

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112923\  
 Data File : BF136303.D  
 Acq On : 30 Nov 2023 01:38  
 Operator : CG\JU  
 Sample : 05312-03 2X  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 P-2(200FT)(5-10)

Manual Integrations  
 APPROVED

Reviewed By :Yogesh Patel 11/30/2023  
 Supervised By :mohammad ahmed 12/01/2023

Quant Time: Nov 30 01:59:32 2023  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112723.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Nov 28 03:04:20 2023  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|--------|------|----------|--------|-------|----------|
| -----                       |        |      |          |        |       |          |
| Internal Standards          |        |      |          |        |       |          |
| 1) 1,4-Dichlorobenzene-d4   | 6.804  | 152  | 99115    | 20.000 | ng    | 0.00     |
| 21) Naphthalene-d8          | 8.081  | 136  | 340795   | 20.000 | ng    | 0.00     |
| 39) Acenaphthene-d10        | 9.839  | 164  | 148312   | 20.000 | ng    | 0.00     |
| 64) Phenanthrene-d10        | 11.328 | 188  | 285767   | 20.000 | ng    | 0.00     |
| 76) Chrysene-d12            | 13.986 | 240  | 229797   | 20.000 | ng    | 0.00     |
| 86) Perylene-d12            | 15.468 | 264  | 168425   | 20.000 | ng    | 0.00     |
|                             |        |      |          |        |       |          |
| System Monitoring Compounds |        |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.434  | 112  | 347929   | 48.859 | ng    | 0.00     |
| 7) Phenol-d6                | 6.434  | 99   | 396355   | 44.514 | ng    | -0.01    |
| 23) Nitrobenzene-d5         | 7.363  | 82   | 225430   | 34.955 | ng    | -0.01    |
| 42) 2,4,6-Tribromophenol    | 10.628 | 330  | 88451    | 48.781 | ng    | -0.01    |
| 45) 2-Fluorobiphenyl        | 9.157  | 172  | 438742   | 37.786 | ng    | -0.01    |
| 79) Terphenyl-d14           | 12.927 | 244  | 568133   | 28.518 | ng    | 0.00     |
|                             |        |      |          |        |       |          |
| Target Compounds            |        |      |          |        |       | Qvalue   |
| 49) Acenaphthylene          | 9.698  | 152  | 42006    | 2.898  | ng    | 94       |
| 58) Fluorene                | 10.386 | 166  | 34310m   | 3.209  | ng    |          |
| 71) Phenanthrene            | 11.357 | 178  | 396045   | 24.658 | ng    | 98       |
| 72) Anthracene              | 11.404 | 178  | 181425   | 11.264 | ng    | 97       |
| 73) Carbazole               | 11.563 | 167  | 31564    | 2.304  | ng    | 99       |
| 75) Fluoranthene            | 12.551 | 202  | 591447   | 36.274 | ng    | 95       |
| 78) Pyrene                  | 12.780 | 202  | 530675   | 21.086 | ng    | 97       |
| 81) Benzo(a)anthracene      | 13.974 | 228  | 229639   | 13.454 | ng    | # 75     |
| 83) Chrysene                | 14.010 | 228  | 183217   | 11.117 | ng    | # 95     |
| 87) Indeno(1,2,3-cd)pyrene  | 16.968 | 276  | 74008    | 8.230  | ng    | 98       |
| 88) Benzo(b)fluoranthene    | 15.033 | 252  | 190655m  | 16.135 | ng    |          |
| 89) Benzo(k)fluoranthene    | 15.057 | 252  | 67080m   | 5.977  | ng    |          |
| 90) Benzo(a)pyrene          | 15.404 | 252  | 121487   | 12.577 | ng    | 94       |
| 91) Dibenzo(a,h)anthracene  | 16.980 | 278  | 14639    | 4.080  | ng    | # 89     |
| 92) Benzo(g,h,i)perylene    | 17.421 | 276  | 73380    | 8.851  | ng    | 97       |
| -----                       |        |      |          |        |       |          |

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

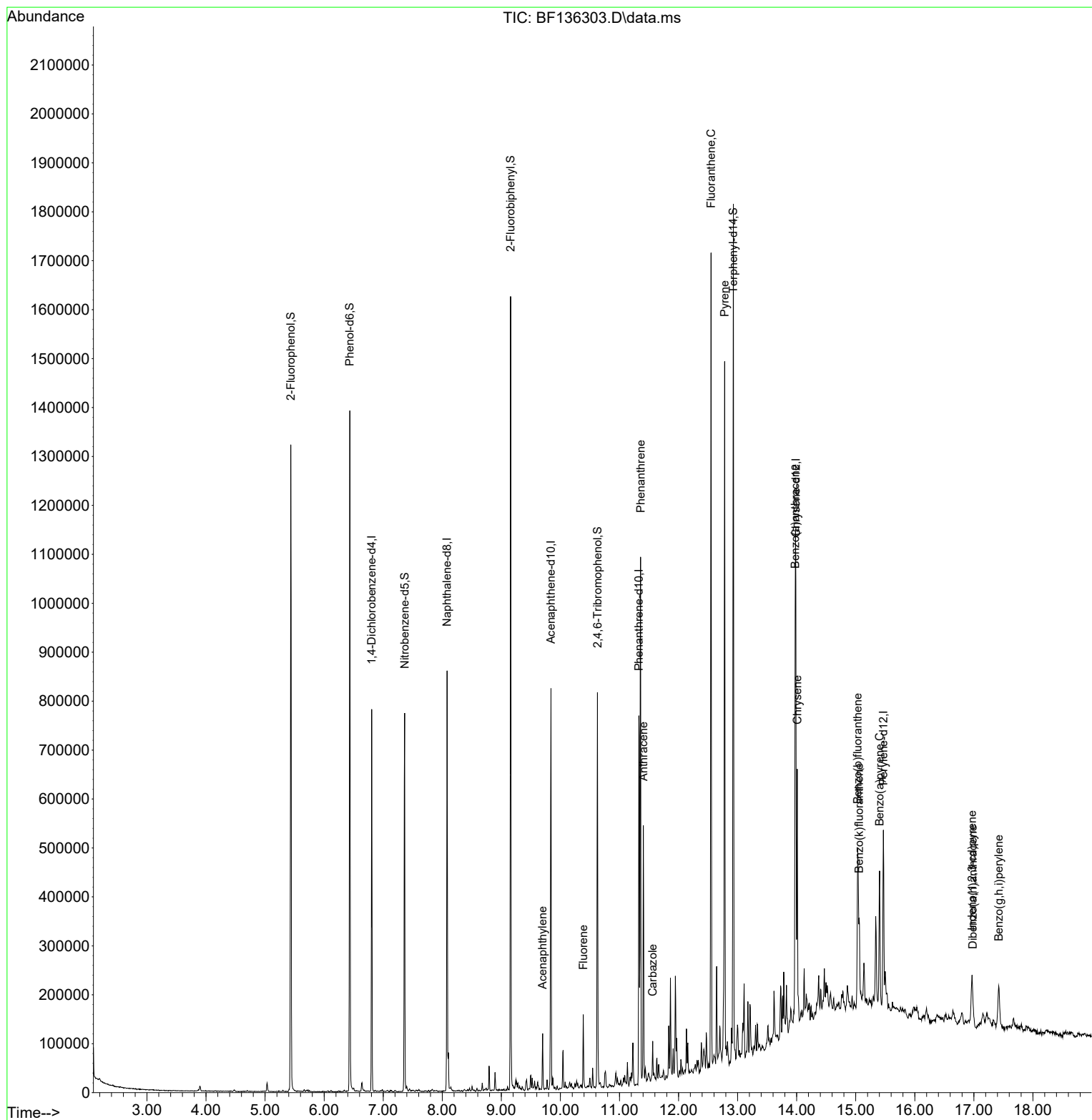
Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112923\  
Data File : BF136303.D  
Acq On : 30 Nov 2023 01:38  
Operator : CG\JU  
Sample : 05312-03 2X  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

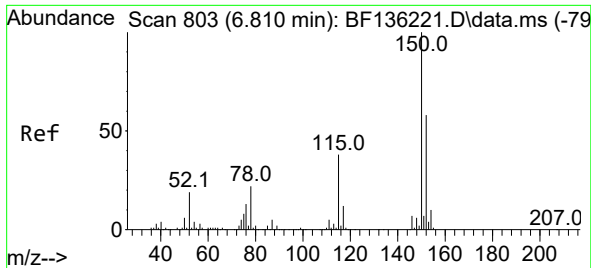
Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)

Quant Time: Nov 30 01:59:32 2023  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112723.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Tue Nov 28 03:04:20 2023  
Response via : Initial Calibration

Manual Integrations  
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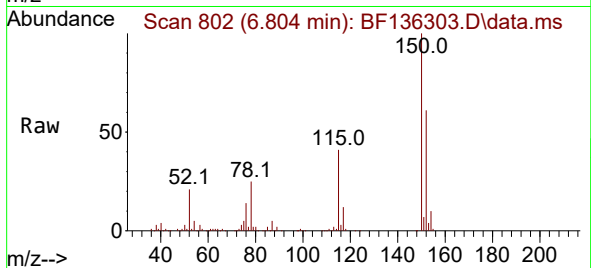
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023





#1  
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.804 min Scan# 803  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

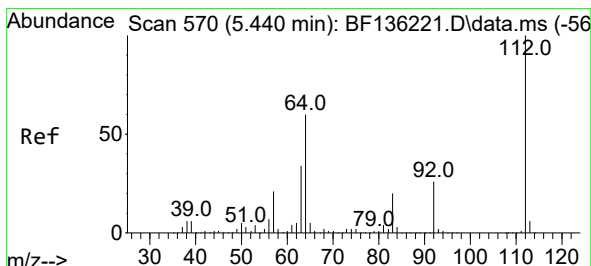
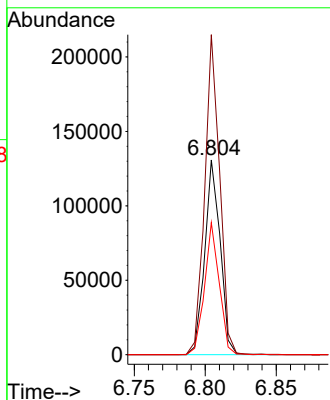
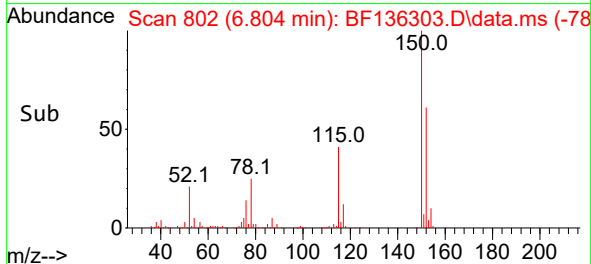
Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)



Tgt Ion:152 Resp: 9911  
Ion Ratio Lower Upper  
152 100  
150 164.4 137.8 206.8  
115 67.8 52.7 79.1

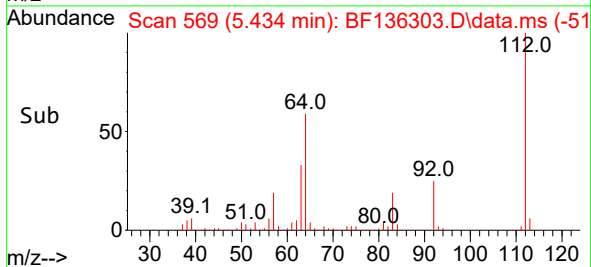
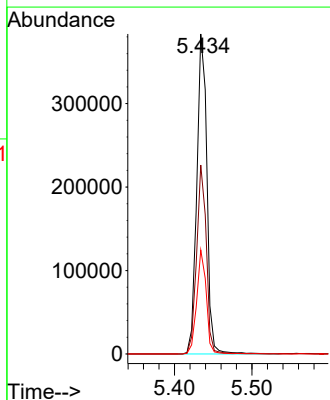
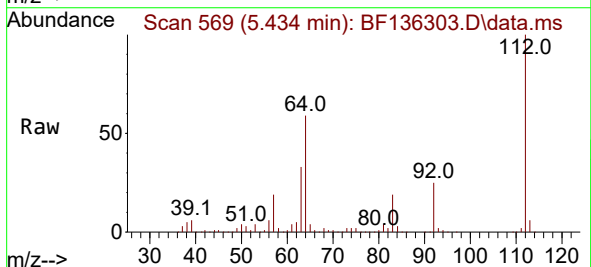
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#5  
2-Fluorophenol  
Concen: 48.859 ng  
RT: 5.434 min Scan# 569  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

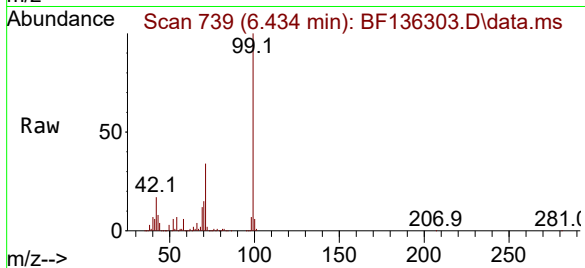
Tgt Ion:112 Resp: 347929  
Ion Ratio Lower Upper  
112 100  
64 59.0 48.2 72.4  
63 32.5 27.0 40.6





#7  
Phenol-d6  
Concen: 44.514 ng  
RT: 6.434 min Scan# 71  
Delta R.T. -0.012 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

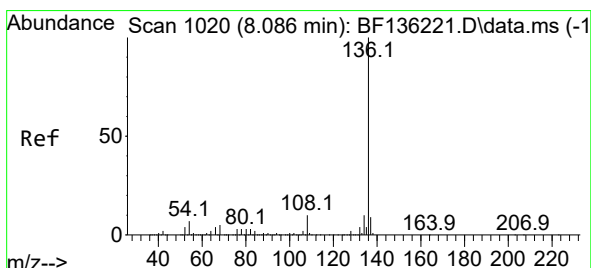
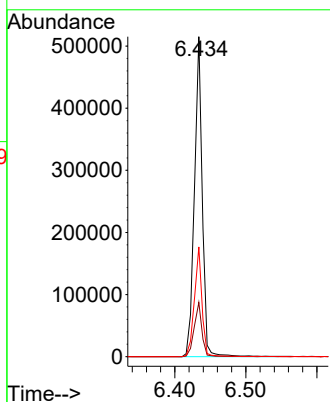
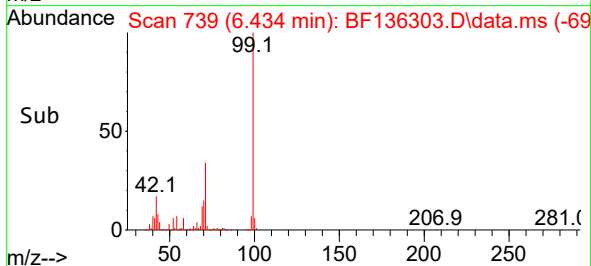
Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)



Tgt Ion: 99 Resp: 39635  
Ion Ratio Lower Upper  
99 100  
42 17.0 15.0 22.6  
71 34.3 28.9 43.3

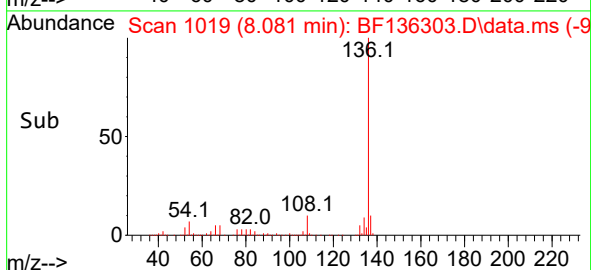
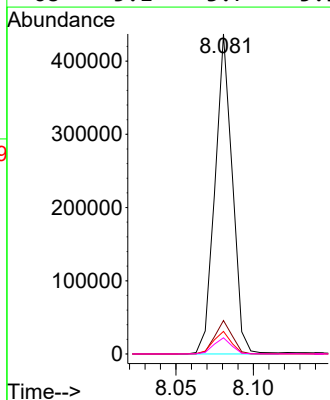
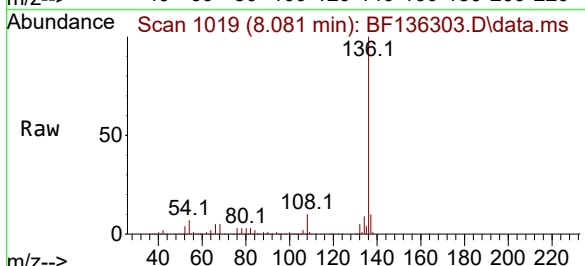
Manual Integrations  
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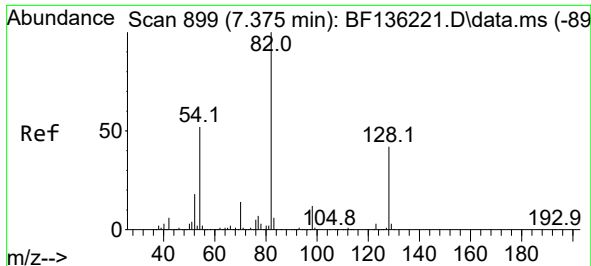
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#21  
Naphthalene-d8  
Concen: 20.000 ng  
RT: 8.081 min Scan# 1019  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Tgt Ion:136 Resp: 340795  
Ion Ratio Lower Upper  
136 100  
137 10.5 7.4 11.2  
54 7.1 5.5 8.3  
68 5.1 3.7 5.5





#23

Nitrobenzene-d5

Concen: 34.955 ng

RT: 7.363 min Scan# 89

Delta R.T. -0.012 min

Lab File: BF136303.D

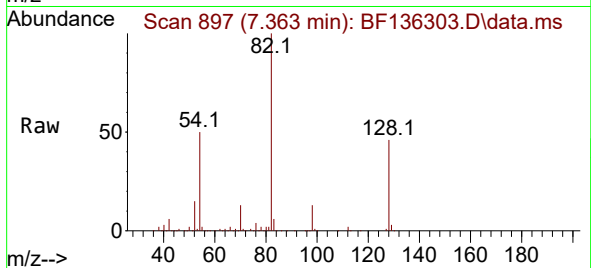
Acq: 30 Nov 2023 01:38

Instrument :

BNA\_F

ClientSampleId :

P-2(200FT)(5-10)



Tgt Ion: 82 Resp: 225430

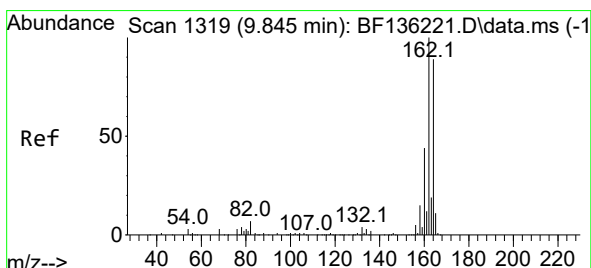
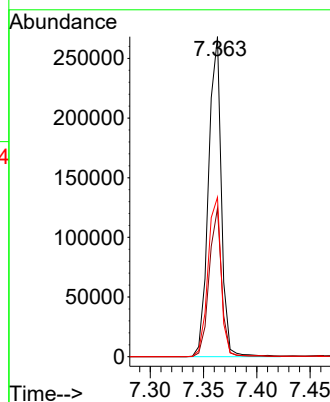
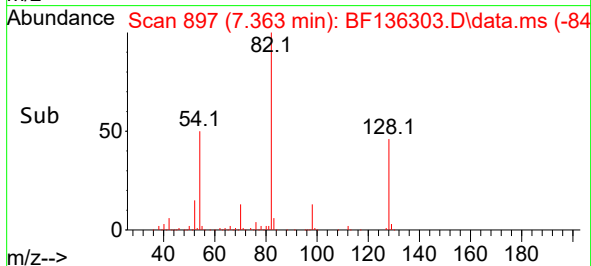
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 82  | 100   |       |       |
| 128 | 46.4  | 33.4  | 50.2  |
| 54  | 49.8  | 41.7  | 62.5  |

Manual Integrations

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Reviewed By :Yogesh Patel 11/30/2023

Supervised By :mohammad ahmed 12/01/2023



#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.839 min Scan# 1318

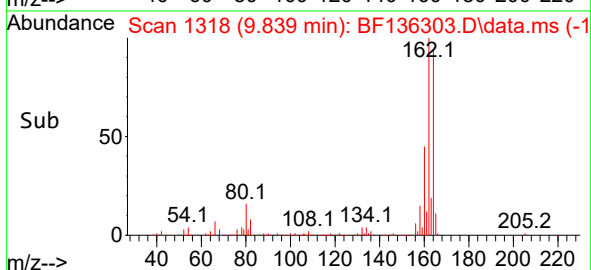
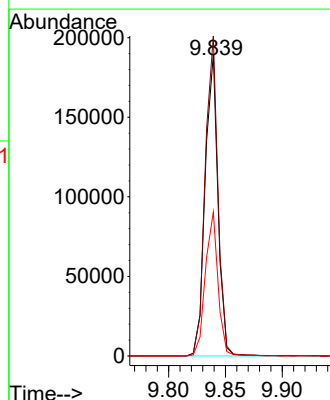
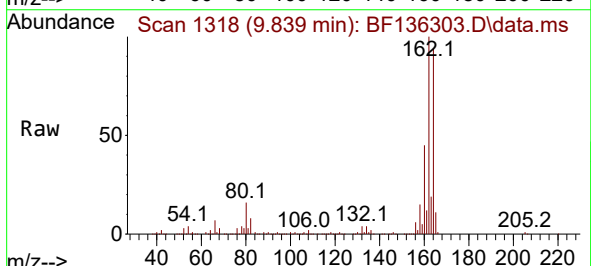
Delta R.T. -0.006 min

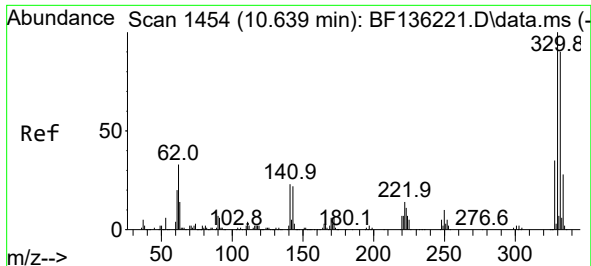
Lab File: BF136303.D

Acq: 30 Nov 2023 01:38

Tgt Ion:164 Resp: 148312

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 162 | 106.1 | 89.5  | 134.3 |
| 160 | 47.7  | 39.6  | 59.4  |





#42  
2,4,6-Tribromophenol  
Concen: 48.781 ng  
RT: 10.628 min Scan# 1454  
Delta R.T. -0.012 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Instrument :

BNA\_F

ClientSampleId :

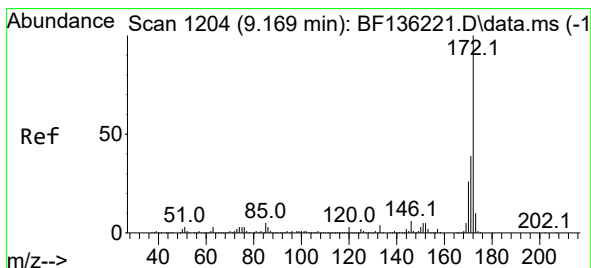
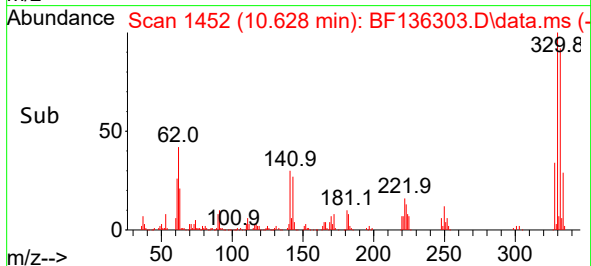
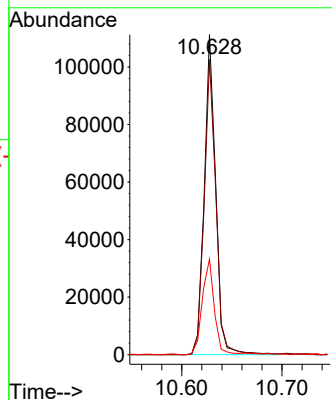
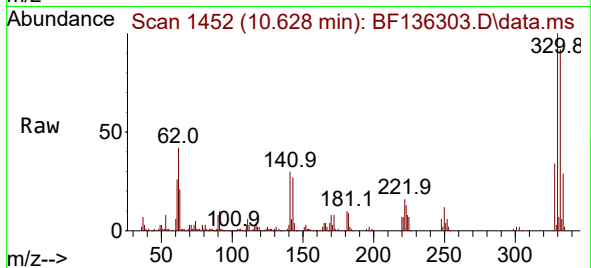
P-2(200FT)(5-10)

Tgt Ion:330 Resp: 8845  
Ion Ratio Lower Upper  
330 100  
332 94.9 73.0 109.6  
141 32.2 24.2 36.2

Manual Integrations

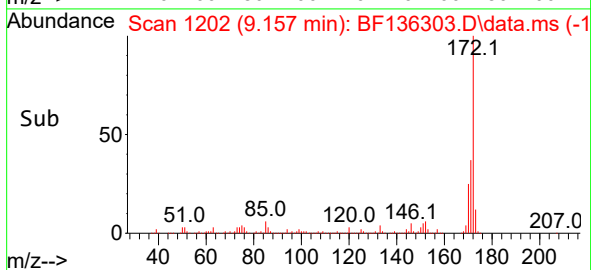
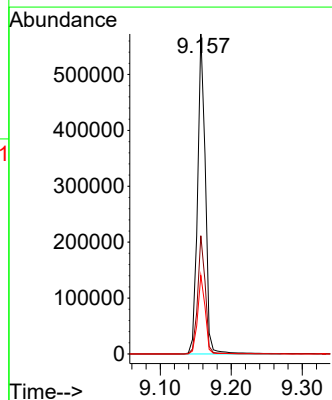
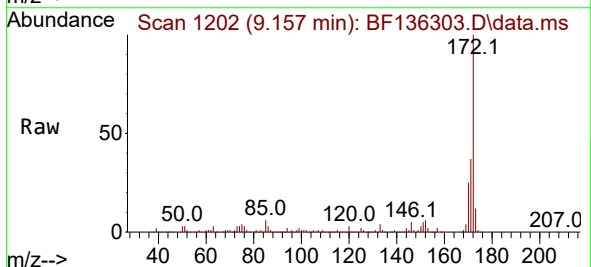
APPROVED

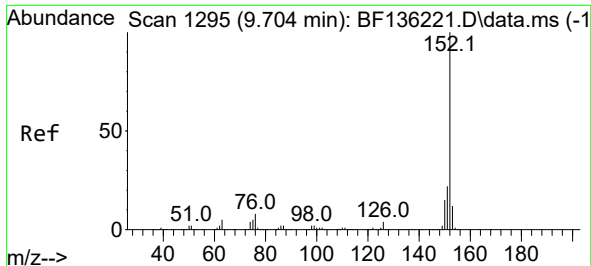
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#45  
2-Fluorobiphenyl  
Concen: 37.786 ng  
RT: 9.157 min Scan# 1202  
Delta R.T. -0.012 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

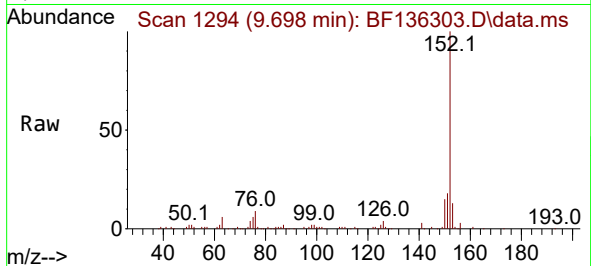
Tgt Ion:172 Resp: 438742  
Ion Ratio Lower Upper  
172 100  
171 37.0 31.5 47.3  
170 24.6 20.8 31.2





#49  
Acenaphthylene  
Concen: 2.898 ng  
RT: 9.698 min Scan# 1294  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

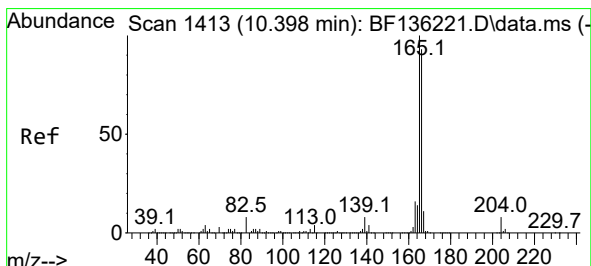
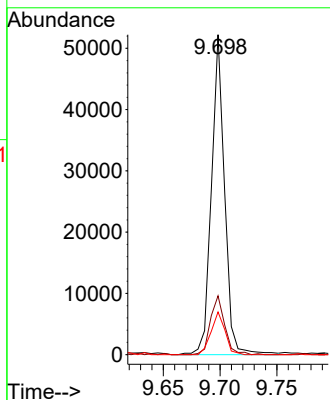
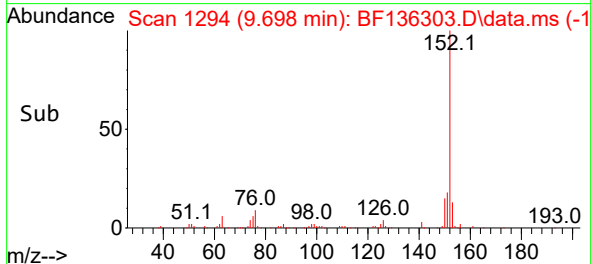
Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)



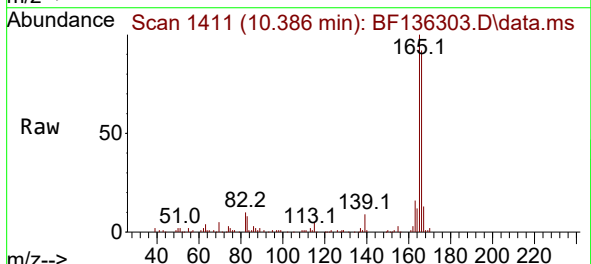
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Ion Ratio Lower Upper  
152 100  
151 18.4 17.5 26.3  
153 13.3 9.6 14.4

Manual Integrations  
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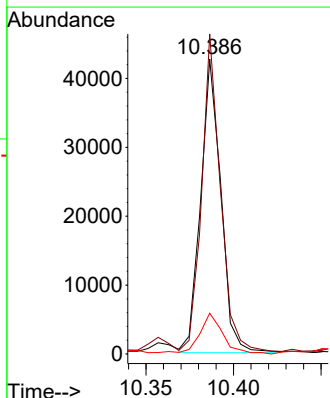
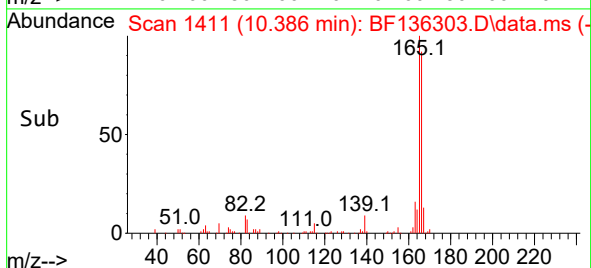
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023

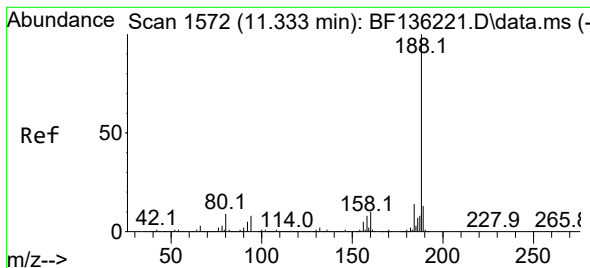


#58  
Fluorene  
Concen: 3.209 ng m  
RT: 10.386 min Scan# 1411  
Delta R.T. -0.012 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38



Tgt Ion:166 Resp: 34310  
Ion Ratio Lower Upper  
166 100  
165 108.5 86.2 129.4  
167 13.8 9.1 13.7#





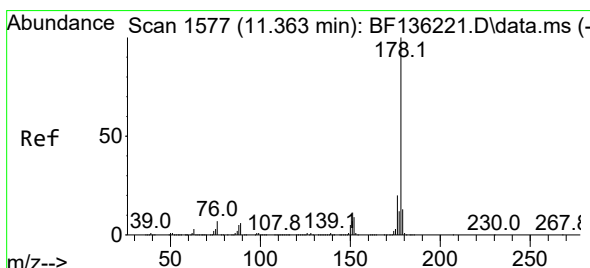
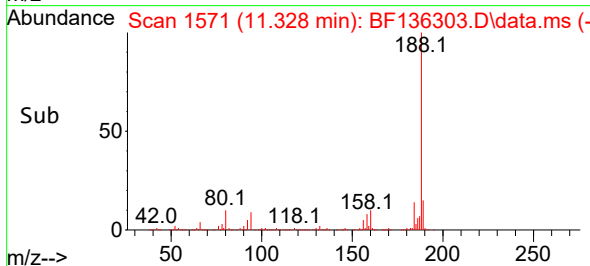
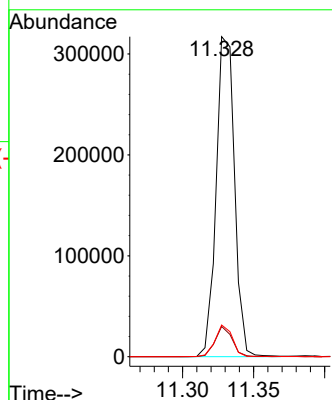
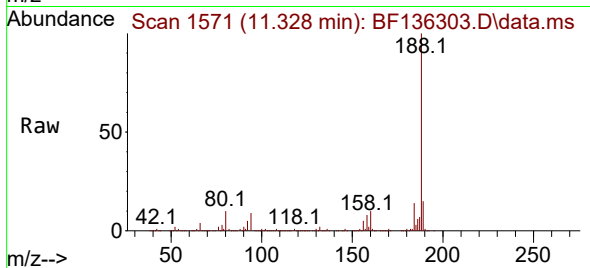
#64  
Phenanthrene-d10  
Concen: 20.000 ng  
RT: 11.328 min Scan# 1571  
Delta R.T. -0.005 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)

Tgt Ion:188 Resp: 28576  
Ion Ratio Lower Upper  
188 100  
94 9.5 6.7 10.1  
80 9.9 7.2 10.8

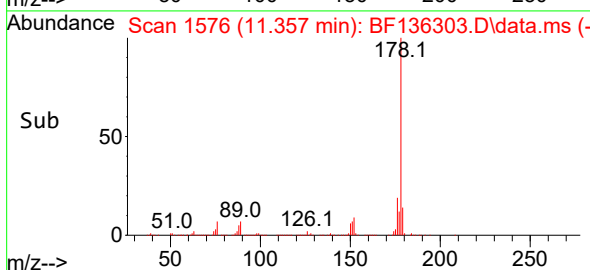
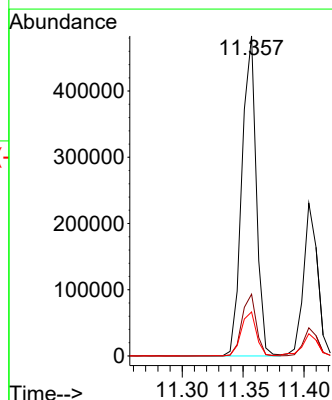
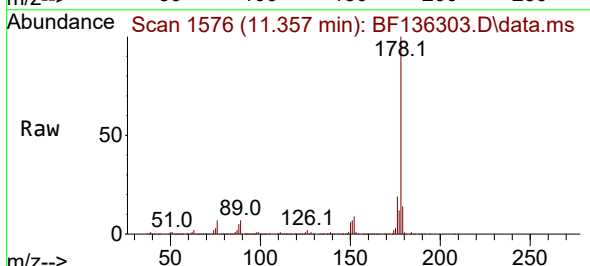
Manual Integrations  
APPROVED

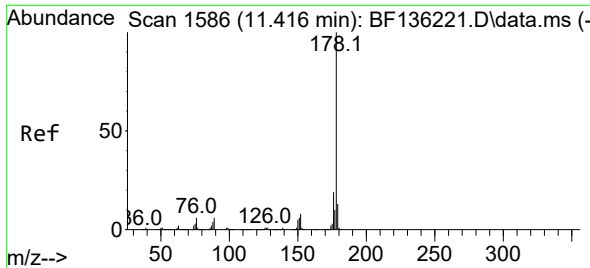
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#71  
Phenanthrene  
Concen: 24.658 ng  
RT: 11.357 min Scan# 1576  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

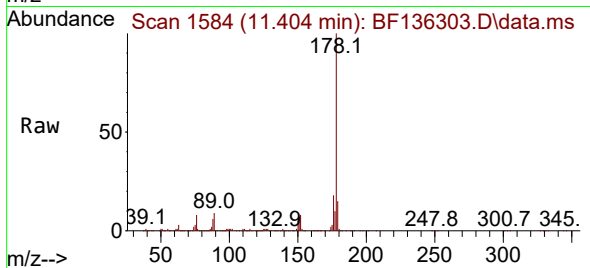
Tgt Ion:178 Resp: 396045  
Ion Ratio Lower Upper  
178 100  
176 19.3 16.2 24.2  
179 13.8 10.3 15.5





#72  
 Anthracene  
 Concen: 11.264 ng  
 RT: 11.404 min Scan# 11  
 Delta R.T. -0.012 min  
 Lab File: BF136303.D  
 Acq: 30 Nov 2023 01:38

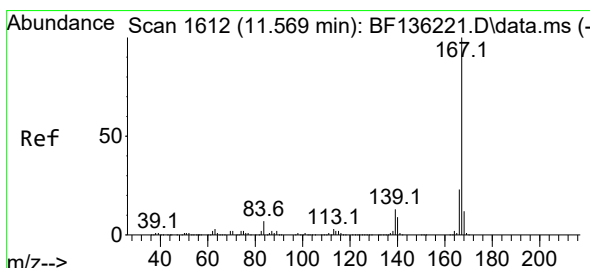
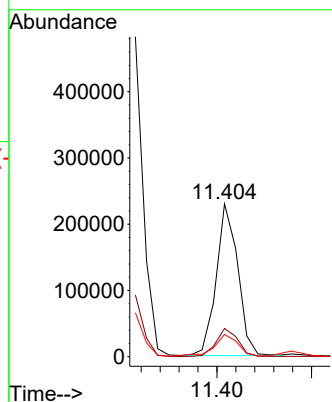
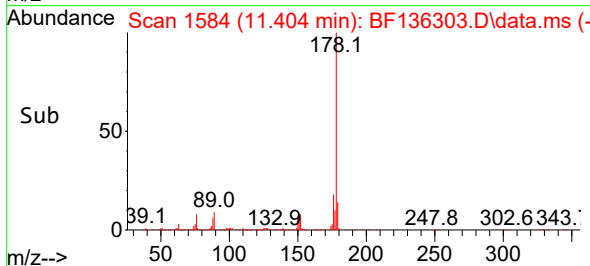
Instrument :  
 BNA\_F  
 ClientSampleId :  
 P-2(200FT)(5-10)



Tgt Ion:178 Resp: 181425  
 Ion Ratio Lower Upper  
 178 100  
 176 18.4 15.5 23.3  
 179 14.5 10.5 15.7

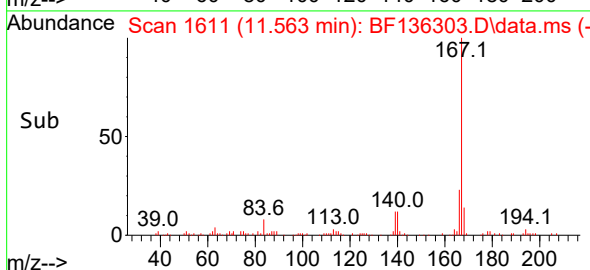
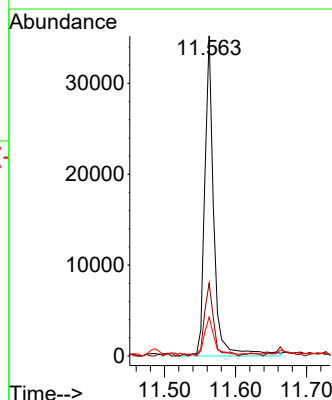
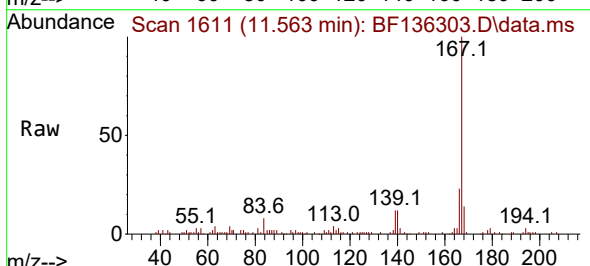
Manual Integrations  
 APPROVED

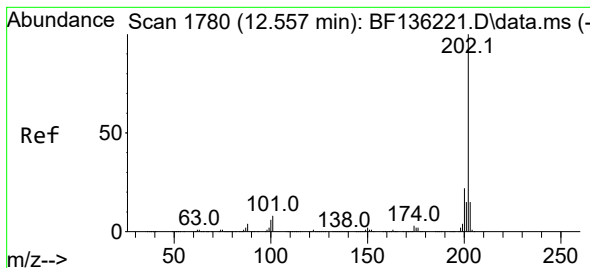
Reviewed By :Yogesh Patel 11/30/2023  
 Supervised By :mohammad ahmed 12/01/2023



#73  
 Carbazole  
 Concen: 2.304 ng  
 RT: 11.563 min Scan# 1611  
 Delta R.T. -0.006 min  
 Lab File: BF136303.D  
 Acq: 30 Nov 2023 01:38

Tgt Ion:167 Resp: 31564  
 Ion Ratio Lower Upper  
 167 100  
 166 22.8 18.4 27.6  
 139 12.1 10.5 15.7





#75

Fluoranthene

Concen: 36.274 ng

RT: 12.551 min Scan# 1

Delta R.T. -0.006 min

Lab File: BF136303.D

Acq: 30 Nov 2023 01:38

Instrument :

BNA\_F

ClientSampleId :

P-2(200FT)(5-10)

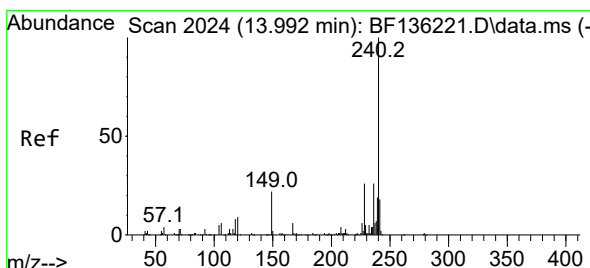
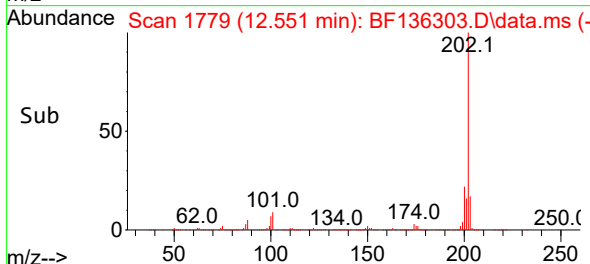
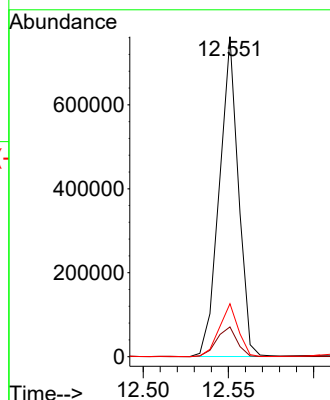
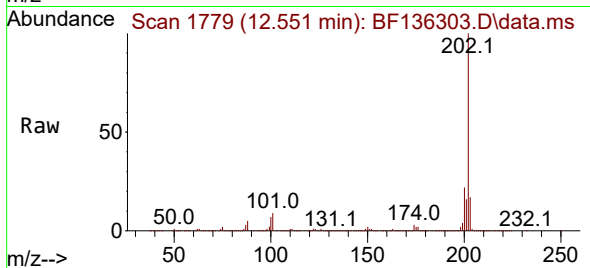
Tgt Ion:202 Resp: 59144  
 Ion Ratio Lower Upper  
 202 100  
 101 9.3 0.0 27.8  
 203 16.6 0.0 34.5

Manual Integrations

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Reviewed By :Yogesh Patel 11/30/2023

Supervised By :mohammad ahmed 12/01/2023



#76

Chrysene-d12

Concen: 20.000 ng

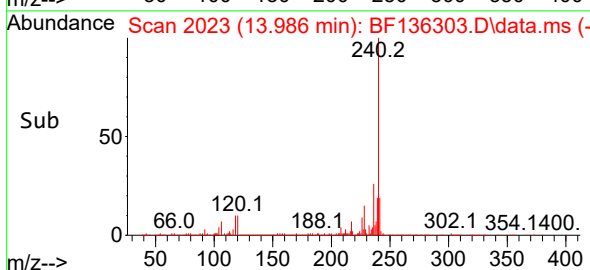
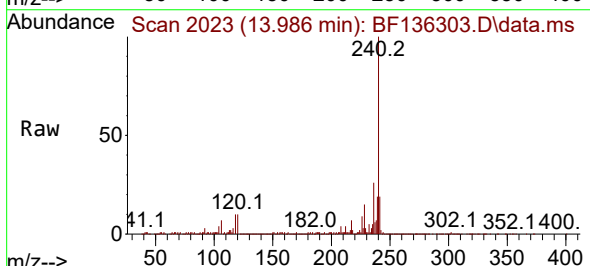
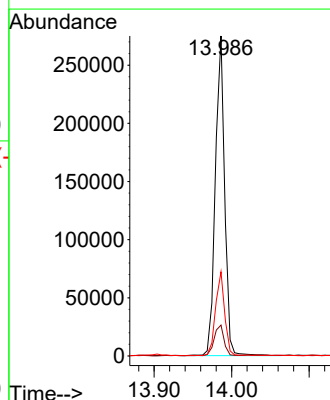
RT: 13.986 min Scan# 2023

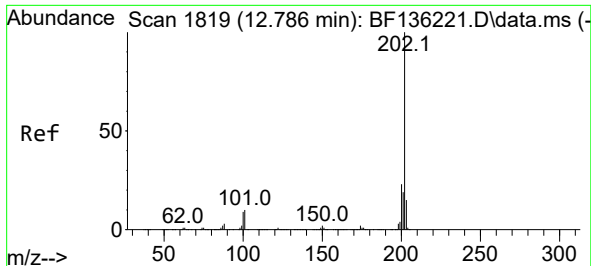
Delta R.T. -0.006 min

Lab File: BF136303.D

Acq: 30 Nov 2023 01:38

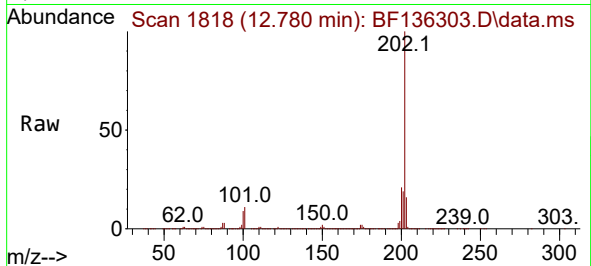
Tgt Ion:240 Resp: 229797  
 Ion Ratio Lower Upper  
 240 100  
 120 9.7 7.4 11.2  
 236 26.3 21.1 31.7





#78  
Pyrene  
Concen: 21.086 ng  
RT: 12.780 min Scan# 1819  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

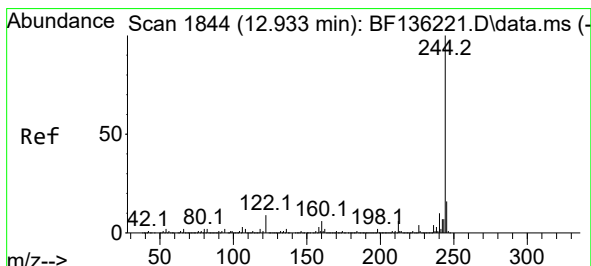
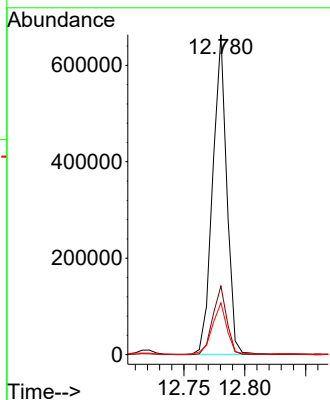
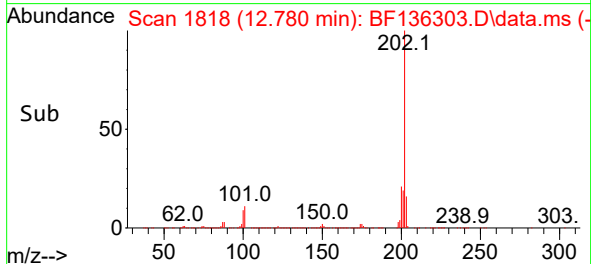
Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)



Tgt Ion:202 Resp: 530679  
Ion Ratio Lower Upper  
202 100  
200 21.5 18.4 27.6  
203 16.2 11.8 17.6

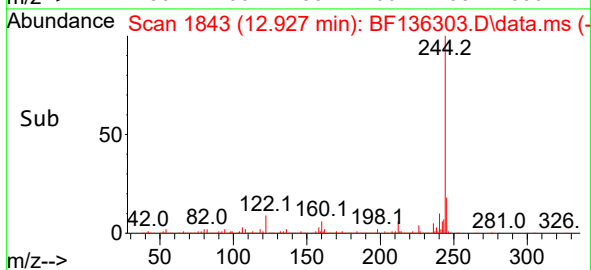
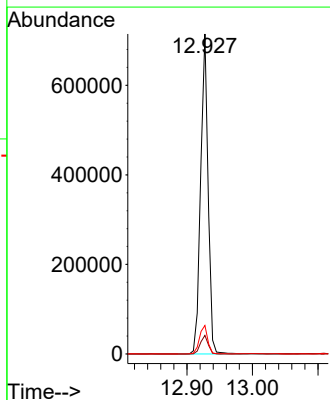
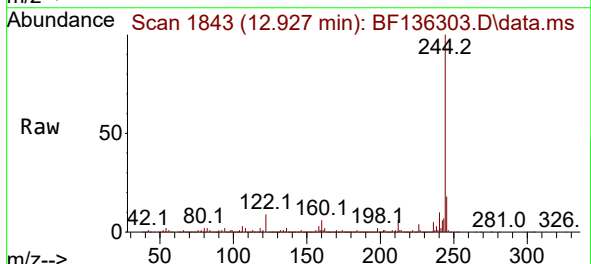
Manual Integrations  
APPROVED

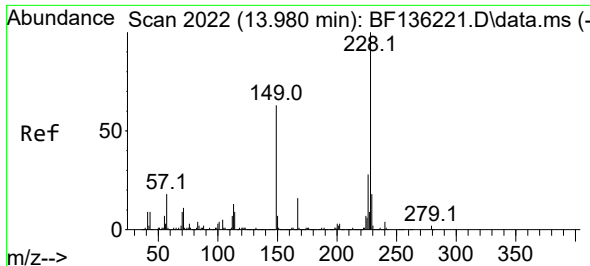
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#79  
Terphenyl-d14  
Concen: 28.518 ng  
RT: 12.927 min Scan# 1843  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

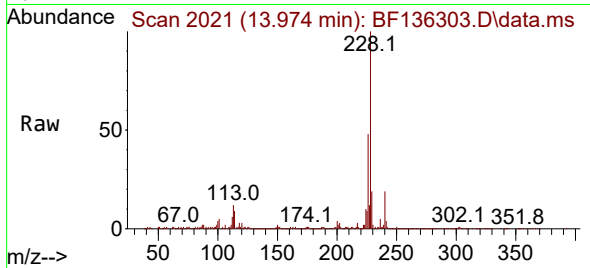
Tgt Ion:244 Resp: 568133  
Ion Ratio Lower Upper  
244 100  
212 5.8 4.6 7.0  
122 8.9 7.3 10.9





#81  
Benzo(a)anthracene  
Concen: 13.454 ng  
RT: 13.974 min Scan# 2021  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

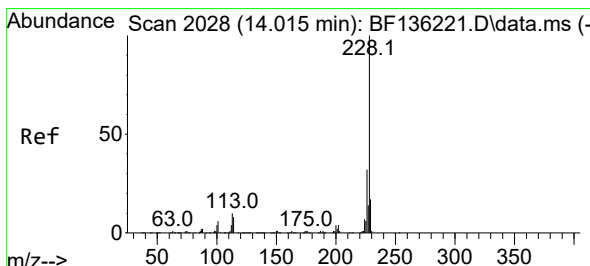
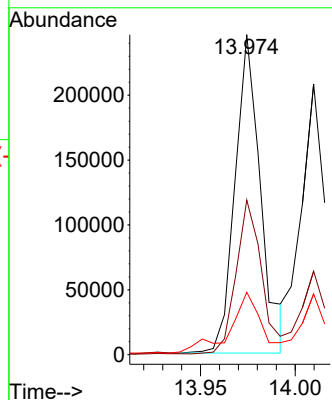
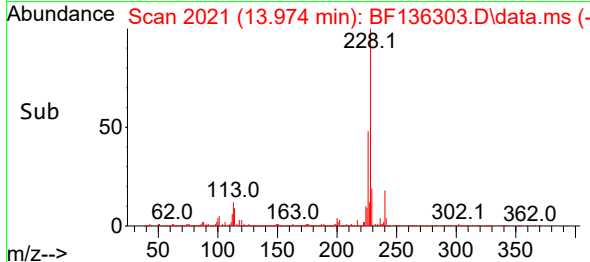
Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)



Tgt Ion:228 Resp: 229639  
Ion Ratio Lower Upper  
228 100  
226 48.3 22.6 34.0  
229 19.5 14.0 21.0

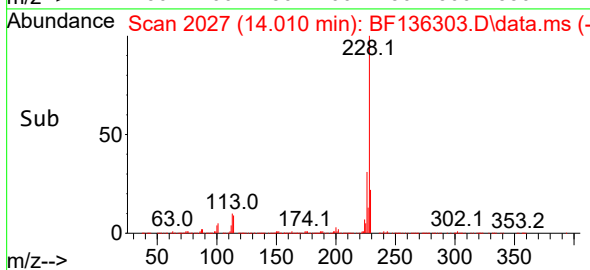
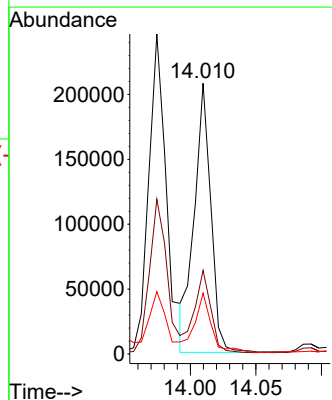
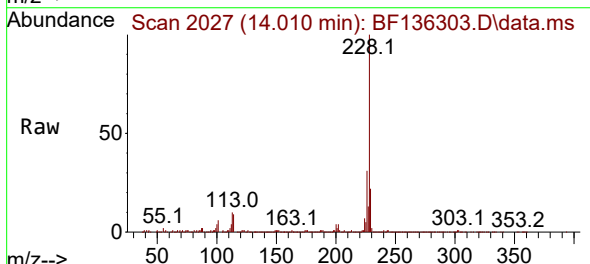
Manual Integrations  
APPROVED

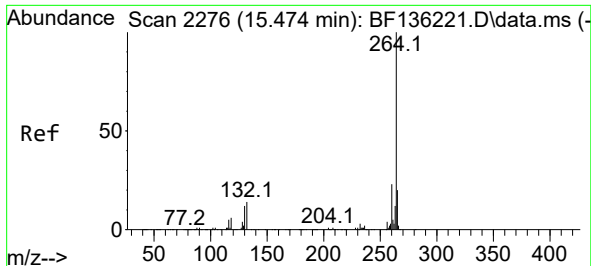
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#83  
Chrysene  
Concen: 11.117 ng  
RT: 14.010 min Scan# 2027  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Tgt Ion:228 Resp: 183217  
Ion Ratio Lower Upper  
228 100  
226 30.8 25.5 38.3  
229 22.5 13.9 20.9





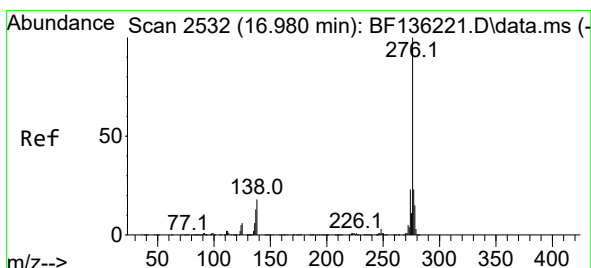
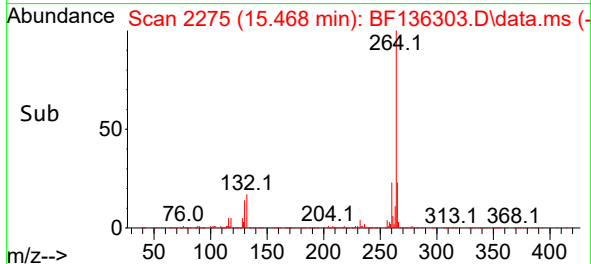
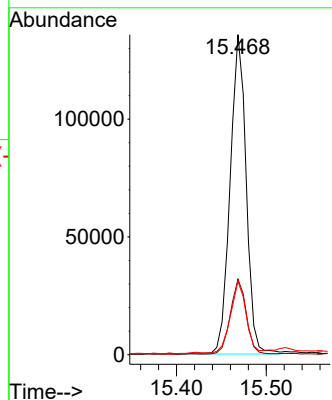
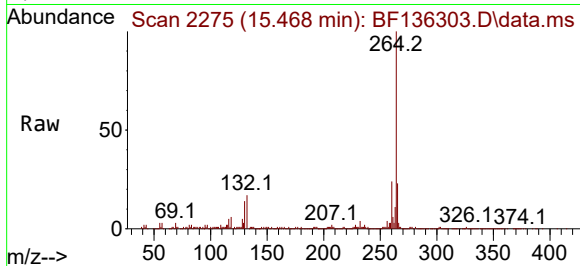
#86  
Perylene-d12  
Concen: 20.000 ng  
RT: 15.468 min Scan# 21  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)

Tgt Ion:264 Resp: 16842  
Ion Ratio Lower Upper  
264 100  
260 23.6 18.6 27.8  
265 23.0 15.7 23.5

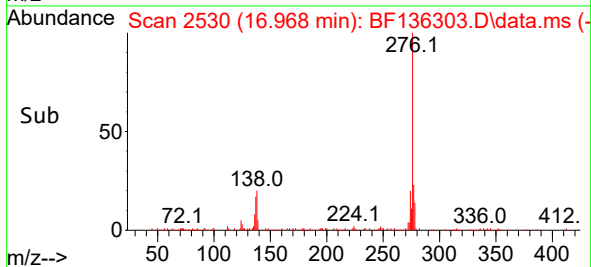
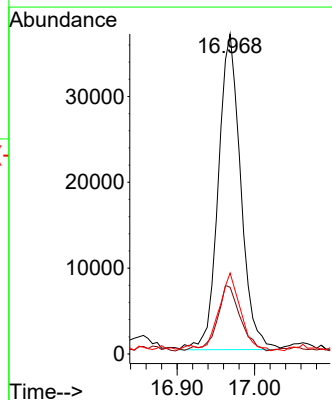
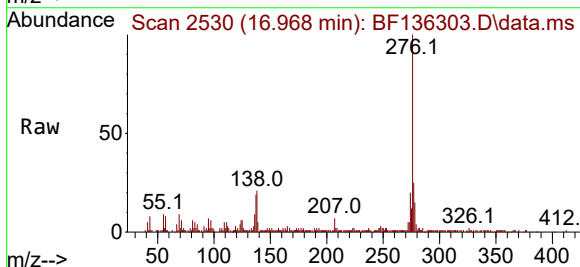
Manual Integrations  
APPROVED

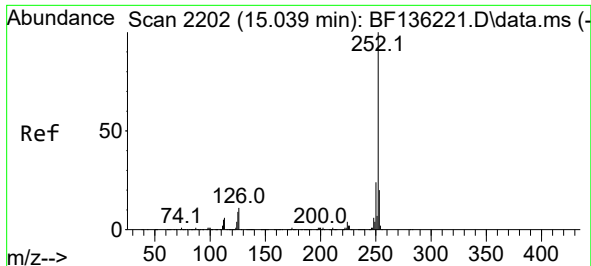
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#87  
Indeno(1,2,3-cd)pyrene  
Concen: 8.230 ng  
RT: 16.968 min Scan# 2530  
Delta R.T. -0.012 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Tgt Ion:276 Resp: 74008  
Ion Ratio Lower Upper  
276 100  
138 21.7 17.7 26.5  
277 22.9 19.6 29.4





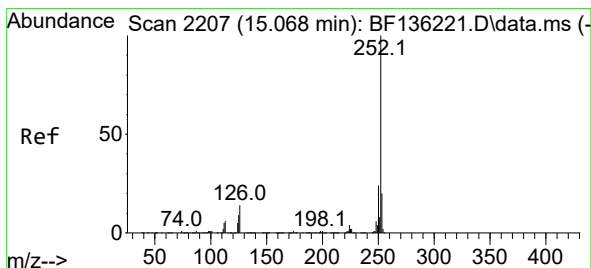
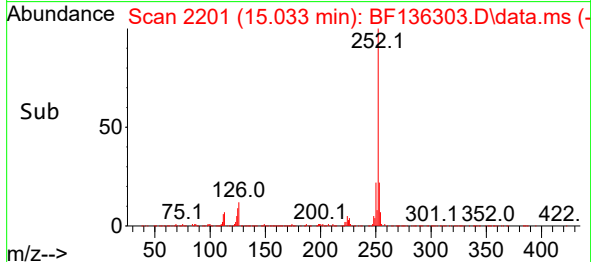
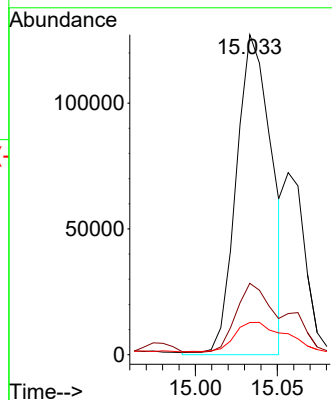
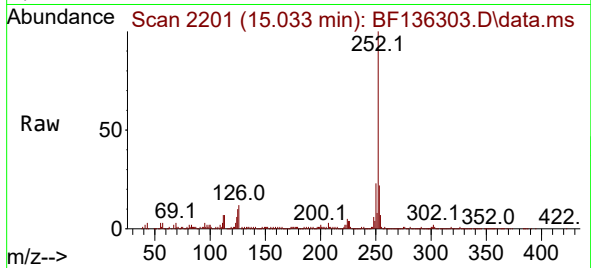
#88  
Benzo(b)fluoranthene  
Concen: 16.135 ng m  
RT: 15.033 min Scan# 21  
Delta R.T. -0.006 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Instrument :  
BNA\_F  
ClientSampleId :  
P-2(200FT)(5-10)

Tgt Ion:252 Resp: 19065  
Ion Ratio Lower Upper  
252 100  
253 22.3 16.2 24.2  
125 10.0 6.9 10.3

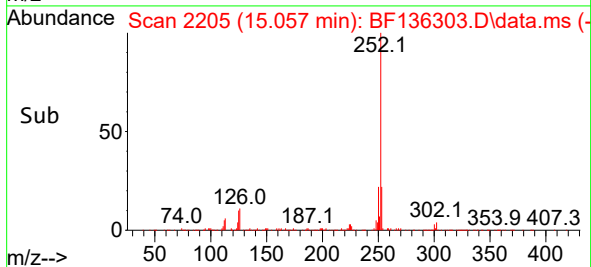
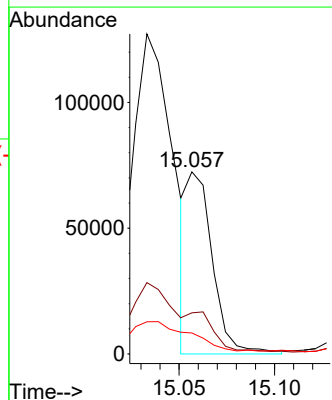
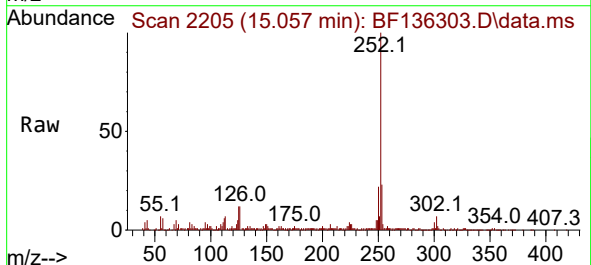
Manual Integrations  
APPROVED

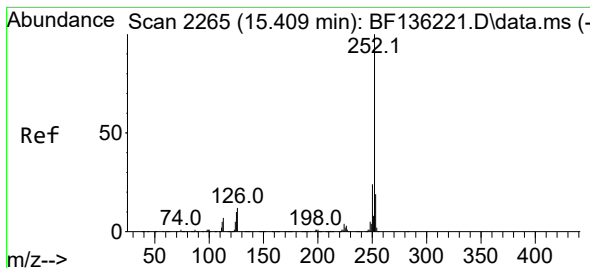
Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#89  
Benzo(k)fluoranthene  
Concen: 5.977 ng m  
RT: 15.057 min Scan# 2205  
Delta R.T. -0.011 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Tgt Ion:252 Resp: 67080  
Ion Ratio Lower Upper  
252 100  
253 22.6 15.6 23.4  
125 11.5 7.0 10.4#





#90

Benzo(a)pyrene

Concen: 12.577 ng

RT: 15.404 min Scan# 21

Delta R.T. -0.005 min

Lab File: BF136303.D

Acq: 30 Nov 2023 01:38

Instrument :

BNA\_F

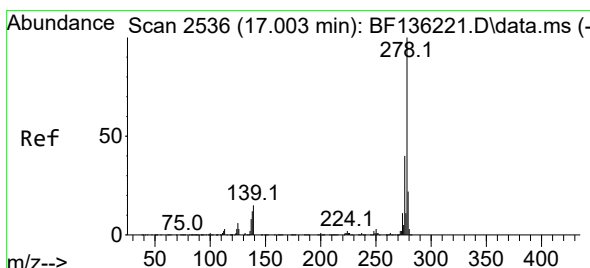
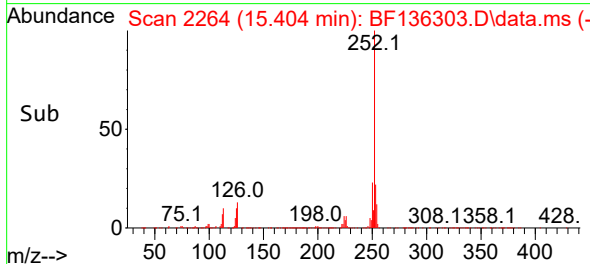
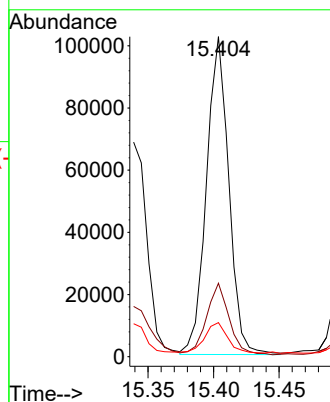
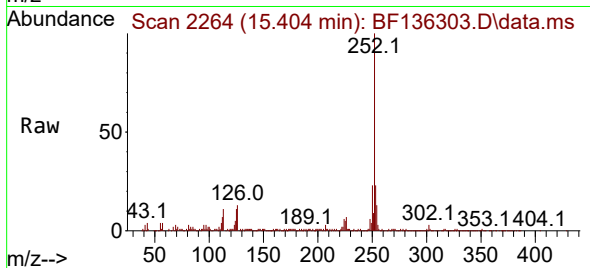
ClientSampleId :

P-2(200FT)(5-10)

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:252 | Resp: | 12148     |
| Ion Ratio   | Lower | Upper     |
| 252         | 100   |           |
| 253         | 22.9  | 15.5 23.3 |
| 125         | 10.7  | 7.9 11.9  |

Manual Integrations  
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Reviewed By :Yogesh Patel 11/30/2023  
Supervised By :mohammad ahmed 12/01/2023



#91

Dibenzo(a,h)anthracene

Concen: 4.080 ng

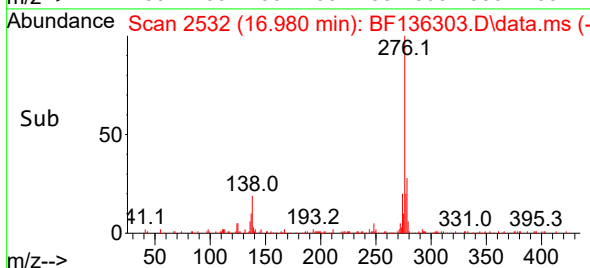
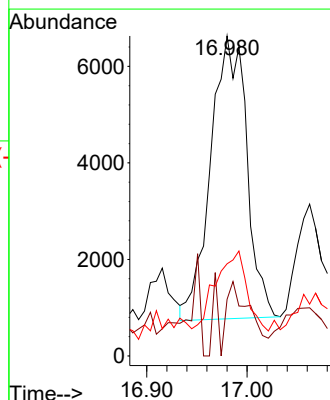
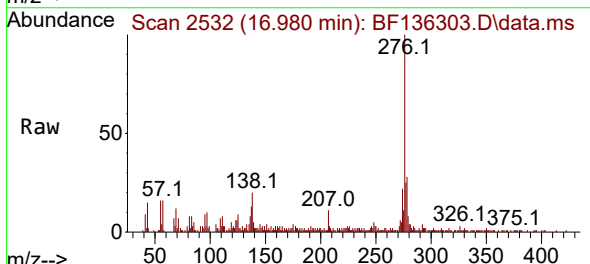
RT: 16.980 min Scan# 2532

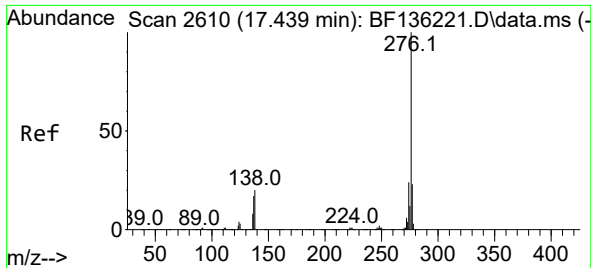
Delta R.T. -0.023 min

Lab File: BF136303.D

Acq: 30 Nov 2023 01:38

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:278 | Resp: | 14639      |
| Ion Ratio   | Lower | Upper      |
| 278         | 100   |            |
| 139         | 17.7  | 11.7 17.5# |
| 279         | 28.8  | 17.8 26.8# |





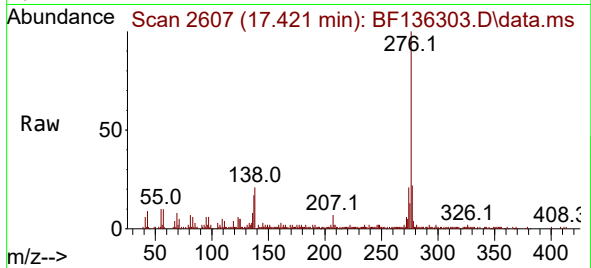
#92  
Benzo(g,h,i)perylene  
Concen: 8.851 ng  
RT: 17.421 min Scan# 20  
Delta R.T. -0.018 min  
Lab File: BF136303.D  
Acq: 30 Nov 2023 01:38

Instrument :

BNA\_F

ClientSampleId :

P-2(200FT)(5-10)



Tgt Ion:276 Resp: 73380  
Ion Ratio Lower Upper  
276 100  
277 22.3 18.6 27.8  
138 21.4 15.8 23.8

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/30/2023

Supervised By :mohammad ahmed 12/01/2023

