

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_N\DATA\BN032519\  
 Data File : BN004963.D  
 Acq On : 25 Mar 2019 16:32  
 Operator : JU/SJ  
 Sample : K2015-12RE  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 EXT-025-SW039-031919

Quant Time: Mar 26 01:18:37 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\8270-SIM-BN032019.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Mar 20 16:06:20 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.68  | 152  | 3777     | 0.40 | ng    | -0.02    |
| 7) Naphthalene-d8         | 10.47 | 136  | 15514    | 0.40 | ng    | -0.03    |
| 13) Acenaphthene-d10      | 14.32 | 164  | 8109     | 0.40 | ng    | -0.02    |
| 19) Phenanthrene-d10      | 17.08 | 188  | 16661    | 0.40 | ng    | -0.01    |
| 27) Chrysene-d12          | 21.28 | 240  | 16954    | 0.40 | ng    | -0.01    |
| 34) Perylene-d12          | 23.53 | 264  | 18098    | 0.40 | ng    | -0.01    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|------|-------|----------|
| 4) 2-Fluorophenol           | 5.28  | 112  | 4018     | 0.39 | ng    | 0.00     |
| 5) Phenol-d6                | 6.86  | 99   | 5023     | 0.39 | ng    | -0.02    |
| 8) Nitrobenzene-d5          | 8.84  | 82   | 3856     | 0.38 | ng    | -0.03    |
| 11) 2-Methylnaphthalene-d10 | 12.06 | 152  | 8952     | 0.33 | ng    | -0.02    |
| 14) 2,4,6-Tribromophenol    | 15.84 | 330  | 1549     | 0.28 | ng    | -0.01    |
| 15) 2-Fluorobiphenyl        | 12.94 | 172  | 12233    | 0.37 | ng    | -0.02    |
| 25) Fluoranthene-d10        | 19.12 | 212  | 16620    | 0.30 | ng    | -0.01    |
| 29) Terphenyl-d14           | 19.71 | 244  | 11112    | 0.32 | ng    | -0.01    |

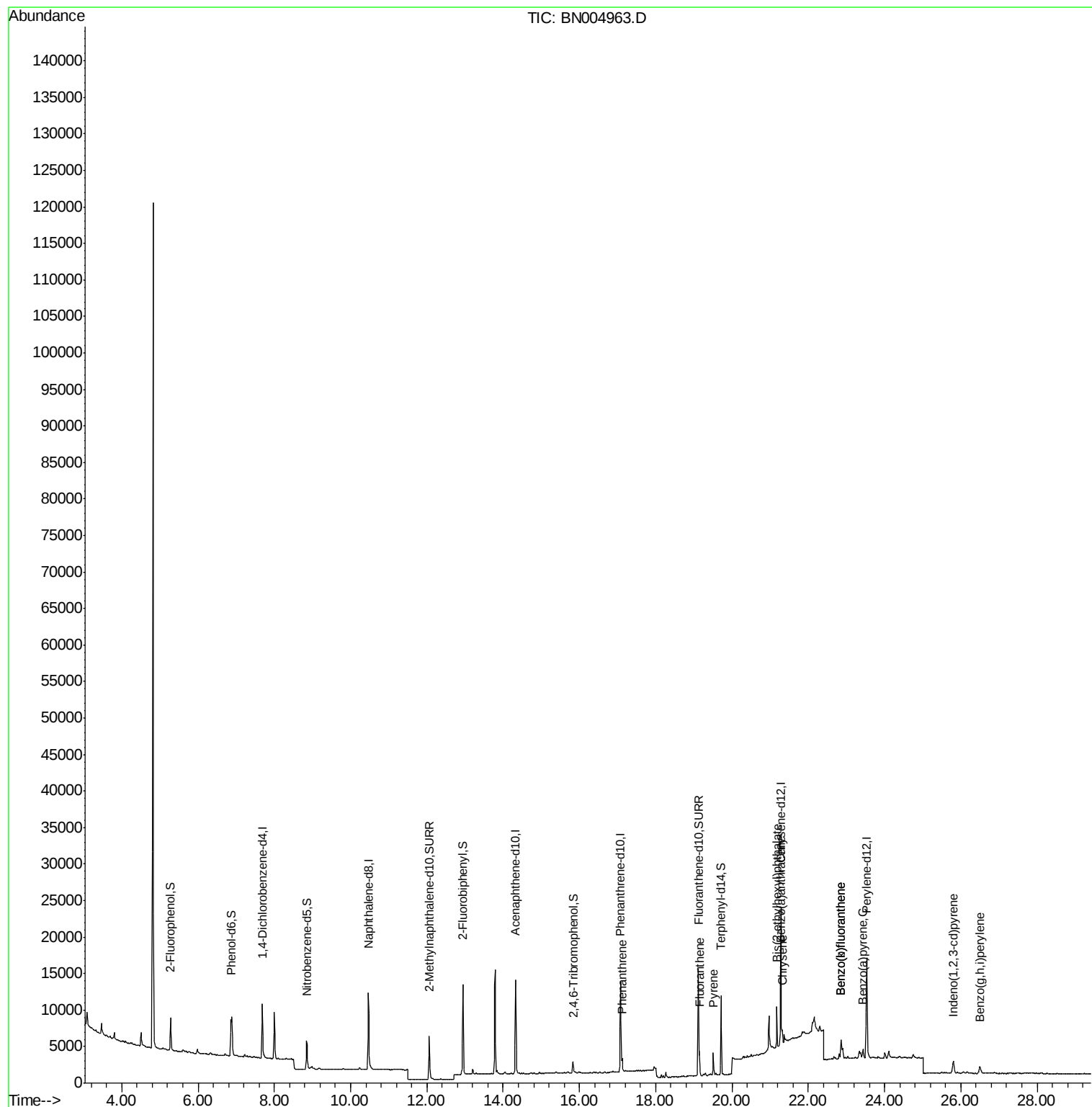
| Target Compounds               | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|--------------------------------|-------|------|----------|-------|-------|--------|
| 23) Phenanthrene               | 17.12 | 178  | 1786     | 0.033 | ng    | # 92   |
| 26) Fluoranthene               | 19.15 | 202  | 2879     | 0.042 | ng    | # 95   |
| 28) Pyrene                     | 19.51 | 202  | 2750     | 0.053 | ng    | # 96   |
| 30) Benzo(a)anthracene         | 21.27 | 228  | 1819     | 0.033 | ng    | # 72   |
| 31) Chrysene                   | 21.32 | 228  | 1799     | 0.031 | ng    | # 76   |
| 32) Bis(2-ethylhexyl)phthalate | 21.17 | 149  | 5289     | 0.238 | ng    | # 98   |
| 33) Indeno(1,2,3-cd)pyrene     | 25.80 | 276  | 2212     | 0.026 | ng    | # 94   |
| 35) Benzo(b)fluoranthene       | 22.86 | 252  | 3404     | 0.052 | ng    | # 29   |
| 36) Benzo(k)fluoranthene       | 22.86 | 252  | 3404     | 0.053 | ng    | # 30   |
| 37) Benzo(a)pyrene             | 23.43 | 252  | 1751     | 0.029 | ng    | # 1    |
| 39) Benzo(g,h,i)perylene       | 26.49 | 276  | 2004     | 0.028 | ng    | # 52   |

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

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#1

1,4-Dichlorobenzene-d4

Concen: 0.400 ng

RT: 7.68 min Scan# 578

Delta R.T. -0.02 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

EXT-025-SW039-031919

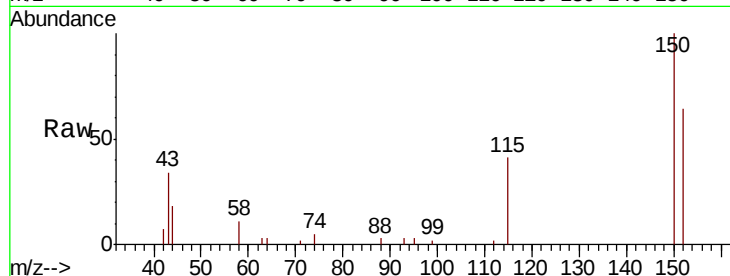
Tgt Ion:152 Resp: 3777

Ion Ratio Lower Upper

152 100

150 156.4 126.2 189.4

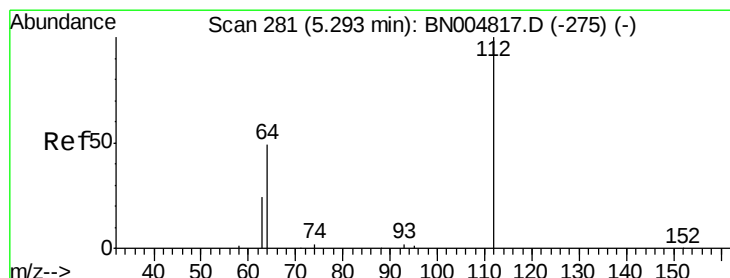
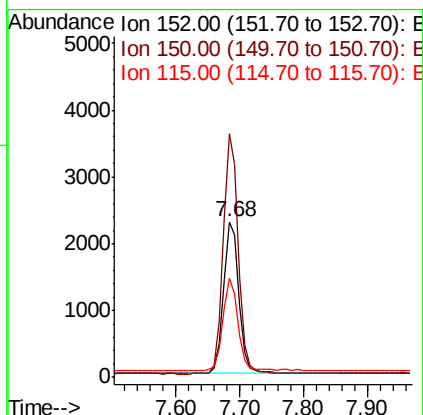
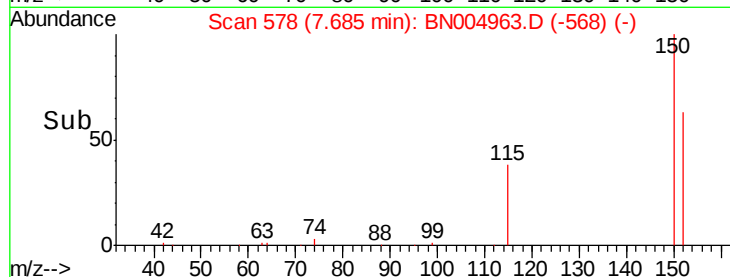
115 63.5 52.6 79.0



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



#4

2-Fluorophenol

Concen: 0.391 ng

RT: 5.28 min Scan# 280

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

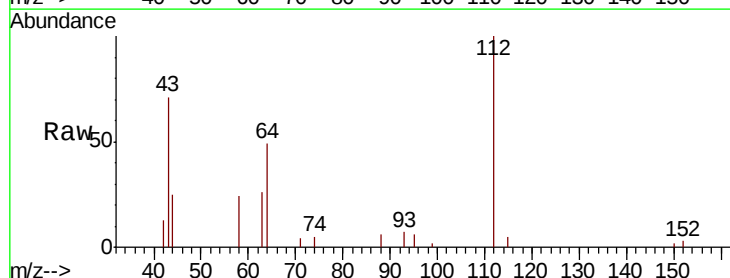
Tgt Ion:112 Resp: 4018

Ion Ratio Lower Upper

112 100

64 52.2 40.0 60.0

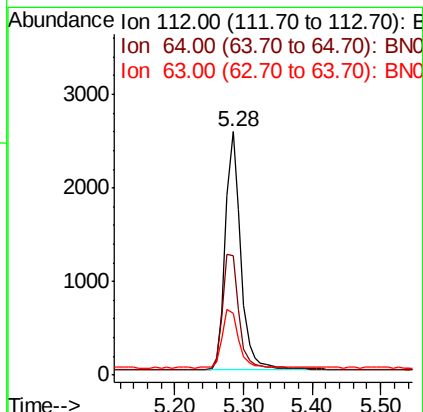
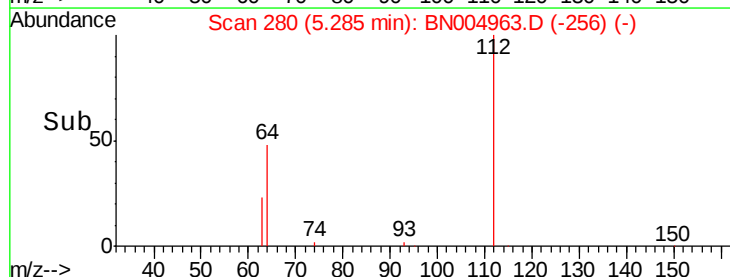
63 26.5 20.2 30.2

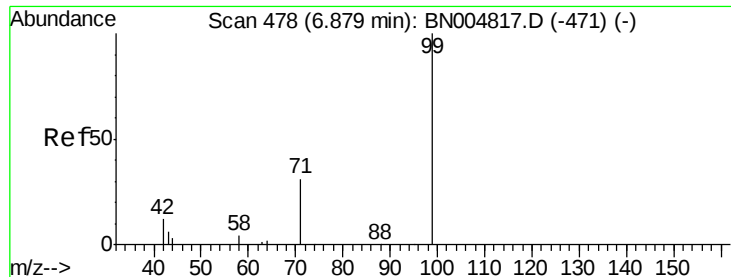


Abundance Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BNC

Ion 63.00 (62.70 to 63.70): BNC





#5

Phenol-d6

Concen: 0.393 ng

RT: 6.86 min Scan# 476

Delta R.T. -0.02 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

EXT-025-SW039-031919

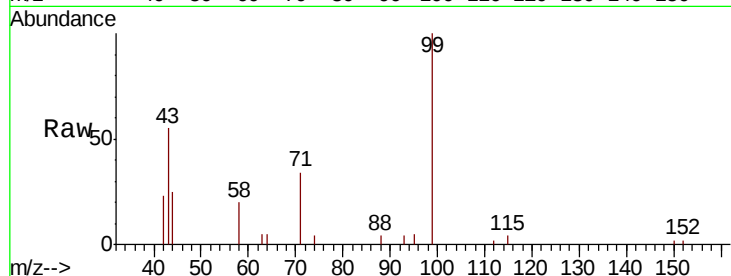
Tgt Ion: 99 Resp: 5023

Ion Ratio Lower Upper

99 100

42 20.4 12.7 19.1#

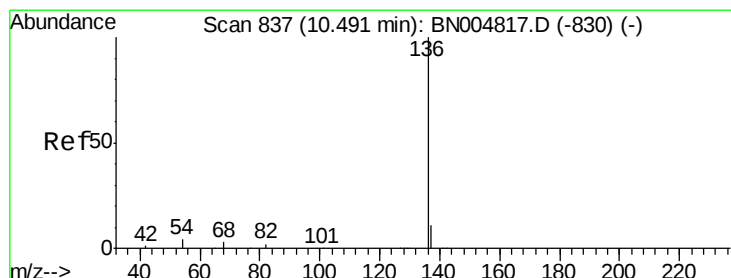
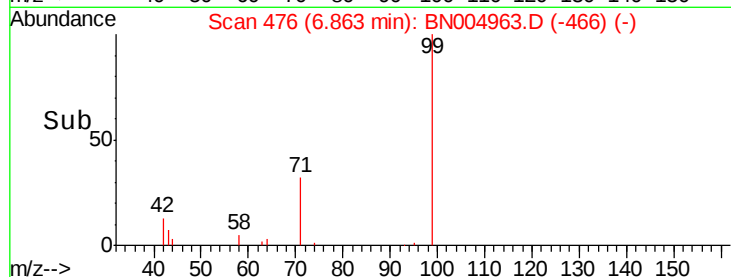
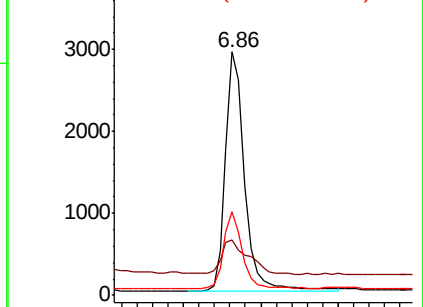
71 31.2 26.6 40.0



Abundance Ion 99.00 (98.70 to 99.70): BN004817.D (-471) (-)

Ion 42.00 (41.70 to 42.70): BN004817.D (-471) (-)

Ion 71.00 (70.70 to 71.70): BN004817.D (-471) (-)



#7

Naphthalene-d8

Concen: 0.400 ng

RT: 10.47 min Scan# 835

Delta R.T. -0.03 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Tgt Ion: 136 Resp: 15514

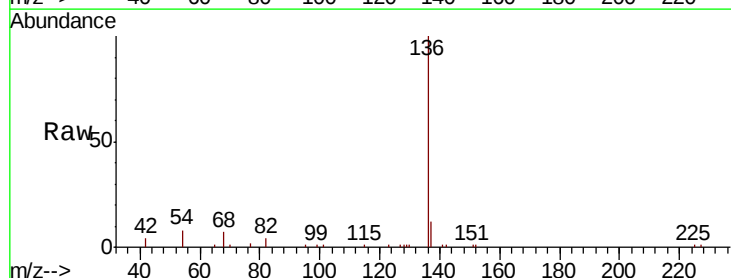
Ion Ratio Lower Upper

136 100

137 11.6 9.6 14.4

54 7.8 4.2 6.2#

68 6.5 3.9 5.9#

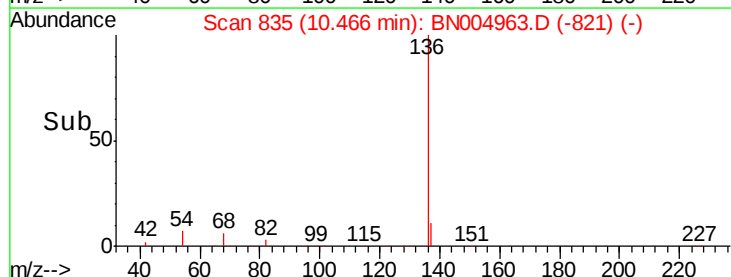
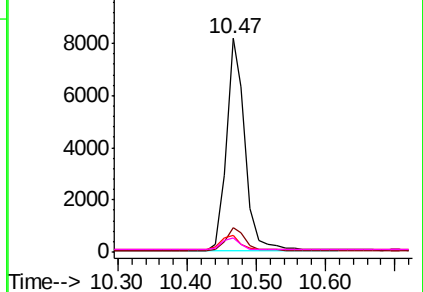


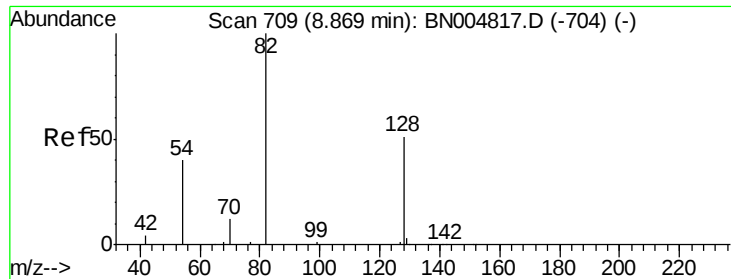
Abundance Ion 136.00 (135.70 to 136.70): BN004817.D (-830) (-)

Ion 137.00 (136.70 to 137.70): BN004817.D (-830) (-)

Ion 54.00 (53.70 to 54.70): BN004817.D (-830) (-)

Ion 68.00 (67.70 to 68.70): BN004817.D (-830) (-)





#8

Nitrobenzene-d5

Concen: 0.376 ng

RT: 8.84 min Scan# 707

Delta R.T. -0.03 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

EXT-025-SW039-031919

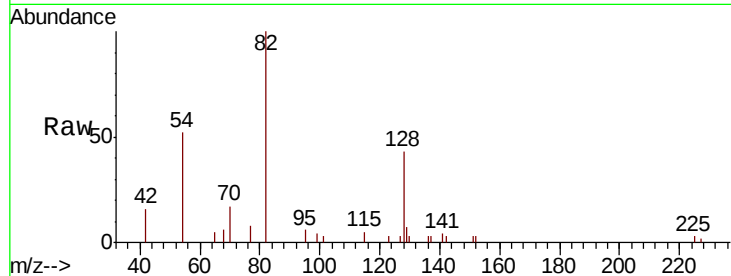
Tgt Ion: 82 Resp: 3856

Ion Ratio Lower Upper

82 100

128 43.0 43.0 64.6#

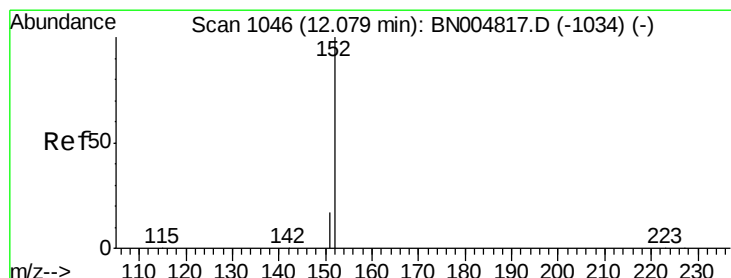
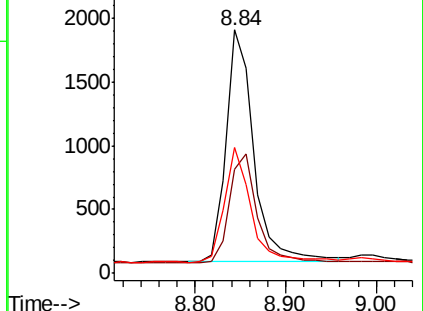
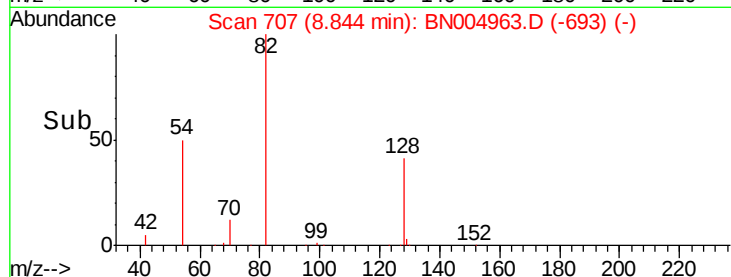
54 51.9 35.3 52.9



Abundance Ion 82.00 (81.70 to 82.70): BN004963.D (-693) (-)

Ion 128.00 (127.70 to 128.70): BN004963.D (-693) (-)

Ion 54.00 (53.70 to 54.70): BN004963.D (-693) (-)



#11

2-Methylnaphthalene-d10

Concen: 0.331 ng

RT: 12.06 min Scan# 1042

Delta R.T. -0.02 min

Lab File: BN004963.D

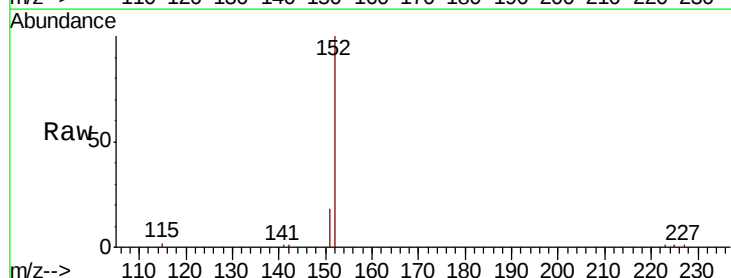
Acq: 25 Mar 2019 16:32

Tgt Ion: 152 Resp: 8952

Ion Ratio Lower Upper

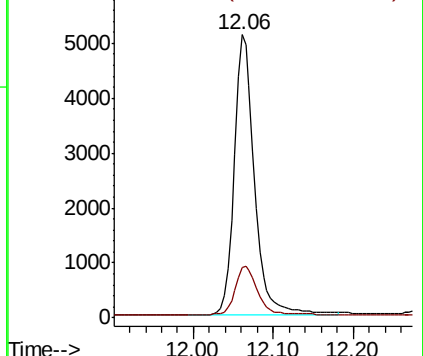
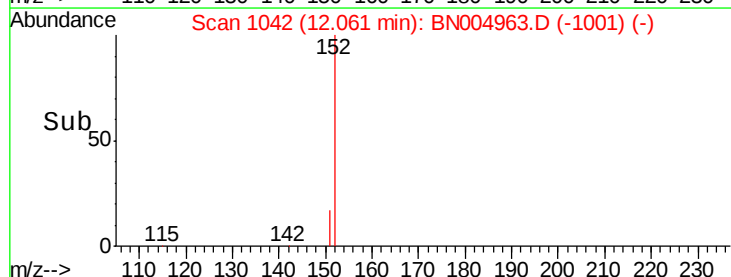
152 100

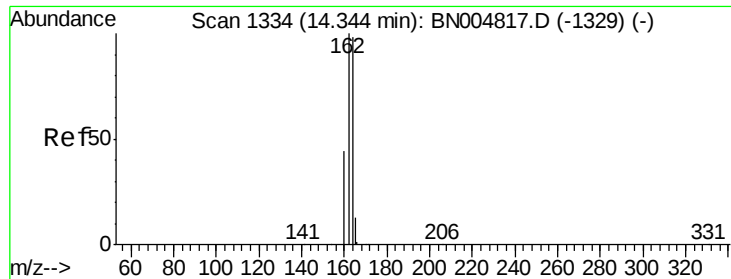
151 19.7 15.5 23.3



Abundance Ion 152.00 (151.70 to 152.70): BN004963.D (-1001) (-)

Ion 151.00 (150.70 to 151.70): BN004963.D (-1001) (-)





#13

Acenaphthene-d10

Concen: 0.400 ng

RT: 14.32 min Scan# 1332

Delta R.T. -0.02 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

EXT-025-SW039-031919

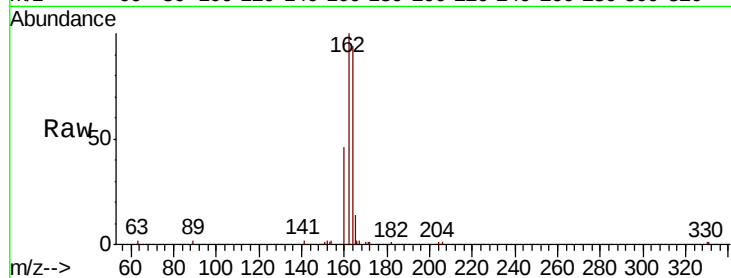
Tgt Ion:164 Resp: 8109

Ion Ratio Lower Upper

164 100

162 106.2 81.9 122.9

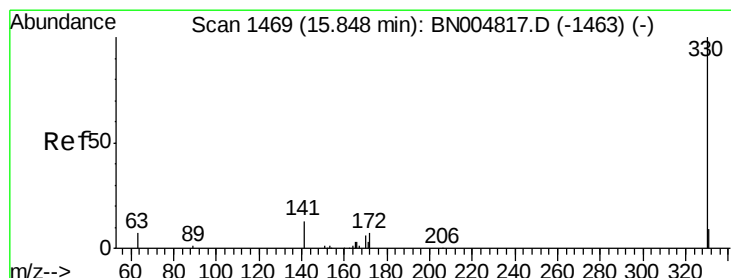
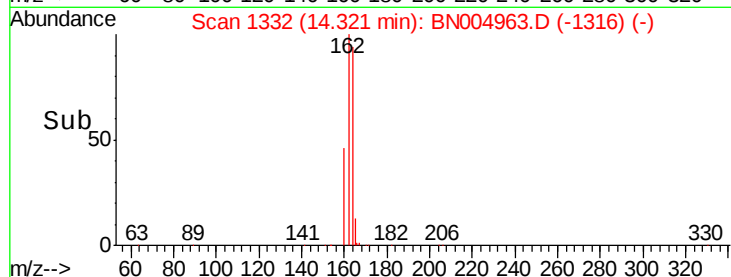
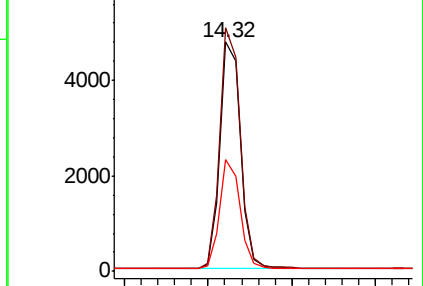
160 48.9 36.6 54.8



Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E



#14

2,4,6-Tribromophenol

Concen: 0.277 ng

RT: 15.84 min Scan# 1468

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

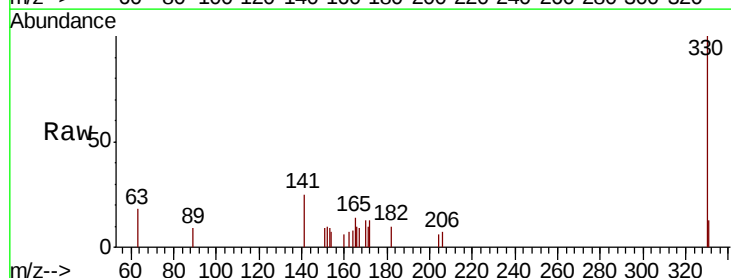
Tgt Ion:330 Resp: 1549

Ion Ratio Lower Upper

330 100

332 0.0 0.0 0.0

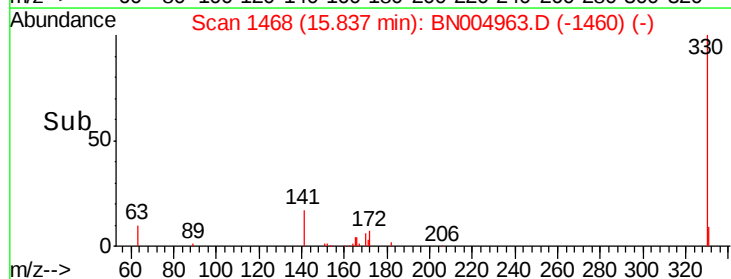
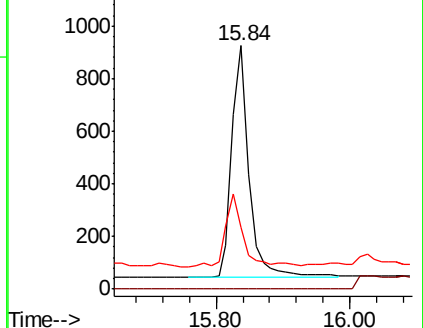
141 32.7 20.9 31.3#

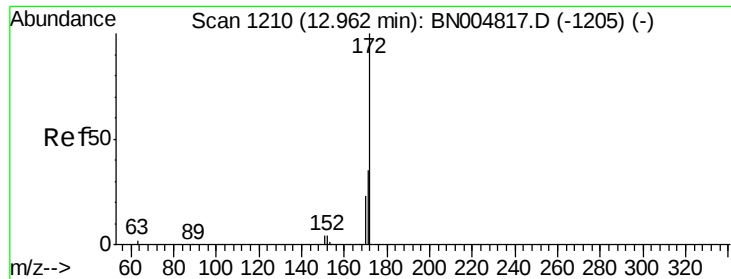


Abundance Ion 330.00 (329.70 to 330.70): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E

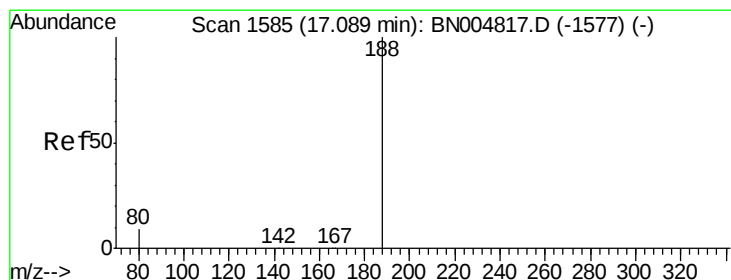
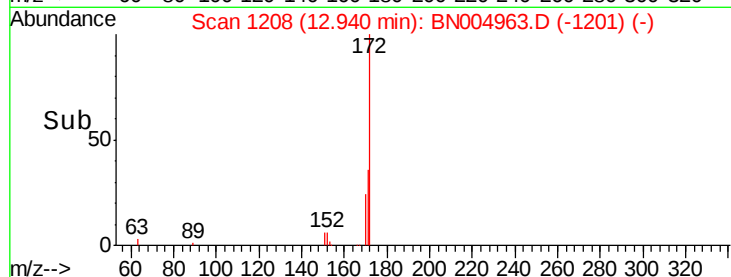
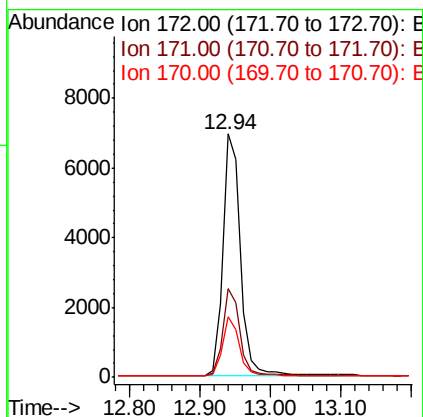
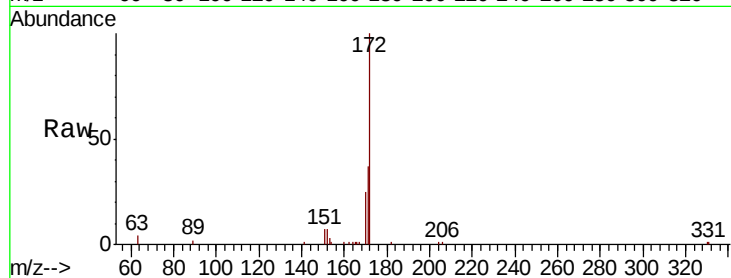




#15  
2-Fluorobiphenyl  
Concen: 0.365 ng  
RT: 12.94 min Scan# 1208  
Delta R.T. -0.02 min  
Lab File: BN004963.D  
Acq: 25 Mar 2019 16:32

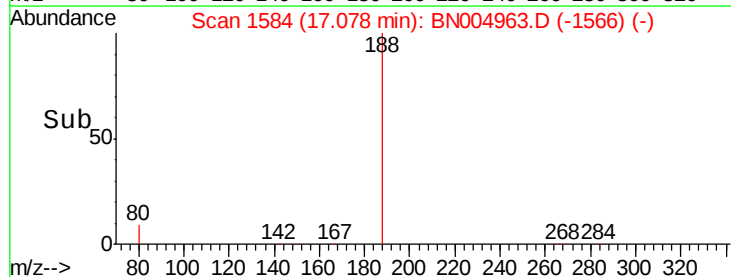
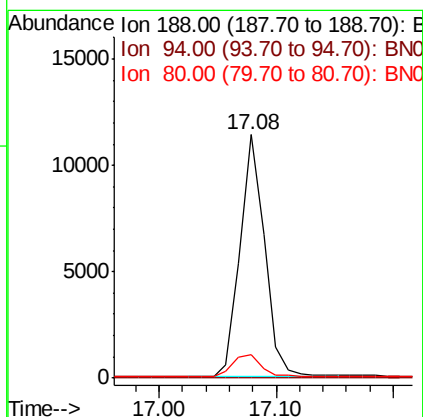
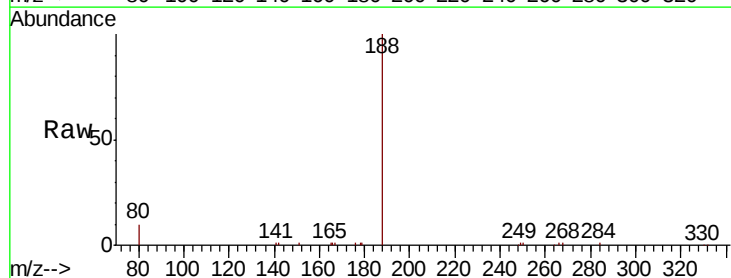
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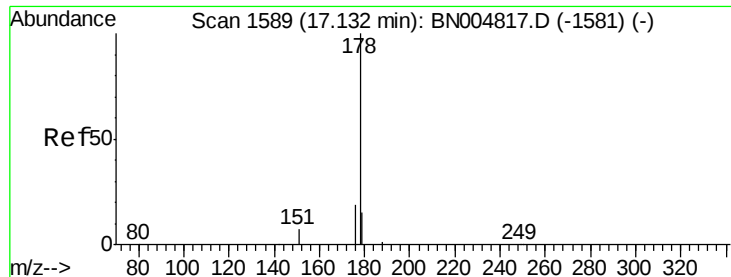
Tgt Ion:172 Resp: 12233  
Ion Ratio Lower Upper  
172 100  
171 36.5 28.7 43.1  
170 24.9 18.7 28.1



#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.08 min Scan# 1584  
Delta R.T. -0.01 min  
Lab File: BN004963.D  
Acq: 25 Mar 2019 16:32

Tgt Ion:188 Resp: 16661  
Ion Ratio Lower Upper  
188 100  
94 0.0 0.0 0.0  
80 9.6 7.4 11.2





#23

Phenanthrene

Concen: 0.033 ng

RT: 17.12 min Scan# 1588

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

EXT-025-SW039-031919

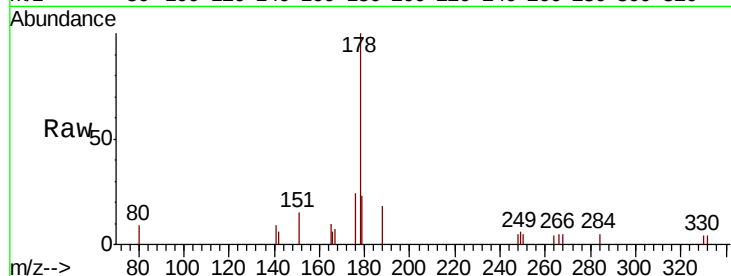
Tgt Ion:178 Resp: 1786

Ion Ratio Lower Upper

178 100

176 19.4 14.9 22.3

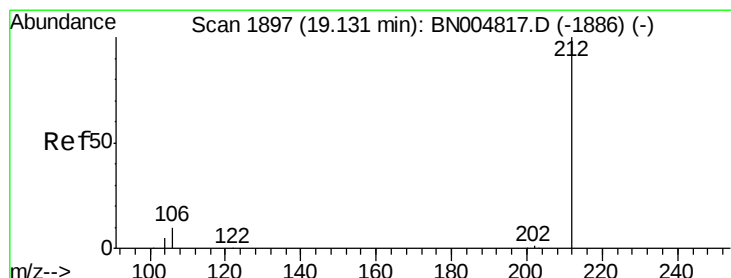
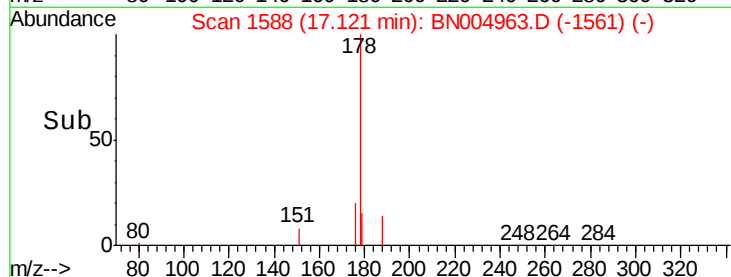
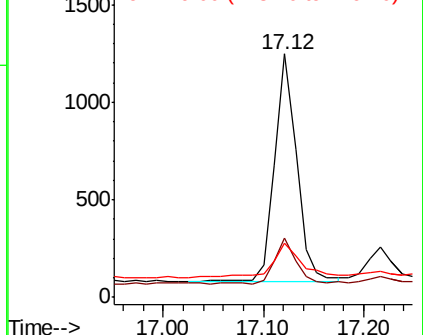
179 21.4 12.1 18.1#



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



#25

Fluoranthene-d10

Concen: 0.298 ng

RT: 19.12 min Scan# 1894

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

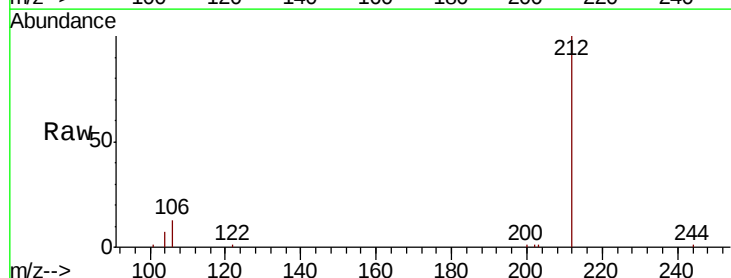
Tgt Ion:212 Resp: 16620

Ion Ratio Lower Upper

212 100

106 12.3 8.6 13.0

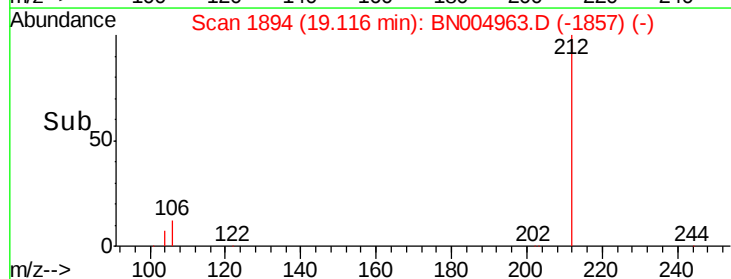
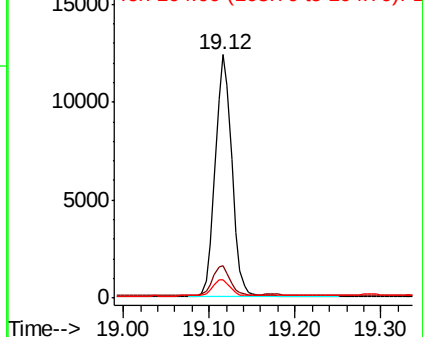
104 7.3 4.7 7.1#

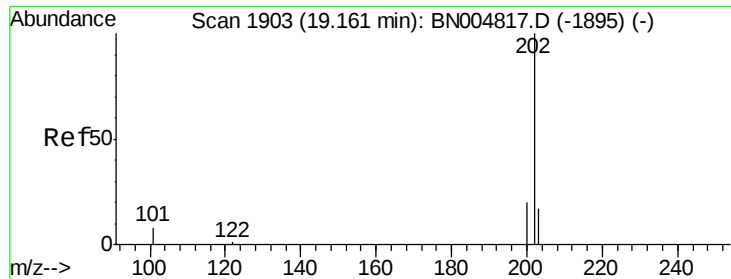


Abundance Ion 212.00 (211.70 to 212.70): E

Ion 106.00 (105.70 to 106.70): E

Ion 104.00 (103.70 to 104.70): E

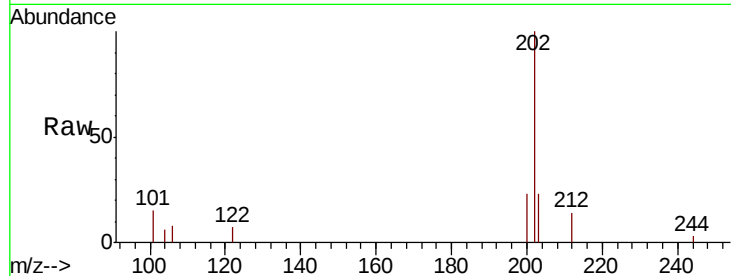




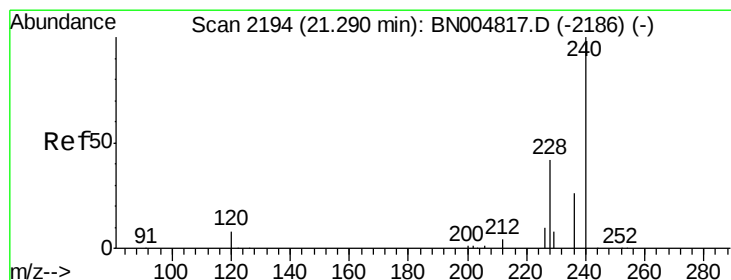
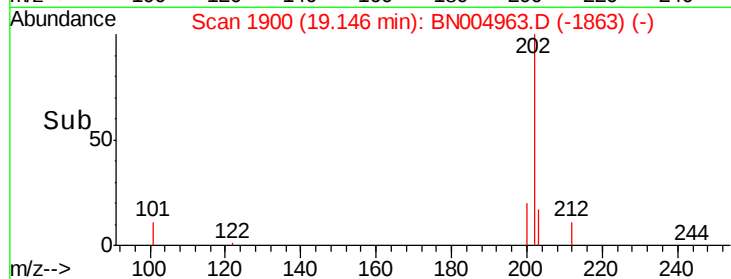
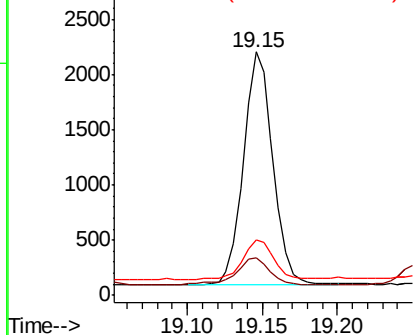
#26  
 Fluoranthene  
 Concen: 0.042 ng  
 RT: 19.15 min Scan# 1900  
 Delta R.T. -0.01 min  
 Lab File: BN004963.D  
 Acq: 25 Mar 2019 16:32

Instrument :  
 BNA\_N  
 ClientSampleId :  
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Tgt Ion: 202 Resp: 2879  
 Ion Ratio Lower Upper  
 202 100  
 101 13.6 7.5 11.3#  
 203 18.0 13.8 20.6

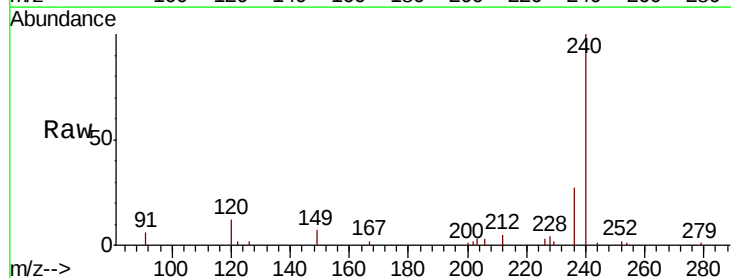


Abundance Ion 202.00 (201.70 to 202.70): E  
 Ion 101.00 (100.70 to 101.70): E  
 Ion 203.00 (202.70 to 203.70): E

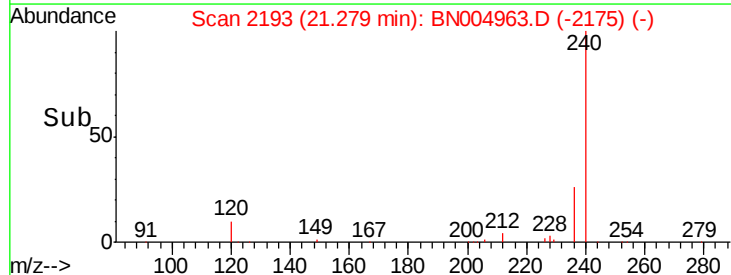
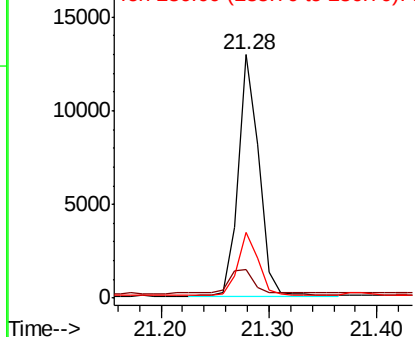


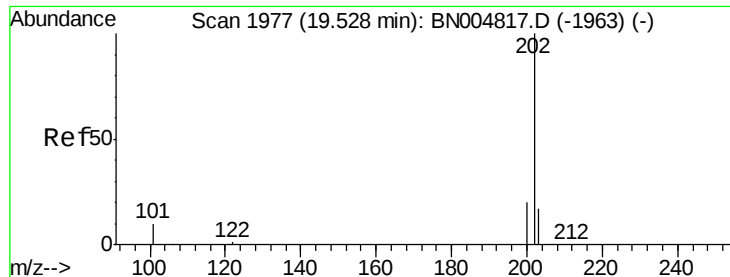
#27  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.28 min Scan# 2193  
 Delta R.T. -0.01 min  
 Lab File: BN004963.D  
 Acq: 25 Mar 2019 16:32

Tgt Ion: 240 Resp: 16954  
 Ion Ratio Lower Upper  
 240 100  
 120 11.9 7.2 10.8#  
 236 27.0 20.9 31.3



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

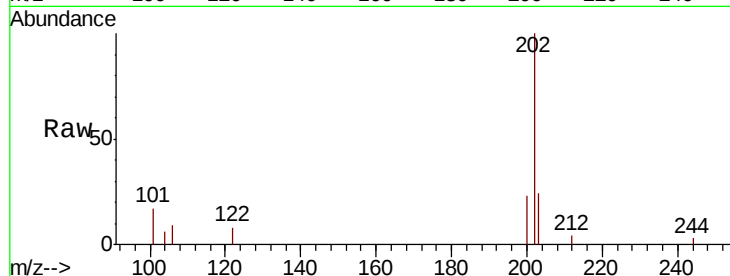




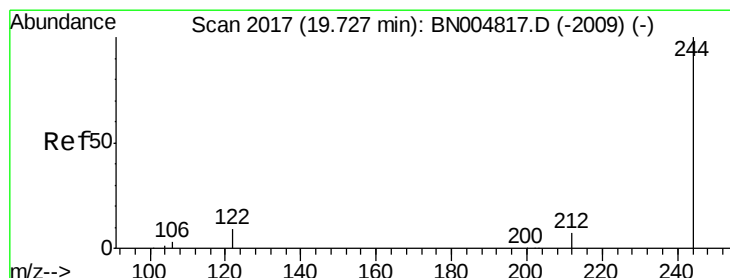
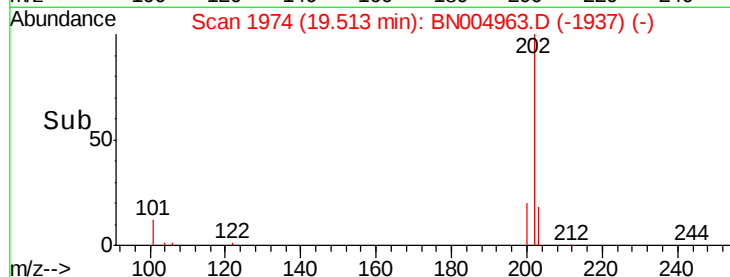
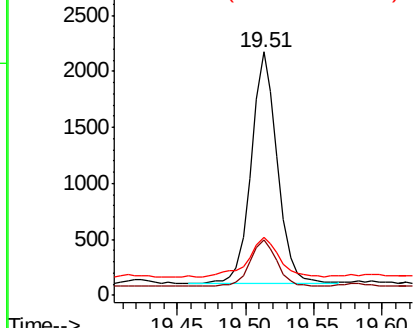
#28  
 Pyrene  
 Concen: 0.053 ng  
 RT: 19.51 min Scan# 1974  
 Delta R.T. -0.01 min  
 Lab File: BN004963.D  
 Acq: 25 Mar 2019 16:32

Instrument :  
 BNA\_N  
 ClientSampleId :  
 EXT-025-SW039-031919

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 202   | Resp: | 2750  |
| Ion      | Ratio | Lower | Upper |
| 202      | 100   |       |       |
| 200      | 21.3  | 16.3  | 24.5  |
| 203      | 20.0  | 14.0  | 21.0  |

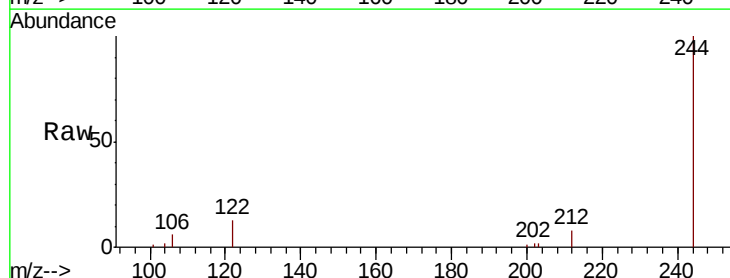


Abundance Ion 202.00 (201.70 to 202.70): E  
 Ion 200.00 (199.70 to 200.70): E  
 Ion 203.00 (202.70 to 203.70): E

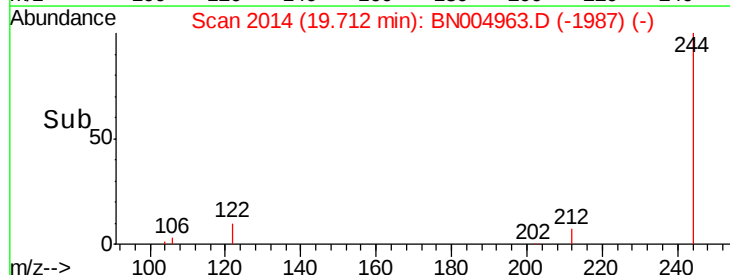
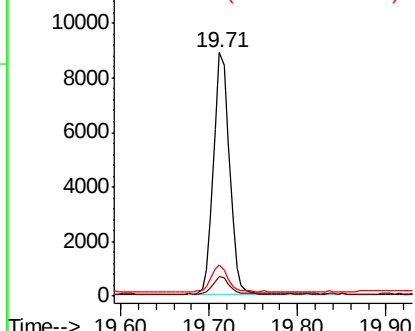


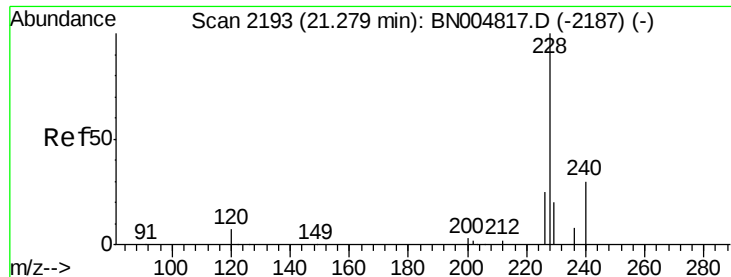
#29  
 Terphenyl-d14  
 Concen: 0.320 ng  
 RT: 19.71 min Scan# 2014  
 Delta R.T. -0.01 min  
 Lab File: BN004963.D  
 Acq: 25 Mar 2019 16:32

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 244   | Resp: | 11112 |
| Ion      | Ratio | Lower | Upper |
| 244      | 100   |       |       |
| 212      | 7.9   | 5.8   | 8.6   |
| 122      | 12.7  | 7.9   | 11.9# |



Abundance Ion 244.00 (243.70 to 244.70): E  
 Ion 212.00 (211.70 to 212.70): E  
 Ion 122.00 (121.70 to 122.70): E





#30

Benzo(a)anthracene

Concen: 0.033 ng

RT: 21.27 min Scan# 2192

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

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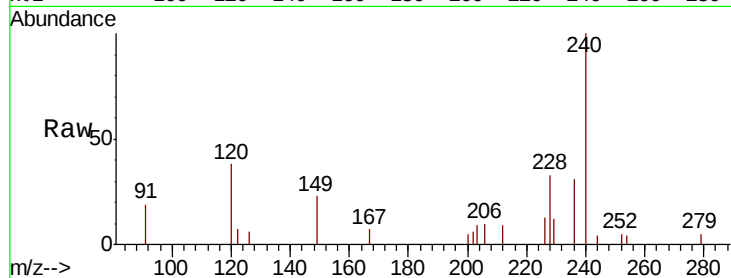
Tgt Ion:228 Resp: 1819

Ion Ratio Lower Upper

228 100

226 38.5 20.6 31.0#

229 35.3 16.2 24.4#

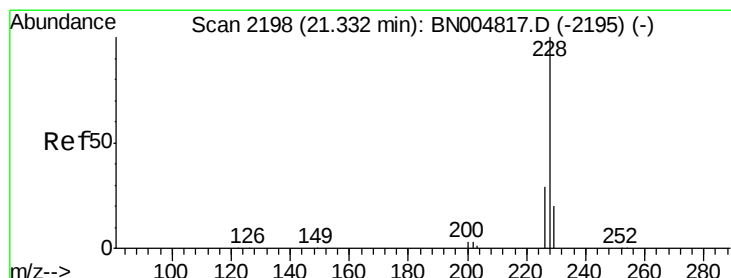
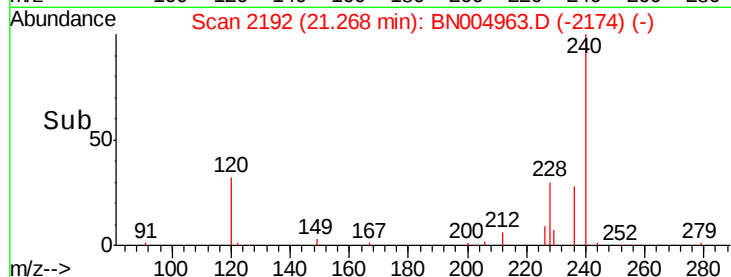
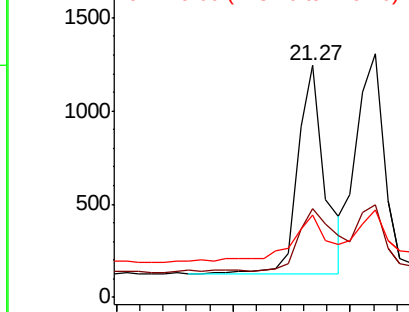


Abundance

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



#31

Chrysene

Concen: 0.031 ng

RT: 21.32 min Scan# 2197

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

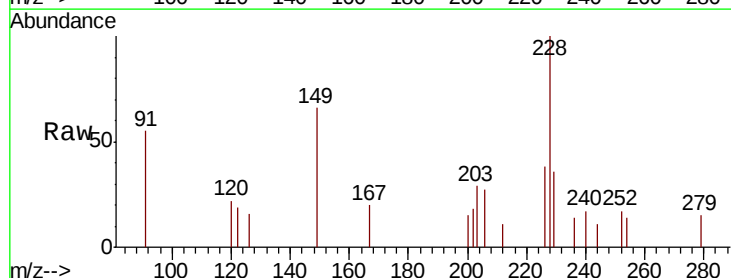
Tgt Ion:228 Resp: 1799

Ion Ratio Lower Upper

228 100

226 38.3 23.0 34.6#

229 35.8 16.2 24.2#

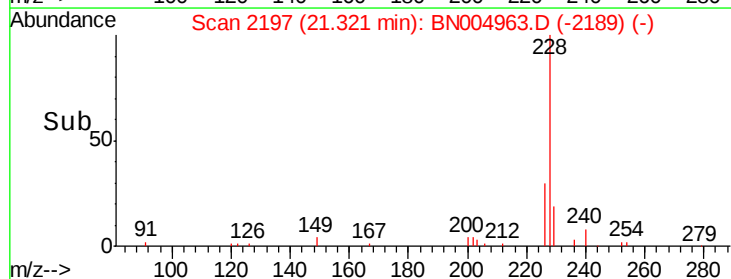
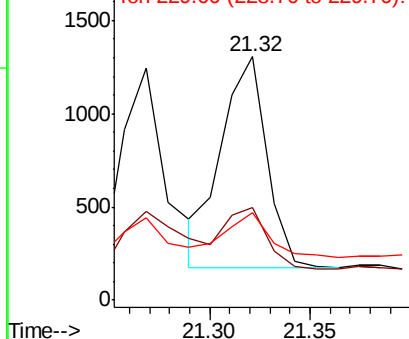


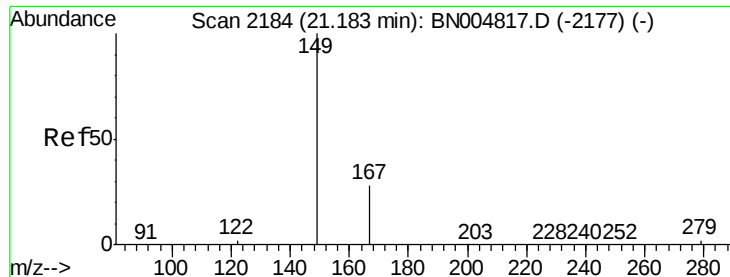
Abundance

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





#32

Bis(2-ethylhexyl)phthalate

Concen: 0.238 ng

RT: 21.17 min Scan# 2183

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

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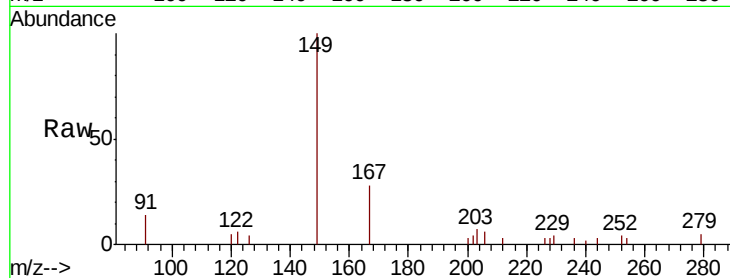
Tgt Ion:149 Resp: 5289

Ion Ratio Lower Upper

149 100

167 27.8 23.0 34.4

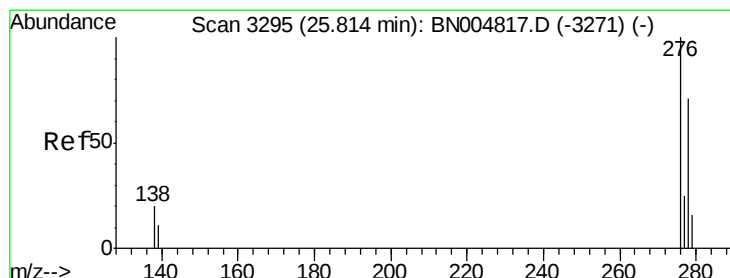
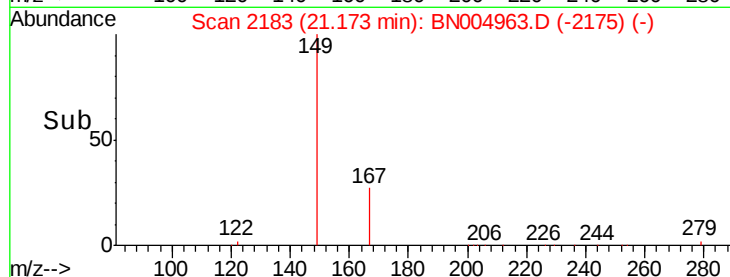
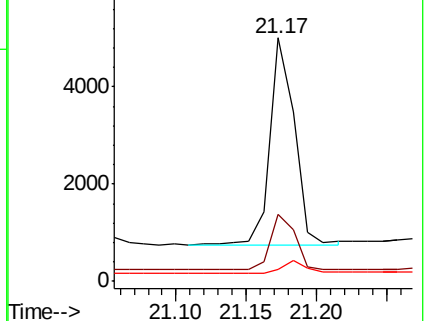
279 5.5 4.6 6.8



Abundance Ion 149.00 (148.70 to 149.70): E

Ion 167.00 (166.70 to 167.70): E

Ion 279.00 (278.70 to 279.70): E



#33

Indeno(1,2,3-cd)pyrene

Concen: 0.026 ng

RT: 25.80 min Scan# 3292

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

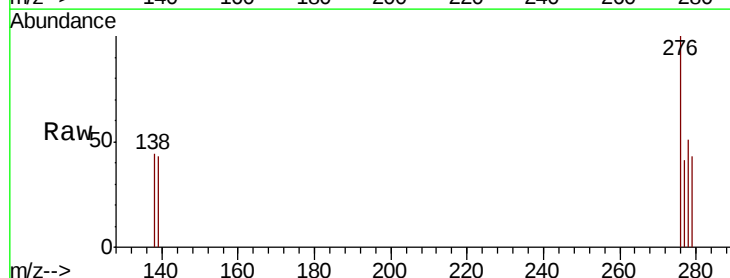
Tgt Ion:276 Resp: 2212

Ion Ratio Lower Upper

276 100

138 25.0 16.6 24.8#

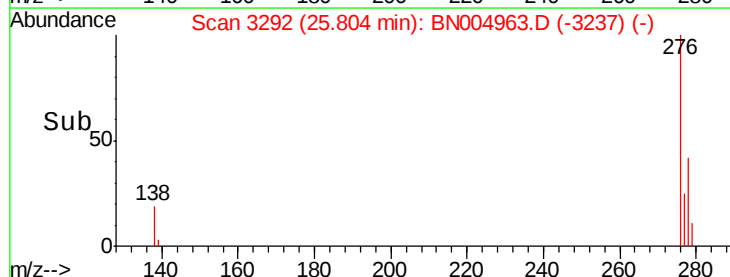
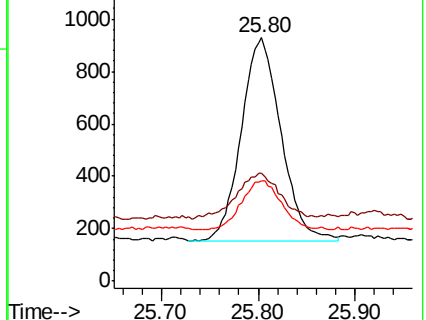
277 24.0 20.3 30.5

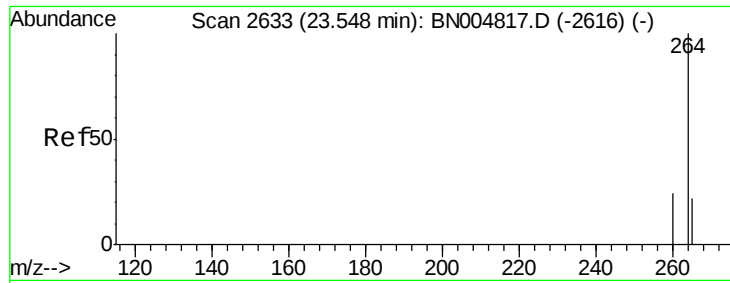


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E

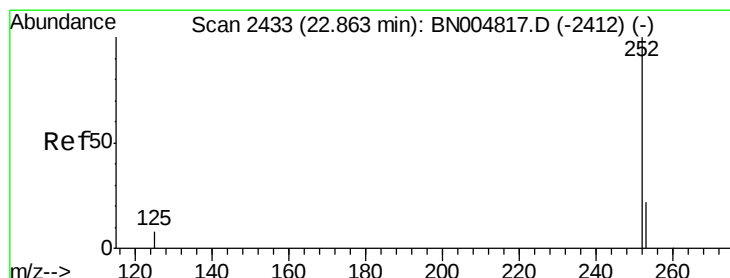
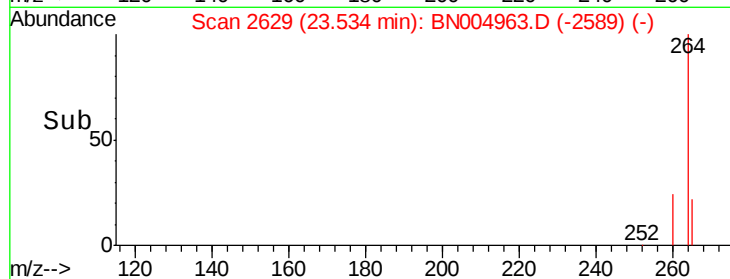
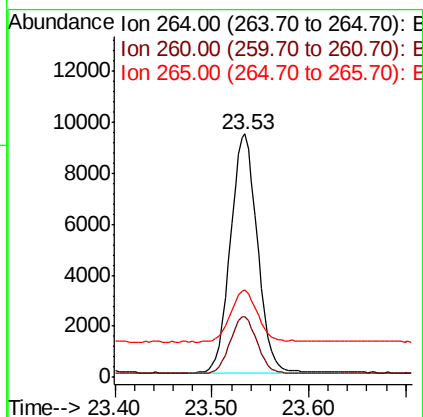
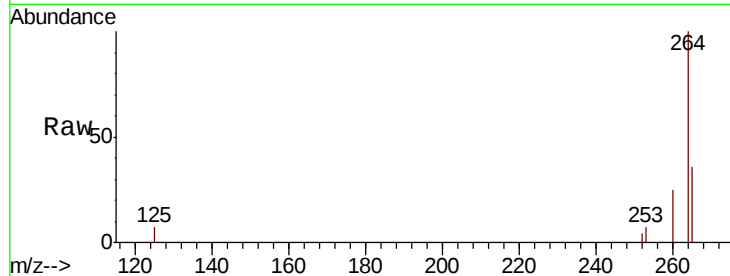




#34  
**Perylene-d12**  
 Concen: 0.400 ng  
 RT: 23.53 min Scan# 2629  
 Delta R.T. -0.01 min  
 Lab File: BN004963.D  
 Acq: 25 Mar 2019 16:32

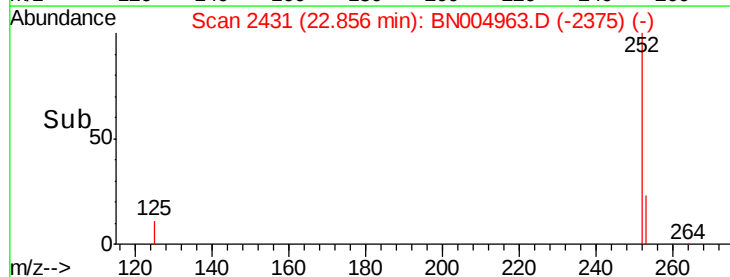
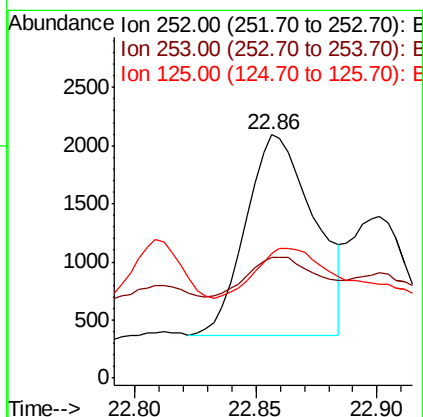
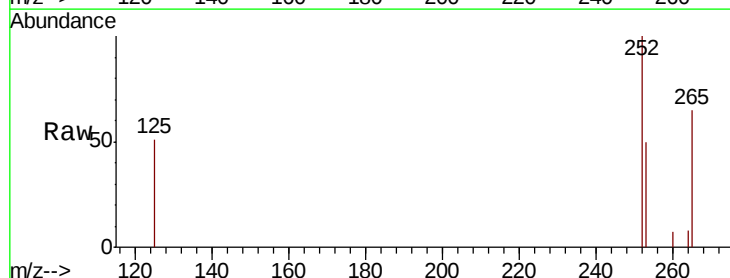
Instrument :  
 BNA\_N  
 ClientSampleId :  
 EXT-025-SW039-031919

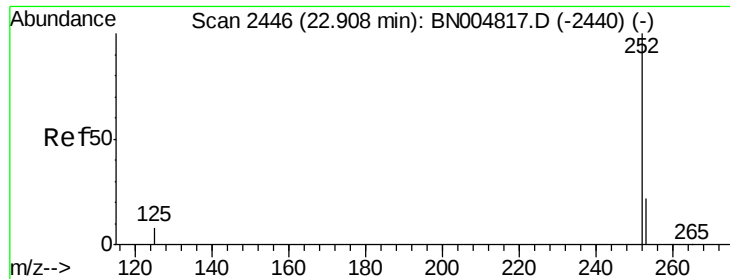
Tgt Ion: 264 Resp: 18098  
 Ion Ratio Lower Upper  
 264 100  
 260 25.1 19.5 29.3  
 265 36.1 23.1 34.7#



#35  
**Benzo(b)fluoranthene**  
 Concen: 0.052 ng  
 RT: 22.86 min Scan# 2431  
 Delta R.T. -0.01 min  
 Lab File: BN004963.D  
 Acq: 25 Mar 2019 16:32

Tgt Ion: 252 Resp: 3404  
 Ion Ratio Lower Upper  
 252 100  
 253 49.8 19.0 28.4#  
 125 51.2 7.4 11.2#





#36

Benzo(k)fluoranthene

Concen: 0.053 ng

RT: 22.86 min Scan# 2431

Delta R.T. -0.05 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

EXT-025-SW039-031919

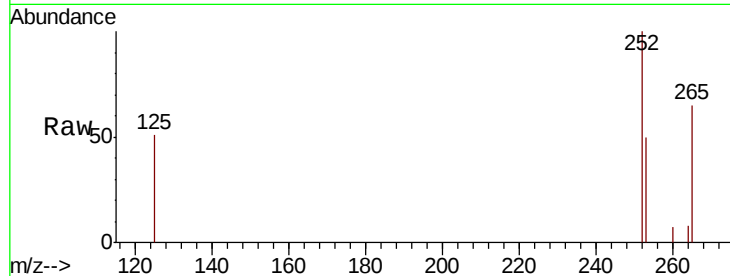
Tgt Ion:252 Resp: 3404

Ion Ratio Lower Upper

252 100

253 49.8 19.3 28.9#

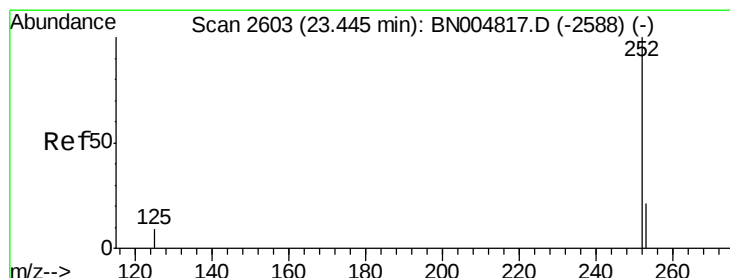
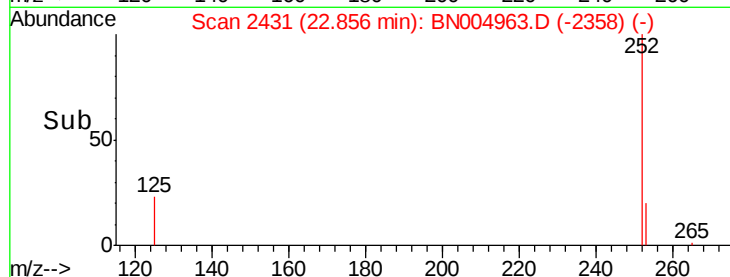
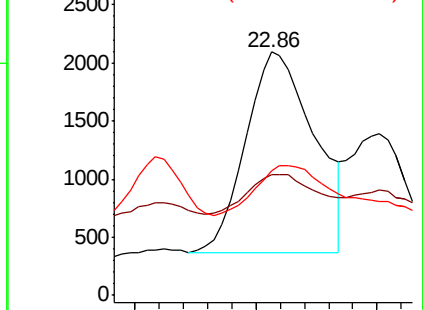
125 51.2 7.4 11.0#



Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E



#37

Benzo(a)pyrene

Concen: 0.029 ng

RT: 23.43 min Scan# 2600

Delta R.T. -0.01 min

Lab File: BN004963.D

Acq: 25 Mar 2019 16:32

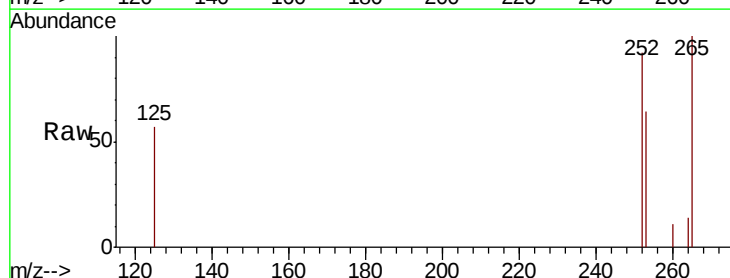
Tgt Ion:252 Resp: 1751

Ion Ratio Lower Upper

252 100

253 69.2 19.7 29.5#

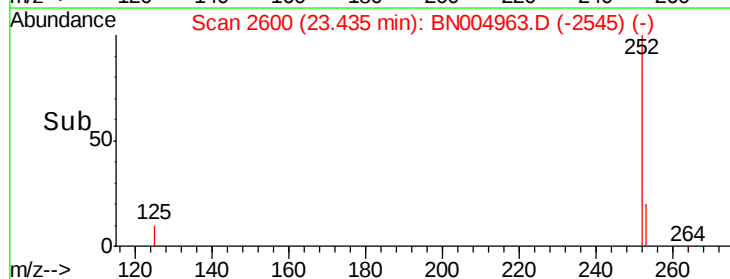
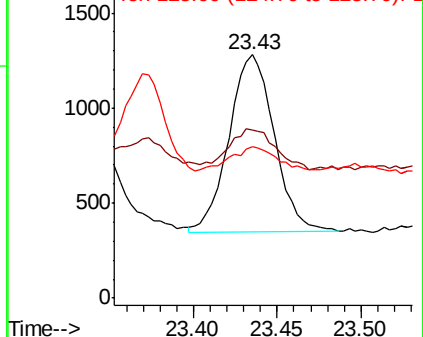
125 62.0 8.3 12.5#

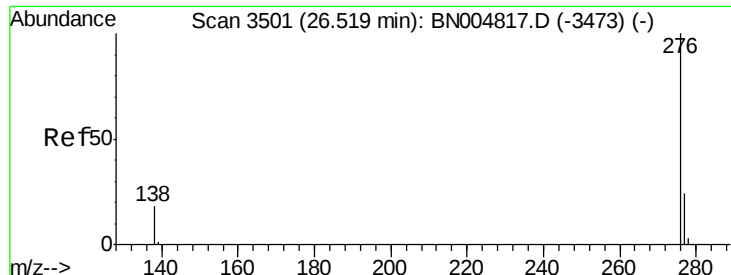


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#39

Benzo(g,h,i)perylene

Concen: 0.028 ng

RT: 26.49 min Scan# 3494

Delta R.T. -0.02 min

Lab File: BN004963.D

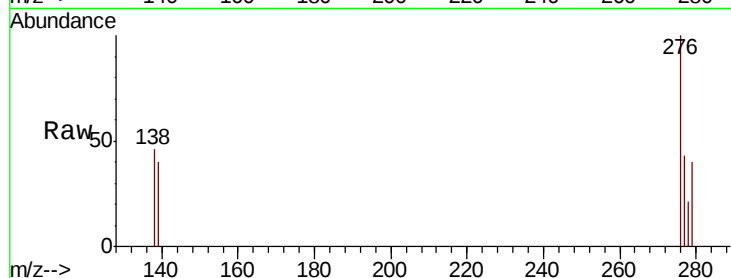
Acq: 25 Mar 2019 16:32

Instrument :

BNA\_N

ClientSampleId :

EXT-025-SW039-031919



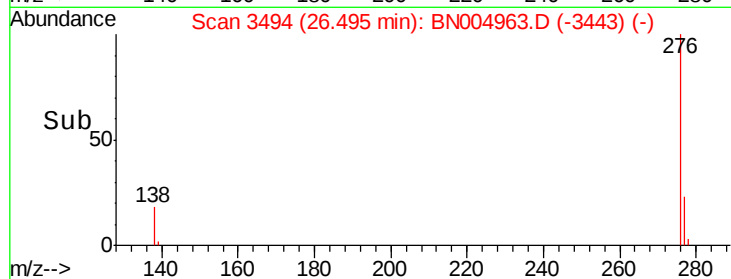
Tgt Ion: 276 Resp: 2004

Ion Ratio Lower Upper

276 100

277 43.3 19.7 29.5#

138 45.7 14.6 22.0#



Abundance

Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

