

Data Path : Z:\HPCHEM1\BNA M\DATA\BM120415\  
 Data File : BM003374.D  
 Acq On : 03 Dec 2015 17:15  
 Operator : UM/IZ  
 Sample : G4667-01  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 4

Instrument :  
 BNA\_M  
 ClientSampleId :  
 LIBERTYSF-002-SPLPSVOC1

Manual Integrations  
 APPROVED

Mmdadoda  
 12/4/2015 7:00:15 PM

Quant Time: Dec 04 17:40:33 2015  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\8270-SIM-BM120215.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Dec 02 16:19:00 2015  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min)  |
|--------------------------------|-------|------|----------|--------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4      | 7.72  | 152  | 319369   | 20.00  | ng    | 0.00      |
| 7) Naphthalene-d8              | 10.51 | 136  | 1327308  | 20.00  | ng    | 0.00      |
| 13) Acenaphthene-d10           | 14.37 | 164  | 728082   | 20.00  | ng    | 0.00      |
| 19) Phenanthrene-d10           | 17.11 | 188  | 1444766  | 20.00  | ng    | 0.00      |
| 26) Chrysene-d12               | 21.32 | 240  | 1020932  | 20.00  | ng    | -0.01     |
| 35) Perylene-d12               | 23.59 | 264  | 912657   | 20.00  | ng    | 0.00      |
| System Monitoring Compounds    |       |      |          |        |       |           |
| 4) 2-Fluorophenol              | 5.31  | 112  | 1140590  | 71.61  | ng    | 0.00      |
| 5) Phenol-d6                   | 6.88  | 99   | 915344   | 46.70  | ng    | 0.00      |
| 8) Nitrobenzene-d5             | 8.88  | 82   | 1916133  | 123.88 | ng    | 0.00      |
| 14) 2,4,6-Tribromophenol       | 15.88 | 330  | 773390   | 160.09 | ng    | 0.02      |
| 15) 2-Fluorobiphenyl           | 13.00 | 172  | 4646399  | 84.79  | ng    | 0.00      |
| 29) Terphenyl-d14              | 19.76 | 244  | 2478482  | 59.86  | ng    | 0.00      |
| Target Compounds               |       |      |          |        |       |           |
| 10) Naphthalene                | 10.56 | 128  | 360673   | 5.04   | ng    | Qvalue 99 |
| 12) 2-Methylnaphthalene        | 12.18 | 142  | 56558    | 1.15   | ng    | 97        |
| 16) Acenaphthylene             | 14.08 | 152  | 9376     | 0.13   | ng    | # 85      |
| 17) Acenaphthene               | 14.44 | 154  | 306128   | 6.37   | ng    | # 100     |
| 18) Fluorene                   | 15.43 | 166  | 361002   | 6.65   | ng    | # 11      |
| 22) Pentachlorophenol          | 16.78 | 266  | 1578m    | 1.58   | ng    |           |
| 23) Phenanthrene               | 17.16 | 178  | 1167766m | 16.77  | ng    |           |
| 24) Anthracene                 | 17.24 | 178  | 103850m  | 1.41   | ng    |           |
| 25) Fluoranthene               | 19.18 | 202  | 131502   | 1.82   | ng    | 99        |
| 28) Pyrene                     | 19.56 | 202  | 58605    | 0.63   | ng    | # 94      |
| 30) Benzo(a)anthracene         | 21.32 | 228  | 6222m    | 0.09   | ng    |           |
| 33) Bis(2-ethylhexyl)phthalate | 21.23 | 149  | 15686    | 1.33   | ng    | # 91      |

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

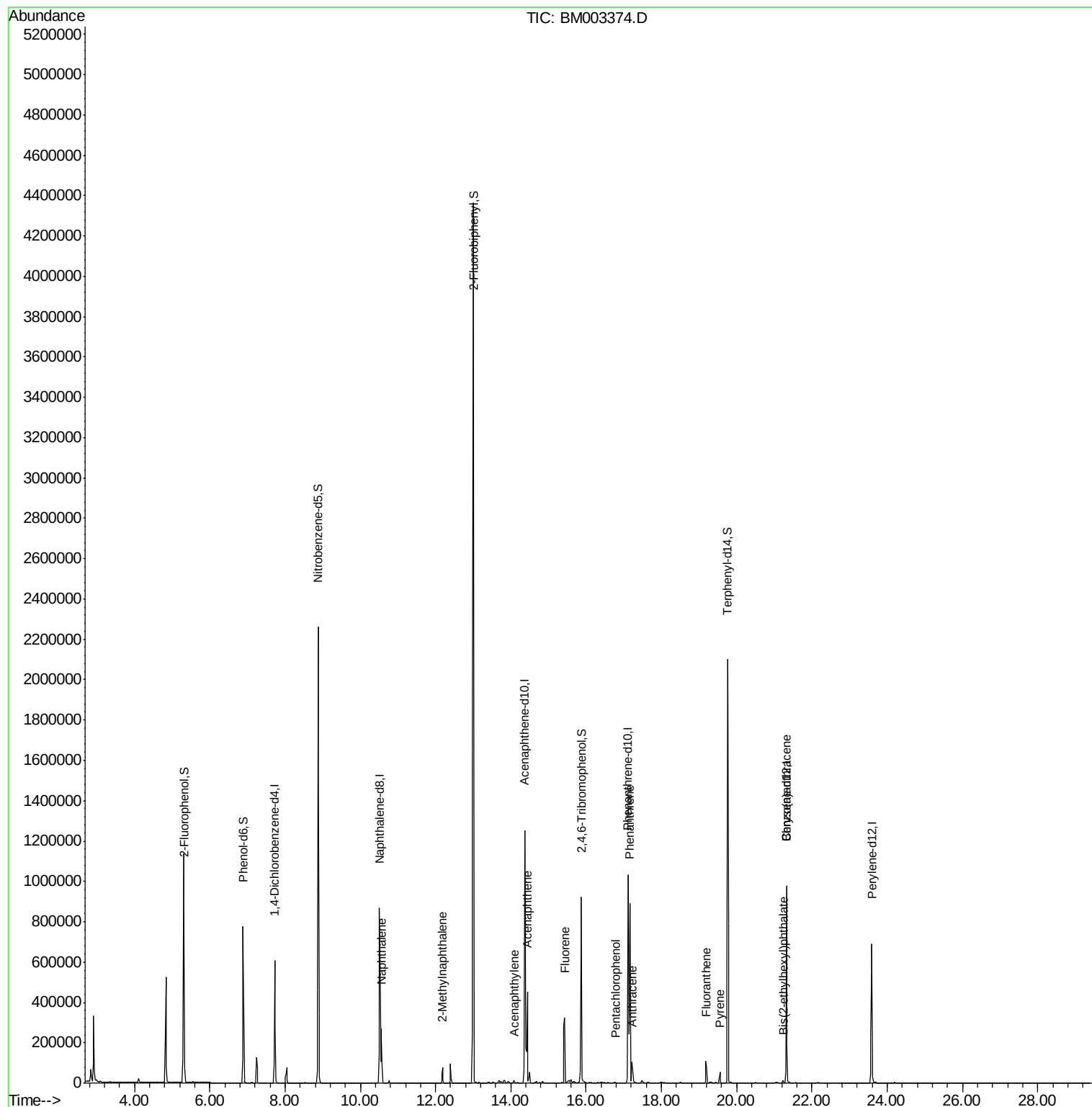
Data Path : Z:\HPCHEM1\BNA M\DATA\BM120415\  
Data File : BM003374.D  
Acq On : 03 Dec 2015 17:15  
Operator : UM/IZ  
Sample : G4667-01  
Misc :  
ALS Vial : 3 Sample Multiplier: 4

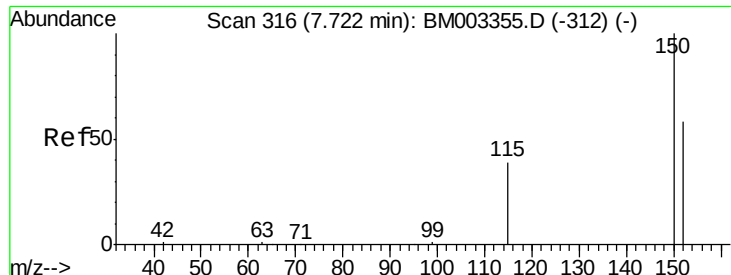
Instrument :  
BNA\_M  
ClientSampleId :  
LIBERTYSF-002-SPLPSVOC1

Manual Integrations  
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12/4/2015 7:00:15 PM

Quant Time: Dec 04 17:40:33 2015  
Quant Method : Z:\HPCHEM1\BNA M\METHODS\8270-SIM-BM120215.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Dec 02 16:19:00 2015  
Response via : Initial Calibration





#1

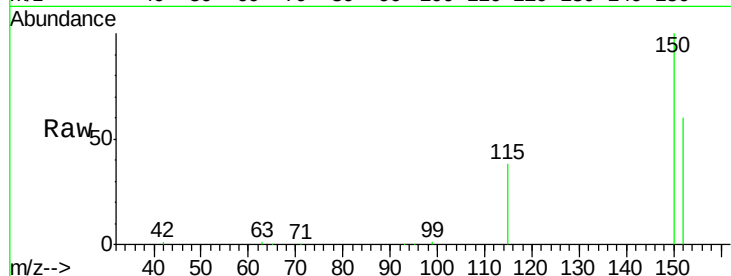
1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 7.72 min Scan# 316  
Delta R.T. 0.00 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

Instrument :  
BNA\_M  
ClientSampleId :  
LIBERTYSF-002-SPLPSVOC1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 167.0 | 143.6 | 215.4 |
| 115     | 63.5  | 58.5  | 87.7  |

Manual Integrations  
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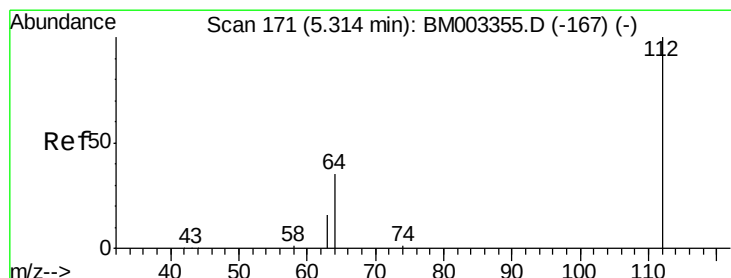
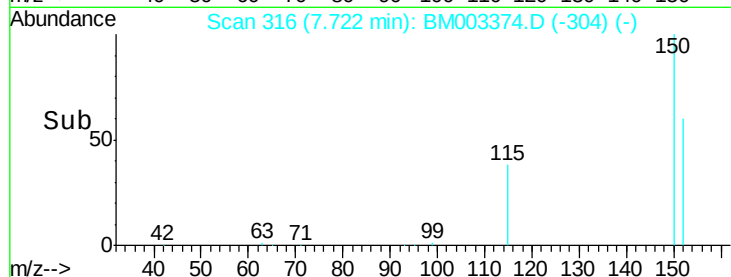
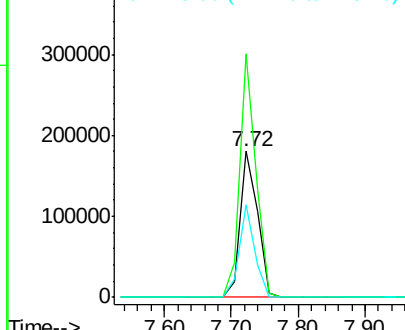


Abundance

Ion 152.00 (151.70 to 152.70): E

Ion 150.00 (149.70 to 150.70): E

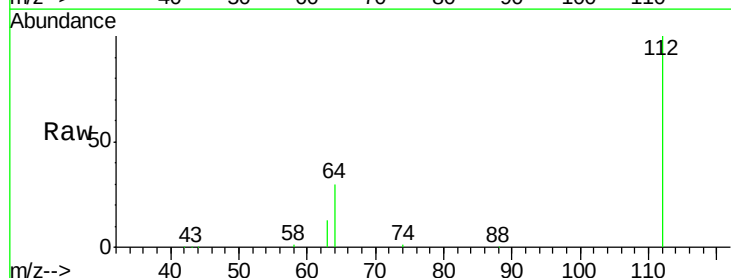
Ion 115.00 (114.70 to 115.70): E



#4

2-Fluorophenol  
Concen: 71.61 ng  
RT: 5.31 min Scan# 171  
Delta R.T. 0.00 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 50.6  | 41.2  | 61.8  |
| 63      | 26.2  | 21.2  | 31.8  |

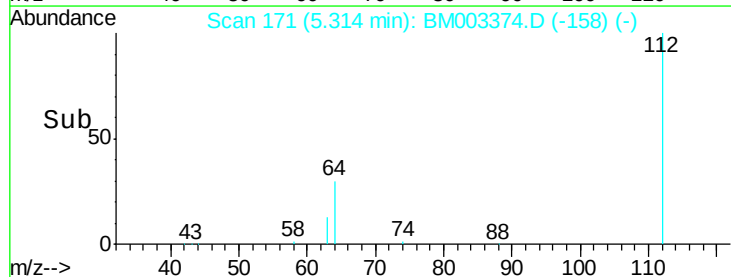
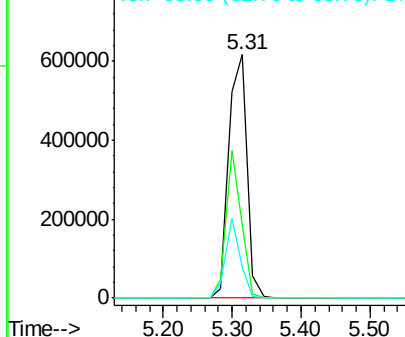


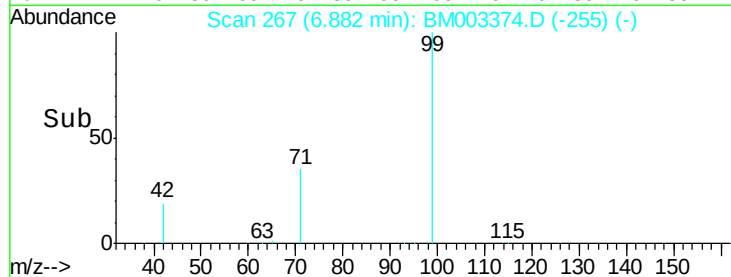
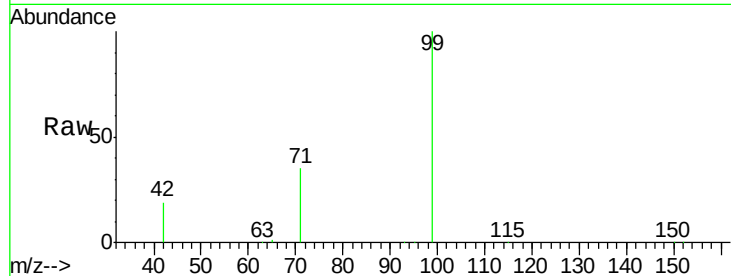
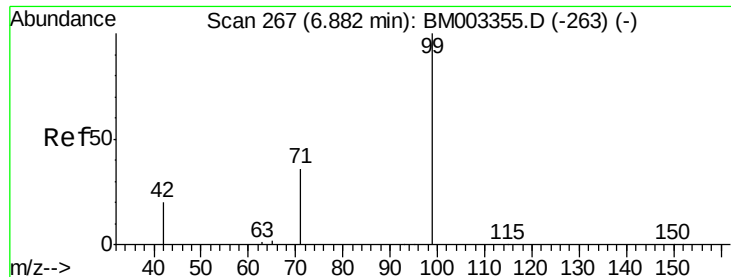
Abundance

Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BM0

Ion 63.00 (62.70 to 63.70): BM0





#5

Phenol-d6

Concen: 46.70 ng

RT: 6.88 min Scan# 267

Delta R.T. 0.00 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 99    | Resp: | 915344 |
| Ion      | Ratio | Lower | Upper  |
| 99       | 100   |       |        |
| 42       | 17.4  | 14.6  | 22.0   |
| 71       | 29.1  | 23.3  | 34.9   |

Instrument :

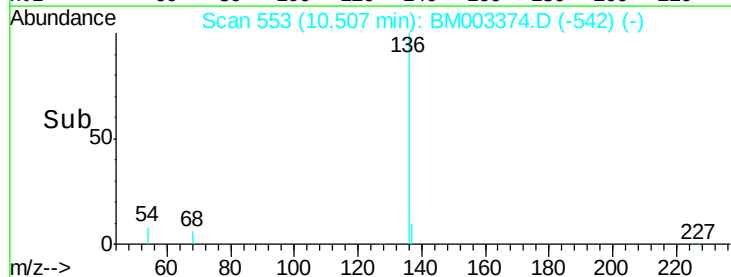
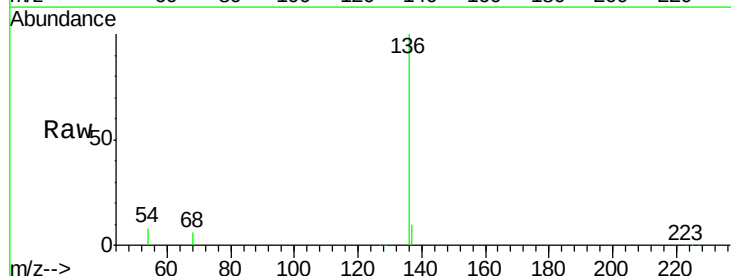
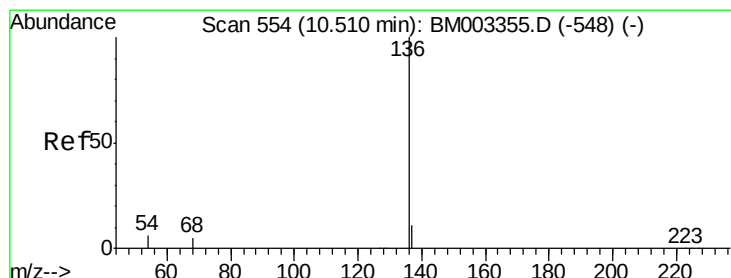
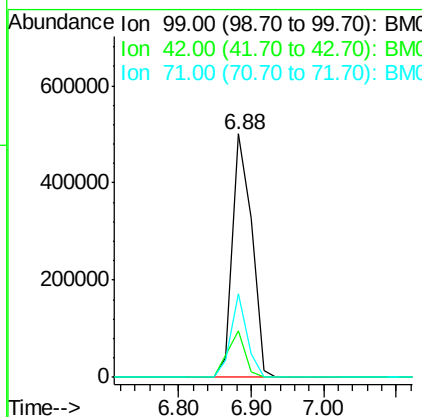
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ClientSampleId :

LIBERTYSF-002-SPLPSVOC1

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#7

Naphthalene-d8

Concen: 20.00 ng

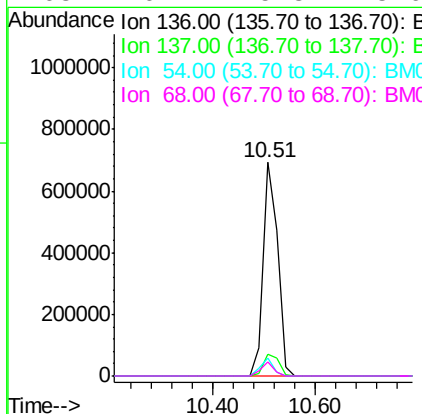
RT: 10.51 min Scan# 553

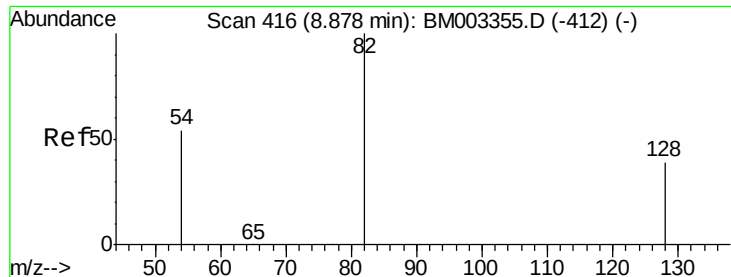
Delta R.T. -0.00 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 136   | Resp: | 1327308 |
| Ion      | Ratio | Lower | Upper   |
| 136      | 100   |       |         |
| 137      | 10.4  | 8.0   | 12.0    |
| 54       | 8.3   | 7.4   | 11.0    |
| 68       | 6.4   | 5.8   | 8.6     |





#8

Nitrobenzene-d5

Concen: 123.88 ng

RT: 8.88 min Scan# 416

Delta R.T. 0.01 min

Lab File: BM003374.D

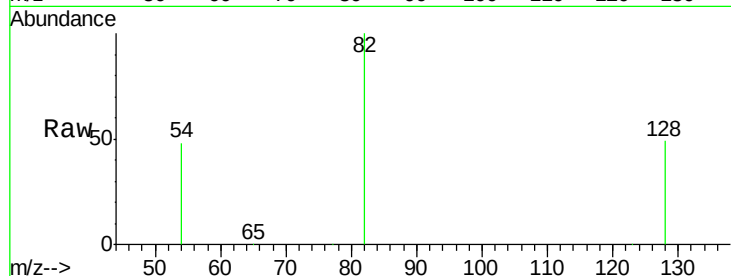
Acq: 03 Dec 2015 17:15

Instrument :

BNA\_M

ClientSampleId :

LIBERTYSF-002-SPLPSVOC1



Tot Ion: 82 Resp: 1916133

Ion Ratio Lower Upper

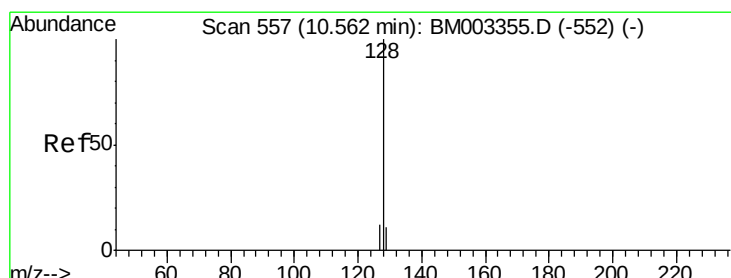
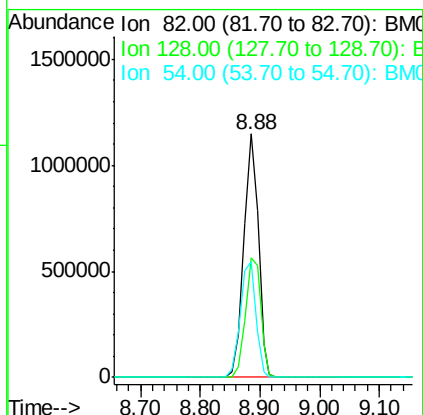
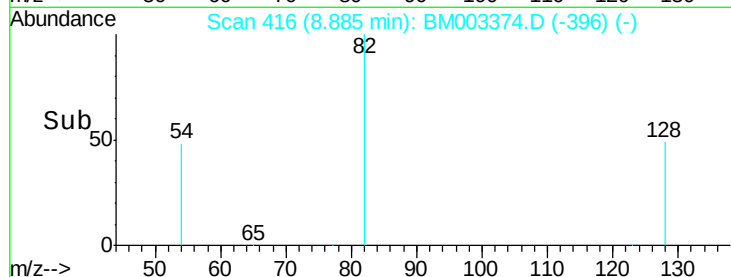
82 100

128 49.1 35.2 52.8

54 47.5 36.4 54.6

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12/4/2015 7:00:15 PM



#10

Naphthalene

Concen: 5.04 ng

RT: 10.56 min Scan# 556

Delta R.T. -0.00 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

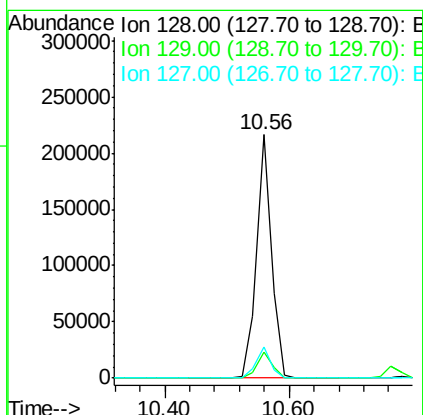
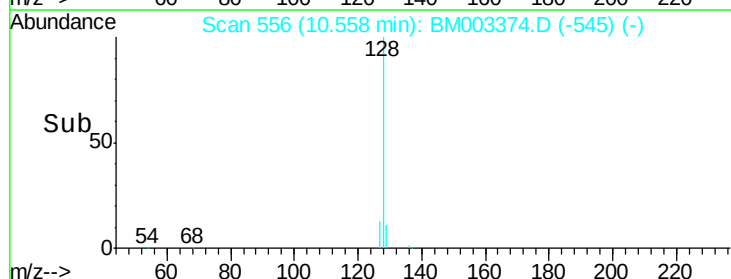
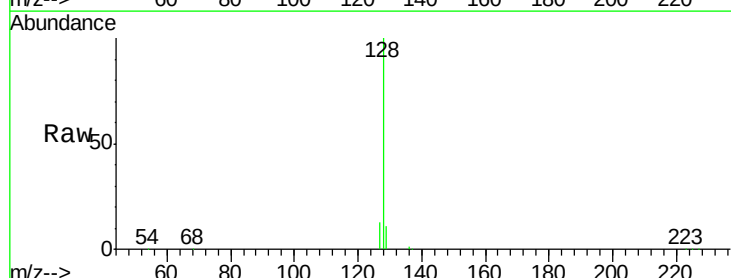
Tgt Ion: 128 Resp: 360673

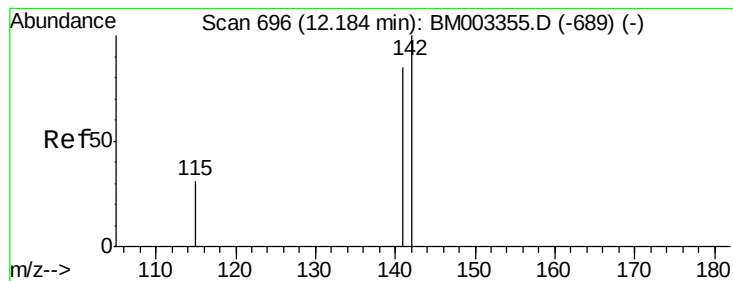
Ion Ratio Lower Upper

128 100

129 10.8 8.5 12.7

127 12.8 10.6 16.0





#12

2-Methylnaphthalene

Concen: 1.15 ng

RT: 12.18 min Scan# 695

Delta R.T. -0.00 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

Instrument :

BNA\_M

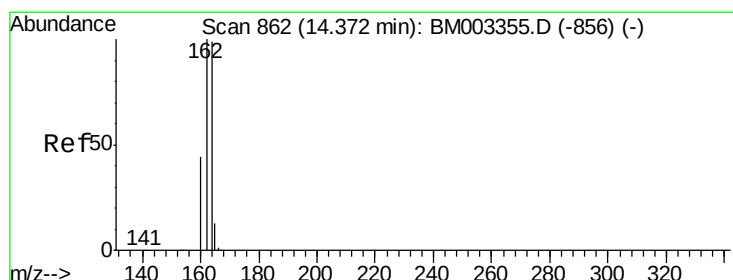
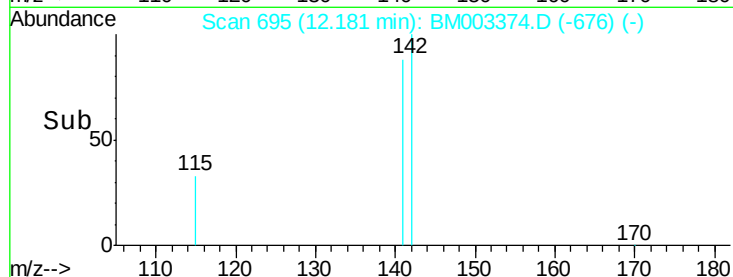
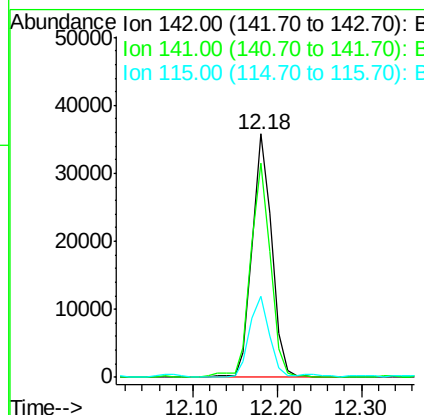
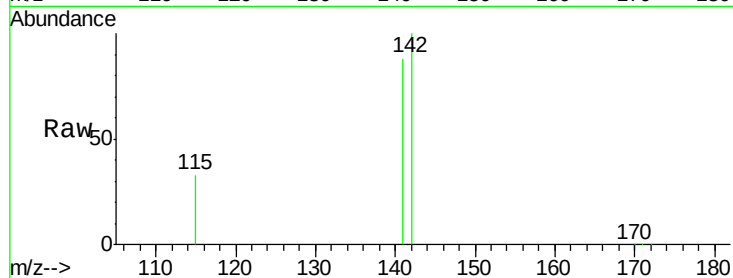
ClientSampleId :

LIBERTYSF-002-SPLPSVOC1

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 142   | Resp: | 56558 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 87.9  | 72.2  | 108.2 |
| 115       | 33.1  | 28.0  | 42.0  |

Manual Integrations  
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#13

Acenaphthene-d10

Concen: 20.00 ng

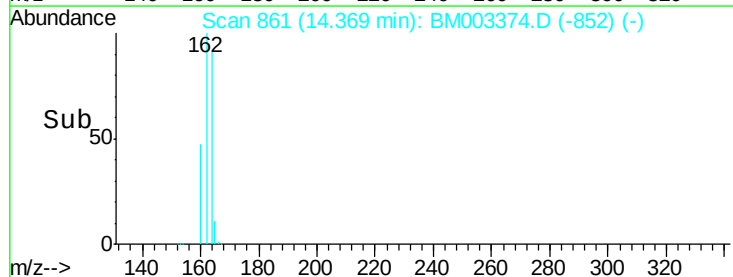
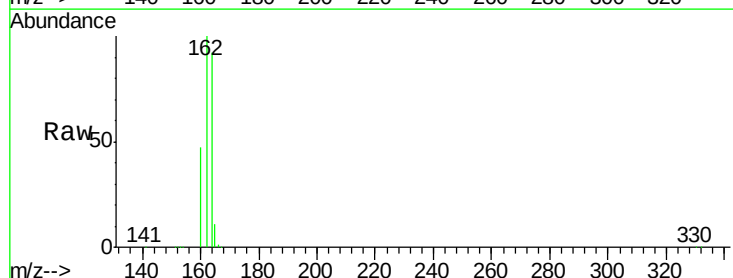
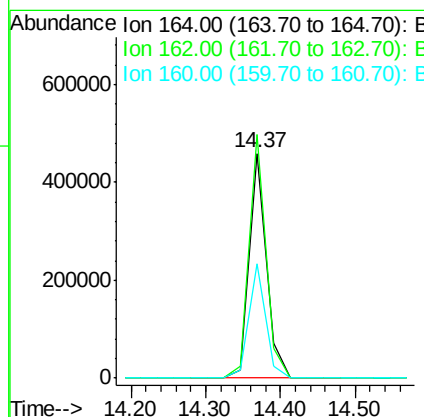
RT: 14.37 min Scan# 861

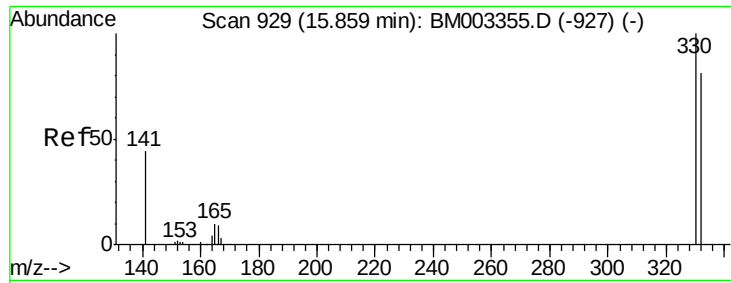
Delta R.T. -0.00 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 164   | Resp: | 728082 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 108.2 | 78.3  | 117.5  |
| 160       | 50.7  | 33.8  | 50.6#  |





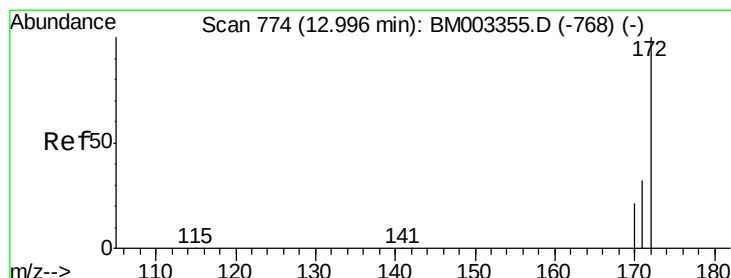
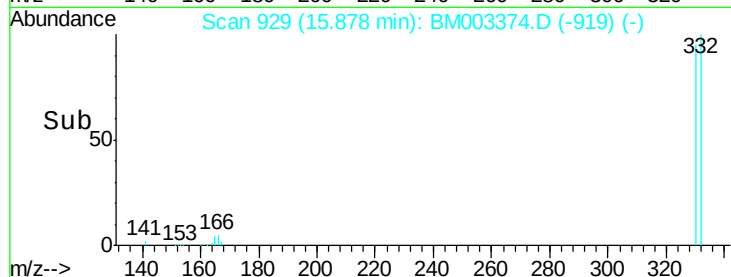
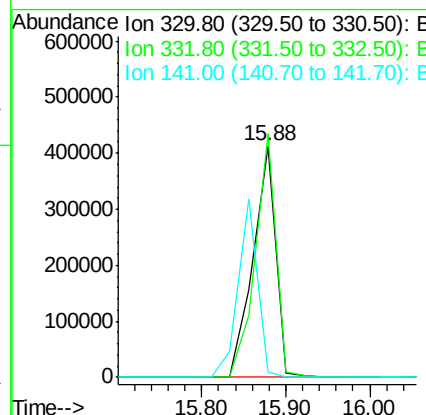
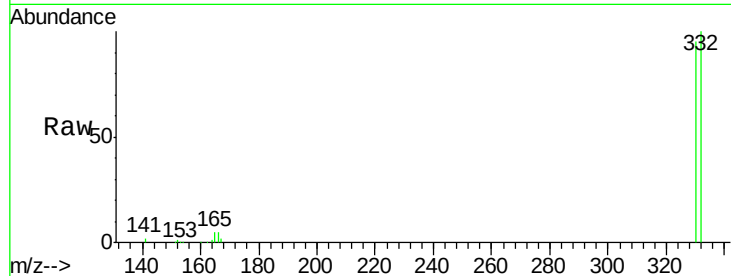
#14  
2,4,6-Tribromophenol  
Concen: 160.09 ng  
RT: 15.88 min Scan# 929  
Delta R.T. 0.02 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

Instrument :  
BNA\_M  
ClientSampleId :  
LIBERTYSF-002-SPLPSVOC1

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 330     | 100   |      |       |       |
| 332     | 96.4  | 76.0 | 114.0 |       |
| 141     | 0.0   | 0.0  | 0.0   |       |

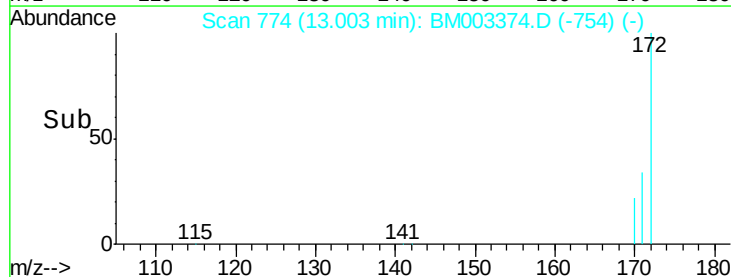
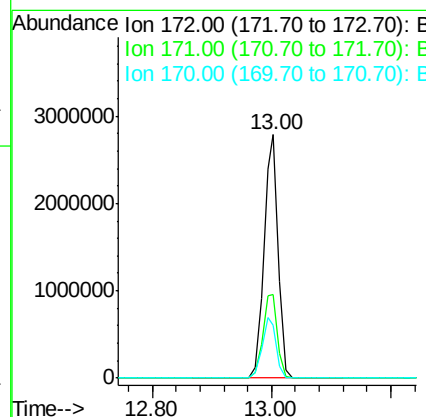
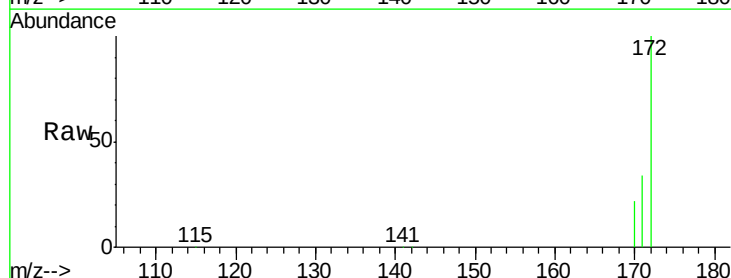
Manual Integrations  
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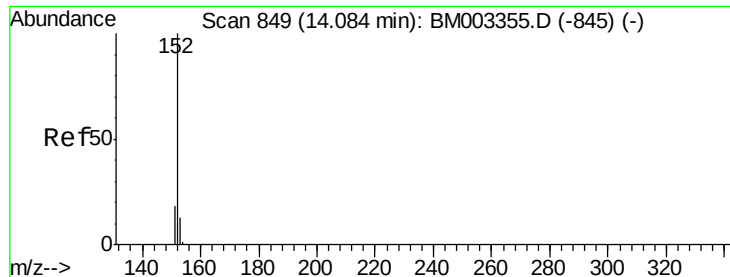
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12/4/2015 7:00:15 PM



#15  
2-Fluorobiphenyl  
Concen: 84.79 ng  
RT: 13.00 min Scan# 774  
Delta R.T. 0.01 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 172     | 100   |      |       |       |
| 171     | 34.2  | 28.0 | 42.0  |       |
| 170     | 21.8  | 18.9 | 28.3  |       |





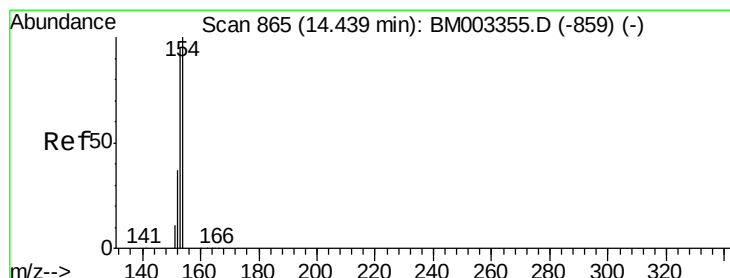
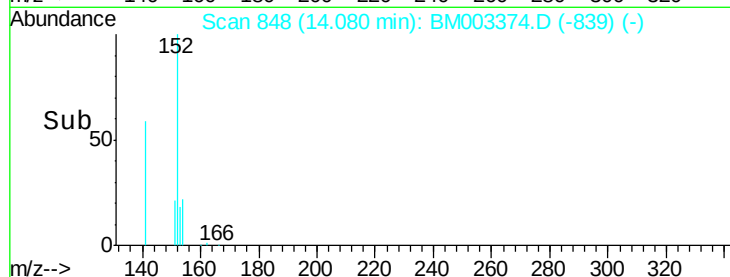
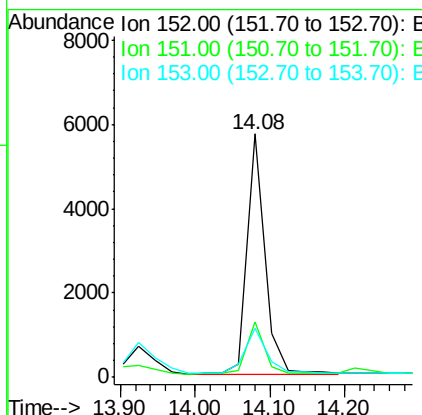
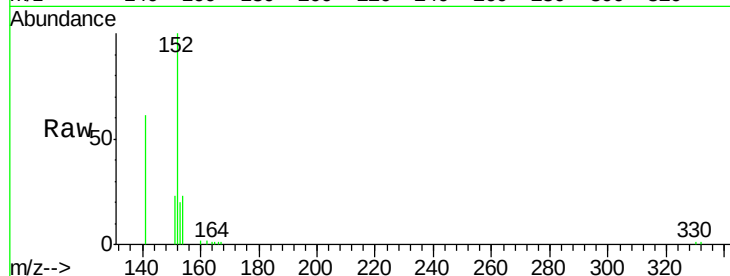
#16  
Acenaphthylene  
Concen: 0.13 ng  
RT: 14.08 min Scan# 848  
Delta R.T. -0.00 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

Instrument :  
BNA\_M  
ClientSampleId :  
LIBERTYSF-002-SPLPSVOC1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 22.2  | 15.2  | 22.8  |
| 153     | 23.4  | 10.4  | 15.6  |

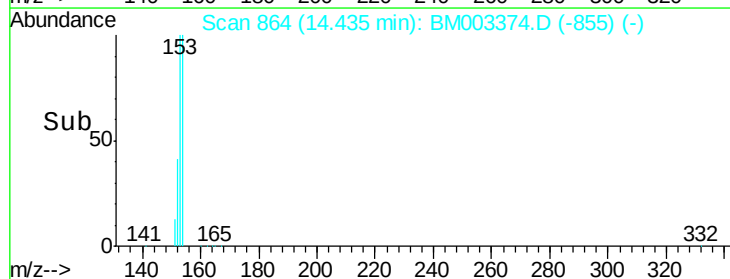
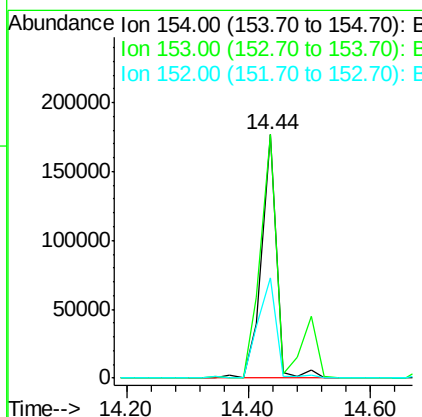
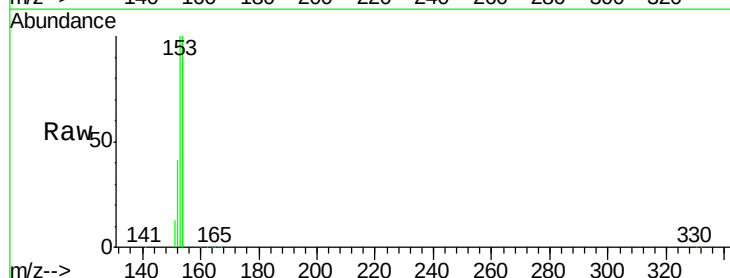
Manual Integrations  
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12/4/2015 7:00:15 PM

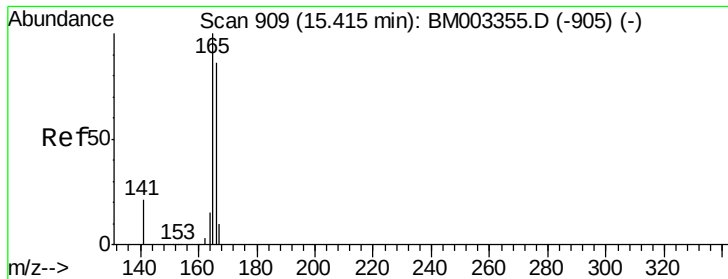


#17  
Acenaphthene  
Concen: 6.37 ng  
RT: 14.44 min Scan# 864  
Delta R.T. -0.00 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 110.8 | 0.0   | 0.0   |
| 152     | 50.9  | 0.0   | 0.0   |







#18

Fluorene

Concen: 6.65 ng

RT: 15.43 min Scan# 909

Delta R.T. 0.02 min

Lab File: BM003374.D

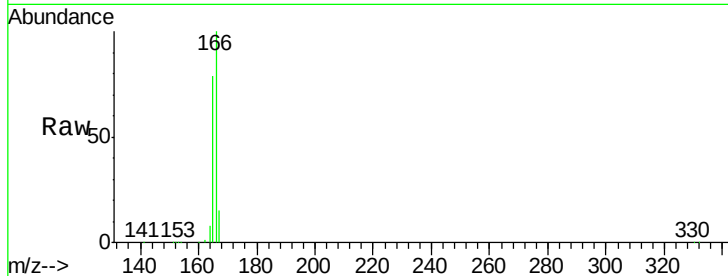
Acq: 03 Dec 2015 17:15

Instrument :

BNA\_M

ClientSampleId :

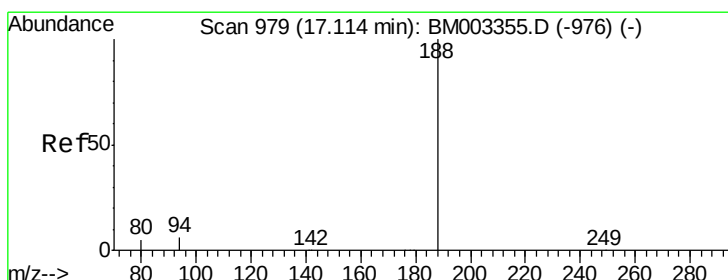
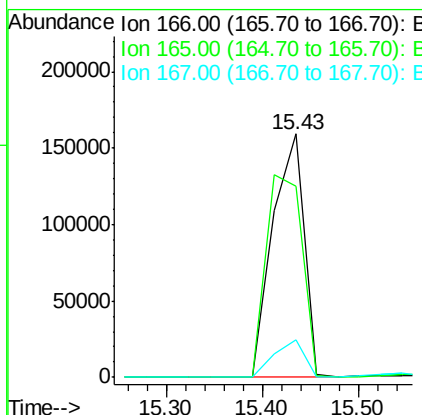
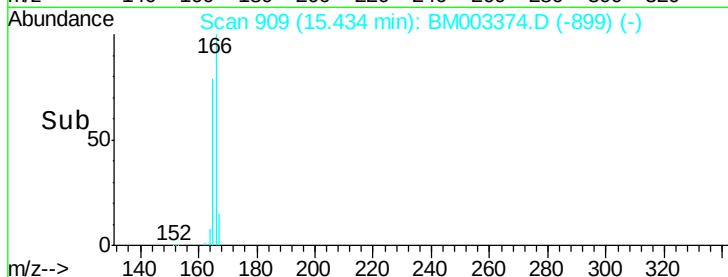
LIBERTYSF-002-SPLPSVOC1



| Tot Ion   | 166   | Resp  | 361002 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 166       | 100   |       |        |
| 165       | 0.0   | 80.8  | 121.2# |
| 167       | 15.2  | 10.5  | 15.7   |

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#19

Phenanthrene-d10

Concen: 20.00 ng

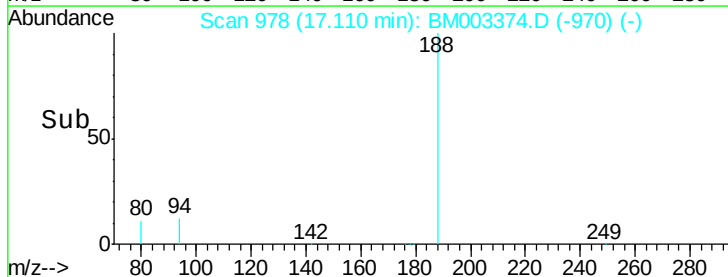
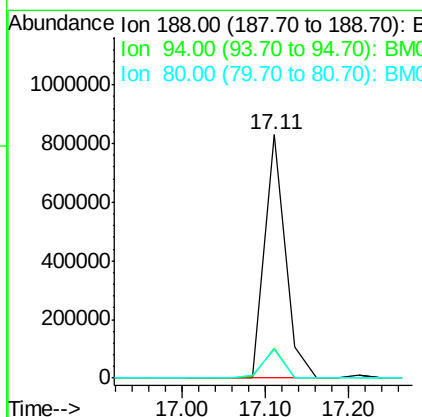
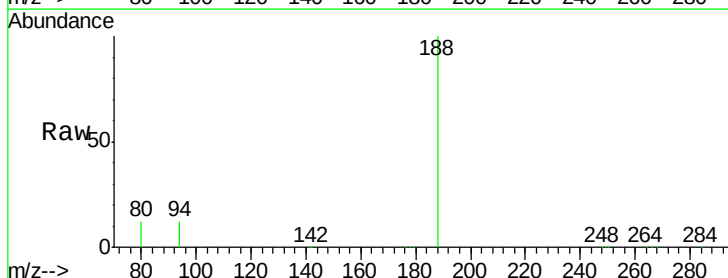
RT: 17.11 min Scan# 978

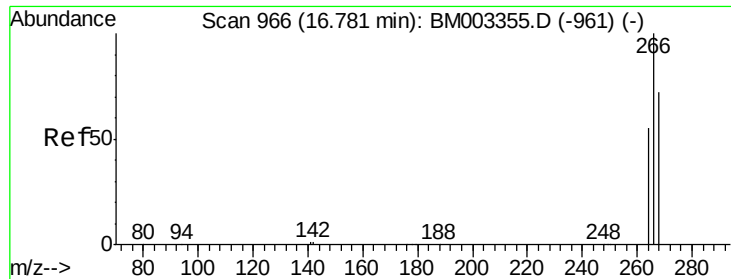
Delta R.T. -0.00 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

| Tgt Ion   | 188   | Resp  | 1444766 |
|-----------|-------|-------|---------|
| Ion Ratio | Lower | Upper |         |
| 188       | 100   |       |         |
| 94        | 12.1  | 1.8   | 2.6#    |
| 80        | 11.5  | 1.4   | 2.0#    |





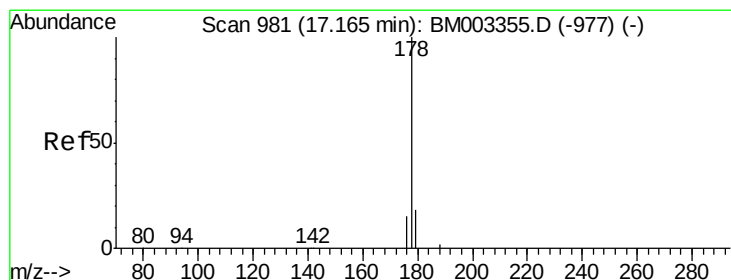
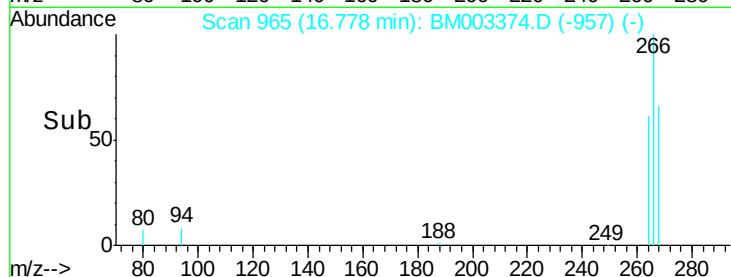
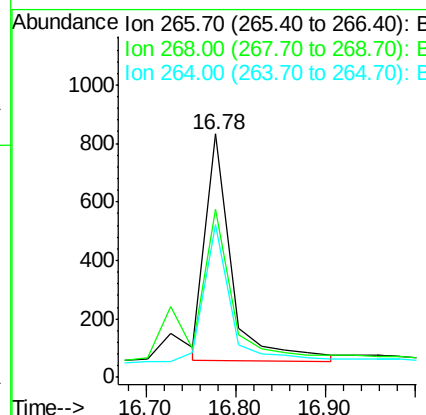
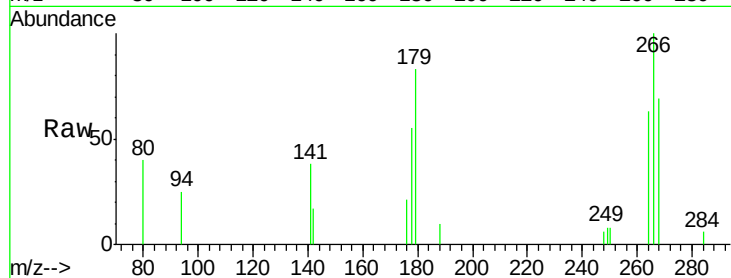
#22  
 Pentachlorophenol  
 Concen: 1.58 ng m  
 RT: 16.78 min Scan# 965  
 Delta R.T. -0.00 min  
 Lab File: BM003374.D  
 Acq: 03 Dec 2015 17:15

Instrument :  
 BNA\_M  
 ClientSampleId :  
 LIBERTYSF-002-SPLPSVOC1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 268     | 68.9  | 45.8  | 68.8# |
| 264     | 62.8  | 56.7  | 85.1  |

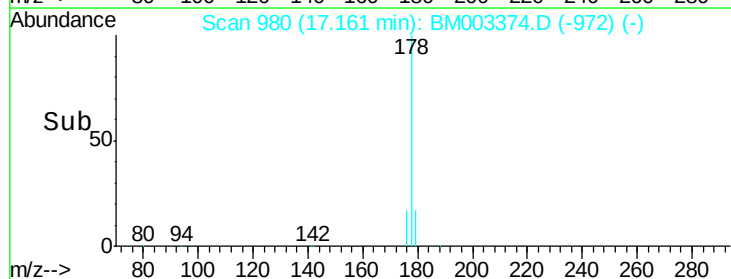
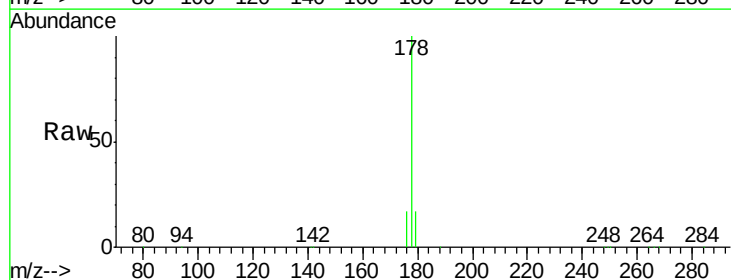
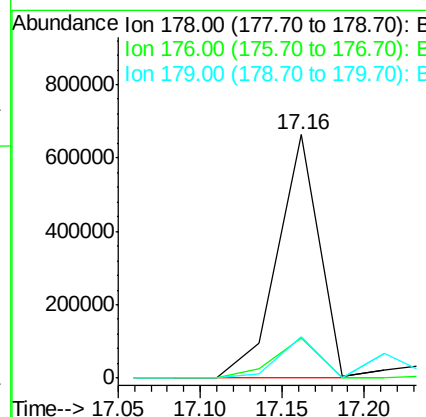
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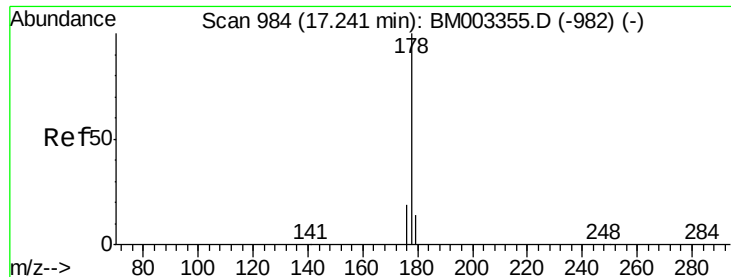
Mmdadoda  
 12/4/2015 7:00:15 PM



#23  
 Phenanthrene  
 Concen: 16.77 ng m  
 RT: 17.16 min Scan# 980  
 Delta R.T. -0.00 min  
 Lab File: BM003374.D  
 Acq: 03 Dec 2015 17:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 18.1  | 15.9  | 23.9  |
| 179     | 27.1  | 11.7  | 17.5# |





#24

Anthracene

Concen: 1.41 ng/mL

RT: 17.24 min Scan# 983

Delta R.T. -0.00 min

Lab File: BM003374.D

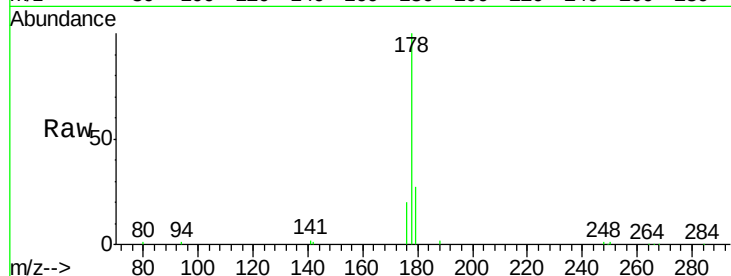
Acq: 03 Dec 2015 17:15

Instrument :

BNA\_M

ClientSampleId :

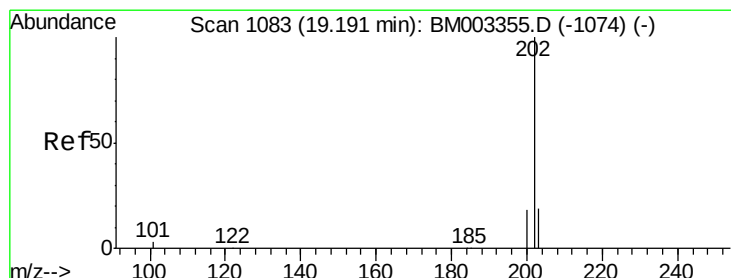
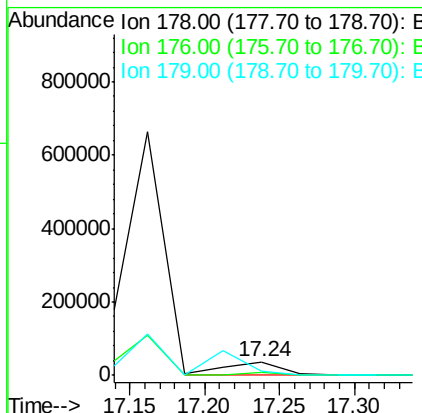
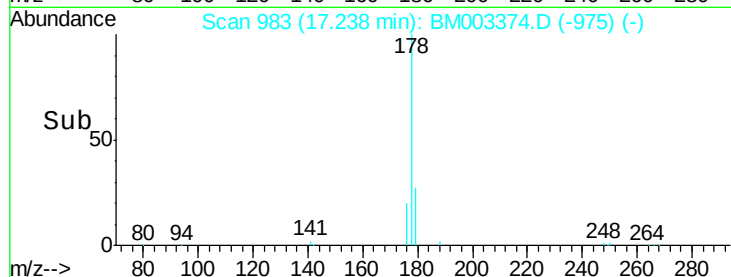
LIBERTYSF-002-SPLPSVOC1



|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 178   | Resp: | 103850 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 176       | 204.0 | 14.1  | 21.1#  |
| 179       | 308.7 | 12.8  | 19.2#  |

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12/4/2015 7:00:15 PM



#25

Fluoranthene

Concen: 1.82 ng/mL

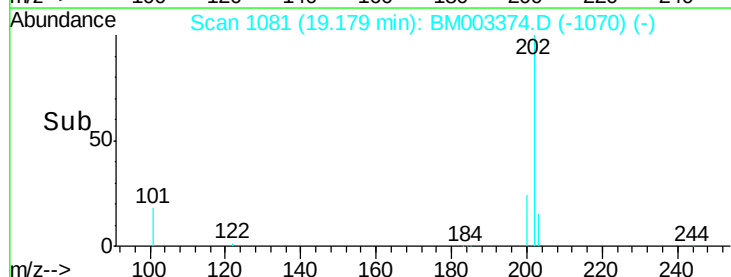
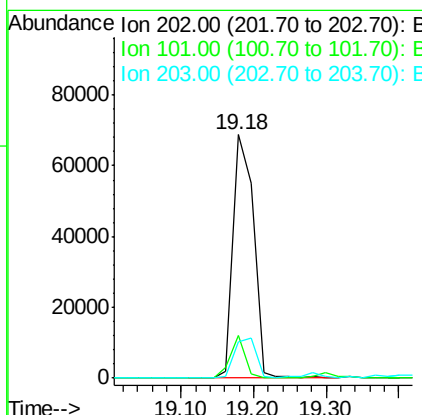
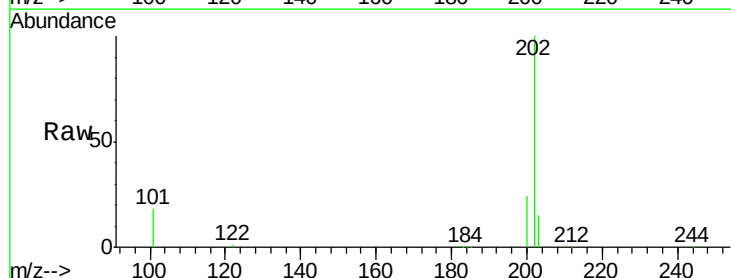
RT: 19.18 min Scan# 1081

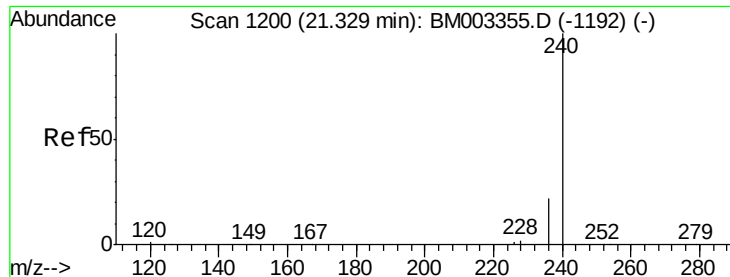
Delta R.T. -0.01 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 131502 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 12.6  | 9.9   | 14.9   |
| 203       | 17.2  | 13.9  | 20.9   |





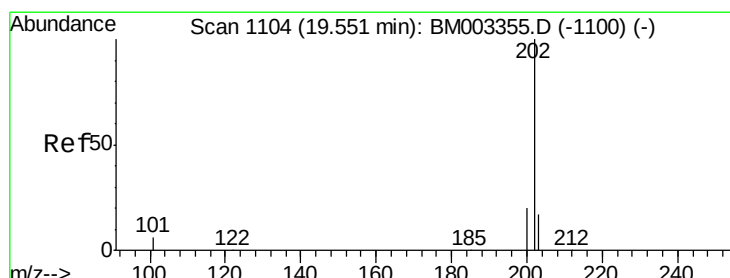
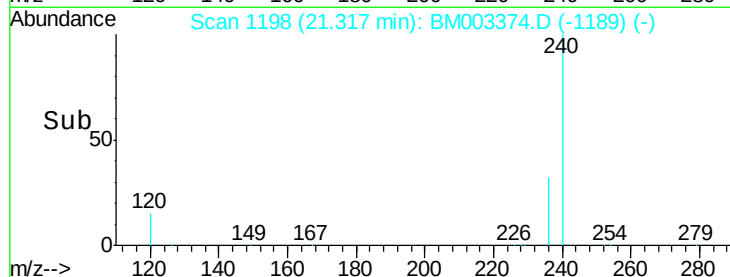
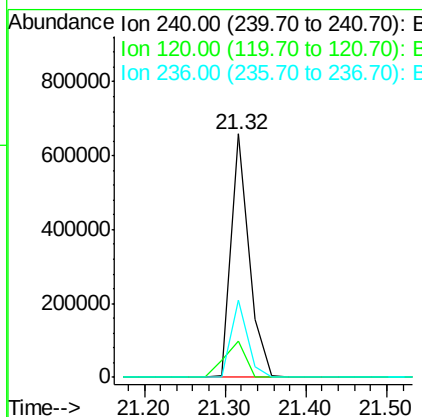
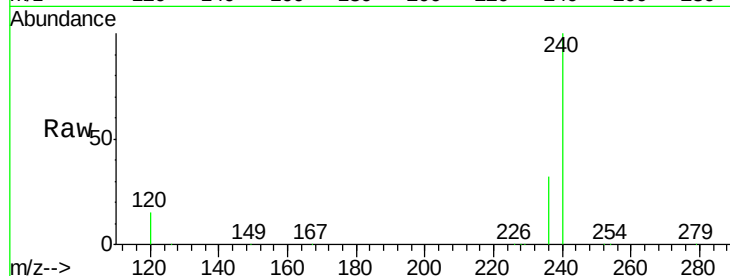
#26  
 Chrysene-d12  
 Concen: 20.00 ng  
 RT: 21.32 min Scan# 1198  
 Delta R.T. -0.01 min  
 Lab File: BM003374.D  
 Acq: 03 Dec 2015 17:15

Instrument :  
 BNA\_M  
 ClientSampleId :  
 LIBERTYSF-002-SPLPSVOC1

Tot Ion:240 Resp: 1020932  
 Ion Ratio Lower Upper  
 240 100  
 120 14.9 1.0 1.4#  
 236 32.0 17.9 26.9#

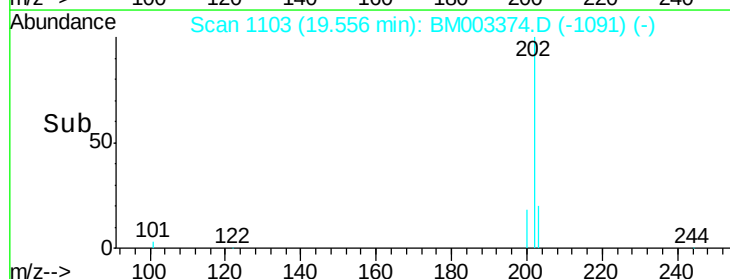
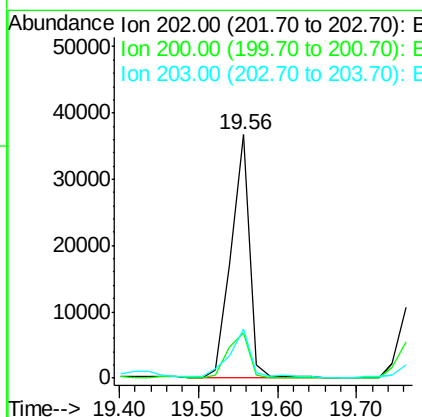
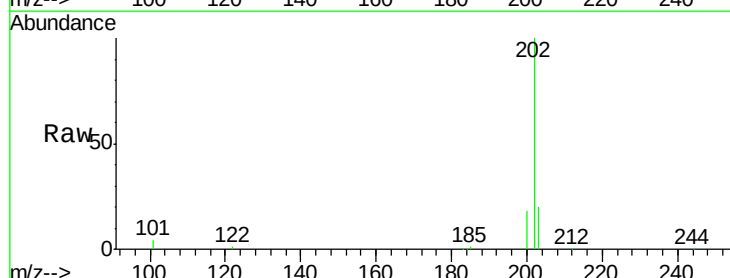
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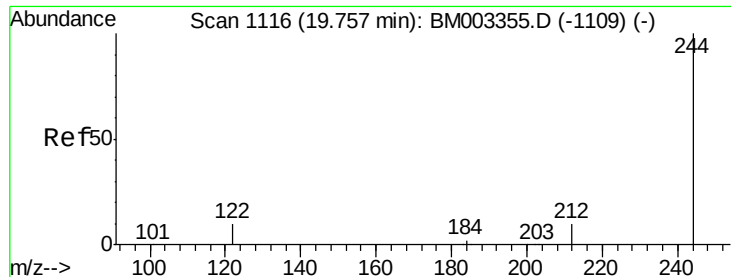
Mmdadoda  
 12/4/2015 7:00:15 PM



#28  
 Pyrene  
 Concen: 0.63 ng  
 RT: 19.56 min Scan# 1103  
 Delta R.T. 0.00 min  
 Lab File: BM003374.D  
 Acq: 03 Dec 2015 17:15

Tgt Ion:202 Resp: 58605  
 Ion Ratio Lower Upper  
 202 100  
 200 20.9 16.7 25.1  
 203 22.7 13.8 20.6#





#29

Terphenyl-d14

Concen: 59.86 ng

RT: 19.76 min Scan# 1115

Delta R.T. 0.00 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

Instrument :

BNA\_M

ClientSampleId :

LIBERTYSF-002-SPLPSVOC1

Tot Ion:244 Resp: 2478482

Ion Ratio Lower Upper

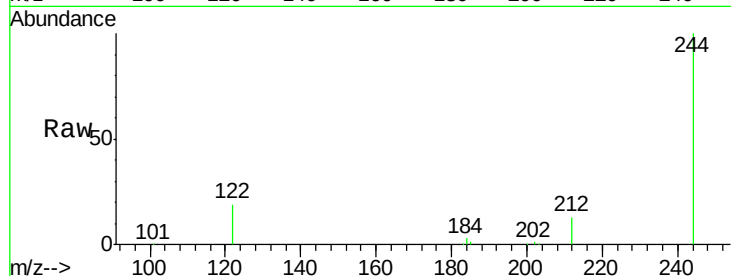
244 100

212 13.0 6.5 9.7#

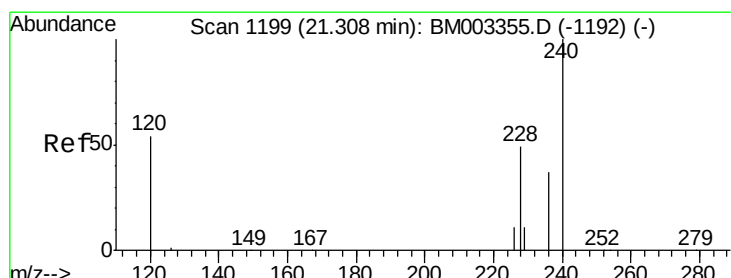
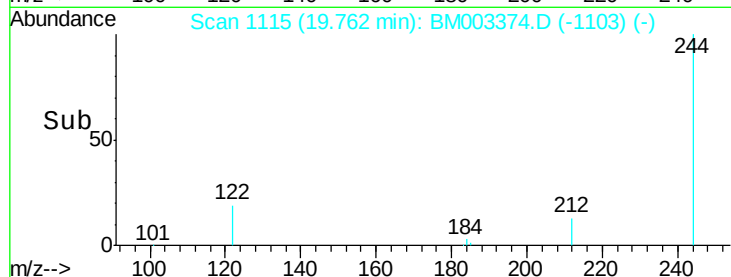
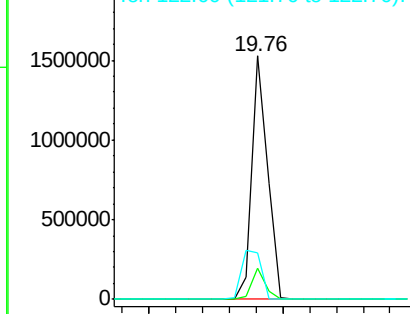
122 19.1 2.0 3.0#

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Abundance Ion 244.00 (243.70 to 244.70): E  
Ion 212.00 (211.70 to 212.70): E  
Ion 122.00 (121.70 to 122.70): E



#30

Benzo(a)anthracene

Concen: 0.09 ng m

RT: 21.32 min Scan# 1198

Delta R.T. 0.01 min

Lab File: BM003374.D

Acq: 03 Dec 2015 17:15

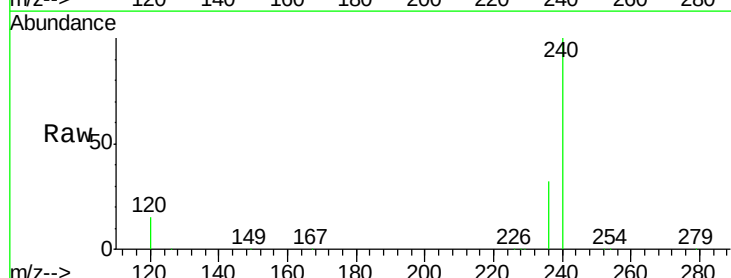
Tgt Ion:228 Resp: 6222

Ion Ratio Lower Upper

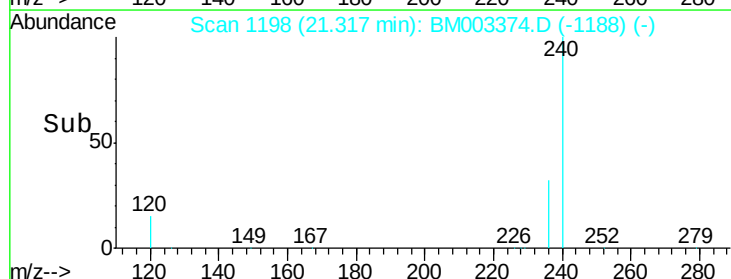
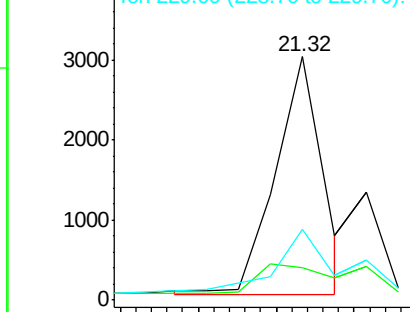
228 100

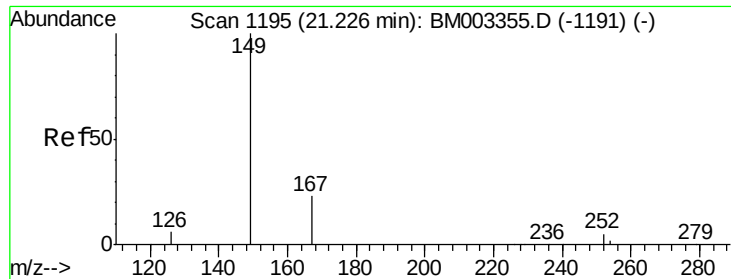
226 13.3 17.8 26.6#

229 28.9 18.0 27.0#



Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E





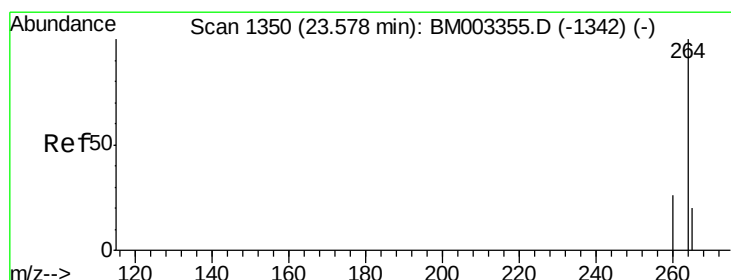
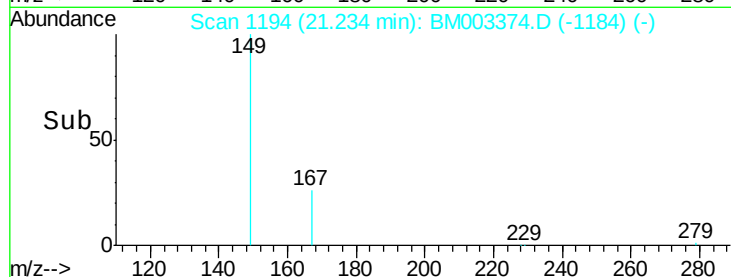
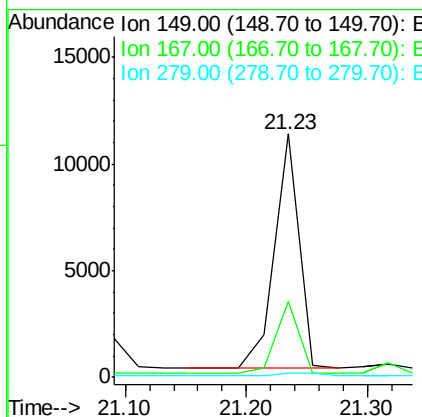
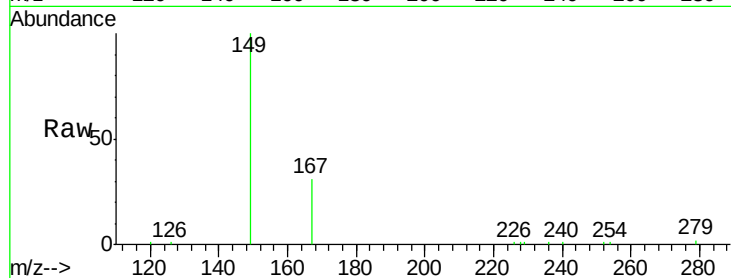
#33  
Bis(2-ethylhexyl)phthalate  
Concen: 1.33 ng  
RT: 21.23 min Scan# 1194  
Delta R.T. 0.01 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

Instrument :  
BNA\_M  
ClientSampleId :  
LIBERTYSF-002-SPLPSVOC1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 167     | 28.9  | 19.6  | 29.4  |
| 279     | 2.1   | 0.0   | 0.0#  |

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#35  
Perylene-d12  
Concen: 20.00 ng  
RT: 23.59 min Scan# 1350  
Delta R.T. 0.01 min  
Lab File: BM003374.D  
Acq: 03 Dec 2015 17:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 25.6  | 19.6  | 29.4  |
| 265     | 21.7  | 18.4  | 27.6  |

