

Data Path : Z:\HPCHEM1\BNA\_E\Data\BE010715\  
 Data File : BE089348.D  
 Acq On : 8 Jan 2015 2:30  
 Operator : TP/IZ  
 Sample : SSTDCCC001  
 Misc : LOQ-WATER-1.0PPM-SIM  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :

Quant Time: Jan 08 15:39:58 2015  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BASE-BE010715.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 08 15:21:44 2015  
 Response via : Initial Calibration

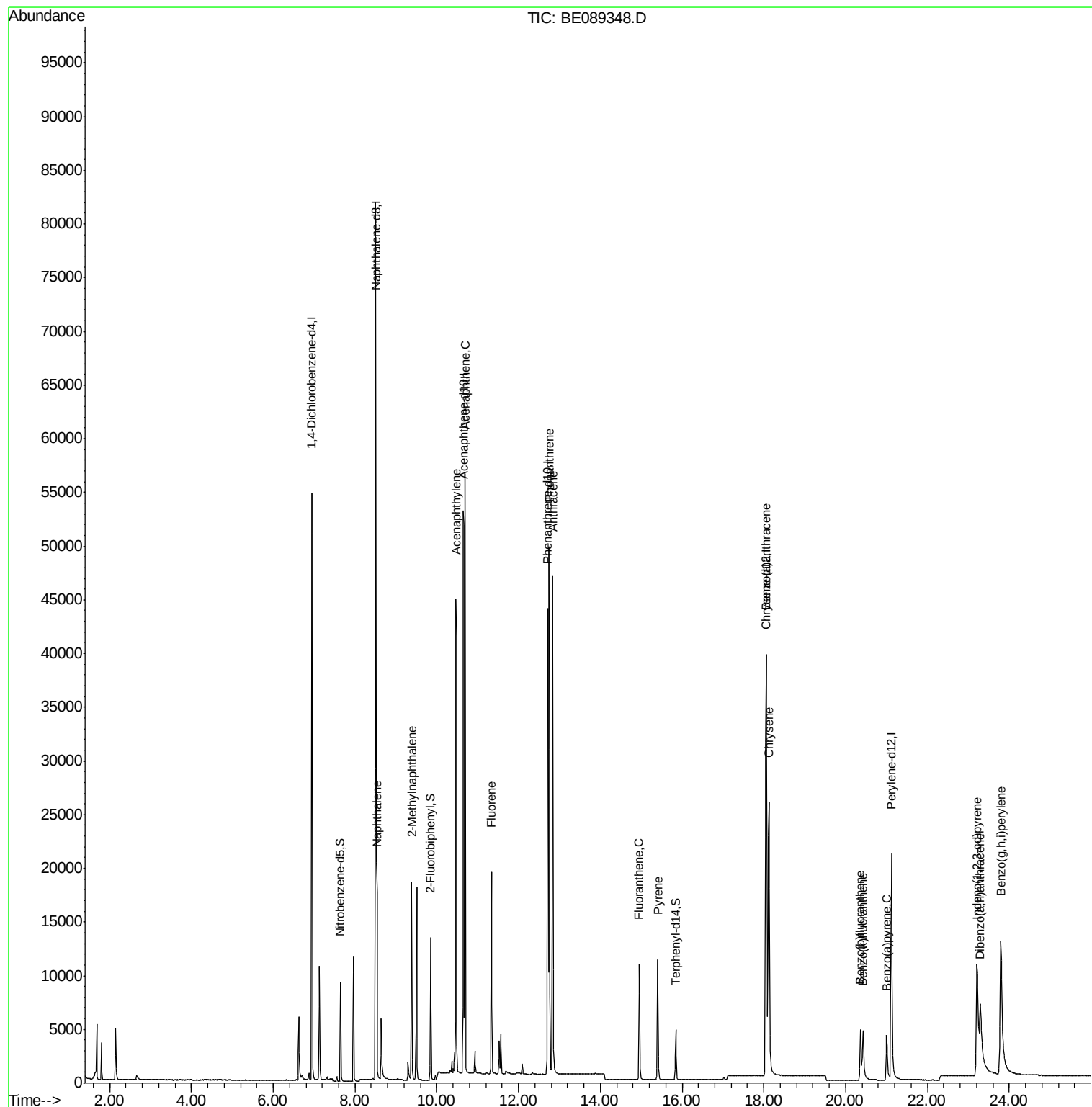
| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.95  | 152  | 17544    | 5.00 | ng    | 0.00     |
| 2) Naphthalene-d8           | 8.51  | 136  | 66642    | 5.00 | ng    | 0.00     |
| 6) Acenaphthene-d10         | 10.66 | 164  | 30108    | 5.00 | ng    | 0.00     |
| 11) Phenanthrene-d10        | 12.72 | 188  | 44596    | 5.00 | ng    | 0.00     |
| 15) Chrysene-d12            | 18.07 | 240  | 34805    | 5.00 | ng    | 0.00     |
| 21) Perylene-d12            | 21.12 | 264  | 31940    | 5.00 | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |      |       |          |
| 3) Nitrobenzene-d5          | 7.65  | 82   | 4853     | 1.05 | ng    | 0.00     |
| 7) 2-Fluorobiphenyl         | 9.85  | 172  | 8530     | 1.04 | ng    | 0.00     |
| 17) Terphenyl-d14           | 15.84 | 244  | 6122     | 0.99 | ng    | 0.00     |
| Target Compounds            |       |      |          |      |       | Qvalue   |
| 4) Naphthalene              | 8.54  | 128  | 15471    | 1.03 | ng    | 98       |
| 5) 2-Methylnaphthalene      | 9.39  | 142  | 9542     | 1.02 | ng    | 97       |
| 8) Acenaphthylene           | 10.47 | 152  | 52773    | 1.02 | ng    | 98       |
| 9) Acenaphthene             | 10.69 | 154  | 8112     | 1.01 | ng    | 92       |
| 10) Fluorene                | 11.34 | 166  | 8706     | 1.01 | ng    | 99       |
| 12) Phenanthrene            | 12.75 | 178  | 48256    | 1.04 | ng    | 100      |
| 13) Anthracene              | 12.84 | 178  | 46985    | 1.05 | ng    | 100      |
| 14) Fluoranthene            | 14.95 | 202  | 10871    | 1.06 | ng    | 99       |
| 16) Pyrene                  | 15.40 | 202  | 11611    | 1.02 | ng    | 99       |
| 18) Benzo(a)anthracene      | 18.05 | 228  | 35668    | 1.01 | ng    | 98       |
| 19) Chrysene                | 18.12 | 228  | 36480    | 1.03 | ng    | 99       |
| 20) Indeno(1,2,3-cd)pyrene  | 23.22 | 276  | 22155    | 0.65 | ng    | 99       |
| 22) Benzo(b)fluoranthene    | 20.36 | 252  | 7084     | 1.02 | ng    | 100      |
| 23) Benzo(k)fluoranthene    | 20.42 | 252  | 9192     | 1.05 | ng    | 100      |
| 24) Benzo(a)pyrene          | 21.01 | 252  | 6979     | 1.01 | ng    | 100      |
| 25) Dibenzo(a,h)anthracene  | 23.30 | 278  | 6386     | 1.01 | ng    | 100      |
| 26) Benzo(g,h,i)perylene    | 23.80 | 276  | 32332    | 1.02 | ng    | 99       |

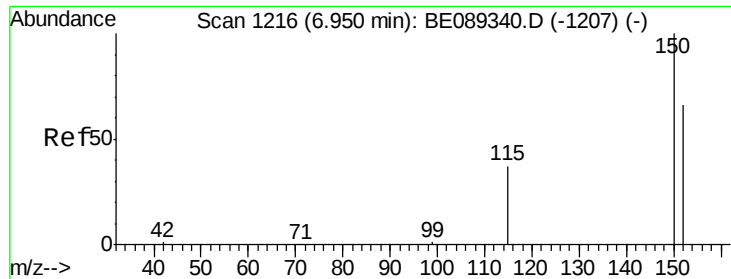
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Jan 08 15:21:44 2015  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 6.95 min Scan# 1216

Delta R.T. 0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :

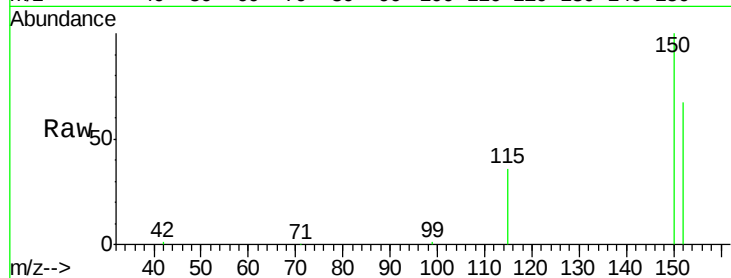
Tgt Ion:152 Resp: 17544

Ion Ratio Lower Upper

152 100

150 148.9 121.5 182.3

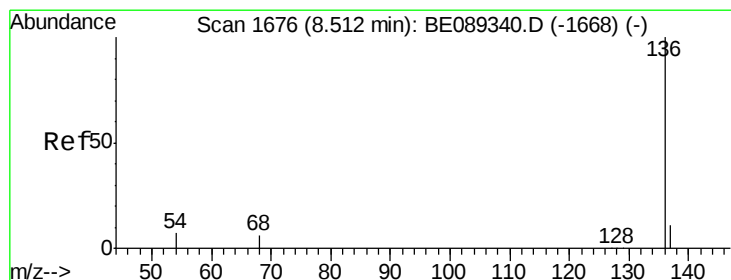
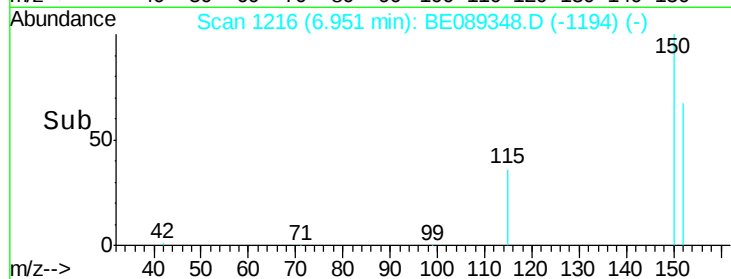
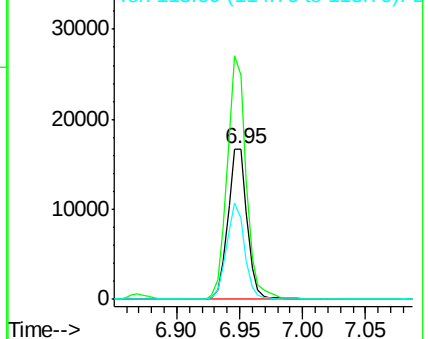
115 53.9 45.2 67.8



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

Naphthalene-d8

Concen: 5.00 ng

RT: 8.51 min Scan# 1675

Delta R.T. -0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Tgt Ion:136 Resp: 66642

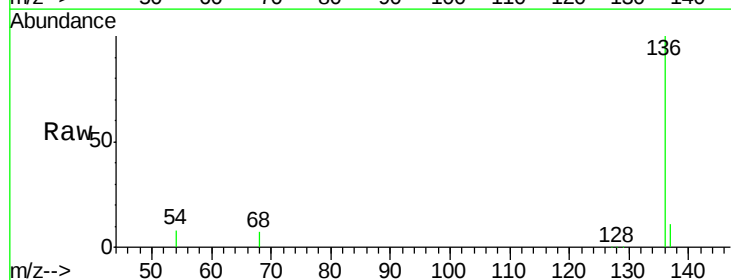
Ion Ratio Lower Upper

136 100

137 10.8 9.0 13.4

54 7.9 5.4 8.0

68 7.0 4.7 7.1

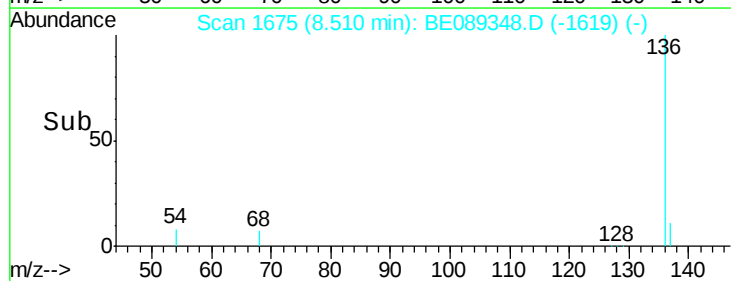
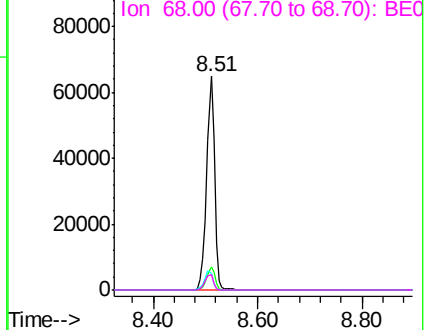


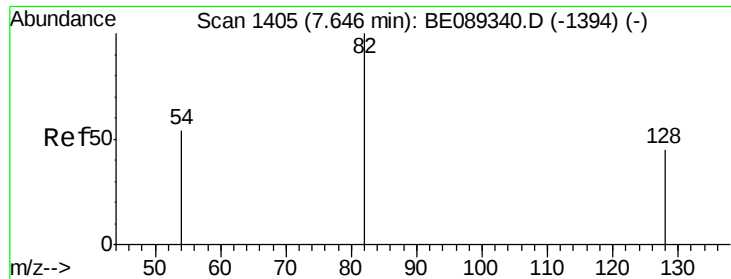
Abundance Ion 136.00 (135.70 to 136.70): E

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





#3

Nitrobenzene-d5

Concen: 1.05 ng

RT: 7.65 min Scan# 1405

Delta R.T. 0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :

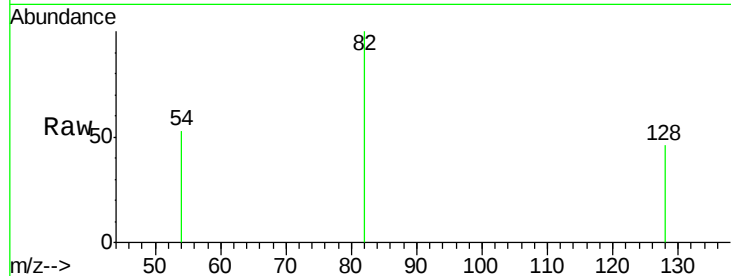
Tgt Ion: 82 Resp: 4853

Ion Ratio Lower Upper

82 100

128 46.0 36.5 54.7

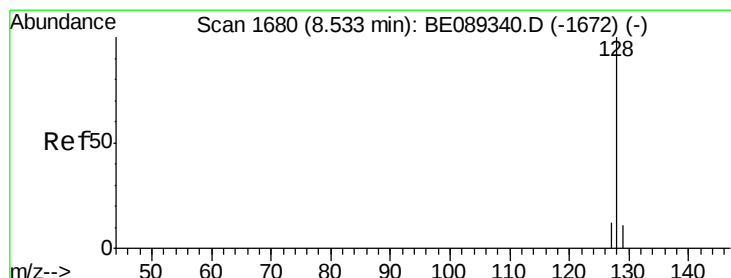
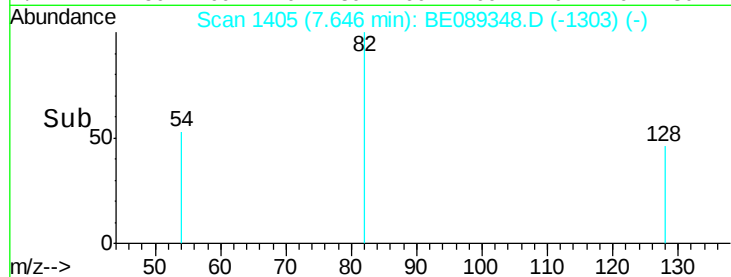
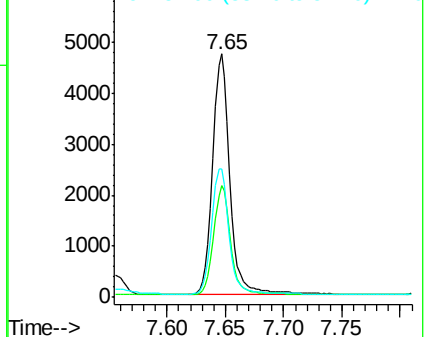
54 53.0 43.5 65.3



Abundance Ion 82.00 (81.70 to 82.70): BE0

Ion 128.00 (127.70 to 128.70): BE0

Ion 54.00 (53.70 to 54.70): BE0



#4

Naphthalene

Concen: 1.03 ng

RT: 8.54 min Scan# 1680

Delta R.T. 0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

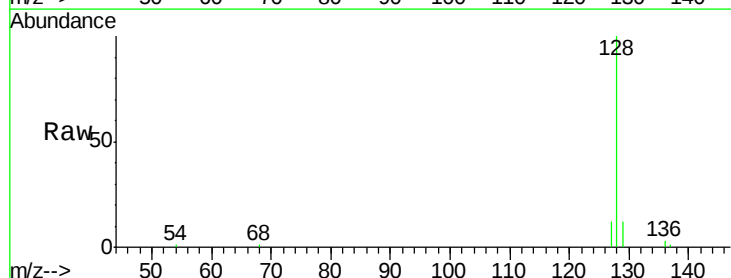
Tgt Ion: 128 Resp: 15471

Ion Ratio Lower Upper

128 100

129 11.5 8.8 13.2

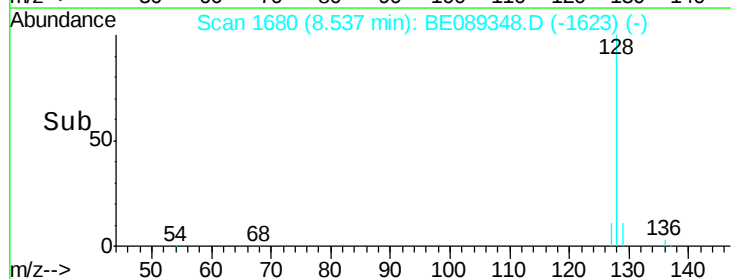
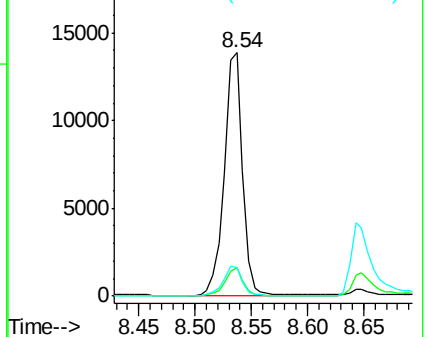
127 11.5 10.0 15.0

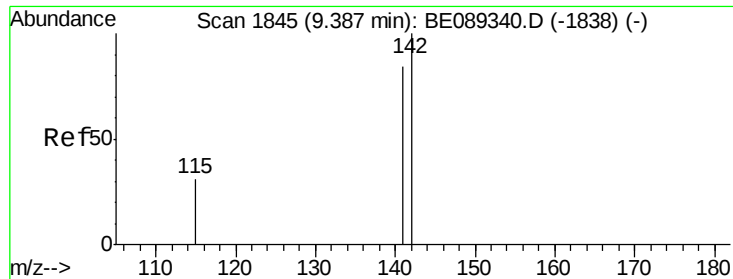


Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E





#5

2-Methylnaphthalene

Concen: 1.02 ng

RT: 9.39 min Scan# 1845

Delta R.T. 0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :

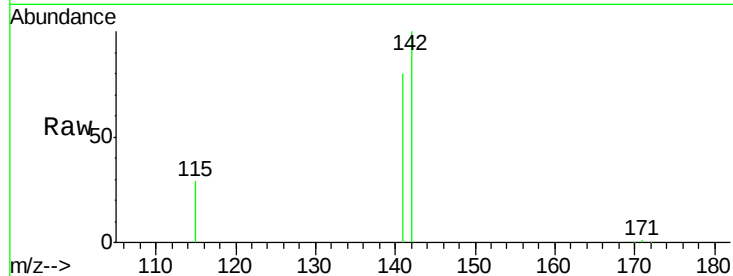
Tgt Ion:142 Resp: 9542

Ion Ratio Lower Upper

142 100

141 80.1 66.3 99.5

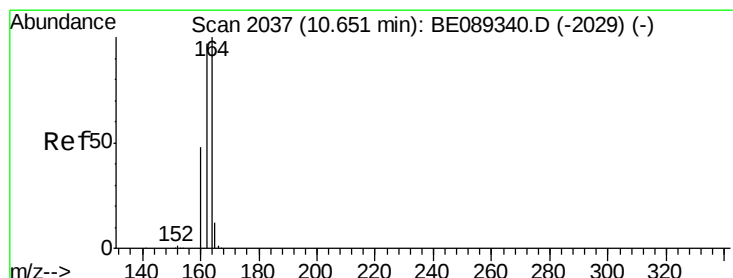
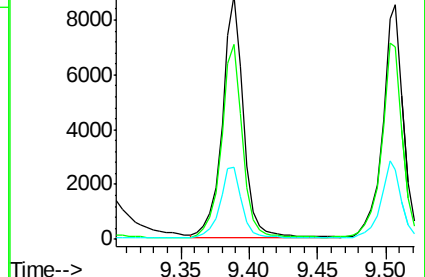
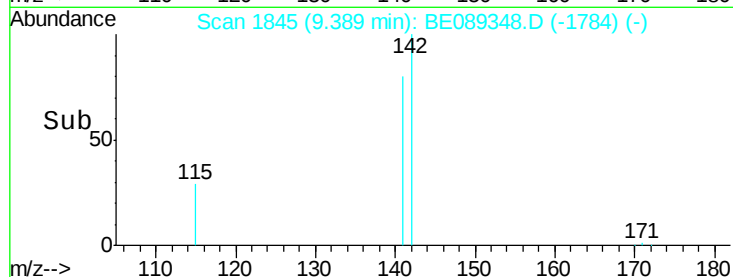
115 29.4 25.2 37.8



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E

Ion 115.00 (114.70 to 115.70): E



#6

Acenaphthene-d10

Concen: 5.00 ng

RT: 10.66 min Scan# 2037

Delta R.T. 0.01 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

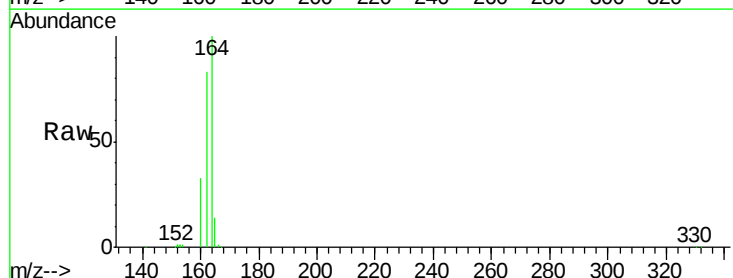
Tgt Ion:164 Resp: 30108

Ion Ratio Lower Upper

164 100

162 83.0 77.4 116.2

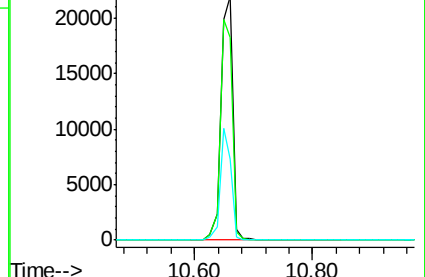
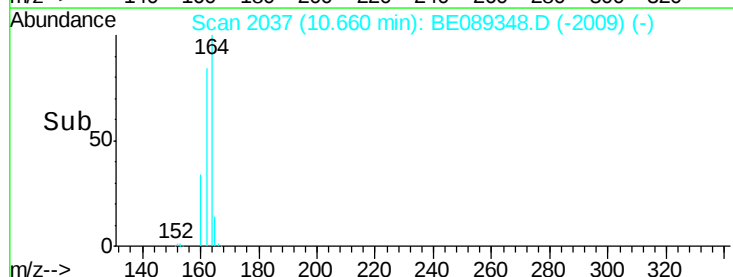
160 33.4 38.2 57.4#

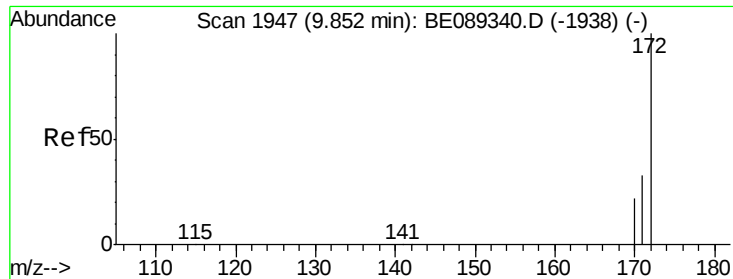


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





#7

2-Fluorobiphenyl

Concen: 1.04 ng

RT: 9.85 min Scan# 1947

Delta R.T. 0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :

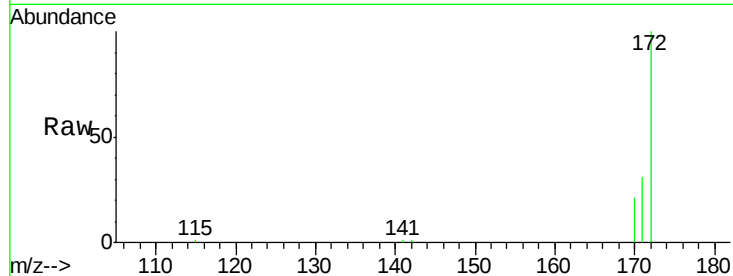
Tgt Ion:172 Resp: 8530

Ion Ratio Lower Upper

172 100

171 31.4 26.4 39.6

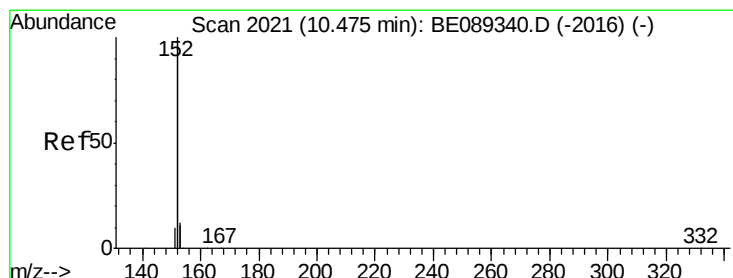
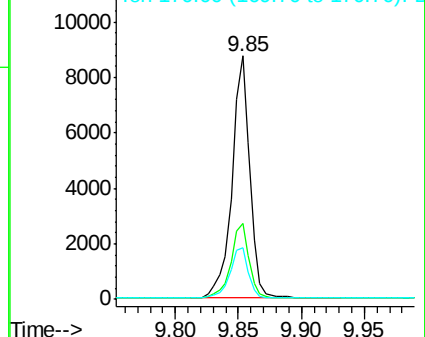
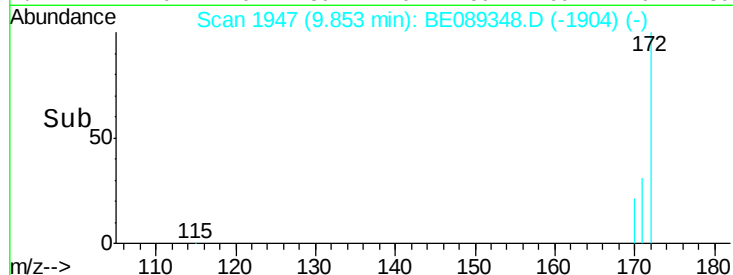
170 21.0 18.0 27.0



Abundance Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E



#8

Acenaphthylene

Concen: 1.02 ng

RT: 10.47 min Scan# 2020

Delta R.T. -0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

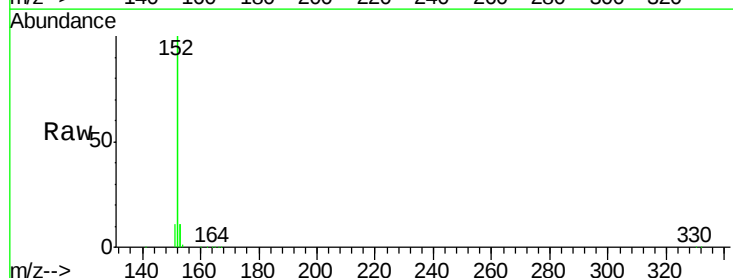
Tgt Ion:152 Resp: 52773

Ion Ratio Lower Upper

152 100

151 5.4 4.1 6.1

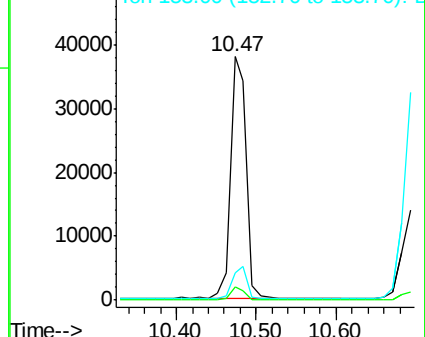
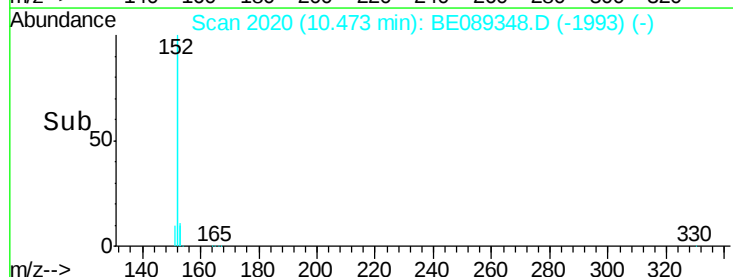
153 11.3 9.8 14.6

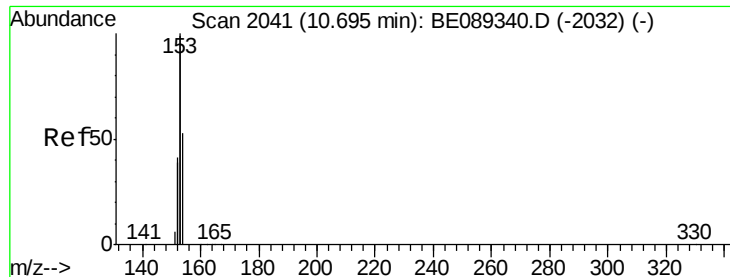


Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E





#9

Acenaphthene

Concen: 1.01 ng

RT: 10.69 min Scan# 2040

Delta R.T. -0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :

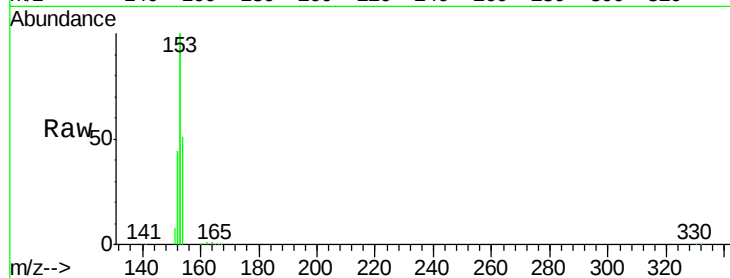
Tgt Ion:154 Resp: 8112

Ion Ratio Lower Upper

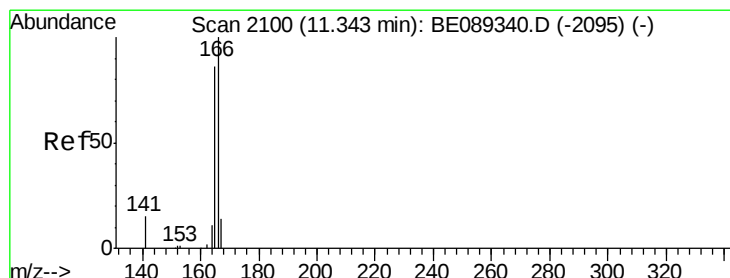
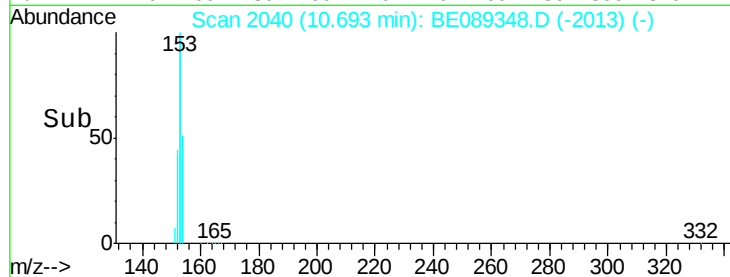
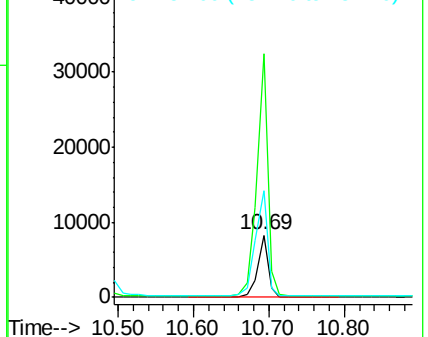
154 100

153 390.7 300.6 450.8

152 170.2 123.3 184.9



Abundance Ion 154.00 (153.70 to 154.70): E  
Ion 153.00 (152.70 to 153.70): E  
Ion 152.00 (151.70 to 152.70): E



#10

Fluorene

Concen: 1.01 ng

RT: 11.34 min Scan# 2099

Delta R.T. -0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

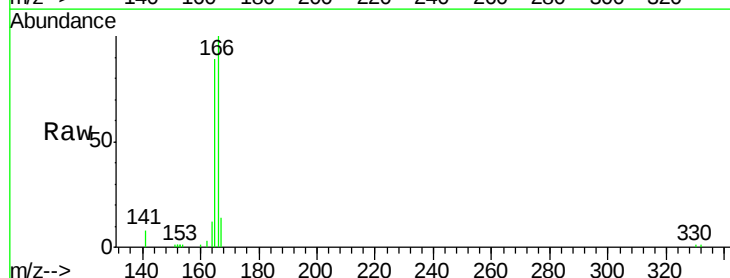
Tgt Ion:166 Resp: 8706

Ion Ratio Lower Upper

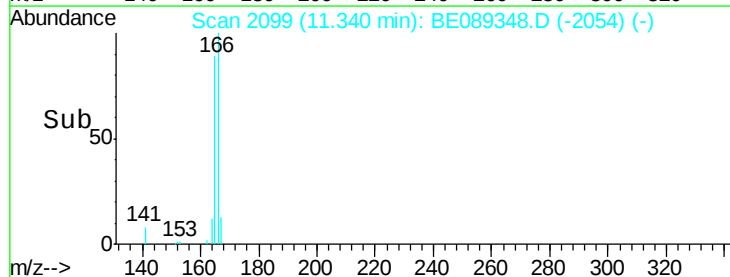
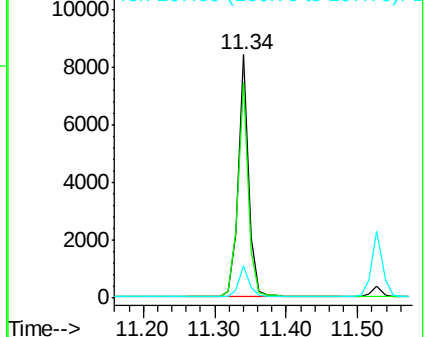
166 100

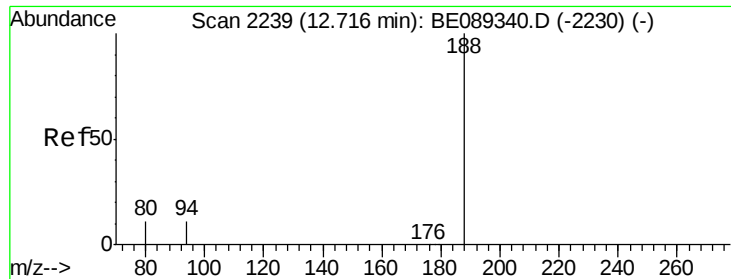
165 89.4 72.1 108.1

167 13.2 11.0 16.4



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

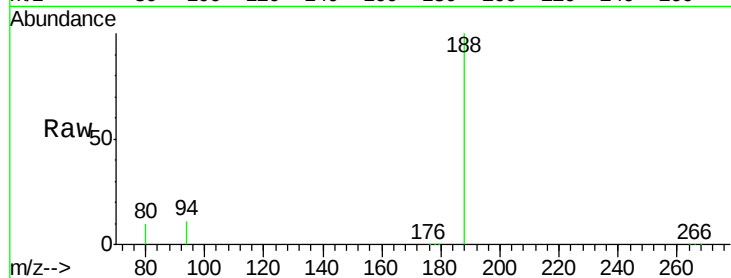




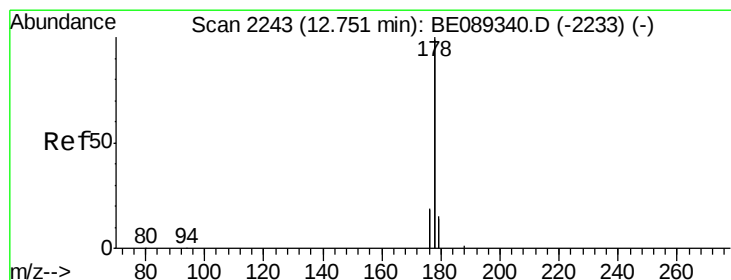
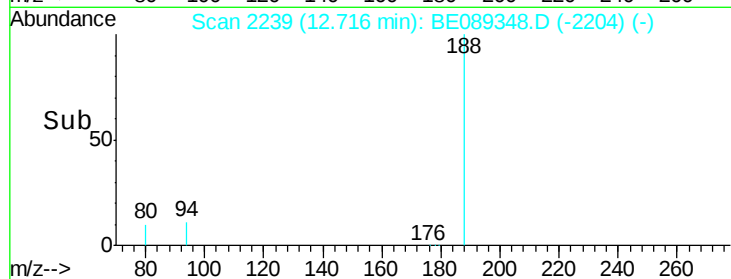
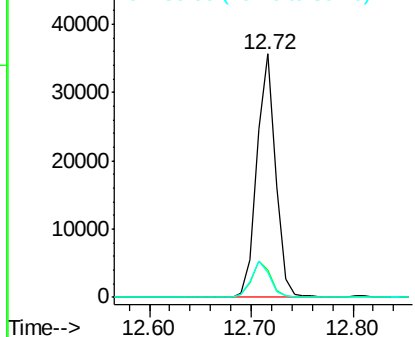
#11  
Phenanthrene-d10  
Concen: 5.00 ng  
RT: 12.72 min Scan# 2239  
Delta R.T. 0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

Instrument :  
BNA\_E  
ClientSampleId :

Tgt Ion:188 Resp: 44596  
Ion Ratio Lower Upper  
188 100  
94 11.3 11.0 12.2  
80 10.1 10.1 11.1

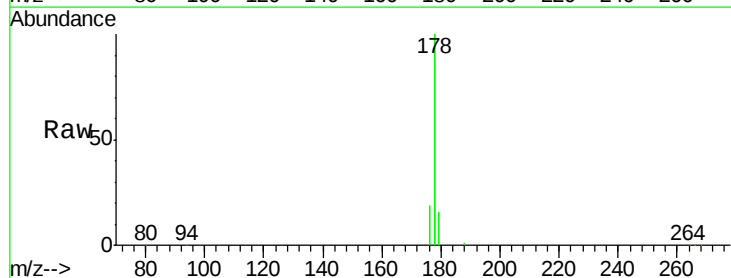


Abundance Ion 188.00 (187.70 to 188.70): E  
Ion 94.00 (93.70 to 94.70): BE0  
Ion 80.00 (79.70 to 80.70): BE0

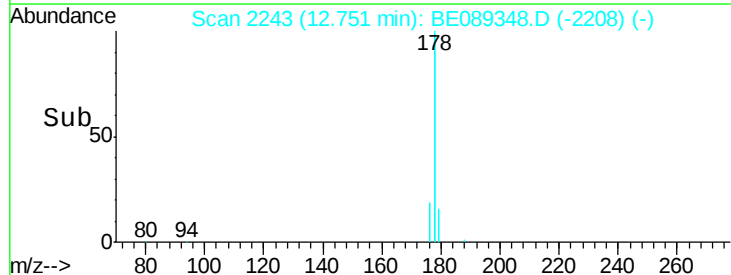
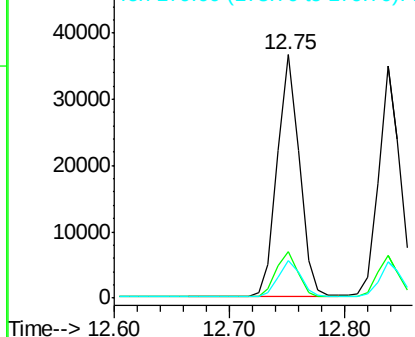


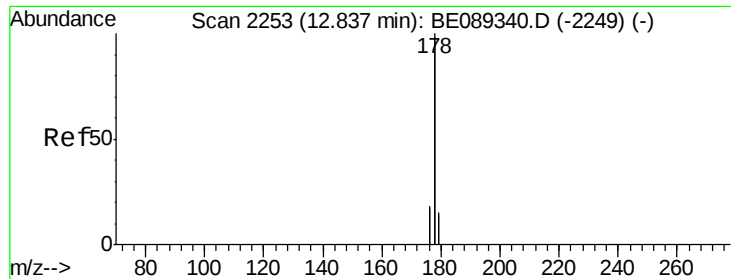
#12  
Phenanthrene  
Concen: 1.04 ng  
RT: 12.75 min Scan# 2243  
Delta R.T. 0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

Tgt Ion:178 Resp: 48256  
Ion Ratio Lower Upper  
178 100  
176 18.9 15.1 22.7  
179 15.5 12.2 18.2



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





#13

Anthracene

Concen: 1.05 ng

RT: 12.84 min Scan# 2253

Delta R.T. 0.00 min

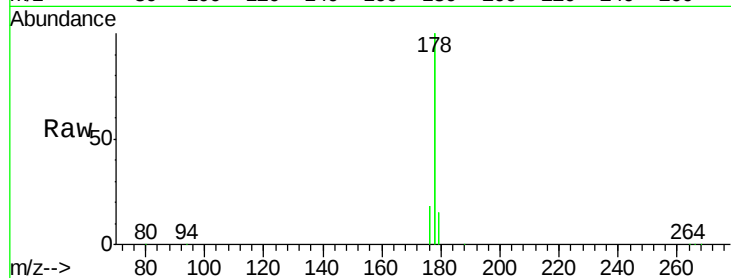
Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :



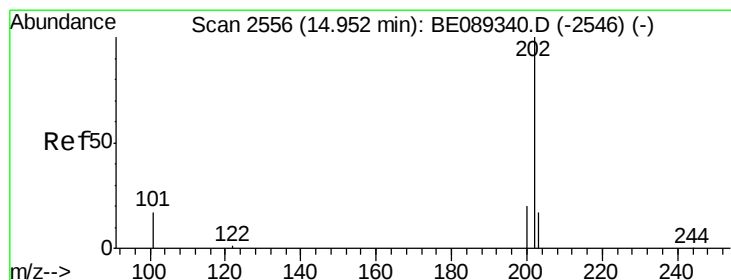
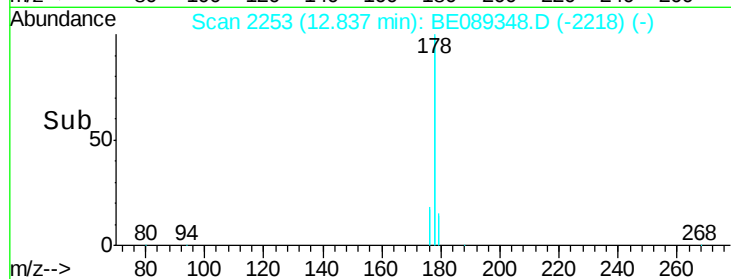
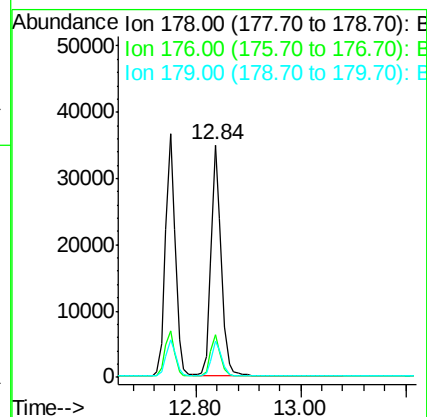
Tgt Ion:178 Resp: 46985

Ion Ratio Lower Upper

178 100

176 18.4 14.7 22.1

179 15.4 12.0 18.0



#14

Fluoranthene

Concen: 1.06 ng

RT: 14.95 min Scan# 2556

Delta R.T. 0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

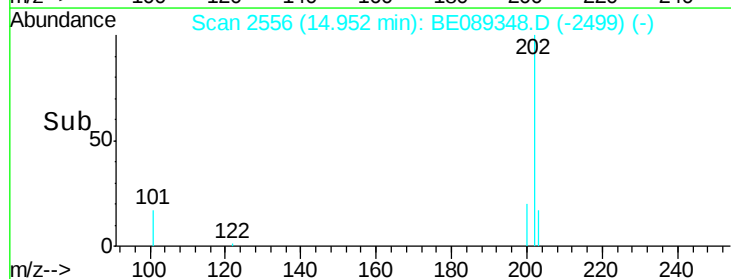
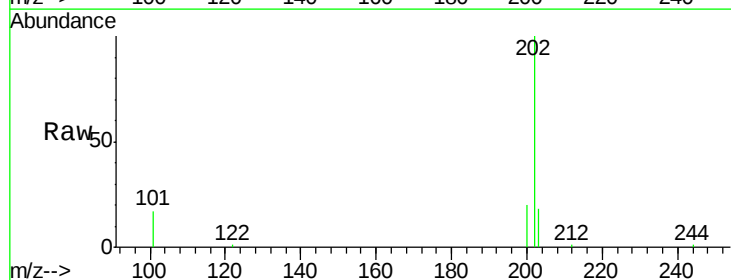
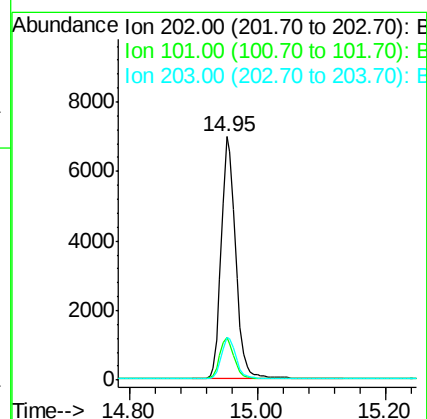
Tgt Ion:202 Resp: 10871

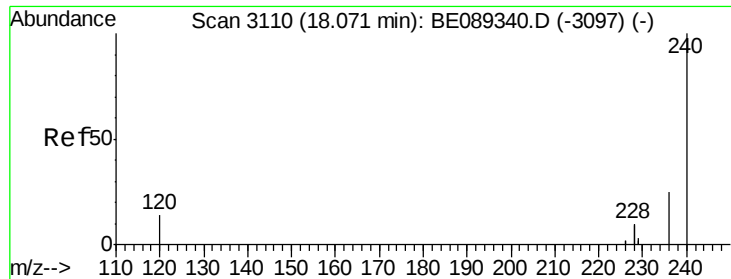
Ion Ratio Lower Upper

202 100

101 17.5 0.0 37.9

203 17.6 0.0 37.5

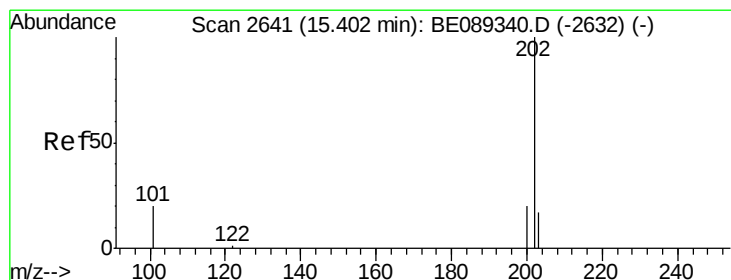
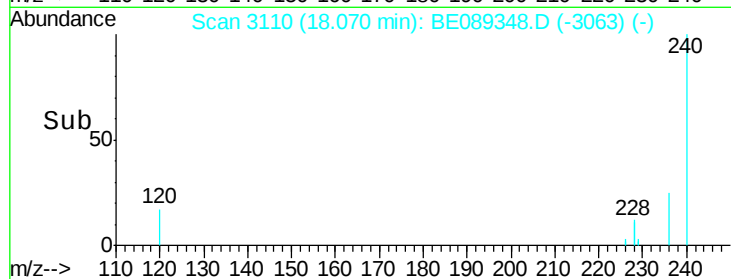
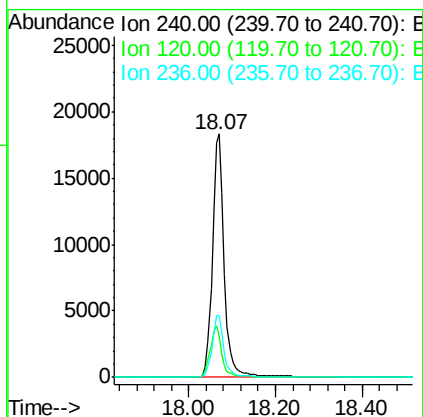
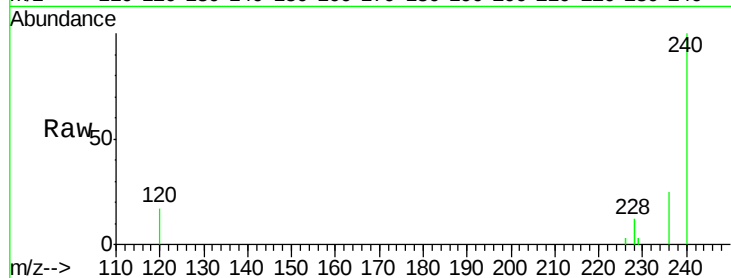




#15  
Chrysene-d12  
Concen: 5.00 ng  
RT: 18.07 min Scan# 3110  
Delta R.T. -0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

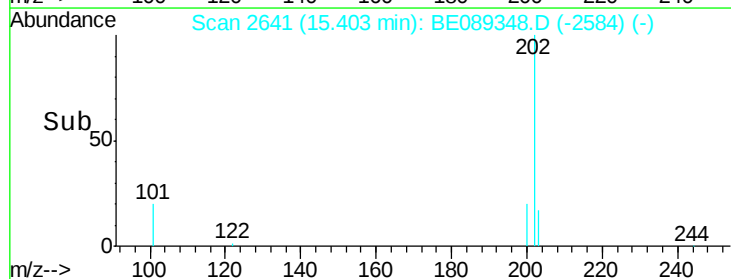
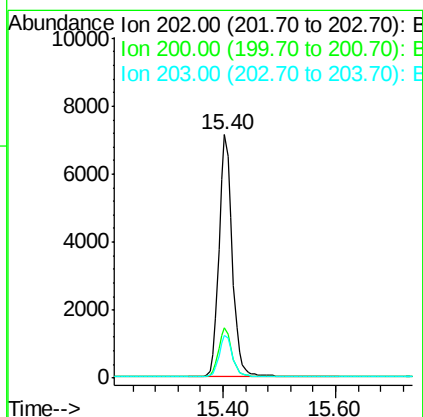
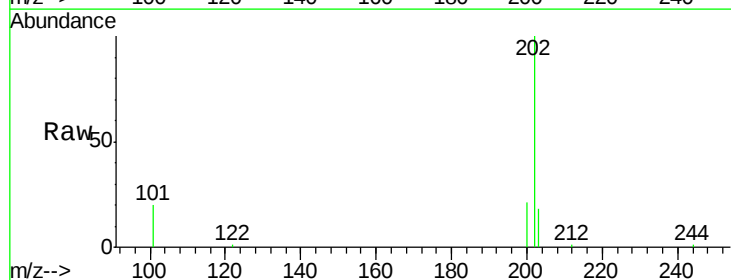
Instrument :  
BNA\_E  
ClientSampleId :

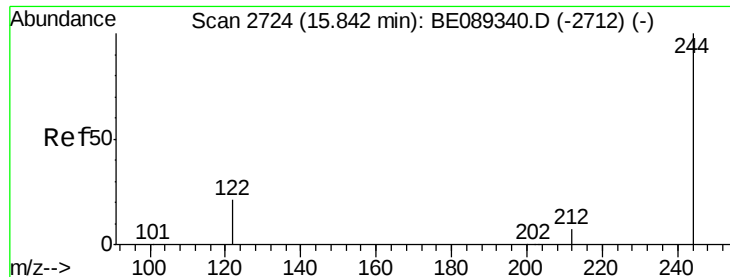
Tgt Ion:240 Resp: 34805  
Ion Ratio Lower Upper  
240 100  
120 16.7 11.8 17.6  
236 25.3 20.0 30.0



#16  
Pyrene  
Concen: 1.02 ng  
RT: 15.40 min Scan# 2641  
Delta R.T. 0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

Tgt Ion:202 Resp: 11611  
Ion Ratio Lower Upper  
202 100  
200 20.6 16.8 25.2  
203 17.6 14.0 21.0

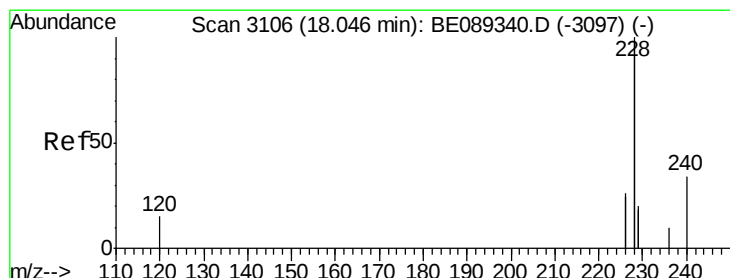
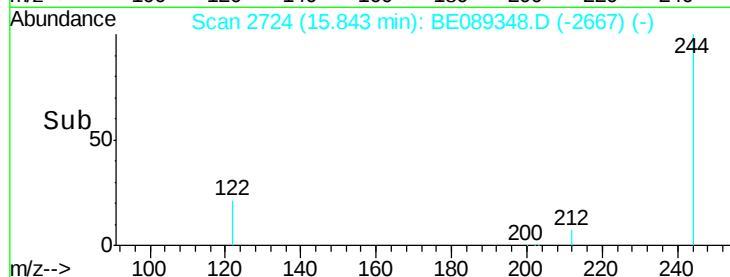
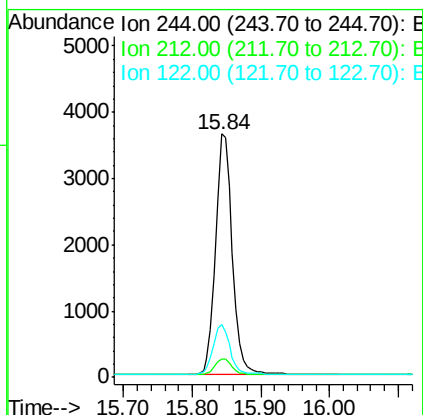
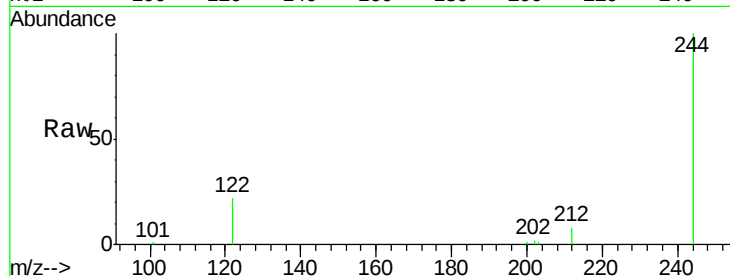




#17  
 Terphenyl-d14  
 Concen: 0.99 ng  
 RT: 15.84 min Scan# 2724  
 Delta R.T. 0.00 min  
 Lab File: BE089348.D  
 Acq: 8 Jan 2015 2:30

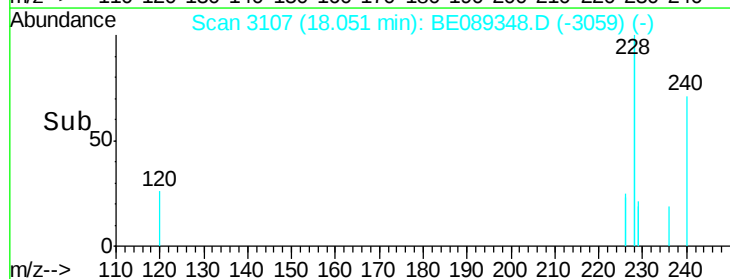
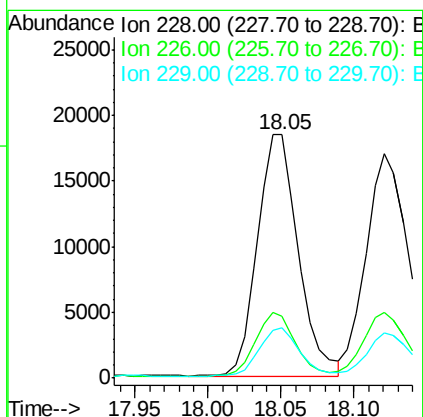
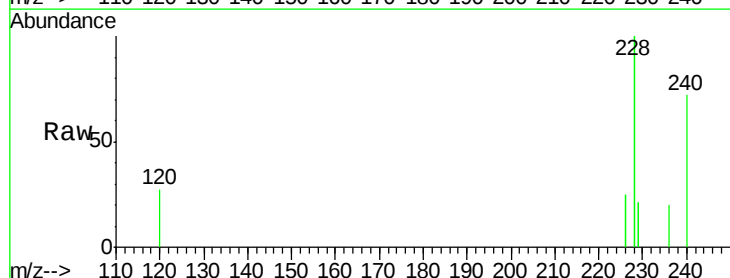
Instrument :  
 BNA\_E  
 ClientSampleId :

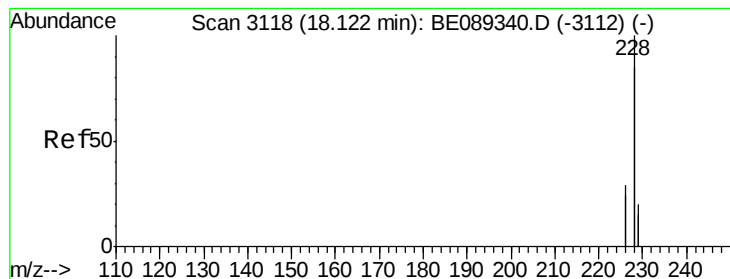
Tgt Ion: 244 Resp: 6122  
 Ion Ratio Lower Upper  
 244 100  
 212 7.7 6.3 9.5  
 122 21.8 17.7 26.5



#18  
 Benzo(a)anthracene  
 Concen: 1.01 ng  
 RT: 18.05 min Scan# 3107  
 Delta R.T. 0.00 min  
 Lab File: BE089348.D  
 Acq: 8 Jan 2015 2:30

Tgt Ion: 228 Resp: 35668  
 Ion Ratio Lower Upper  
 228 100  
 226 25.3 21.0 31.6  
 229 20.7 16.0 24.0





#19

Chrysene

Concen: 1.03 ng

RT: 18.12 min Scan# 3118

Delta R.T. -0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :

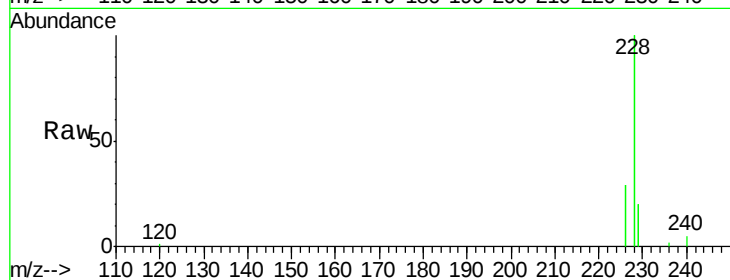
Tgt Ion: 228 Resp: 36480

Ion Ratio Lower Upper

228 100

226 29.2 23.5 35.3

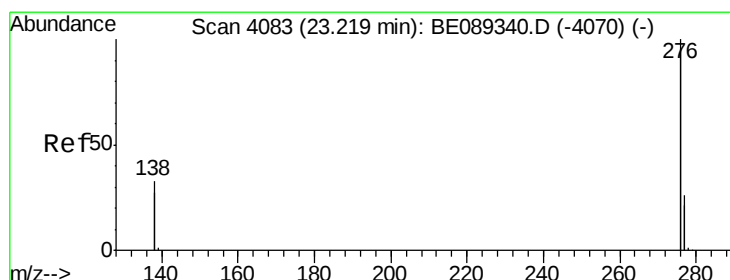
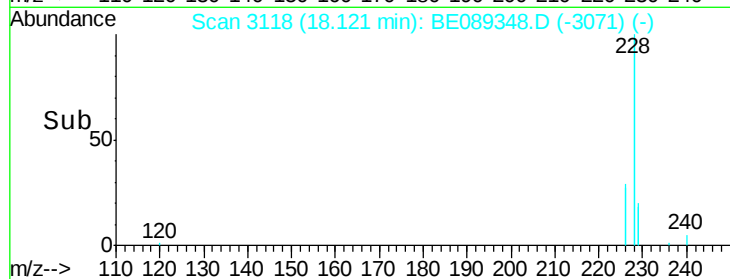
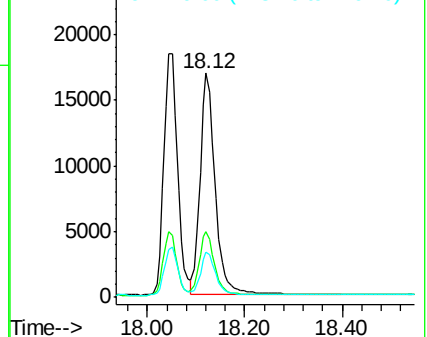
229 20.4 16.1 24.1



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



#20

Indeno(1,2,3-cd)pyrene

Concen: 0.65 ng

RT: 23.22 min Scan# 4083

Delta R.T. -0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

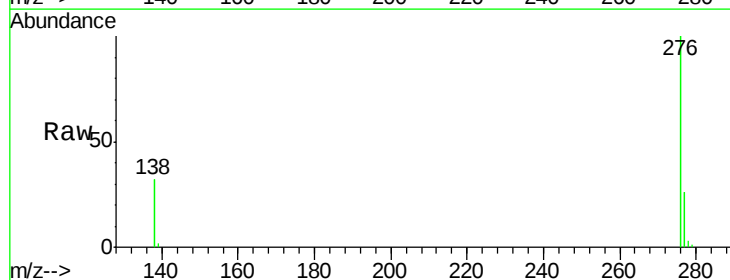
Tgt Ion: 276 Resp: 22155

Ion Ratio Lower Upper

276 100

138 29.8 23.8 35.8

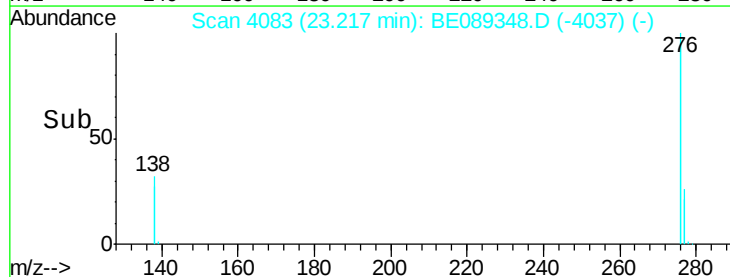
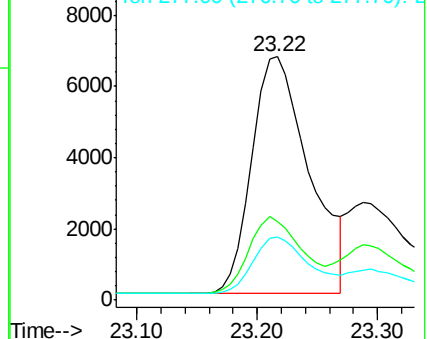
277 23.8 18.2 27.4

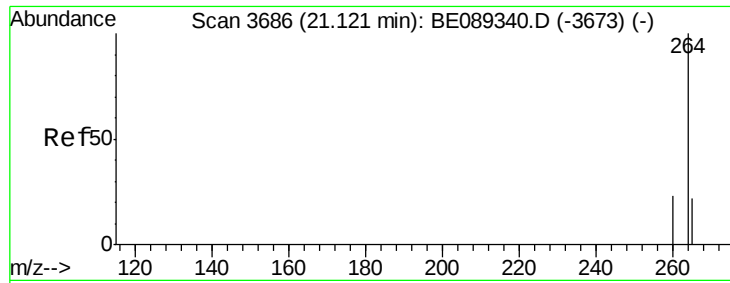


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E

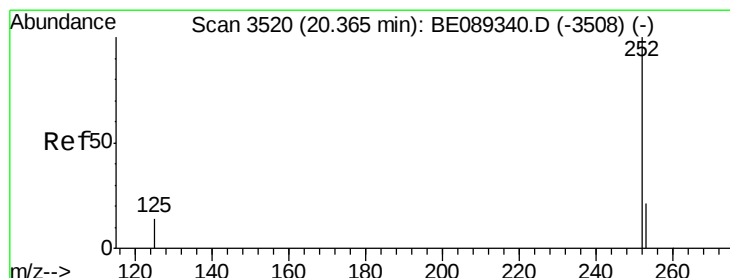
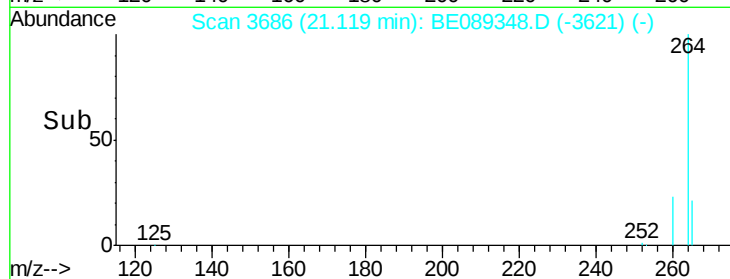
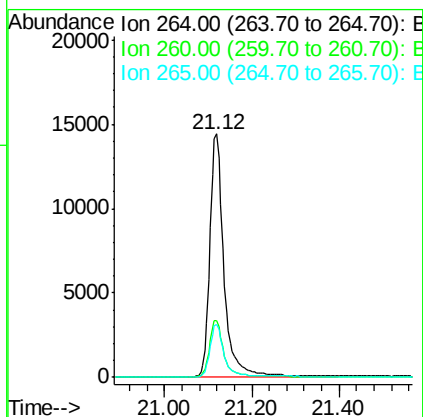
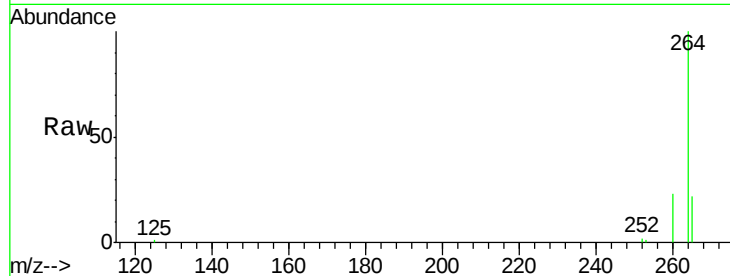




#21  
Perylene-d12  
Concen: 5.00 ng  
RT: 21.12 min Scan# 3686  
Delta R.T. -0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

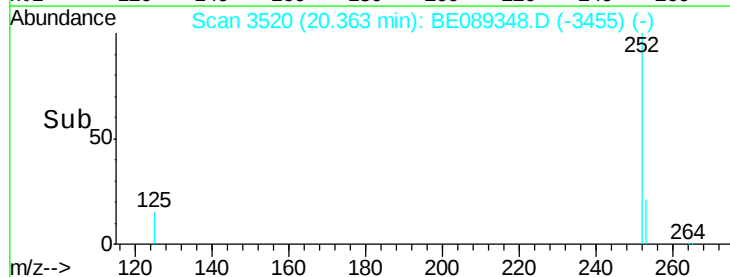
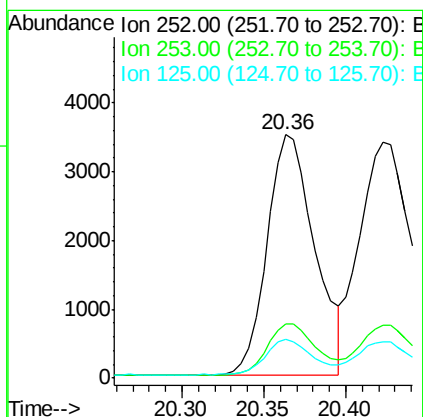
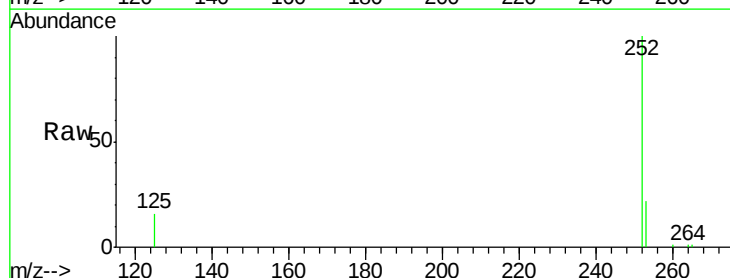
Instrument :  
BNA\_E  
ClientSampleId :

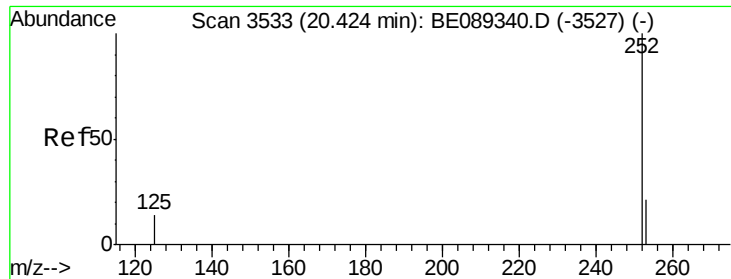
Tgt Ion: 264 Resp: 31940  
Ion Ratio Lower Upper  
264 100  
260 23.4 18.9 28.3  
265 21.7 17.4 26.2



#22  
Benzo(b)fluoranthene  
Concen: 1.02 ng  
RT: 20.36 min Scan# 3520  
Delta R.T. -0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

Tgt Ion: 252 Resp: 7084  
Ion Ratio Lower Upper  
252 100  
253 22.3 17.8 26.6  
125 15.9 12.6 18.8





#23

Benzo(k)fluoranthene

Concen: 1.05 ng

RT: 20.42 min Scan# 3533

Delta R.T. -0.00 min

Lab File: BE089348.D

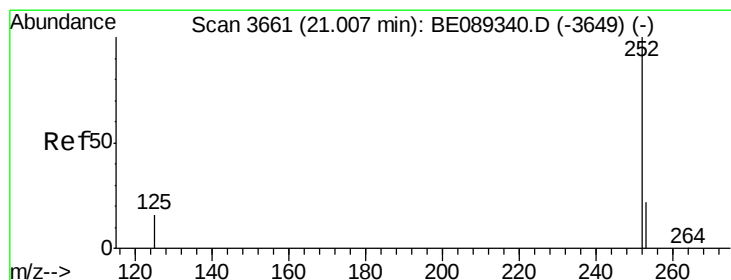
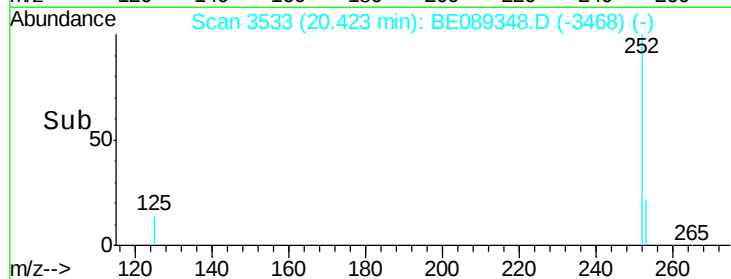
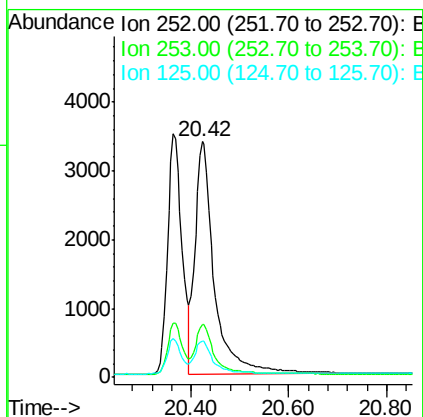
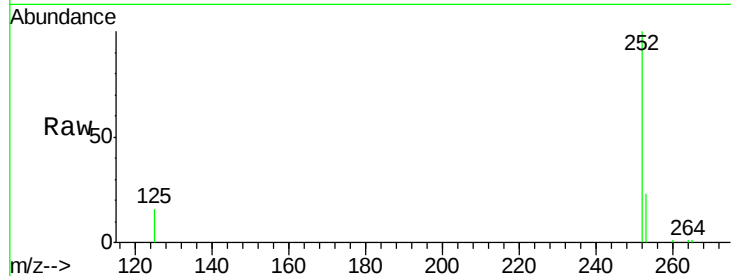
Acq: 8 Jan 2015 2:30

Instrument :

BNA\_E

ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 252   | Resp: | 9192  |
| Ion      | Ratio | Lower | Upper |
| 252      | 100   |       |       |
| 253      | 22.6  | 18.0  | 27.0  |
| 125      | 15.6  | 12.4  | 18.6  |



#24

Benzo(a)pyrene

Concen: 1.01 ng

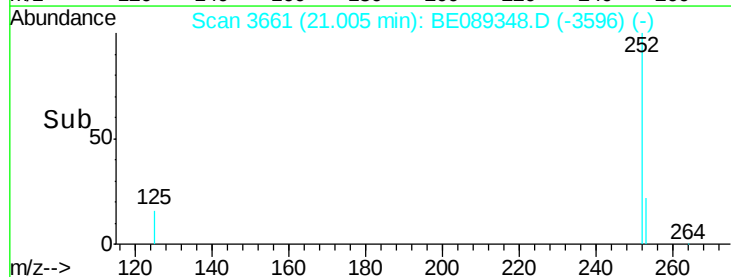
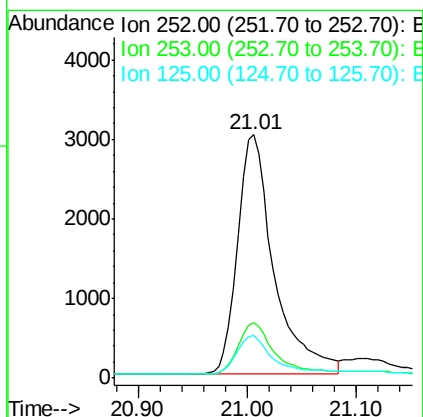
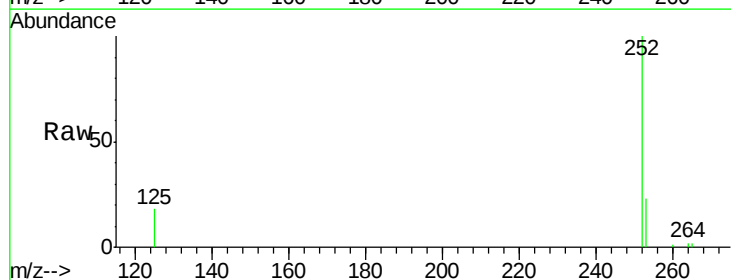
RT: 21.01 min Scan# 3661

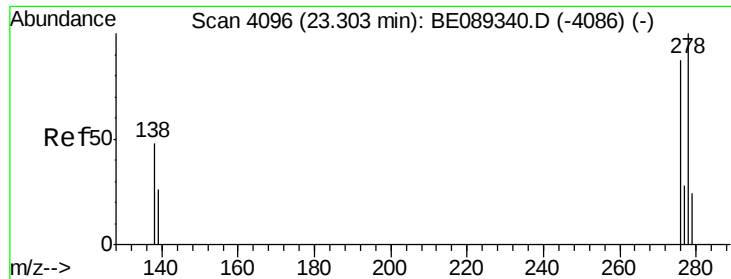
Delta R.T. -0.00 min

Lab File: BE089348.D

Acq: 8 Jan 2015 2:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 252   | Resp: | 6979  |
| Ion      | Ratio | Lower | Upper |
| 252      | 100   |       |       |
| 253      | 22.8  | 18.3  | 27.5  |
| 125      | 17.5  | 13.8  | 20.8  |



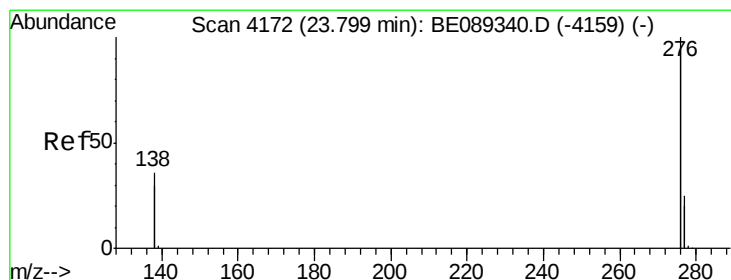
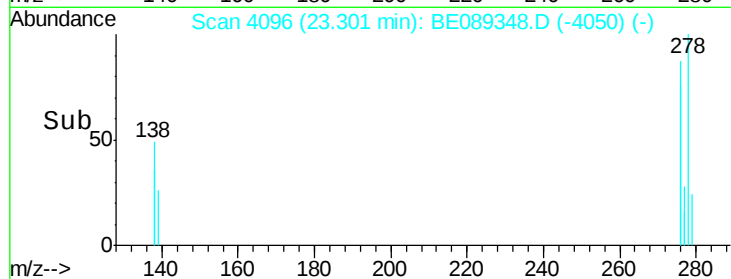
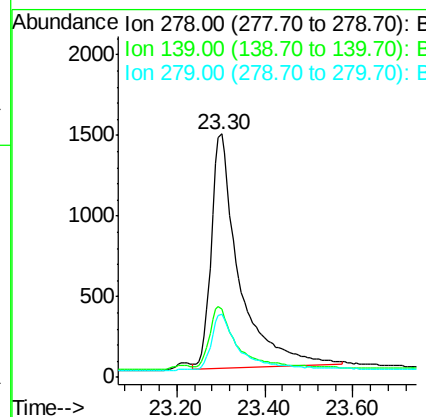
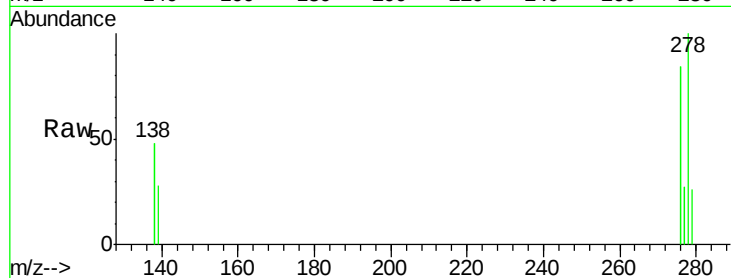


#25  
Dibenzo(a,h)anthracene  
Concen: 1.01 ng  
RT: 23.30 min Scan# 4096  
Delta R.T. -0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

Instrument :  
BNA\_E  
ClientSampleId :

Tgt Ion: 278 Resp: 6386  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 278 | 100   |       |       |
| 139 | 28.3  | 22.9  | 34.3  |
| 279 | 25.8  | 20.8  | 31.2  |



#26  
Benzo(g,h,i)perylene  
Concen: 1.02 ng  
RT: 23.80 min Scan# 4172  
Delta R.T. -0.00 min  
Lab File: BE089348.D  
Acq: 8 Jan 2015 2:30

Tgt Ion: 276 Resp: 32332  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 276 | 100   |       |       |
| 277 | 25.2  | 20.0  | 30.0  |
| 138 | 36.1  | 28.5  | 42.7  |

