

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM052316\  
 Data File : BM005622.D  
 Acq On : 23 May 2016 22:59  
 Operator : UM/SJ  
 Sample : H3087-10MS  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 JHGK4MS

Manual Integrations  
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 5/24/2016 7:41:39 PM

Quant Time: May 24 07:28:24 2016  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM052016.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Tue May 24 06:55:29 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.80  | 152  | 150171   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.59 | 136  | 678041   | 20.00 | ng/ul | 0.00     |
| 35) Acenaphthene-d10      | 14.44 | 164  | 380284   | 20.00 | ng/ul | 0.00     |
| 61) Phenanthrene-d10      | 17.18 | 188  | 834387   | 20.00 | ng/ul | 0.00     |
| 75) Chrysene-d12          | 21.36 | 240  | 878532   | 20.00 | ng/ul | 0.00     |
| 83) Perylene-d12          | 23.63 | 264  | 902418   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |       |       |
|--------------------------------|-------|-----|--------|-------|-------|-------|
| 3) 1,4-Dioxane-d8              | 3.27  | 96  | 9703   | 2.83  | ng/uL | 0.00  |
| 5) Phenol-d5                   | 6.97  | 99  | 203384 | 16.52 | ng/ul | 0.00  |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.13  | 67  | 126167 | 17.69 | ng/ul | 0.00  |
| 9) 2-Chlorophenol-d4           | 7.33  | 132 | 172429 | 16.79 | ng/ul | 0.00  |
| 13) 4-Methylphenol-d8          | 8.51  | 113 | 158747 | 15.74 | ng/ul | 0.00  |
| 19) Nitrobenzene-d5            | 8.96  | 128 | 86549  | 16.70 | ng/ul | 0.00  |
| 22) 2-Nitrophenol-d4           | 9.67  | 143 | 94261  | 16.52 | ng/ul | 0.00  |
| 26) 2,4-Dichlorophenol-d3      | 10.22 | 165 | 162545 | 15.12 | ng/ul | 0.00  |
| 29) 4-Chloroaniline-d4         | 10.73 | 131 | 187216 | 17.39 | ng/ul | 0.00  |
| 43) Dimethylphthalate-d6       | 13.84 | 166 | 523499 | 16.86 | ng/ul | 0.00  |
| 46) Acenaphthylene-d8          | 14.13 | 160 | 654030 | 16.85 | ng/ul | 0.00  |
| 51) 4-Nitrophenol-d4           | 14.65 | 143 | 80386  | 13.69 | ng/ul | 0.00  |
| 57) Fluorene-d10               | 15.43 | 176 | 457358 | 16.93 | ng/ul | 0.00  |
| 62) 4,6-Dinitro-2-methylphenol | 15.56 | 200 | 45488  | 9.48  | ng/ul | 0.00  |
| 70) Anthracene-d10             | 17.28 | 188 | 690595 | 17.38 | ng/ul | 0.00  |
| 76) Pyrene-d10                 | 19.57 | 212 | 754803 | 18.97 | ng/ul | 0.00  |
| 87) Benzo(a)pyrene-d12         | 23.49 | 264 | 729107 | 17.30 | ng/ul | -0.01 |

## Target Compounds

|                                |       |     |         |       |        | Qvalue |
|--------------------------------|-------|-----|---------|-------|--------|--------|
| 6) Phenol                      | 7.00  | 94  | 244526  | 19.28 | ng/ul  | 91     |
| 10) 2-Chlorophenol             | 7.37  | 128 | 175573  | 17.04 | ng/ul  | 98     |
| 15) N-Nitroso-di-n-propylamine | 8.60  | 70  | 147267  | 18.36 | ng/ul  | 96     |
| 33) 4-Chloro-3-methylphenol    | 11.88 | 107 | 187581  | 16.16 | ng/ul  | 98     |
| 44) Dimethylphthalate          | 13.89 | 163 | 87637   | 2.86  | ng/ul  | 99     |
| 49) Acenaphthene               | 14.50 | 153 | 458918  | 17.65 | ng/ul  | 100    |
| 52) 4-Nitrophenol              | 14.66 | 109 | 67564   | 11.45 | ng/ul  | 83     |
| 54) 2,4-Dinitrotoluene         | 14.80 | 165 | 157727  | 17.43 | ng/ul  | 99     |
| 58) Fluorene                   | 15.49 | 166 | 34580   | 1.16  | ng/ul  | 98     |
| 68) Pentachlorophenol          | 16.83 | 266 | 62815   | 9.88  | ng/ul  | 98     |
| 69) Phenanthrene               | 17.22 | 178 | 442854  | 9.50  | ng/ul  | 99     |
| 71) Anthracene                 | 17.31 | 178 | 124761  | 2.63  | ng/ul  | 99     |
| 74) Fluoranthene               | 19.23 | 202 | 827265  | 15.76 | ng/ul  | 96     |
| 77) Pyrene                     | 19.60 | 202 | 1727948 | 34.21 | ng/ul  | 97     |
| 80) Benzo(a)anthracene         | 21.34 | 228 | 306857  | 5.94  | ng/ul  | 96     |
| 82) Chrysene                   | 21.39 | 228 | 367162  | 7.47  | ng/ul  | 98     |
| 85) Benzo(b)fluoranthene       | 22.95 | 252 | 356857  | 6.70  | ng/ul# | 94     |
| 86) Benzo(k)fluoranthene       | 22.99 | 252 | 100936m | 2.00  | ng/ul  |        |
| 88) Benzo(a)pyrene             | 23.53 | 252 | 273061  | 5.29  | ng/ul  | 98     |
| 89) Indeno(1,2,3-cd)pyrene     | 25.93 | 276 | 145252  | 2.37  | ng/ul  | 98     |
| 91) Benzo(g,h,i)perylene       | 26.64 | 276 | 123182  | 2.39  | ng/ul# | 92     |

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Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
JHGK4MS

Manual Integrations  
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Quant Time: May 24 07:28:24 2016  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM052016.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Tue May 24 06:55:29 2016  
Response via : Initial Calibration

| Internal Standards                                                         | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------------------------------------------------------|------|------|----------|------|-------|----------|
| -----                                                                      |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |

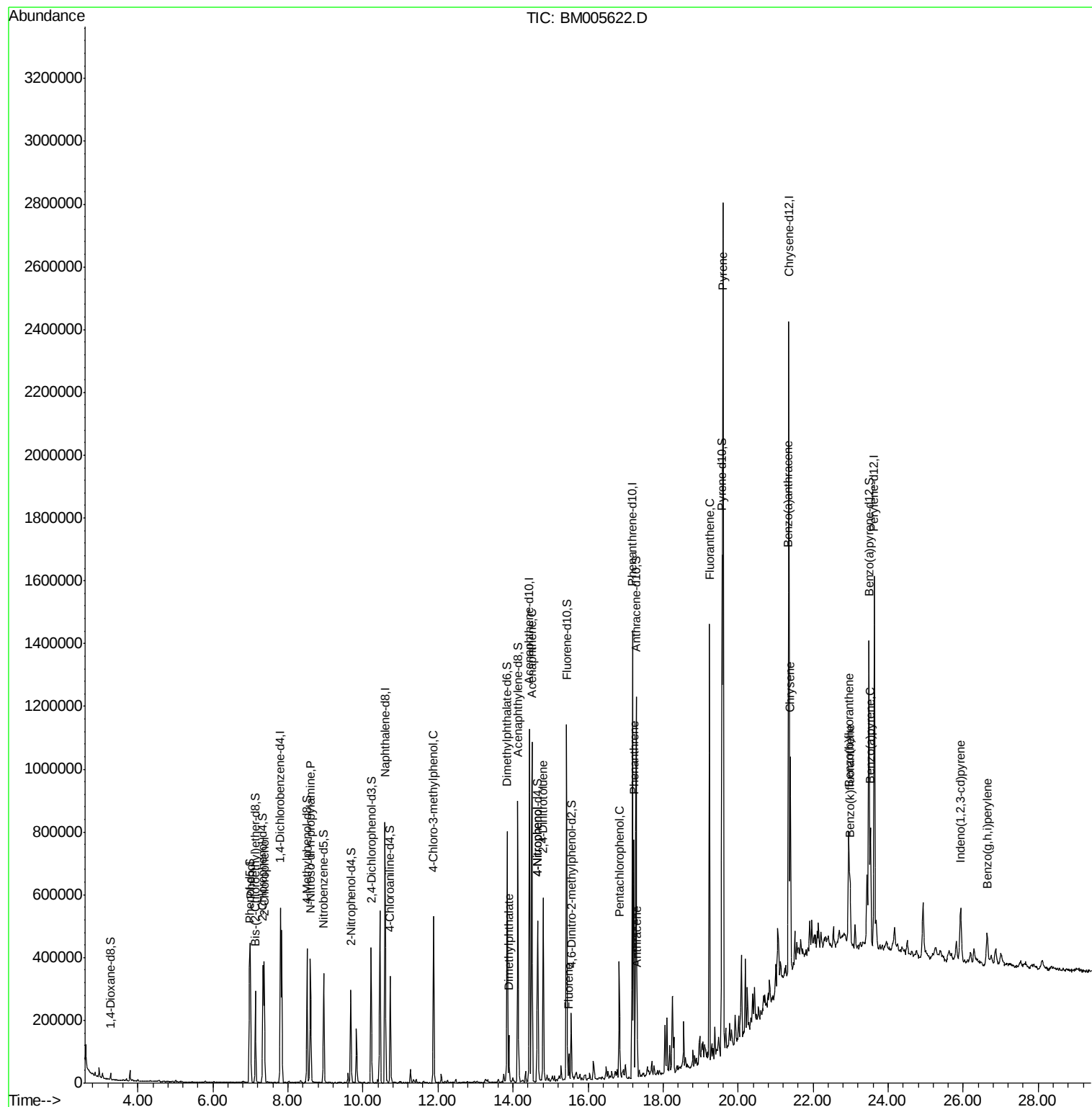
Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM052316\  
Data File : BM005622.D  
Acq On : 23 May 2016 22:59  
Operator : UM/SJ  
Sample : H3087-10MS  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

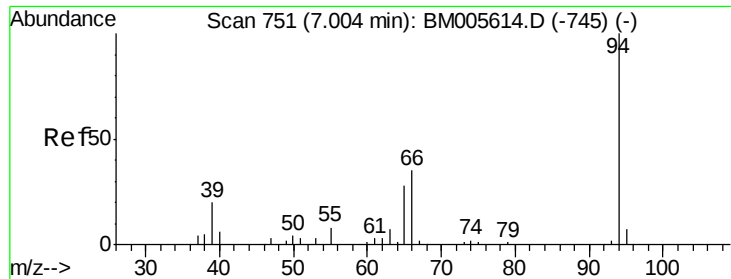
Instrument :  
BNA\_M  
ClientSampleId :  
JHKG4MS

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5/24/2016 7:41:39 PM

Quant Time: May 24 07:28:24 2016  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM052016.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Tue May 24 06:55:29 2016  
Response via : Initial Calibration





#6

Phenol

Concen: 19.28 ng/ul

RT: 7.00 min Scan# 751

Delta R.T. 0.00 min

Lab File: BM005622.D

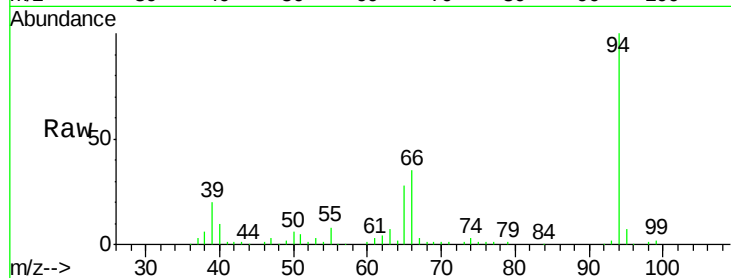
Acq: 23 May 2016 22:59

Instrument :

BNA\_M

ClientSampleId :

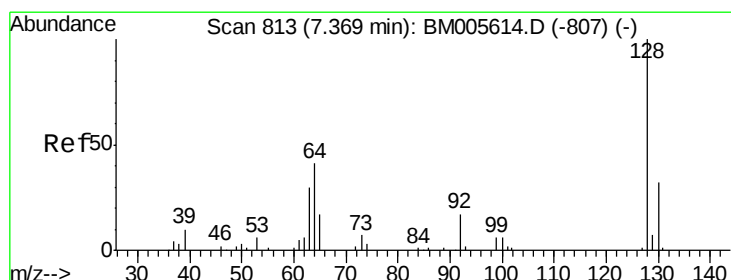
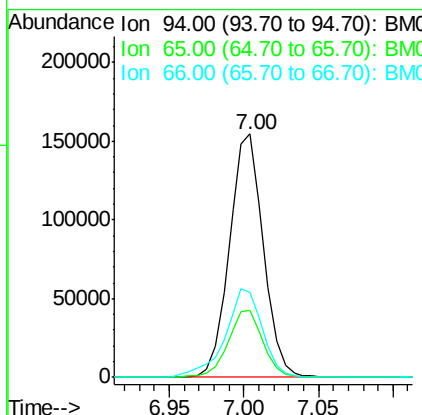
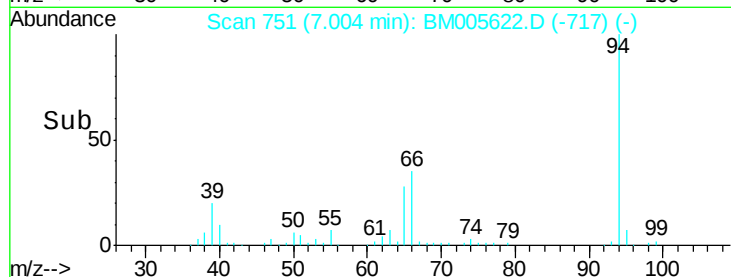
JHKG4MS



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 94    | Resp: | 244526 |
| Ion Ratio | Lower | Upper |        |
| 94        | 100   |       |        |
| 65        | 27.5  | 24.2  | 36.2   |
| 66        | 34.9  | 33.9  | 50.9   |

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#10

2-Chlorophenol

Concen: 17.04 ng/ul

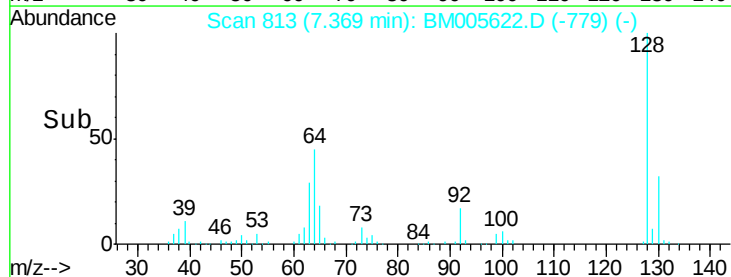
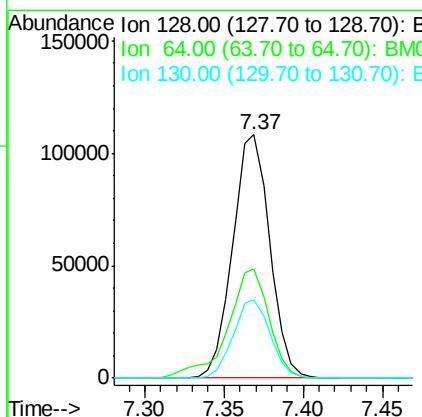
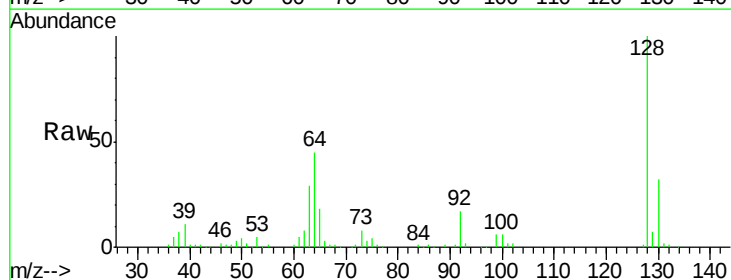
RT: 7.37 min Scan# 813

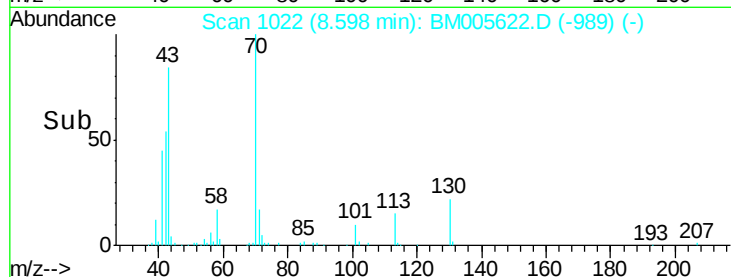
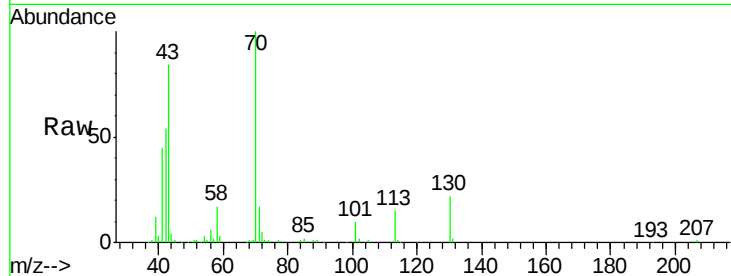
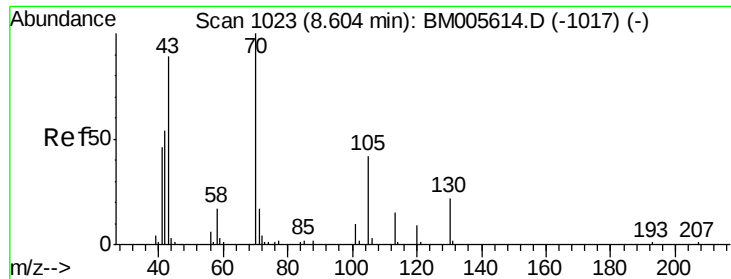
Delta R.T. 0.00 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 128   | Resp: | 175573 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 64        | 44.7  | 37.3  | 55.9   |
| 130       | 32.3  | 26.6  | 40.0   |





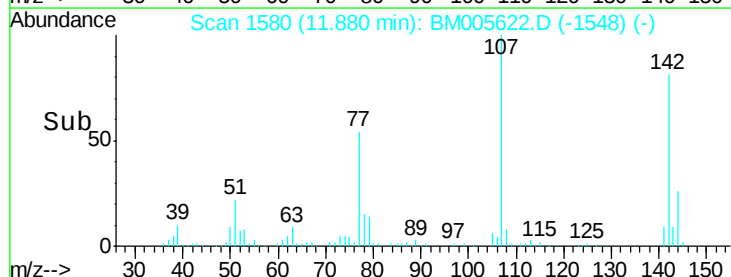
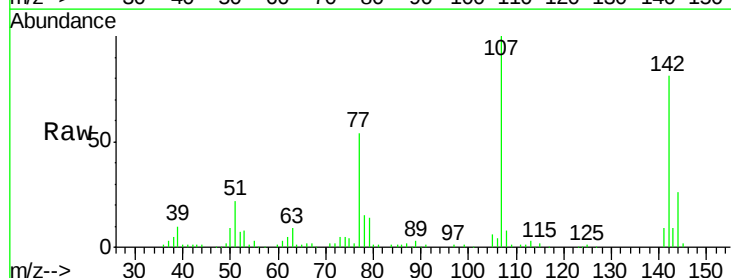
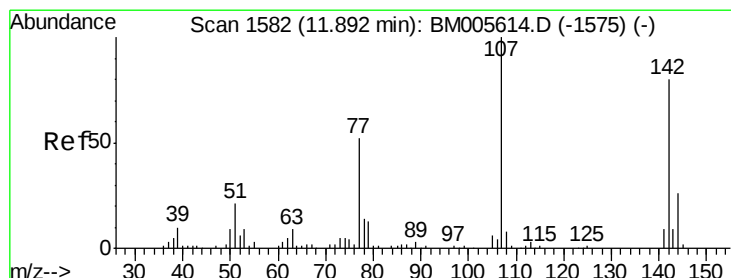
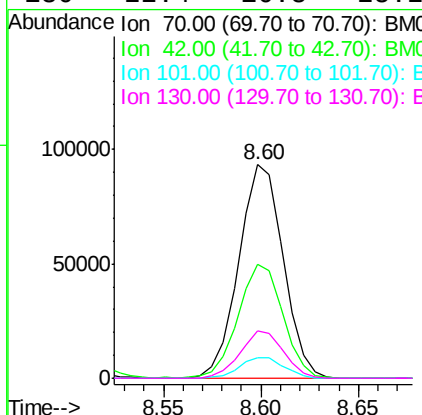
#15  
N-Nitroso-di-n-propylamine  
Concen: 18.36 ng/ul  
RT: 8.60 min Scan# 1022  
Delta R.T. -0.01 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

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JHKG4MS

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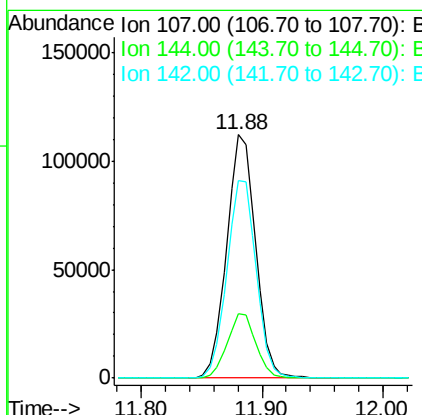
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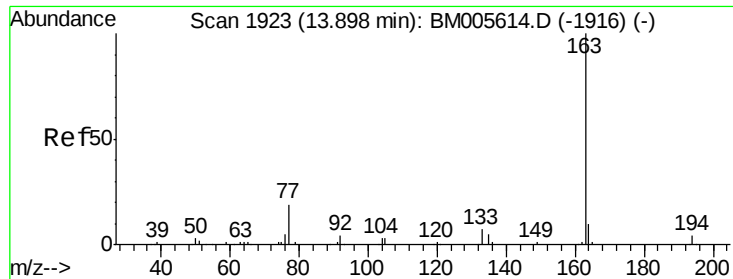
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 70      | 100   |       |       |
| 42      | 53.6  | 46.1  | 69.1  |
| 101     | 9.8   | 8.0   | 12.0  |
| 130     | 22.4  | 16.8  | 25.2  |



#33  
4-Chloro-3-methylphenol  
Concen: 16.16 ng/ul  
RT: 11.88 min Scan# 1580  
Delta R.T. -0.01 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 144     | 26.4  | 20.6  | 31.0  |
| 142     | 81.2  | 63.5  | 95.3  |





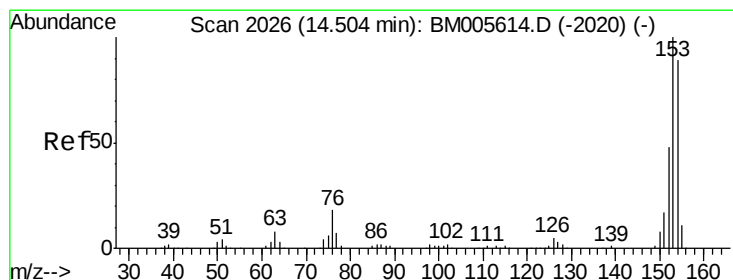
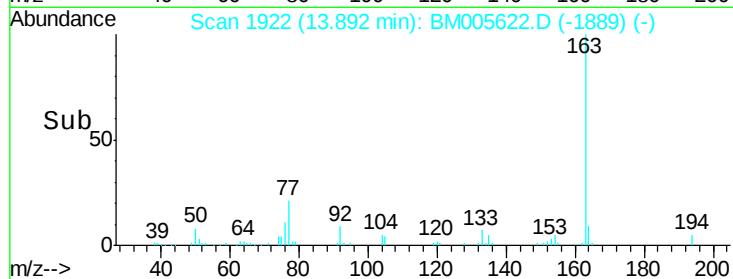
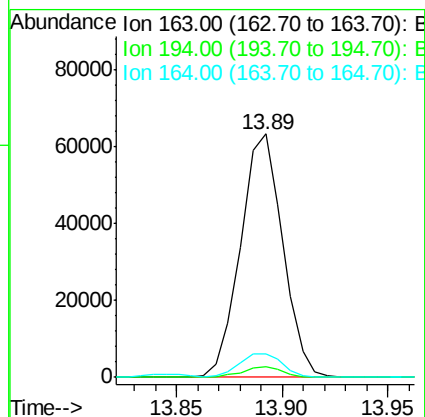
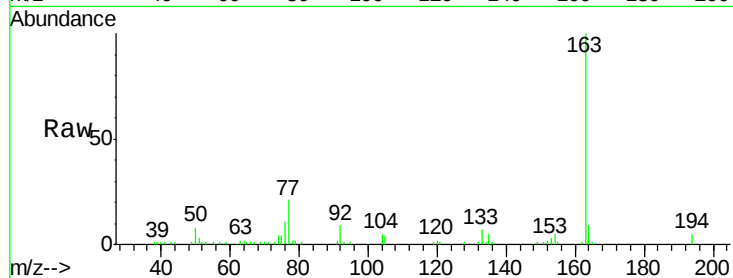
#44  
Dimethylphthalate  
Concen: 2.86 ng/ul  
RT: 13.89 min Scan# 1922  
Delta R.T. -0.01 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

Instrument :  
BNA\_M  
ClientSampleId :  
JHKG4MS

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 163     | 100   | 87637 |       |       |
| 194     | 4.5   |       | 3.4   | 5.0   |
| 164     | 9.5   |       | 8.0   | 12.0  |

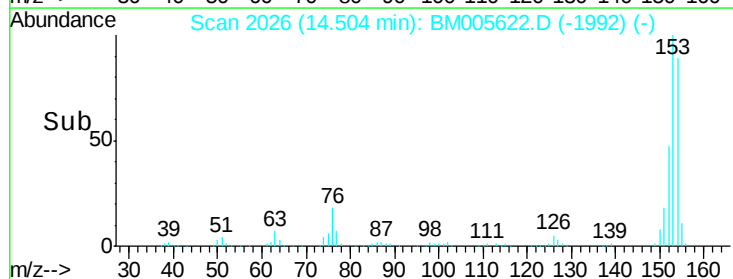
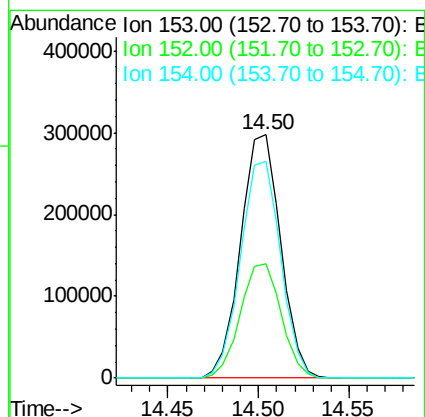
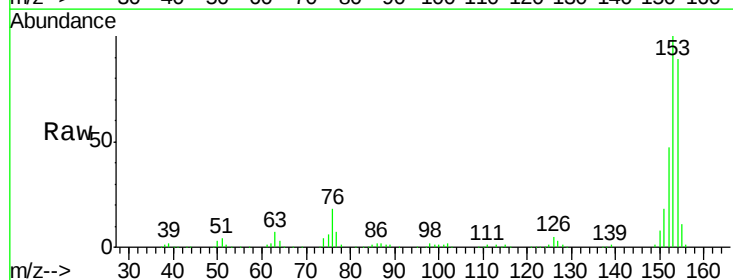
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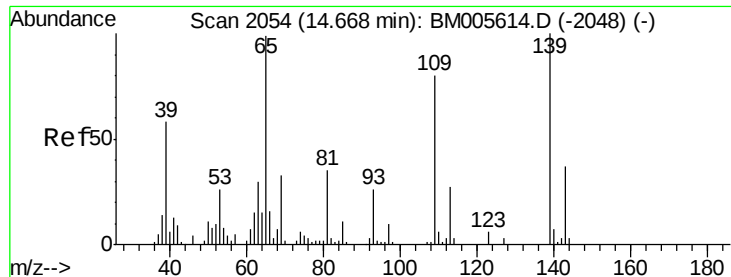
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#49  
Acenaphthene  
Concen: 17.65 ng/ul  
RT: 14.50 min Scan# 2026  
Delta R.T. -0.00 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 153     | 100   | 458918 |       |       |
| 152     | 47.2  |        | 37.8  | 56.6  |
| 154     | 89.2  |        | 71.1  | 106.7 |





#52

4-Nitrophenol

Concen: 11.45 ng/ul

RT: 14.66 min Scan# 2053

Delta R.T. -0.01 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

Instrument :

BNA\_M

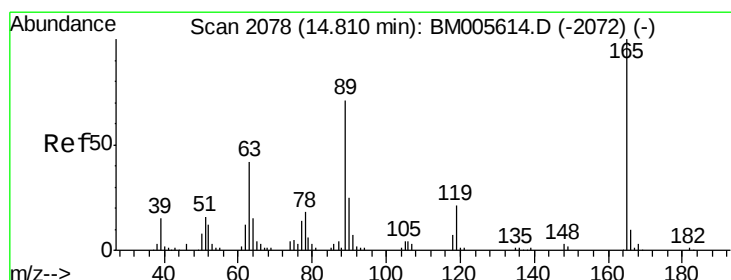
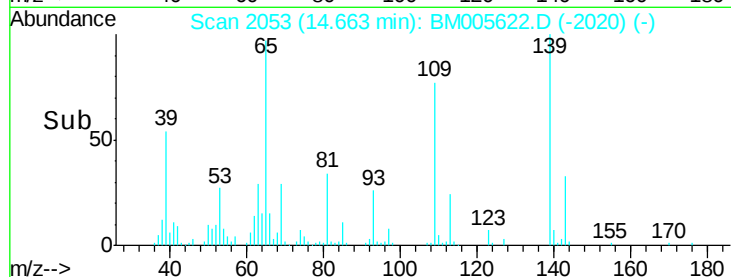
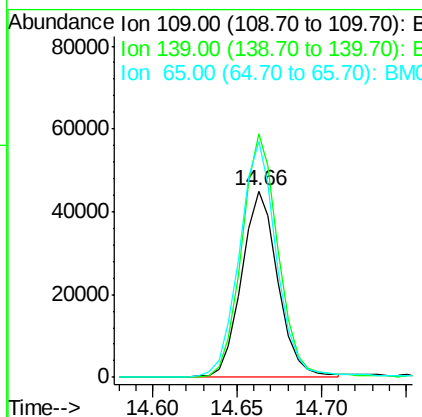
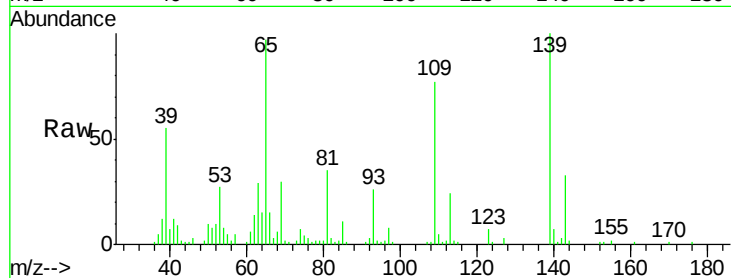
ClientSampleId :

JHGK4MS

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|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 109   | Resp: | 67564 |
| Ion Ratio | Lower | Upper |       |
| 109       | 100   |       |       |
| 139       | 130.5 | 87.5  | 131.3 |
| 65        | 126.8 | 90.2  | 135.2 |



#54

2,4-Dinitrotoluene

Concen: 17.43 ng/ul

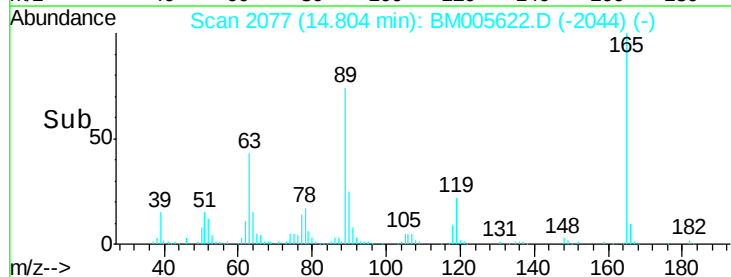
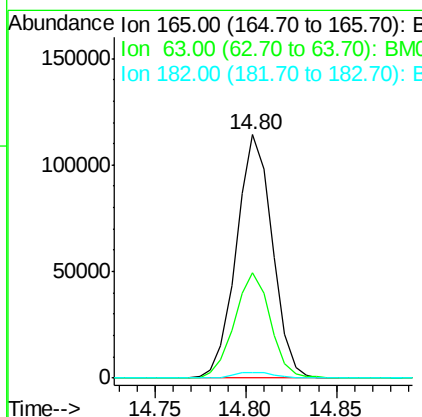
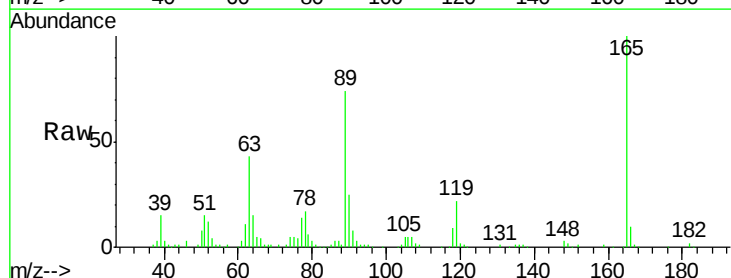
RT: 14.80 min Scan# 2077

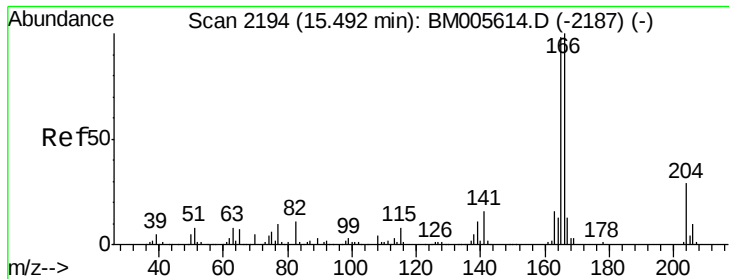
Delta R.T. -0.01 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 165   | Resp: | 157727 |
| Ion Ratio | Lower | Upper |        |
| 165       | 100   |       |        |
| 63        | 43.1  | 33.9  | 50.9   |
| 182       | 2.5   | 2.3   | 3.5    |





#58

Fluorene

Concen: 1.16 ng/ul

RT: 15.49 min Scan# 2193

Delta R.T. -0.01 min

Lab File: BM005622.D

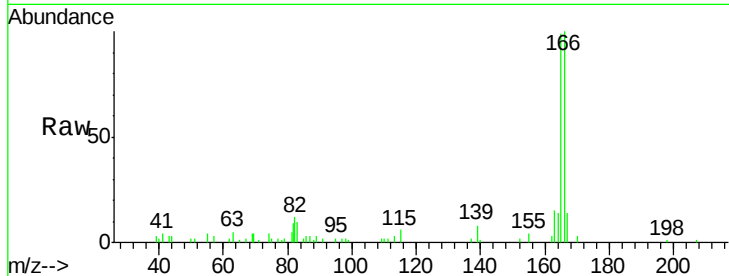
Acq: 23 May 2016 22:59

Instrument :

BNA\_M

ClientSampleId :

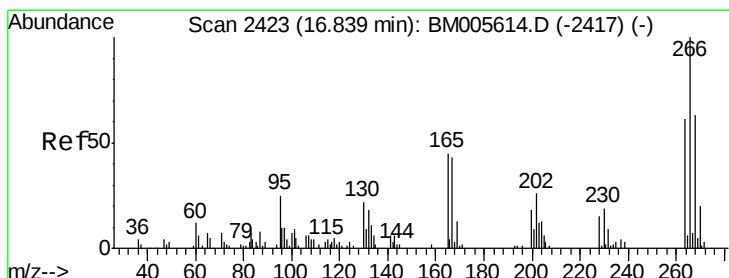
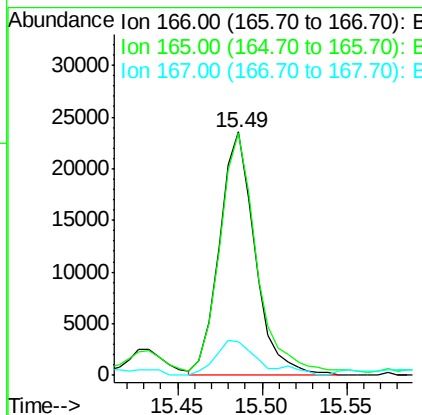
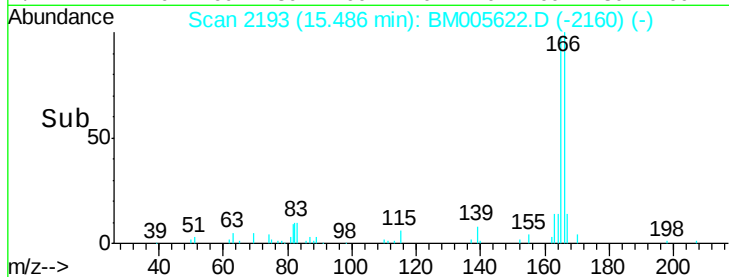
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|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 166   | Resp: | 34580 |
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 99.3  | 78.0  | 117.0 |
| 167       | 13.6  | 10.5  | 15.7  |

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#68

Pentachlorophenol

Concen: 9.88 ng/ul

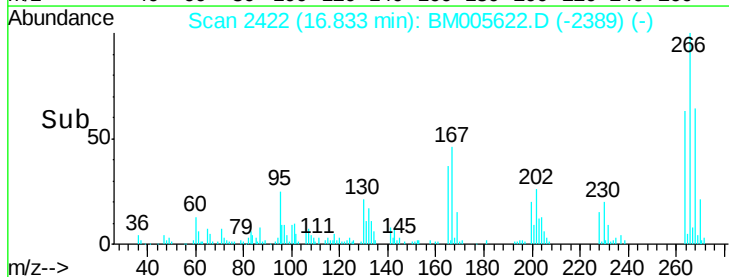
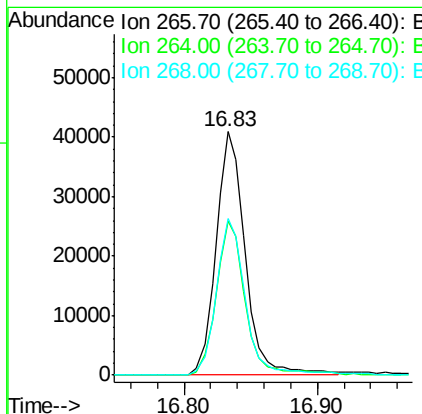
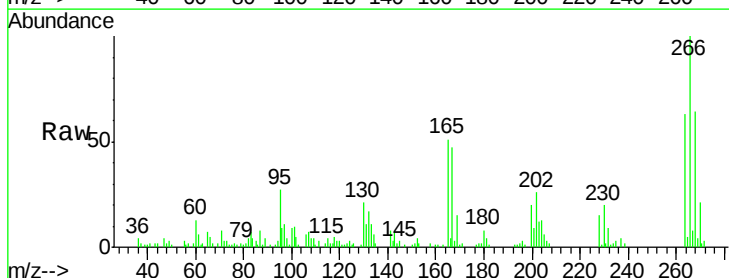
RT: 16.83 min Scan# 2422

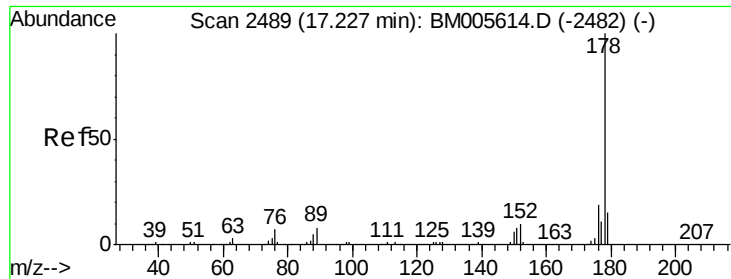
Delta R.T. -0.01 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 266   | Resp: | 62815 |
| Ion Ratio | Lower | Upper |       |
| 266       | 100   |       |       |
| 264       | 63.0  | 50.9  | 76.3  |
| 268       | 64.2  | 52.8  | 79.2  |





#69

Phenanthrene

Concen: 9.50 ng/ul

RT: 17.22 min Scan# 2488

Delta R.T. -0.01 min

Lab File: BM005622.D

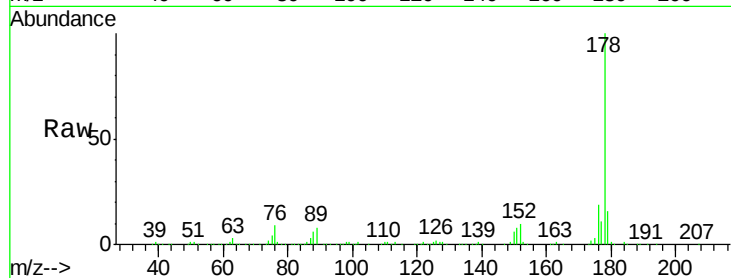
Acq: 23 May 2016 22:59

Instrument :

BNA\_M

ClientSampleId :

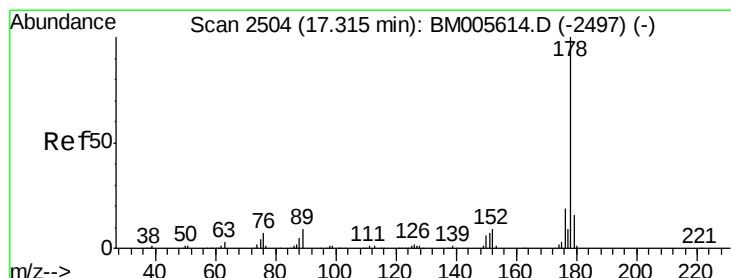
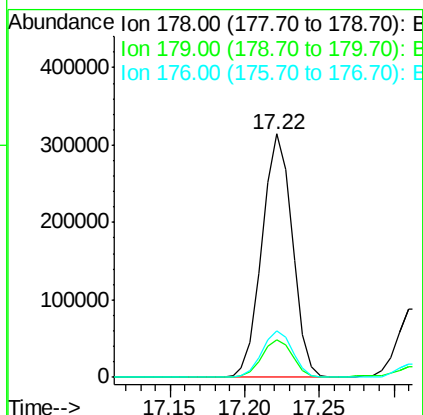
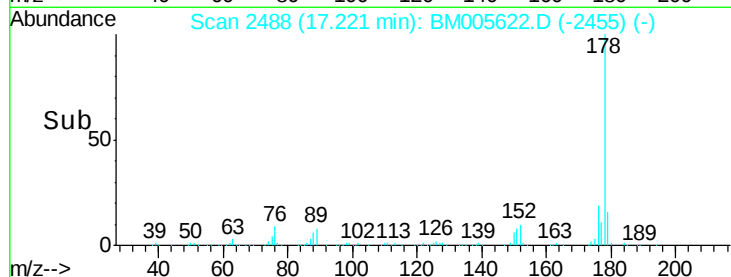
JHGK4MS



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 442854 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 15.6  | 12.2  | 18.2   |
| 176       | 19.3  | 15.8  | 23.6   |

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#71

Anthracene

Concen: 2.63 ng/ul

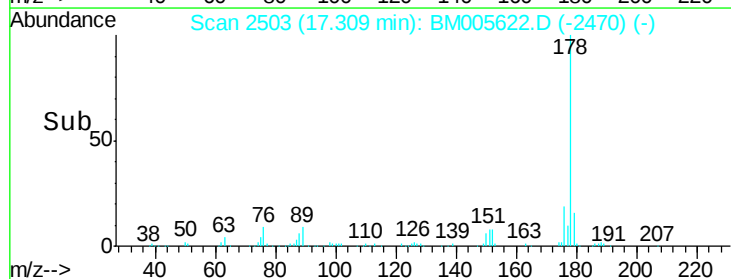
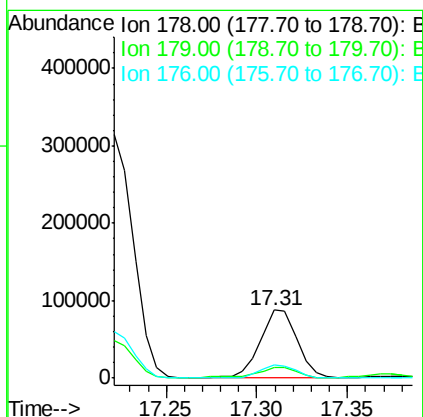
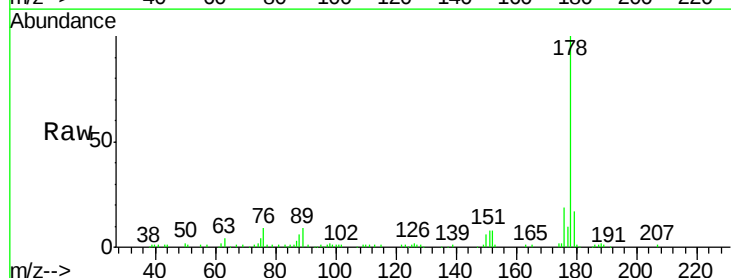
RT: 17.31 min Scan# 2503

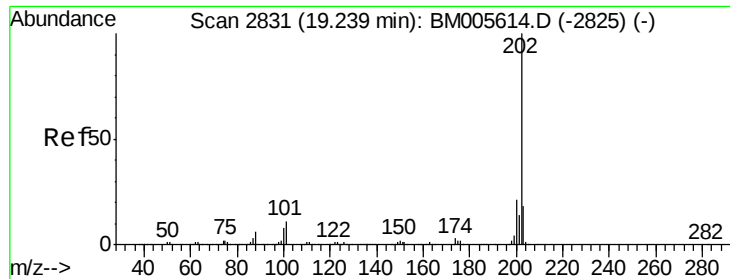
Delta R.T. -0.01 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 124761 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 16.6  | 12.6  | 18.8   |
| 176       | 18.8  | 15.0  | 22.4   |





#74

Fluoranthene

Concen: 15.76 ng/ul

RT: 19.23 min Scan# 2830

Delta R.T. -0.01 min

Lab File: BM005622.D

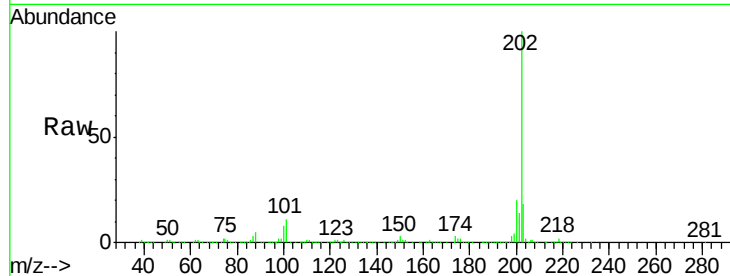
Acq: 23 May 2016 22:59

Instrument :

BNA\_M

ClientSampleId :

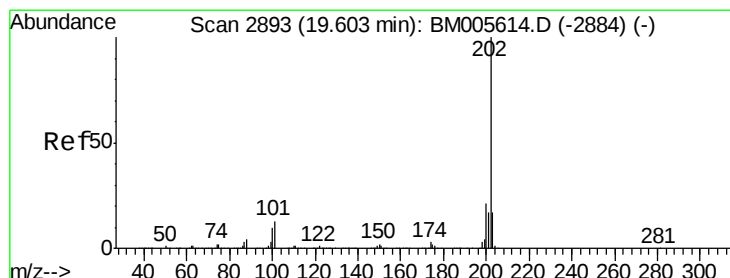
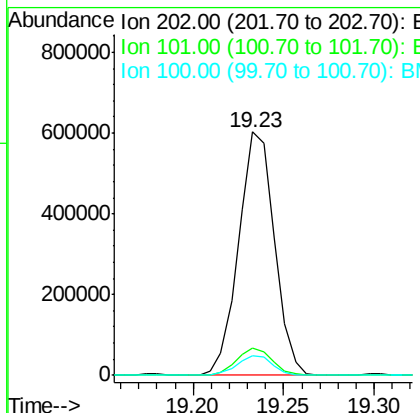
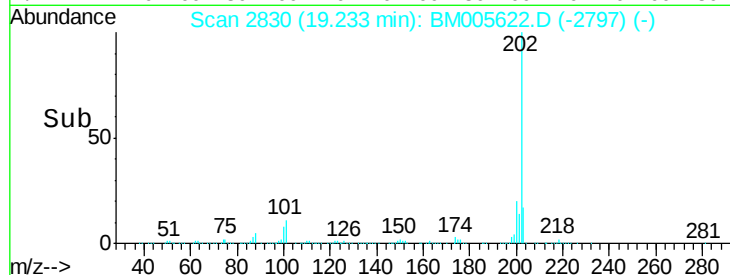
JHKG4MS



| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 202     | 100   | 827265 |       |       |
| 101     | 11.4  | 7.9    | 11.9  |       |
| 100     | 8.3   | 5.6    | 8.4   |       |

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#77

Pyrene

Concen: 34.21 ng/ul

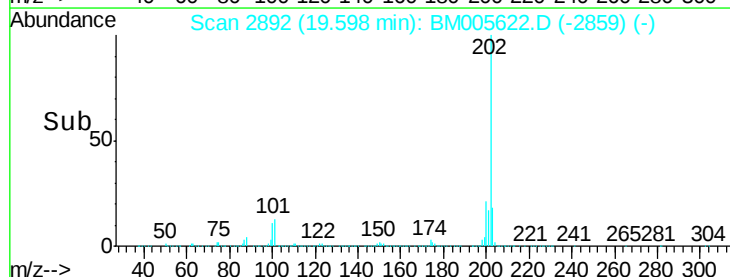
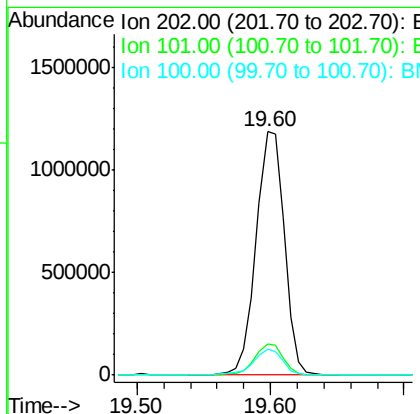
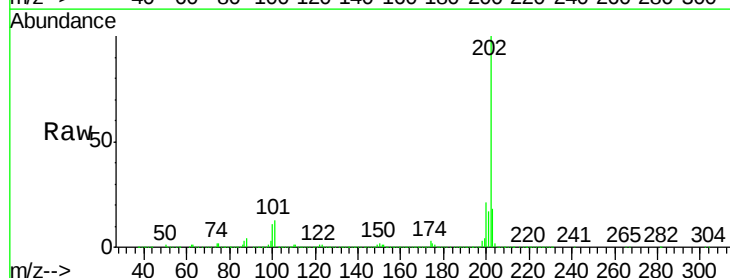
RT: 19.60 min Scan# 2892

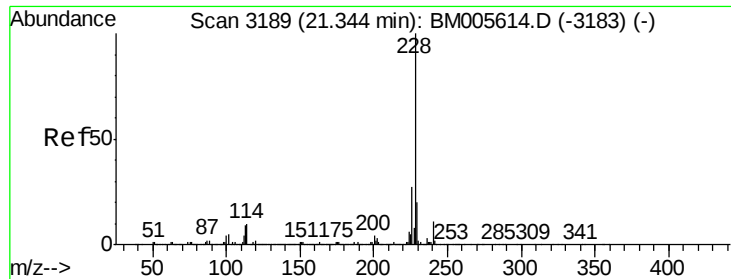
Delta R.T. -0.01 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

| Tgt Ion | Ratio | Resp    | Lower | Upper |
|---------|-------|---------|-------|-------|
| 202     | 100   | 1727948 |       |       |
| 101     | 13.0  | 9.6     | 14.4  |       |
| 100     | 10.7  | 7.8     | 11.6  |       |





#80

Benzo(a)anthracene

Concen: 5.94 ng/ul

RT: 21.34 min Scan# 3188

Delta R.T. -0.01 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

Instrument :

BNA\_M

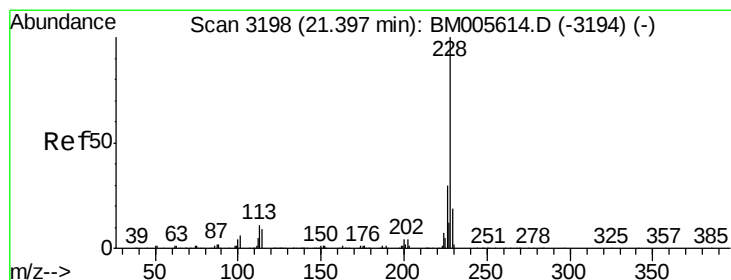
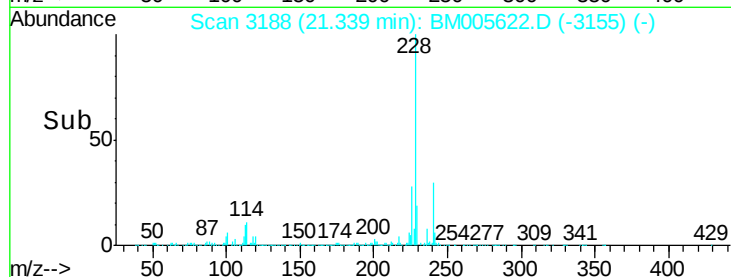
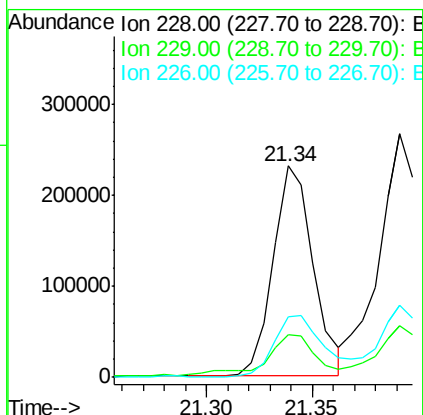
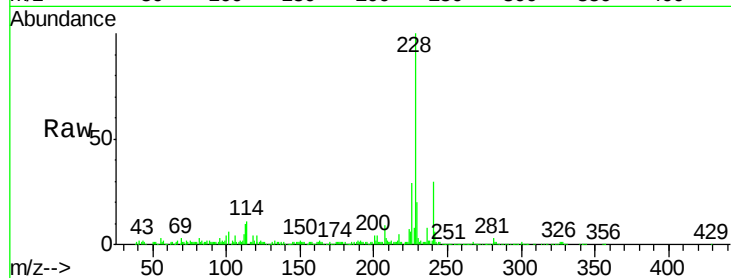
ClientSampleId :

JHGK4MS

| Tgt | Ion  | Ratio | Resp   | Lower | Upper |
|-----|------|-------|--------|-------|-------|
| 228 | 100  |       | 306857 |       |       |
| 229 | 20.1 | 15.4  | 23.2   |       |       |
| 226 | 28.9 | 21.0  | 31.4   |       |       |

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#82

Chrysene

Concen: 7.47 ng/ul

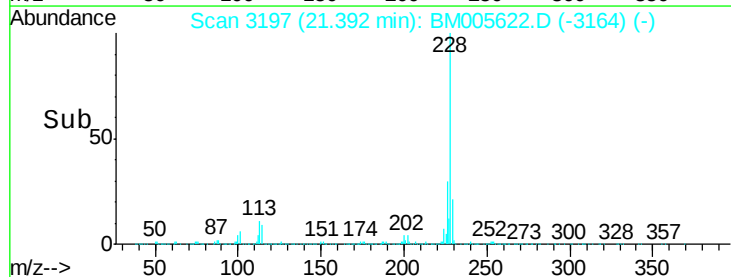
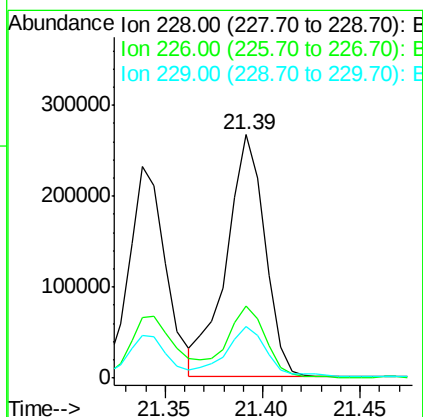
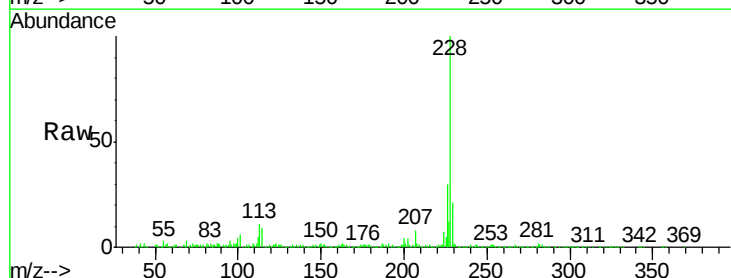
RT: 21.39 min Scan# 3197

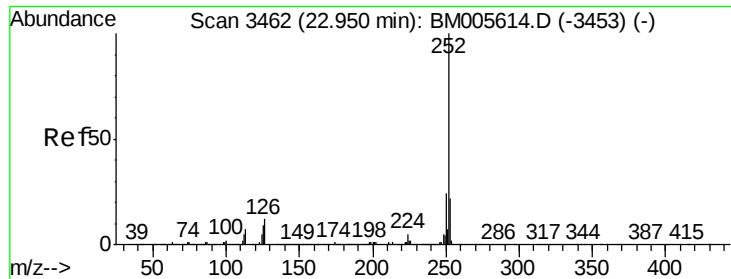
Delta R.T. -0.01 min

Lab File: BM005622.D

Acq: 23 May 2016 22:59

| Tgt | Ion  | Ratio | Resp   | Lower | Upper |
|-----|------|-------|--------|-------|-------|
| 228 | 100  |       | 367162 |       |       |
| 226 | 29.8 | 23.7  | 35.5   |       |       |
| 229 | 21.0 | 15.5  | 23.3   |       |       |





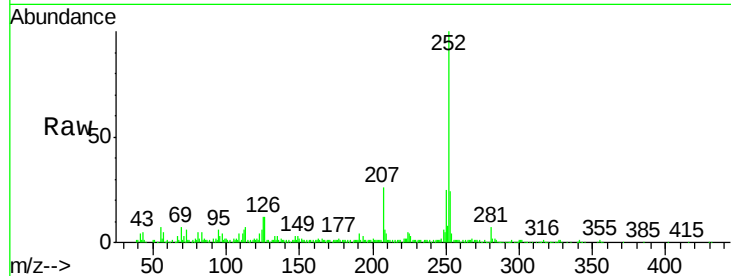
#85  
Benzo(b)fluoranthene  
Concen: 6.70 ng/ul  
RT: 22.95 min Scan# 3462  
Delta R.T. 0.00 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

Instrument :  
BNA\_M  
ClientSampleId :  
JHGK4MS

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 252     | 100   |            |            |
| 253     | 23.7  | 17.3       | 25.9       |
| 125     | 11.8  | 7.0        | 10.4       |

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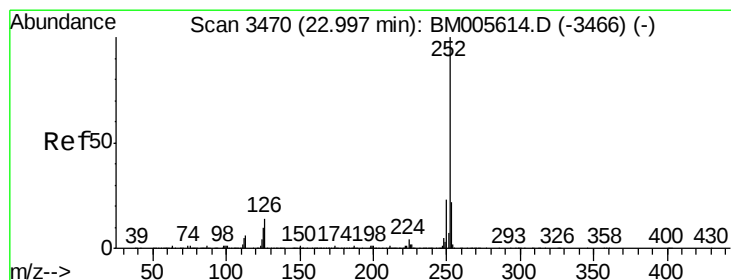
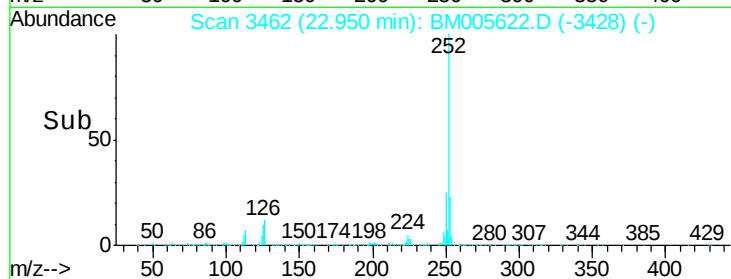
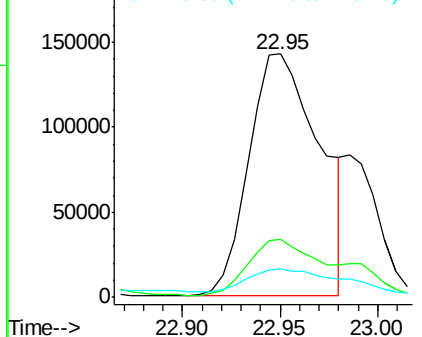


Abundance

Ion 252.00 (251.70 to 252.70): E

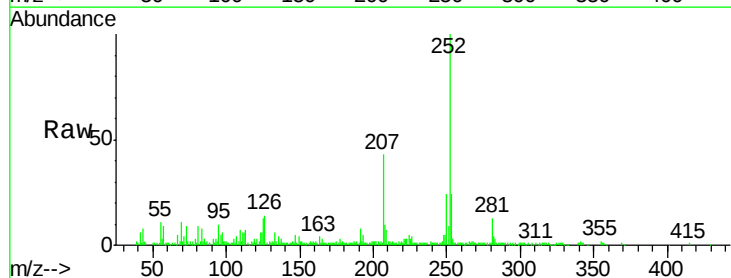
Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E



#86  
Benzo(k)fluoranthene  
Concen: 2.00 ng/ul m  
RT: 22.99 min Scan# 3468  
Delta R.T. -0.01 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 252     | 100   |            |            |
| 253     | 24.0  | 17.5       | 26.3       |
| 125     | 12.7  | 7.0        | 10.6       |

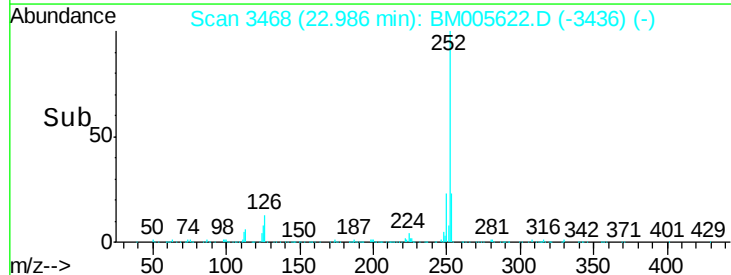
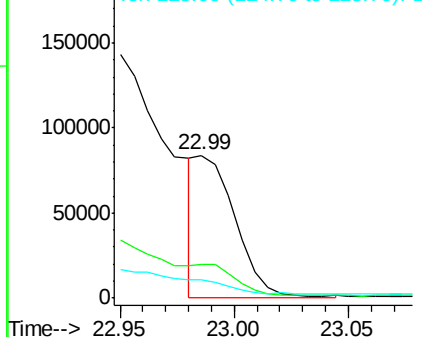


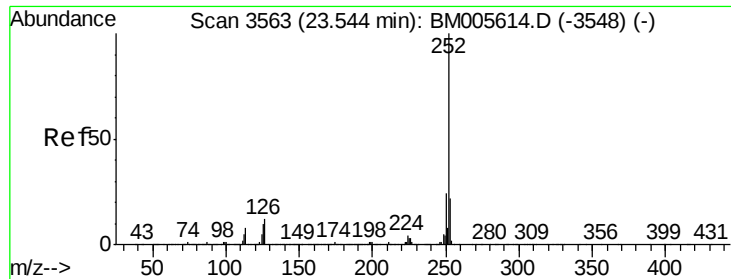
Abundance

Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





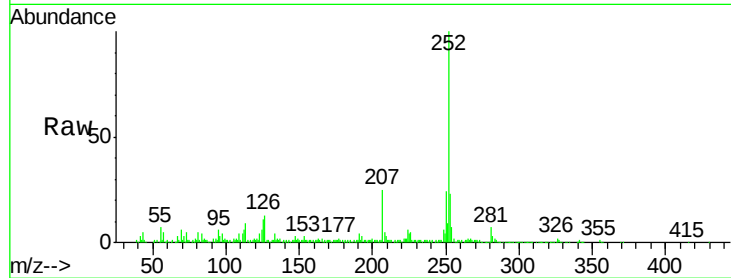
#88  
Benzo(a)pyrene  
Concen: 5.29 ng/ul  
RT: 23.53 min Scan# 3561  
Delta R.T. -0.01 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

Instrument :  
BNA\_M  
ClientSampleId :  
JHGK4MS

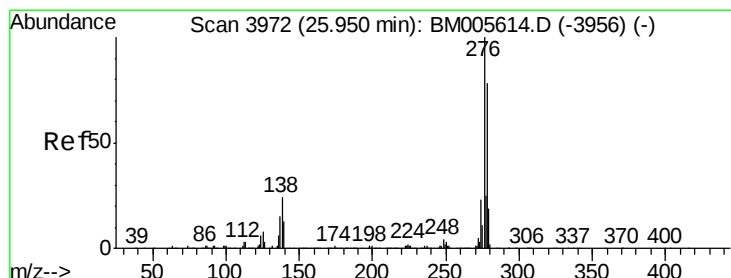
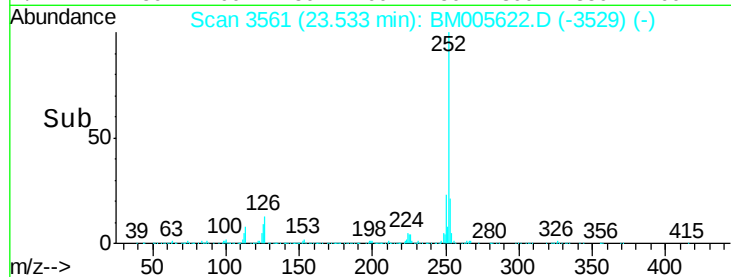
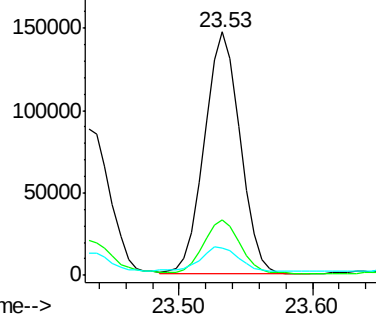
| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 252     | 100   | 273061 |       |       |
| 253     | 22.6  | 17.6   | 26.4  |       |
| 125     | 11.1  | 7.6    | 11.4  |       |

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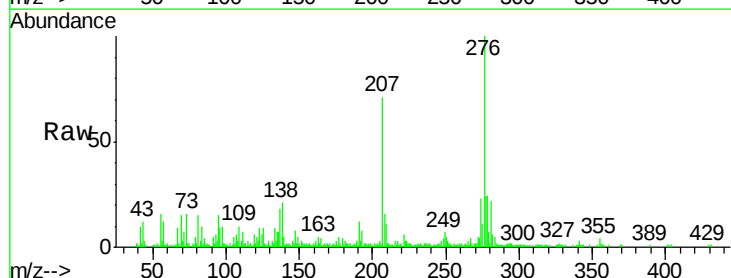


Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E

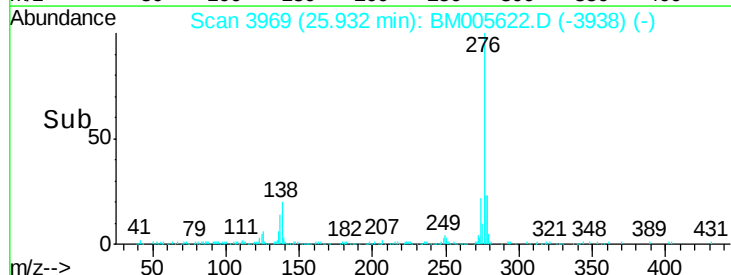
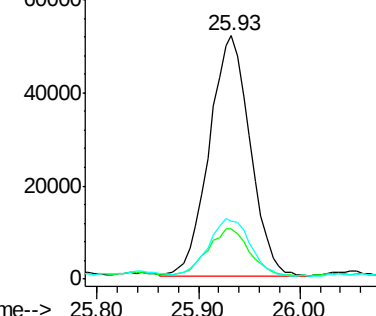


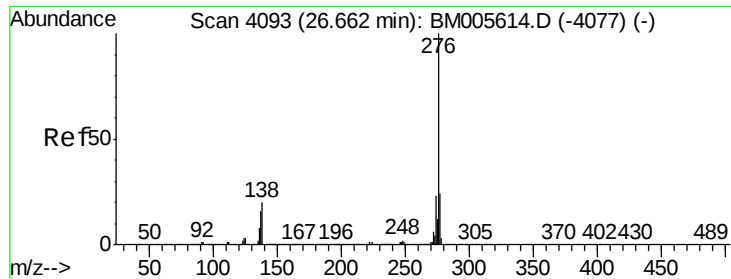
#89  
Indeno(1,2,3-cd)pyrene  
Concen: 2.37 ng/ul  
RT: 25.93 min Scan# 3969  
Delta R.T. -0.02 min  
Lab File: BM005622.D  
Acq: 23 May 2016 22:59

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 276     | 100   | 145252 |       |       |
| 138     | 20.8  | 16.9   | 25.3  |       |
| 277     | 23.9  | 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





#91  
 Benzo(g,h,i)perylene  
 Concen: 2.39 ng/ul  
 RT: 26.64 min Scan# 4089  
 Delta R.T. -0.02 min  
 Lab File: BM005622.D  
 Acq: 23 May 2016 22:59

Instrument :  
 BNA\_M  
 ClientSampleId :  
 JHKG4MS

| Tgt | Ion  | Ratio | Resp   | Lower | Upper |
|-----|------|-------|--------|-------|-------|
| 276 | 100  |       | 123182 |       |       |
| 138 | 23.0 | 15.0  | 22.6#  |       |       |
| 277 | 26.7 | 18.6  | 28.0   |       |       |

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