

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072518\  
 Data File : BF107665.D  
 Acq On : 25 Jul 2018 18:56  
 Operator : JU/SJ  
 Sample : J4144-01 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 MCMaster-SEDIMENT-7-23-18

Manual Integrations  
 APPROVED

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 7/26/2018 2:03:08 PM

Quant Time: Jul 26 10:37:01 2018  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Jul 20 16:29:27 2018  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc    | Units | Dev(Min)    |
|-----------------------------|-------|------|----------|---------|-------|-------------|
| 1) 1,4-Dichlorobenzene-d4   | 6.97  | 152  | 200102   | 20.00   | ng    | -0.01       |
| 21) Naphthalene-d8          | 8.26  | 136  | 700278   | 20.00   | ng    | 0.00        |
| 38) Acenaphthene-d10        | 10.01 | 164  | 320310   | 20.00   | ng    | 0.00        |
| 63) Phenanthrene-d10        | 11.51 | 188  | 530479   | 20.00   | ng    | 0.00        |
| 75) Chrysene-d12            | 14.17 | 240  | 375086   | 20.00   | ng    | 0.00        |
| 86) Perylene-d12            | 15.70 | 264  | 386106   | 20.00   | ng    | 0.00        |
| System Monitoring Compounds |       |      |          |         |       |             |
| 5) 2-Fluorophenol           | 5.60  | 112  | 117222m  | 9.42    | ng    | -0.01       |
| 7) Phenol-d6                | 6.60  | 99   | 142706   | 9.55    | ng    | -0.01       |
| 23) Nitrobenzene-d5         | 7.53  | 82   | 79126    | 7.63    | ng    | -0.02       |
| 41) 2,4,6-Tribromophenol    | 10.81 | 330  | 32351    | 8.88    | ng    | -0.01       |
| 44) 2-Fluorobiphenyl        | 9.32  | 172  | 171380   | 3.35    | ng    | -0.02       |
| 78) Terphenyl-d14           | 13.09 | 244  | 143923   | 9.82    | ng    | -0.01       |
| Target Compounds            |       |      |          |         |       |             |
| 31) Naphthalene             | 8.30  | 128  | 7472357  | 242.655 | ng    | Qvalue # 87 |
| 37) 2-Methylnaphthalene     | 8.97  | 142  | 2696001  | 126.341 | ng    | 95          |
| 45) 1,1'-Biphenyl           | 9.42  | 154  | 803184   | 28.785  | ng    | 96          |
| 48) Acenaphthylene          | 9.87  | 152  | 1153991  | 36.018  | ng    | # 95        |
| 51) Acenaphthene            | 10.05 | 154  | 1701080  | 84.740  | ng    | 99          |
| 54) Dibenzofuran            | 10.22 | 168  | 2082034  | 70.450  | ng    | 95          |
| 57) Fluorene                | 10.57 | 166  | 2002531  | 94.980  | ng    | 96          |
| 70) Phenanthrene            | 11.55 | 178  | 4865679m | 188.225 | ng    |             |
| 71) Anthracene              | 11.59 | 178  | 2112715  | 81.172  | ng    | 98          |
| 72) Carbazole               | 11.74 | 167  | 201179   | 7.433   | ng    | 98          |
| 74) Fluoranthene            | 12.74 | 202  | 3782275  | 136.350 | ng    | 95          |
| 77) Pylene                  | 12.97 | 202  | 3230984m | 125.933 | ng    |             |
| 80) Benzo(a)anthracene      | 14.15 | 228  | 1768575  | 80.460  | ng    | # 85        |
| 82) Chrysene                | 14.19 | 228  | 1262276  | 59.782  | ng    | # 94        |
| 85) Indeno(1,2,3-cd)pyrene  | 17.28 | 276  | 527790m  | 29.493  | ng    |             |
| 87) Benzo(b)fluoranthene    | 15.24 | 252  | 1333994m | 63.129  | ng    |             |
| 88) Benzo(k)fluoranthene    | 15.27 | 252  | 519585m  | 25.097  | ng    |             |
| 89) Benzo(a)pyrene          | 15.64 | 252  | 1115004  | 57.685  | ng    | 95          |
| 90) Dibenzo(a,h)anthracene  | 17.28 | 278  | 132675m  | 7.940   | ng    |             |
| 91) Benzo(a,h,i)perylene    | 17.76 | 276  | 442364   | 26.840  | ng    | # 92        |

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

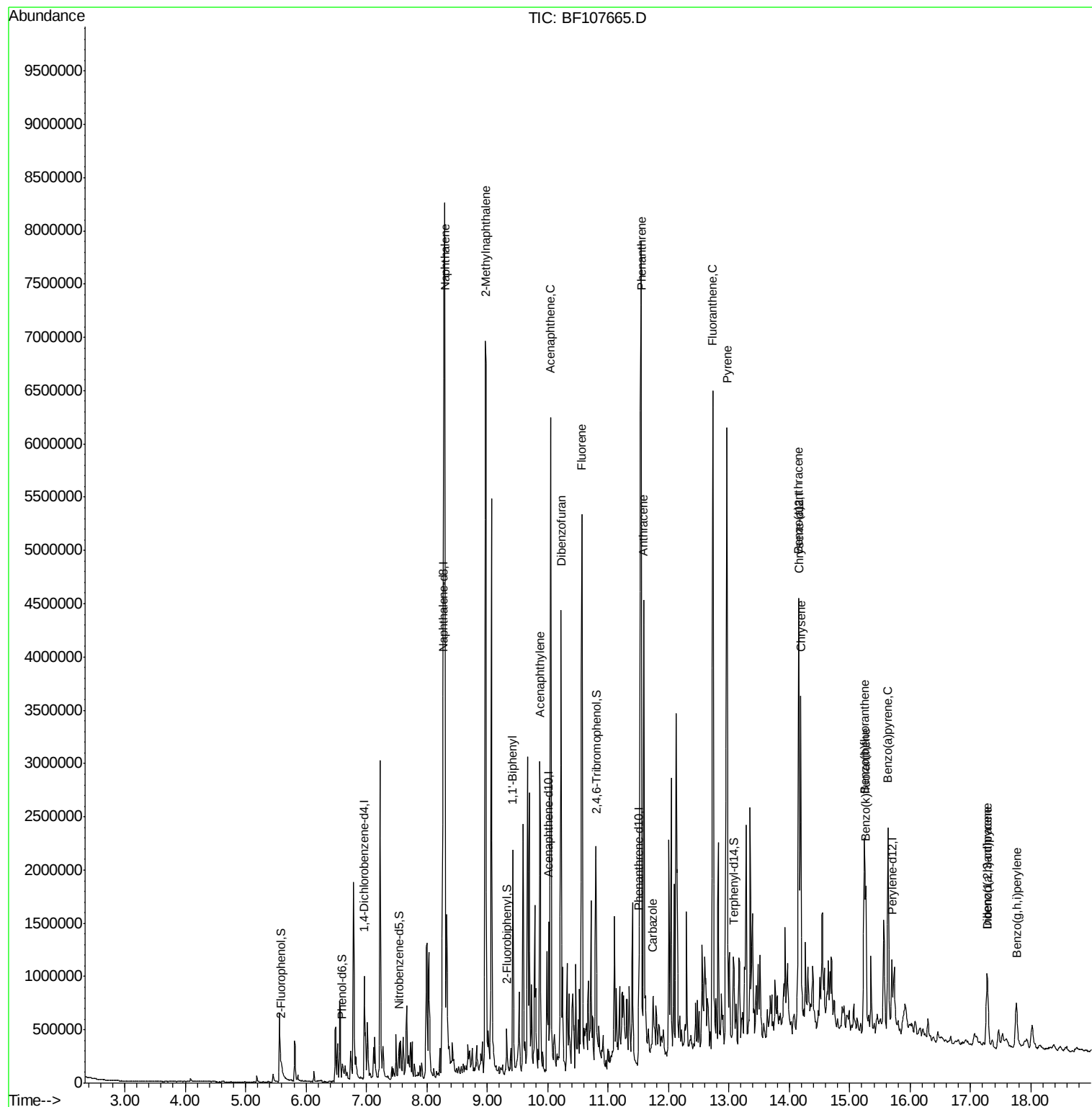
Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF072518\  
Data File : BF107665.D  
Acq On : 25 Jul 2018 18:56  
Operator : JU/SJ  
Sample : J4144-01 10X  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

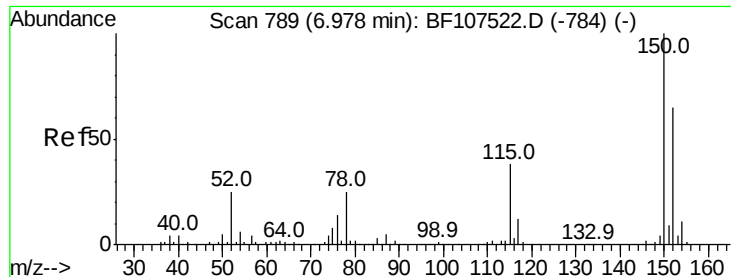
Instrument :  
BNA\_F  
ClientSampleId :  
MCMaster-SEDIMENT-7-23-18

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Quant Time: Jul 26 10:37:01 2018  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF072018.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Fri Jul 20 16:29:27 2018  
Response via : Initial Calibration





#1

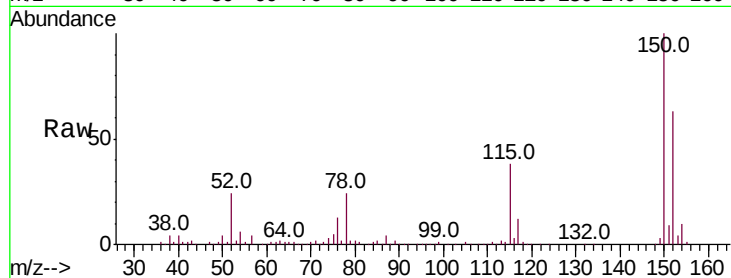
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.97 min Scan# 787  
Delta R.T. -0.01 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

Instrument :  
BNA\_F  
ClientSampleId :  
MCMaster-SEDIMENT-7-23-18

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 157.8 | 124.6 | 186.8 |
| 115     | 59.5  | 50.1  | 75.1  |

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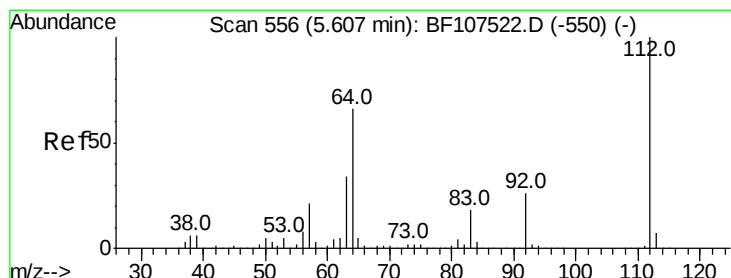
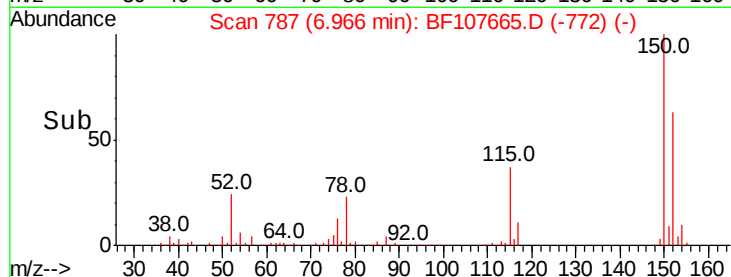
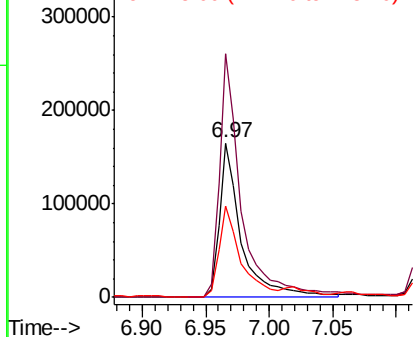


Abundance

Ion 152.00 (151.70 to 152.70): E

Ion 150.00 (149.70 to 150.70): E

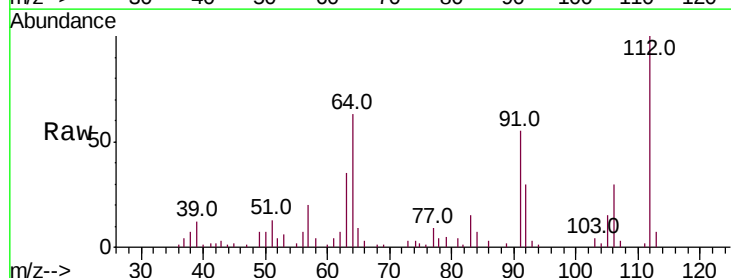
Ion 115.00 (114.70 to 115.70): E



#5

2-Fluorophenol  
Concen: 9.419 ng m  
RT: 5.60 min Scan# 554  
Delta R.T. -0.01 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 62.8  | 47.9  | 71.9  |
| 63      | 35.4  | 23.7  | 35.5  |

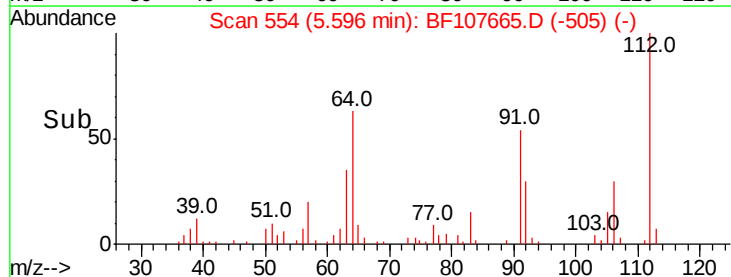
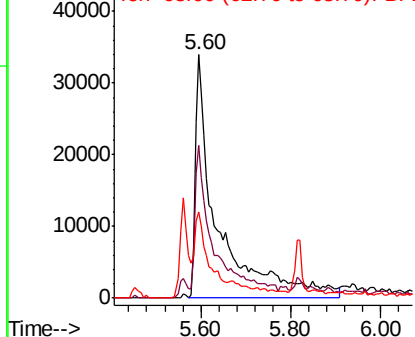


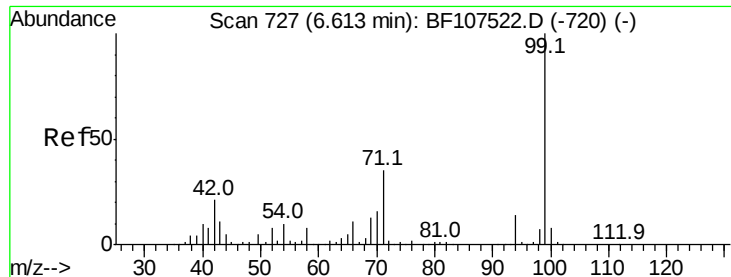
Abundance

Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BF1

Ion 63.00 (62.70 to 63.70): BF1





#7

Phenol-d6

Concen: 9.549 ng

RT: 6.60 min Scan# 725

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

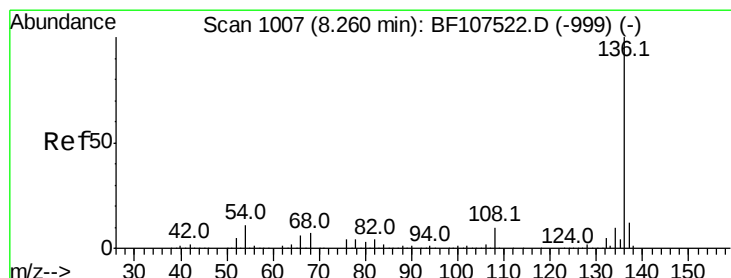
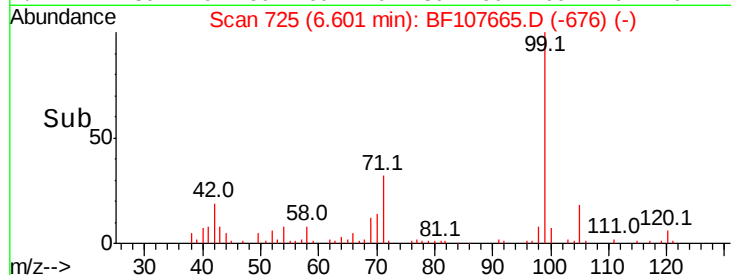
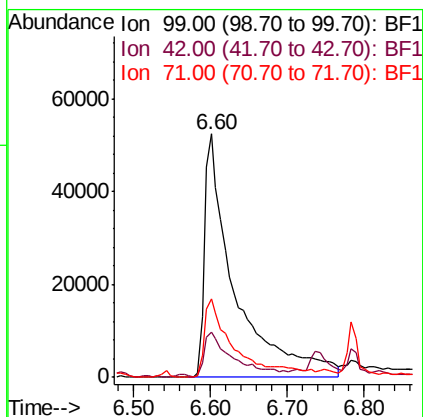
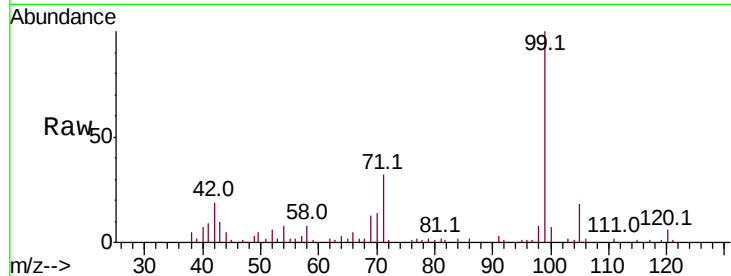
ClientSampleId :

MCMaster-SEDIMENT-7-23-18

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 99    | Resp: | 142706 |
| Ion Ratio | Lower | Upper |        |
| 99        | 100   |       |        |
| 42        | 18.7  | 14.5  | 21.7   |
| 71        | 32.2  | 25.4  | 38.0   |

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#21

Naphthalene-d8

Concen: 20.000 ng

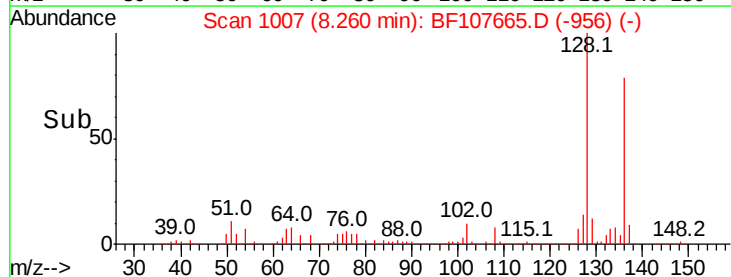
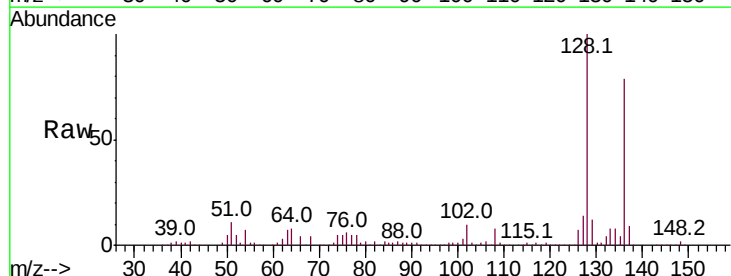
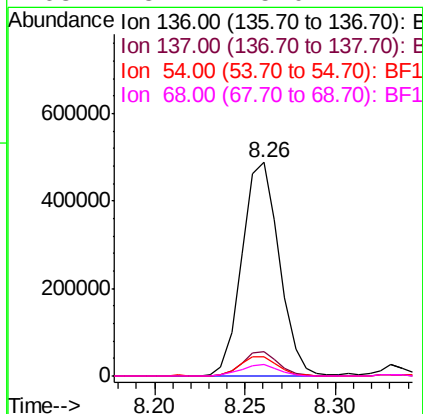
RT: 8.26 min Scan# 1007

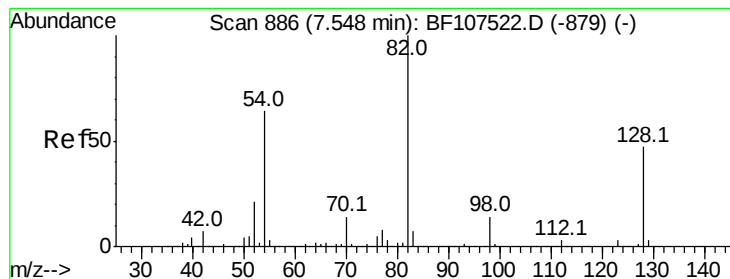
Delta R.T. 0.00 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 700278 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 11.1  | 8.9   | 13.3   |
| 54        | 8.8   | 6.6   | 9.8    |
| 68        | 5.2   | 5.0   | 7.4    |





#23

Nitrobenzene-d5

Concen: 7.626 ng

RT: 7.53 min Scan# 883

Delta R.T. -0.02 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

ClientSampleId :

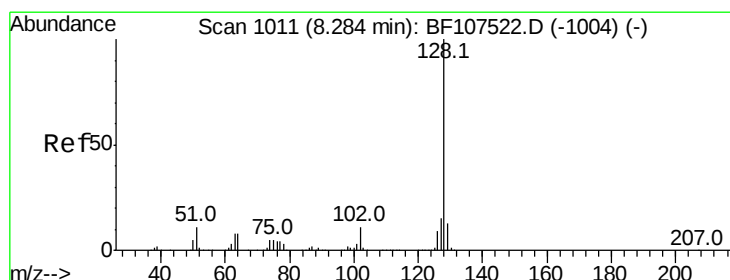
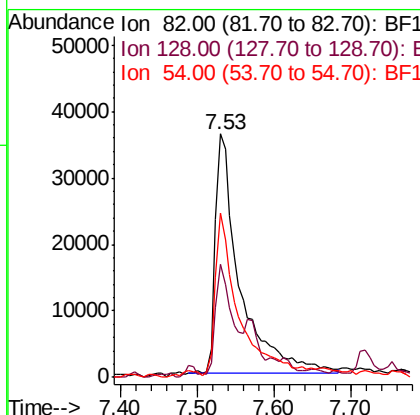
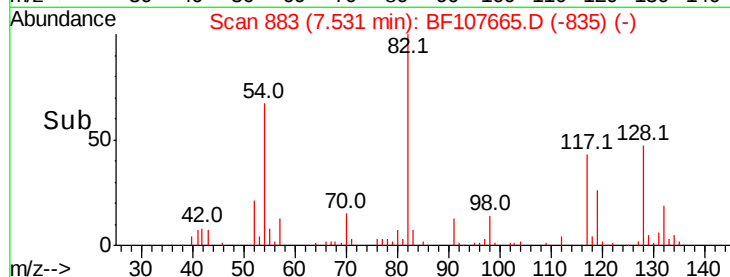
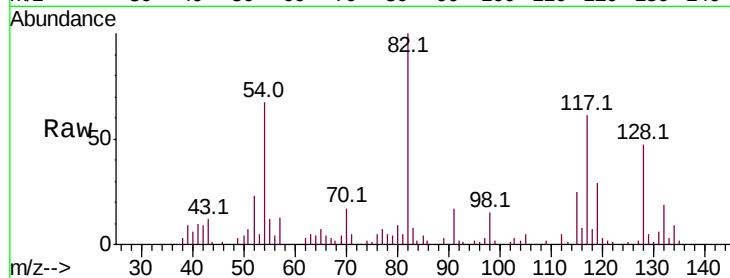
MCMaster-SEDIMENT-7-23-18

Tot Ion: 82 Resp: 79126  
Ion Ratio Lower Upper

|     |      |      |       |
|-----|------|------|-------|
| 82  | 100  |      |       |
| 128 | 46.6 | 36.1 | 54.1  |
| 54  | 67.3 | 41.4 | 62.2# |

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#31

Naphthalene

Concen: 242.655 ng

RT: 8.30 min Scan# 1013

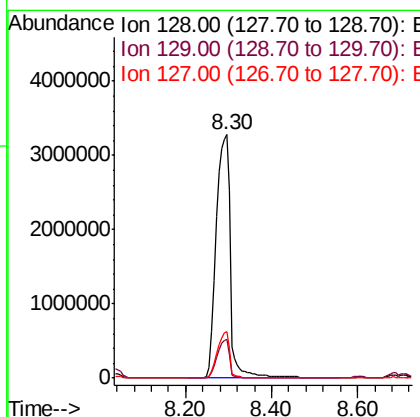
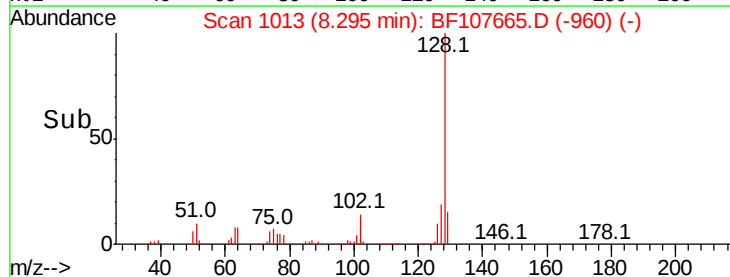
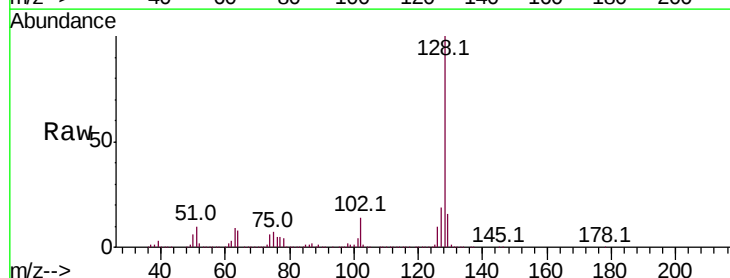
Delta R.T. 0.01 min

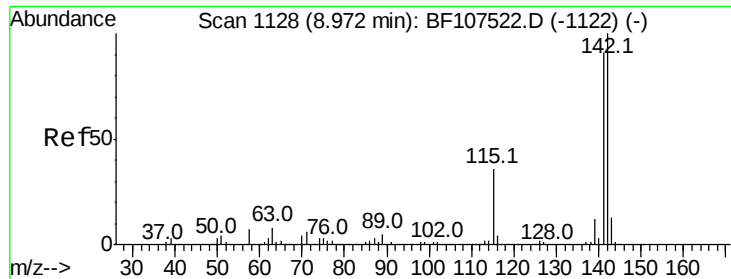
Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Tgt Ion: 128 Resp: 7472357  
Ion Ratio Lower Upper

|     |      |      |       |
|-----|------|------|-------|
| 128 | 100  |      |       |
| 129 | 15.8 | 8.8  | 13.2# |
| 127 | 18.9 | 10.9 | 16.3# |





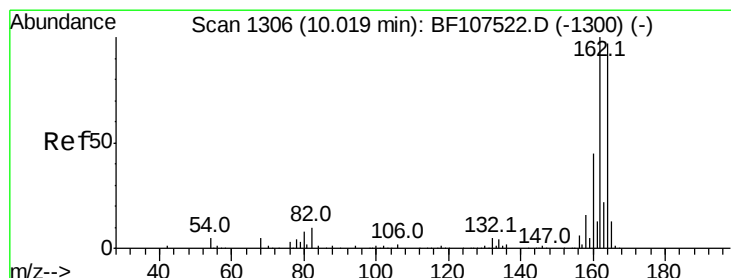
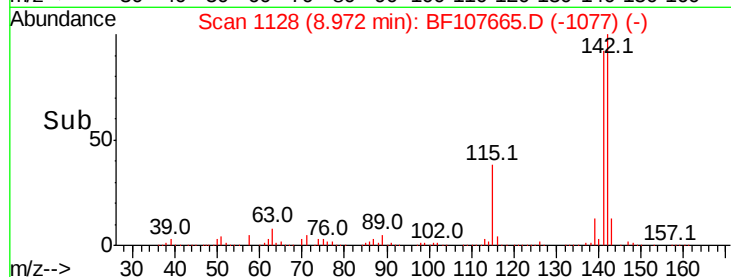
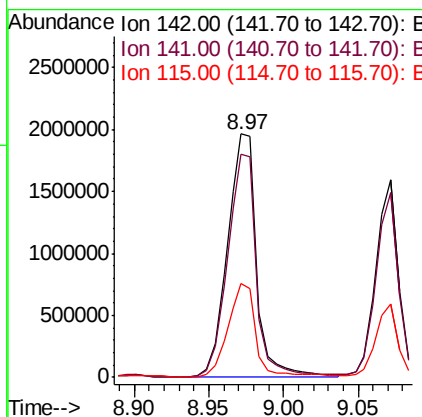
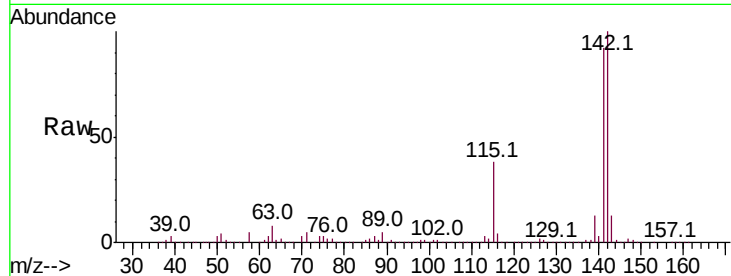
#37  
2-Methylnaphthalene  
Concen: 126.341 ng  
RT: 8.97 min Scan# 1128  
Delta R.T. 0.00 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

Instrument :  
BNA\_F  
ClientSampleId :  
MCMaster-Sediment-7-23-18

Tot Ion:142 Resp: 2696001  
Ion Ratio Lower Upper  
142 100  
141 91.7 70.8 106.2  
115 38.3 26.1 39.1

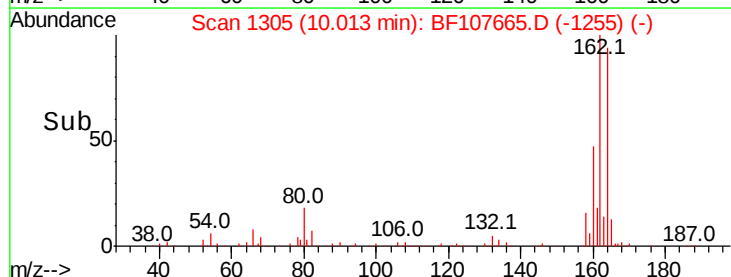
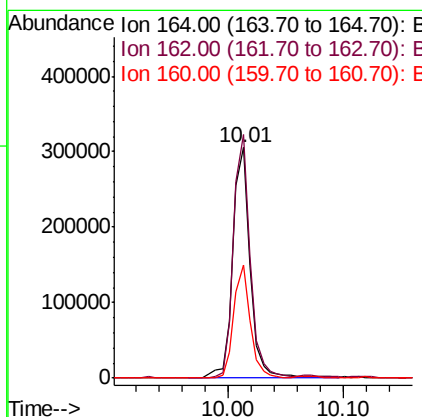
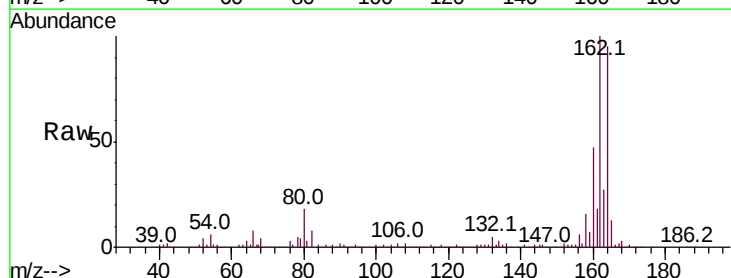
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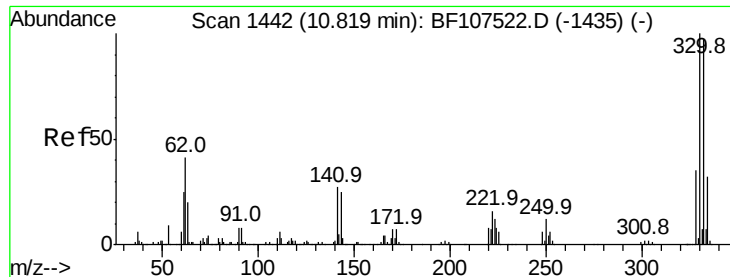
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#38  
Acenaphthene-d10  
Concen: 20.000 ng  
RT: 10.01 min Scan# 1305  
Delta R.T. -0.01 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

Tgt Ion:164 Resp: 320310  
Ion Ratio Lower Upper  
164 100  
162 105.5 86.1 129.1  
160 49.3 38.3 57.5





#41

2,4,6-Tribromophenol

Concen: 8.882 ng

RT: 10.81 min Scan# 1440

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

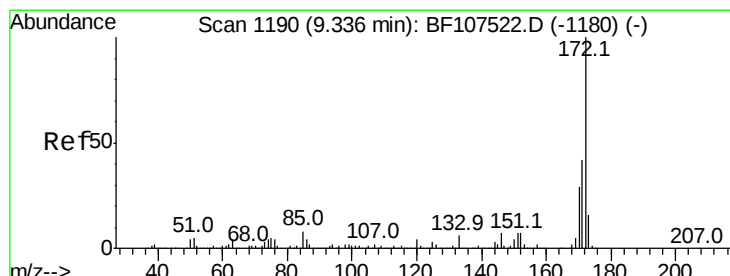
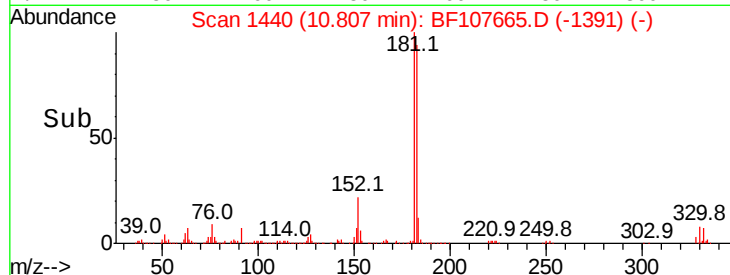
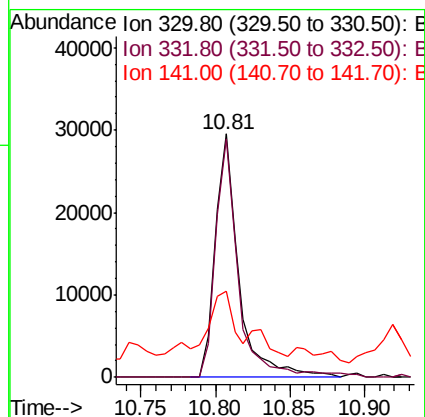
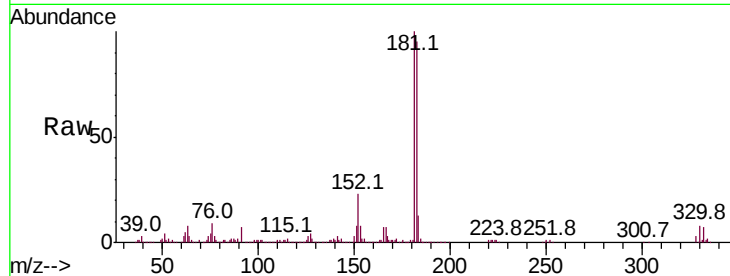
ClientSampleId :

MCMaster-SEDIMENT-7-23-18

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 330   | Resp: | 32351 |
| Ion Ratio | Lower | Upper |       |
| 330       | 100   |       |       |
| 332       | 96.0  | 77.0  | 115.6 |
| 141       | 29.2  | 29.9  | 44.9# |

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#44

2-Fluorobiphenyl

Concen: 3.353 ng

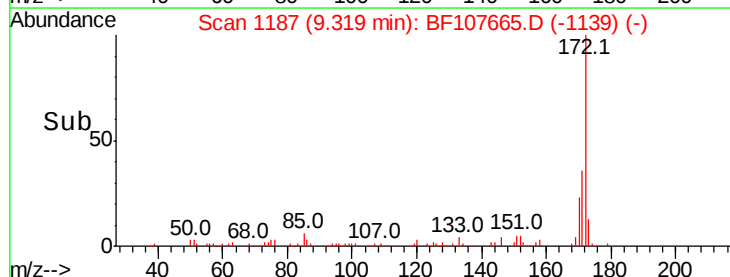
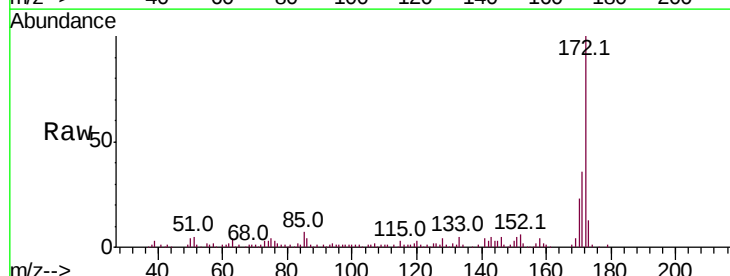
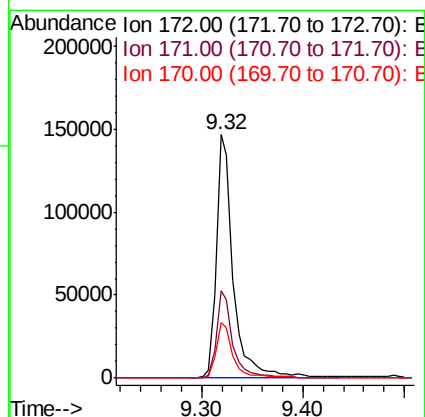
RT: 9.32 min Scan# 1187

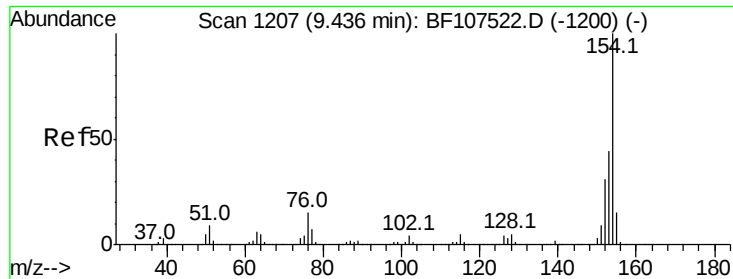
Delta R.T. -0.02 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 172   | Resp: | 171380 |
| Ion Ratio | Lower | Upper |        |
| 172       | 100   |       |        |
| 171       | 35.7  | 29.7  | 44.5   |
| 170       | 22.7  | 19.6  | 29.4   |





#45

1,1'-Biphenyl

Concen: 28.785 ng

RT: 9.42 min Scan# 1205

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

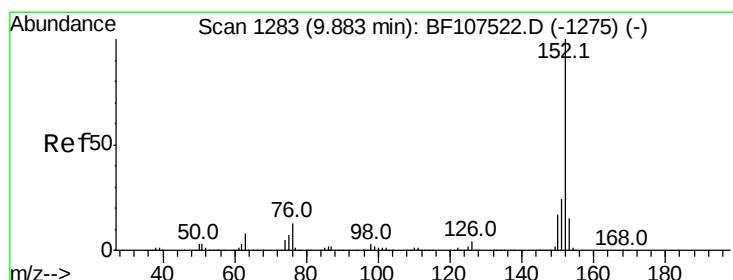
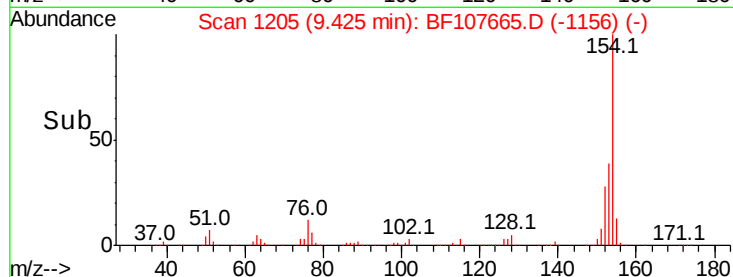
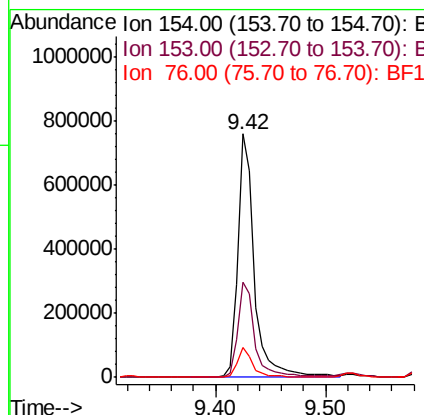
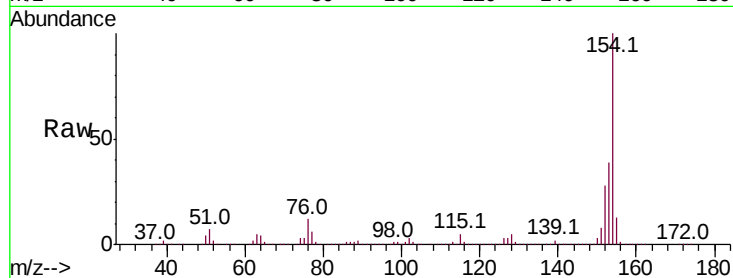
ClientSampleId :

MCMaster-SEDIMENT-7-23-18

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 154   | Resp: | 803184 |
| Ion Ratio | Lower | Upper |        |
| 154       | 100   |       |        |
| 153       | 39.2  | 21.3  | 61.3   |
| 76        | 12.1  | 0.0   | 34.0   |

Manual Integrations  
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#48

Acenaphthylene

Concen: 36.018 ng

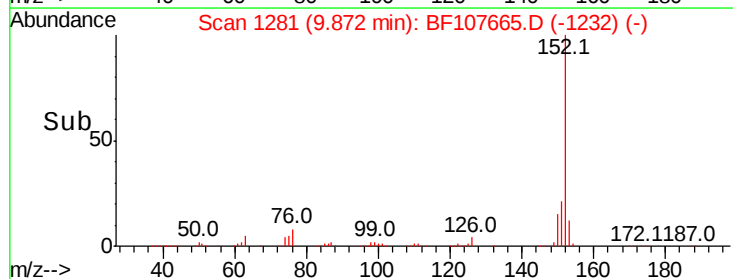
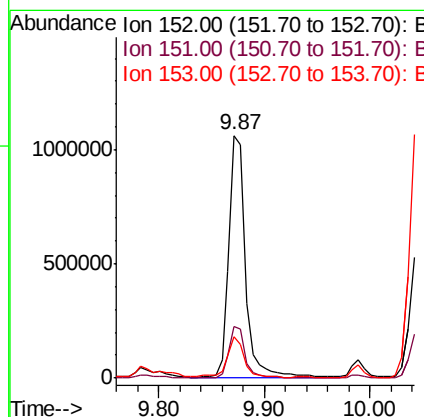
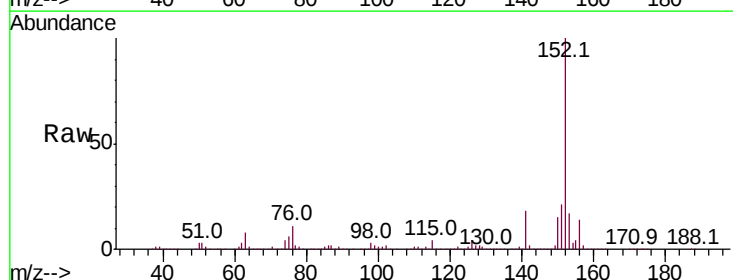
RT: 9.87 min Scan# 1281

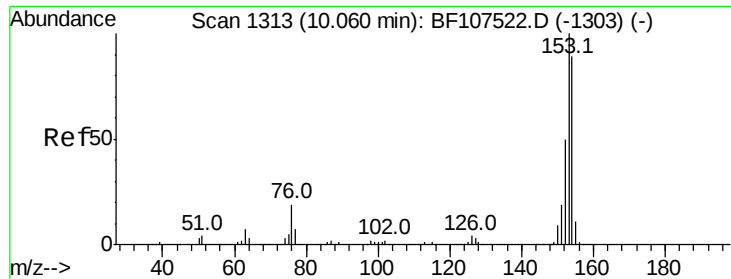
Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 152   | Resp: | 1153991 |
| Ion Ratio | Lower | Upper |         |
| 152       | 100   |       |         |
| 151       | 21.4  | 16.3  | 24.5    |
| 153       | 16.8  | 10.7  | 16.1#   |





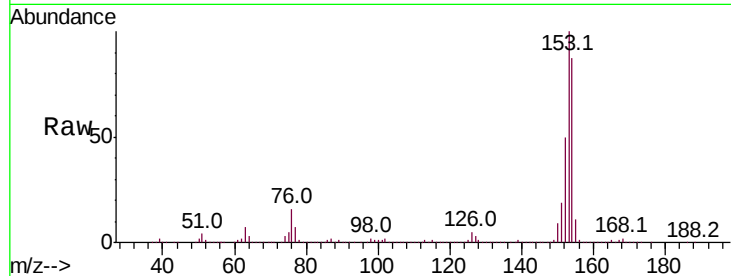
#51  
Acenaphthene  
Concen: 84.740 ng  
RT: 10.05 min Scan# 1312  
Delta R.T. -0.01 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

Instrument :  
BNA\_F  
ClientSampleId :  
MCMaster-Sediment-7-23-18

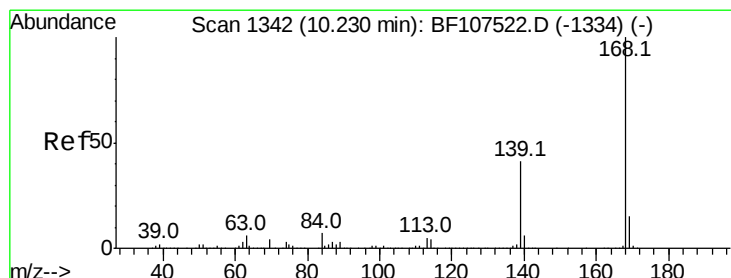
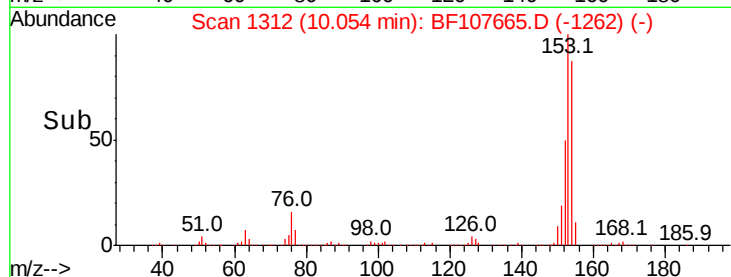
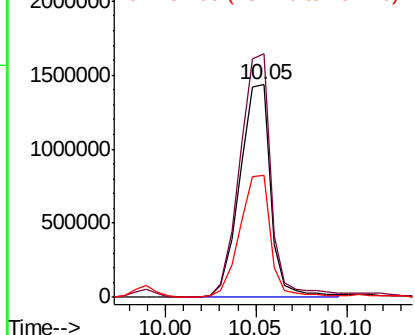
Tot Ion:154 Resp: 1701080  
Ion Ratio Lower Upper  
154 100  
153 114.5 91.2 136.8  
152 57.2 43.8 65.8

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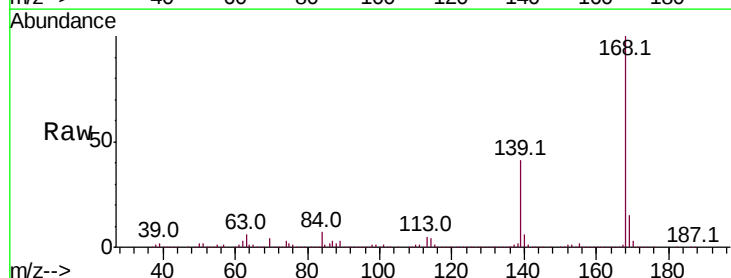


Abundance Ion 154.00 (153.70 to 154.70): E  
Ion 153.00 (152.70 to 153.70): E  
Ion 152.00 (151.70 to 152.70): E

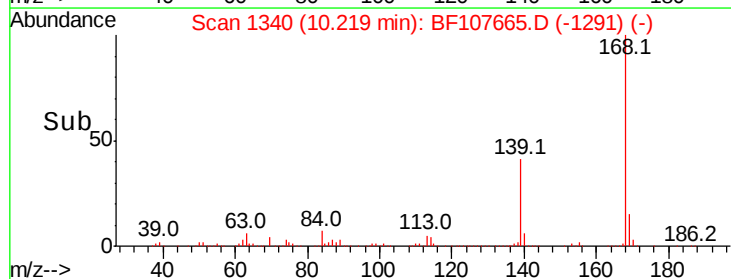
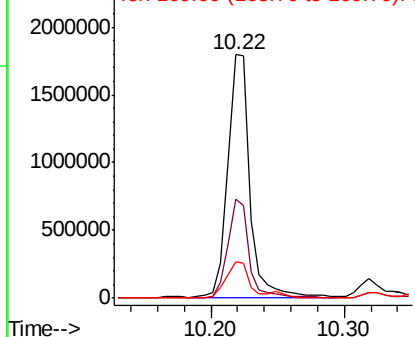


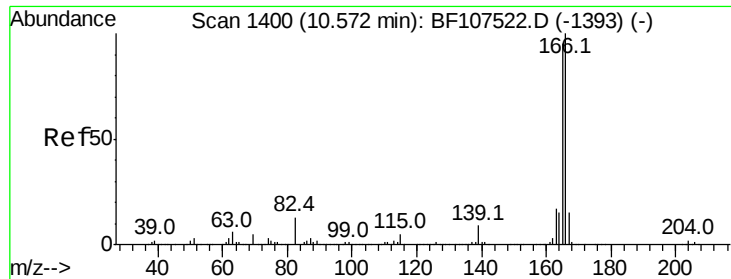
#54  
Dibenzofuran  
Concen: 70.450 ng  
RT: 10.22 min Scan# 1340  
Delta R.T. -0.01 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

Tgt Ion:168 Resp: 2082034  
Ion Ratio Lower Upper  
168 100  
139 40.6 30.1 45.1  
169 15.0 10.9 16.3



Abundance Ion 168.00 (167.70 to 168.70): E  
Ion 139.00 (138.70 to 139.70): E  
Ion 169.00 (168.70 to 169.70): E





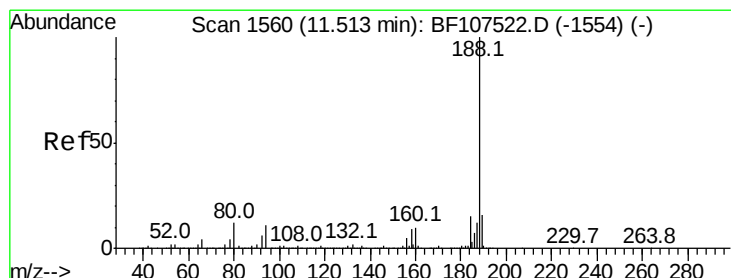
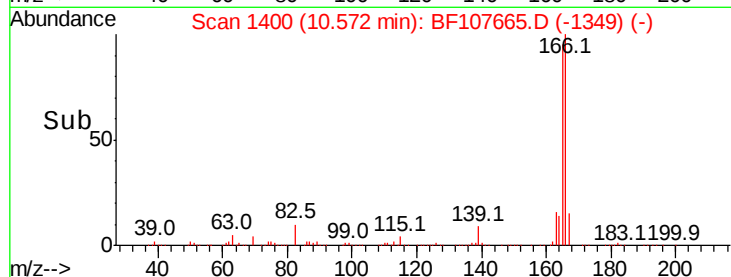
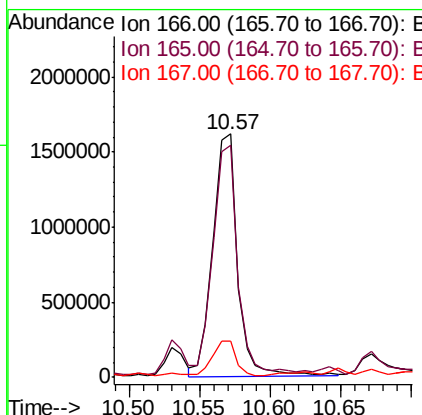
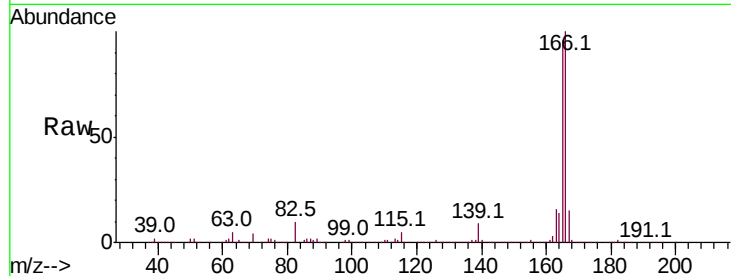
#57  
**Fluorene**  
 Concen: 94.980 ng  
 RT: 10.57 min Scan# 1400  
 Delta R.T. 0.00 min  
 Lab File: BF107665.D  
 Acq: 25 Jul 2018 18:56

Instrument :  
 BNA\_F  
 ClientSampleId :  
 MCMaster-SEDIMENT-7-23-18

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 95.5  | 79.8  | 119.8 |
| 167     | 14.8  | 10.6  | 16.0  |

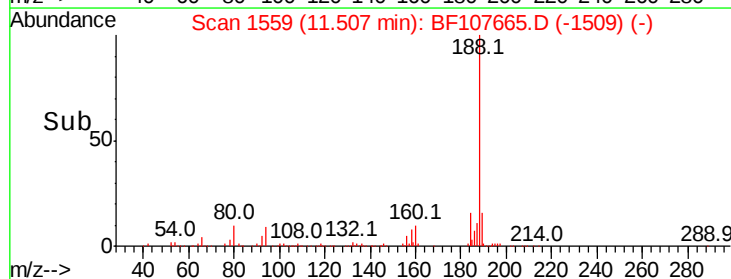
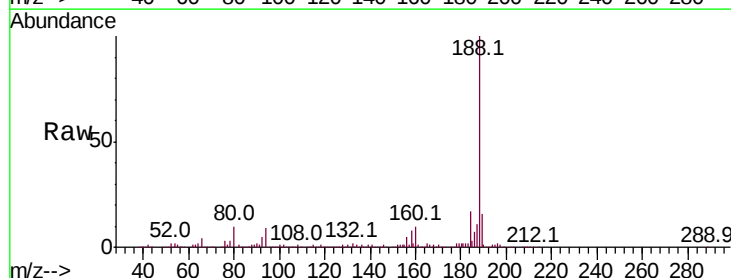
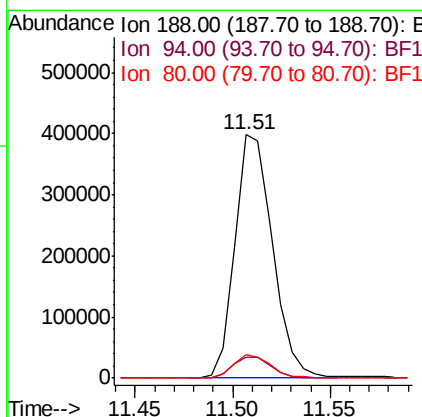
Manual Integrations  
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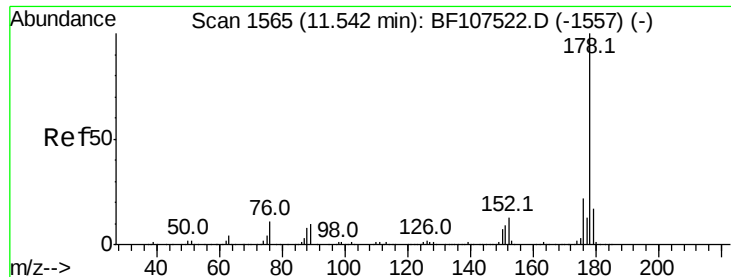
Sohil  
 7/26/2018 2:03:08 PM



#63  
**Phenanthrene-d10**  
 Concen: 20.000 ng  
 RT: 11.51 min Scan# 1559  
 Delta R.T. -0.01 min  
 Lab File: BF107665.D  
 Acq: 25 Jul 2018 18:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 8.6   | 8.5   | 12.7  |
| 80      | 9.8   | 9.2   | 13.8  |





#70

Phenanthrene

Concen: 188.225 ng m

RT: 11.55 min Scan# 1566

Delta R.T. 0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

ClientSampleId :

MCMaster-SEDIMENT-7-23-18

Tot Ion:178 Resp: 4865679

Ion Ratio Lower Upper

178 100

176 24.4 15.8 23.8#

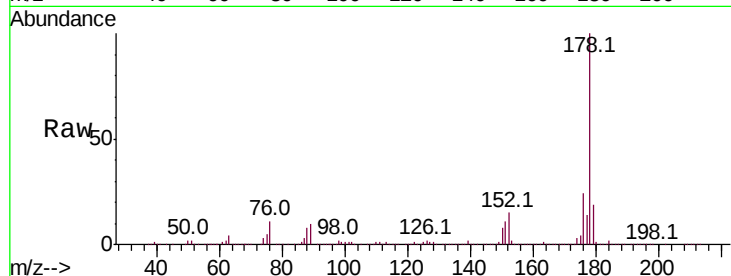
179 19.5 13.0 19.6

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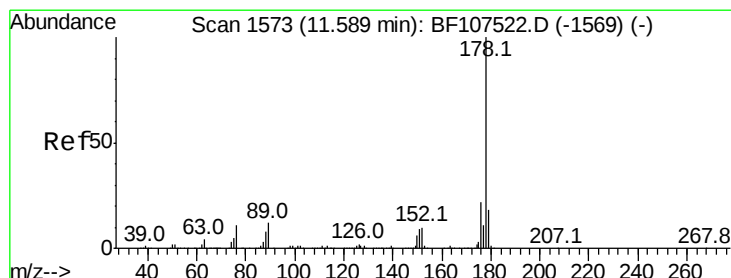
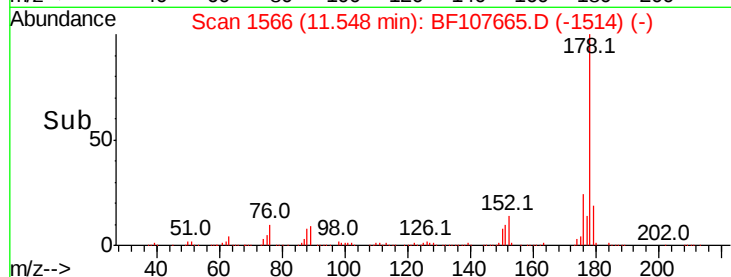
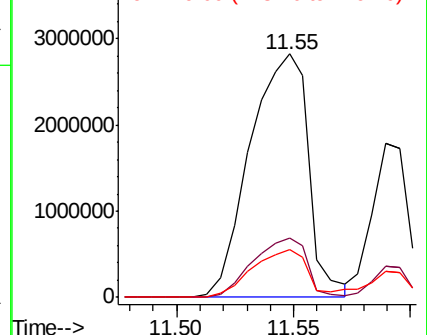
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Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E



#71

Anthracene

Concen: 81.172 ng

RT: 11.59 min Scan# 1573

Delta R.T. 0.00 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

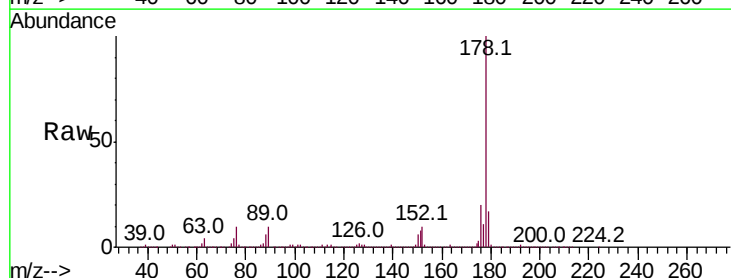
Tgt Ion:178 Resp: 2112715

Ion Ratio Lower Upper

178 100

176 20.3 15.4 23.2

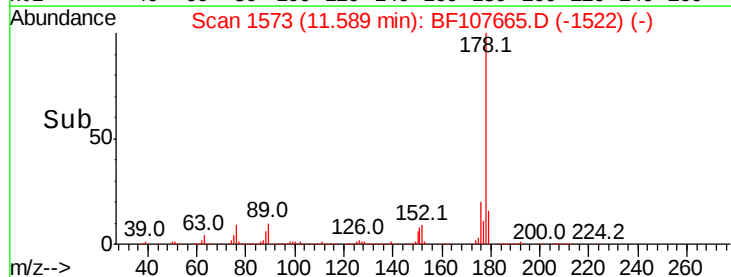
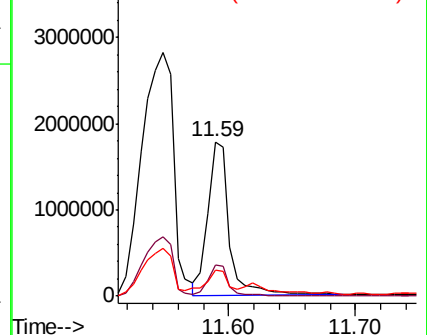
179 16.9 12.6 19.0

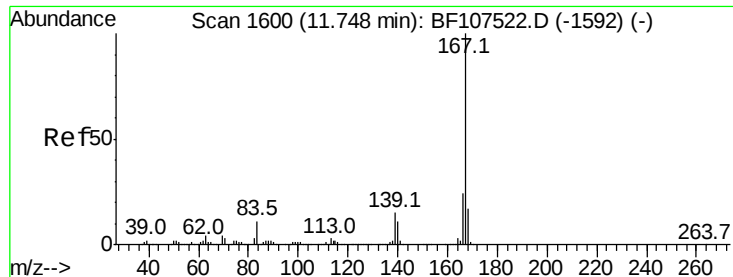


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#72

Carbazole

Concen: 7.433 ng

RT: 11.74 min Scan# 1599

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

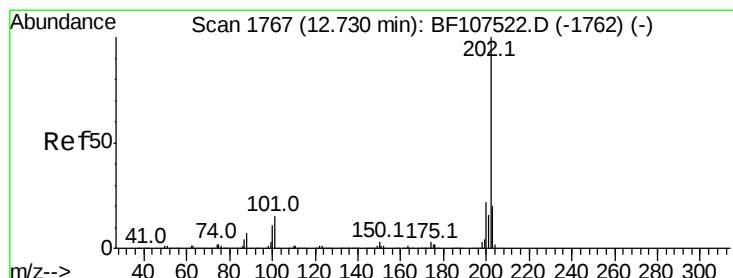
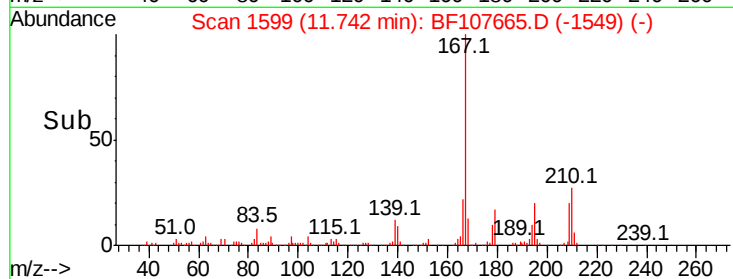
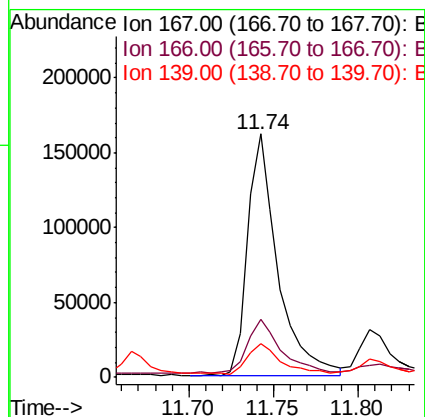
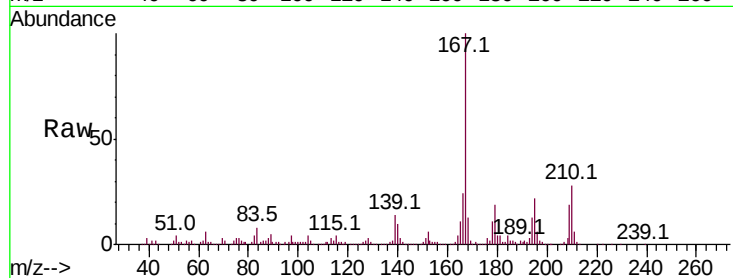
ClientSampleId :

MCMaster-SEDIMENT-7-23-18

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 167   | Resp: | 201179 |
| Ion Ratio | Lower | Upper |        |
| 167       | 100   |       |        |
| 166       | 23.6  | 17.6  | 26.4   |
| 139       | 13.9  | 10.9  | 16.3   |

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#74

Fluoranthene

Concen: 136.350 ng

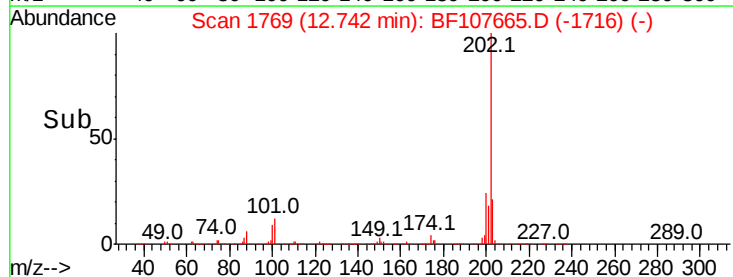
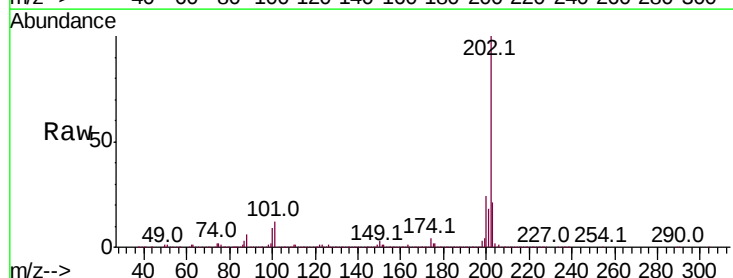
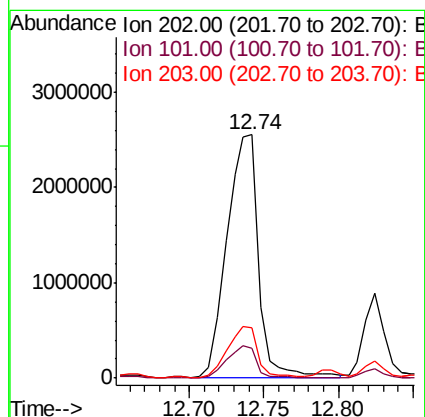
RT: 12.74 min Scan# 1769

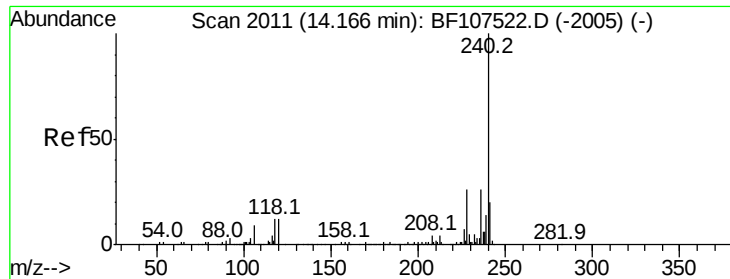
Delta R.T. 0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 3782275 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 12.2  | 0.0   | 34.1    |
| 203       | 20.8  | 0.0   | 38.1    |





#75

Chrysene-d12

Concen: 20.000 ng

RT: 14.17 min Scan# 2011

Delta R.T. 0.00 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

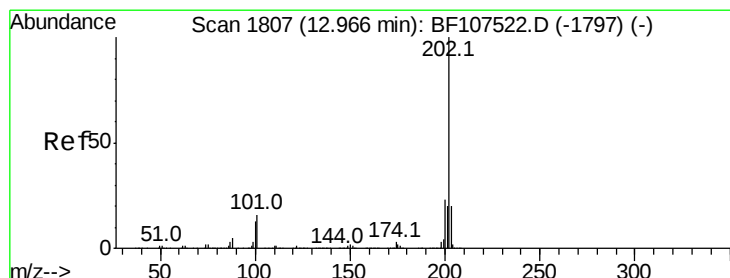
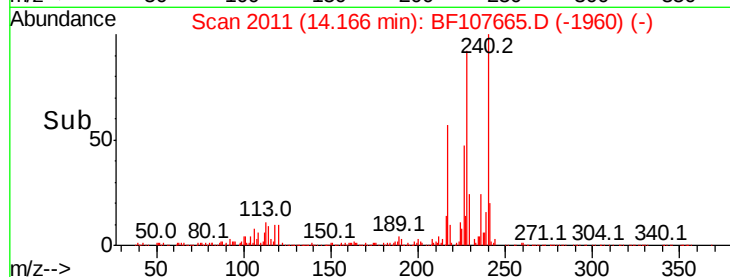
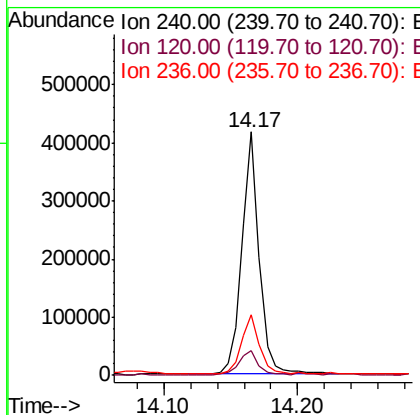
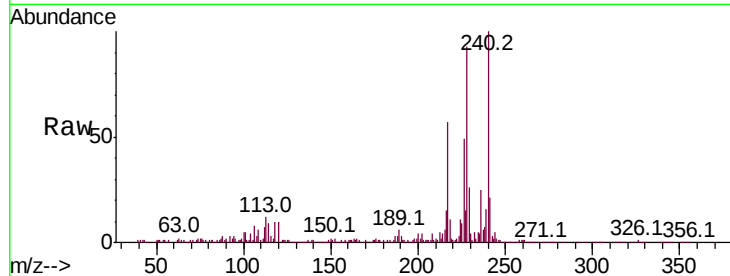
ClientSampleId :

MCMaster-SEDIMENT-7-23-18

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 10.2  | 9.5   | 14.3  |
| 236     | 25.0  | 20.7  | 31.1  |

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#77

Pyrene

Concen: 125.933 ng m

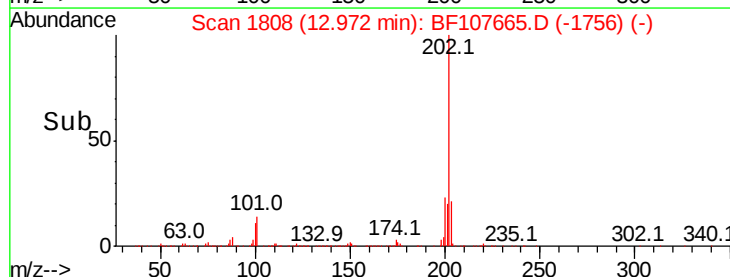
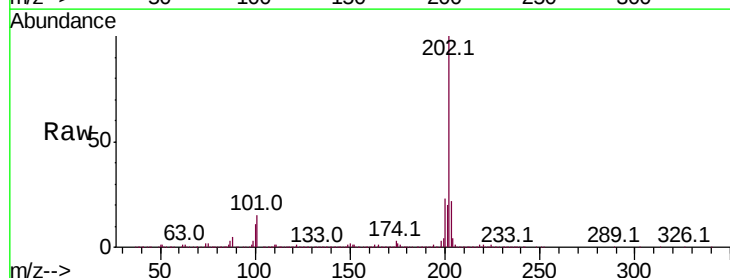
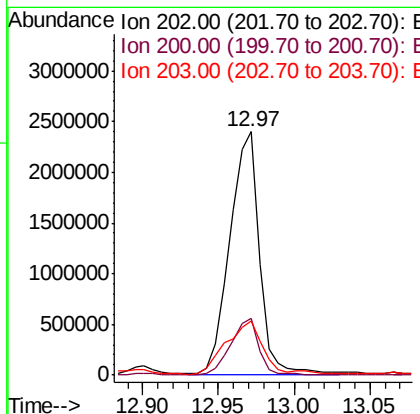
RT: 12.97 min Scan# 1808

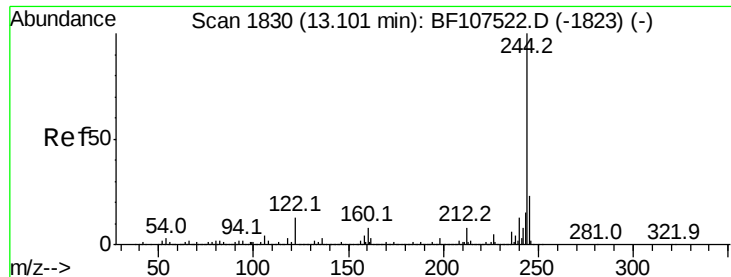
Delta R.T. 0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 23.3  | 17.4  | 26.2  |
| 203     | 22.1  | 14.3  | 21.5  |





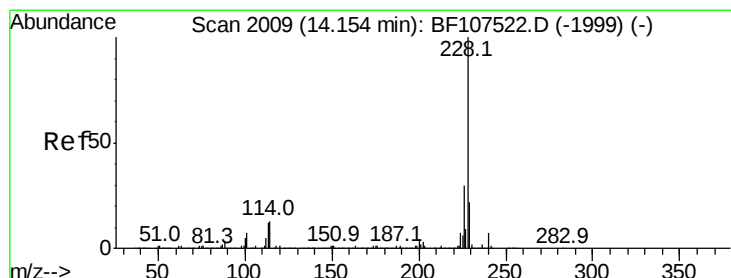
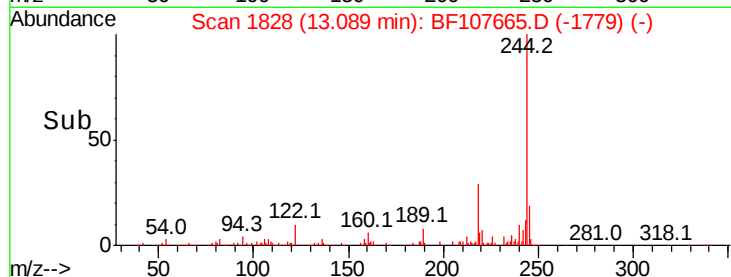
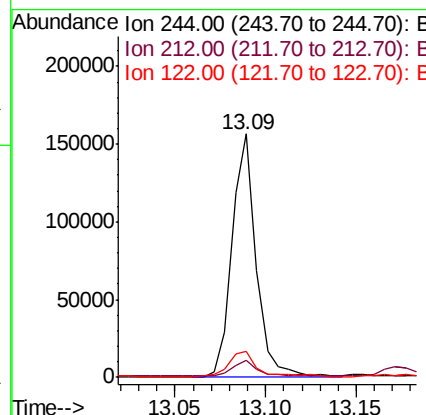
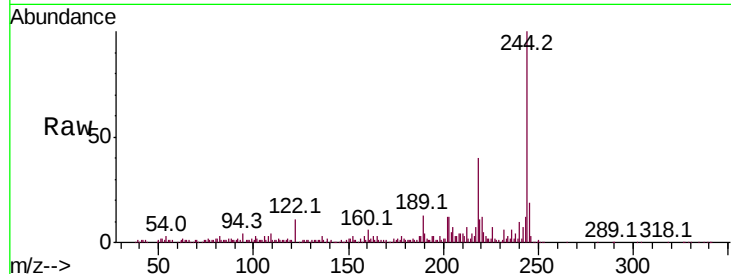
#78  
 Terphenyl-d14  
 Concen: 9.823 ng  
 RT: 13.09 min Scan# 1828  
 Delta R.T. -0.01 min  
 Lab File: BF107665.D  
 Acq: 25 Jul 2018 18:56

Instrument :  
 BNA\_F  
 ClientSampleId :  
 MCMaster-SEDIMENT-7-23-18

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 7.2   | 5.4   | 8.0   |
| 122     | 10.8  | 11.0  | 16.4  |

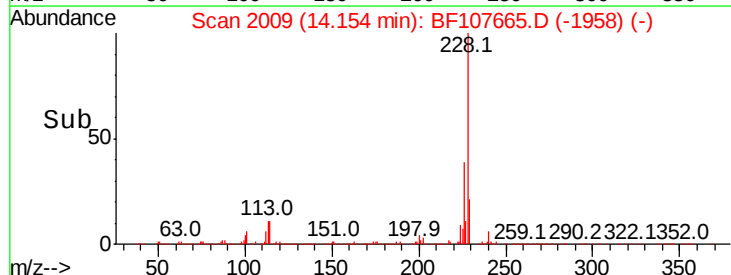
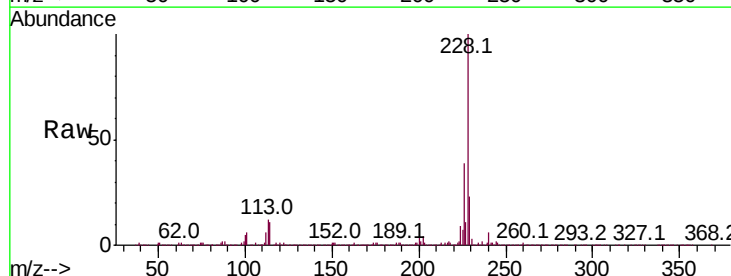
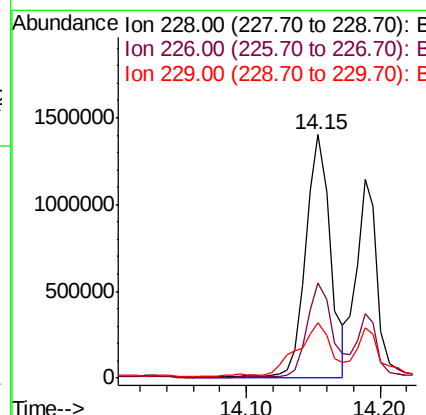
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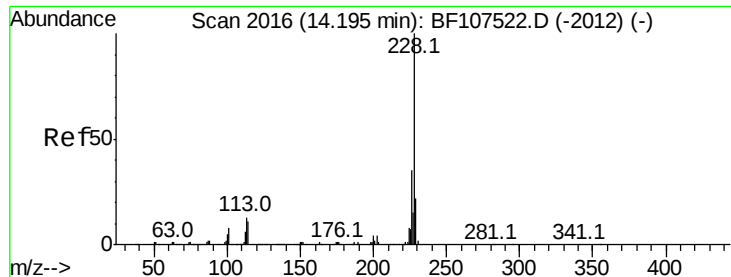
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#80  
 Benzo(a)anthracene  
 Concen: 80.460 ng  
 RT: 14.15 min Scan# 2009  
 Delta R.T. 0.00 min  
 Lab File: BF107665.D  
 Acq: 25 Jul 2018 18:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 39.3  | 22.6  | 33.8  |
| 229     | 22.9  | 15.8  | 23.6  |





#82

Chrysene

Concen: 59.782 ng

RT: 14.19 min Scan# 2015

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

ClientSampleId :

MCMaster-SEDIMENT-7-23-18

Tot Ion:228 Resp: 1262276

Ion Ratio Lower Upper

228 100

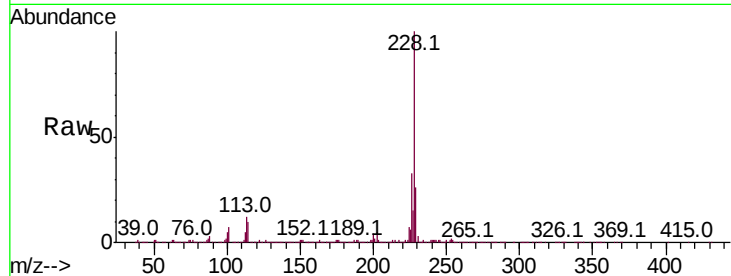
226 32.5 25.0 37.6

229 25.5 16.2 24.4#

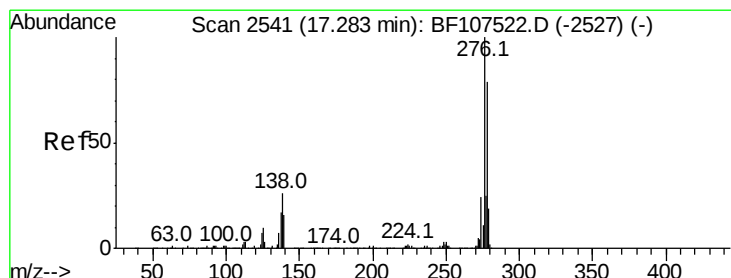
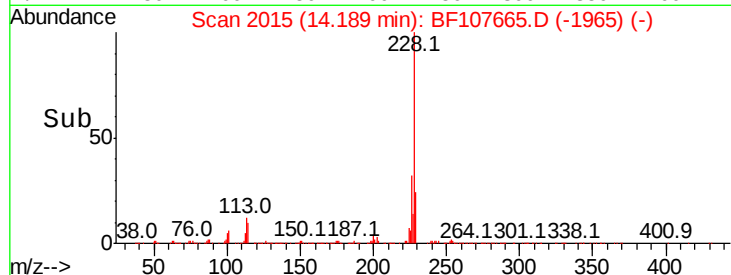
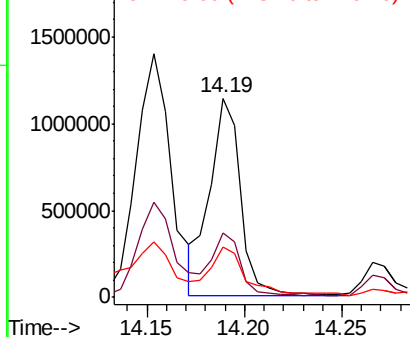
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Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E



#85

Indeno(1,2,3-cd)pyrene

Concen: 29.493 ng m

RT: 17.28 min Scan# 2540

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

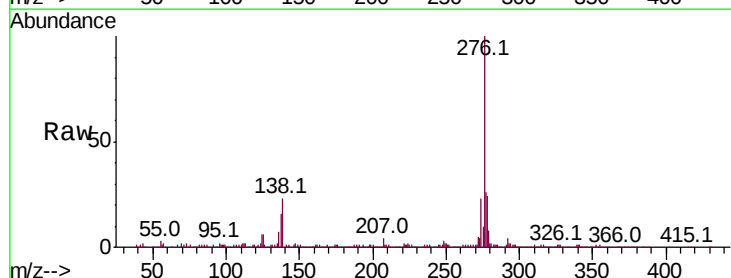
Tgt Ion:276 Resp: 527790

Ion Ratio Lower Upper

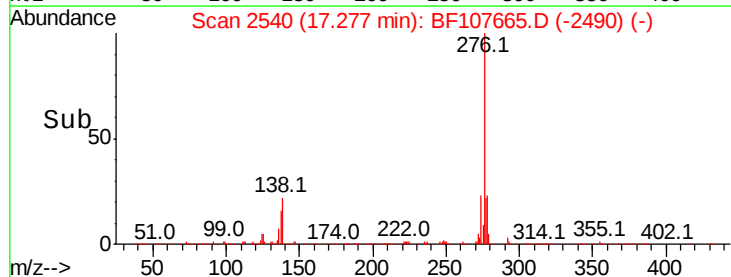
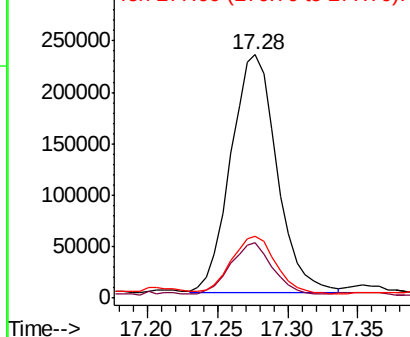
276 100

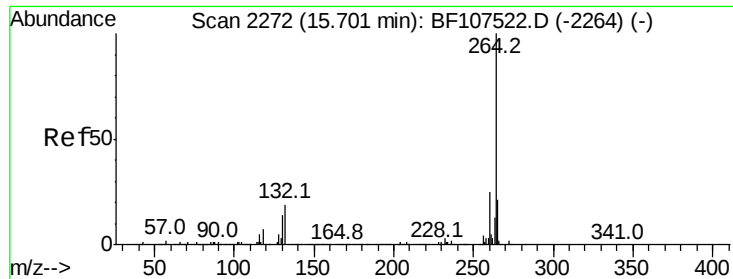
138 4.9 25.0 37.6#

277 5.1 20.1 30.1#



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





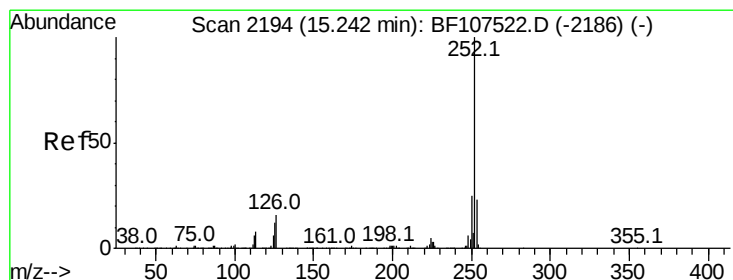
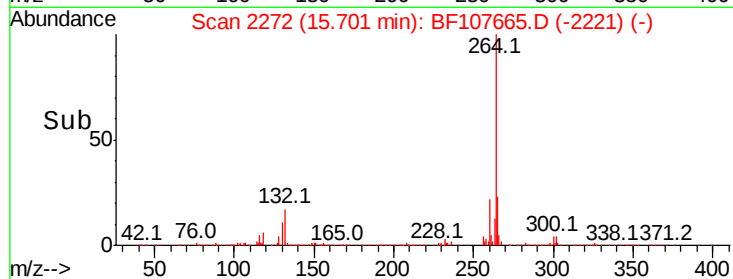
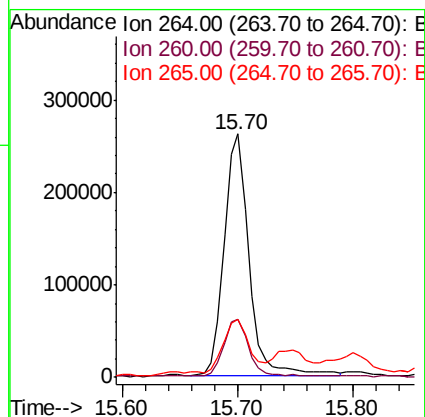
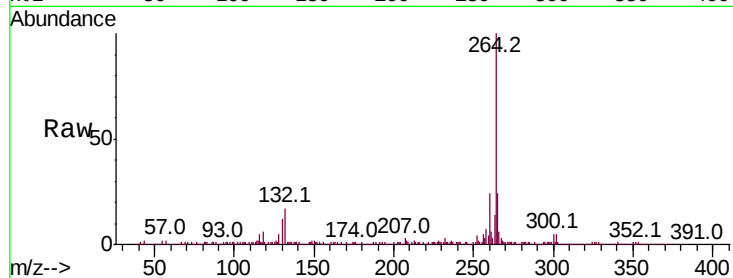
#86  
Pervlene-d12  
Concen: 20.000 ng  
RT: 15.70 min Scan# 2272  
Delta R.T. 0.00 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

Instrument :  
BNA\_F  
ClientSampleId :  
MCMaster-SEDIMENT-7-23-18

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 264   | Resp: | 386106 |
| Ion Ratio | Lower | Upper |        |
| 264       | 100   |       |        |
| 260       | 23.8  | 19.2  | 28.8   |
| 265       | 23.8  | 17.5  | 26.3   |

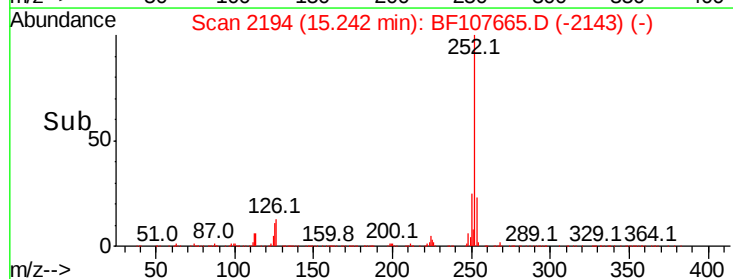
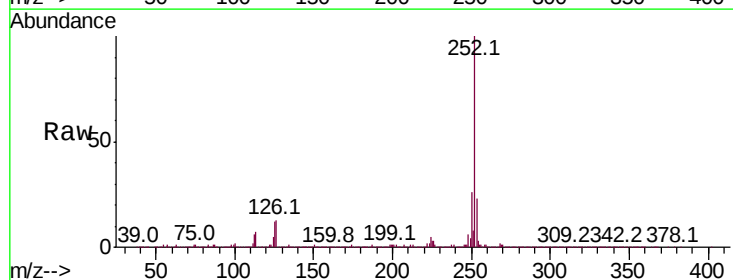
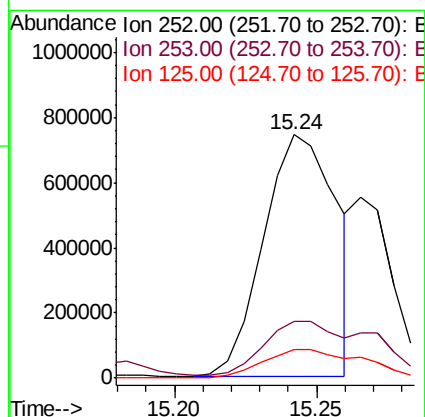
Manual Integrations  
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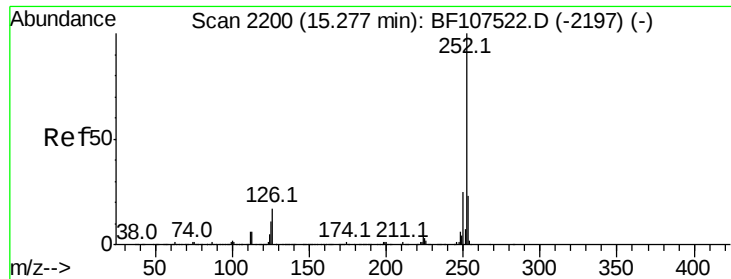
Sohil  
7/26/2018 2:03:08 PM



#87  
Benzo(b)fluoranthene  
Concen: 63.129 ng m  
RT: 15.24 min Scan# 2194  
Delta R.T. 0.00 min  
Lab File: BF107665.D  
Acq: 25 Jul 2018 18:56

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 252   | Resp: | 1333994 |
| Ion Ratio | Lower | Upper |         |
| 252       | 100   |       |         |
| 253       | 23.3  | 17.0  | 25.6    |
| 125       | 11.5  | 9.0   | 13.6    |





#88

Benzo(k)fluoranthene

Concen: 25.097 ng

RT: 15.27 min Scan# 2198

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

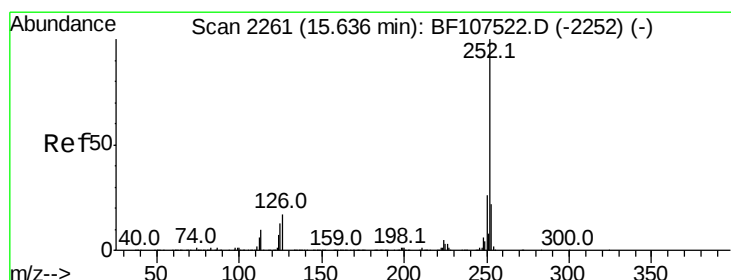
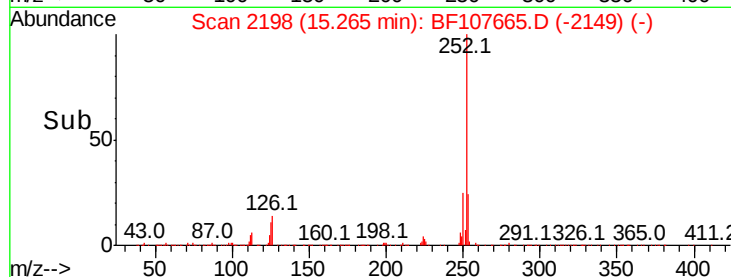
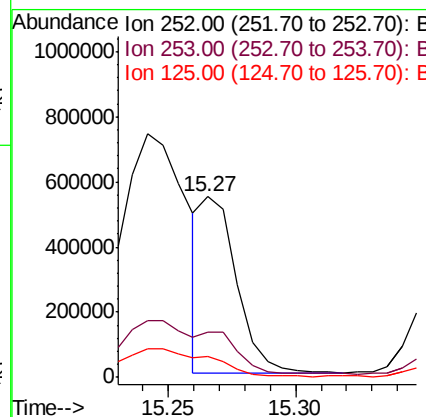
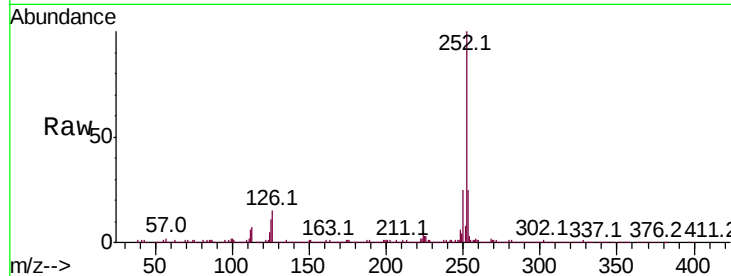
ClientSampleId :

MCMaster-SEDIMENT-7-23-18

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 519585 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 24.9  | 17.9  | 26.9   |
| 125       | 11.3  | 10.2  | 15.2   |

Manual Integrations  
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7/26/2018 2:03:08 PM



#89

Benzo(a)pyrene

Concen: 57.685 ng

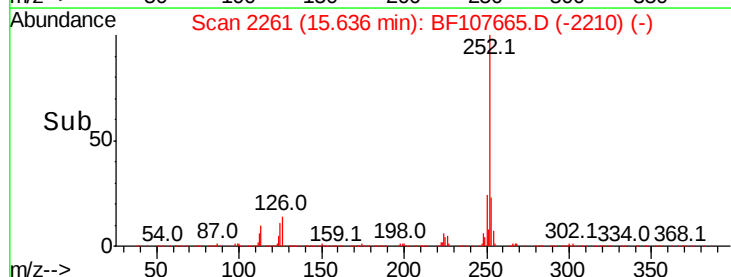
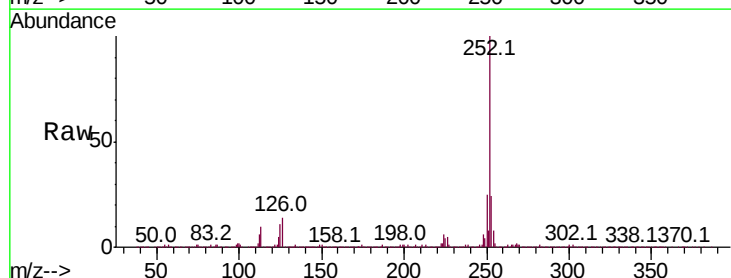
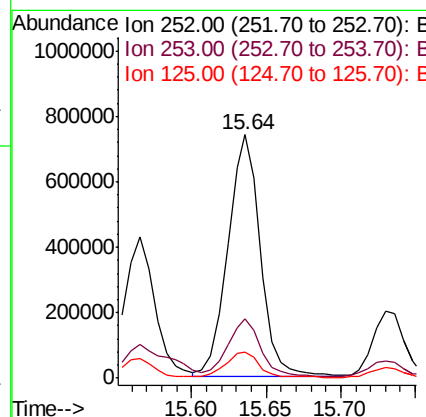
RT: 15.64 min Scan# 2261

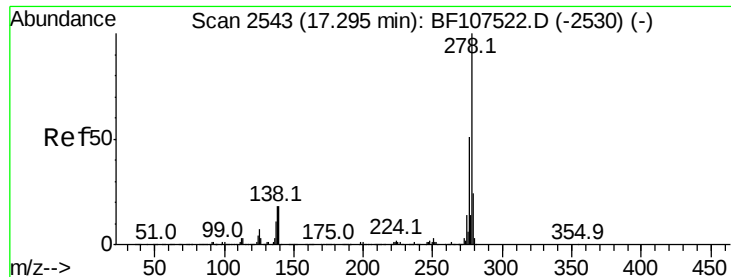
Delta R.T. 0.00 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 252   | Resp: | 1115004 |
| Ion Ratio | Lower | Upper |         |
| 252       | 100   |       |         |
| 253       | 24.2  | 17.1  | 25.7    |
| 125       | 10.9  | 9.8   | 14.6    |





#90

Dibenzo(a,h)anthracene

Concen: 7.940 ng m

RT: 17.28 min Scan# 2541

Delta R.T. -0.01 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

Instrument :

BNA\_F

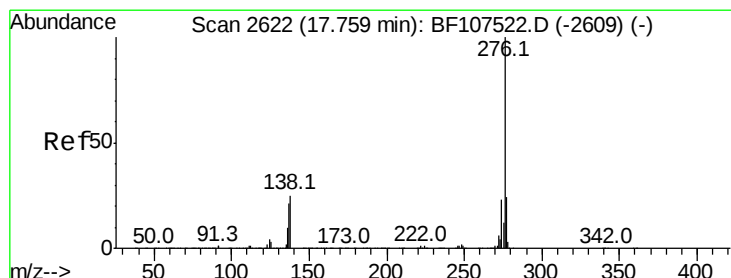
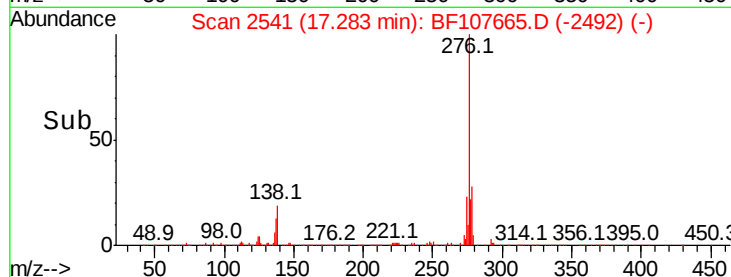
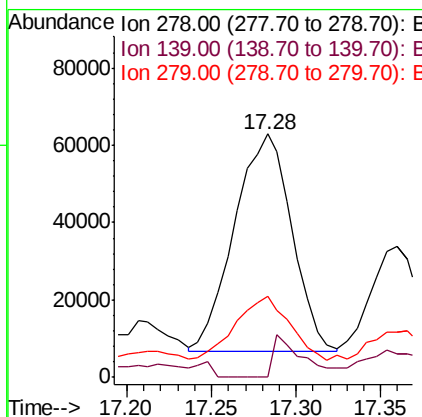
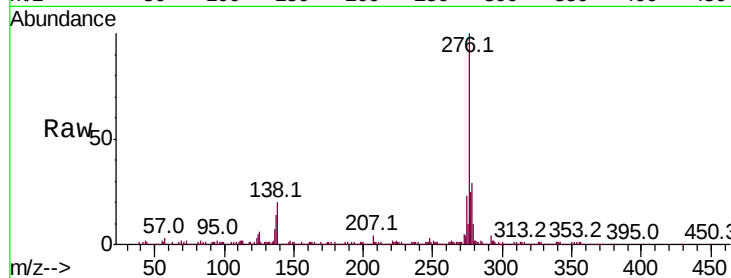
ClientSampleId :

MCMaster-SEDIMENT-7-23-18

|             |       |            |
|-------------|-------|------------|
| Tot Ion:278 | Resp: | 132675     |
| Ion Ratio   | Lower | Upper      |
| 278         | 100   |            |
| 139         | 0.0   | 15.9 23.9# |
| 279         | 33.3  | 19.0 28.4# |

Manual Integrations  
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#91

Benzo(g,h,i)perylene

Concen: 26.840 ng

RT: 17.76 min Scan# 2622

Delta R.T. 0.00 min

Lab File: BF107665.D

Acq: 25 Jul 2018 18:56

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:276 | Resp: | 442364     |
| Ion Ratio   | Lower | Upper      |
| 276         | 100   |            |
| 277         | 24.9  | 17.9 26.9  |
| 138         | 21.6  | 21.8 32.8# |

