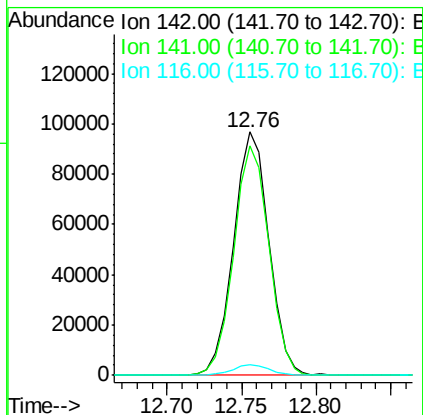
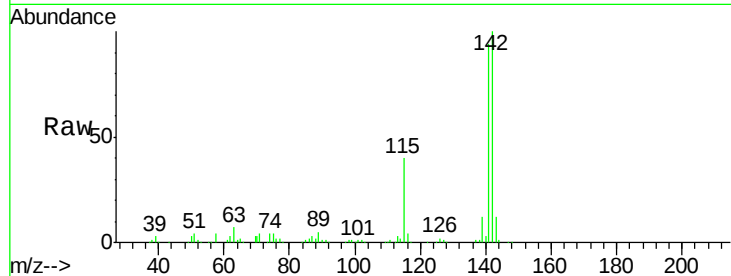




#35  
 1-Methylnaphthalene  
 Concen: 68.41 ng/ul  
 RT: 12.76 min Scan# 1688  
 Delta R.T. 0.00 min  
 Lab File: BG020585.D  
 Acq: 29 Dec 2015 4:59

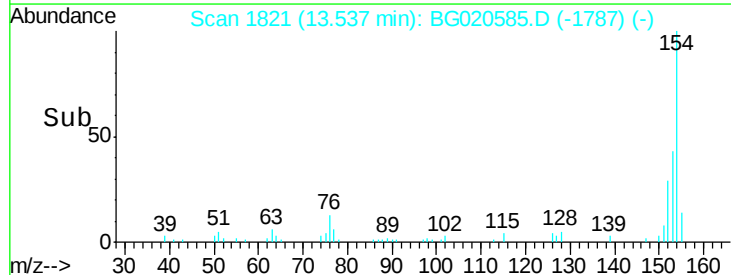
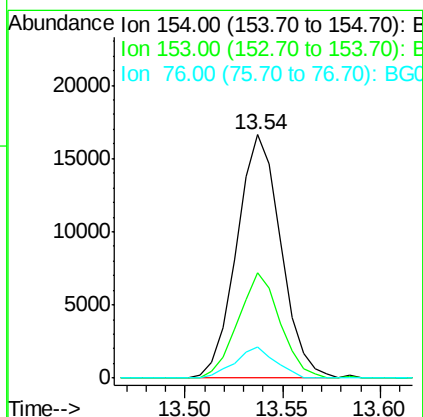
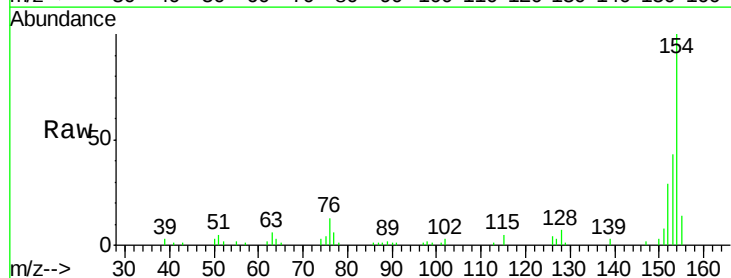
Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D88DL

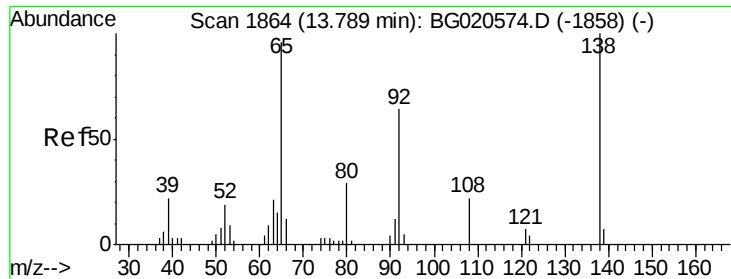
Tgt Ion:142 Resp: 159043  
 Ion Ratio Lower Upper  
 142 100  
 141 94.4 73.0 109.6  
 116 4.4 3.0 4.6



#41  
 1,1'-Biphenyl  
 Concen: 6.77 ng/ul  
 RT: 13.54 min Scan# 1821  
 Delta R.T. 0.00 min  
 Lab File: BG020585.D  
 Acq: 29 Dec 2015 4:59

Tgt Ion:154 Resp: 26063  
 Ion Ratio Lower Upper  
 154 100  
 153 43.1 35.5 53.3  
 76 12.7 10.4 15.6





#43

2-Nitroaniline

Concen: 1.13 ng/ul

RT: 13.73 min Scan# 1854

Delta R.T. -0.06 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

Instrument :

BNA\_G

ClientSampleId :

G9D88DL

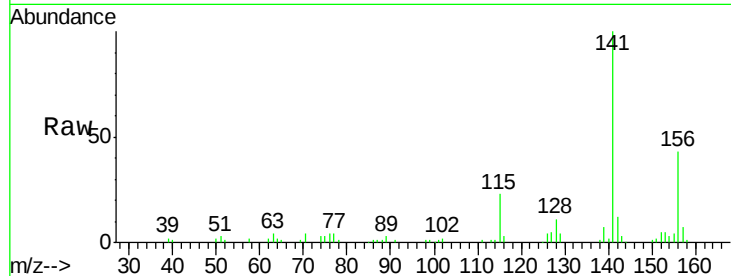
Tgt Ion: 65 Resp: 980

Ion Ratio Lower Upper

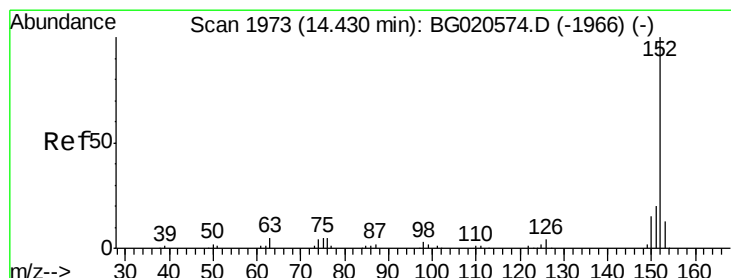
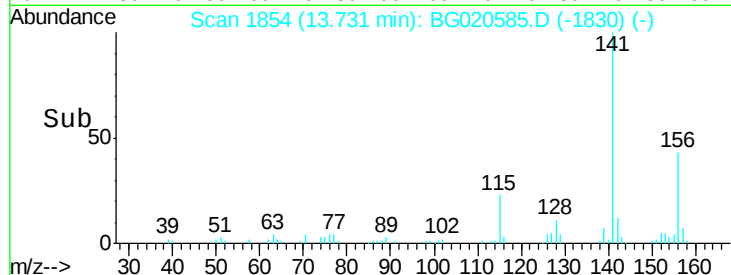
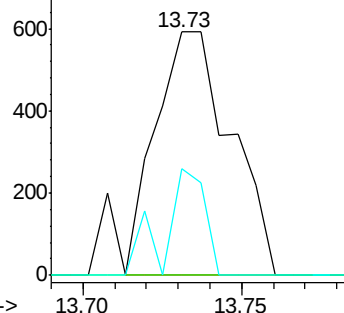
65 100

92 0.0 53.1 79.7#

138 43.9 76.6 114.8#



Abundance Ion 65.00 (64.70 to 65.70): BGC  
Ion 92.00 (91.70 to 92.70): BGC  
Ion 138.00 (137.70 to 138.70): BGC



#48

Acenaphthylene

Concen: 2.42 ng/ul

RT: 14.43 min Scan# 1973

Delta R.T. 0.00 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

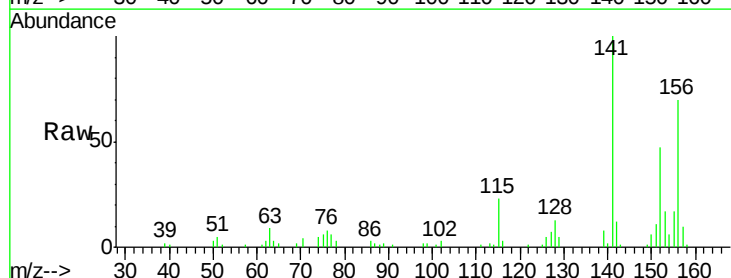
Tgt Ion: 152 Resp: 12093

Ion Ratio Lower Upper

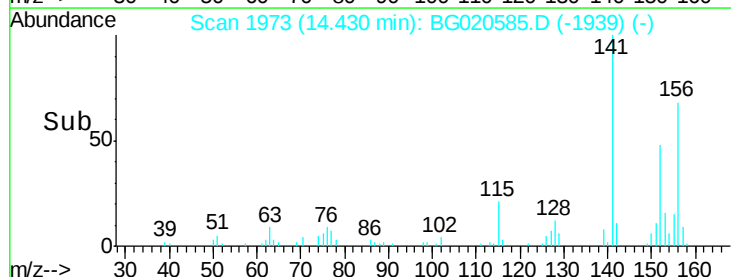
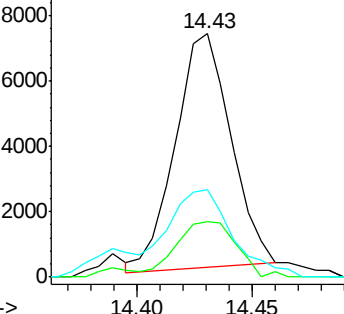
152 100

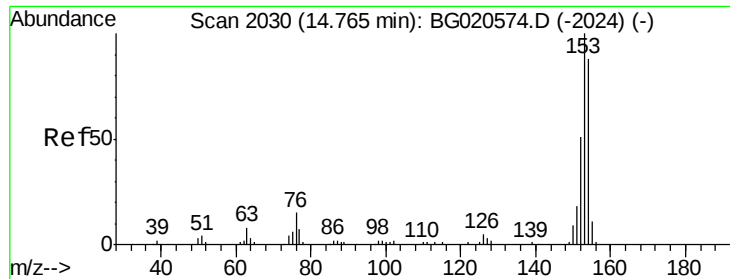
151 22.8 16.4 24.6

153 36.0 10.4 15.6#



Abundance Ion 152.00 (151.70 to 152.70): BGC  
Ion 151.00 (150.70 to 151.70): BGC  
Ion 153.00 (152.70 to 153.70): BGC





#50

Acenaphthene

Concen: 33.42 ng/ul

RT: 14.77 min Scan# 2031

Delta R.T. 0.01 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

Instrument :

BNA\_G

ClientSampleId :

G9D88DL

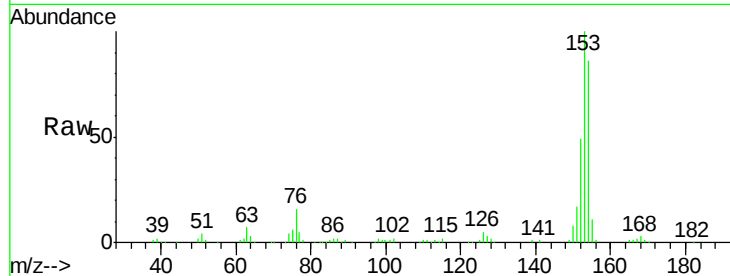
Tgt Ion:153 Resp: 113048

Ion Ratio Lower Upper

153 100

152 48.6 37.6 56.4

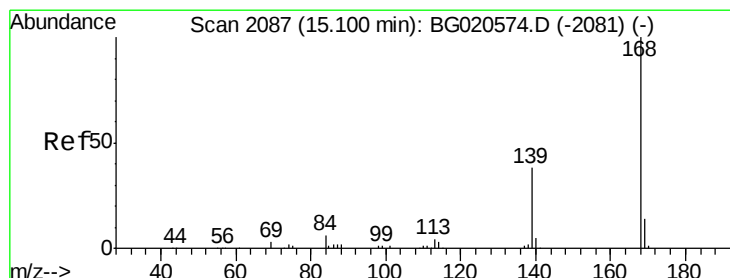
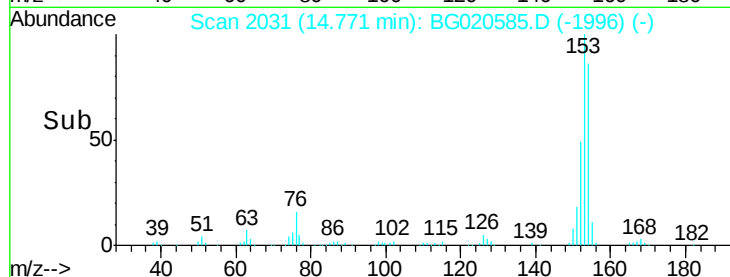
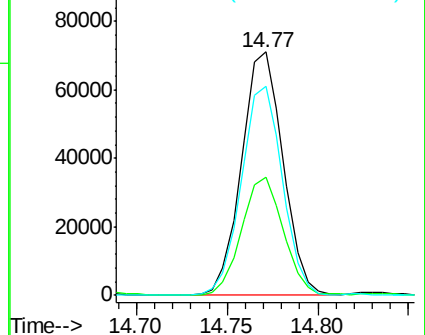
154 85.9 67.9 101.9



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: 2.89 ng/ul

RT: 15.10 min Scan# 2087

Delta R.T. 0.00 min

Lab File: BG020585.D

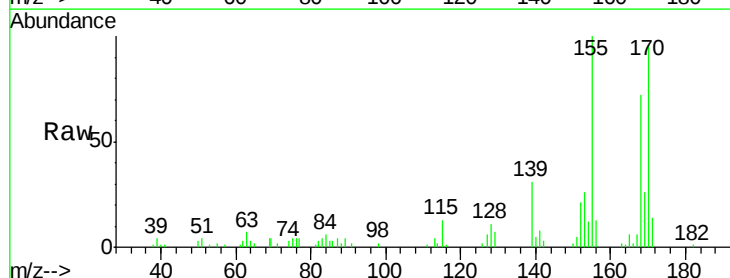
Acq: 29 Dec 2015 4:59

Tgt Ion:168 Resp: 14543

Ion Ratio Lower Upper

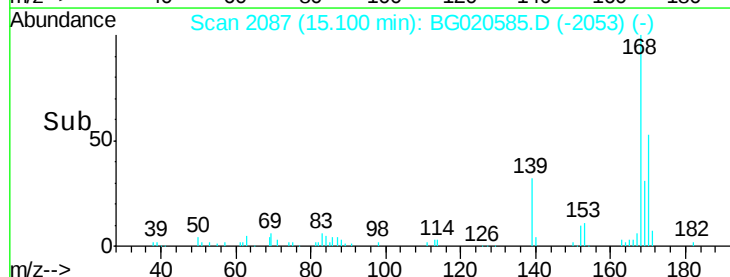
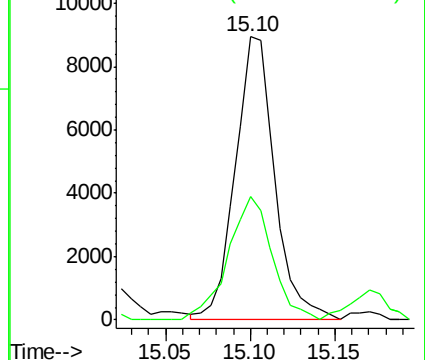
168 100

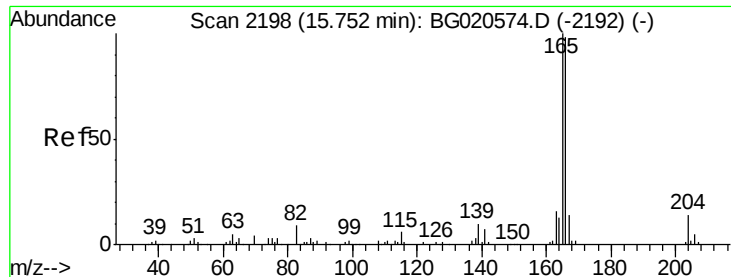
139 43.8 30.5 45.7



Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E





#59

Fluorene

Concen: 19.87 ng/ul

RT: 15.75 min Scan# 2198

Delta R.T. 0.00 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

Instrument :

BNA\_G

ClientSampleId :

G9D88DL

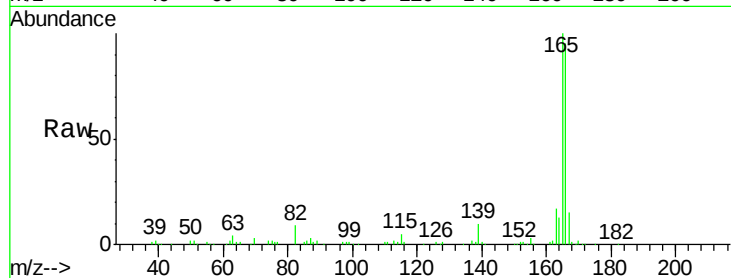
Tgt Ion:166 Resp: 81055

Ion Ratio Lower Upper

166 100

165 105.3 81.4 122.0

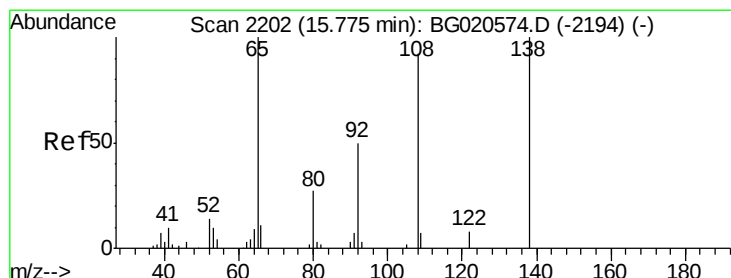
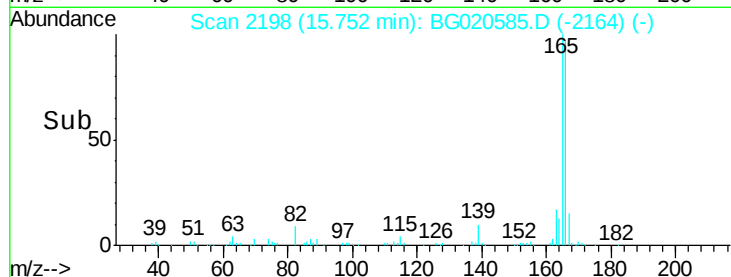
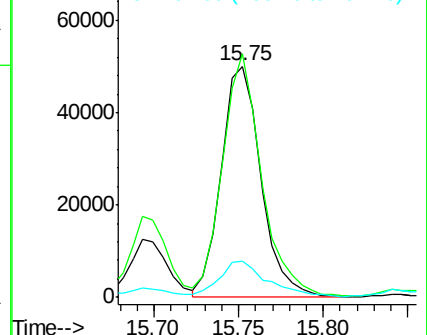
167 15.6 11.2 16.8



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



#61

4-Nitroaniline

Concen: 1.02 ng/ul

RT: 15.75 min Scan# 2198

Delta R.T. -0.02 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

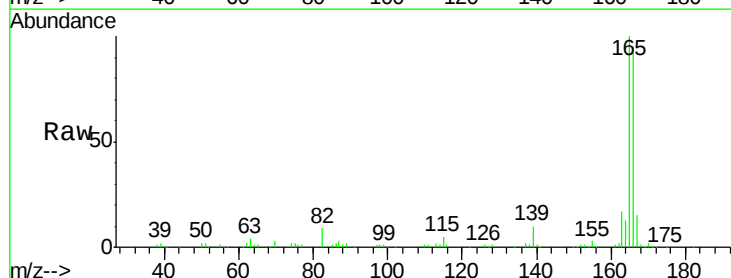
Tgt Ion:138 Resp: 898

Ion Ratio Lower Upper

138 100

92 0.0 45.2 67.8#

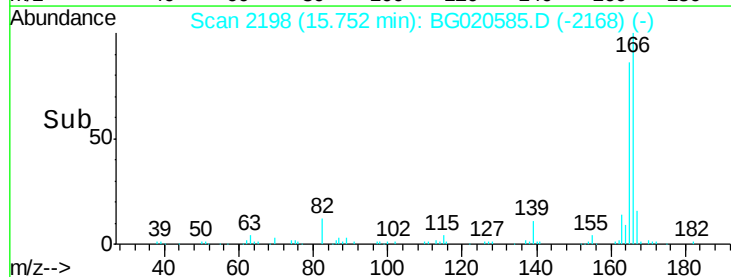
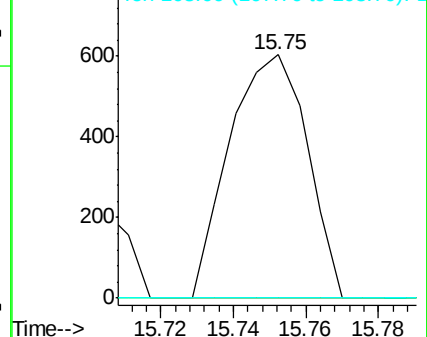
108 0.0 75.4 113.0#

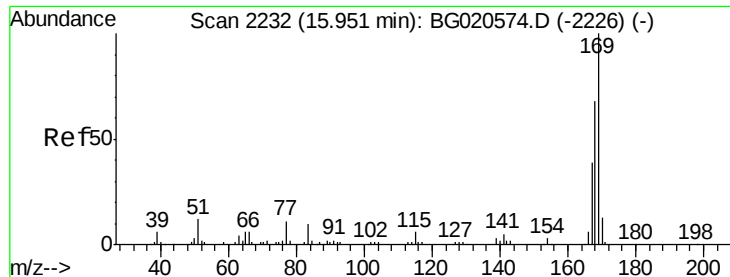


Abundance Ion 138.00 (137.70 to 138.70): E

Ion 92.00 (91.70 to 92.70): BG

Ion 108.00 (107.70 to 108.70): E





#65

N-Nitrosodiphenylamine

Concen: 1.09 ng/ul

RT: 15.95 min Scan# 2232

Delta R.T. 0.00 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

Instrument :

BNA\_G

ClientSampled :

G9D88DL

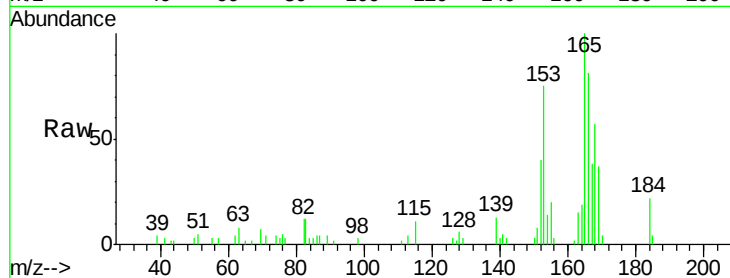
Tgt Ion:169 Resp: 4180

Ion Ratio Lower Upper

169 100

168 154.3 54.3 81.5#

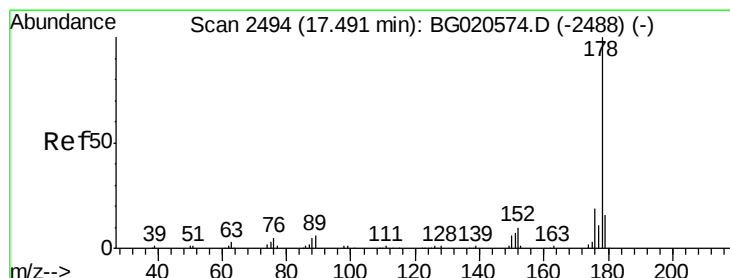
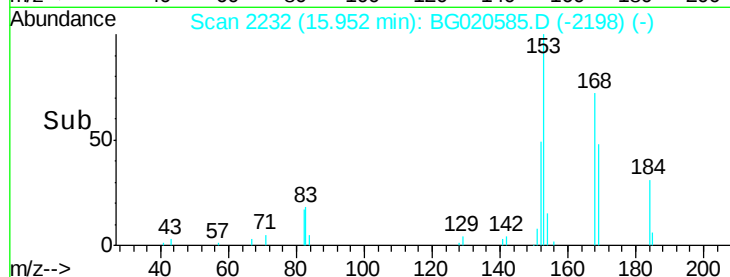
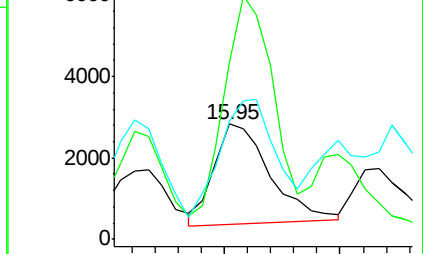
167 103.0 31.8 47.8#



Abundance Ion 169.00 (168.70 to 169.70): E

Ion 168.00 (167.70 to 168.70): E

Ion 167.00 (166.70 to 167.70): E



#70

Phenanthrene

Concen: 58.90 ng/ul

RT: 17.50 min Scan# 2495

Delta R.T. 0.01 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

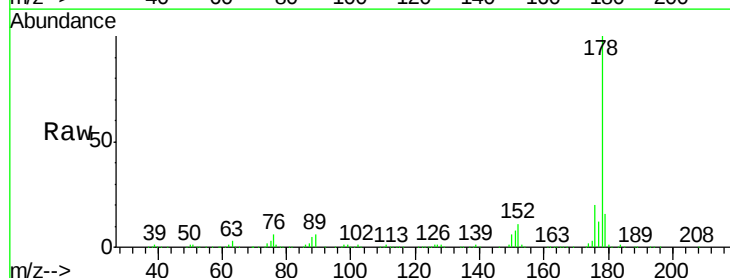
Tgt Ion:178 Resp: 448826

Ion Ratio Lower Upper

178 100

179 16.5 12.9 19.3

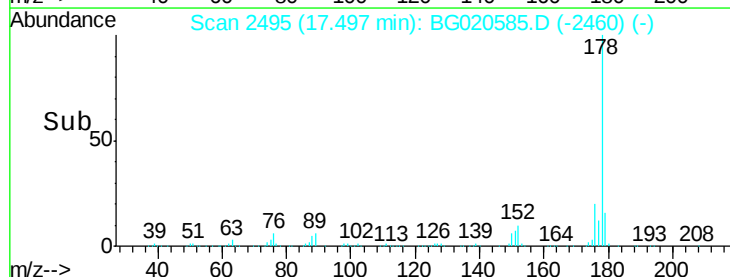
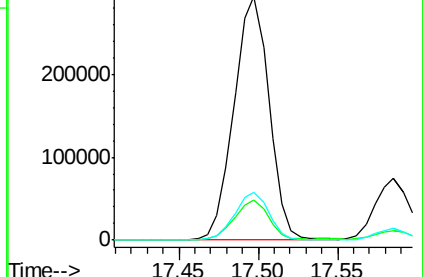
176 19.6 15.3 22.9

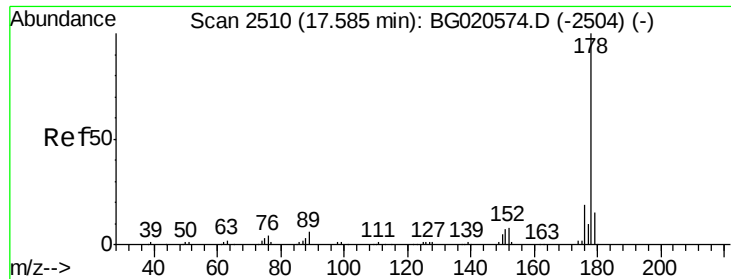


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 179.00 (178.70 to 179.70): E

Ion 176.00 (175.70 to 176.70): E





#72

Anthracene

Concen: 13.95 ng/ul

RT: 17.59 min Scan# 2510

Delta R.T. 0.00 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

Instrument :

BNA\_G

ClientSampleId :

G9D88DL

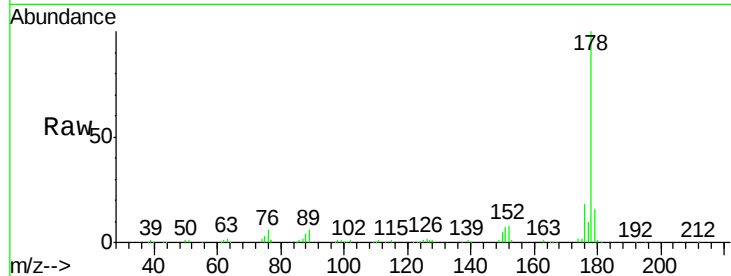
Tgt Ion:178 Resp: 108674

Ion Ratio Lower Upper

178 100

179 15.7 12.3 18.5

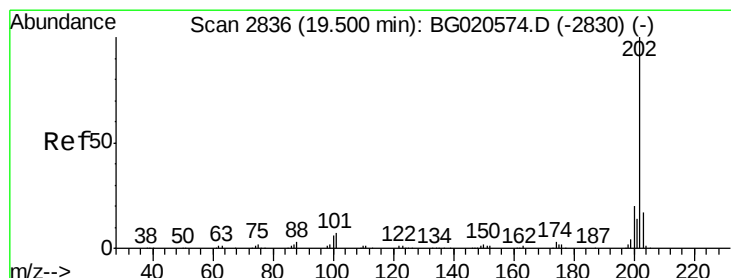
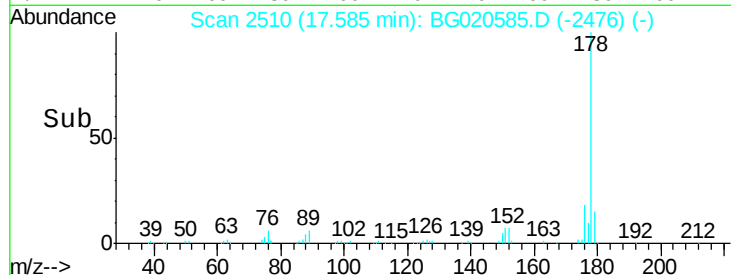
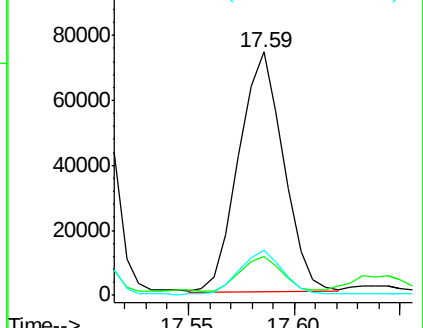
176 18.3 14.3 21.5



Abundance Ion 178.00 (177.70 to 178.70): E

Ion 179.00 (178.70 to 179.70): E

Ion 176.00 (175.70 to 176.70): E



#77

Fluoranthene

Concen: 14.41 ng/ul

RT: 19.50 min Scan# 2836

Delta R.T. 0.00 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

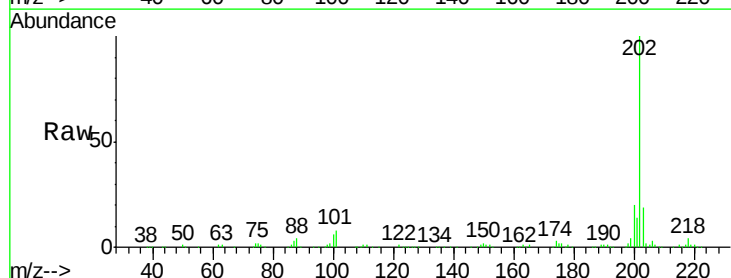
Tgt Ion:202 Resp: 138089

Ion Ratio Lower Upper

202 100

101 7.6 6.2 9.4

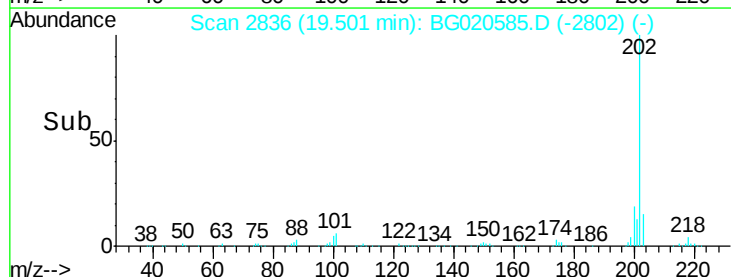
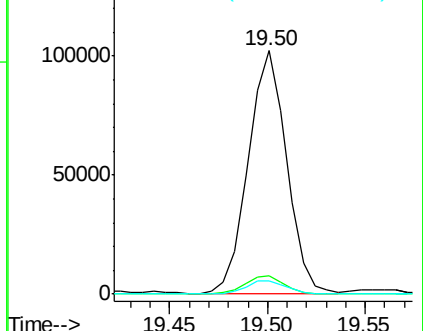
100 5.6 5.1 7.7

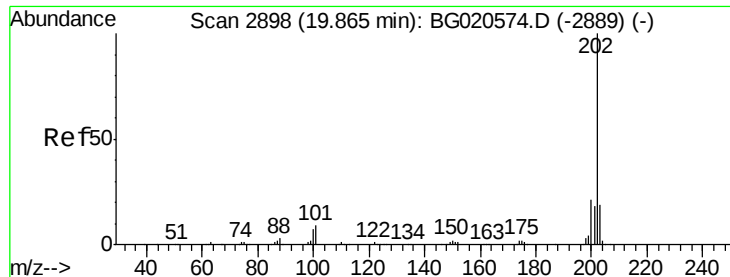


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): B





#80

Pyrene

Concen: 24.19 ng/ul

RT: 19.87 min Scan# 2898

Delta R.T. 0.00 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

Instrument :

BNA\_G

ClientSampleId :

G9D88DL

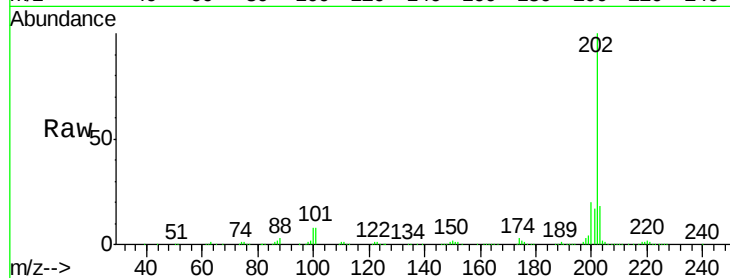
Tgt Ion:202 Resp: 232725

Ion Ratio Lower Upper

202 100

101 7.8 7.0 10.4

100 7.5 6.4 9.6

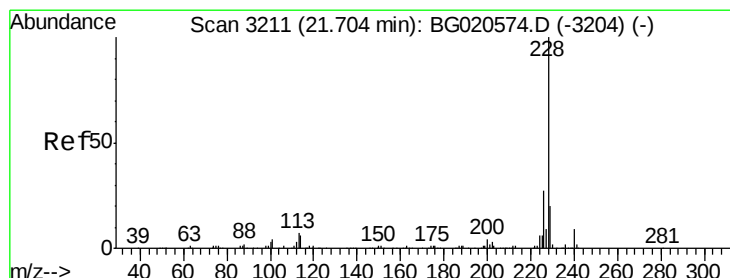
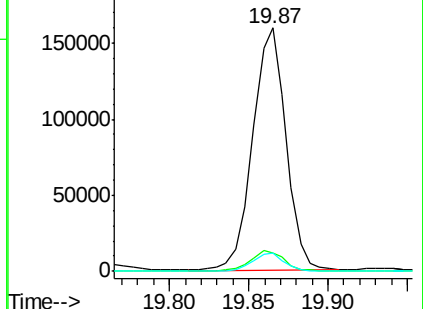
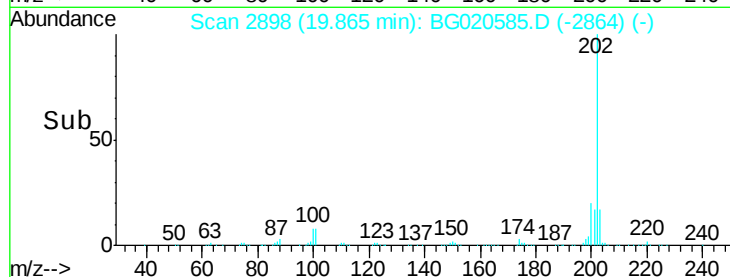


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): E

Time-->



#83

Benzo(a)anthracene

Concen: 7.37 ng/ul

RT: 21.70 min Scan# 3211

Delta R.T. 0.00 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

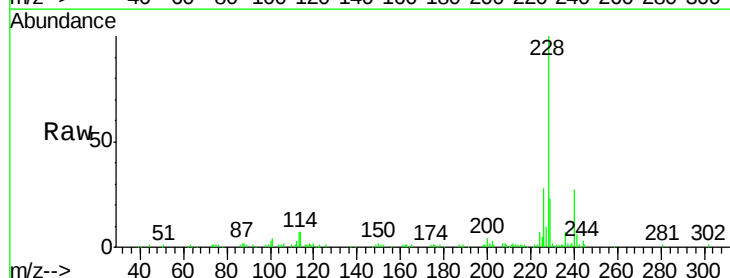
Tgt Ion:228 Resp: 73603

Ion Ratio Lower Upper

228 100

229 22.6 15.8 23.8

226 28.0 21.8 32.6

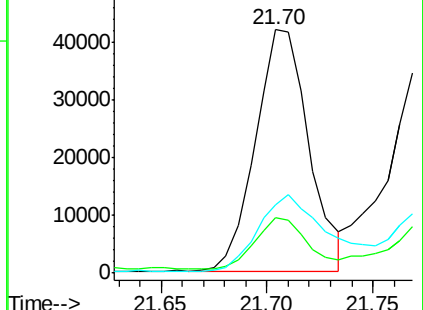
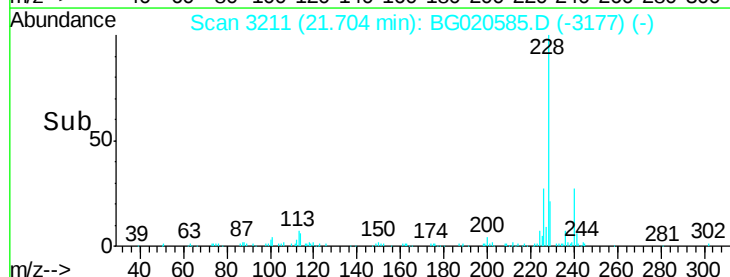


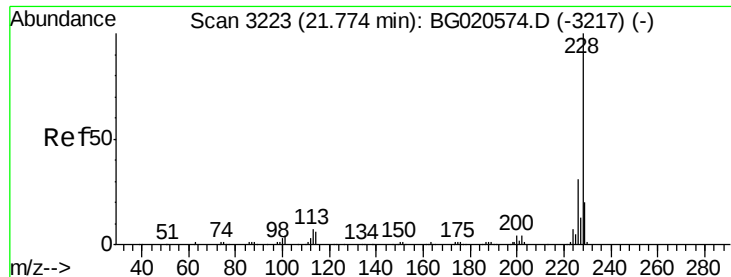
Abundance Ion 228.00 (227.70 to 228.70): E

Ion 229.00 (228.70 to 229.70): E

Ion 226.00 (225.70 to 226.70): E

Time-->

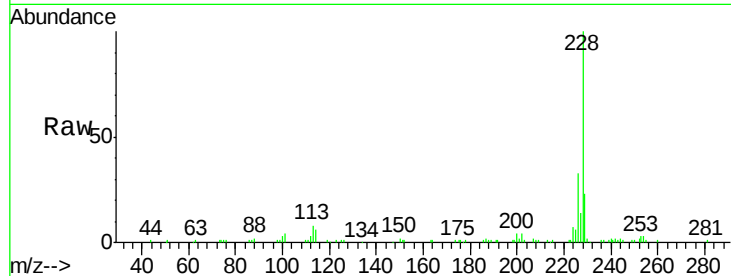




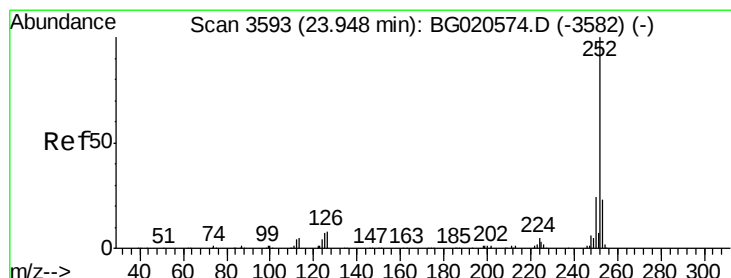
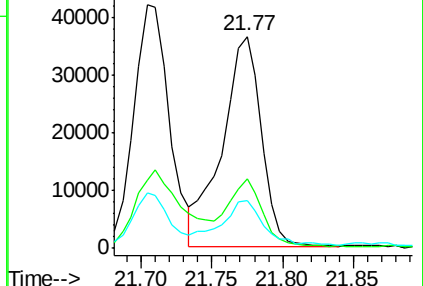
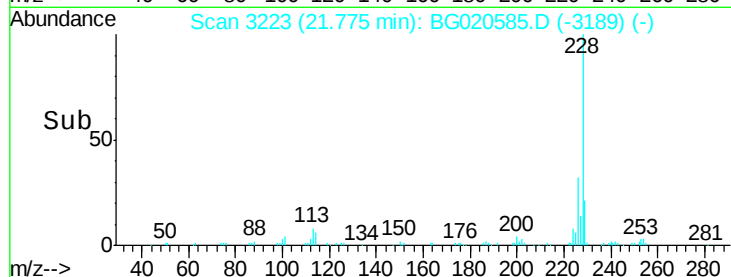
#85  
Chrysene  
Concen: 7.37 ng/ul  
RT: 21.77 min Scan# 3223  
Delta R.T. 0.00 min  
Lab File: BG020585.D  
Acq: 29 Dec 2015 4:59

Instrument :  
BNA\_G  
ClientSampled :  
G9D88DL

Tgt Ion:228 Resp: 70120  
Ion Ratio Lower Upper  
228 100  
226 32.6 23.9 35.9  
229 22.6 15.6 23.4

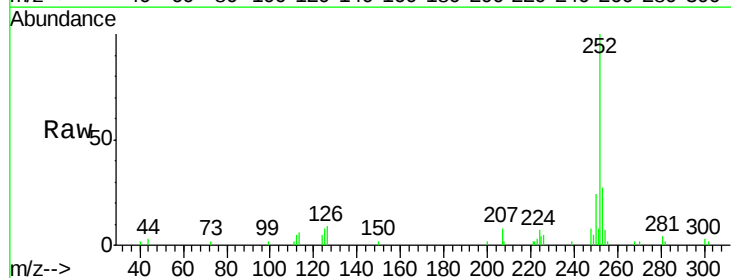


Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E

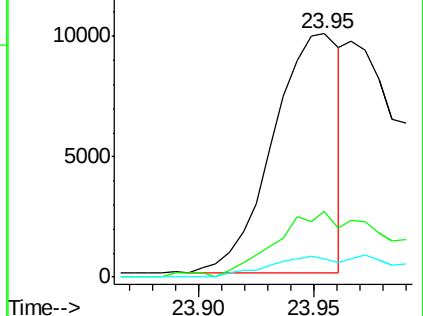
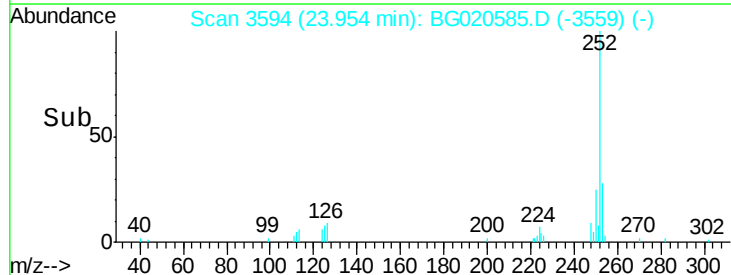


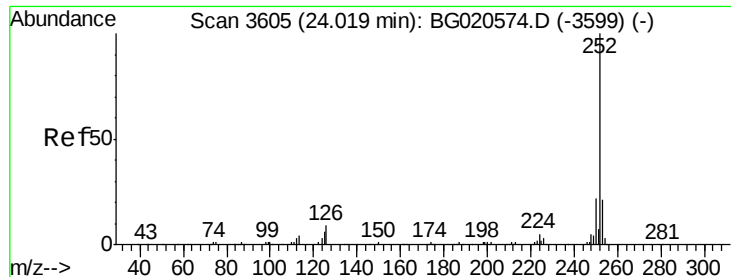
#88  
Benzo(b)fluoranthene  
Concen: 2.02 ng/ul  
RT: 23.95 min Scan# 3594  
Delta R.T. 0.01 min  
Lab File: BG020585.D  
Acq: 29 Dec 2015 4:59

Tgt Ion:252 Resp: 19995  
Ion Ratio Lower Upper  
252 100  
253 26.8 16.7 25.1#  
125 7.5 6.2 9.2



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(k)fluoranthene

Concen: 2.09 ng/ul

RT: 23.95 min Scan# 3594

Delta R.T. -0.06 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

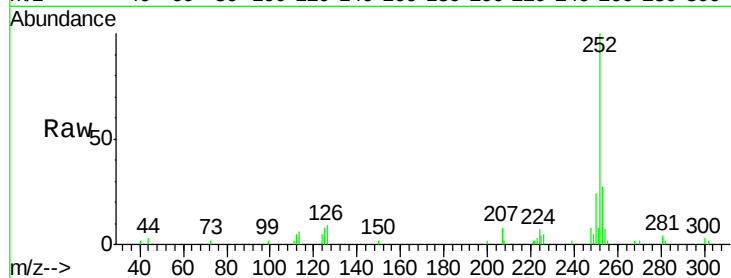
Instrument :

BNA\_G

ClientSampleId :

G9D88DL

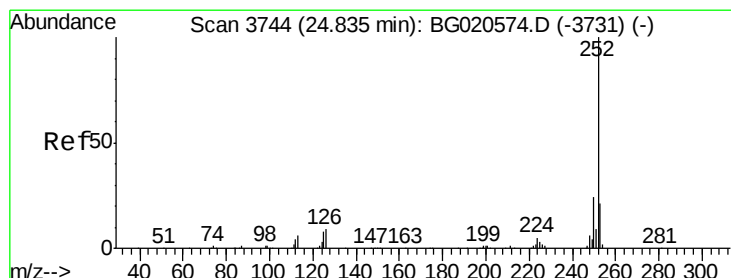
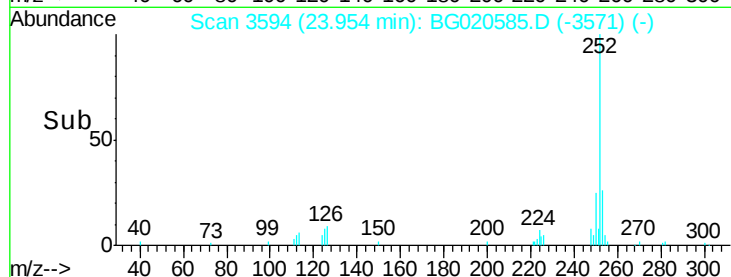
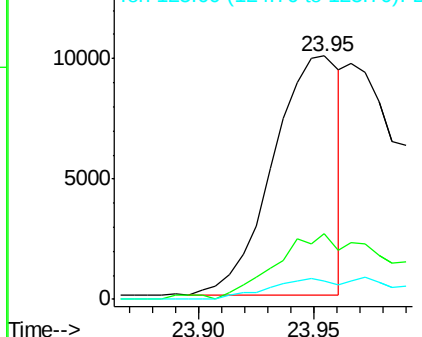
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 19995 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 26.8  | 17.9  | 26.9  |
| 125       | 7.5   | 5.8   | 8.6   |



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: 4.72 ng/ul

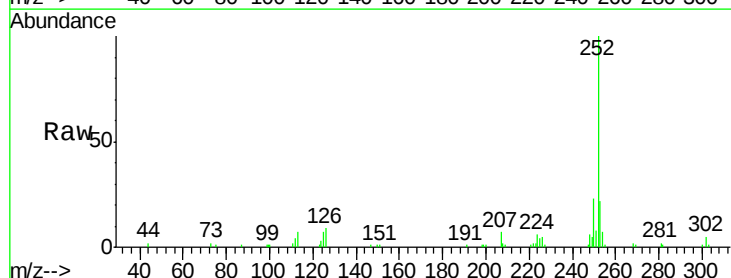
RT: 24.83 min Scan# 3743

Delta R.T. -0.01 min

Lab File: BG020585.D

Acq: 29 Dec 2015 4:59

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 44842 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 22.2  | 17.0  | 25.4  |
| 125       | 7.3   | 6.2   | 9.4   |



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

