

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM050619\  
 Data File : BM020157.D  
 Acq On : 07 May 2019 07:02  
 Operator : JU/SJ  
 Sample : K2673-15 5X  
 Misc :  
 ALS Vial : 26 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 SP-01-COMP

Manual Integrations  
 APPROVED

mohammad  
 5/7/2019 3:12:15 PM

Quant Time: May 07 07:44:57 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\8270-BM043019.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed May 01 03:58:37 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.79  | 152  | 155726   | 20.00  | ng    | 0.00     |
| 21) Naphthalene-d8          | 10.59 | 136  | 550478   | 20.00  | ng    | 0.00     |
| 39) Acenaphthene-d10        | 14.44 | 164  | 311062   | 20.00  | ng    | 0.00     |
| 64) Phenanthrene-d10        | 17.19 | 188  | 727404   | 20.00  | ng    | 0.00     |
| 76) Chrysene-d12            | 21.37 | 240  | 755665   | 20.00  | ng    | 0.00     |
| 87) Perylene-d12            | 23.67 | 264  | 876498   | 20.00  | ng    | 0.01     |
| System Monitoring Compounds |       |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.37  | 112  | 165062   | 17.33  | ng    | 0.00     |
| 7) Phenol-d6                | 6.96  | 99   | 231524   | 17.79  | ng    | 0.00     |
| 23) Nitrobenzene-d5         | 8.96  | 82   | 143330   | 10.28  | ng    | 0.00     |
| 42) 2,4,6-Tribromophenol    | 15.93 | 330  | 84661    | 17.53  | ng    | 0.00     |
| 45) 2-Fluorobiphenyl        | 13.05 | 172  | 299355   | 11.84  | ng    | 0.00     |
| 79) Terphenyl-d14           | 19.81 | 244  | 466189   | 10.76  | ng    | 0.00     |
| Target Compounds            |       |      |          |        |       |          |
| 71) Phenanthrene            | 17.23 | 178  | 576428   | 14.356 | ng    | 99       |
| 72) Anthracene              | 17.32 | 178  | 176220   | 4.389  | ng    | 99       |
| 75) Fluoranthene            | 19.24 | 202  | 1370403  | 26.974 | ng    | 99       |
| 78) Pyrene                  | 19.61 | 202  | 1392541  | 27.448 | ng    | 99       |
| 81) Benzo(a)anthracene      | 21.36 | 228  | 803625   | 15.164 | ng    | 98       |
| 83) Chrysene                | 21.41 | 228  | 654776   | 12.740 | ng    | 96       |
| 86) Indeno(1,2,3-cd)pyrene  | 26.00 | 276  | 492686   | 8.059  | ng    | # 100    |
| 88) Benzo(b)fluoranthene    | 22.97 | 252  | 942420m  | 16.283 | ng    |          |
| 89) Benzo(k)fluoranthene    | 23.01 | 252  | 315731m  | 5.980  | ng    |          |
| 90) Benzo(a)pyrene          | 23.57 | 252  | 737518   | 14.028 | ng    | # 94     |
| 91) Dibenzo(a,h)anthracene  | 26.00 | 278  | 130958   | 2.395  | ng    | # 79     |
| 92) Benzo(a,h,i)perylene    | 26.73 | 276  | 495059   | 9.537  | ng    | 98       |

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

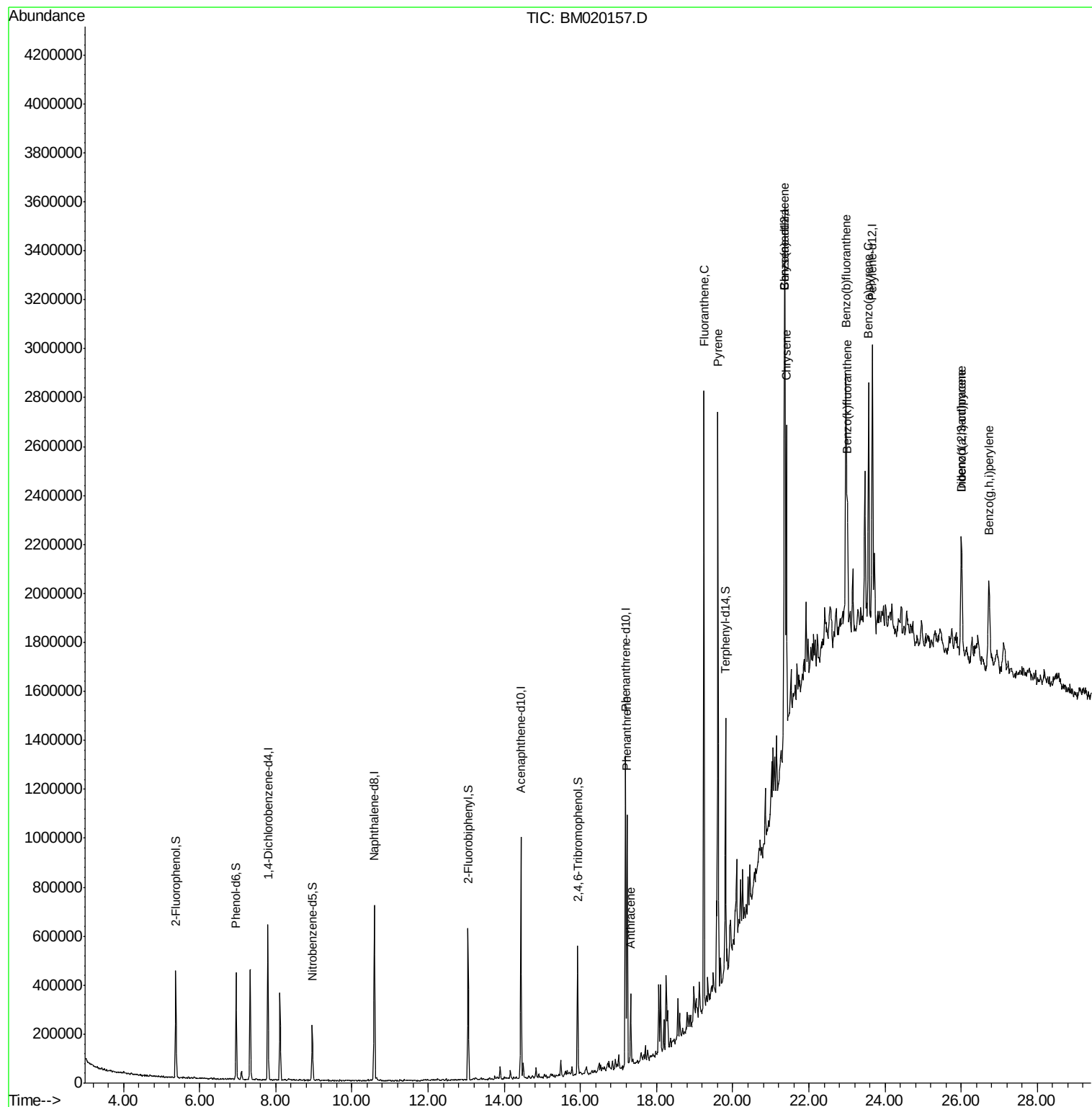
Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM050619\  
Data File : BM020157.D  
Acq On : 07 May 2019 07:02  
Operator : JU/SJ  
Sample : K2673-15 5X  
Misc :  
ALS Vial : 26 Sample Multiplier: 1

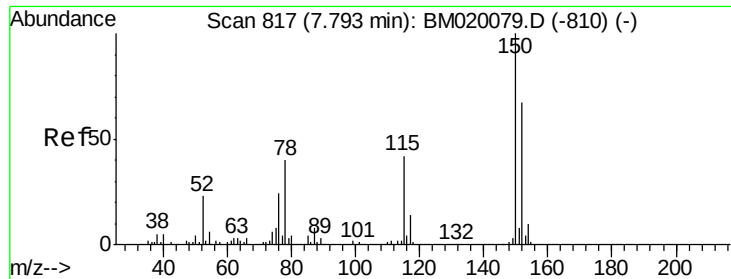
Instrument :  
BNA\_M  
ClientSampleId :  
SP-01-COMP

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5/7/2019 3:12:15 PM

Quant Time: May 07 07:44:57 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\8270-BM043019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed May 01 03:58:37 2019  
Response via : Initial Calibration





#1

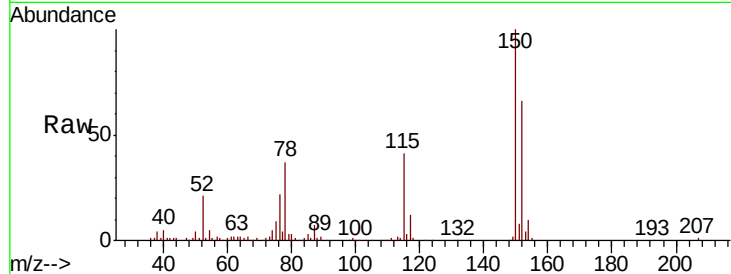
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 7.79 min Scan# 817  
Delta R.T. -0.00 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

Instrument :  
BNA\_M  
ClientSampleId :  
SP-01-COMP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 152.6 | 119.8 | 179.8 |
| 115     | 63.1  | 50.8  | 76.2  |

Manual Integrations  
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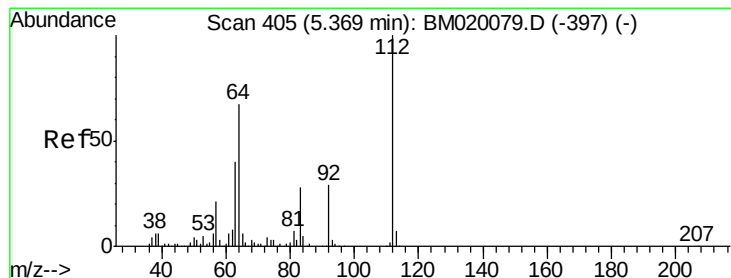
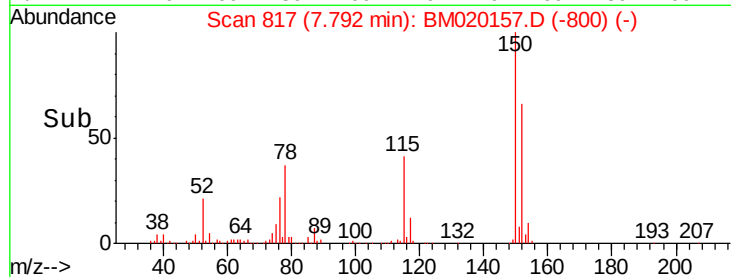
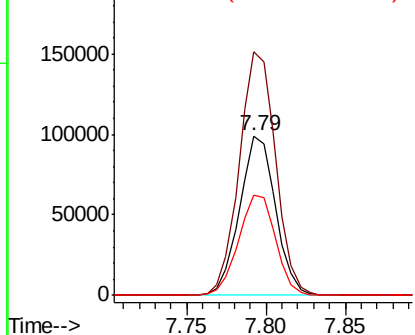


Abundance

Ion 152.00 (151.70 to 152.70): E

Ion 150.00 (149.70 to 150.70): E

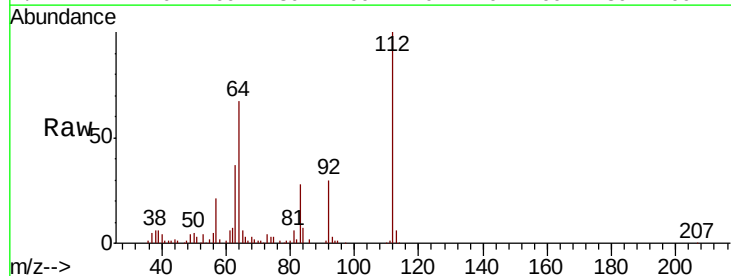
Ion 115.00 (114.70 to 115.70): E



#5

2-Fluorophenol  
Concen: 17.326 ng  
RT: 5.37 min Scan# 406  
Delta R.T. 0.01 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 67.1  | 53.8  | 80.6  |
| 63      | 36.7  | 32.3  | 48.5  |

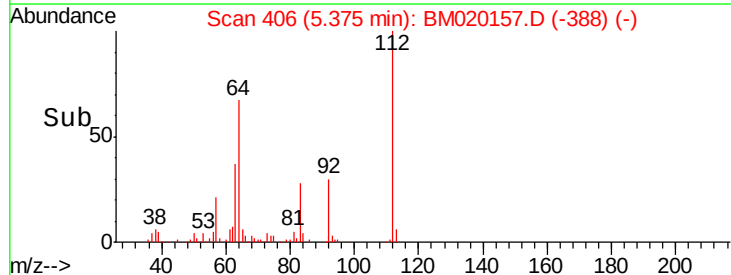
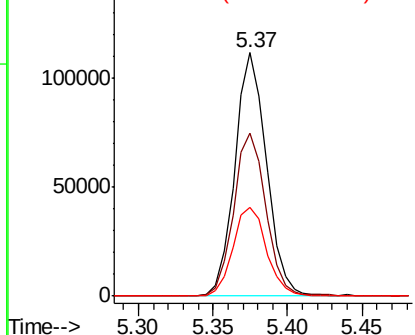


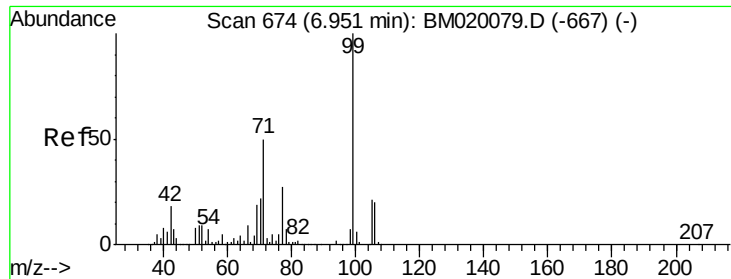
Abundance

Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BM0

Ion 63.00 (62.70 to 63.70): BM0





#7

Phenol-d6

Concen: 17.789 ng

RT: 6.96 min Scan# 675

Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

Instrument :

BNA\_M

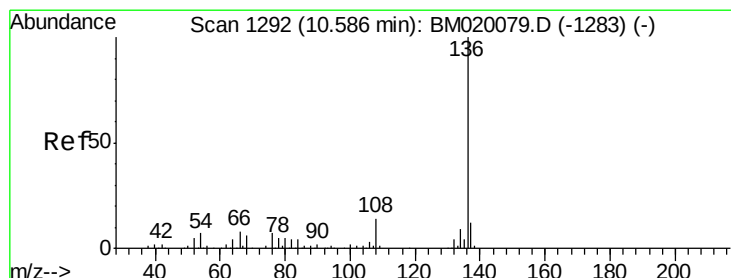
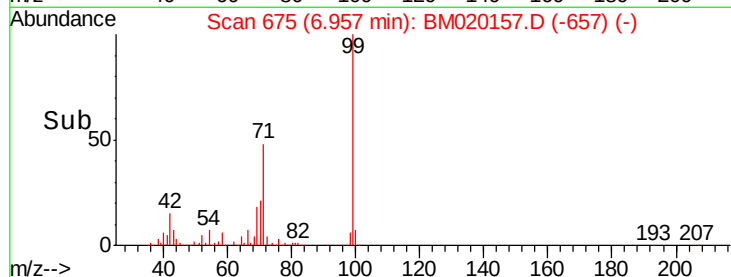
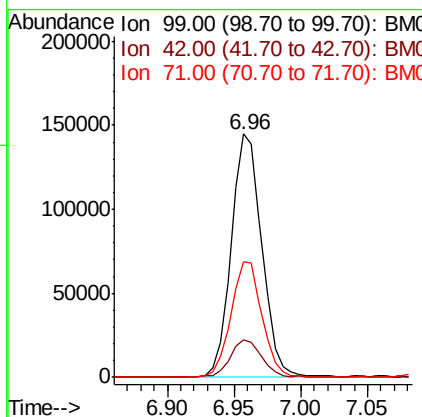
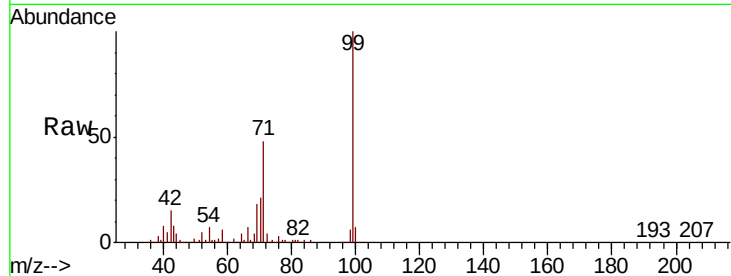
ClientSampleId :

SP-01-COMP

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 99    | Resp: | 231524 |
| Ion      | Ratio | Lower | Upper  |
| 99       | 100   |       |        |
| 42       | 15.5  | 14.2  | 21.2   |
| 71       | 47.6  | 40.3  | 60.5   |

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#21

Naphthalene-d8

Concen: 20.000 ng

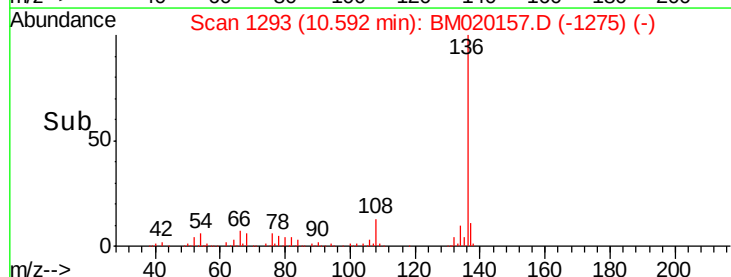
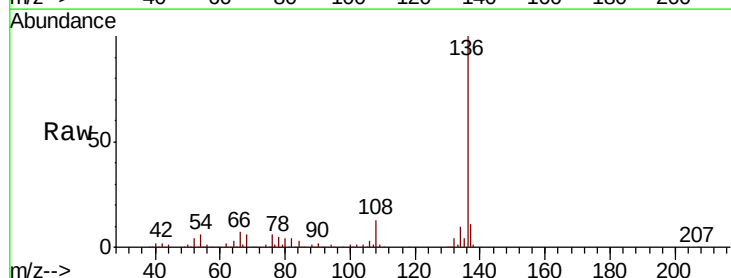
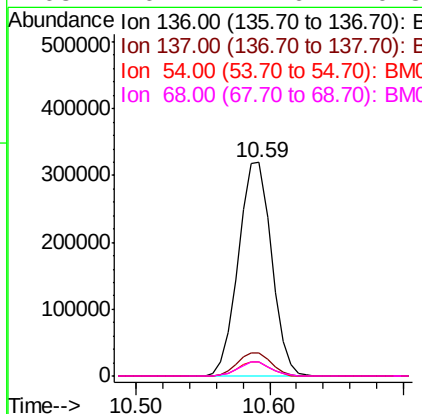
RT: 10.59 min Scan# 1293

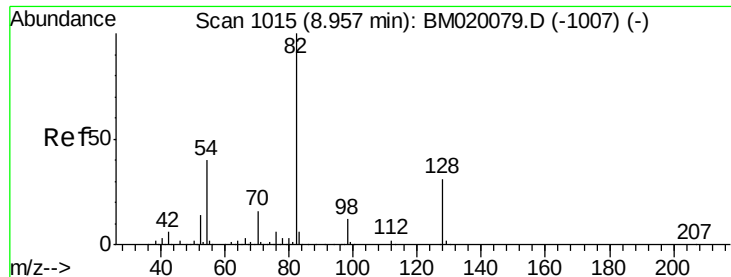
Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 136   | Resp: | 550478 |
| Ion      | Ratio | Lower | Upper  |
| 136      | 100   |       |        |
| 137      | 10.6  | 9.6   | 14.4   |
| 54       | 6.4   | 5.5   | 8.3    |
| 68       | 6.4   | 4.6   | 6.8    |





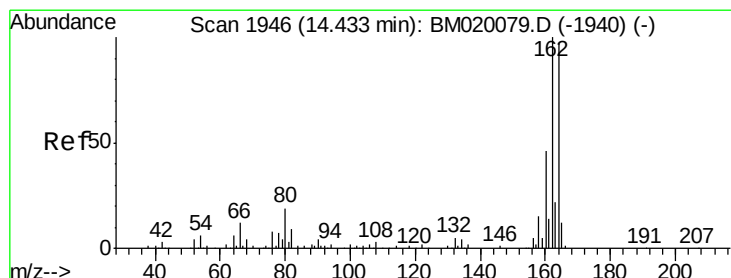
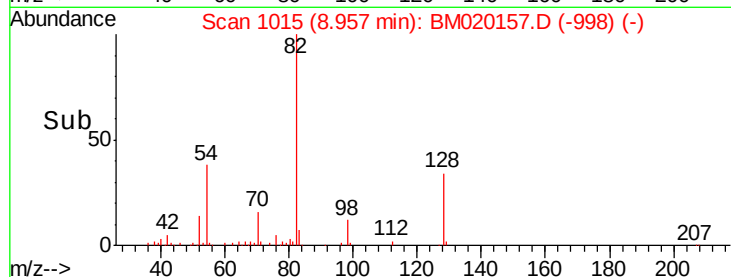
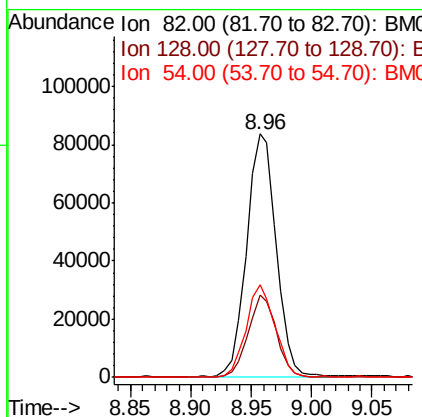
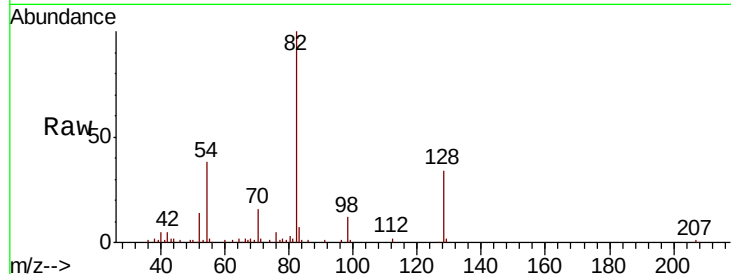
#23  
 Nitrobenzene-d5  
 Concen: 10.280 ng  
 RT: 8.96 min Scan# 1015  
 Delta R.T. -0.00 min  
 Lab File: BM020157.D  
 Acq: 07 May 2019 07:02

Instrument :  
 BNA\_M  
 ClientSampleId :  
 SP-01-COMP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 128     | 33.8  | 25.2  | 37.8  |
| 54      | 37.8  | 31.9  | 47.9  |

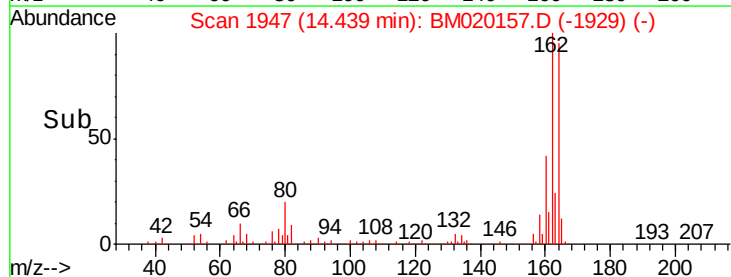
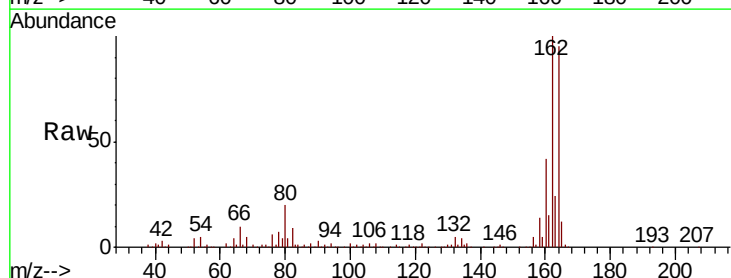
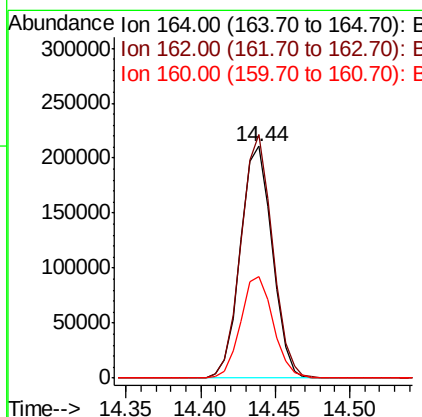
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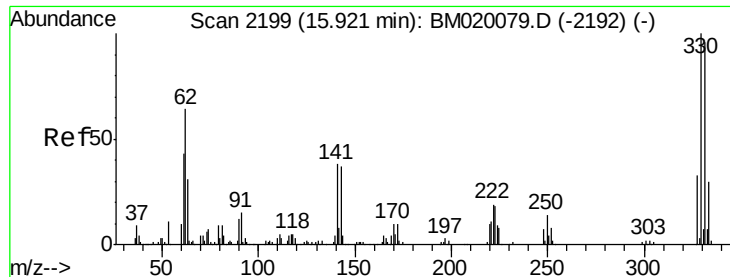
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 5/7/2019 3:12:15 PM



#39  
 Acenaphthene-d10  
 Concen: 20.000 ng  
 RT: 14.44 min Scan# 1947  
 Delta R.T. 0.01 min  
 Lab File: BM020157.D  
 Acq: 07 May 2019 07:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 105.1 | 82.2  | 123.2 |
| 160     | 44.0  | 37.6  | 56.4  |





#42

2,4,6-Tribromophenol

Concen: 17.534 ng

RT: 15.93 min Scan# 2200

Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

Instrument :

BNA\_M

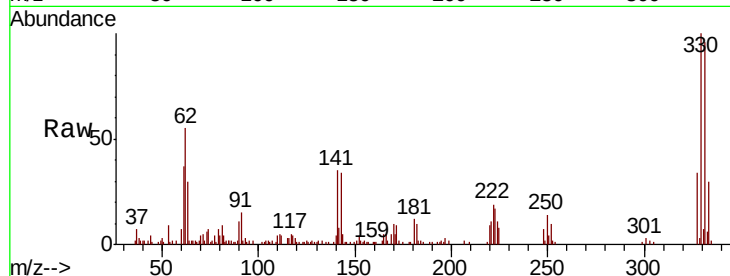
ClientSampleId :

SP-01-COMP

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 330   | Resp: | 84661 |
| Ion Ratio | Lower | Upper |       |
| 330       | 100   |       |       |
| 332       | 97.5  | 76.8  | 115.2 |
| 141       | 34.3  | 29.2  | 43.8  |

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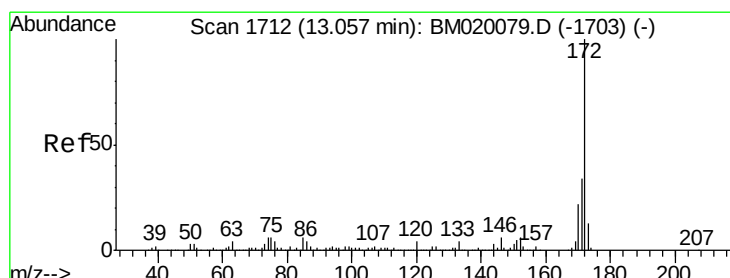
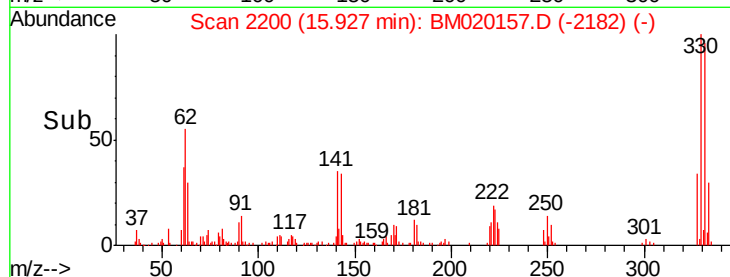
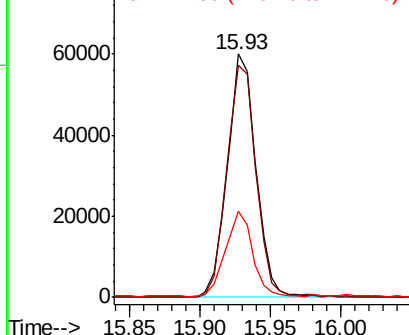


Abundance

Ion 329.80 (329.50 to 330.50): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E



#45

2-Fluorobiphenyl

Concen: 11.841 ng

RT: 13.05 min Scan# 1711

Delta R.T. -0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

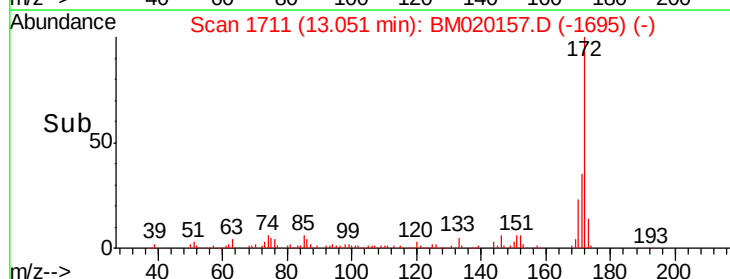
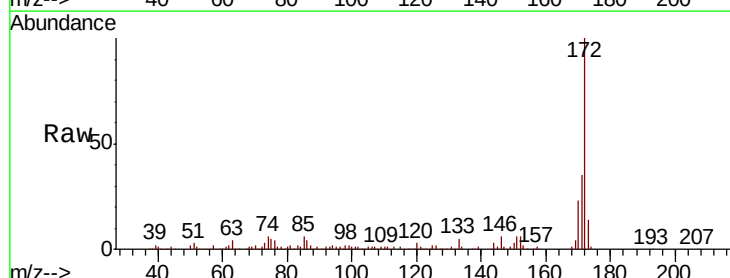
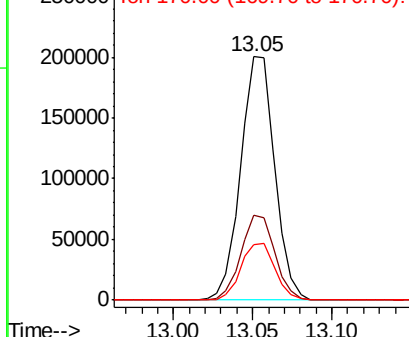
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 172   | Resp: | 299355 |
| Ion Ratio | Lower | Upper |        |
| 172       | 100   |       |        |
| 171       | 34.9  | 27.3  | 40.9   |
| 170       | 23.0  | 17.9  | 26.9   |

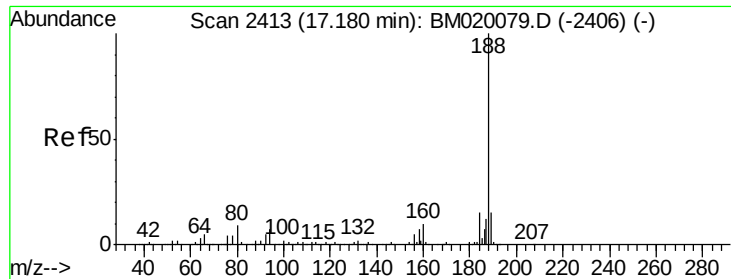
Abundance

Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E





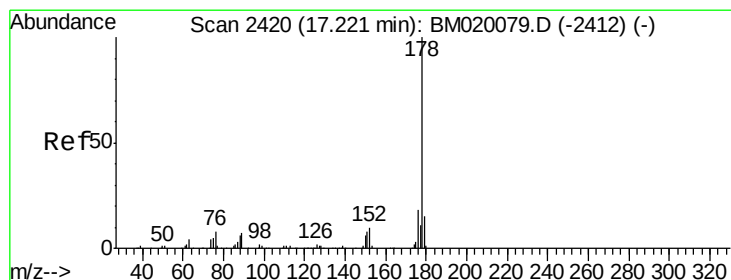
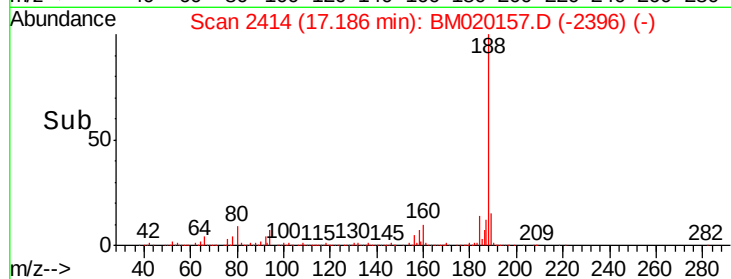
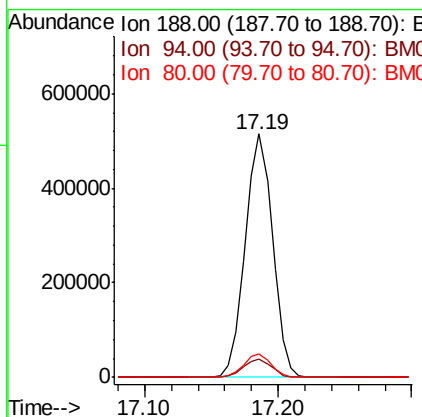
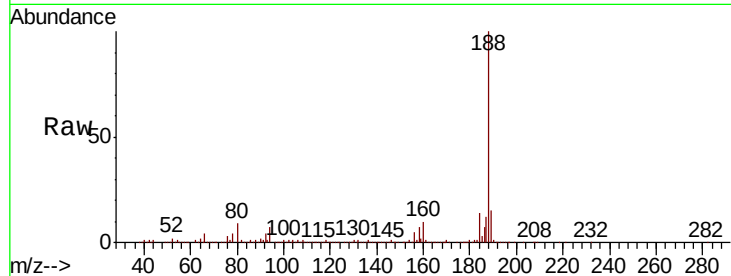
#64  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 17.19 min Scan# 2414  
Delta R.T. 0.01 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

Instrument :  
BNA\_M  
ClientSampleId :  
SP-01-COMP

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 188     | 100   | 727404 |       |       |
| 94      | 7.4   |        | 5.8   | 8.6   |
| 80      | 9.4   |        | 7.4   | 11.2  |

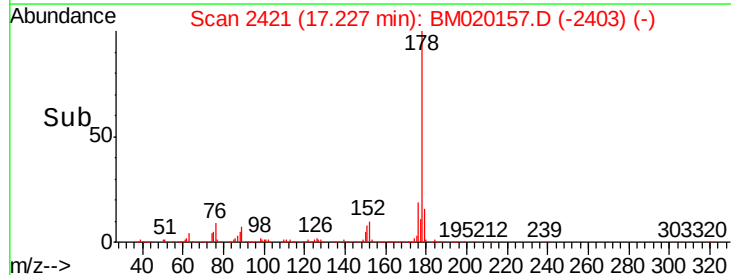
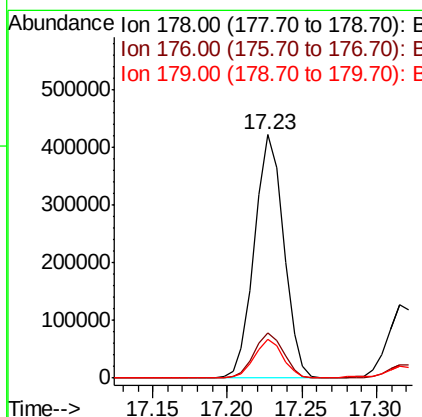
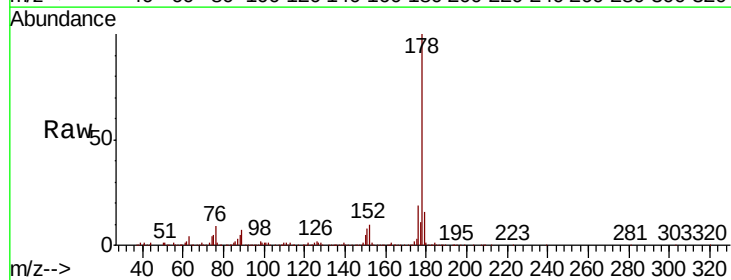
Manual Integrations  
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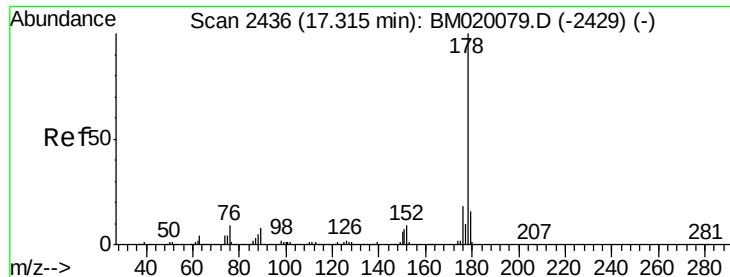
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#71  
Phenanthrene  
Concen: 14.356 ng  
RT: 17.23 min Scan# 2421  
Delta R.T. 0.01 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 178     | 100   | 576428 |       |       |
| 176     | 18.6  |        | 14.6  | 21.8  |
| 179     | 15.9  |        | 12.4  | 18.6  |





#72

Anthracene

Concen: 4.389 ng

RT: 17.32 min Scan# 2436

Delta R.T. -0.00 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

Instrument :

BNA\_M

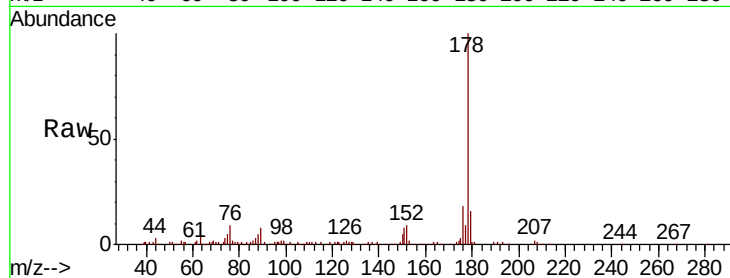
ClientSampleId :

SP-01-COMP

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 178   | Resp: | 176220 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 176       | 18.4  | 14.6  | 22.0   |
| 179       | 16.1  | 12.4  | 18.6   |

Manual Integrations  
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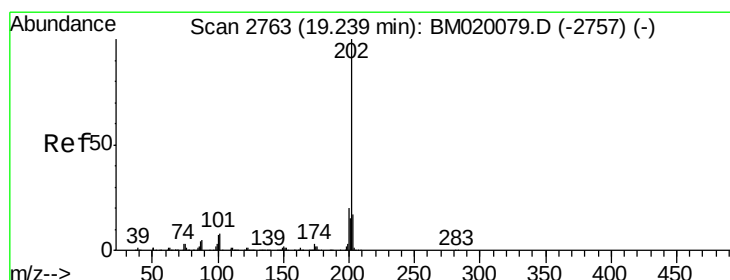
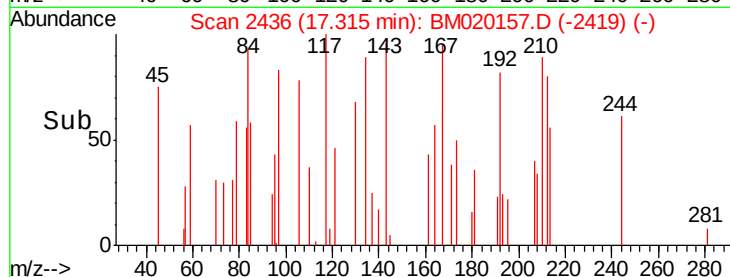
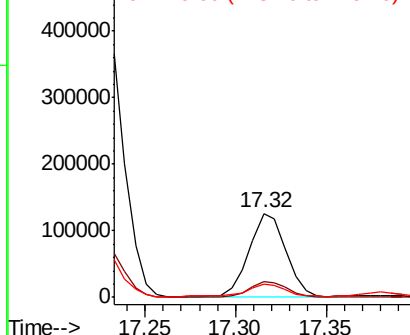


Abundance

Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E



#75

Fluoranthene

Concen: 26.974 ng

RT: 19.24 min Scan# 2764

Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

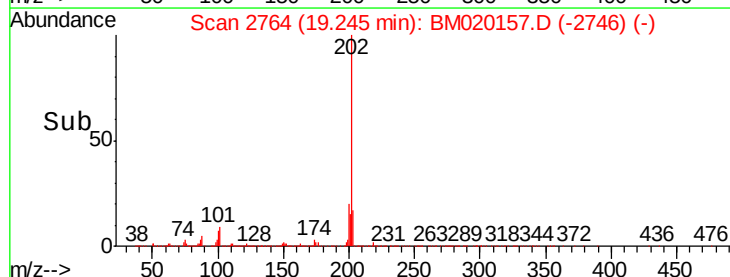
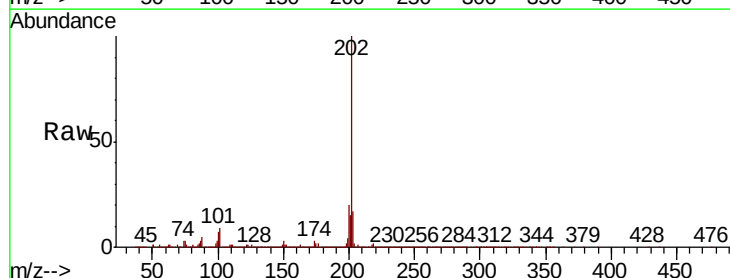
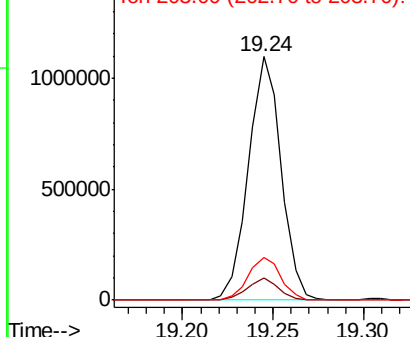
|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 1370403 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 9.1   | 0.0   | 28.4    |
| 203       | 17.5  | 0.0   | 37.4    |

Abundance

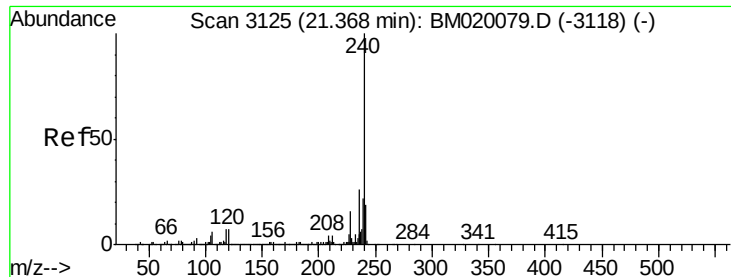
Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E







#76

Chrysene-d12

Concen: 20.000 ng

RT: 21.37 min Scan# 3126

Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

Instrument :

BNA\_M

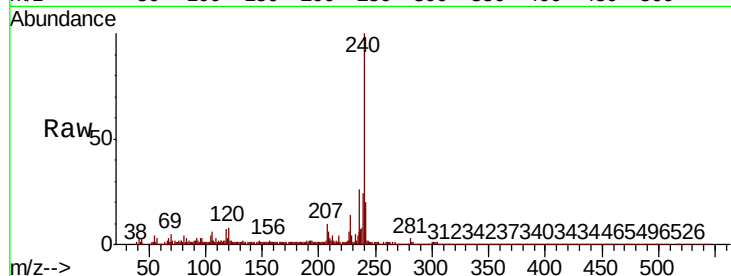
ClientSampleId :

SP-01-COMP

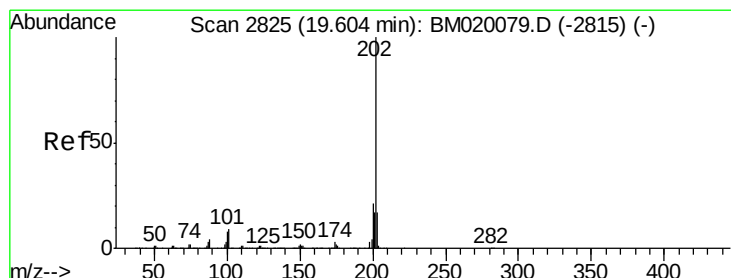
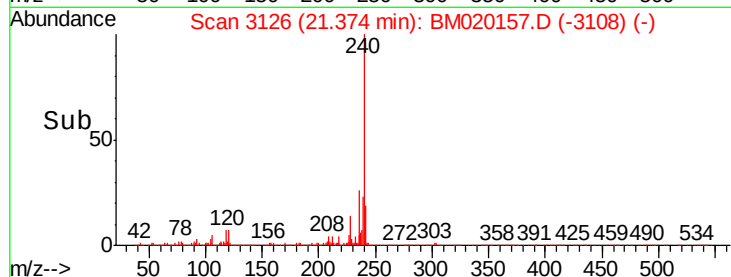
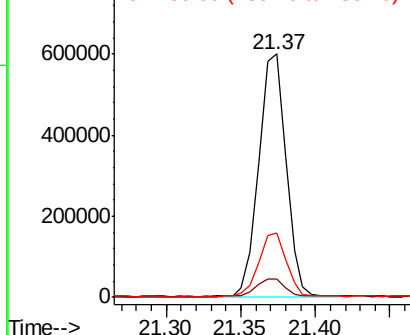
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 240   | Resp: | 755665 |
| Ion Ratio | Lower | Upper |        |
| 240       | 100   |       |        |
| 120       | 7.6   | 5.6   | 8.4    |
| 236       | 26.4  | 20.9  | 31.3   |

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Abundance Ion 240.00 (239.70 to 240.70): E  
Ion 120.00 (119.70 to 120.70): E  
Ion 236.00 (235.70 to 236.70): E



#78

Pyrene

Concen: 27.448 ng

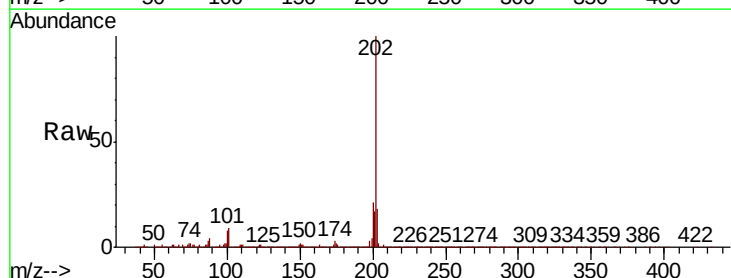
RT: 19.61 min Scan# 2826

Delta R.T. 0.01 min

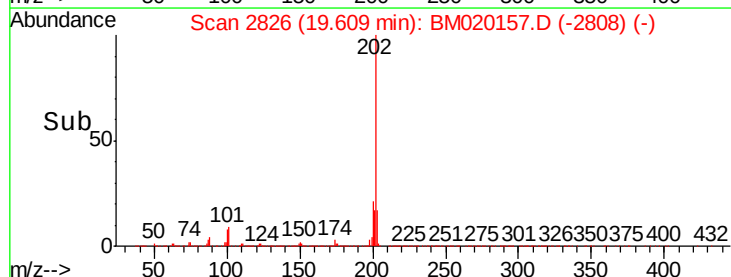
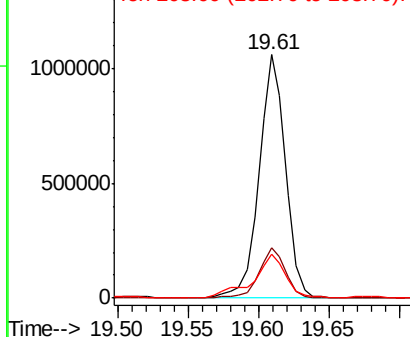
Lab File: BM020157.D

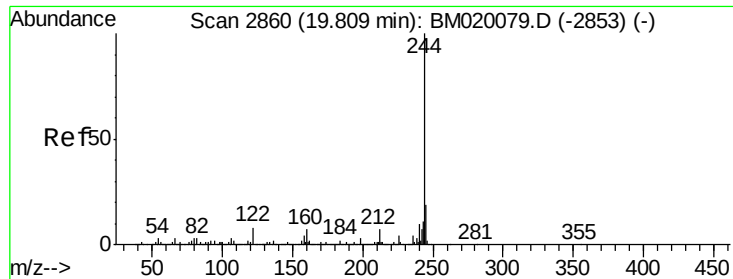
Acq: 07 May 2019 07:02

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 1392541 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 200       | 20.6  | 16.5  | 24.7    |
| 203       | 17.9  | 13.9  | 20.9    |



Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 200.00 (199.70 to 200.70): E  
Ion 203.00 (202.70 to 203.70): E





#79

Terphenyl-d14

Concen: 10.761 ng

RT: 19.81 min Scan# 2860

Delta R.T. -0.00 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

Instrument :

BNA\_M

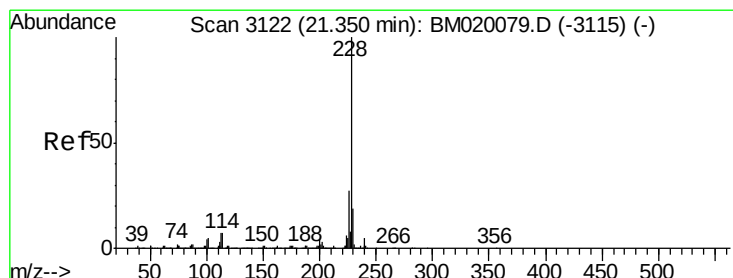
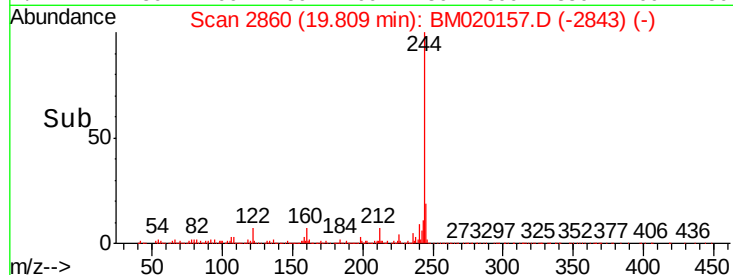
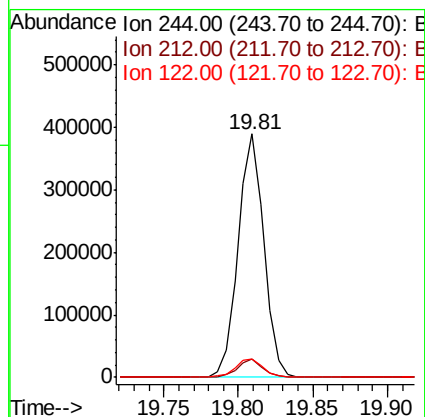
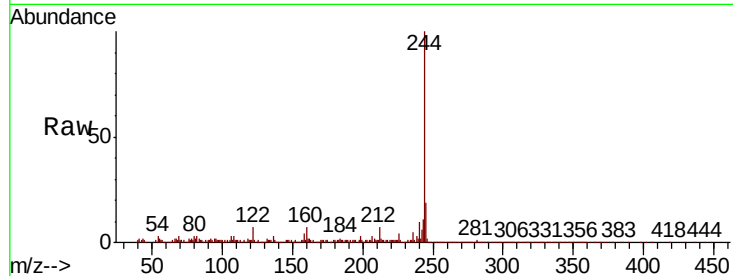
ClientSampleId :

SP-01-COMP

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 244   | Resp: | 466189 |
| Ion Ratio | Lower | Upper |        |
| 244       | 100   |       |        |
| 212       | 7.4   | 5.7   | 8.5    |
| 122       | 7.4   | 6.2   | 9.2    |

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#81

Benzo(a)anthracene

Concen: 15.164 ng

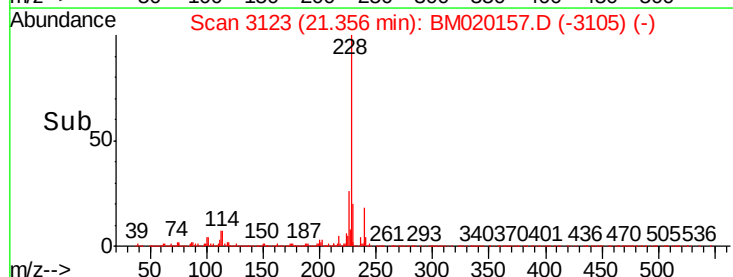
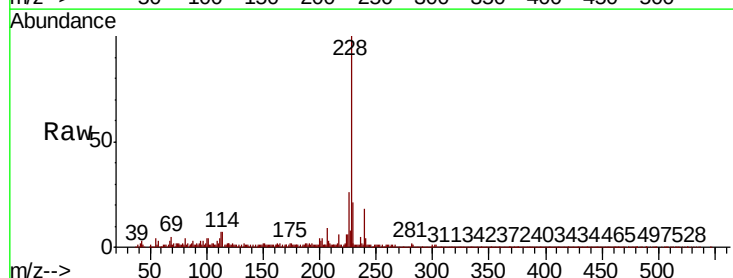
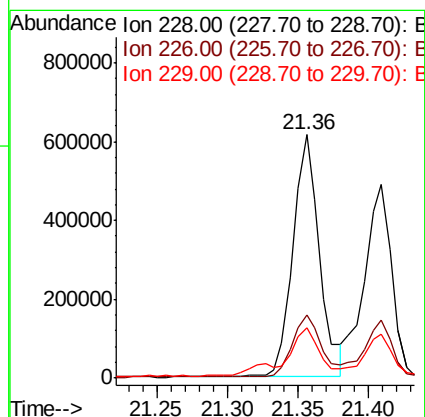
RT: 21.36 min Scan# 3123

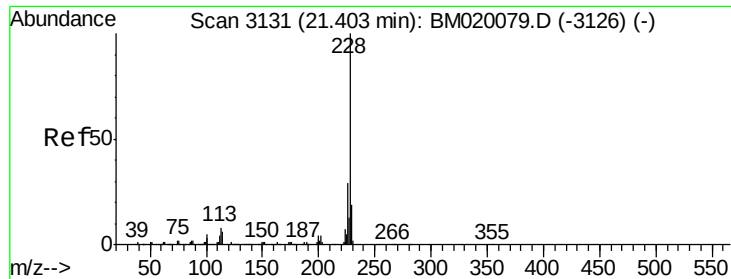
Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 803625 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 26.1  | 21.3  | 31.9   |
| 229       | 20.6  | 15.5  | 23.3   |





#83

Chrysene

Concen: 12.740 ng

RT: 21.41 min Scan# 3132

Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

Instrument :

BNA\_M

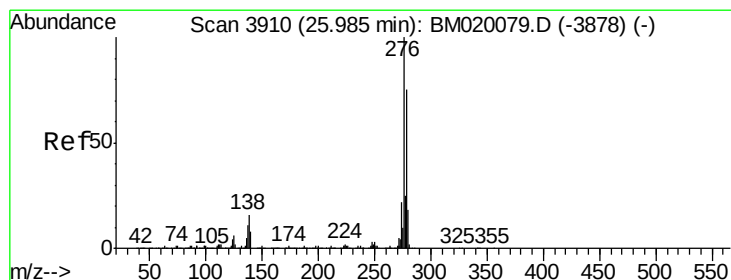
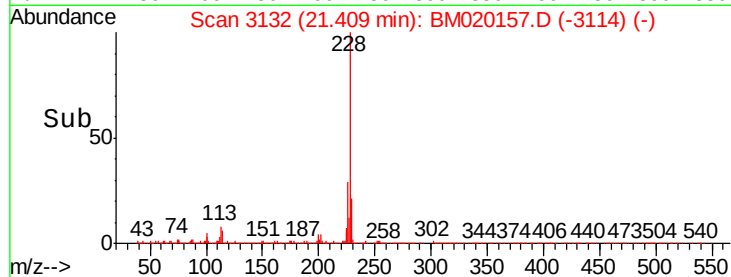
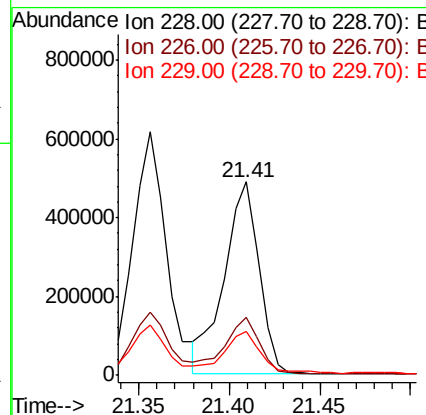
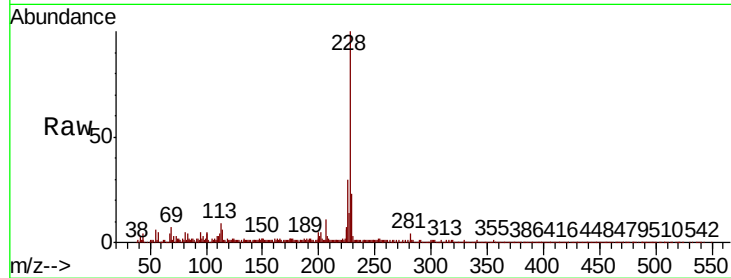
ClientSampleId :

SP-01-COMP

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 654776 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 29.7  | 23.0  | 34.6   |
| 229       | 22.8  | 15.5  | 23.3   |

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#86

Indeno(1,2,3-cd)pyrene

Concen: 8.059 ng

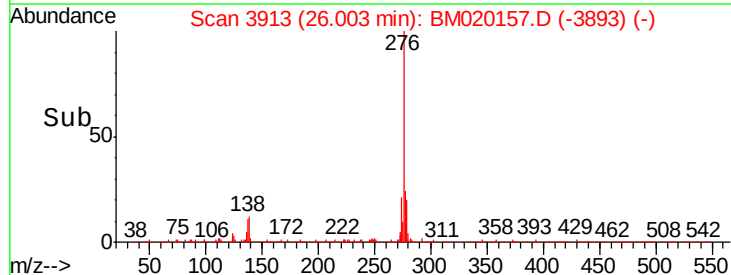
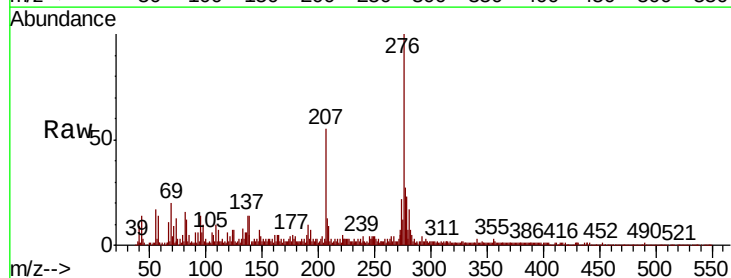
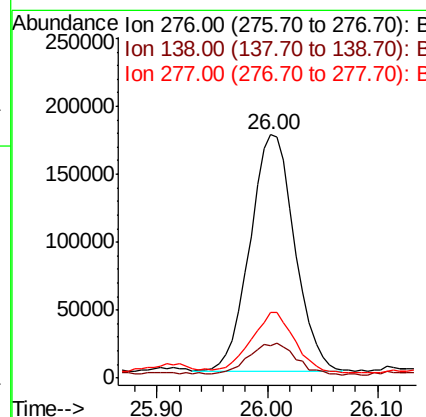
RT: 26.00 min Scan# 3913

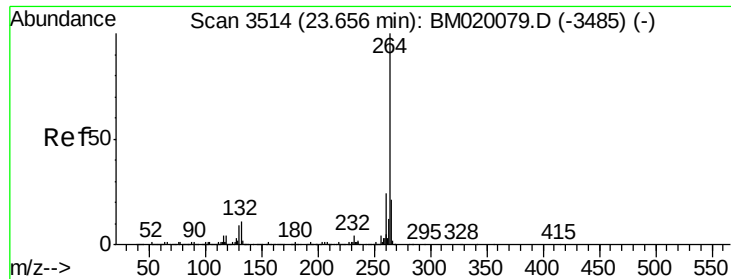
Delta R.T. 0.02 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 492686 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 14.0  | 0.0   | 0.0#   |
| 277       | 25.3  | 0.0   | 0.0#   |





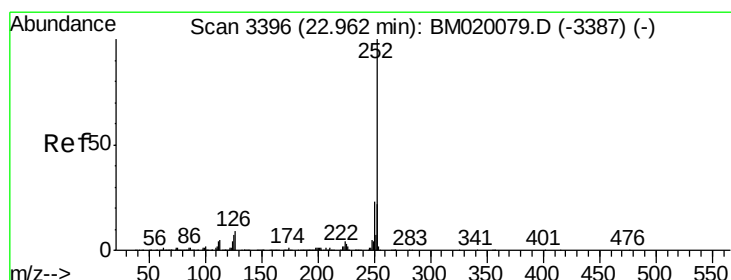
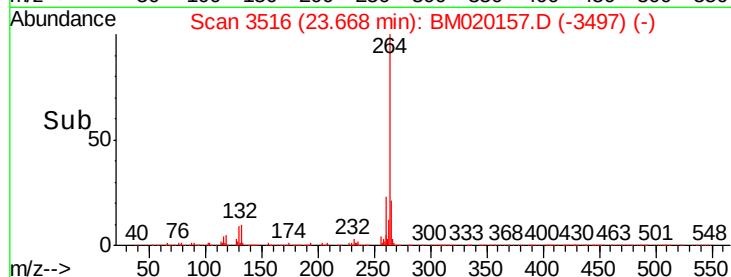
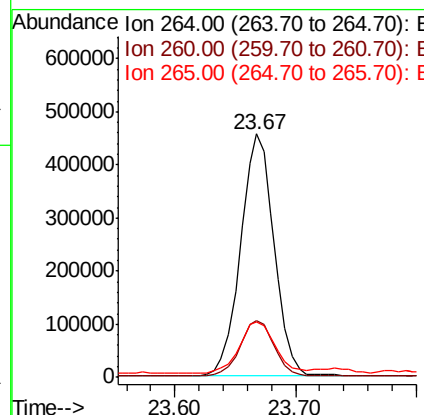
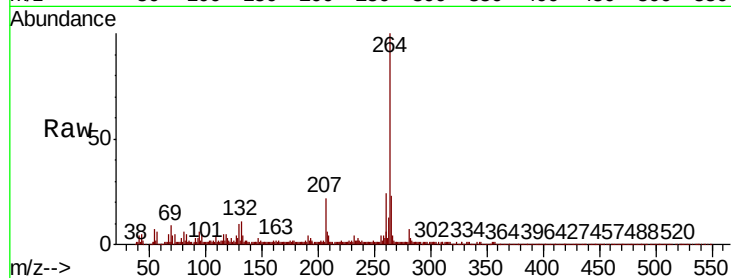
#87  
Pervlene-d12  
Concen: 20.000 ng  
RT: 23.67 min Scan# 3516  
Delta R.T. 0.01 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

Instrument :  
BNA\_M  
ClientSampleId :  
SP-01-COMP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 23.6  | 19.2  | 28.8  |
| 265     | 22.8  | 16.9  | 25.3  |

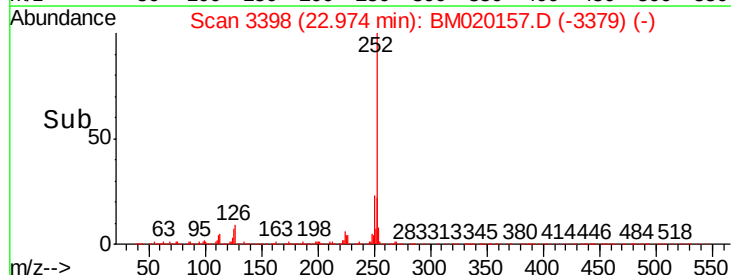
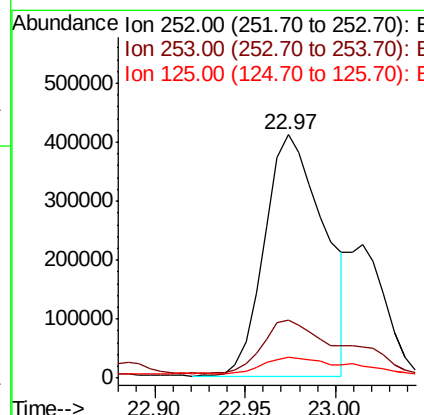
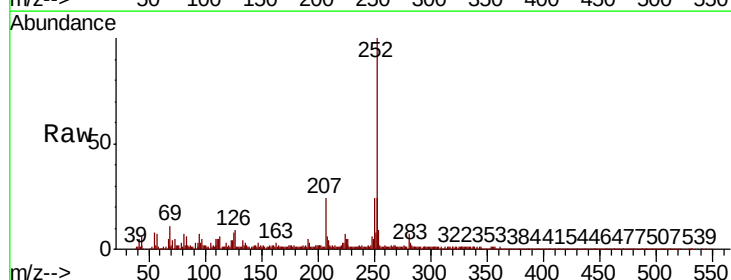
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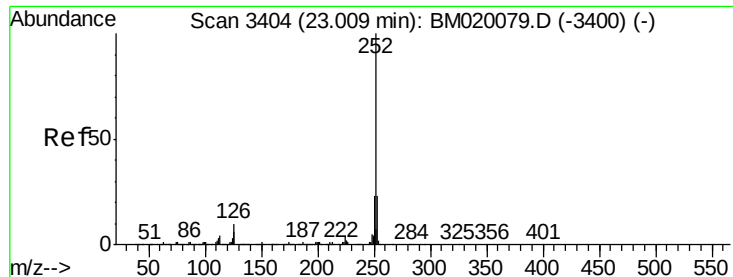
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#88  
Benzo(b)fluoranthene  
Concen: 16.283 ng m  
RT: 22.97 min Scan# 3398  
Delta R.T. 0.01 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.6  | 17.5  | 26.3  |
| 125     | 8.4   | 5.4   | 8.2   |





#89

Benzo(k)fluoranthene

Concen: 5.980 ng/mL

RT: 23.01 min Scan# 3405

Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

Instrument :

BNA\_M

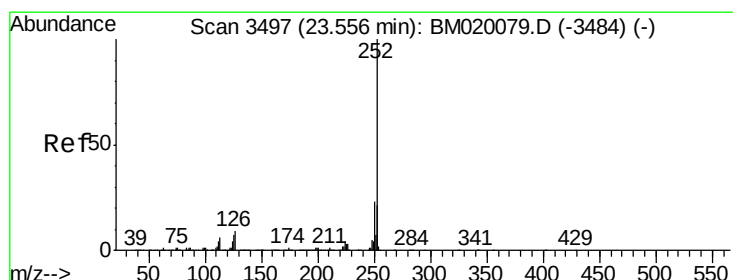
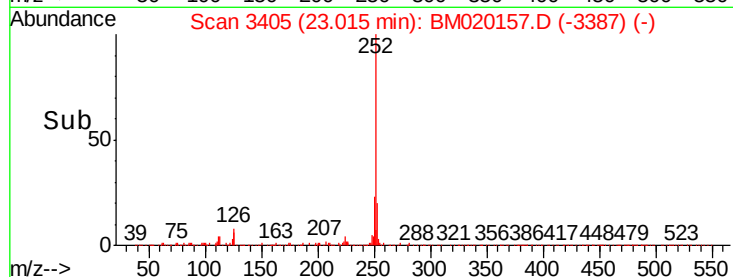
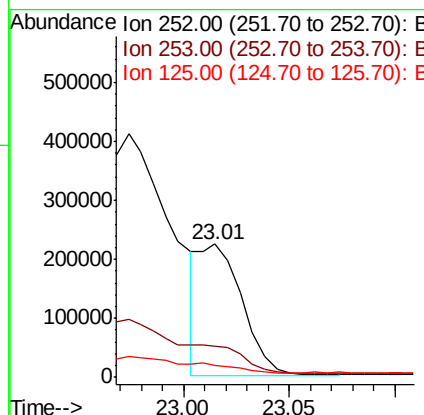
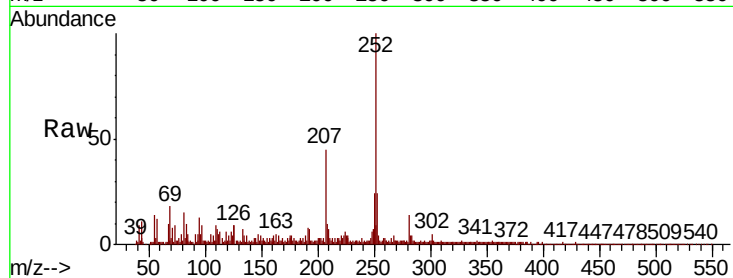
ClientSampleId :

SP-01-COMP

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 315731 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 23.7  | 17.8  | 26.8   |
| 125       | 9.4   | 5.4   | 8.0#   |

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#90

Benzo(a)pyrene

Concen: 14.028 ng/mL

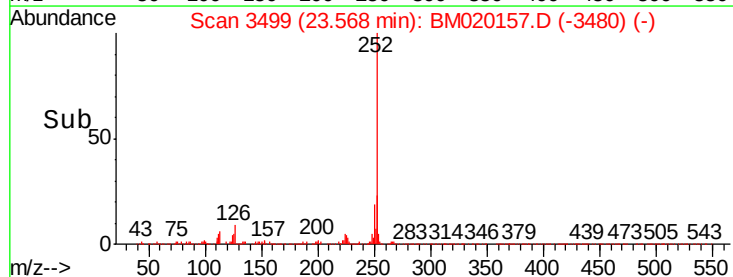
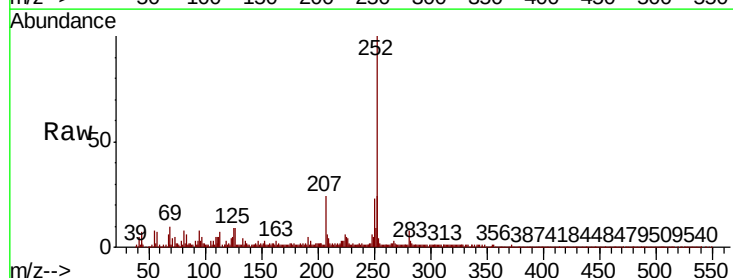
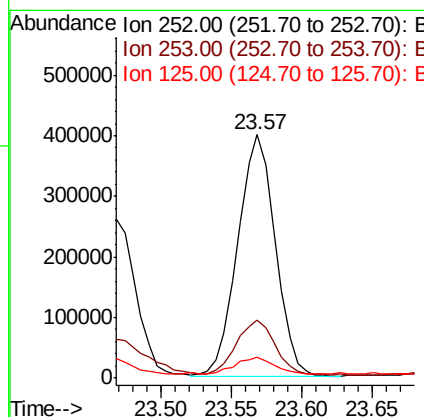
RT: 23.57 min Scan# 3499

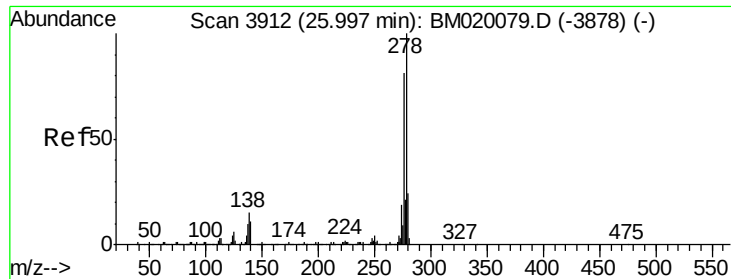
Delta R.T. 0.01 min

Lab File: BM020157.D

Acq: 07 May 2019 07:02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 737518 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 23.9  | 17.0  | 25.6   |
| 125       | 8.8   | 5.5   | 8.3#   |





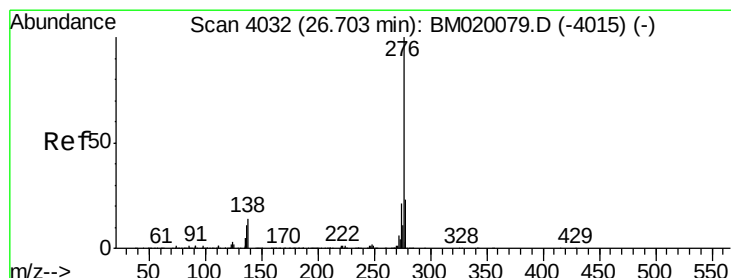
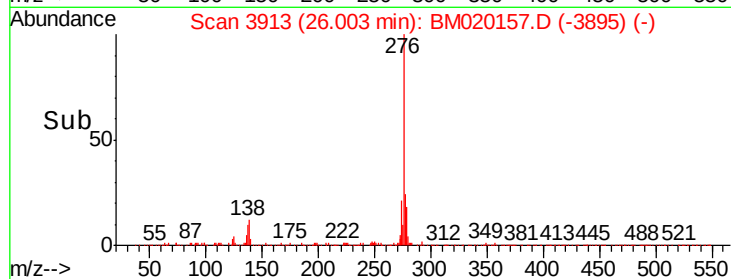
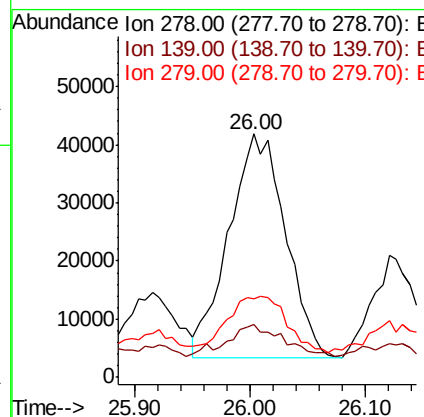
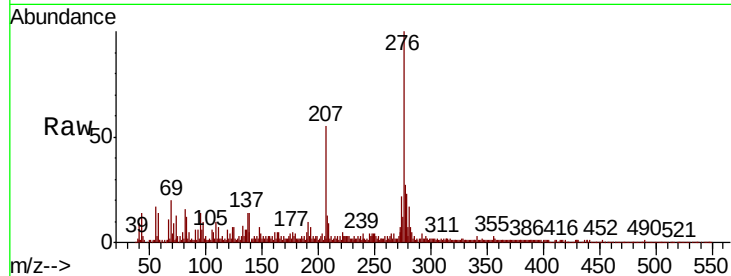
#91  
Dibenzo(a,h)anthracene  
Concen: 2.395 ng  
RT: 26.00 min Scan# 3913  
Delta R.T. 0.01 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

Instrument :  
BNA\_M  
ClientSampleId :  
SP-01-COMP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 21.6  | 8.6   | 13.0# |
| 279     | 32.1  | 18.8  | 28.2# |

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#92  
Benzo(g,h,i)perylene  
Concen: 9.537 ng  
RT: 26.73 min Scan# 4037  
Delta R.T. 0.03 min  
Lab File: BM020157.D  
Acq: 07 May 2019 07:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 23.4  | 18.4  | 27.6  |
| 138     | 15.5  | 11.1  | 16.7  |

