

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF090518\  
 Data File : BF108801.D  
 Acq On : 6 Sep 2018 3:33  
 Operator : JU/SJ  
 Sample : J4791-08 10X  
 Misc :  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DOCUMENTATION-#17

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 9/6/2018 4:46:03 PM

Quant Time: Sep 06 07:55:40 2018  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF090518.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Sep 05 18:03:31 2018  
 Response via : Initial Calibration

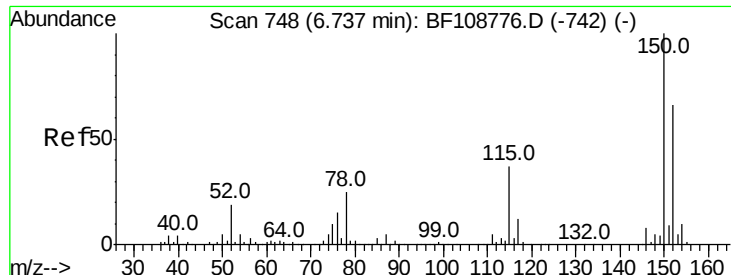
| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.74  | 152  | 222936   | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 8.01  | 136  | 789201   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10      | 9.77  | 164  | 317218   | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10      | 11.24 | 188  | 601896   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12          | 13.87 | 240  | 573659   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12          | 15.27 | 264  | 450827   | 20.00 | ng    | 0.00     |

|                             |       |     |        |      |    |       |
|-----------------------------|-------|-----|--------|------|----|-------|
| System Monitoring Compounds |       |     |        |      |    |       |
| 5) 2-Fluorophenol           | 5.33  | 112 | 115389 | 8.57 | ng | 0.00  |
| 7) Phenol-d6                | 6.35  | 99  | 144545 | 8.35 | ng | -0.01 |
| 23) Nitrobenzene-d5         | 7.28  | 82  | 70937  | 5.63 | ng | -0.02 |
| 41) 2,4,6-Tribromophenol    | 10.54 | 330 | 23421  | 7.73 | ng | -0.01 |
| 44) 2-Fluorobiphenyl        | 9.09  | 172 | 141411 | 7.61 | ng | 0.00  |
| 78) Terphenyl-d14           | 12.82 | 244 | 149118 | 6.06 | ng | 0.00  |

|                                |       |     |         |        |    |      |
|--------------------------------|-------|-----|---------|--------|----|------|
| Target Compounds               |       |     |         | Qvalue |    |      |
| 48) Acenaphthylene             | 9.62  | 152 | 68367   | 2.322  | ng | 99   |
| 70) Phenanthrene               | 11.27 | 178 | 274561  | 9.552  | ng | 98   |
| 71) Anthracene                 | 11.31 | 178 | 94858   | 3.447  | ng | 97   |
| 74) Fluoranthene               | 12.45 | 202 | 594072  | 20.875 | ng | 97   |
| 77) Pyrene                     | 12.67 | 202 | 566267  | 12.828 | ng | 99   |
| 80) Benzo(a)anthracene         | 13.85 | 228 | 330212  | 8.981  | ng | 94   |
| 82) Chrysene                   | 13.89 | 228 | 301616  | 8.473  | ng | 96   |
| 83) Bis(2-ethylhexyl)phthalate | 13.87 | 149 | 57885   | 2.317  | ng | 97   |
| 85) Indeno(1,2,3-cd)pyrene     | 16.62 | 276 | 161971  | 5.142  | ng | # 91 |
| 87) Benzo(b)fluoranthene       | 14.87 | 252 | 359068m | 14.648 | ng |      |
| 88) Benzo(k)fluoranthene       | 14.89 | 252 | 123532m | 5.472  | ng |      |
| 89) Benzo(a)pyrene             | 15.21 | 252 | 252293  | 11.406 | ng | 97   |
| 91) Benzo(a,h,i)perylene       | 17.02 | 276 | 177970  | 9.120  | ng | 95   |

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





#1

1,4-Dichlorobenzene-d4

Concen: 20.000 ng

RT: 6.74 min Scan# 748

Delta R.T. -0.00 min

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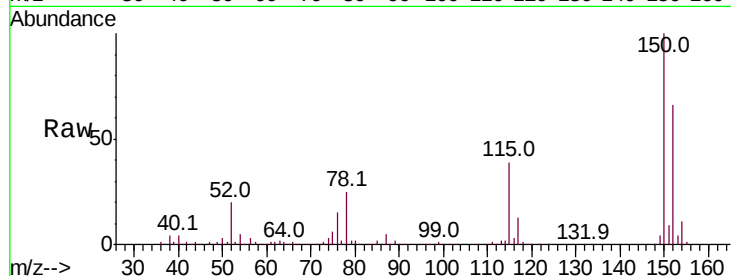
ClientSampleId :

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| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 152.4 | 124.6 | 186.8 |
| 115     | 59.3  | 50.1  | 75.1  |

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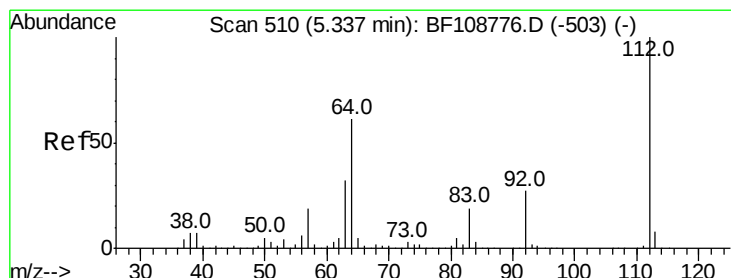
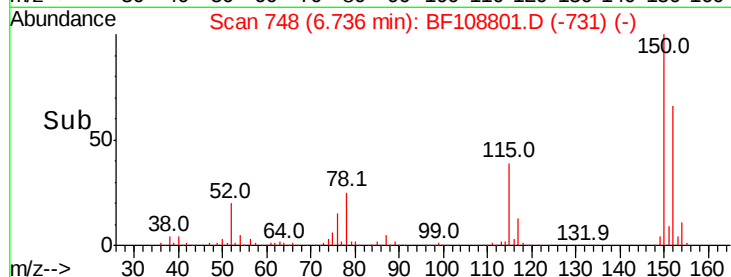
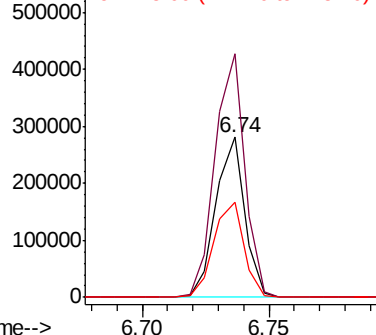


Abundance

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



#5

2-Fluorophenol

Concen: 8.575 ng

RT: 5.33 min Scan# 509

Delta R.T. -0.01 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

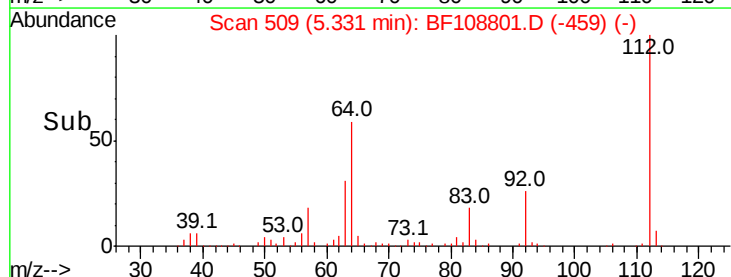
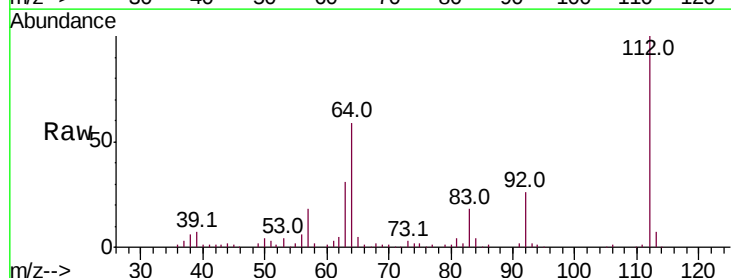
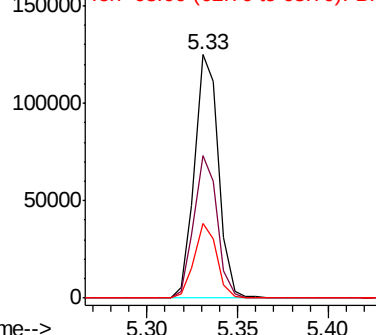
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 58.6  | 47.9  | 71.9  |
| 63      | 30.5  | 23.7  | 35.5  |

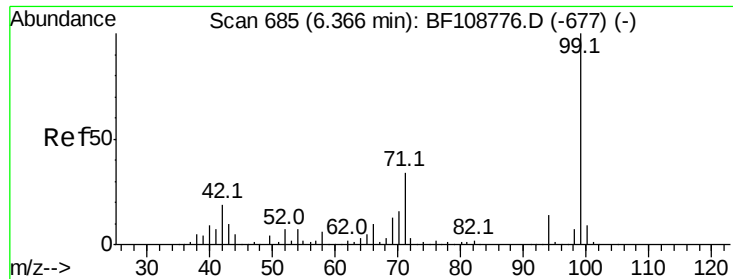
Abundance

Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BF1

Ion 63.00 (62.70 to 63.70): BF1





#7

Phenol-d6

Concen: 8.348 ng

RT: 6.35 min Scan# 683

Delta R.T. -0.01 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

Instrument :

BNA\_F

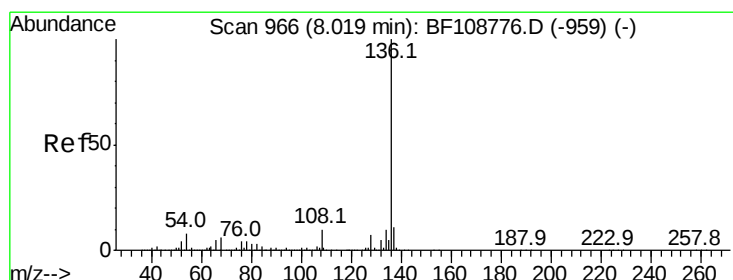
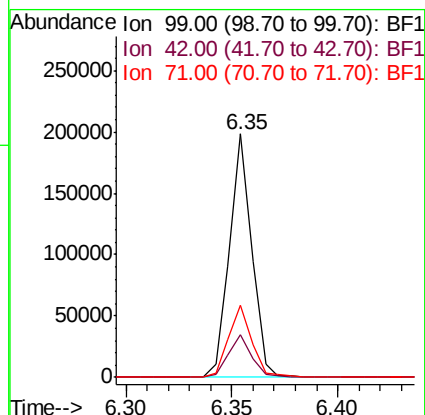
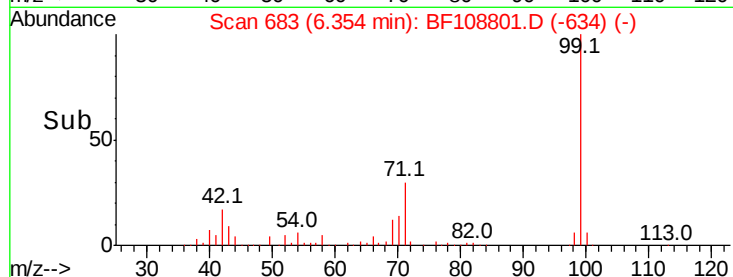
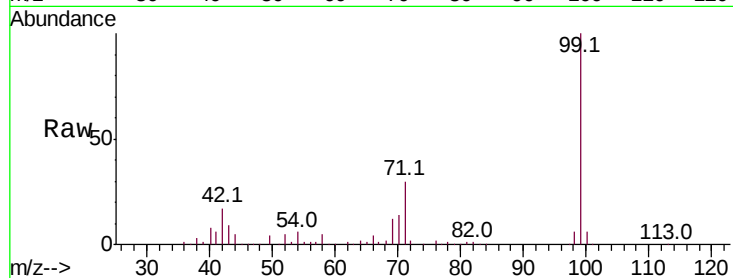
ClientSampleId :

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|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 99    | Resp: | 144545 |
| Ion Ratio | Lower | Upper |        |
| 99        | 100   |       |        |
| 42        | 17.3  | 14.5  | 21.7   |
| 71        | 29.7  | 25.4  | 38.0   |

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#21

Naphthalene-d8

Concen: 20.000 ng

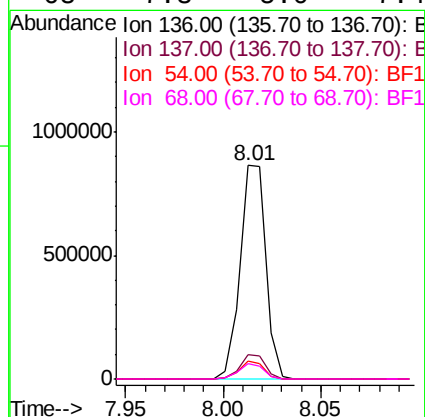
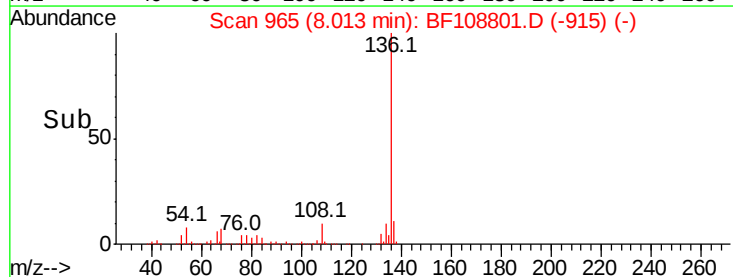
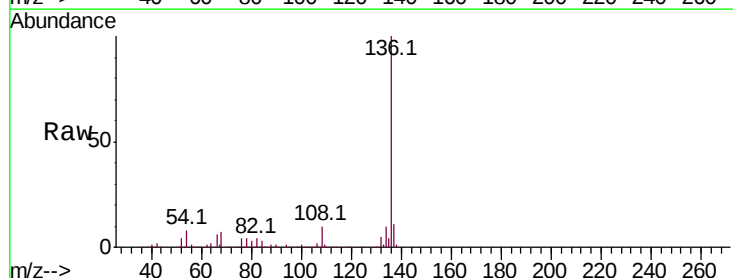
RT: 8.01 min Scan# 965

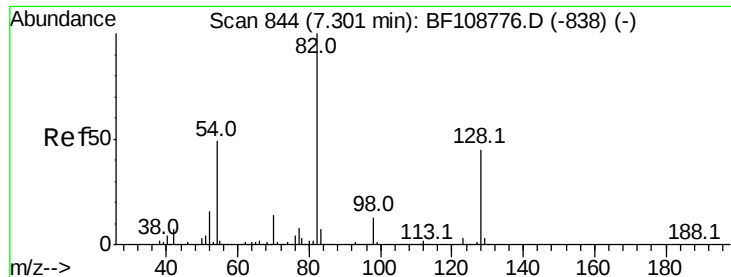
Delta R.T. -0.01 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 789201 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 11.4  | 8.9   | 13.3   |
| 54        | 8.4   | 6.6   | 9.8    |
| 68        | 7.3   | 5.0   | 7.4    |





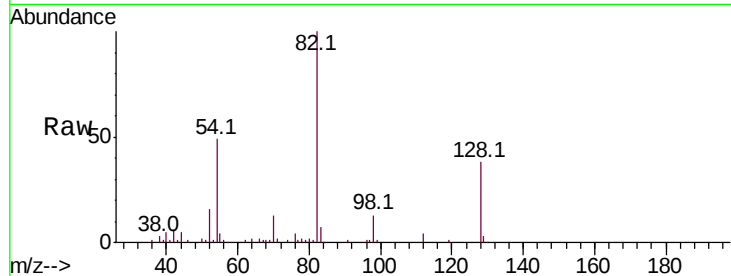
#23  
 Nitrobenzene-d5  
 Concen: 5.625 ng  
 RT: 7.28 min Scan# 841  
 Delta R.T. -0.02 min  
 Lab File: BF108801.D  
 Acq: 6 Sep 2018 3:33

Instrument :  
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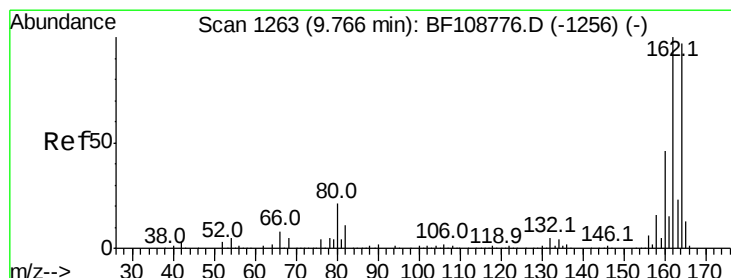
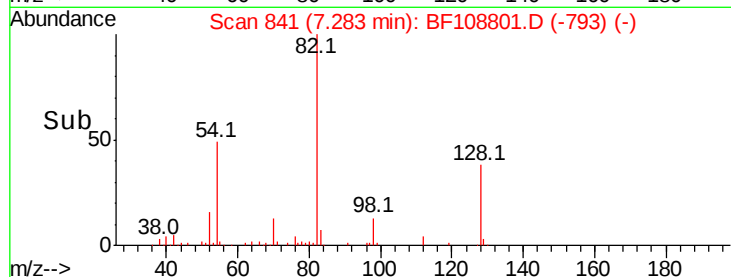
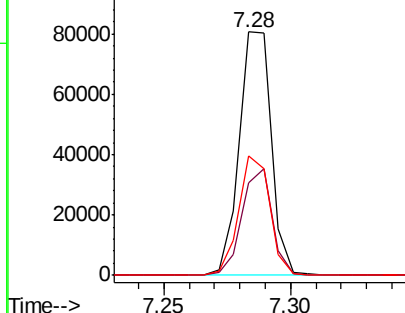
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 128     | 38.0  | 36.1  | 54.1  |
| 54      | 49.2  | 41.4  | 62.2  |

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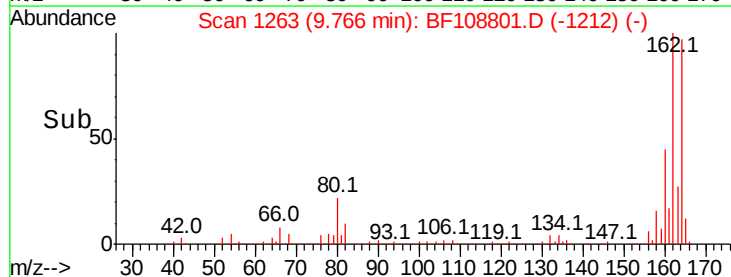
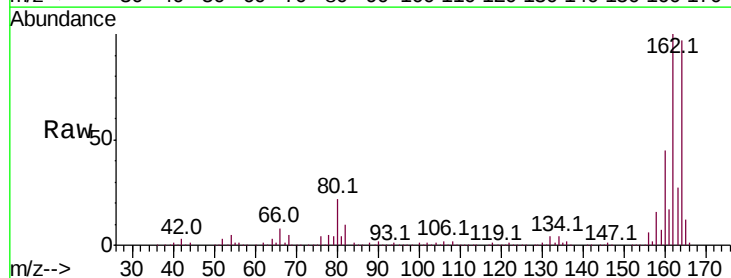
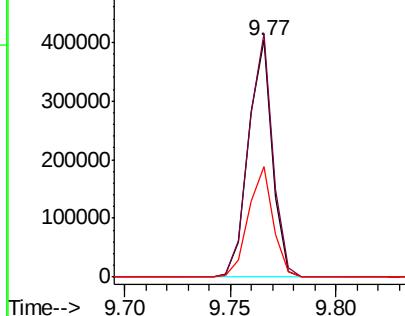
Abundance Ion 82.00 (81.70 to 82.70): BF1  
 Ion 128.00 (127.70 to 128.70): E  
 Ion 54.00 (53.70 to 54.70): BF1

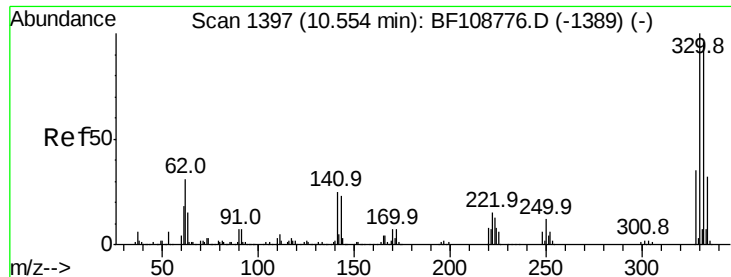


#38  
 Acenaphthene-d10  
 Concen: 20.000 ng  
 RT: 9.77 min Scan# 1263  
 Delta R.T. -0.00 min  
 Lab File: BF108801.D  
 Acq: 6 Sep 2018 3:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 102.9 | 86.1  | 129.1 |
| 160     | 46.5  | 38.3  | 57.5  |

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





#41

2,4,6-Tribromophenol

Concen: 7.734 ng

RT: 10.54 min Scan# 1395

Delta R.T. -0.01 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

Instrument :

BNA\_F

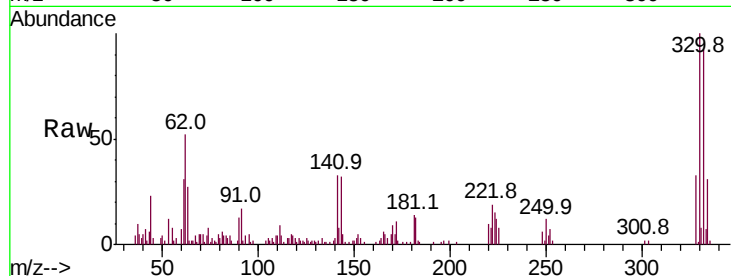
ClientSampleId :

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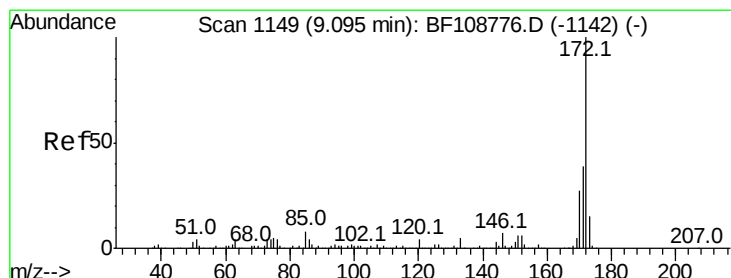
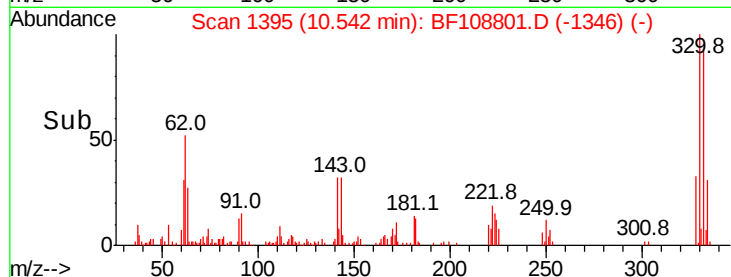
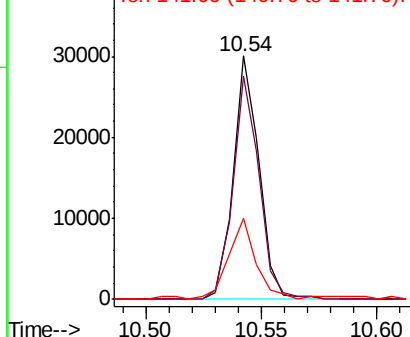
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 330   | Resp: | 23421 |
| Ion Ratio | Lower | Upper |       |
| 330       | 100   |       |       |
| 332       | 93.0  | 77.0  | 115.6 |
| 141       | 35.1  | 29.9  | 44.9  |

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Abundance Ion 329.80 (329.50 to 330.50): E  
Ion 331.80 (331.50 to 332.50): E  
Ion 141.00 (140.70 to 141.70): E



#44

2-Fluorobiphenyl

Concen: 7.605 ng

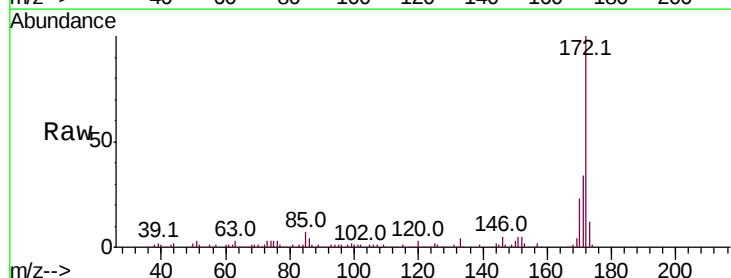
RT: 9.09 min Scan# 1148

Delta R.T. -0.01 min

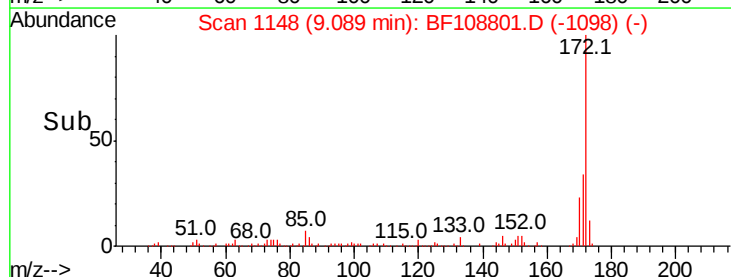
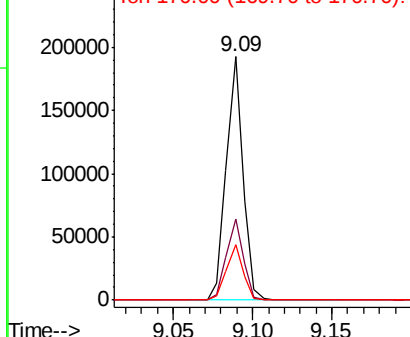
Lab File: BF108801.D

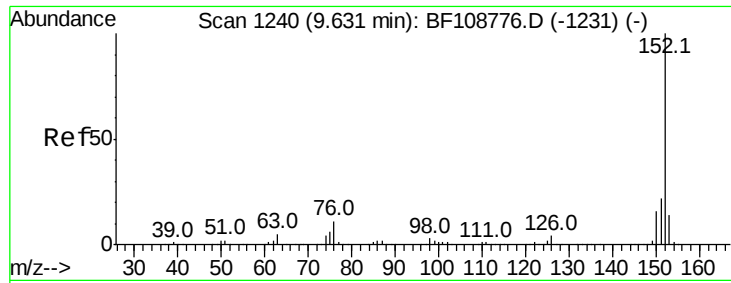
Acq: 6 Sep 2018 3:33

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 172   | Resp: | 141411 |
| Ion Ratio | Lower | Upper |        |
| 172       | 100   |       |        |
| 171       | 33.5  | 29.7  | 44.5   |
| 170       | 23.0  | 19.6  | 29.4   |



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





#48

Acenaphthylene

Concen: 2.322 ng

RT: 9.62 min Scan# 1239

Delta R.T. -0.01 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

Instrument :

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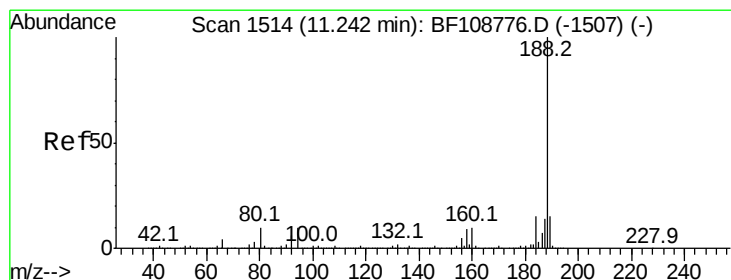
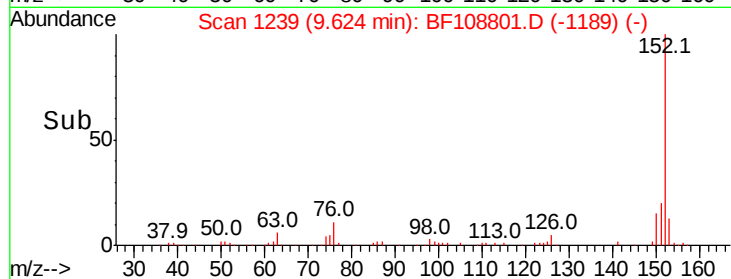
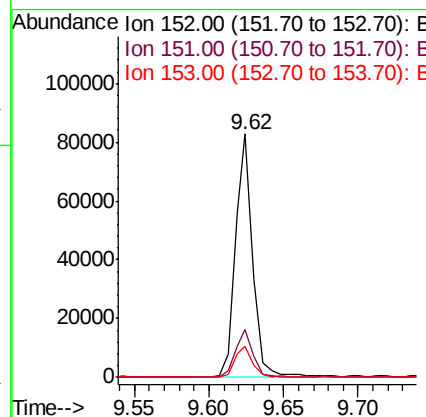
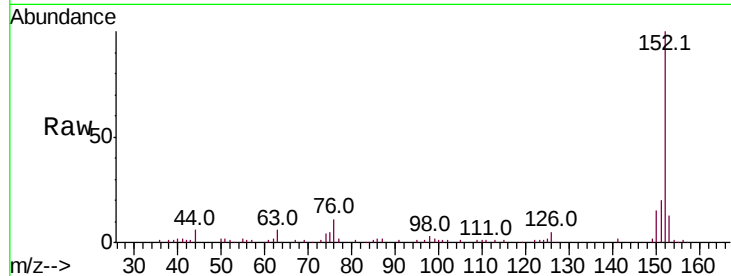
ClientSampleId :

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| Tot Ion   | 152   | Resp: | 68367 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 19.7  | 16.3  | 24.5  |
| 153       | 12.9  | 10.7  | 16.1  |

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#63

Phenanthrene-d10

Concen: 20.000 ng

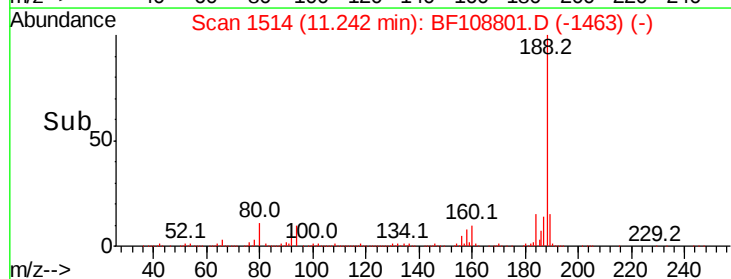
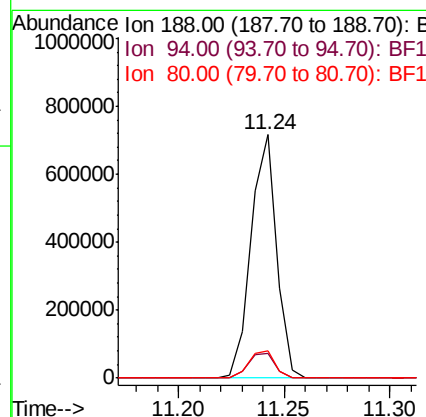
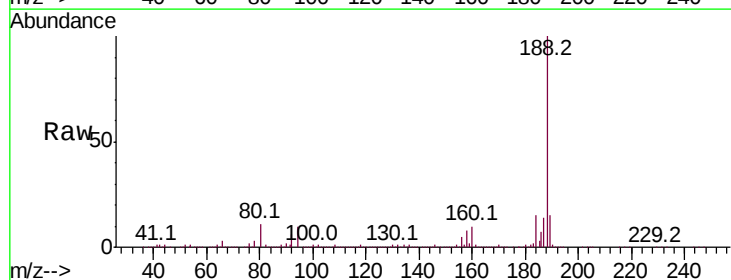
RT: 11.24 min Scan# 1514

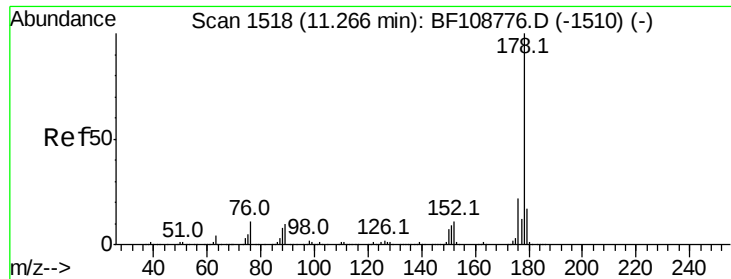
Delta R.T. -0.00 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

| Tgt Ion   | 188   | Resp: | 601896 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 188       | 100   |       |        |
| 94        | 10.2  | 8.5   | 12.7   |
| 80        | 11.0  | 9.2   | 13.8   |





#70

Phenanthrene

Concen: 9.552 ng

RT: 11.27 min Scan# 1518

Delta R.T. -0.00 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

Instrument :

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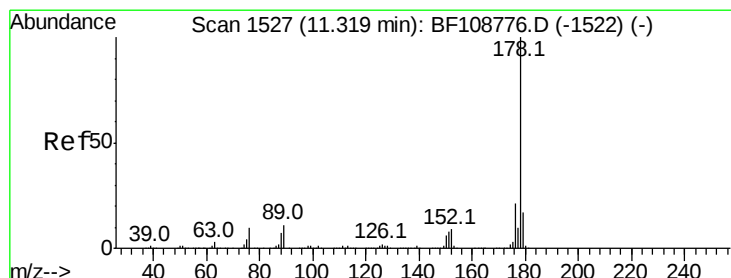
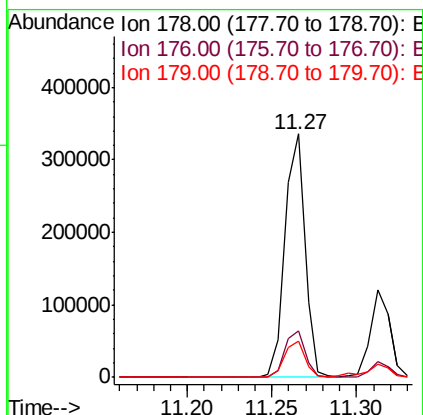
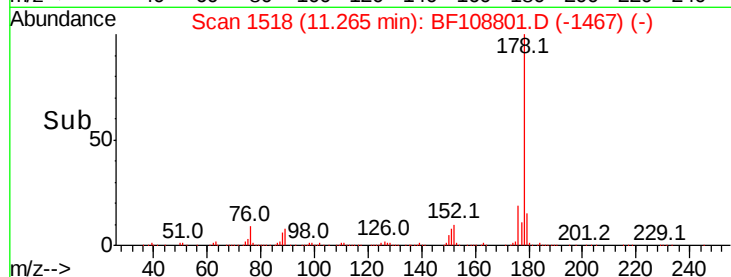
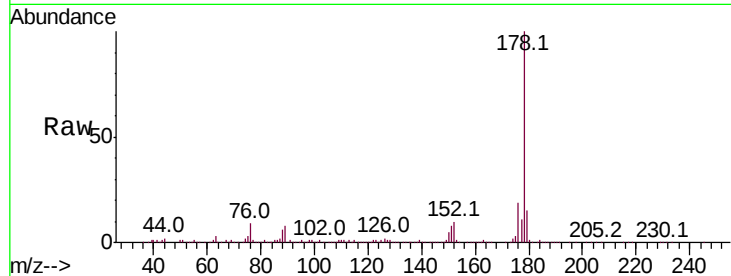
ClientSampleId :

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|             |       |           |
|-------------|-------|-----------|
| Tot Ion:178 | Resp: | 274561    |
| Ion Ratio   | Lower | Upper     |
| 178         | 100   |           |
| 176         | 19.0  | 15.8 23.8 |
| 179         | 15.1  | 13.0 19.6 |

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#71

Anthracene

Concen: 3.447 ng

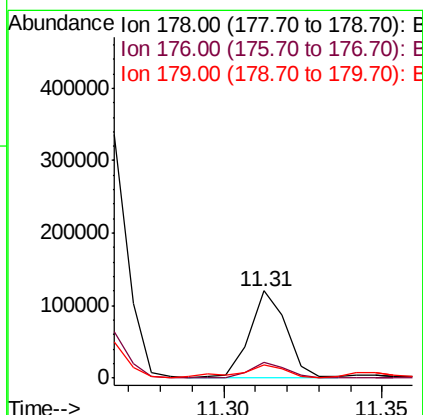
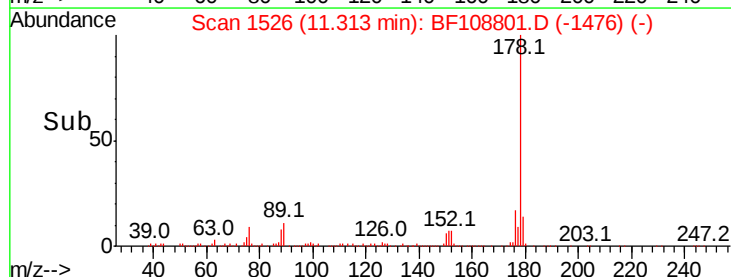
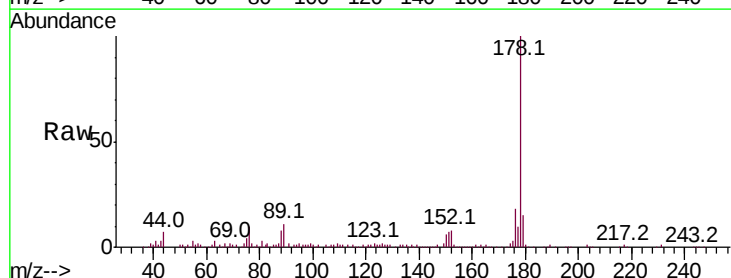
RT: 11.31 min Scan# 1526

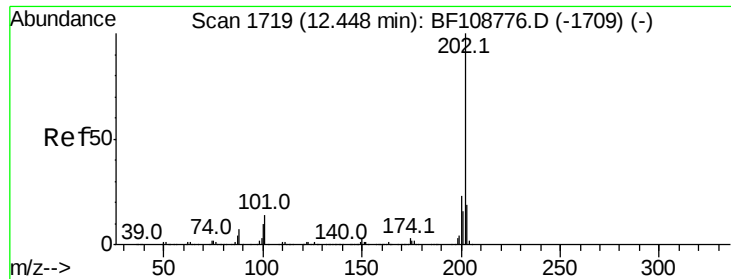
Delta R.T. -0.01 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:178 | Resp: | 94858     |
| Ion Ratio   | Lower | Upper     |
| 178         | 100   |           |
| 176         | 17.5  | 15.4 23.2 |
| 179         | 14.6  | 12.6 19.0 |





#74

Fluoranthene

Concen: 20.875 ng

RT: 12.45 min Scan# 1719

Delta R.T. -0.00 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

Instrument :

BNA\_F

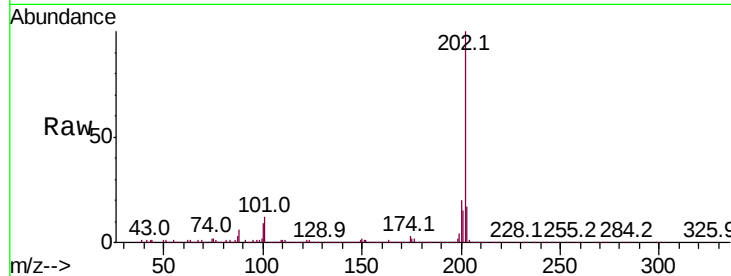
ClientSampleId :

DOCUMENTATION-#17

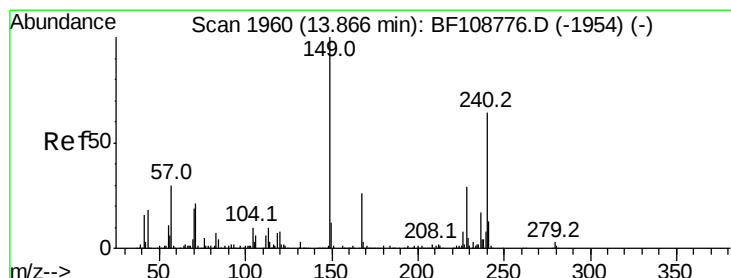
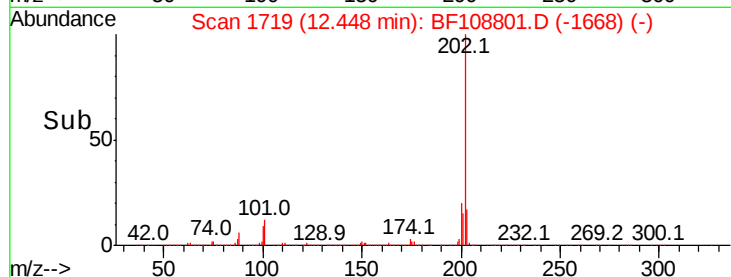
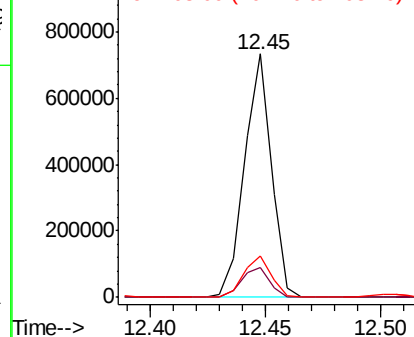
| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 202     | 100   |            |       |
| 101     | 12.4  | 0.0        | 34.1  |
| 203     | 17.2  | 0.0        | 38.1  |

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Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 203.00 (202.70 to 203.70): E



#75

Chrysene-d12

Concen: 20.000 ng

RT: 13.87 min Scan# 1960

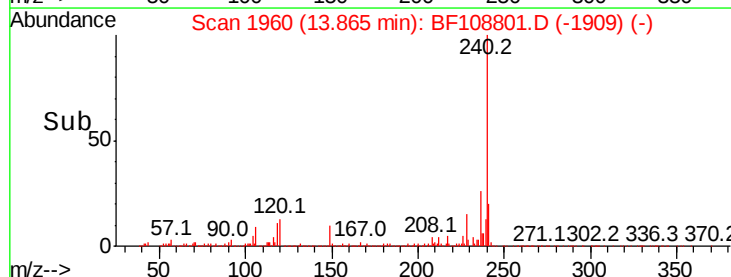
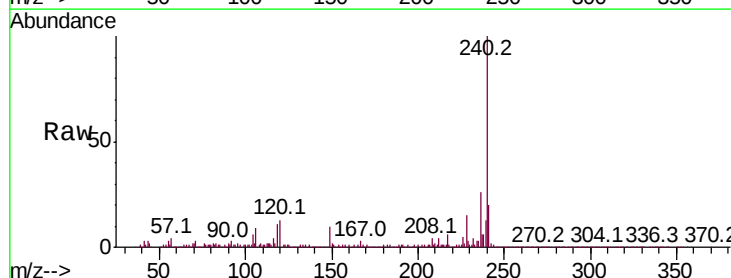
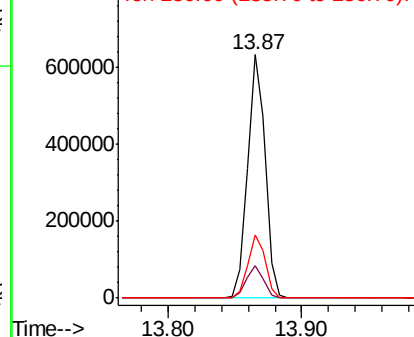
Delta R.T. -0.00 min

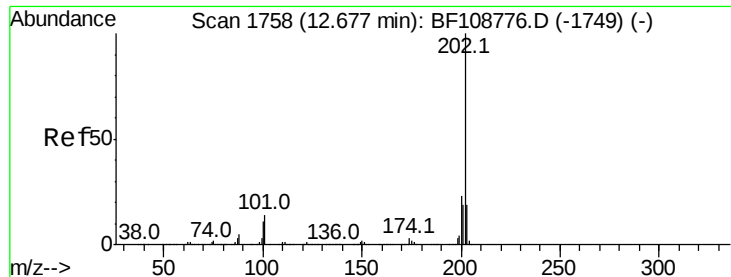
Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 240     | 100   |            |       |
| 120     | 13.2  | 9.5        | 14.3  |
| 236     | 25.8  | 20.7       | 31.1  |

Abundance Ion 240.00 (239.70 to 240.70): E  
Ion 120.00 (119.70 to 120.70): E  
Ion 236.00 (235.70 to 236.70): E





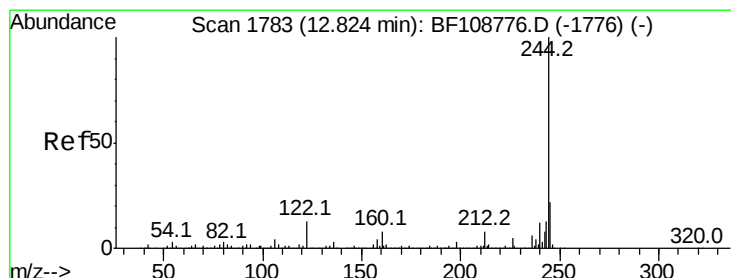
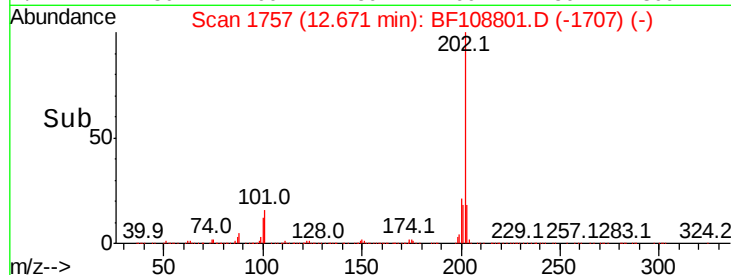
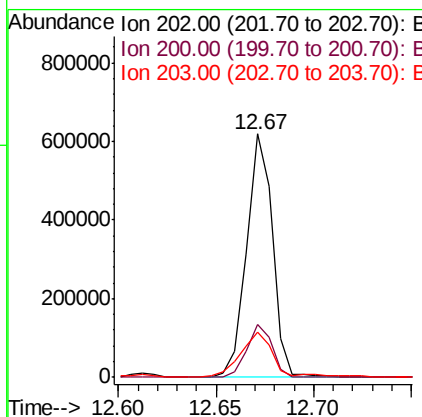
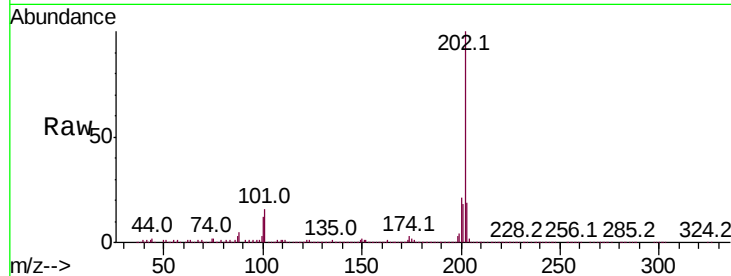
#77  
Pvrene  
Concen: 12.828 ng  
RT: 12.67 min Scan# 1757  
Delta R.T. -0.01 min  
Lab File: BF108801.D  
Acq: 6 Sep 2018 3:33

Instrument :  
BNA\_F  
ClientSampleId :  
DOCUMENTATION-#17

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 202     | 100   |      |       |       |
| 200     | 21.5  | 17.4 | 26.2  |       |
| 203     | 18.6  | 14.3 | 21.5  |       |

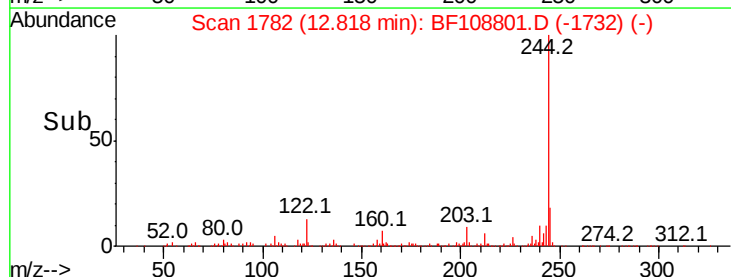
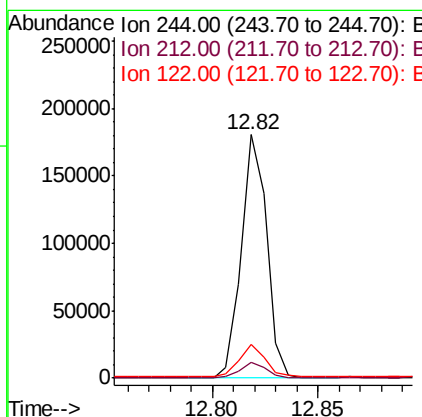
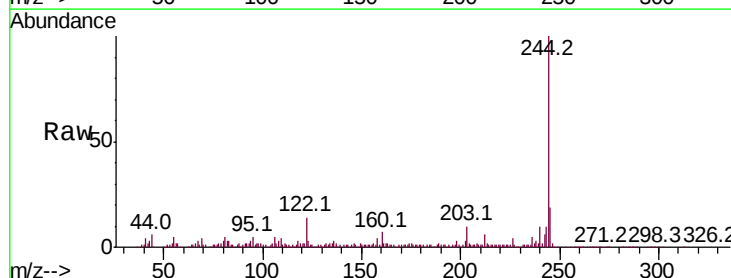
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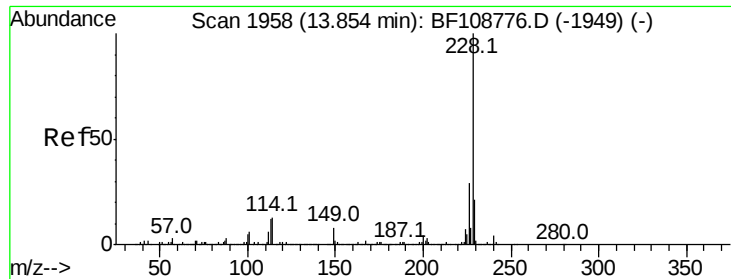
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#78  
Terphenyl-d14  
Concen: 6.062 ng  
RT: 12.82 min Scan# 1782  
Delta R.T. -0.01 min  
Lab File: BF108801.D  
Acq: 6 Sep 2018 3:33

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 244     | 100   |      |       |       |
| 212     | 6.4   | 5.4  | 8.0   |       |
| 122     | 13.8  | 11.0 | 16.4  |       |





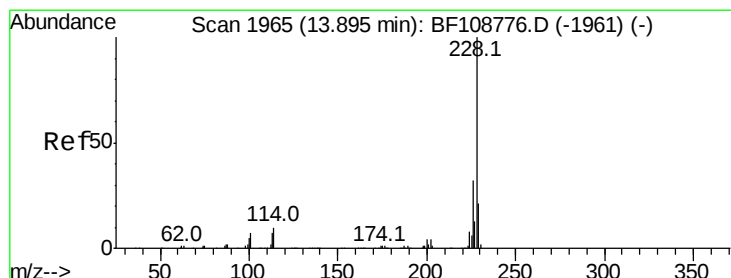
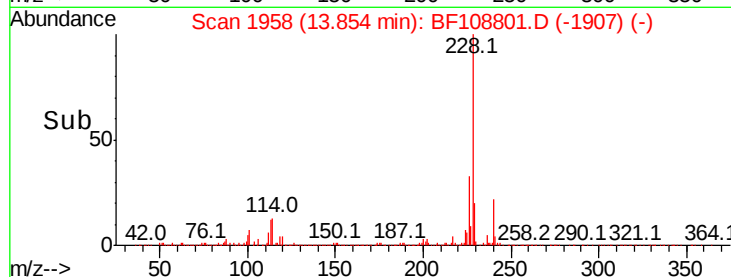
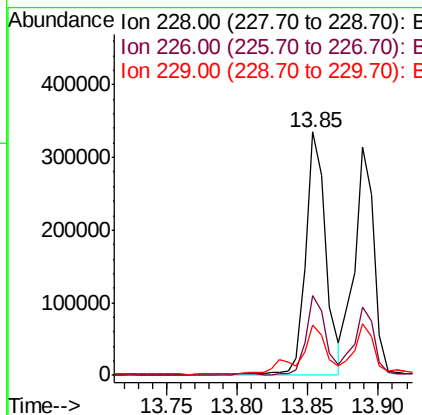
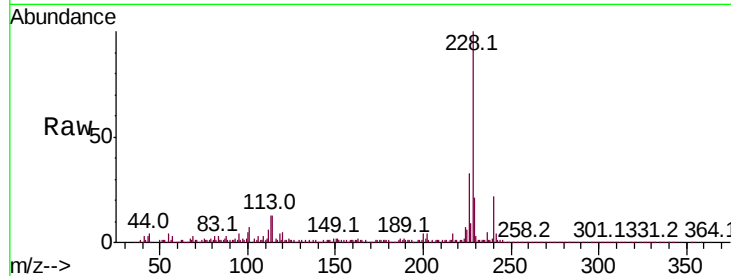
#80  
Benzo(a)anthracene  
Concen: 8.981 ng  
RT: 13.85 min Scan# 1958  
Delta R.T. -0.00 min  
Lab File: BF108801.D  
Acq: 6 Sep 2018 3:33

Instrument :  
BNA\_F  
ClientSampleId :  
DOCUMENTATION-#17

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 228     | 100   | 330212 |       |       |
| 226     | 32.8  | 22.6   | 33.8  |       |
| 229     | 20.9  | 15.8   | 23.6  |       |

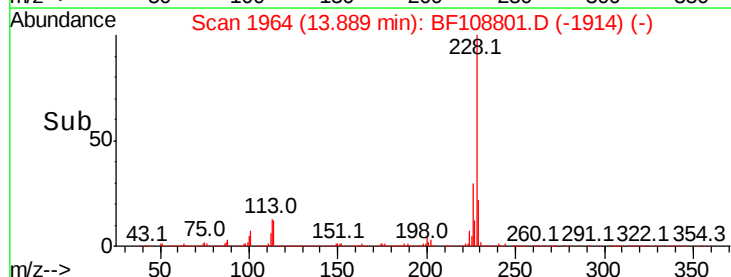
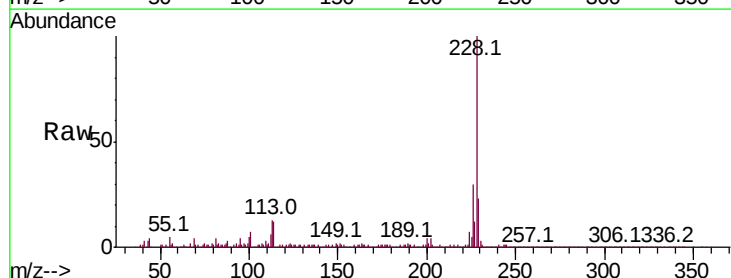
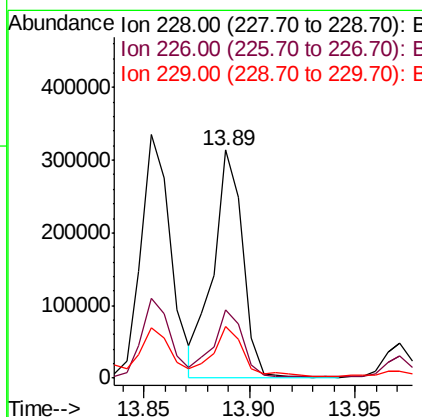
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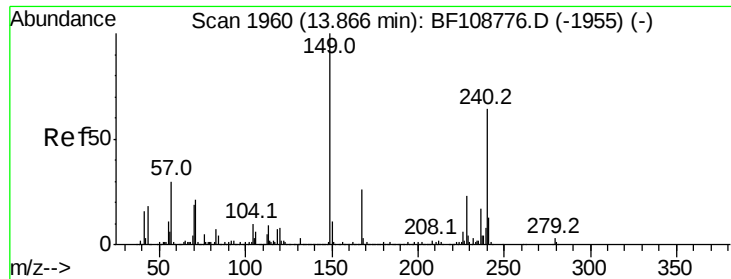
Sohil  
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#82  
Chrysene  
Concen: 8.473 ng  
RT: 13.89 min Scan# 1964  
Delta R.T. -0.01 min  
Lab File: BF108801.D  
Acq: 6 Sep 2018 3:33

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 228     | 100   | 301616 |       |       |
| 226     | 29.8  | 25.0   | 37.6  |       |
| 229     | 22.6  | 16.2   | 24.4  |       |





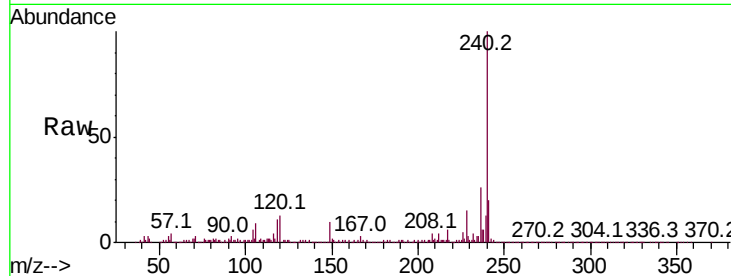
#83  
 Bis(2-ethylhexyl)phthalate  
 Concen: 2.317 ng  
 RT: 13.87 min Scan# 1960  
 Delta R.T. -0.00 min  
 Lab File: BF108801.D  
 Acq: 6 Sep 2018 3:33

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DOCUMENTATION-#17

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 149     | 100   |      |       |       |
| 167     | 24.8  | 21.3 | 31.9  |       |
| 279     | 3.5   | 3.0  | 4.4   |       |

Manual Integrations  
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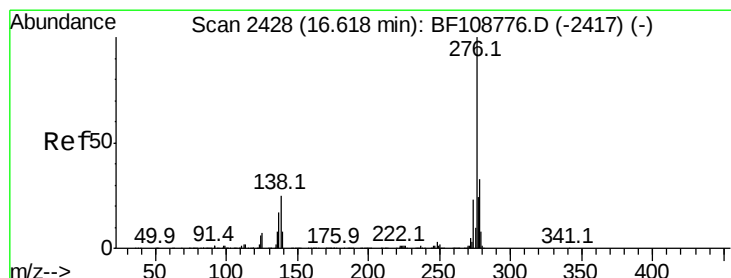
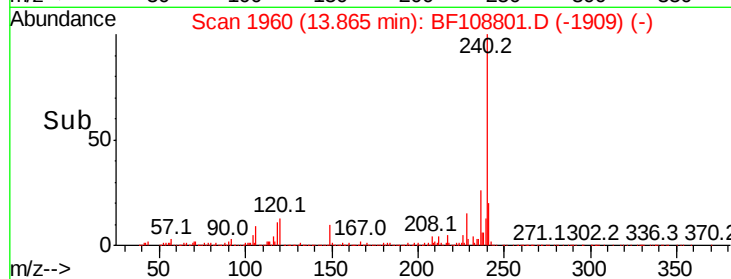
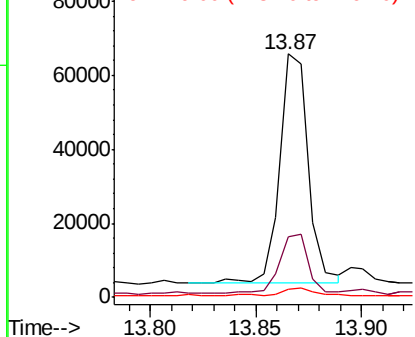


Abundance

Ion 149.00 (148.70 to 149.70): E

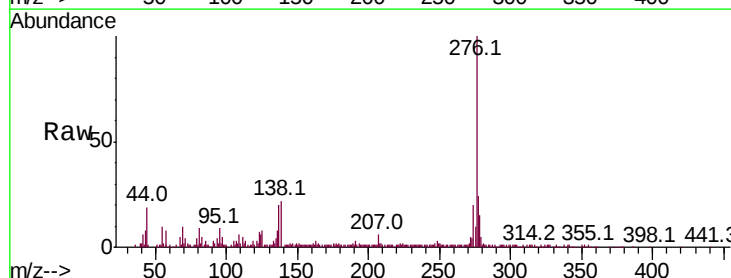
Ion 167.00 (166.70 to 167.70): E

Ion 279.00 (278.70 to 279.70): E



#85  
 Indeno(1,2,3-cd)pyrene  
 Concen: 5.142 ng  
 RT: 16.62 min Scan# 2428  
 Delta R.T. -0.00 min  
 Lab File: BF108801.D  
 Acq: 6 Sep 2018 3:33

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 276     | 100   |      |       |       |
| 138     | 23.2  | 25.0 | 37.6# |       |
| 277     | 26.2  | 20.1 | 30.1  |       |

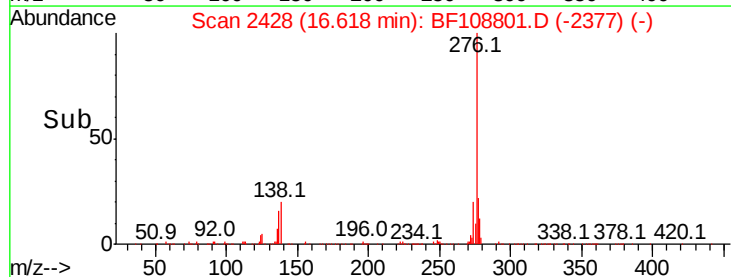
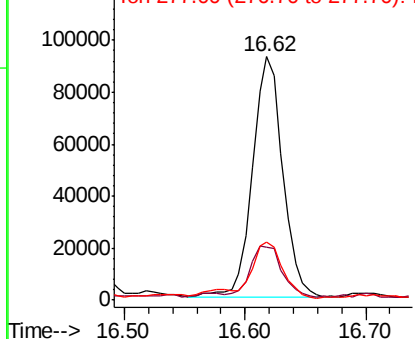


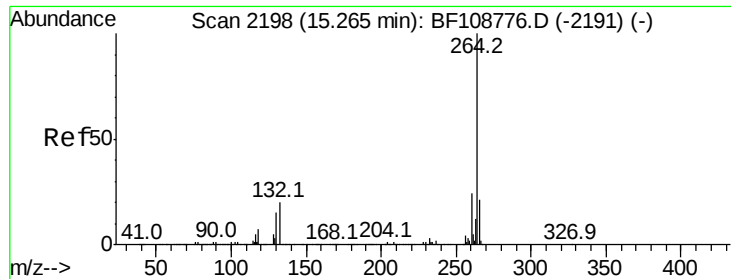
Abundance

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





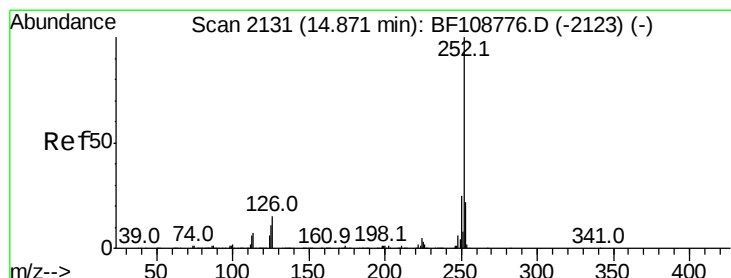
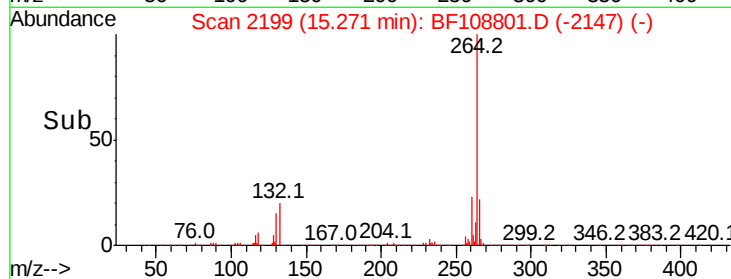
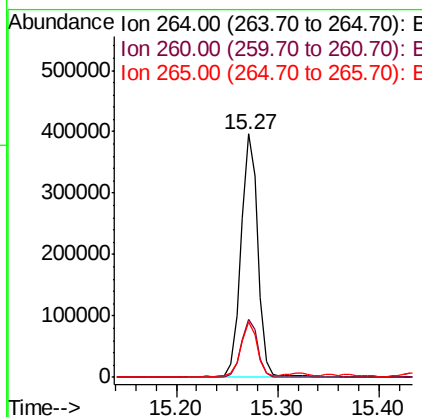
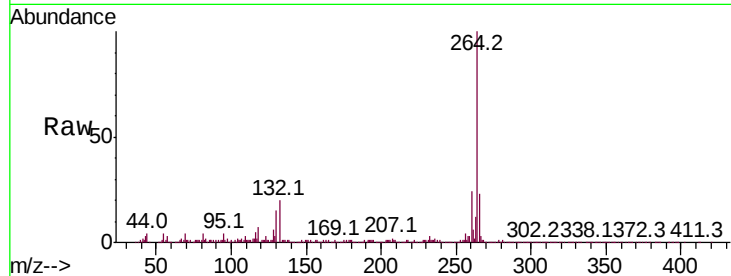
#86  
Pervlene-d12  
Concen: 20.000 ng  
RT: 15.27 min Scan# 2199  
Delta R.T. 0.01 min  
Lab File: BF108801.D  
Acq: 6 Sep 2018 3:33

Instrument :  
BNA\_F  
ClientSampleId :  
DOCUMENTATION-#17

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 23.7  | 19.2  | 28.8  |
| 265     | 22.7  | 17.5  | 26.3  |

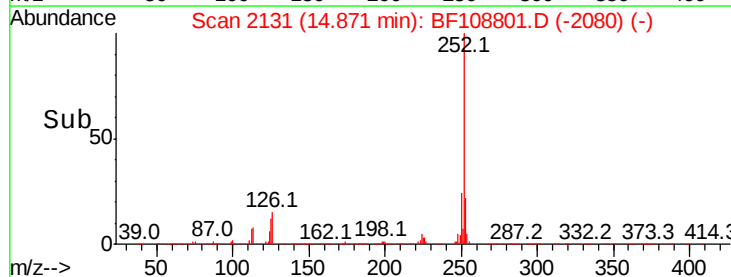
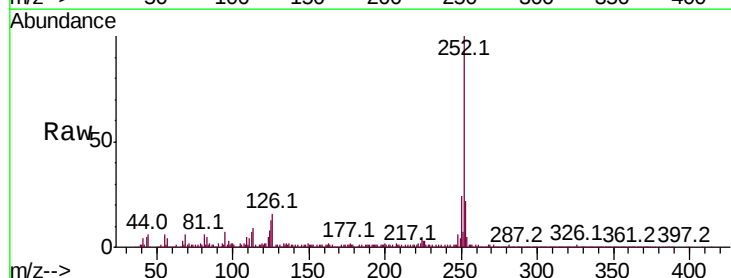
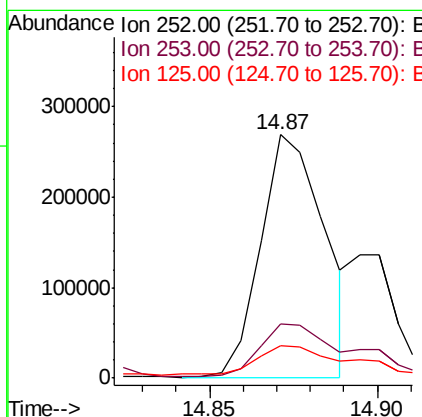
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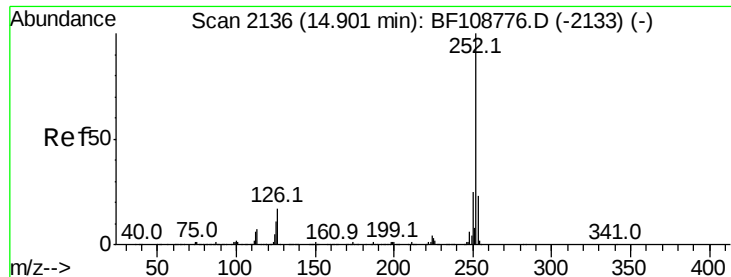
Sohil  
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#87  
Benzo(b)fluoranthene  
Concen: 14.648 ng m  
RT: 14.87 min Scan# 2131  
Delta R.T. -0.00 min  
Lab File: BF108801.D  
Acq: 6 Sep 2018 3:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.4  | 17.0  | 25.6  |
| 125     | 13.3  | 9.0   | 13.6  |





#88

Benzo(k)fluoranthene

Concen: 5.472 ng m

RT: 14.89 min Scan# 2135

Delta R.T. -0.01 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

Instrument :

BNA\_F

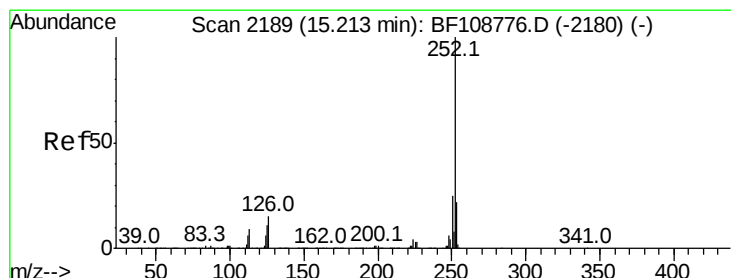
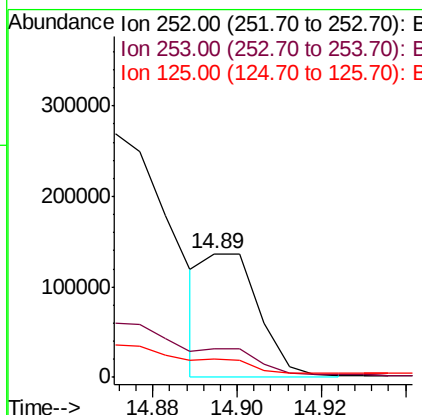
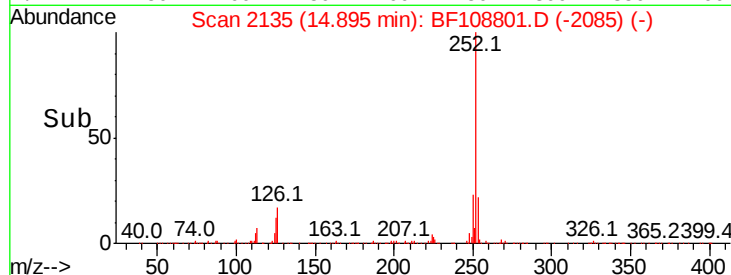
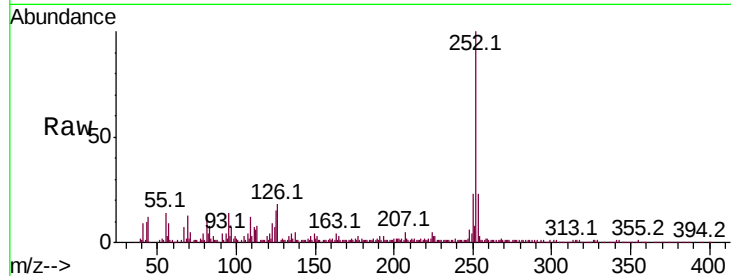
ClientSampleId :

DOCUMENTATION-#17

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 123532 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 23.1  | 17.9  | 26.9   |
| 125       | 15.2  | 10.2  | 15.2   |

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#89

Benzo(a)pyrene

Concen: 11.406 ng

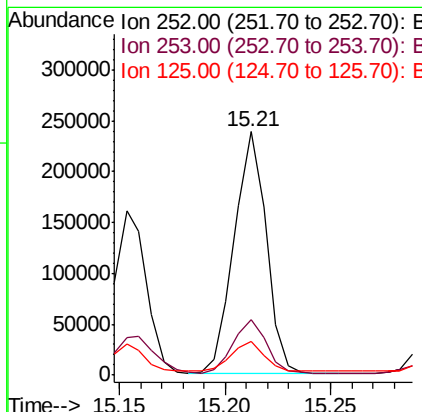
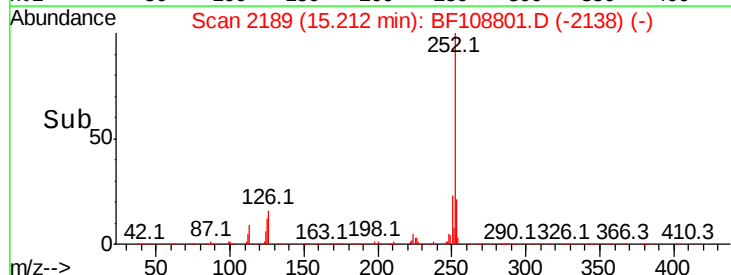
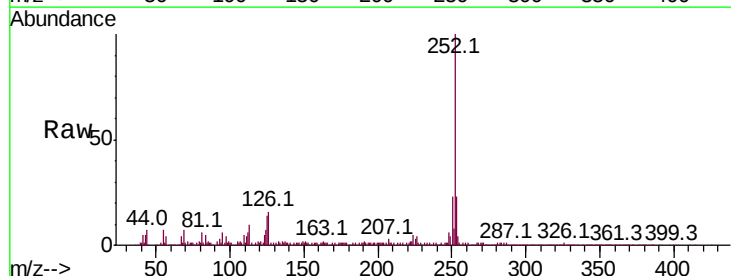
RT: 15.21 min Scan# 2189

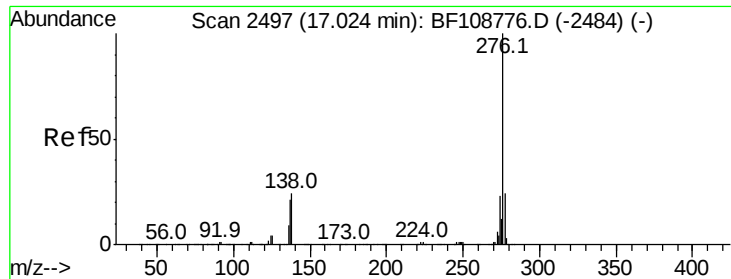
Delta R.T. -0.00 min

Lab File: BF108801.D

Acq: 6 Sep 2018 3:33

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 252293 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 22.6  | 17.1  | 25.7   |
| 125       | 13.8  | 9.8   | 14.6   |





#91  
 Benzo(a,h,i)perylene  
 Concen: 9.120 ng  
 RT: 17.02 min Scan# 2497  
 Delta R.T. -0.00 min  
 Lab File: BF108801.D  
 Acq: 6 Sep 2018 3:33

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DOCUMENTATION-#17

|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 276  | Resp: | 177970 |
| Ion Ratio |      | Lower | Upper  |
| 276       | 100  |       |        |
| 277       | 24.1 | 17.9  | 26.9   |
| 138       | 24.2 | 21.8  | 32.8   |

Manual Integrations  
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