

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE102114\  
 Data File : BE088167.D  
 Acq On : 22 Oct 2014 6:19  
 Operator : TP/JJ  
 Sample : F4312-08DL 5X  
 Misc :  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB25-1014DL

Manual Integrations  
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Quant Time: Oct 22 07:02:58 2014  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BE102014.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Oct 21 02:11:14 2014  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.14  | 152  | 21356    | 5.00 | ng    | 0.00     |
| 3) Naphthalene-d8         | 8.70  | 136  | 83943    | 5.00 | ng    | 0.00     |
| 7) Acenaphthene-d10       | 10.85 | 164  | 44411    | 5.00 | ng    | 0.00     |
| 12) Phenanthrene-d10      | 12.96 | 188  | 86140    | 5.00 | ng    | 0.00     |
| 16) Chrysene-d12          | 18.38 | 240  | 48336    | 5.00 | ng    | 0.00     |
| 22) Perylene-d12          | 21.44 | 264  | 39918    | 5.00 | ng    | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 4) Nitrobenzene-d5          | 7.83  | 82   | 61434    | 10.15 | ng    | 0.00     |
| 8) 2-Fluorobiphenyl         | 10.04 | 172  | 99484    | 8.11  | ng    | 0.00     |
| 18) Terphenyl-d14           | 16.15 | 244  | 81306    | 10.45 | ng    | 0.00     |

| Target Compounds           | R.T.  | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|------|-------|--------|
| 11) Fluorene               | 11.55 | 166  | 399      | 0.04 | ng    | 96     |
| 13) Phenanthrene           | 13.01 | 178  | 28738    | 0.24 | ng    | 96     |
| 14) Anthracene             | 13.09 | 178  | 7169m    | 0.11 | ng    |        |
| 15) Fluoranthene           | 15.25 | 202  | 10858    | 0.66 | ng    | 100    |
| 17) Pyrene                 | 15.70 | 202  | 9532     | 0.73 | ng    | 97     |
| 19) Benzo(a)anthracene     | 18.36 | 228  | 16148    | 0.38 | ng    | 97     |
| 20) Chrysene               | 18.44 | 228  | 18871    | 0.45 | ng    | 95     |
| 21) Indeno(1,2,3-cd)pyrene | 23.63 | 276  | 6598     | 0.14 | ng    | # 92   |
| 23) Benzo(b)fluoranthene   | 20.69 | 252  | 3330     | 0.35 | ng    | # 93   |
| 24) Benzo(k)fluoranthene   | 20.74 | 252  | 1797     | 0.18 | ng    | # 89   |
| 25) Benzo(a)pyrene         | 21.32 | 252  | 2349     | 0.27 | ng    | # 90   |
| 27) Benzo(g,h,i)perylene   | 24.26 | 276  | 6360     | 0.17 | ng    | # 88   |

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

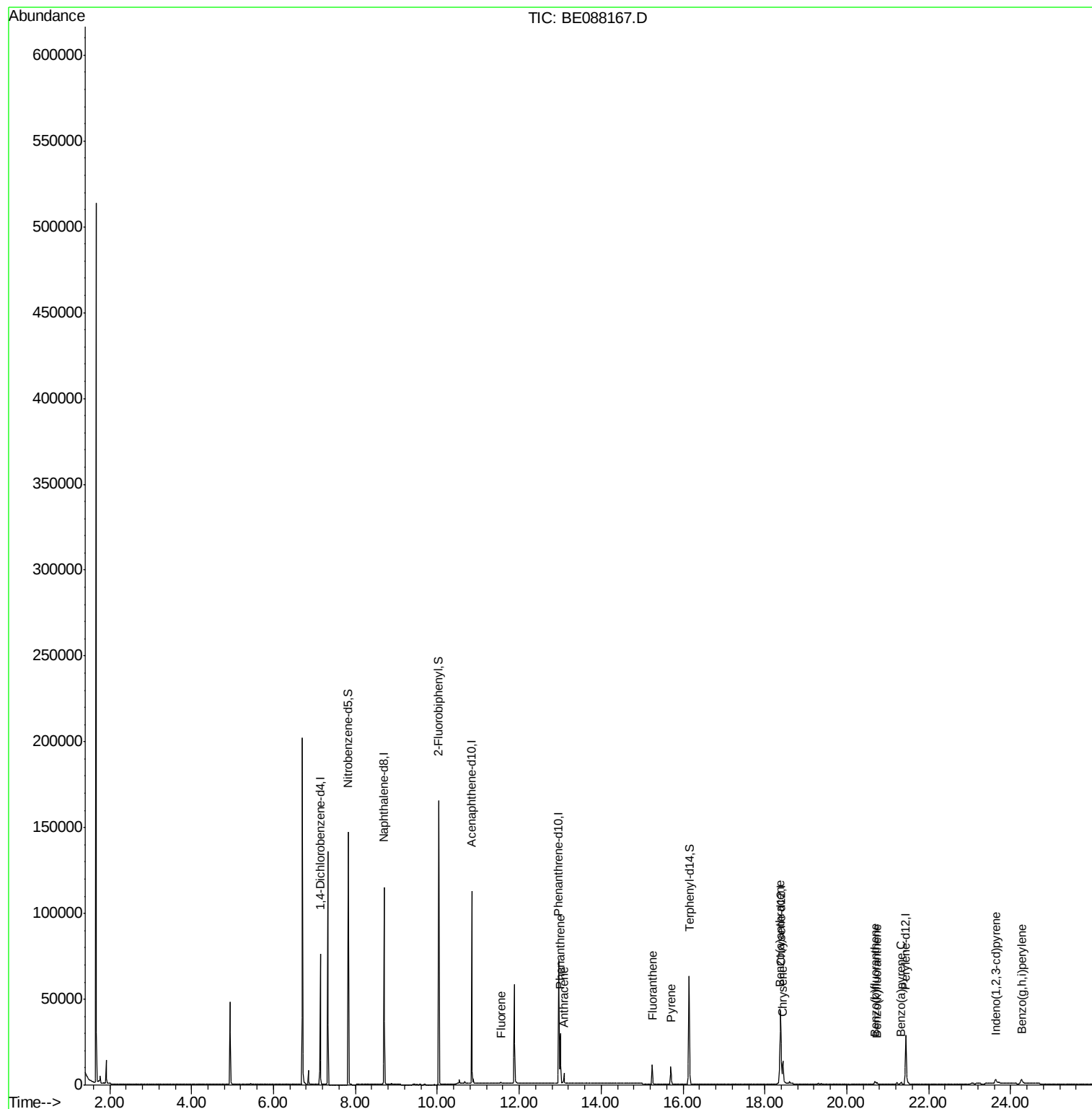
Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE102114\  
Data File : BE088167.D  
Acq On : 22 Oct 2014 6:19  
Operator : TP/JJ  
Sample : F4312-08DL 5X  
Misc :  
ALS Vial : 25 Sample Multiplier: 1

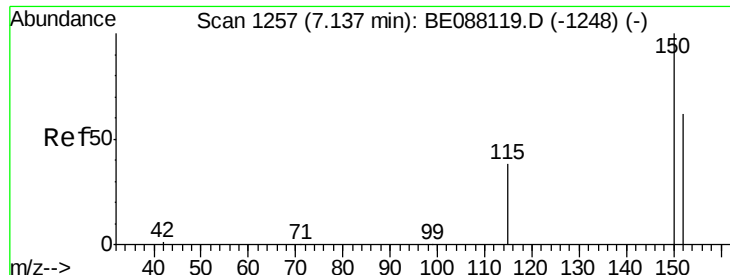
Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SB25-1014DL

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Quant Time: Oct 22 07:02:58 2014  
Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BE102014.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Tue Oct 21 02:11:14 2014  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 7.14 min Scan# 1258

Delta R.T. 0.00 min

Lab File: BE088167.D

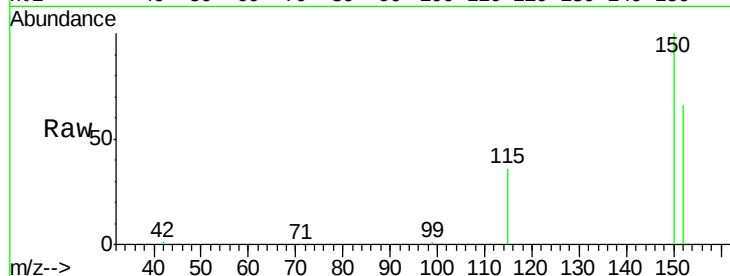
Acq: 22 Oct 2014 6:19

Instrument :

BNA\_E

ClientSampleId :

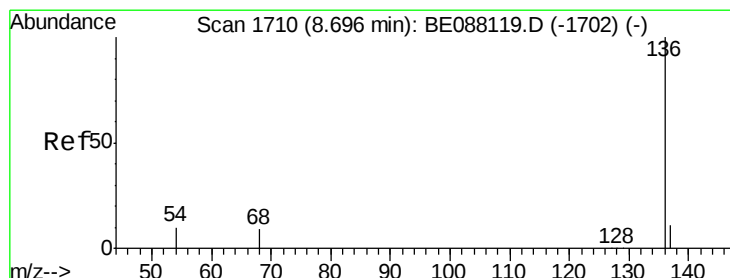
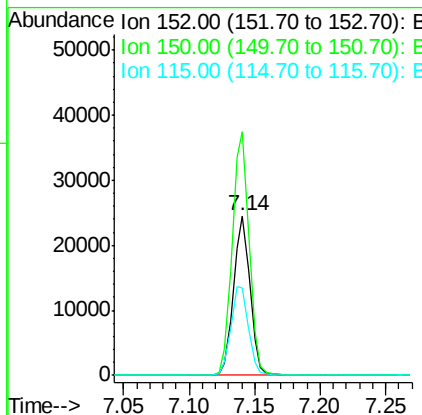
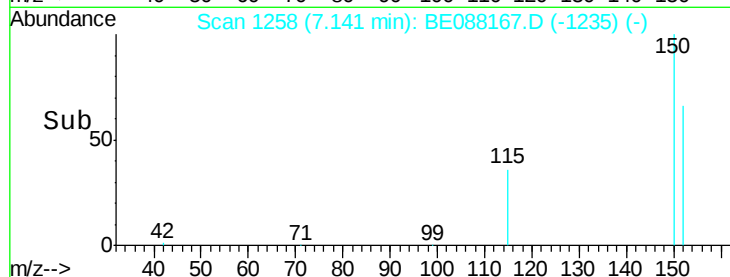
YS19-SB25-1014DL



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 21356 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 150       | 152.4 | 129.2 | 193.8 |
| 115       | 55.1  | 49.3  | 73.9  |

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#3

Naphthalene-d8

Concen: 5.00 ng

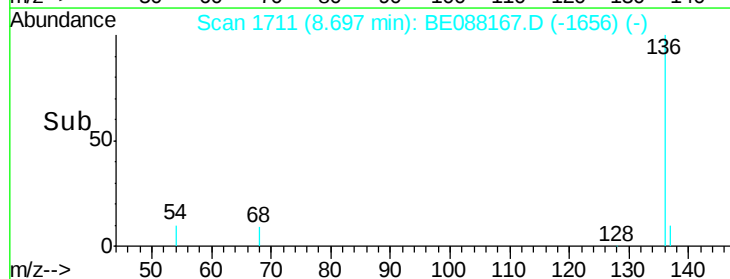
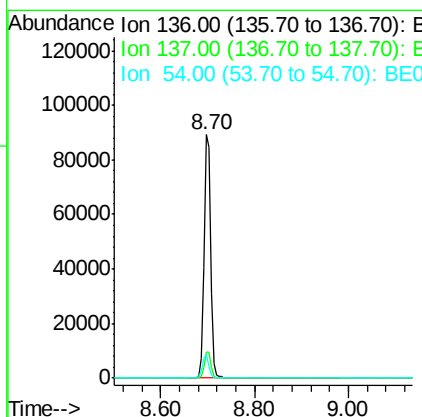
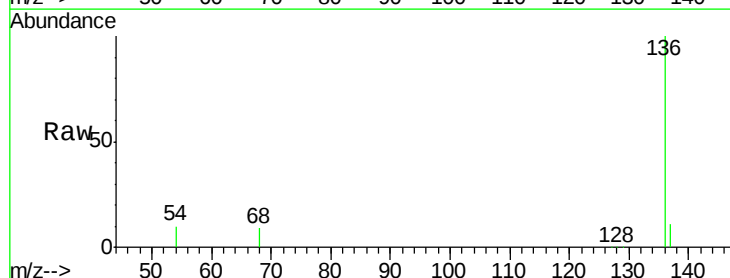
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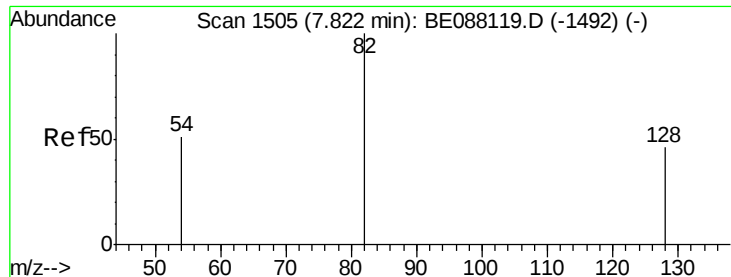
Delta R.T. 0.00 min

Lab File: BE088167.D

Acq: 22 Oct 2014 6:19

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 136   | Resp: | 83943 |
| Ion Ratio | Lower | Upper |       |
| 136       | 100   |       |       |
| 137       | 10.5  | 8.6   | 12.8  |
| 54        | 9.8   | 7.7   | 11.5  |





#4

Nitrobenzene-d5

Concen: 10.15 ng

RT: 7.83 min Scan# 1507

Delta R.T. 0.00 min

Lab File: BE088167.D

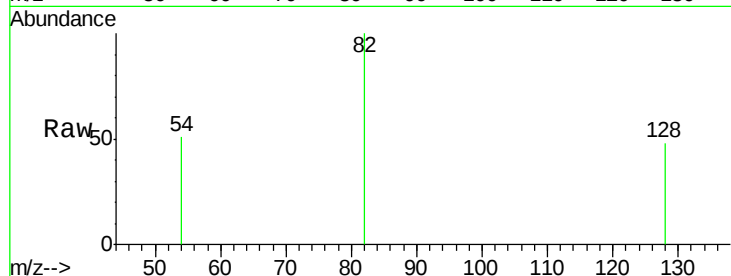
Acq: 22 Oct 2014 6:19

Instrument :

BNA\_E

ClientSampleId :

YS19-SB25-1014DL



Tgt Ion: 82 Resp: 61434

Ion Ratio Lower Upper

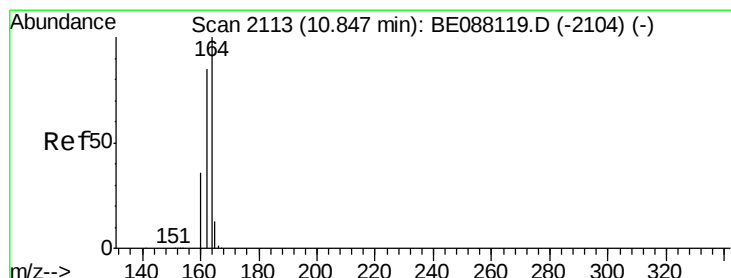
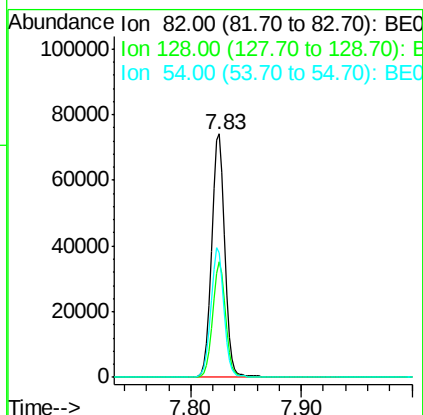
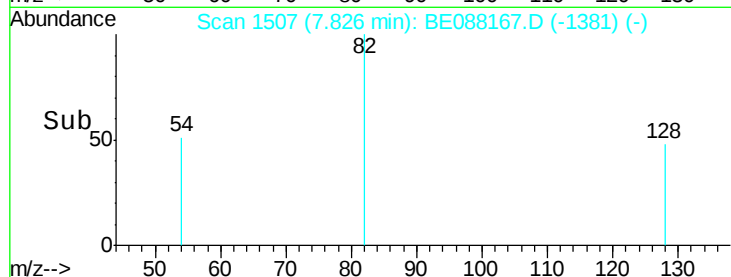
82 100

128 47.6 37.1 55.7

54 51.0 41.1 61.7

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#7

Acenaphthene-d10

Concen: 5.00 ng

RT: 10.85 min Scan# 2114

Delta R.T. 0.00 min

Lab File: BE088167.D

Acq: 22 Oct 2014 6:19

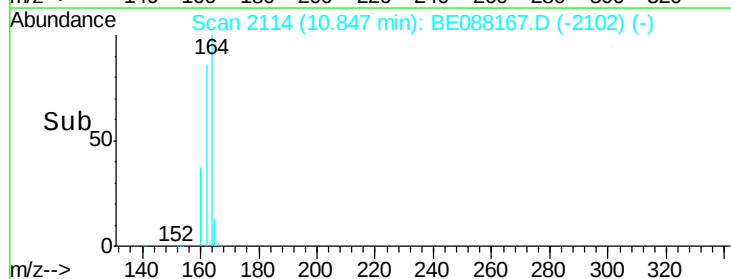
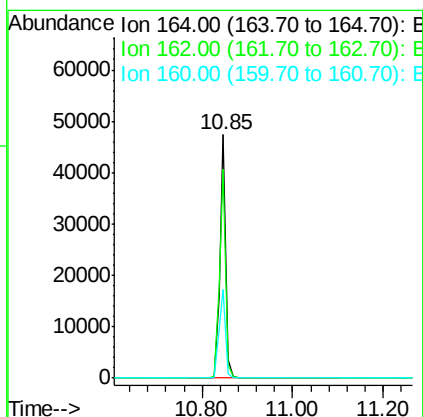
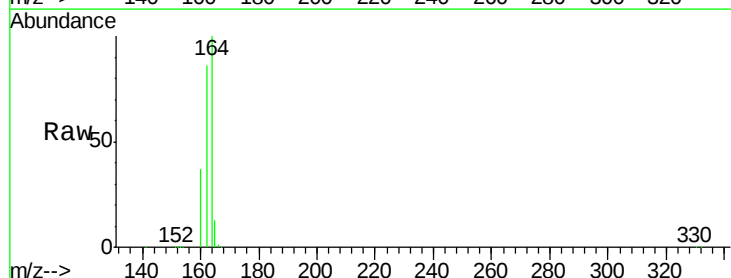
Tgt Ion: 164 Resp: 44411

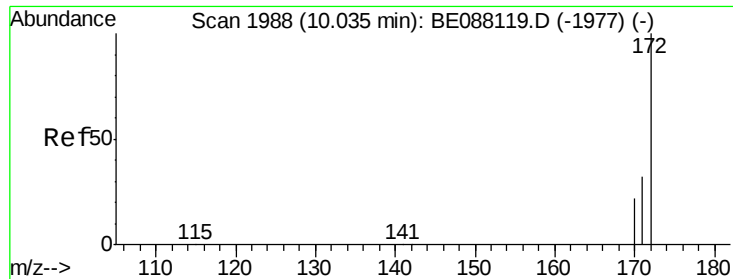
Ion Ratio Lower Upper

164 100

162 86.0 68.3 102.5

160 36.6 28.7 43.1





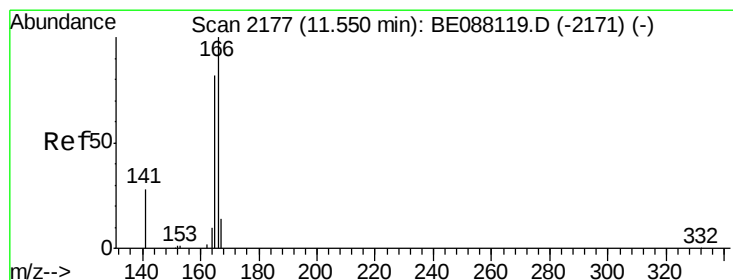
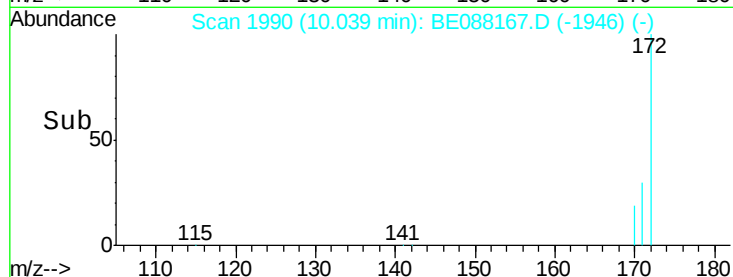
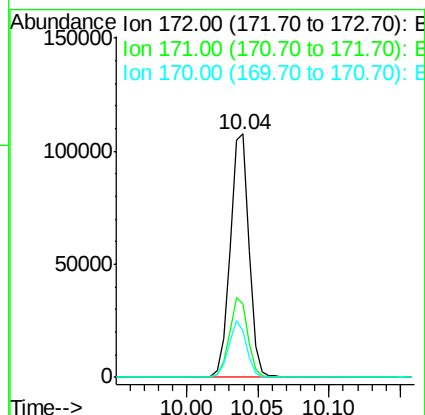
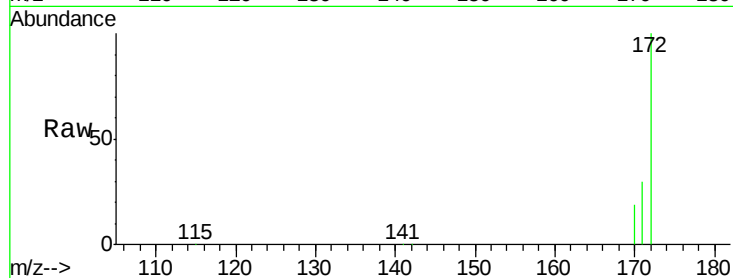
#8  
2-Fluorobiphenyl  
Concen: 8.11 ng  
RT: 10.04 min Scan# 1990  
Delta R.T. 0.00 min  
Lab File: BE088167.D  
Acq: 22 Oct 2014 6:19

Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SB25-1014DL

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 172     | 100   | 99484 |       |       |
| 171     | 30.1  | 25.4  | 38.2  |       |
| 170     | 19.3  | 17.4  | 26.2  |       |

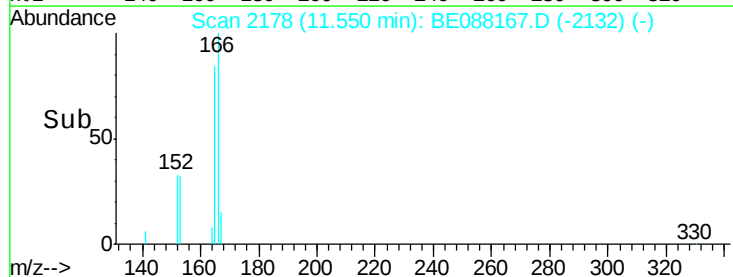
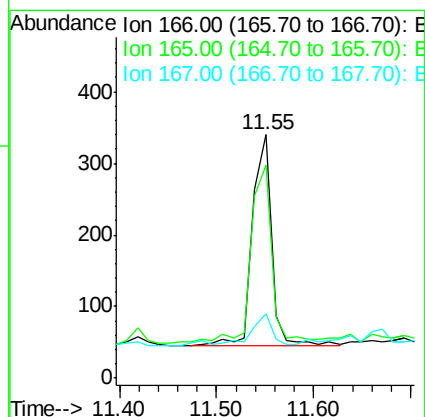
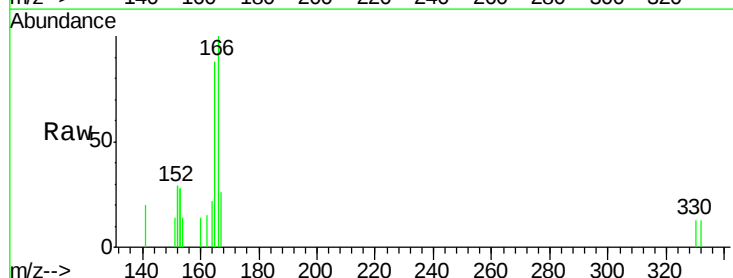
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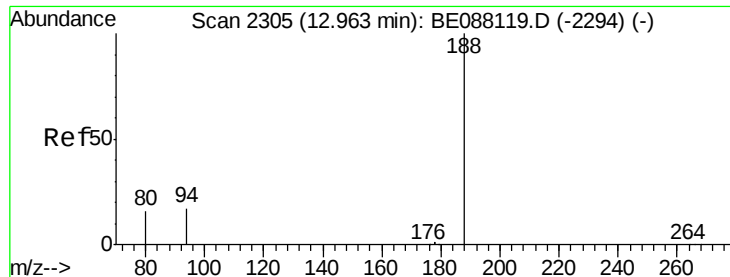
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#11  
Fluorene  
Concen: 0.04 ng  
RT: 11.55 min Scan# 2178  
Delta R.T. 0.00 min  
Lab File: BE088167.D  
Acq: 22 Oct 2014 6:19

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 166     | 100   | 399  |       |       |
| 165     | 93.2  | 71.4 | 107.2 |       |
| 167     | 14.3  | 10.6 | 16.0  |       |





#12

Phenanthrene-d10

Concen: 5.00 ng

RT: 12.96 min Scan# 2306

Delta R.T. -0.00 min

Lab File: BE088167.D

Acq: 22 Oct 2014 6:19

Instrument :

BNA\_E

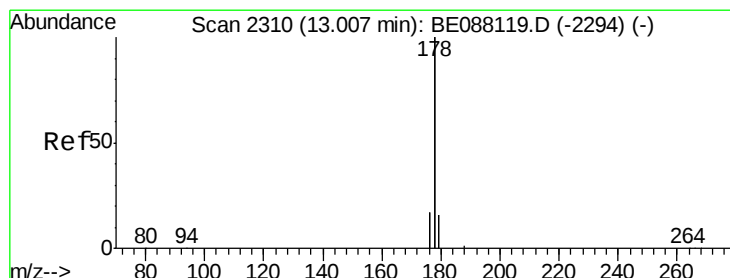
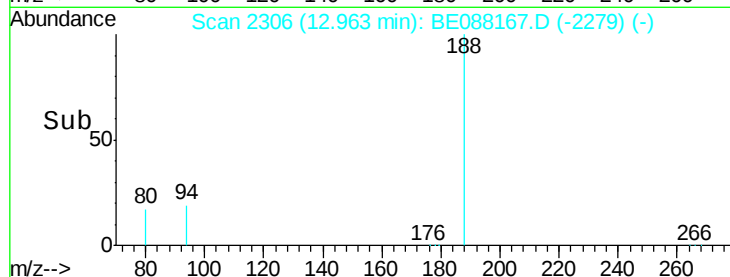
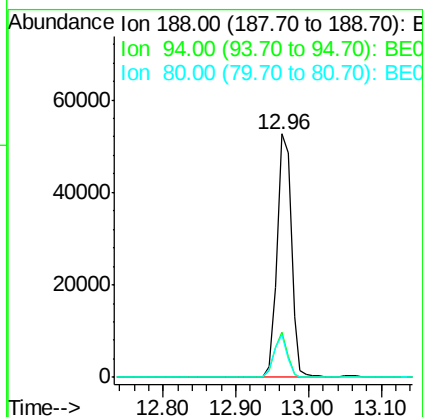
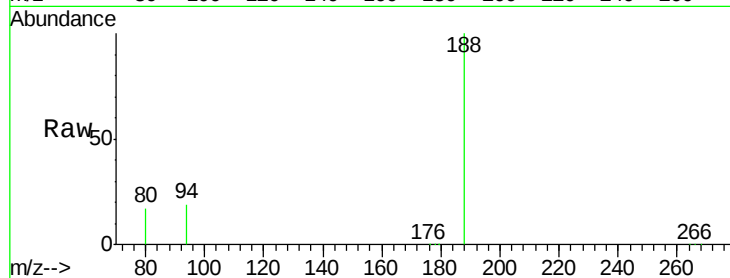
ClientSampleId :

YS19-SB25-1014DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 188   | Resp: | 86140 |
| Ion Ratio | Lower | Upper |       |
| 188       | 100   |       |       |
| 94        | 18.5  | 13.9  | 20.9  |
| 80        | 17.3  | 12.9  | 19.3  |

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#13

Phenanthrene

Concen: 0.24 ng

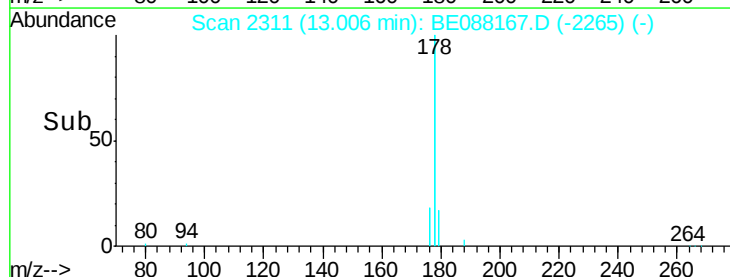
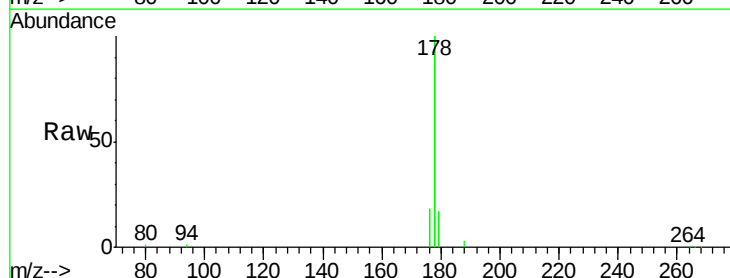
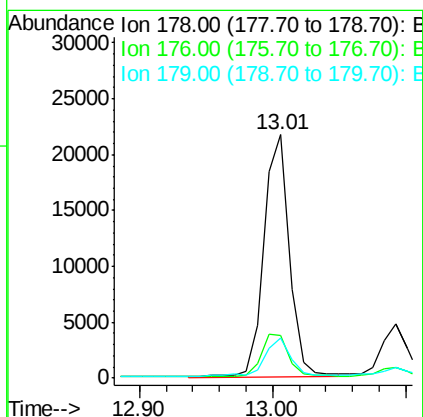
RT: 13.01 min Scan# 2311

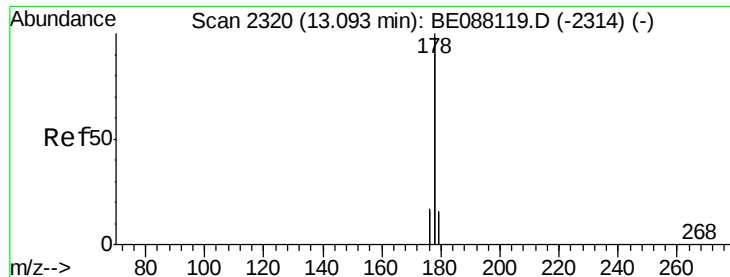
Delta R.T. -0.00 min

Lab File: BE088167.D

Acq: 22 Oct 2014 6:19

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 178   | Resp: | 28738 |
| Ion Ratio | Lower | Upper |       |
| 178       | 100   |       |       |
| 176       | 18.0  | 12.5  | 18.7  |
| 179       | 18.1  | 13.5  | 20.3  |





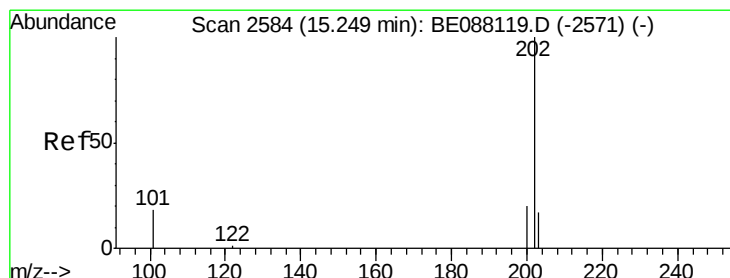
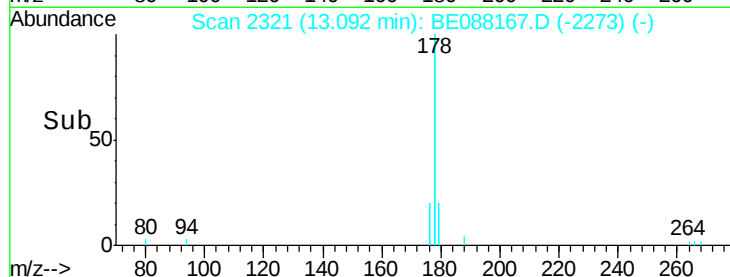
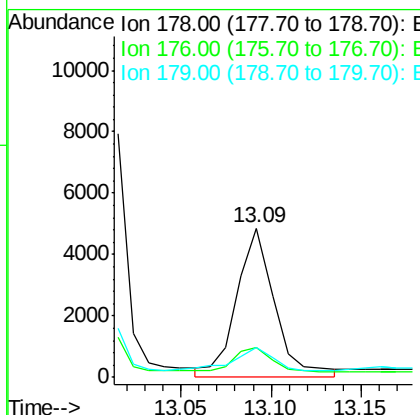
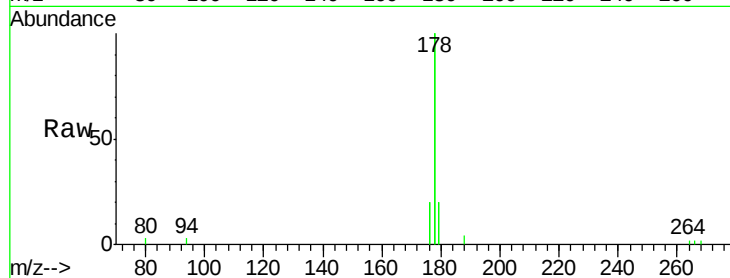
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 Anthracene  
 Concen: 0.11 ng m  
 RT: 13.09 min Scan# 2321  
 Delta R.T. -0.00 min  
 Lab File: BE088167.D  
 Acq: 22 Oct 2014 6:19

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB25-1014DL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 72.0  | 14.6  | 21.8# |
| 179     | 72.6  | 12.5  | 18.7# |

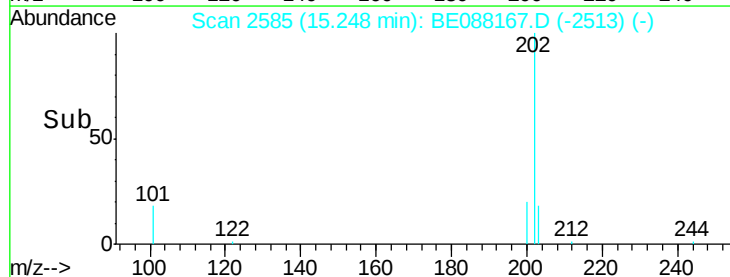
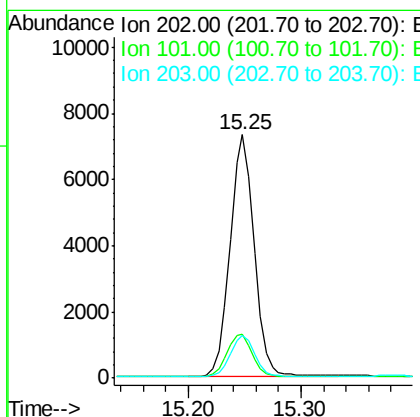
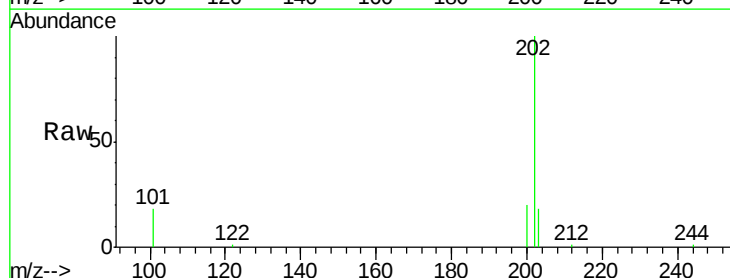
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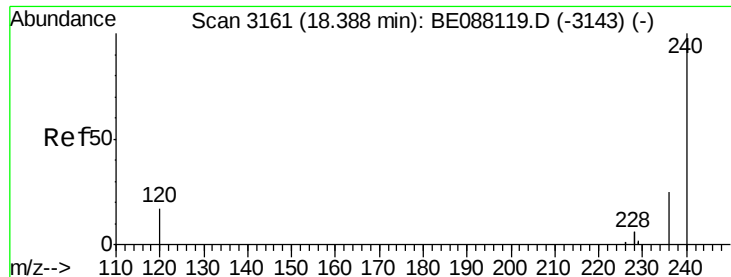
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#15  
 Fluoranthene  
 Concen: 0.66 ng  
 RT: 15.25 min Scan# 2585  
 Delta R.T. -0.00 min  
 Lab File: BE088167.D  
 Acq: 22 Oct 2014 6:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 18.3  | 14.8  | 22.2  |
| 203     | 17.0  | 13.5  | 20.3  |





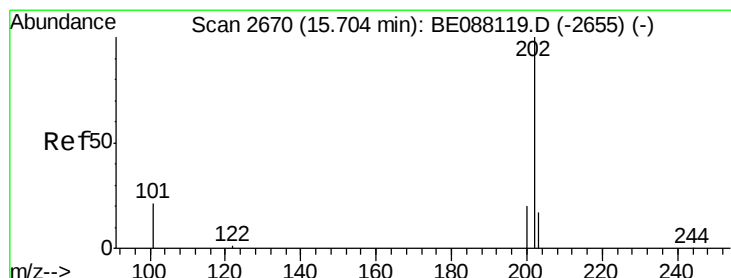
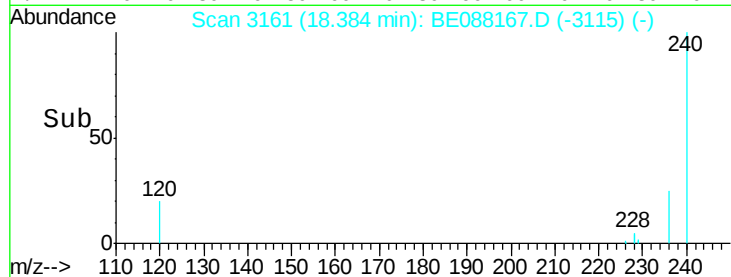
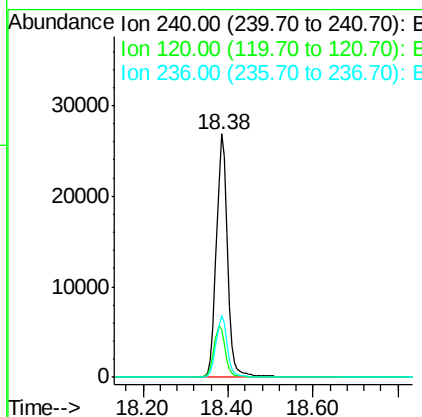
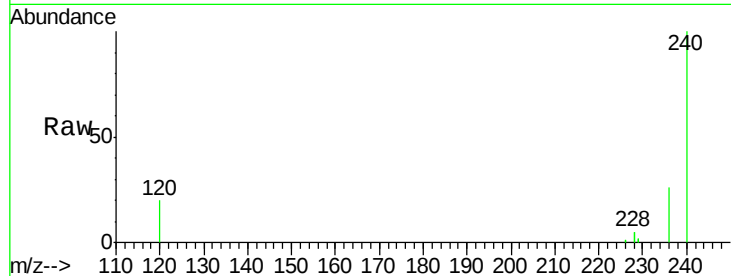
#16  
Chrysene-d12  
Concen: 5.00 ng  
RT: 18.38 min Scan# 3161  
Delta R.T. -0.00 min  
Lab File: BE088167.D  
Acq: 22 Oct 2014 6:19

Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SB25-1014DL

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 240     | 100   | 48336 |       |       |
| 120     | 19.8  | 13.9  | 20.9  |       |
| 236     | 25.6  | 19.9  | 29.9  |       |

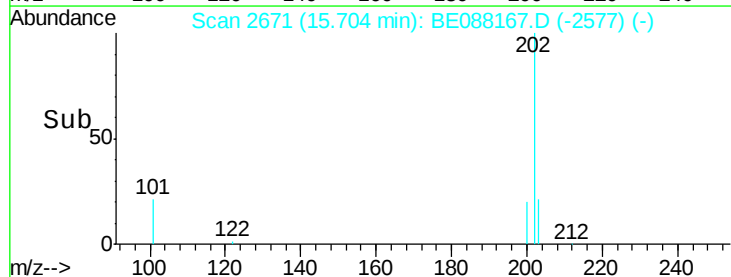
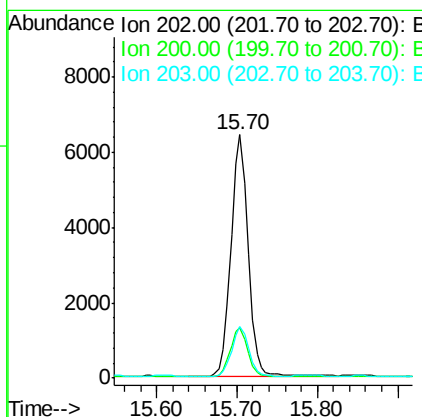
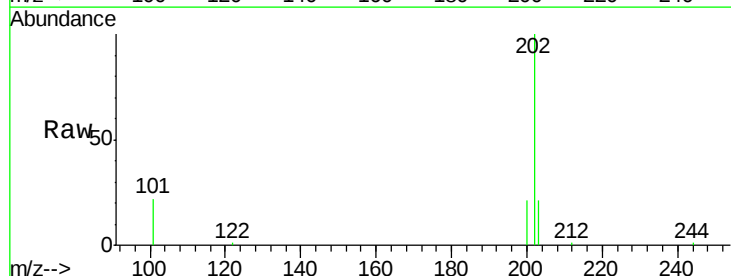
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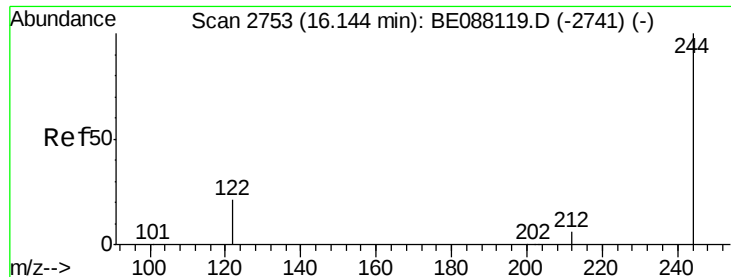
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#17  
Pyrene  
Concen: 0.73 ng  
RT: 15.70 min Scan# 2671  
Delta R.T. -0.00 min  
Lab File: BE088167.D  
Acq: 22 Oct 2014 6:19

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 202     | 100   | 9532 |       |       |
| 200     | 20.3  | 16.1 | 24.1  |       |
| 203     | 20.3  | 13.9 | 20.9  |       |





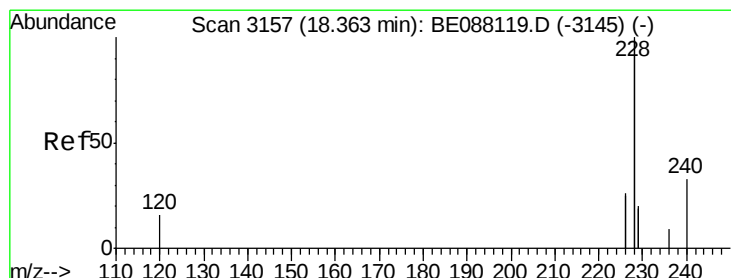
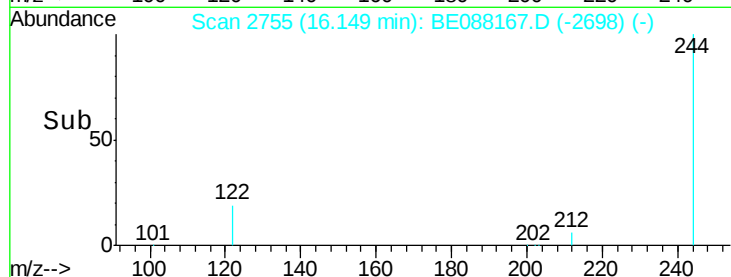
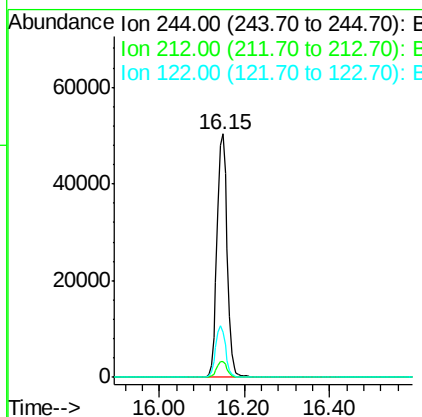
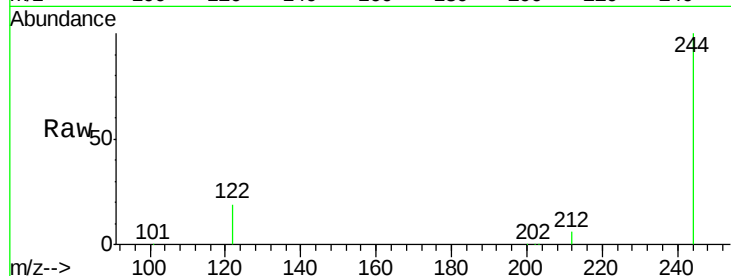
#18  
 Terphenyl-d14  
 Concen: 10.45 ng  
 RT: 16.15 min Scan# 2755  
 Delta R.T. 0.00 min  
 Lab File: BE088167.D  
 Acq: 22 Oct 2014 6:19

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB25-1014DL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 6.3   | 5.4   | 8.0   |
| 122     | 18.7  | 17.5  | 26.3  |

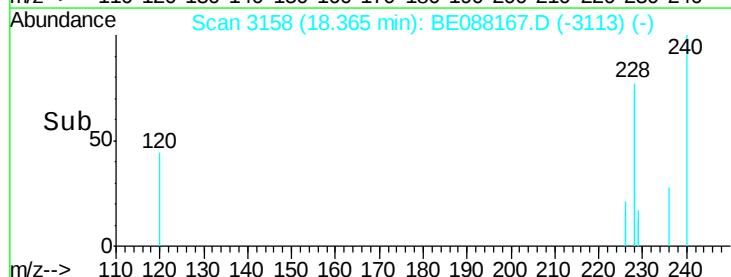
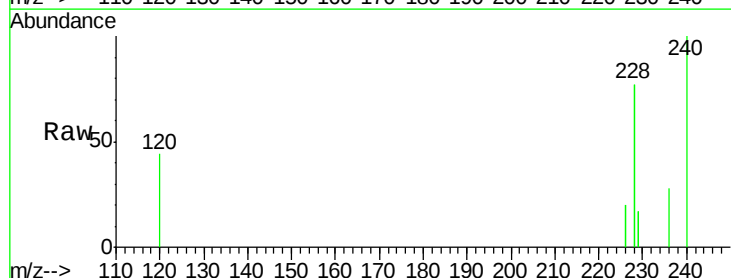
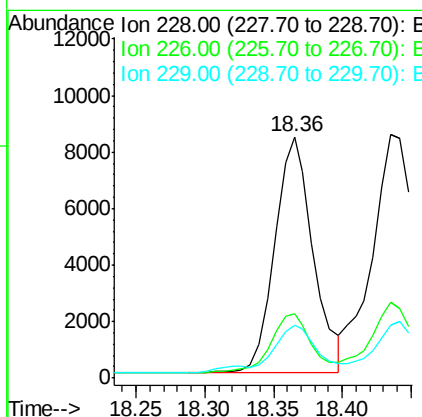
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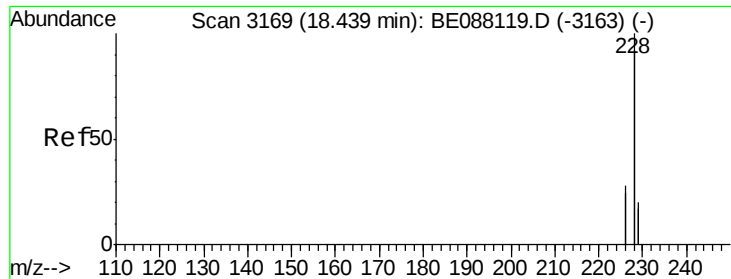
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#19  
 Benzo(a)anthracene  
 Concen: 0.38 ng  
 RT: 18.36 min Scan# 3158  
 Delta R.T. 0.00 min  
 Lab File: BE088167.D  
 Acq: 22 Oct 2014 6:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 26.7  | 20.8  | 31.2  |
| 229     | 21.9  | 15.6  | 23.4  |





#20

Chrysene

Concen: 0.45 ng

RT: 18.44 min Scan# 3169

Delta R.T. -0.00 min

Lab File: BE088167.D

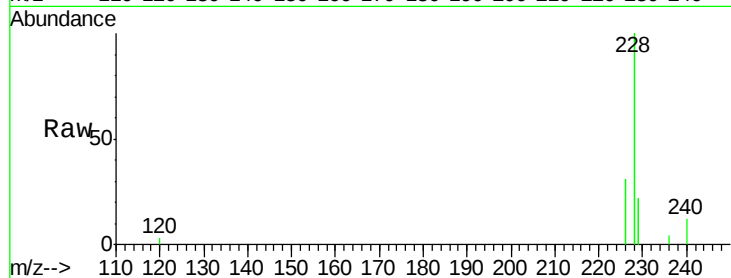
Acq: 22 Oct 2014 6:19

Instrument :

BNA\_E

ClientSampleId :

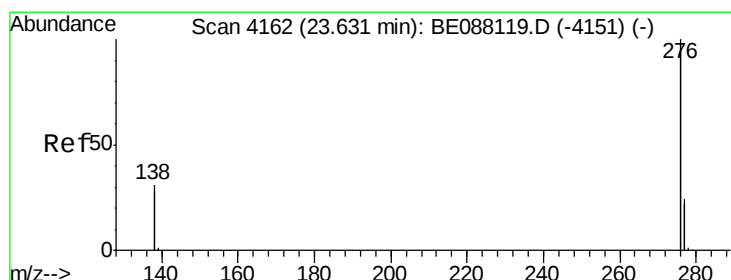
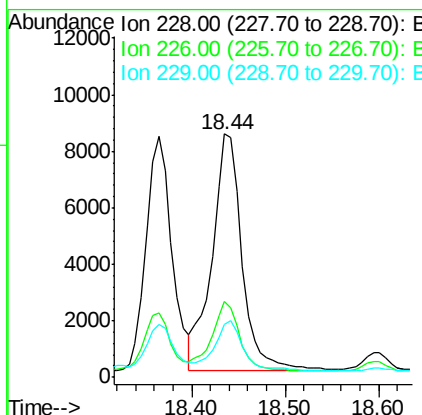
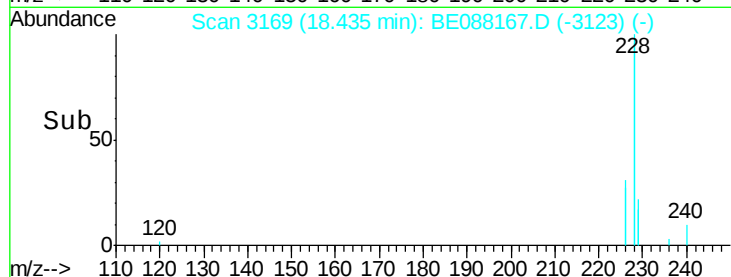
YS19-SB25-1014DL



|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 228  | Resp: | 18871 |
| Ion Ratio |      | Lower | Upper |
| 228       | 100  |       |       |
| 226       | 31.1 | 22.7  | 34.1  |
| 229       | 21.8 | 15.8  | 23.6  |

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#21

Indeno(1,2,3-cd)pyrene

Concen: 0.14 ng

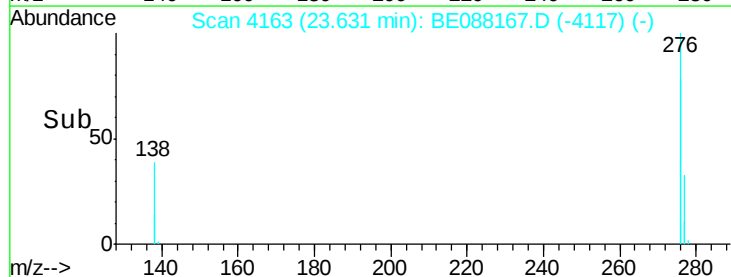
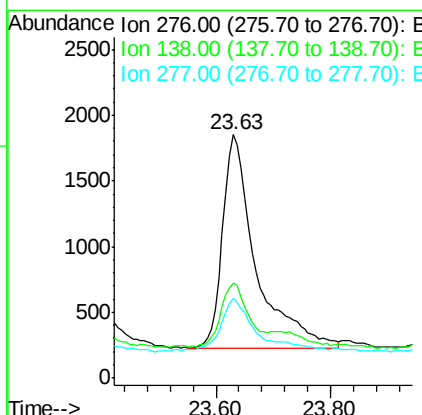
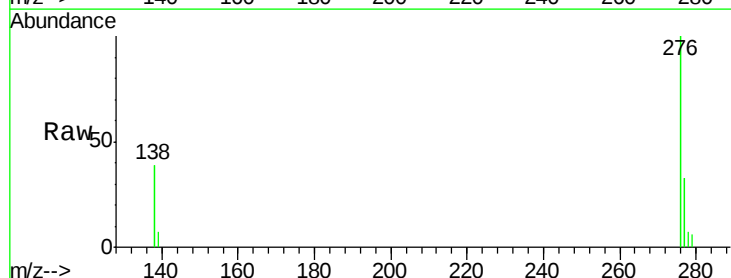
RT: 23.63 min Scan# 4163

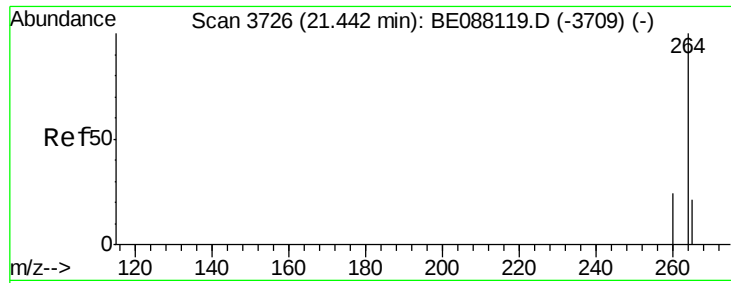
Delta R.T. -0.00 min

Lab File: BE088167.D

Acq: 22 Oct 2014 6:19

|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 276  | Resp: | 6598  |
| Ion Ratio |      | Lower | Upper |
| 276       | 100  |       |       |
| 138       | 24.7 | 18.5  | 27.7  |
| 277       | 24.5 | 14.6  | 21.8# |





#22

Perylene-d12

Concen: 5.00 ng

RT: 21.44 min Scan# 3727

Delta R.T. -0.00 min

Lab File: BE088167.D

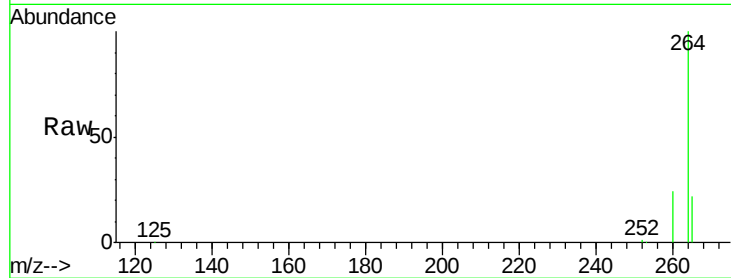
Acq: 22 Oct 2014 6:19

Instrument :

BNA\_E

ClientSampleId :

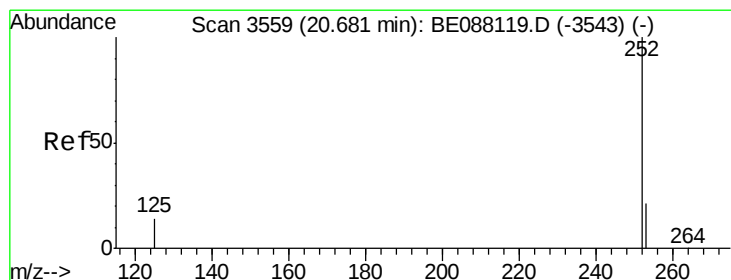
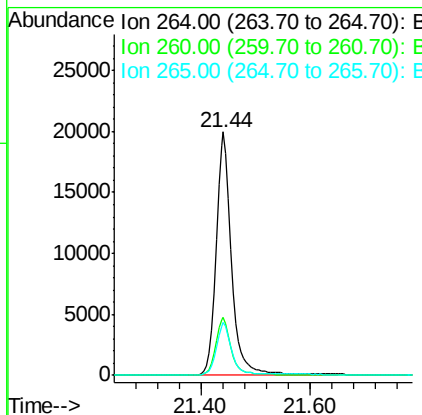
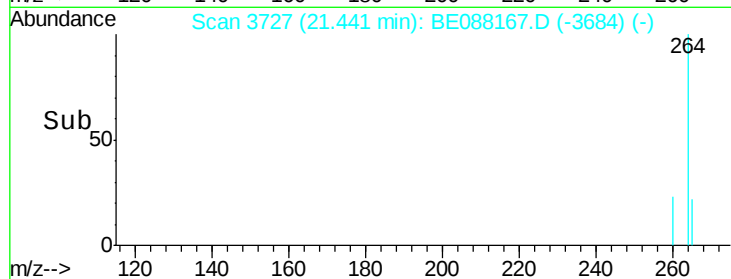
YS19-SB25-1014DL



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 23.6  | 19.0  | 28.4  |
| 265     | 21.8  | 17.2  | 25.8  |

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#23

Benzo(b)fluoranthene

Concen: 0.35 ng

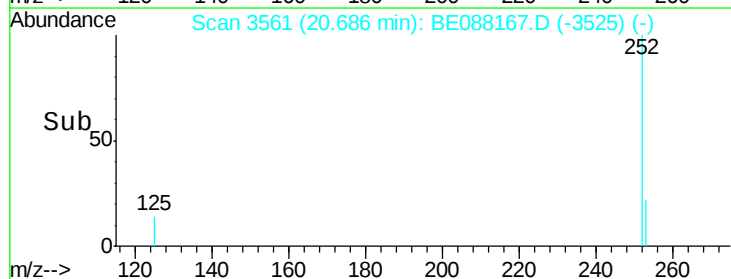
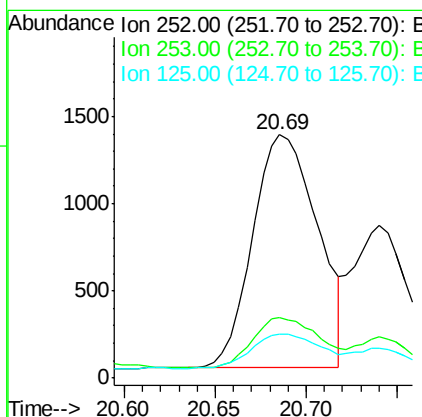
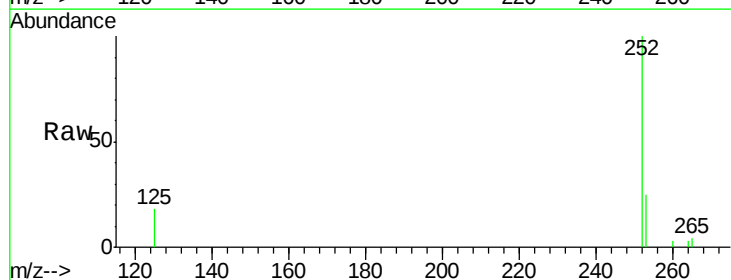
RT: 20.69 min Scan# 3561

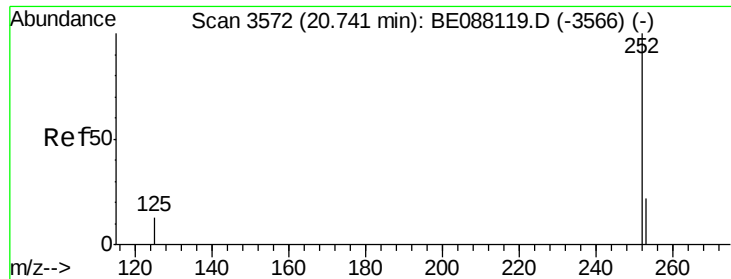
Delta R.T. 0.00 min

Lab File: BE088167.D

Acq: 22 Oct 2014 6:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.0  | 17.4  | 26.0  |
| 125     | 18.1  | 11.8  | 17.8  |





#24

Benzo(k)fluoranthene

Concen: 0.18 ng

RT: 20.74 min Scan# 3573

Delta R.T. -0.00 min

Lab File: BE088167.D

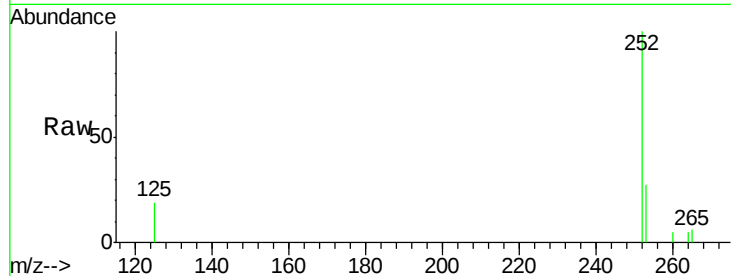
Acq: 22 Oct 2014 6:19

Instrument :

BNA\_E

ClientSampleId :

YS19-SB25-1014DL



Tgt Ion: 252 Resp: 1797

Ion Ratio Lower Upper

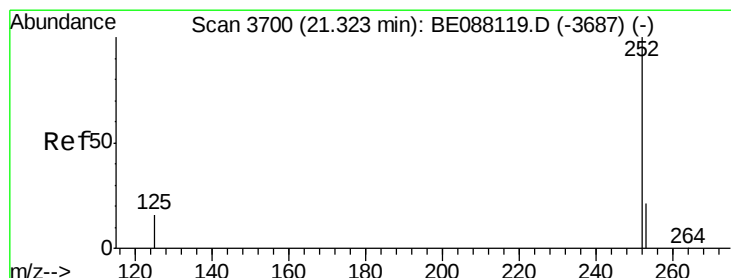
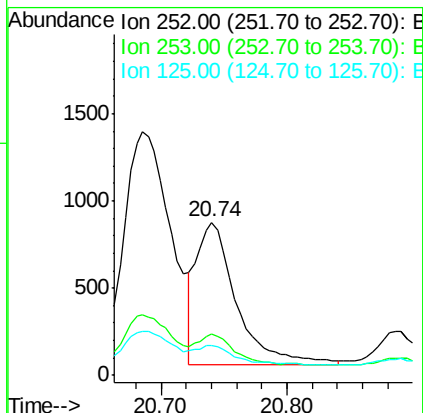
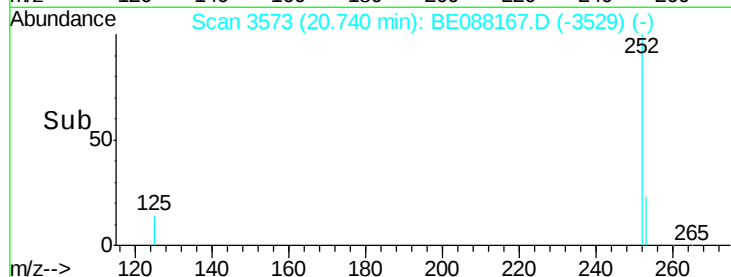
252 100

253 27.1 17.6 26.4#

125 19.5 11.5 17.3#

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#25

Benzo(a)pyrene

Concen: 0.27 ng

RT: 21.32 min Scan# 3701

Delta R.T. -0.00 min

Lab File: BE088167.D

Acq: 22 Oct 2014 6:19

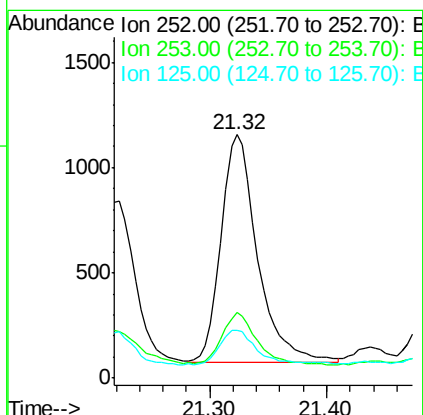
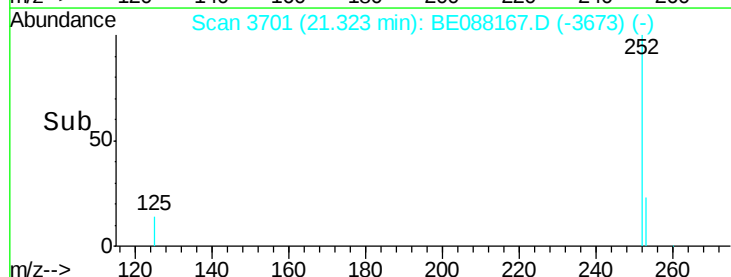
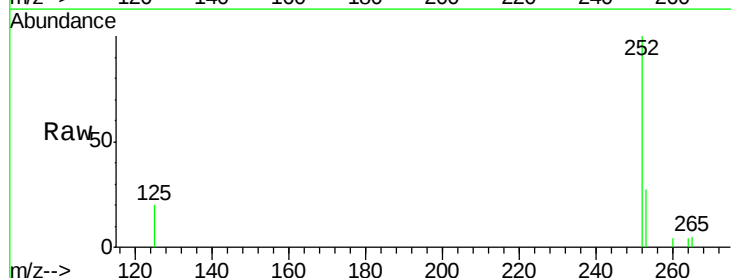
Tgt Ion: 252 Resp: 2349

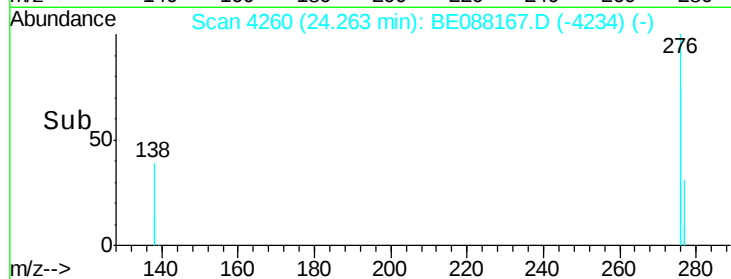
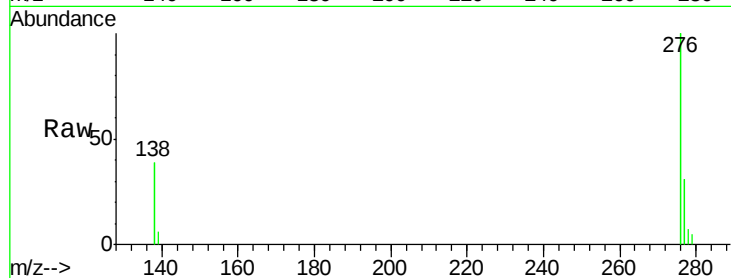
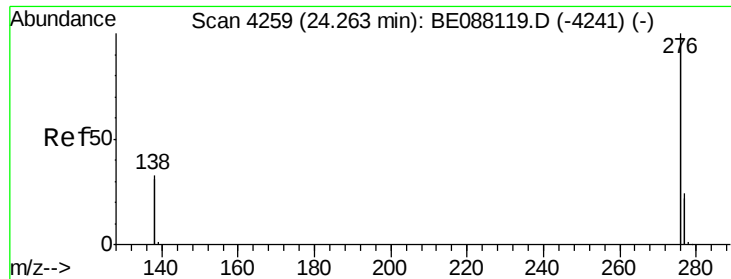
Ion Ratio Lower Upper

252 100

253 27.1 17.5 26.3#

125 19.6 13.0 19.6#





#27  
 Benzo(g,h,i)perylene  
 Concen: 0.17 ng  
 RT: 24.26 min Scan# 4260  
 Delta R.T. -0.00 min  
 Lab File: BE088167.D  
 Acq: 22 Oct 2014 6:19

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB25-1014DL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 31.0  | 19.2  | 28.8# |
| 138     | 39.1  | 26.6  | 40.0  |

Manual Integrations  
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