

Data Path : \\74.0.250.170\SV0ASRV\HPCHEM1\BNA M\DATA\BM121917\  
 Data File : BM013513.D  
 Acq On : 19 Dec 2017 15:16  
 Operator : SJ/JU  
 Sample : I6778-14ME 30X  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 F9A79ME

Manual Integrations  
 APPROVED

Sohil  
 12/20/2017 3:49:34 PM

Quant Time: Dec 20 04:40:38 2017  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM-EPA-BM113017.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Wed Dec 20 03:10:37 2017  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.67  | 152  | 173323   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.45 | 136  | 746050   | 20.00 | ng/ul | 0.00     |
| 35) Acenaphthene-d10      | 14.32 | 164  | 443775   | 20.00 | ng/ul | 0.00     |
| 61) Phenanthrene-d10      | 17.07 | 188  | 979253   | 20.00 | ng/ul | 0.00     |
| 75) Chrysene-d12          | 21.26 | 240  | 834799   | 20.00 | ng/ul | 0.00     |
| 83) Perylene-d12          | 23.48 | 264  | 733447   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |       |      |       |      |
|--------------------------------|-------|-----|-------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.23  | 96  | 469   | 0.13 | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.86  | 99  | 8255  | 0.55 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.02  | 67  | 5811  | 0.68 | ng/ul | 0.01 |
| 9) 2-Chlorophenol-d4           | 7.21  | 132 | 8128  | 0.69 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.39  | 113 | 7694  | 0.60 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.84  | 128 | 4223  | 0.71 | ng/ul | 0.01 |
| 22) 2-Nitrophenol-d4           | 9.55  | 143 | 3504  | 0.55 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.10 | 165 | 8392  | 0.64 | ng/ul | 0.02 |
| 29) 4-Chloroaniline-d4         | 10.61 | 131 | 16519 | 1.38 | ng/ul | 0.02 |
| 43) Dimethylphthalate-d6       | 13.73 | 166 | 31498 | 0.80 | ng/ul | 0.00 |
| 46) Acenaphthylene-d8          | 14.00 | 160 | 36588 | 0.75 | ng/ul | 0.00 |
| 51) 4-Nitrophenol-d4           | 14.53 | 143 | 455   | 0.07 | ng/ul | 0.00 |
| 57) Fluorene-d10               | 15.31 | 176 | 27978 | 0.82 | ng/ul | 0.00 |
| 62) 4,6-Dinitro-2-methylphenol | 15.47 | 200 | 1216  | 0.20 | ng/ul | 0.02 |
| 70) Anthracene-d10             | 17.16 | 188 | 44818 | 0.91 | ng/ul | 0.00 |
| 76) Pyrene-d10                 | 19.46 | 212 | 42673 | 1.03 | ng/ul | 0.00 |
| 87) Benzo(a)pyrene-d12         | 23.34 | 264 | 29339 | 0.79 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |        | Ovalue |     |
|----------------------------|-------|-----|---------|--------|--------|-----|
| 28) Naphthalene            | 10.50 | 128 | 3297677 | 85.914 | ng/ul  | 99  |
| 34) 2-Methylnaphthalene    | 12.12 | 142 | 670159  | 23.226 | ng/ul  | 95  |
| 40) 1,1'-Biphenyl          | 13.15 | 154 | 182141  | 4.856  | ng/ul  | 99  |
| 47) Acenaphthylene         | 14.03 | 152 | 82077   | 1.820  | ng/ul# | 93  |
| 49) Acenaphthene           | 14.38 | 153 | 681950  | 22.198 | ng/ul  | 98  |
| 53) Dibenzofuran           | 14.72 | 168 | 751717  | 16.575 | ng/ul  | 99  |
| 58) Fluorene               | 15.37 | 166 | 848755  | 22.622 | ng/ul  | 99  |
| 69) Phenanthrene           | 17.11 | 178 | 3656416 | 65.724 | ng/ul  | 99  |
| 71) Anthracene             | 17.20 | 178 | 526306  | 9.255  | ng/ul  | 100 |
| 72) Carbazole              | 17.47 | 167 | 201598  | 4.122  | ng/ul  | 95  |
| 74) Fluoranthene           | 19.13 | 202 | 1670422 | 24.501 | ng/ul# | 91  |
| 77) Pyrene                 | 19.49 | 202 | 1103156 | 21.751 | ng/ul# | 92  |
| 80) Benzo(a)anthracene     | 21.24 | 228 | 280080  | 5.288  | ng/ul  | 96  |
| 82) Chrysene               | 21.29 | 228 | 232771  | 4.737  | ng/ul  | 96  |
| 85) Benzo(b)fluoranthene   | 22.82 | 252 | 165910  | 3.356  | ng/ul# | 97  |
| 86) Benzo(k)fluoranthene   | 22.86 | 252 | 56232m  | 1.209  | ng/ul  |     |
| 88) Benzo(a)pyrene         | 23.38 | 252 | 105941  | 2.385  | ng/ul# | 95  |
| 89) Indeno(1,2,3-cd)pyrene | 25.71 | 276 | 45736   | 1.038  | ng/ul# | 92  |
| 91) Benzo(g,h,i)perylene   | 26.39 | 276 | 40216   | 1.157  | ng/ul# | 84  |

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

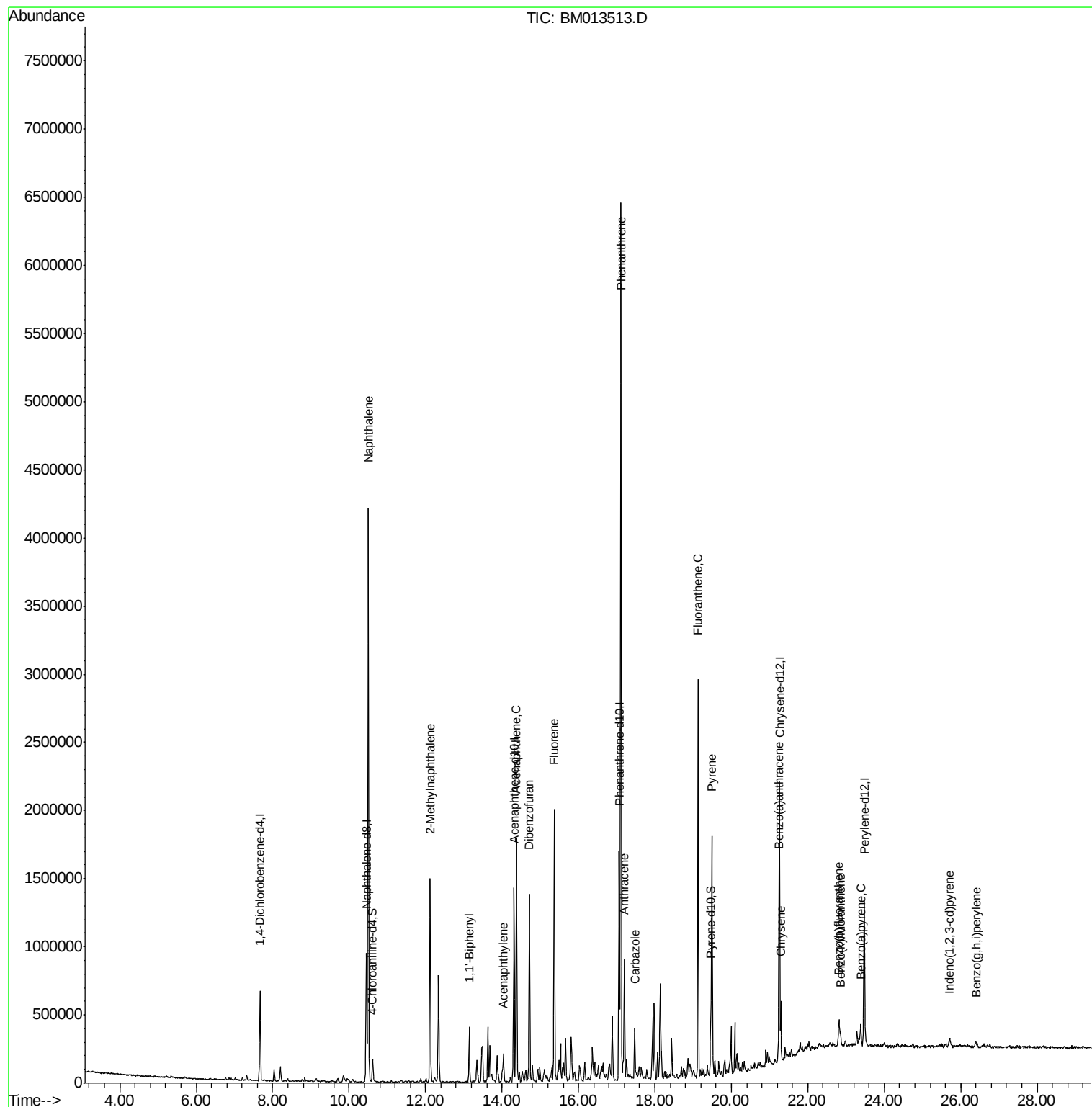
Data Path : \\74.0.250.170\SV0ASRV\HPCHEM1\BNA M\DATA\BM121917\  
Data File : BM013513.D  
Acq On : 19 Dec 2017 15:16  
Operator : SJ/JU  
Sample : I6778-14ME 30X  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

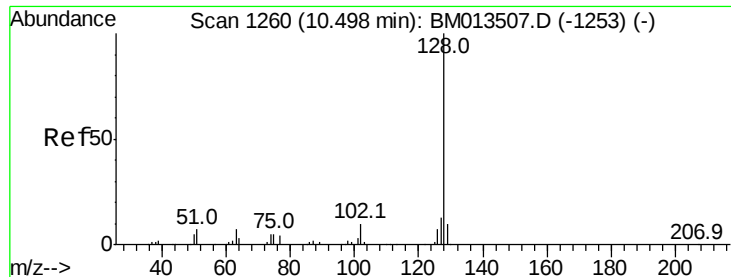
Instrument :  
BNA\_M  
ClientSampleId :  
F9A79ME

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Quant Time: Dec 20 04:40:38 2017  
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM-EPA-BM113017.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Wed Dec 20 03:10:37 2017  
Response via : Initial Calibration





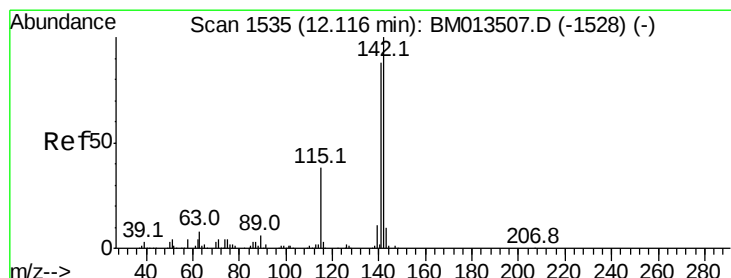
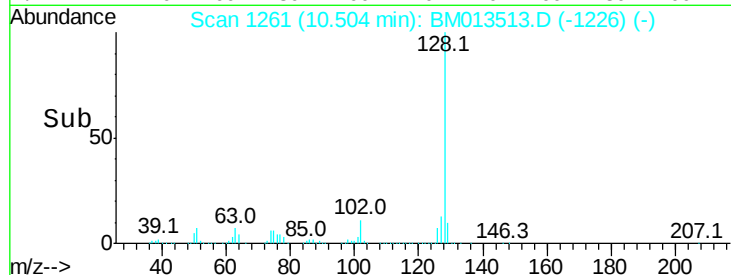
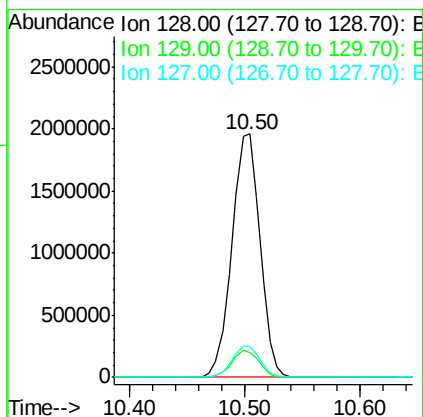
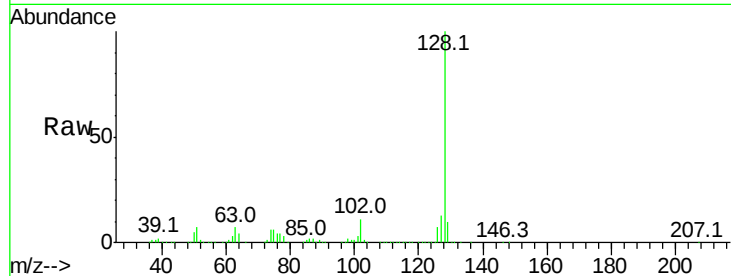
#28  
Naphthalene  
Concen: 85.914 ng/ul  
RT: 10.50 min Scan# 1261  
Delta R.T. 0.01 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

Instrument :  
BNA\_M  
ClientSampleId :  
F9A79ME

Tot Ion:128 Resp: 3297677  
Ion Ratio Lower Upper  
128 100  
129 10.4 8.8 13.2  
127 12.9 10.6 16.0

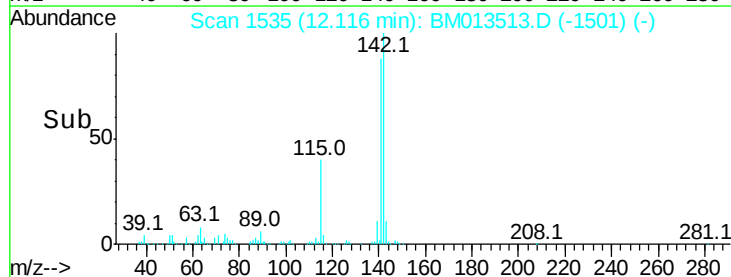
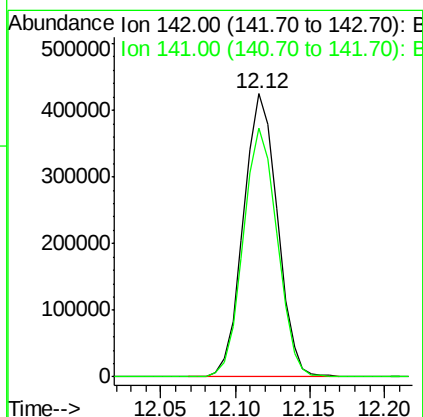
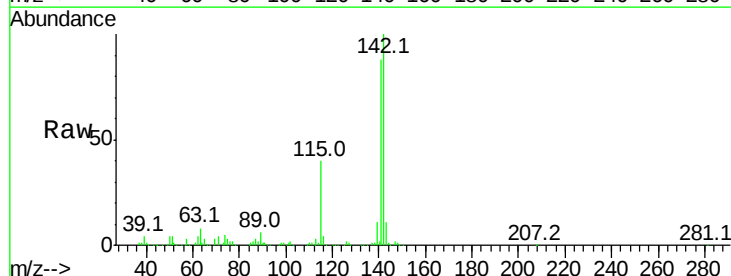
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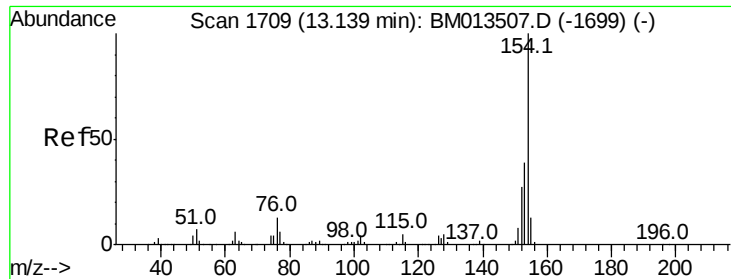
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#34  
2-Methylnaphthalene  
Concen: 23.226 ng/ul  
RT: 12.12 min Scan# 1535  
Delta R.T. -0.00 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

Tgt Ion:142 Resp: 670159  
Ion Ratio Lower Upper  
142 100  
141 87.8 74.1 111.1





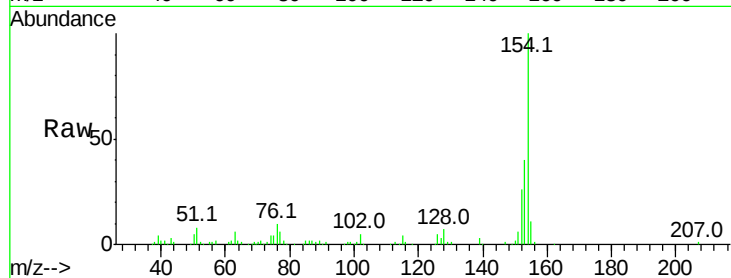
#40  
1,1'-Biphenyl  
Concen: 4.856 ng/ul  
RT: 13.15 min Scan# 1710  
Delta R.T. 0.01 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

Instrument :  
BNA\_M  
ClientSampleId :  
F9A79ME

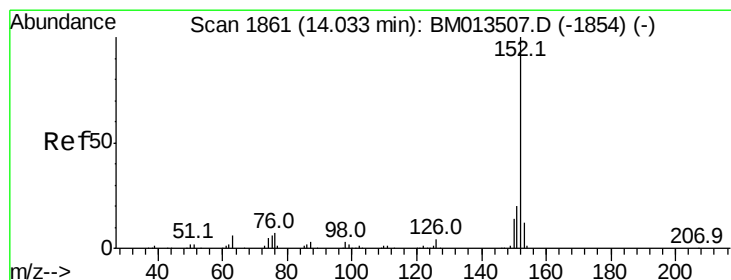
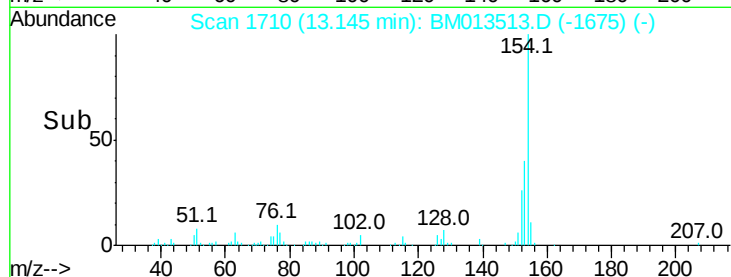
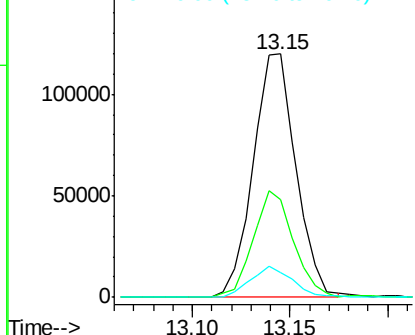
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 40.3  | 32.6  | 48.8  |
| 76      | 10.1  | 8.5   | 12.7  |

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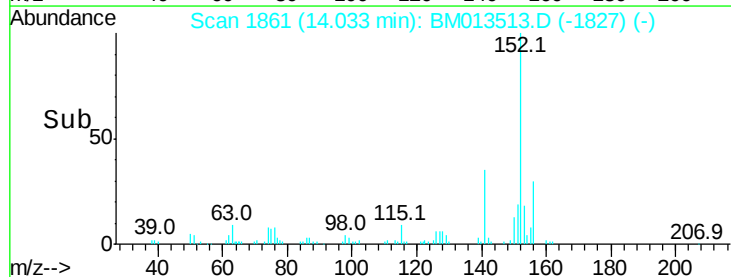
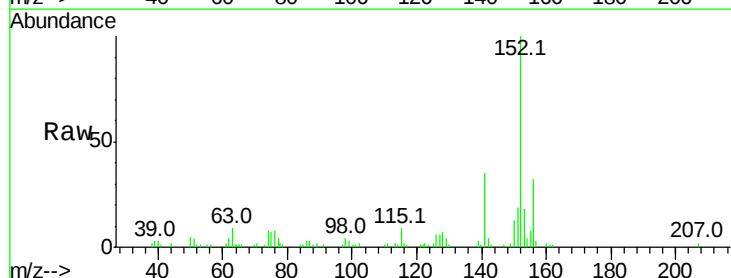
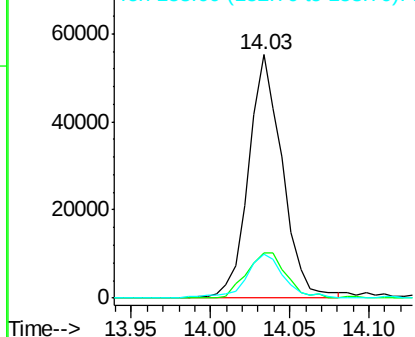
Abundance Ion 154.00 (153.70 to 154.70): E  
Ion 153.00 (152.70 to 153.70): E  
Ion 76.00 (75.70 to 76.70): BM

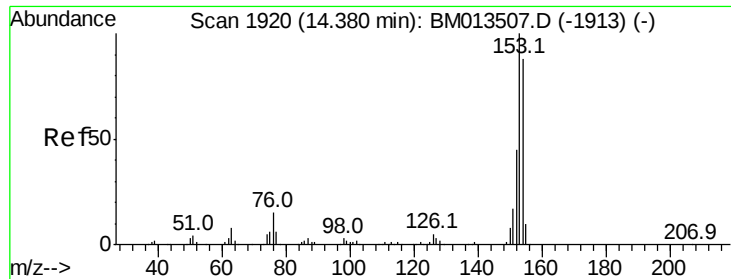


#47  
Acenaphthylene  
Concen: 1.820 ng/ul  
RT: 14.03 min Scan# 1861  
Delta R.T. -0.00 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 18.8  | 16.3  | 24.5  |
| 153     | 17.8  | 10.2  | 15.4# |

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: 22.198 ng/ul

RT: 14.38 min Scan# 1920

Delta R.T. -0.00 min

Lab File: BM013513.D

Acq: 19 Dec 2017 15:16

Instrument :

BNA\_M

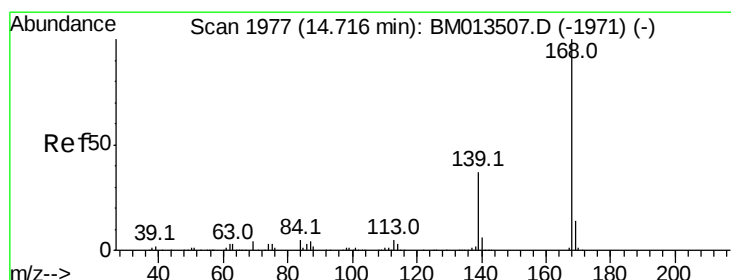
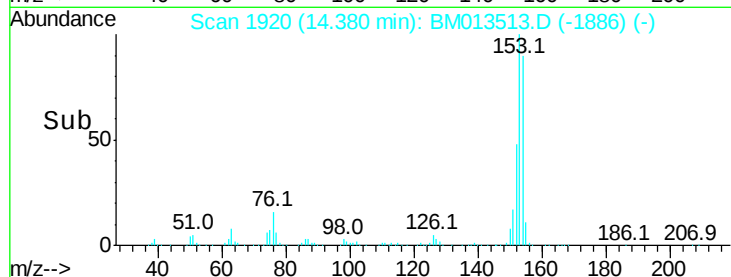
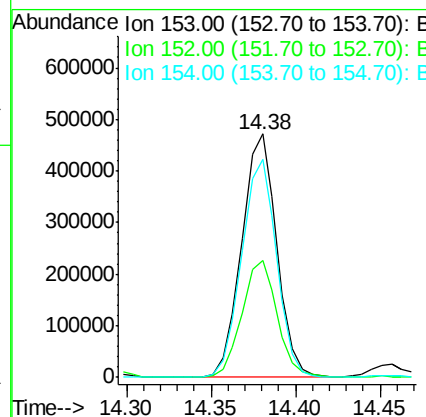
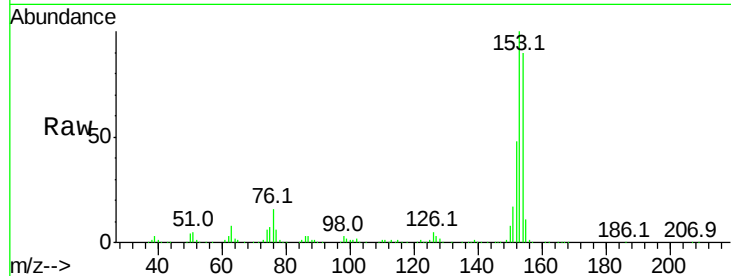
ClientSampleId :

F9A79ME

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 153   | Resp: | 681950 |
| Ion Ratio | Lower | Upper |        |
| 153       | 100   |       |        |
| 152       | 47.9  | 37.6  | 56.4   |
| 154       | 89.6  | 70.4  | 105.6  |

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#53

Dibenzofuran

Concen: 16.575 ng/ul

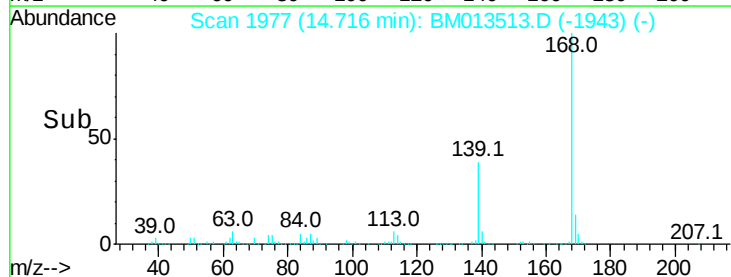
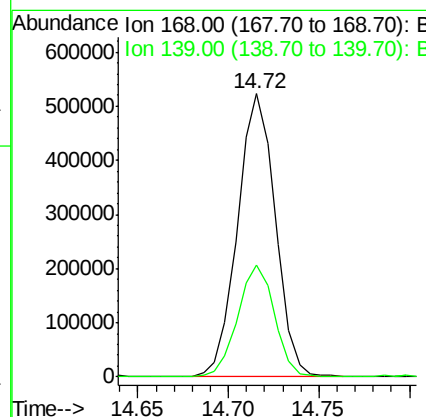
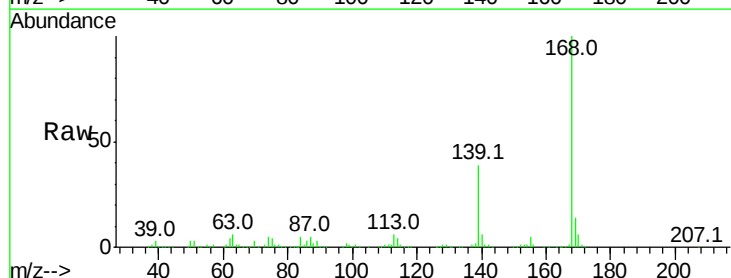
RT: 14.72 min Scan# 1977

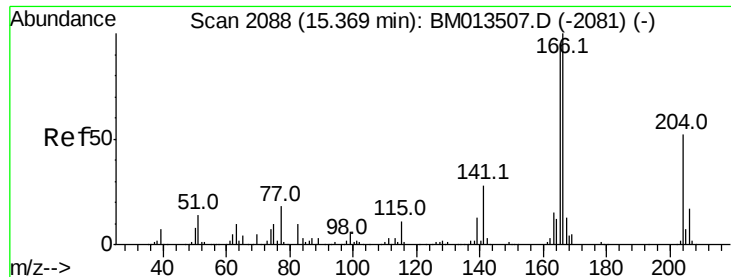
Delta R.T. -0.00 min

Lab File: BM013513.D

Acq: 19 Dec 2017 15:16

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 168   | Resp: | 751717 |
| Ion Ratio | Lower | Upper |        |
| 168       | 100   |       |        |
| 139       | 39.4  | 30.8  | 46.2   |





#58

Fluorene

Concen: 22.622 ng/ul

RT: 15.37 min Scan# 2088

Delta R.T. -0.00 min

Lab File: BM013513.D

Acq: 19 Dec 2017 15:16

Instrument :

BNA\_M

ClientSampleId :

F9A79ME

Tot Ion:166 Resp: 848755

Ion Ratio Lower Upper

166 100

165 96.8 77.9 116.9

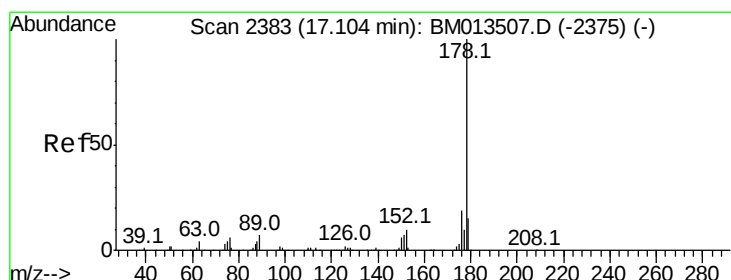
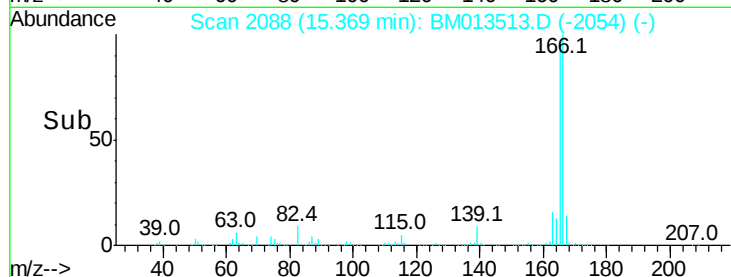
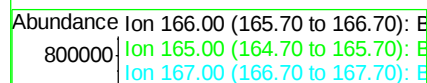
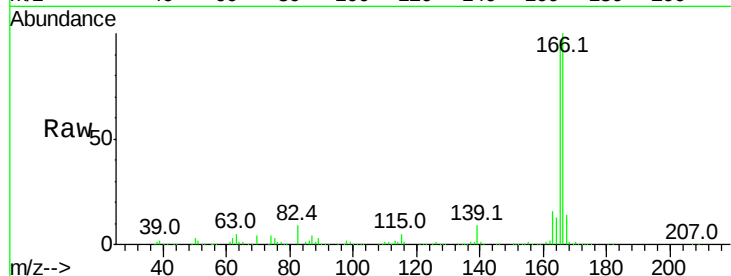
167 13.9 10.6 16.0

Manual Integrations

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#69

Phenanthrene

Concen: 65.724 ng/ul

RT: 17.11 min Scan# 2384

Delta R.T. 0.01 min

Lab File: BM013513.D

Acq: 19 Dec 2017 15:16

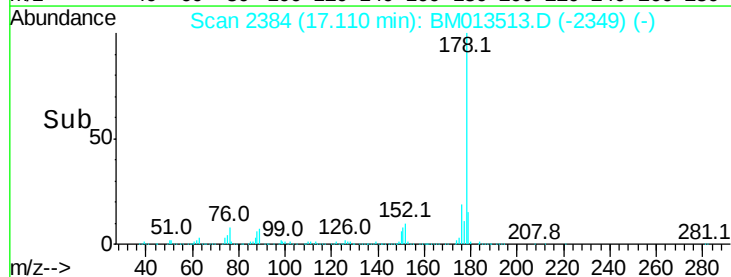
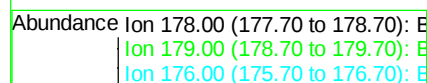
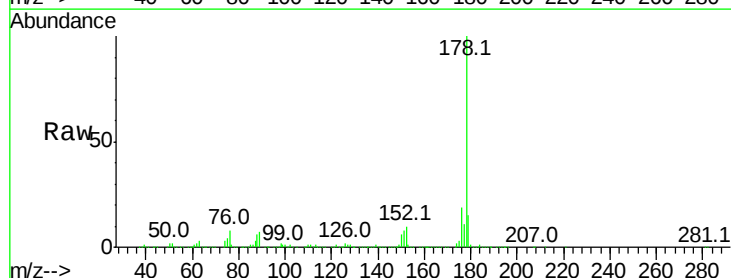
Tgt Ion:178 Resp: 3656416

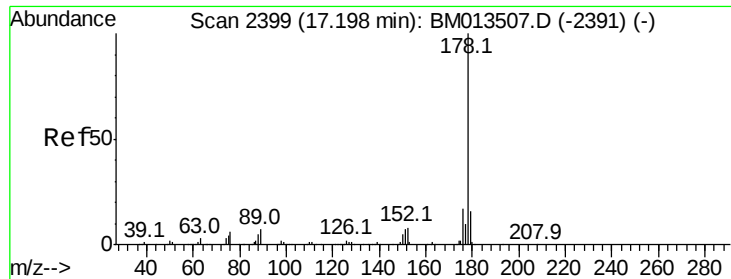
Ion Ratio Lower Upper

178 100

179 15.1 12.6 19.0

176 18.7 14.9 22.3





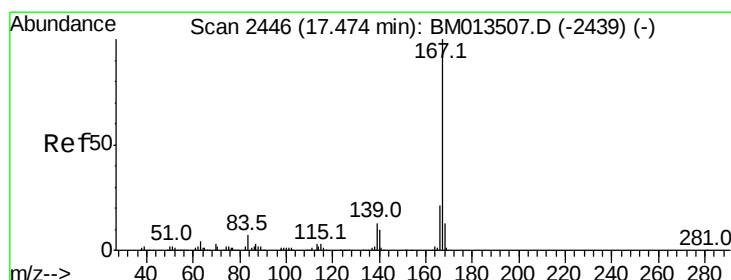
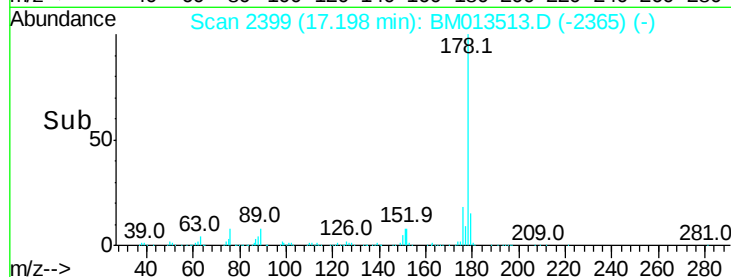
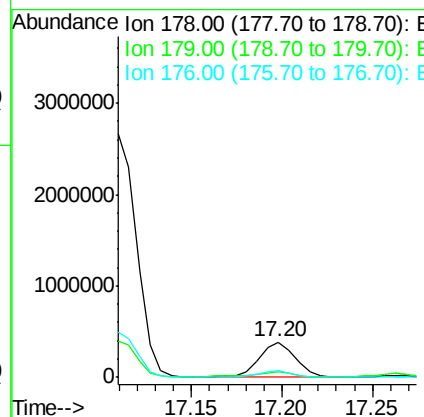
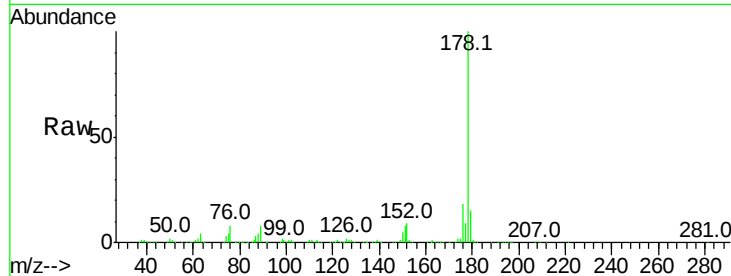
#71  
 Anthracene  
 Concen: 9.255 ng/ul  
 RT: 17.20 min Scan# 2399  
 Delta R.T. -0.00 min  
 Lab File: BM013513.D  
 Acq: 19 Dec 2017 15:16

Instrument :  
 BNA\_M  
 ClientSampleId :  
 F9A79ME

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.9  | 11.7  | 17.5  |
| 176     | 18.2  | 14.6  | 21.8  |

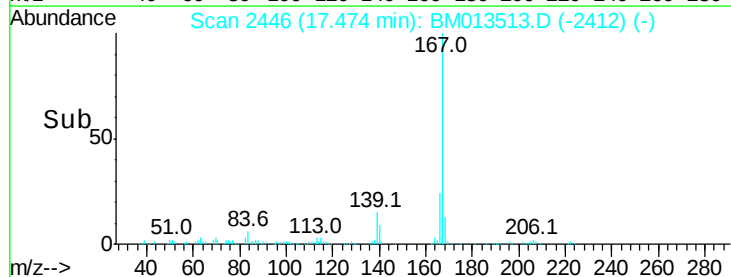
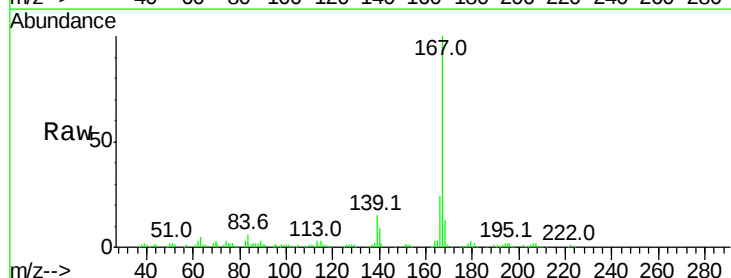
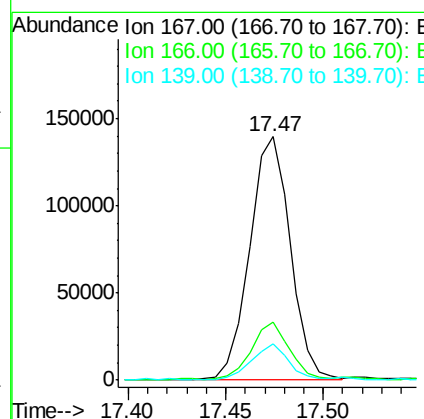
Manual Integrations  
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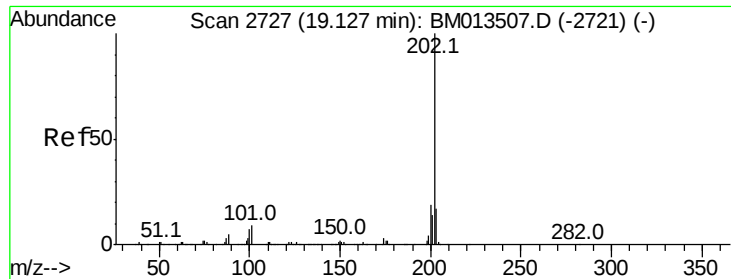
Sohil  
 12/20/2017 3:49:34 PM



#72  
 Carbazole  
 Concen: 4.122 ng/ul  
 RT: 17.47 min Scan# 2446  
 Delta R.T. -0.00 min  
 Lab File: BM013513.D  
 Acq: 19 Dec 2017 15:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 23.8  | 17.1  | 25.7  |
| 139     | 14.9  | 10.0  | 15.0  |





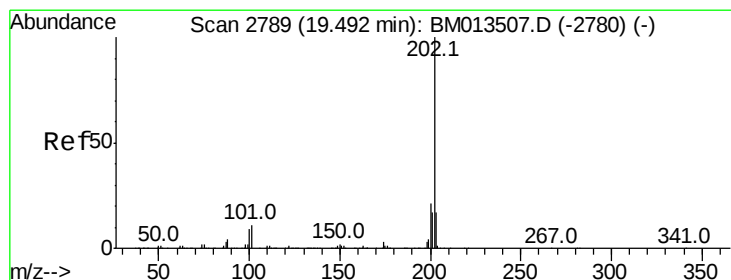
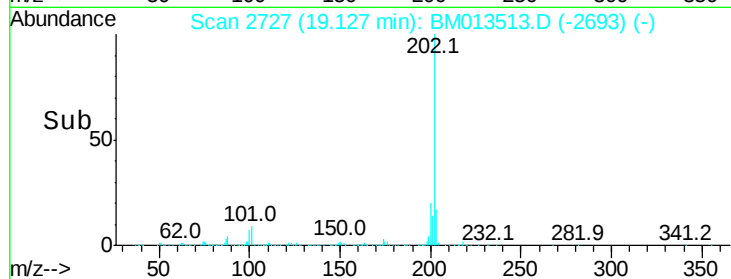
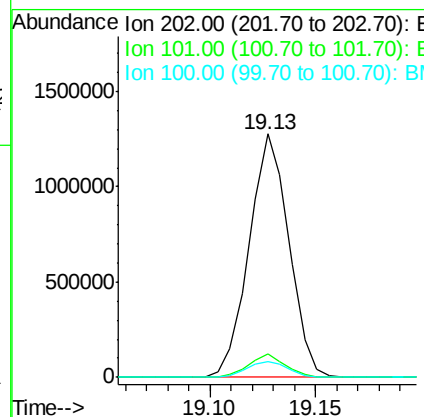
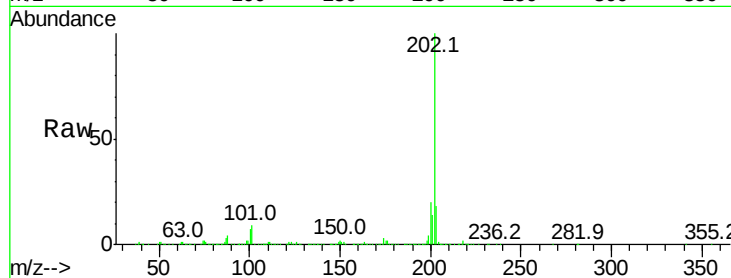
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 Fluoranthene  
 Concen: 24.501 ng/ul  
 RT: 19.13 min Scan# 2727  
 Delta R.T. -0.00 min  
 Lab File: BM013513.D  
 Acq: 19 Dec 2017 15:16

Instrument :  
 BNA\_M  
 ClientSampleId :  
 F9A79ME

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 9.4   | 4.6   | 7.0#  |
| 100     | 6.7   | 3.4   | 5.2#  |

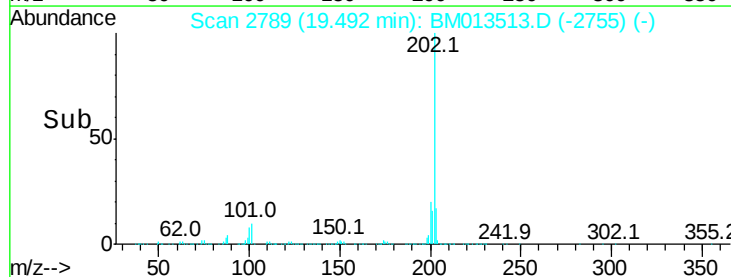
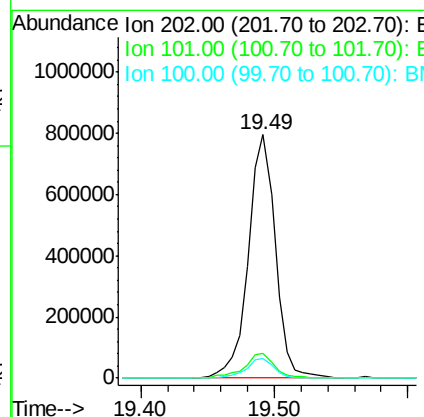
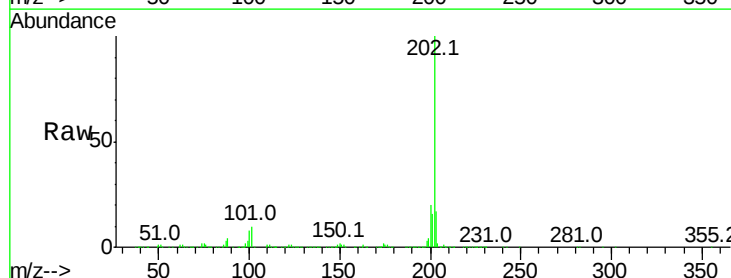
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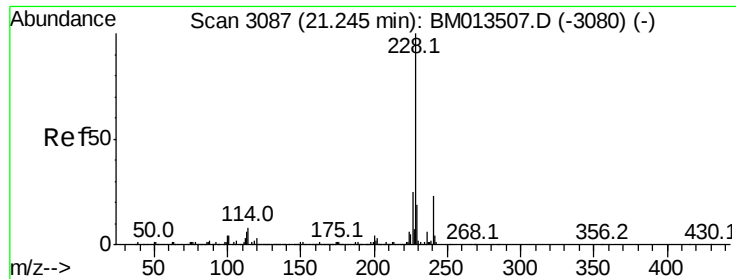
Sohil  
 12/20/2017 3:49:34 PM



#77  
 Pyrene  
 Concen: 21.751 ng/ul  
 RT: 19.49 min Scan# 2789  
 Delta R.T. -0.00 min  
 Lab File: BM013513.D  
 Acq: 19 Dec 2017 15:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 10.1  | 5.1   | 7.7#  |
| 100     | 7.8   | 4.9   | 7.3#  |





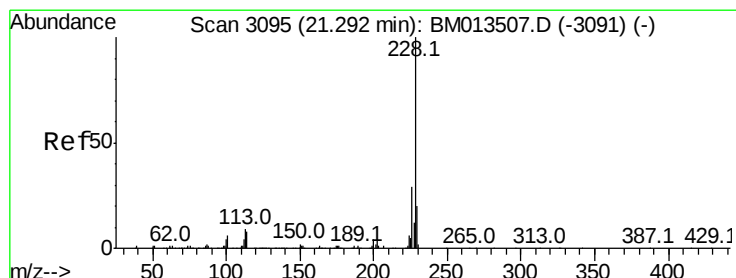
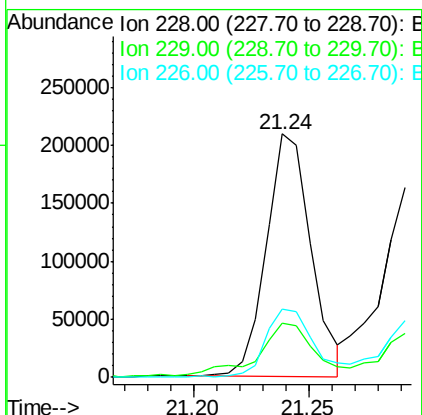
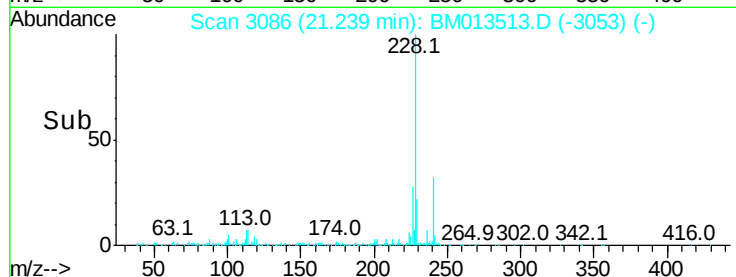
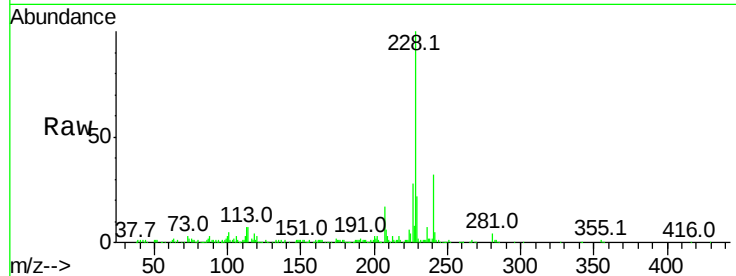
#80  
Benzo(a)anthracene  
Concen: 5.288 ng/ul  
RT: 21.24 min Scan# 3086  
Delta R.T. -0.01 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

Instrument :  
BNA\_M  
ClientSampled :  
F9A79ME

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 228     | 100   | 280080 |       |       |
| 229     | 22.1  | 15.4   | 23.0  |       |
| 226     | 27.8  | 21.4   | 32.0  |       |

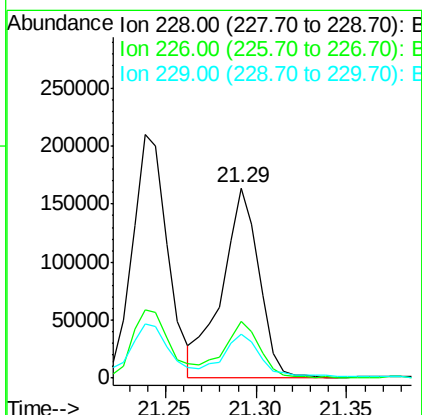
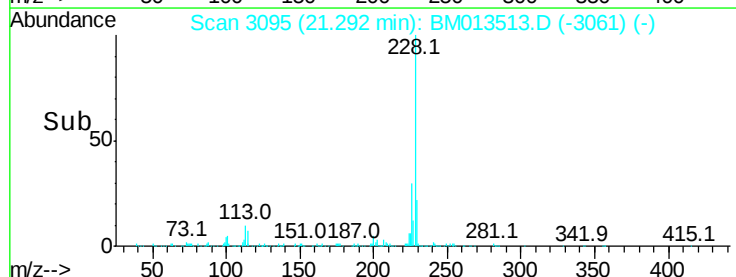
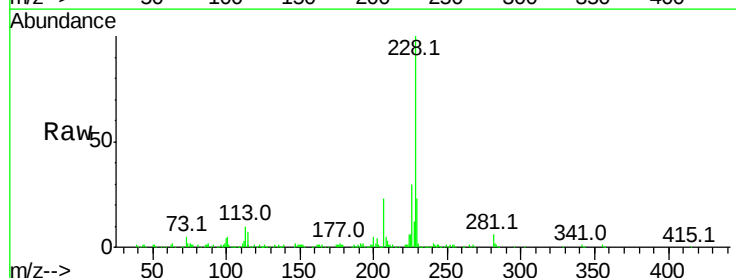
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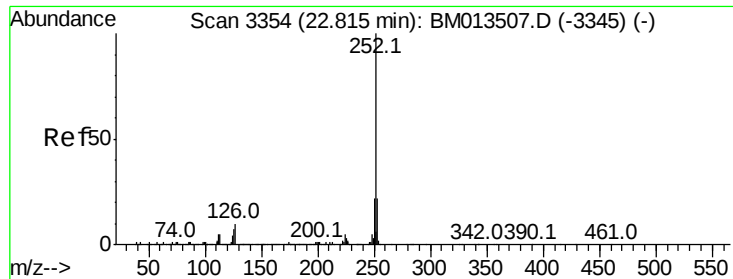
Sohil  
12/20/2017 3:49:34 PM



#82  
Chrysene  
Concen: 4.737 ng/ul  
RT: 21.29 min Scan# 3095  
Delta R.T. -0.00 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 228     | 100   | 232771 |       |       |
| 226     | 29.9  | 23.4   | 35.2  |       |
| 229     | 22.8  | 15.5   | 23.3  |       |





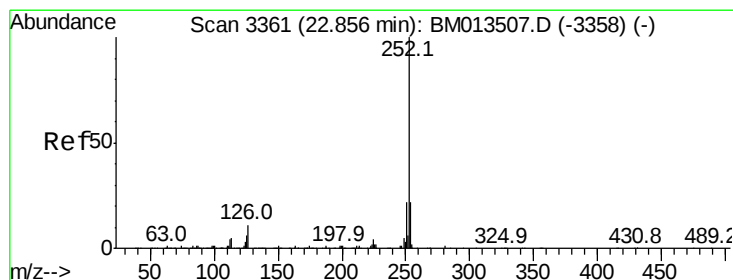
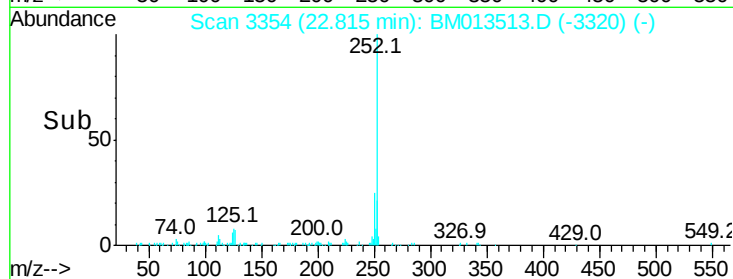
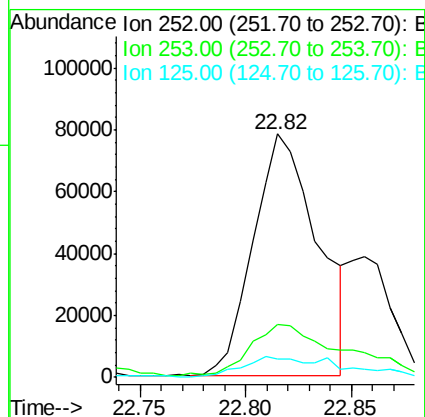
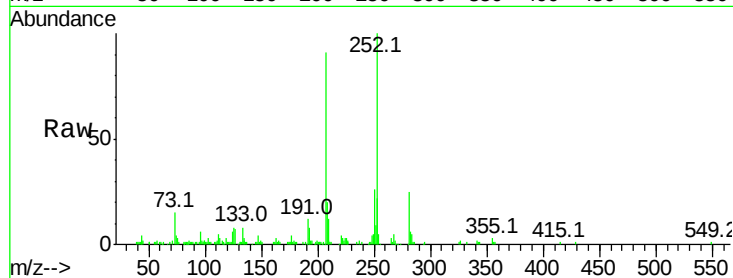
#85  
Benzo(b)fluoranthene  
Concen: 3.356 ng/ul  
RT: 22.82 min Scan# 3354  
Delta R.T. -0.00 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

Instrument :  
BNA\_M  
ClientSampleId :  
F9A79ME

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.5  | 17.9  | 26.9  |
| 125     | 7.5   | 3.6   | 5.4   |

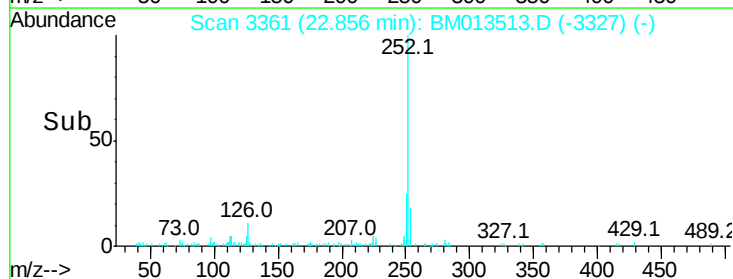
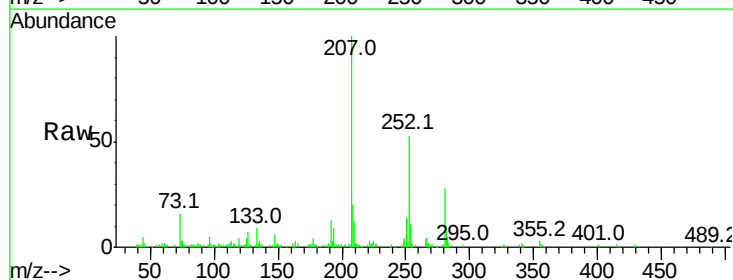
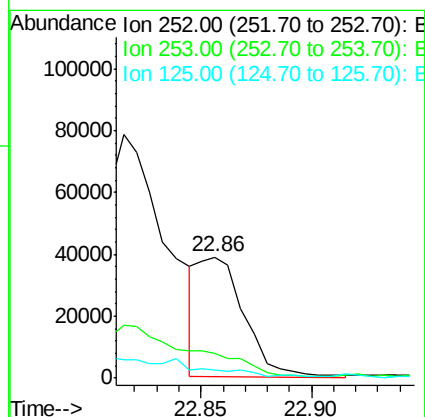
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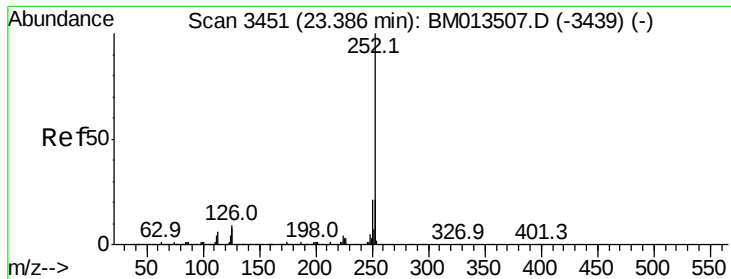
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#86  
Benzo(k)fluoranthene  
Concen: 1.209 ng/ul m  
RT: 22.86 min Scan# 3361  
Delta R.T. -0.00 min  
Lab File: BM013513.D  
Acq: 19 Dec 2017 15:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 20.7  | 17.1  | 25.7  |
| 125     | 7.0   | 3.4   | 5.2   |





#88

Benzo(a)pyrene

Concen: 2.385 ng/ul

RT: 23.38 min Scan# 3450

Delta R.T. -0.01 min

Lab File: BM013513.D

Acq: 19 Dec 2017 15:16

Instrument :

BNA\_M

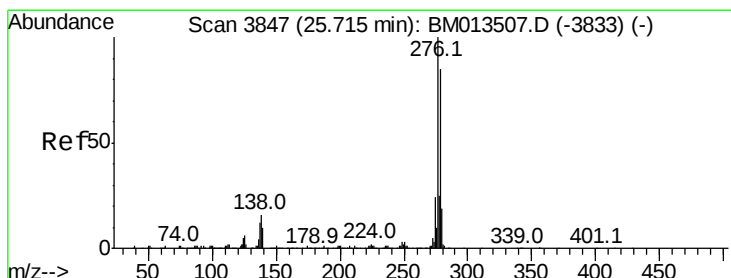
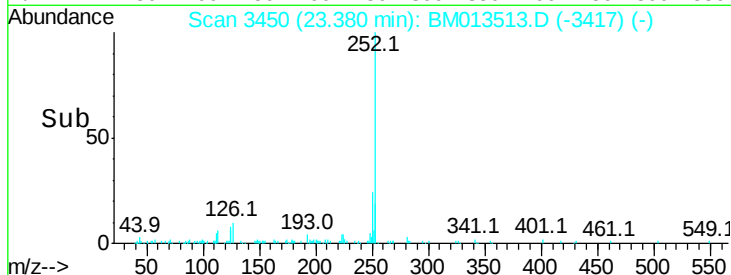
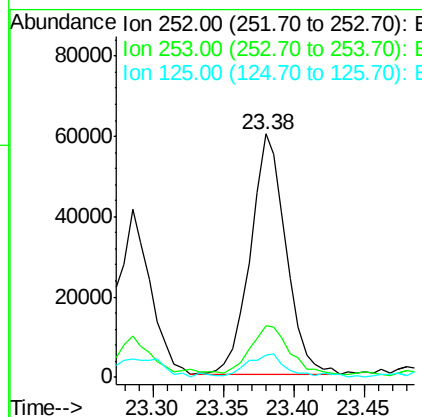
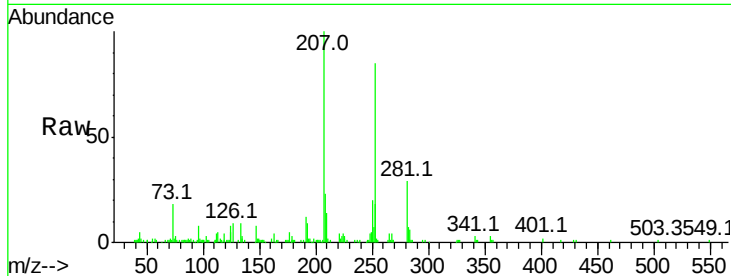
ClientSampleId :

F9A79ME

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 105941 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 21.3  | 18.2  | 27.2   |
| 125       | 9.1   | 4.0   | 6.0#   |

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#89

Indeno(1,2,3-cd)pyrene

Concen: 1.038 ng/ul

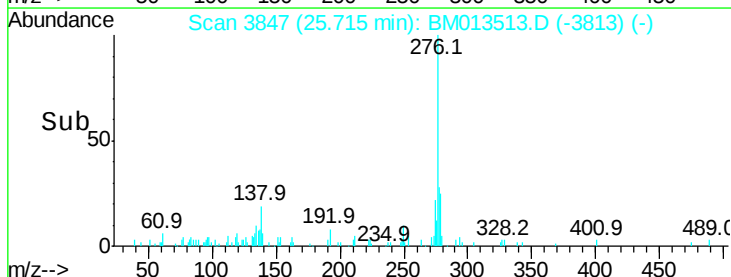
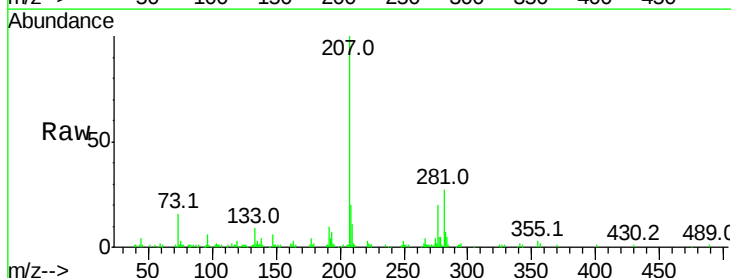
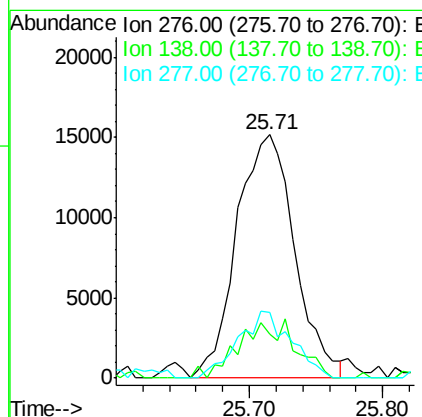
RT: 25.71 min Scan# 3847

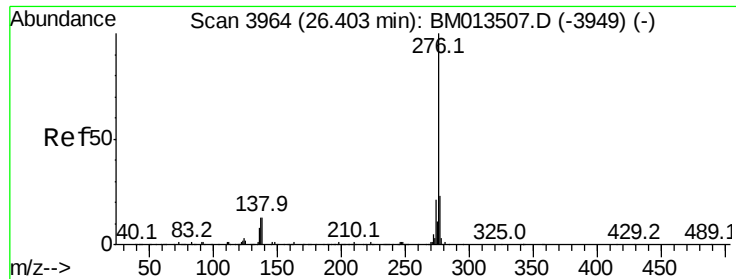
Delta R.T. 0.00 min

Lab File: BM013513.D

Acq: 19 Dec 2017 15:16

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 45736 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 17.9  | 9.3   | 13.9# |
| 277       | 27.0  | 19.9  | 29.9  |





#91

Benzo(a,h,i)perylene

Concen: 1.157 ng/ul

RT: 26.39 min Scan# 3962

Delta R.T. -0.01 min

Lab File: BM013513.D

Acq: 19 Dec 2017 15:16

Instrument :

BNA\_M

ClientSampleId :

F9A79ME

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 276   | Resp: | 40216 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 13.8  | 8.5   | 12.7# |
| 277       | 32.6  | 18.6  | 28.0# |

Manual Integrations  
APPROVED

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