

Data Path : Z:\HPCHEM1\BNA F\DATA\BF120517\  
 Data File : BF101131.D  
 Acq On : 5 Dec 2017 18:21  
 Operator : SJ/JU  
 Sample : I6709-08 10X  
 Misc :  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 ENV-109-6(0-5)

Manual Integrations  
 APPROVED

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 12/6/2017 5:12:30 PM

Quant Time: Dec 06 01:06:02 2017  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF113017.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 04 13:07:49 2017  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.85  | 152  | 48273    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8          | 8.13  | 136  | 185036   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10        | 9.89  | 164  | 83930    | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10        | 11.37 | 188  | 150349   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12            | 14.02 | 240  | 100331   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12            | 15.49 | 264  | 107816   | 20.00 | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |       |       |          |
| 5) 2-Fluorophenol           | 5.46  | 112  | 40029    | 13.70 | ng    | 0.00     |
| 7) Phenol-d6                | 6.47  | 99   | 49469    | 13.95 | ng    | 0.00     |
| 23) Nitrobenzene-d5         | 7.41  | 82   | 28642    | 9.23  | ng    | 0.00     |
| 41) 2,4,6-Tribromophenol    | 10.67 | 330  | 11737    | 11.64 | ng    | 0.00     |
| 44) 2-Fluorobiphenyl        | 9.20  | 172  | 66047    | 10.77 | ng    | 0.00     |
| 78) Terphenyl-d14           | 12.95 | 244  | 51251    | 11.17 | ng    | -0.01    |
| Target Compounds            |       |      |          |       |       |          |
| 70) Phenanthrene            | 11.40 | 178  | 26545    | 3.206 | ng    | 97       |
| 74) Fluoranthene            | 12.59 | 202  | 65229    | 7.107 | ng    | 95       |
| 77) Pyrene                  | 12.82 | 202  | 65212    | 9.419 | ng    | 98       |
| 80) Benzo(a)anthracene      | 14.01 | 228  | 51741    | 8.168 | ng    | 93       |
| 82) Chrysene                | 14.04 | 228  | 38566    | 6.555 | ng    | 96       |
| 85) Indeno(1,2,3-cd)pyrene  | 16.97 | 276  | 23050    | 4.407 | ng    | # 90     |
| 87) Benzo(b)fluoranthene    | 15.06 | 252  | 57327m   | 8.877 | ng    |          |
| 88) Benzo(k)fluoranthene    | 15.09 | 252  | 16942m   | 2.663 | ng    |          |
| 89) Benzo(a)pyrene          | 15.43 | 252  | 45291    | 7.714 | ng    | 98       |
| 91) Benzo(g,h,i)perylene    | 17.42 | 276  | 19131    | 3.922 | ng    | # 89     |

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

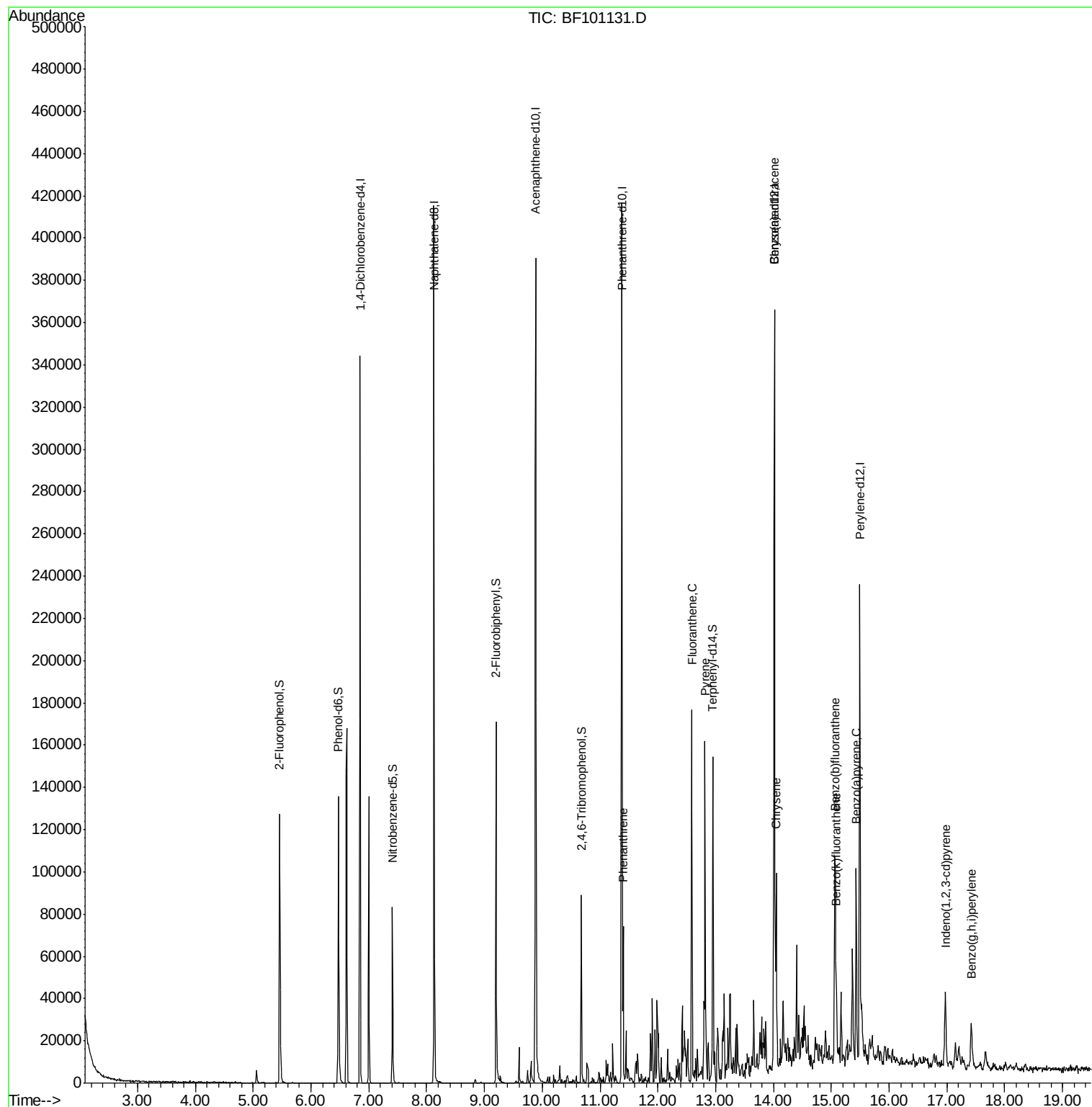
Data Path : Z:\HPCHEM1\BNA F\DATA\BF120517\  
Data File : BF101131.D  
Acq On : 5 Dec 2017 18:21  
Operator : SJ/JU  
Sample : I6709-08 10X  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

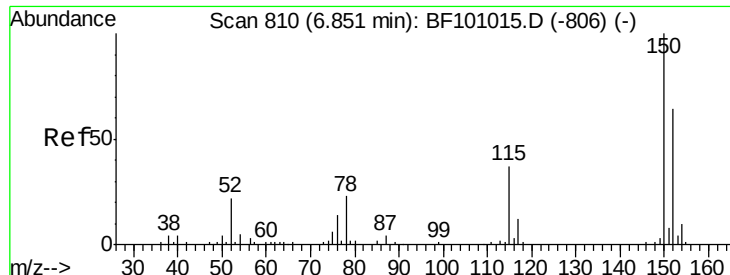
Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

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Quant Time: Dec 06 01:06:02 2017  
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF113017.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Mon Dec 04 13:07:49 2017  
Response via : Initial Calibration





#1

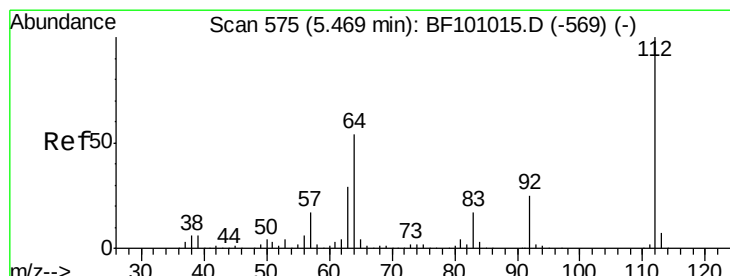
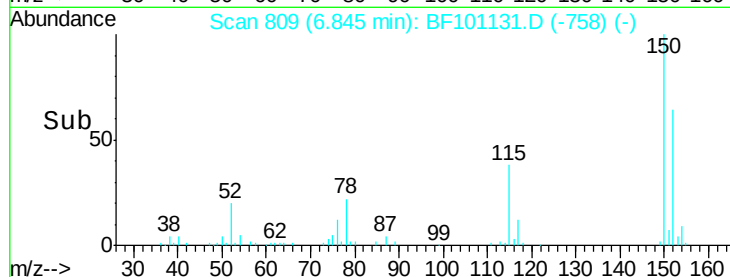
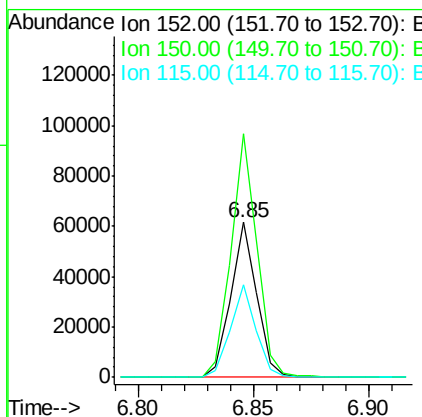
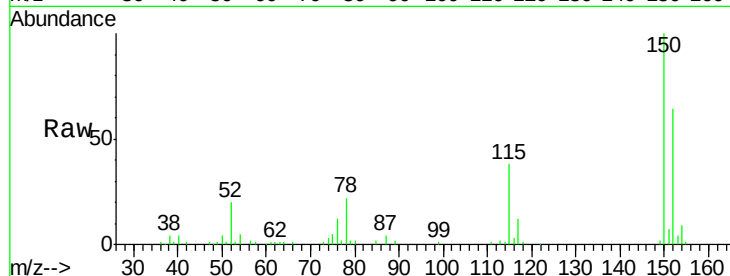
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.85 min Scan# 809  
Delta R.T. 0.00 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 157.3 | 124.6 | 186.8 |
| 115     | 60.1  | 50.1  | 75.1  |

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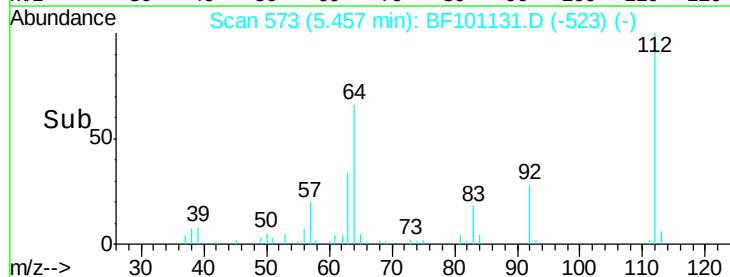
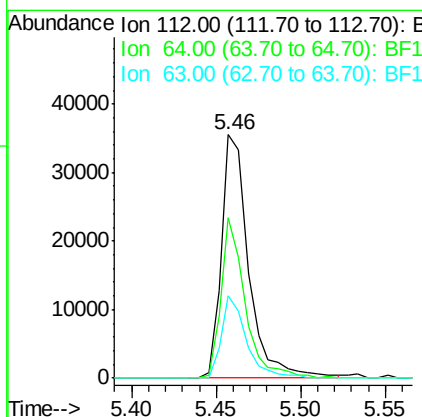
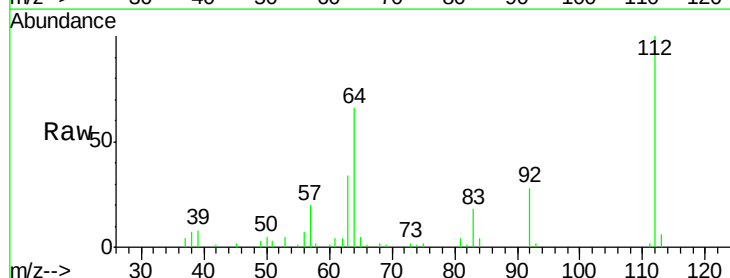
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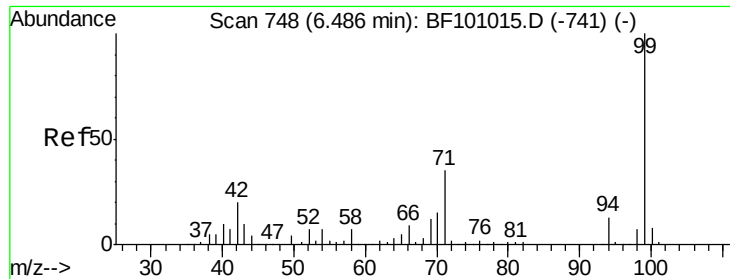


#5

2-Fluorophenol  
Concen: 13.702 ng  
RT: 5.46 min Scan# 573  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 65.9  | 47.9  | 71.9  |
| 63      | 34.0  | 23.7  | 35.5  |





#7

Phenol-d6

Concen: 13.948 ng

RT: 6.47 min Scan# 746

Delta R.T. -0.01 min

Lab File: BF101131.D

Acq: 5 Dec 2017 18:21

Instrument :

BNA\_F

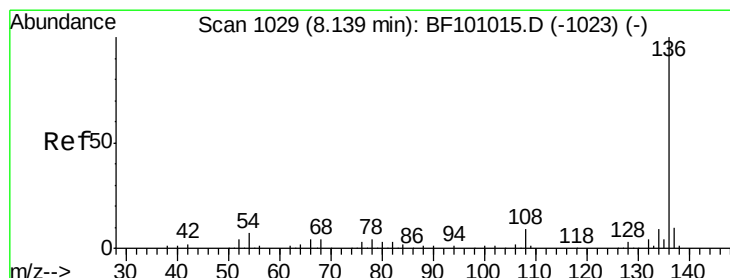
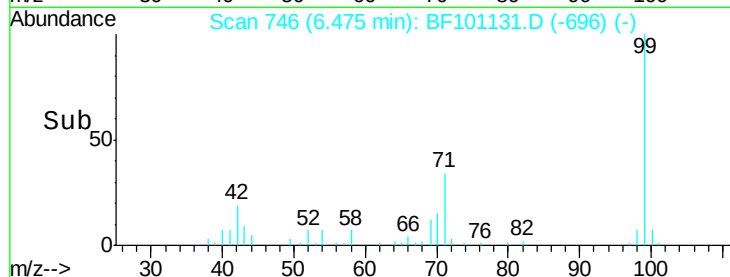
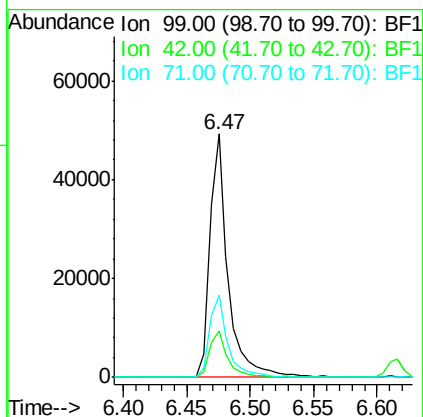
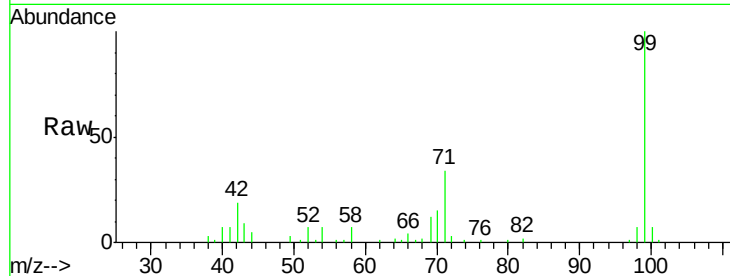
ClientSampleId :

ENV-109-6(0-5)

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 99    | Resp: | 49469 |
| Ion      | Ratio | Lower | Upper |
| 99       | 100   |       |       |
| 42       | 18.9  | 14.5  | 21.7  |
| 71       | 33.7  | 25.4  | 38.0  |

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#21

Naphthalene-d8

Concen: 20.000 ng

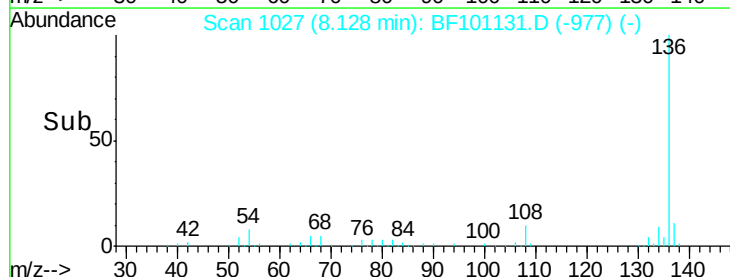
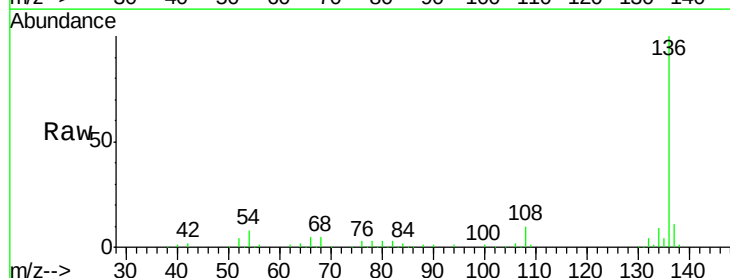
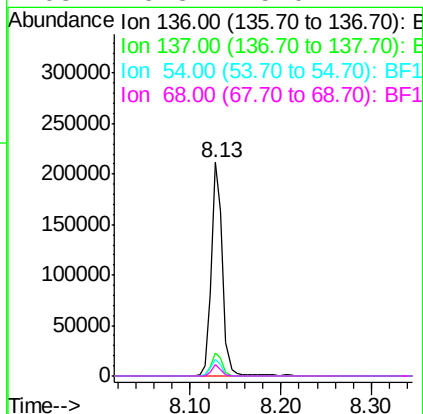
RT: 8.13 min Scan# 1027

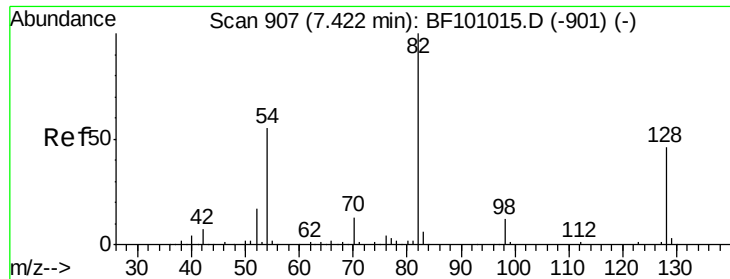
Delta R.T. -0.01 min

Lab File: BF101131.D

Acq: 5 Dec 2017 18:21

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 136   | Resp: | 185036 |
| Ion      | Ratio | Lower | Upper  |
| 136      | 100   |       |        |
| 137      | 11.0  | 8.9   | 13.3   |
| 54       | 7.9   | 6.6   | 9.8    |
| 68       | 5.3   | 5.0   | 7.4    |





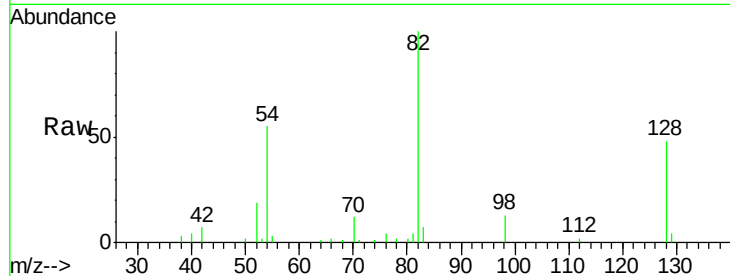
#23  
Nitrobenzene-d5  
Concen: 9.234 ng  
RT: 7.41 min Scan# 905  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

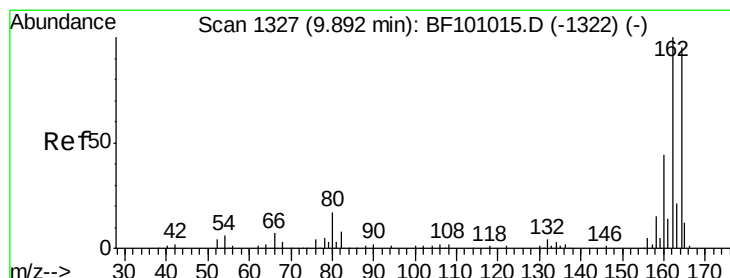
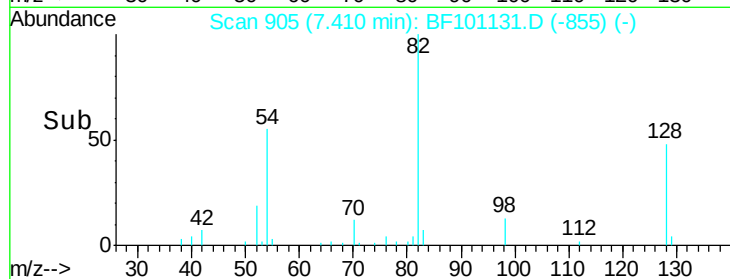
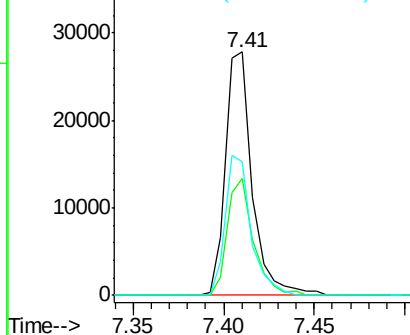
| Tot Ion   | 82    | Resp  | 28642 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 82        | 100   |       |       |
| 128       | 48.0  | 36.1  | 54.1  |
| 54        | 54.6  | 41.4  | 62.2  |

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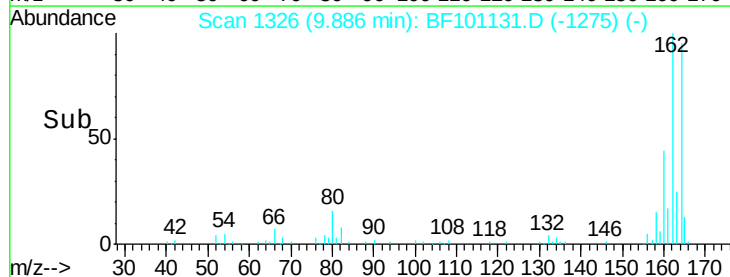
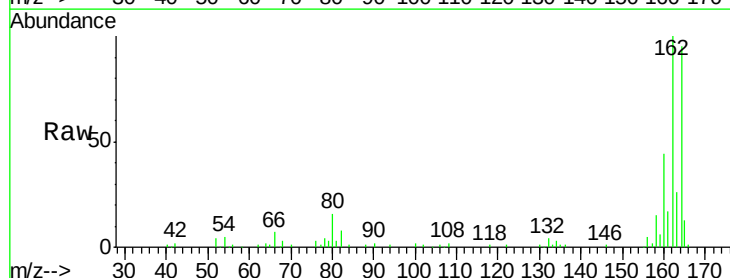
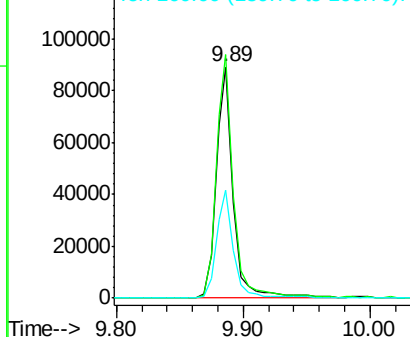
Abundance Ion 82.00 (81.70 to 82.70): BF1  
Ion 128.00 (127.70 to 128.70): E  
Ion 54.00 (53.70 to 54.70): BF1

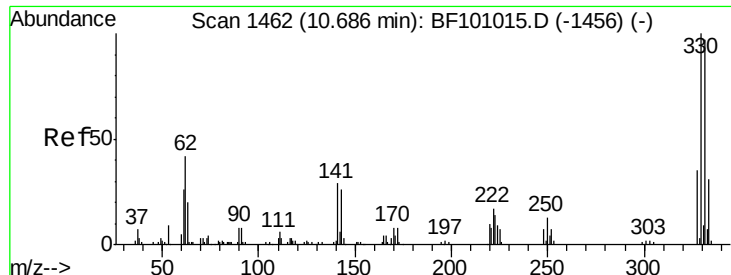


#38  
Acenaphthene-d10  
Concen: 20.000 ng  
RT: 9.89 min Scan# 1326  
Delta R.T. 0.00 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion   | 164   | Resp  | 83930 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 164       | 100   |       |       |
| 162       | 105.5 | 86.1  | 129.1 |
| 160       | 46.6  | 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





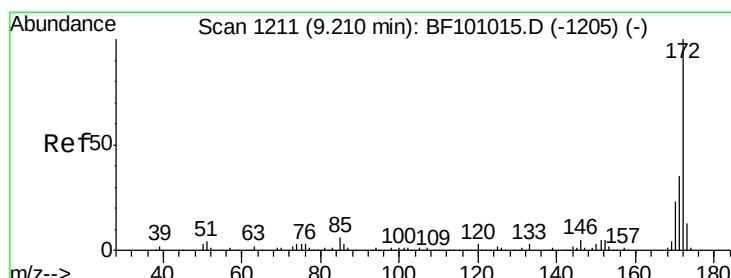
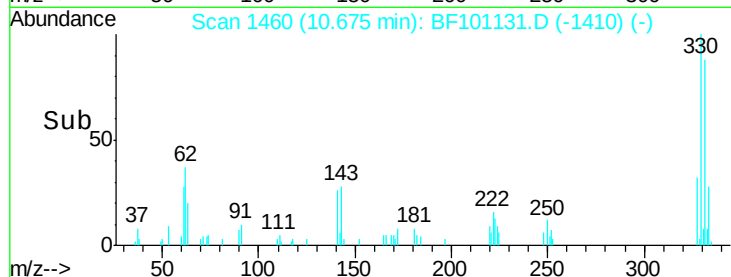
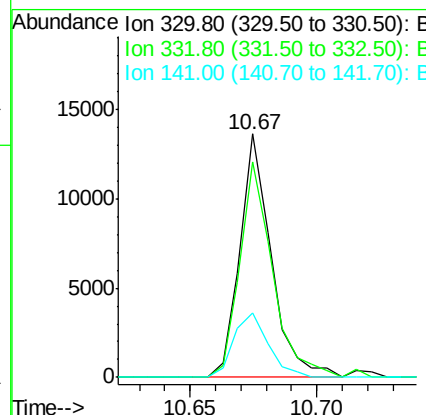
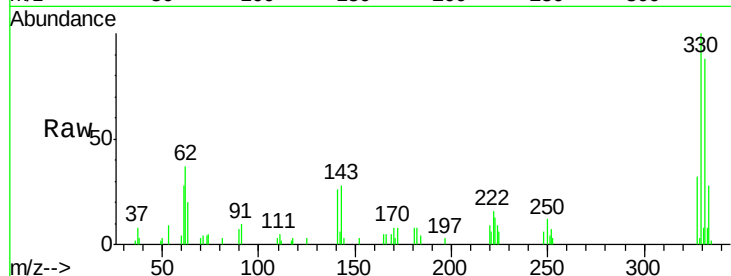
#41  
 2,4,6-Tribromophenol  
 Concen: 11.641 ng  
 RT: 10.67 min Scan# 1460  
 Delta R.T. -0.01 min  
 Lab File: BF101131.D  
 Acq: 5 Dec 2017 18:21

Instrument :  
 BNA\_F  
 ClientSampleId :  
 ENV-109-6(0-5)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 93.8  | 77.0  | 115.6 |
| 141     | 29.4  | 29.9  | 44.9# |

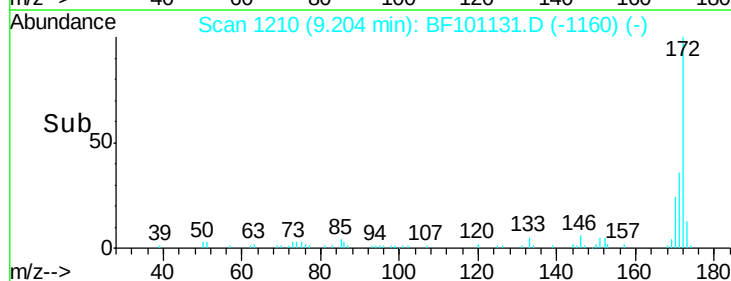
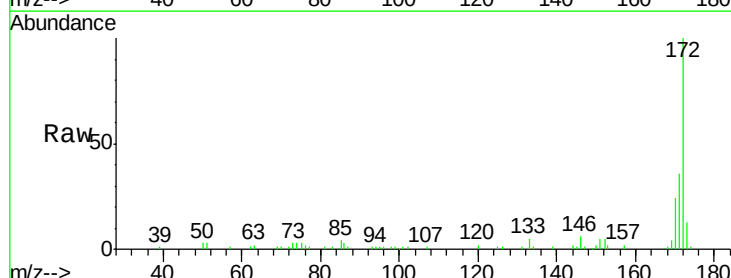
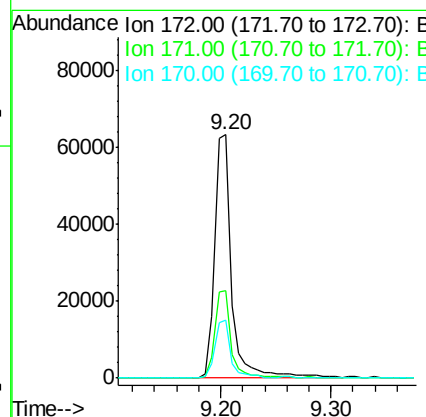
Manual Integrations  
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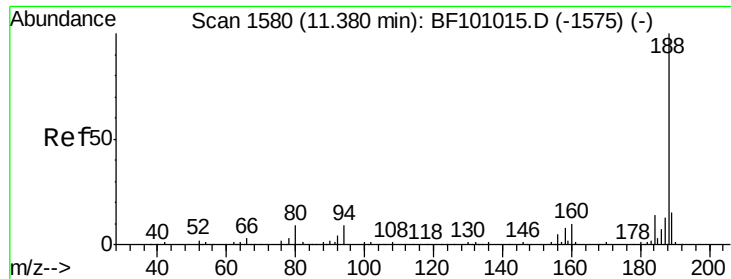
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#44  
 2-Fluorobiphenyl  
 Concen: 10.767 ng  
 RT: 9.20 min Scan# 1210  
 Delta R.T. -0.01 min  
 Lab File: BF101131.D  
 Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 36.2  | 29.7  | 44.5  |
| 170     | 23.6  | 19.6  | 29.4  |





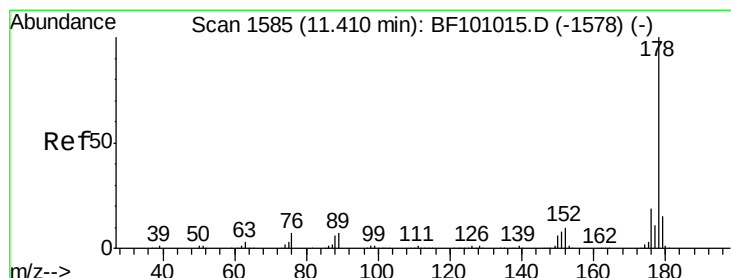
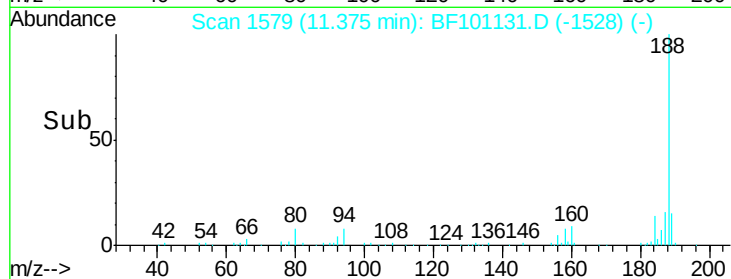
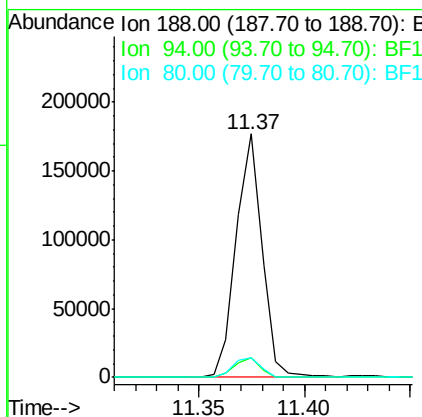
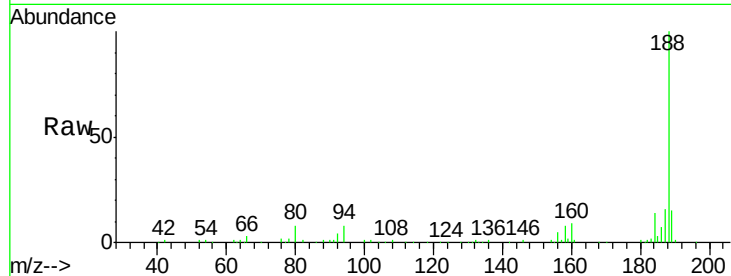
#63  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 11.37 min Scan# 1579  
Delta R.T. 0.00 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 188     | 100   |            |       |
| 94      | 8.0   | 8.5        | 12.7# |
| 80      | 8.3   | 9.2        | 13.8# |

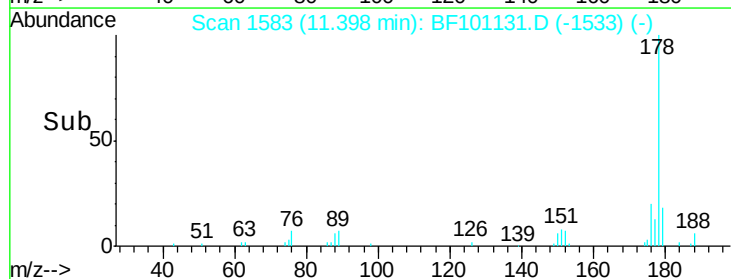
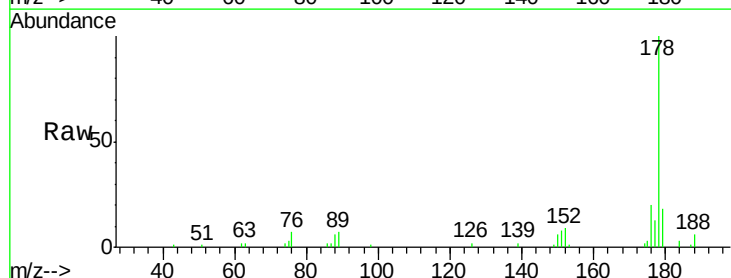
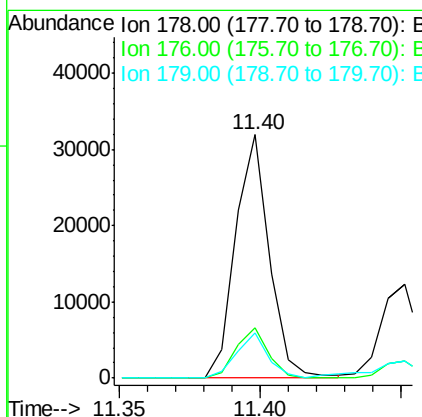
Manual Integrations  
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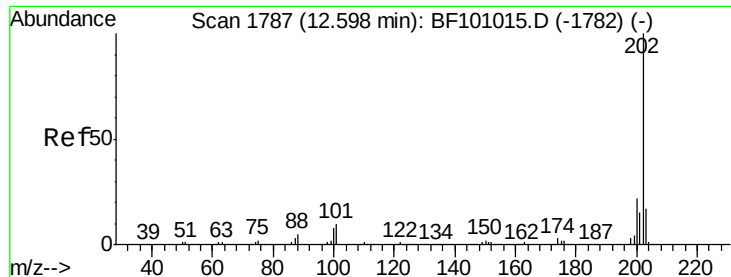
Sohil  
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#70  
Phenanthrene  
Concen: 3.206 ng  
RT: 11.40 min Scan# 1583  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 178     | 100   |            |       |
| 176     | 20.5  | 15.8       | 23.8  |
| 179     | 18.4  | 13.0       | 19.6  |





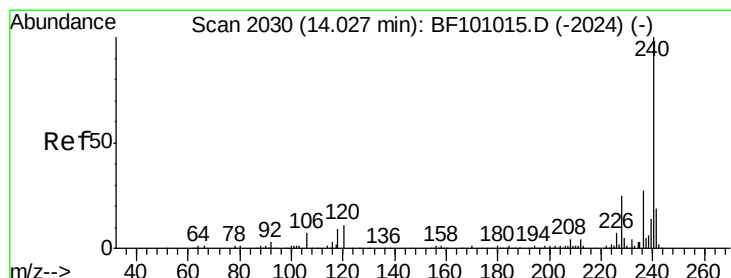
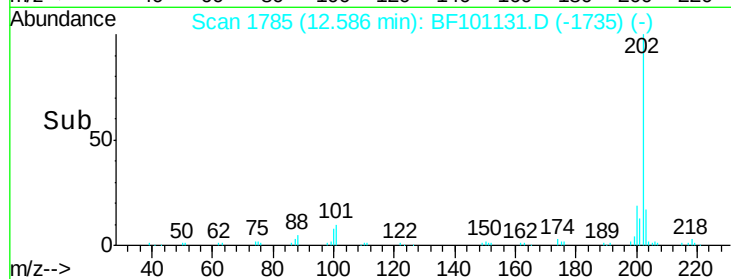
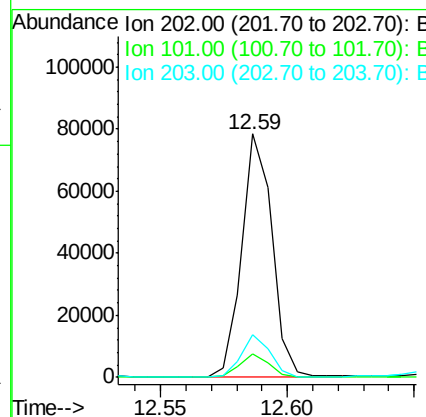
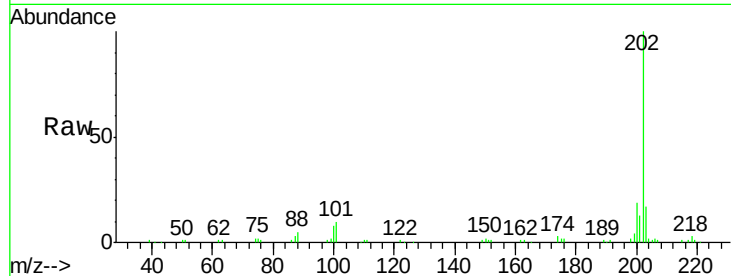
#74  
Fluoranthene  
Concen: 7.107 ng  
RT: 12.59 min Scan# 1785  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 202     | 100   |            |       |
| 101     | 9.9   | 0.0        | 34.1  |
| 203     | 17.5  | 0.0        | 38.1  |

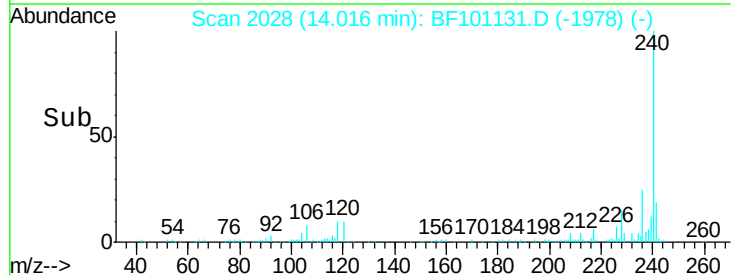
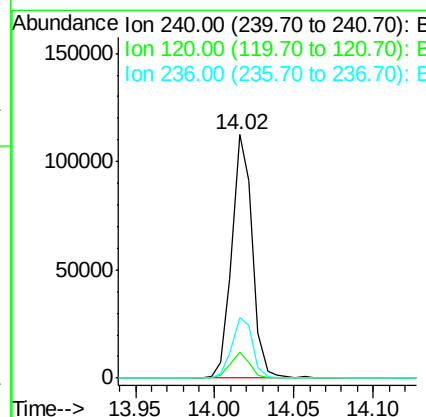
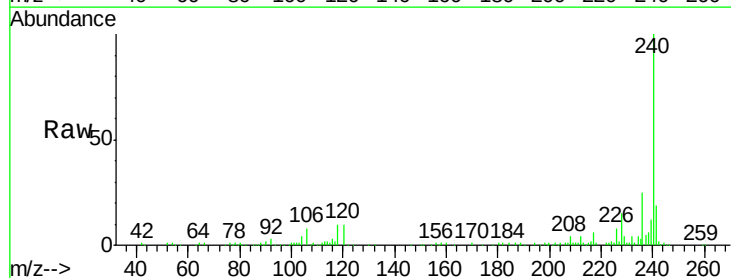
Manual Integrations  
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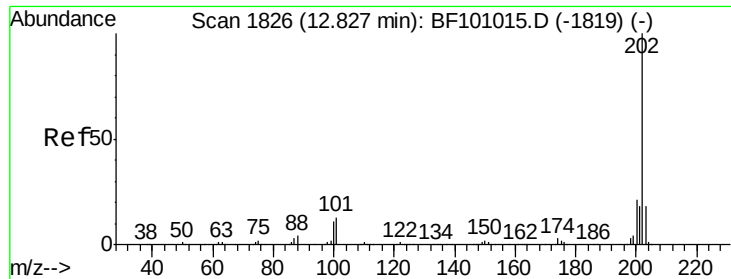


#75  
Chrysene-d12  
Concen: 20.000 ng  
RT: 14.02 min Scan# 2028  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 240     | 100   |            |       |
| 120     | 10.4  | 9.5        | 14.3  |
| 236     | 24.9  | 20.7       | 31.1  |







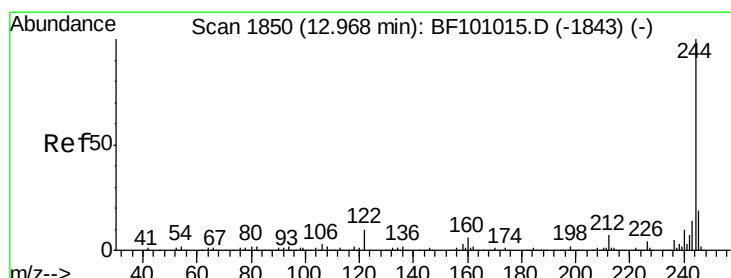
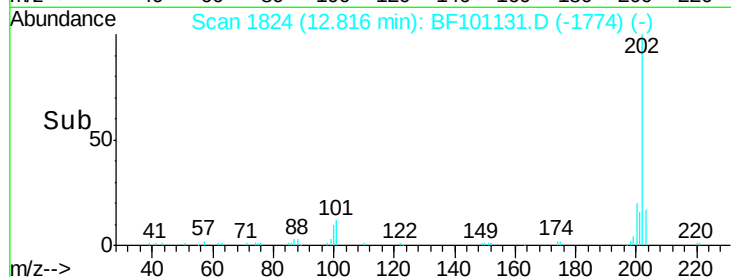
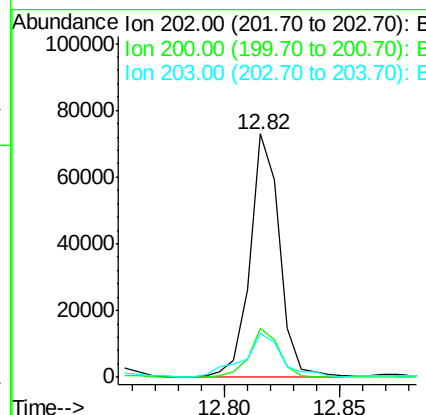
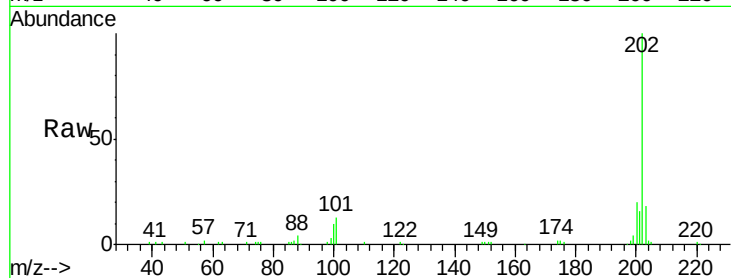
#77  
Pvrene  
Concen: 9.419 ng  
RT: 12.82 min Scan# 1824  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 20.1  | 17.4  | 26.2  |
| 203     | 18.0  | 14.3  | 21.5  |

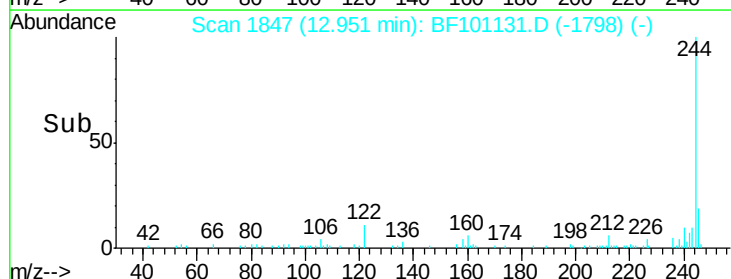
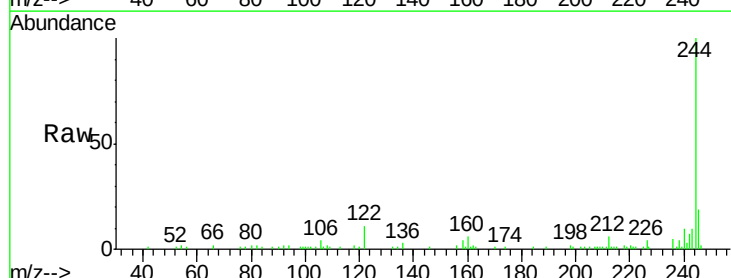
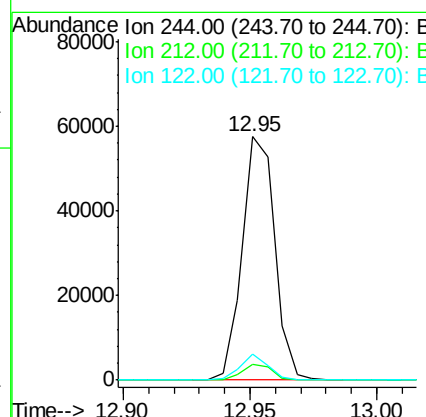
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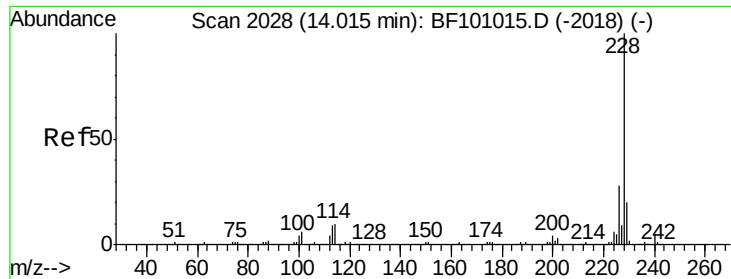
Sohil  
12/6/2017 5:12:30 PM



#78  
Terphenyl-d14  
Concen: 11.173 ng  
RT: 12.95 min Scan# 1847  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 6.4   | 5.4   | 8.0   |
| 122     | 10.6  | 11.0  | 16.4  |





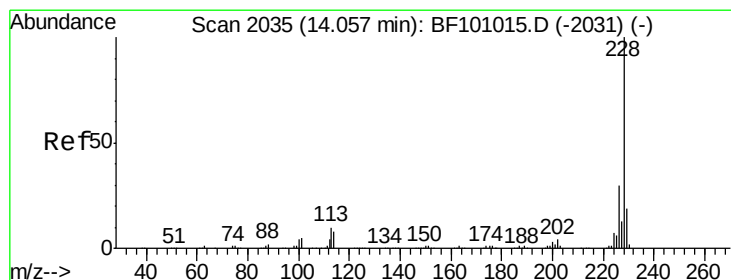
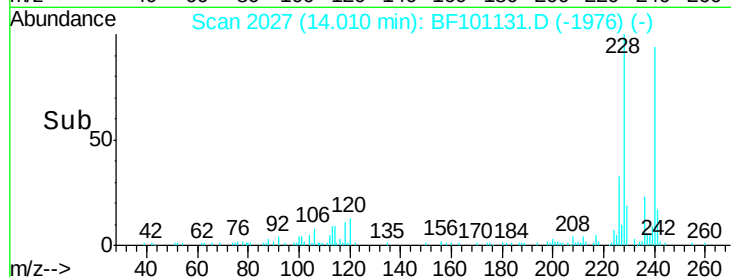
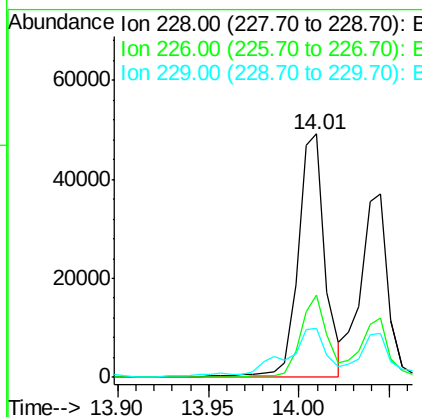
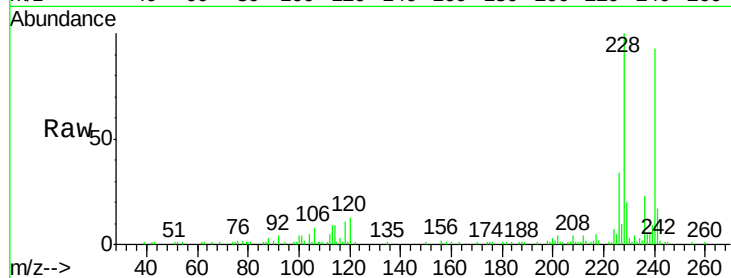
#80  
Benzo(a)anthracene  
Concen: 8.168 ng  
RT: 14.01 min Scan# 2027  
Delta R.T. 0.00 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 33.8  | 22.6  | 33.8  |
| 229     | 20.4  | 15.8  | 23.6  |

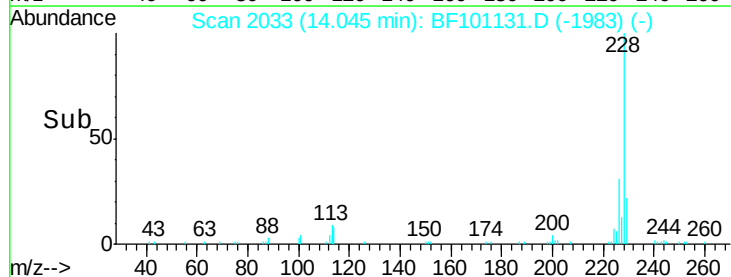
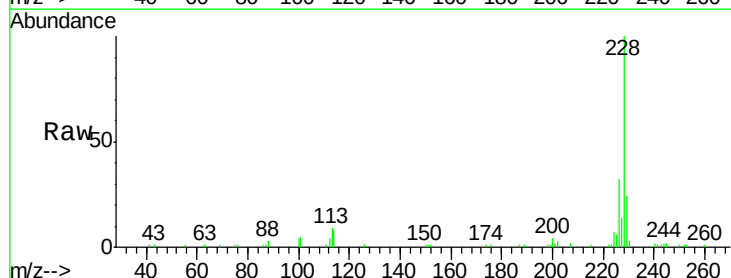
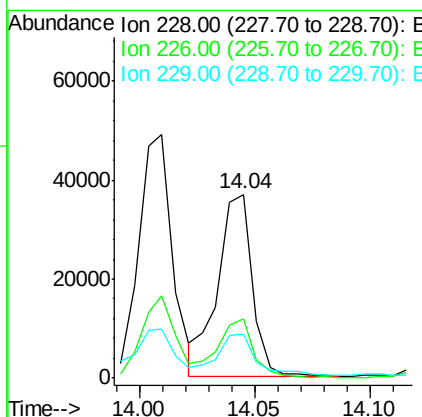
Manual Integrations  
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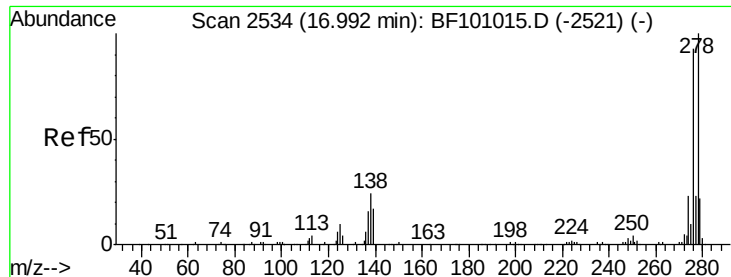
Sohil  
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#82  
Chrysene  
Concen: 6.555 ng  
RT: 14.04 min Scan# 2033  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 32.1  | 25.0  | 37.6  |
| 229     | 23.6  | 16.2  | 24.4  |





#85

Indeno(1,2,3-cd)pyrene

Concen: 4.407 ng

RT: 16.97 min Scan# 2530

Delta R.T. -0.01 min

Lab File: BF101131.D

Acq: 5 Dec 2017 18:21

Instrument :

BNA\_F

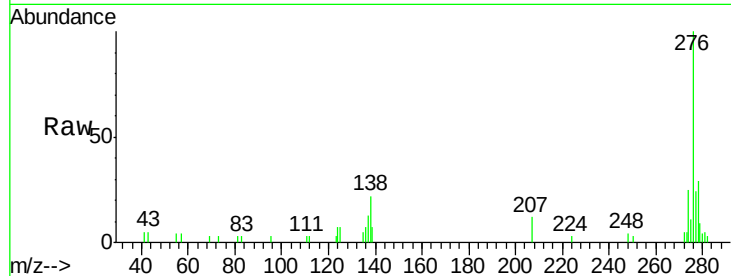
ClientSampleId :

ENV-109-6(0-5)

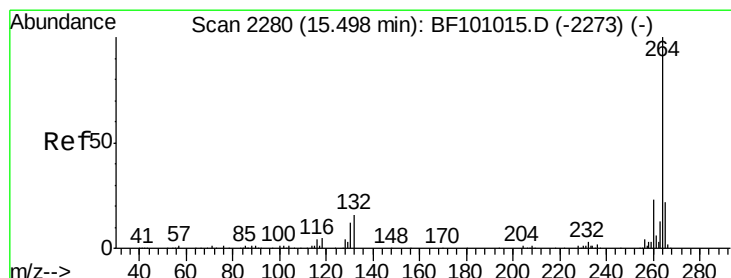
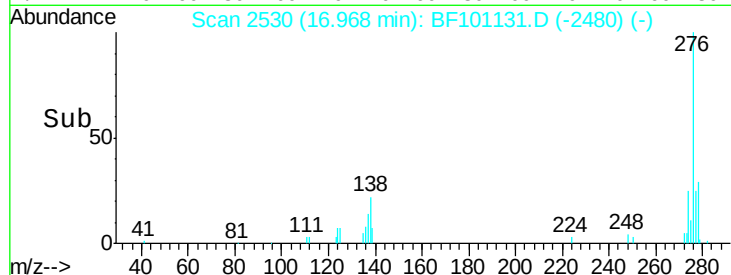
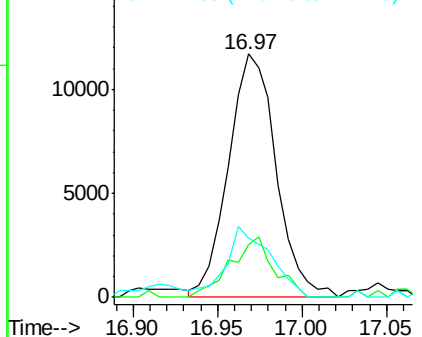
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 276   | Resp: | 23050 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 22.6  | 25.0  | 37.6# |
| 277       | 26.8  | 20.1  | 30.1  |

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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

Perylene-d12

Concen: 20.000 ng

RT: 15.49 min Scan# 2279

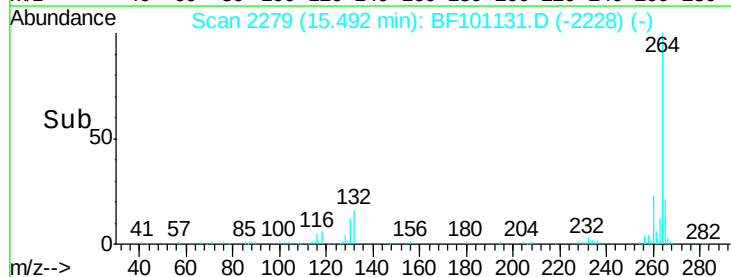
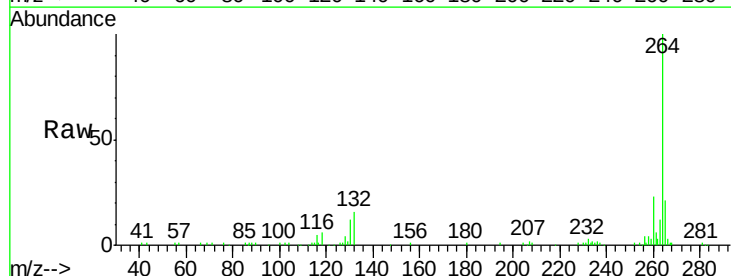
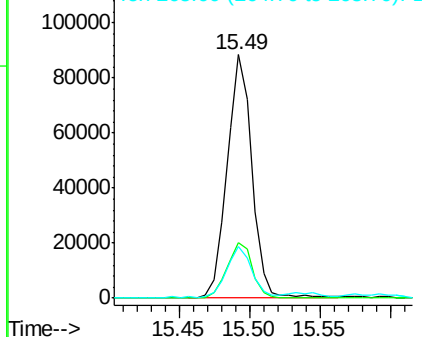
Delta R.T. 0.00 min

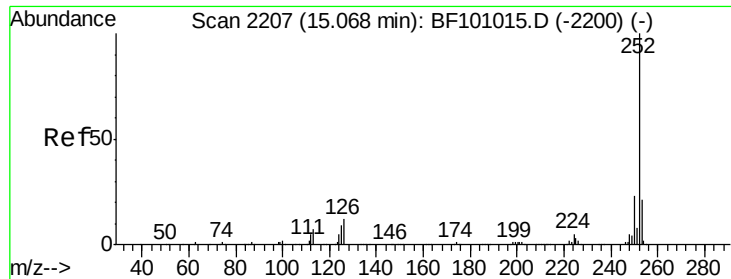
Lab File: BF101131.D

Acq: 5 Dec 2017 18:21

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 264   | Resp: | 107816 |
| Ion Ratio | Lower | Upper |        |
| 264       | 100   |       |        |
| 260       | 22.9  | 19.2  | 28.8   |
| 265       | 21.2  | 17.5  | 26.3   |

Abundance Ion 264.00 (263.70 to 264.70): E  
Ion 260.00 (259.70 to 260.70): E  
Ion 265.00 (264.70 to 265.70): E





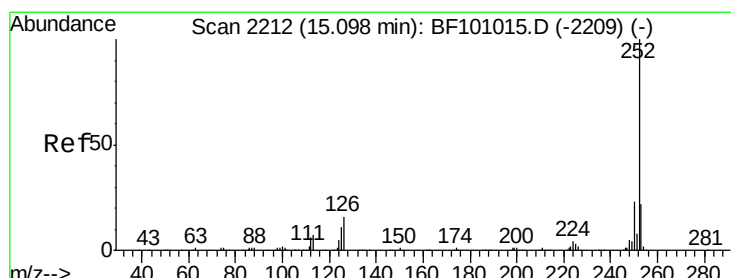
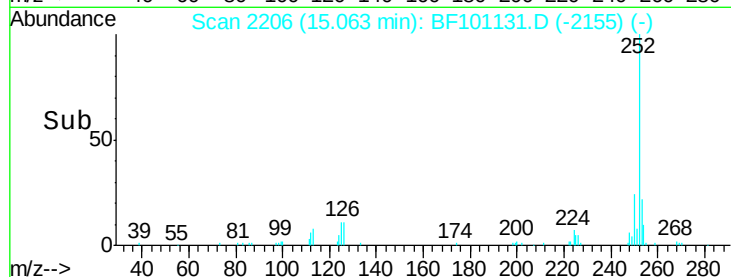
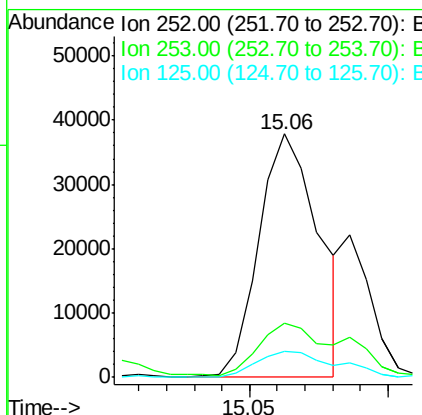
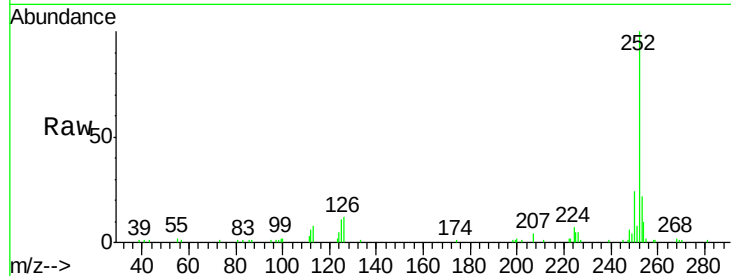
#87  
Benzo(b)fluoranthene  
Concen: 8.877 ng m  
RT: 15.06 min Scan# 2206  
Delta R.T. 0.00 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.4  | 17.0  | 25.6  |
| 125     | 10.8  | 9.0   | 13.6  |

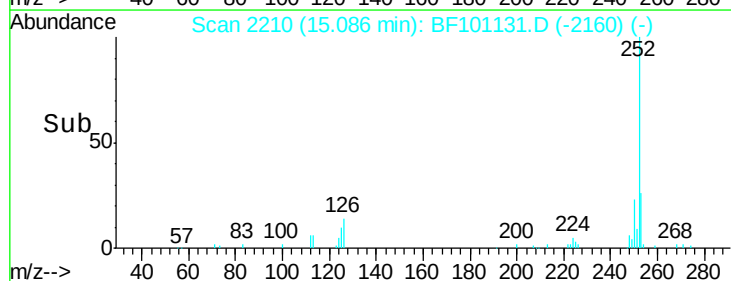
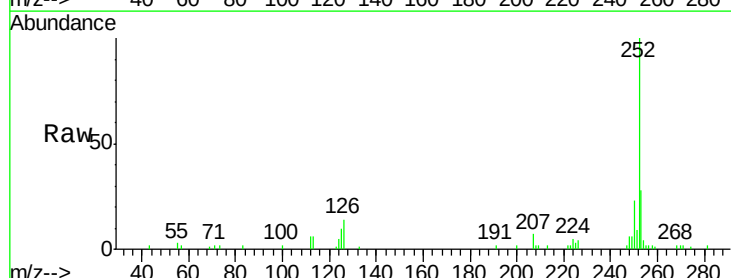
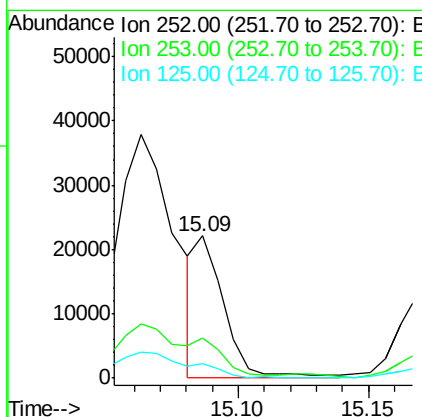
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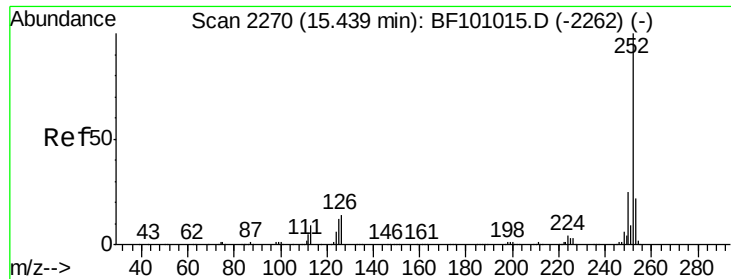
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#88  
Benzo(k)fluoranthene  
Concen: 2.663 ng m  
RT: 15.09 min Scan# 2210  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 27.9  | 17.9  | 26.9# |
| 125     | 10.3  | 10.2  | 15.2  |





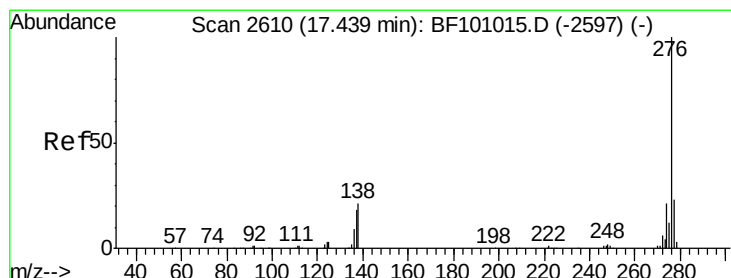
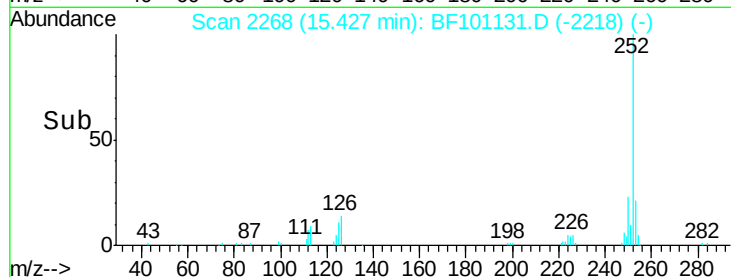
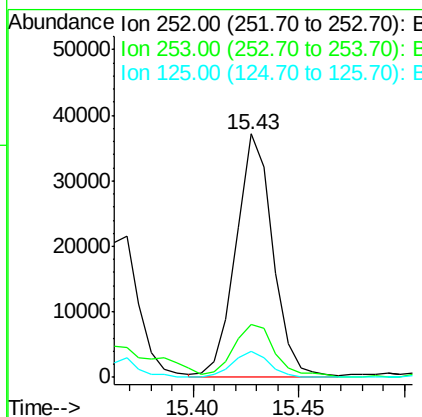
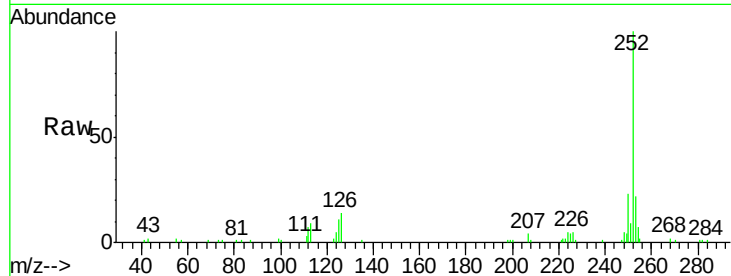
#89  
Benzo(a)pyrene  
Concen: 7.714 ng  
RT: 15.43 min Scan# 2268  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

Instrument :  
BNA\_F  
ClientSampleId :  
ENV-109-6(0-5)

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.8  | 17.1  | 25.7  |
| 125     | 10.5  | 9.8   | 14.6  |

Manual Integrations  
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#91  
Benzo(g,h,i)perylene  
Concen: 3.922 ng  
RT: 17.42 min Scan# 2607  
Delta R.T. -0.01 min  
Lab File: BF101131.D  
Acq: 5 Dec 2017 18:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 24.7  | 17.9  | 26.9  |
| 138     | 19.1  | 21.8  | 32.8# |

