

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE080316\  
 Data File : BE092159.D  
 Acq On : 3 Aug 2016 23:54  
 Operator : UM/SJ  
 Sample : H4176-22  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 GW-22-14.5-15.0

Quant Time: Aug 04 03:58:16 2016  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\8270-PAH-BE080216.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Aug 02 16:59:37 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.17  | 152  | 13355    | 5.00 | ng    | 0.00     |
| 6) Naphthalene-d8         | 10.98 | 136  | 60559    | 5.00 | ng    | -0.01    |
| 10) Acenaphthene-d10      | 14.83 | 164  | 34961    | 5.00 | ng    | -0.02    |
| 16) Phenanthrene-d10      | 17.56 | 188  | 73141    | 5.00 | ng    | -0.02    |
| 22) Chrysene-d12          | 21.75 | 240  | 92509    | 5.00 | ng    | 0.00     |
| 28) Perylene-d12          | 24.14 | 264  | 91044    | 5.00 | ng    | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 4) 2-Fluorophenol           | 5.70  | 112  | 207949   | 60.63  | ng    | 0.00     |
| 5) Phenol-d6                | 7.34  | 99   | 180881   | 39.58  | ng    | -0.01    |
| 7) Nitrobenzene-d5          | 9.34  | 82   | 375943   | 78.67  | ng    | -0.01    |
| 11) 2,4,6-Tribromophenol    | 16.33 | 330  | 144273   | 127.09 | ng    | 0.00     |
| 12) 2-Fluorobiphenyl        | 13.46 | 172  | 696366   | 62.86  | ng    | 0.00     |
| 24) Terphenyl-d14           | 20.21 | 244  | 766572   | 57.70  | ng    | 0.00     |

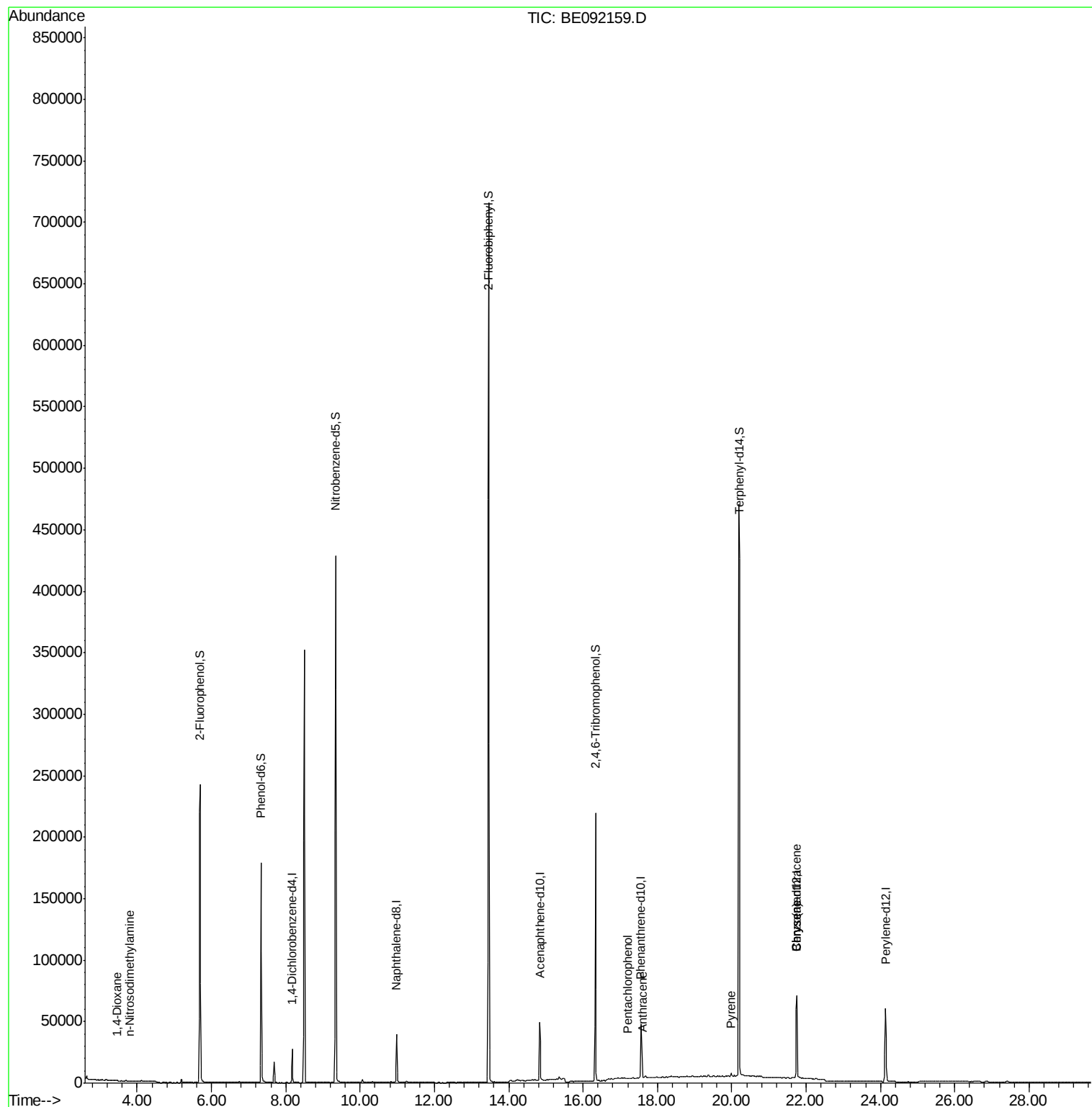
| Target Compounds          | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|---------------------------|-------|------|----------|-----------|-------|--------|
| 2) 1,4-Dioxane            | 3.44  | 88   | 125      | 0.07      | ng    | # 1    |
| 3) n-Nitrosodimethylamine | 3.81  | 42   | 76       | 0.12      | ng    | # 54   |
| 8) Naphthalene            | 11.03 | 128  | 113      | Below Cal |       | # 1    |
| 18) Pentachlorophenol     | 17.19 | 266  | 171      | 0.32      | ng    | # 53   |
| 19) Phenanthrene          | 17.60 | 178  | 415      | Below Cal |       | # 60   |
| 20) Anthracene            | 17.60 | 178  | 415      | 0.02      | ng    | # 66   |
| 23) Pyrene                | 19.99 | 202  | 3693     | 0.04      | ng    | # 43   |
| 25) Benzo(a)anthracene    | 21.75 | 228  | 4970     | 0.05      | ng    | # 24   |
| 26) Chrysene              | 21.75 | 228  | 4958     | 0.05      | ng    | # 27   |
| 30) Benzo(k)fluoranthene  | 23.40 | 252  | 136      | Below Cal |       | # 1    |

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

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 8.17 min Scan# 479

Delta R.T. -0.00 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

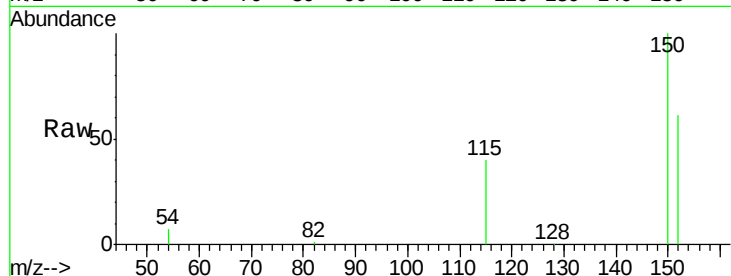
Tgt Ion:152 Resp: 13355

Ion Ratio Lower Upper

152 100

150 164.9 106.0 159.0#

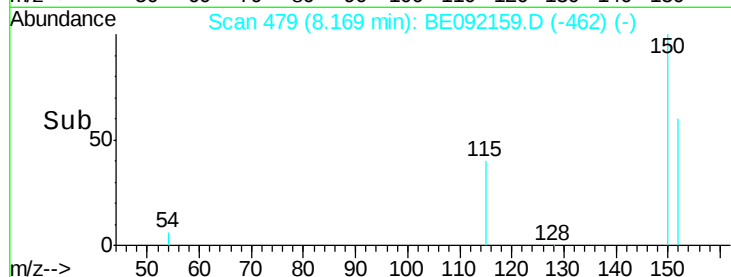
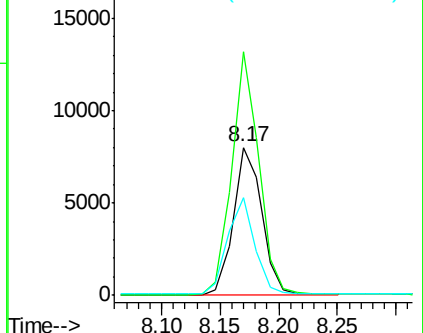
115 66.3 36.9 55.3#



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



#2

1,4-Dioxane

Concen: 0.07 ng

RT: 3.44 min Scan# 74

Delta R.T. -0.00 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

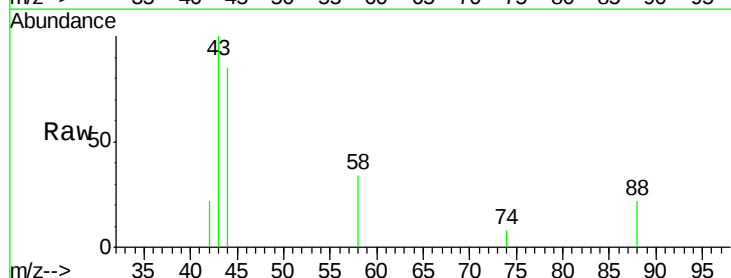
Tgt Ion: 88 Resp: 125

Ion Ratio Lower Upper

88 100

58 124.8 62.1 93.1#

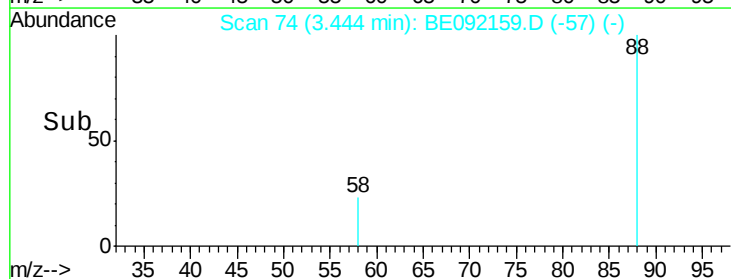
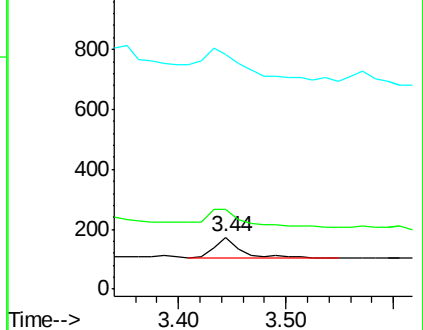
43 208.8 27.2 40.8#

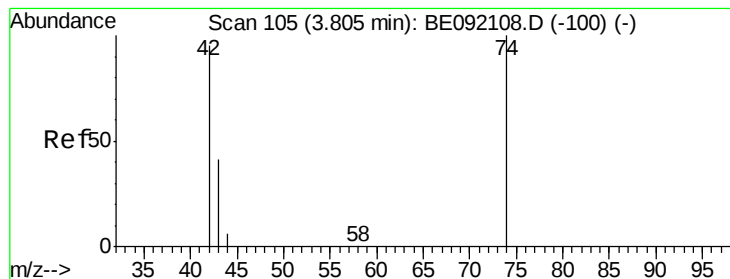


Abundance Ion 88.00 (87.70 to 88.70): BE0

Ion 58.00 (57.70 to 58.70): BE0

Ion 43.00 (42.70 to 43.70): BE0





#3

n-Nitrosodimethylamine

Concen: 0.12 ng

RT: 3.81 min Scan# 106

Delta R.T. 0.01 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

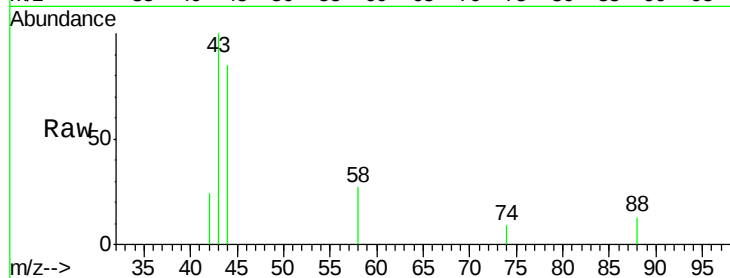
Tgt Ion: 42 Resp: 76

Ion Ratio Lower Upper

42 100

74 55.3 82.8 124.2#

44 0.0 9.0 13.4#



Abundance Ion 42.00 (41.70 to 42.70): BE0

Ion 74.00 (73.70 to 74.70): BE0

Ion 44.00 (43.70 to 44.70): BE0

800

600

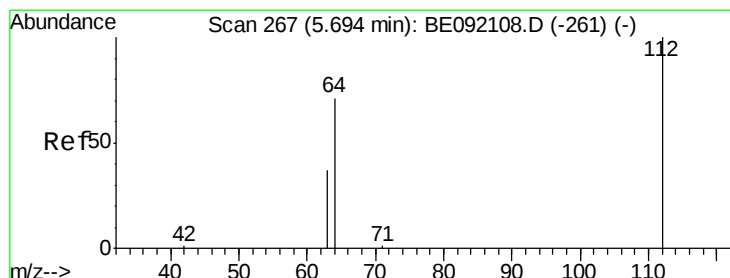
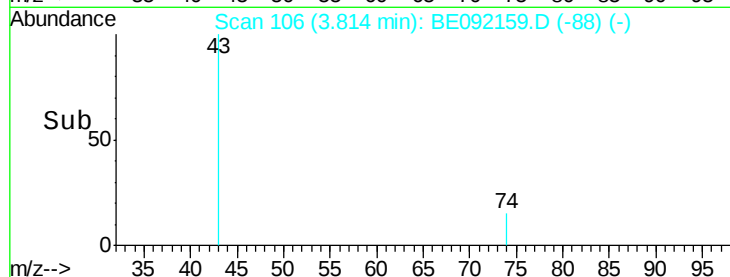
400

200

0

3.70 3.80 3.90

Time-->



#4

2-Fluorophenol

Concen: 60.63 ng

RT: 5.70 min Scan# 267

Delta R.T. 0.00 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

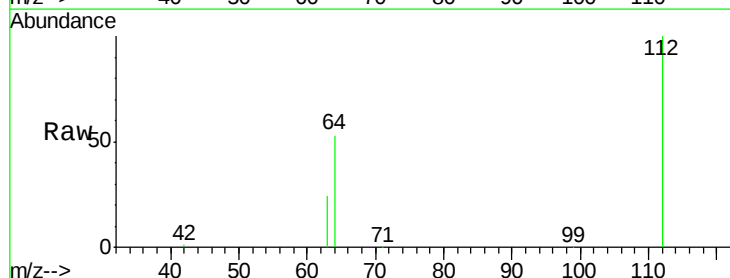
Tgt Ion: 112 Resp: 207949

Ion Ratio Lower Upper

112 100

64 68.8 55.9 83.9

63 37.1 31.1 46.7



Abundance Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BE0

Ion 63.00 (62.70 to 63.70): BE0

150000

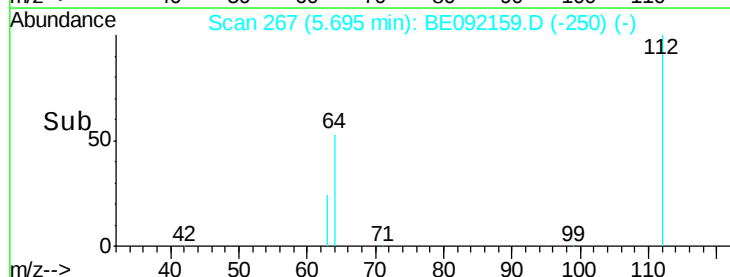
100000

50000

0

5.60 5.70 5.80 5.90

Time-->





#5

Phenol-d6

Concen: 39.58 ng

RT: 7.34 min Scan# 409

Delta R.T. -0.01 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

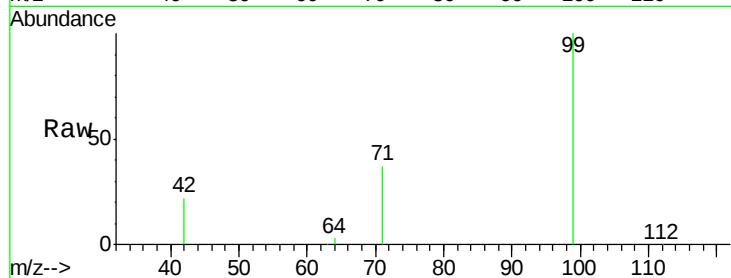
Tgt Ion: 99 Resp: 180881

Ion Ratio Lower Upper

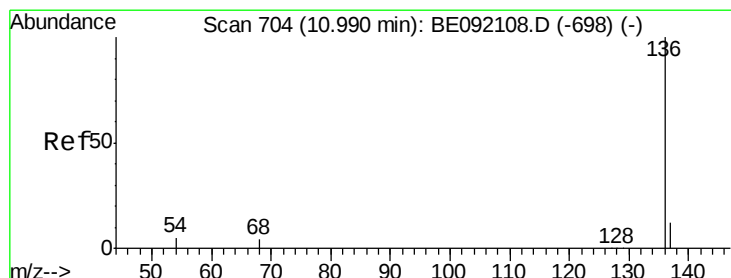
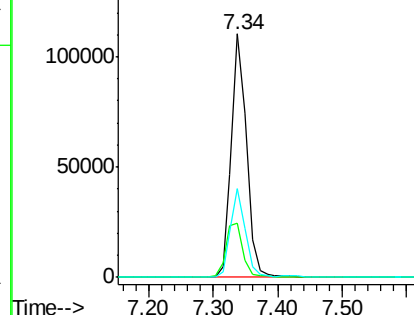
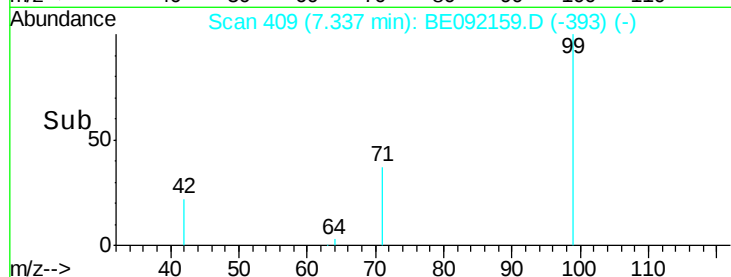
99 100

42 25.2 22.4 33.6

71 35.6 28.9 43.3



Abundance Ion 99.00 (98.70 to 99.70): BE0  
Ion 42.00 (41.70 to 42.70): BE0  
Ion 71.00 (70.70 to 71.70): BE0



#6

Naphthalene-d8

Concen: 5.00 ng

RT: 10.98 min Scan# 703

Delta R.T. -0.01 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Tgt Ion: 136 Resp: 60559

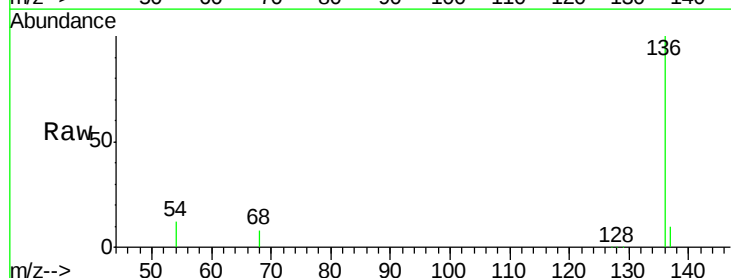
Ion Ratio Lower Upper

136 100

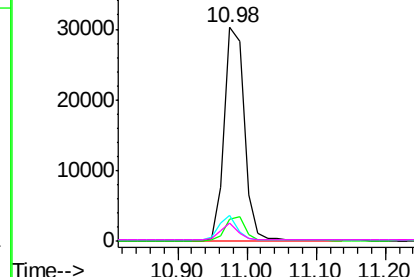
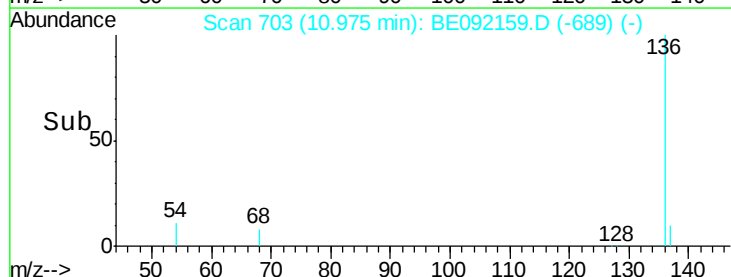
137 10.4 9.1 13.7

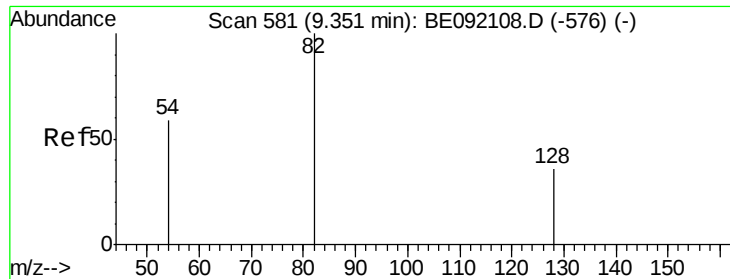
54 11.8 2.7 4.1#

68 8.3 2.2 3.4#



Abundance Ion 136.00 (135.70 to 136.70): E  
Ion 137.00 (136.70 to 137.70): E  
Ion 54.00 (53.70 to 54.70): BE0  
Ion 68.00 (67.70 to 68.70): BE0





#7

Nitrobenzene-d5

Concen: 78.67 ng

RT: 9.34 min Scan# 580

Delta R.T. -0.01 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

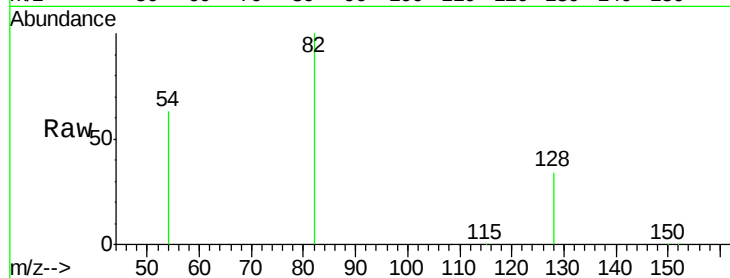
Tgt Ion: 82 Resp: 375943

Ion Ratio Lower Upper

82 100

128 33.7 33.0 49.4

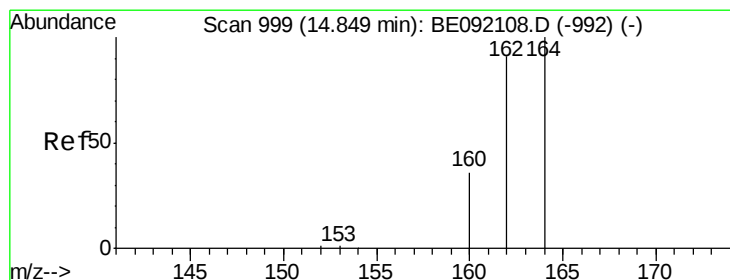
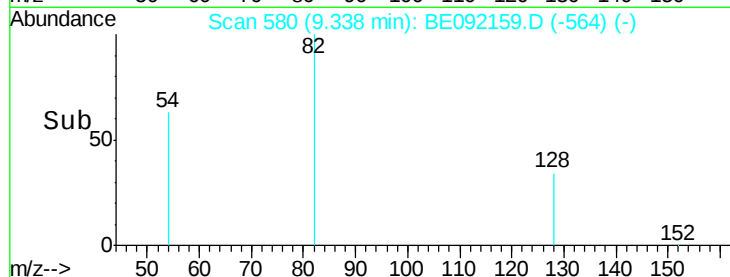
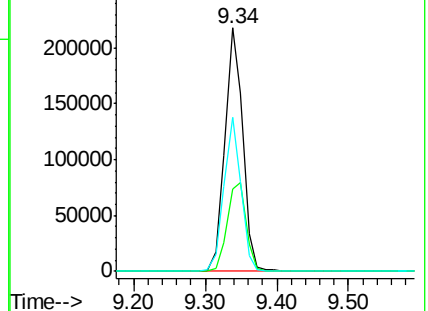
54 63.2 42.6 63.8



Abundance Ion 82.00 (81.70 to 82.70): BE092108.D (-576) (-)

Ion 128.00 (127.70 to 128.70): BE092108.D (-576) (-)

Ion 54.00 (53.70 to 54.70): BE092108.D (-576) (-)



#10

Acenaphthene-d10

Concen: 5.00 ng

RT: 14.83 min Scan# 998

Delta R.T. -0.02 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

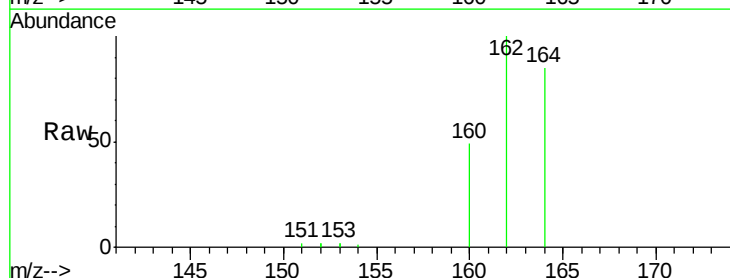
Tgt Ion: 164 Resp: 34961

Ion Ratio Lower Upper

164 100

162 117.1 69.5 104.3#

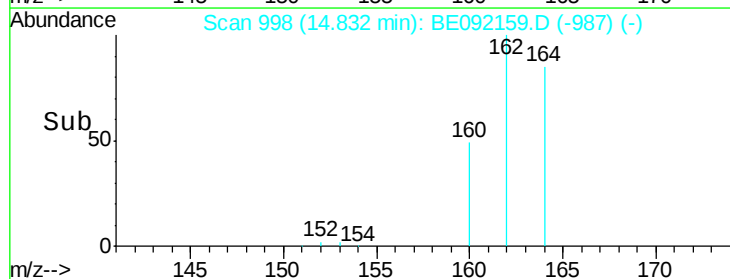
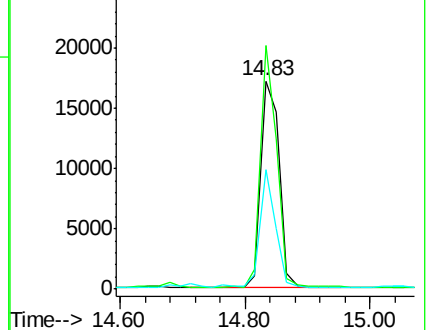
160 57.6 27.6 41.4#

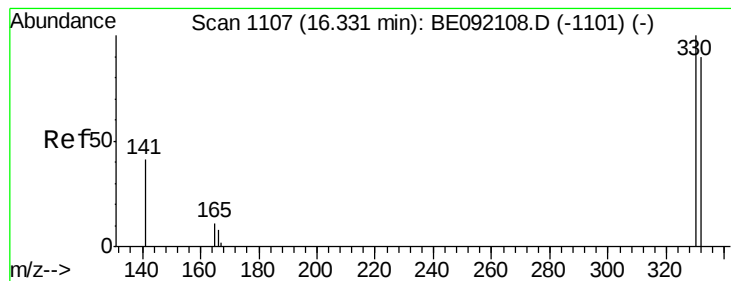


Abundance Ion 164.00 (163.70 to 164.70): BE092108.D (-992) (-)

Ion 162.00 (161.70 to 162.70): BE092108.D (-992) (-)

Ion 160.00 (159.70 to 160.70): BE092108.D (-992) (-)

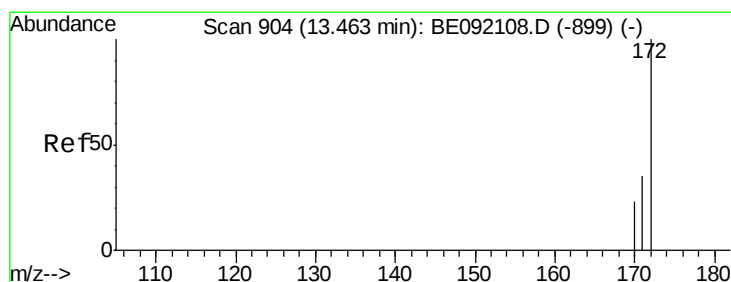
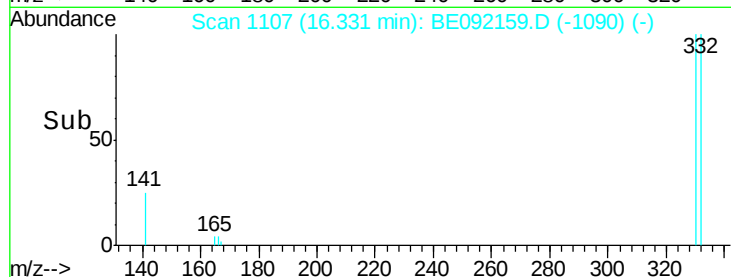
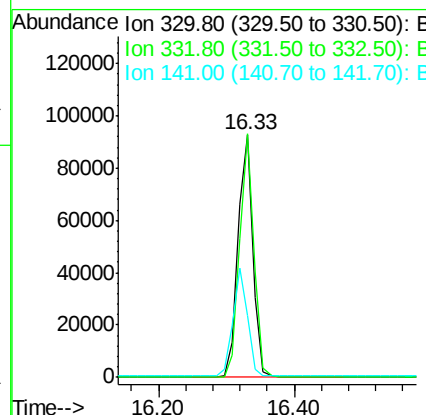
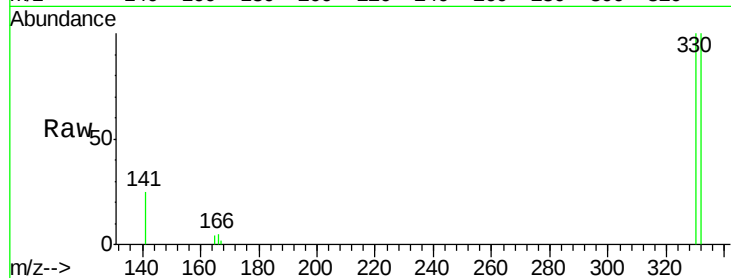




#11  
 2,4,6-Tribromophenol  
 Concen: 127.09 ng  
 RT: 16.33 min Scan# 1107  
 Delta R.T. 0.00 min  
 Lab File: BE092159.D  
 Acq: 3 Aug 2016 23:54

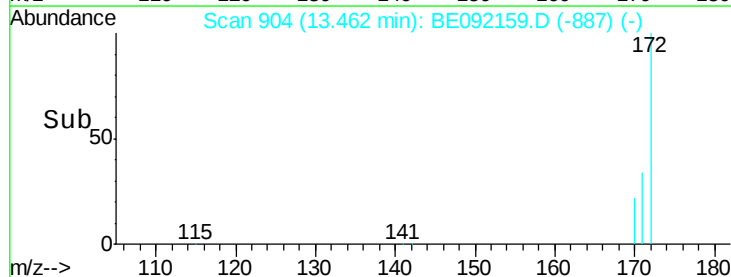
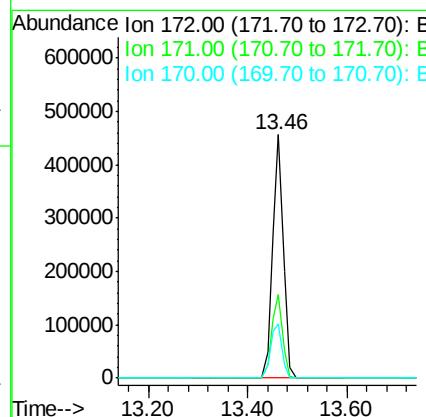
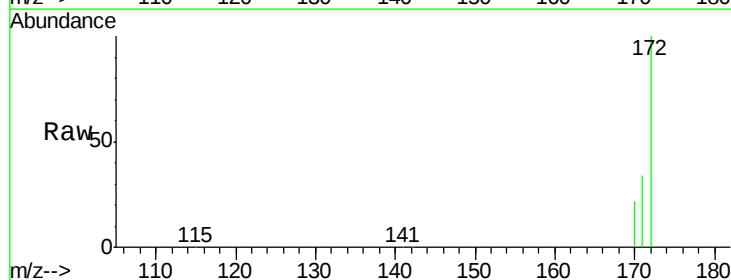
Instrument :  
 BNA\_E  
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 GW-22-14.5-15.0

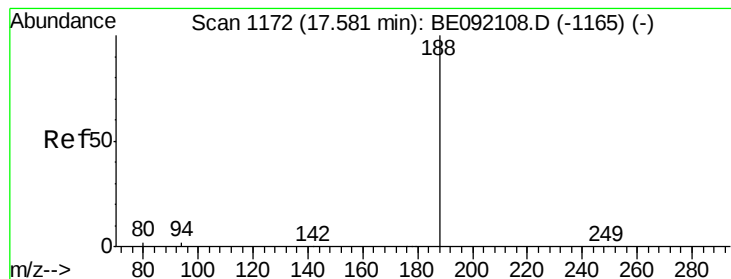
Tgt Ion:330 Resp: 144273  
 Ion Ratio Lower Upper  
 330 100  
 332 96.7 74.2 111.4  
 141 42.8 139.8 209.8#



#12  
 2-Fluorobiphenyl  
 Concen: 62.86 ng  
 RT: 13.46 min Scan# 904  
 Delta R.T. -0.00 min  
 Lab File: BE092159.D  
 Acq: 3 Aug 2016 23:54

Tgt Ion:172 Resp: 696366  
 Ion Ratio Lower Upper  
 172 100  
 171 34.3 30.3 45.5  
 170 22.2 21.6 32.4





#16

Phenanthrene-d10

Concen: 5.00 ng

RT: 17.56 min Scan# 1171

Delta R.T. -0.02 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

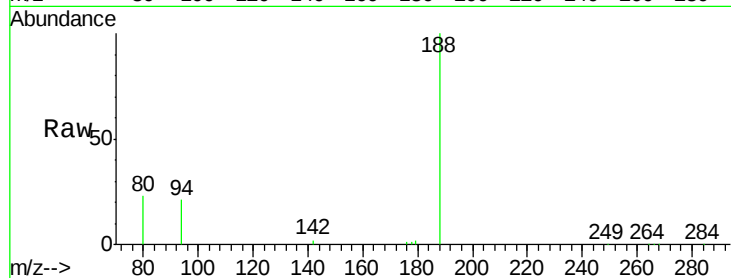
Tgt Ion:188 Resp: 73141

Ion Ratio Lower Upper

188 100

94 21.3 3.9 5.9#

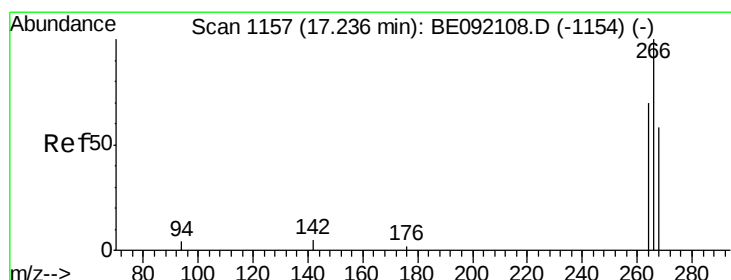
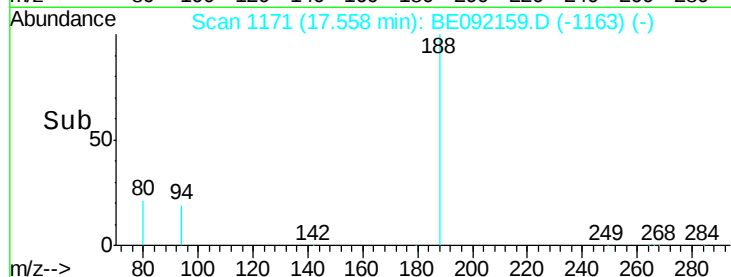
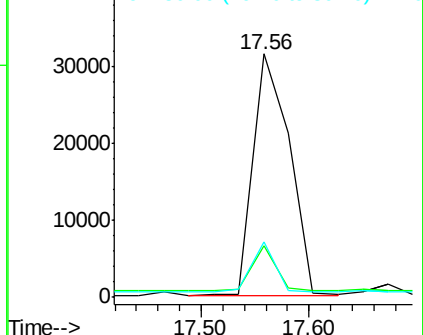
80 22.6 3.4 5.0#



Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BE0

Ion 80.00 (79.70 to 80.70): BE0



#18

Pentachlorophenol

Concen: 0.32 ng

RT: 17.19 min Scan# 1155

Delta R.T. -0.05 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

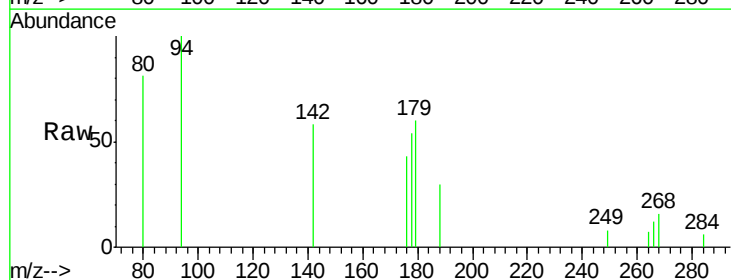
Tgt Ion:266 Resp: 171

Ion Ratio Lower Upper

266 100

268 137.6 62.7 94.1#

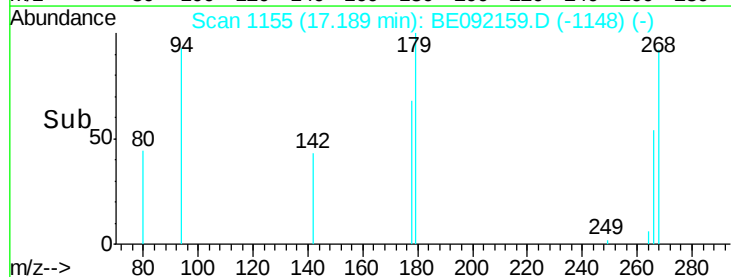
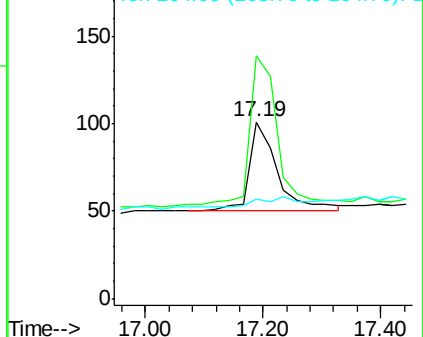
264 56.4 63.5 95.3#

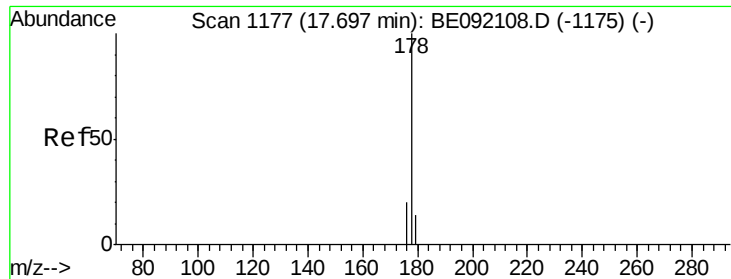


Abundance Ion 265.70 (265.40 to 266.40): E

Ion 268.00 (267.70 to 268.70): E

Ion 264.00 (263.70 to 264.70): E





#20

Anthracene

Concen: 0.02 ng

RT: 17.60 min Scan# 1173

Delta R.T. -0.09 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

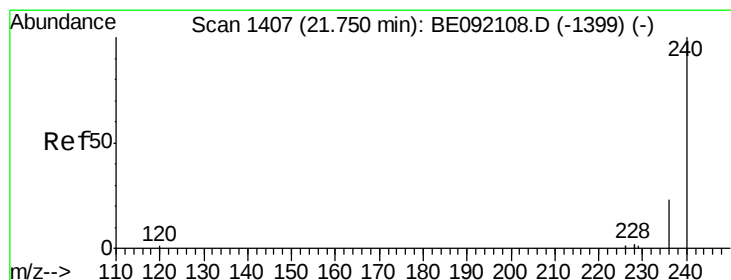
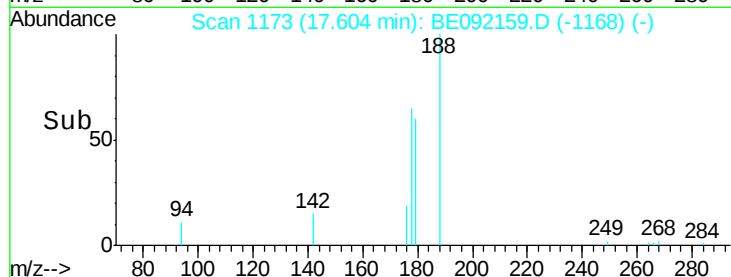
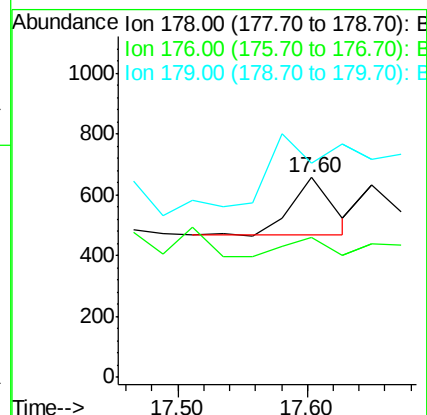
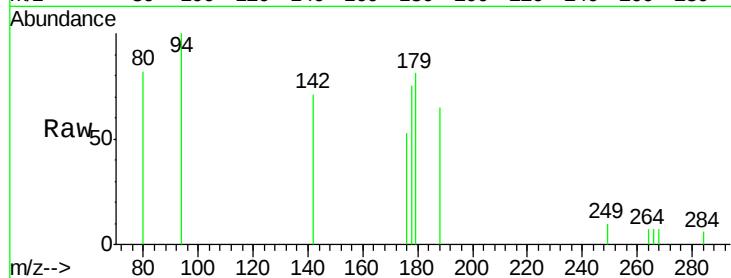
Tgt Ion:178 Resp: 415

Ion Ratio Lower Upper

178 100

176 33.7 15.2 22.8#

179 0.0 12.2 18.4#



#22

Chrysene-d12

Concen: 5.00 ng

RT: 21.75 min Scan# 1407

Delta R.T. -0.00 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

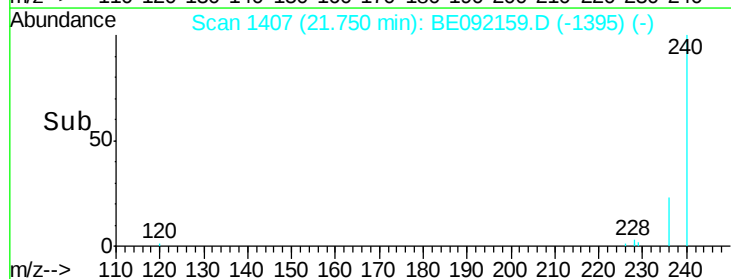
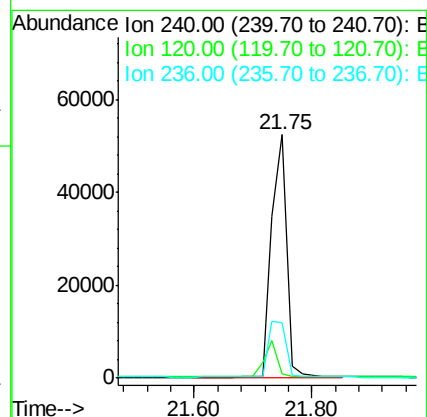
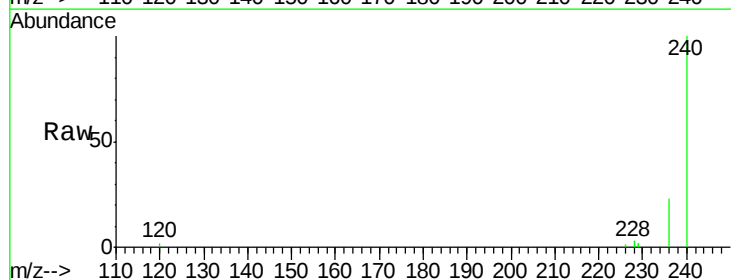
Tgt Ion:240 Resp: 92509

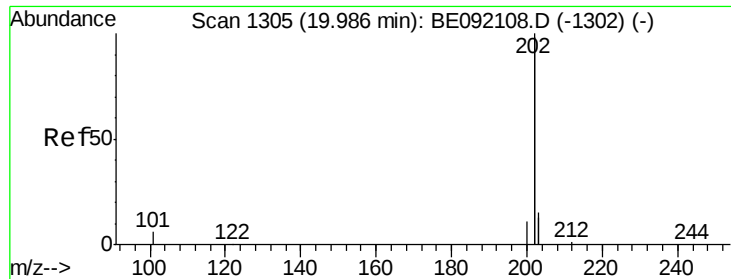
Ion Ratio Lower Upper

240 100

120 1.6 0.6 1.0#

236 22.9 18.2 27.4

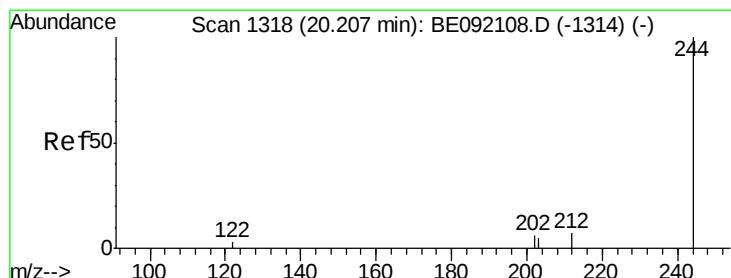
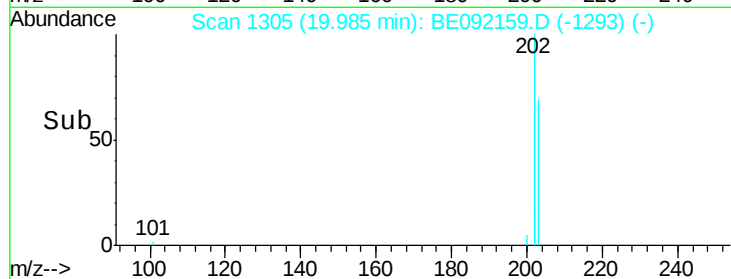
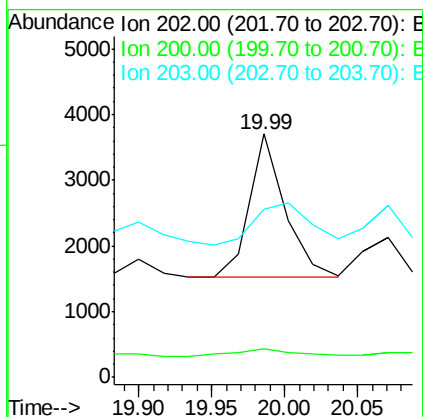
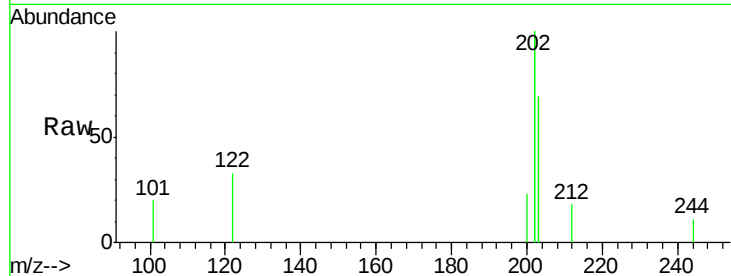




#23  
 Pyrene  
 Concen: 0.04 ng  
 RT: 19.99 min Scan# 1305  
 Delta R.T. -0.00 min  
 Lab File: BE092159.D  
 Acq: 3 Aug 2016 23:54

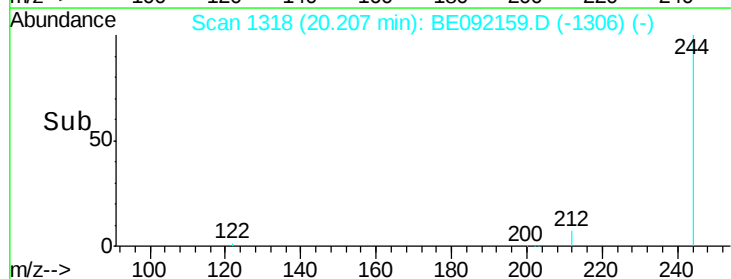
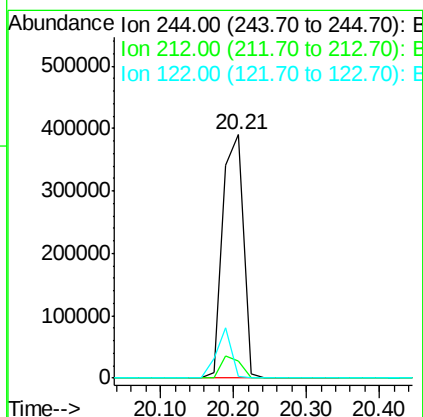
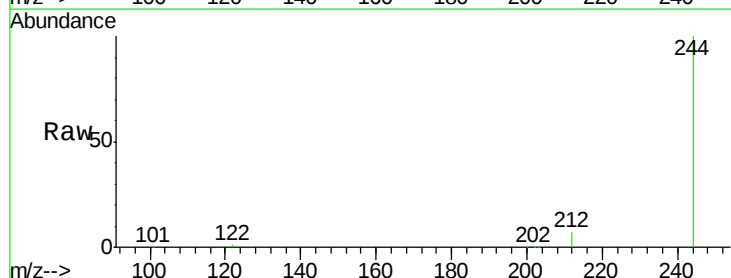
Instrument :  
 BNA\_E  
 ClientSampleId :  
 GW-22-14.5-15.0

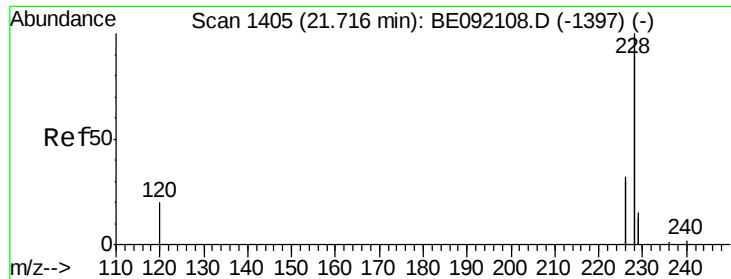
Tgt Ion: 202 Resp: 3693  
 Ion Ratio Lower Upper  
 202 100  
 200 8.3 4.4 6.6#  
 203 48.2 13.4 20.0#



#24  
 Terphenyl-d14  
 Concen: 57.70 ng  
 RT: 20.21 min Scan# 1318  
 Delta R.T. -0.00 min  
 Lab File: BE092159.D  
 Acq: 3 Aug 2016 23:54

Tgt Ion: 244 Resp: 766572  
 Ion Ratio Lower Upper  
 244 100  
 212 7.1 9.1 13.7#  
 122 0.7 11.0 16.4#





#25

Benzo(a)anthracene

Concen: 0.05 ng

RT: 21.75 min Scan# 1407

Delta R.T. 0.03 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

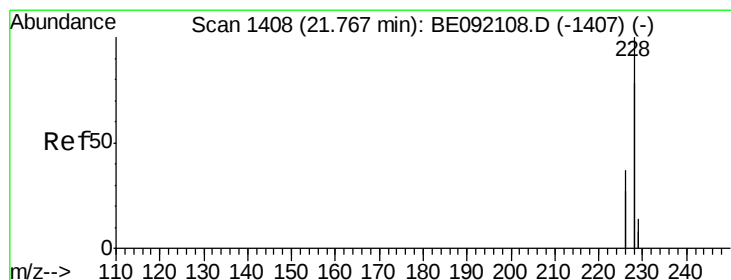
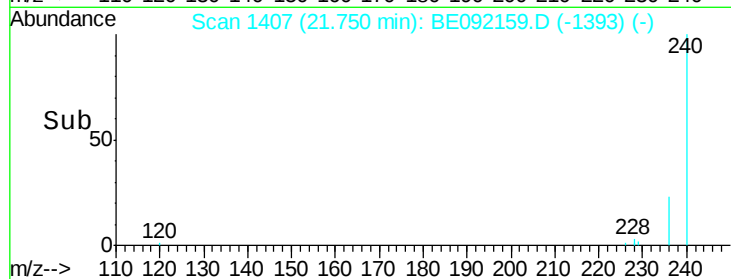
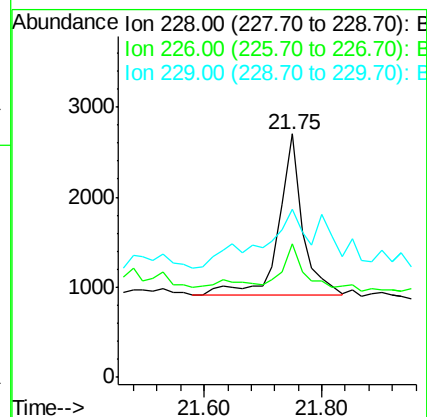
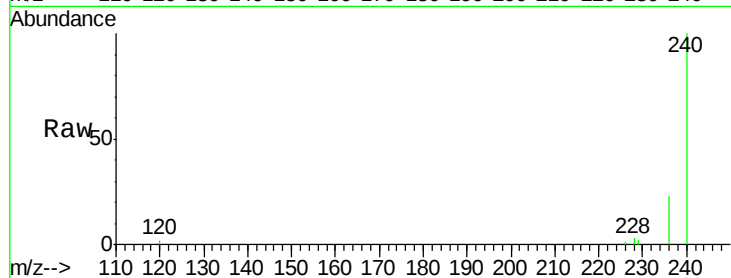
Tgt Ion:228 Resp: 4970

Ion Ratio Lower Upper

228 100

226 54.6 22.1 33.1#

229 69.3 15.1 22.7#



#26

Chrysene

Concen: 0.05 ng

RT: 21.75 min Scan# 1407

Delta R.T. -0.02 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

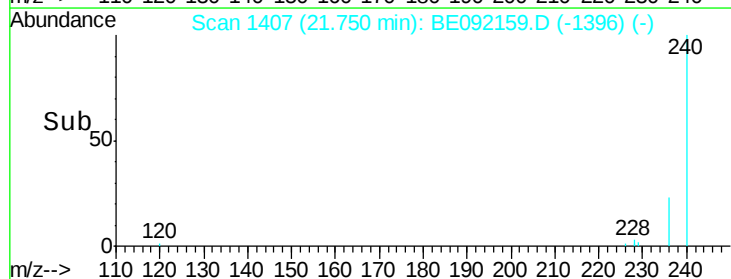
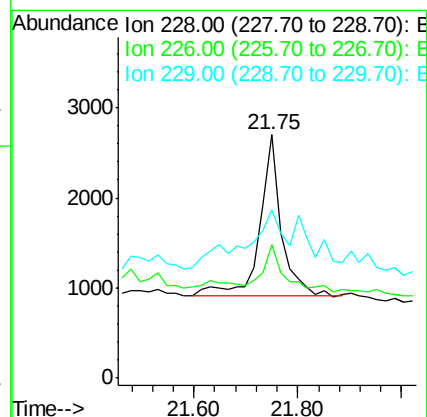
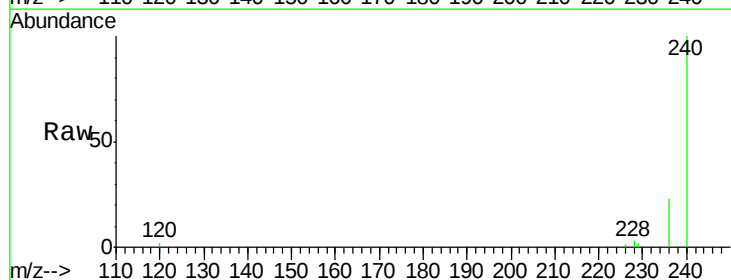
Tgt Ion:228 Resp: 4958

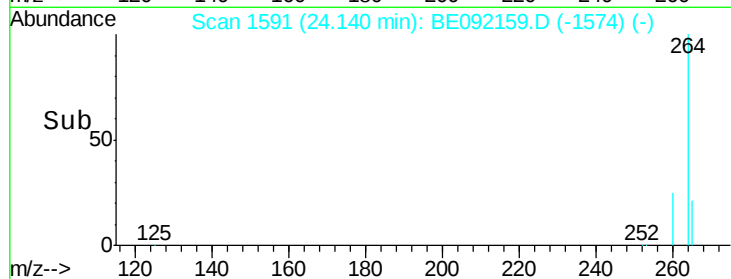
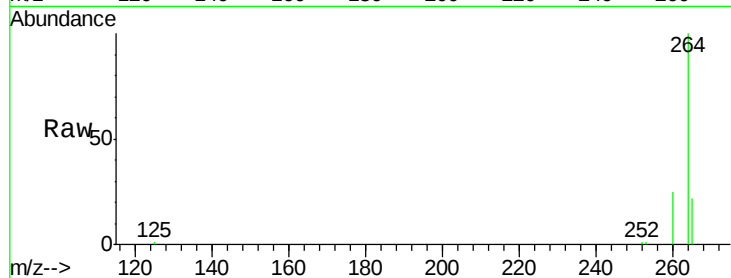
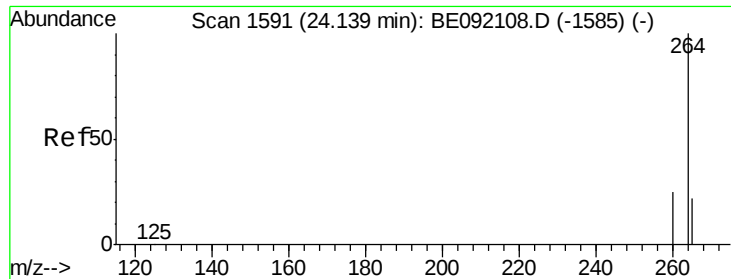
Ion Ratio Lower Upper

228 100

226 54.6 22.3 33.5#

229 69.3 16.9 25.3#





#28

Perylene-d12

Concen: 5.00 ng

RT: 24.14 min Scan# 1591

Delta R.T. 0.00 min

Lab File: BE092159.D

Acq: 3 Aug 2016 23:54

Instrument :

BNA\_E

ClientSampleId :

GW-22-14.5-15.0

Tgt Ion: 264 Resp: 91044

Ion Ratio Lower Upper

264 100

260 24.8 20.8 31.2

265 22.3 16.6 25.0

