

Data Path : Z:\HPCHEM1\BNA E\DATA\BE100815\  
 Data File : BE090997.D  
 Acq On : 8 Oct 2015 11:21  
 Operator : UM/IZ  
 Sample : G3965-03  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 TW-4

Manual Integrations  
 APPROVED

MMdadoda  
 10/9/2015 1:50:02 PM

Quant Time: Oct 09 03:14:40 2015  
 Quant Method : Z:\HPCHEM1\BNA E\METHODS\8270-SIM-BE092815.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Oct 07 17:11:43 2015  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min)   |
|-----------------------------|-------|------|----------|------|-------|------------|
| 1) 1,4-Dichlorobenzene-d4   | 6.95  | 152  | 68116    | 5.00 | ng    | 0.00       |
| 7) Naphthalene-d8           | 9.63  | 136  | 339052   | 5.00 | ng    | 0.00       |
| 13) Acenaphthene-d10        | 13.45 | 164  | 189530   | 5.00 | ng    | 0.00       |
| 19) Phenanthrene-d10        | 16.17 | 188  | 428225   | 5.00 | ng    | -0.01      |
| 26) Chrysene-d12            | 20.33 | 240  | 545908   | 5.00 | ng    | 0.00       |
| 35) Perylene-d12            | 22.25 | 264  | 534441   | 5.00 | ng    | 0.00       |
| System Monitoring Compounds |       |      |          |      |       |            |
| 4) 2-Fluorophenol           | 4.97  | 112  | 50155    | 3.67 | ng    | -0.03      |
| 5) Phenol-d6                | 6.60  | 99   | 49251    | 2.82 | ng    | -0.03      |
| 8) Nitrobenzene-d5          | 8.21  | 82   | 96207    | 4.33 | ng    | -0.02      |
| 14) 2,4,6-Tribromophenol    | 14.99 | 330  | 62236    | 9.45 | ng    | 0.00       |
| 15) 2-Fluorobiphenyl        | 12.08 | 172  | 195084   | 3.80 | ng    | -0.01      |
| 29) Terphenyl-d14           | 18.73 | 244  | 332245   | 4.93 | ng    | 0.00       |
| Target Compounds            |       |      |          |      |       |            |
| 10) Naphthalene             | 9.67  | 128  | 201383   | 3.06 | ng    | Qvalue 100 |
| 12) 2-Methylnaphthalene     | 11.20 | 142  | 13857    | 0.32 | ng    | # 94       |
| 17) Acenaphthene            | 13.51 | 154  | 24188    | 0.48 | ng    | 91         |
| 18) Fluorene                | 14.50 | 166  | 17542    | 0.28 | ng    | 98         |
| 22) Pentachlorophenol       | 15.93 | 266  | 857      | 0.19 | ng    | # 89       |
| 23) Phenanthrene            | 16.21 | 178  | 77974    | 0.74 | ng    | 96         |
| 24) Anthracene              | 16.29 | 178  | 34618m   | 0.38 | ng    |            |
| 25) Fluoranthene            | 18.20 | 202  | 33900    | 0.27 | ng    | 98         |
| 28) Pyrene                  | 18.58 | 202  | 34404    | 0.26 | ng    | 97         |
| 30) Benzo(a)anthracene      | 20.30 | 228  | 8515     | 0.07 | ng    | # 69       |
| 34) Indeno(1,2,3-cd)pyrene  | 23.91 | 276  | 3613     | 0.14 | ng    | 97         |

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

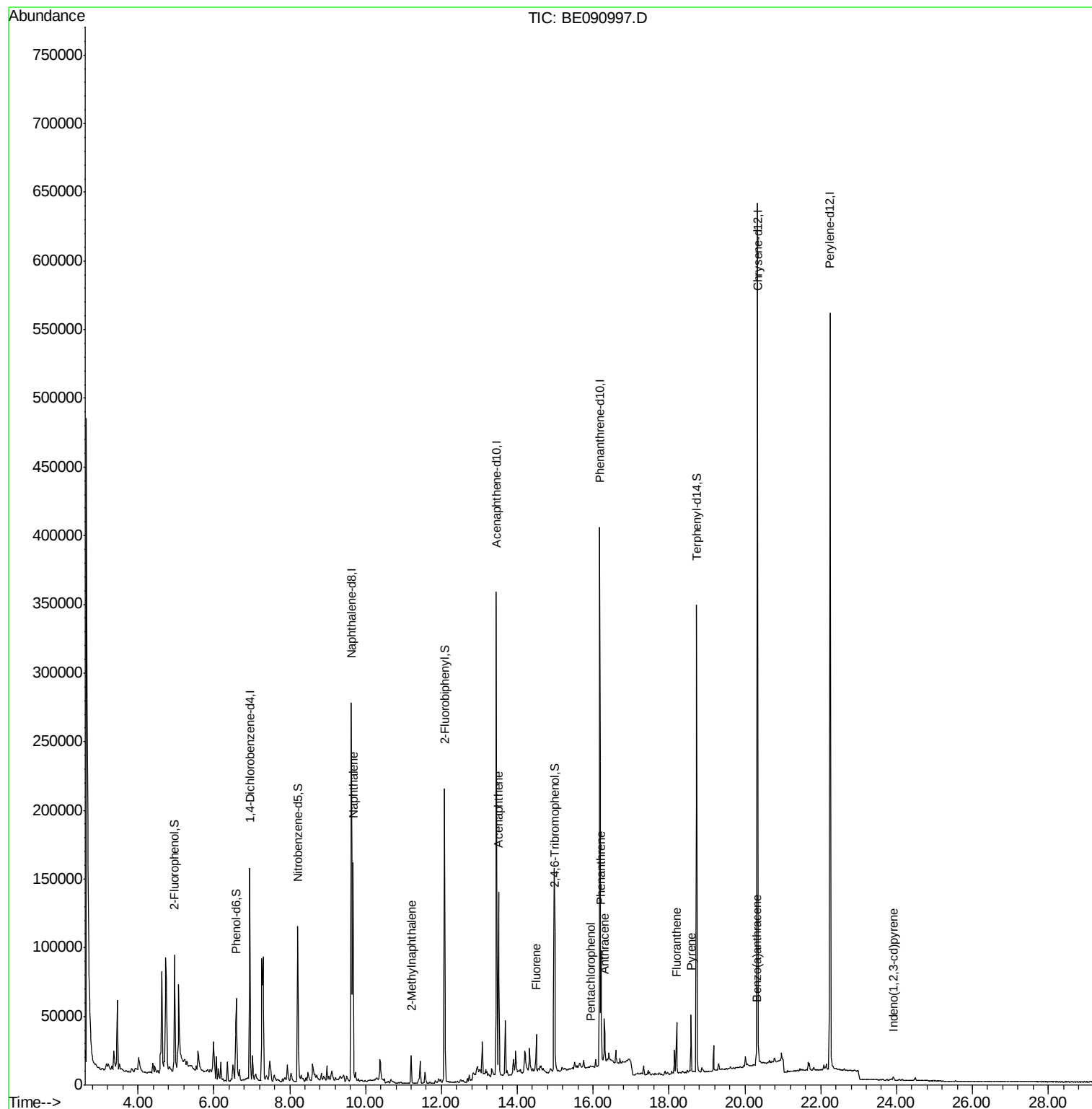
Data Path : Z:\HPCHEM1\BNA E\DATA\BE100815\  
Data File : BE090997.D  
Acq On : 8 Oct 2015 11:21  
Operator : UM/IZ  
Sample : G3965-03  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

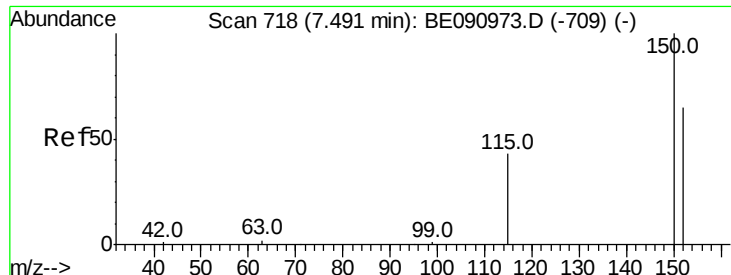
Instrument :  
BNA\_E  
ClientSampleId :  
TW-4

Manual Integrations  
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10/9/2015 1:50:02 PM

Quant Time: Oct 09 03:14:40 2015  
Quant Method : Z:\HPCHEM1\BNA E\METHODS\8270-SIM-BE092815.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Oct 07 17:11:43 2015  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 6.95 min Scan# 638

Delta R.T. -0.01 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

Instrument :

BNA\_E

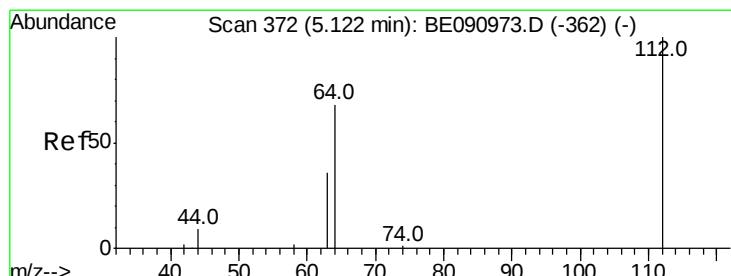
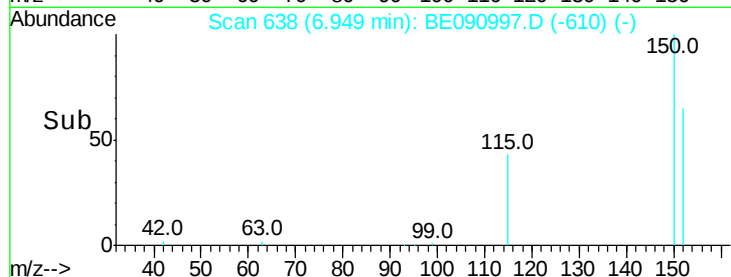
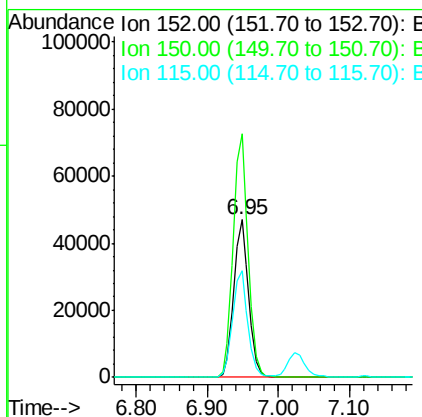
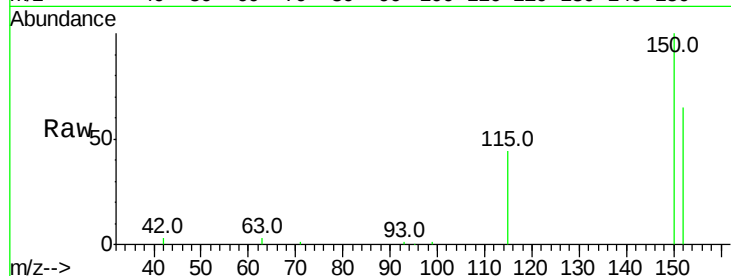
ClientSampled :

TW-4

Manual Integrations  
APPROVED

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10/9/2015 1:50:02 PM

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 152   | Resp: | 68116 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 150       | 154.8 | 122.6 | 183.8 |
| 115       | 67.5  | 52.8  | 79.2  |



#4

2-Fluorophenol

Concen: 3.67 ng

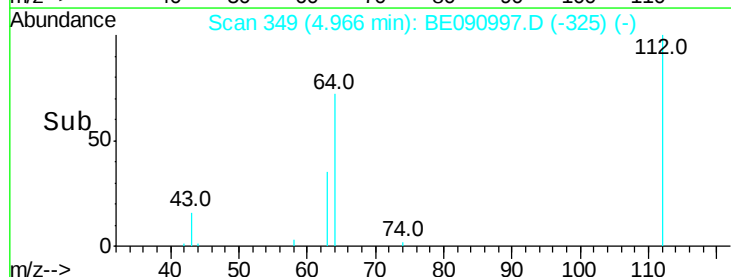
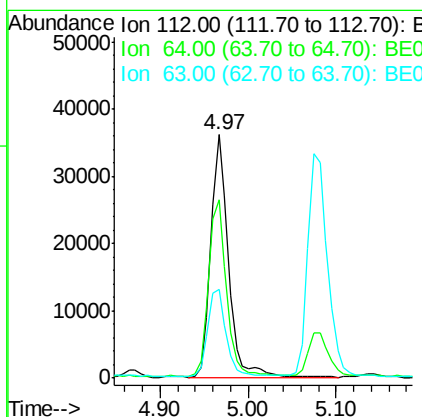
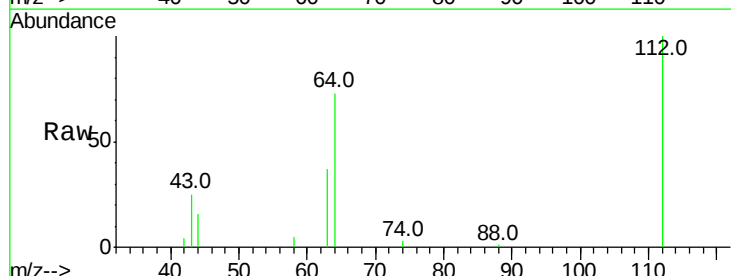
RT: 4.97 min Scan# 349

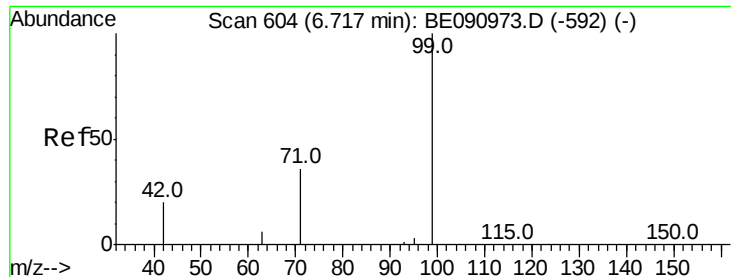
Delta R.T. -0.03 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 112   | Resp: | 50155 |
| Ion Ratio | Lower | Upper |       |
| 112       | 100   |       |       |
| 64        | 73.5  | 30.9  | 46.3# |
| 63        | 37.1  | 16.7  | 25.1# |





#5

Phenol-d6

Concen: 2.82 ng

RT: 6.60 min Scan# 586

Delta R.T. -0.03 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

Instrument :

BNA\_E

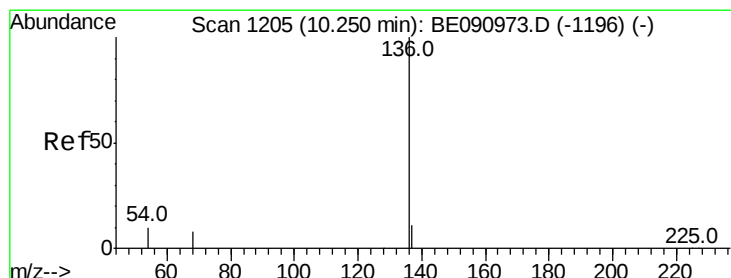
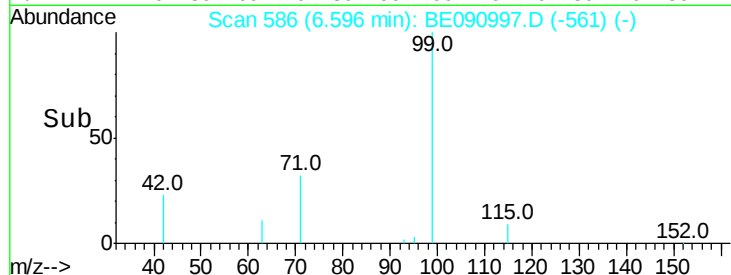
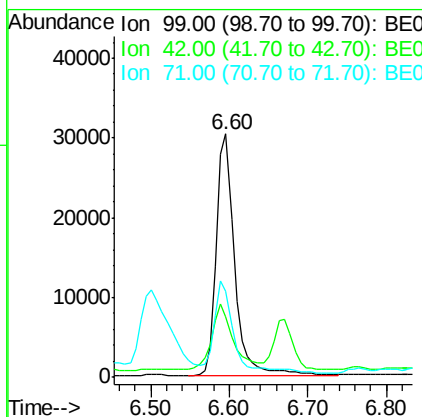
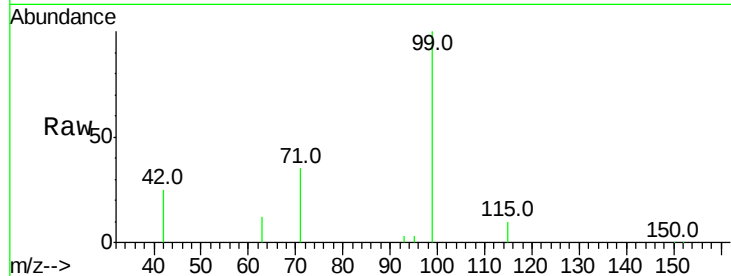
ClientSampled :

TW-4

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 99    | Resp: | 49251 |
| Ion Ratio | Lower | Upper |       |
| 99        | 100   |       |       |
| 42        | 33.1  | 16.2  | 24.2# |
| 71        | 40.7  | 29.0  | 43.4  |

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#7

Naphthalene-d8

Concen: 5.00 ng

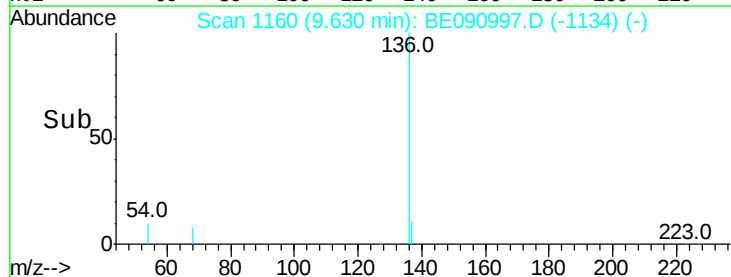
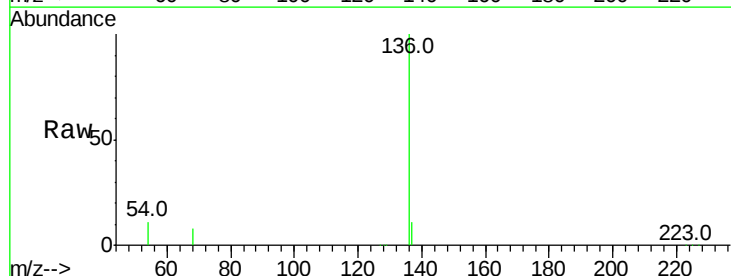
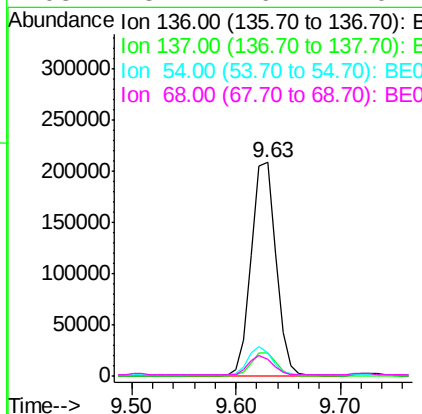
RT: 9.63 min Scan# 1160

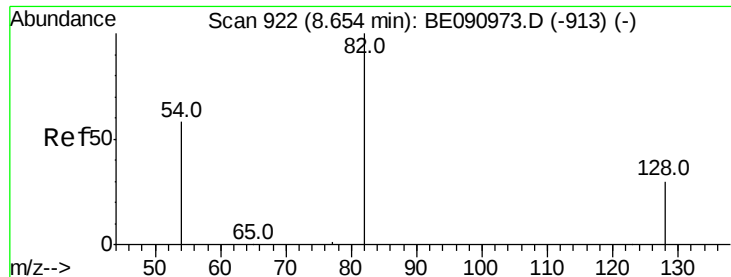
Delta R.T. -0.01 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 339052 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 11.1  | 8.9   | 13.3   |
| 54        | 10.9  | 8.2   | 12.4   |
| 68        | 8.1   | 6.2   | 9.4    |





#8

Nitrobenzene-d5

Concen: 4.33 ng

RT: 8.21 min Scan# 872

Delta R.T. -0.02 min

Lab File: BE090997.D

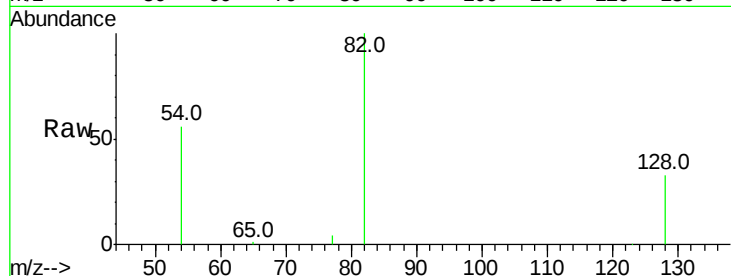
Acq: 8 Oct 2015 11:21

Instrument :

BNA\_E

ClientSampleId :

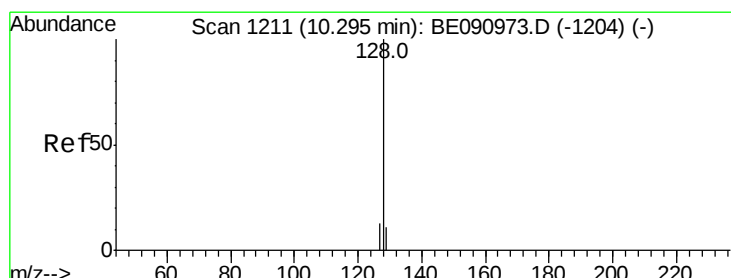
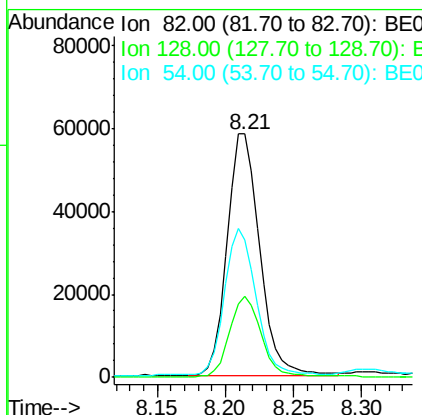
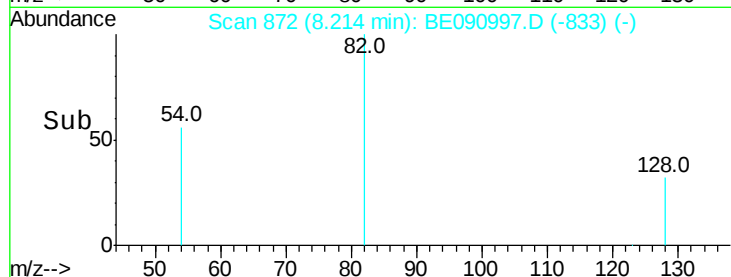
TW-4



|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 82    | Resp: | 96207 |
| Ion Ratio | Lower | Upper |       |
| 82        | 100   |       |       |
| 128       | 33.4  | 25.4  | 38.0  |
| 54        | 56.5  | 48.4  | 72.6  |

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#10

Naphthalene

Concen: 3.06 ng

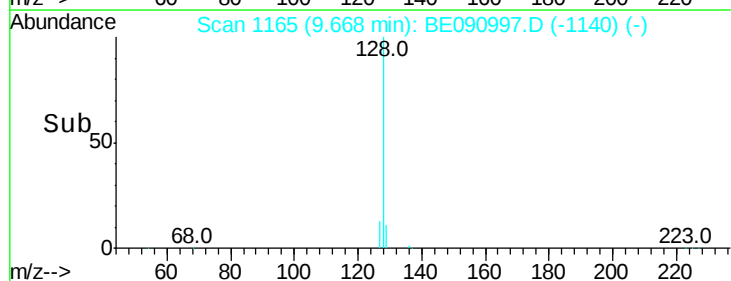
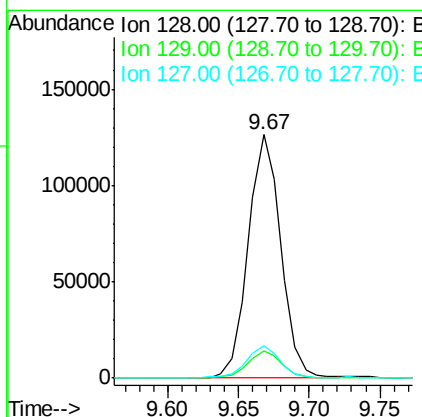
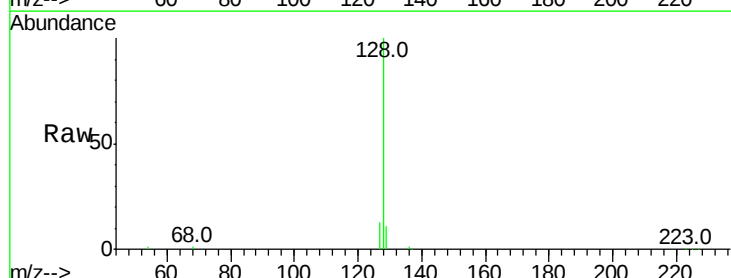
RT: 9.67 min Scan# 1165

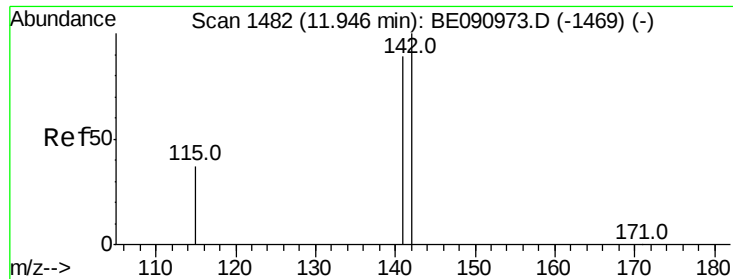
Delta R.T. -0.02 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 128   | Resp: | 201383 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 129       | 11.3  | 9.3   | 13.9   |
| 127       | 13.4  | 10.7  | 16.1   |





#12

2-Methylnaphthalene

Concen: 0.32 ng

RT: 11.20 min Scan# 1425

Delta R.T. -0.01 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

Instrument :

BNA\_E

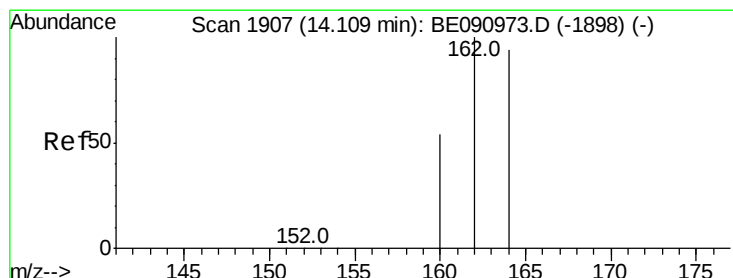
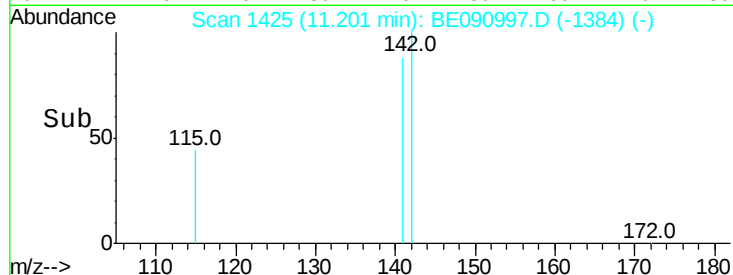
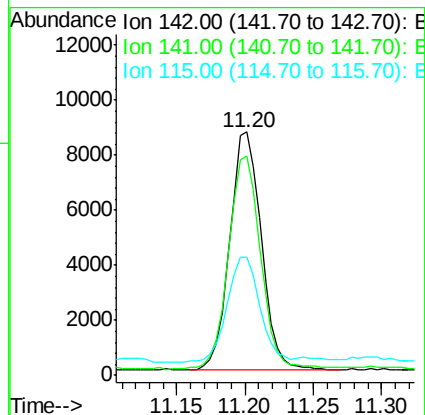
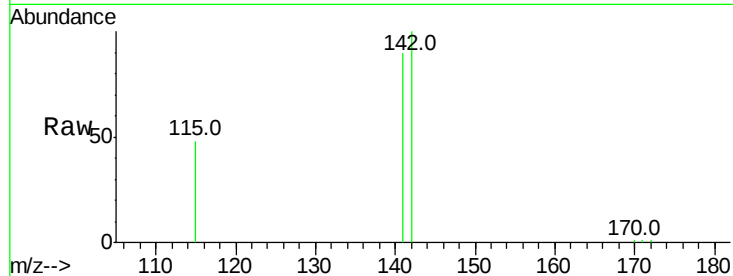
ClientSampleId :

TW-4

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 142   | Resp: | 13857 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 90.1  | 71.4  | 107.0 |
| 115       | 48.4  | 30.3  | 45.5# |

Manual Integrations  
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#13

Acenaphthene-d10

Concen: 5.00 ng

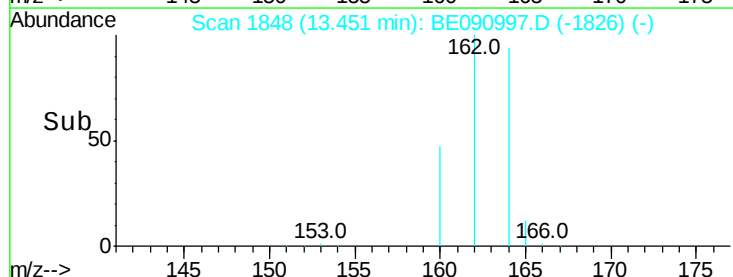
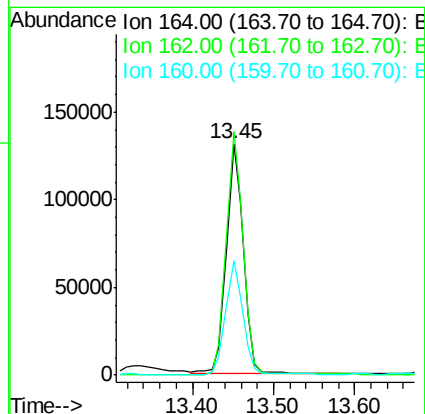
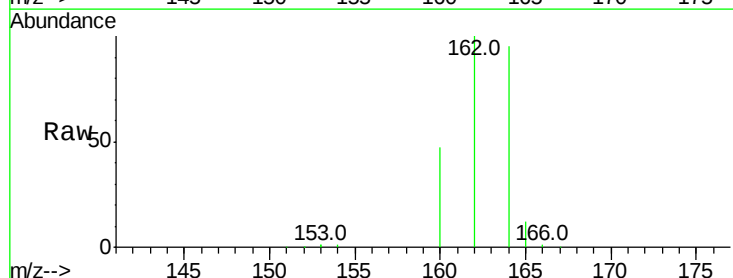
RT: 13.45 min Scan# 1848

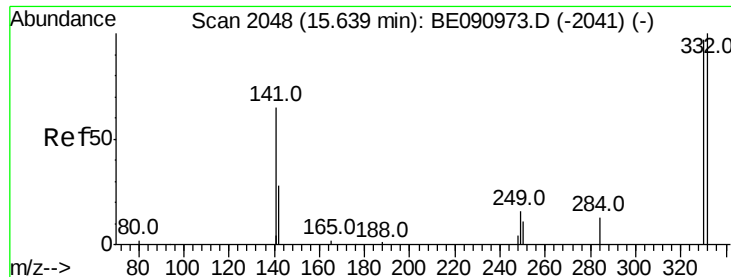
Delta R.T. -0.01 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 164   | Resp: | 189530 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 105.4 | 85.3  | 127.9  |
| 160       | 49.5  | 46.2  | 69.2   |





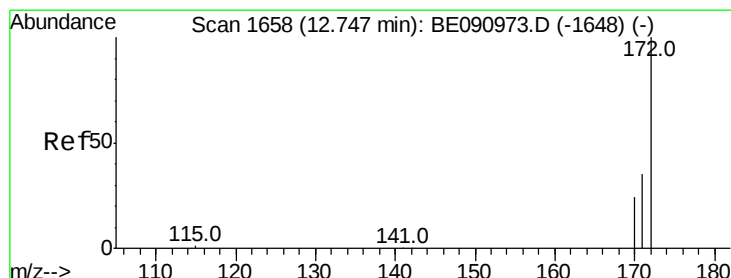
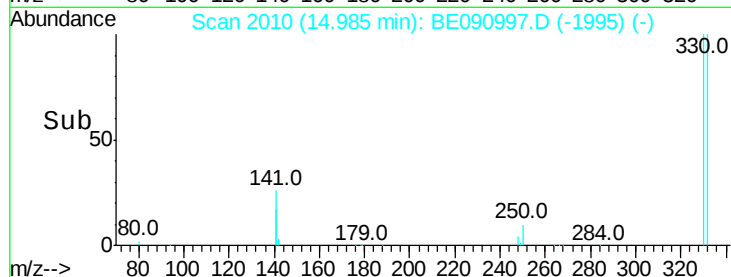
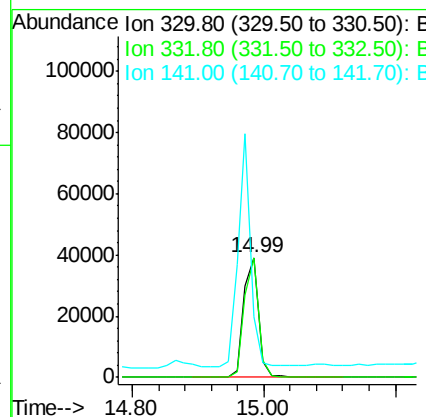
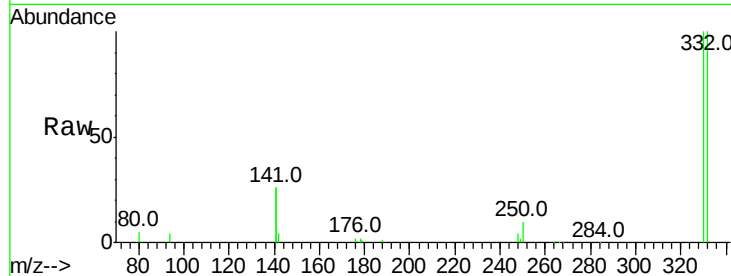
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 2,4,6-Tribromophenol  
 Concen: 9.45 ng  
 RT: 14.99 min Scan# 2010  
 Delta R.T. 0.00 min  
 Lab File: BE090997.D  
 Acq: 8 Oct 2015 11:21

Instrument :  
 BNA\_E  
 ClientSampleId :  
 TW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 96.1  | 79.1  | 118.7 |
| 141     | 168.8 | 125.4 | 188.0 |

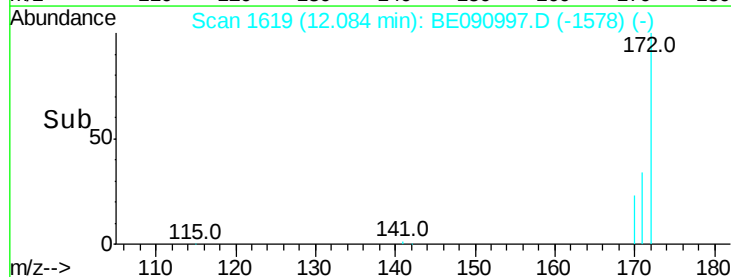
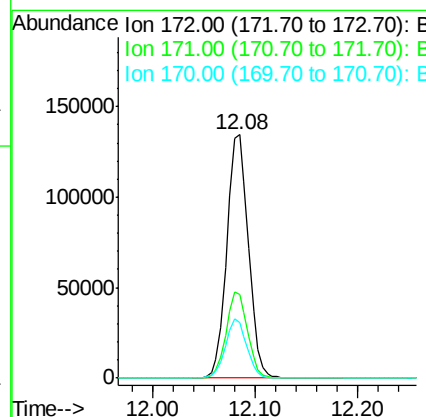
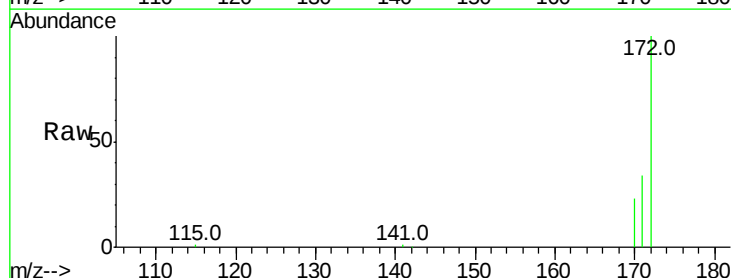
Manual Integrations  
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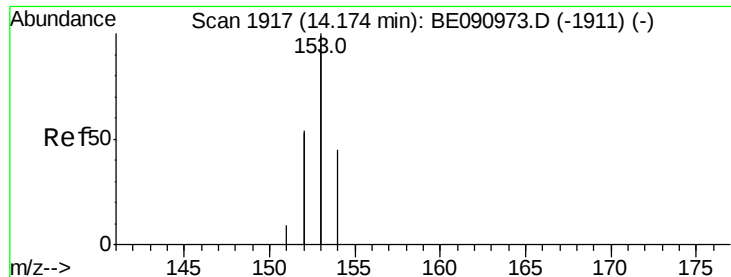
MMdadoda  
 10/9/2015 1:50:02 PM



#15  
 2-Fluorobiphenyl  
 Concen: 3.80 ng  
 RT: 12.08 min Scan# 1619  
 Delta R.T. -0.01 min  
 Lab File: BE090997.D  
 Acq: 8 Oct 2015 11:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 34.4  | 28.8  | 43.2  |
| 170     | 22.7  | 19.3  | 28.9  |





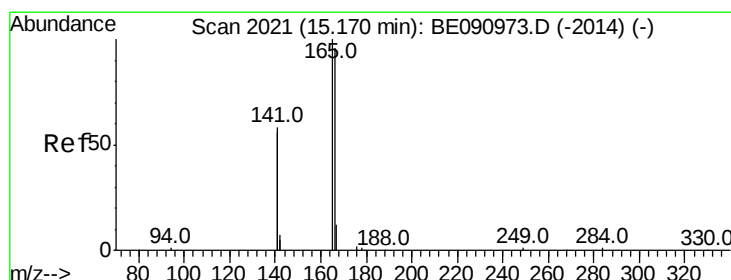
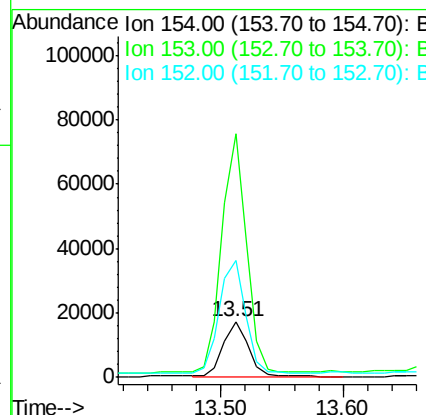
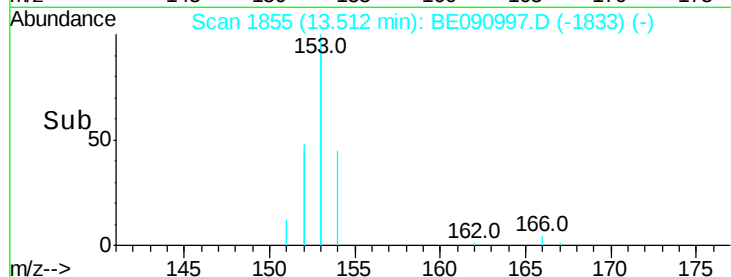
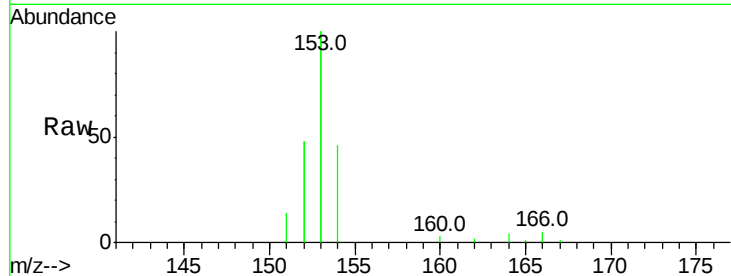
#17  
Acenaphthene  
Concen: 0.48 ng  
RT: 13.51 min Scan# 1855  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

Instrument :  
BNA\_E  
ClientSampled :  
TW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 431.1 | 352.0 | 528.0 |
| 152     | 215.7 | 200.0 | 300.0 |

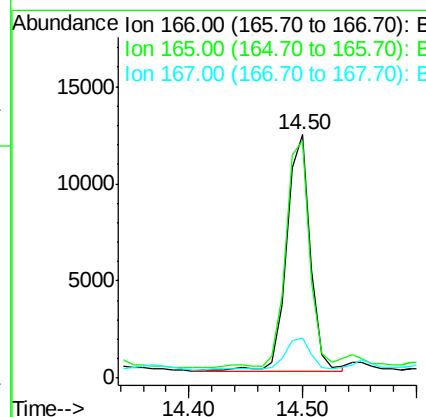
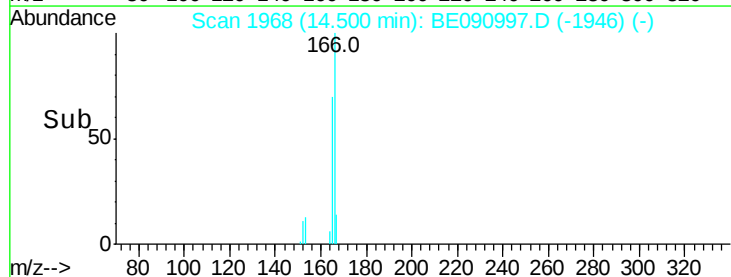
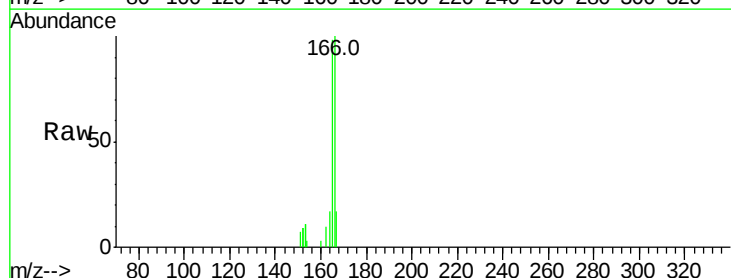
Manual Integrations  
APPROVED

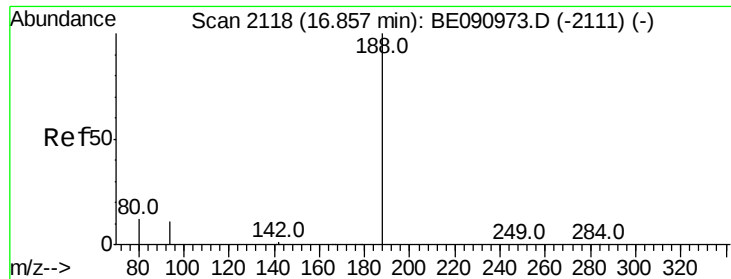
MMdadoda  
10/9/2015 1:50:02 PM



#18  
Fluorene  
Concen: 0.28 ng  
RT: 14.50 min Scan# 1968  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 99.3  | 80.8  | 121.2 |
| 167     | 13.0  | 10.9  | 16.3  |





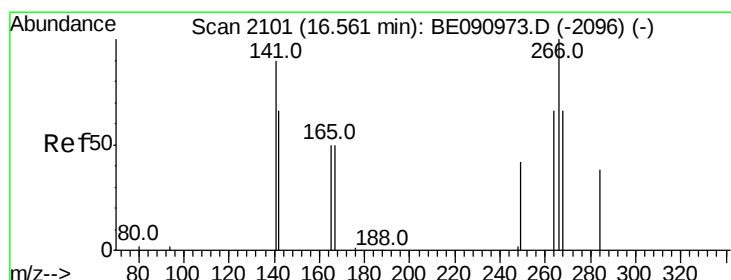
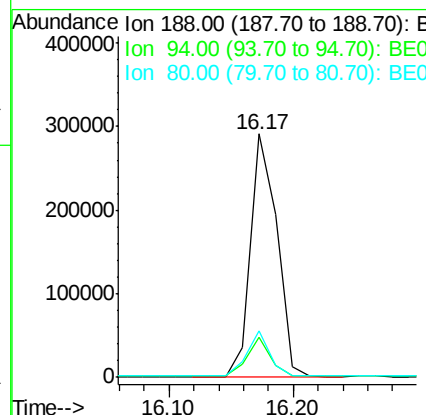
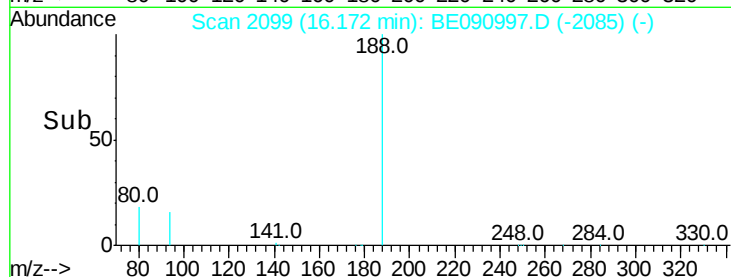
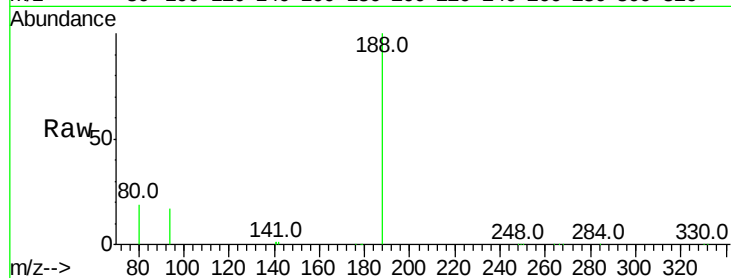
#19  
Phenanthrene-d10  
Concen: 5.00 ng  
RT: 16.17 min Scan# 2099  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

Instrument :  
BNA\_E  
ClientSampleId :  
TW-4

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 188     | 100   |            |       |
| 94      | 16.6  | 8.7        | 13.1# |
| 80      | 18.9  | 9.4        | 14.0# |

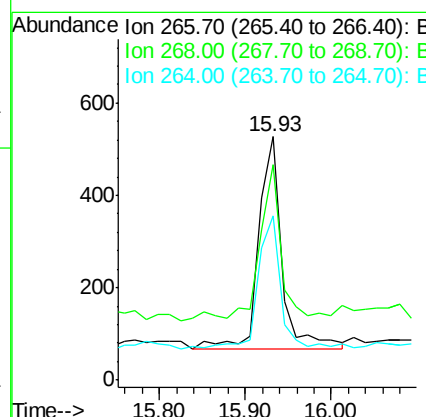
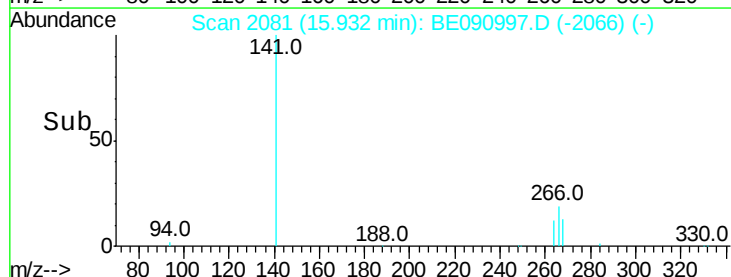
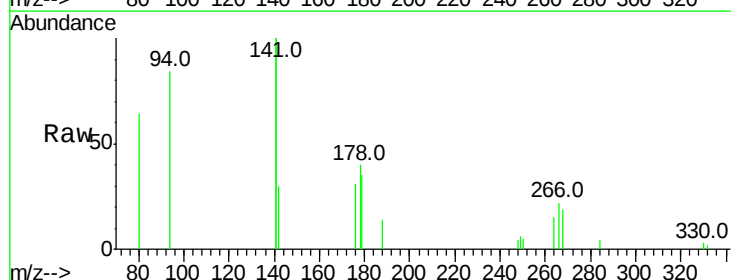
Manual Integrations  
APPROVED

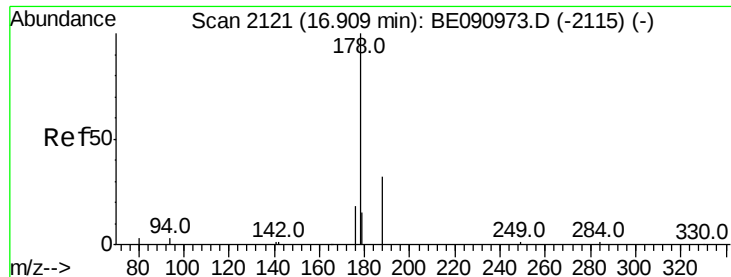
MMdadoda  
10/9/2015 1:50:02 PM



#22  
Pentachlorophenol  
Concen: 0.19 ng  
RT: 15.93 min Scan# 2081  
Delta R.T. 0.00 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 266     | 100   |            |       |
| 268     | 88.6  | 58.2       | 87.2# |
| 264     | 67.4  | 56.2       | 84.4  |





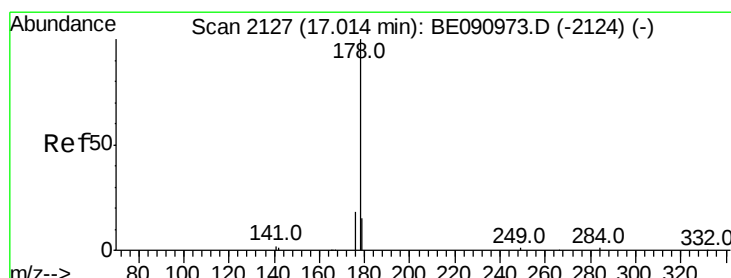
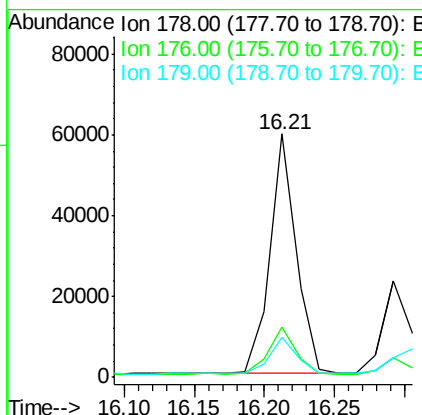
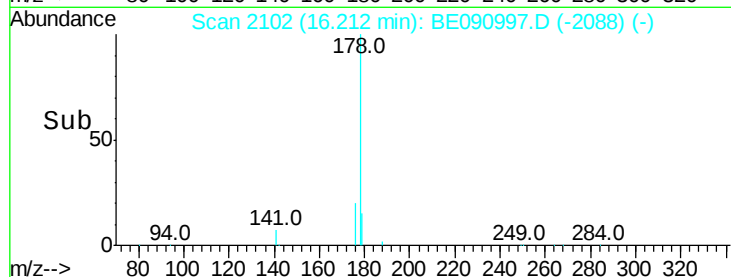
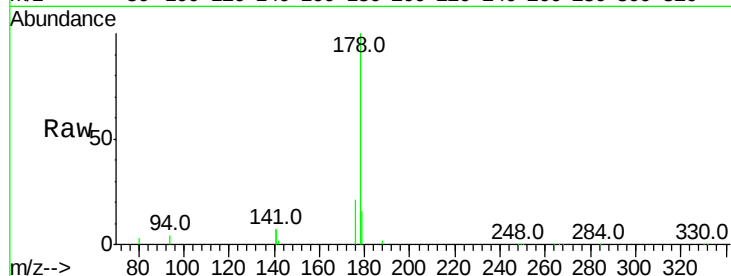
#23  
Phenanthrene  
Concen: 0.74 ng  
RT: 16.21 min Scan# 2102  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

Instrument :  
BNA\_E  
ClientSampleId :  
TW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 21.4  | 15.3  | 22.9  |
| 179     | 16.4  | 12.6  | 18.8  |

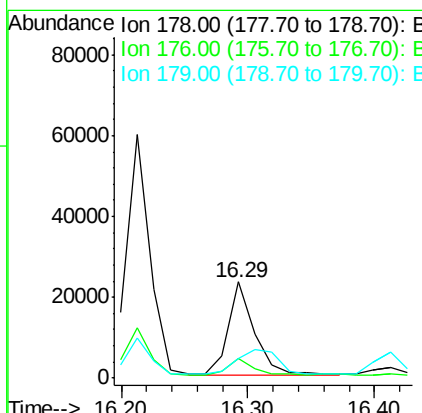
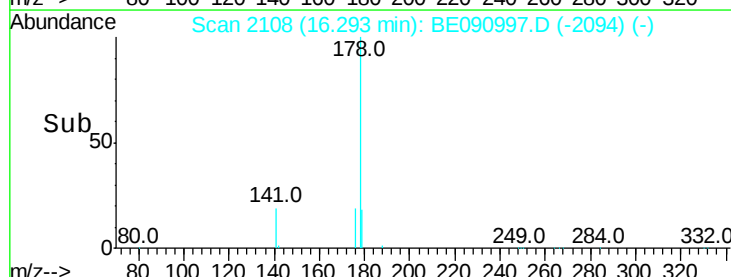
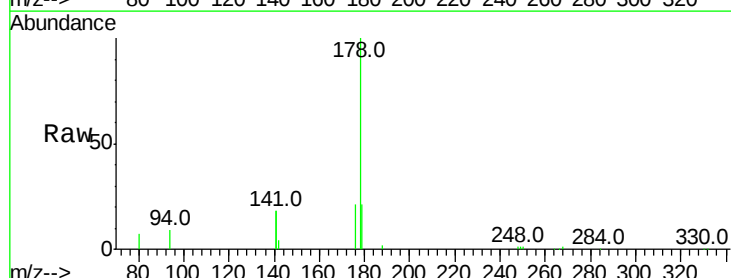
Manual Integrations  
APPROVED

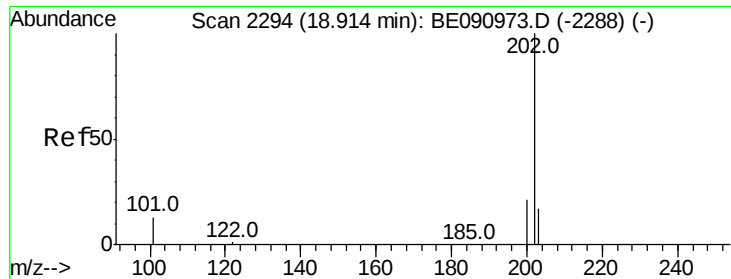
MMdadoda  
10/9/2015 1:50:02 PM



#24  
Anthracene  
Concen: 0.38 ng m  
RT: 16.29 min Scan# 2108  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 47.5  | 14.6  | 21.8# |
| 179     | 36.5  | 11.8  | 17.6# |





#25

Fluoranthene

Concen: 0.27 ng

RT: 18.20 min Scan# 2317

Delta R.T. -0.00 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

Instrument :

BNA\_E

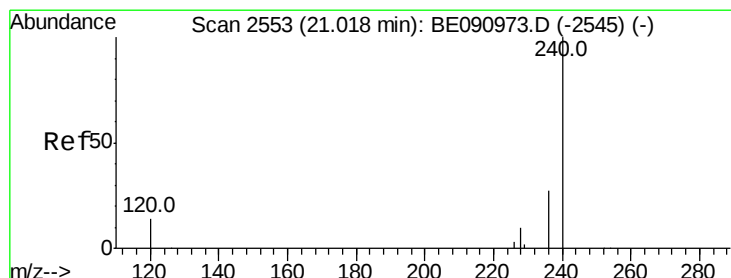
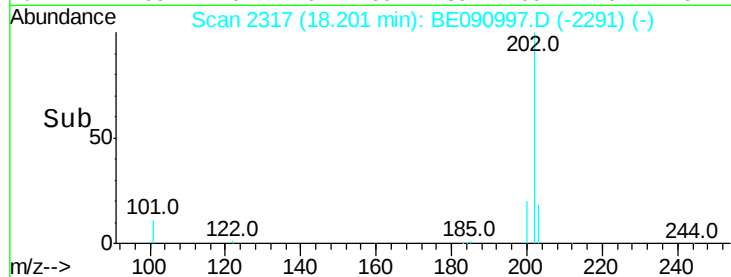
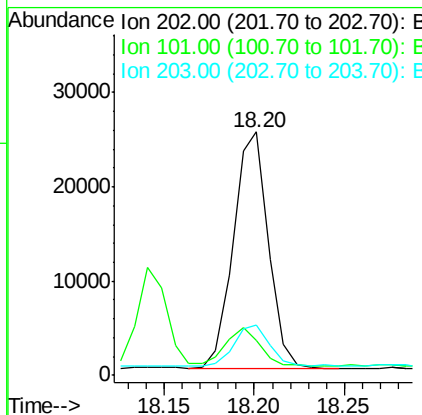
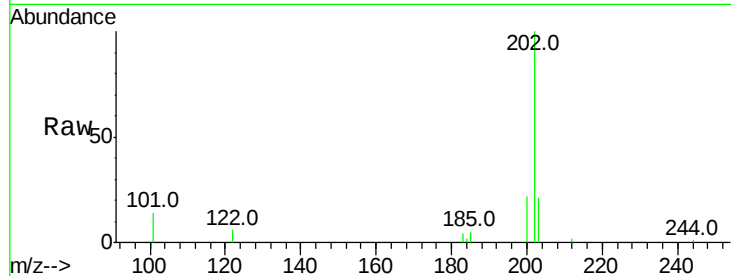
ClientSampleId :

TW-4

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 202   | Resp: | 33900 |
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 15.8  | 11.0  | 16.6  |
| 203       | 17.5  | 13.9  | 20.9  |

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#26

Chrysene-d12

Concen: 5.00 ng

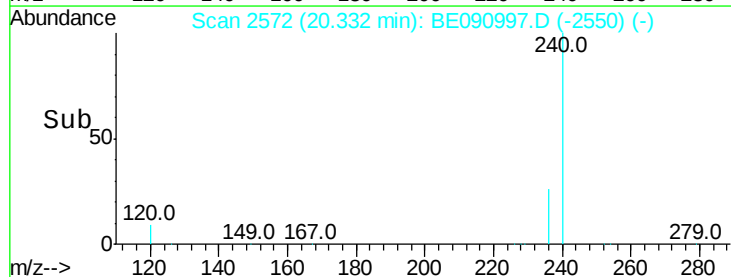
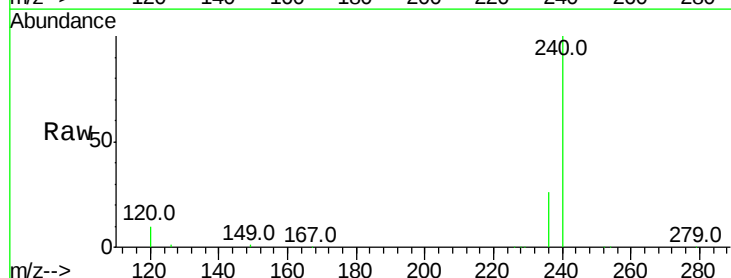
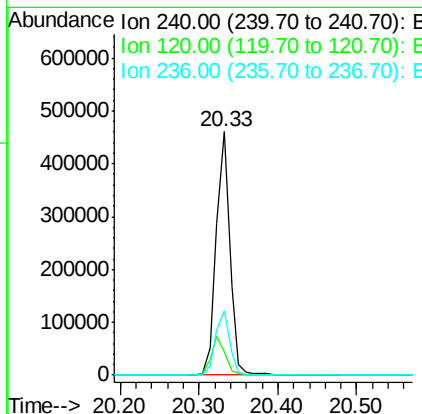
RT: 20.33 min Scan# 2572

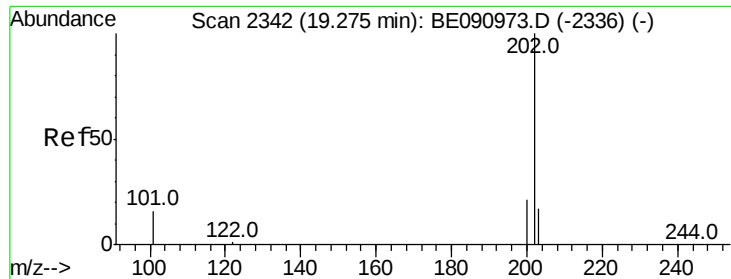
Delta R.T. -0.00 min

Lab File: BE090997.D

Acq: 8 Oct 2015 11:21

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 240   | Resp: | 545908 |
| Ion Ratio | Lower | Upper |        |
| 240       | 100   |       |        |
| 120       | 9.6   | 11.0  | 16.4#  |
| 236       | 26.5  | 21.7  | 32.5   |





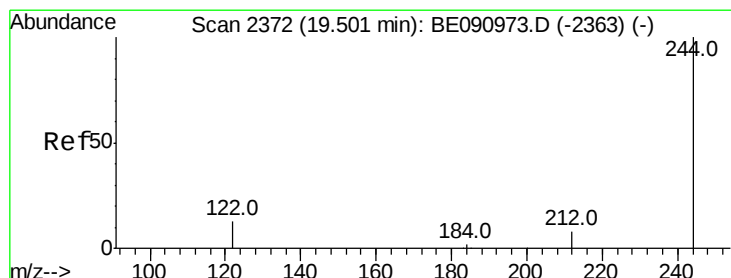
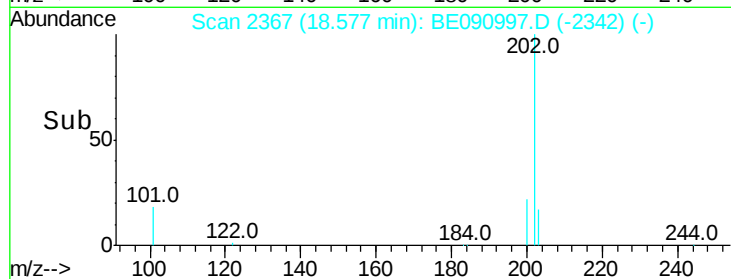
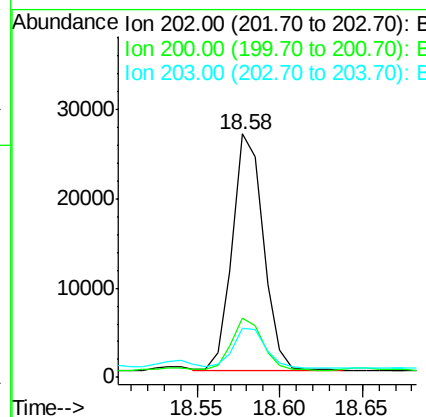
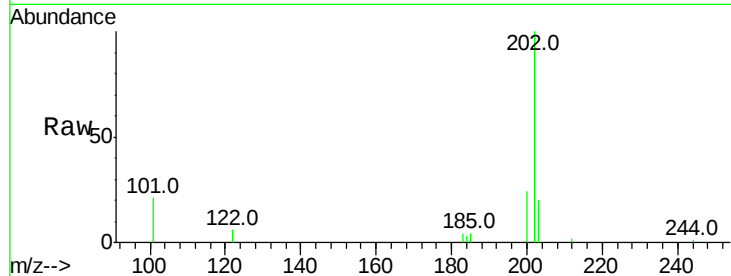
#28  
Pvrene  
Concen: 0.26 ng  
RT: 18.58 min Scan# 2367  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

Instrument :  
BNA\_E  
ClientSampleId :  
TW-4

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 202     | 100   | 34404 |       |       |
| 200     | 22.8  | 16.8  | 25.2  |       |
| 203     | 17.9  | 14.0  | 21.0  |       |

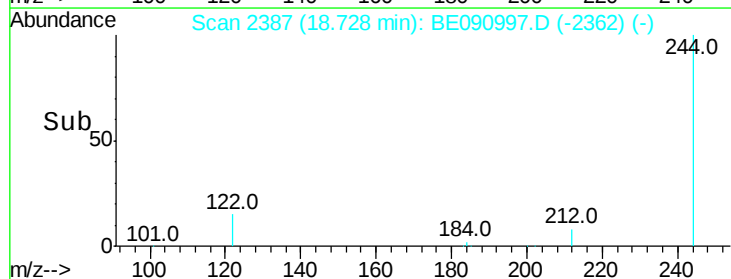
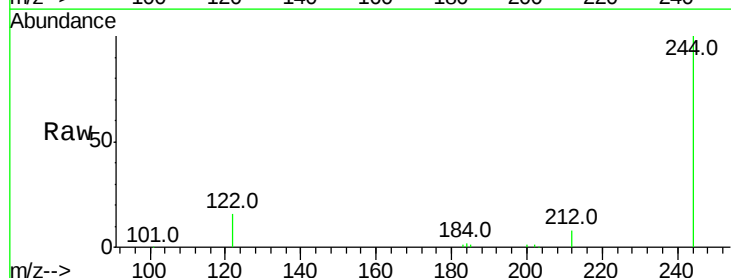
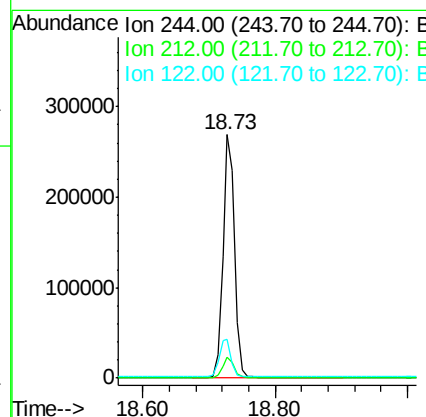
Manual Integrations  
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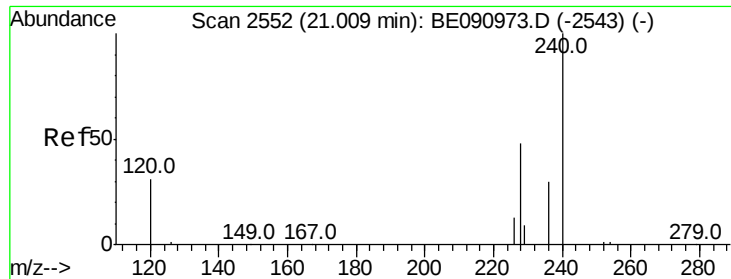
MMdadoda  
10/9/2015 1:50:02 PM



#29  
Terphenyl-d14  
Concen: 4.93 ng  
RT: 18.73 min Scan# 2387  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 244     | 100   | 332245 |       |       |
| 212     | 8.3   | 6.9    | 10.3  |       |
| 122     | 15.7  | 11.0   | 16.4  |       |





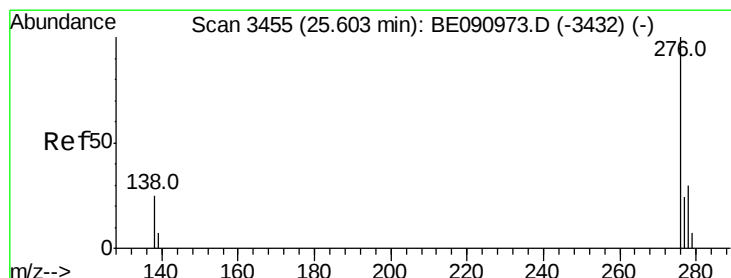
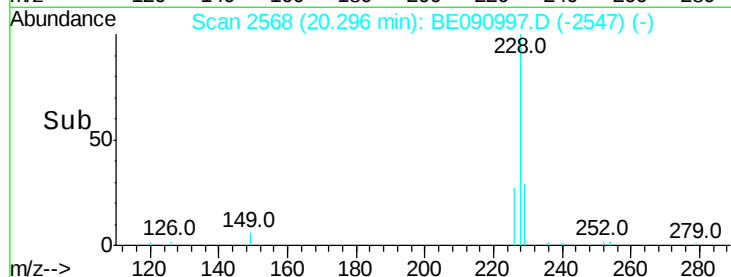
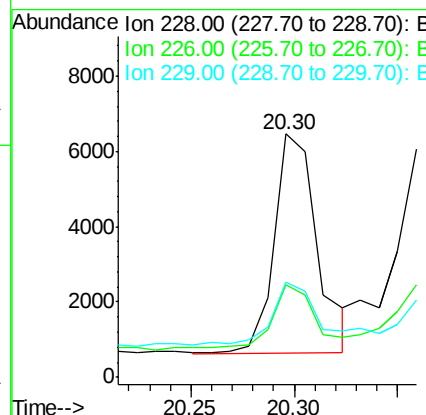
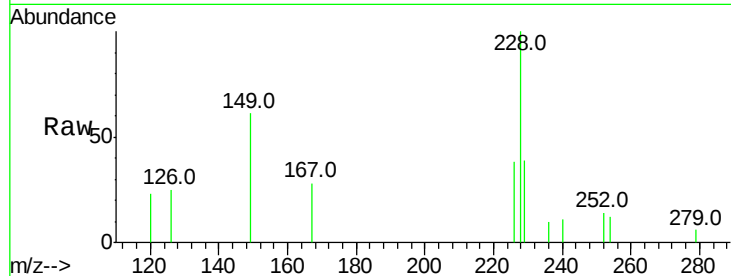
#30  
Benzo(a)anthracene  
Concen: 0.07 ng  
RT: 20.30 min Scan# 2568  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

Instrument :  
BNA\_E  
ClientSampleId :  
TW-4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 38.1  | 21.0  | 31.4# |
| 229     | 39.0  | 15.7  | 23.5# |

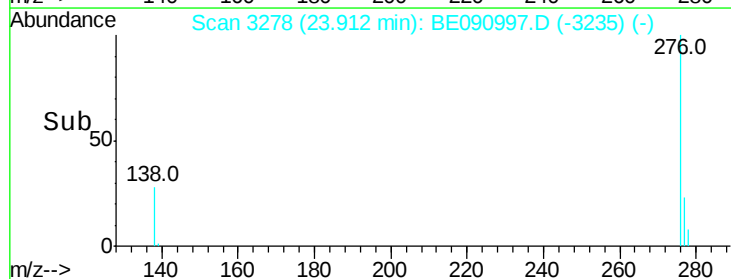
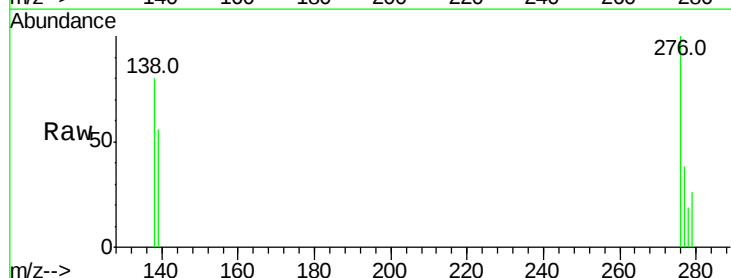
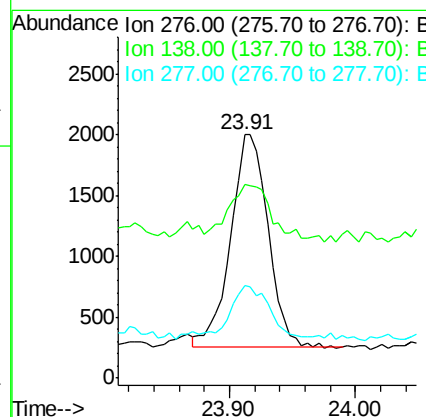
Manual Integrations  
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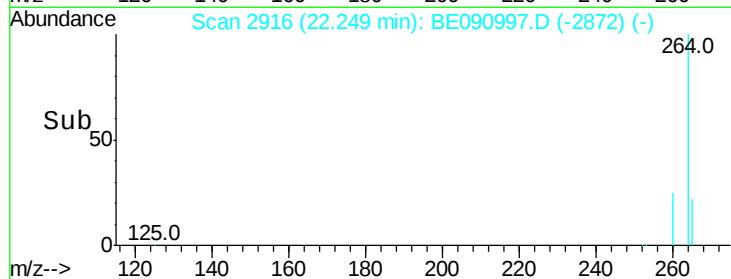
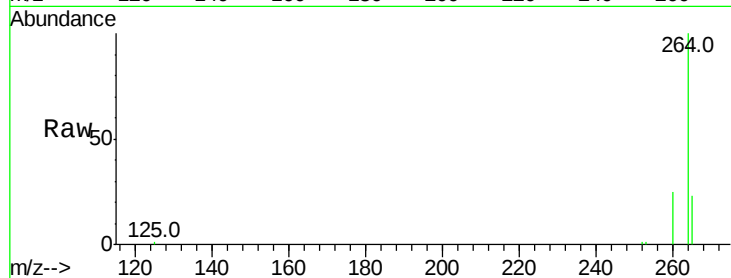
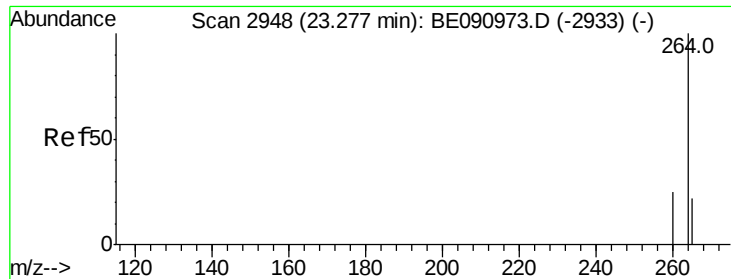
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#34  
Indeno(1,2,3-cd)pyrene  
Concen: 0.14 ng  
RT: 23.91 min Scan# 3278  
Delta R.T. -0.01 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 27.1  | 23.4  | 35.2  |
| 277     | 24.1  | 19.8  | 29.8  |





#35  
Pervlene-d12  
Concen: 5.00 ng  
RT: 22.25 min Scan# 2916  
Delta R.T. -0.00 min  
Lab File: BE090997.D  
Acq: 8 Oct 2015 11:21

Instrument :  
BNA\_E  
ClientSampleId :  
TW-4

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 264     | 100   |            |       |
| 260     | 24.9  | 20.0       | 30.0  |
| 265     | 23.0  | 17.5       | 26.3  |

Manual Integrations  
APPROVED

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