

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF092223\  
 Data File : BF135418.D  
 Acq On : 23 Sep 2023 01:08  
 Operator : CG\JU  
 Sample : 04512-02DL 4X  
 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 72-11986DL

Manual Integrations  
 APPROVED

Reviewed By :Yogesh Patel 09/25/2023  
 Supervised By :mohammad ahmed 09/27/2023

Quant Time: Sep 23 05:01:32 2023  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF091123.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Sep 12 00:19:07 2023  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|--------|------|----------|--------|-------|----------|
| -----                       |        |      |          |        |       |          |
| Internal Standards          |        |      |          |        |       |          |
| 1) 1,4-Dichlorobenzene-d4   | 6.757  | 152  | 135674   | 20.000 | ng    | 0.00     |
| 21) Naphthalene-d8          | 8.033  | 136  | 470446   | 20.000 | ng    | #-0.01   |
| 39) Acenaphthene-d10        | 9.792  | 164  | 207393   | 20.000 | ng    | -0.01    |
| 64) Phenanthrene-d10        | 11.286 | 188  | 373001   | 20.000 | ng    | 0.00     |
| 76) Chrysene-d12            | 13.951 | 240  | 270558   | 20.000 | ng    | 0.00     |
| 86) Perylene-d12            | 15.415 | 264  | 243281   | 20.000 | ng    | 0.00     |
|                             |        |      |          |        |       |          |
| System Monitoring Compounds |        |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.392  | 112  | 184252   | 22.088 | ng    | 0.00     |
| 7) Phenol-d6                | 6.404  | 99   | 233720   | 22.034 | ng    | 0.00     |
| 23) Nitrobenzene-d5         | 7.322  | 82   | 123933   | 14.312 | ng    | -0.01    |
| 42) 2,4,6-Tribromophenol    | 10.586 | 330  | 35981    | 17.458 | ng    | -0.01    |
| 45) 2-Fluorobiphenyl        | 9.110  | 172  | 211984   | 15.421 | ng    | -0.02    |
| 79) Terphenyl-d14           | 12.880 | 244  | 194396   | 11.138 | ng    | -0.01    |
|                             |        |      |          |        |       |          |
| Target Compounds            |        |      |          |        |       | Qvalue   |
| 38) 1-Methylnaphthalene     | 8.851  | 142  | 31545    | 2.193  | ng    | 97       |
| 49) Acenaphthylene          | 9.657  | 152  | 148982   | 7.752  | ng    | 97       |
| 58) Fluorene                | 10.345 | 166  | 42206    | 3.169  | ng    | 97       |
| 71) Phenanthrene            | 11.310 | 178  | 727651   | 41.247 | ng    | 99       |
| 72) Anthracene              | 11.363 | 178  | 134305   | 7.407  | ng    | 97       |
| 73) Carbazole               | 11.527 | 167  | 34201    | 2.072  | ng    | 99       |
| 75) Fluoranthene            | 12.510 | 202  | 1119016  | 60.875 | ng    | 97       |
| 78) Pyrene                  | 12.739 | 202  | 1178112  | 45.736 | ng    | 100      |
| 81) Benzo(a)anthracene      | 13.939 | 228  | 588757m  | 33.700 | ng    |          |
| 83) Chrysene                | 13.974 | 228  | 640321   | 36.864 | ng    | 98       |
| 87) Indeno(1,2,3-cd)pyrene  | 16.898 | 276  | 199098   | 12.482 | ng    | 99       |
| 88) Benzo(b)fluoranthene    | 14.992 | 252  | 622324m  | 47.254 | ng    |          |
| 89) Benzo(k)fluoranthene    | 15.015 | 252  | 171856m  | 13.210 | ng    |          |
| 90) Benzo(a)pyrene          | 15.357 | 252  | 391913   | 31.206 | ng    | 98       |
| 91) Dibenzo(a,h)anthracene  | 16.903 | 278  | 57984    | 4.443  | ng    | # 75     |
| 92) Benzo(g,h,i)perylene    | 17.345 | 276  | 195100   | 14.313 | ng    | # 94     |

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

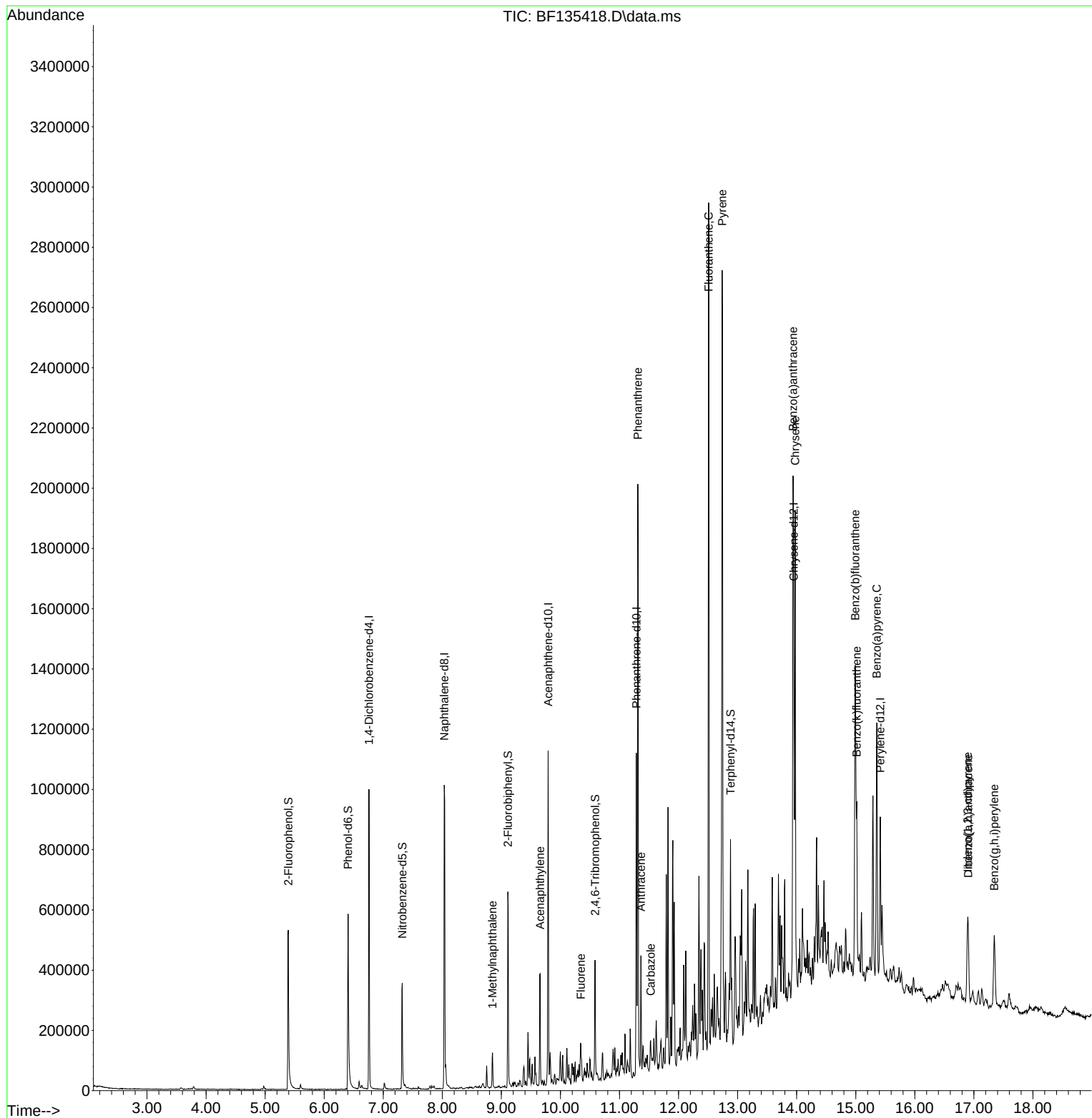
Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF092223\  
Data File : BF135418.D  
Acq On : 23 Sep 2023 01:08  
Operator : CG\JU  
Sample : 04512-02DL 4X  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

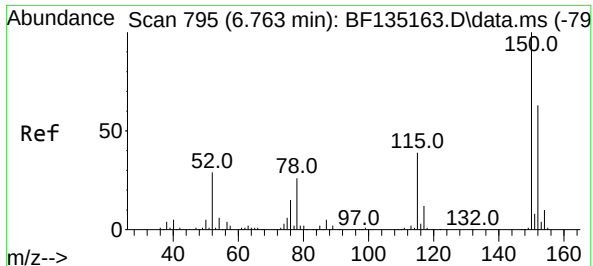
Instrument :  
BNA\_F  
ClientSampleId :  
72-11986DL

Manual Integrations  
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Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023

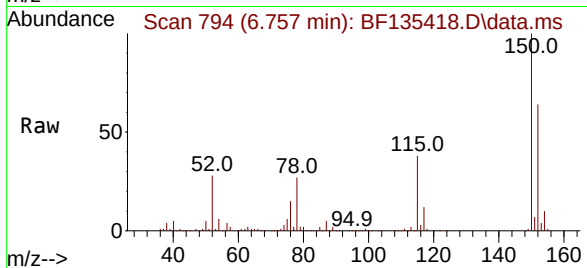
Quant Time: Sep 23 05:01:32 2023  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF091123.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Tue Sep 12 00:19:07 2023  
Response via : Initial Calibration





#1  
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.757 min Scan# 795  
Delta R.T. -0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

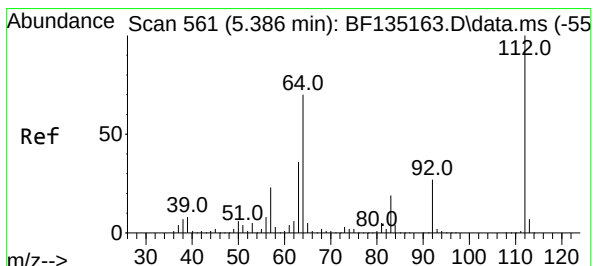
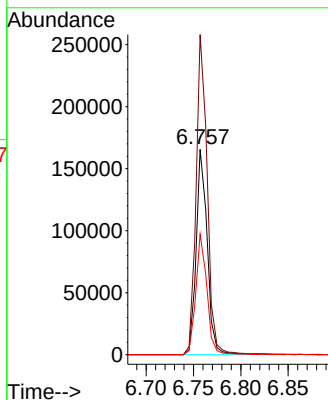
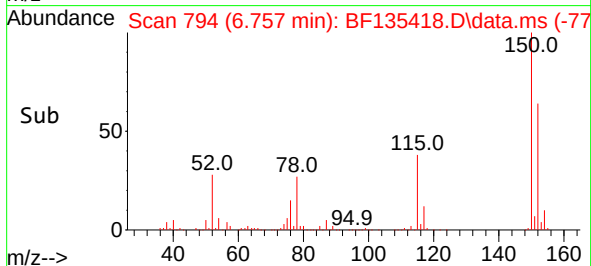
Instrument :  
BNA\_F  
ClientSampleId :  
72-11986DL



Tgt Ion:152 Resp: 135674  
Ion Ratio Lower Upper  
152 100  
150 155.9 127.8 191.6  
115 58.8 49.8 74.8

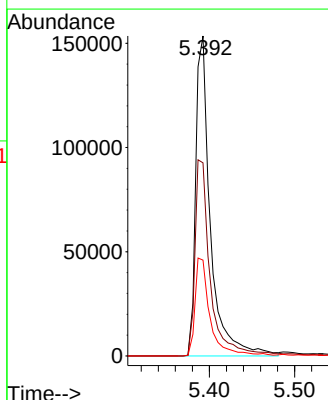
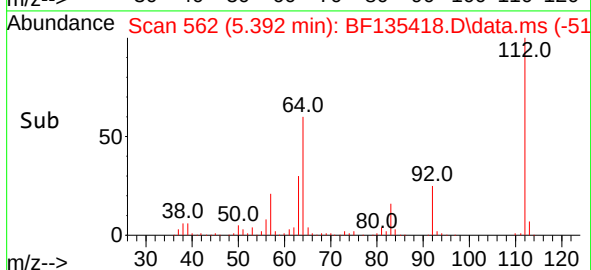
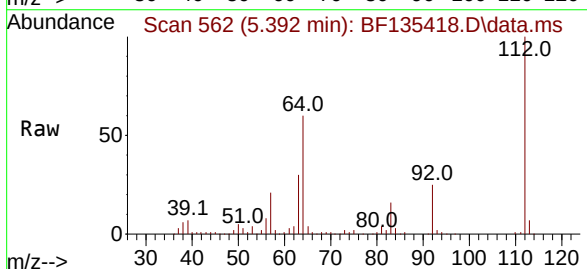
Manual Integrations  
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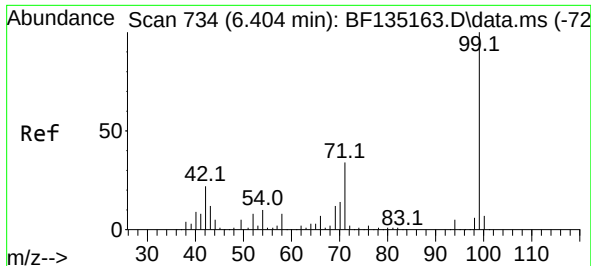
Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023



#5  
2-Fluorophenol  
Concen: 22.088 ng  
RT: 5.392 min Scan# 562  
Delta R.T. 0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

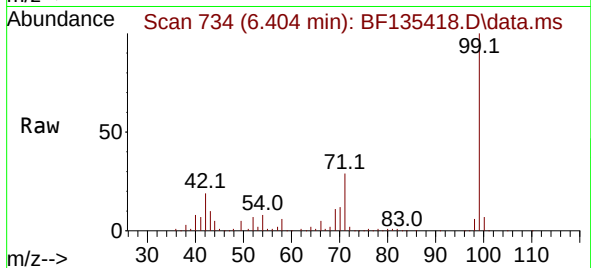
Tgt Ion:112 Resp: 184252  
Ion Ratio Lower Upper  
112 100  
64 60.4 55.9 83.9  
63 29.9 29.0 43.6





#7  
Phenol-d6  
Concen: 22.034 ng  
RT: 6.404 min Scan# 71  
Delta R.T. 0.000 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

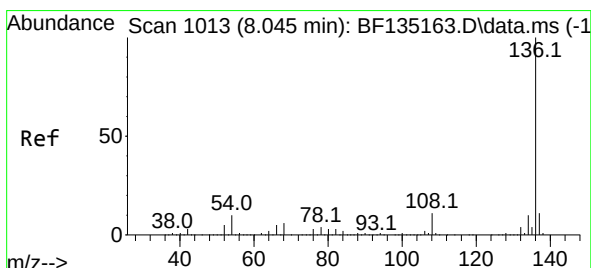
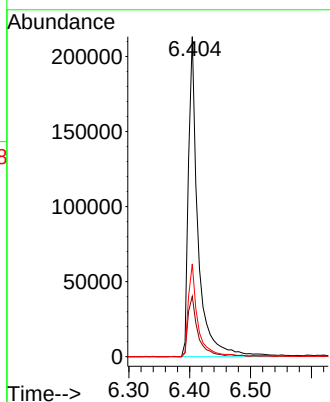
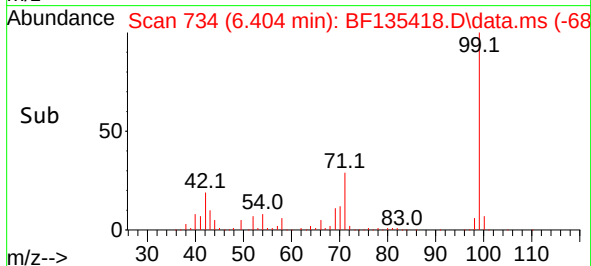
Instrument :  
BNA\_F  
ClientSampleId :  
72-11986DL



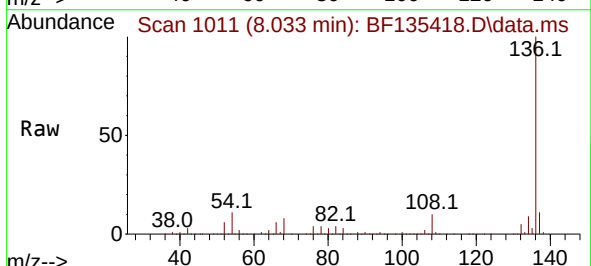
Tgt Ion: 99 Resp: 233720  
Ion Ratio Lower Upper  
99 100  
42 18.9 17.9 26.9  
71 29.0 27.0 40.6

Manual Integrations  
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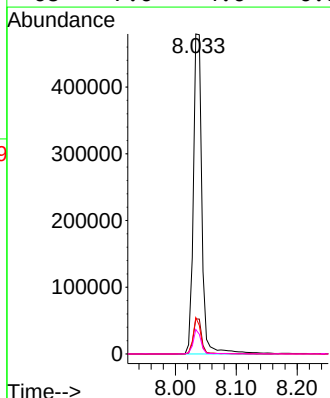
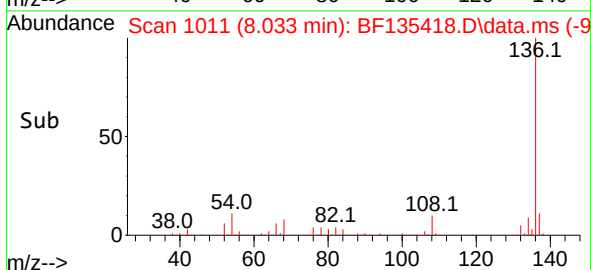
Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023

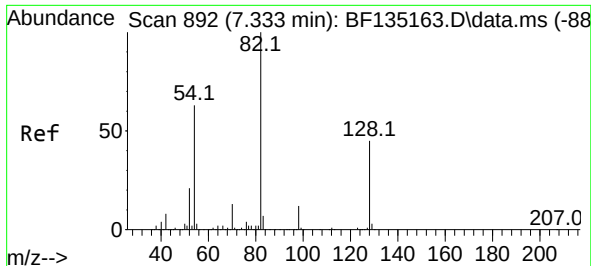


#21  
Naphthalene-d8  
Concen: 20.000 ng  
RT: 8.033 min Scan# 1011  
Delta R.T. -0.012 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08



Tgt Ion:136 Resp: 470446  
Ion Ratio Lower Upper  
136 100  
137 11.0 8.8 13.2  
54 11.3 7.7 11.5  
68 7.6 4.6 6.8#





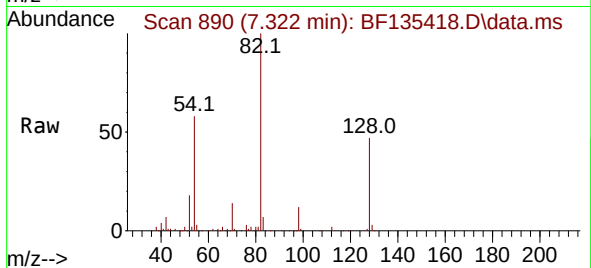
#23  
Nitrobenzene-d5  
Concen: 14.312 ng  
RT: 7.322 min Scan# 89  
Delta R.T. -0.012 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

Instrument :

BNA\_F

ClientSampleId :

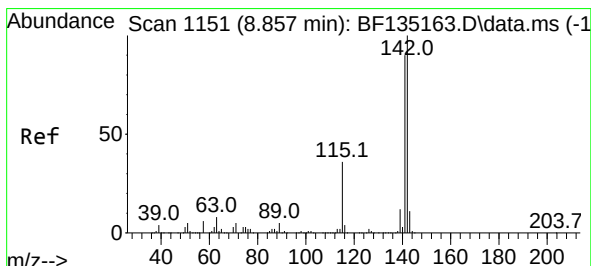
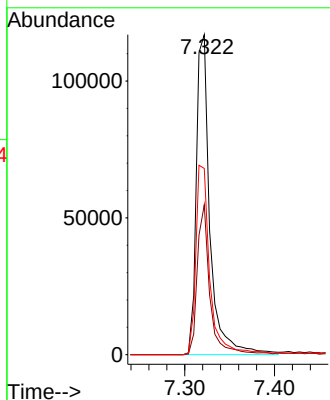
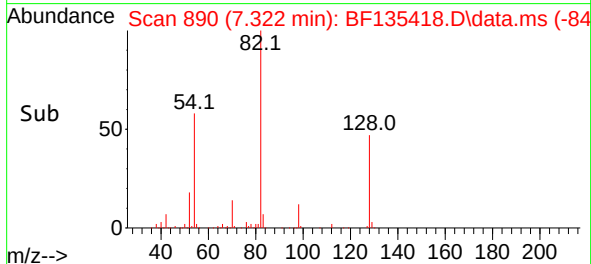
72-11986DL



Tgt Ion: 82 Resp: 12393  
Ion Ratio Lower Upper  
82 100  
128 46.8 35.8 53.6  
54 58.2 50.6 76.0

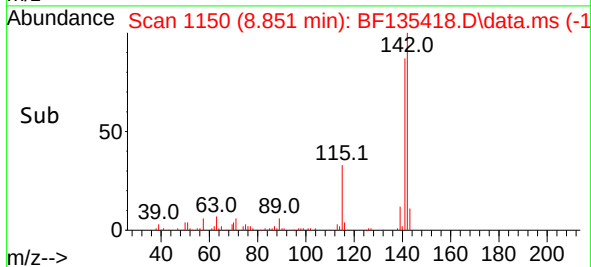
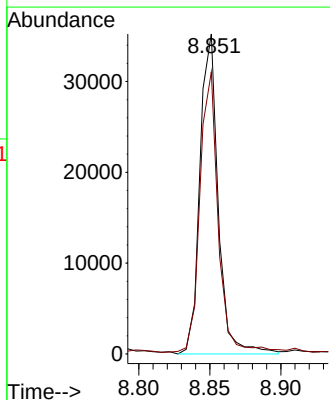
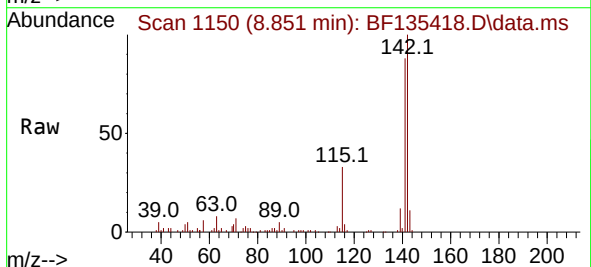
Manual Integrations  
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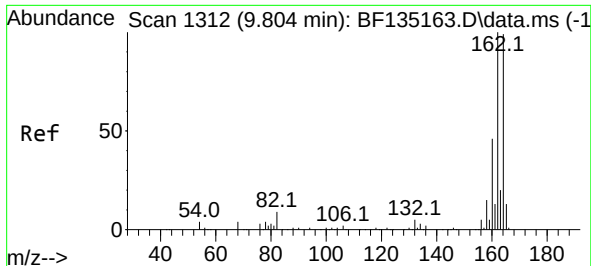
Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023



#38  
1-Methylnaphthalene  
Concen: 2.193 ng  
RT: 8.851 min Scan# 1150  
Delta R.T. -0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

Tgt Ion:142 Resp: 31545  
Ion Ratio Lower Upper  
142 100  
141 88.1 72.4 108.6





#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.792 min Scan# 11

Delta R.T. -0.012 min

Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

Instrument :

BNA\_F

ClientSampleId :

72-11986DL

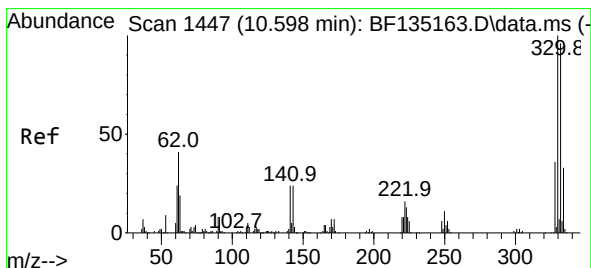
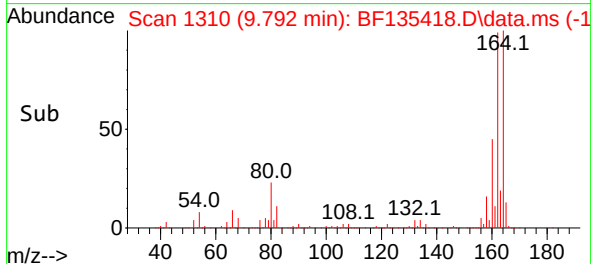
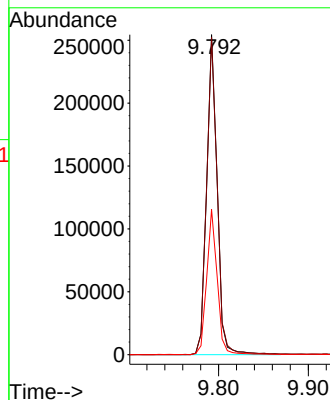
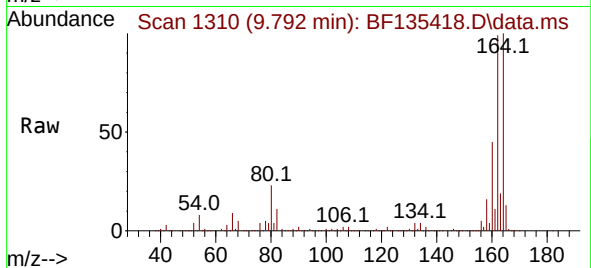
|             |       |            |
|-------------|-------|------------|
| Tgt Ion:164 | Resp: | 20739      |
| Ion Ratio   | Lower | Upper      |
| 164         | 100   |            |
| 162         | 99.1  | 81.0 121.4 |
| 160         | 45.4  | 37.0 55.4  |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 09/25/2023

Supervised By :mohammad ahmed 09/27/2023



#42

2,4,6-Tribromophenol

Concen: 17.458 ng

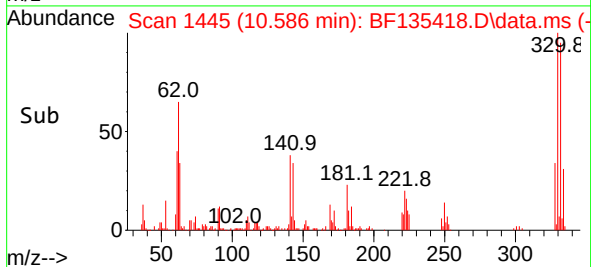
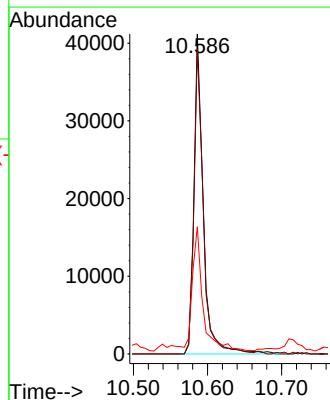
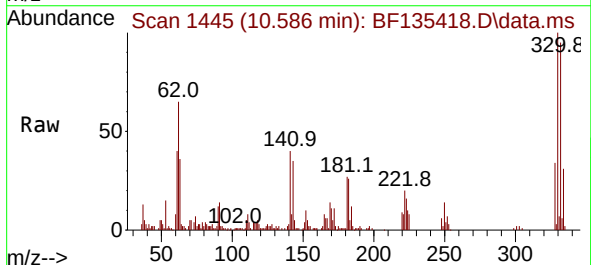
RT: 10.586 min Scan# 1445

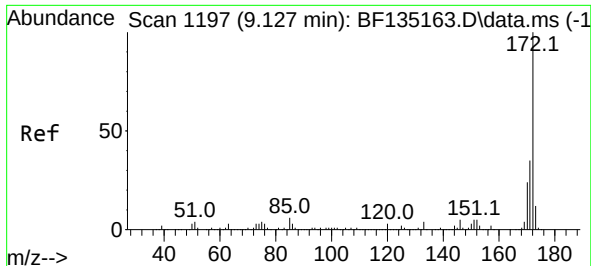
Delta R.T. -0.012 min

Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:330 | Resp: | 35981      |
| Ion Ratio   | Lower | Upper      |
| 330         | 100   |            |
| 332         | 95.5  | 77.3 115.9 |
| 141         | 43.8  | 25.8 38.8  |





#45

2-Fluorobiphenyl

Concen: 15.421 ng

RT: 9.110 min Scan# 1194

Delta R.T. -0.018 min

Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

Instrument :

BNA\_F

ClientSampleId :

72-11986DL

Tgt Ion:172 Resp: 211984

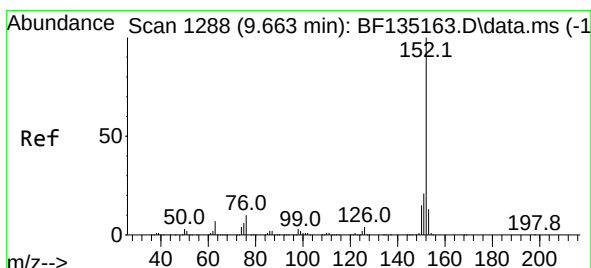
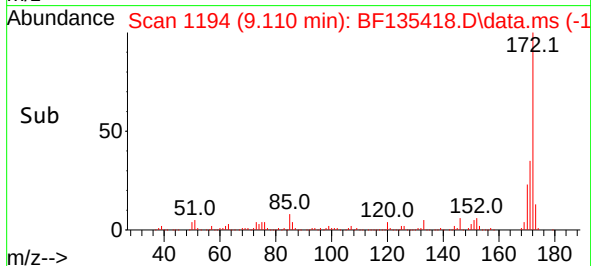
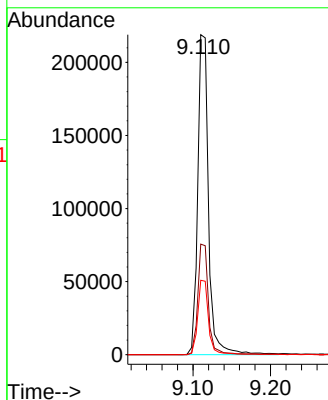
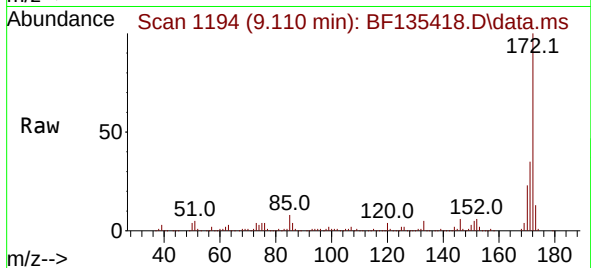
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 172 | 100   |       |       |
| 171 | 34.5  | 28.4  | 42.6  |
| 170 | 23.2  | 19.0  | 28.4  |

Manual Integrations

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Reviewed By :Yogesh Patel 09/25/2023

Supervised By :mohammad ahmed 09/27/2023



#49

Acenaphthylene

Concen: 7.752 ng

RT: 9.657 min Scan# 1287

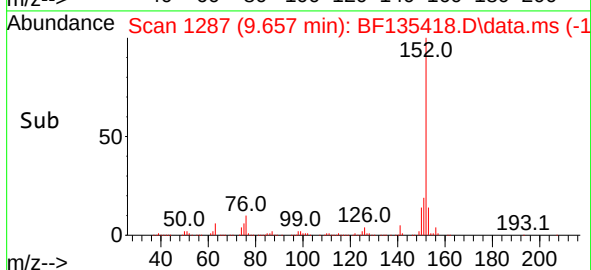
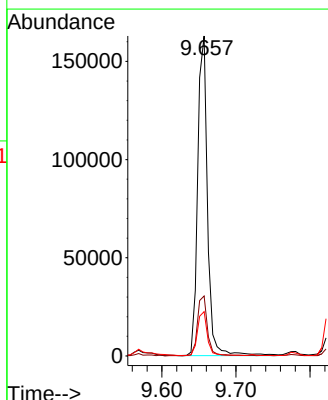
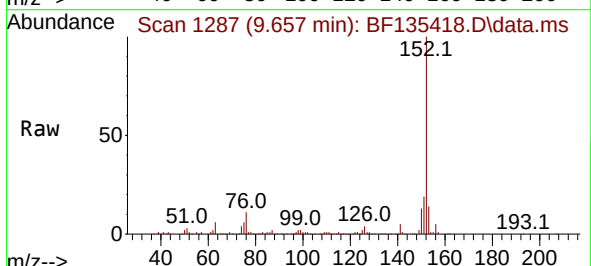
Delta R.T. -0.006 min

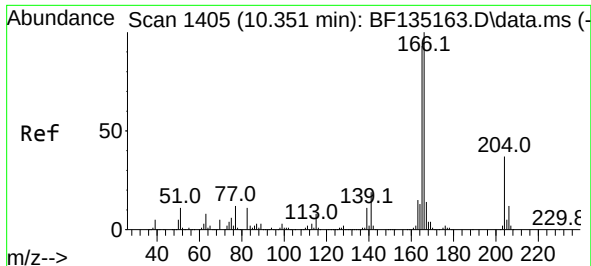
Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

Tgt Ion:152 Resp: 148982

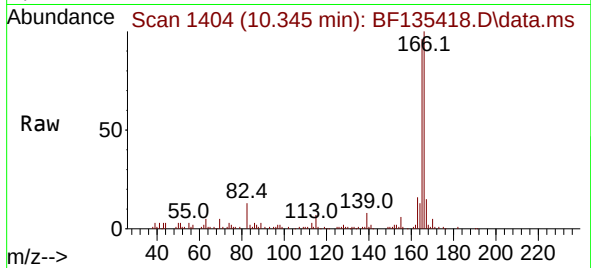
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 152 | 100   |       |       |
| 151 | 18.8  | 16.4  | 24.6  |
| 153 | 13.8  | 10.4  | 15.6  |





#58  
Fluorene  
Concen: 3.169 ng  
RT: 10.345 min Scan# 1405  
Delta R.T. -0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

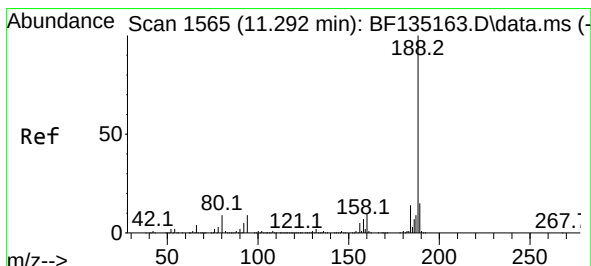
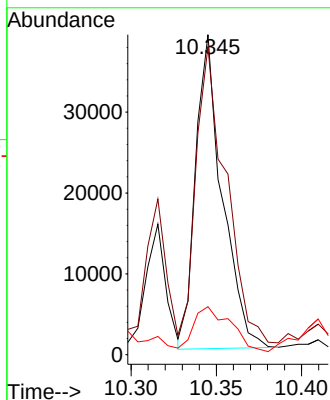
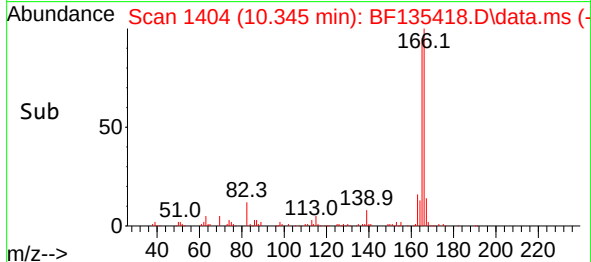
Instrument :  
BNA\_F  
ClientSampleId :  
72-11986DL



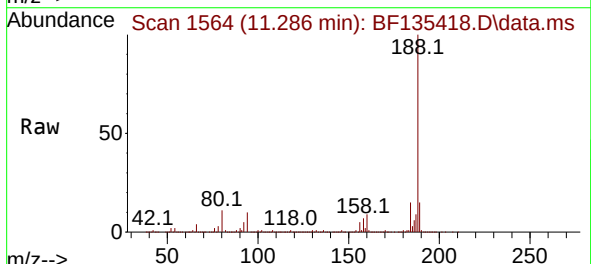
Tgt Ion:166 Resp: 42200  
Ion Ratio Lower Upper  
166 100  
165 96.2 74.3 111.5  
167 15.0 10.9 16.3

Manual Integrations  
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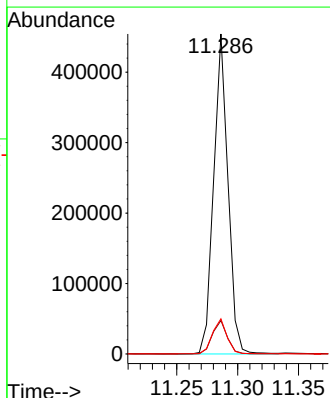
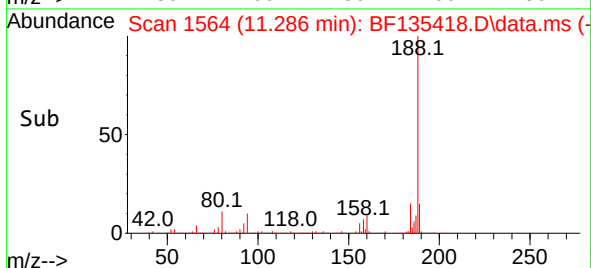
Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023



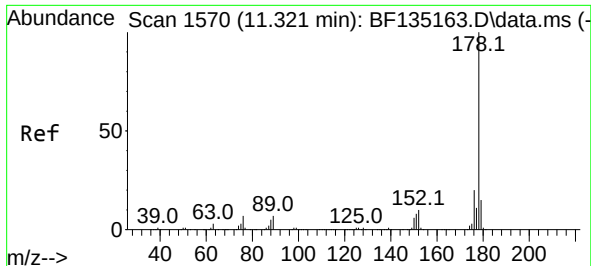
#64  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 11.286 min Scan# 1564  
Delta R.T. -0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08



Tgt Ion:188 Resp: 373001  
Ion Ratio Lower Upper  
188 100  
94 10.5 7.0 10.6  
80 11.0 7.5 11.3

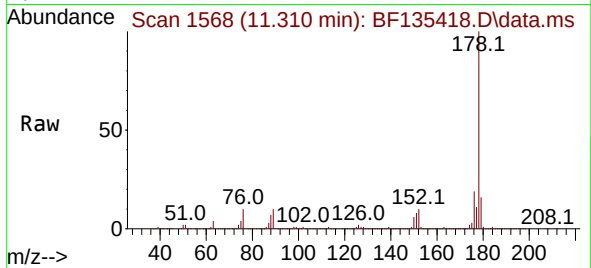






#71  
Phenanthrene  
Concen: 41.247 ng  
RT: 11.310 min Scan# 1568  
Delta R.T. -0.012 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

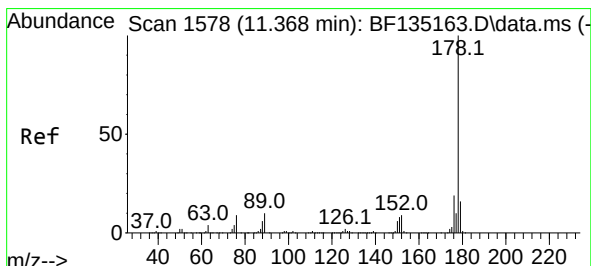
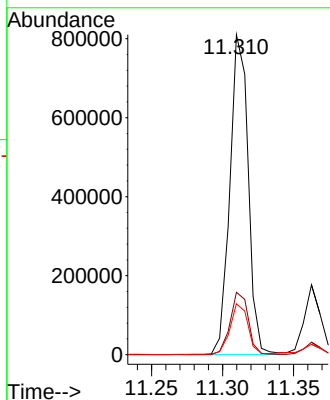
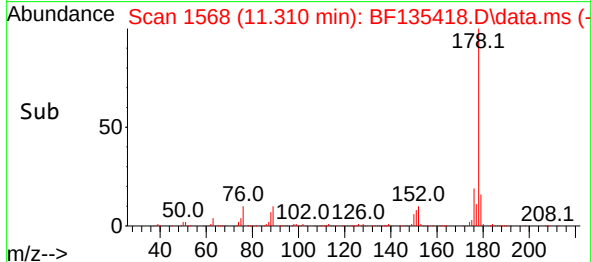
Instrument :  
BNA\_F  
ClientSampleId :  
72-11986DL



Tgt Ion:178 Resp: 72765  
Ion Ratio Lower Upper  
178 100  
176 19.5 15.6 23.4  
179 15.9 12.0 18.0

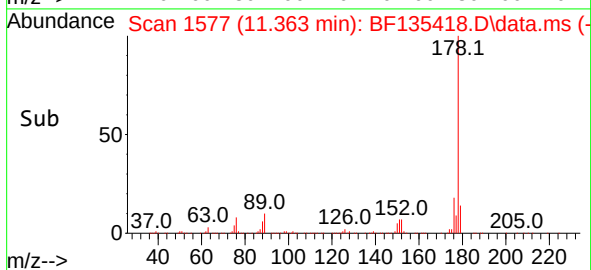
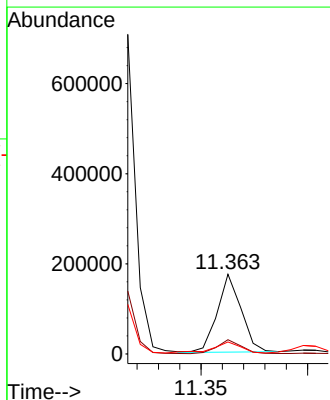
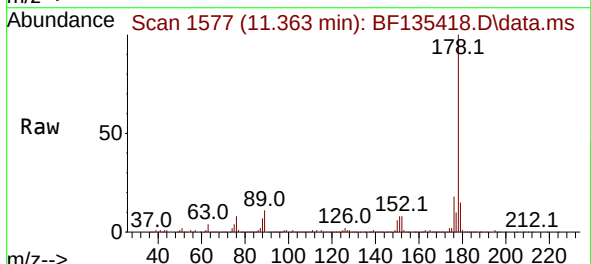
Manual Integrations  
APPROVED

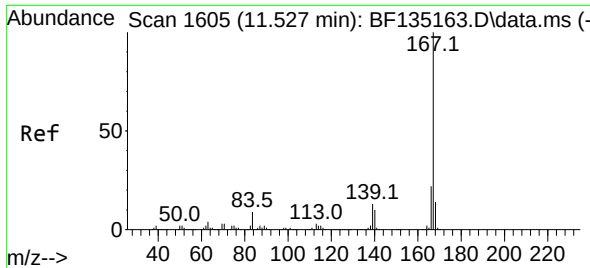
Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023



#72  
Anthracene  
Concen: 7.407 ng  
RT: 11.363 min Scan# 1577  
Delta R.T. -0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

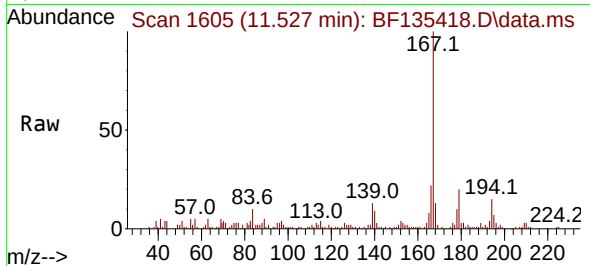
Tgt Ion:178 Resp: 134305  
Ion Ratio Lower Upper  
178 100  
176 17.9 15.4 23.2  
179 15.0 12.6 19.0





#73  
 Carbazole  
 Concen: 2.072 ng  
 RT: 11.527 min Scan# 1605  
 Delta R.T. 0.000 min  
 Lab File: BF135418.D  
 Acq: 23 Sep 2023 01:08

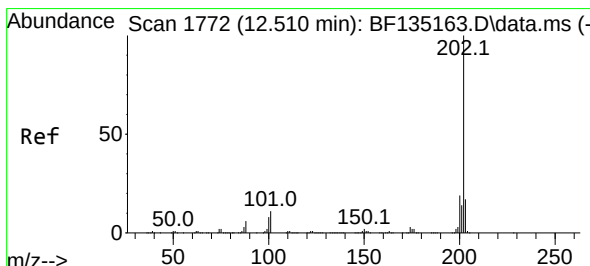
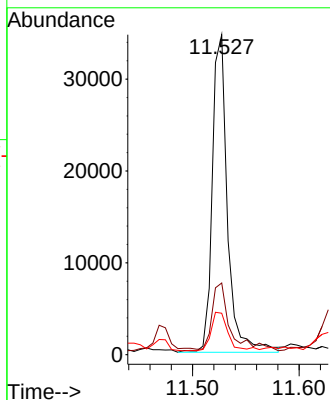
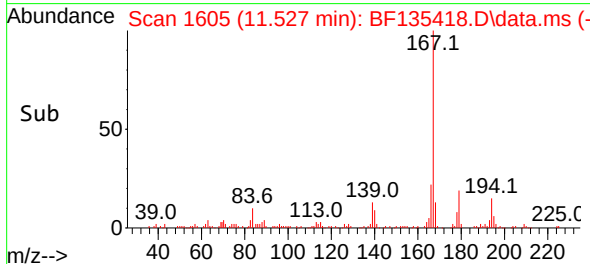
Instrument :  
 BNA\_F  
 ClientSampleId :  
 72-11986DL



Tgt Ion:167 Resp: 3420  
 Ion Ratio Lower Upper  
 167 100  
 166 22.4 17.4 26.0  
 139 13.0 10.6 15.8

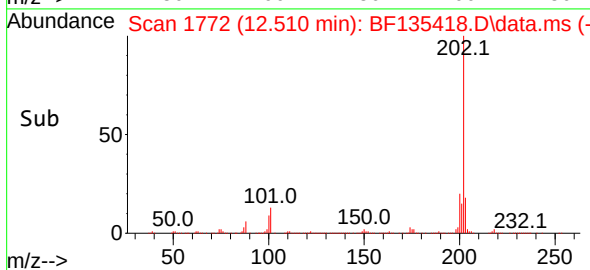
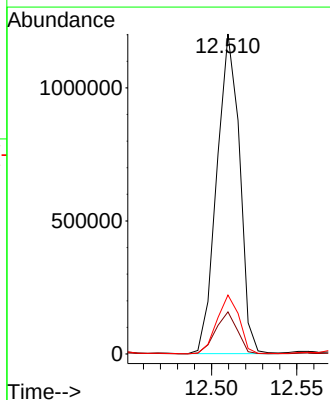
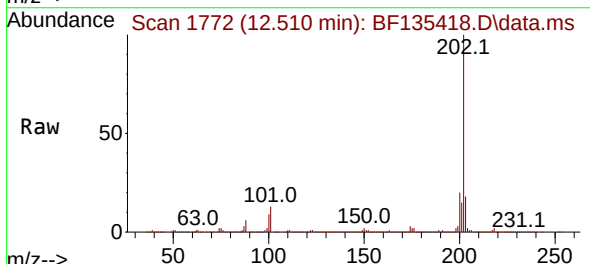
Manual Integrations  
 APPROVED

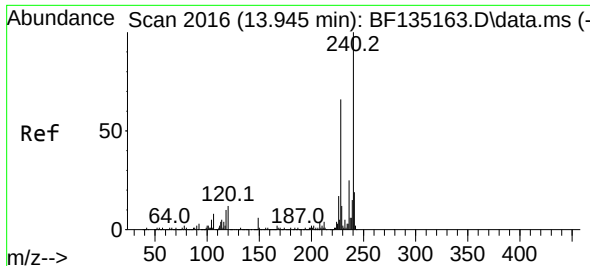
Reviewed By :Yogesh Patel 09/25/2023  
 Supervised By :mohammad ahmed 09/27/2023



#75  
 Fluoranthene  
 Concen: 60.875 ng  
 RT: 12.510 min Scan# 1772  
 Delta R.T. 0.000 min  
 Lab File: BF135418.D  
 Acq: 23 Sep 2023 01:08

Tgt Ion:202 Resp: 1119016  
 Ion Ratio Lower Upper  
 202 100  
 101 13.2 0.0 31.3  
 203 18.4 0.0 37.4





#76  
Chrysene-d12  
Concen: 20.000 ng  
RT: 13.951 min Scan# 2016  
Delta R.T. 0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

Instrument :

BNA\_F

ClientSampleId :

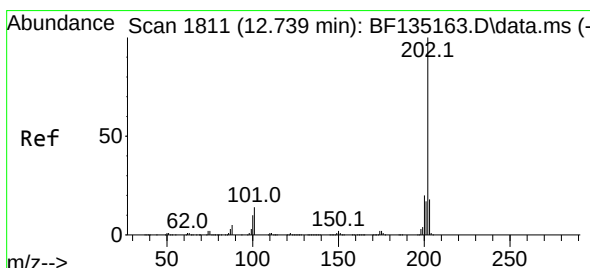
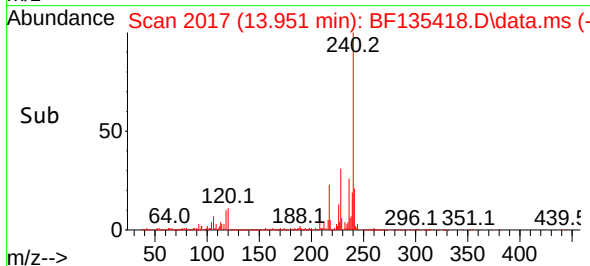
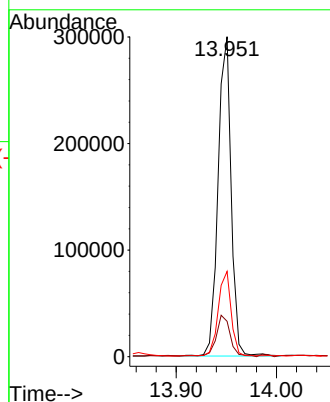
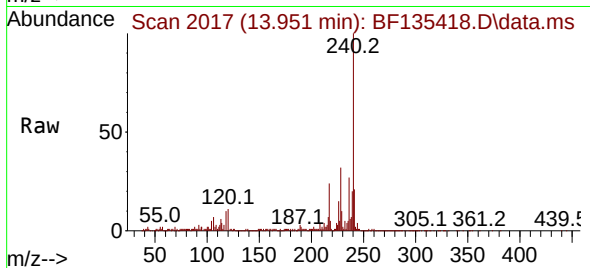
72-11986DL

Tgt Ion:240 Resp: 270558  
Ion Ratio Lower Upper  
240 100  
120 11.1 9.4 14.2  
236 26.7 19.8 29.8

Manual Integrations

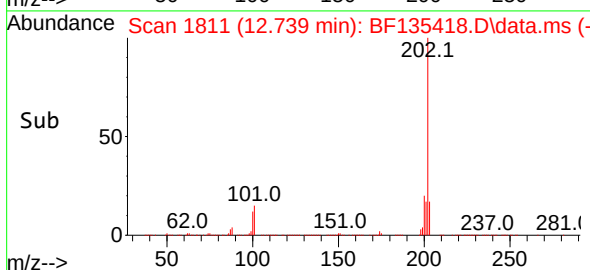
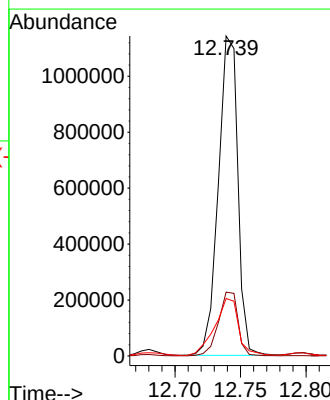
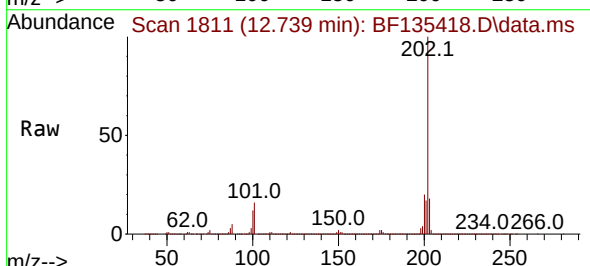
APPROVED

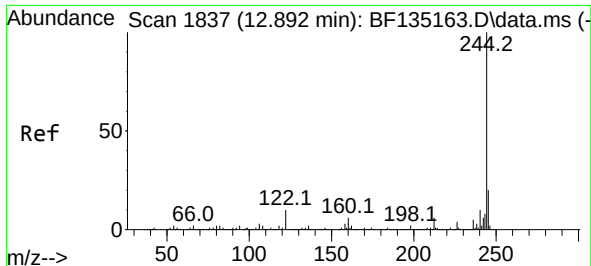
Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023



#78  
Pyrene  
Concen: 45.736 ng  
RT: 12.739 min Scan# 1811  
Delta R.T. 0.000 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

Tgt Ion:202 Resp: 1178112  
Ion Ratio Lower Upper  
202 100  
200 19.9 16.2 24.2  
203 18.0 14.2 21.4





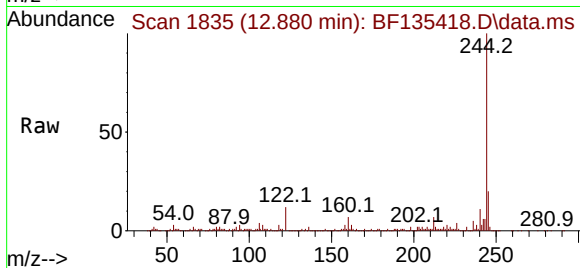
#79  
 Terphenyl-d14  
 Concen: 11.138 ng  
 RT: 12.880 min Scan# 1835  
 Delta R.T. -0.012 min  
 Lab File: BF135418.D  
 Acq: 23 Sep 2023 01:08

Instrument :

BNA\_F

ClientSampleId :

72-11986DL

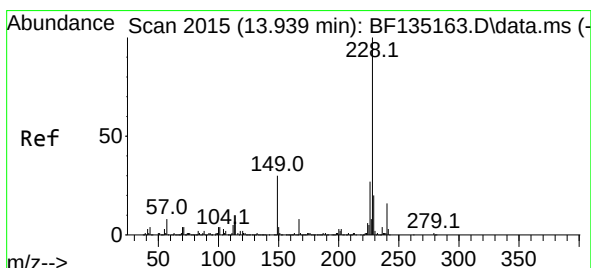
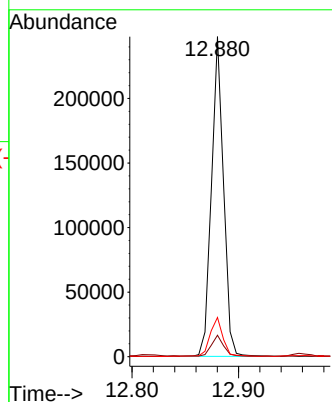
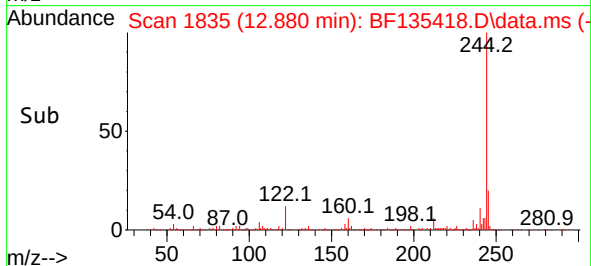


Tgt Ion:244 Resp: 194390  
 Ion Ratio Lower Upper  
 244 100  
 212 6.7 5.1 7.7  
 122 12.2 7.9 11.9

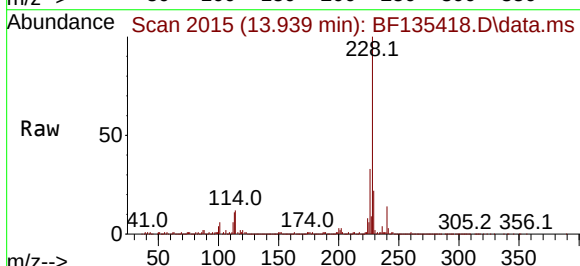
Manual Integrations

APPROVED

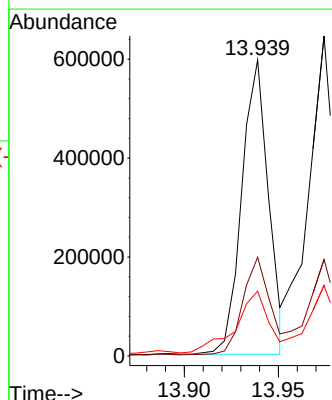
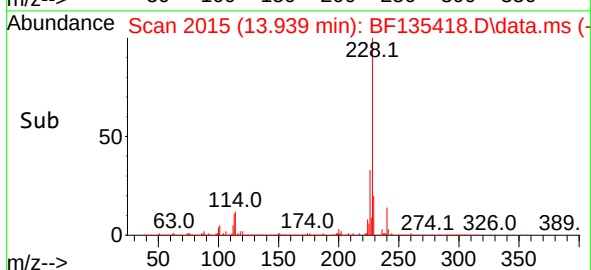
Reviewed By :Yogesh Patel 09/25/2023  
 Supervised By :mohammad ahmed 09/27/2023

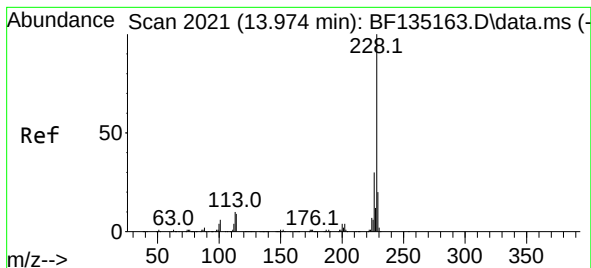


#81  
 Benzo(a)anthracene  
 Concen: 33.700 ng m  
 RT: 13.939 min Scan# 2015  
 Delta R.T. 0.000 min  
 Lab File: BF135418.D  
 Acq: 23 Sep 2023 01:08



Tgt Ion:228 Resp: 588757  
 Ion Ratio Lower Upper  
 228 100  
 226 33.3 21.7 32.5#  
 229 21.9 15.8 23.8





#83

Chrysene

Concen: 36.864 ng

RT: 13.974 min Scan# 2021

Delta R.T. 0.000 min

Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

Instrument :

BNA\_F

ClientSampleId :

72-11986DL

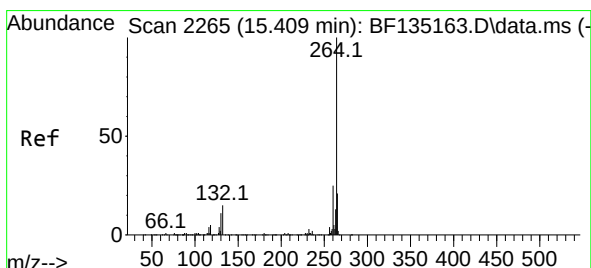
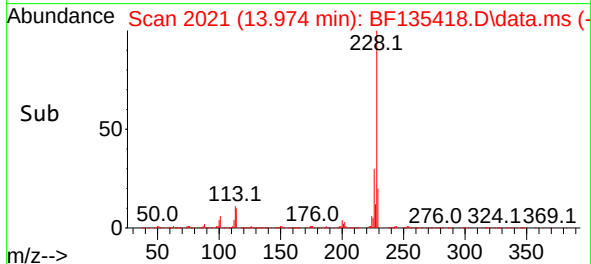
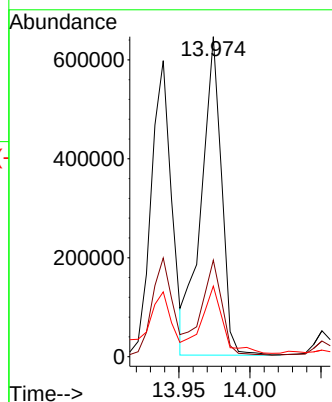
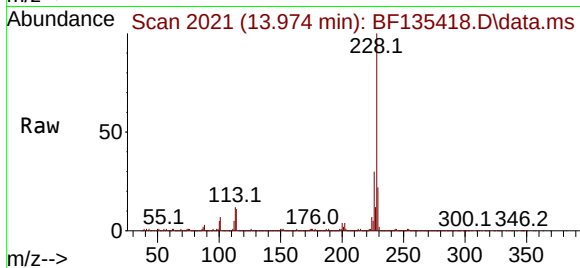
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 64032 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 30.2  | 24.3  | 36.5  |
| 229       | 22.1  | 16.0  | 24.0  |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 09/25/2023

Supervised By :mohammad ahmed 09/27/2023



#86

Perylene-d12

Concen: 20.000 ng

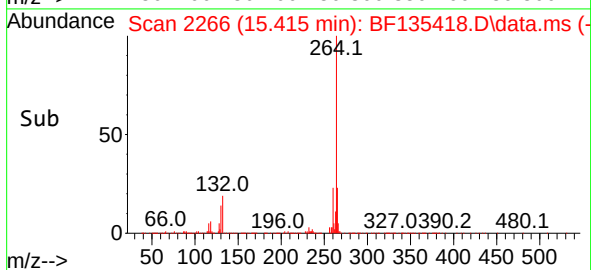
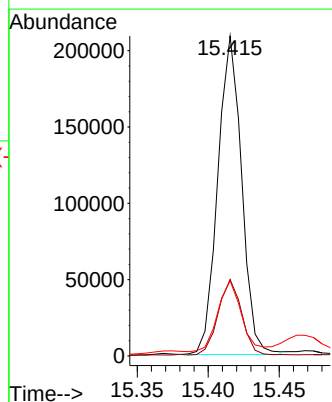
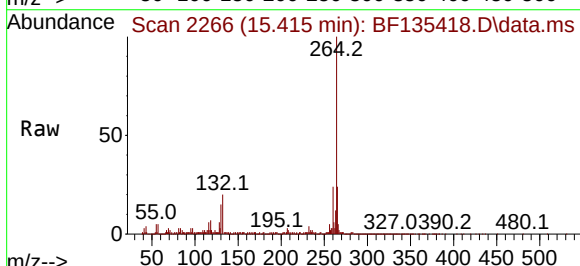
RT: 15.415 min Scan# 2266

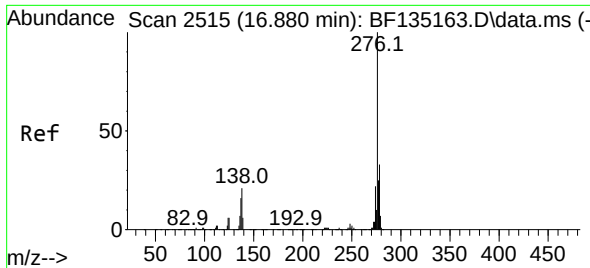
Delta R.T. 0.006 min

Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 264   | Resp: | 243281 |
| Ion Ratio | Lower | Upper |        |
| 264       | 100   |       |        |
| 260       | 23.9  | 19.8  | 29.6   |
| 265       | 23.5  | 17.0  | 25.4   |





#87  
Indeno(1,2,3-cd)pyrene  
Concen: 12.482 ng  
RT: 16.898 min Scan# 2118  
Delta R.T. 0.018 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

Instrument :

BNA\_F

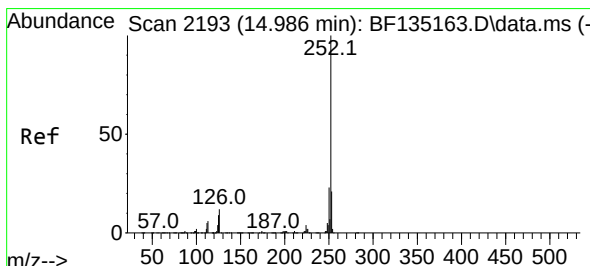
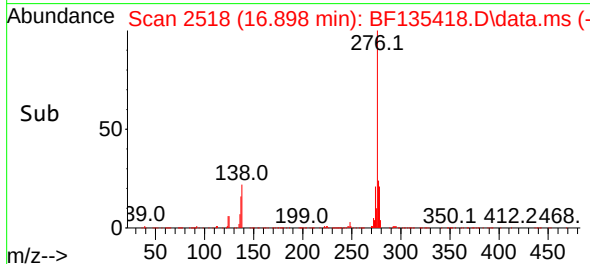
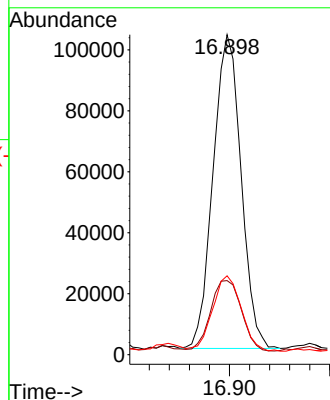
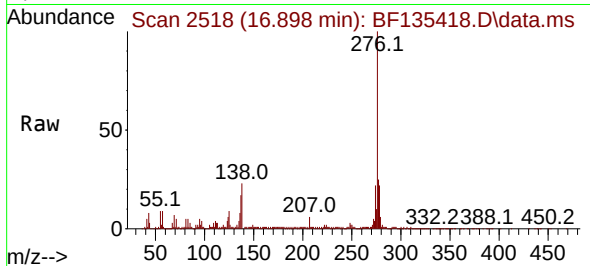
ClientSampleId :

72-11986DL

Tgt Ion:276 Resp: 199098  
Ion Ratio Lower Upper  
276 100  
138 24.7 19.2 28.8  
277 24.8 19.7 29.5

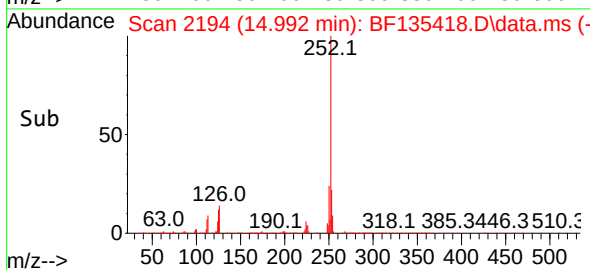
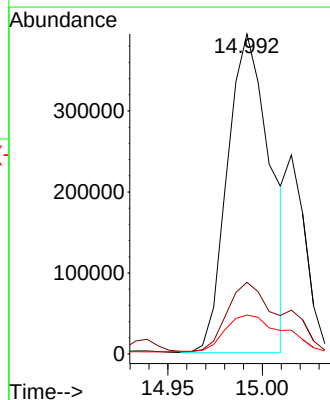
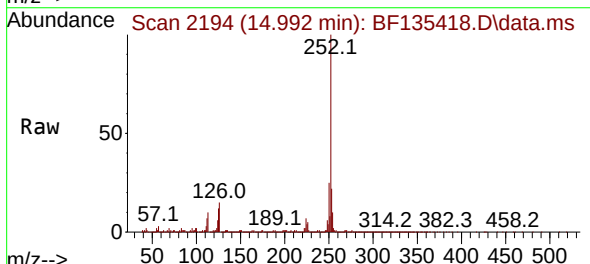
Manual Integrations  
APPROVED

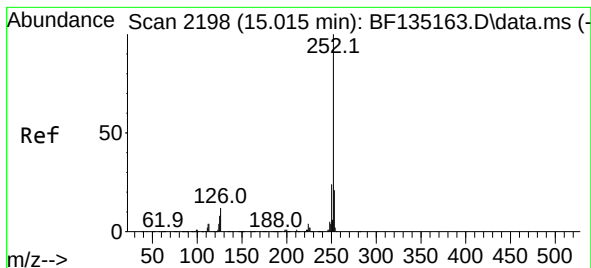
Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023



#88  
Benzo(b)fluoranthene  
Concen: 47.254 ng m  
RT: 14.992 min Scan# 2194  
Delta R.T. 0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

Tgt Ion:252 Resp: 622324  
Ion Ratio Lower Upper  
252 100  
253 22.4 17.2 25.8  
125 12.2 7.1 10.7#





#89

Benzo(k)fluoranthene

Concen: 13.210 ng m

RT: 15.015 min Scan# 2198

Delta R.T. 0.000 min

Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

Instrument :

BNF

ClientSampleId :

72-11986DL

Tgt Ion:252 Resp: 171850

Ion Ratio Lower Upper

252 100

253 22.0 17.4 26.0

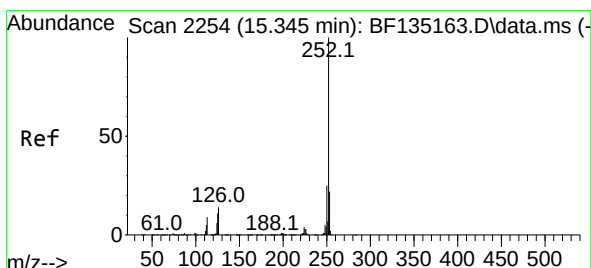
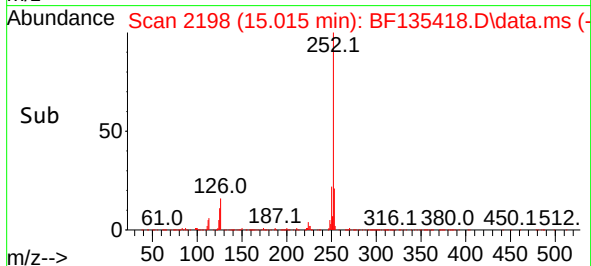
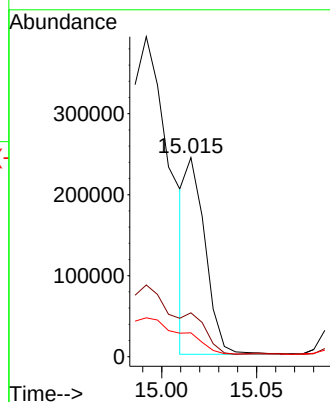
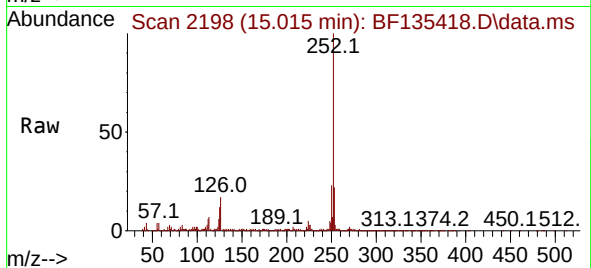
125 12.0 7.2 10.8

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 09/25/2023

Supervised By :mohammad ahmed 09/27/2023



#90

Benzo(a)pyrene

Concen: 31.206 ng

RT: 15.357 min Scan# 2256

Delta R.T. 0.012 min

Lab File: BF135418.D

Acq: 23 Sep 2023 01:08

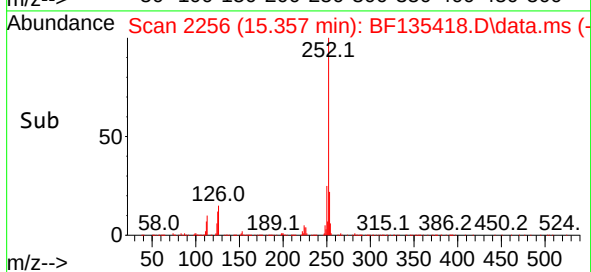
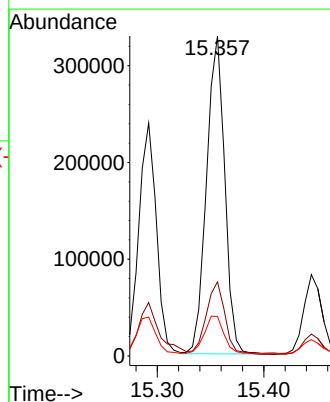
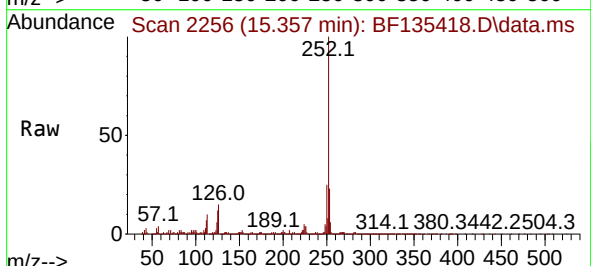
Tgt Ion:252 Resp: 391913

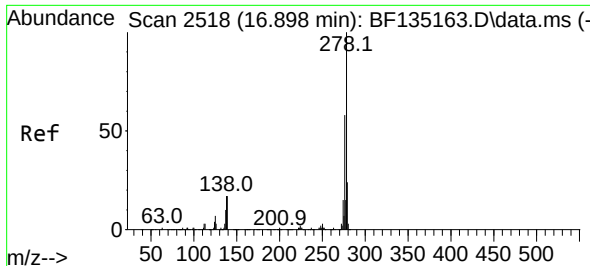
Ion Ratio Lower Upper

252 100

253 23.1 17.5 26.3

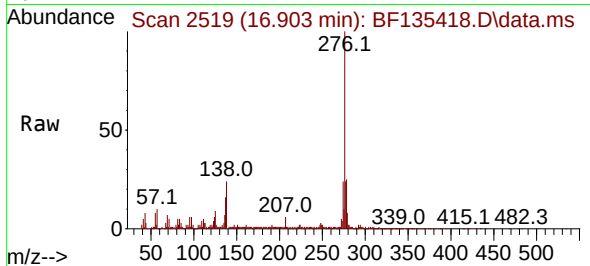
125 12.4 9.2 13.8





#91  
Dibenzo(a,h)anthracene  
Concen: 4.443 ng  
RT: 16.903 min Scan# 2518  
Delta R.T. 0.006 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08

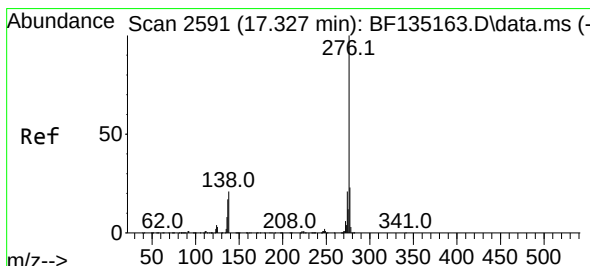
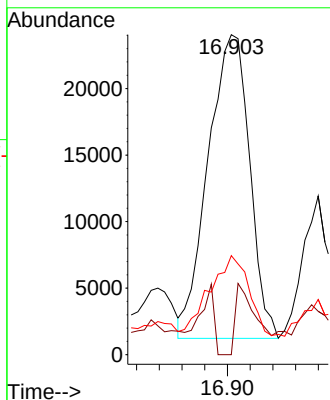
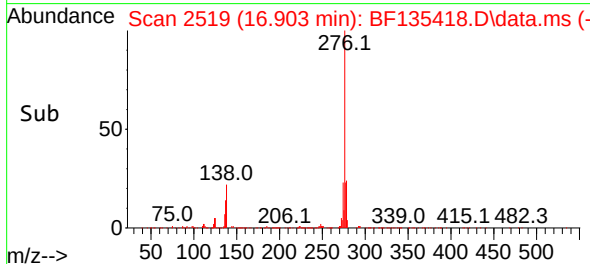
Instrument :  
BNA\_F  
ClientSampleId :  
72-11986DL



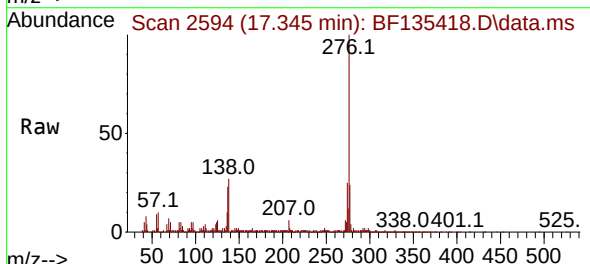
Tgt Ion:278 Resp: 57984  
Ion Ratio Lower Upper  
278 100  
139 0.0 13.4 20.0  
279 31.0 19.0 28.6

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 09/25/2023  
Supervised By :mohammad ahmed 09/27/2023



#92  
Benzo(g,h,i)perylene  
Concen: 14.313 ng  
RT: 17.345 min Scan# 2594  
Delta R.T. 0.018 min  
Lab File: BF135418.D  
Acq: 23 Sep 2023 01:08



Tgt Ion:276 Resp: 195100  
Ion Ratio Lower Upper  
276 100  
277 24.1 18.8 28.2  
138 26.9 16.9 25.3

