

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM051719\  
 Data File : BM020361.D  
 Acq On : 17 May 2019 12:46  
 Operator : JU/SJ  
 Sample : K2604-18DL 20X  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 GAJ89DL

Manual Integrations  
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 5/20/2019 2:46:13 PM

Quant Time: May 18 03:40:05 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM051619MA.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Sat May 18 02:51:01 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.73  | 152  | 59853    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.53 | 136  | 221973   | 20.00 | ng/ul | 0.00     |
| 35) Acenaphthene-d10      | 14.39 | 164  | 137569   | 20.00 | ng/ul | 0.00     |
| 61) Phenanthrene-d10      | 17.13 | 188  | 335281   | 20.00 | ng/ul | 0.00     |
| 77) Chrysene-d12          | 21.33 | 240  | 353225   | 20.00 | ng/ul | 0.00     |
| 85) Perylene-d12          | 23.60 | 264  | 397632   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |       |      |       |      |
|--------------------------------|-------|-----|-------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 0.00  | 96  | 0     | 0.00 | ng/uL |      |
| 5) Phenol-d5                   | 6.92  | 99  | 3115  | 0.65 | ng/ul | 0.02 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.09  | 67  | 1955  | 0.64 | ng/ul | 0.01 |
| 9) 2-Chlorophenol-d4           | 7.27  | 132 | 2965  | 0.85 | ng/ul | 0.01 |
| 13) 4-Methylphenol-d8          | 8.46  | 113 | 1545m | 0.44 | ng/ul | 0.02 |
| 19) Nitrobenzene-d5            | 8.92  | 128 | 690   | 0.48 | ng/ul | 0.01 |
| 22) 2-Nitrophenol-d4           | 9.63  | 143 | 686   | 0.43 | ng/ul | 0.02 |
| 26) 2,4-Dichlorophenol-d3      | 10.18 | 165 | 1588m | 0.47 | ng/ul | 0.04 |
| 29) 4-Chloroaniline-d4         | 0.00  | 131 | 0     | 0.00 | ng/ul |      |
| 43) Dimethylphthalate-d6       | 13.80 | 166 | 11438 | 1.16 | ng/ul | 0.00 |
| 46) Acenaphthylene-d8          | 14.07 | 160 | 13412 | 1.08 | ng/ul | 0.00 |
| 51) 4-Nitrophenol-d4           | 0.00  | 143 | 0     | 0.00 | ng/ul |      |
| 57) Fluorene-d10               | 15.38 | 176 | 10466 | 1.19 | ng/ul | 0.00 |
| 62) 4,6-Dinitro-2-methylphenol | 0.00  | 200 | 0     | 0.00 | ng/ul |      |
| 70) Anthracene-d10             | 17.23 | 188 | 17789 | 1.24 | ng/ul | 0.00 |
| 78) Pyrene-d10                 | 19.53 | 212 | 22059 | 1.30 | ng/ul | 0.00 |
| 89) Benzo(a)pyrene-d12         | 23.46 | 264 | 23221 | 1.29 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |        |        | Ovalue |
|----------------------------|-------|-----|---------|--------|--------|--------|
| 47) Acenaphthylene         | 14.10 | 152 | 100029  | 8.568  | ng/ul  | 98     |
| 69) Phenanthrene           | 17.18 | 178 | 43930   | 2.750  | ng/ul  | 97     |
| 71) Anthracene             | 17.27 | 178 | 61161   | 3.764  | ng/ul  | 96     |
| 76) Fluoranthene           | 19.20 | 202 | 511362  | 25.340 | ng/ul  | 99     |
| 79) Pyrene                 | 19.56 | 202 | 1016334 | 47.937 | ng/ul  | 98     |
| 82) Benzo(a)anthracene     | 21.31 | 228 | 477757  | 22.472 | ng/ul  | 94     |
| 84) Chrysene               | 21.37 | 228 | 496850  | 24.455 | ng/ul  | 97     |
| 87) Benzo(b)fluoranthene   | 22.92 | 252 | 474951m | 20.929 | ng/ul  |        |
| 88) Benzo(k)fluoranthene   | 22.95 | 252 | 148111m | 6.644  | ng/ul  |        |
| 90) Benzo(a)pyrene         | 23.50 | 252 | 395625  | 18.524 | ng/ul  | 99     |
| 91) Indeno(1,2,3-cd)pyrene | 25.91 | 276 | 236754  | 9.729  | ng/ul  | 97     |
| 92) Dibenzo(a,h)anthracene | 25.91 | 278 | 69436   | 3.337  | ng/ul# | 91     |
| 93) Benzo(g,h,i)perylene   | 26.61 | 276 | 242797  | 12.053 | ng/ul  | 98     |

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

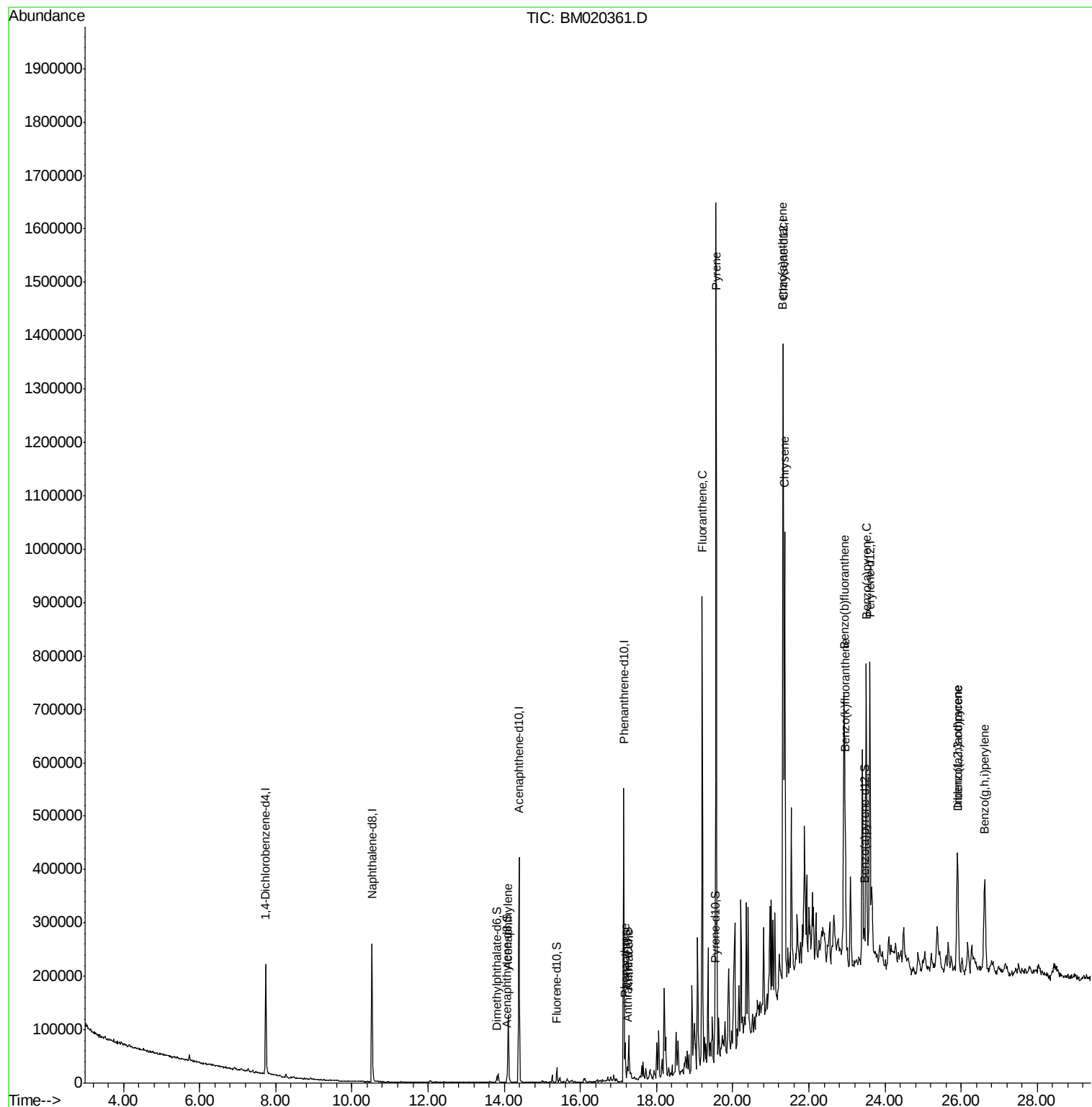
Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM051719\  
Data File : BM020361.D  
Acq On : 17 May 2019 12:46  
Operator : JU/SJ  
Sample : K2604-18DL 20X  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

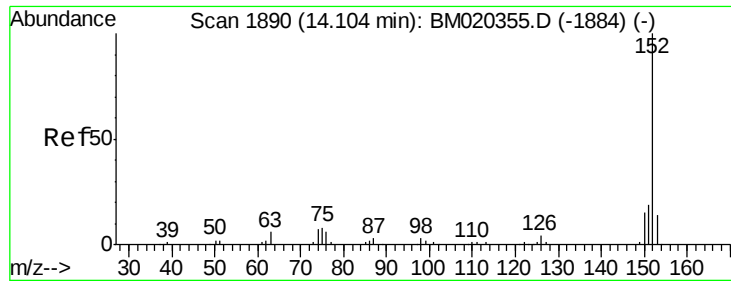
Instrument :  
BNA\_M  
ClientSampleId :  
GAJ89DL

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Quant Time: May 18 03:40:05 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM051619MA.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Sat May 18 02:51:01 2019  
Response via : Initial Calibration





#47

Acenaphthylene

Concen: 8.568 ng/ul

RT: 14.10 min Scan# 1890

Delta R.T. -0.00 min

Lab File: BM020361.D

Acq: 17 May 2019 12:46

Instrument :

BNA\_M

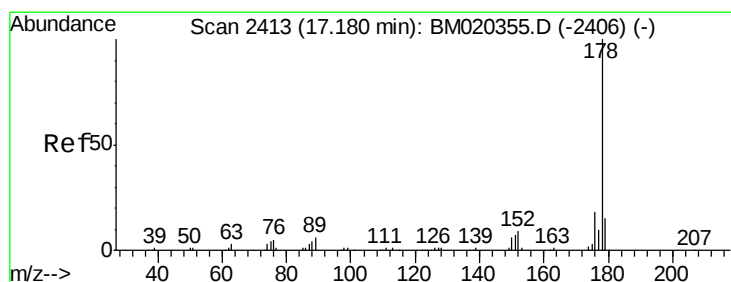
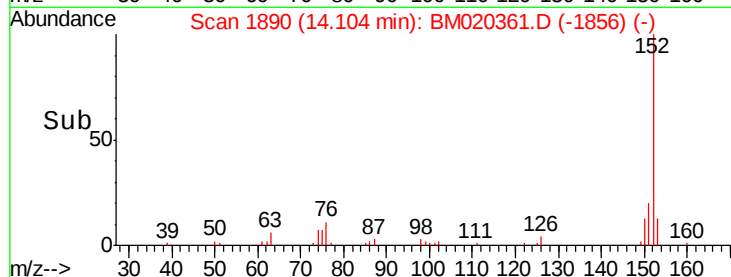
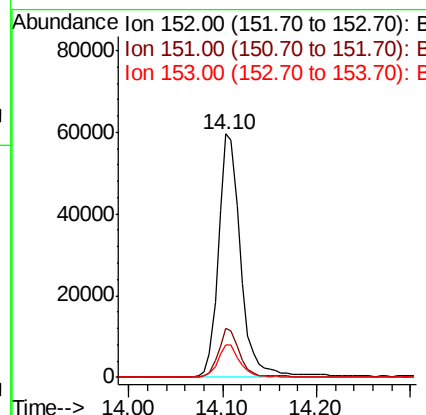
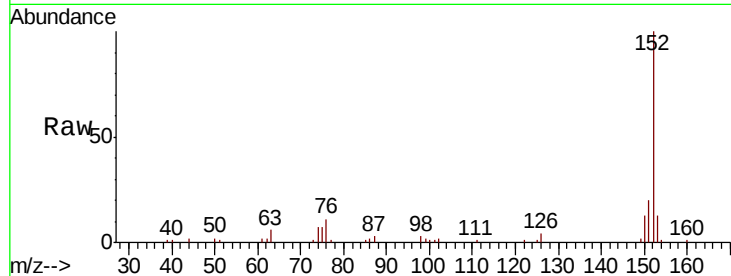
ClientSampleId :

GAJ89DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 20.3  | 15.4  | 23.0  |
| 153     | 13.3  | 10.3  | 15.5  |

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#69

Phenanthrene

Concen: 2.750 ng/ul

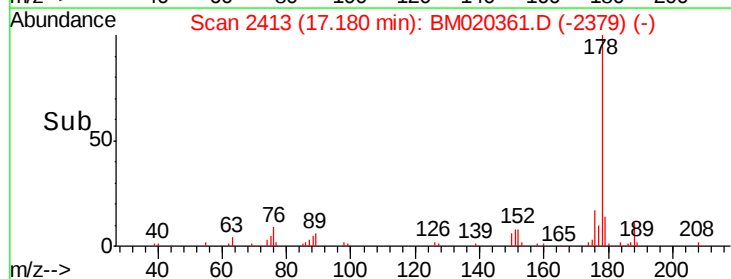
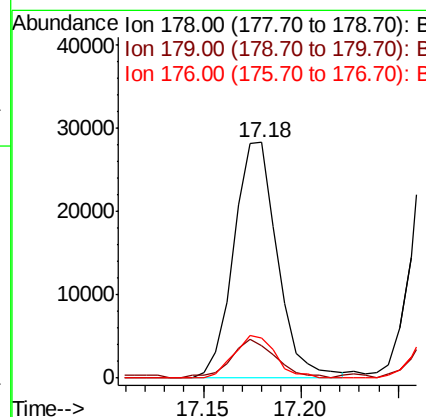
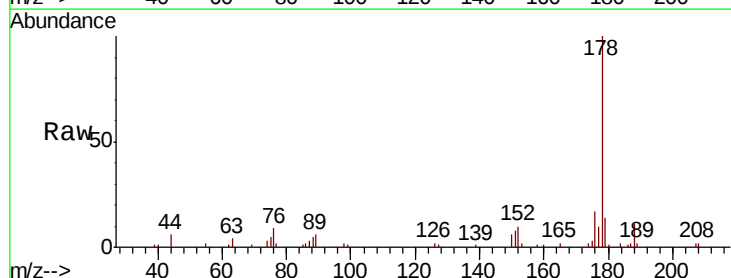
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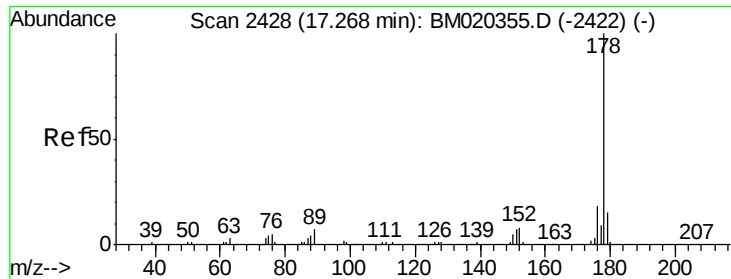
Delta R.T. -0.00 min

Lab File: BM020361.D

Acq: 17 May 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 13.6  | 11.9  | 17.9  |
| 176     | 17.2  | 14.6  | 22.0  |





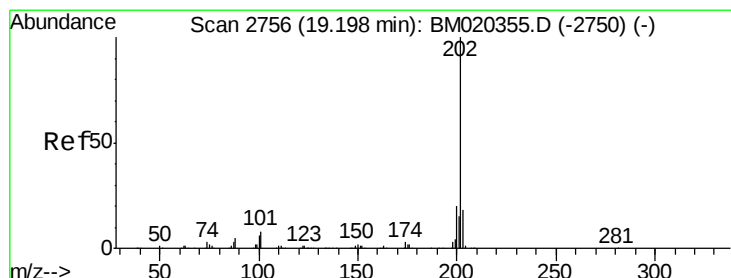
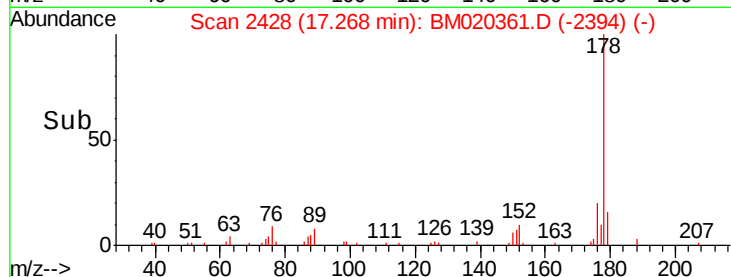
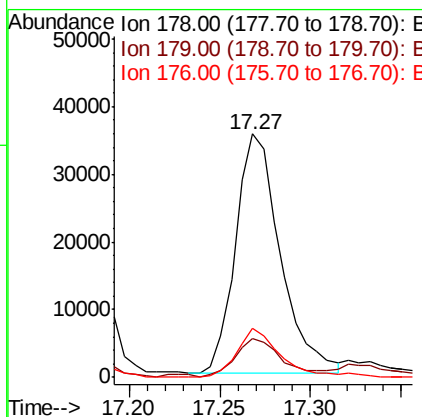
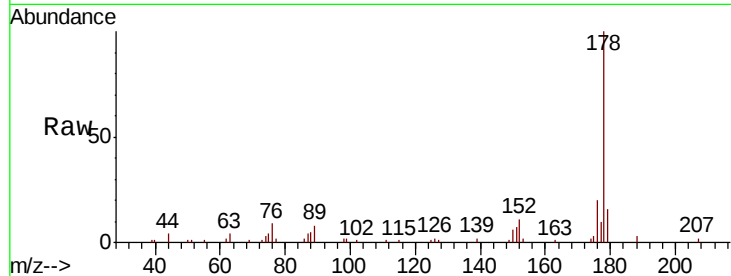
#71  
 Anthracene  
 Concen: 3.764 ng/ul  
 RT: 17.27 min Scan# 2428  
 Delta R.T. -0.00 min  
 Lab File: BM020361.D  
 Acq: 17 May 2019 12:46

Instrument :  
 BNA\_M  
 ClientSampleId :  
 GAJ89DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 16.1  | 12.4  | 18.6  |
| 176     | 20.4  | 14.4  | 21.6  |

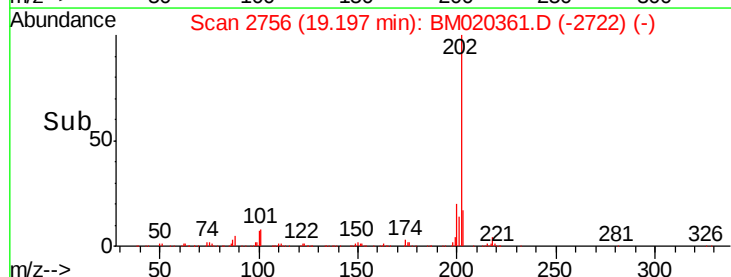
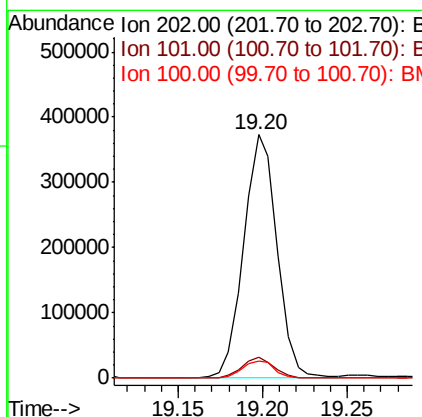
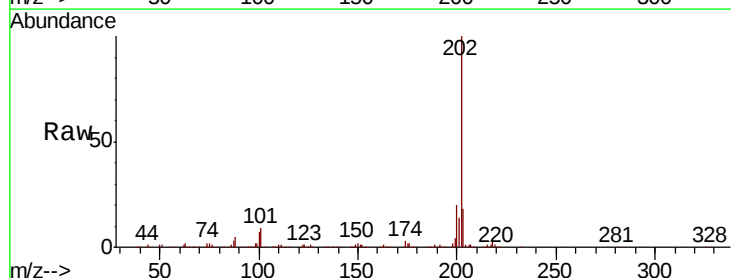
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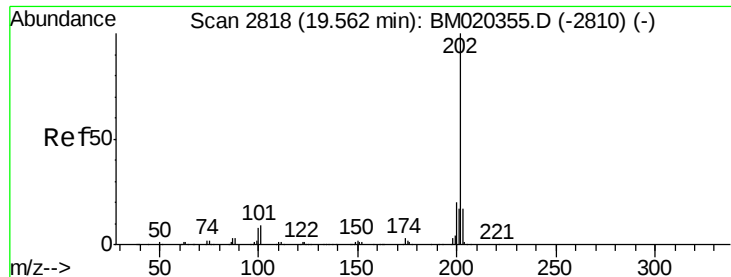
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#76  
 Fluoranthene  
 Concen: 25.340 ng/ul  
 RT: 19.20 min Scan# 2756  
 Delta R.T. -0.00 min  
 Lab File: BM020361.D  
 Acq: 17 May 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 8.7   | 6.4   | 9.6   |
| 100     | 6.8   | 5.2   | 7.8   |





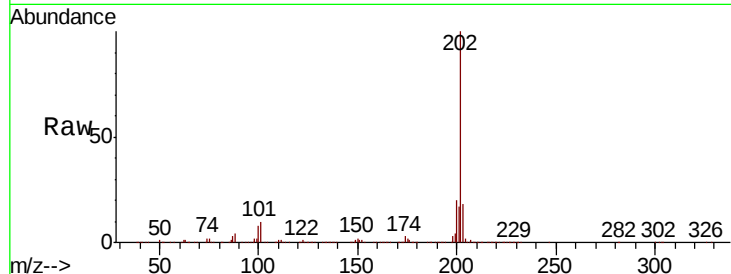
#79  
Pvrene  
Concen: 47.937 ng/ul  
RT: 19.56 min Scan# 2818  
Delta R.T. -0.00 min  
Lab File: BM020361.D  
Acq: 17 May 2019 12:46

Instrument :  
BNA\_M  
ClientSampleId :  
GAJ89DL

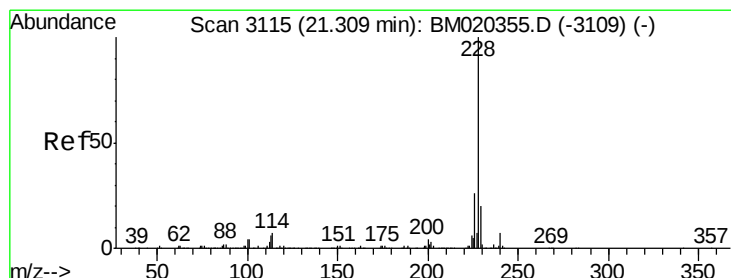
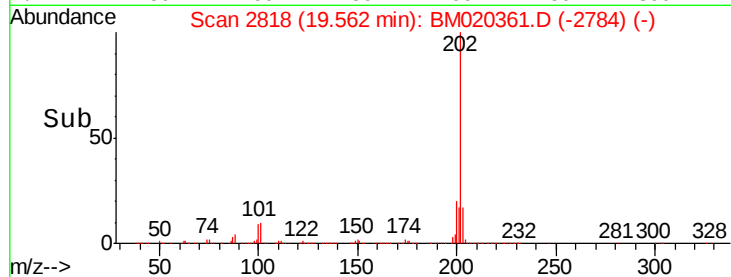
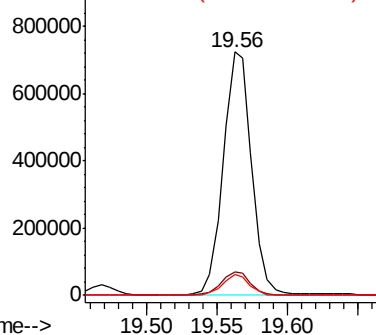
|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 202   | Resp: | 1016334 |
| Ion      | Ratio | Lower | Upper   |
| 202      | 100   |       |         |
| 101      | 9.7   | 7.1   | 10.7    |
| 100      | 8.4   | 5.9   | 8.9     |

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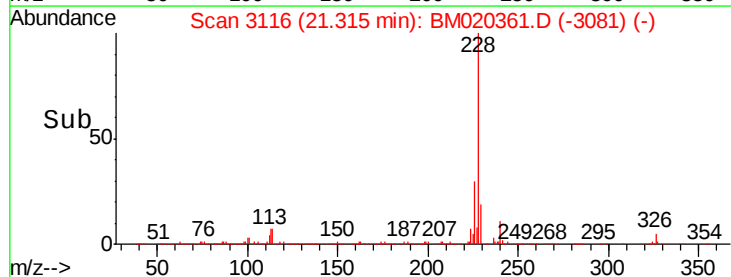
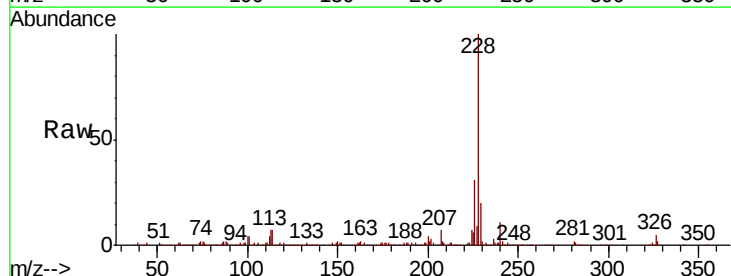
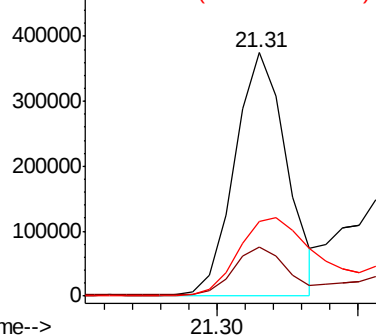
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Ion 101.00 (100.70 to 101.70): E  
Ion 100.00 (99.70 to 100.70): B

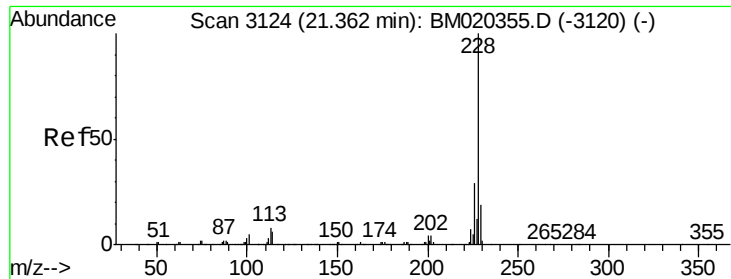


#82  
Benzo(a)anthracene  
Concen: 22.472 ng/ul  
RT: 21.31 min Scan# 3116  
Delta R.T. 0.01 min  
Lab File: BM020361.D  
Acq: 17 May 2019 12:46

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 228   | Resp: | 477757 |
| Ion      | Ratio | Lower | Upper  |
| 228      | 100   |       |        |
| 229      | 20.0  | 15.8  | 23.8   |
| 226      | 30.8  | 20.6  | 30.8   |

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





#84

Chrysene

Concen: 24.455 ng/ul

RT: 21.37 min Scan# 3125

Delta R.T. 0.01 min

Lab File: BM020361.D

Acq: 17 May 2019 12:46

Instrument :

BNA\_M

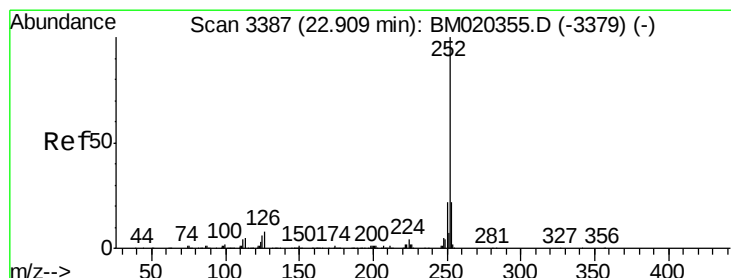
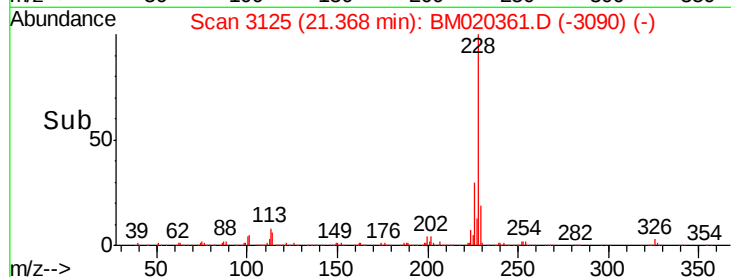
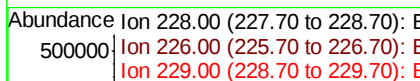
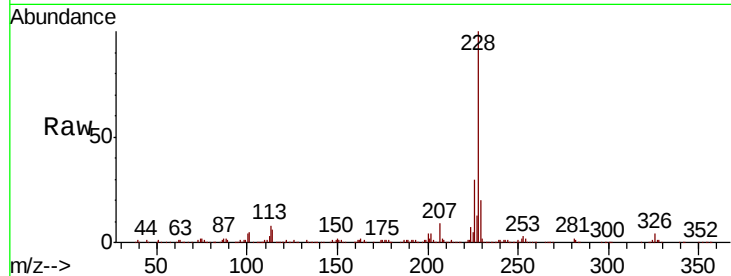
ClientSampled :

GAJ89DL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 496850 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 29.7  | 22.2  | 33.4   |
| 229       | 19.9  | 15.4  | 23.2   |

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#87

Benzo(b)fluoranthene

Concen: 20.929 ng/ul m

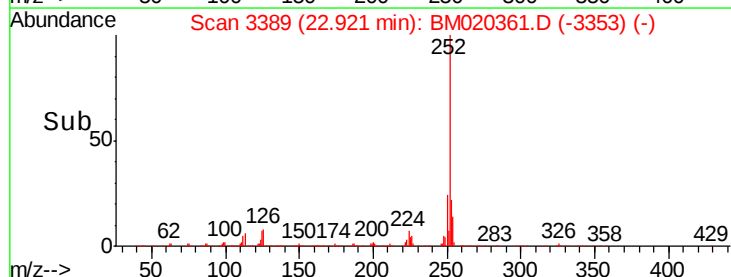
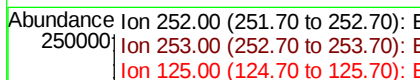
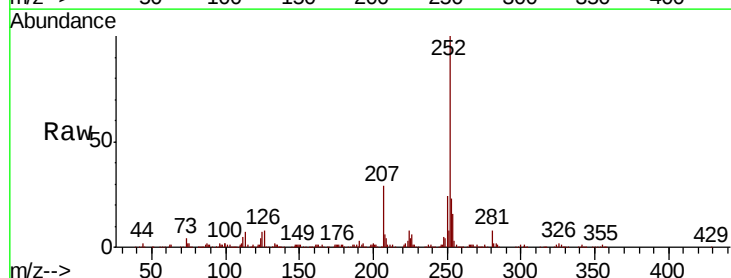
RT: 22.92 min Scan# 3389

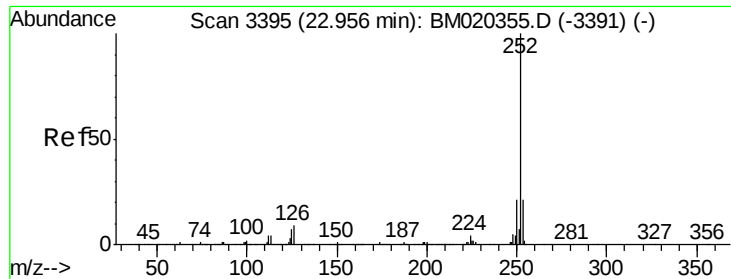
Delta R.T. 0.01 min

Lab File: BM020361.D

Acq: 17 May 2019 12:46

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 474951 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 22.9  | 17.0  | 25.6   |
| 125       | 6.9   | 5.0   | 7.4    |





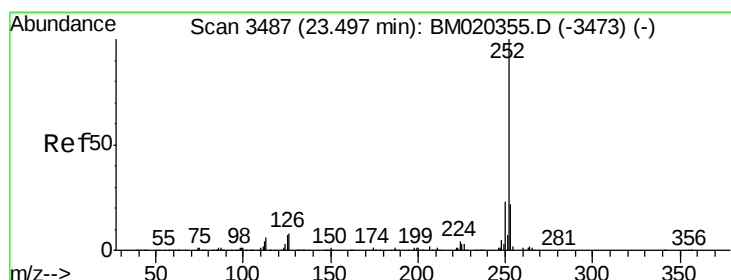
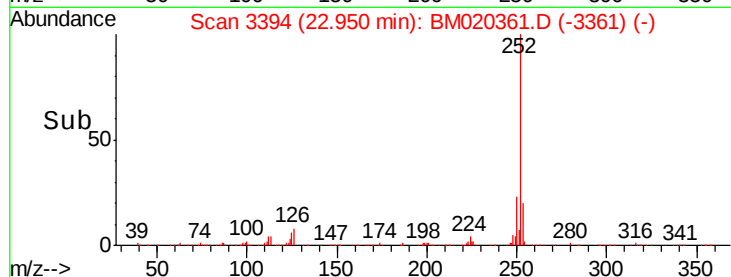
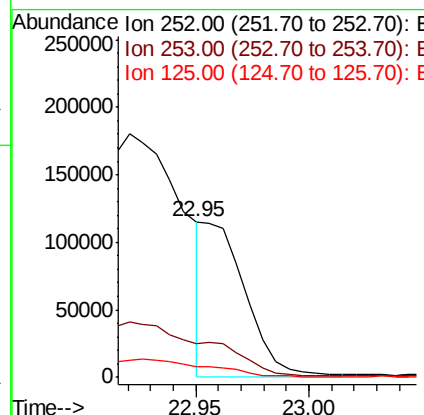
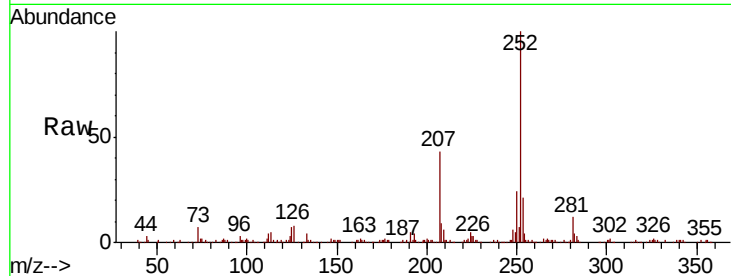
#88  
Benzo(k)fluoranthene  
Concen: 6.644 ng/ul  
RT: 22.95 min Scan# 3394  
Delta R.T. -0.01 min  
Lab File: BM020361.D  
Acq: 17 May 2019 12:46

Instrument :  
BNA\_M  
ClientSampleId :  
GAJ89DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.4  | 17.6  | 26.4  |
| 125     | 7.0   | 5.0   | 7.6   |

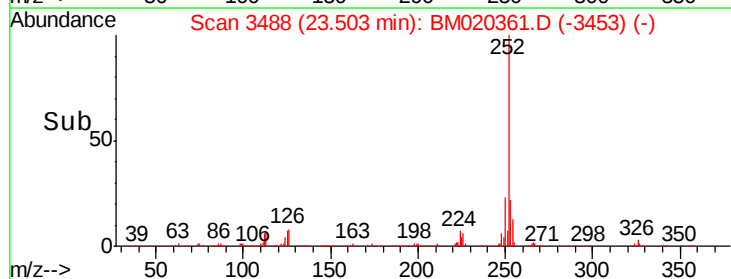
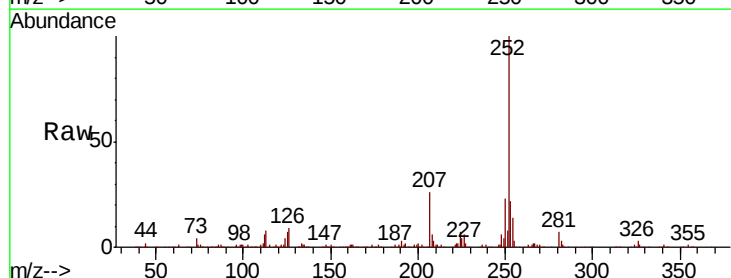
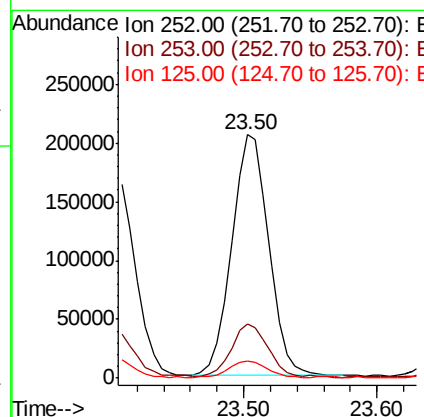
Manual Integrations  
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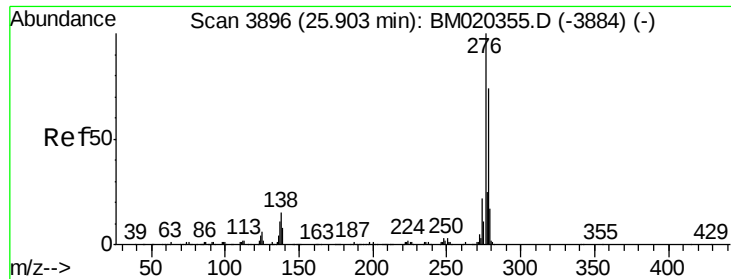
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#90  
Benzo(a)pyrene  
Concen: 18.524 ng/ul  
RT: 23.50 min Scan# 3488  
Delta R.T. 0.01 min  
Lab File: BM020361.D  
Acq: 17 May 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.5  | 17.4  | 26.2  |
| 125     | 7.0   | 5.4   | 8.2   |





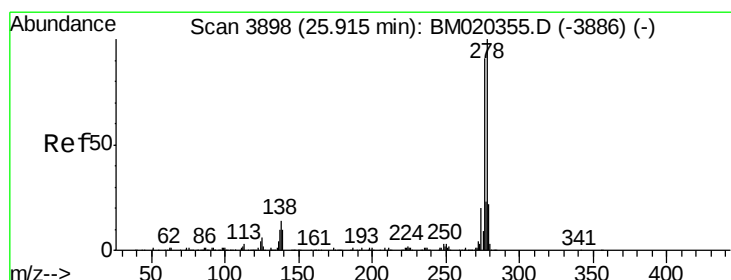
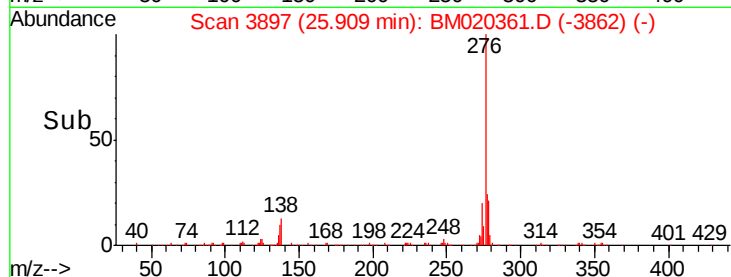
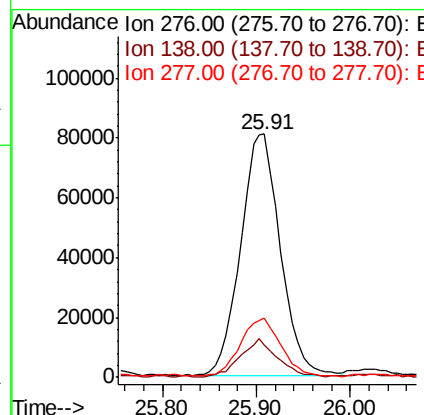
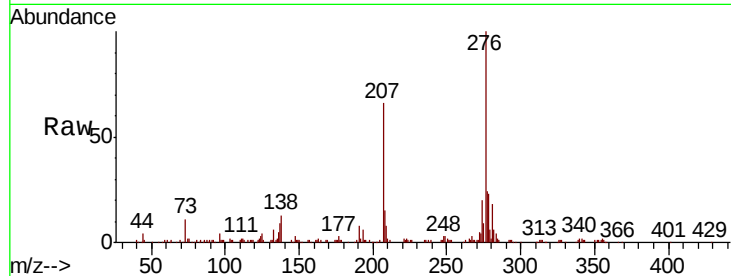
#91  
 Indeno(1,2,3-cd)pyrene  
 Concen: 9.729 ng/ul  
 RT: 25.91 min Scan# 3897  
 Delta R.T. 0.01 min  
 Lab File: BM020361.D  
 Acq: 17 May 2019 12:46

Instrument :  
 BNA\_M  
 ClientSampleID :  
 GAJ89DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 13.5  | 12.3  | 18.5  |
| 277     | 24.2  | 20.0  | 30.0  |

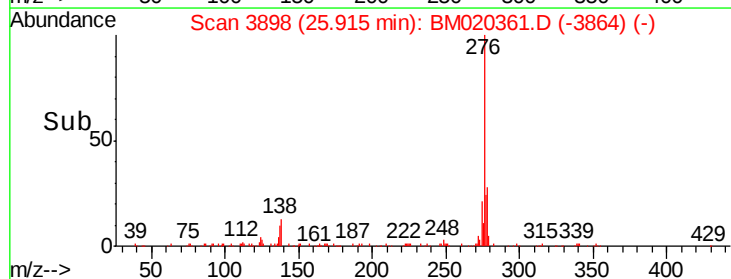
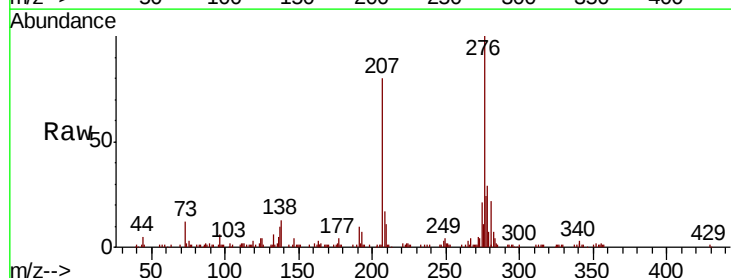
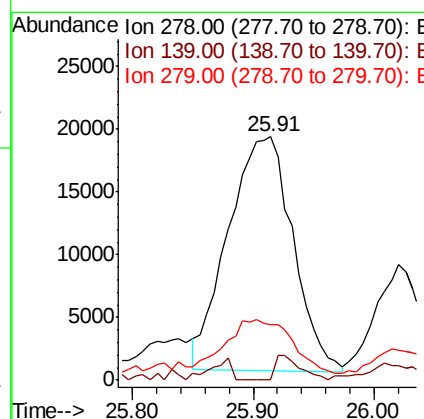
Manual Integrations  
 APPROVED

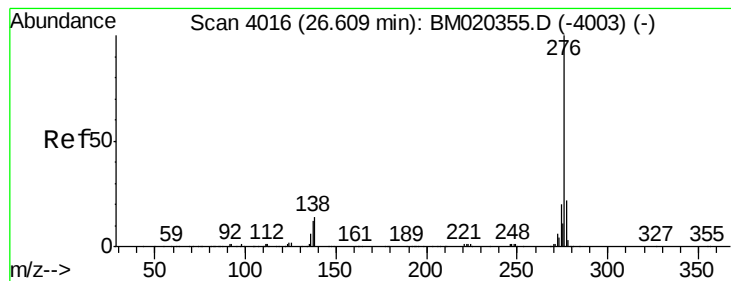
mohammad  
 5/20/2019 2:46:13 PM



#92  
 Dibenzo(a,h)anthracene  
 Concen: 3.337 ng/ul  
 RT: 25.91 min Scan# 3898  
 Delta R.T. -0.00 min  
 Lab File: BM020361.D  
 Acq: 17 May 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 0.0   | 8.1   | 12.1# |
| 279     | 22.8  | 18.7  | 28.1  |





#93

Benzo(a,h,i)perylene

Concen: 12.053 ng/ul

RT: 26.61 min Scan# 4017

Delta R.T. 0.01 min

Lab File: BM020361.D

Acq: 17 May 2019 12:46

Instrument :

BNA\_M

ClientSampleId :

GAJ89DL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 276   | Resp: | 242797 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 12.6  | 10.0  | 15.0   |
| 277       | 24.4  | 18.2  | 27.4   |

Manual Integrations  
APPROVED

mohammad  
5/20/2019 2:46:13 PM

