

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG122515\  
 Data File : BG020542.D  
 Acq On : 26 Dec 2015 16:09  
 Operator : UM/SJ  
 Sample : G4802-21  
 Misc :  
 ALS Vial : 79 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D96

Quant Time: Dec 28 01:26:58 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG122415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Mon Dec 28 01:15:44 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.07  | 152  | 18101    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.89 | 136  | 78610    | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.71 | 164  | 55350    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.46 | 188  | 135696   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.73 | 240  | 168244   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 25.01 | 264  | 159678   | 20.00 | ng/ul | 0.02     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.45  | 96  | 1102   | 3.36  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 7.23  | 99  | 25567  | 17.60 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.40  | 67  | 15931  | 18.51 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.60  | 132 | 21548  | 19.34 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.78  | 113 | 22431  | 18.35 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.25  | 128 | 11699  | 18.99 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.97  | 143 | 13085  | 18.68 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.51 | 165 | 24457  | 18.04 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 11.03 | 131 | 24529  | 15.83 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 14.11 | 166 | 86935  | 19.06 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.41 | 160 | 102963 | 19.48 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.92 | 143 | 8944   | 11.76 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.71 | 176 | 81069  | 19.65 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.83 | 200 | 7224   | 8.03  | ng/ul | 0.01 |
| 71) Anthracene-d10             | 17.56 | 188 | 128032 | 20.14 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.84 | 212 | 149821 | 20.57 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 24.78 | 264 | 170132 | 21.08 | ng/ul | 0.02 |

## Target Compounds

|                            |       |     |        |              | Qvalue |
|----------------------------|-------|-----|--------|--------------|--------|
| 17) Hexachloroethane       | 9.18  | 117 | 712    | 1.45 ng/ul#  | 1      |
| 28) Naphthalene            | 10.94 | 128 | 59684  | 14.28 ng/ul  | 99     |
| 30) 4-Chloroaniline        | 10.94 | 127 | 7711   | 4.94 ng/ul#  | 6      |
| 35) 1-Methylnaphthalene    | 12.76 | 142 | 199127 | 67.79 ng/ul# | 95     |
| 41) 1,1'-Biphenyl          | 13.54 | 154 | 51200  | 11.99 ng/ul# | 95     |
| 45) Dimethylphthalate      | 14.15 | 163 | 26086  | 5.62 ng/ul   | 97     |
| 48) Acenaphthylene         | 14.44 | 152 | 39218  | 7.06 ng/ul#  | 94     |
| 50) Acenaphthene           | 14.78 | 153 | 112862 | 30.05 ng/ul  | 99     |
| 54) Dibenzofuran           | 15.11 | 168 | 18295  | 3.27 ng/ul   | 97     |
| 59) Fluorene               | 15.76 | 166 | 119129 | 26.31 ng/ul  | 100    |
| 61) 4-Nitroaniline         | 15.76 | 138 | 1519   | 1.55 ng/ul#  | 10     |
| 70) Phenanthrene           | 17.50 | 178 | 631322 | 83.62 ng/ul  | 99     |
| 72) Anthracene             | 17.59 | 178 | 146283 | 18.95 ng/ul  | 99     |
| 75) Carbazole              | 17.86 | 167 | 7301   | 1.12 ng/ul#  | 89     |
| 77) Fluoranthene           | 19.51 | 202 | 219454 | 23.11 ng/ul  | 98     |
| 80) Pyrene                 | 19.87 | 202 | 327098 | 34.38 ng/ul  | 98     |
| 83) Benzo(a)anthracene     | 21.78 | 228 | 112364 | 11.37 ng/ul  | 93     |
| 85) Chrysene               | 21.78 | 228 | 110674 | 11.76 ng/ul  | 96     |
| 88) Benzo(b)fluoranthene   | 23.97 | 252 | 87184  | 9.10 ng/ul   | 99     |
| 89) Benzo(k)fluoranthene   | 23.97 | 252 | 87184  | 9.41 ng/ul   | 98     |
| 91) Benzo(a)pyrene         | 24.85 | 252 | 105942 | 11.50 ng/ul  | 100    |
| 92) Indeno(1,2,3-cd)pyrene | 28.73 | 276 | 43504  | 3.94 ng/ul   | 94     |
| 94) Benzo(g,h,i)perylene   | 29.90 | 276 | 43839  | 4.84 ng/ul   | 98     |

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Misc :  
ALS Vial : 79 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
G9D96

Quant Time: Dec 28 01:26:58 2015  
Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG122415.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Mon Dec 28 01:15:44 2015  
Response via : Initial Calibration

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

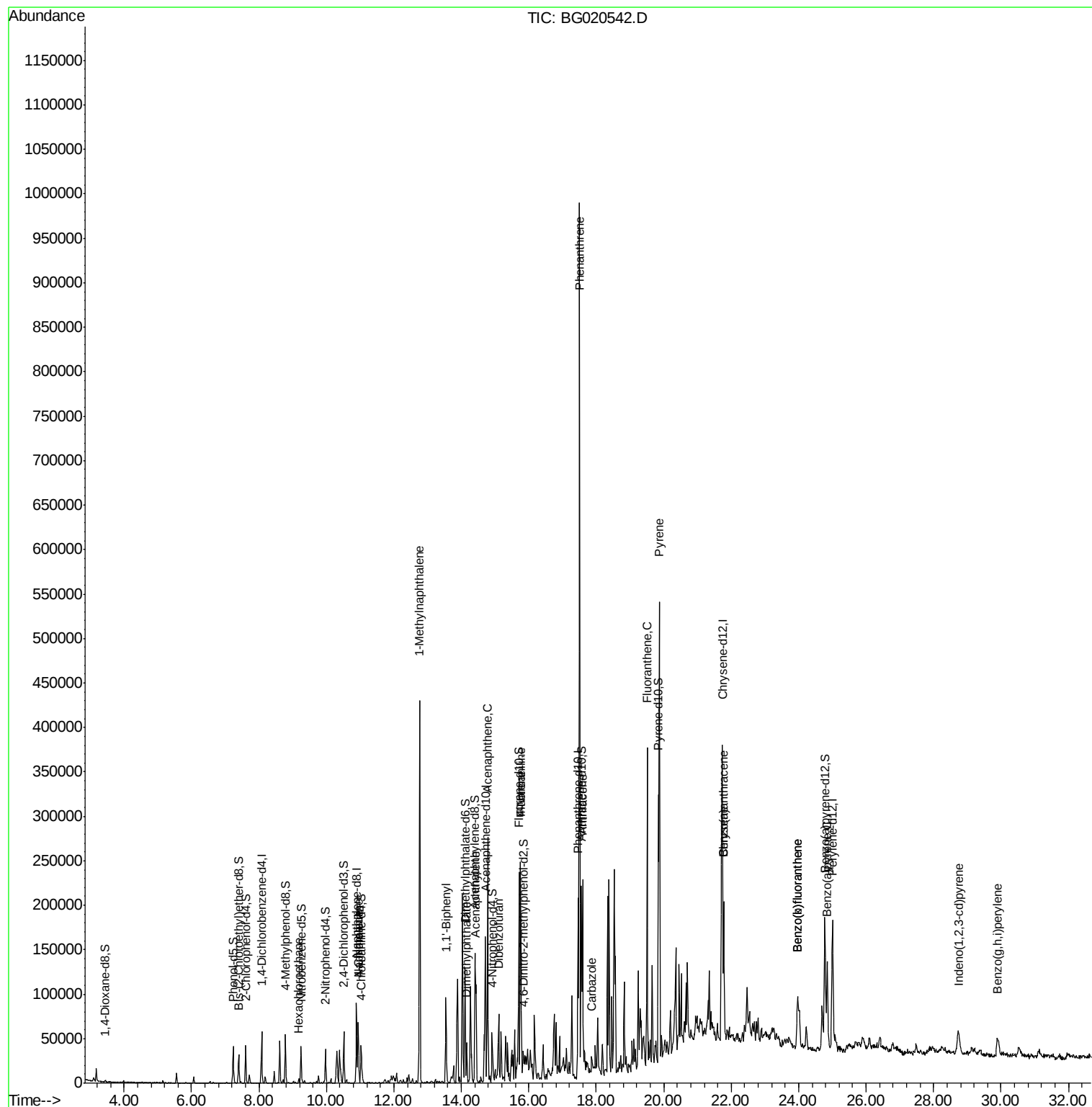
|       |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|
| ----- |  |  |  |  |  |  |
| ----- |  |  |  |  |  |  |

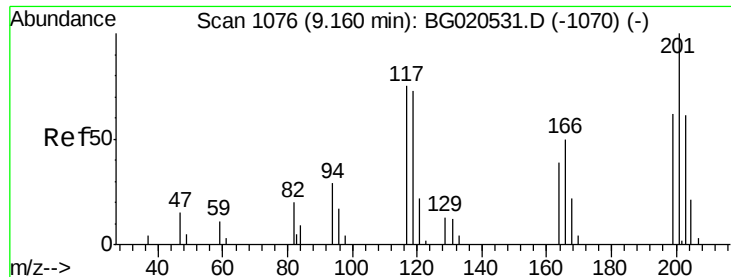
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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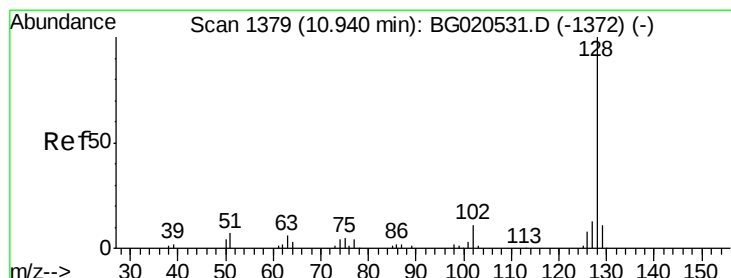
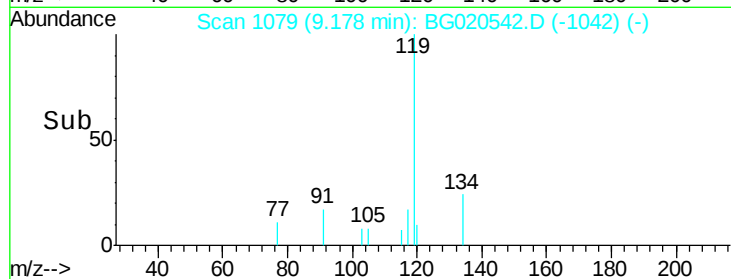
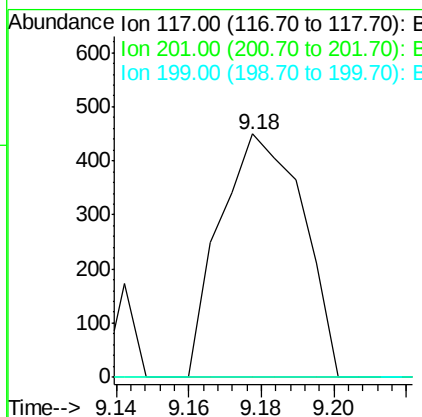
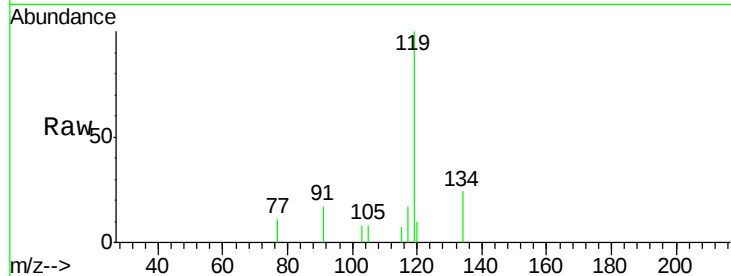




#17  
 Hexachloroethane  
 Concen: 1.45 ng/ul  
 RT: 9.18 min Scan# 1079  
 Delta R.T. 0.02 min  
 Lab File: BG020542.D  
 Acq: 26 Dec 2015 16:09

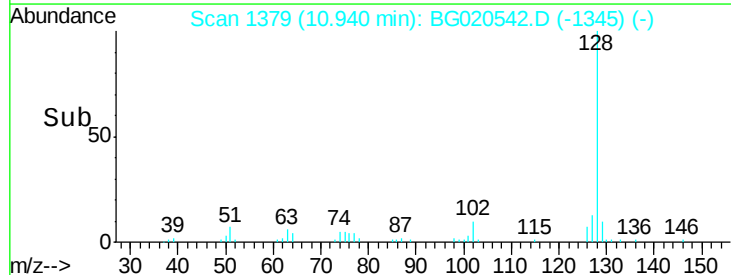
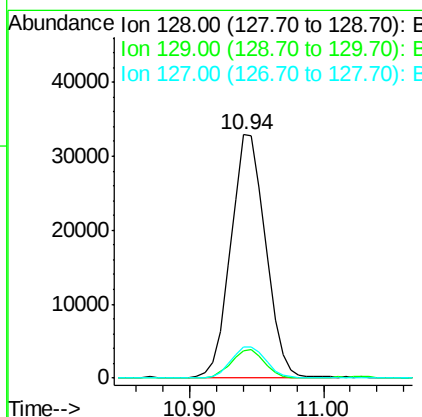
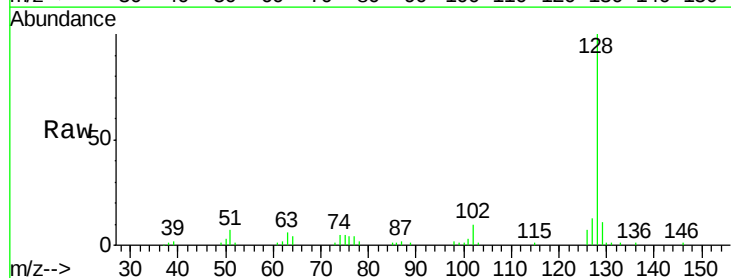
Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D96

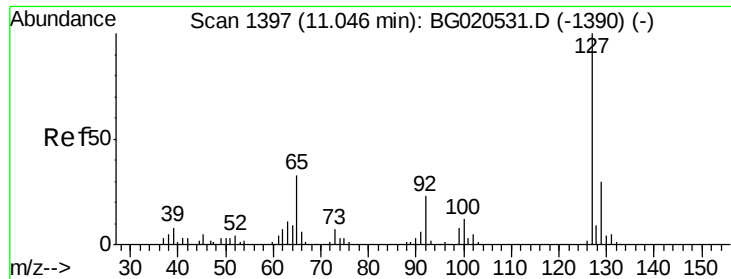
Tgt Ion:117 Resp: 712  
 Ion Ratio Lower Upper  
 117 100  
 201 0.0 102.7 154.1#  
 199 0.0 65.8 98.8#



#28  
 Naphthalene  
 Concen: 14.28 ng/ul  
 RT: 10.94 min Scan# 1379  
 Delta R.T. 0.00 min  
 Lab File: BG020542.D  
 Acq: 26 Dec 2015 16:09

Tgt Ion:128 Resp: 59684  
 Ion Ratio Lower Upper  
 128 100  
 129 11.0 8.6 12.8  
 127 13.0 10.1 15.1

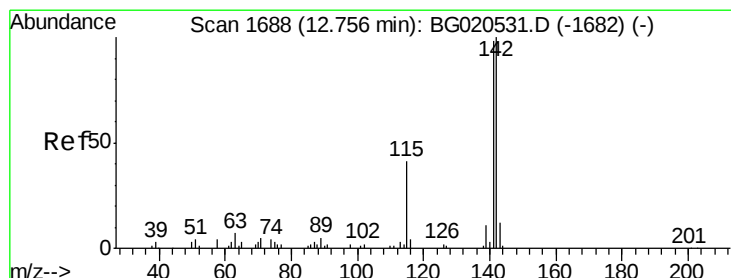
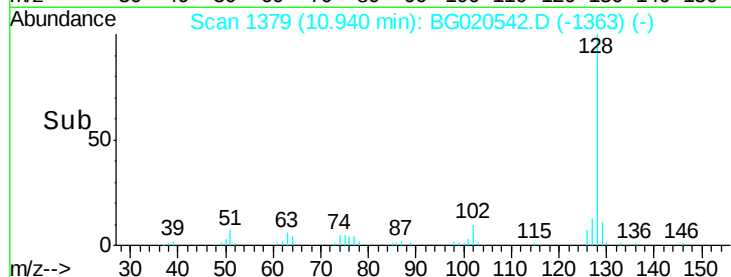
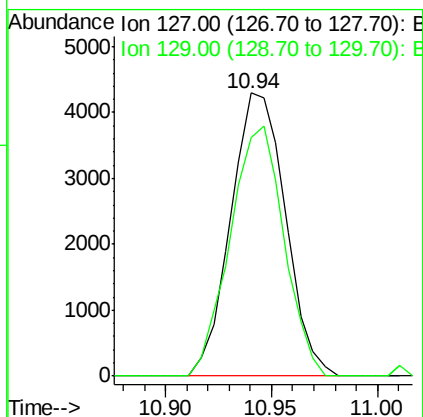
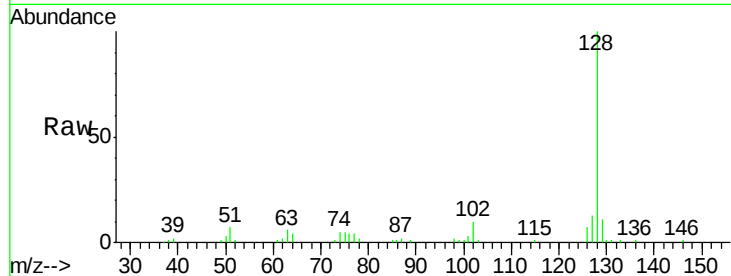




#30  
4-Chloroaniline  
Concen: 4.94 ng/ul  
RT: 10.94 min Scan# 1379  
Delta R.T. -0.11 min  
Lab File: BG020542.D  
Acq: 26 Dec 2015 16:09

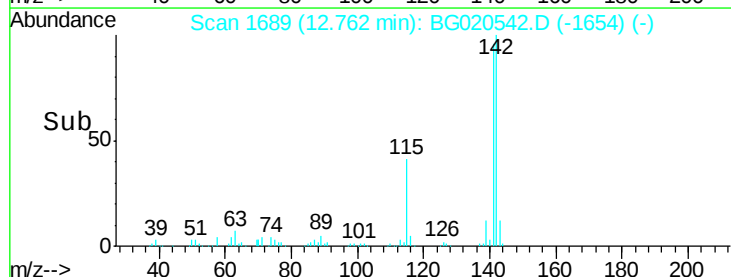
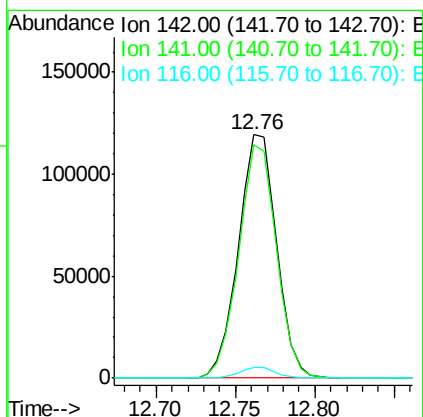
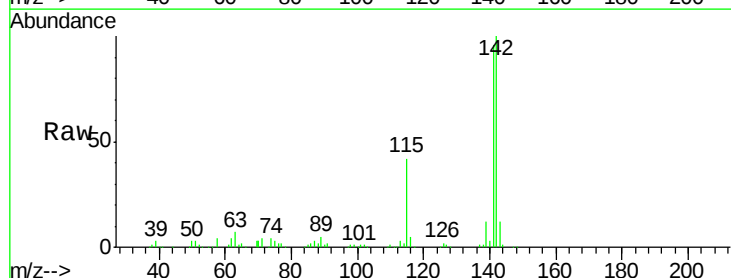
Instrument :  
BNA\_G  
ClientSampleId :  
G9D96

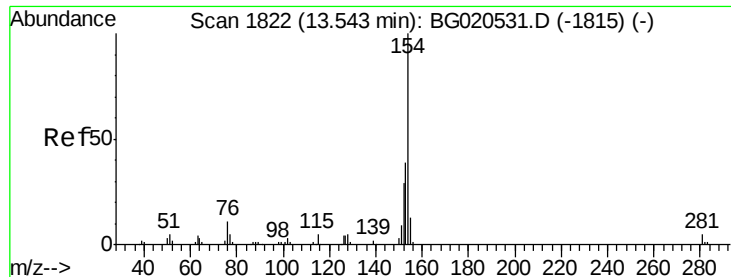
Tgt Ion:127 Resp: 7711  
Ion Ratio Lower Upper  
127 100  
129 84.4 25.7 38.5#



#35  
1-Methylnaphthalene  
Concen: 67.79 ng/ul  
RT: 12.76 min Scan# 1689  
Delta R.T. 0.01 min  
Lab File: BG020542.D  
Acq: 26 Dec 2015 16:09

Tgt Ion:142 Resp: 199127  
Ion Ratio Lower Upper  
142 100  
141 96.0 73.0 109.6  
116 4.6 3.0 4.6#

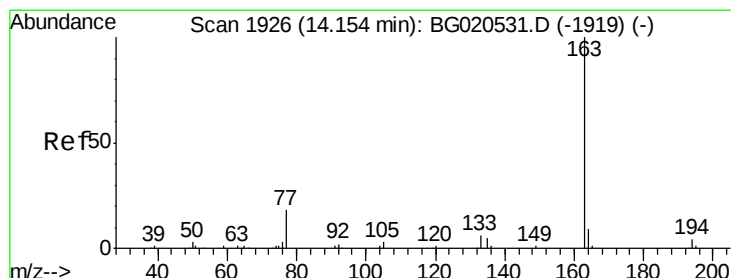
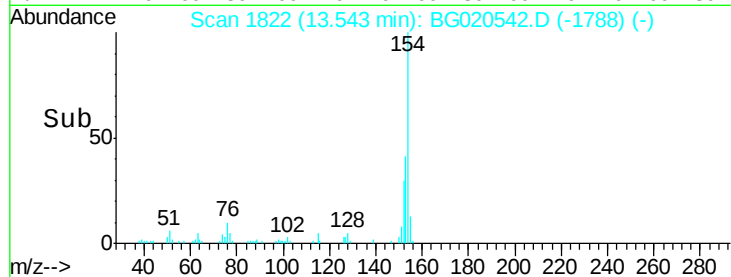
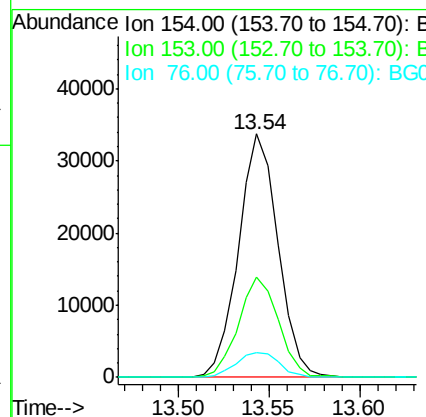
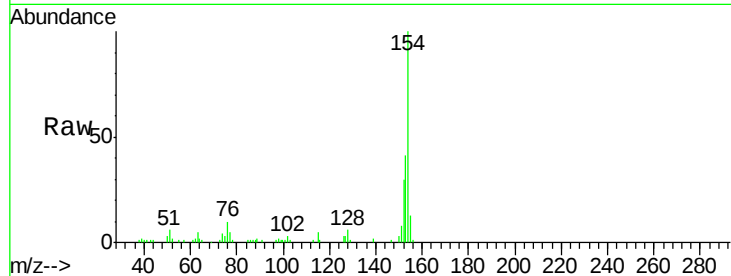




#41  
 1,1'-Biphenyl  
 Concen: 11.99 ng/ul  
 RT: 13.54 min Scan# 1822  
 Delta R.T. 0.00 min  
 Lab File: BG020542.D  
 Acq: 26 Dec 2015 16:09

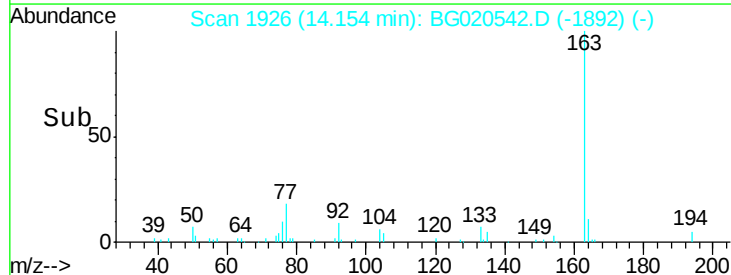
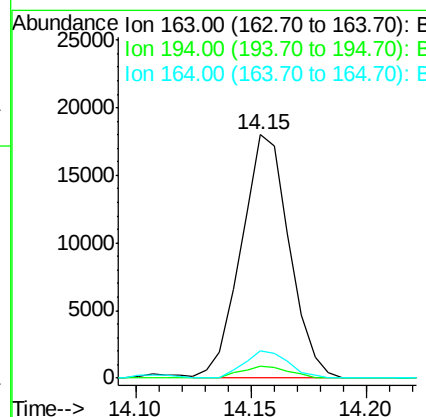
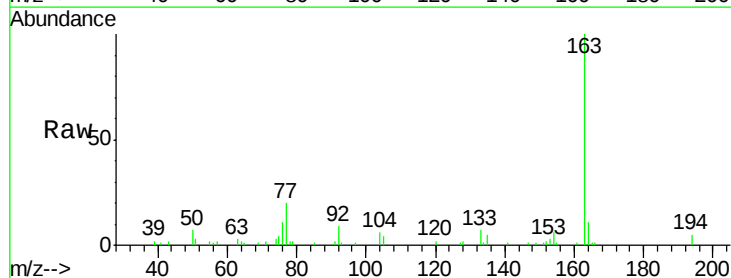
Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D96

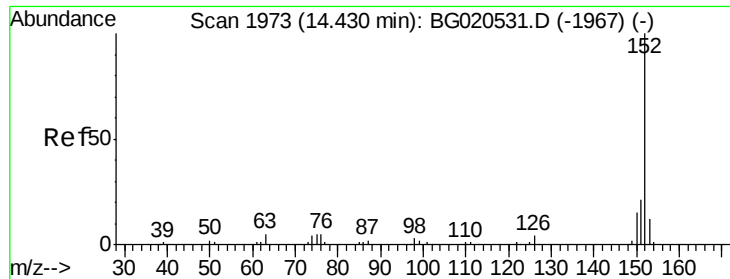
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 41.4  | 35.5  | 53.3  |
| 76      | 10.1  | 10.4  | 15.6  |



#45  
 Dimethylphthalate  
 Concen: 5.62 ng/ul  
 RT: 14.15 min Scan# 1926  
 Delta R.T. 0.00 min  
 Lab File: BG020542.D  
 Acq: 26 Dec 2015 16:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 163     | 100   |       |       |
| 194     | 5.1   | 3.5   | 5.3   |
| 164     | 11.0  | 7.7   | 11.5  |





#48

Acenaphthylene

Concen: 7.06 ng/ul

RT: 14.44 min Scan# 1974

Delta R.T. 0.01 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

Instrument :

BNA\_G

ClientSampleId :

G9D96

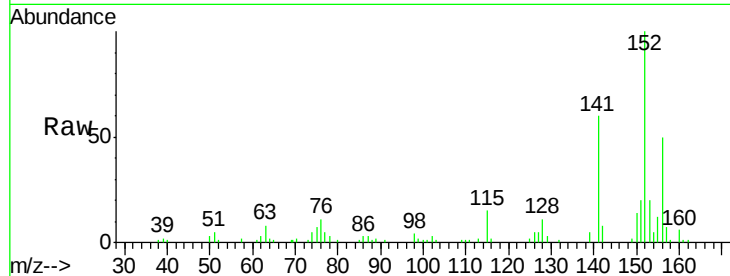
Tgt Ion:152 Resp: 39218

Ion Ratio Lower Upper

152 100

151 20.5 16.4 24.6

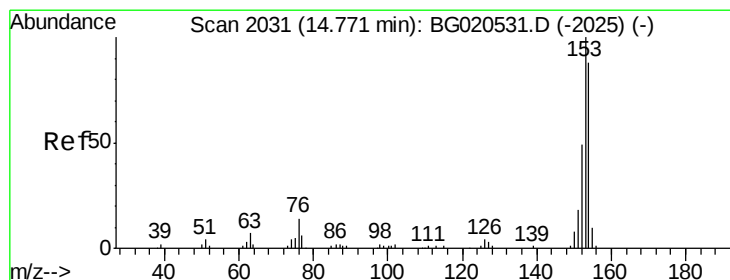
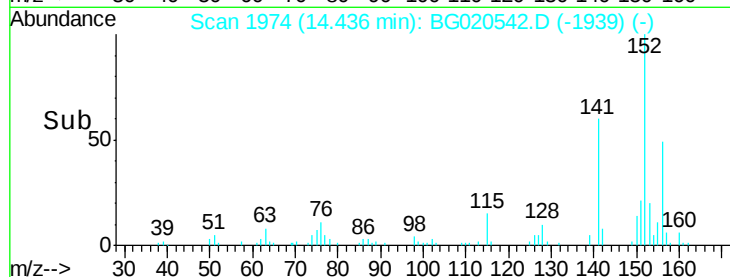
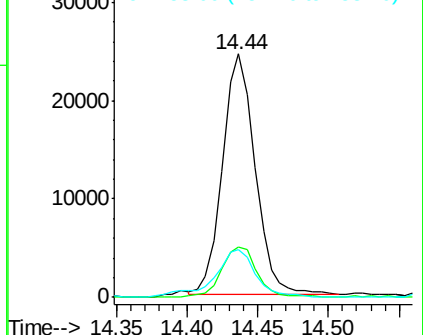
153 19.5 10.4 15.6#



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



#50

Acenaphthene

Concen: 30.05 ng/ul

RT: 14.78 min Scan# 2032

Delta R.T. 0.01 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

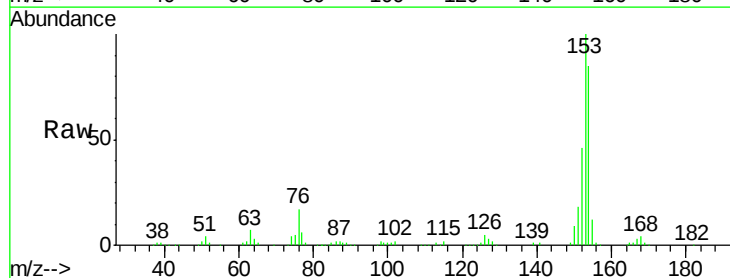
Tgt Ion:153 Resp: 112862

Ion Ratio Lower Upper

153 100

152 46.1 37.6 56.4

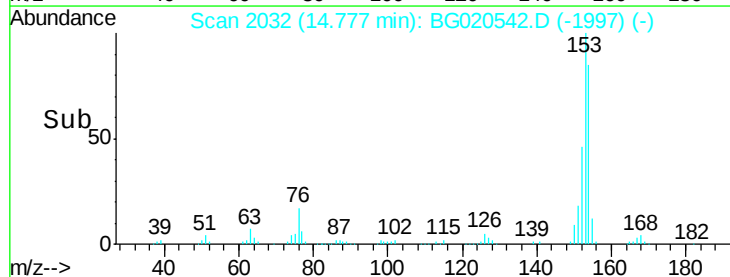
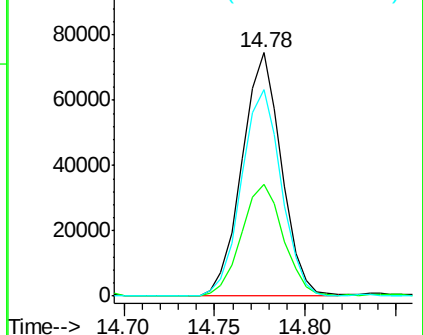
154 84.7 67.9 101.9

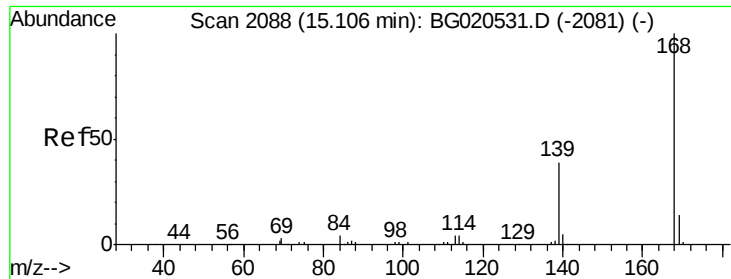


Abundance Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E





#54

Dibenzenofuran

Concen: 3.27 ng/ul

RT: 15.11 min Scan# 2088

Delta R.T. 0.00 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

Instrument :

BNA\_G

ClientSampleId :

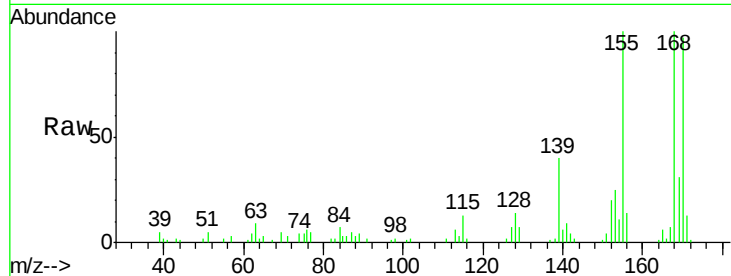
G9D96

Tgt Ion:168 Resp: 18295

Ion Ratio Lower Upper

168 100

139 39.8 30.5 45.7



Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E

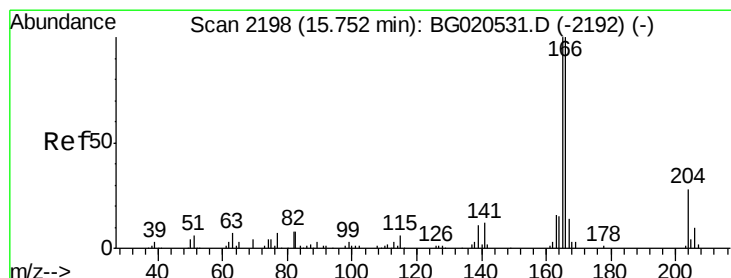
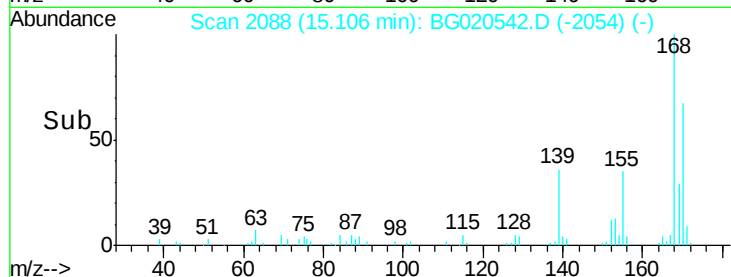
15.11

10000

5000

0

Time-->



#59

Fluorene

Concen: 26.31 ng/ul

RT: 15.76 min Scan# 2199

Delta R.T. 0.01 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

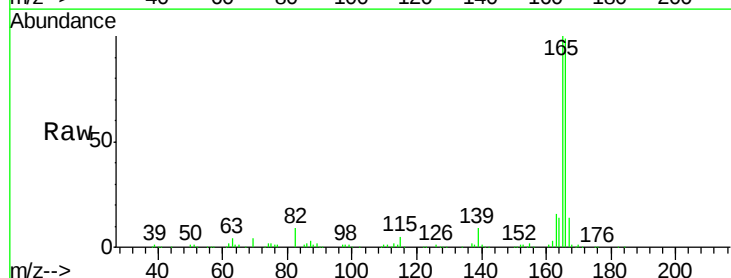
Tgt Ion:166 Resp: 119129

Ion Ratio Lower Upper

166 100

165 101.4 81.4 122.0

167 14.2 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

15.76

100000

80000

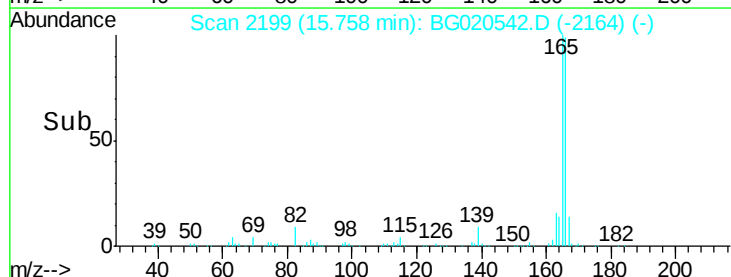
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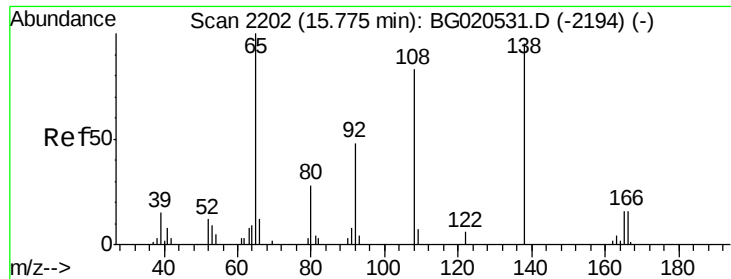
40000

20000

0

Time-->

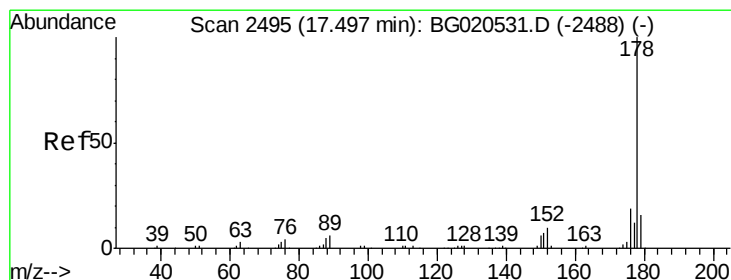
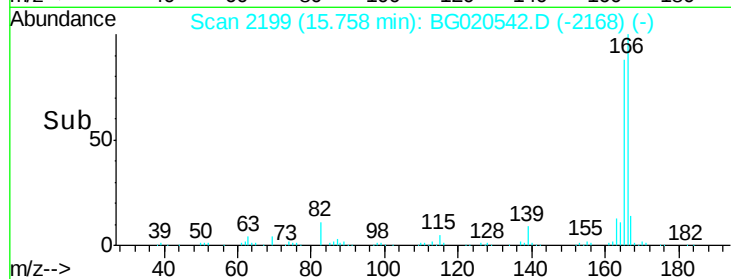
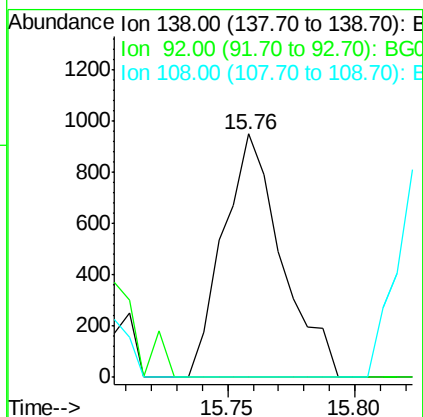
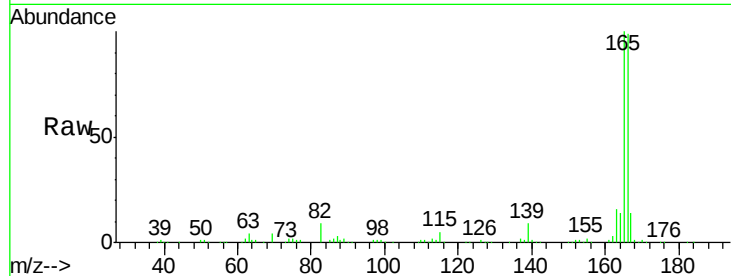




#61  
 4-Nitroaniline  
 Concen: 1.55 ng/ul  
 RT: 15.76 min Scan# 2199  
 Delta R.T. -0.02 min  
 Lab File: BG020542.D  
 Acq: 26 Dec 2015 16:09

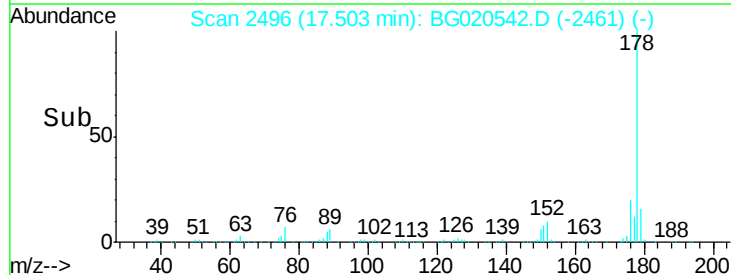
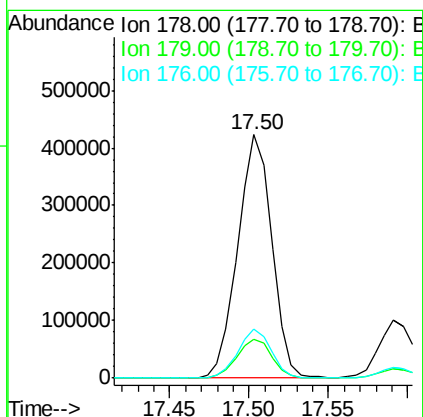
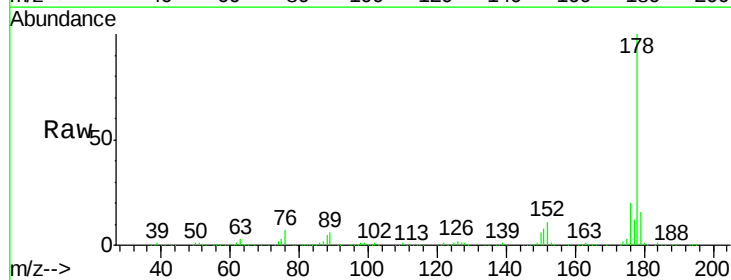
Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D96

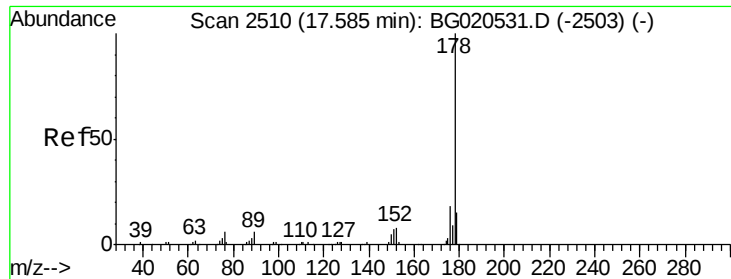
Tgt Ion:138 Resp: 1519  
 Ion Ratio Lower Upper  
 138 100  
 92 0.0 45.2 67.8#  
 108 0.0 75.4 113.0#



#70  
 Phenanthrene  
 Concen: 83.62 ng/ul  
 RT: 17.50 min Scan# 2496  
 Delta R.T. 0.01 min  
 Lab File: BG020542.D  
 Acq: 26 Dec 2015 16:09

Tgt Ion:178 Resp: 631322  
 Ion Ratio Lower Upper  
 178 100  
 179 16.0 12.9 19.3  
 176 19.9 15.3 22.9





#72

Anthracene

Concen: 18.95 ng/ul

RT: 17.59 min Scan# 2511

Delta R.T. 0.01 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

Instrument :

BNA\_G

ClientSampleId :

G9D96

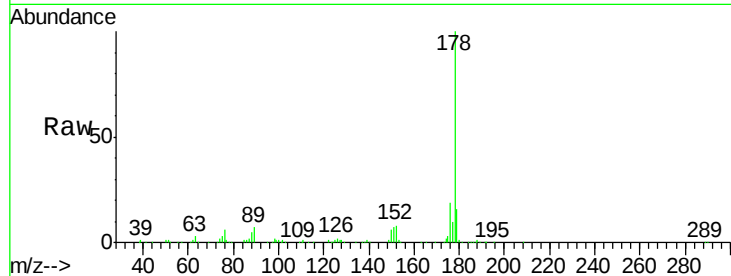
Tgt Ion:178 Resp: 146283

Ion Ratio Lower Upper

178 100

179 15.6 12.3 18.5

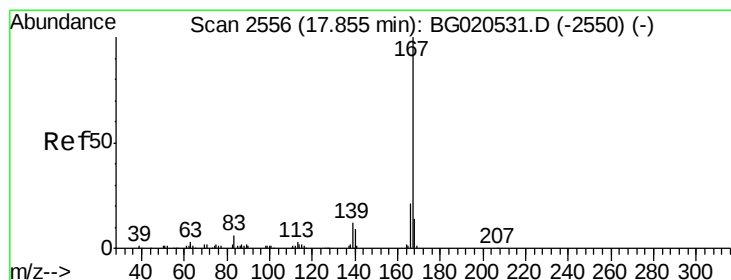
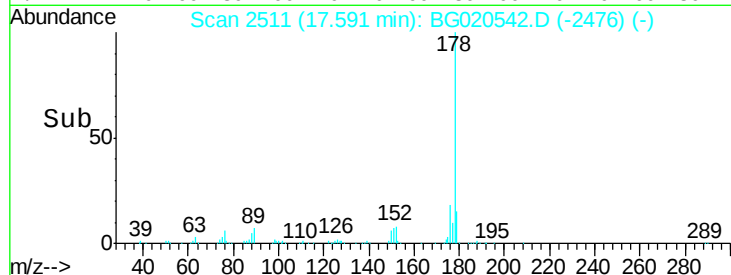
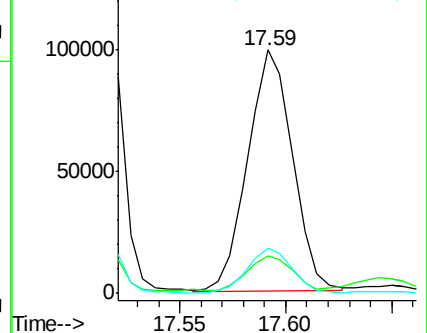
176 18.6 14.3 21.5



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



#75

Carbazole

Concen: 1.12 ng/ul

RT: 17.86 min Scan# 2557

Delta R.T. 0.01 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

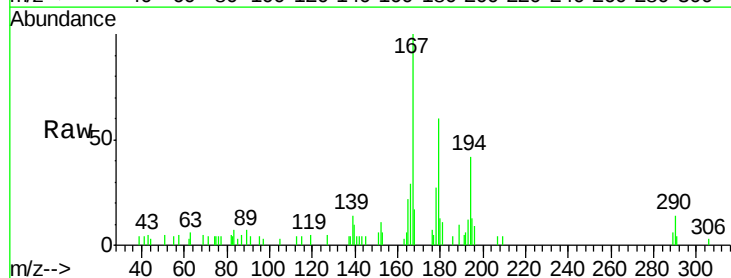
Tgt Ion:167 Resp: 7301

Ion Ratio Lower Upper

167 100

166 28.8 17.0 25.6#

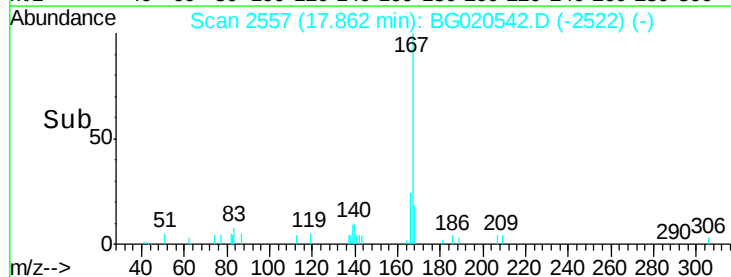
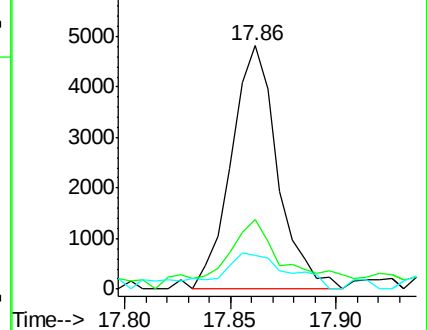
139 14.0 10.1 15.1

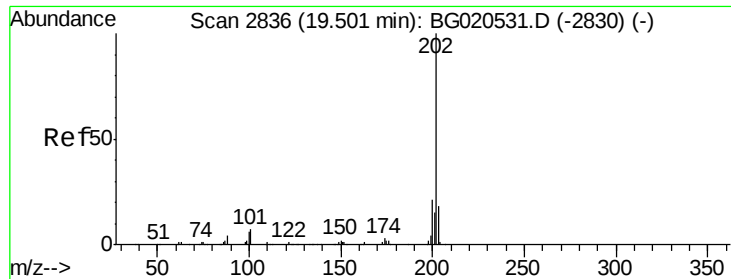


Abundance Ion 167.00 (166.70 to 167.70): E

Ion 166.00 (165.70 to 166.70): E

Ion 139.00 (138.70 to 139.70): E





#77

Fluoranthene

Concen: 23.11 ng/ul

RT: 19.51 min Scan# 2837

Delta R.T. 0.01 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

Instrument :

BNA\_G

ClientSampleId :

G9D96

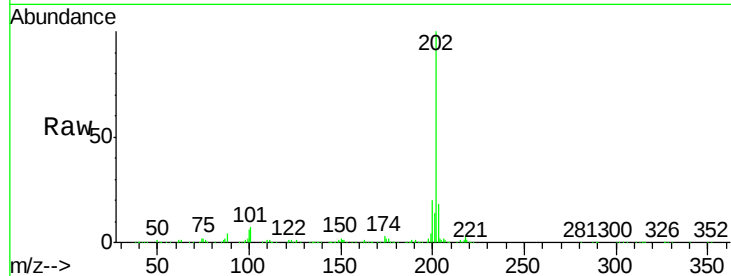
Tgt Ion:202 Resp: 219454

Ion Ratio Lower Upper

202 100

101 7.1 6.2 9.4

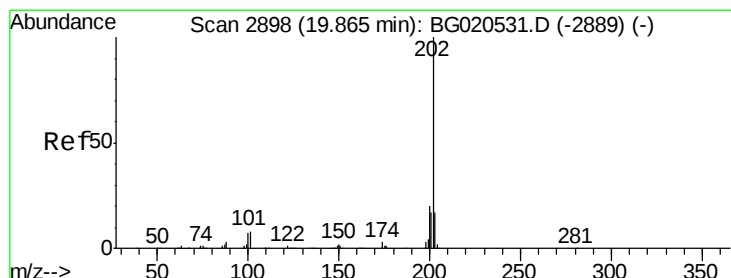
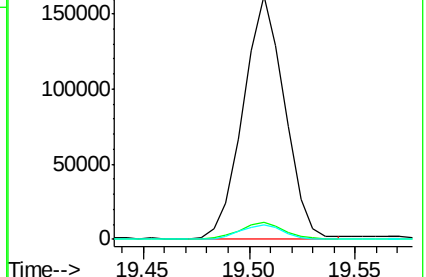
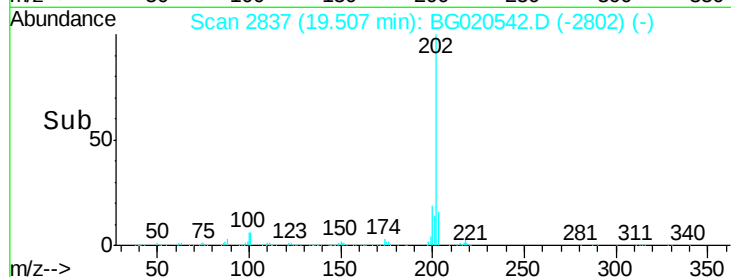
100 5.7 5.1 7.7



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: 34.38 ng/ul

RT: 19.87 min Scan# 2899

Delta R.T. 0.01 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

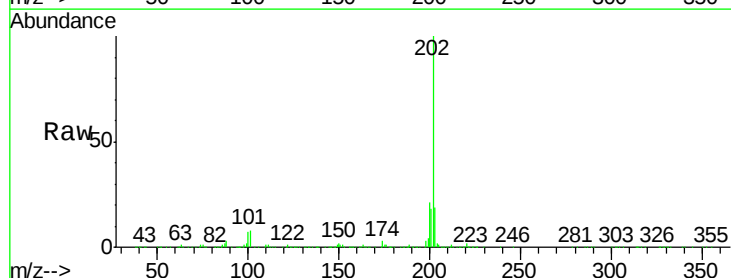
Tgt Ion:202 Resp: 327098

Ion Ratio Lower Upper

202 100

101 8.5 7.0 10.4

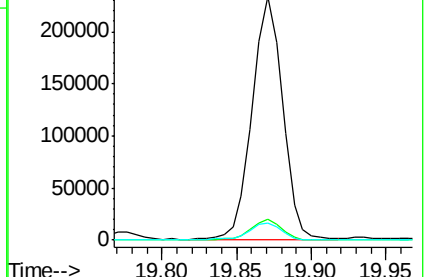
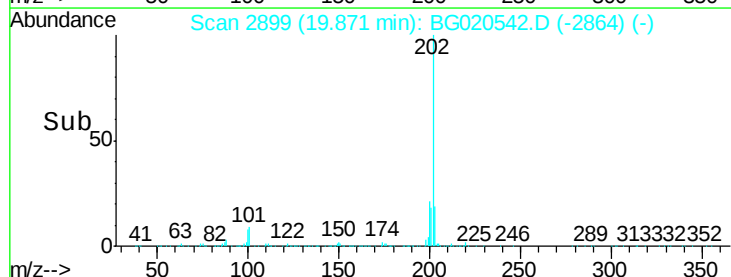
100 7.1 6.4 9.6

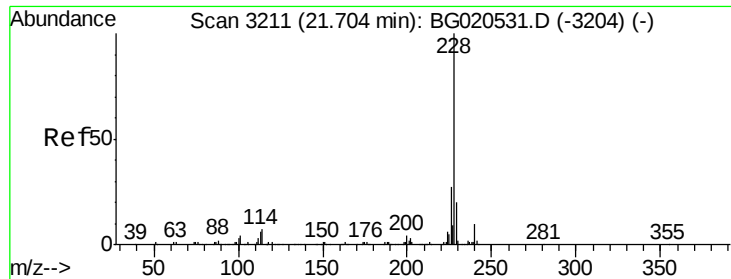


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): B

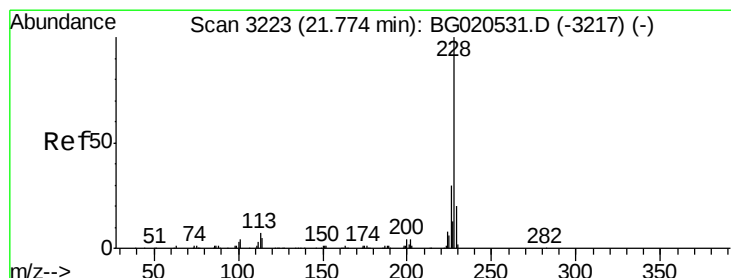
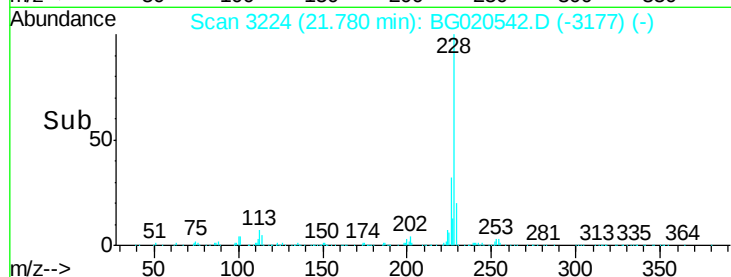
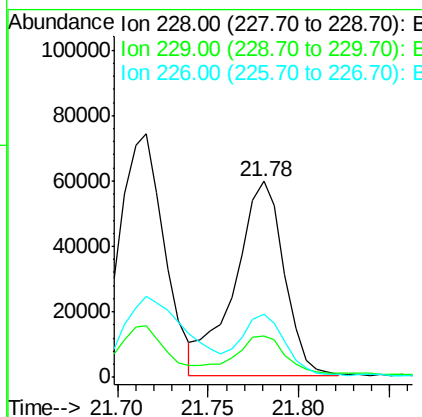
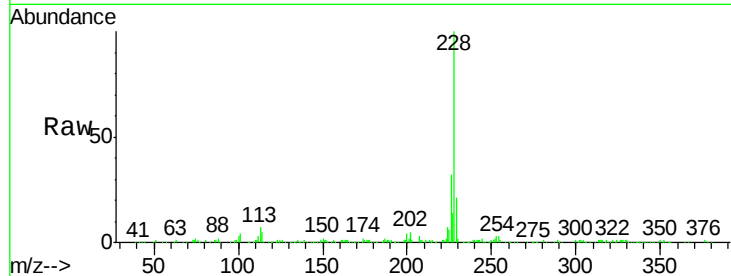




#83  
Benzo(a)anthracene  
Concen: 11.37 ng/ul  
RT: 21.78 min Scan# 3224  
Delta R.T. 0.08 min  
Lab File: BG020542.D  
Acq: 26 Dec 2015 16:09

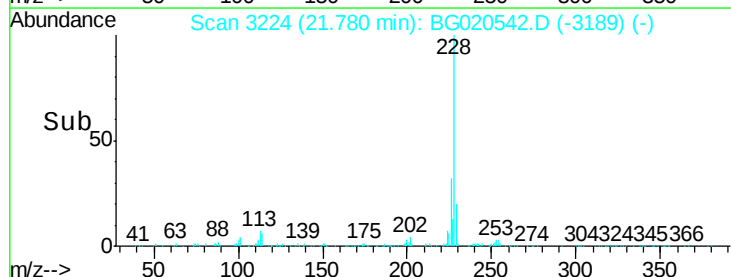
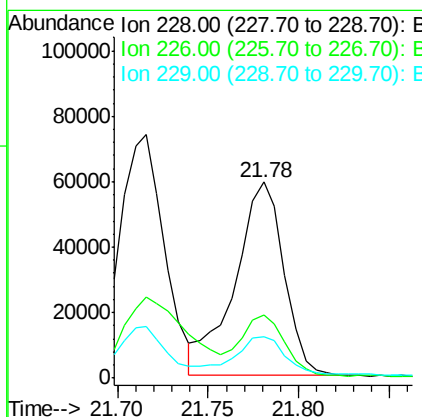
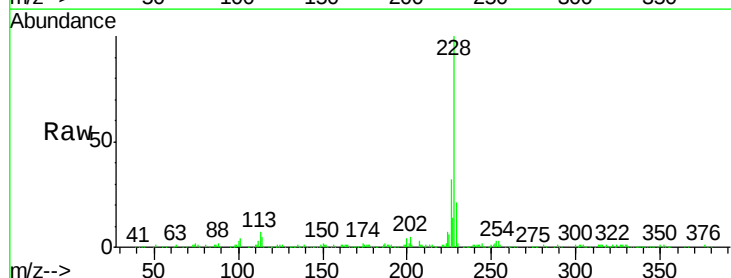
Instrument :  
BNA\_G  
ClientSampleId :  
G9D96

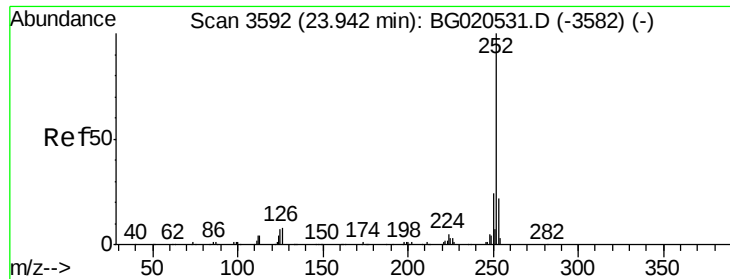
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 228   | Resp: | 112364 |
| Ion      | Ratio | Lower | Upper  |
| 228      | 100   |       |        |
| 229      | 20.8  | 15.8  | 23.8   |
| 226      | 32.4  | 21.8  | 32.6   |



#85  
Chrysene  
Concen: 11.76 ng/ul  
RT: 21.78 min Scan# 3224  
Delta R.T. 0.01 min  
Lab File: BG020542.D  
Acq: 26 Dec 2015 16:09

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 228   | Resp: | 110674 |
| Ion      | Ratio | Lower | Upper  |
| 228      | 100   |       |        |
| 226      | 32.4  | 23.9  | 35.9   |
| 229      | 20.8  | 15.6  | 23.4   |





#88

Benzo(b)fluoranthene

Concen: 9.10 ng/ul

RT: 23.97 min Scan# 3596

Delta R.T. 0.02 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

Instrument :

BNA\_G

ClientSampleId :

G9D96

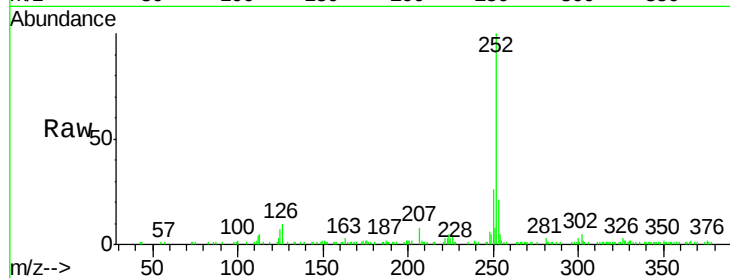
Tgt Ion:252 Resp: 87184

Ion Ratio Lower Upper

252 100

253 21.1 16.7 25.1

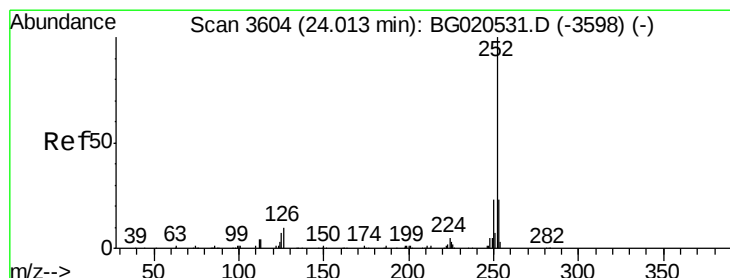
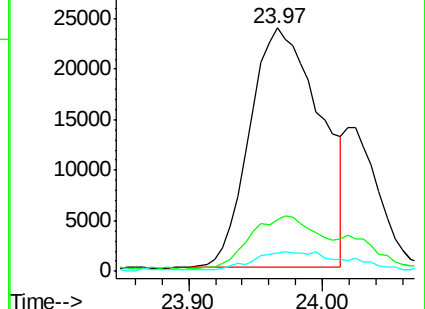
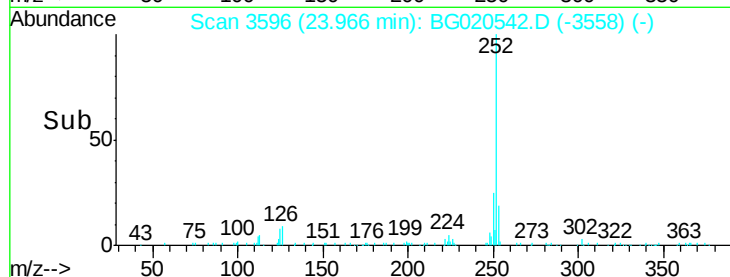
125 7.4 6.2 9.2



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: 9.41 ng/ul

RT: 23.97 min Scan# 3596

Delta R.T. -0.05 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

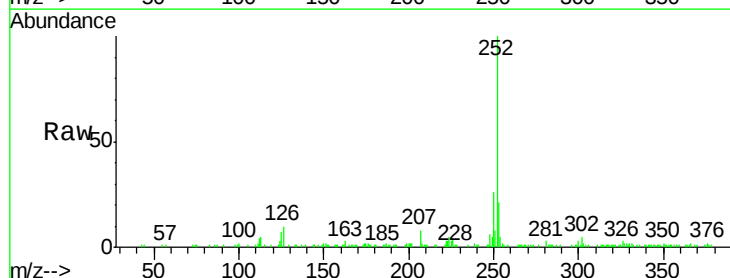
Tgt Ion:252 Resp: 87184

Ion Ratio Lower Upper

252 100

253 21.1 17.9 26.9

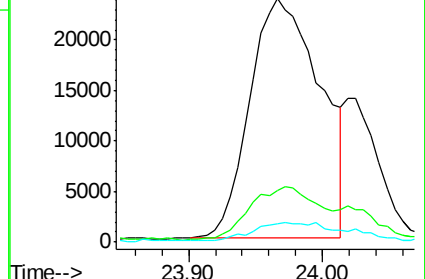
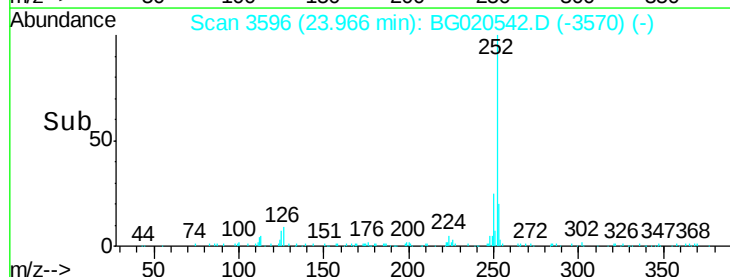
125 7.4 5.8 8.6

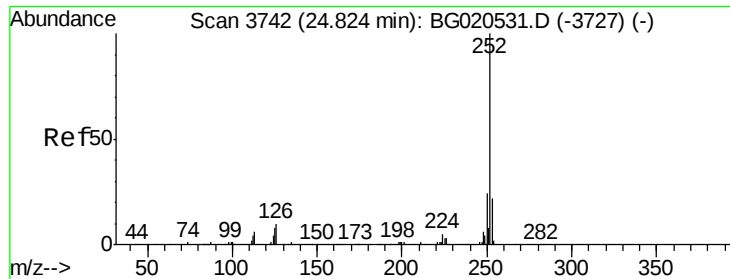


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#91

Benzo(a)pyrene

Concen: 11.50 ng/ul

RT: 24.85 min Scan# 3746

Delta R.T. 0.02 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

Instrument :

BNA\_G

ClientSampleId :

G9D96

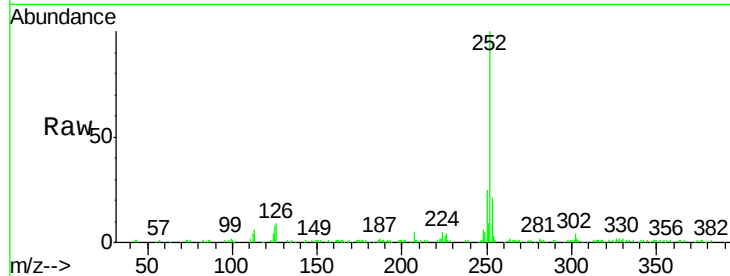
Tgt Ion:252 Resp: 105942

Ion Ratio Lower Upper

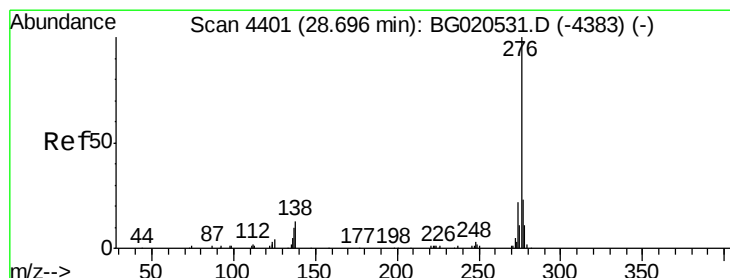
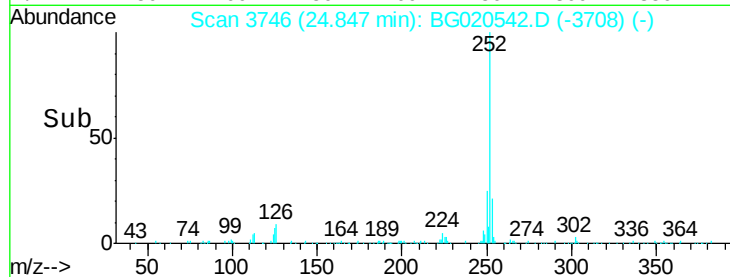
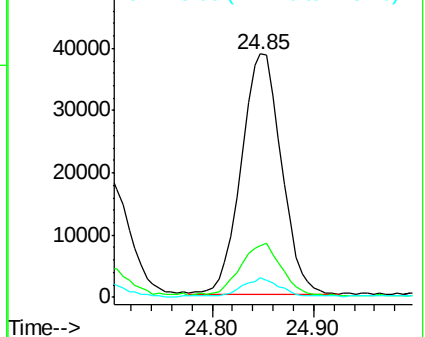
252 100

253 21.4 17.0 25.4

125 7.8 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



#92

Indeno(1,2,3-cd)pyrene

Concen: 3.94 ng/ul

RT: 28.73 min Scan# 4407

Delta R.T. 0.04 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

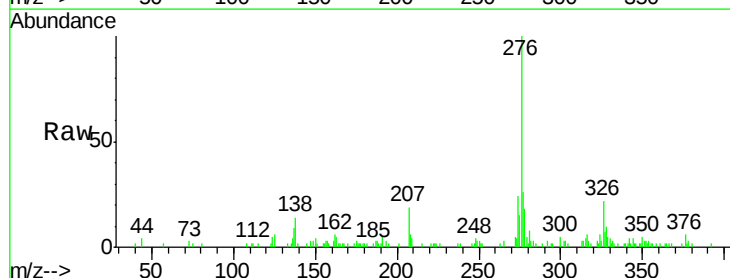
Tgt Ion:276 Resp: 43504

Ion Ratio Lower Upper

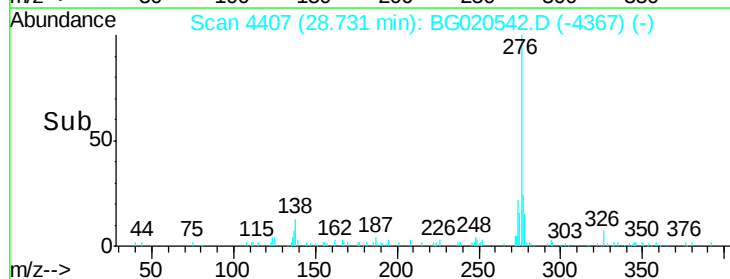
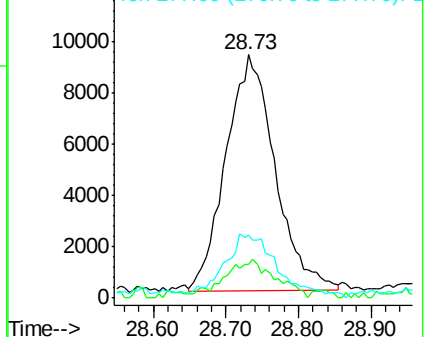
276 100

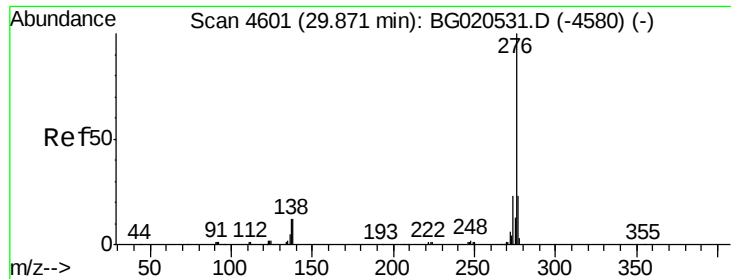
138 13.9 11.4 17.0

277 25.9 17.4 26.0



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





#94

Benzo(g,h,i)perylene

Concen: 4.84 ng/ul

RT: 29.90 min Scan# 4606

Delta R.T. 0.03 min

Lab File: BG020542.D

Acq: 26 Dec 2015 16:09

Instrument :

BNA\_G

ClientSampleId :

G9D96

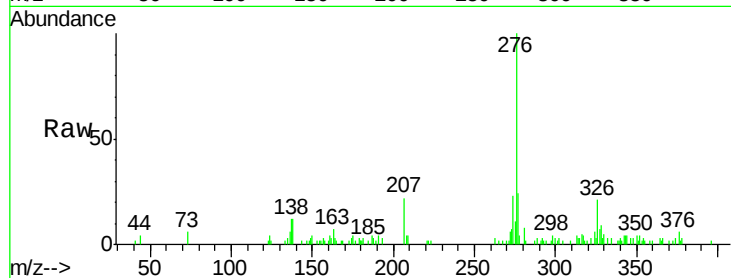
Tgt Ion: 276 Resp: 43839

Ion Ratio Lower Upper

276 100

138 12.2 10.8 16.2

277 23.8 19.9 29.9



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

