

Data Path : Z:\HPCHEM1\BNA E\DATA\BE121417\  
 Data File : BE094989.D  
 Acq On : 14 Dec 2017 22:33  
 Operator : SJ/JU  
 Sample : I6876-04  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 KY038PS033-171211

Manual Integrations  
 APPROVED

Sohil  
 12/15/2017 7:54:50 PM

Quant Time: Dec 15 08:27:34 2017  
 Quant Method : Z:\HPCHEM1\BNA E\METHODS\8270-SIM-BE121417.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Dec 14 18:42:53 2017  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min)  |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4   | 8.47  | 152  | 6854     | 0.40  | ng    | 0.00      |
| 7) Naphthalene-d8           | 11.33 | 136  | 15024    | 0.40  | ng    | 0.00      |
| 13) Acenaphthene-d10        | 15.06 | 164  | 8439     | 0.40  | ng    | 0.00      |
| 19) Phenanthrene-d10        | 17.77 | 188  | 19635    | 0.40  | ng    | 0.00      |
| 27) Chrysene-d12            | 21.87 | 240  | 22005    | 0.40  | ng    | 0.00      |
| 34) Perylene-d12            | 24.54 | 264  | 18220    | 0.40  | ng    | 0.00      |
| System Monitoring Compounds |       |      |          |       |       |           |
| 4) 2-Fluorophenol           | 5.95  | 112  | 1861     | 0.17  | ng    | 0.00      |
| 5) Phenol-d6                | 7.59  | 99   | 1738     | 0.11  | ng    | 0.00      |
| 8) Nitrobenzene-d5          | 9.65  | 82   | 6091     | 0.49  | ng    | 0.00      |
| 11) 2-Methylnaphthalene-d10 | 12.86 | 152  | 9973     | 0.41  | ng    | 0.00      |
| 14) 2,4,6-Tribromophenol    | 16.53 | 330  | 998      | 0.51  | ng    | 0.00      |
| 15) 2-Fluorobiphenyl        | 13.70 | 172  | 16462    | 0.44  | ng    | 0.00      |
| 25) Fluoranthene-d10        | 19.75 | 212  | 110140   | 0.43  | ng    | 0.00      |
| 29) Terphenyl-d14           | 20.31 | 244  | 23138    | 0.56  | ng    | 0.00      |
| Target Compounds            |       |      |          |       |       |           |
| 26) Fluoranthene            | 19.78 | 202  | 1636     | 0.022 | ng    | Qvalue 96 |
| 28) Pyrene                  | 20.13 | 202  | 1586     | 0.021 | ng    | 96        |
| 30) Benzo(a)anthracene      | 21.86 | 228  | 2982     | 0.046 | ng    | # 65      |
| 31) Chrysene                | 21.90 | 228  | 2693m    | 0.037 | ng    |           |
| 33) Indeno(1,2,3-cd)pyrene  | 27.41 | 276  | 2708     | 0.046 | ng    | 97        |
| 35) Benzo(b)fluoranthene    | 23.71 | 252  | 2838     | 0.042 | ng    | # 85      |
| 36) Benzo(k)fluoranthene    | 23.76 | 252  | 2615     | 0.039 | ng    | # 70      |
| 37) Benzo(a)pyrene          | 24.43 | 252  | 1805     | 0.030 | ng    | # 50      |
| 38) Dibenzo(a,h)anthracene  | 27.43 | 278  | 2159     | 0.039 | ng    | # 77      |
| 39) Benzo(a,h,i)perylene    | 28.29 | 276  | 2310     | 0.042 | ng    | # 84      |

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

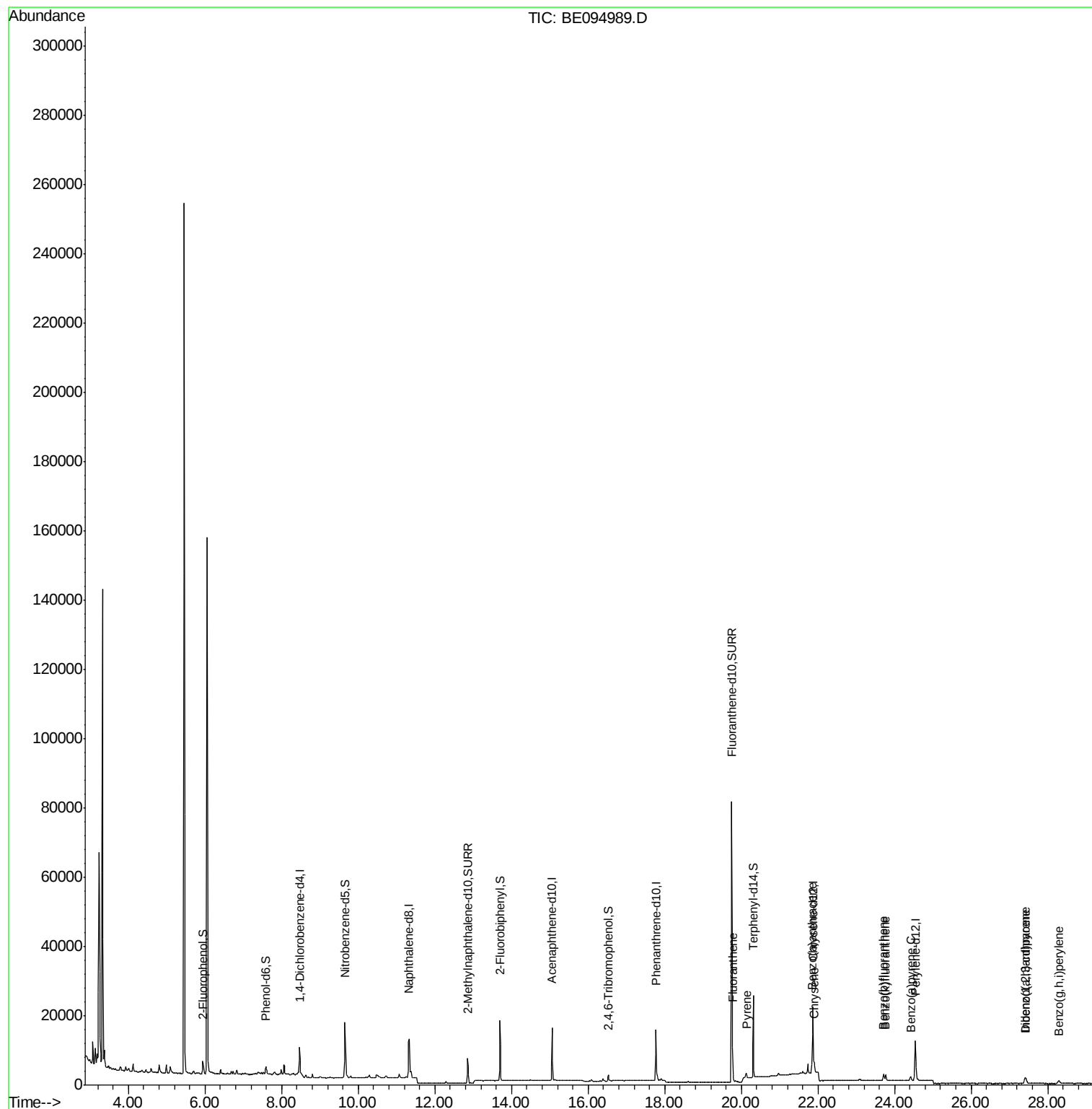
Data Path : Z:\HPCHEM1\BNA E\DATA\BE121417\  
Data File : BE094989.D  
Acq On : 14 Dec 2017 22:33  
Operator : SJ/JU  
Sample : I6876-04  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Instrument :  
BNA\_E  
ClientSampleId :  
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Quant Time: Dec 15 08:27:34 2017  
Quant Method : Z:\HPCHEM1\BNA E\METHODS\8270-SIM-BE121417.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Dec 14 18:42:53 2017  
Response via : Initial Calibration





#1

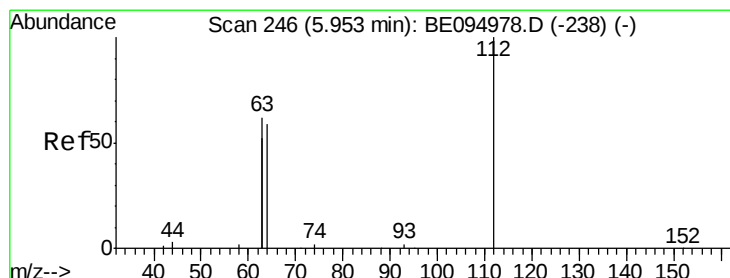
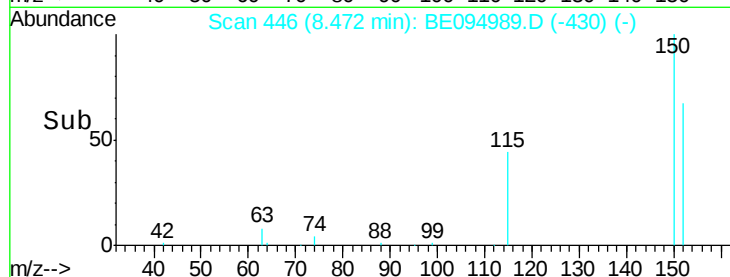
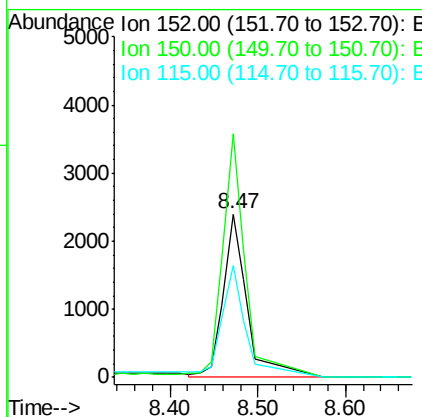
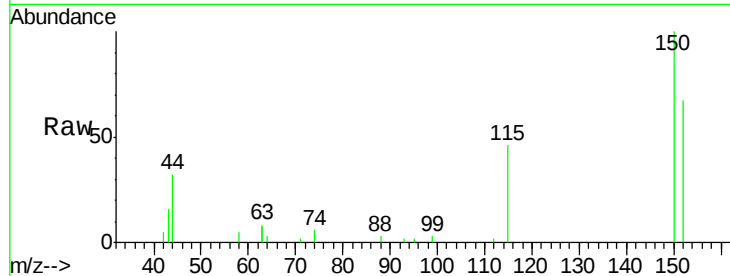
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 8.47 min Scan# 446  
Delta R.T. 0.00 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

Instrument :  
BNA\_E  
ClientSampleId :  
KY038PS033-171211

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 148.9 | 117.2 | 175.8 |
| 115     | 68.2  | 57.0  | 85.6  |

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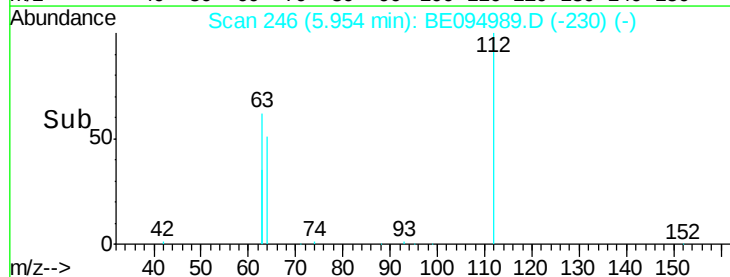
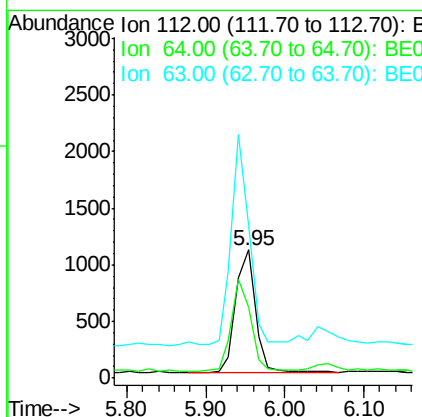
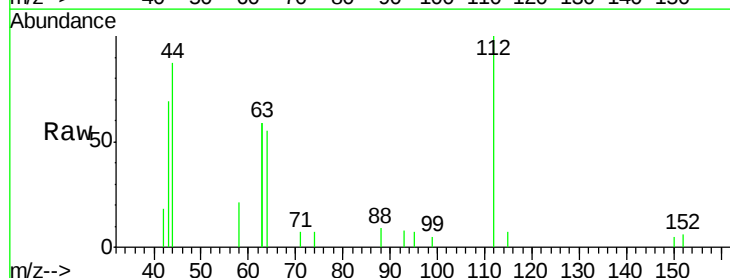
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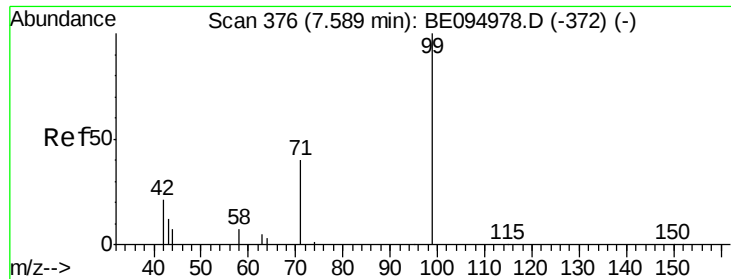


#4

2-Fluorophenol  
Concen: 0.175 ng  
RT: 5.95 min Scan# 246  
Delta R.T. 0.00 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 72.8  | 60.1  | 90.1  |
| 63      | 155.6 | 116.8 | 175.2 |





#5

Phenol-d6

Concen: 0.110 ng

RT: 7.59 min Scan# 376

Delta R.T. 0.00 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

Instrument :

BNA\_E

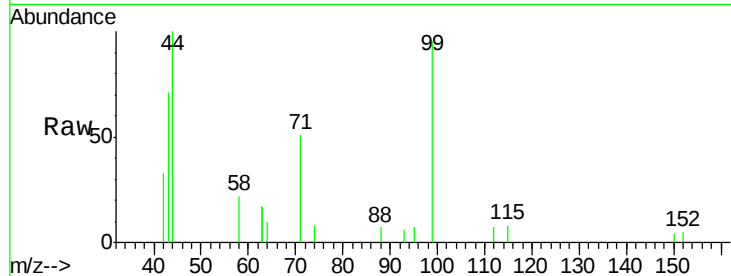
ClientSampleId :

KY038PS033-171211

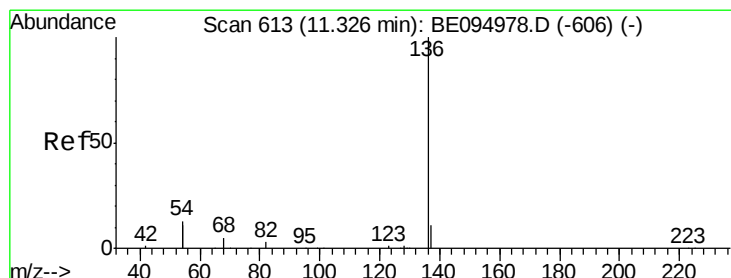
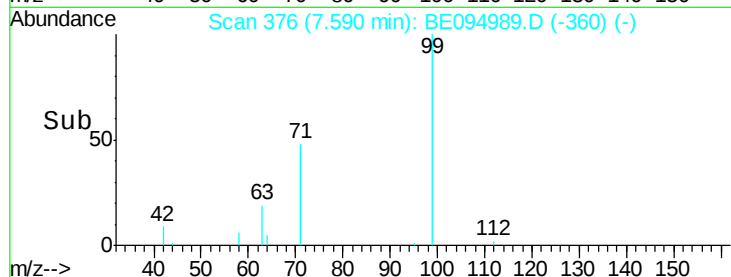
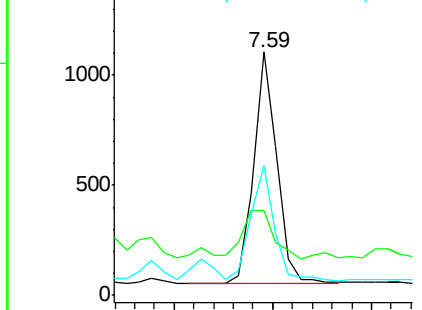
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 99    | Resp: | 1738  |
| Ion      | Ratio | Lower | Upper |
| 99       | 100   |       |       |
| 42       | 27.3  | 20.2  | 30.2  |
| 71       | 50.5  | 28.4  | 42.6# |

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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



#7

Naphthalene-d8

Concen: 0.400 ng

RT: 11.33 min Scan# 613

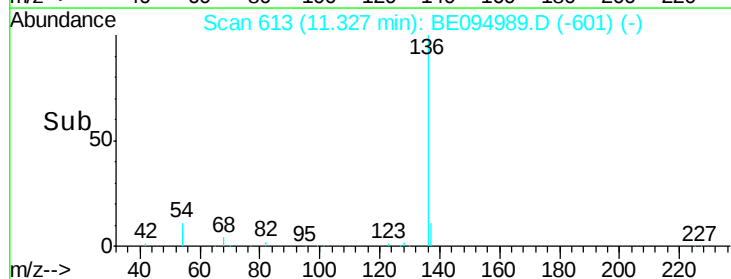
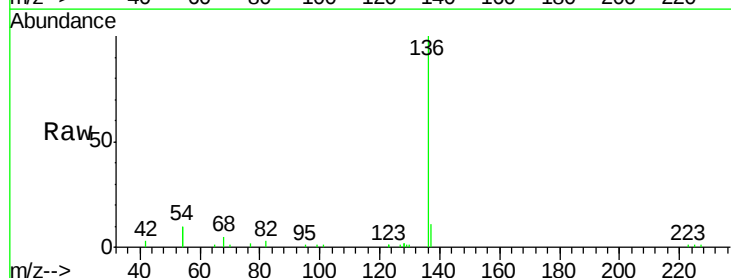
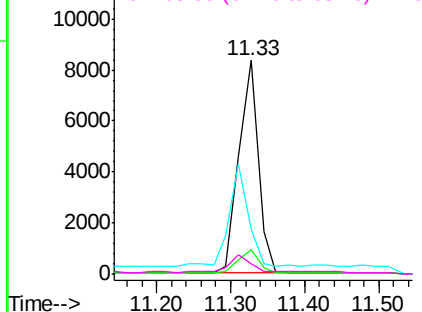
Delta R.T. 0.00 min

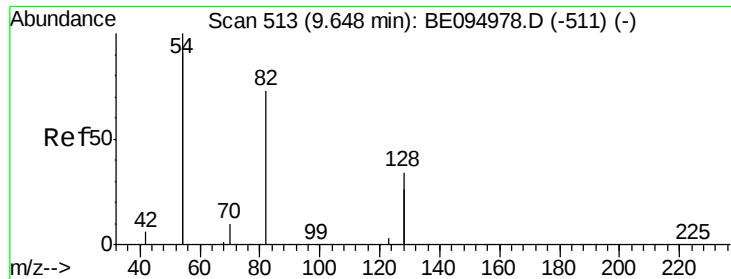
Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 15024 |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 11.2  | 9.5   | 14.3  |
| 54       | 20.9  | 29.1  | 43.7# |
| 68       | 4.9   | 6.2   | 9.2#  |

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





#8

Nitrobenzene-d5

Concen: 0.494 ng

RT: 9.65 min Scan# 513

Delta R.T. 0.00 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

Instrument :

BNA\_E

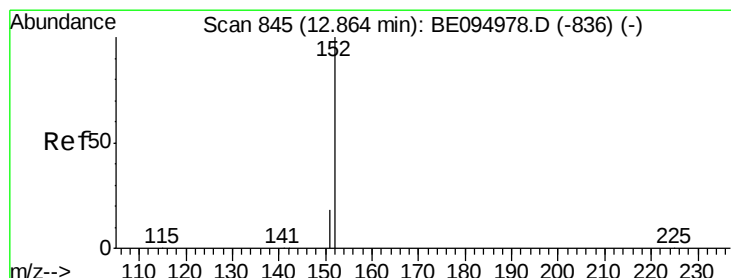
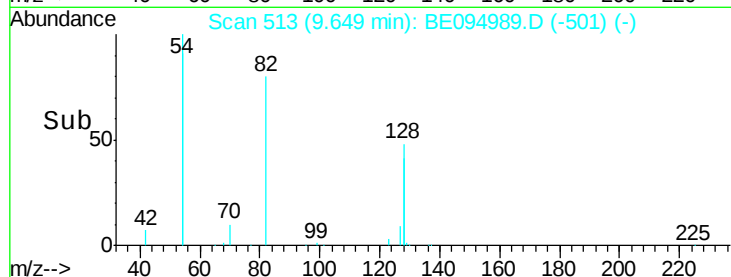
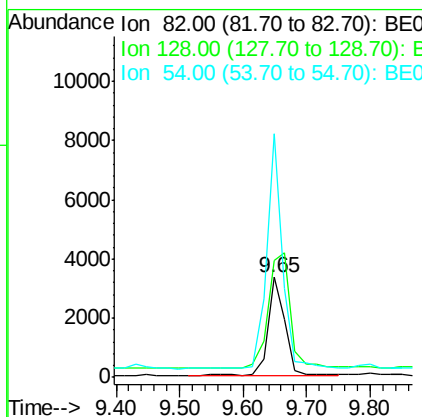
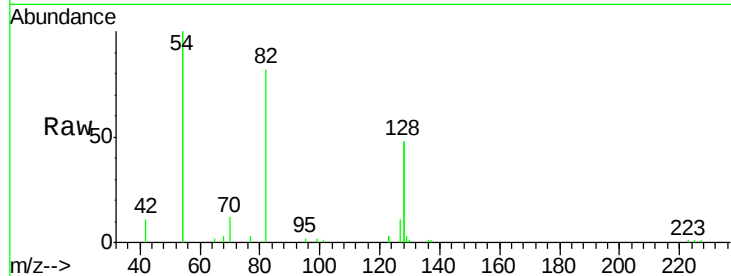
ClientSampleId :

KY038PS033-171211

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 82    | Resp: | 6091   |
| Ion Ratio | Lower | Upper |        |
| 82        | 100   |       |        |
| 128       | 117.0 | 150.0 | 225.0# |
| 54        | 243.8 | 154.2 | 231.4# |

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#11

2-Methylnaphthalene-d10

Concen: 0.405 ng

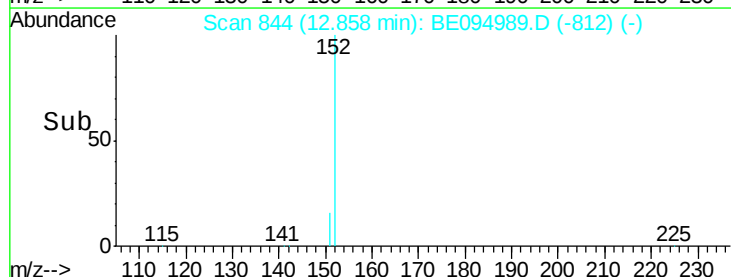
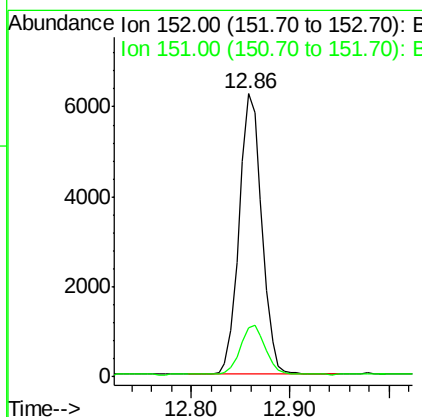
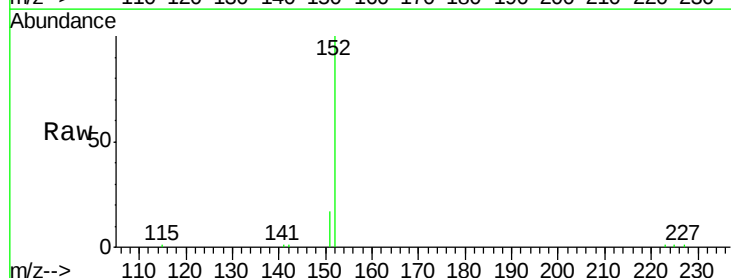
RT: 12.86 min Scan# 844

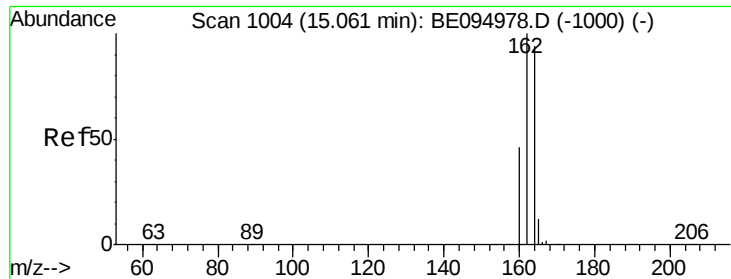
Delta R.T. -0.01 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 152   | Resp: | 9973 |
| Ion Ratio | Lower | Upper |      |
| 152       | 100   |       |      |
| 151       | 19.0  | 15.4  | 23.0 |





#13

Acenaphthene-d10

Concen: 0.400 ng

RT: 15.06 min Scan# 1004

Delta R.T. -0.00 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

Instrument :

BNA\_E

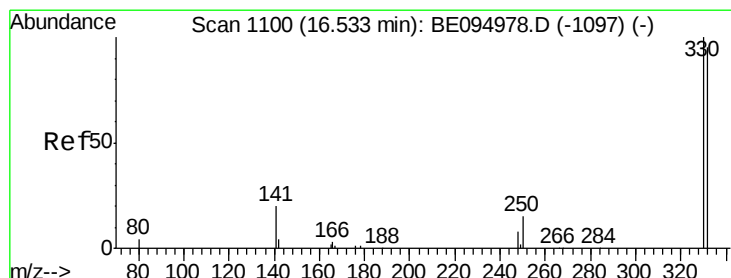
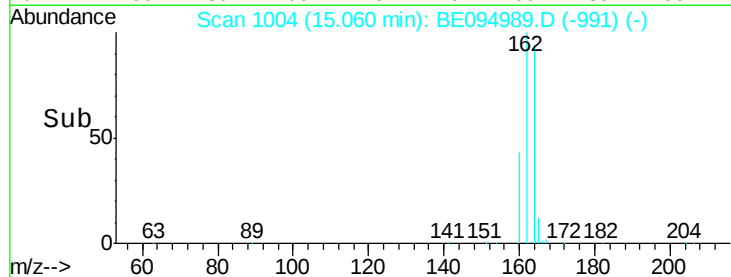
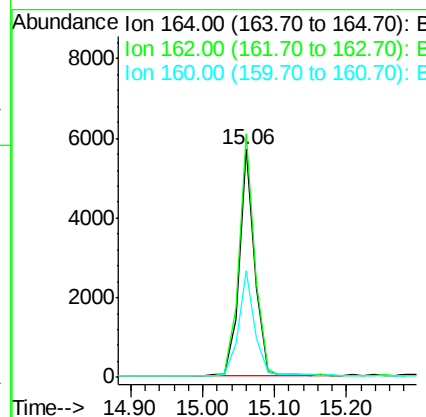
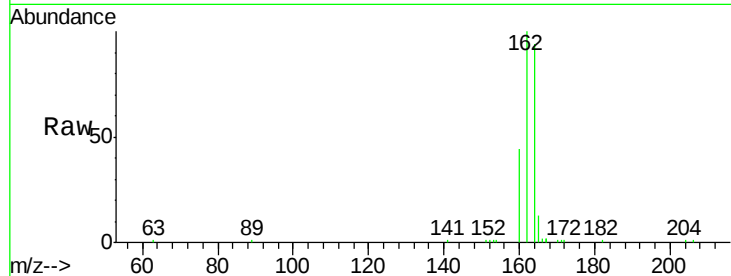
ClientSampleId :

KY038PS033-171211

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 164   | Resp: | 8439  |
| Ion Ratio | Lower | Upper |       |
| 164       | 100   |       |       |
| 162       | 106.7 | 83.1  | 124.7 |
| 160       | 46.7  | 37.1  | 55.7  |

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#14

2,4,6-Tribromophenol

Concen: 0.509 ng

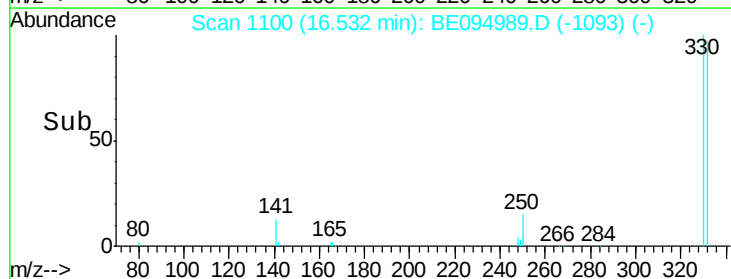
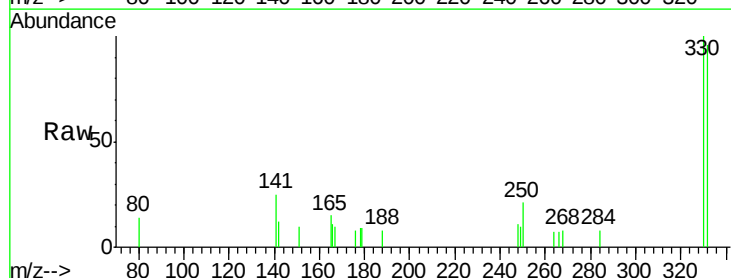
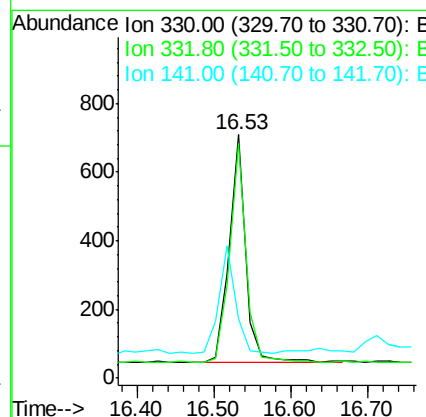
RT: 16.53 min Scan# 1100

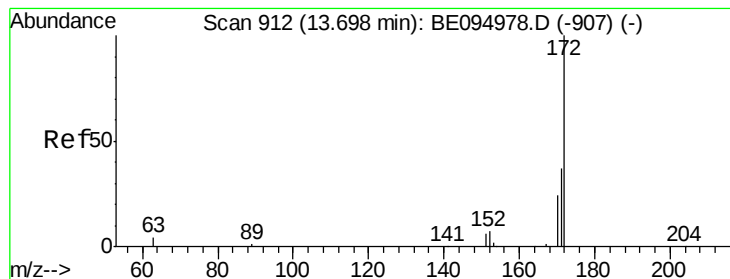
Delta R.T. 0.00 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 330   | Resp: | 998    |
| Ion Ratio | Lower | Upper |        |
| 330       | 100   |       |        |
| 332       | 94.3  | 152.7 | 229.1# |
| 141       | 46.0  | 33.7  | 50.5   |





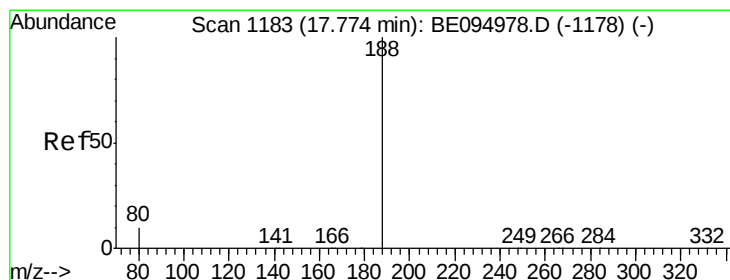
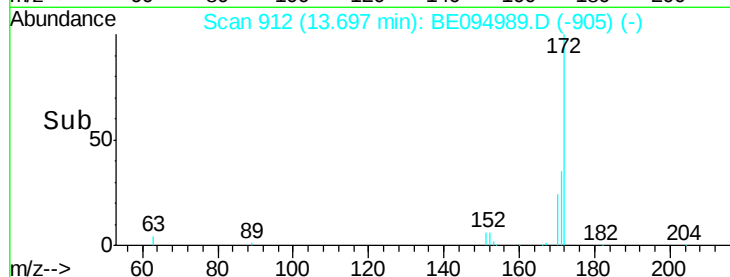
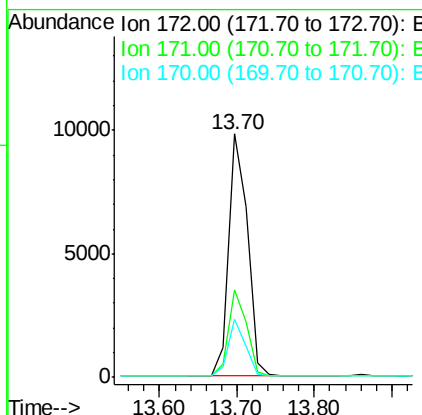
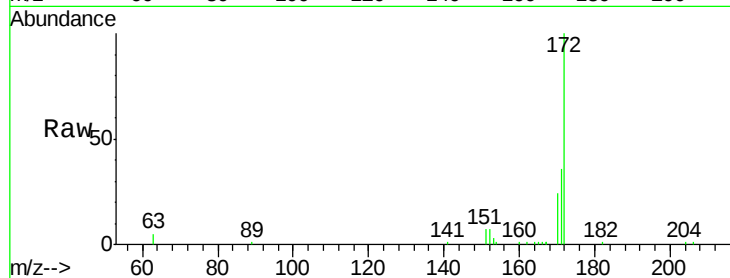
#15  
2-Fluorobiphenyl  
Concen: 0.440 ng  
RT: 13.70 min Scan# 912  
Delta R.T. -0.00 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

Instrument :  
BNA\_E  
ClientSampleId :  
KY038PS033-171211

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 35.8  | 29.9  | 44.9  |
| 170     | 24.0  | 21.8  | 32.8  |

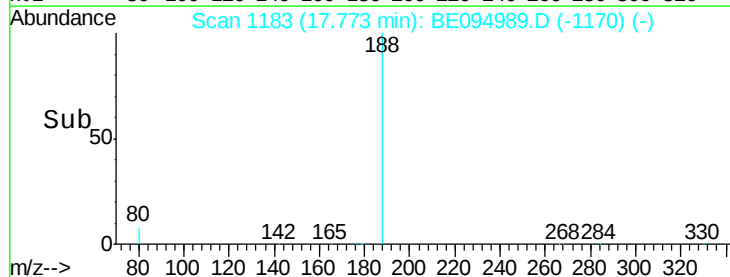
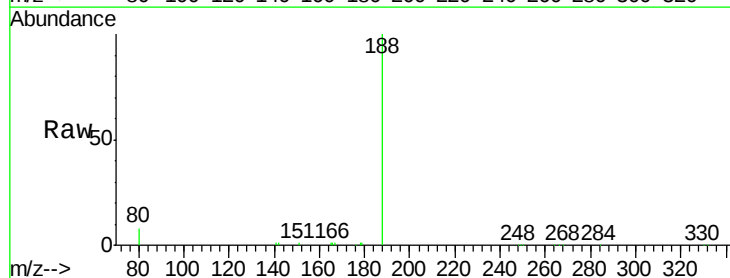
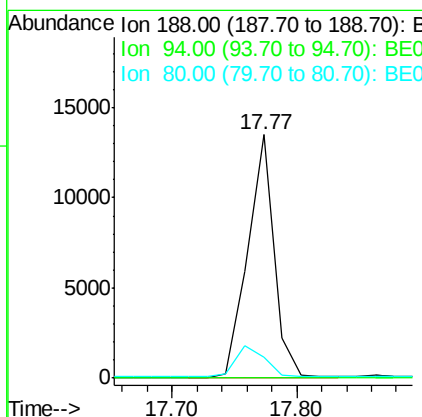
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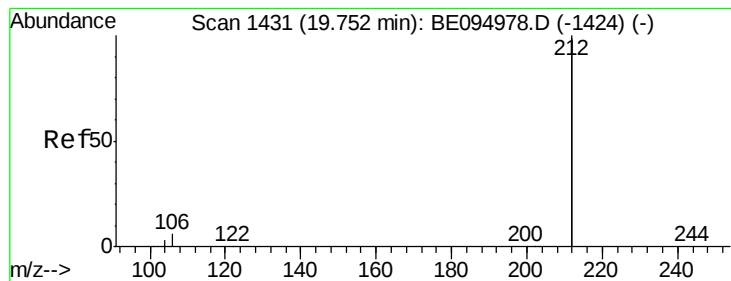
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#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.77 min Scan# 1183  
Delta R.T. -0.00 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 0.0   | 3.9   | 5.9#  |
| 80      | 8.4   | 3.6   | 5.4#  |





#25

Fluoranthene-d10

Concen: 0.432 ng

RT: 19.75 min Scan# 1430

Delta R.T. -0.01 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

Instrument :

BNA\_E

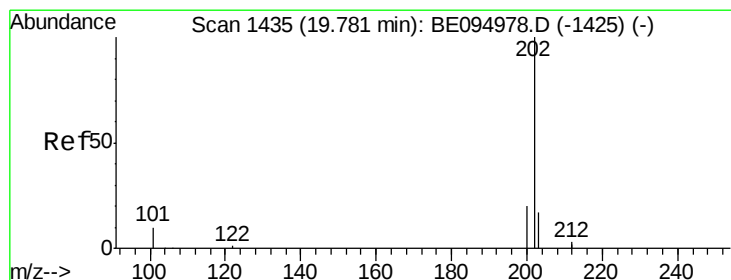
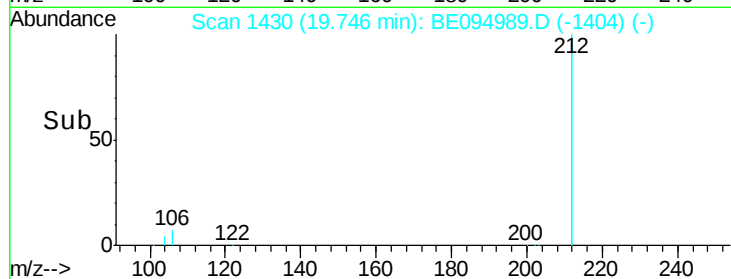
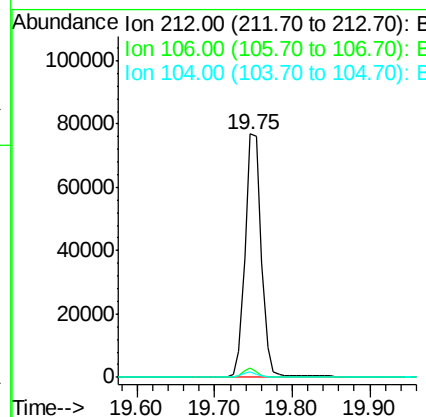
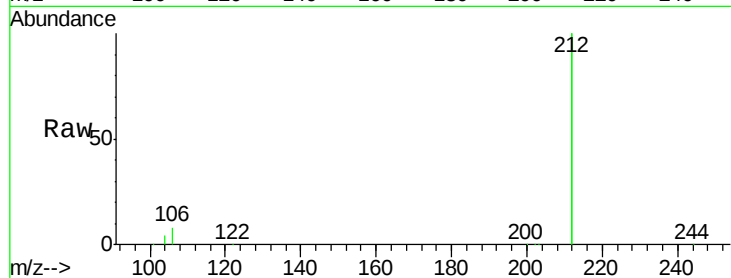
ClientSampleId :

KY038PS033-171211

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 212     | 100   | 110140 |       |       |
| 106     | 3.4   | 2.8    | 4.2   |       |
| 104     | 1.9   | 1.6    | 2.4   |       |

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#26

Fluoranthene

Concen: 0.022 ng

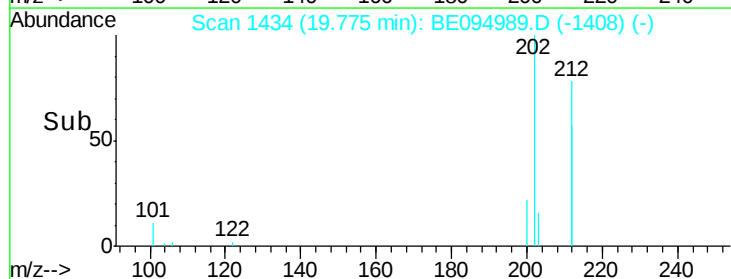
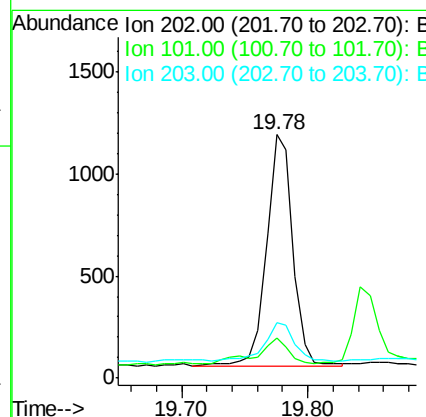
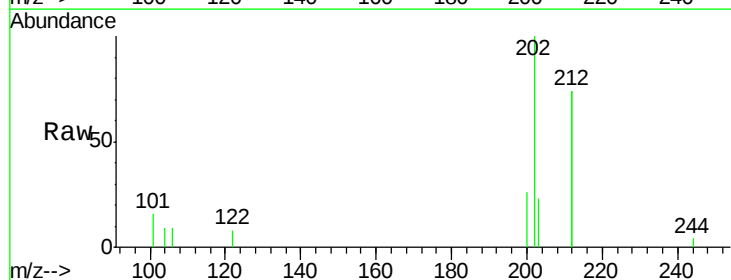
RT: 19.78 min Scan# 1434

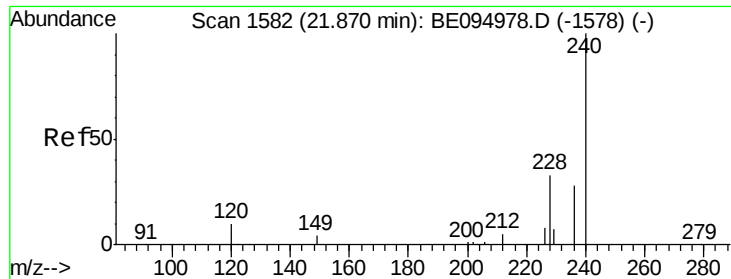
Delta R.T. -0.01 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 202     | 100   | 1636 |       |       |
| 101     | 13.3  | 9.8  | 14.8  |       |
| 203     | 19.0  | 13.7 | 20.5  |       |





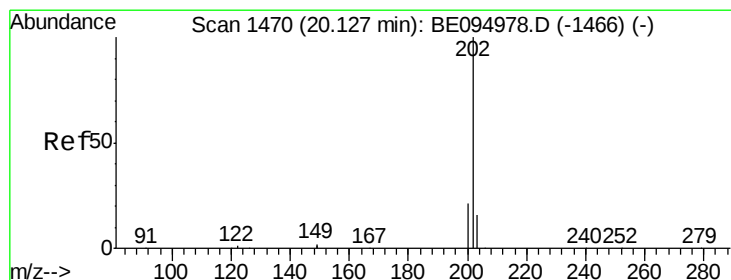
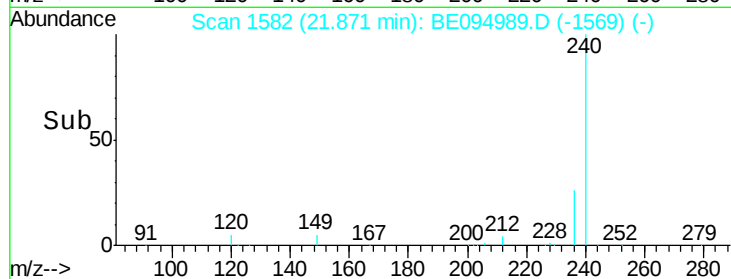
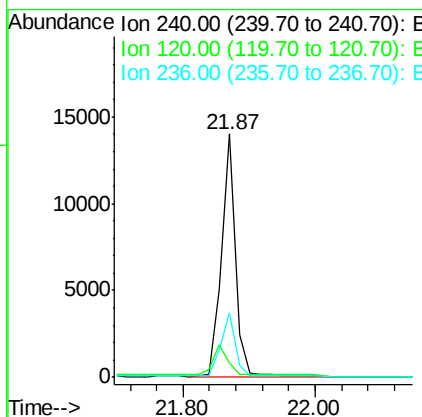
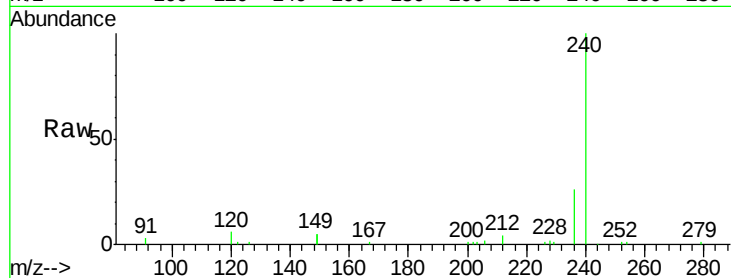
#27  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.87 min Scan# 1582  
Delta R.T. 0.00 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

Instrument :  
BNA\_E  
ClientSampleId :  
KY038PS033-171211

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 5.9   | 5.5   | 8.3   |
| 236     | 26.3  | 20.7  | 31.1  |

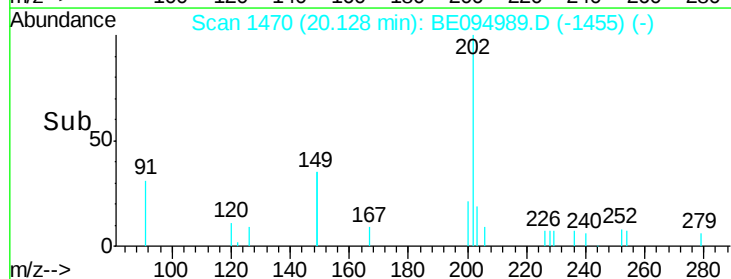
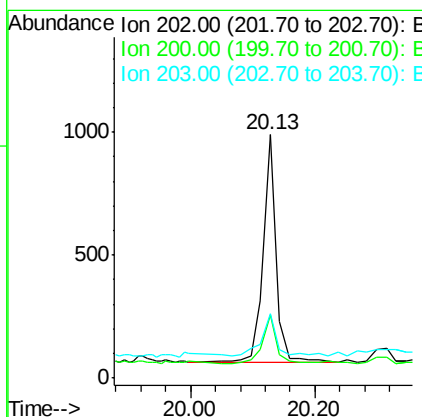
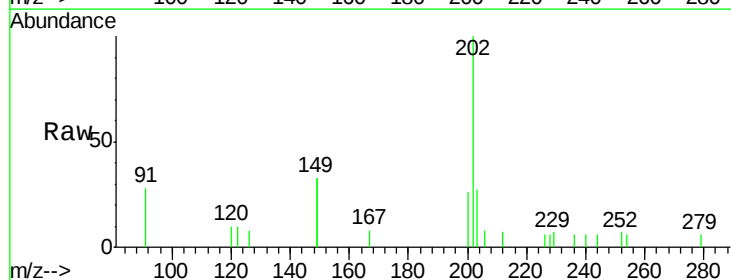
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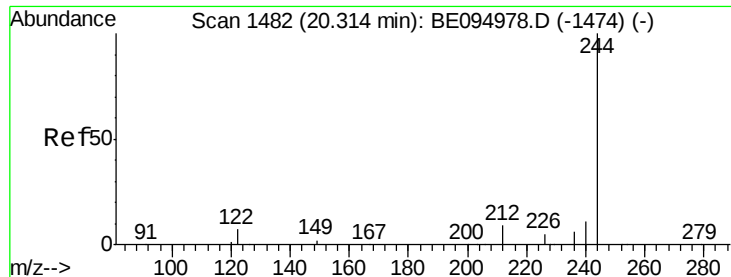
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#28  
Pyrene  
Concen: 0.021 ng  
RT: 20.13 min Scan# 1470  
Delta R.T. 0.00 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 19.0  | 16.6  | 25.0  |
| 203     | 19.1  | 13.8  | 20.8  |





#29

Terphenyl-d14

Concen: 0.559 ng

RT: 20.31 min Scan# 1482

Delta R.T. 0.00 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

Instrument :

BNA\_E

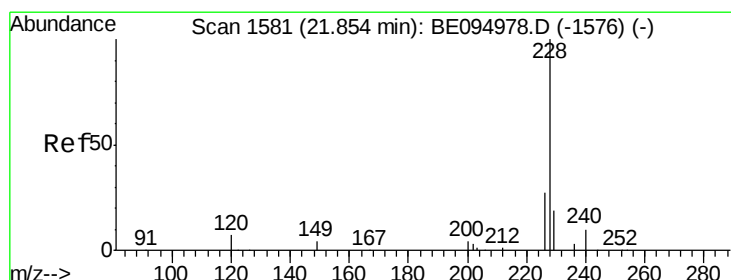
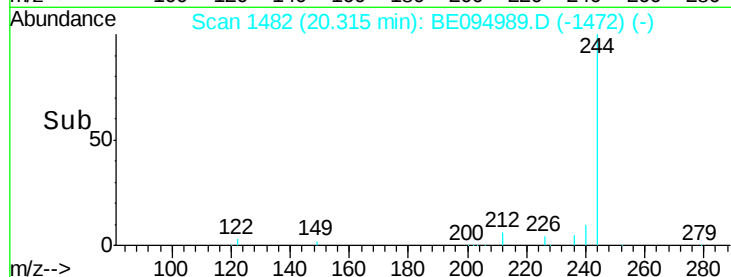
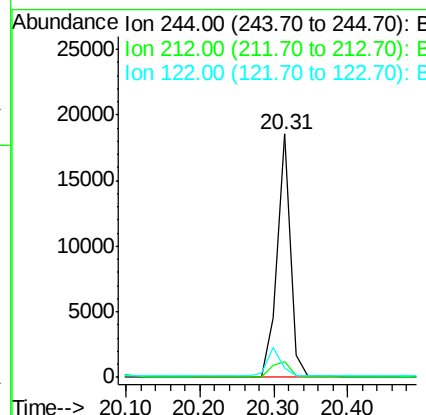
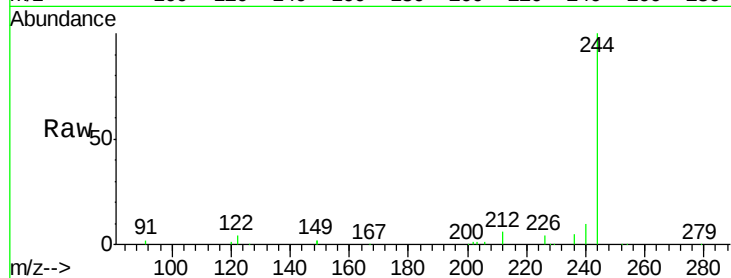
ClientSampleId :

KY038PS033-171211

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 244   | Resp: | 23138 |
| Ion Ratio | Lower | Upper |       |
| 244       | 100   |       |       |
| 212       | 6.5   | 25.4  | 38.0# |
| 122       | 3.7   | 8.1   | 12.1# |

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#30

Benzo(a)anthracene

Concen: 0.046 ng

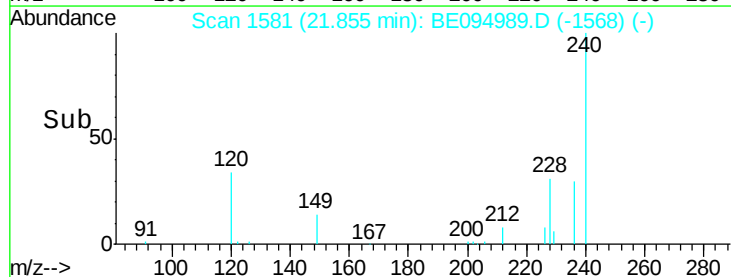
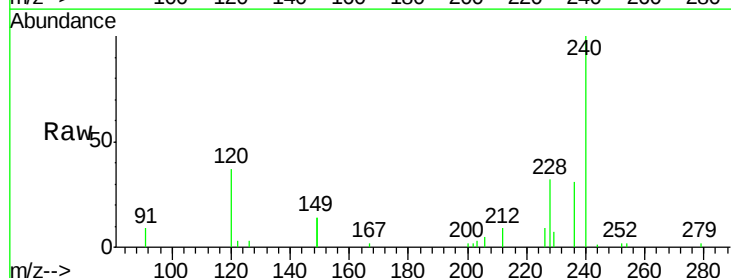
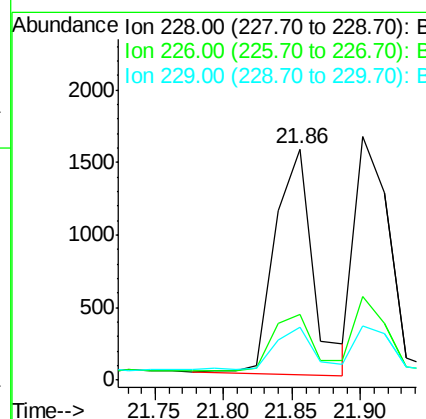
RT: 21.86 min Scan# 1581

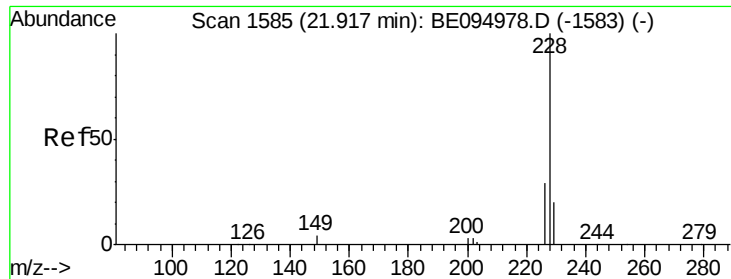
Delta R.T. 0.00 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 2982  |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 28.2  | 40.0  | 60.0# |
| 229       | 23.0  | 40.0  | 60.0# |





#31

Chrysene

Concen: 0.037 ng/mL

RT: 21.90 min Scan# 1584

Delta R.T. -0.01 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

Instrument :

BNA\_E

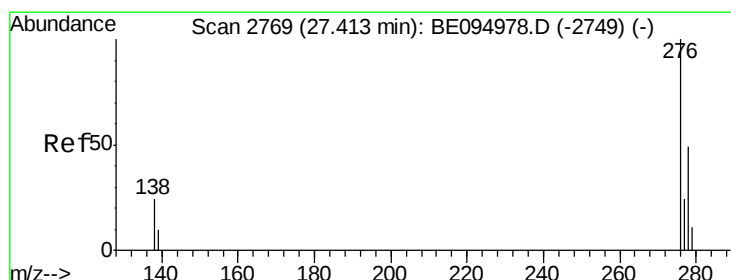
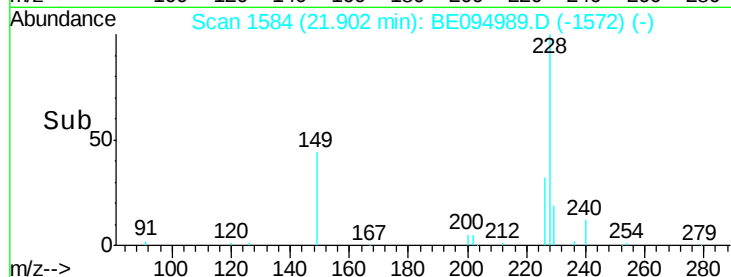
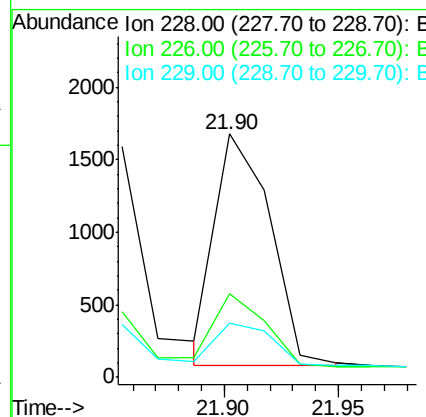
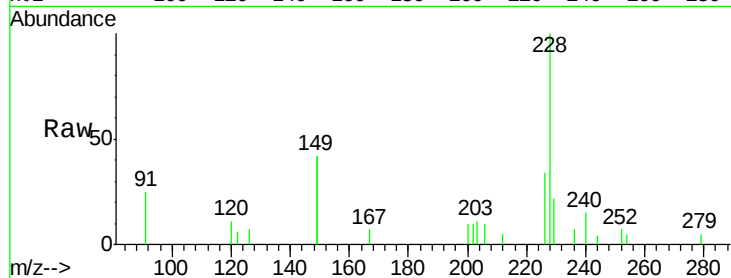
ClientSampleId :

KY038PS033-171211

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 228   | Resp: | 2693  |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 34.4  | 40.0  | 60.0# |
| 229       | 22.3  | 40.0  | 60.0# |

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#33

Indeno(1,2,3-cd)pyrene

Concen: 0.046 ng/mL

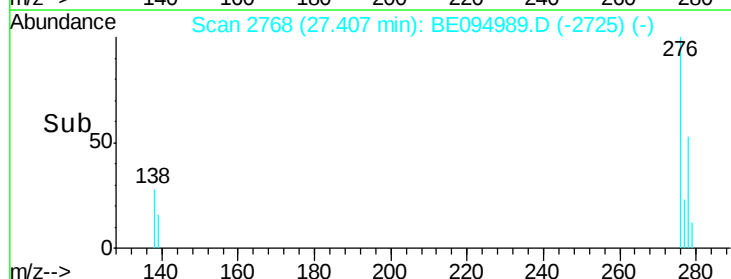
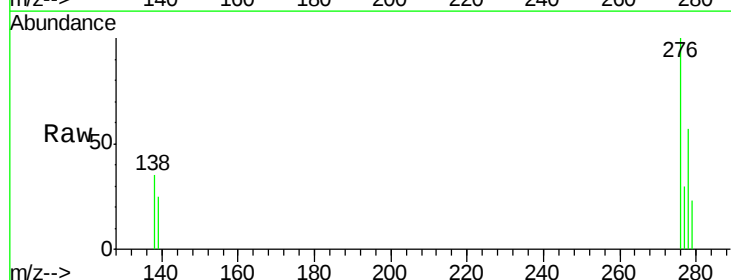
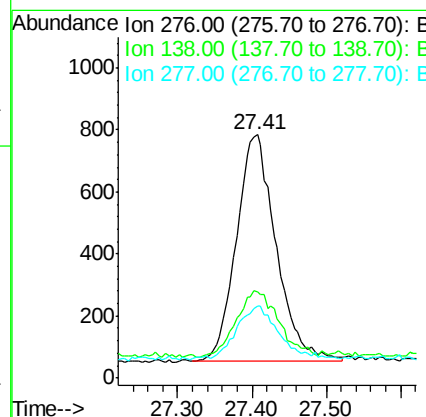
RT: 27.41 min Scan# 2768

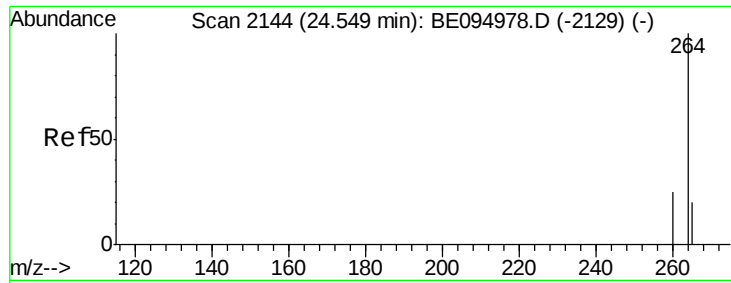
Delta R.T. -0.01 min

Lab File: BE094989.D

Acq: 14 Dec 2017 22:33

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 276   | Resp: | 2708 |
| Ion Ratio | Lower | Upper |      |
| 276       | 100   |       |      |
| 138       | 31.1  | 22.5  | 33.7 |
| 277       | 25.1  | 19.9  | 29.9 |





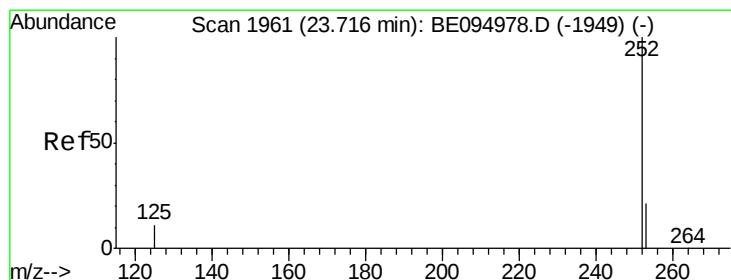
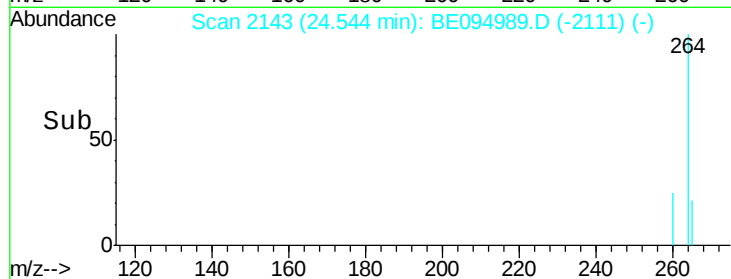
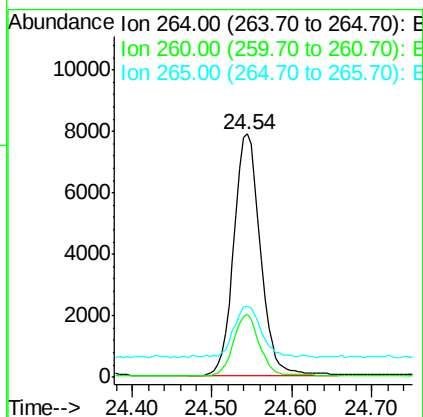
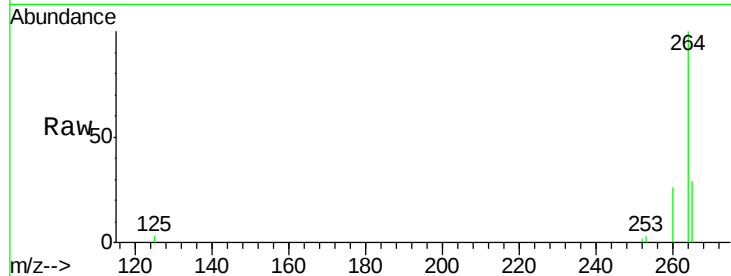
#34  
 Pervlene-d12  
 Concen: 0.400 ng  
 RT: 24.54 min Scan# 2143  
 Delta R.T. -0.01 min  
 Lab File: BE094989.D  
 Acq: 14 Dec 2017 22:33

Instrument :  
 BNA\_E  
 ClientSampleId :  
 KY038PS033-171211

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 25.9  | 20.5  | 30.7  |
| 265     | 29.2  | 22.8  | 34.2  |

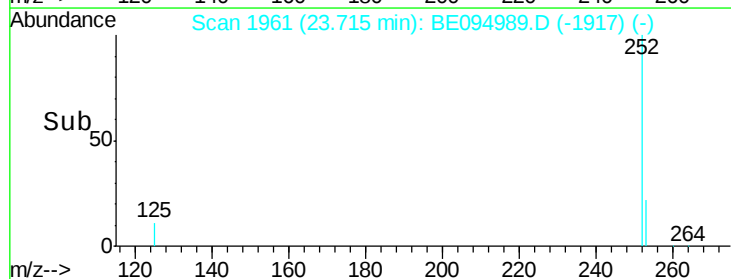
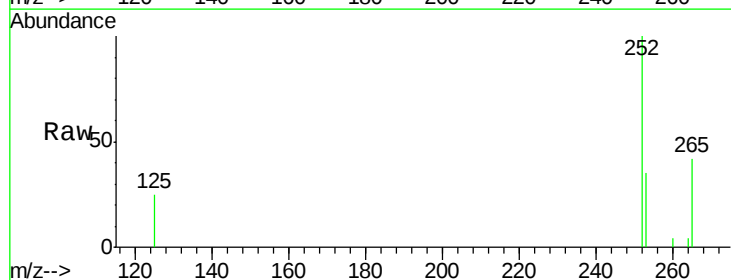
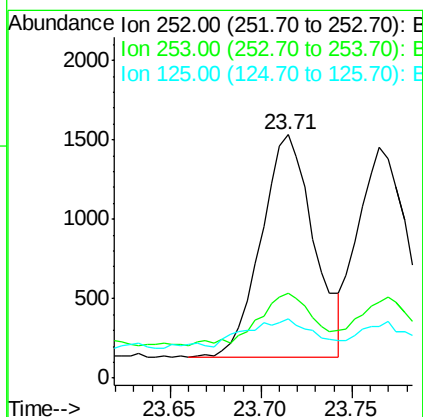
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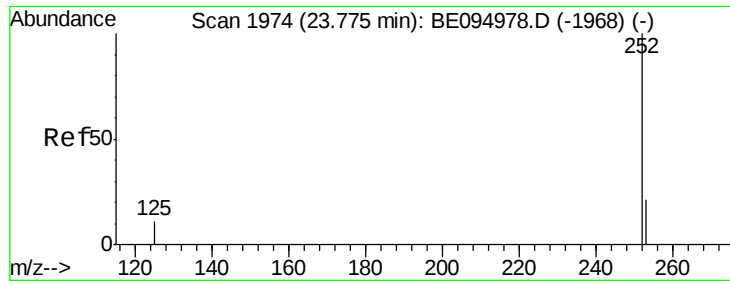
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#35  
 Benzo(b)fluoranthene  
 Concen: 0.042 ng  
 RT: 23.71 min Scan# 1961  
 Delta R.T. -0.00 min  
 Lab File: BE094989.D  
 Acq: 14 Dec 2017 22:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 35.0  | 20.0  | 30.0# |
| 125     | 24.5  | 16.0  | 24.0# |





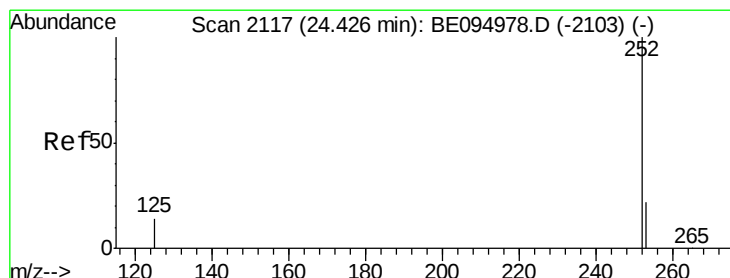
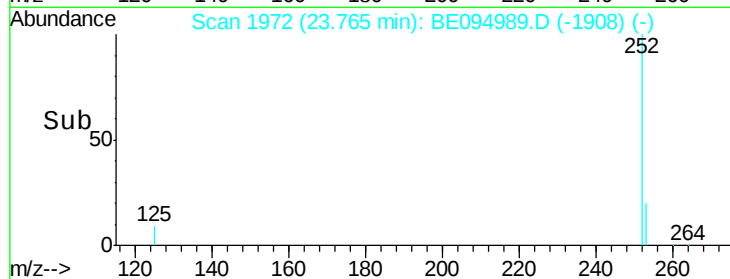
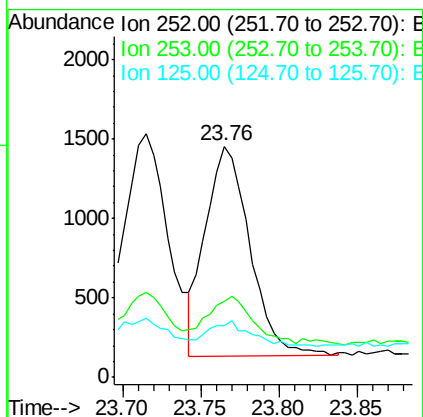
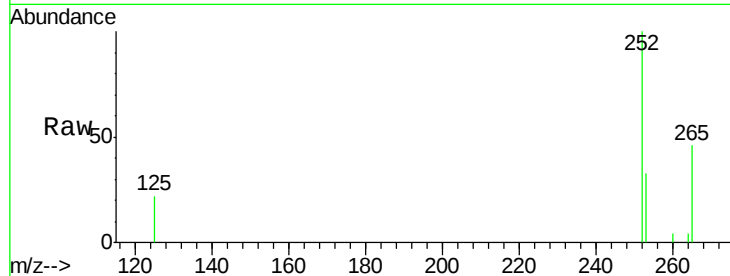
#36  
Benzo(k)fluoranthene  
Concen: 0.039 ng  
RT: 23.76 min Scan# 1972  
Delta R.T. -0.01 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

Instrument :  
BNA\_E  
ClientSampleId :  
KY038PS033-171211

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 32.9  | 16.0  | 24.0# |
| 125     | 22.1  | 8.0   | 12.0# |

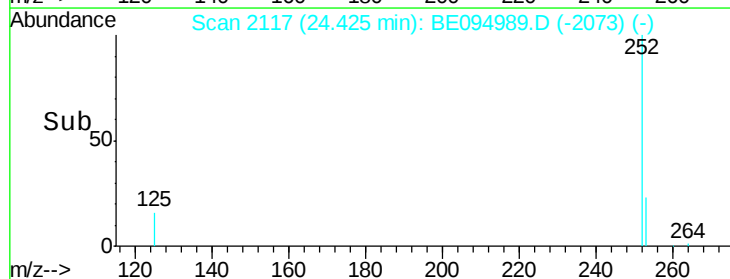
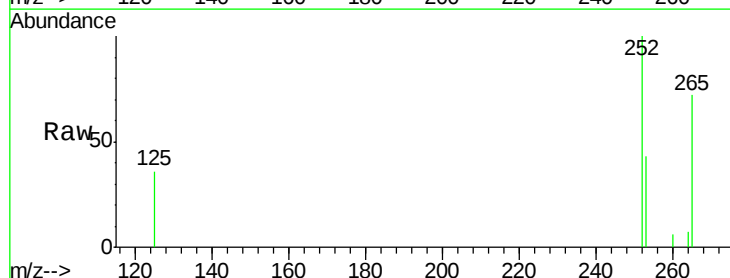
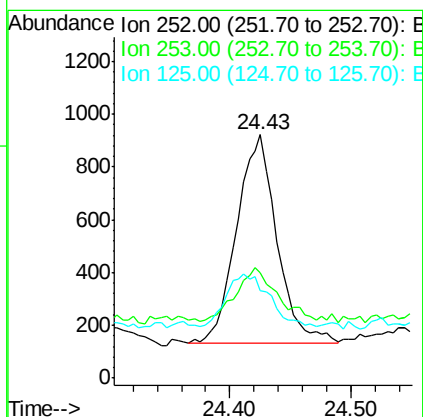
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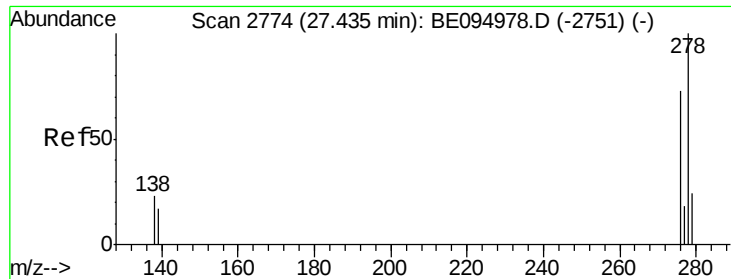
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#37  
Benzo(a)pyrene  
Concen: 0.030 ng  
RT: 24.43 min Scan# 2117  
Delta R.T. -0.00 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 43.0  | 16.0  | 24.0# |
| 125     | 35.9  | 12.0  | 18.0# |





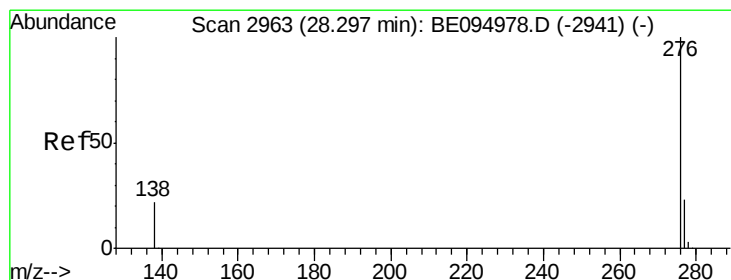
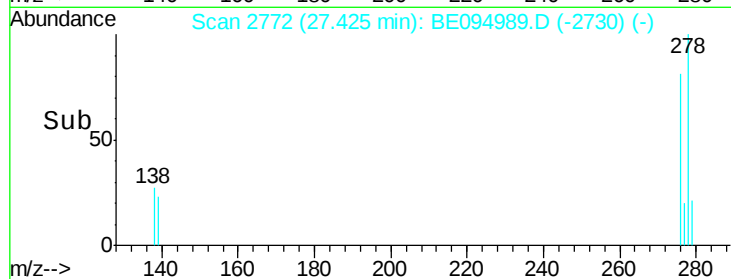
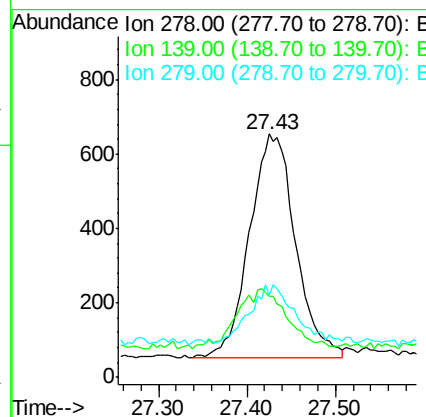
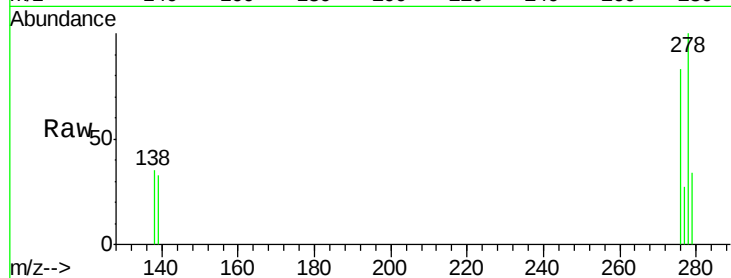
#38  
Dibenzo(a,h)anthracene  
Concen: 0.039 ng  
RT: 27.43 min Scan# 2772  
Delta R.T. -0.01 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

Instrument :  
BNA\_E  
ClientSampleId :  
KY038PS033-171211

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 33.2  | 16.0  | 24.0# |
| 279     | 33.9  | 20.0  | 30.0# |

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#39  
Benzo(g,h,i)perylene  
Concen: 0.042 ng  
RT: 28.29 min Scan# 2962  
Delta R.T. -0.01 min  
Lab File: BE094989.D  
Acq: 14 Dec 2017 22:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 28.7  | 16.0  | 24.0# |
| 138     | 31.6  | 20.0  | 30.0# |

