

Data Path : Z:\HPCHEM1\BNA E\DATA\BE080416\  
 Data File : BE092208.D  
 Acq On : 5 Aug 2016 7:41  
 Operator : UM/SJ  
 Sample : H4288-20  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 GW-64-9.0-15.0

Quant Time: Aug 05 08:18:26 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

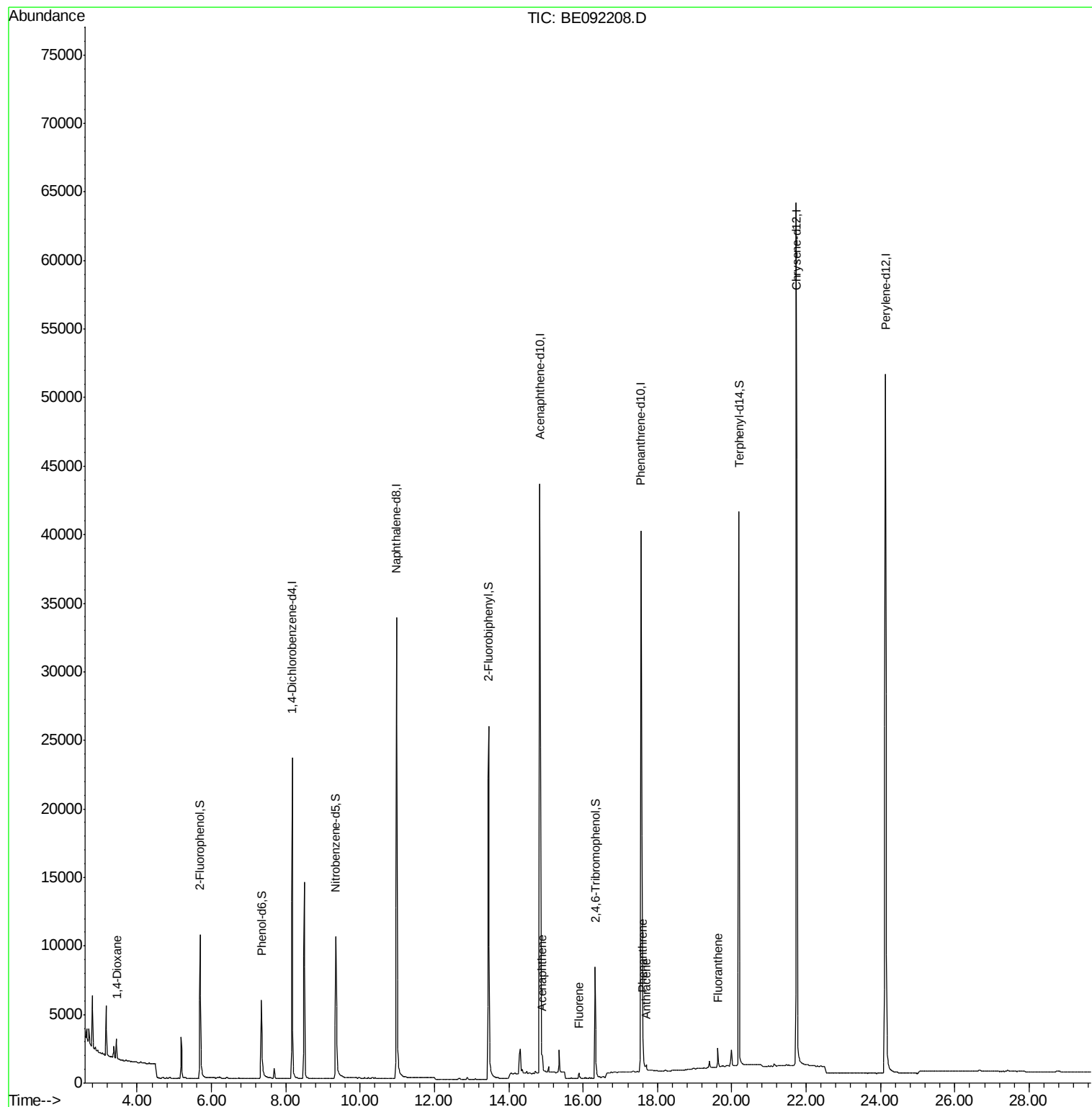
| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 8.17  | 152  | 12015    | 5.00 | ng    | 0.00     |
| 6) Naphthalene-d8           | 10.98 | 136  | 54599    | 5.00 | ng    | -0.01    |
| 10) Acenaphthene-d10        | 14.83 | 164  | 30038    | 5.00 | ng    | -0.02    |
| 16) Phenanthrene-d10        | 17.56 | 188  | 65539    | 5.00 | ng    | -0.02    |
| 22) Chrysene-d12            | 21.73 | 240  | 84771    | 5.00 | ng    | -0.02    |
| 28) Perylene-d12            | 24.14 | 264  | 83567    | 5.00 | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |      |       |          |
| 4) 2-Fluorophenol           | 5.69  | 112  | 9426     | 3.05 | ng    | 0.00     |
| 5) Phenol-d6                | 7.35  | 99   | 7687     | 1.87 | ng    | 0.00     |
| 7) Nitrobenzene-d5          | 9.34  | 82   | 13234    | 3.07 | ng    | -0.01    |
| 11) 2,4,6-Tribromophenol    | 16.33 | 330  | 5982     | 6.13 | ng    | 0.00     |
| 12) 2-Fluorobiphenyl        | 13.46 | 172  | 30734    | 3.23 | ng    | 0.00     |
| 24) Terphenyl-d14           | 20.19 | 244  | 46707    | 3.84 | ng    | -0.02    |
| Target Compounds            |       |      |          |      |       |          |
| 2) 1,4-Dioxane              | 3.44  | 88   | 979      | 0.60 | ng    | # 50     |
| 14) Acenaphthene            | 14.90 | 154  | 229      | 0.03 | ng    | # 87     |
| 15) Fluorene                | 15.89 | 166  | 349      | 0.03 | ng    | # 95     |
| 19) Phenanthrene            | 17.60 | 178  | 1753     | 0.06 | ng    | # 95     |
| 20) Anthracene              | 17.70 | 178  | 538      | 0.03 | ng    | # 91     |
| 21) Fluoranthene            | 19.63 | 202  | 1943     | 0.02 | ng    | # 91     |

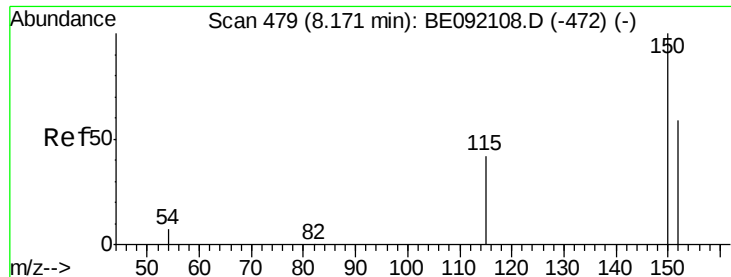
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Tue Aug 02 16:59:37 2016  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 8.17 min Scan# 479

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

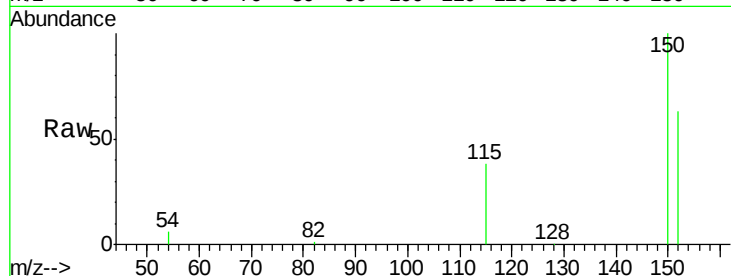
Tot Ion:152 Resp: 12015

Ion Ratio Lower Upper

152 100

150 158.3 106.0 159.0

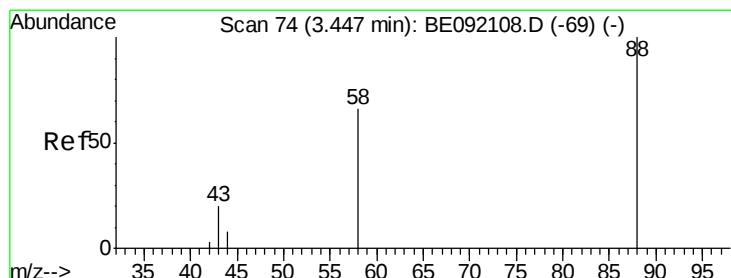
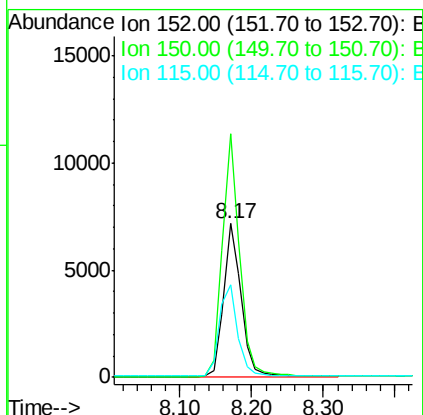
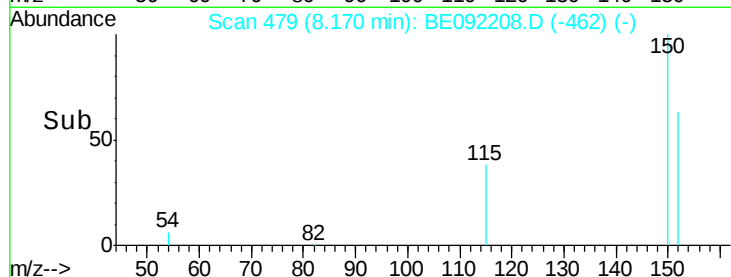
115 60.6 36.9 55.3#



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: 0.60 ng

RT: 3.44 min Scan# 74

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

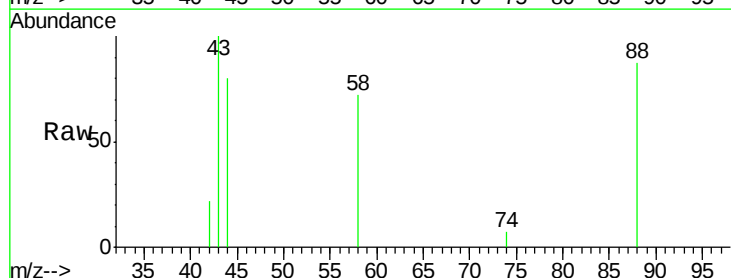
Tgt Ion: 88 Resp: 979

Ion Ratio Lower Upper

88 100

58 91.3 62.1 93.1

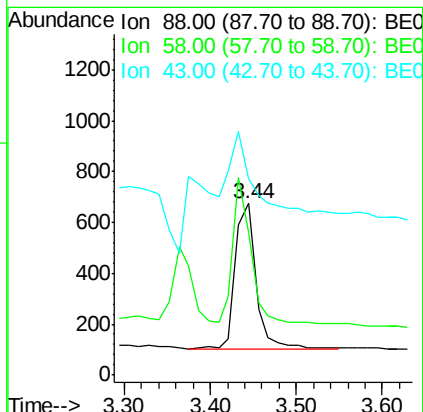
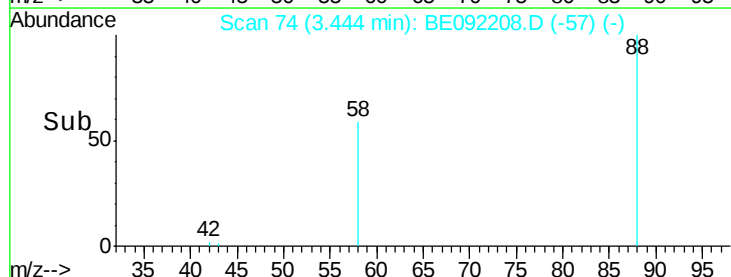
43 108.1 27.2 40.8#

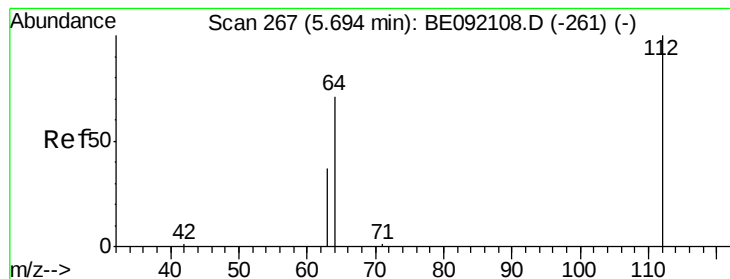


Abundance Ion 88.00 (87.70 to 88.70): BE0

Ion 58.00 (57.70 to 58.70): BE0

Ion 43.00 (42.70 to 43.70): BE0





#4

2-Fluorophenol

Concen: 3.05 ng

RT: 5.69 min Scan# 267

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

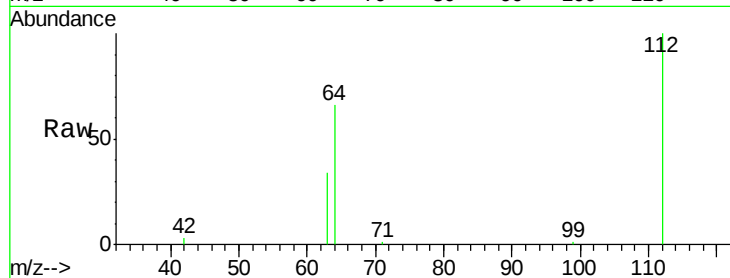
Tot Ion:112 Resp: 9426

Ion Ratio Lower Upper

112 100

64 66.7 55.9 83.9

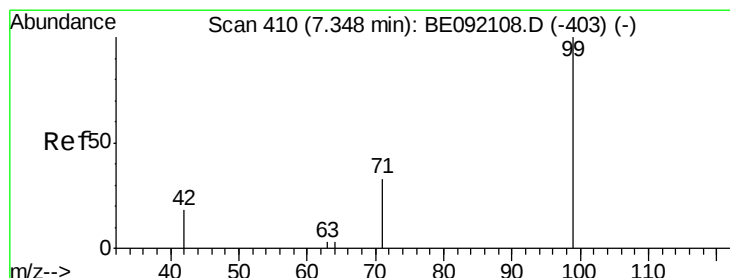
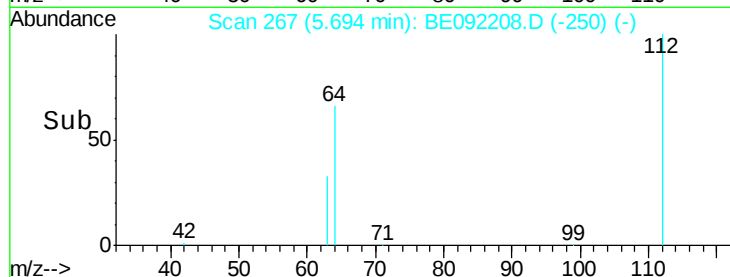
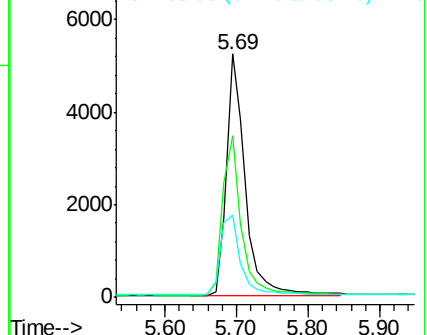
63 36.1 31.1 46.7



Abundance Ion 112.00 (111.70 to 112.70): BE0

Ion 64.00 (63.70 to 64.70): BE0

Ion 63.00 (62.70 to 63.70): BE0



#5

Phenol-d6

Concen: 1.87 ng

RT: 7.35 min Scan# 410

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

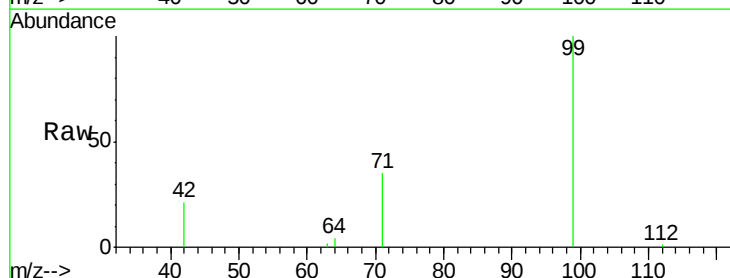
Tgt Ion: 99 Resp: 7687

Ion Ratio Lower Upper

99 100

42 26.1 22.4 33.6

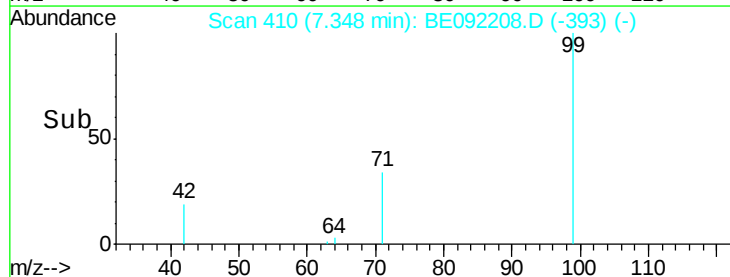
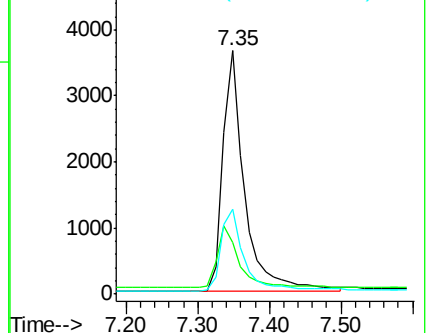
71 36.5 28.9 43.3

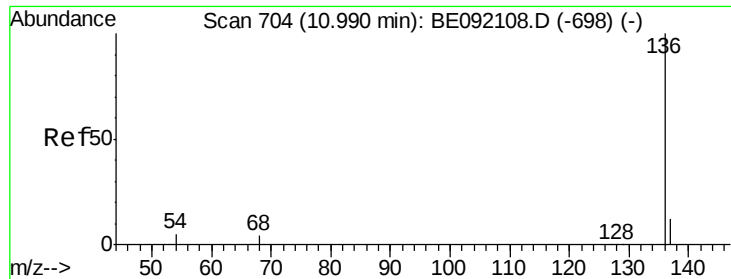


Abundance Ion 99.00 (98.70 to 99.70): BE0

Ion 42.00 (41.70 to 42.70): BE0

Ion 71.00 (70.70 to 71.70): BE0

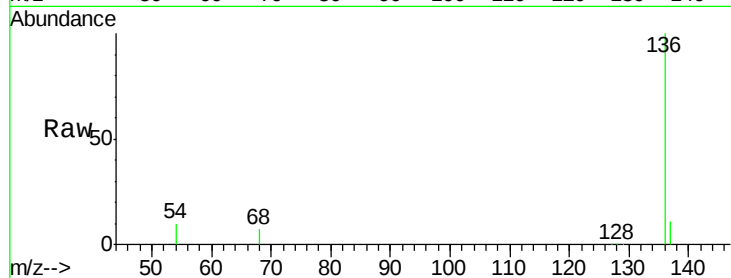




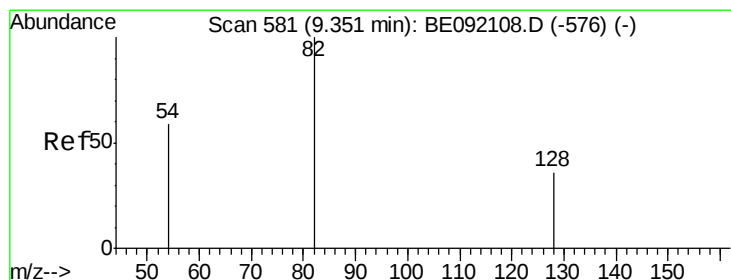
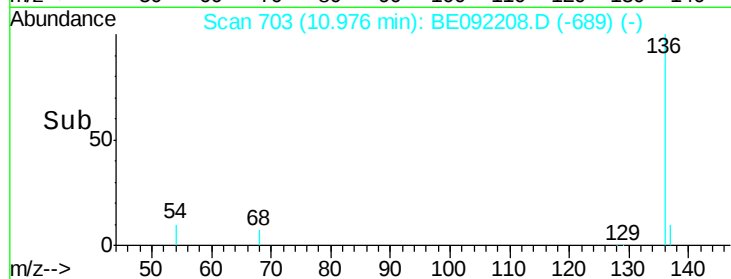
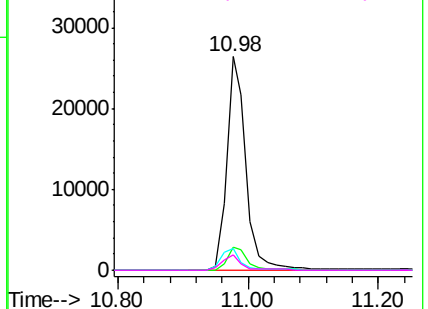
#6  
Naphthalene-d8  
Concen: 5.00 ng  
RT: 10.98 min Scan# 703  
Delta R.T. -0.01 min  
Lab File: BE092208.D  
Acq: 5 Aug 2016 7:41

Instrument :  
BNA\_E  
ClientSampleId :  
GW-64-9.0-15.0

|             |       |       |
|-------------|-------|-------|
| Tot Ion:136 | Resp: | 54599 |
| Ion Ratio   | Lower | Upper |
| 136 100     |       |       |
| 137 10.6    | 9.1   | 13.7  |
| 54 10.2     | 2.7   | 4.1#  |
| 68 7.2      | 2.2   | 3.4#  |

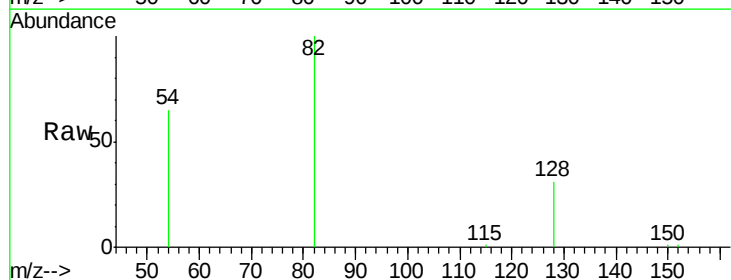


Abundance Ion 136.00 (135.70 to 136.70): E  
Ion 137.00 (136.70 to 137.70): E  
Ion 54.00 (53.70 to 54.70): BE0  
Ion 68.00 (67.70 to 68.70): BE0

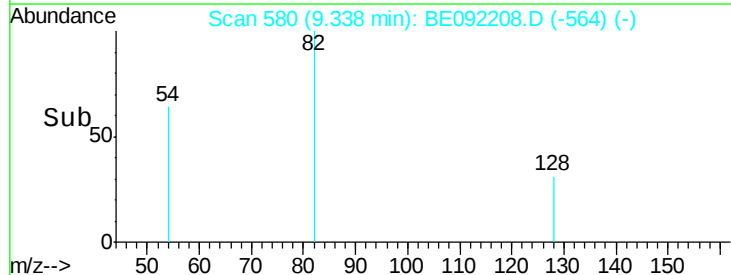
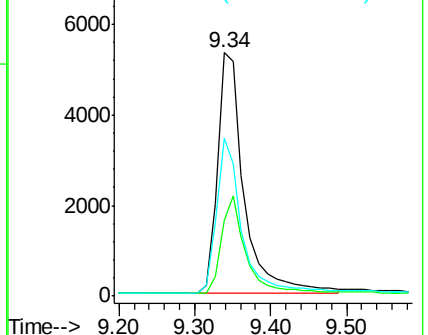


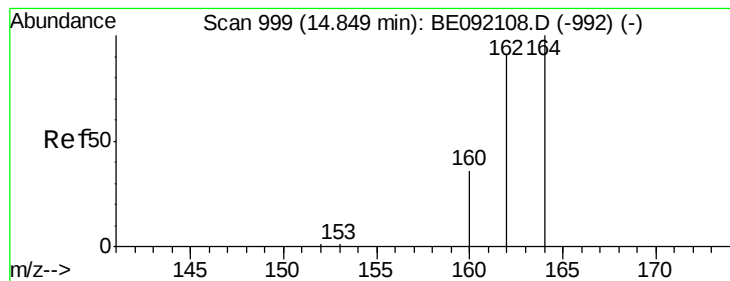
#7  
Nitrobenzene-d5  
Concen: 3.07 ng  
RT: 9.34 min Scan# 580  
Delta R.T. -0.01 min  
Lab File: BE092208.D  
Acq: 5 Aug 2016 7:41

|             |             |
|-------------|-------------|
| Tgt Ion: 82 | Resp: 13234 |
| Ion Ratio   | Lower Upper |
| 82 100      |             |
| 128 31.4    | 33.0 49.4#  |
| 54 64.7     | 42.6 63.8#  |



Abundance Ion 82.00 (81.70 to 82.70): BE0  
Ion 128.00 (127.70 to 128.70): E  
Ion 54.00 (53.70 to 54.70): BE0





#10

Acenaphthene-d10

Concen: 5.00 ng

RT: 14.83 min Scan# 998

Delta R.T. -0.02 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

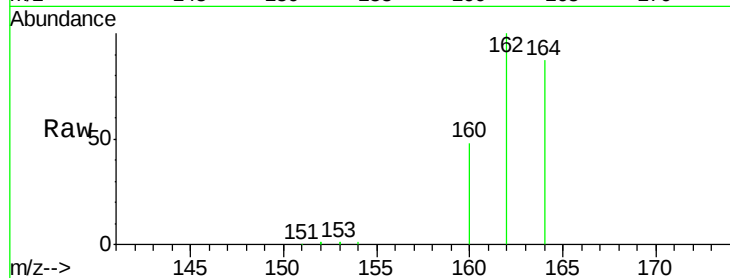
Tot Ion:164 Resp: 30038

Ion Ratio Lower Upper

164 100

162 114.6 69.5 104.3#

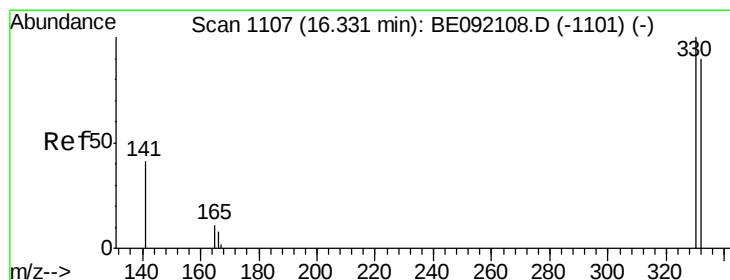
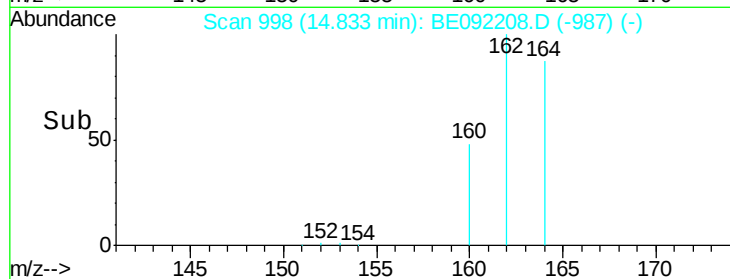
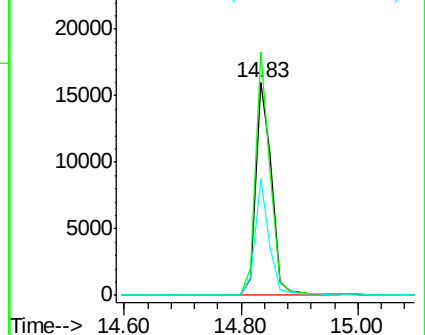
160 55.0 27.6 41.4#



Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E



#11

2,4,6-Tribromophenol

Concen: 6.13 ng

RT: 16.33 min Scan# 1107

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

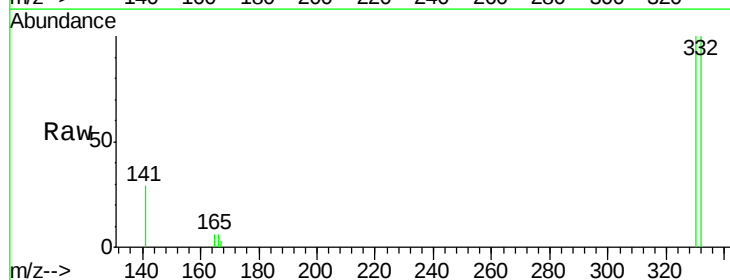
Tgt Ion:330 Resp: 5982

Ion Ratio Lower Upper

330 100

332 95.4 74.2 111.4

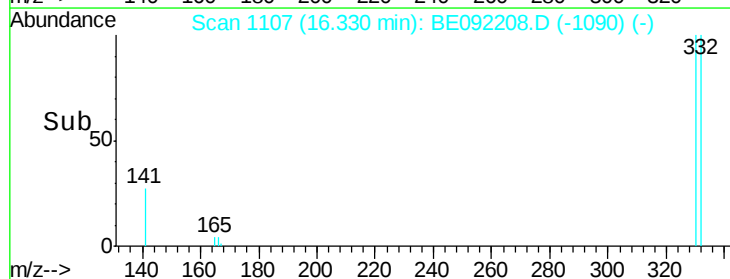
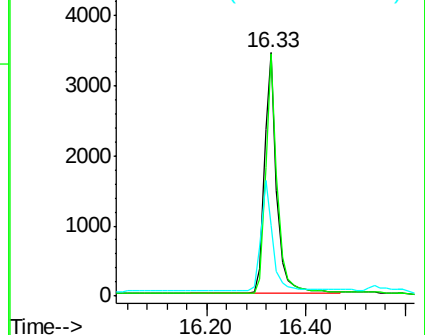
141 44.9 139.8 209.8#

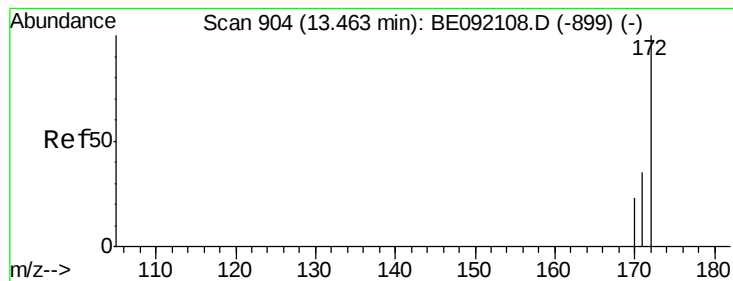


Abundance Ion 329.80 (329.50 to 330.50): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E





#12

2-Fluorobiphenyl

Concen: 3.23 ng

RT: 13.46 min Scan# 904

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

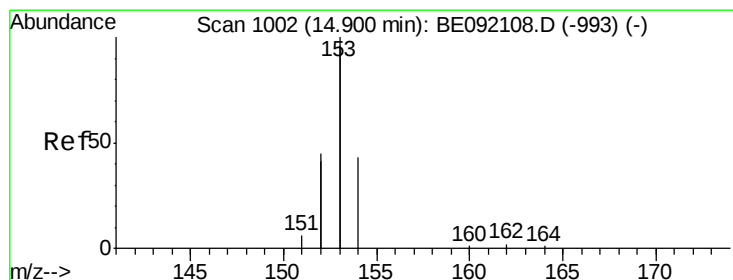
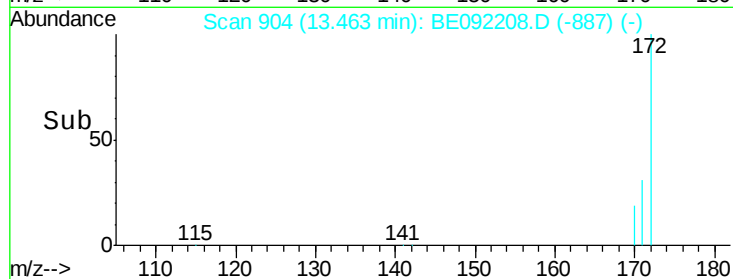
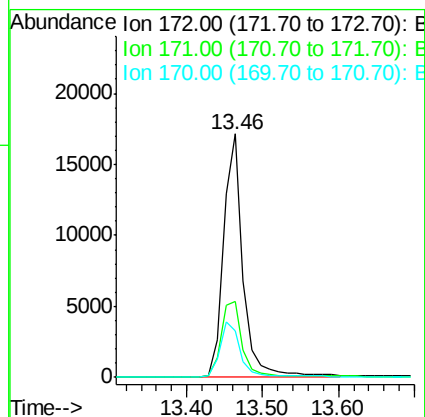
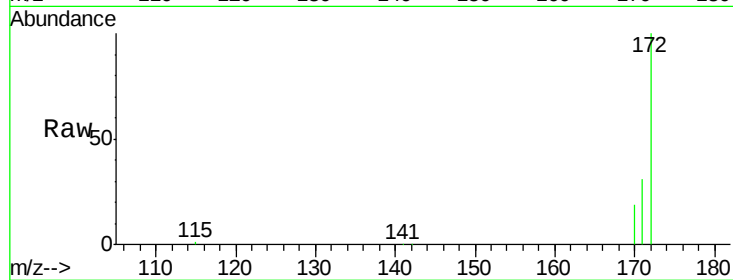
Tot Ion:172 Resp: 30734

Ion Ratio Lower Upper

172 100

171 31.4 30.3 45.5

170 19.2 21.6 32.4#



#14

Acenaphthene

Concen: 0.03 ng

RT: 14.90 min Scan# 1002

Delta R.T. 0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

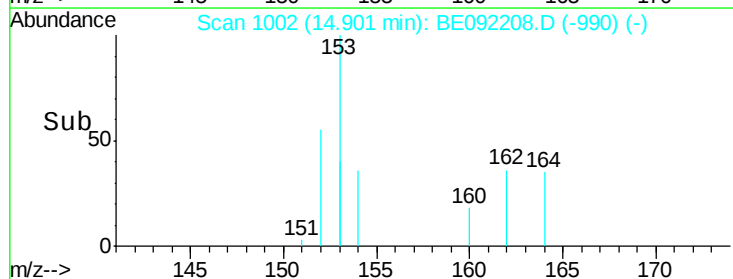
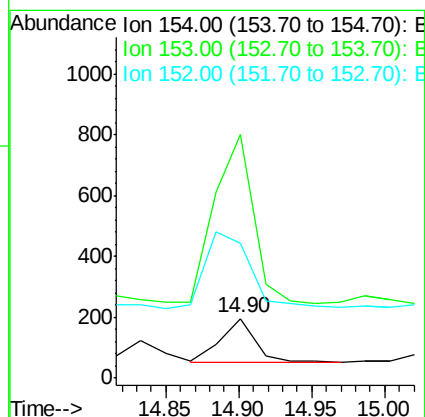
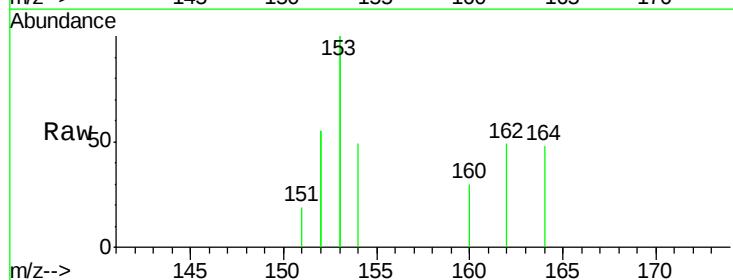
Tgt Ion:154 Resp: 229

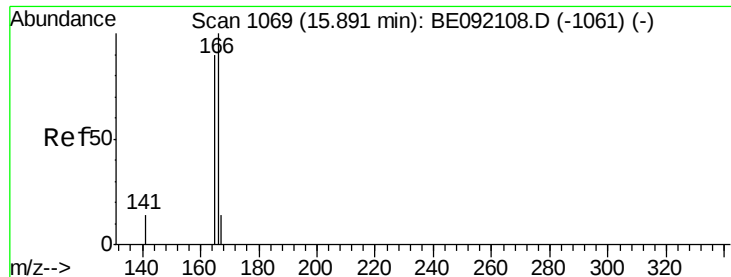
Ion Ratio Lower Upper

154 100

153 464.6 345.1 517.7

152 238.4 0.0 0.0#





#15

Fluorene

Concen: 0.03 ng

RT: 15.89 min Scan# 1069

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

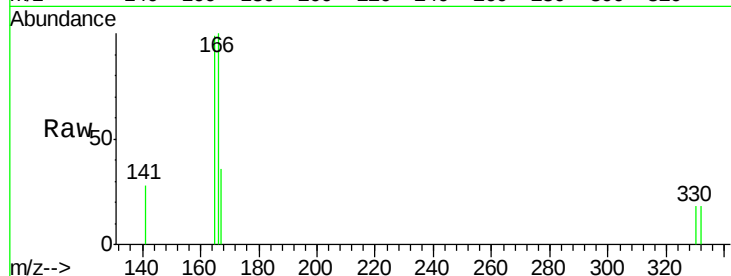
Tot Ion:166 Resp: 349

Ion Ratio Lower Upper

166 100

165 102.3 78.6 118.0

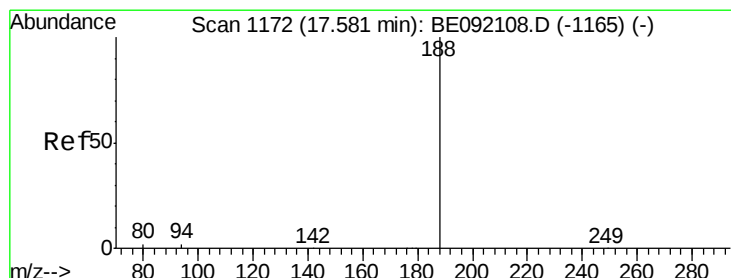
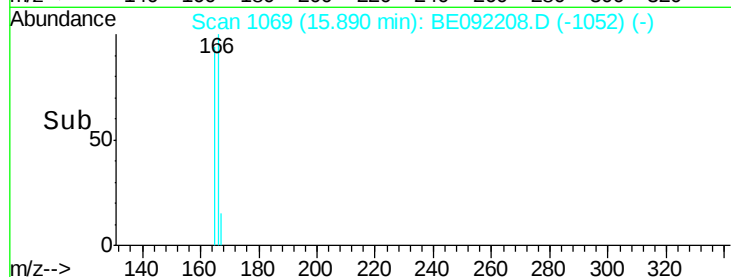
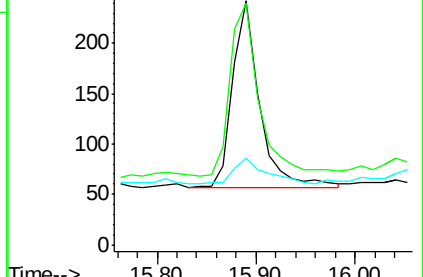
167 17.5 11.1 16.7#



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



#16

Phenanthrene-d10

Concen: 5.00 ng

RT: 17.56 min Scan# 1171

Delta R.T. -0.02 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

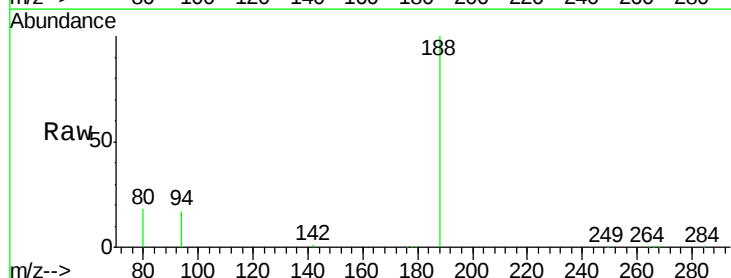
Tgt Ion:188 Resp: 65539

Ion Ratio Lower Upper

188 100

94 17.1 3.9 5.9#

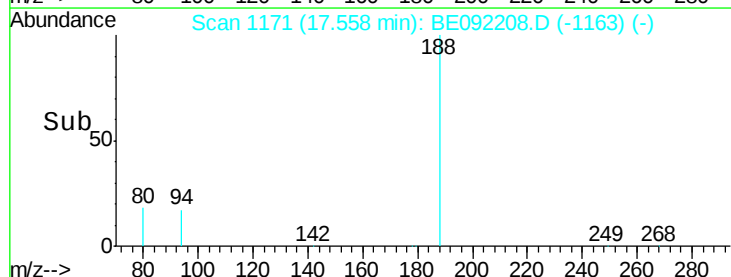
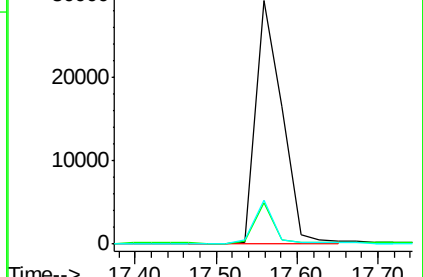
80 18.2 3.4 5.0#

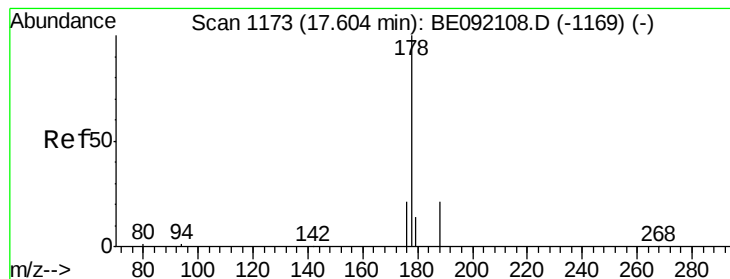


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BE0

Ion 80.00 (79.70 to 80.70): BE0





#19

Phenanthrene

Concen: 0.06 ng

RT: 17.60 min Scan# 1173

Delta R.T. 0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

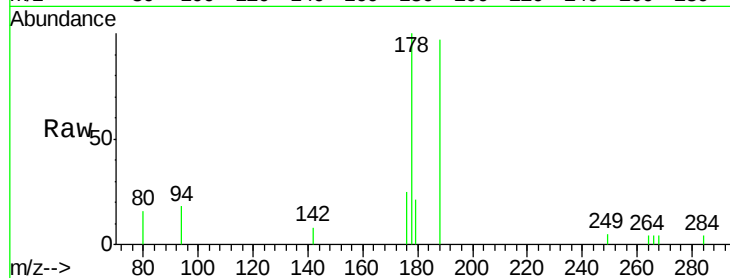
Tot Ion:178 Resp: 1753

Ion Ratio Lower Upper

178 100

176 20.9 15.4 23.0

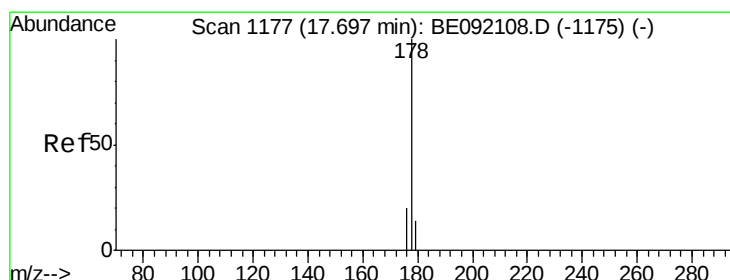
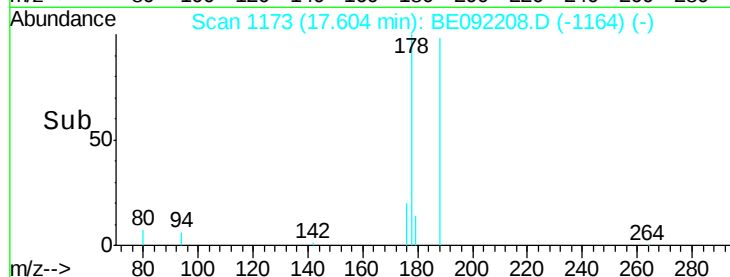
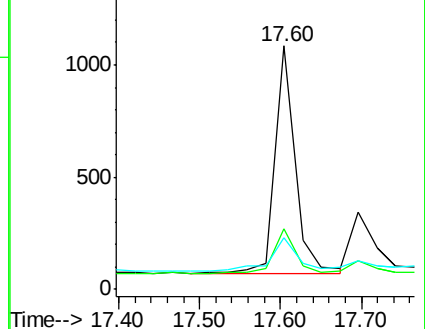
179 19.0 12.7 19.1



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



#20

Anthracene

Concen: 0.03 ng

RT: 17.70 min Scan# 1177

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

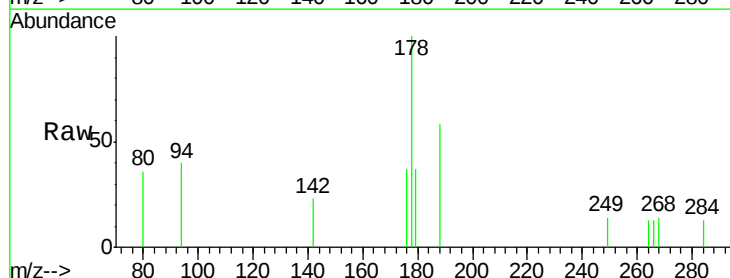
Tgt Ion:178 Resp: 538

Ion Ratio Lower Upper

178 100

176 22.3 15.2 22.8

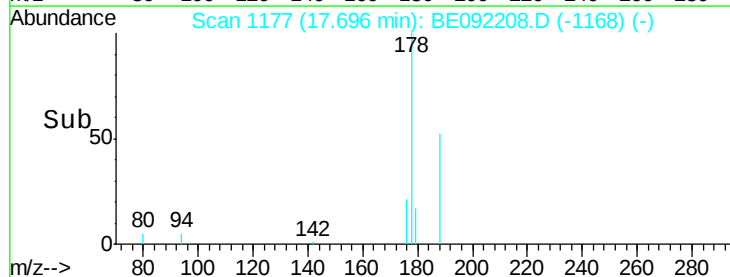
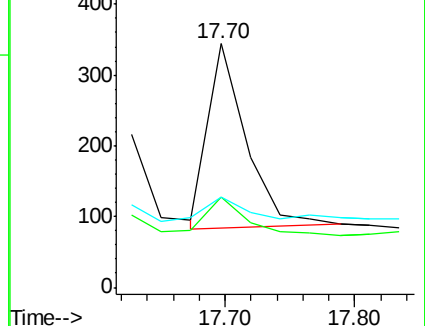
179 19.7 12.2 18.4#

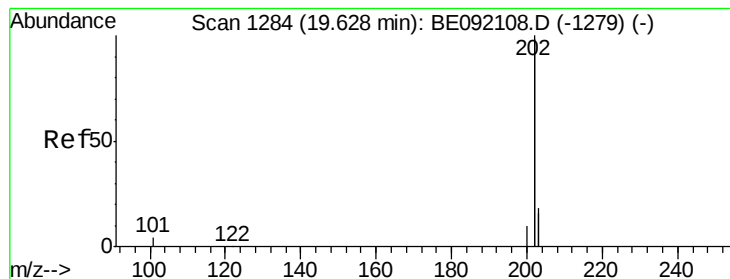


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#21

Fluoranthene

Concen: 0.02 ng

RT: 19.63 min Scan# 1284

Delta R.T. -0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

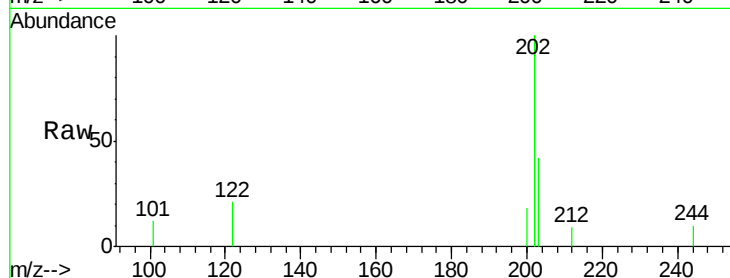
Tot Ion:202 Resp: 1943

Ion Ratio Lower Upper

202 100

101 3.2 2.2 3.2

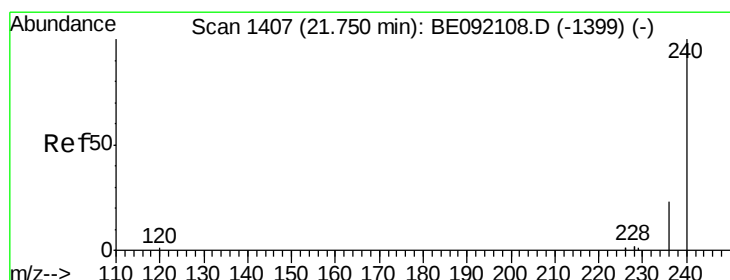
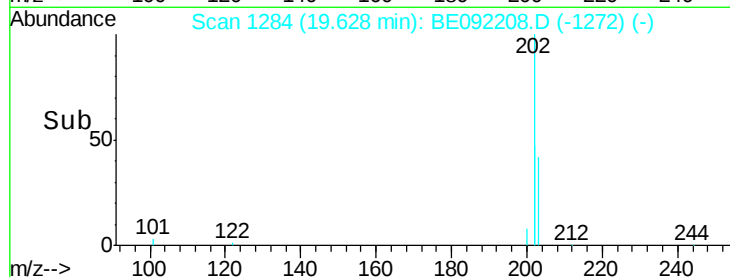
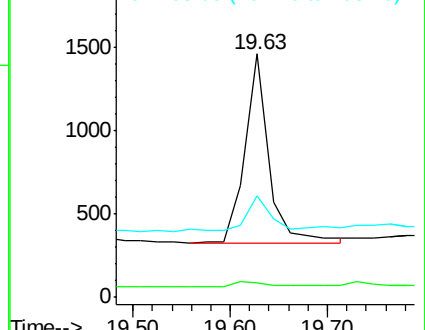
203 20.6 13.0 19.4#



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



#22

Chrysene-d12

Concen: 5.00 ng

RT: 21.73 min Scan# 1406

Delta R.T. -0.02 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

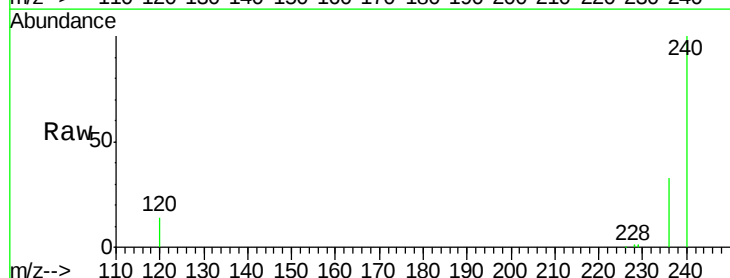
Tgt Ion:240 Resp: 84771

Ion Ratio Lower Upper

240 100

120 13.8 0.6 1.0#

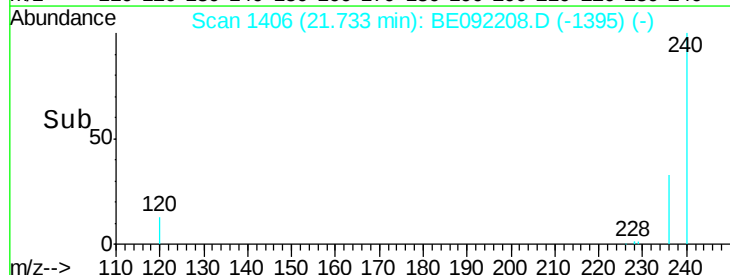
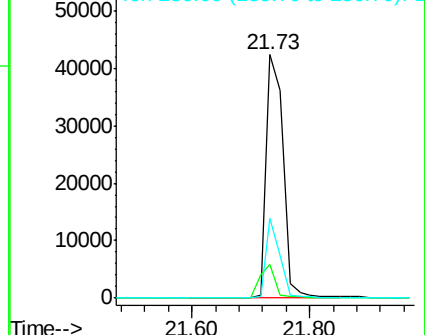
236 32.9 18.2 27.4#

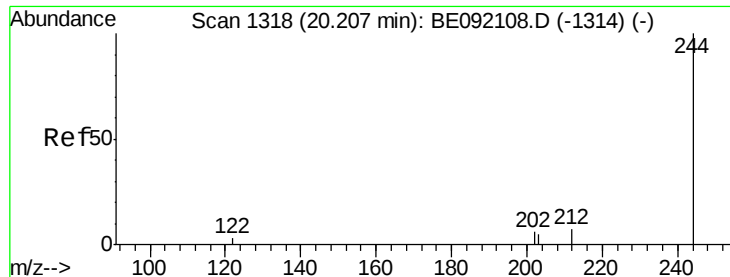


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E





#24

Terphenyl-d14

Concen: 3.84 ng

RT: 20.19 min Scan# 1317

Delta R.T. -0.02 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

Instrument :

BNA\_E

ClientSampleId :

GW-64-9.0-15.0

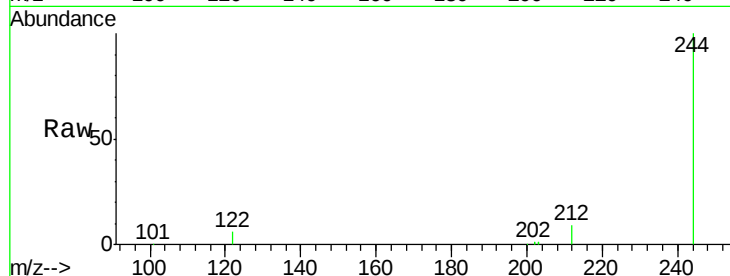
Tot Ion:244 Resp: 46707

Ion Ratio Lower Upper

244 100

212 8.7 9.1 13.7#

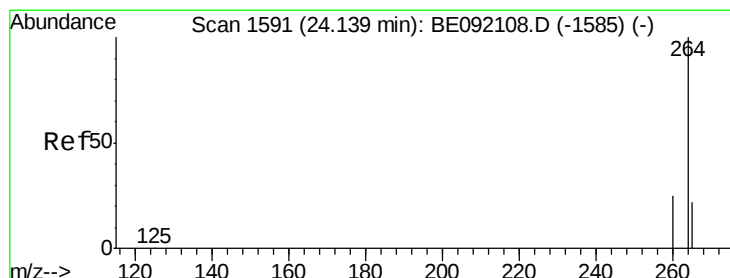
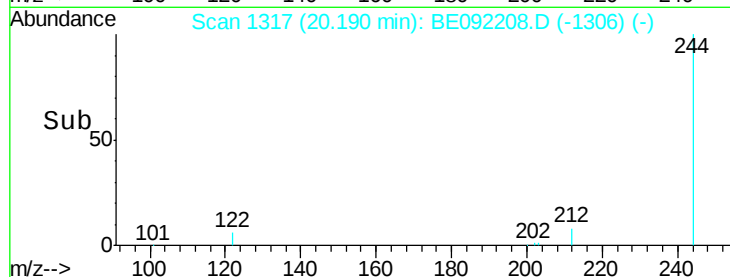
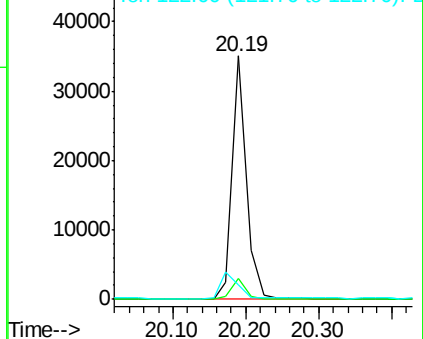
122 6.1 11.0 16.4#



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



#28

Perylene-d12

Concen: 5.00 ng

RT: 24.14 min Scan# 1591

Delta R.T. 0.00 min

Lab File: BE092208.D

Acq: 5 Aug 2016 7:41

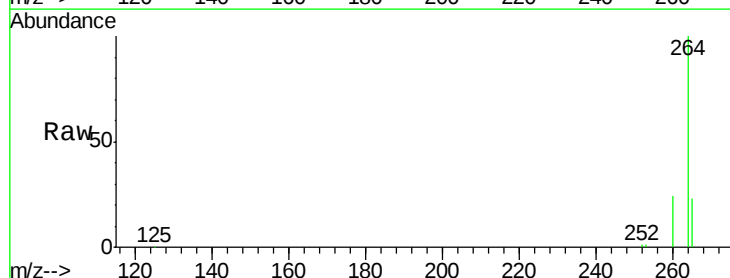
Tgt Ion:264 Resp: 83567

Ion Ratio Lower Upper

264 100

260 24.3 20.8 31.2

265 22.8 16.6 25.0



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

