

Data Path : Z:\HPCHEM1\BNA F\DATA\BF071817\  
 Data File : BF096855.D  
 Acq On : 18 Jul 2017 19:09  
 Operator : SJ/JU  
 Sample : I4244-01 2X  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PENNSYLVANIA-ANALYTICAL

Manual Integrations  
 APPROVED

mohammad  
 7/19/2017 2:31:39 PM

Quant Time: Jul 19 13:43:56 2017  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF071317.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Jul 18 13:33:22 2017  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min)    |
|--------------------------------|-------|------|----------|---------|-------|-------------|
| 1) 1,4-Dichlorobenzene-d4      | 6.61  | 152  | 82608    | 20.00   | ng    | 0.01        |
| 21) Naphthalene-d8             | 7.90  | 136  | 120383   | 20.00   | ng    | 0.02        |
| 38) Acenaphthene-d10           | 9.58  | 164  | 14075    | 20.00   | ng    | -0.05       |
| 63) Phenanthrene-d10           | 11.22 | 188  | 61856    | 20.00   | ng    | 0.11        |
| 75) Chrysene-d12               | 13.76 | 240  | 169041   | 20.00   | ng    | 0.02        |
| 86) Perylene-d12               | 15.11 | 264  | 143509   | 20.00   | ng    | 0.00        |
| System Monitoring Compounds    |       |      |          |         |       |             |
| 5) 2-Fluorophenol              | 5.19  | 112  | 247477   | 45.04   | ng    | 0.00        |
| 7) Phenol-d6                   | 6.25  | 99   | 281796   | 42.74   | ng    | 0.00        |
| 23) Nitrobenzene-d5            | 7.17  | 82   | 215559   | 110.91  | ng    | 0.00        |
| 41) 2,4,6-Tribromophenol       | 10.53 | 330  | 12886    | 107.26  | ng    | 0.11        |
| 44) 2-Fluorobiphenyl           | 9.03  | 172  | 103191   | 115.83  | ng    | 0.07        |
| 78) Terphenyl-d14              | 12.74 | 244  | 108471   | 11.13   | ng    | 0.05        |
| Target Compounds               |       |      |          |         |       |             |
| 70) Phenanthrene               | 11.25 | 178  | 1109119  | 329.769 | ng    | Qvalue # 90 |
| 74) Fluoranthene               | 12.40 | 202  | 114338   | 35.517  | ng    | 77          |
| 77) Pyrene                     | 12.62 | 202  | 424730m  | 27.685  | ng    |             |
| 80) Benzo(a)anthracene         | 13.75 | 228  | 54960    | 5.218   | ng    | # 60        |
| 82) Chrysene                   | 13.78 | 228  | 84014    | 8.103   | ng    | # 71        |
| 83) Bis(2-ethylhexyl)phthalate | 13.74 | 149  | 224616   | 25.304  | ng    | # 98        |
| 85) Indeno(1,2,3-cd)pyrene     | 16.39 | 276  | 15548    | 4.887   | ng    | 93          |
| 87) Benzo(b)fluoranthene       | 14.73 | 252  | 51707m   | 5.974   | ng    |             |
| 89) Benzo(a)pyrene             | 15.05 | 252  | 26583    | 3.349   | ng    | # 75        |
| 91) Benzo(g,h,i)perylene       | 16.78 | 276  | 16535    | 2.114   | ng    | # 87        |

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

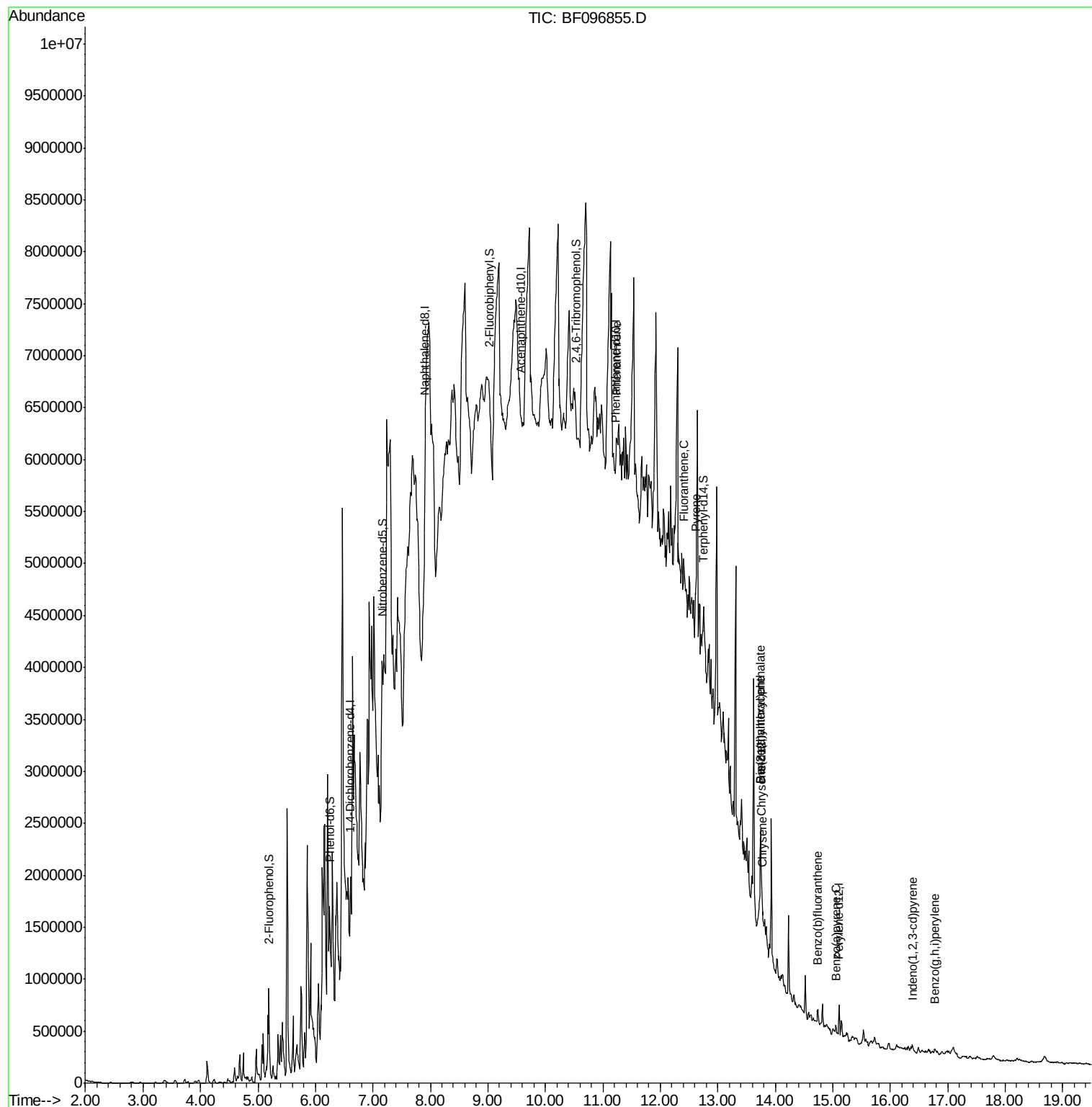
Data Path : Z:\HPCHEM1\BNA F\DATA\BF071817\  
Data File : BF096855.D  
Acq On : 18 Jul 2017 19:09  
Operator : SJ/JU  
Sample : I4244-01 2X  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

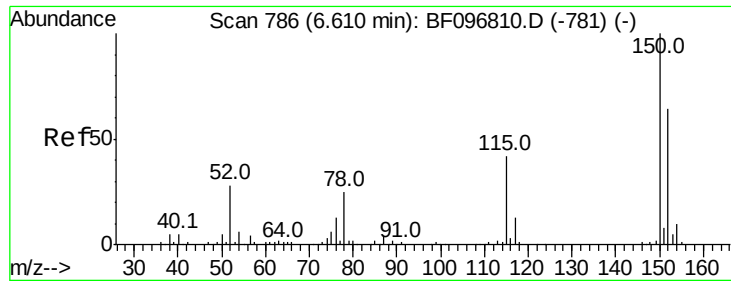
Instrument :  
BNA\_F  
ClientSampleId :  
PENNSYLVANIA-ANALYTICAL

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Quant Time: Jul 19 13:43:56 2017  
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF071317.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Tue Jul 18 13:33:22 2017  
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#1

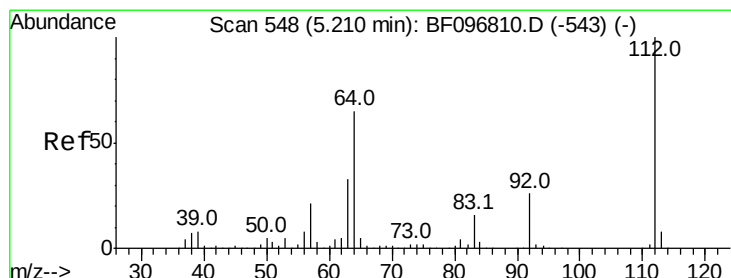
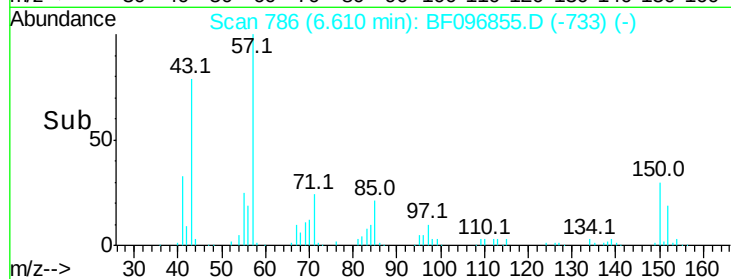
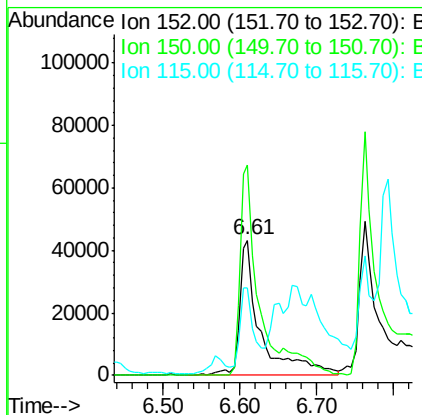
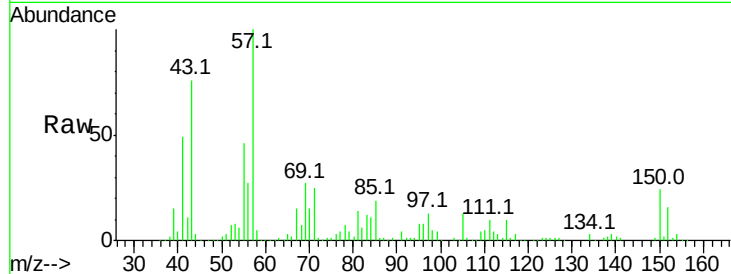
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.61 min Scan# 786  
Delta R.T. 0.01 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

Instrument :  
BNA\_F  
ClientSampleId :  
PENNSYLVANIA-ANALYTICAL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 155.8 | 126.2 | 189.2 |
| 115     | 65.1  | 52.2  | 78.2  |

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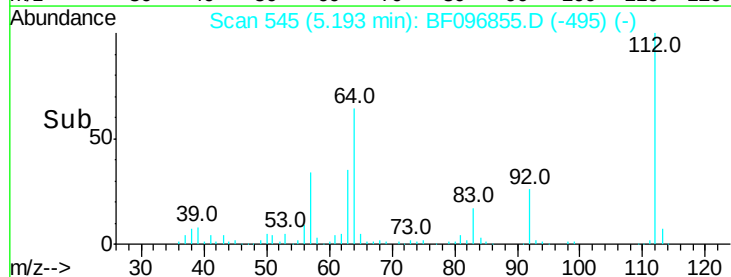
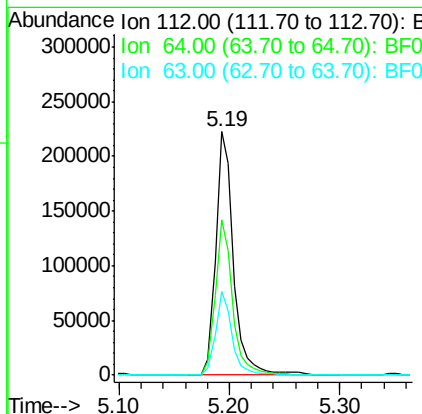
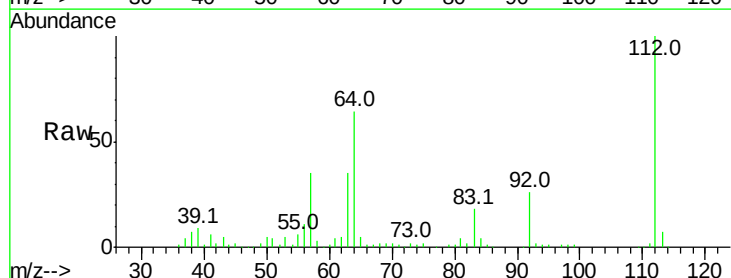
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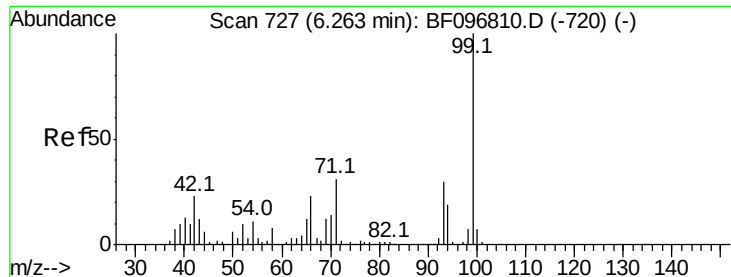


#5

2-Fluorophenol  
Concen: 45.044 ng  
RT: 5.19 min Scan# 545  
Delta R.T. -0.01 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 64.0  | 46.0  | 69.0  |
| 63      | 34.5  | 23.4  | 35.0  |





#7

Phenol-d6

Concen: 42.741 ng

RT: 6.25 min Scan# 724

Delta R.T. -0.01 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

Instrument :

BNA\_F

ClientSampleId :

PENNSYLVANIA-ANALYTICAL

Tot Ion: 99 Resp: 281796

Ion Ratio Lower Upper

99 100

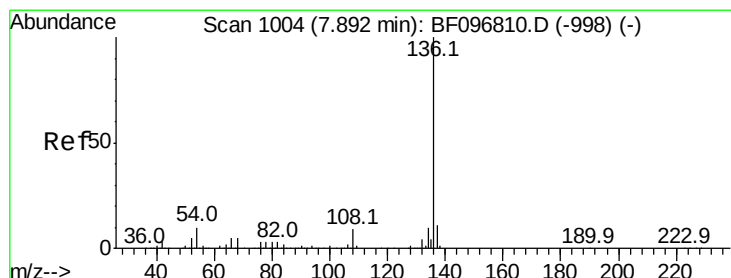
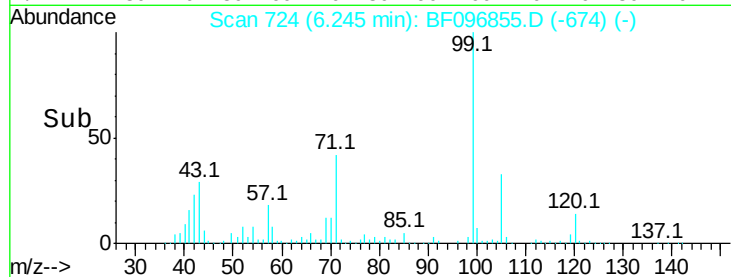
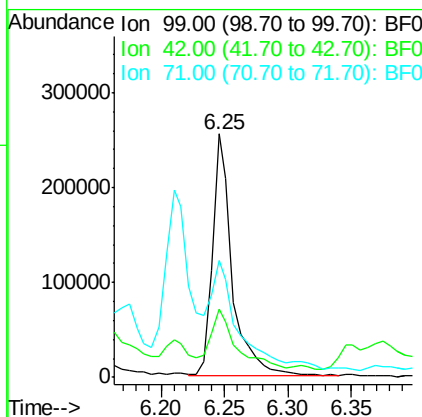
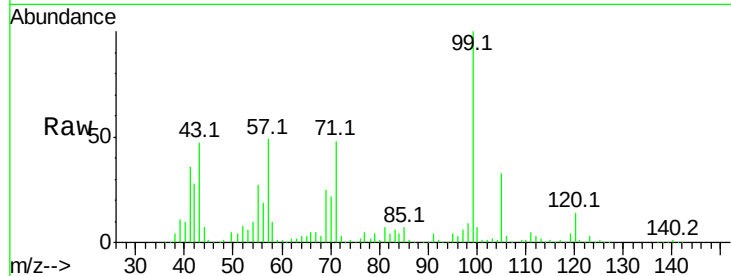
42 28.0 13.5 20.3#

71 48.0 24.5 36.7#

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#21

Naphthalene-d8

Concen: 20.000 ng

RT: 7.90 min Scan# 1006

Delta R.T. 0.02 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

Tgt Ion: 136 Resp: 120383

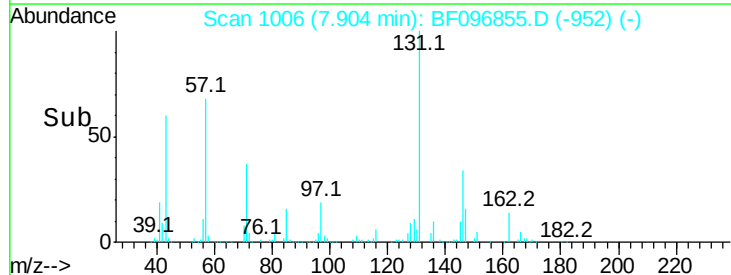
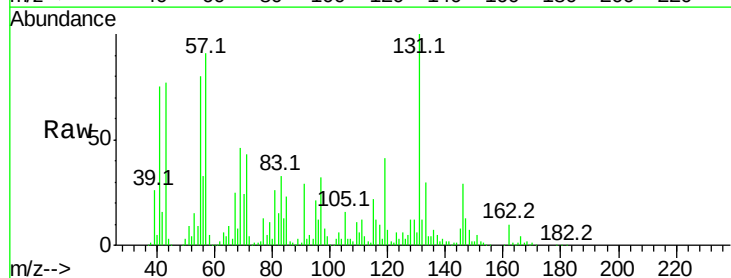
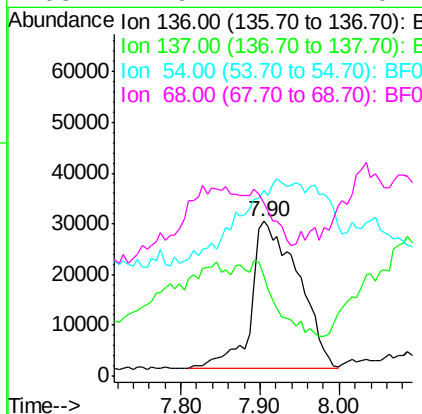
Ion Ratio Lower Upper

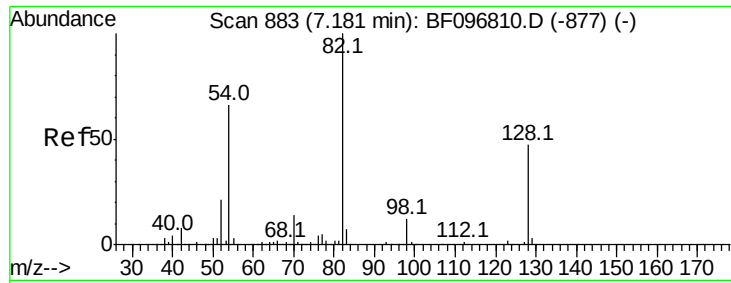
136 100

137 64.3 8.5 12.7#

54 120.7 4.9 7.3#

68 111.9 4.1 6.1#





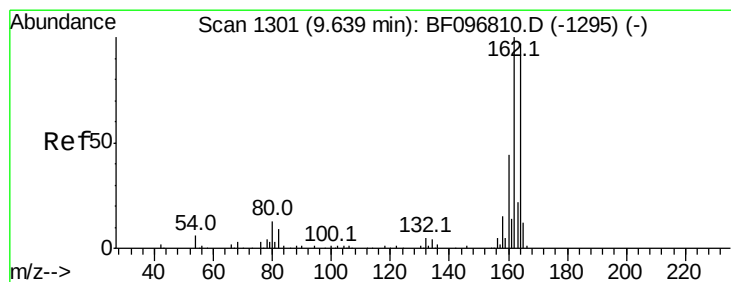
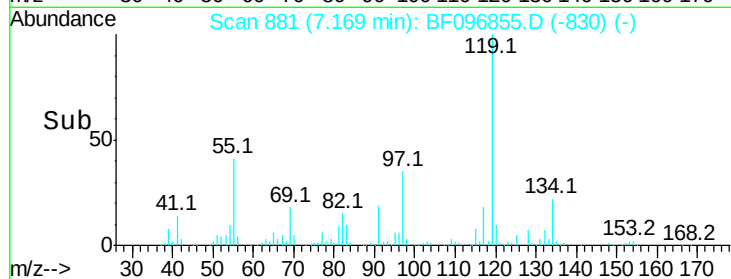
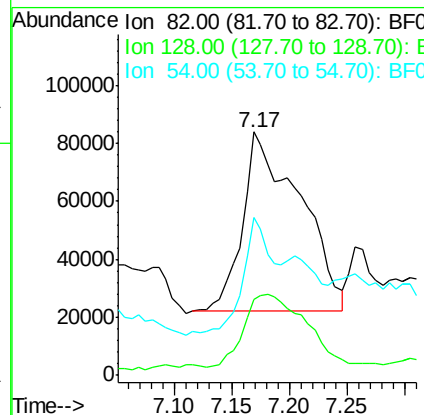
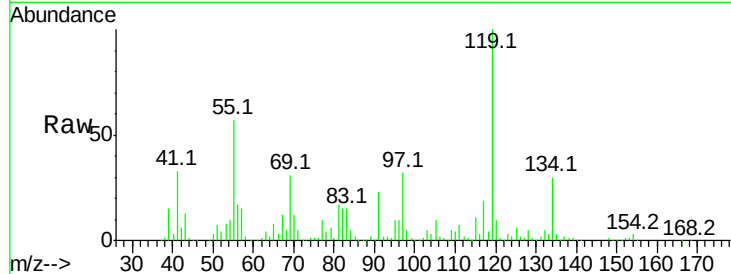
#23  
Nitrobenzene-d5  
Concen: 110.912 ng  
RT: 7.17 min Scan# 881  
Delta R.T. 0.00 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

Instrument :  
BNA\_F  
ClientSampleId :  
PENNSYLVANIA-ANALYTICAL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 128     | 31.4  | 34.0  | 51.0# |
| 54      | 64.8  | 42.2  | 63.2# |

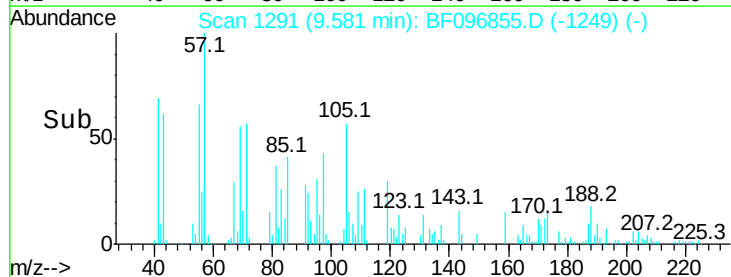
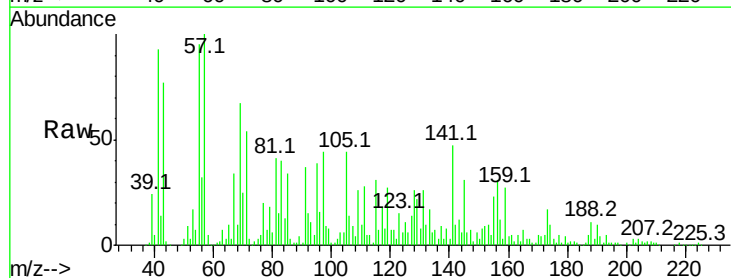
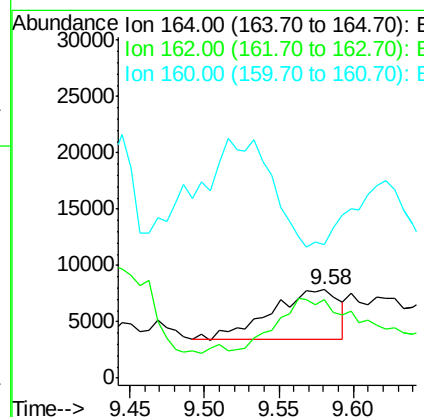
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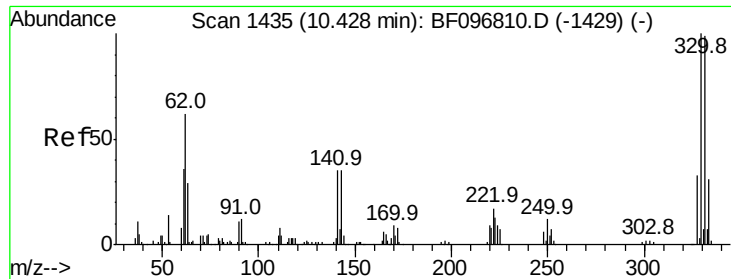
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#38  
Acenaphthene-d10  
Concen: 20.000 ng  
RT: 9.58 min Scan# 1291  
Delta R.T. -0.05 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 88.7  | 82.6  | 123.8 |
| 160     | 150.7 | 36.2  | 54.2# |





#41

2,4,6-Tribromophenol

Concen: 107.256 ng

RT: 10.53 min Scan# 1453

Delta R.T. 0.11 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

Instrument :

BNA\_F

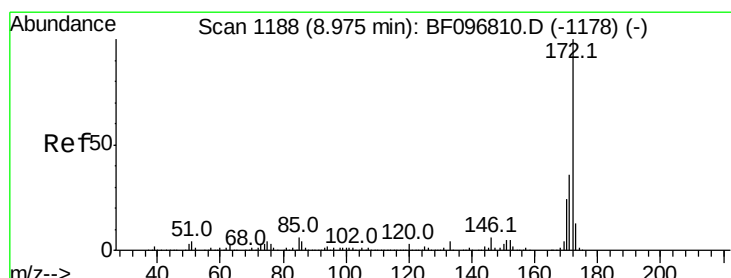
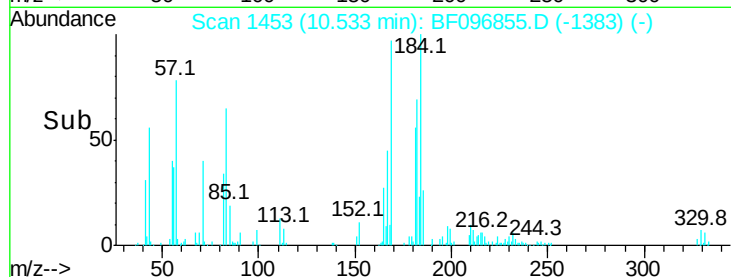
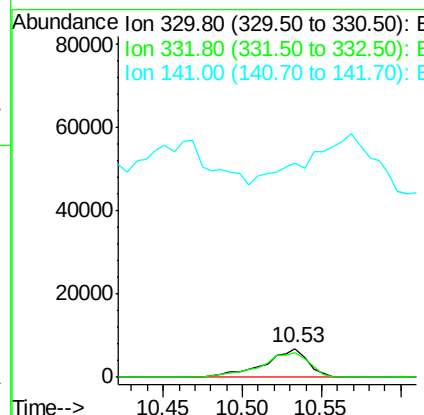
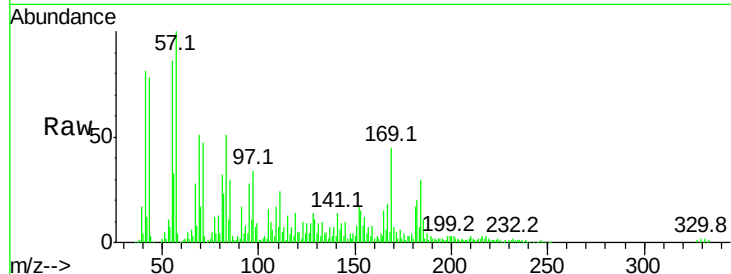
ClientSampleId :

PENNSYLVANIA-ANALYTICAL

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 330     | 100   |      |       |       |
| 332     | 95.3  | 76.6 | 115.0 |       |
| 141     | 0.0   | 31.4 | 47.2  |       |

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#44

2-Fluorobiphenyl

Concen: 115.832 ng

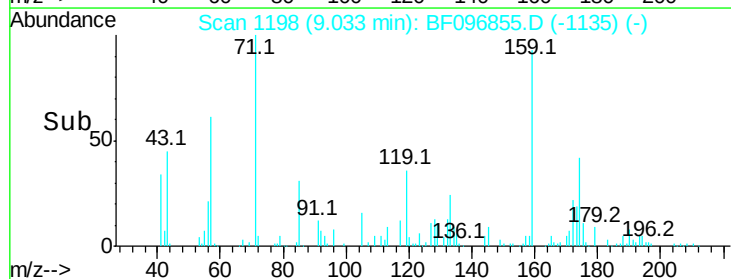
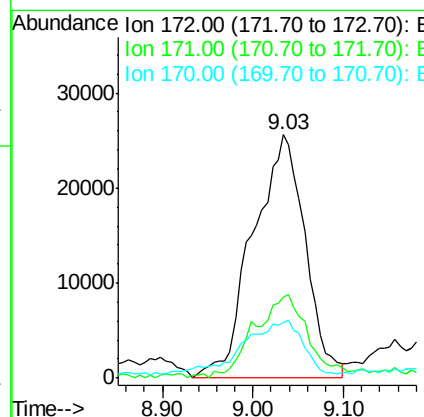
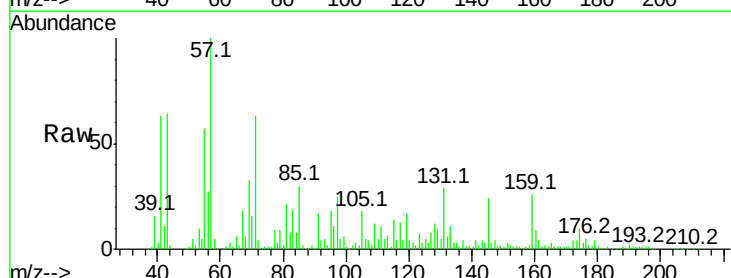
RT: 9.03 min Scan# 1198

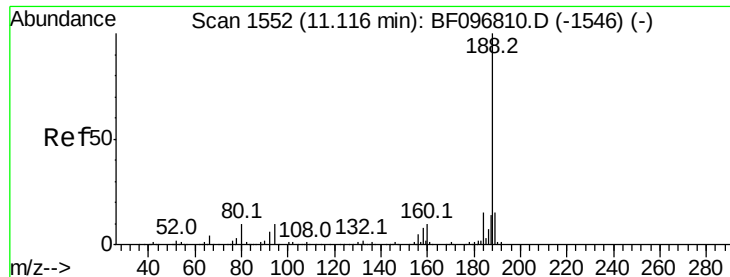
Delta R.T. 0.07 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 172     | 100   |      |       |       |
| 171     | 33.5  | 29.6 | 44.4  |       |
| 170     | 22.9  | 19.8 | 29.8  |       |





#63

Phenanthrene-d10

Concen: 20.000 ng

RT: 11.22 min Scan# 1569

Delta R.T. 0.11 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

Instrument :

BNA\_F

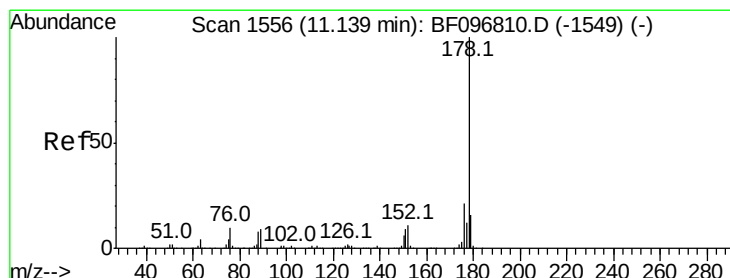
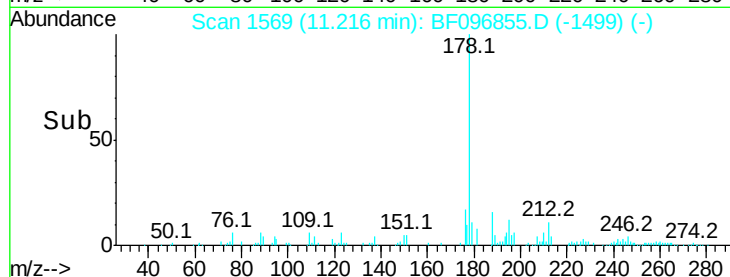
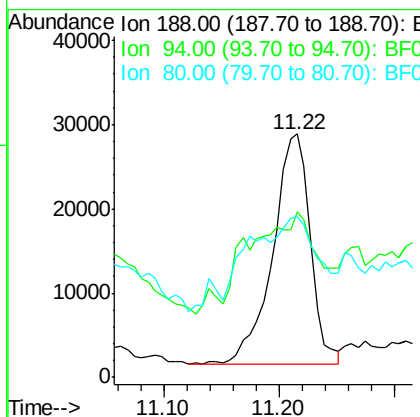
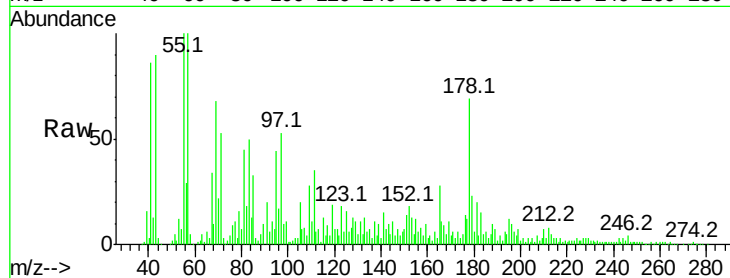
ClientSampleId :

PENNSYLVANIA-ANALYTICAL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 188   | Resp: | 61856 |
| Ion Ratio | Lower | Upper |       |
| 188       | 100   |       |       |
| 94        | 67.9  | 9.4   | 14.2# |
| 80        | 65.8  | 10.2  | 15.2# |

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#70

Phenanthrene

Concen: 329.769 ng

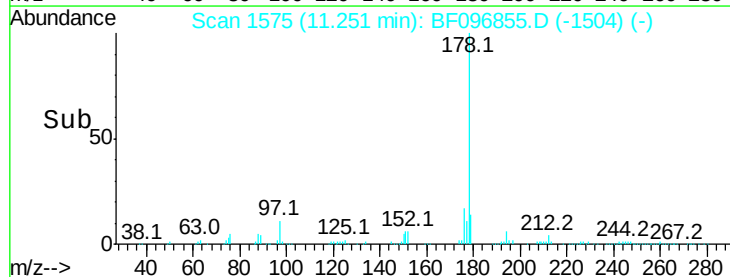
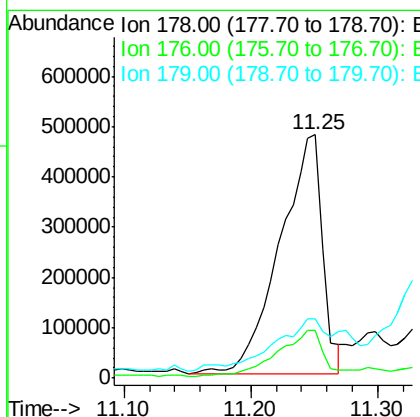
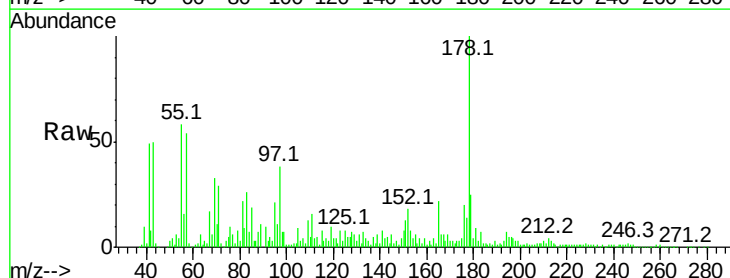
RT: 11.25 min Scan# 1575

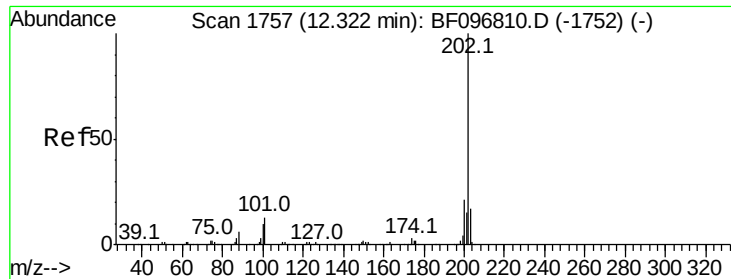
Delta R.T. 0.12 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 178   | Resp: | 1109119 |
| Ion Ratio | Lower | Upper |         |
| 178       | 100   |       |         |
| 176       | 19.9  | 16.2  | 24.4    |
| 179       | 24.5  | 12.6  | 19.0#   |





#74

Fluoranthene

Concen: 35.517 ng

RT: 12.40 min Scan# 1770

Delta R.T. 0.08 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

Instrument :

BNA\_F

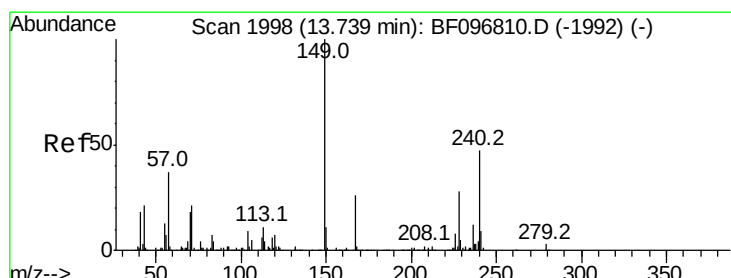
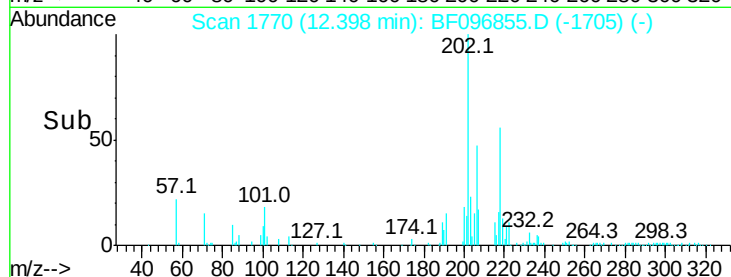
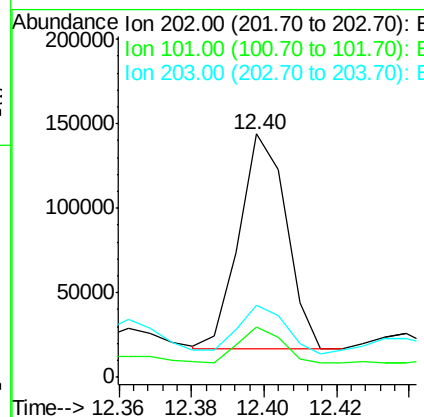
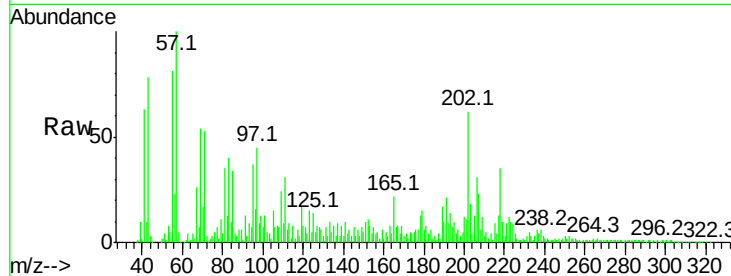
ClientSampleId :

PENNSYLVANIA-ANALYTICAL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 202   | Resp: | 114338 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 20.6  | 0.0   | 33.2   |
| 203       | 29.6  | 0.0   | 38.1   |

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#75

Chrysene-d12

Concen: 20.000 ng

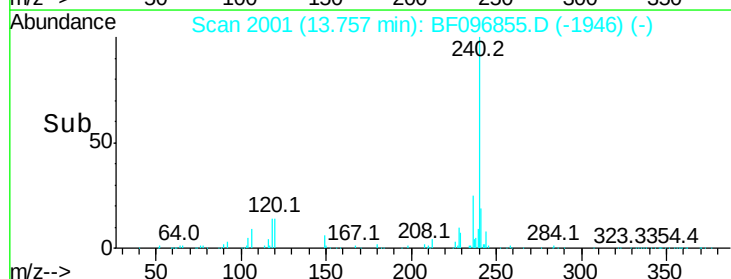
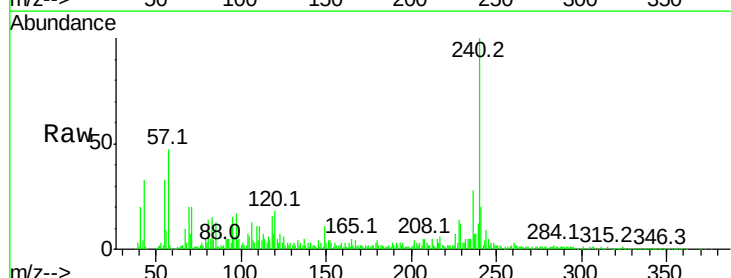
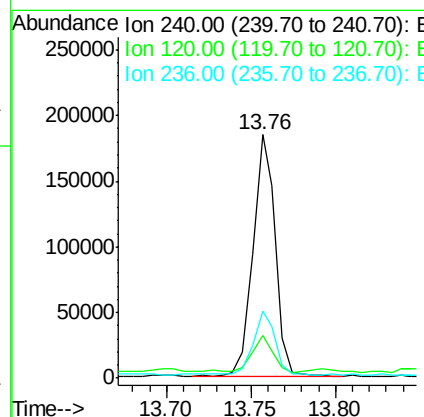
RT: 13.76 min Scan# 2001

Delta R.T. 0.02 min

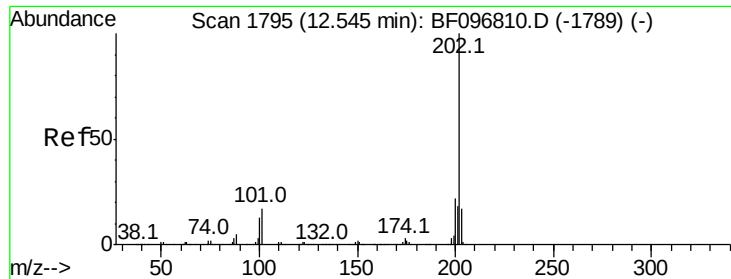
Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 240   | Resp: | 169041 |
| Ion Ratio | Lower | Upper |        |
| 240       | 100   |       |        |
| 120       | 17.6  | 5.8   | 8.8#   |
| 236       | 27.6  | 20.5  | 30.7   |







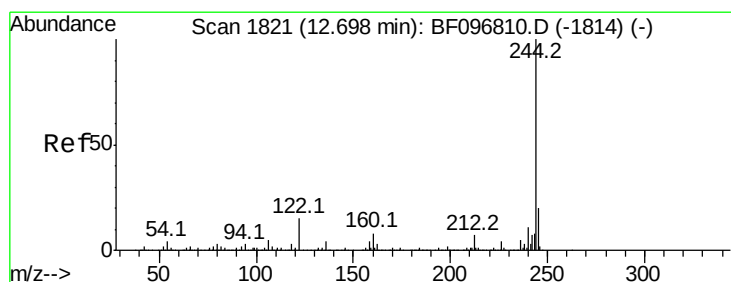
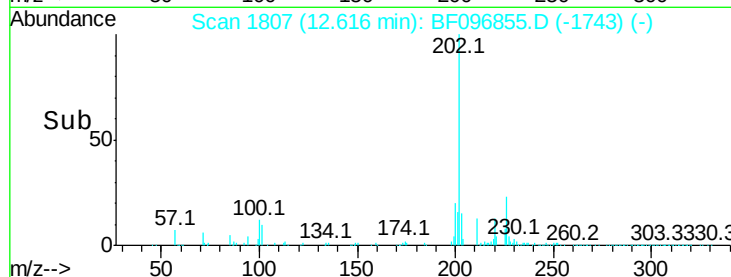
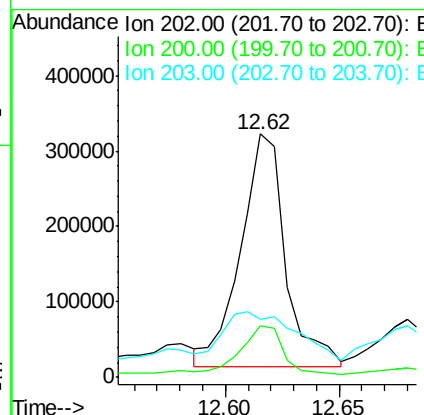
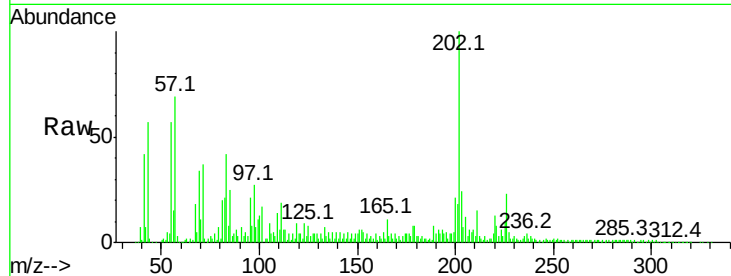
#77  
Pvrene  
Concen: 27.685 ng/mL  
RT: 12.62 min Scan# 1807  
Delta R.T. 0.08 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

Instrument :  
BNA\_F  
ClientSampleId :  
PENNSYLVANIA-ANALYTICAL

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 202     | 100   |            |       |
| 200     | 21.0  | 17.6       | 26.4  |
| 203     | 23.8  | 14.4       | 21.6  |

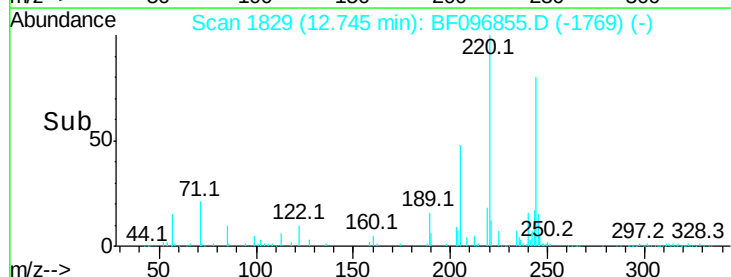
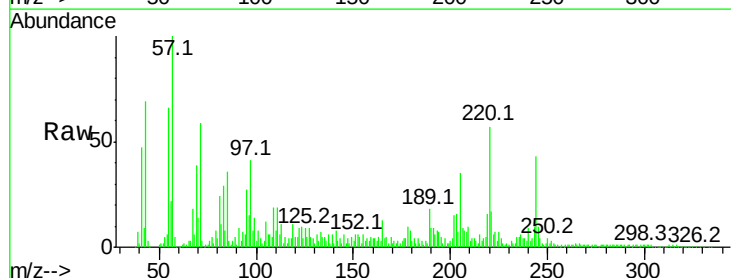
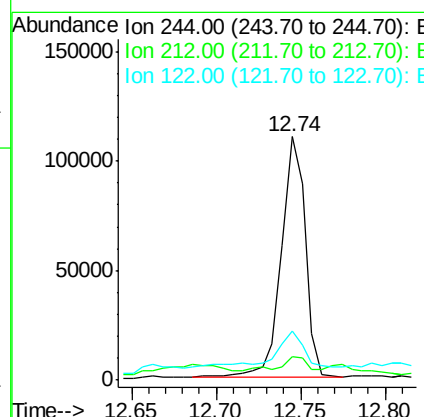
Manual Integrations  
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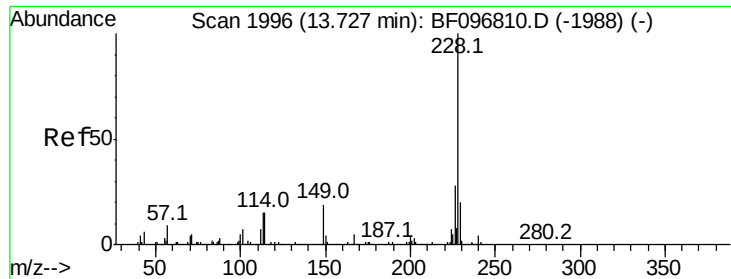
mohammad  
7/19/2017 2:31:39 PM



#78  
Terphenyl-d14  
Concen: 11.128 ng/mL  
RT: 12.74 min Scan# 1829  
Delta R.T. 0.05 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 244     | 100   |            |       |
| 212     | 9.6   | 6.0        | 9.0   |
| 122     | 20.0  | 10.3       | 15.5  |





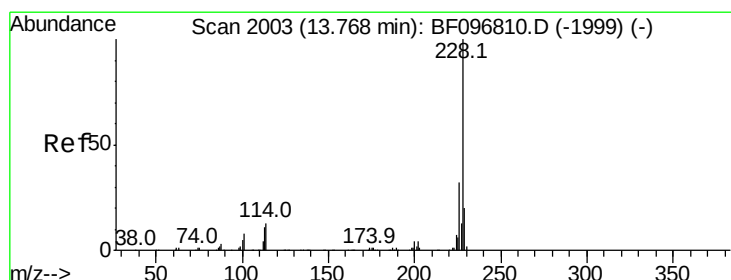
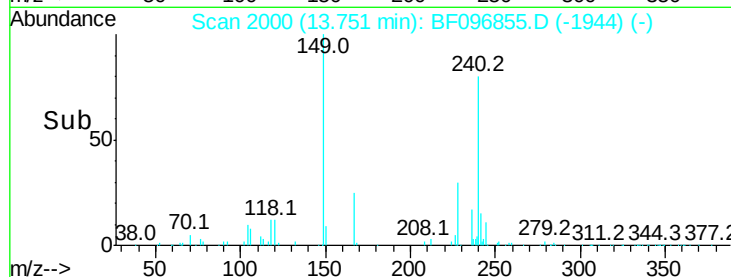
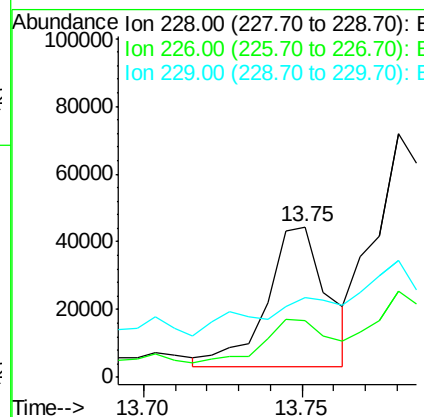
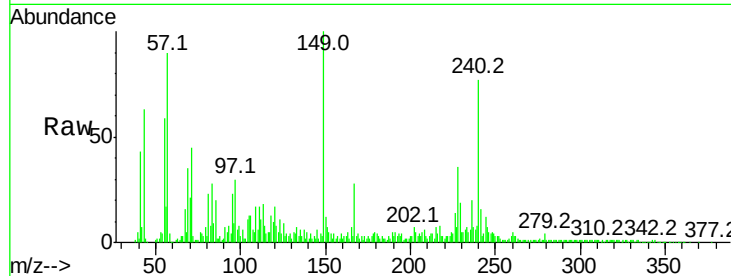
#80  
Benzo(a)anthracene  
Concen: 5.218 ng  
RT: 13.75 min Scan# 2000  
Delta R.T. 0.03 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

Instrument :  
BNA\_F  
ClientSampleId :  
PENNSYLVANIA-ANALYTICAL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 37.8  | 22.6  | 33.8# |
| 229     | 53.0  | 16.3  | 24.5# |

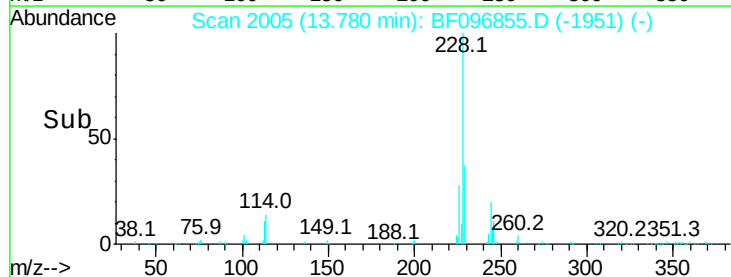
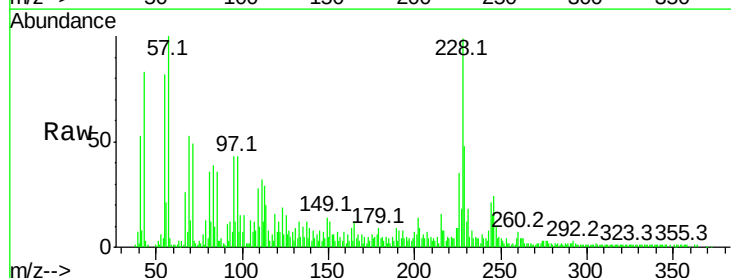
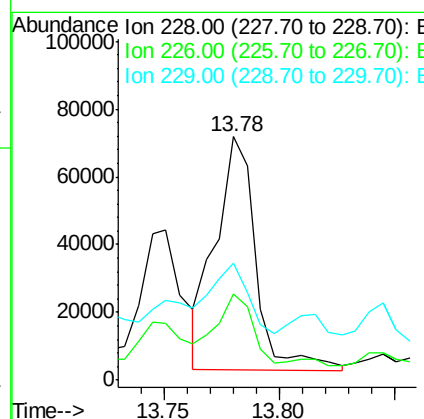
Manual Integrations  
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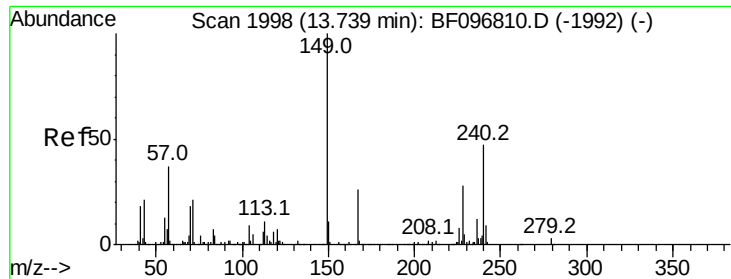
mohammad  
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#82  
Chrysene  
Concen: 8.103 ng  
RT: 13.78 min Scan# 2005  
Delta R.T. 0.02 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 35.2  | 24.9  | 37.3  |
| 229     | 48.2  | 15.8  | 23.6# |





#83

Bis(2-ethylhexyl)phthalate

Concen: 25.304 ng

RT: 13.74 min Scan# 1999

Delta R.T. 0.01 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

Instrument :

BNA\_F

ClientSampleId :

PENNSYLVANIA-ANALYTICAL

Tot Ion:149 Resp: 224616

Ion Ratio Lower Upper

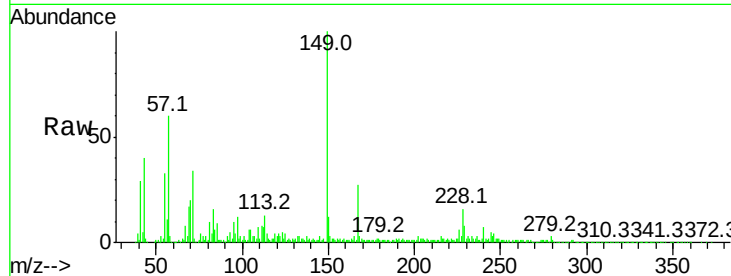
149 100

167 27.3 21.0 31.4

279 3.1 1.9 2.9

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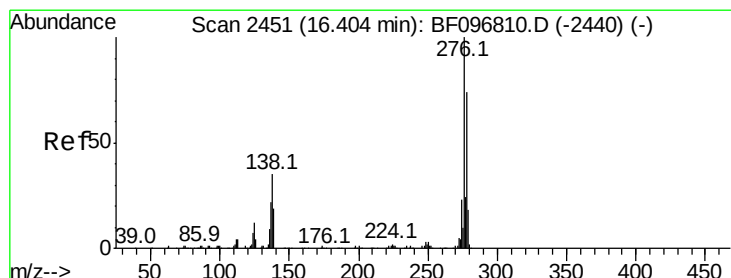
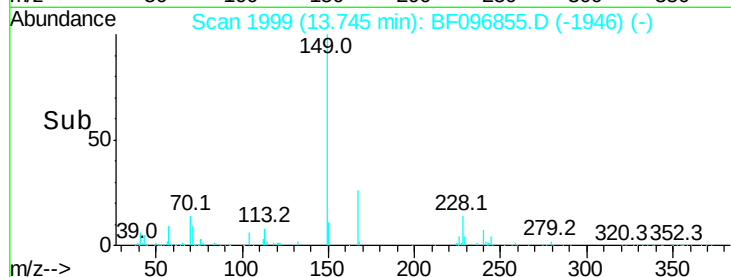
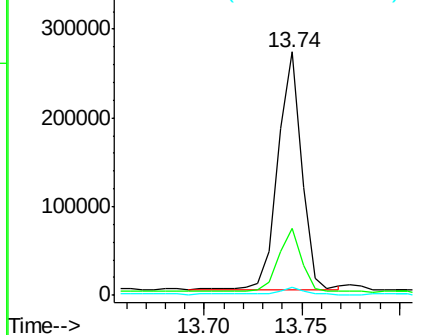
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Abundance Ion 149.00 (148.70 to 149.70): E

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: 4.887 ng

RT: 16.39 min Scan# 2449

Delta R.T. 0.00 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

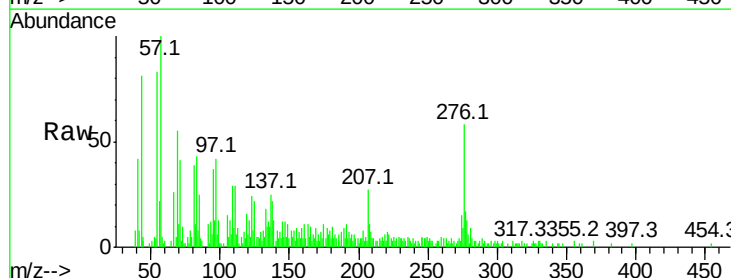
Tgt Ion:276 Resp: 15548

Ion Ratio Lower Upper

276 100

138 37.6 27.8 41.6

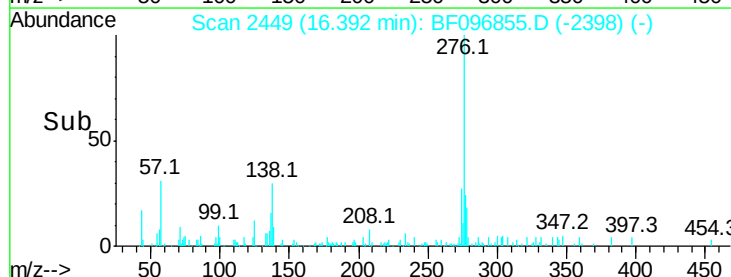
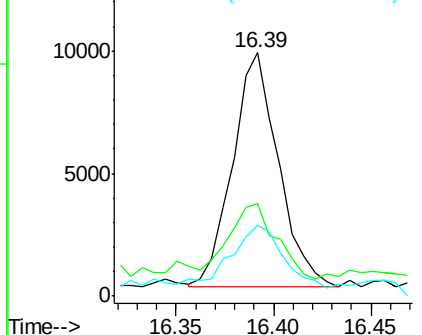
277 29.9 20.2 30.4

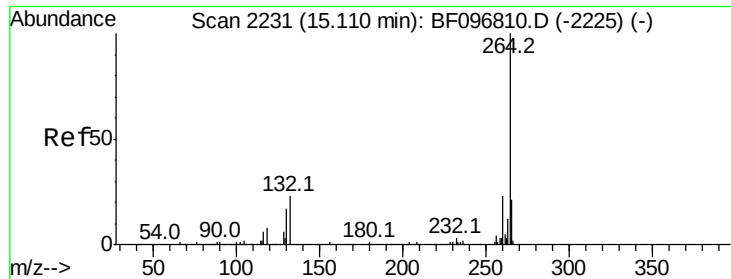


Abundance Ion 276.00 (275.70 to 276.70): E

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: 15.11 min Scan# 2231

Delta R.T. 0.01 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

Instrument :

BNA\_F

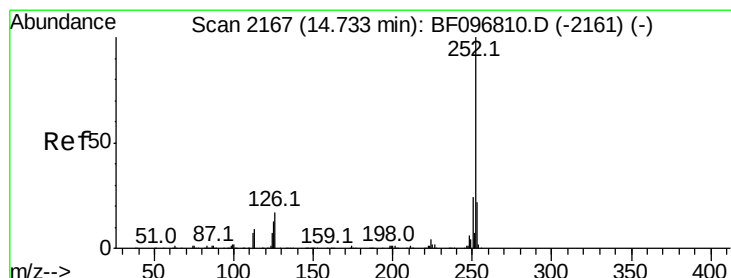
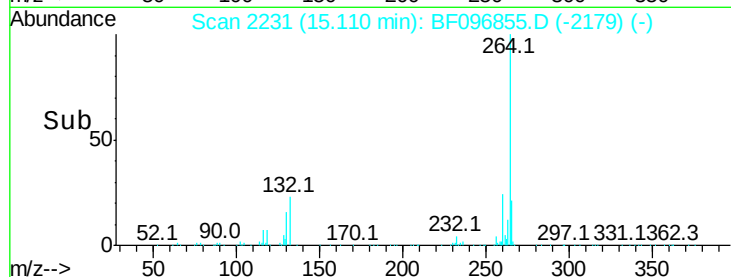
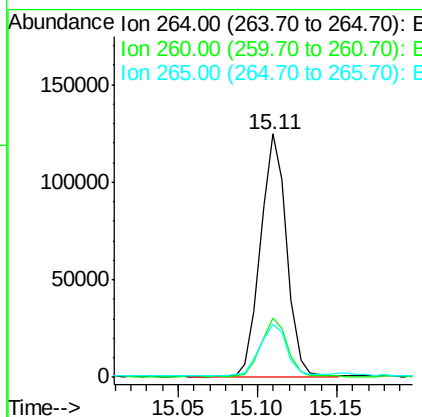
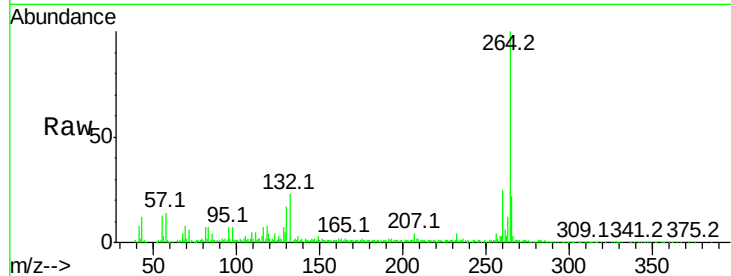
ClientSampleId :

PENNSYLVANIA-ANALYTICAL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 264   | Resp: | 143509 |
| Ion Ratio | Lower | Upper |        |
| 264       | 100   |       |        |
| 260       | 24.6  | 19.5  | 29.3   |
| 265       | 21.9  | 17.2  | 25.8   |

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#87

Benzo(b)fluoranthene

Concen: 5.974 ng m

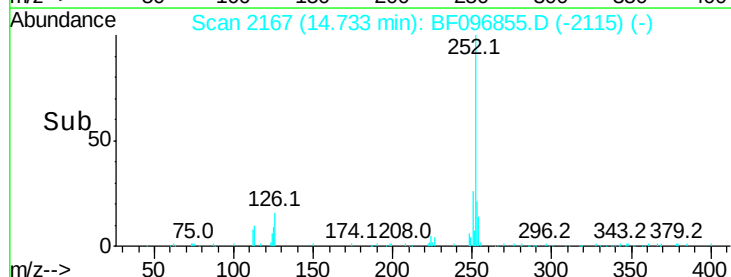
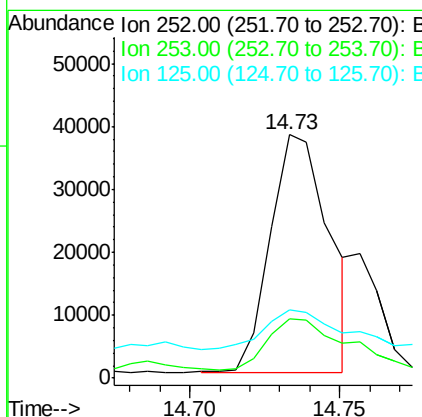
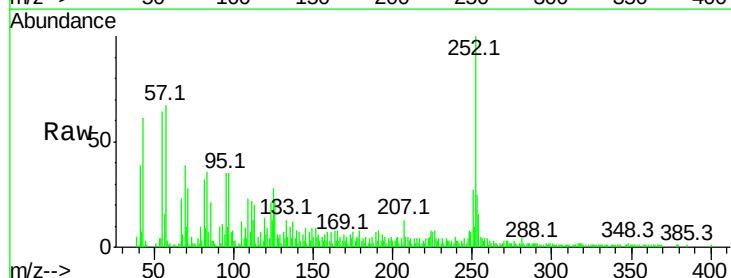
RT: 14.73 min Scan# 2167

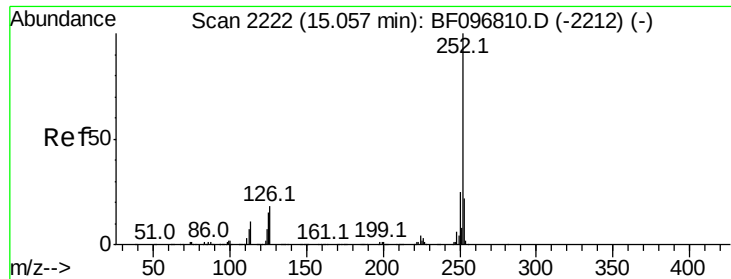
Delta R.T. 0.01 min

Lab File: BF096855.D

Acq: 18 Jul 2017 19:09

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 51707 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 24.5  | 18.1  | 27.1  |
| 125       | 28.0  | 9.8   | 14.8# |





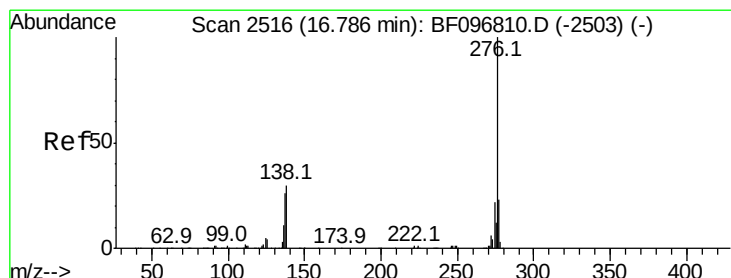
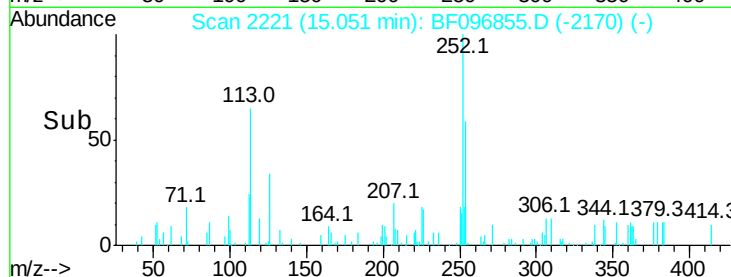
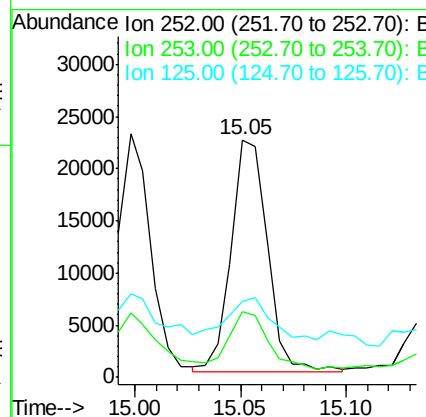
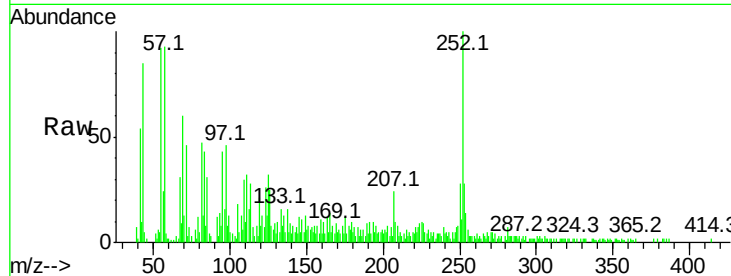
#89  
Benzo(a)pyrene  
Concen: 3.349 ng  
RT: 15.05 min Scan# 2221  
Delta R.T. 0.00 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

Instrument :  
BNA\_F  
ClientSampleId :  
PENNSYLVANIA-ANALYTICAL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 27.5  | 17.5  | 26.3# |
| 125     | 32.0  | 11.0  | 16.4# |

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#91  
Benzo(g,h,i)perylene  
Concen: 2.114 ng  
RT: 16.78 min Scan# 2515  
Delta R.T. 0.00 min  
Lab File: BF096855.D  
Acq: 18 Jul 2017 19:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 32.8  | 18.6  | 28.0# |
| 138     | 36.2  | 25.4  | 38.0  |

