

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM060619\  
 Data File : BM020786.D  
 Acq On : 07 Jun 2019 04:50  
 Operator : HP/JU  
 Sample : K3201-05  
 Misc :  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :

Quant Time: Jun 07 06:40:33 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM060619MA.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Jun 07 06:35:27 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.81  | 152  | 358731   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.60 | 136  | 1433300  | 20.00 | ng/ul | 0.00     |
| 35) Acenaphthene-d10      | 14.45 | 164  | 789495   | 20.00 | ng/ul | 0.00     |
| 61) Phenanthrene-d10      | 17.20 | 188  | 1717436  | 20.00 | ng/ul | 0.00     |
| 77) Chrysene-d12          | 21.37 | 240  | 1668616  | 20.00 | ng/ul | 0.00     |
| 85) Perylene-d12          | 23.66 | 264  | 1945548  | 20.00 | ng/ul | 0.01     |

## System Monitoring Compounds

|                                |       |     |         |       |       |      |
|--------------------------------|-------|-----|---------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.31  | 96  | 40622   | 5.40  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.97  | 99  | 854333  | 31.13 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.15  | 67  | 514849  | 31.28 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.35  | 132 | 726750  | 33.24 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.51  | 113 | 691889  | 31.33 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.97  | 128 | 348064  | 35.58 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.69  | 143 | 389888  | 38.72 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.22 | 165 | 746048  | 35.52 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.75 | 131 | 676523  | 26.75 | ng/ul | 0.00 |
| 43) Dimethylphthalate-d6       | 13.86 | 166 | 2197623 | 37.63 | ng/ul | 0.00 |
| 46) Acenaphthylene-d8          | 14.14 | 160 | 2711599 | 36.62 | ng/ul | 0.00 |
| 51) 4-Nitrophenol-d4           | 14.64 | 143 | 276147  | 27.56 | ng/ul | 0.00 |
| 57) Fluorene-d10               | 15.44 | 176 | 1828829 | 36.85 | ng/ul | 0.00 |
| 62) 4,6-Dinitro-2-methylphenol | 15.56 | 200 | 182498  | 20.78 | ng/ul | 0.00 |
| 70) Anthracene-d10             | 17.29 | 188 | 2752877 | 36.70 | ng/ul | 0.00 |
| 78) Pyrene-d10                 | 19.59 | 212 | 2830574 | 35.09 | ng/ul | 0.00 |
| 89) Benzo(a)pyrene-d12         | 23.52 | 264 | 3071663 | 34.74 | ng/ul | 0.02 |

## Target Compounds

|                                |       |     |          |         | Ovalue |     |
|--------------------------------|-------|-----|----------|---------|--------|-----|
| 28) Naphthalene                | 10.65 | 128 | 131212   | 1.949   | ng/ul  | 98  |
| 34) 2-Methylnaphthalene        | 12.26 | 142 | 80927    | 1.637   | ng/ul  | 96  |
| 44) Dimethylphthalate          | 13.91 | 163 | 877177   | 15.001  | ng/ul  | 100 |
| 47) Acenaphthylene             | 14.17 | 152 | 452985   | 6.323   | ng/ul  | 99  |
| 49) Acenaphthene               | 14.51 | 153 | 204080   | 4.081   | ng/ul  | 97  |
| 53) Dibenzofuran               | 14.84 | 168 | 185217   | 2.618   | ng/ul  | 98  |
| 58) Fluorene                   | 15.50 | 166 | 197755   | 3.482   | ng/ul  | 97  |
| 69) Phenanthrene               | 17.24 | 178 | 5307346  | 61.403  | ng/ul  | 99  |
| 71) Anthracene                 | 17.33 | 178 | 989890   | 11.173  | ng/ul  | 99  |
| 74) Carbazole                  | 17.60 | 167 | 429963   | 5.581   | ng/ul  | 99  |
| 76) Fluoranthene               | 19.26 | 202 | 10750396 | 108.533 | ng/ul  | 99  |
| 79) Pyrene                     | 19.62 | 202 | 9928563  | 96.393  | ng/ul  | 98  |
| 82) Benzo(a)anthracene         | 21.36 | 228 | 5749049  | 55.231  | ng/ul  | 95  |
| 83) Bis(2-ethylhexyl)phthalate | 21.29 | 149 | 152011   | 2.147   | ng/ul  | 98  |
| 84) Chrysene                   | 21.41 | 228 | 5867010  | 60.744  | ng/ul  | 98  |
| 87) Benzo(b)fluoranthene       | 22.97 | 252 | 7842332  | 69.292  | ng/ul  | 98  |
| 88) Benzo(k)fluoranthene       | 22.97 | 252 | 7842332  | 72.494  | ng/ul  | 98  |
| 90) Benzo(a)pyrene             | 23.57 | 252 | 5365373  | 49.829  | ng/ul  | 97  |
| 91) Indeno(1,2,3-cd)pyrene     | 25.99 | 276 | 3923101  | 30.848  | ng/ul  | 95  |
| 92) Dibenz(a,h)anthracene      | 25.99 | 278 | 1084572  | 10.065  | ng/ul# | 81  |
| 93) Benzo(a,h,i)perylene       | 26.70 | 276 | 3050723  | 29.568  | ng/ul  | 98  |

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Sample : K3201-05  
Misc :  
ALS Vial : 21 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :

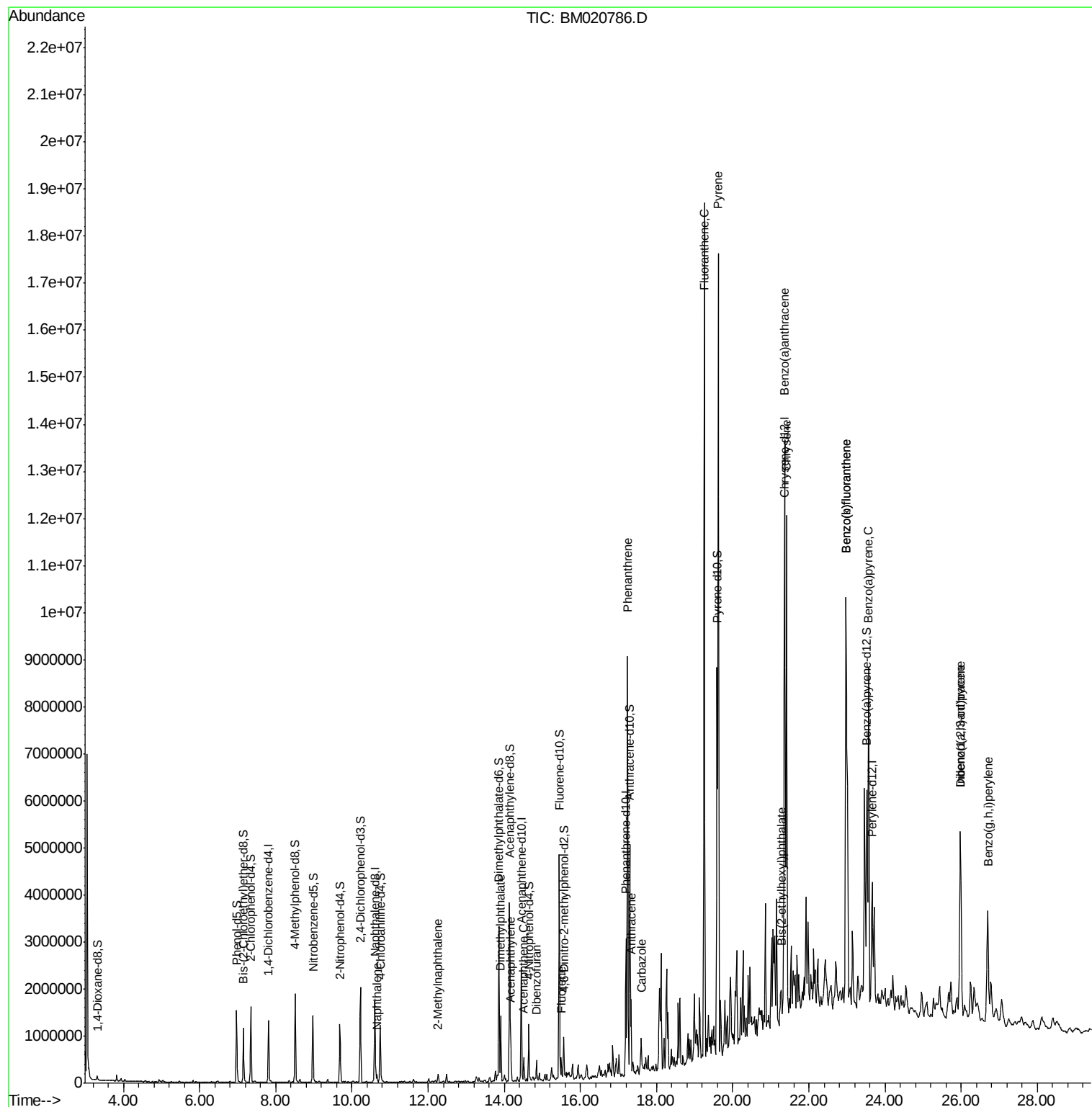
Quant Time: Jun 07 06:40:33 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM060619MA.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Fri Jun 07 06:35:27 2019  
Response via : Initial Calibration

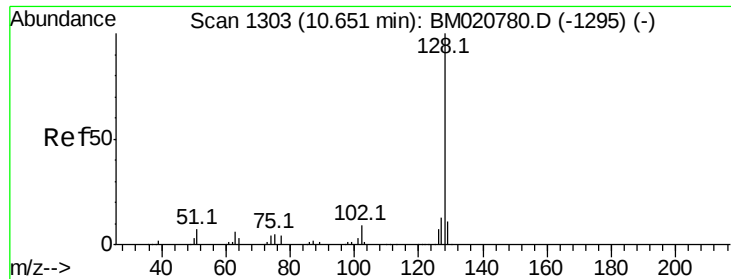
| Internal Standards                                                   | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------------------------------------------------|------|------|----------|------|-------|----------|
| -----                                             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

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Quant Title : SVOA CALIBRATION  
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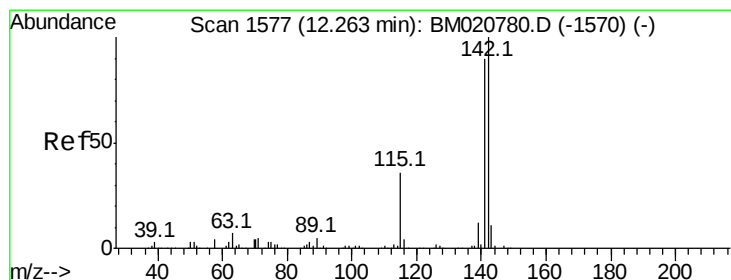
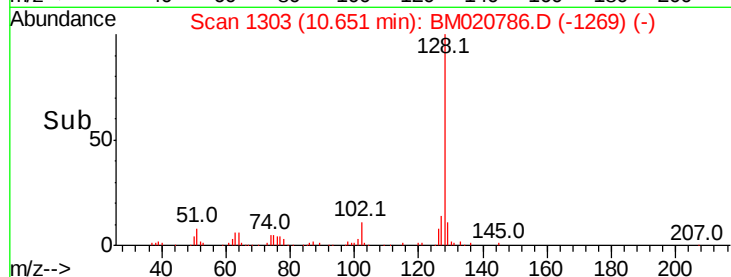
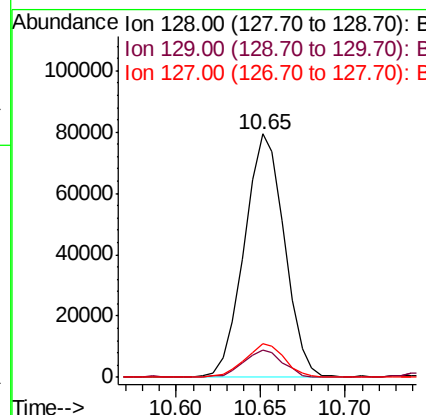
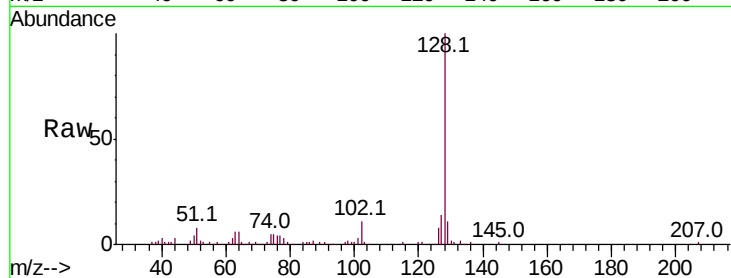




#28  
Naphthalene  
Concen: 1.949 ng/ul  
RT: 10.65 min Scan# 1303  
Delta R.T. -0.00 min  
Lab File: BM020786.D  
Acq: 07 Jun 2019 04:50

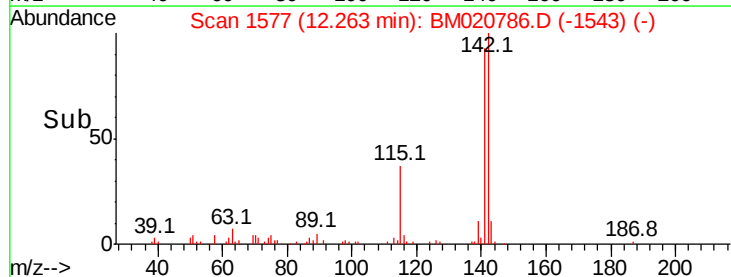
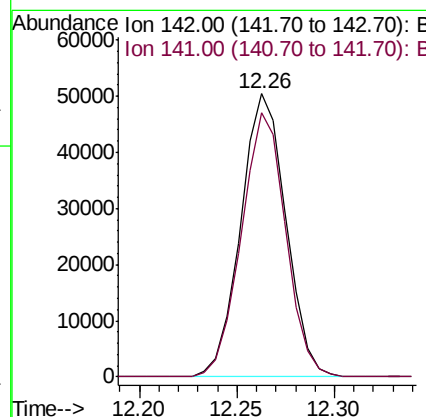
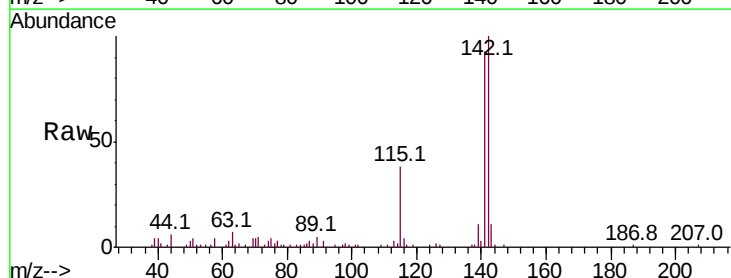
Instrument :  
BNA\_M  
ClientSampleId :

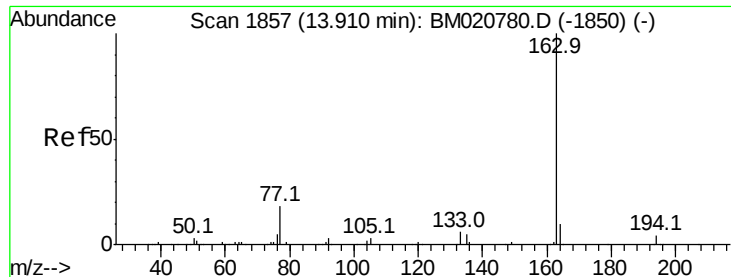
Tot Ion:128 Resp: 131212  
Ion Ratio Lower Upper  
128 100  
129 11.4 8.6 13.0  
127 14.0 10.2 15.2



#34  
2-Methylnaphthalene  
Concen: 1.637 ng/ul  
RT: 12.26 min Scan# 1577  
Delta R.T. -0.00 min  
Lab File: BM020786.D  
Acq: 07 Jun 2019 04:50

Tgt Ion:142 Resp: 80927  
Ion Ratio Lower Upper  
142 100  
141 93.3 71.4 107.0





#44

Dimethylphthalate

Concen: 15.001 ng/ul

RT: 13.91 min Scan# 1857

Delta R.T. -0.00 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

Instrument :

BNA\_M

ClientSampleId :

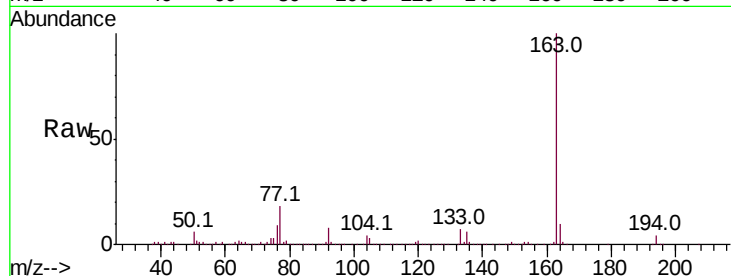
Tot Ion:163 Resp: 877177

Ion Ratio Lower Upper

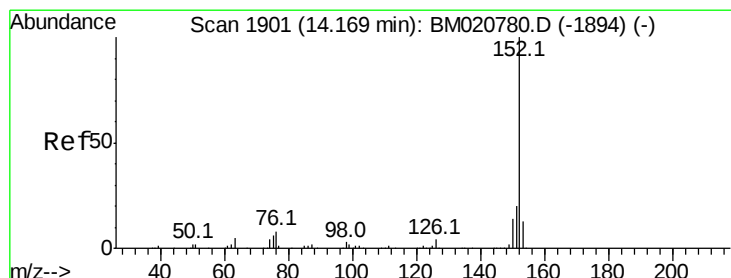
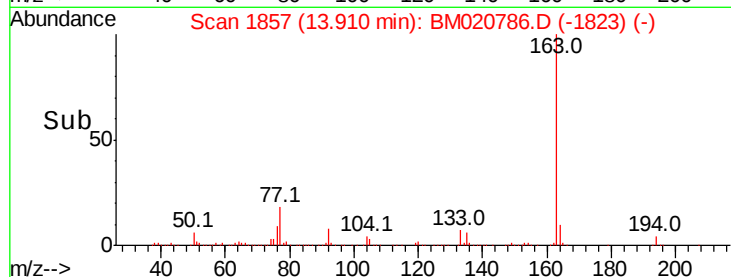
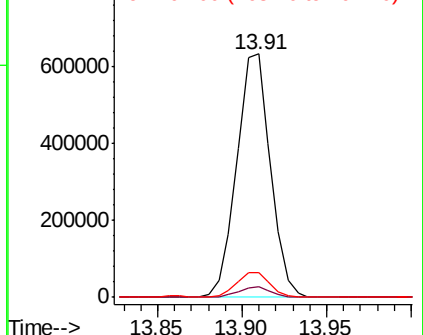
163 100

194 4.3 3.2 4.8

164 9.9 8.0 12.0



Abundance Ion 163.00 (162.70 to 163.70): E  
Ion 194.00 (193.70 to 194.70): E  
Ion 164.00 (163.70 to 164.70): E



#47

Acenaphthylene

Concen: 6.323 ng/ul

RT: 14.17 min Scan# 1902

Delta R.T. 0.01 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

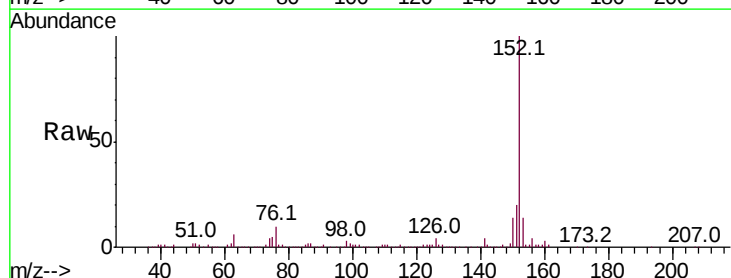
Tgt Ion:152 Resp: 452985

Ion Ratio Lower Upper

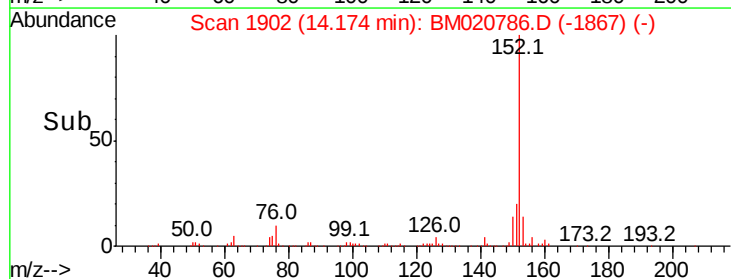
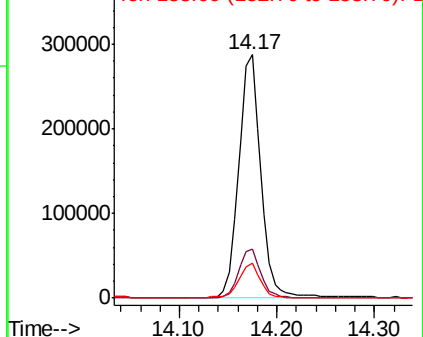
152 100

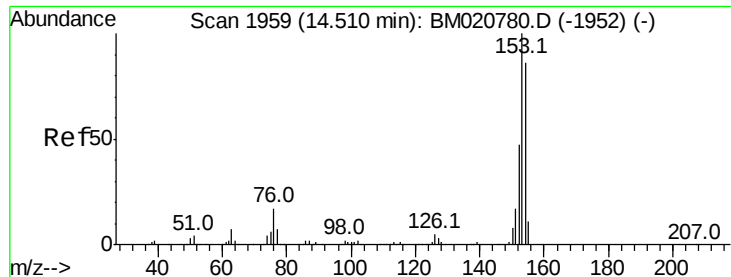
151 20.1 16.2 24.2

153 14.2 10.6 15.8



Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 151.00 (150.70 to 151.70): E  
Ion 153.00 (152.70 to 153.70): E





#49

Acenaphthene

Concen: 4.081 ng/ul

RT: 14.51 min Scan# 1959

Delta R.T. -0.00 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

Instrument :

BNA\_M

ClientSampleId :

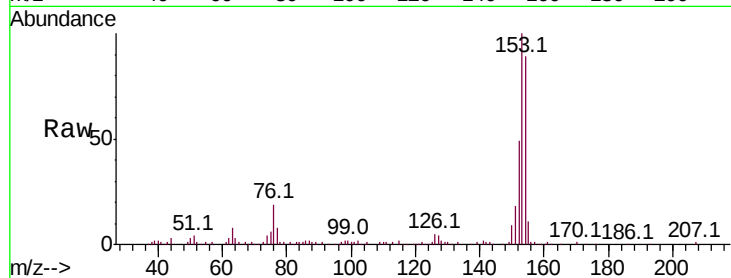
Tot Ion:153 Resp: 204080

Ion Ratio Lower Upper

153 100

152 49.4 37.3 55.9

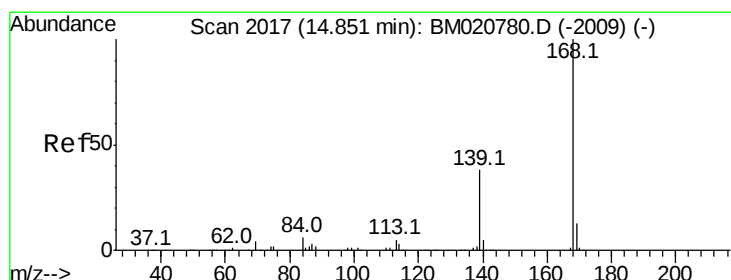
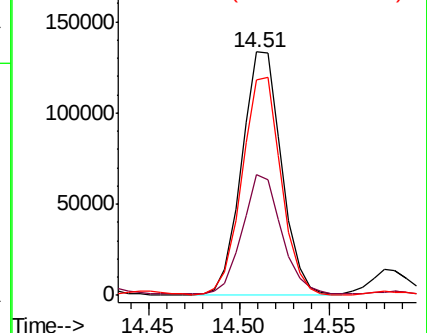
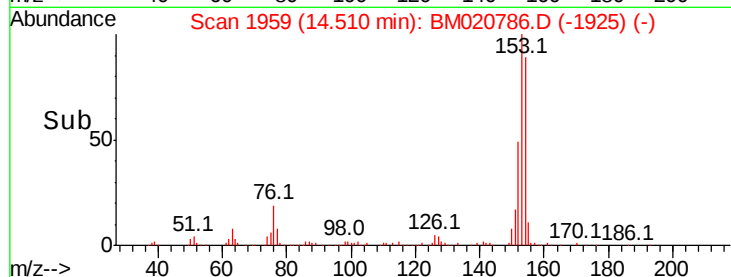
154 88.5 68.7 103.1



Abundance Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E



#53

Dibenzofuran

Concen: 2.618 ng/ul

RT: 14.84 min Scan# 2016

Delta R.T. -0.01 min

Lab File: BM020786.D

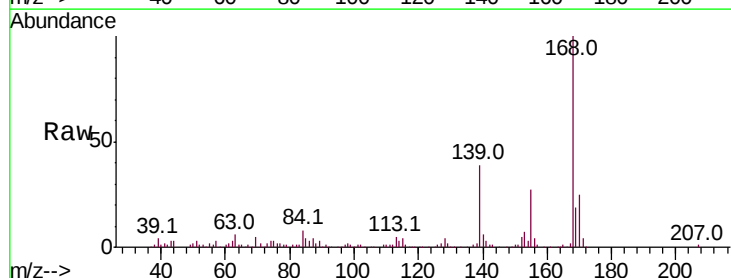
Acq: 07 Jun 2019 04:50

Tgt Ion:168 Resp: 185217

Ion Ratio Lower Upper

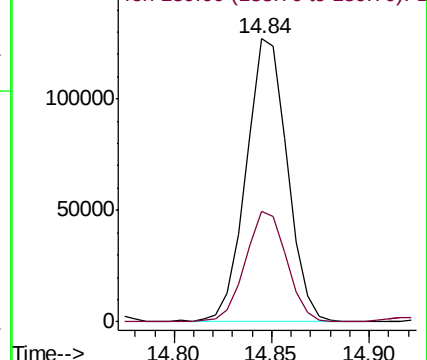
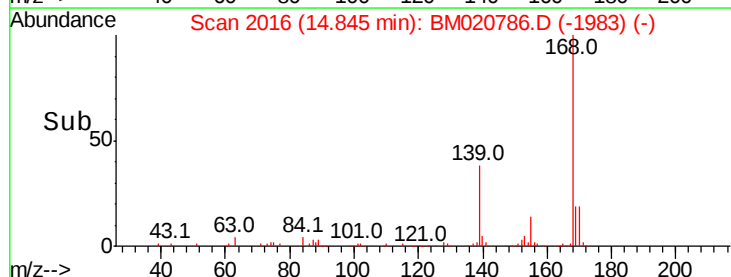
168 100

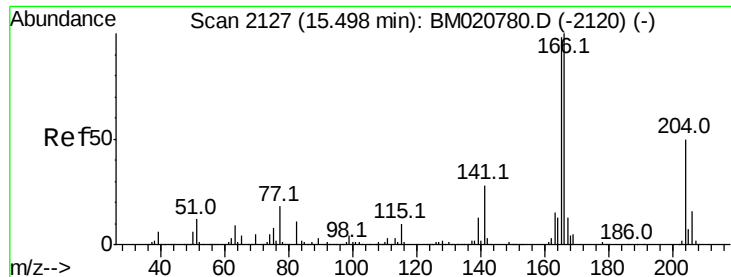
139 39.3 30.4 45.6



Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E





#58

Fluorene

Concen: 3.482 ng/ul

RT: 15.50 min Scan# 2127

Delta R.T. -0.00 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

Instrument :

BNA\_M

ClientSampleId :

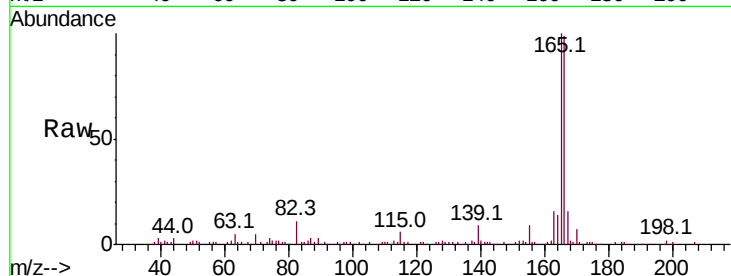
Tot Ion:166 Resp: 197755

Ion Ratio Lower Upper

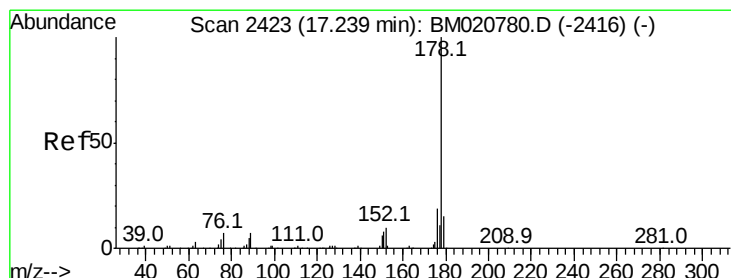
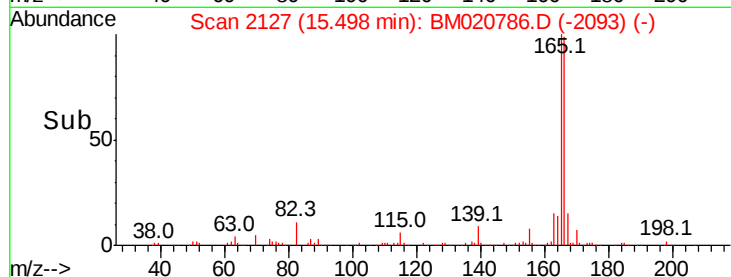
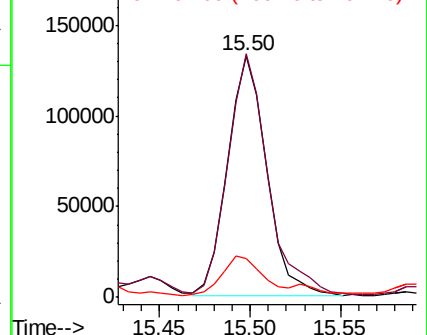
166 100

165 100.9 78.6 117.8

167 15.9 10.8 16.2



Abundance Ion 166.00 (165.70 to 166.70): E  
Ion 165.00 (164.70 to 165.70): E  
Ion 167.00 (166.70 to 167.70): E



#69

Phenanthrene

Concen: 61.403 ng/ul

RT: 17.24 min Scan# 2423

Delta R.T. -0.00 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

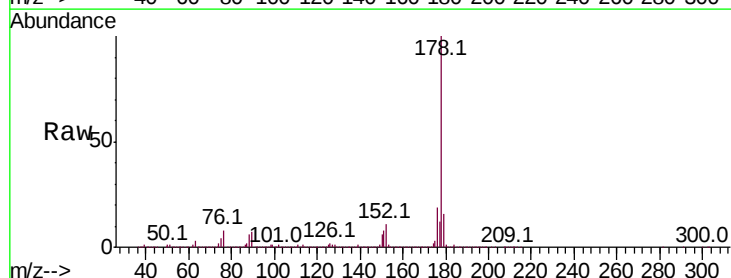
Tgt Ion:178 Resp: 5307346

Ion Ratio Lower Upper

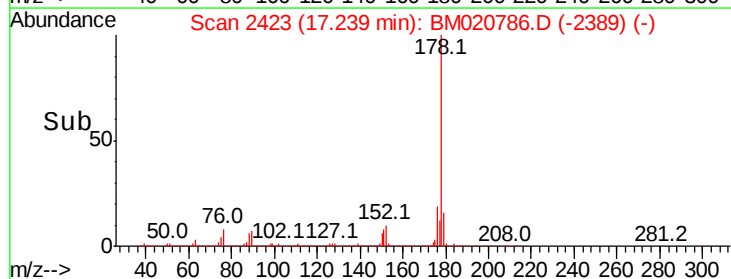
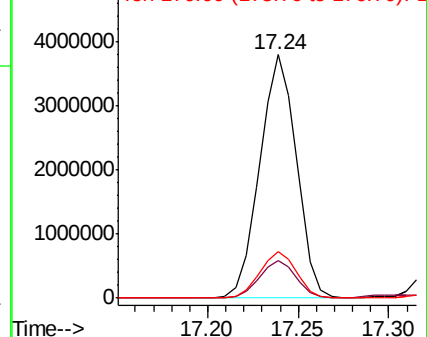
178 100

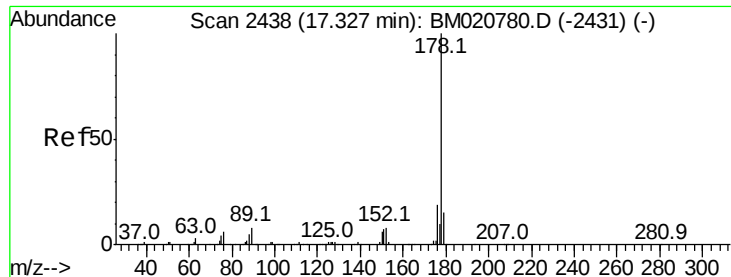
179 15.6 12.3 18.5

176 19.3 14.8 22.2



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

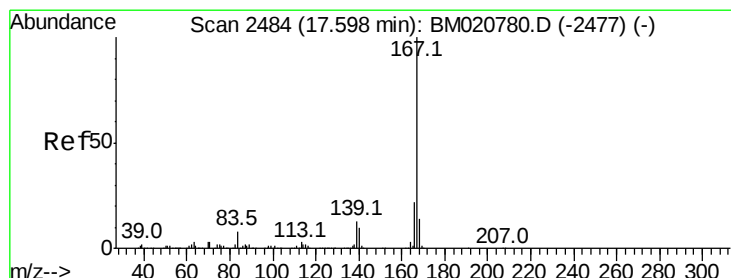
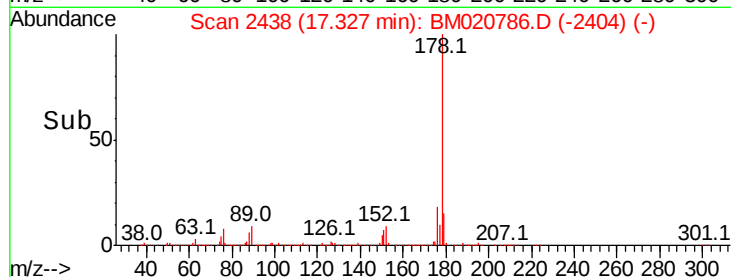
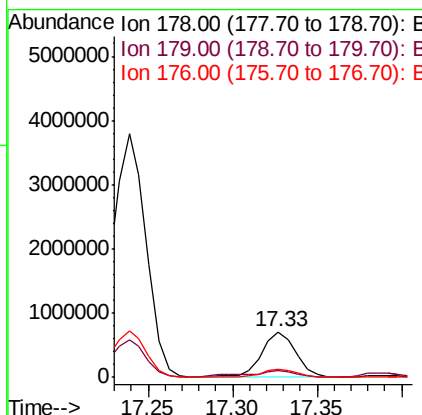
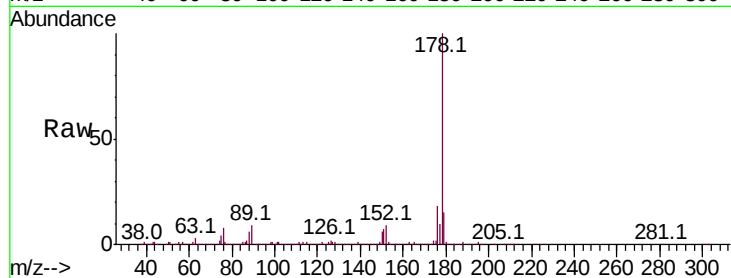




#71  
 Anthracene  
 Concen: 11.173 ng/ul  
 RT: 17.33 min Scan# 2438  
 Delta R.T. -0.00 min  
 Lab File: BM020786.D  
 Acq: 07 Jun 2019 04:50

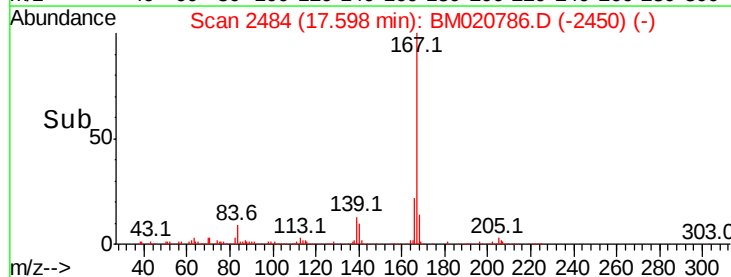
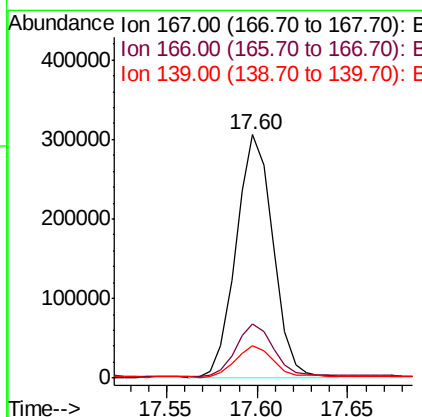
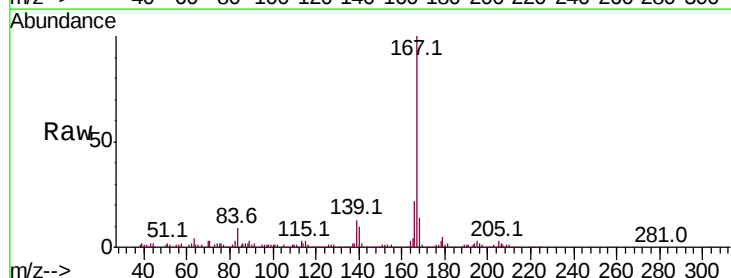
Instrument :  
 BNA\_M  
 ClientSampleId :

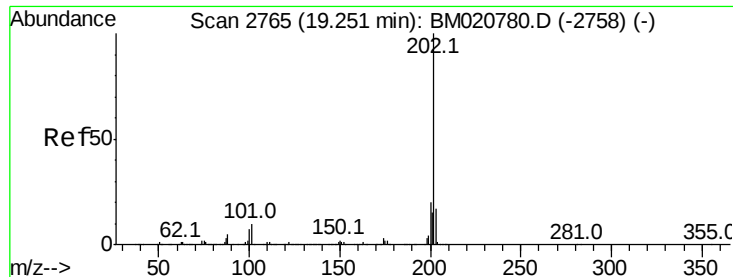
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.4  | 12.1  | 18.1  |
| 176     | 18.4  | 14.9  | 22.3  |



#74  
 Carbazole  
 Concen: 5.581 ng/ul  
 RT: 17.60 min Scan# 2484  
 Delta R.T. -0.00 min  
 Lab File: BM020786.D  
 Acq: 07 Jun 2019 04:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 22.0  | 17.0  | 25.6  |
| 139     | 13.3  | 10.5  | 15.7  |

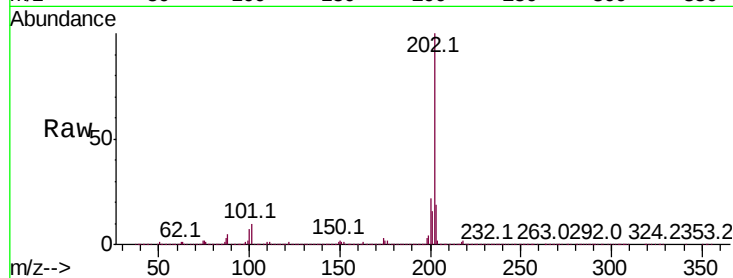




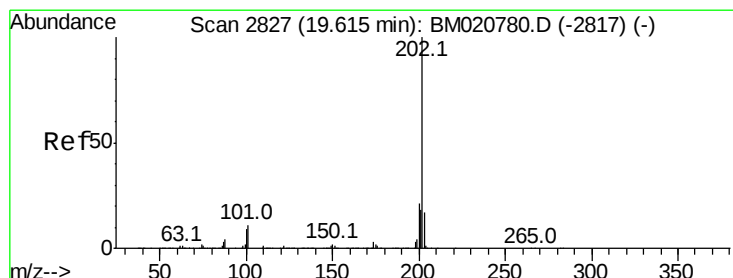
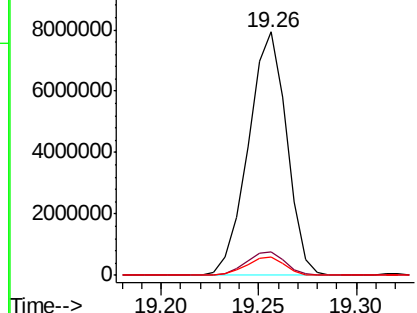
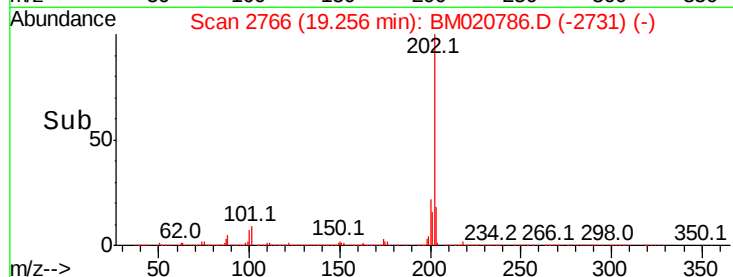
#76  
 Fluoranthene  
 Concen: 108.533 ng/ul  
 RT: 19.26 min Scan# 2766  
 Delta R.T. 0.01 min  
 Lab File: BM020786.D  
 Acq: 07 Jun 2019 04:50

Instrument :  
 BNA\_M  
 ClientSampled :

Tot Ion:202 Resp:10750396  
 Ion Ratio Lower Upper  
 202 100  
 101 9.6 7.9 11.9  
 100 7.4 6.2 9.4

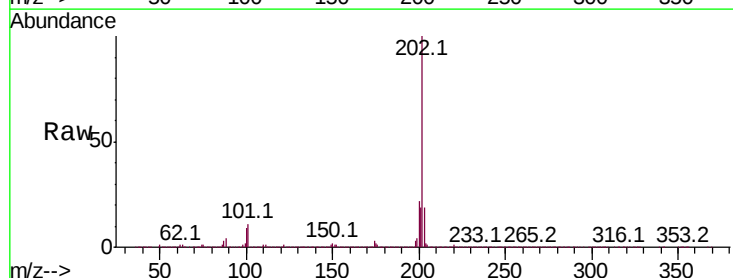


Abundance Ion 202.00 (201.70 to 202.70): E  
 Ion 101.00 (100.70 to 101.70): E  
 Ion 100.00 (99.70 to 100.70): B

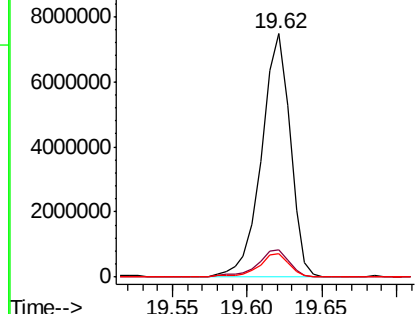
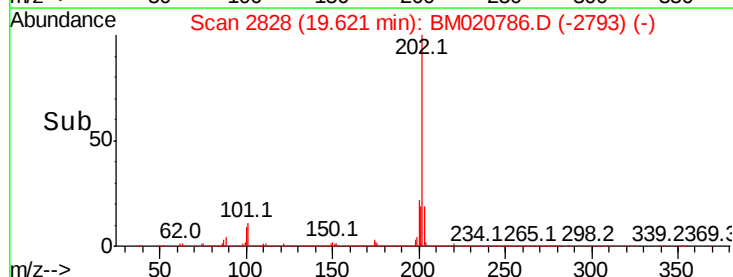


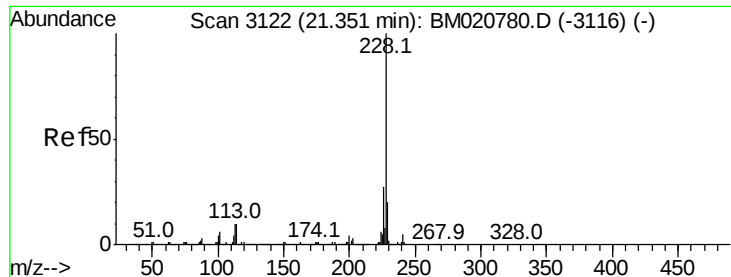
#79  
 Pyrene  
 Concen: 96.393 ng/ul  
 RT: 19.62 min Scan# 2828  
 Delta R.T. 0.01 min  
 Lab File: BM020786.D  
 Acq: 07 Jun 2019 04:50

Tgt Ion:202 Resp: 9928563  
 Ion Ratio Lower Upper  
 202 100  
 101 11.2 9.8 14.6  
 100 9.5 8.0 12.0



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





#82

Benzo(a)anthracene

Concen: 55.231 ng/ul

RT: 21.36 min Scan# 3124

Delta R.T. 0.01 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

Instrument :

BNA\_M

ClientSampleId :

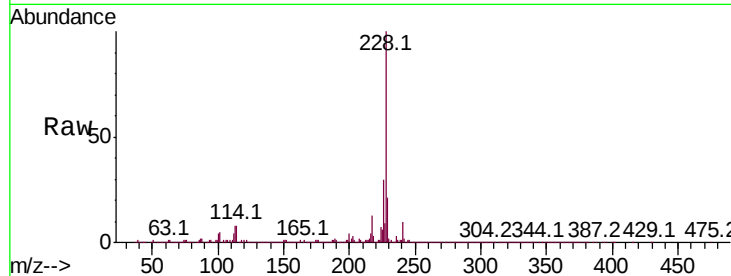
Tot Ion:228 Resp: 5749049

Ion Ratio Lower Upper

228 100

229 21.0 15.6 23.4

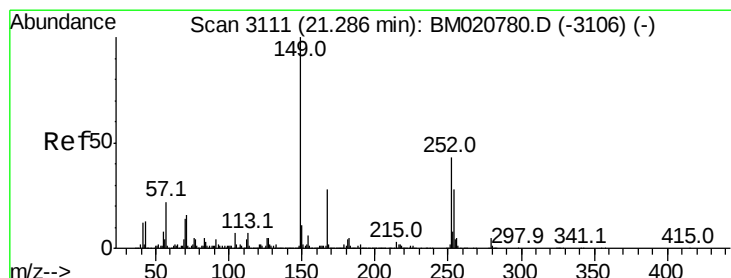
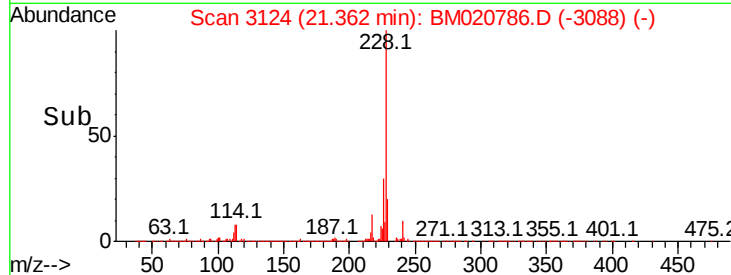
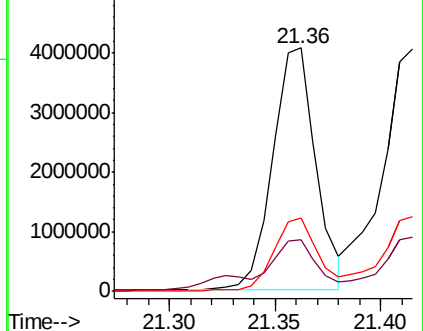
226 30.2 21.4 32.2



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 229.00 (228.70 to 229.70): E

Ion 226.00 (225.70 to 226.70): E



#83

Bis(2-ethylhexyl)phthalate

Concen: 2.147 ng/ul

RT: 21.29 min Scan# 3111

Delta R.T. -0.00 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

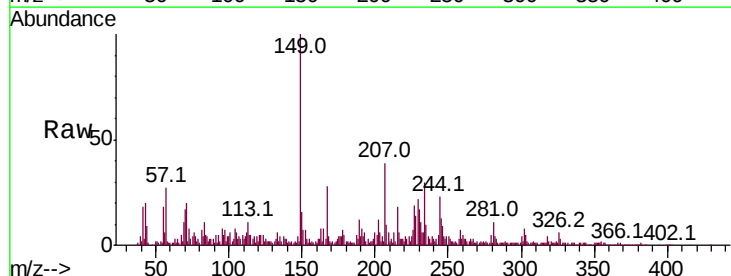
Tgt Ion:149 Resp: 152011

Ion Ratio Lower Upper

149 100

167 28.4 21.9 32.9

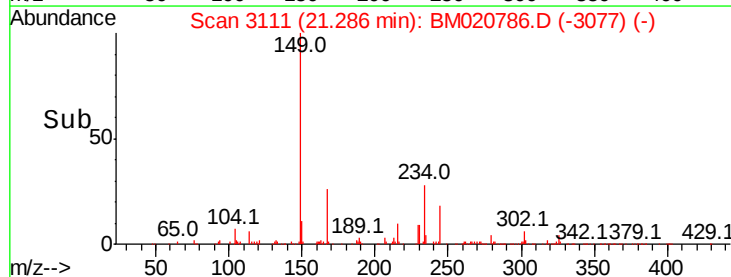
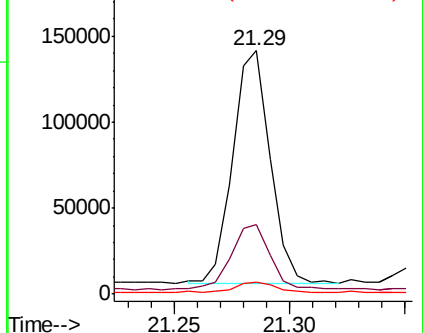
279 5.1 4.1 6.1

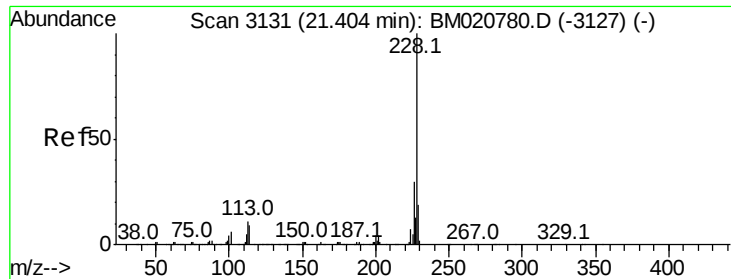


Abundance Ion 149.00 (148.70 to 149.70): E

Ion 167.00 (166.70 to 167.70): E

Ion 279.00 (278.70 to 279.70): E

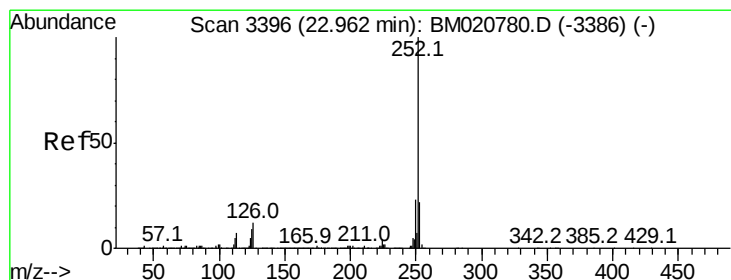
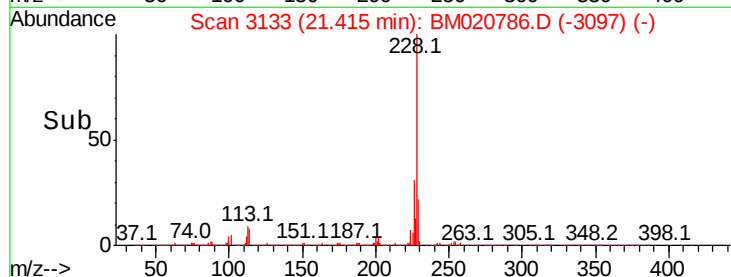
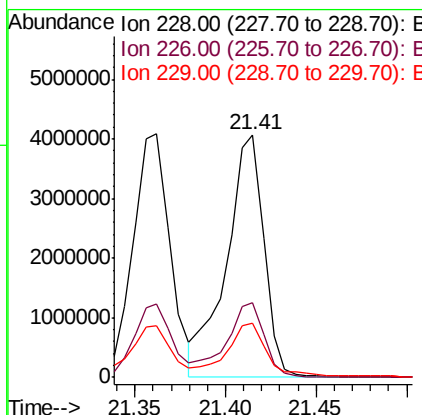
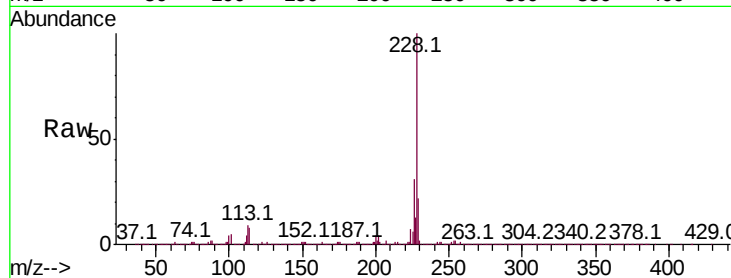




#84  
Chrysene  
Concen: 60.744 ng/ul  
RT: 21.41 min Scan# 3133  
Delta R.T. 0.01 min  
Lab File: BM020786.D  
Acq: 07 Jun 2019 04:50

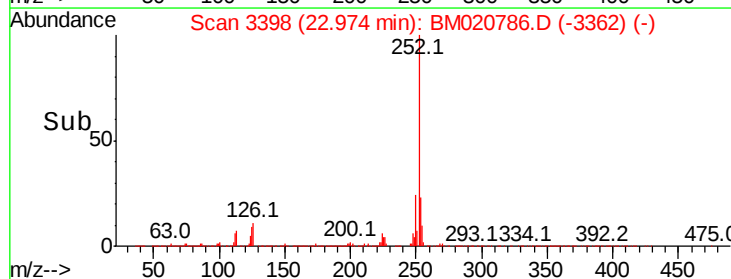
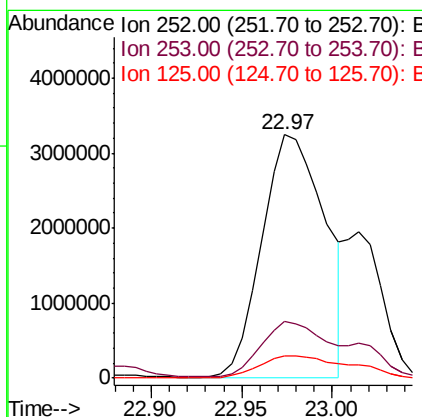
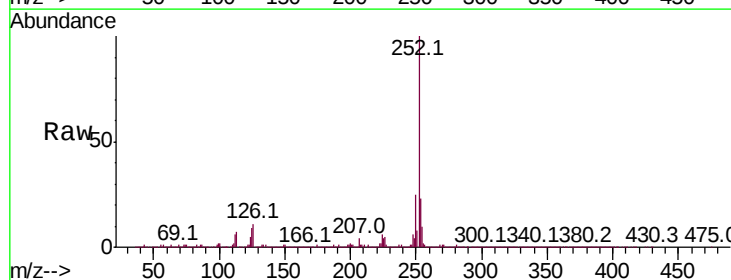
Instrument :  
BNA\_M  
ClientSampled :

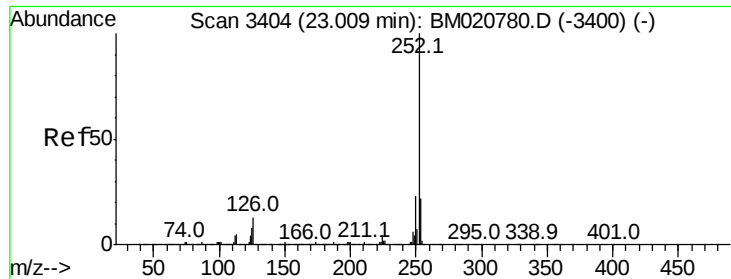
Tot Ion:228 Resp: 5867010  
Ion Ratio Lower Upper  
228 100  
226 30.7 24.4 36.6  
229 22.3 16.2 24.2



#87  
Benzo(b)fluoranthene  
Concen: 69.292 ng/ul  
RT: 22.97 min Scan# 3398  
Delta R.T. 0.01 min  
Lab File: BM020786.D  
Acq: 07 Jun 2019 04:50

Tgt Ion:252 Resp: 7842332  
Ion Ratio Lower Upper  
252 100  
253 23.3 17.6 26.4  
125 9.1 7.3 10.9





#88

Benzo(k)fluoranthene

Concen: 72.494 ng/ul

RT: 22.97 min Scan# 3398

Delta R.T. -0.04 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

Instrument :

BNA\_M

ClientSampleId :

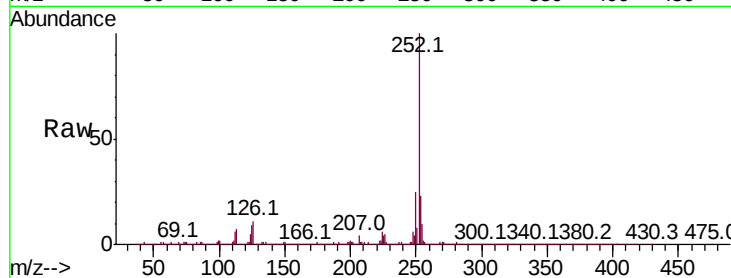
Tot Ion:252 Resp: 7842332

Ion Ratio Lower Upper

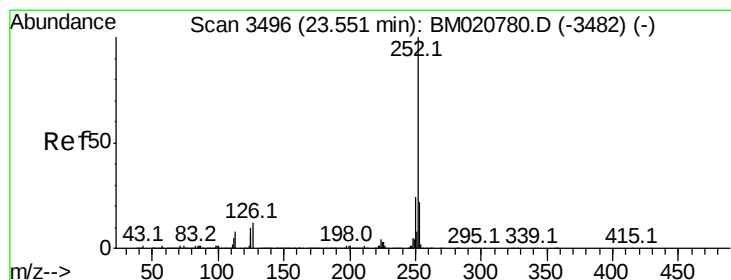
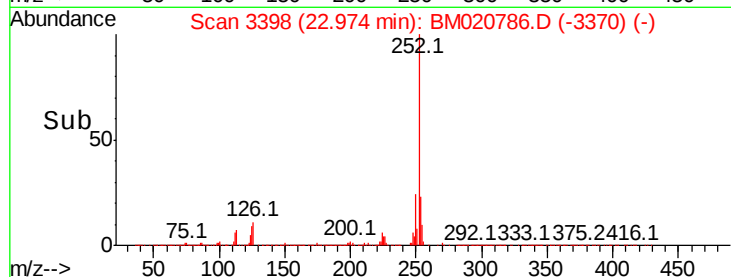
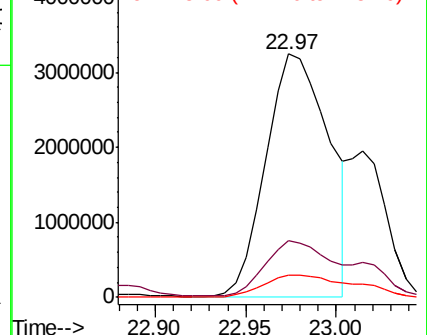
252 100

253 23.3 17.6 26.4

125 9.1 7.3 10.9



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



#90

Benzo(a)pyrene

Concen: 49.829 ng/ul

RT: 23.57 min Scan# 3499

Delta R.T. 0.02 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

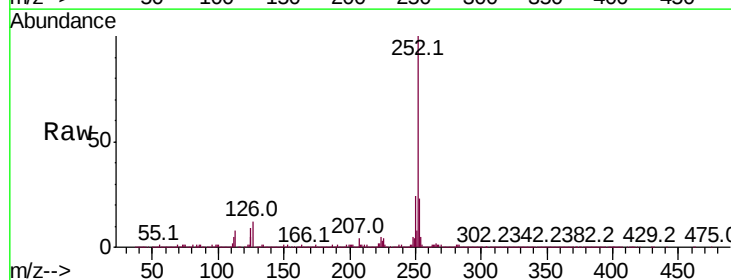
Tgt Ion:252 Resp: 5365373

Ion Ratio Lower Upper

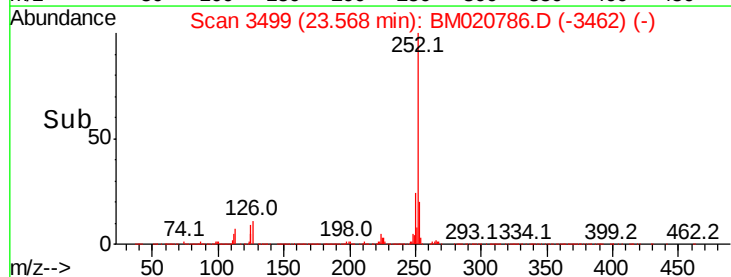
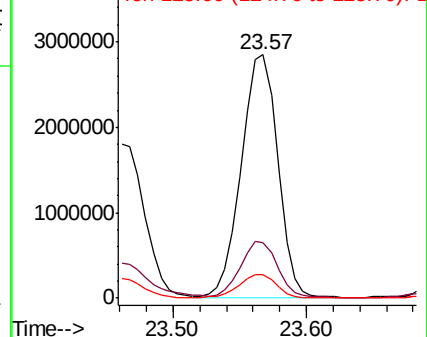
252 100

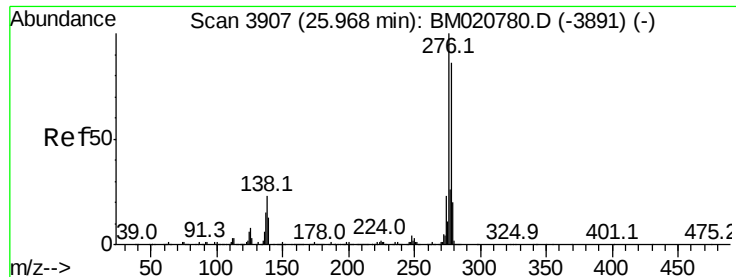
253 22.8 17.0 25.6

125 9.4 8.2 12.4



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

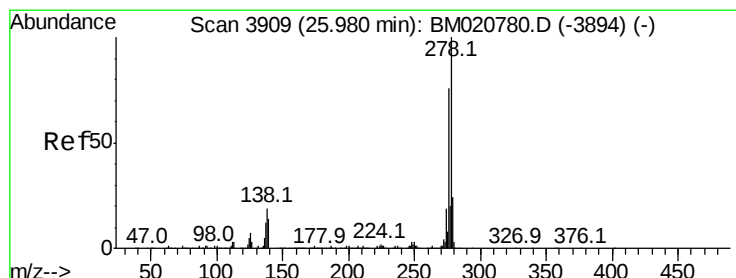
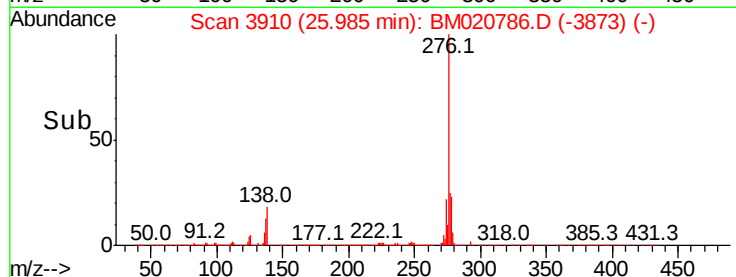
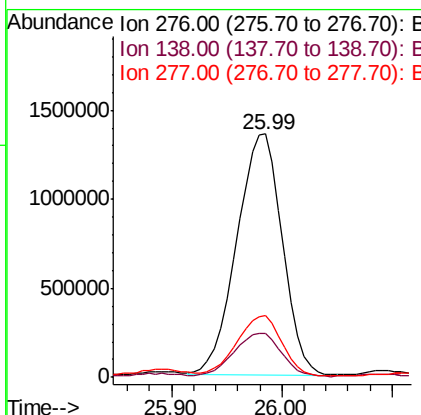
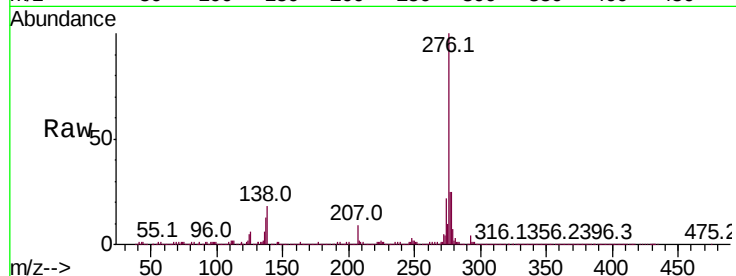




#91  
 Indeno(1,2,3-cd)pyrene  
 Concen: 30.848 ng/ul  
 RT: 25.99 min Scan# 3910  
 Delta R.T. 0.02 min  
 Lab File: BM020786.D  
 Acq: 07 Jun 2019 04:50

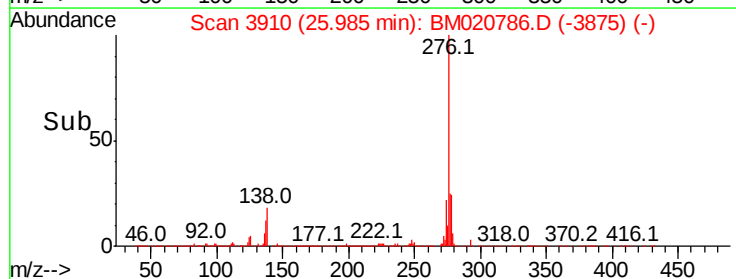
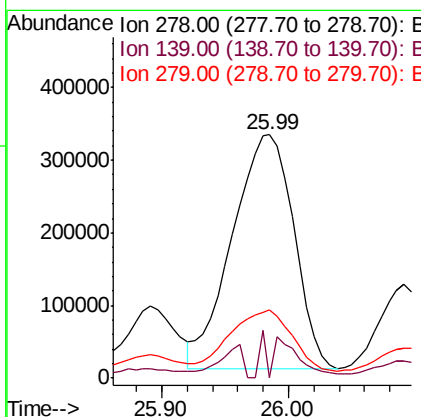
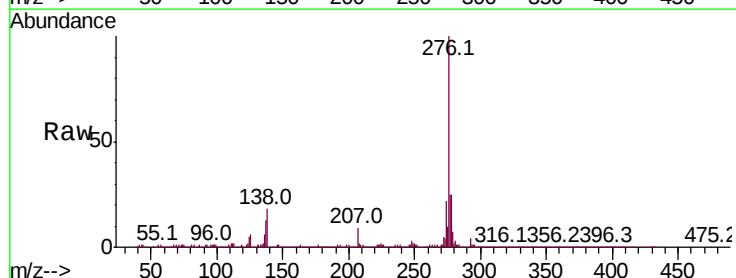
Instrument :  
 BNA\_M  
 ClientSampleId :

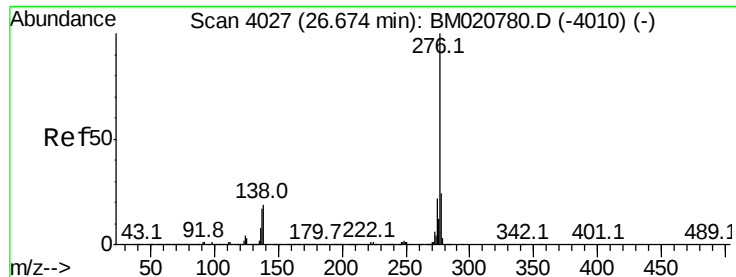
Tot Ion:276 Resp: 3923101  
 Ion Ratio Lower Upper  
 276 100  
 138 17.9 17.8 26.8  
 277 25.3 20.0 30.0



#92  
 Dibenzo(a,h)anthracene  
 Concen: 10.065 ng/ul  
 RT: 25.99 min Scan# 3910  
 Delta R.T. 0.01 min  
 Lab File: BM020786.D  
 Acq: 07 Jun 2019 04:50

Tgt Ion:278 Resp: 1084572  
 Ion Ratio Lower Upper  
 278 100  
 139 0.0 11.6 17.4#  
 279 28.0 18.6 28.0





#93

Benzo(a,h,i)perylene

Concen: 29.568 ng/ul

RT: 26.70 min Scan# 4031

Delta R.T. 0.02 min

Lab File: BM020786.D

Acq: 07 Jun 2019 04:50

Instrument :

BNA\_M

ClientSampleId :

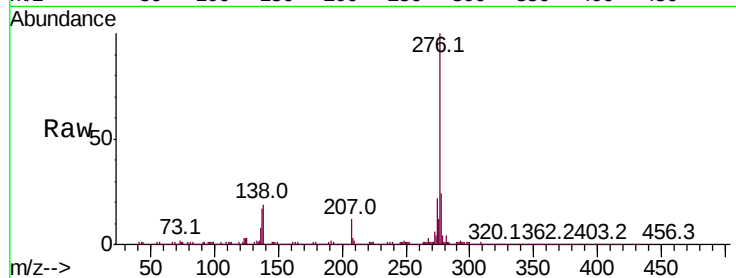
Tot Ion:276 Resp: 3050723

Ion Ratio Lower Upper

276 100

138 19.0 16.6 25.0

277 24.3 19.6 29.4



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

