

Data Path : Z:\svoasrv\HPCHEM1\BNA\_G\Data\BG102022\  
 Data File : BG055226.D  
 Acq On : 20 Oct 2022 19:13  
 Operator : CG/JU  
 Sample : N5184-01  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 EO-02-101822

Manual Integrations  
 APPROVED

Reviewed By : Christian Giraldo 10/21/2022  
 Supervised By : Jagrut Upadhyay 10/21/2022

Quant Time: Oct 21 03:06:58 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_G\Methods\8270-BG101922.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Oct 20 09:21:42 2022  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|-----------------------------|--------|------|----------|---------|-------|----------|
| -----                       |        |      |          |         |       |          |
| Internal Standards          |        |      |          |         |       |          |
| 1) 1,4-Dichlorobenzene-d4   | 8.287  | 152  | 65446    | 20.000  | ng    | 0.00     |
| 21) Naphthalene-d8          | 11.119 | 136  | 270469   | 20.000  | ng    | 0.00     |
| 39) Acenaphthene-d10        | 14.897 | 164  | 147359   | 20.000  | ng    | 0.00     |
| 64) Phenanthrene-d10        | 17.629 | 188  | 272536   | 20.000  | ng    | 0.00     |
| 76) Chrysene-d12            | 21.918 | 240  | 233465   | 20.000  | ng    | 0.00     |
| 86) Perylene-d12            | 25.343 | 264  | 234055   | 20.000  | ng    | 0.01     |
|                             |        |      |          |         |       |          |
| System Monitoring Compounds |        |      |          |         |       |          |
| 5) 2-Fluorophenol           | 5.807  | 112  | 484385   | 133.160 | ng    | 0.00     |
| 7) Phenol-d6                | 7.423  | 99   | 686388   | 123.831 | ng    | 0.00     |
| 23) Nitrobenzene-d5         | 9.462  | 82   | 444777   | 79.391  | ng    | 0.00     |
| 42) 2,4,6-Tribromophenol    | 16.377 | 330  | 144762   | 94.805  | ng    | 0.00     |
| 45) 2-Fluorobiphenyl        | 13.528 | 172  | 720237   | 78.070  | ng    | 0.00     |
| 79) Terphenyl-d14           | 20.208 | 244  | 818208   | 65.302  | ng    | 0.00     |
|                             |        |      |          |         |       |          |
| Target Compounds            |        |      |          |         |       | Qvalue   |
| 52) Acenaphthene            | 14.961 | 154  | 25967    | 2.968   | ng    | 91       |
| 55) Dibenzofuran            | 15.290 | 168  | 38864    | 3.084   | ng    | # 94     |
| 58) Fluorene                | 15.937 | 166  | 46703    | 4.400   | ng    | 96       |
| 71) Phenanthrene            | 17.676 | 178  | 640503   | 44.042  | ng    | 99       |
| 72) Anthracene              | 17.764 | 178  | 183792   | 12.933  | ng    | 99       |
| 73) Carbazole               | 18.022 | 167  | 80655    | 6.163   | ng    | 99       |
| 75) Fluoranthene            | 19.667 | 202  | 881647   | 54.729  | ng    | 99       |
| 78) Pyrene                  | 20.026 | 202  | 741155   | 42.131  | ng    | 99       |
| 81) Benzo(a)anthracene      | 21.894 | 228  | 375799   | 24.816  | ng    | 97       |
| 83) Chrysene                | 21.965 | 228  | 324104   | 22.982  | ng    | 97       |
| 87) Indeno(1,2,3-cd)pyrene  | 29.280 | 276  | 127763   | 7.848   | ng    | # 84     |
| 88) Benzo(b)fluoranthene    | 24.250 | 252  | 369397   | 26.577  | ng    | # 82     |
| 89) Benzo(k)fluoranthene    | 24.309 | 252  | 157995m  | 11.224  | ng    |          |
| 90) Benzo(a)pyrene          | 25.179 | 252  | 271674   | 22.773  | ng    | # 88     |
| 91) Dibenzo(a,h)anthracene  | 29.309 | 278  | 37207m   | 2.790   | ng    |          |
| 92) Benzo(g,h,i)perylene    | 30.519 | 276  | 111898   | 8.661   | ng    | # 83     |

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

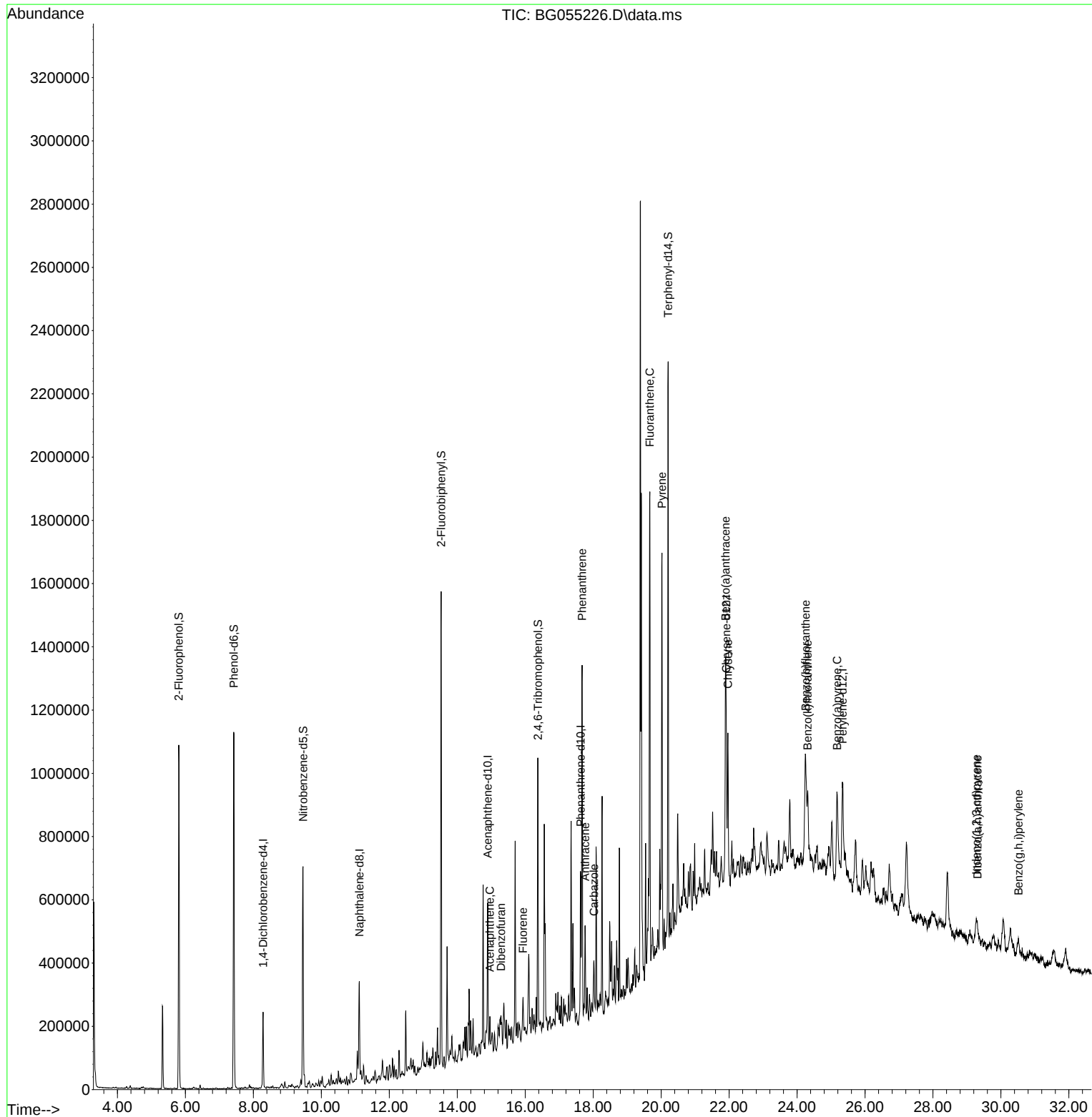
Data Path : Z:\svoasrv\HPCHEM1\BNA\_G\Data\BG102022\  
Data File : BG055226.D  
Acq On : 20 Oct 2022 19:13  
Operator : CG/JU  
Sample : N5184-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

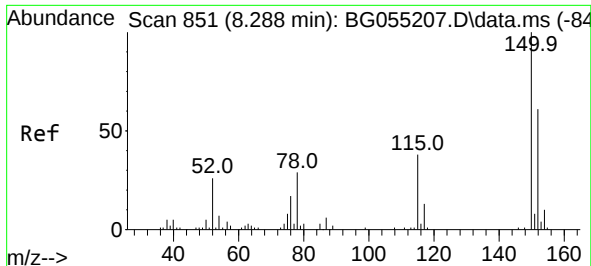
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822

Quant Time: Oct 21 03:06:58 2022  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_G\Methods\8270-BG101922.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Oct 20 09:21:42 2022  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By : Christian Giraldo 10/21/2022  
Supervised By : Jagrut Upadhyay 10/21/2022





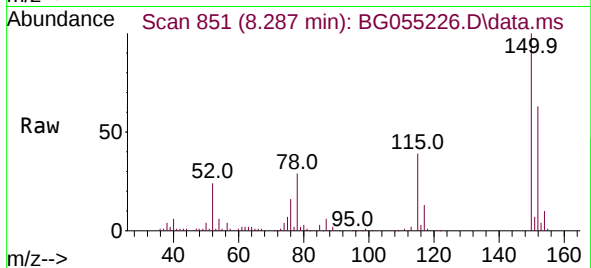
#1  
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 8.287 min Scan# 851  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

Instrument :

BNA\_G

ClientSampleId :

EO-02-101822

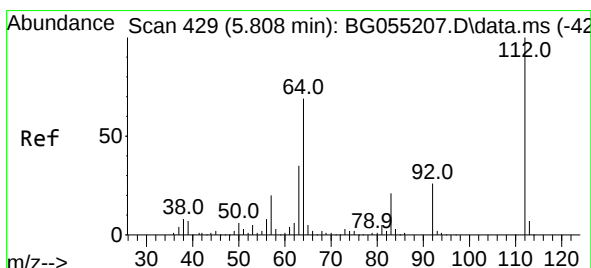
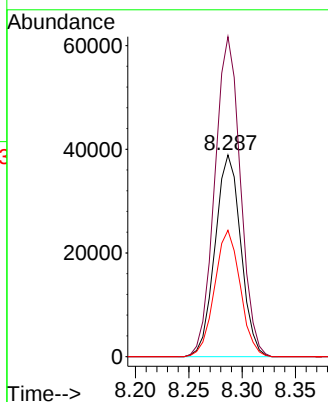
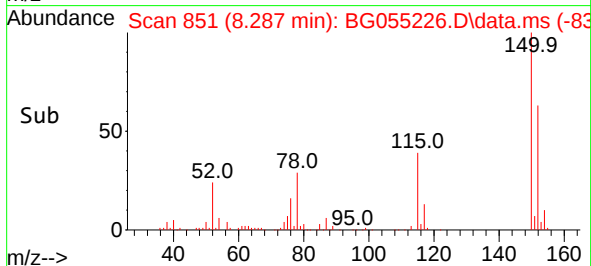


Tgt Ion:152 Resp: 65446  
Ion Ratio Lower Upper  
152 100  
150 158.6 130.2 195.2  
115 62.6 50.0 75.0

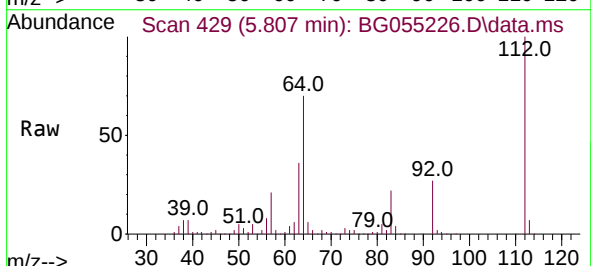
Manual Integrations

APPROVED

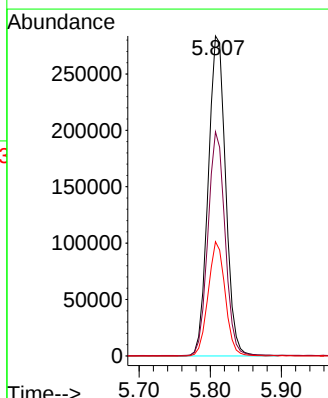
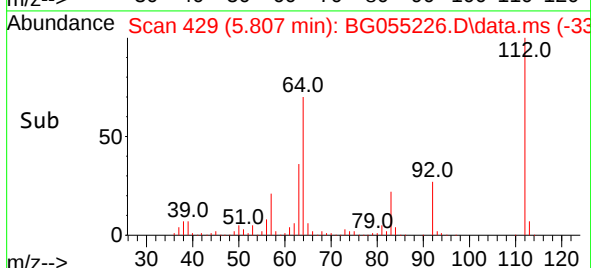
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022

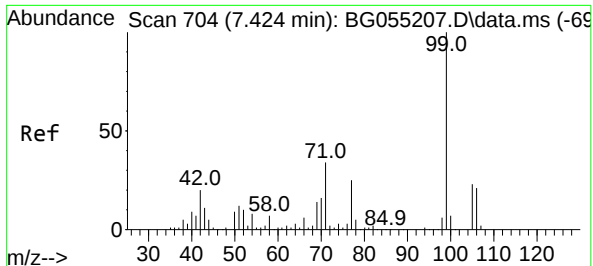


#5  
2-Fluorophenol  
Concen: 133.160 ng  
RT: 5.807 min Scan# 429  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13



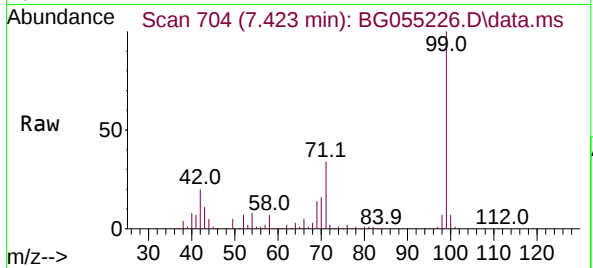
Tgt Ion:112 Resp: 484385  
Ion Ratio Lower Upper  
112 100  
64 70.0 55.1 82.7  
63 35.7 27.8 41.6





#7  
Phenol-d6  
Concen: 123.831 ng  
RT: 7.423 min Scan# 704  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

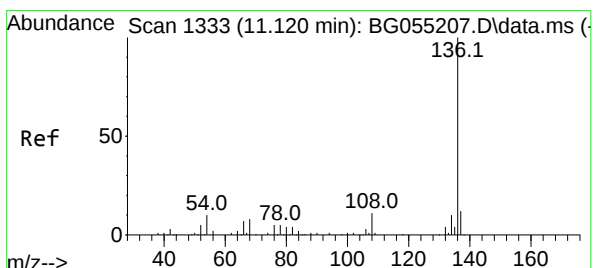
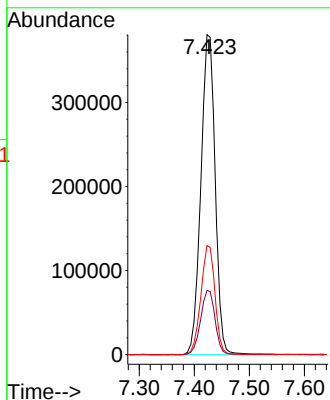
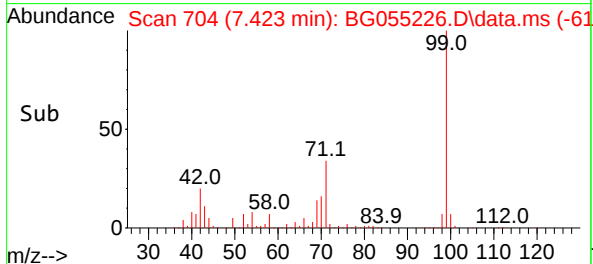
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822



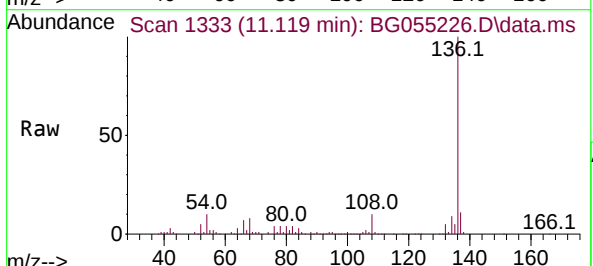
Tgt Ion: 99 Resp: 686388  
Ion Ratio Lower Upper  
99 100  
42 20.1 16.2 24.4  
71 34.1 27.3 40.9

Manual Integrations  
APPROVED

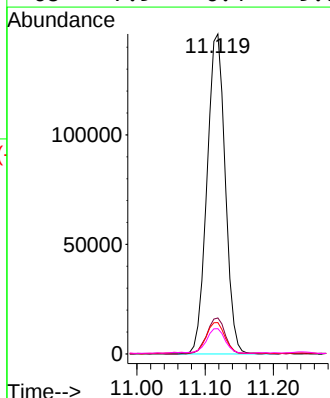
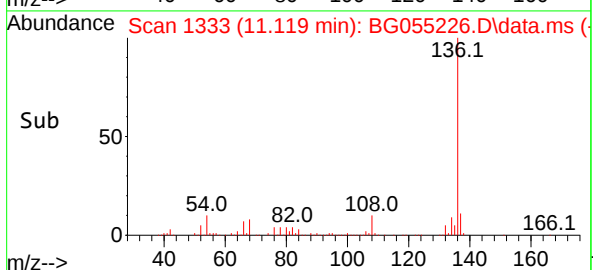
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022

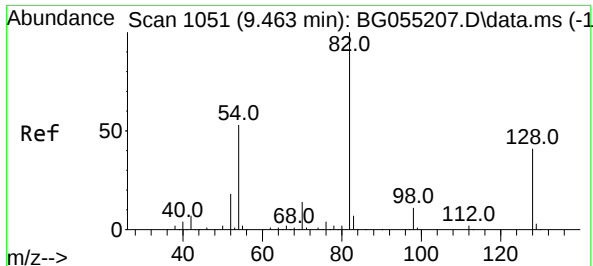


#21  
Naphthalene-d8  
Concen: 20.000 ng  
RT: 11.119 min Scan# 1333  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13



Tgt Ion:136 Resp: 270469  
Ion Ratio Lower Upper  
136 100  
137 11.2 9.3 13.9  
54 9.8 8.2 12.4  
68 7.9 6.4 9.6





#23

Nitrobenzene-d5

Concen: 79.391 ng

RT: 9.462 min Scan# 1051

Delta R.T. -0.001 min

Lab File: BG055226.D

Acq: 20 Oct 2022 19:13

Instrument :

BNA\_G

ClientSampleId :

EO-02-101822

Tgt Ion: 82 Resp: 444777

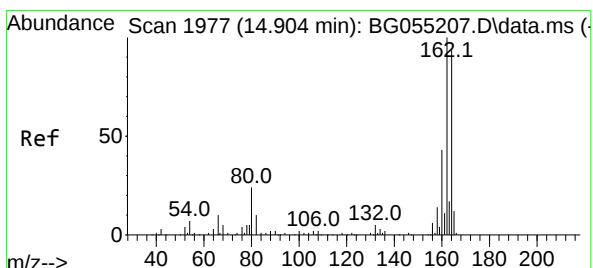
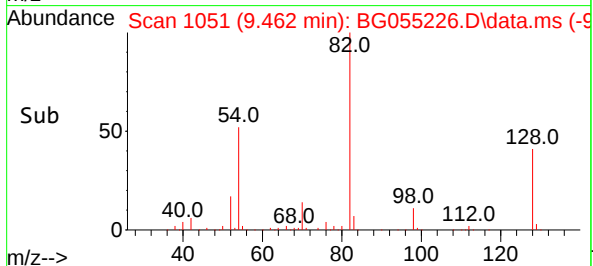
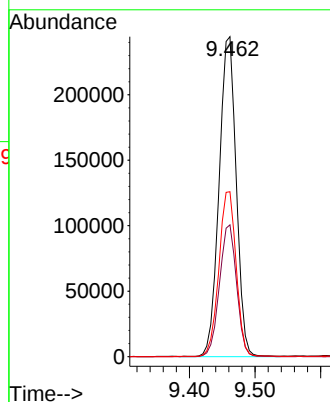
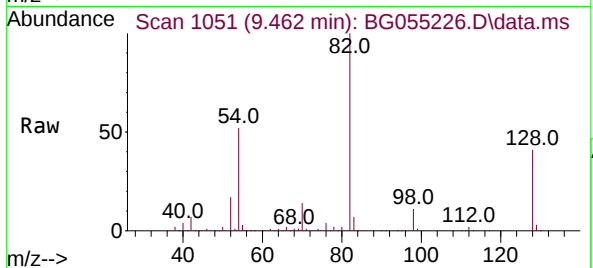
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 82  | 100   |       |       |
| 128 | 41.2  | 32.3  | 48.5  |
| 54  | 51.5  | 42.6  | 63.8  |

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 10/21/2022

Supervised By :Jagrut Upadhyay 10/21/2022



#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 14.897 min Scan# 1976

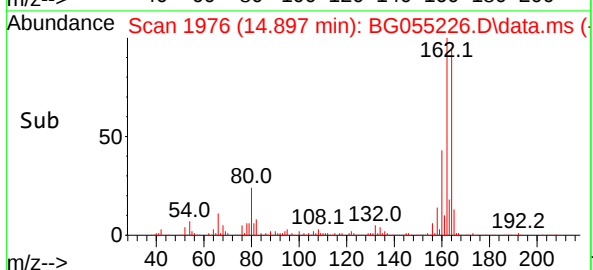
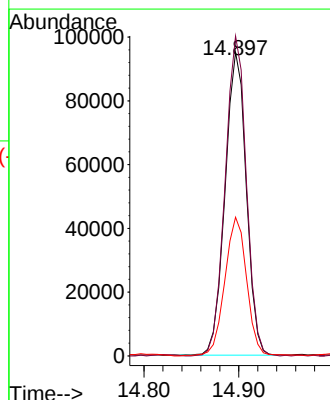
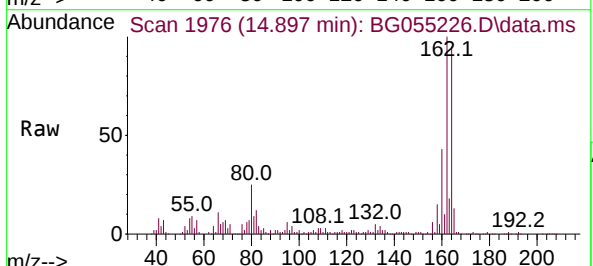
Delta R.T. -0.007 min

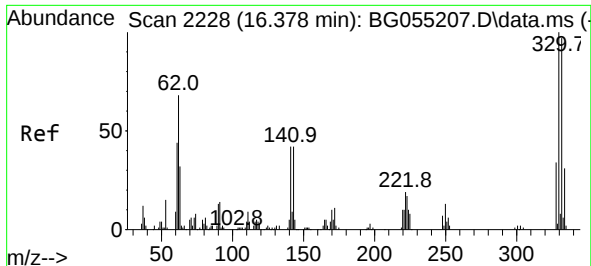
Lab File: BG055226.D

Acq: 20 Oct 2022 19:13

Tgt Ion:164 Resp: 147359

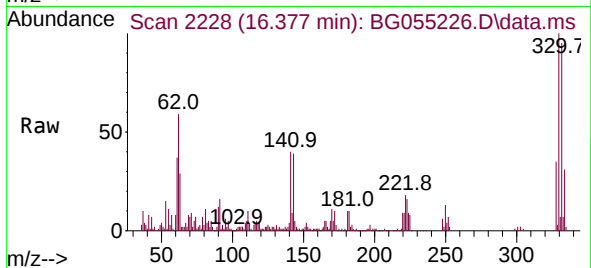
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 162 | 105.4 | 85.2  | 127.8 |
| 160 | 45.7  | 36.4  | 54.6  |





#42  
2,4,6-Tribromophenol  
Concen: 94.805 ng  
RT: 16.377 min Scan# 21  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

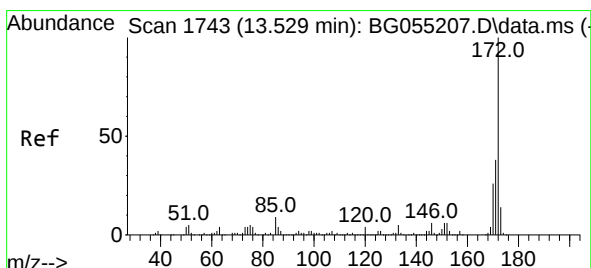
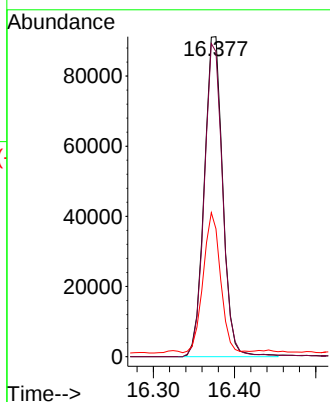
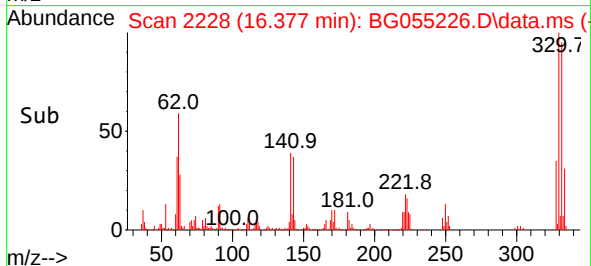
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822



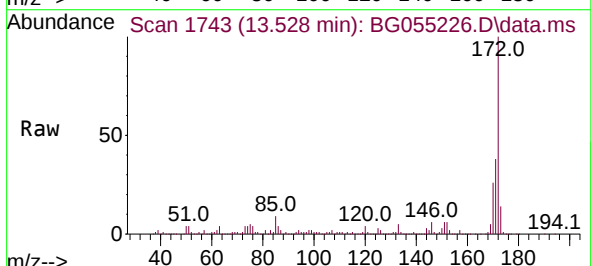
Tgt Ion:330 Resp: 144762  
Ion Ratio Lower Upper  
330 100  
332 97.2 77.5 116.3  
141 41.0 33.5 50.3

Manual Integrations  
APPROVED

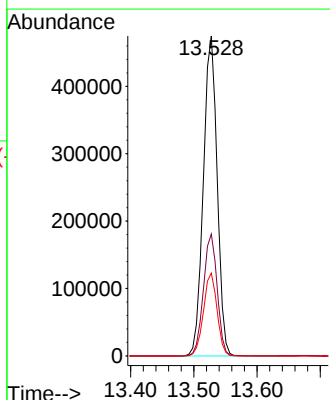
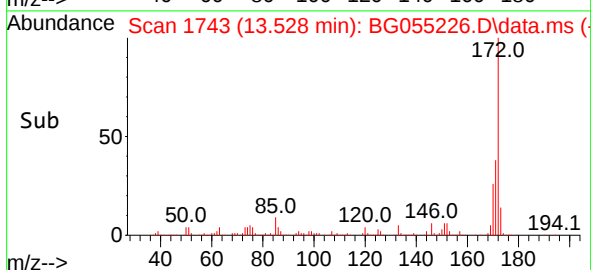
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022

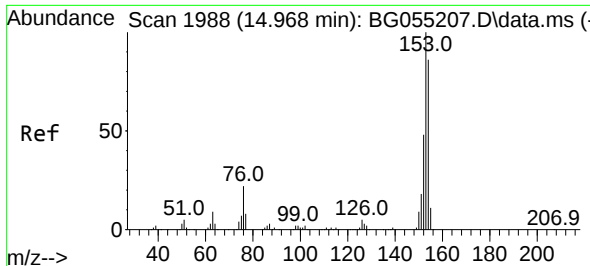


#45  
2-Fluorobiphenyl  
Concen: 78.070 ng  
RT: 13.528 min Scan# 1743  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13



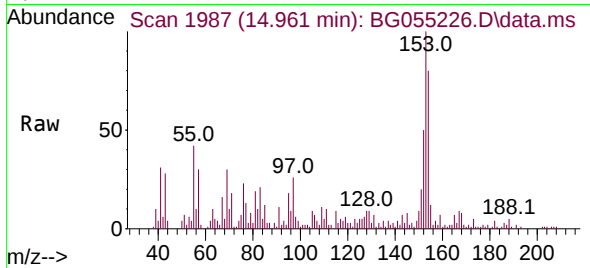
Tgt Ion:172 Resp: 720237  
Ion Ratio Lower Upper  
172 100  
171 38.1 30.3 45.5  
170 25.9 20.6 30.8





#52  
Acenaphthene  
Concen: 2.968 ng  
RT: 14.961 min Scan# 1987  
Delta R.T. -0.007 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

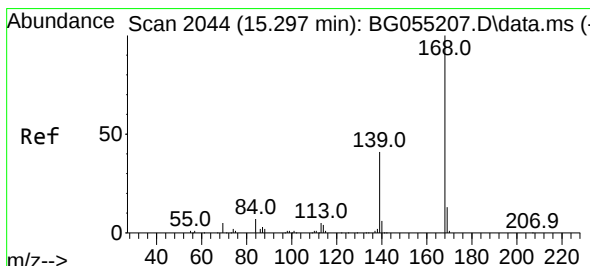
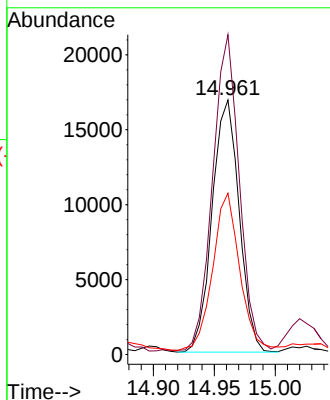
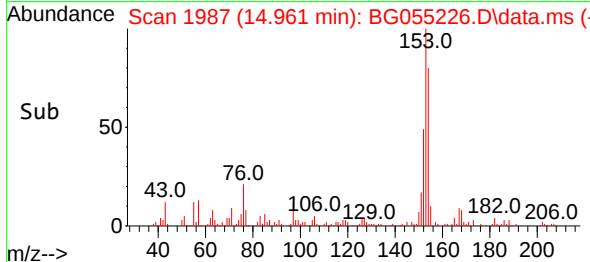
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822



Tgt Ion:154 Resp: 25962  
Ion Ratio Lower Upper  
154 100  
153 125.7 93.3 139.9  
152 63.4 45.1 67.7

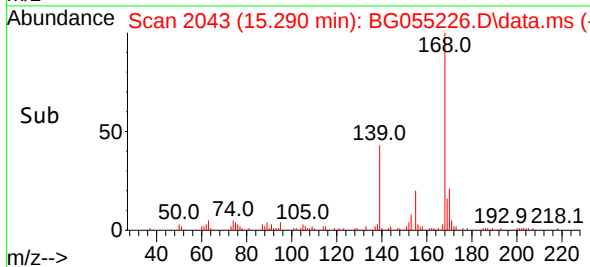
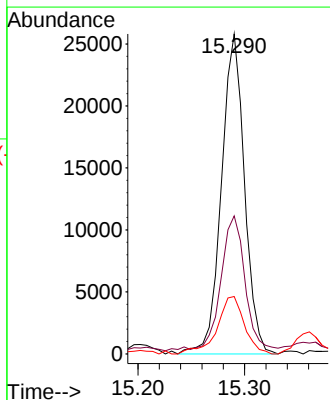
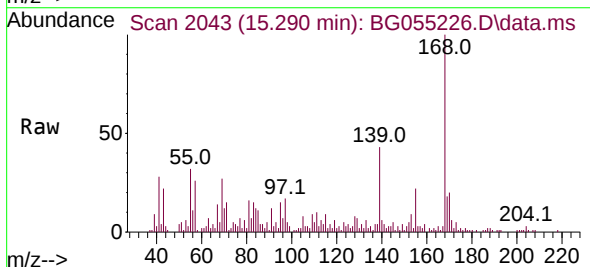
Manual Integrations  
APPROVED

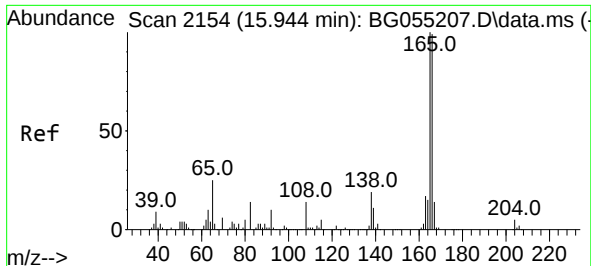
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022



#55  
Dibenzofuran  
Concen: 3.084 ng  
RT: 15.290 min Scan# 2043  
Delta R.T. -0.007 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

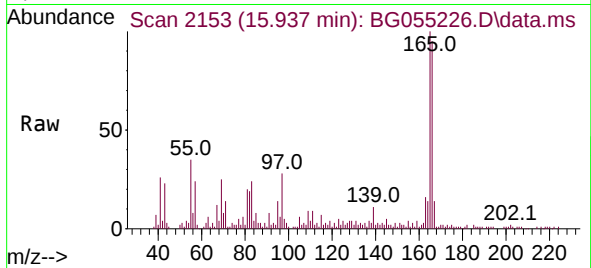
Tgt Ion:168 Resp: 38864  
Ion Ratio Lower Upper  
168 100  
139 43.1 32.6 48.8  
169 17.9 10.7 16.1#





#58  
Fluorene  
Concen: 4.400 ng  
RT: 15.937 min Scan# 2153  
Delta R.T. -0.007 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

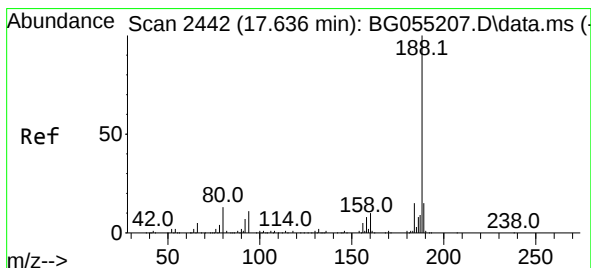
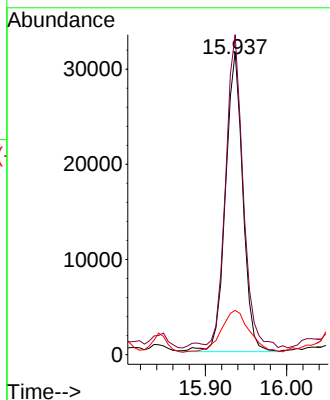
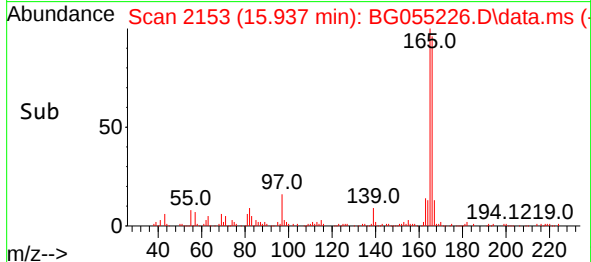
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822



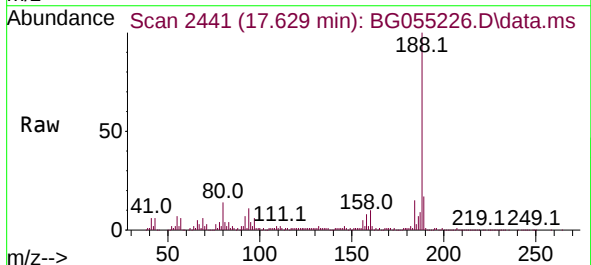
Tgt Ion:166 Resp: 46703  
Ion Ratio Lower Upper  
166 100  
165 105.8 81.0 121.6  
167 14.6 11.0 16.4

Manual Integrations  
APPROVED

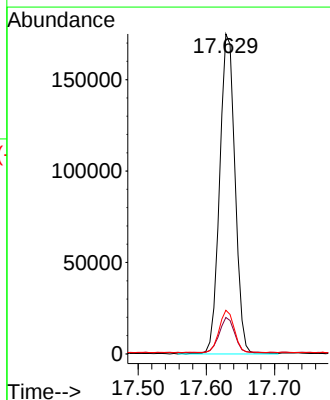
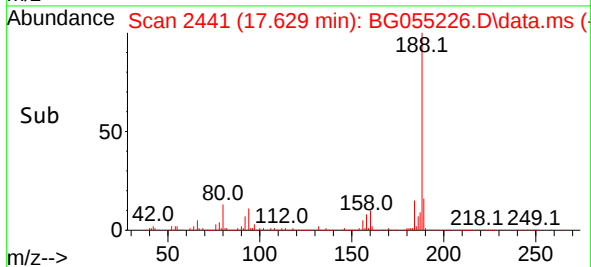
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022

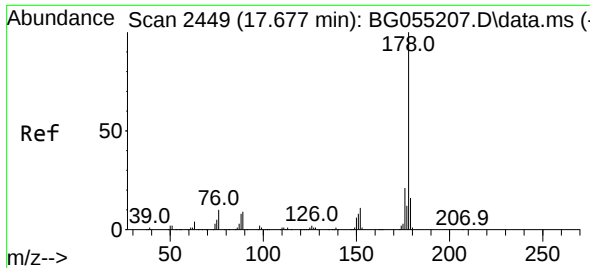


#64  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 17.629 min Scan# 2441  
Delta R.T. -0.007 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13



Tgt Ion:188 Resp: 272536  
Ion Ratio Lower Upper  
188 100  
94 11.4 8.6 12.8  
80 13.6 10.4 15.6





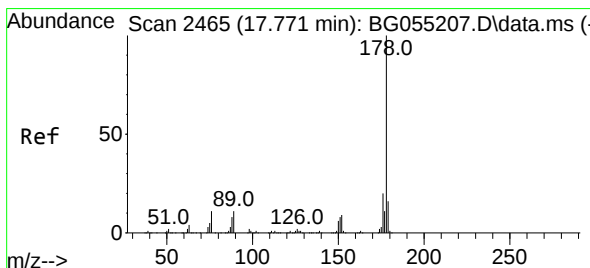
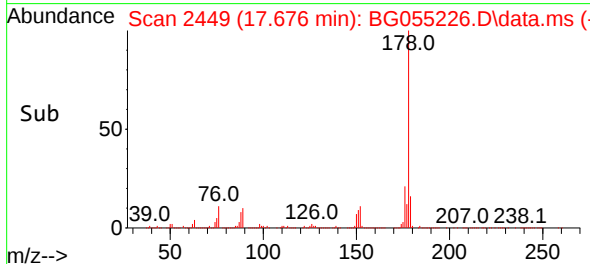
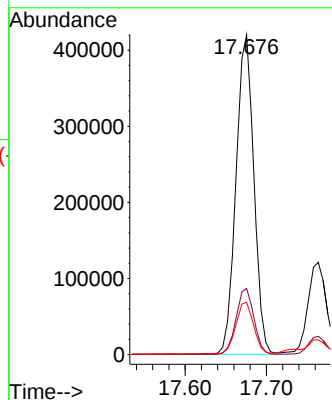
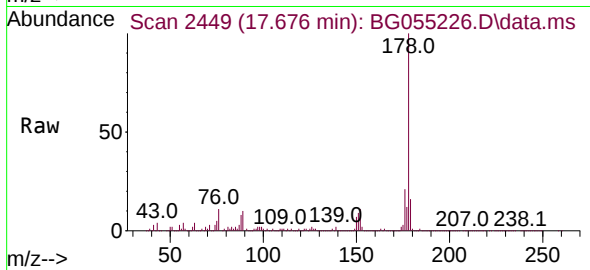
#71  
Phenanthrene  
Concen: 44.042 ng  
RT: 17.676 min Scan# 2449  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822

Tgt Ion:178 Resp: 640503  
Ion Ratio Lower Upper  
178 100  
176 20.7 16.4 24.6  
179 16.4 12.8 19.2

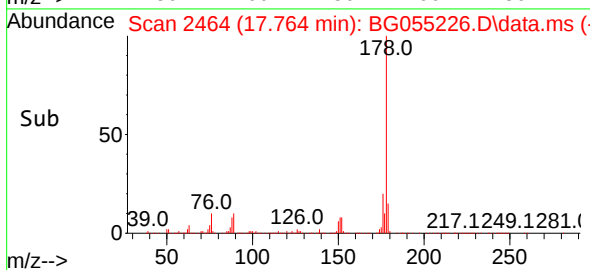
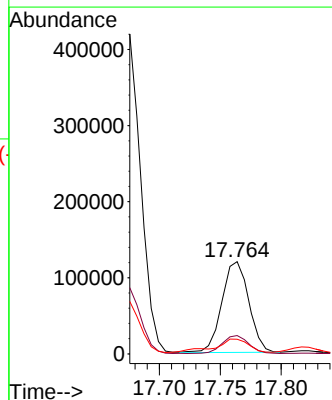
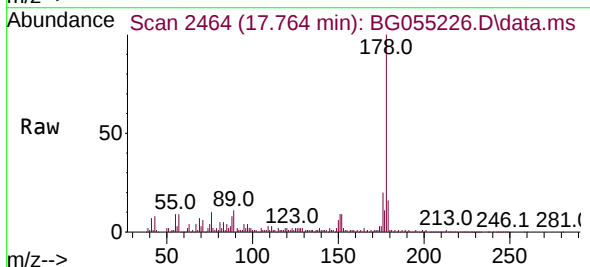
Manual Integrations  
APPROVED

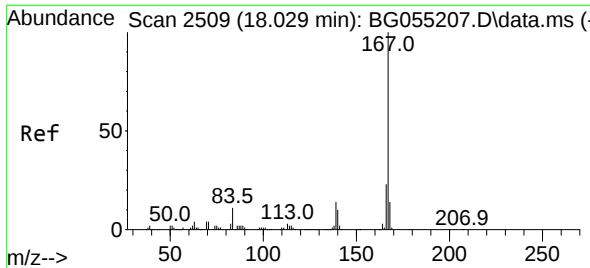
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022



#72  
Anthracene  
Concen: 12.933 ng  
RT: 17.764 min Scan# 2464  
Delta R.T. -0.007 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

Tgt Ion:178 Resp: 183792  
Ion Ratio Lower Upper  
178 100  
176 19.8 16.2 24.2  
179 15.9 13.0 19.4





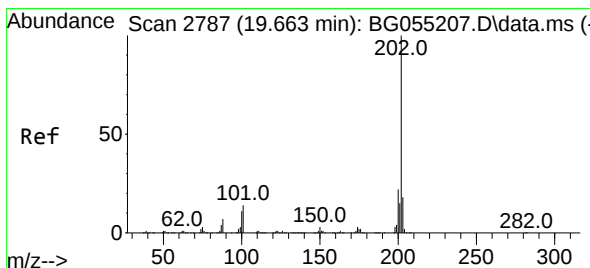
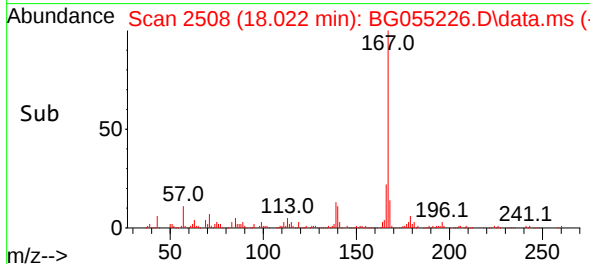
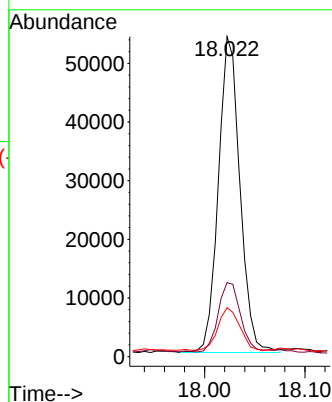
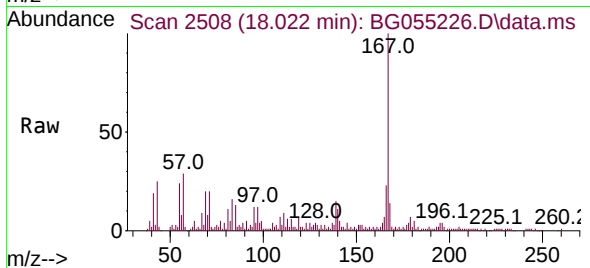
#73  
Carbazole  
Concen: 6.163 ng  
RT: 18.022 min Scan# 2509  
Delta R.T. -0.007 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822

Tgt Ion:167 Resp: 80655  
Ion Ratio Lower Upper  
167 100  
166 23.1 18.5 27.7  
139 15.3 11.3 16.9

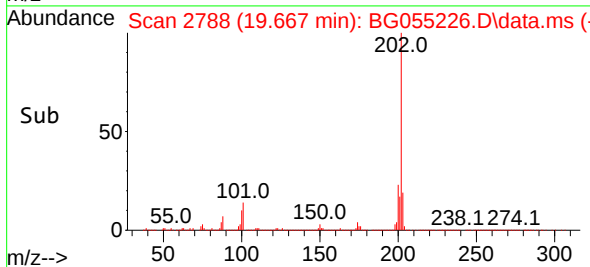
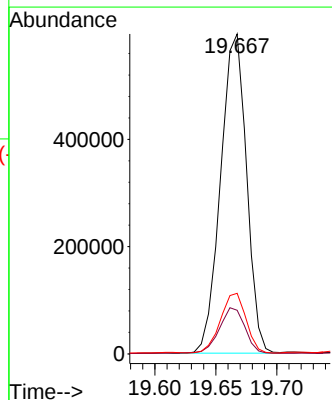
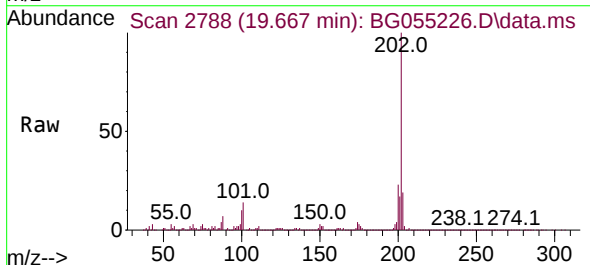
Manual Integrations  
APPROVED

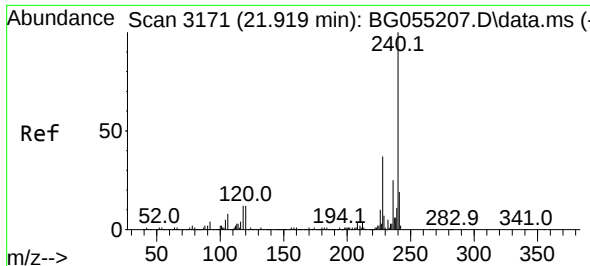
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022



#75  
Fluoranthene  
Concen: 54.729 ng  
RT: 19.667 min Scan# 2788  
Delta R.T. 0.005 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

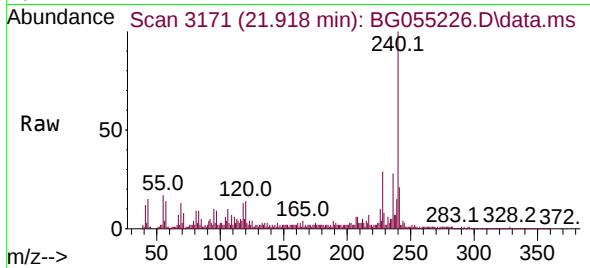
Tgt Ion:202 Resp: 881647  
Ion Ratio Lower Upper  
202 100  
101 13.6 0.0 34.2  
203 18.9 0.0 38.5





#76  
Chrysene-d12  
Concen: 20.000 ng  
RT: 21.918 min Scan# 3171  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

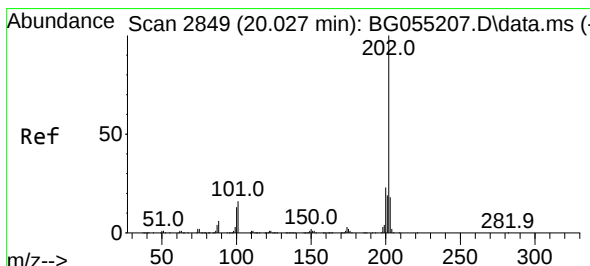
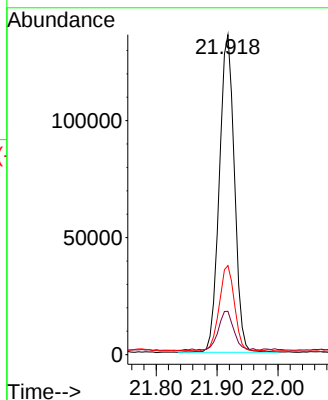
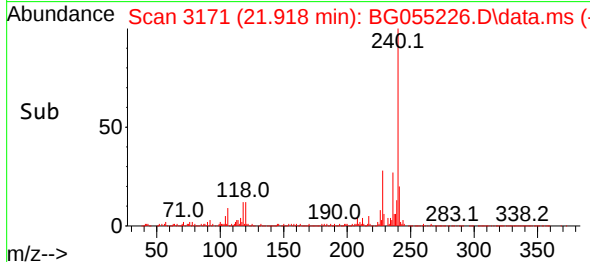
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822



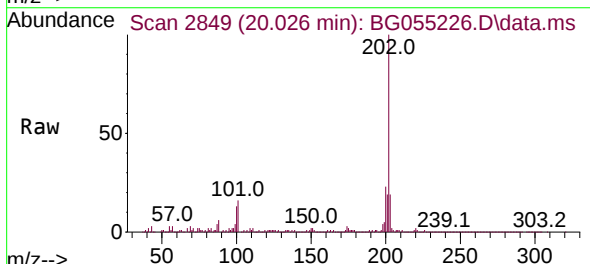
Tgt Ion:240 Resp: 233465  
Ion Ratio Lower Upper  
240 100  
120 13.5 9.2 13.8  
236 27.9 20.4 30.6

Manual Integrations  
APPROVED

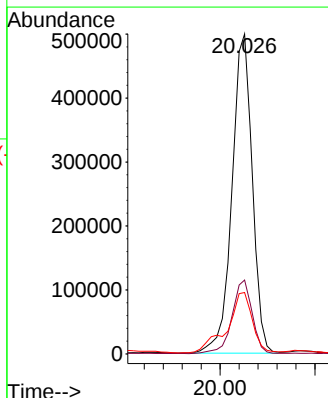
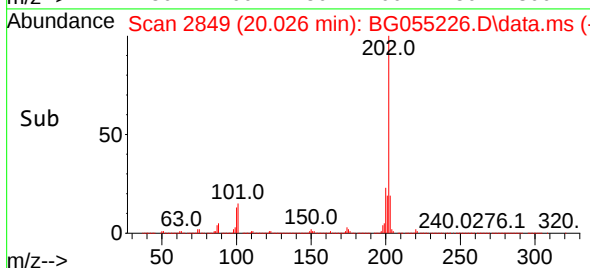
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022

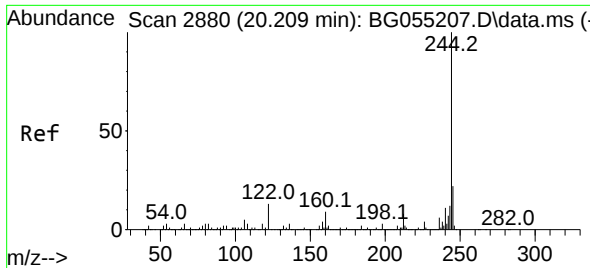


#78  
Pyrene  
Concen: 42.131 ng  
RT: 20.026 min Scan# 2849  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13



Tgt Ion:202 Resp: 741155  
Ion Ratio Lower Upper  
202 100  
200 23.1 18.2 27.2  
203 19.2 14.6 22.0





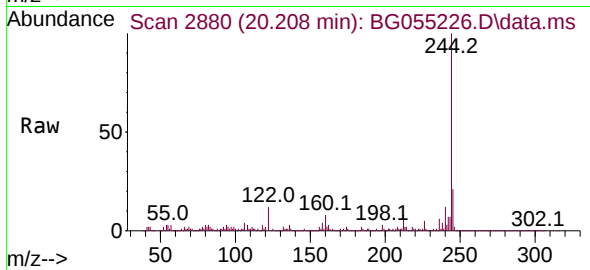
#79  
 Terphenyl-d14  
 Concen: 65.302 ng  
 RT: 20.208 min Scan# 2880  
 Delta R.T. -0.001 min  
 Lab File: BG055226.D  
 Acq: 20 Oct 2022 19:13

Instrument :

BNA\_G

ClientSampleId :

EO-02-101822

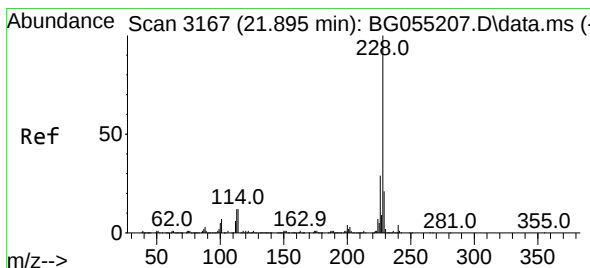
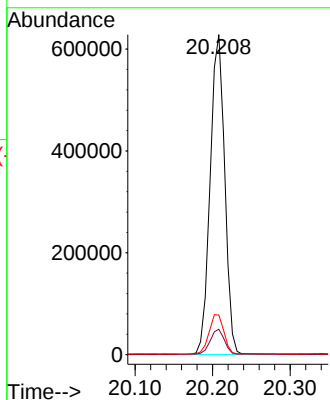
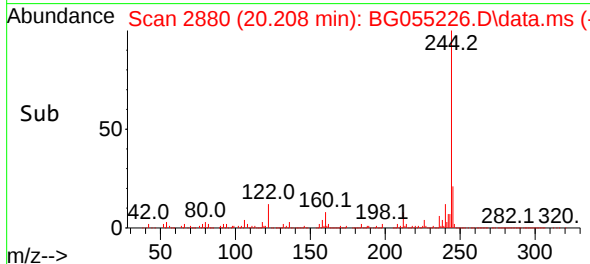


Tgt Ion:244 Resp: 818208  
 Ion Ratio Lower Upper  
 244 100  
 212 7.9 6.3 9.5  
 122 12.4 10.0 15.0

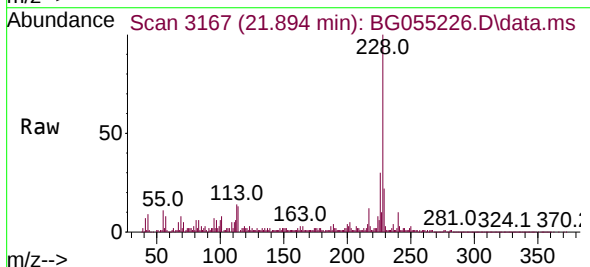
Manual Integrations

APPROVED

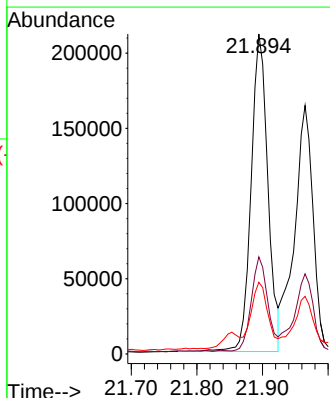
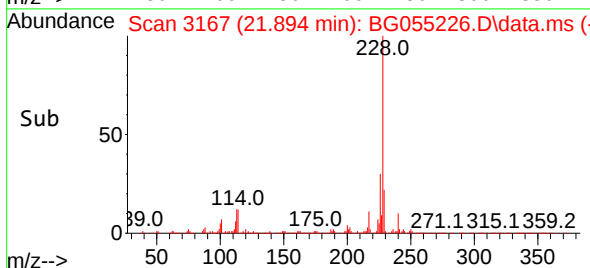
Reviewed By :Christian Giraldo 10/21/2022  
 Supervised By :Jagrut Upadhyay 10/21/2022

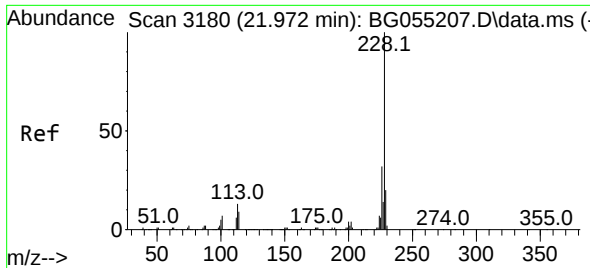


#81  
 Benzo(a)anthracene  
 Concen: 24.816 ng  
 RT: 21.894 min Scan# 3167  
 Delta R.T. -0.001 min  
 Lab File: BG055226.D  
 Acq: 20 Oct 2022 19:13



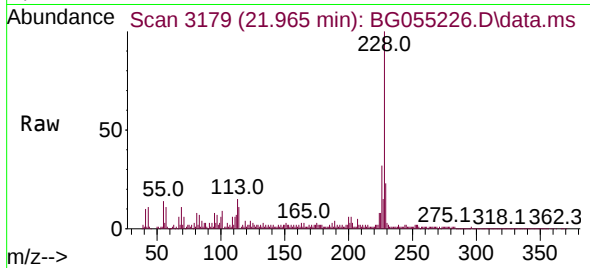
Tgt Ion:228 Resp: 375799  
 Ion Ratio Lower Upper  
 228 100  
 226 30.3 23.1 34.7  
 229 22.4 16.5 24.7





#83  
Chrysene  
Concen: 22.982 ng  
RT: 21.965 min Scan# 3180  
Delta R.T. -0.007 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

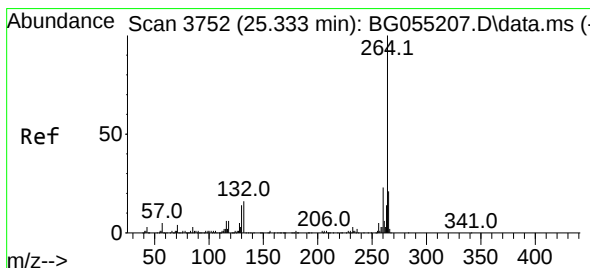
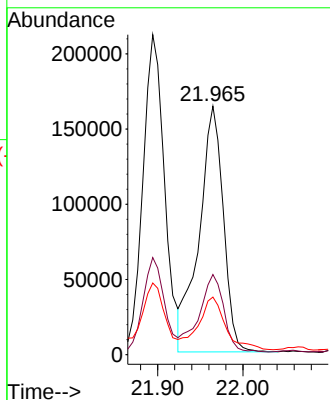
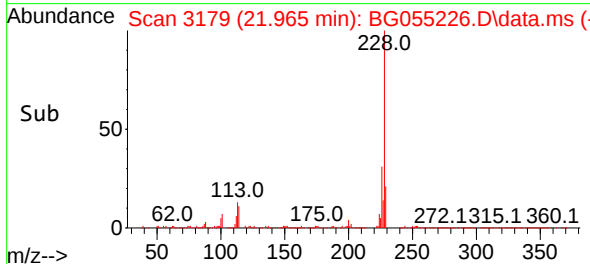
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822



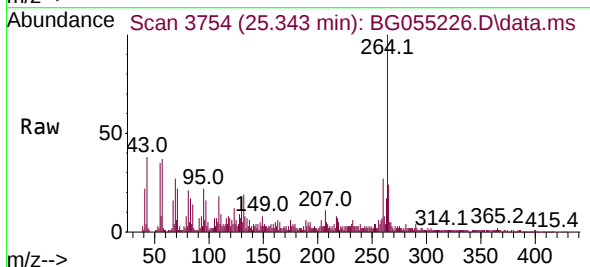
Tgt Ion:228 Resp: 324104  
Ion Ratio Lower Upper  
228 100  
226 32.2 25.4 38.2  
229 23.2 15.8 23.8

Manual Integrations  
APPROVED

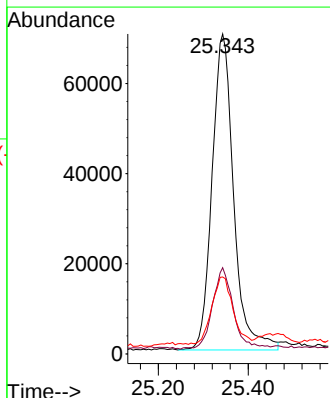
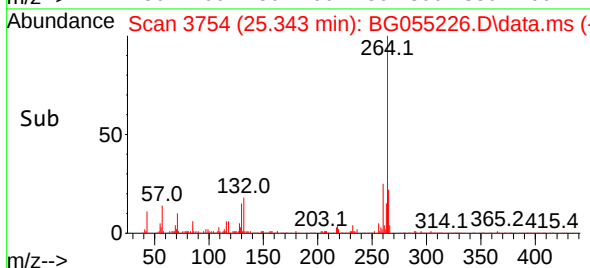
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022

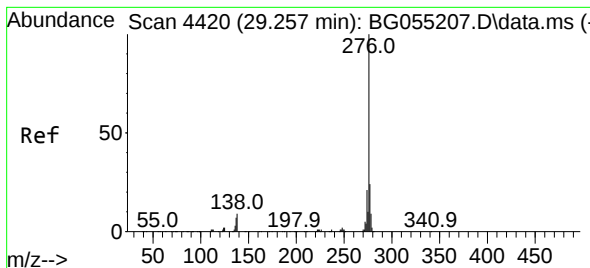


#86  
Perylene-d12  
Concen: 20.000 ng  
RT: 25.343 min Scan# 3754  
Delta R.T. 0.011 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13



Tgt Ion:264 Resp: 234055  
Ion Ratio Lower Upper  
264 100  
260 26.9 18.6 27.8  
265 24.0 17.1 25.7





#87

Indeno(1,2,3-cd)pyrene

Concen: 7.848 ng

RT: 29.280 min Scan# 4420

Delta R.T. 0.022 min

Lab File: BG055226.D

Acq: 20 Oct 2022 19:13

Instrument :

BNA\_G

ClientSampleId :

EO-02-101822

Tgt Ion: 276 Resp: 127763

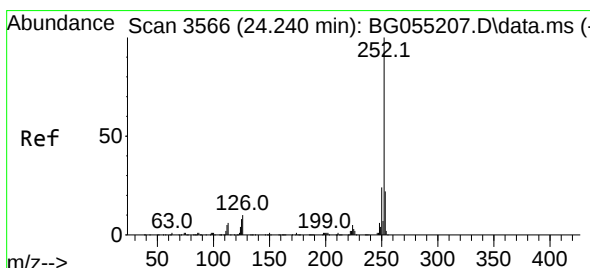
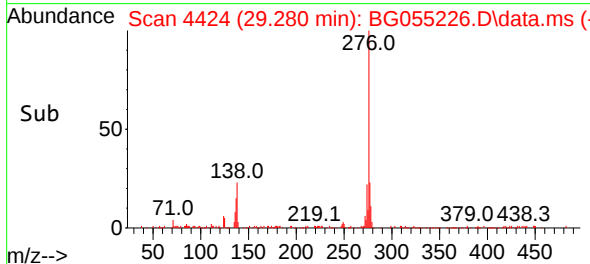
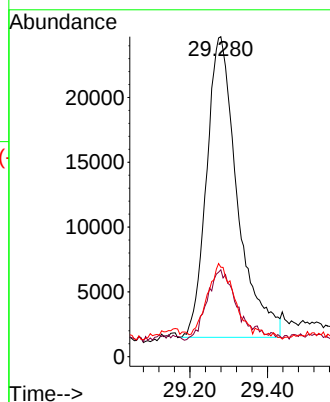
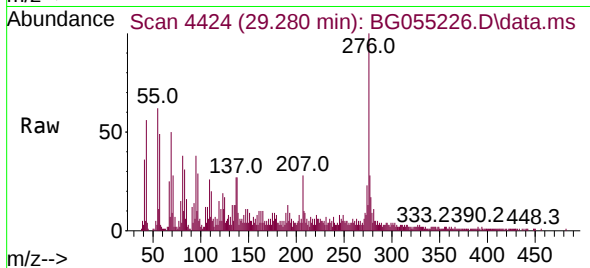
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 276 | 100   |       |       |
| 138 | 21.6  | 9.5   | 14.3  |
| 277 | 19.8  | 20.5  | 30.7  |

Manual Integrations

APPROVED

Reviewed By : Christian Giraldo 10/21/2022

Supervised By : Jagrut Upadhyay 10/21/2022



#88

Benzo(b)fluoranthene

Concen: 26.577 ng

RT: 24.250 min Scan# 3568

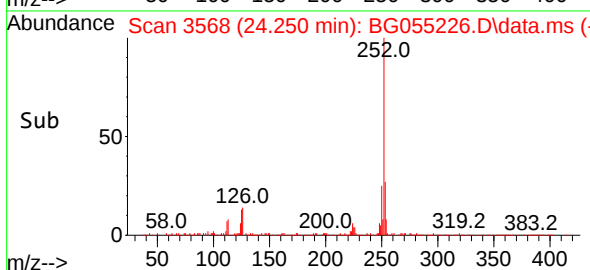
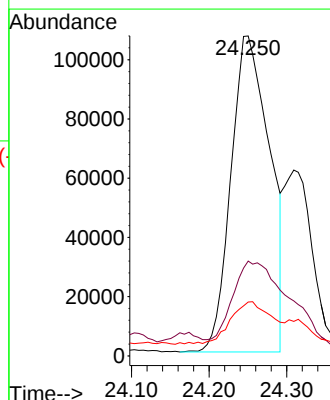
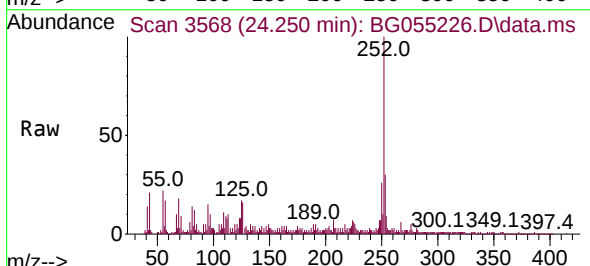
Delta R.T. 0.011 min

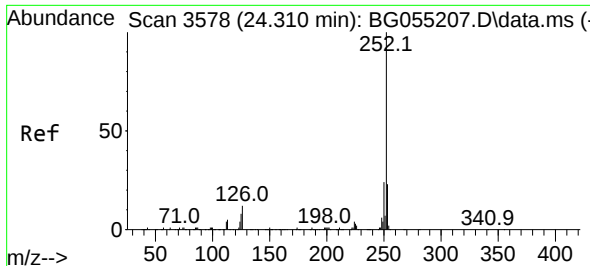
Lab File: BG055226.D

Acq: 20 Oct 2022 19:13

Tgt Ion: 252 Resp: 369397

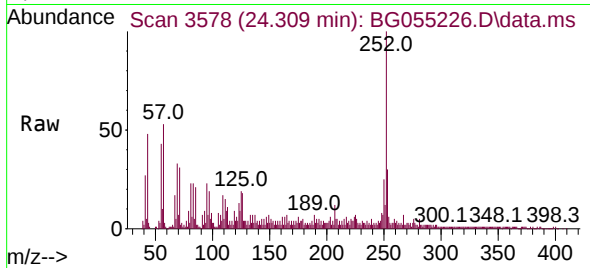
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 29.6  | 17.8  | 26.6  |
| 125 | 16.8  | 6.2   | 9.2   |





#89  
Benzo(k)fluoranthene  
Concen: 11.224 ng m  
RT: 24.309 min Scan# 31  
Delta R.T. -0.001 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

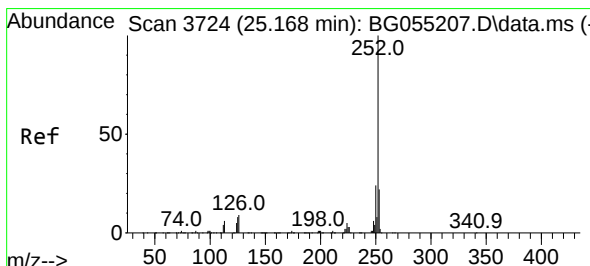
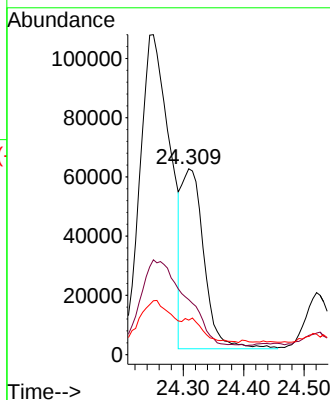
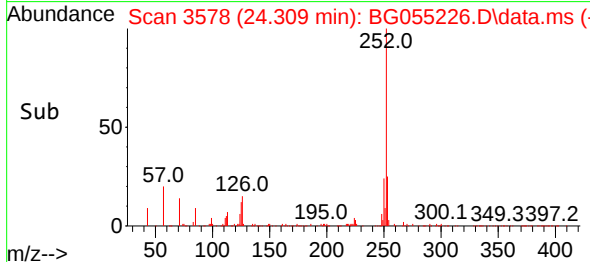
Instrument :  
BNA\_G  
ClientSampleId :  
EO-02-101822



Tgt Ion:252 Resp: 157995  
Ion Ratio Lower Upper  
252 100  
253 29.6 18.0 27.0  
125 18.5 6.5 9.7

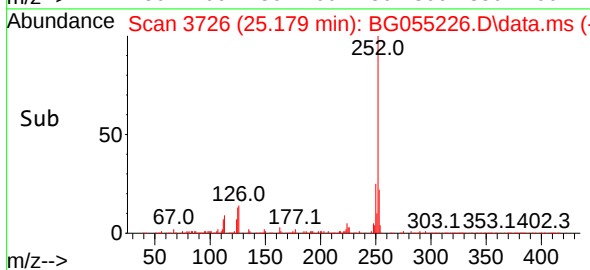
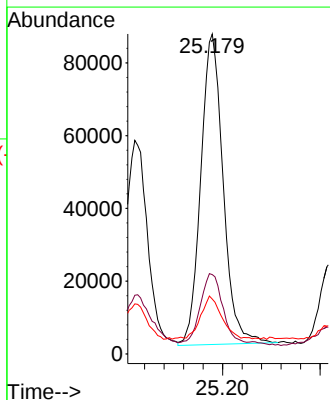
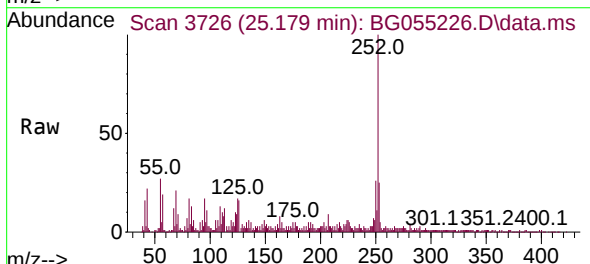
Manual Integrations  
APPROVED

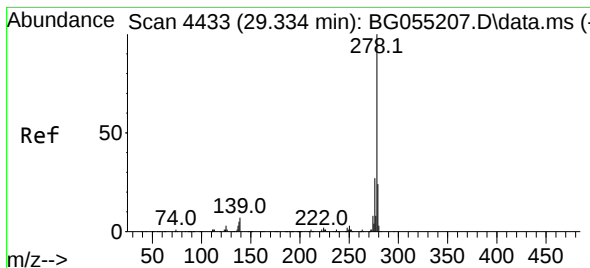
Reviewed By :Christian Giraldo 10/21/2022  
Supervised By :Jagrut Upadhyay 10/21/2022



#90  
Benzo(a)pyrene  
Concen: 22.773 ng  
RT: 25.179 min Scan# 3726  
Delta R.T. 0.011 min  
Lab File: BG055226.D  
Acq: 20 Oct 2022 19:13

Tgt Ion:252 Resp: 271674  
Ion Ratio Lower Upper  
252 100  
253 24.8 17.4 26.2  
125 17.1 6.2 9.2





#91

Dibenzo(a,h)anthracene

Concen: 2.790 ng m

RT: 29.309 min Scan# 4433

Delta R.T. -0.025 min

Lab File: BG055226.D

Acq: 20 Oct 2022 19:13

Instrument :

BNA\_G

ClientSampleId :

EO-02-101822

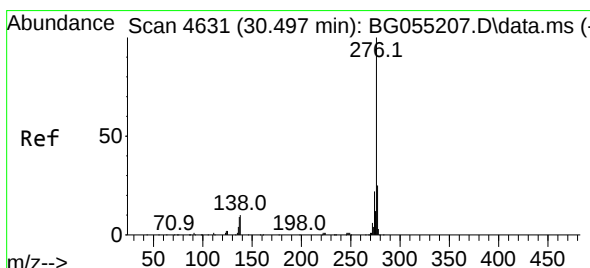
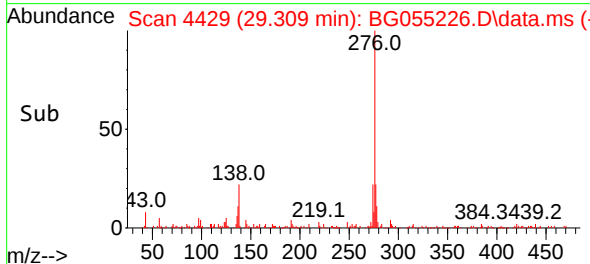
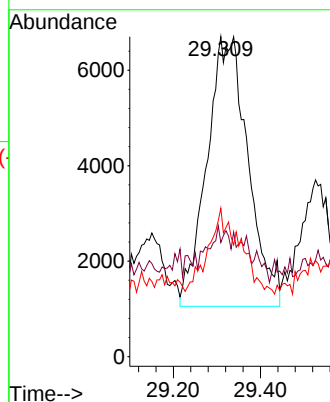
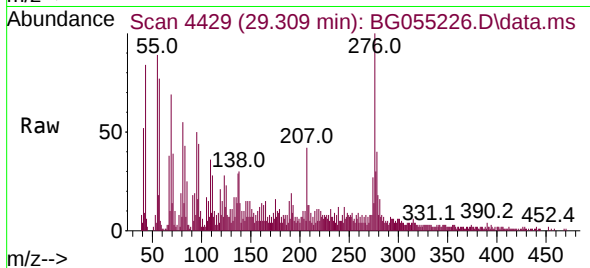
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 278   | Resp: | 3720 |
| Ion Ratio | Lower | Upper |      |
| 278       | 100   |       |      |
| 139       | 35.7  | 5.6   | 8.4  |
| 279       | 46.4  | 19.5  | 29.3 |

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 10/21/2022

Supervised By :Jagrut Upadhyay 10/21/2022



#92

Benzo(g,h,i)perylene

Concen: 8.661 ng

RT: 30.519 min Scan# 4635

Delta R.T. 0.022 min

Lab File: BG055226.D

Acq: 20 Oct 2022 19:13

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 111898 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 277       | 25.6  | 19.7  | 29.5   |
| 138       | 29.7  | 8.0   | 12.0   |

