

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM073116\  
 Data File : BM006817.D  
 Acq On : 01 Aug 2016 09:15  
 Operator : UM/SJ  
 Sample : H4189-22  
 Misc :  
 ALS Vial : 84 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 D9ZQ9

Manual Integrations  
 APPROVED

sohil  
 8/1/2016 7:09:24 PM

8/1/2016 7:09:24 PM

Quant Time: Aug 01 13:36:17 2016  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM072016.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Sat Jul 30 01:37:26 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.60  | 152  | 260298   | 20.00 | ng/ul | 0.00     |
| 7) Naphthalene-d8         | 10.39 | 136  | 1109877  | 20.00 | ng/ul | 0.00     |
| 15) Acenaphthene-d10      | 14.26 | 164  | 599775   | 20.00 | ng/ul | 0.00     |
| 23) Phenanthrene-d10      | 17.02 | 188  | 1315648  | 20.00 | ng/ul | 0.00     |
| 29) Chrysene-d12          | 21.22 | 240  | 1337311  | 20.00 | ng/ul | 0.00     |
| 34) Perylene-d12          | 23.43 | 264  | 1467056  | 20.00 | ng/ul | 0.01     |

## System Monitoring Compounds

|                                |       |     |         |       |       |      |
|--------------------------------|-------|-----|---------|-------|-------|------|
| 2) 1,4-Dioxane-d8              | 3.13  | 96  | 9308    | 1.45  | ng/uL | 0.00 |
| 3) Phenol-d5                   | 6.79  | 99  | 395810  | 17.87 | ng/ul | 0.00 |
| 4) Bis-(2-Chloroethyl)ether-d  | 6.95  | 67  | 262815  | 19.16 | ng/ul | 0.00 |
| 5) 2-Chlorophenol-d4           | 7.14  | 132 | 326720  | 18.46 | ng/ul | 0.00 |
| 6) 4-Methylphenol-d8           | 8.32  | 113 | 261089  | 15.20 | ng/ul | 0.00 |
| 8) Nitrobenzene-d5             | 8.76  | 128 | 165836  | 19.74 | ng/ul | 0.00 |
| 9) 2-Nitrophenol-d4            | 9.48  | 143 | 182528  | 20.43 | ng/ul | 0.00 |
| 10) 2,4-Dichlorophenol-d3      | 10.02 | 165 | 307816  | 18.23 | ng/ul | 0.00 |
| 12) 4-Chloroaniline-d4         | 10.53 | 131 | 272128  | 14.64 | ng/ul | 0.00 |
| 16) Dimethylphthalate-d6       | 13.67 | 166 | 911848  | 19.39 | ng/ul | 0.00 |
| 17) Acenaphthylene-d8          | 13.95 | 160 | 1195774 | 19.92 | ng/ul | 0.00 |
| 20) 4-Nitrophenol-d4           | 14.50 | 143 | 129612  | 15.87 | ng/ul | 0.02 |
| 21) Fluorene-d10               | 15.26 | 176 | 811527  | 19.30 | ng/ul | 0.00 |
| 24) 4,6-Dinitro-2-methylphenol | 15.41 | 200 | 87150   | 12.76 | ng/ul | 0.01 |
| 26) Anthracene-d10             | 17.12 | 188 | 1216557 | 19.47 | ng/ul | 0.00 |
| 30) Pyrene-d10                 | 19.42 | 212 | 1297531 | 21.29 | ng/ul | 0.00 |
| 37) Benzo(a)pyrene-d12         | 23.29 | 264 | 1310654 | 19.42 | ng/ul | 0.01 |

## Target Compounds

|                            |       |     |         |             | Qvalue |
|----------------------------|-------|-----|---------|-------------|--------|
| 25) Phenanthrene           | 17.06 | 178 | 690399  | 9.33 ng/ul  | 99     |
| 27) Anthracene             | 17.15 | 178 | 161367  | 2.12 ng/ul  | 99     |
| 28) Fluoranthene           | 19.09 | 202 | 1539400 | 17.71 ng/ul | 97     |
| 31) Pyrene                 | 19.45 | 202 | 1300127 | 16.06 ng/ul | 96     |
| 32) Benzo(a)anthracene     | 21.20 | 228 | 773897  | 9.55 ng/ul  | 98     |
| 33) Chrysene               | 21.26 | 228 | 788121  | 10.55 ng/ul | 98     |
| 35) Benzo(b)fluoranthene   | 22.77 | 252 | 1150098 | 13.08 ng/ul | 98     |
| 36) Benzo(k)fluoranthene   | 22.80 | 252 | 352434m | 4.14 ng/ul  |        |
| 38) Benzo(a)pyrene         | 23.33 | 252 | 723923  | 8.46 ng/ul  | 99     |
| 39) Indeno(1,2,3-cd)pyrene | 25.64 | 276 | 526611  | 5.31 ng/ul  | 98     |
| 40) Dibenzo(a,h)anthracene | 25.64 | 278 | 147916  | 1.80 ng/ul# | 82     |
| 41) Benzo(g,h,i)perylene   | 26.31 | 276 | 486271  | 5.72 ng/ul  | 97     |

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

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM073116\  
Data File : BM006817.D  
Acq On : 01 Aug 2016 09:15  
Operator : UM/SJ  
Sample : H4189-22  
Misc :  
ALS Vial : 84 Sample Multiplier: 1

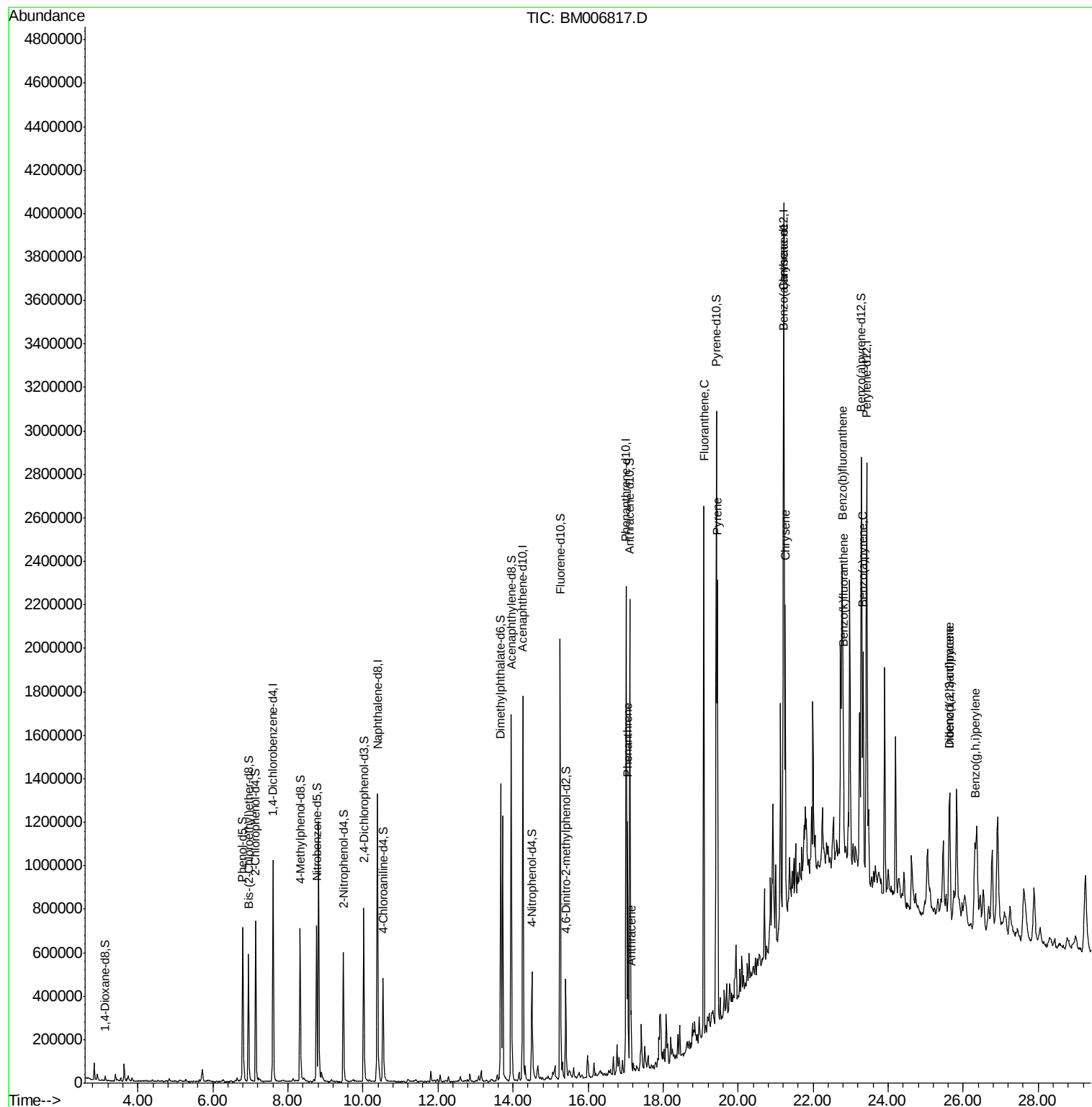
Instrument :  
BNA\_M  
ClientSampleId :  
D9ZQ9

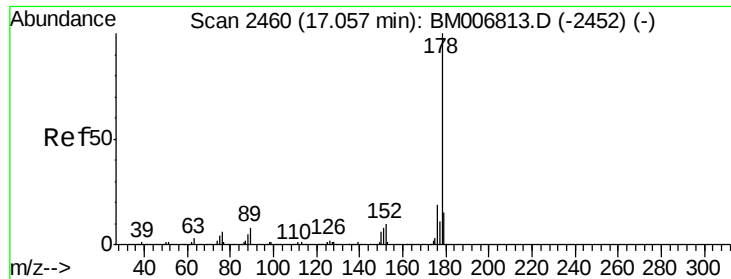
Manual Integrations  
APPROVED

sohil  
8/1/2016 7:09:24 PM

8/1/2016 7:09:24 PM

Quant Time: Aug 01 13:36:17 2016  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM072016.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Sat Jul 30 01:37:26 2016  
Response via : Initial Calibration





#25

Phenanthrene

Concen: 9.33 ng/ul

RT: 17.06 min Scan# 2460

Delta R.T. 0.01 min

Lab File: BM006817.D

Acq: 01 Aug 2016 09:15

Instrument :

BNA\_M

ClientSampleId :

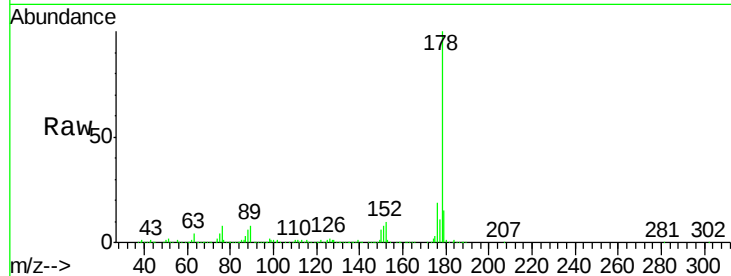
D9ZQ9

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 690399 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 14.8  | 11.8  | 17.8   |
| 176       | 19.2  | 14.8  | 22.2   |

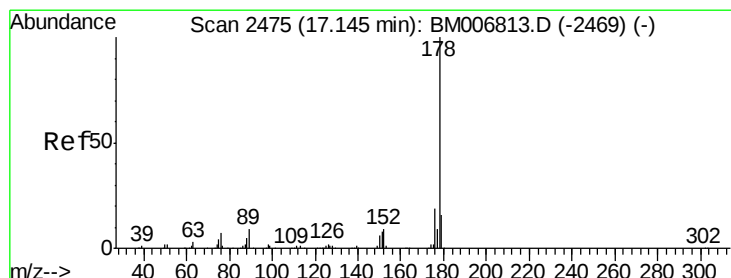
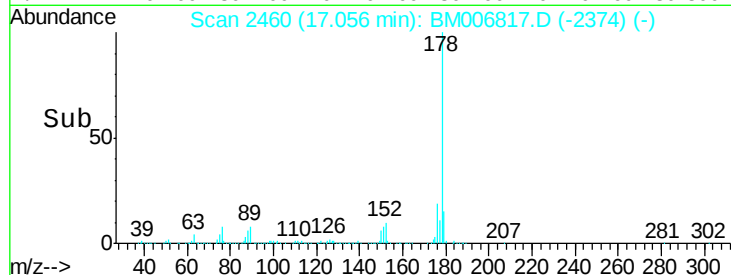
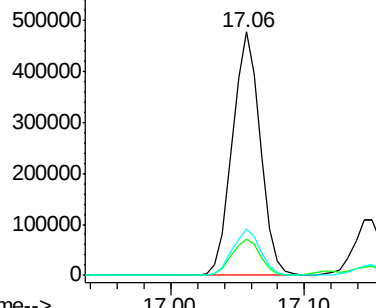
Manual Integrations  
APPROVED

sohil  
8/1/2016 7:09:24 PM

8/1/2016 7:09:24 PM



Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 179.00 (178.70 to 179.70): E  
Ion 176.00 (175.70 to 176.70): E



#27

Anthracene

Concen: 2.12 ng/ul

RT: 17.15 min Scan# 2476

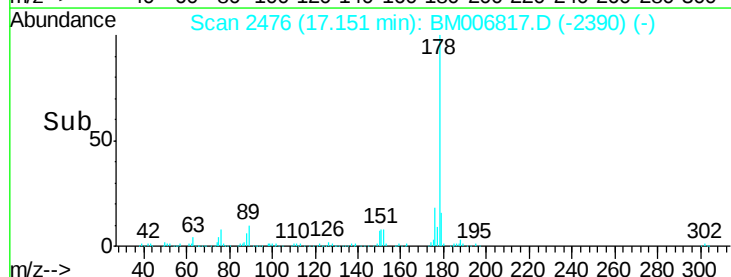
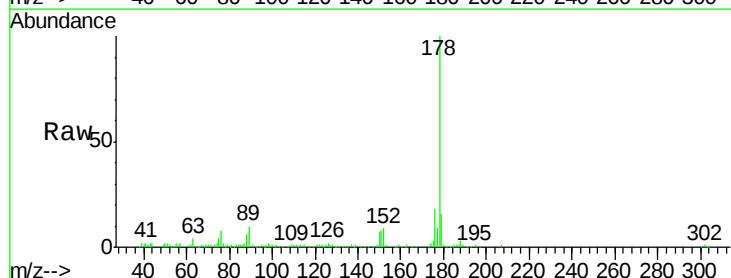
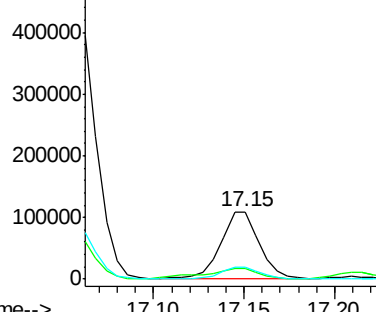
Delta R.T. 0.01 min

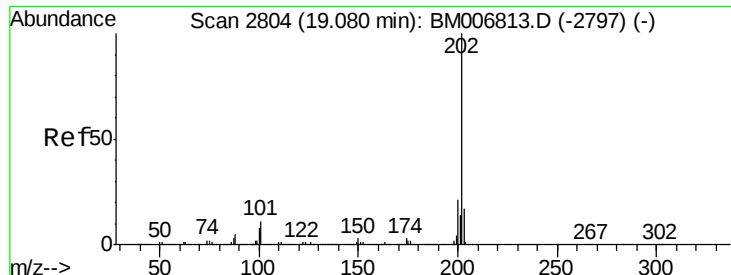
Lab File: BM006817.D

Acq: 01 Aug 2016 09:15

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 161367 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 16.0  | 12.9  | 19.3   |
| 176       | 18.5  | 15.6  | 23.4   |

Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 179.00 (178.70 to 179.70): E  
Ion 176.00 (175.70 to 176.70): E





#28

Fluoranthene

Concen: 17.71 ng/ul

RT: 19.09 min Scan# 2805

Delta R.T. 0.01 min

Lab File: BM006817.D

Acq: 01 Aug 2016 09:15

Instrument :

BNA\_M

ClientSampleId :

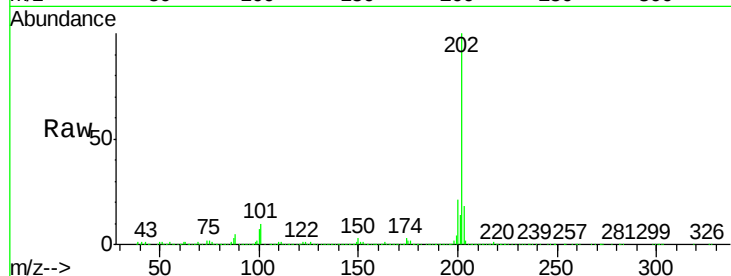
D9ZQ9

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 1539400 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 10.5  | 8.9   | 13.3    |
| 100       | 7.2   | 7.0   | 10.4    |

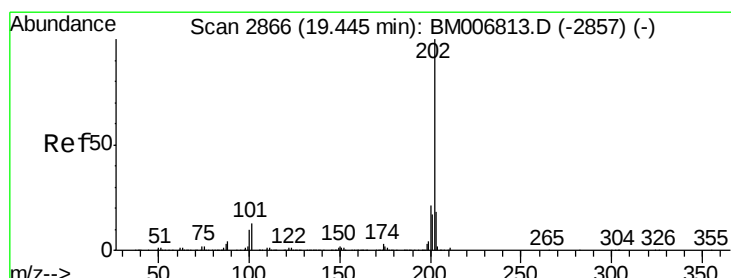
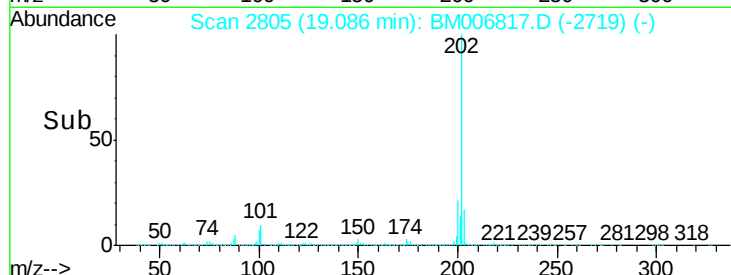
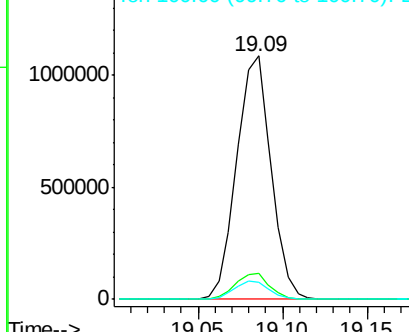
Manual Integrations  
APPROVED

sohil  
8/1/2016 7:09:24 PM

8/1/2016 7:09:24 PM



Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 100.00 (99.70 to 100.70): B



#31

Pyrene

Concen: 16.06 ng/ul

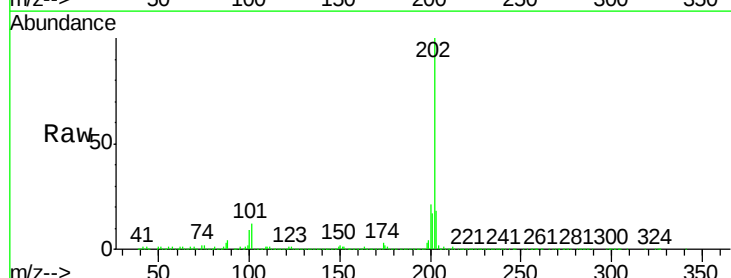
RT: 19.45 min Scan# 2867

Delta R.T. 0.01 min

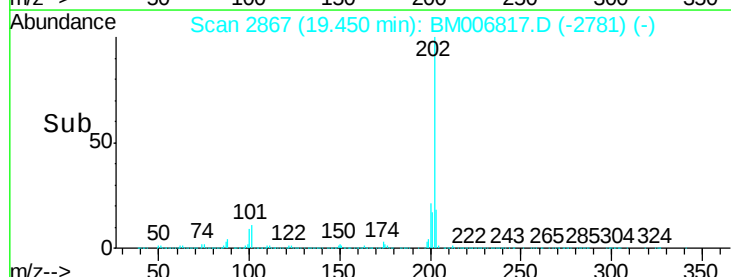
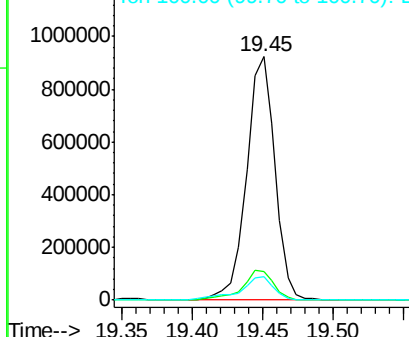
Lab File: BM006817.D

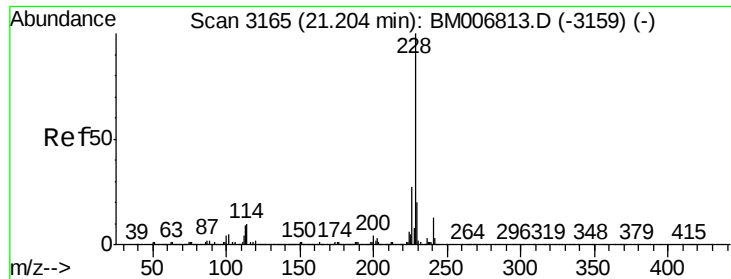
Acq: 01 Aug 2016 09:15

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 1300127 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 11.5  | 9.8   | 14.8    |
| 100       | 9.4   | 9.3   | 13.9    |



Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 100.00 (99.70 to 100.70): B





#32  
Benzo(a)anthracene  
Concen: 9.55 ng/ul  
RT: 21.20 min Scan# 3165  
Delta R.T. 0.01 min  
Lab File: BM006817.D  
Acq: 01 Aug 2016 09:15

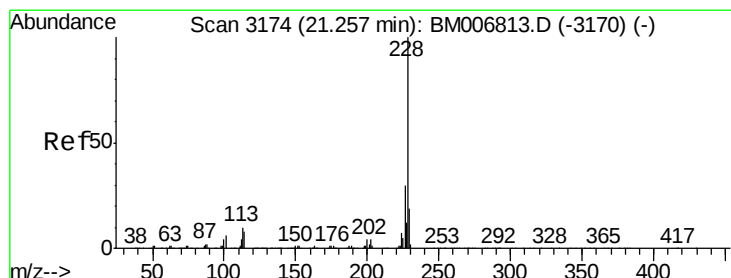
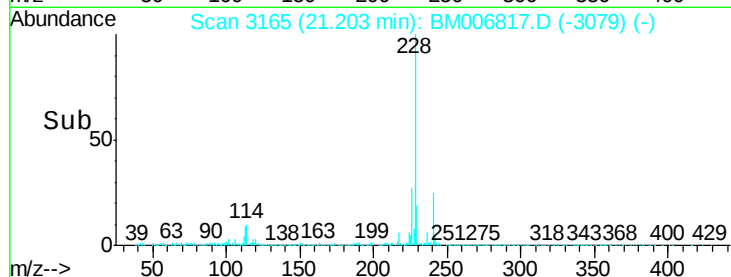
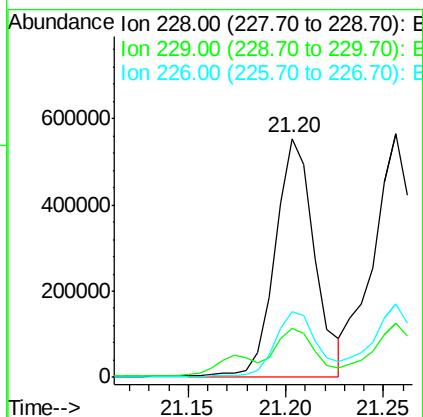
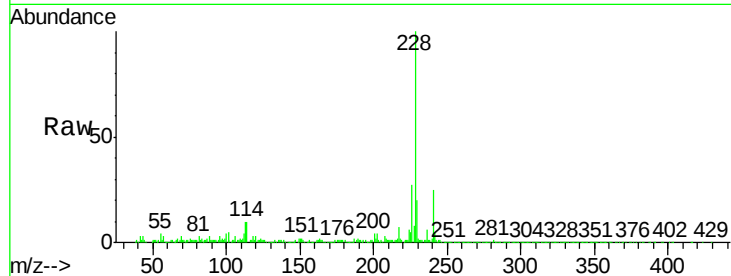
Instrument :  
BNA\_M  
ClientSampleId :  
D9ZQ9

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 228     | 100   | 773897 |       |       |
| 229     | 20.3  | 16.6   | 25.0  |       |
| 226     | 27.3  | 21.0   | 31.4  |       |

Manual Integrations  
APPROVED

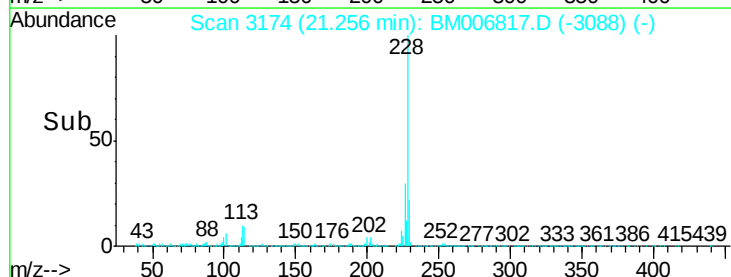
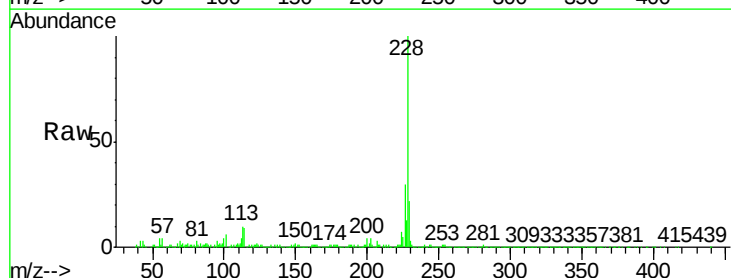
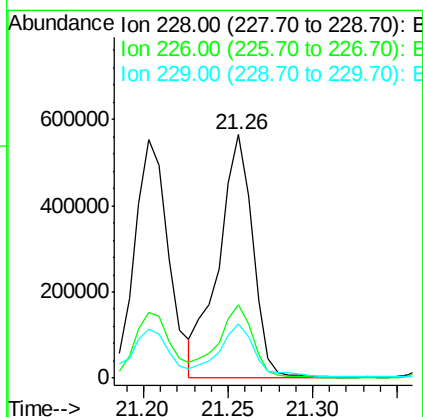
sohil  
8/1/2016 7:09:24 PM

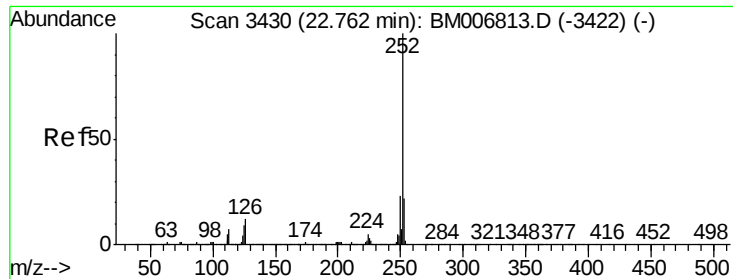
8/1/2016 7:09:24 PM



#33  
Chrysene  
Concen: 10.55 ng/ul  
RT: 21.26 min Scan# 3174  
Delta R.T. 0.01 min  
Lab File: BM006817.D  
Acq: 01 Aug 2016 09:15

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 228     | 100   | 788121 |       |       |
| 226     | 29.9  | 23.4   | 35.2  |       |
| 229     | 22.0  | 16.2   | 24.2  |       |





#35  
Benzo(b)fluoranthene  
Concen: 13.08 ng/ul  
RT: 22.77 min Scan# 3431  
Delta R.T. 0.01 min  
Lab File: BM006817.D  
Acq: 01 Aug 2016 09:15

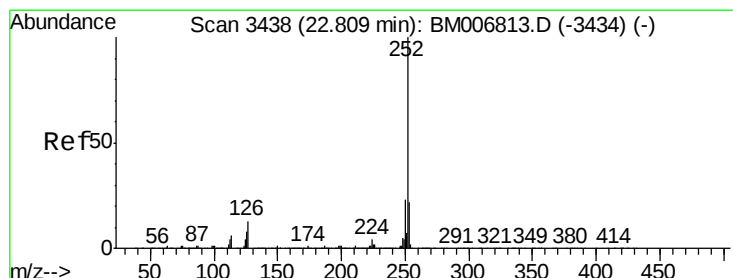
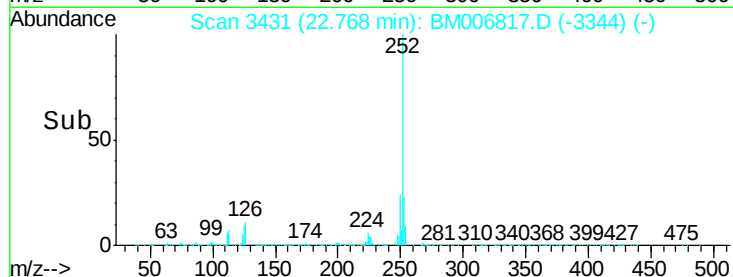
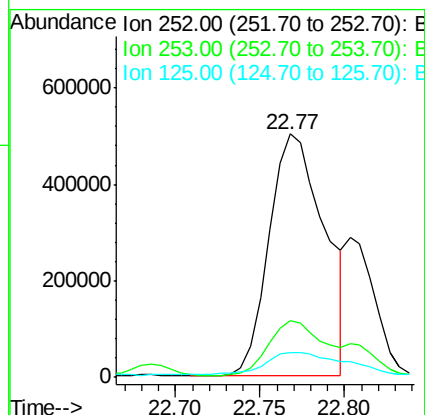
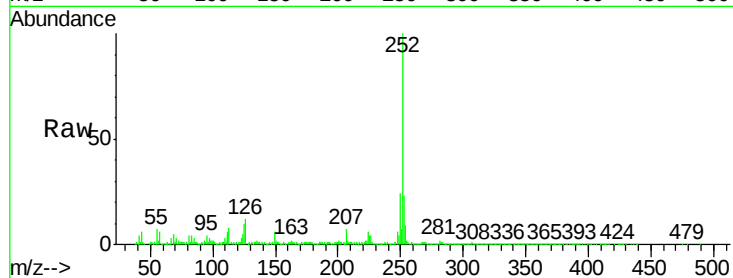
Instrument :  
BNA\_M  
ClientSampleId :  
D9ZQ9

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.2  | 18.1  | 27.1  |
| 125     | 10.3  | 7.6   | 11.4  |

Manual Integrations  
APPROVED

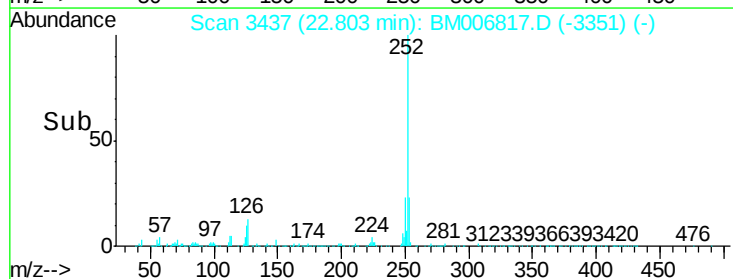
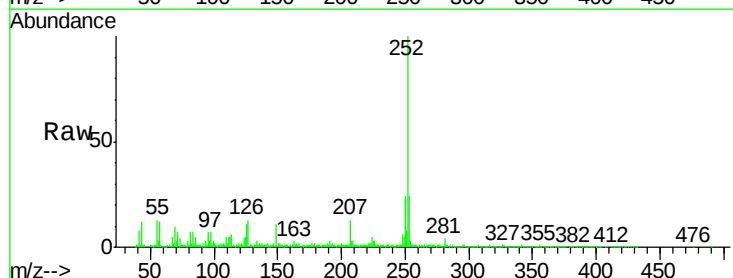
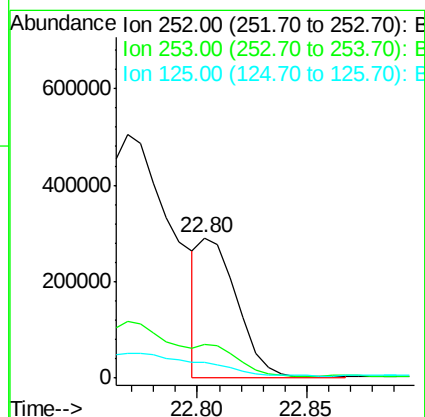
sohil  
8/1/2016 7:09:24 PM

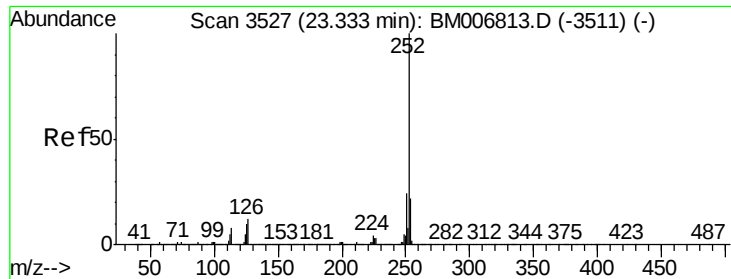
8/1/2016 7:09:24 PM



#36  
Benzo(k)fluoranthene  
Concen: 4.14 ng/ul m  
RT: 22.80 min Scan# 3437  
Delta R.T. 0.01 min  
Lab File: BM006817.D  
Acq: 01 Aug 2016 09:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.2  | 17.8  | 26.8  |
| 125     | 11.2  | 7.7   | 11.5  |





#38  
Benzo(a)pyrene  
Concen: 8.46 ng/ul  
RT: 23.33 min Scan# 3527  
Delta R.T. 0.01 min  
Lab File: BM006817.D  
Acq: 01 Aug 2016 09:15

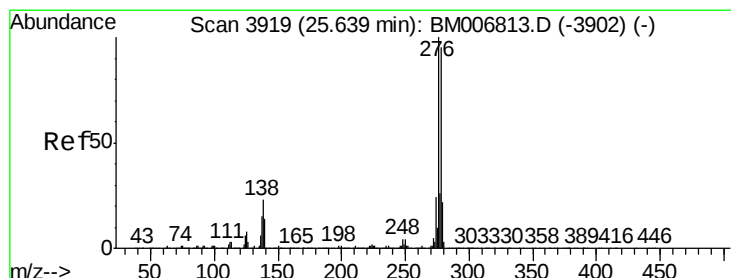
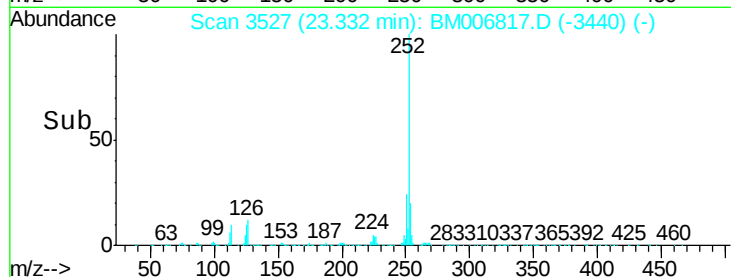
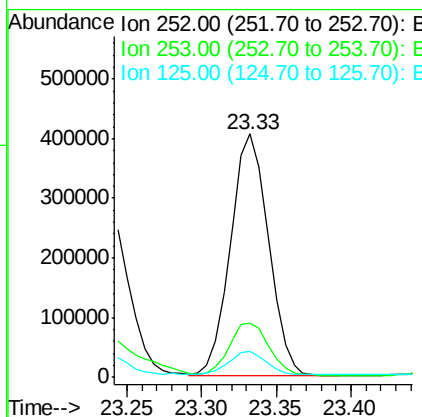
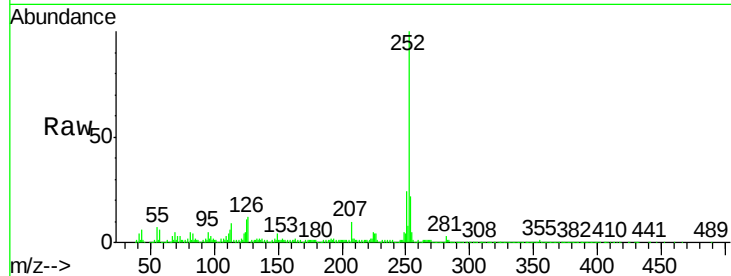
Instrument :  
BNA\_M  
ClientSampleId :  
D9ZQ9

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.0  | 17.4  | 26.0  |
| 125     | 10.6  | 8.2   | 12.2  |

Manual Integrations  
APPROVED

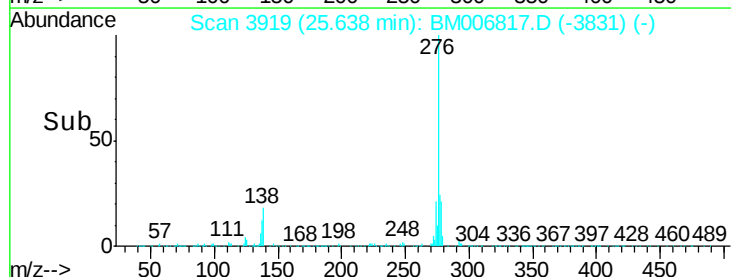
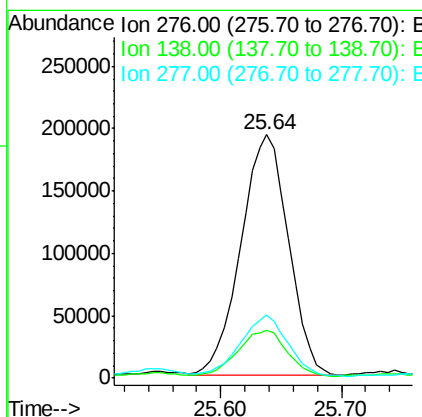
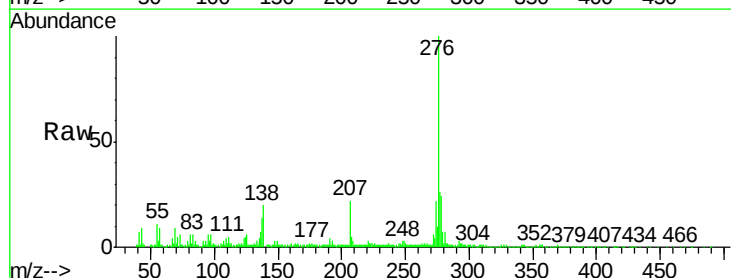
sohil  
8/1/2016 7:09:24 PM

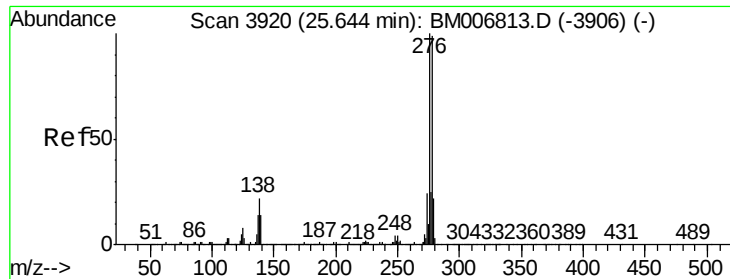
8/1/2016 7:09:24 PM



#39  
Indeno(1,2,3-cd)pyrene  
Concen: 5.31 ng/ul  
RT: 25.64 min Scan# 3919  
Delta R.T. 0.02 min  
Lab File: BM006817.D  
Acq: 01 Aug 2016 09:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 19.6  | 15.8  | 23.6  |
| 277     | 26.0  | 19.0  | 28.6  |





#40

Dibenzo(a,h)anthracene

Concen: 1.80 ng/ul

RT: 25.64 min Scan# 3919

Delta R.T. 0.01 min

Lab File: BM006817.D

Acq: 01 Aug 2016 09:15

Instrument :

BNA\_M

ClientSampleId :

D9ZQ9

Tgt Ion: 278 Resp: 147916

Ion Ratio Lower Upper

278 100

139 0.0 12.1 18.1#

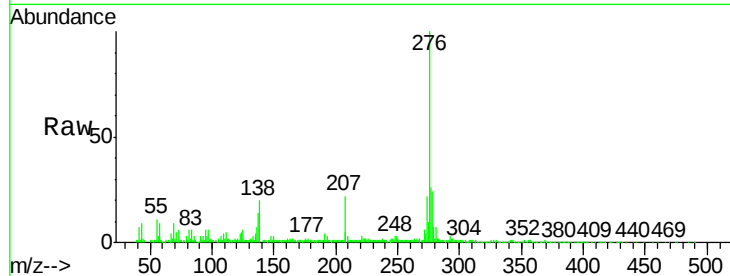
279 28.2 19.8 29.8

Manual Integrations  
APPROVED

sohil

8/1/2016 7:09:24 PM

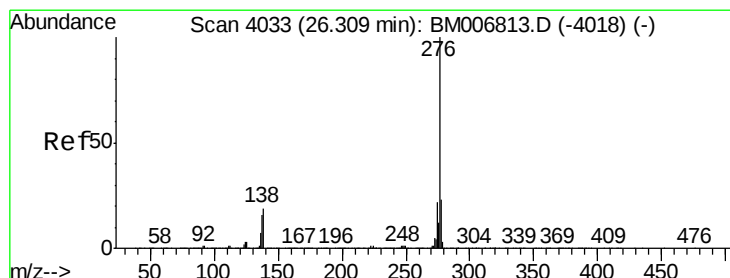
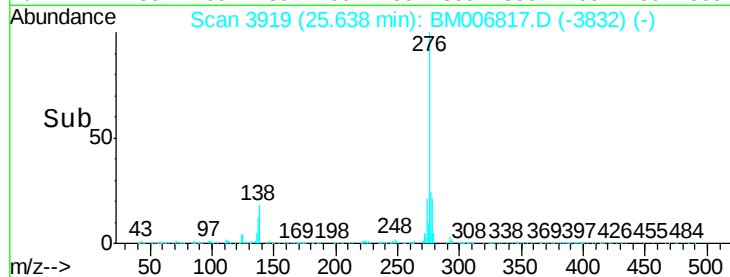
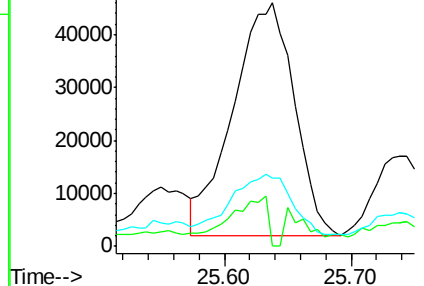
8/1/2016 7:09:24 PM



Abundance Ion 278.00 (277.70 to 278.70): E

Ion 139.00 (138.70 to 139.70): E

Ion 279.00 (278.70 to 279.70): E



#41

Benzo(g,h,i)perylene

Concen: 5.72 ng/ul

RT: 26.31 min Scan# 4034

Delta R.T. 0.02 min

Lab File: BM006817.D

Acq: 01 Aug 2016 09:15

Tgt Ion: 276 Resp: 486271

Ion Ratio Lower Upper

276 100

138 20.3 13.9 20.9

277 24.8 19.8 29.6

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

