

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE102414\  
 Data File : BE088238.D  
 Acq On : 25 Oct 2014 8:22  
 Operator : TP/JJ  
 Sample : F4368-18  
 Misc :  
 ALS Vial : 30 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SS42-1014

Quant Time: Oct 27 14:39:17 2014  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BE102414.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Oct 27 13:04:40 2014  
 Response via : Initial Calibration

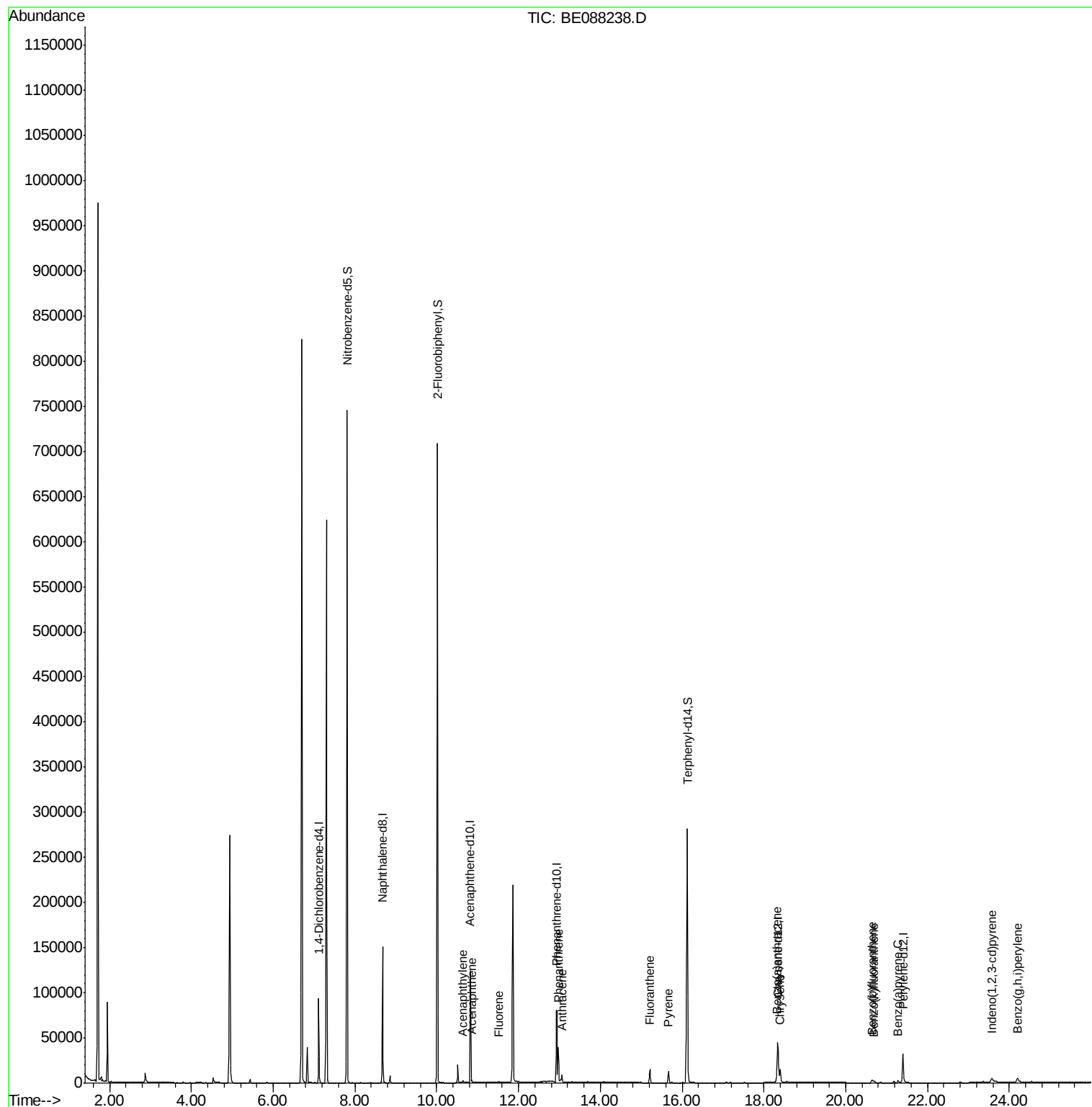
| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.12  | 152  | 26848    | 5.00  | ng    | 0.00     |
| 3) Naphthalene-d8           | 8.68  | 136  | 109364   | 5.00  | ng    | 0.00     |
| 7) Acenaphthene-d10         | 10.82 | 164  | 56855    | 5.00  | ng    | 0.00     |
| 12) Phenanthrene-d10        | 12.94 | 188  | 110509   | 5.00  | ng    | 0.00     |
| 16) Chrysene-d12            | 18.34 | 240  | 49977    | 5.00  | ng    | 0.00     |
| 22) Perylene-d12            | 21.40 | 264  | 43188    | 5.00  | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |       |       |          |
| 4) Nitrobenzene-d5          | 7.81  | 82   | 441029   | 53.35 | ng    | 0.02     |
| 8) 2-Fluorobiphenyl         | 10.02 | 172  | 556334   | 35.09 | ng    | 0.00     |
| 18) Terphenyl-d14           | 16.13 | 244  | 463146   | 56.59 | ng    | 0.02     |
| Target Compounds            |       |      |          |       |       | Qvalue   |
| 9) Acenaphthylene           | 10.64 | 152  | 2179     | 0.03  | ng    | 99       |
| 10) Acenaphthene            | 10.86 | 154  | 459      | 0.03  | ng    | # 81     |
| 11) Fluorene                | 11.52 | 166  | 534      | 0.04  | ng    | 96       |
| 13) Phenanthrene            | 12.97 | 178  | 45346    | 0.43  | ng    | # 90     |
| 14) Anthracene              | 13.06 | 178  | 7396     | 0.09  | ng    | # 80     |
| 15) Fluoranthene            | 15.21 | 202  | 14499    | 0.90  | ng    | 99       |
| 17) Pyrene                  | 15.66 | 202  | 12361    | 0.90  | ng    | 96       |
| 19) Benzo(a)anthracene      | 18.32 | 228  | 18569    | 0.47  | ng    | 97       |
| 20) Chrysene                | 18.40 | 228  | 21430    | 0.48  | ng    | 96       |
| 21) Indeno(1,2,3-cd)pyrene  | 23.58 | 276  | 12912    | 0.51  | ng    | # 76     |
| 23) Benzo(b)fluoranthene    | 20.64 | 252  | 5614     | 0.76  | ng    | # 92     |
| 24) Benzo(k)fluoranthene    | 20.70 | 252  | 2704     | 0.24  | ng    | # 89     |
| 25) Benzo(a)pyrene          | 21.28 | 252  | 3671     | 0.56  | ng    | # 93     |
| 27) Benzo(g,h,i)perylene    | 24.20 | 276  | 12276    | 0.35  | ng    | 91       |

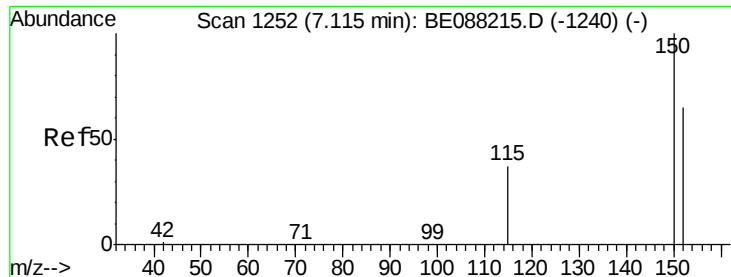
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 7.12 min Scan# 1252

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

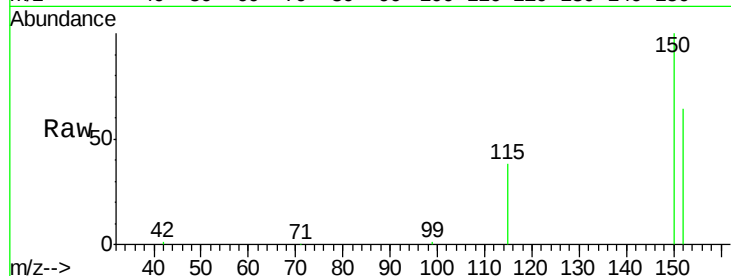
Tgt Ion:152 Resp: 26848

Ion Ratio Lower Upper

152 100

150 157.1 123.2 184.8

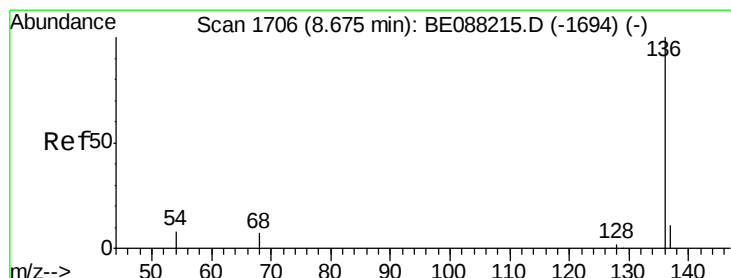
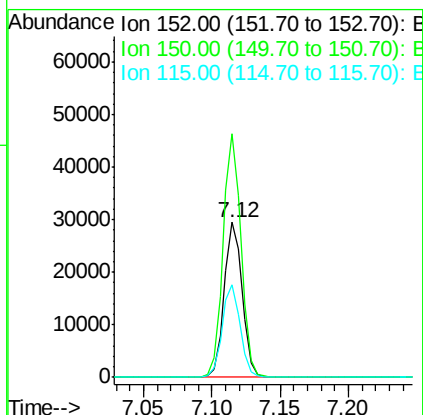
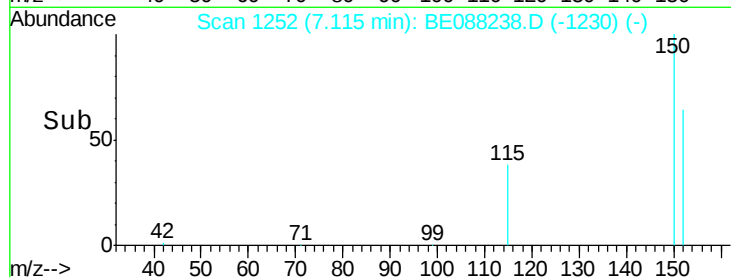
115 59.6 45.3 67.9



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



#3

Naphthalene-d8

Concen: 5.00 ng

RT: 8.68 min Scan# 1706

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

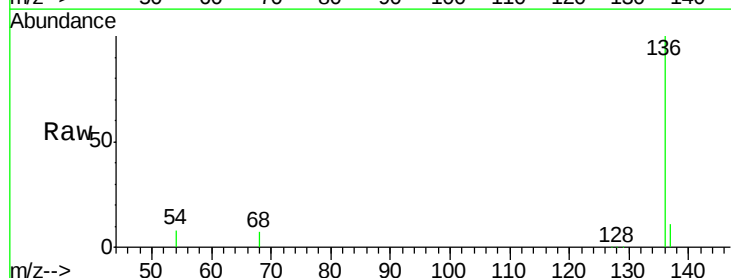
Tgt Ion:136 Resp: 109364

Ion Ratio Lower Upper

136 100

137 10.9 8.7 13.1

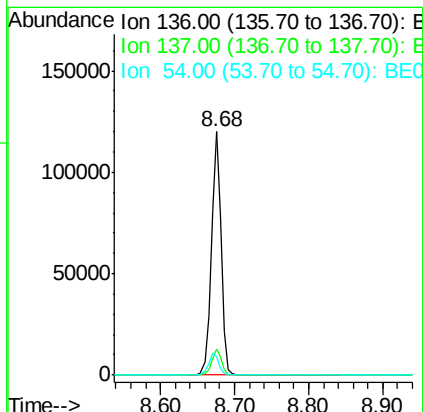
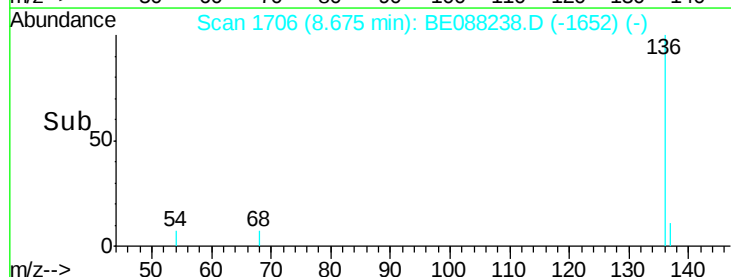
54 7.7 6.1 9.1

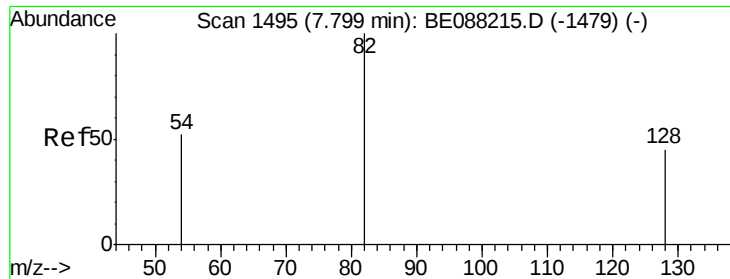


Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BE0





#4

Nitrobenzene-d5

Concen: 53.35 ng

RT: 7.81 min Scan# 1501

Delta R.T. 0.02 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

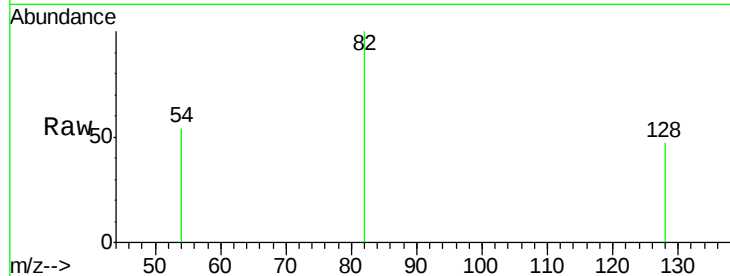
Tgt Ion: 82 Resp: 441029

Ion Ratio Lower Upper

82 100

128 46.6 36.2 54.2

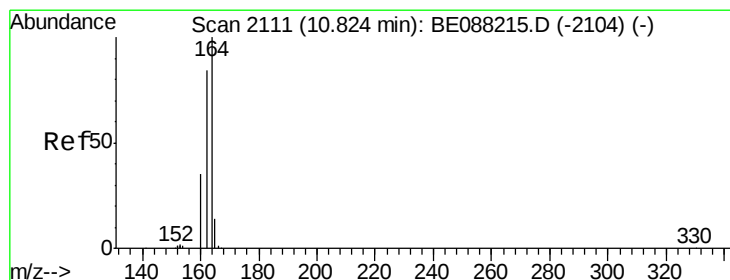
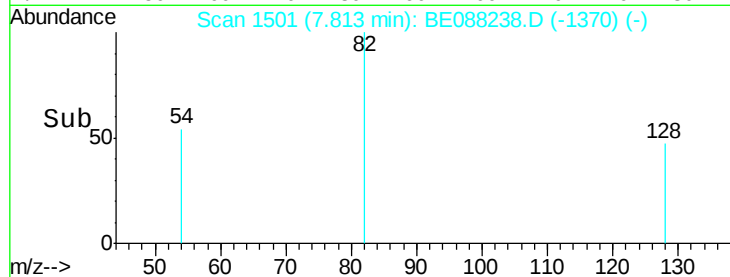
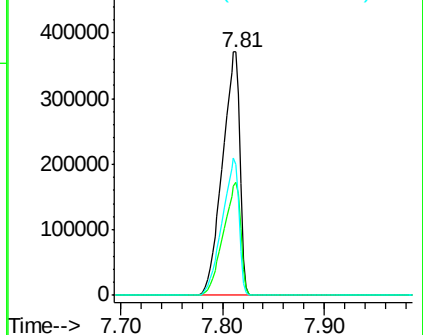
54 54.0 41.8 62.8



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



#7

Acenaphthene-d10

Concen: 5.00 ng

RT: 10.82 min Scan# 2111

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

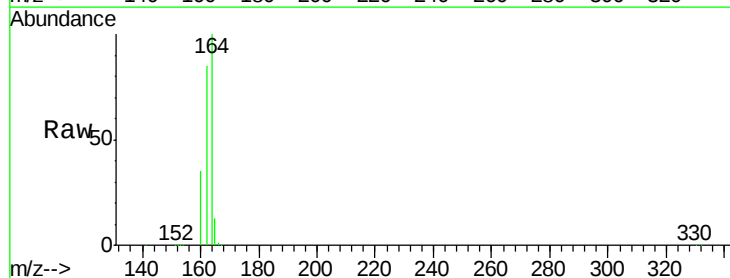
Tgt Ion: 164 Resp: 56855

Ion Ratio Lower Upper

164 100

162 85.1 67.4 101.0

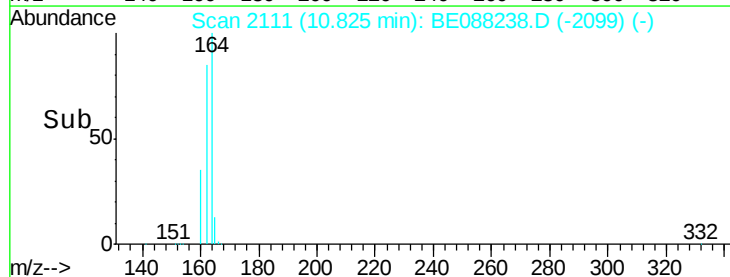
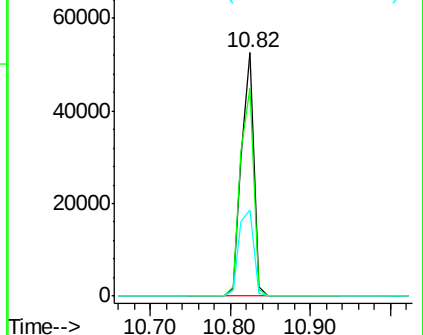
160 35.3 27.7 41.5

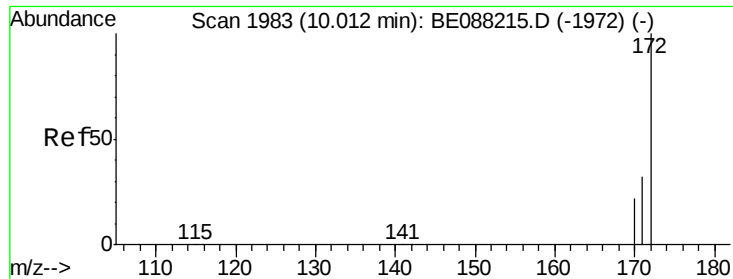


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





#8

2-Fluorobiphenyl

Concen: 35.09 ng

RT: 10.02 min Scan# 1985

Delta R.T. 0.01 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

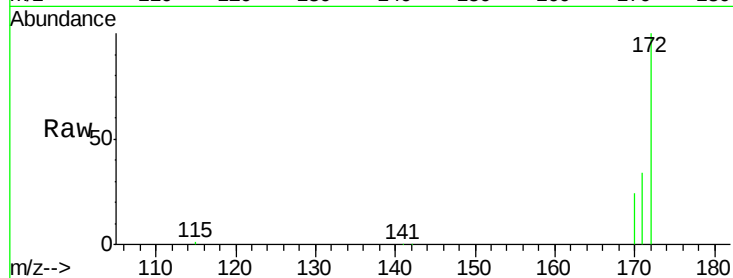
Tgt Ion:172 Resp: 556334

Ion Ratio Lower Upper

172 100

171 33.9 25.8 38.6

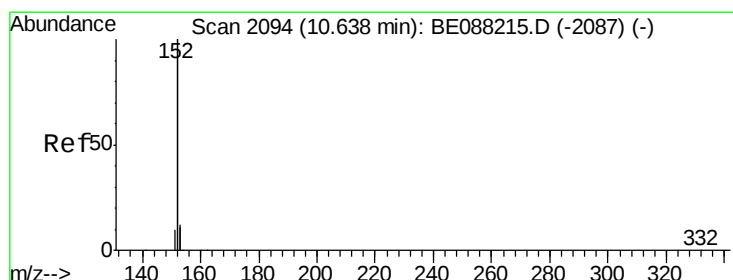
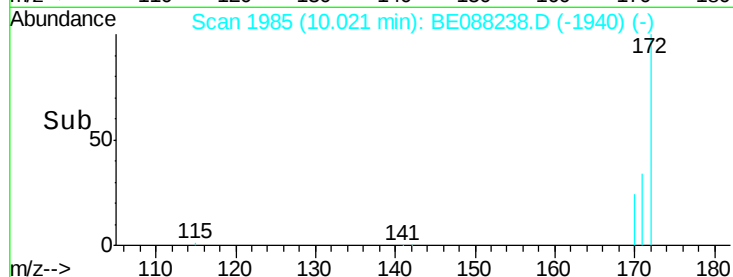
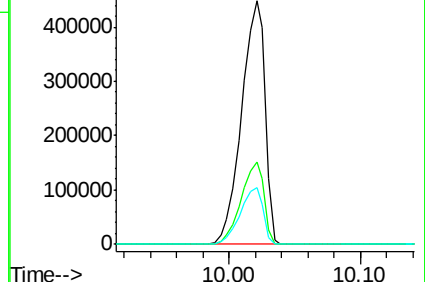
170 23.6 17.4 26.0



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



#9

Acenaphthylene

Concen: 0.03 ng

RT: 10.64 min Scan# 2094

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

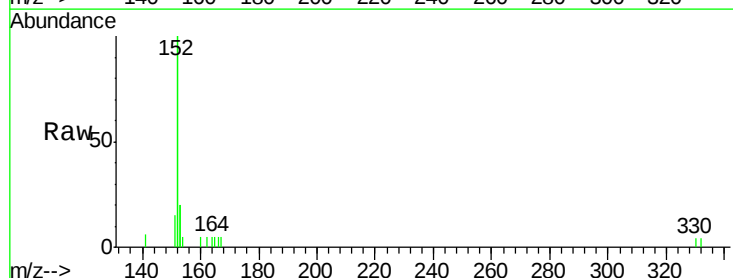
Tgt Ion:152 Resp: 2179

Ion Ratio Lower Upper

152 100

151 5.5 3.7 5.5

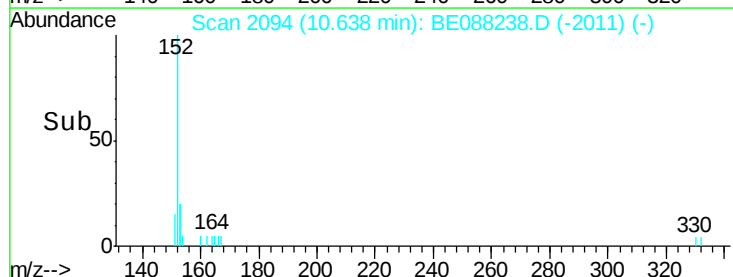
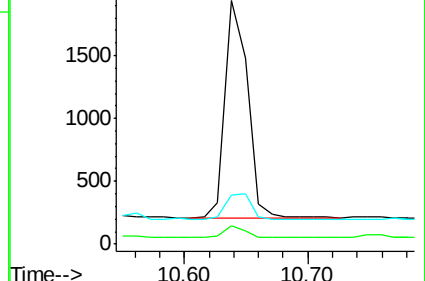
153 12.9 10.3 15.5

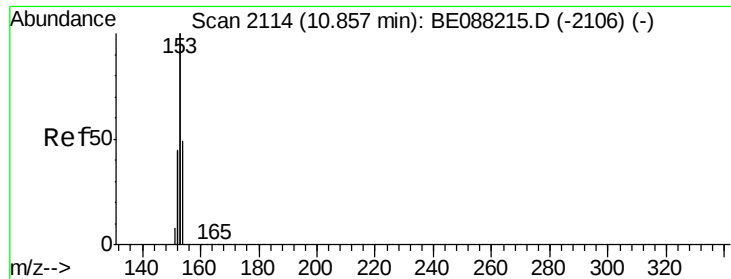


Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E





#10

Acenaphthene

Concen: 0.03 ng

RT: 10.86 min Scan# 2114

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

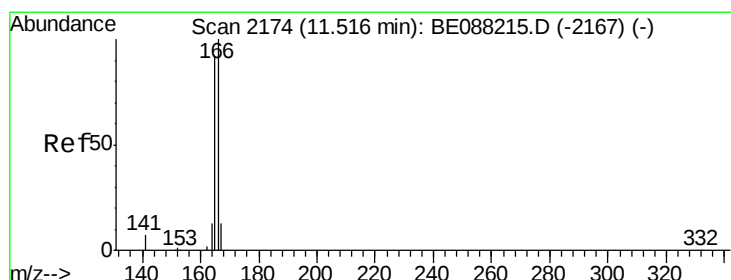
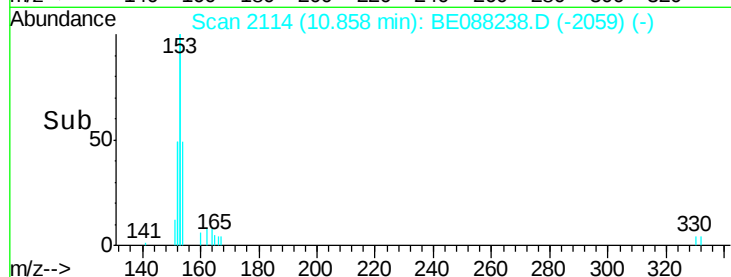
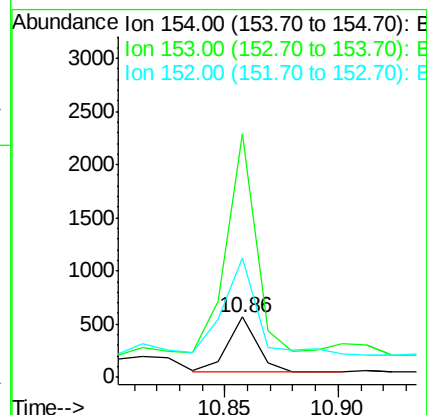
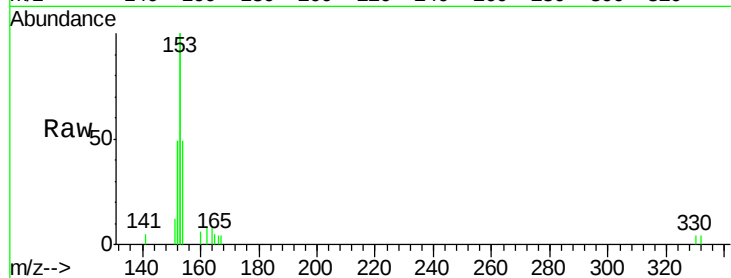
Tgt Ion:154 Resp: 459

Ion Ratio Lower Upper

154 100

153 441.8 326.0 489.0

152 235.9 155.6 233.4#



#11

Fluorene

Concen: 0.04 ng

RT: 11.52 min Scan# 2174

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

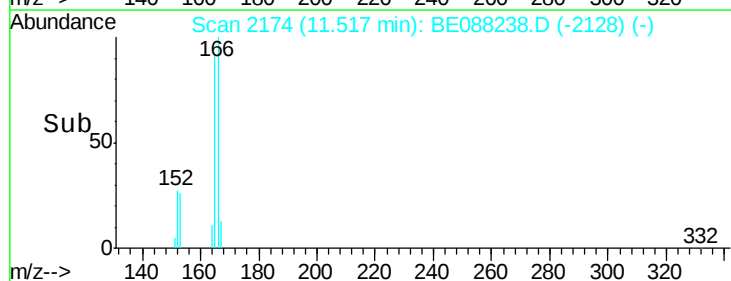
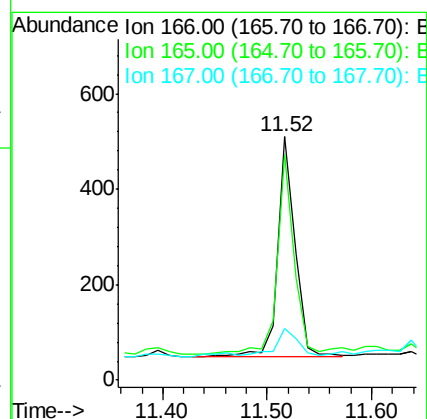
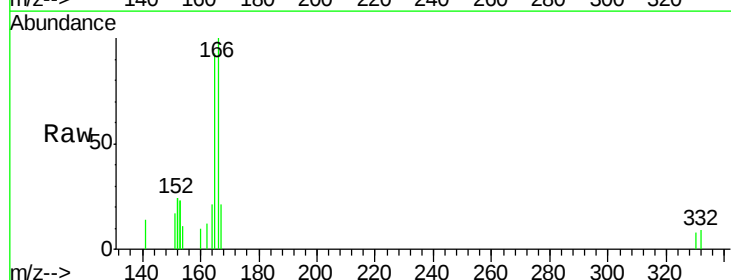
Tgt Ion:166 Resp: 534

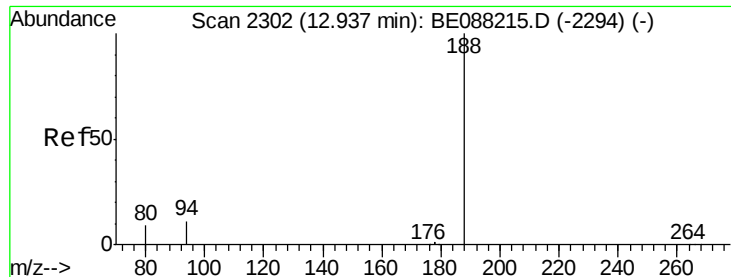
Ion Ratio Lower Upper

166 100

165 86.0 71.8 107.6

167 15.2 10.7 16.1

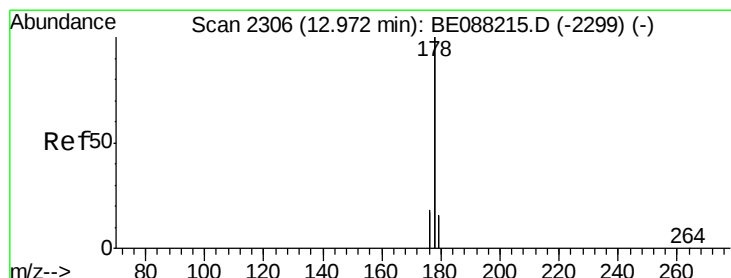
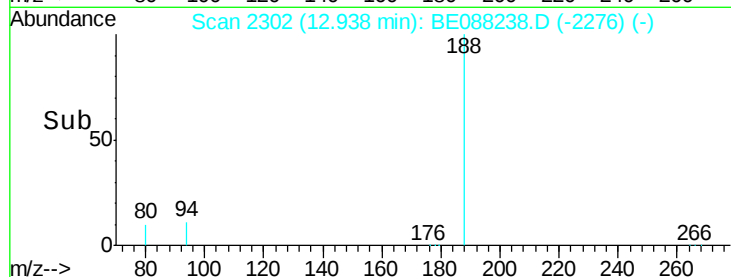
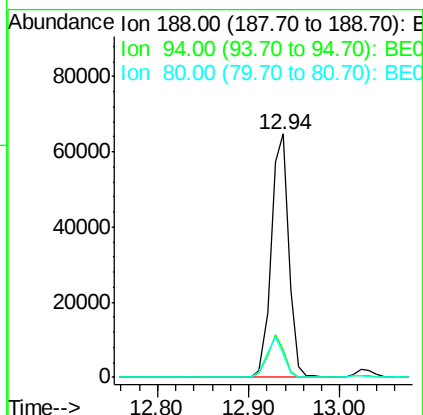
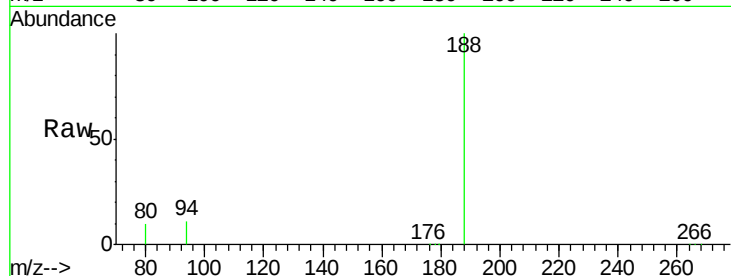




#12  
Phenanthrene-d10  
Concen: 5.00 ng  
RT: 12.94 min Scan# 2302  
Delta R.T. 0.00 min  
Lab File: BE088238.D  
Acq: 25 Oct 2014 8:22

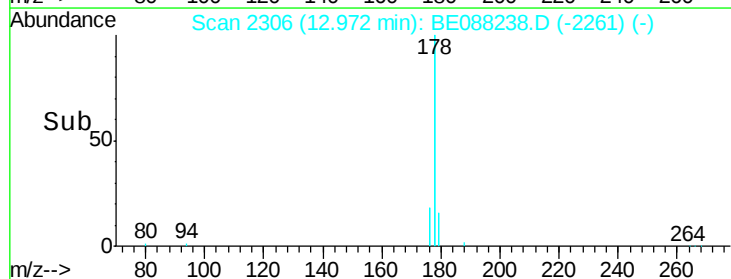
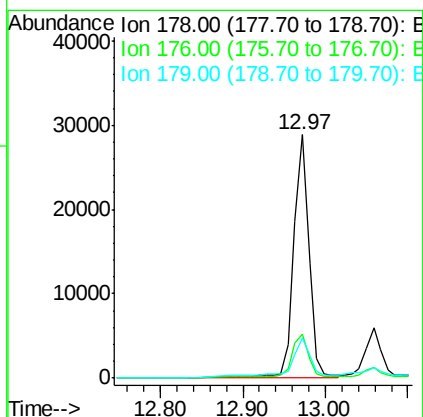
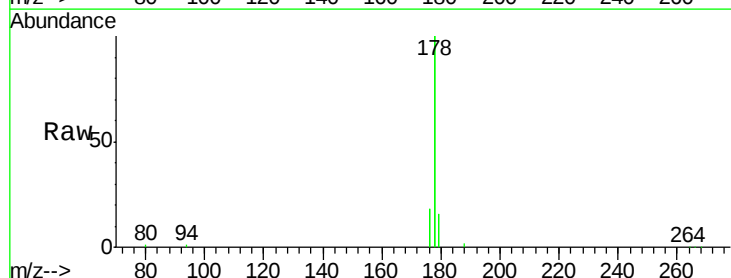
Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SS42-1014

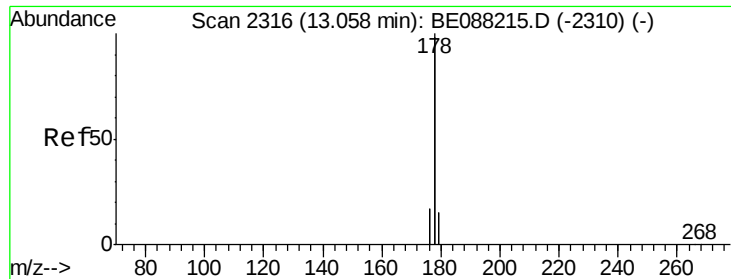
Tgt Ion:188 Resp: 110509  
Ion Ratio Lower Upper  
188 100  
94 11.2 8.5 12.7  
80 9.8 7.4 11.0



#13  
Phenanthrene  
Concen: 0.43 ng  
RT: 12.97 min Scan# 2306  
Delta R.T. 0.00 min  
Lab File: BE088238.D  
Acq: 25 Oct 2014 8:22

Tgt Ion:178 Resp: 45346  
Ion Ratio Lower Upper  
178 100  
176 15.6 14.0 21.0  
179 21.9 11.8 17.6#





#14

Anthracene

Concen: 0.09 ng

RT: 13.06 min Scan# 2316

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

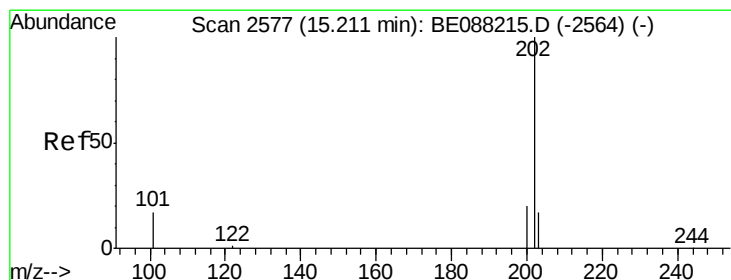
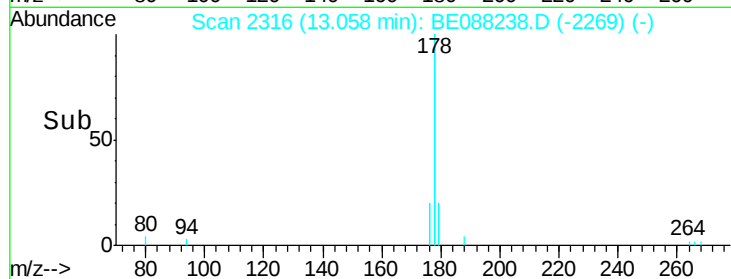
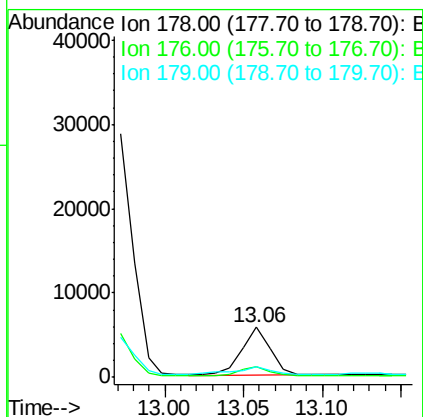
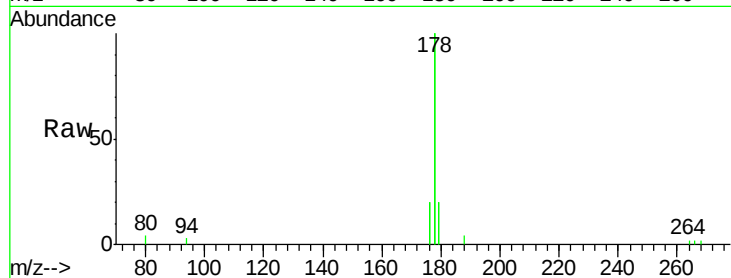
Tgt Ion:178 Resp: 7396

Ion Ratio Lower Upper

178 100

176 20.9 14.7 22.1

179 31.4 12.3 18.5#



#15

Fluoranthene

Concen: 0.90 ng

RT: 15.21 min Scan# 2577

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

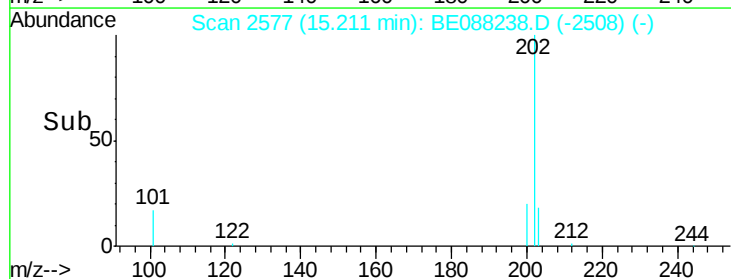
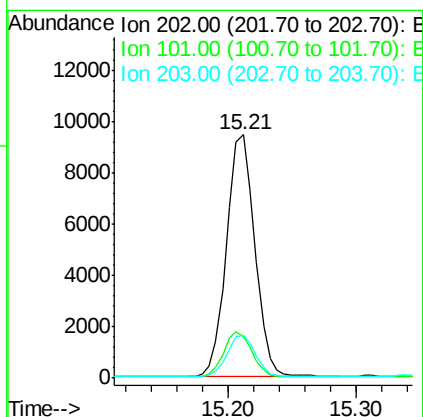
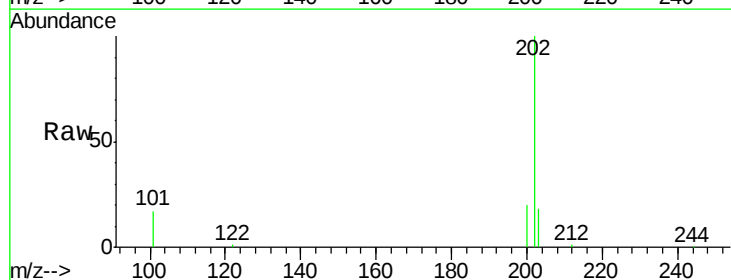
Tgt Ion:202 Resp: 14499

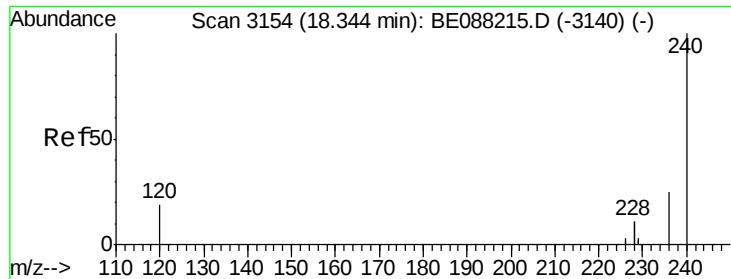
Ion Ratio Lower Upper

202 100

101 18.4 14.4 21.6

203 17.2 13.4 20.2





#16

Chrysene-d12

Concen: 5.00 ng

RT: 18.34 min Scan# 3154

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

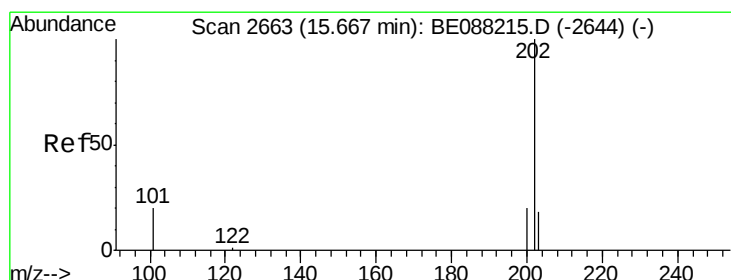
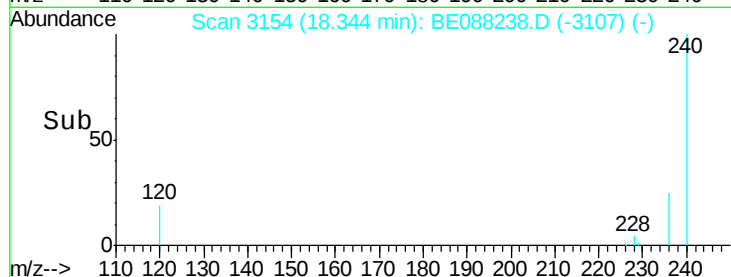
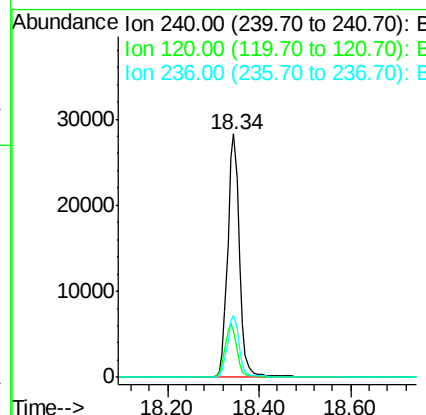
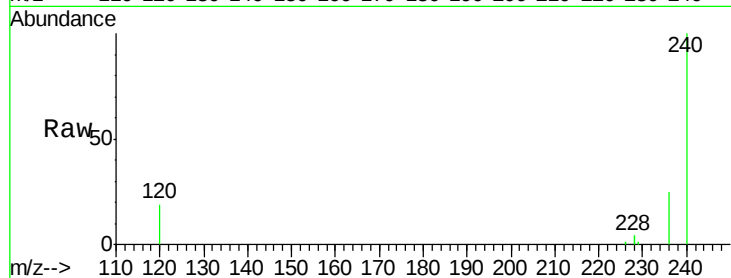
BNA\_E

ClientSampleId :

YS19-SS42-1014

Tgt Ion:240 Resp: 49977

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 240 | 100   |       |       |
| 120 | 19.1  | 15.1  | 22.7  |
| 236 | 25.4  | 20.1  | 30.1  |



#17

Pyrene

Concen: 0.90 ng

RT: 15.66 min Scan# 2662

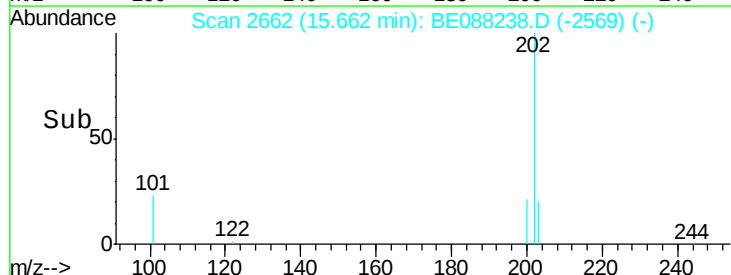
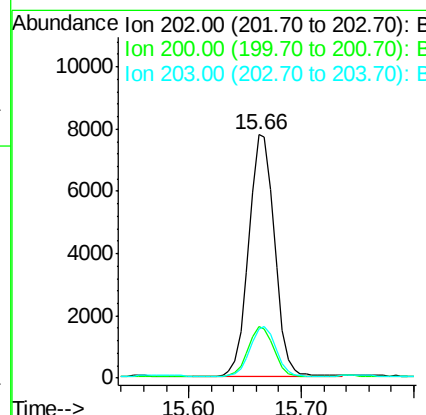
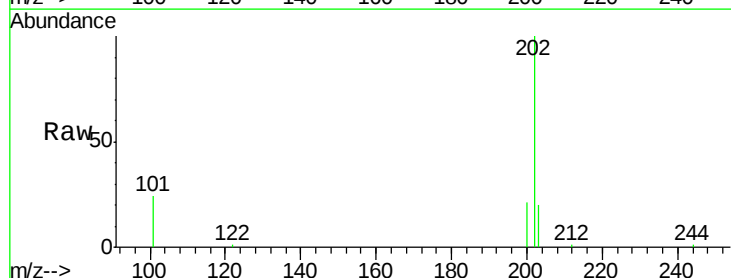
Delta R.T. -0.00 min

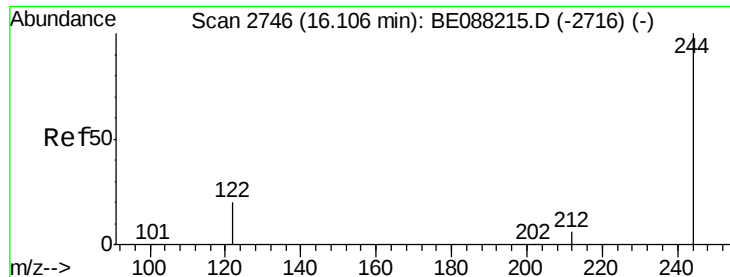
Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Tgt Ion:202 Resp: 12361

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 202 | 100   |       |       |
| 200 | 20.4  | 16.2  | 24.2  |
| 203 | 20.5  | 13.8  | 20.8  |





#18

Terphenyl-d14

Concen: 56.59 ng

RT: 16.13 min Scan# 2750

Delta R.T. 0.02 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

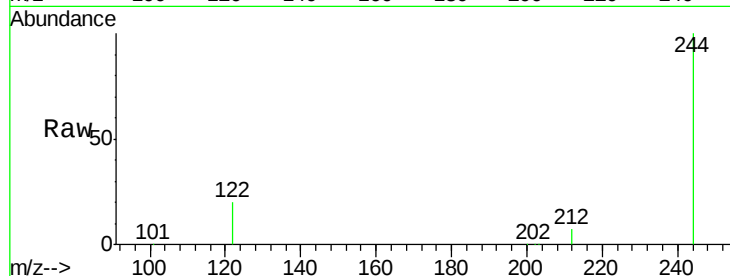
Tgt Ion:244 Resp: 463146

Ion Ratio Lower Upper

244 100

212 6.8 5.4 8.2

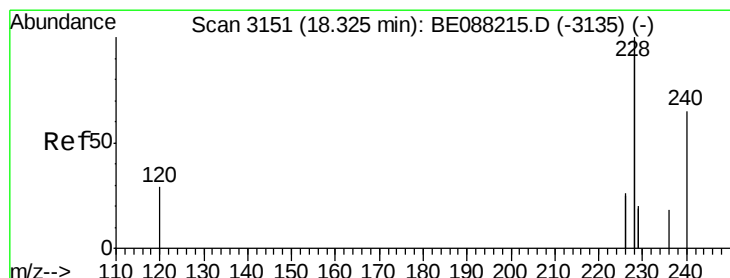
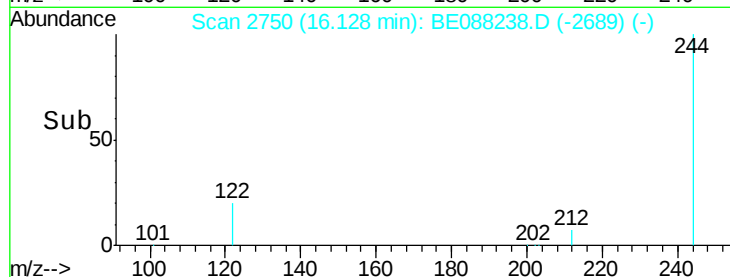
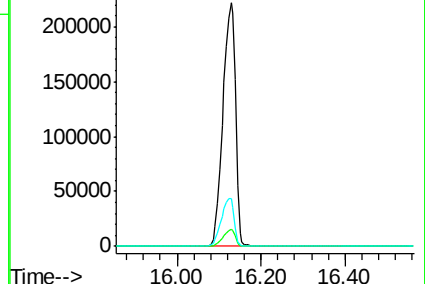
122 19.7 16.7 25.1



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



#19

Benzo(a)anthracene

Concen: 0.47 ng

RT: 18.32 min Scan# 3150

Delta R.T. -0.01 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

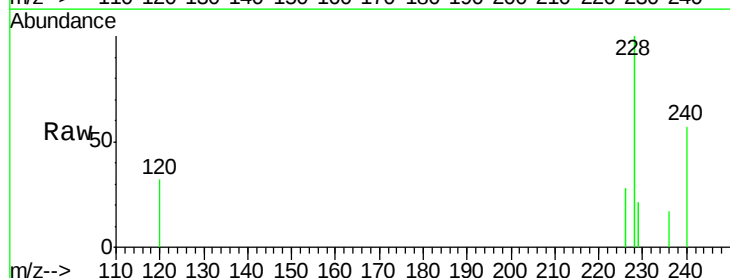
Tgt Ion:228 Resp: 18569

Ion Ratio Lower Upper

228 100

226 27.5 20.5 30.7

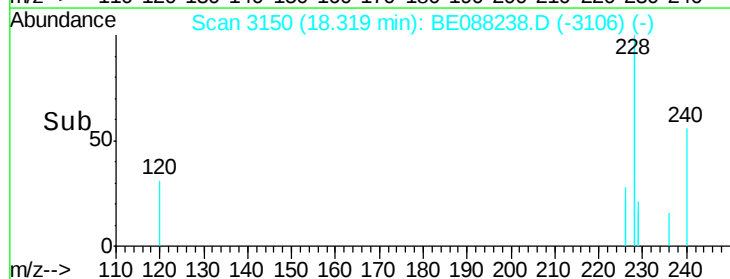
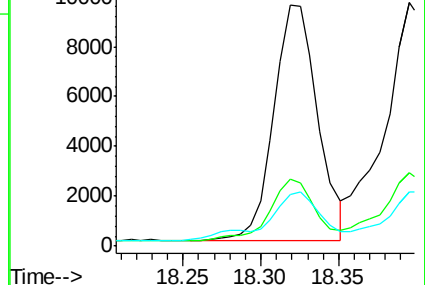
229 21.3 16.1 24.1

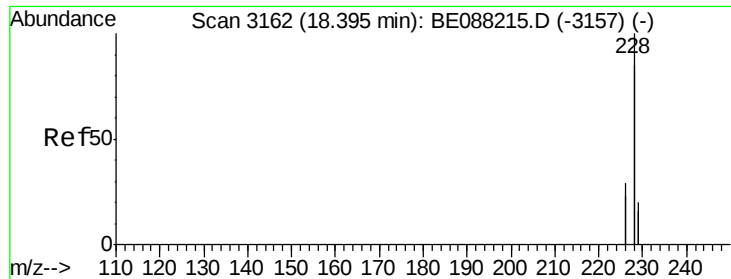


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#20

Chrysene

Concen: 0.48 ng

RT: 18.40 min Scan# 3162

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

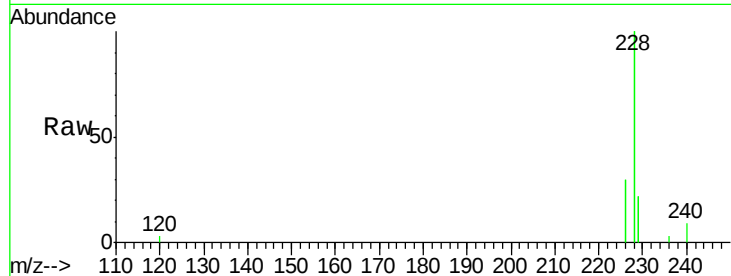
Tgt Ion:228 Resp: 21430

Ion Ratio Lower Upper

228 100

226 30.4 23.3 34.9

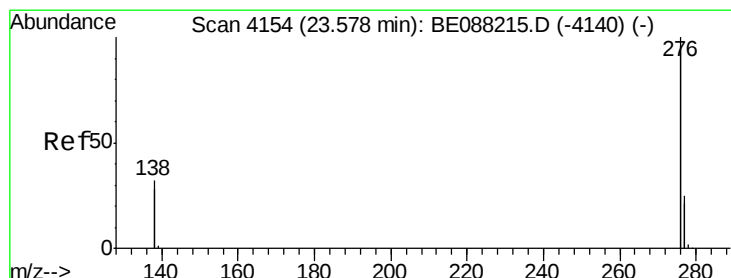
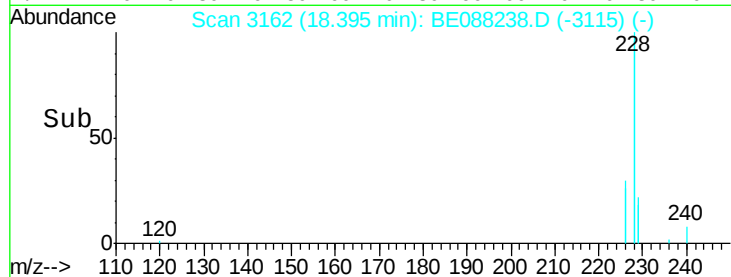
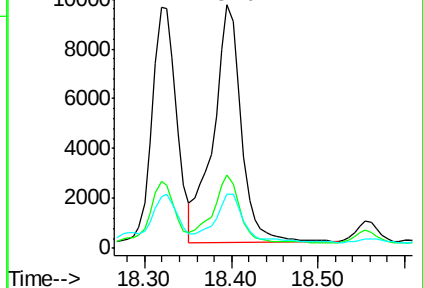
229 22.3 15.6 23.4



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



#21

Indeno(1,2,3-cd)pyrene

Concen: 0.51 ng

RT: 23.58 min Scan# 4154

Delta R.T. 0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

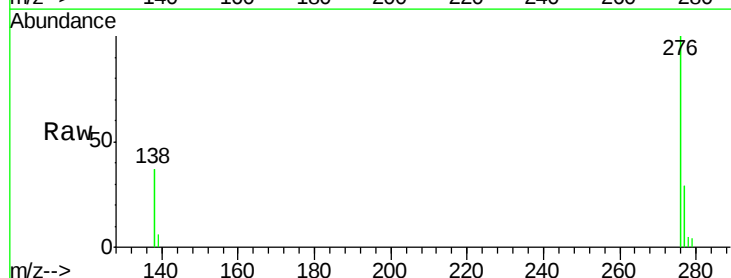
Tgt Ion:276 Resp: 12912

Ion Ratio Lower Upper

276 100

138 26.2 13.9 20.9#

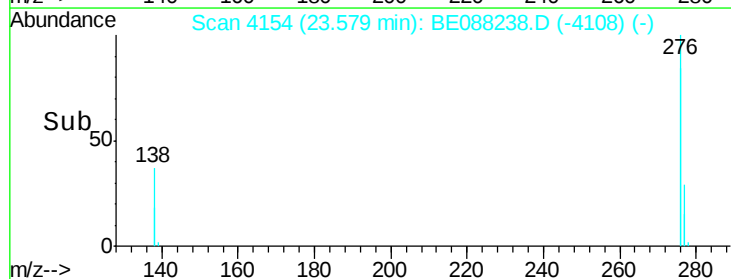
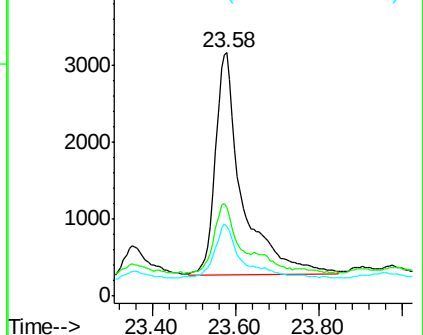
277 25.4 10.7 16.1#

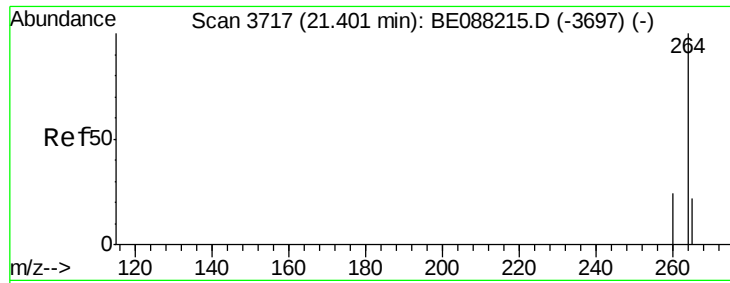


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E

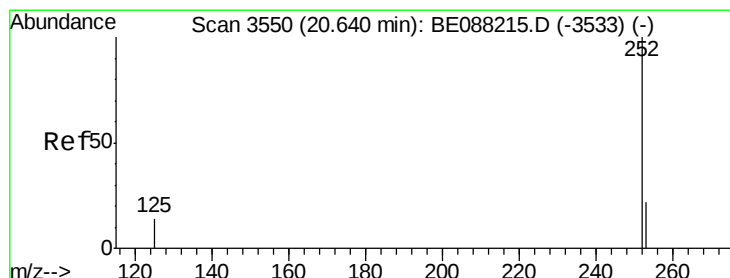
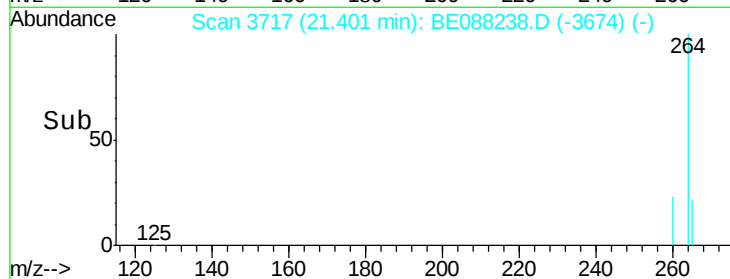
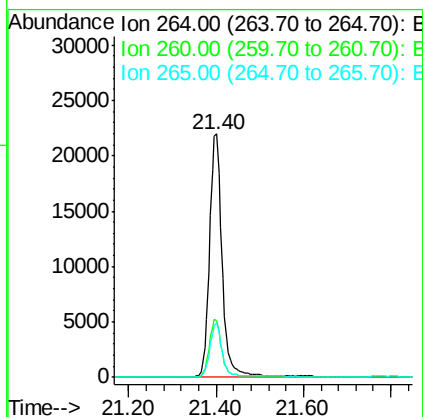
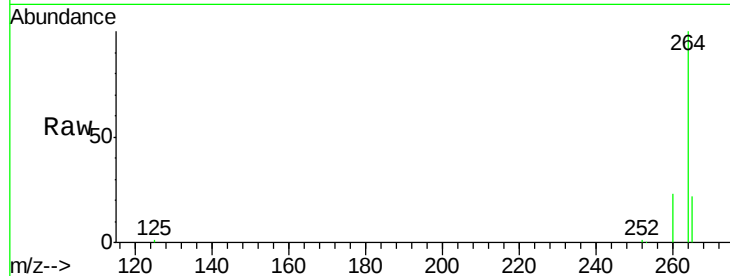




#22  
 Perylene-d12  
 Concen: 5.00 ng  
 RT: 21.40 min Scan# 3717  
 Delta R.T. 0.00 min  
 Lab File: BE088238.D  
 Acq: 25 Oct 2014 8:22

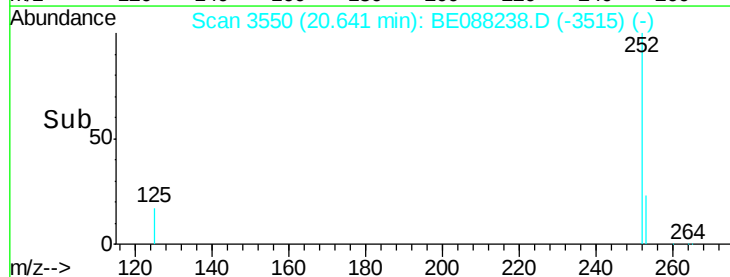
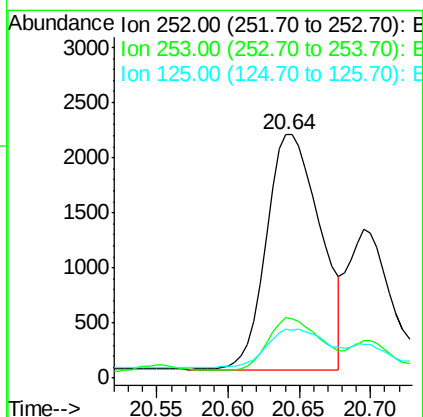
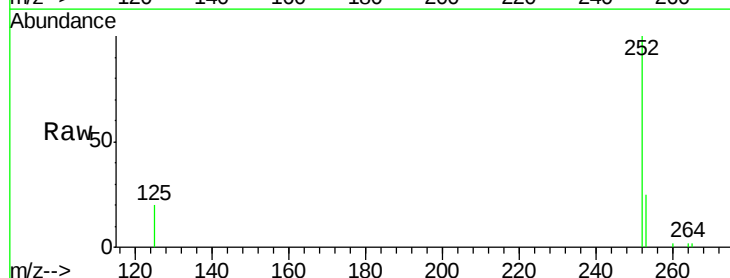
Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SS42-1014

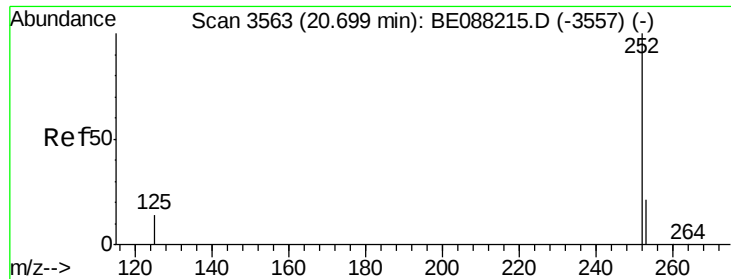
Tgt Ion: 264 Resp: 43188  
 Ion Ratio Lower Upper  
 264 100  
 260 23.3 19.0 28.4  
 265 22.0 17.4 26.2



#23  
 Benzo(b)fluoranthene  
 Concen: 0.76 ng  
 RT: 20.64 min Scan# 3550  
 Delta R.T. 0.00 min  
 Lab File: BE088238.D  
 Acq: 25 Oct 2014 8:22

Tgt Ion: 252 Resp: 5614  
 Ion Ratio Lower Upper  
 252 100  
 253 24.7 17.9 26.9  
 125 20.1 12.2 18.2#





#24

Benzo(k)fluoranthene

Concen: 0.24 ng

RT: 20.70 min Scan# 3562

Delta R.T. -0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014

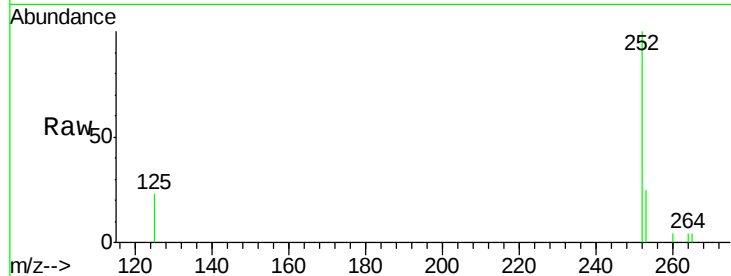
Tgt Ion:252 Resp: 2704

Ion Ratio Lower Upper

252 100

253 25.2 17.6 26.4

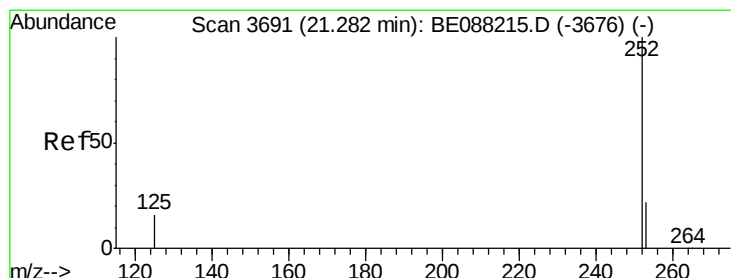
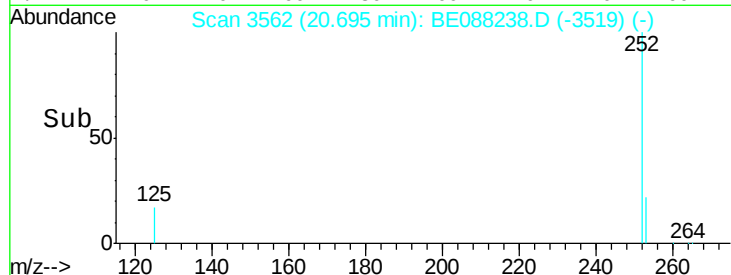
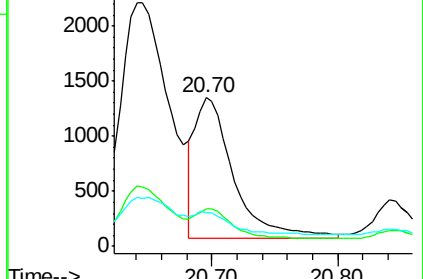
125 22.6 12.1 18.1#



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



#25

Benzo(a)pyrene

Concen: 0.56 ng

RT: 21.28 min Scan# 3690

Delta R.T. -0.00 min

Lab File: BE088238.D

Acq: 25 Oct 2014 8:22

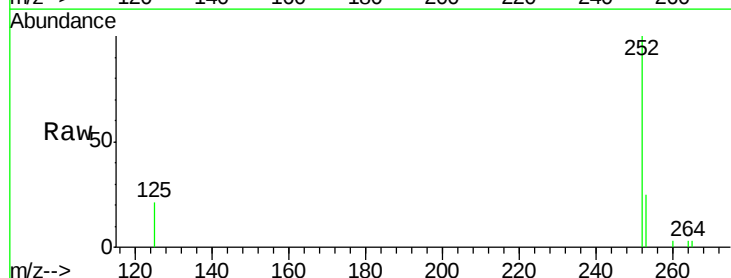
Tgt Ion:252 Resp: 3671

Ion Ratio Lower Upper

252 100

253 25.0 17.8 26.8

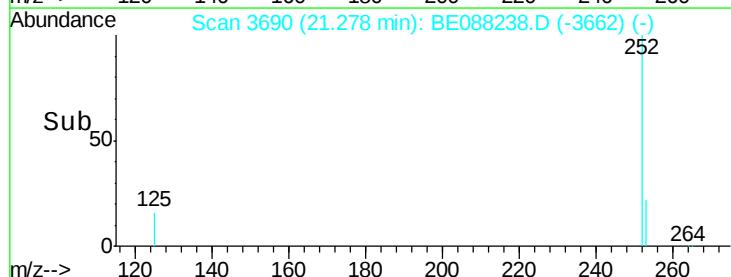
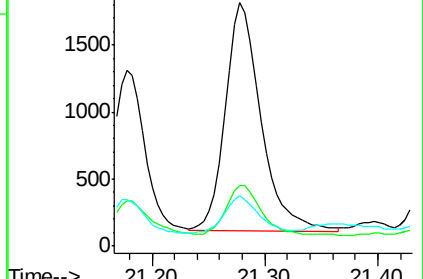
125 20.6 13.5 20.3#

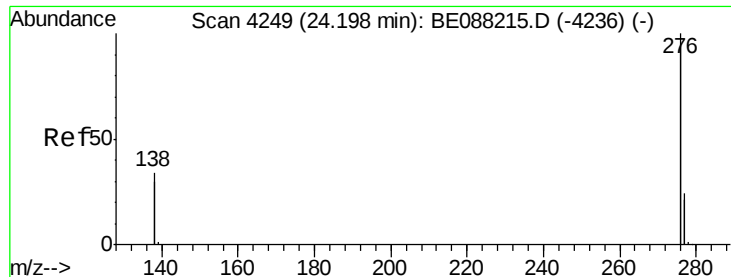


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#27

Benzo(g,h,i)perylene

Concen: 0.35 ng

RT: 24.20 min Scan# 4249

Delta R.T. 0.00 min

Lab File: BE088238.D

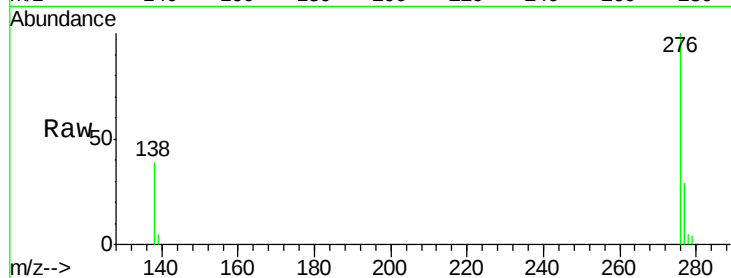
Acq: 25 Oct 2014 8:22

Instrument :

BNA\_E

ClientSampleId :

YS19-SS42-1014



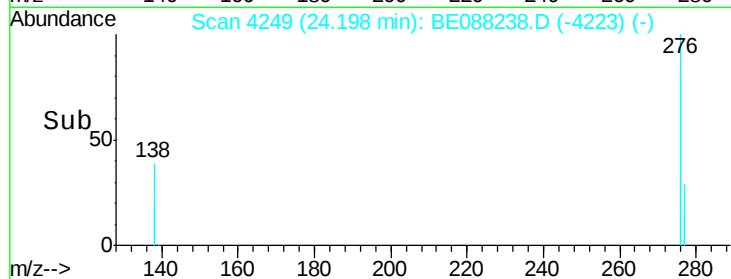
Tgt Ion: 276 Resp: 12276

Ion Ratio Lower Upper

276 100

277 29.1 19.4 29.2

138 39.3 27.3 40.9



Abundance Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

