

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
 Data File : BG023613.D  
 Acq On : 11 Aug 2016 4:30  
 Operator : UM/SJ  
 Sample : H4384-03  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 P001-SS001-0612-01

## Integration Parameters: LSCINT.P

Integrator: RTE  
 Smoothing : OFF  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 0.1 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
 Title : SVOA CALIBRATION

Signal : TIC

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 7.261       | 745           | 753         | 761          | rBV      | 437325         | 785489        | 11.57%          | 0.849%        |
| 2         | 7.426       | 775           | 781         | 789          | rVV      | 371394         | 598445        | 8.82%           | 0.647%        |
| 3         | 7.637       | 809           | 817         | 825          | rBV      | 424249         | 736745        | 10.85%          | 0.796%        |
| 4         | 8.107       | 891           | 897         | 906          | rVB      | 528594         | 910268        | 13.41%          | 0.984%        |
| 5         | 8.824       | 1010          | 1019        | 1028         | rBV      | 552677         | 996923        | 14.68%          | 1.078%        |
| 6         | 9.288       | 1091          | 1098        | 1109         | rVB      | 436802         | 806054        | 11.87%          | 0.871%        |
| 7         | 9.400       | 1112          | 1117        | 1132         | rVV8     | 29640          | 96127         | 1.42%           | 0.104%        |
| 8         | 10.016      | 1215          | 1222        | 1234         | rBV      | 374818         | 715777        | 10.54%          | 0.774%        |
| 9         | 10.569      | 1309          | 1316        | 1328         | rBV2     | 545786         | 1088602       | 16.04%          | 1.177%        |
| 10        | 10.945      | 1372          | 1380        | 1388         | rBV      | 803111         | 1535151       | 22.61%          | 1.659%        |
| 11        | 11.086      | 1397          | 1404        | 1415         | rBV      | 430637         | 827188        | 12.18%          | 0.894%        |
| 12        | 14.099      | 1910          | 1917        | 1922         | rVV3     | 63233          | 118917        | 1.75%           | 0.129%        |
| 13        | 14.175      | 1922          | 1930        | 1934         | rVV      | 1186269        | 1827439       | 26.92%          | 1.975%        |
| 14        | 14.222      | 1934          | 1938        | 1947         | rVB      | 1128022        | 1657820       | 24.42%          | 1.792%        |
| 15        | 14.475      | 1974          | 1981        | 1996         | rVV      | 1297903        | 2325550       | 34.26%          | 2.514%        |
| 16        | 14.786      | 2023          | 2034        | 2041         | rVV2     | 1470812        | 2441327       | 35.96%          | 2.639%        |
| 17        | 14.998      | 2060          | 2070        | 2084         | rBV2     | 409296         | 919745        | 13.55%          | 0.994%        |
| 18        | 15.174      | 2092          | 2100        | 2106         | rVB3     | 70599          | 138610        | 2.04%           | 0.150%        |
| 19        | 15.250      | 2109          | 2113        | 2119         | rVB      | 64099          | 105138        | 1.55%           | 0.114%        |
| 20        | 15.397      | 2130          | 2138        | 2142         | rBV4     | 65001          | 139677        | 2.06%           | 0.151%        |
| 21        | 15.562      | 2159          | 2166        | 2170         | rBV3     | 67723          | 153253        | 2.26%           | 0.166%        |
| 22        | 15.603      | 2170          | 2173        | 2178         | rVB3     | 68164          | 90739         | 1.34%           | 0.098%        |
| 23        | 15.779      | 2197          | 2203        | 2209         | rVV      | 1840321        | 2696599       | 39.72%          | 2.915%        |
| 24        | 15.832      | 2209          | 2212        | 2216         | rVV3     | 63310          | 91084         | 1.34%           | 0.098%        |
| 25        | 15.903      | 2219          | 2224        | 2232         | rVV      | 527472         | 784141        | 11.55%          | 0.848%        |
| 26        | 16.472      | 2316          | 2321        | 2323         | rBV2     | 69137          | 97990         | 1.44%           | 0.106%        |
| 27        | 16.502      | 2323          | 2326        | 2333         | rVB7     | 81719          | 154951        | 2.28%           | 0.167%        |
| 28        | 16.831      | 2377          | 2382        | 2388         | rBV6     | 99442          | 220203        | 3.24%           | 0.238%        |
| 29        | 17.077      | 2416          | 2424        | 2426         | rBV8     | 50127          | 111795        | 1.65%           | 0.121%        |
| 30        | 17.201      | 2441          | 2445        | 2451         | rVB3     | 69144          | 115516        | 1.70%           | 0.125%        |
| 31        | 17.271      | 2453          | 2457        | 2462         | rVB3     | 95822          | 148690        | 2.19%           | 0.161%        |
| 32        | 17.365      | 2469          | 2473        | 2478         | rVB2     | 114700         | 168301        | 2.48%           | 0.182%        |
| 33        | 17.547      | 2498          | 2504        | 2508         | rBV      | 1929870        | 3028777       | 44.61%          | 3.274%        |
| 34        | 17.589      | 2508          | 2511        | 2516         | rVB      | 1075732        | 1549178       | 22.82%          | 1.675%        |

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
 Data File : BG023613.D  
 Acq On : 11 Aug 2016 4:30  
 Operator : UM/SJ  
 Sample : H4384-03  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 P001-SS001-0612-01

## Integration Parameters: LSCINT.P

Integrator: RTE  
 Smoothing : OFF  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 0.1 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
 Title : SVOA CALIBRATION

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 35 | 17.647 | 2516 | 2521 | 2526 | rBV  | 1825889 | 2671474 | 39.35% | 2.888% |
| 36 | 17.741 | 2531 | 2537 | 2541 | rVB5 | 73727   | 156203  | 2.30%  | 0.169% |
| 37 | 17.906 | 2561 | 2565 | 2571 | rBV3 | 127549  | 256013  | 3.77%  | 0.277% |
| 38 | 17.953 | 2571 | 2573 | 2580 | rVV4 | 76030   | 183067  | 2.70%  | 0.198% |
| 39 | 18.017 | 2580 | 2584 | 2589 | rVV5 | 83429   | 136483  | 2.01%  | 0.148% |
| 40 | 18.135 | 2599 | 2604 | 2610 | rVB2 | 170010  | 272647  | 4.02%  | 0.295% |
| 41 | 18.276 | 2624 | 2628 | 2636 | rVB  | 97902   | 220561  | 3.25%  | 0.238% |
| 42 | 18.358 | 2636 | 2642 | 2647 | rBV5 | 71024   | 158735  | 2.34%  | 0.172% |
| 43 | 18.423 | 2648 | 2653 | 2658 | rVV2 | 981155  | 1552114 | 22.86% | 1.678% |
| 44 | 18.476 | 2658 | 2662 | 2669 | rVB  | 689634  | 1047366 | 15.43% | 1.132% |
| 45 | 18.558 | 2671 | 2676 | 2680 | rBV2 | 113646  | 176240  | 2.60%  | 0.191% |
| 46 | 18.617 | 2680 | 2686 | 2690 | rBV3 | 591095  | 1110572 | 16.36% | 1.200% |
| 47 | 18.658 | 2690 | 2693 | 2699 | rVB  | 432030  | 610474  | 8.99%  | 0.660% |
| 48 | 18.822 | 2716 | 2721 | 2725 | rVB3 | 90399   | 150166  | 2.21%  | 0.162% |
| 49 | 18.922 | 2733 | 2738 | 2742 | rBV2 | 285733  | 422548  | 6.22%  | 0.457% |
| 50 | 18.969 | 2742 | 2746 | 2755 | rVB3 | 236817  | 471999  | 6.95%  | 0.510% |
| 51 | 19.086 | 2761 | 2766 | 2771 | rBV4 | 64285   | 124153  | 1.83%  | 0.134% |
| 52 | 19.163 | 2771 | 2779 | 2784 | rBV3 | 248254  | 498441  | 7.34%  | 0.539% |
| 53 | 19.216 | 2784 | 2788 | 2791 | rBV  | 301078  | 369105  | 5.44%  | 0.399% |
| 54 | 19.257 | 2791 | 2795 | 2802 | rVB2 | 201512  | 292495  | 4.31%  | 0.316% |
| 55 | 19.339 | 2803 | 2809 | 2813 | rBV  | 743030  | 1172056 | 17.26% | 1.267% |
| 56 | 19.392 | 2813 | 2818 | 2822 | rVV5 | 241959  | 474153  | 6.98%  | 0.513% |
| 57 | 19.427 | 2822 | 2824 | 2828 | rVB  | 240035  | 273081  | 4.02%  | 0.295% |
| 58 | 19.480 | 2828 | 2833 | 2839 | rBV3 | 331034  | 752218  | 11.08% | 0.813% |
| 59 | 19.603 | 2846 | 2854 | 2860 | rVB  | 2070086 | 3087553 | 45.48% | 3.338% |
| 60 | 19.656 | 2860 | 2863 | 2866 | rBV2 | 159430  | 232671  | 3.43%  | 0.252% |
| 61 | 19.692 | 2866 | 2869 | 2875 | rVB2 | 413199  | 579410  | 8.53%  | 0.626% |
| 62 | 19.756 | 2876 | 2880 | 2884 | rBV2 | 158680  | 207603  | 3.06%  | 0.224% |
| 63 | 19.797 | 2884 | 2887 | 2890 | rVB5 | 87505   | 102828  | 1.51%  | 0.111% |
| 64 | 19.844 | 2891 | 2895 | 2898 | rBV3 | 121668  | 184332  | 2.72%  | 0.199% |
| 65 | 19.938 | 2904 | 2911 | 2914 | rBV  | 2271599 | 3807572 | 56.09% | 4.116% |
| 66 | 19.968 | 2914 | 2916 | 2923 | rVB  | 2562379 | 3293682 | 48.52% | 3.560% |
| 67 | 20.038 | 2923 | 2928 | 2933 | rVB2 | 389411  | 604361  | 8.90%  | 0.653% |
| 68 | 20.091 | 2933 | 2937 | 2938 | rBV4 | 77715   | 103403  | 1.52%  | 0.112% |
| 69 | 20.126 | 2938 | 2943 | 2944 | rBV5 | 80706   | 133673  | 1.97%  | 0.144% |
| 70 | 20.197 | 2951 | 2955 | 2962 | rVB5 | 186663  | 354899  | 5.23%  | 0.384% |
| 71 | 20.291 | 2964 | 2971 | 2979 | rBV5 | 360067  | 974071  | 14.35% | 1.053% |

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

## Integration Parameters: LSCINT.P

Integrator: RTE  
Smoothing : OFF  
Sampling : 1  
Start Thrs: 0.2  
Stop Thrs : 0  
Filtering: 5  
Min Area: 0.1 % of largest Peak  
Max Peaks: 100  
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
Peak separation: 5

Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Title : SVOA CALIBRATION

|     |        |      |      |      |      |         |         |         |        |
|-----|--------|------|------|------|------|---------|---------|---------|--------|
| 72  | 20.449 | 2989 | 2998 | 3007 | rVB  | 504398  | 1436747 | 21.16%  | 1.553% |
| 73  | 20.561 | 3013 | 3017 | 3020 | rVV  | 176400  | 261460  | 3.85%   | 0.283% |
| 74  | 20.614 | 3021 | 3026 | 3030 | rVV2 | 526533  | 768386  | 11.32%  | 0.831% |
| 75  | 20.755 | 3046 | 3050 | 3054 | rBV  | 489886  | 700425  | 10.32%  | 0.757% |
| 76  | 20.802 | 3054 | 3058 | 3061 | rVV  | 437716  | 653387  | 9.62%   | 0.706% |
| 77  | 20.843 | 3061 | 3065 | 3071 | rVB  | 5211805 | 6788850 | 100.00% | 7.339% |
| 78  | 21.236 | 3128 | 3132 | 3139 | rVB2 | 365200  | 667433  | 9.83%   | 0.721% |
| 79  | 21.336 | 3146 | 3149 | 3154 | rVB2 | 132268  | 200273  | 2.95%   | 0.216% |
| 80  | 21.430 | 3156 | 3165 | 3169 | rVV4 | 338004  | 901701  | 13.28%  | 0.975% |
| 81  | 21.471 | 3169 | 3172 | 3176 | rVV  | 334904  | 522685  | 7.70%   | 0.565% |
| 82  | 21.524 | 3177 | 3181 | 3187 | rVV3 | 236624  | 509385  | 7.50%   | 0.551% |
| 83  | 21.589 | 3187 | 3192 | 3201 | rVB2 | 269523  | 672368  | 9.90%   | 0.727% |
| 84  | 21.724 | 3211 | 3215 | 3221 | rVB  | 582792  | 819258  | 12.07%  | 0.886% |
| 85  | 21.865 | 3230 | 3239 | 3244 | rBV3 | 2208408 | 5466845 | 80.53%  | 5.909% |
| 86  | 21.918 | 3244 | 3248 | 3261 | rVB  | 1093035 | 1998317 | 29.44%  | 2.160% |
| 87  | 22.024 | 3261 | 3266 | 3271 | rBV6 | 109328  | 200071  | 2.95%   | 0.216% |
| 88  | 22.153 | 3283 | 3288 | 3293 | rBV4 | 167710  | 378674  | 5.58%   | 0.409% |
| 89  | 22.212 | 3294 | 3298 | 3304 | rVB3 | 358967  | 630620  | 9.29%   | 0.682% |
| 90  | 22.541 | 3349 | 3354 | 3360 | rVB6 | 165125  | 321891  | 4.74%   | 0.348% |
| 91  | 22.629 | 3360 | 3369 | 3374 | rBV  | 369813  | 863614  | 12.72%  | 0.934% |
| 92  | 22.922 | 3414 | 3419 | 3423 | rBV3 | 194166  | 327349  | 4.82%   | 0.354% |
| 93  | 24.180 | 3625 | 3633 | 3640 | rBV3 | 780501  | 2540974 | 37.43%  | 2.747% |
| 94  | 24.943 | 3760 | 3763 | 3770 | rVB2 | 260515  | 516328  | 7.61%   | 0.558% |
| 95  | 25.031 | 3771 | 3778 | 3784 | rVV3 | 808466  | 2155047 | 31.74%  | 2.330% |
| 96  | 25.102 | 3785 | 3790 | 3800 | rVB  | 636217  | 1675391 | 24.68%  | 1.811% |
| 97  | 25.266 | 3808 | 3818 | 3826 | rBV3 | 1068738 | 3051678 | 44.95%  | 3.299% |
| 98  | 29.143 | 4468 | 4478 | 4500 | rVB5 | 292948  | 1606843 | 23.67%  | 1.737% |
| 99  | 29.608 | 4550 | 4557 | 4563 | rBV9 | 72607   | 262423  | 3.87%   | 0.284% |
| 100 | 30.348 | 4677 | 4683 | 4684 | rBV6 | 127282  | 210585  | 3.10%   | 0.228% |

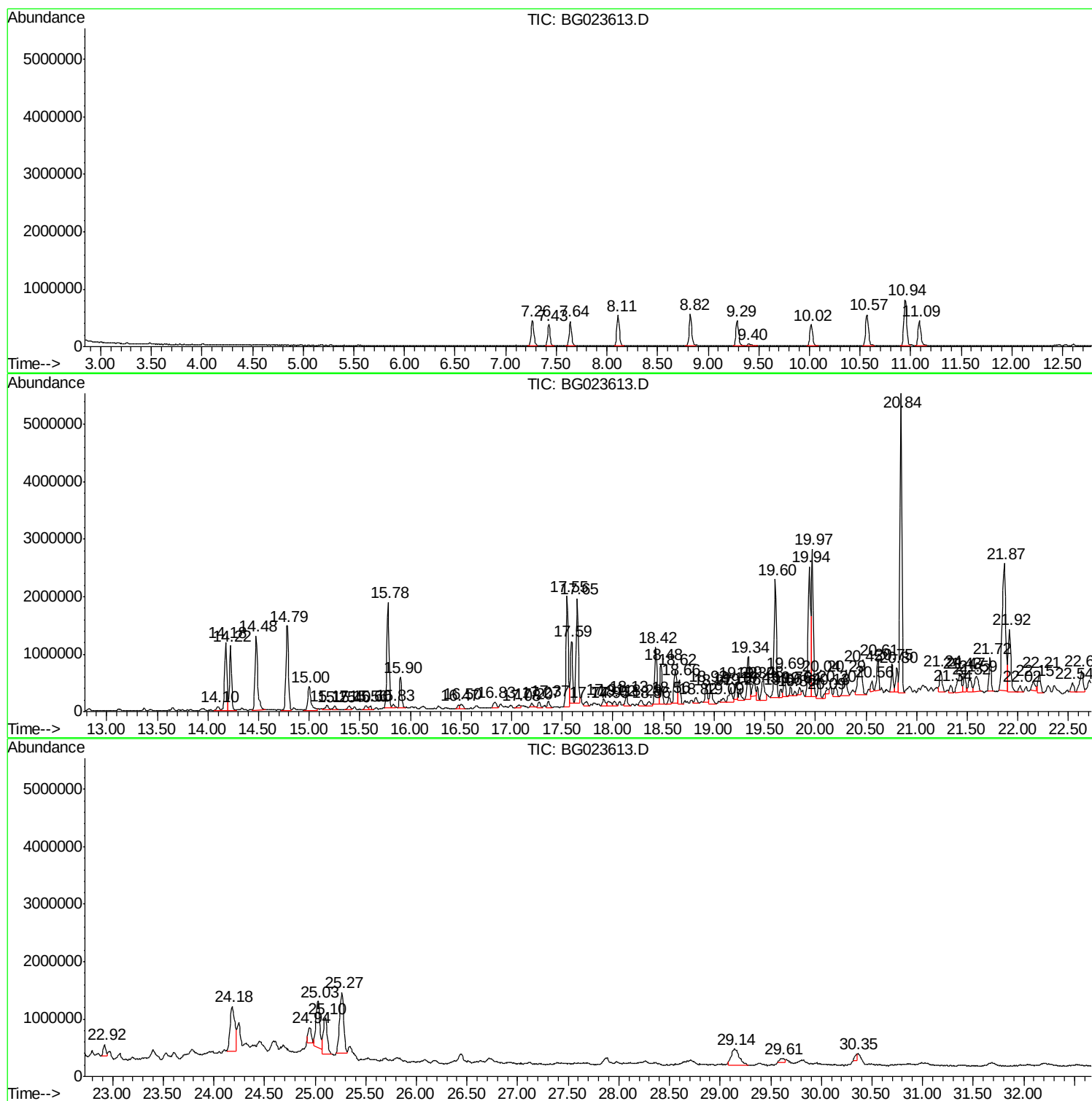
Sum of corrected areas: 92509639

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

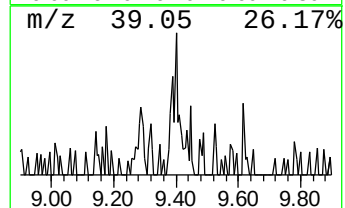
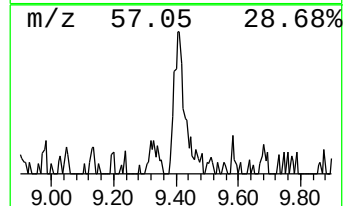
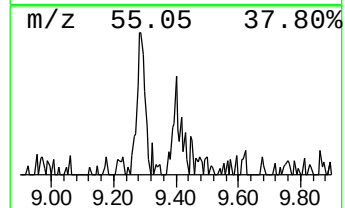
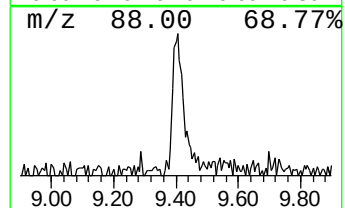
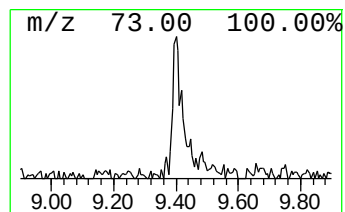
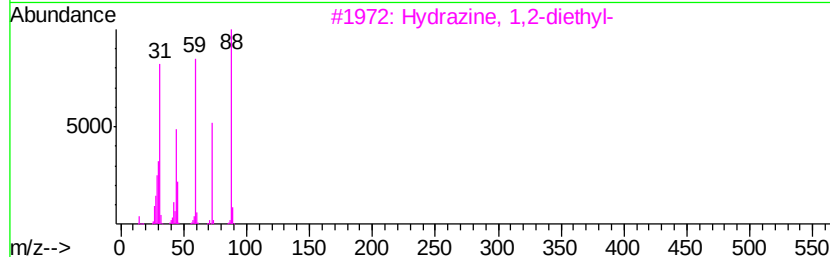
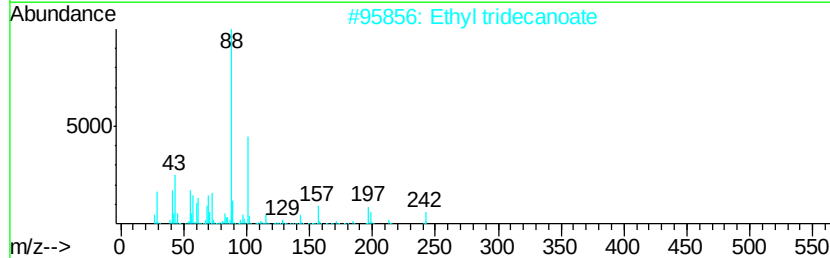
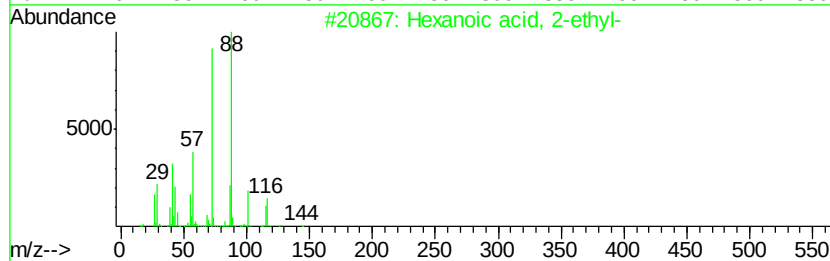
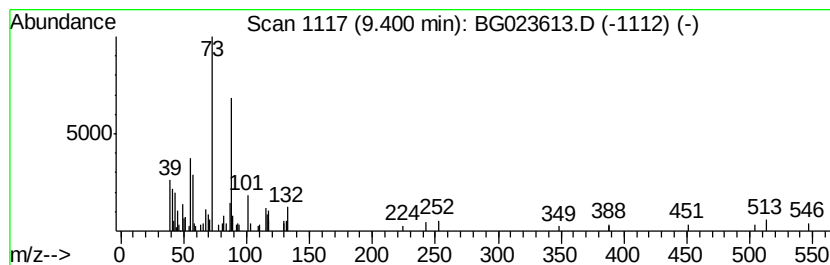
Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 1 Hexanoic acid, 2-ethyl- Concentration Rank 24

| R.T.    | EstConc                            | Area           | Relative to ISTD       | R.T.      |
|---------|------------------------------------|----------------|------------------------|-----------|
| 9.40    | 2.11 ng/ul                         | 96127          | 1,4-Dichlorobenzene-d4 | 8.11      |
| Hit# of | 5                                  | Tentative ID   | MW MolForm             | CAS# Qual |
| 1       | Hexanoic acid, 2-ethyl-            | 144 C8H16O2    | 000149-57-5            | 38        |
| 2       | Ethyl tridecanoate                 | 242 C15H30O2   | 028267-29-0            | 38        |
| 3       | Hydrazine, 1,2-diethyl-            | 88 C4H12N2     | 001615-80-1            | 38        |
| 4       | Ethyl tridecanoate                 | 242 C15H30O2   | 028267-29-0            | 32        |
| 5       | Undecanoic acid, 11-bromo-ethyl... | 292 C13H25BrO2 | 1000289-35-0           | 32        |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

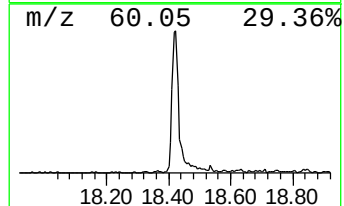
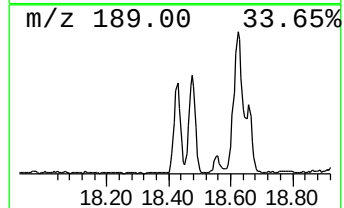
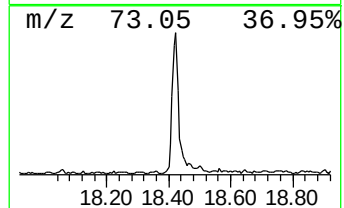
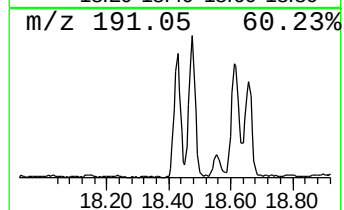
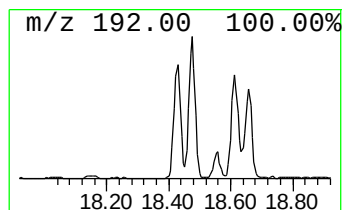
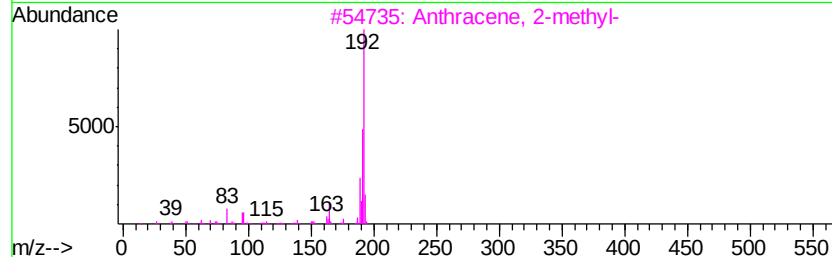
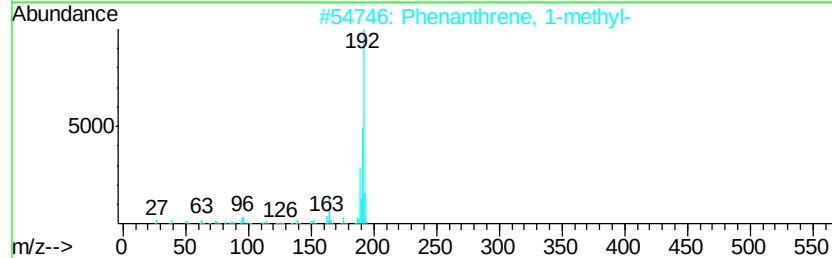
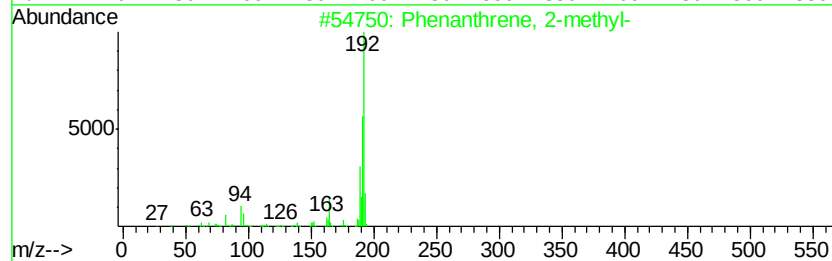
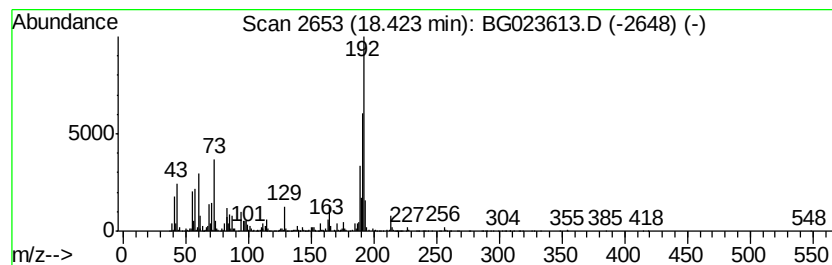
Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 Phenanthrene, 2-methyl- Concentration Rank 1

| R.T.    | EstConc                 | Area         | Relative to ISTD | R.T.        |      |      |
|---------|-------------------------|--------------|------------------|-------------|------|------|
| 18.42   | 10.25 ng/ul             | 1552110      | Phenanthrene-d10 | 17.55       |      |      |
| Hit# of | 5                       | Tentative ID | MW               | MolForm     | CAS# | Qual |
| 1       | Phenanthrene, 2-methyl- | 192          | C15H12           | 002531-84-2 | 98   |      |
| 2       | Phenanthrene, 1-methyl- | 192          | C15H12           | 000832-69-9 | 96   |      |
| 3       | Anthracene, 2-methyl-   | 192          | C15H12           | 000613-12-7 | 96   |      |
| 4       | Phenanthrene, 2-methyl- | 192          | C15H12           | 002531-84-2 | 92   |      |
| 5       | Anthracene, 1-methyl-   | 192          | C15H12           | 000610-48-0 | 92   |      |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

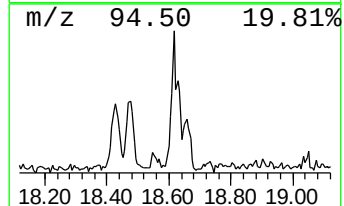
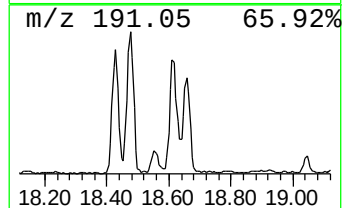
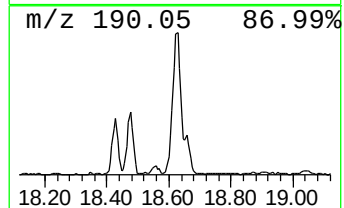
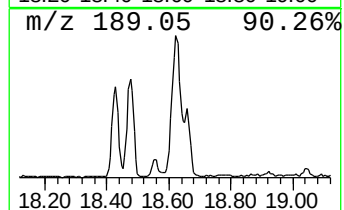
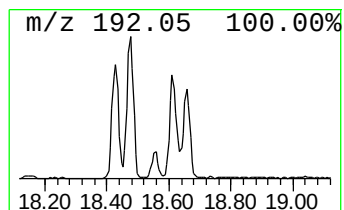
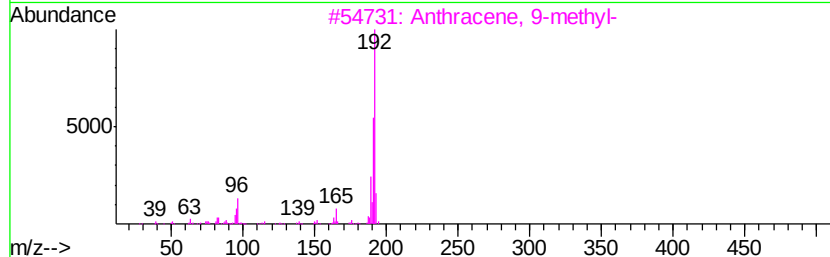
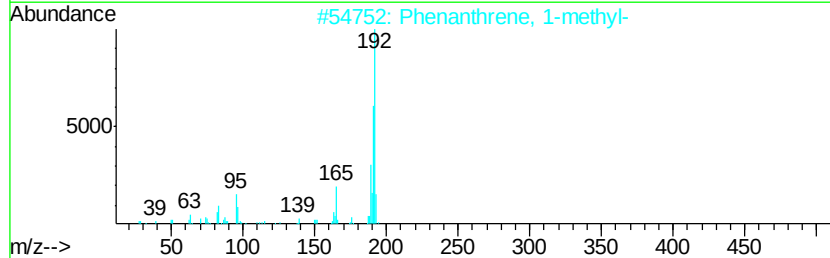
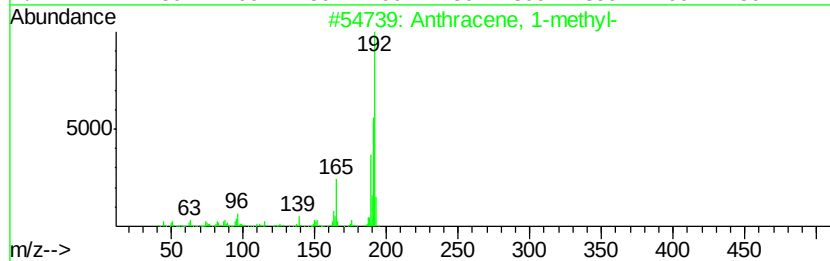
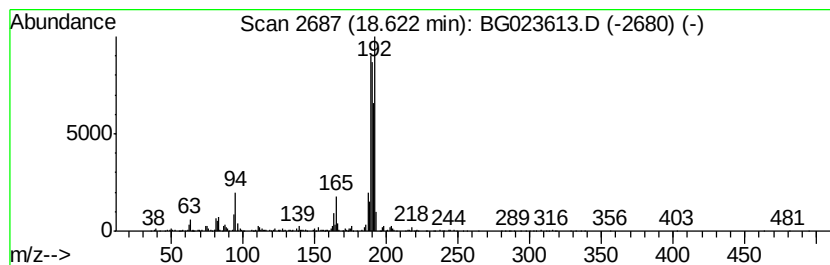
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 Anthracene, 1-methyl- Concentration Rank 3

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 18.62 | 7.33 ng/ul | 1110570 | Phenanthrene-d10 | 17.55 |

| Hit# | of | Tentative ID                          | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Anthracene, 1-methyl-                 | 192 | C15H12  | 000610-48-0 | 55   |
| 2    |    | Phenanthrene, 1-methyl-               | 192 | C15H12  | 000832-69-9 | 55   |
| 3    |    | Anthracene, 9-methyl-                 | 192 | C15H12  | 000779-02-2 | 49   |
| 4    |    | 1H-Cyclopropa[l]phenanthrene, 1a, ... | 192 | C15H12  | 000949-41-7 | 49   |
| 5    |    | 5H-Dibenzo[a,d]cycloheptene           | 192 | C15H12  | 000256-81-5 | 49   |





Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

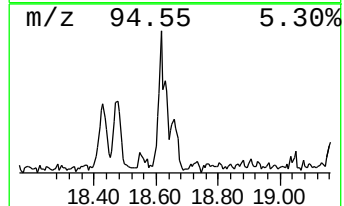
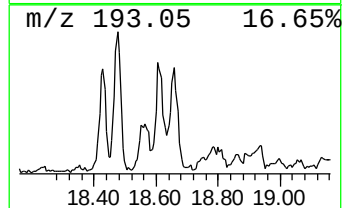
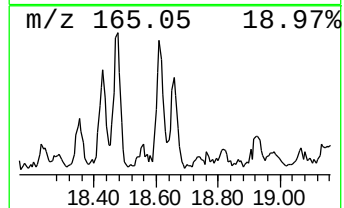
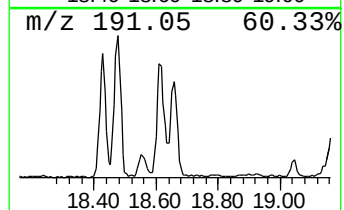
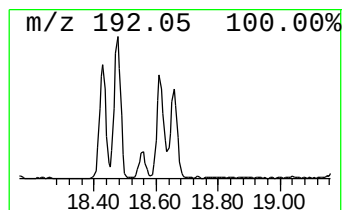
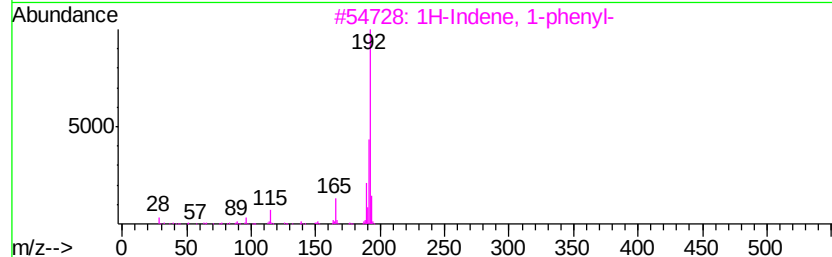
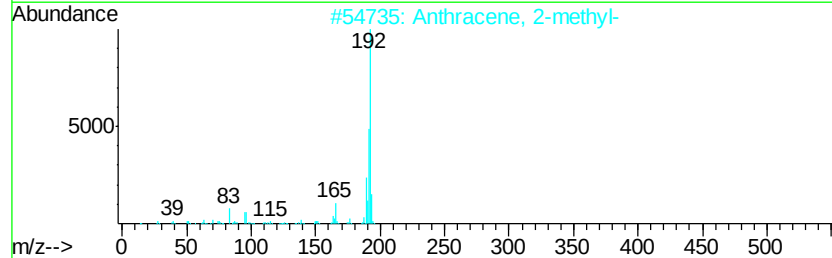
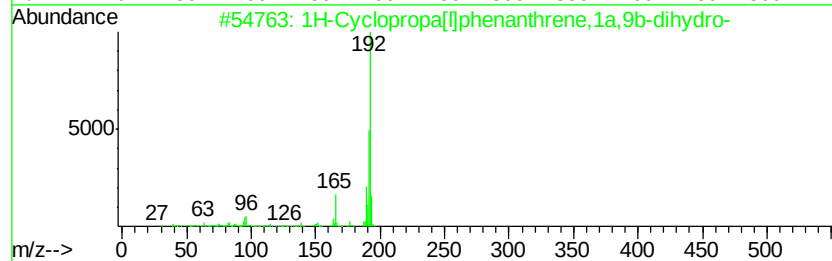
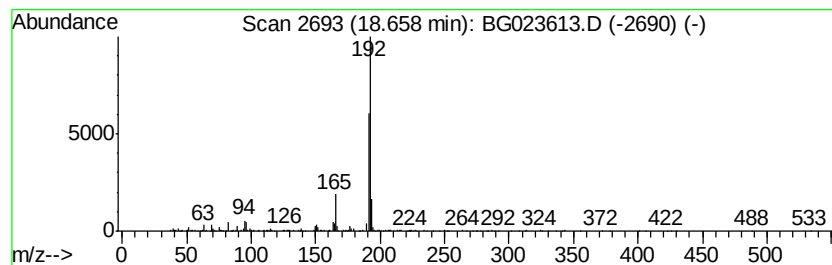
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 1H-Cyclopropa[l]phenanthren... Concentration Rank 7

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 18.66 | 4.03 ng/ul | 610474 | Phenanthrene-d10 | 17.55 |

| Hit# | of | Tentative ID                          | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------------------|-----|---------|-------------|------|
| 1    | 5  | 1H-Cyclopropa[l]phenanthrene, 1a, ... | 192 | C15H12  | 000949-41-7 | 94   |
| 2    |    | Anthracene, 2-methyl-                 | 192 | C15H12  | 000613-12-7 | 90   |
| 3    |    | 1H-Indene, 1-phenyl-                  | 192 | C15H12  | 001961-96-2 | 90   |
| 4    |    | Anthracene, 2-methyl-                 | 192 | C15H12  | 000613-12-7 | 90   |
| 5    |    | 1H-Indene, 2-phenyl-                  | 192 | C15H12  | 004505-48-0 | 90   |





Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

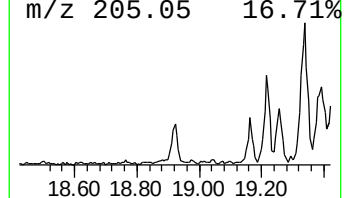
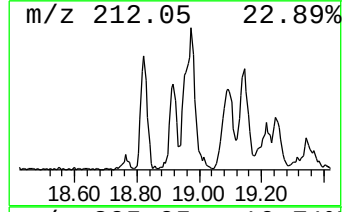
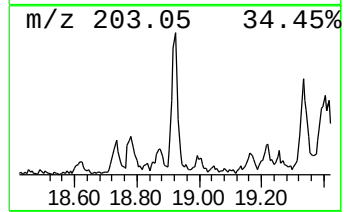
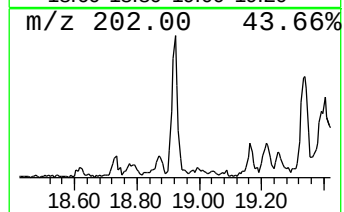
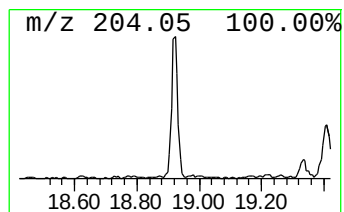
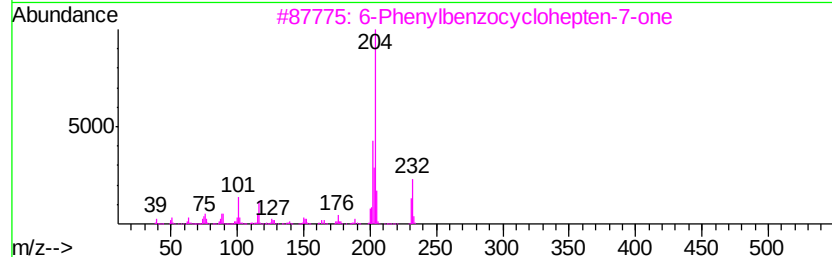
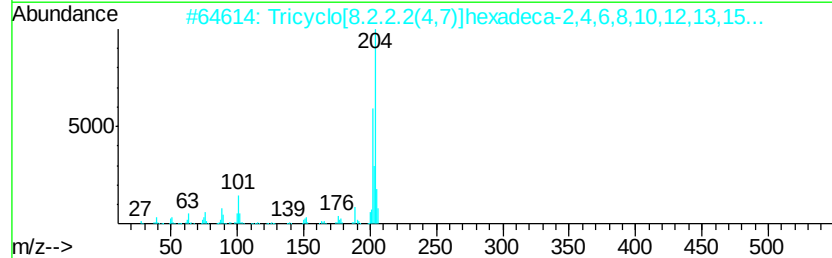
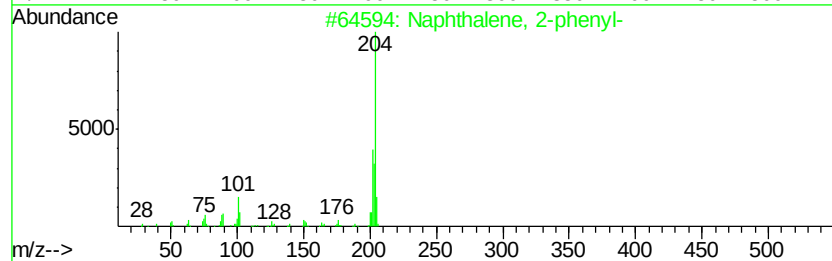
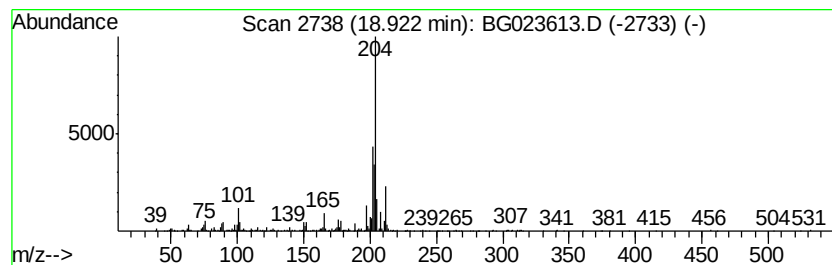
Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 6 Naphthalene, 2-phenyl- Concentration Rank 17

| R.T.    | EstConc    | Area                                | Relative to ISTD | R.T.           |
|---------|------------|-------------------------------------|------------------|----------------|
| 18.92   | 2.79 ng/ul | 422548                              | Phenanthrene-d10 | 17.55          |
| Hit# of | 5          | Tentative ID                        | MW MolForm       | CAS# Qual      |
| 1       |            | Naphthalene, 2-phenyl-              | 204 C16H12       | 000612-94-2 70 |
| 2       |            | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 C16H12       | 006572-60-7 70 |
| 3       |            | 6-Phenylbenzocyclohepten-7-one      | 232 C17H12O      | 093327-56-1 64 |
| 4       |            | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 C32H24       | 005672-97-9 64 |
| 5       |            | 9,10-Bis(bromomethyl)anthracene     | 362 C16H12Br2    | 034373-96-1 49 |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

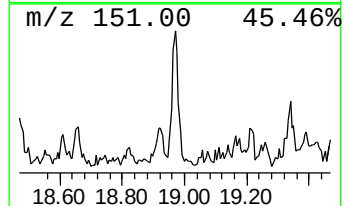
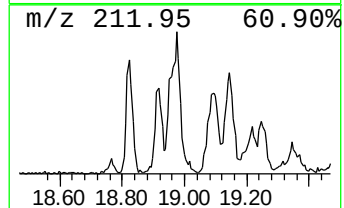
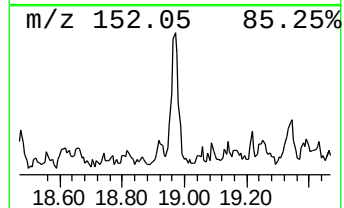
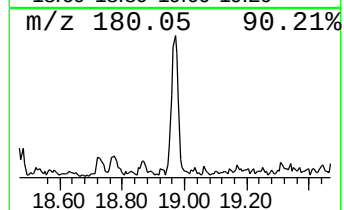
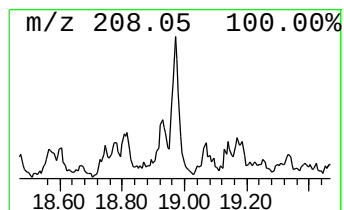
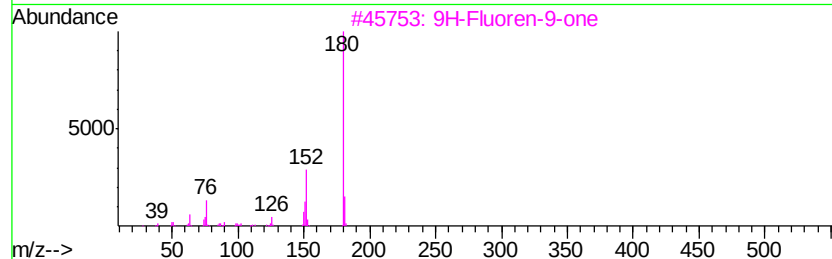
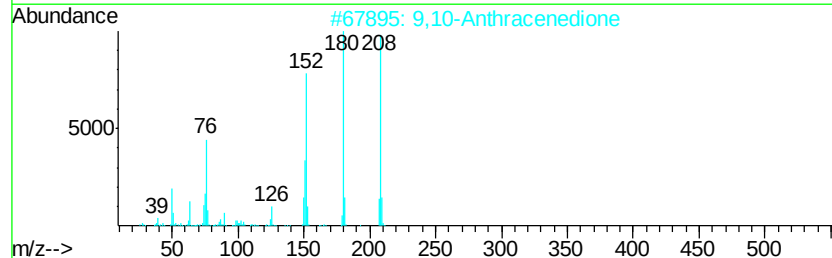
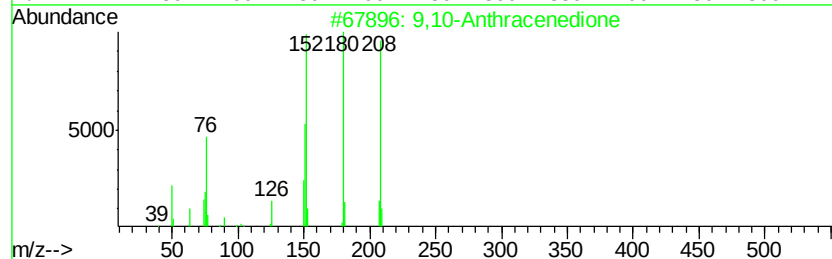
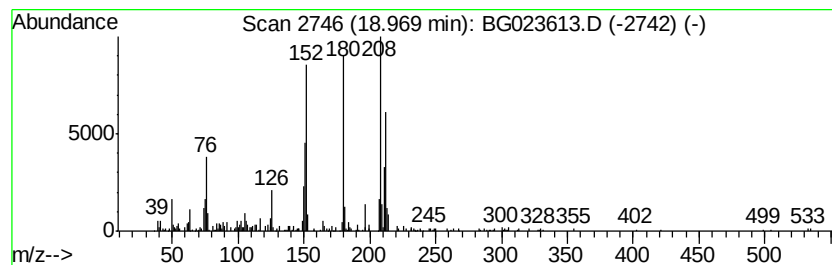
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 7 9,10-Anthracenedione Concentration Rank 15

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 18.97 | 3.12 ng/ul | 471999 | Phenanthrene-d10 | 17.55 |

| Hit# | of | Tentative ID         | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------|-----|---------|-------------|------|
| 1    | 5  | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 94   |
| 2    |    | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 93   |
| 3    |    | 9H-Fluoren-9-one     | 180 | C13H8O  | 000486-25-9 | 90   |
| 4    |    | Benzo[c]cinnoline    | 180 | C12H8N2 | 000230-17-1 | 78   |
| 5    |    | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 60   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

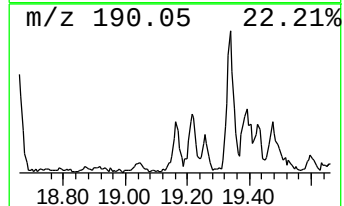
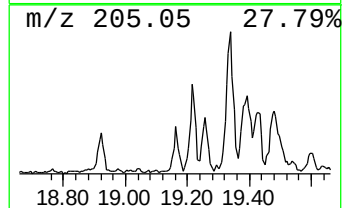
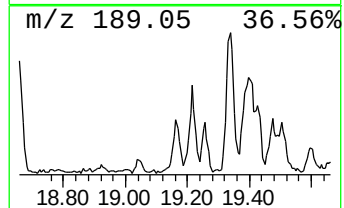
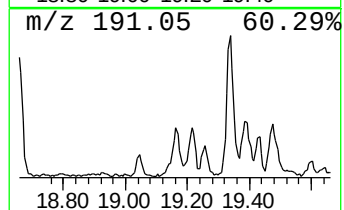
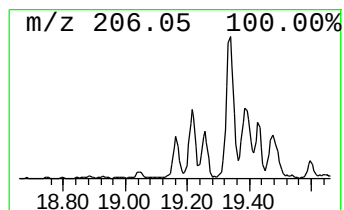
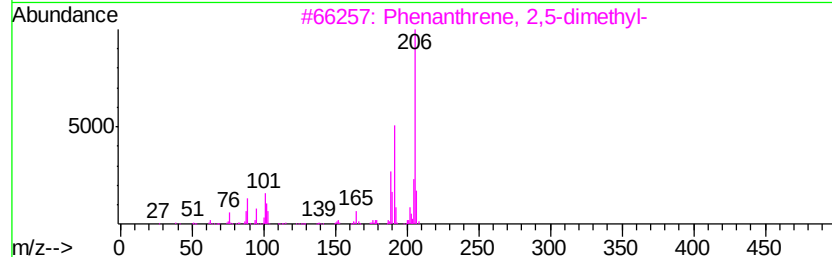
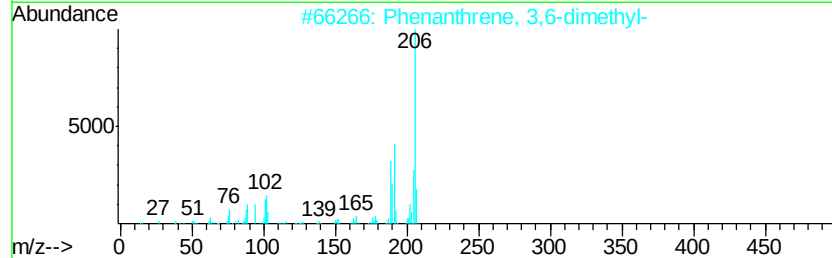
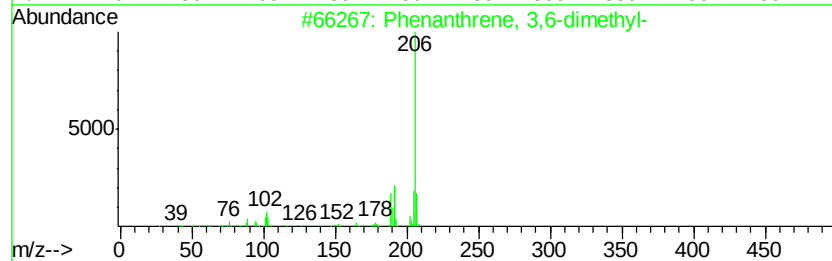
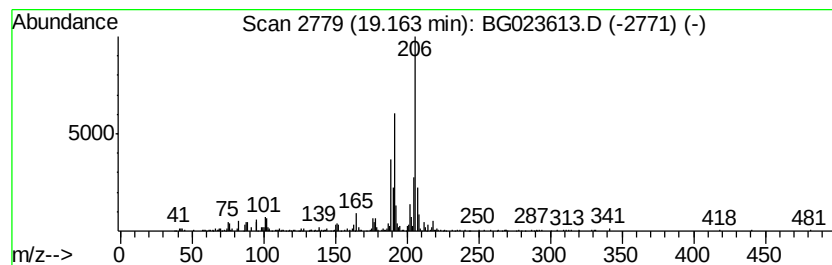
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 8 Phenanthrene, 3,6-dimethyl- Concentration Rank 12

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 19.16 | 3.29 ng/ul | 498441 | Phenanthrene-d10 | 17.55 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Phenanthrene, 3,6-dimethyl- | 206 | C16H14  | 001576-67-6 | 94   |
| 2    |    | Phenanthrene, 3,6-dimethyl- | 206 | C16H14  | 001576-67-6 | 93   |
| 3    |    | Phenanthrene, 2,5-dimethyl- | 206 | C16H14  | 003674-66-6 | 93   |
| 4    |    | Phenanthrene, 1,7-dimethyl- | 206 | C16H14  | 000483-87-4 | 90   |
| 5    |    | Phenanthrene, 2,7-dimethyl- | 206 | C16H14  | 001576-69-8 | 90   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

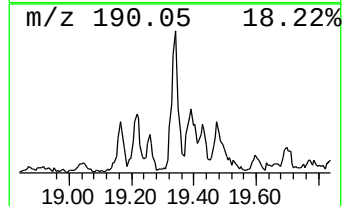
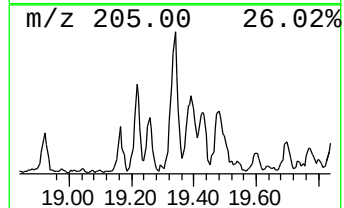
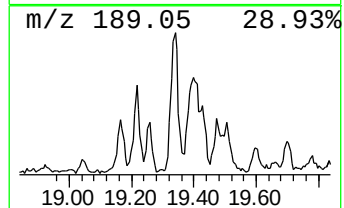
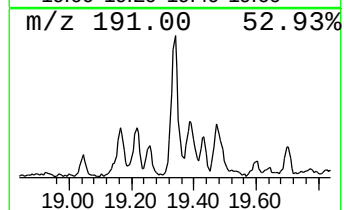
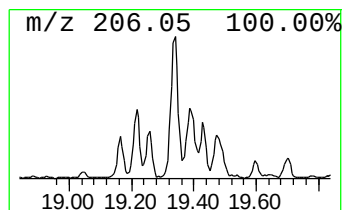
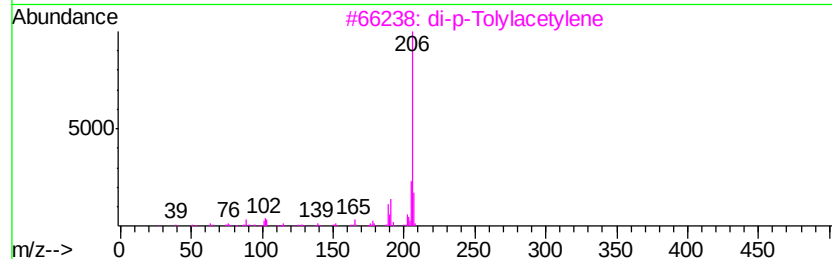
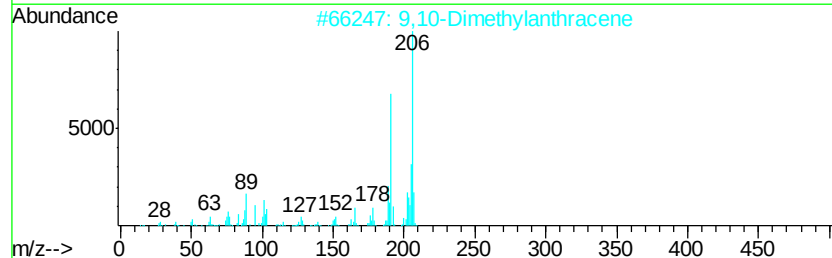
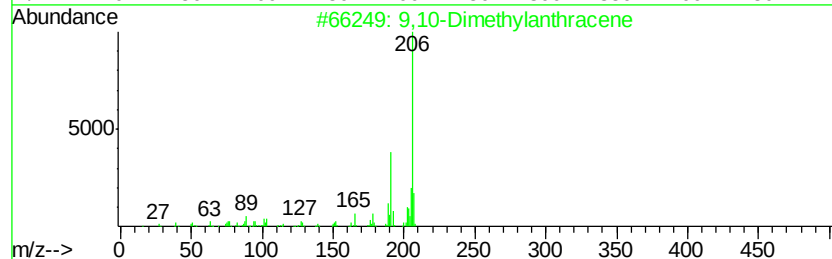
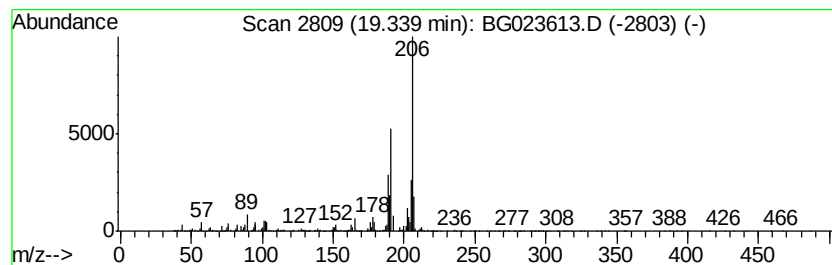
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 10 9,10-Dimethylantracene Concentration Rank 2

| R.T.  | EstConc    | Area    | Relative to ISTD | R.T.  |
|-------|------------|---------|------------------|-------|
| 19.34 | 7.74 ng/ul | 1172060 | Phenanthrene-d10 | 17.55 |

| Hit# | of | 5 | Tentative ID                  | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------------|-----|---------|-------------|------|
| 1    |    |   | 9,10-Dimethylantracene        | 206 | C16H14  | 000781-43-1 | 93   |
| 2    |    |   | 9,10-Dimethylantracene        | 206 | C16H14  | 000781-43-1 | 91   |
| 3    |    |   | di-p-Tolylacetylene           | 206 | C16H14  | 002789-88-0 | 91   |
| 4    |    |   | 1H-Indene, 2-methyl-3-phenyl- | 206 | C16H14  | 035099-60-6 | 90   |
| 5    |    |   | 9,10-Dimethylantracene        | 206 | C16H14  | 000781-43-1 | 87   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

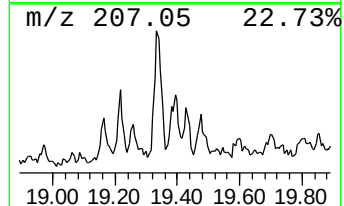
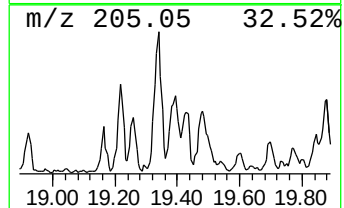
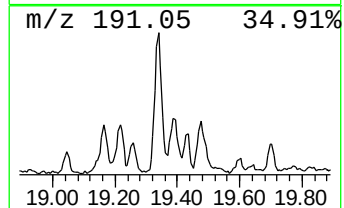
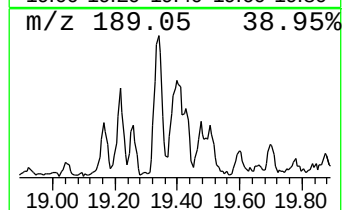
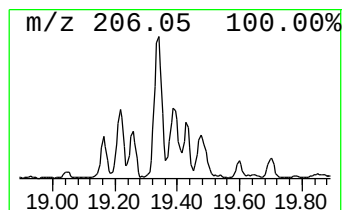
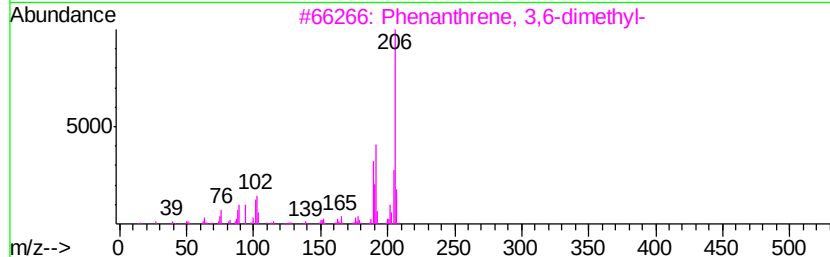
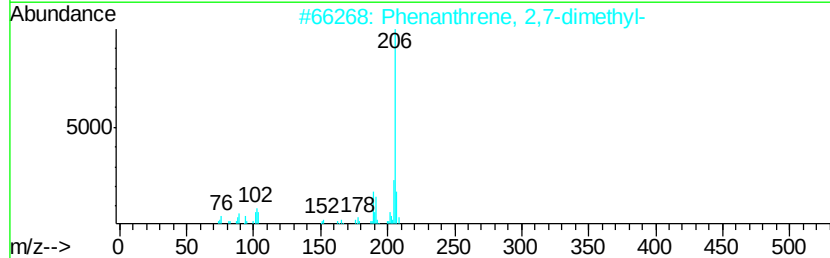
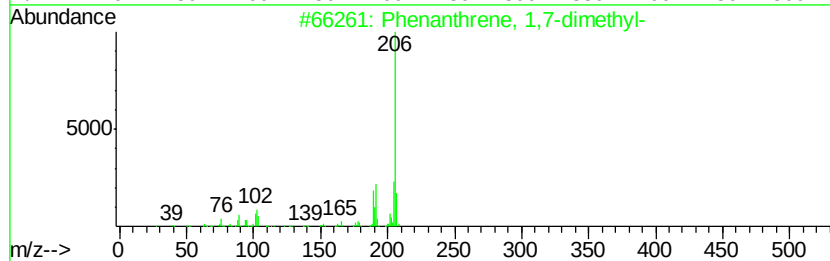
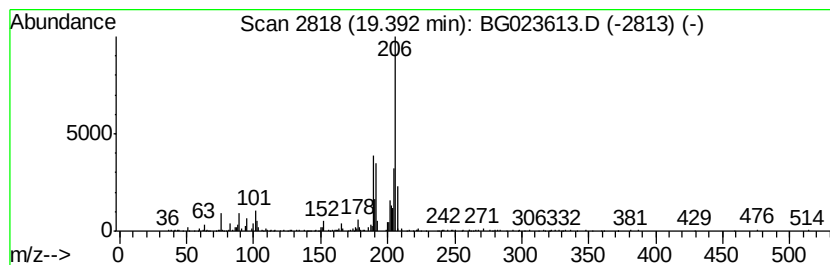
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 11 Phenanthrene, 1,7-dimethyl- Concentration Rank 14

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 19.39 | 3.13 ng/ul | 474153 | Phenanthrene-d10 | 17.55 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Phenanthrene, 1,7-dimethyl- | 206 | C16H14  | 000483-87-4 | 91   |
| 2    |    | Phenanthrene, 2,7-dimethyl- | 206 | C16H14  | 001576-69-8 | 87   |
| 3    |    | Phenanthrene, 3,6-dimethyl- | 206 | C16H14  | 001576-67-6 | 87   |
| 4    |    | 9,10-Dimethylantracene      | 206 | C16H14  | 000781-43-1 | 86   |
| 5    |    | di-p-Tolylacetylene         | 206 | C16H14  | 002789-88-0 | 86   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

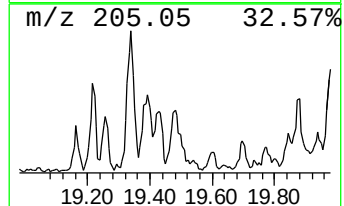
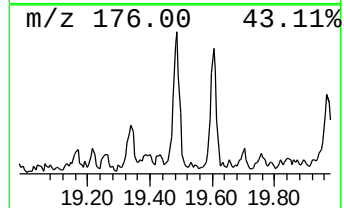
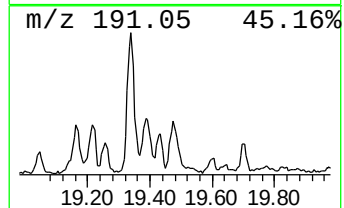
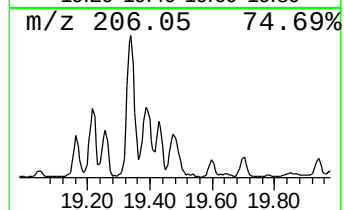
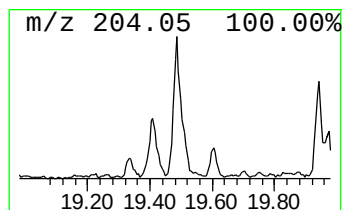
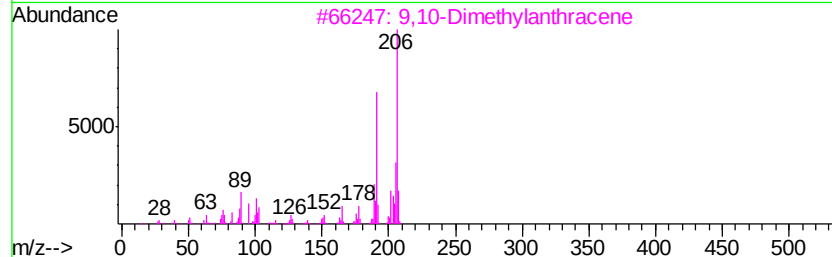
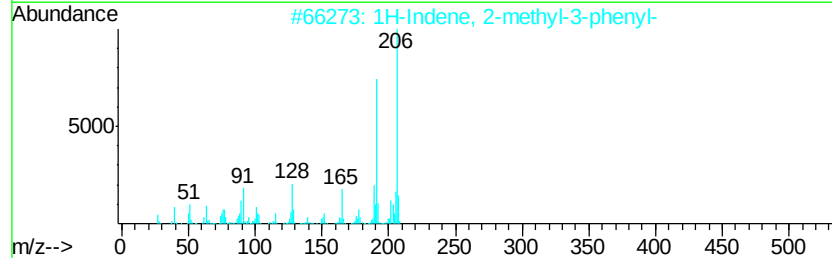
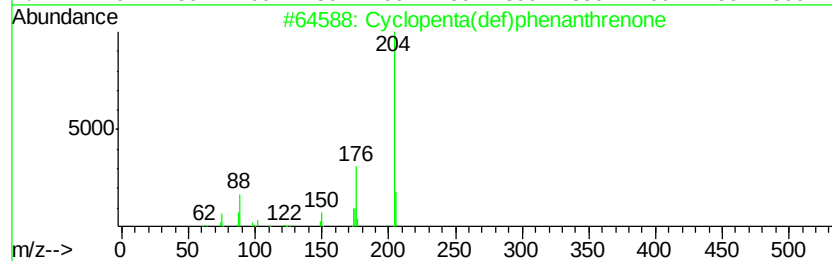
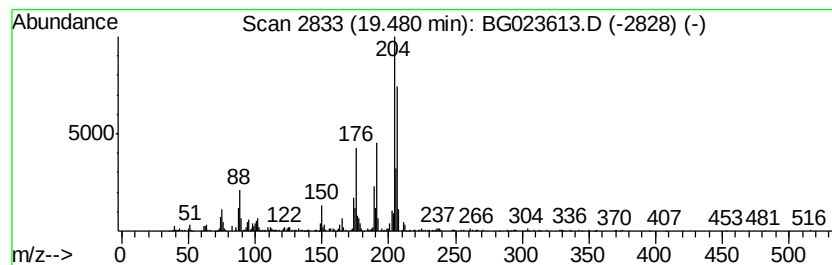
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 12 Cyclopenta(def)phenanthrenone Concentration Rank 6

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 19.48 | 4.97 ng/ul | 752218 | Phenanthrene-d10 | 17.55 |

| Hit# | of | Tentative ID                  | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------|-----|---------|-------------|------|
| 1    | 5  | Cyclopenta(def)phenanthrenone | 204 | C15H8O  | 005737-13-3 | 86   |
| 2    |    | 1H-Indene, 2-methyl-3-phenyl- | 206 | C16H14  | 035099-60-6 | 60   |
| 3    |    | 9,10-Dimethylantracene        | 206 | C16H14  | 000781-43-1 | 50   |
| 4    |    | Phenanthrene, 2,5-dimethyl-   | 206 | C16H14  | 003674-66-6 | 50   |
| 5    |    | Phenanthrene, 2,3-dimethyl-   | 206 | C16H14  | 003674-65-5 | 50   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

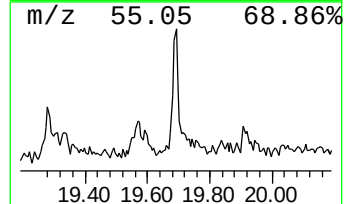
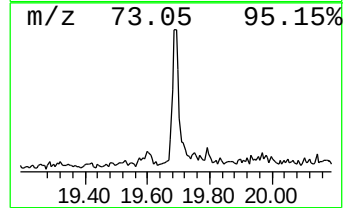
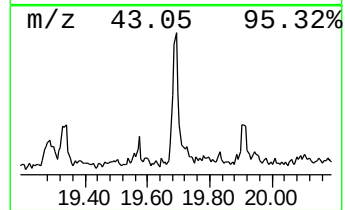
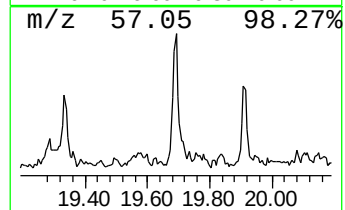
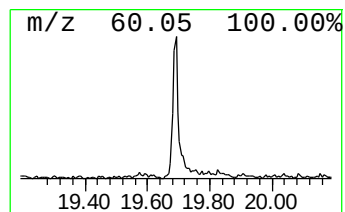
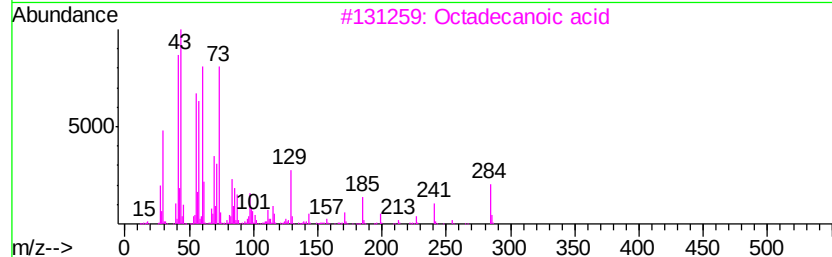
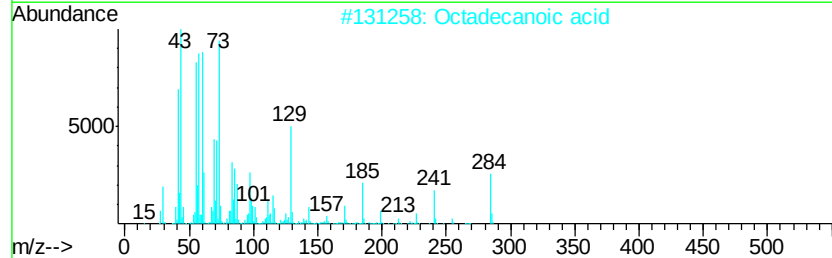
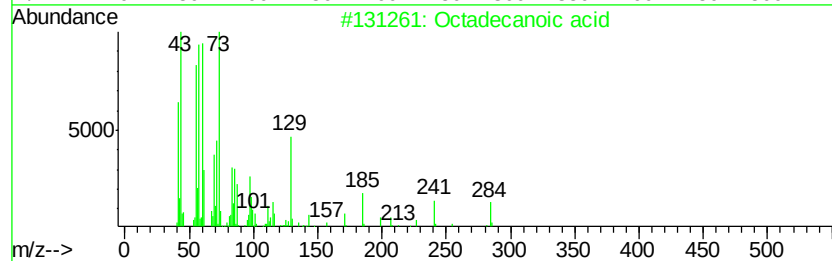
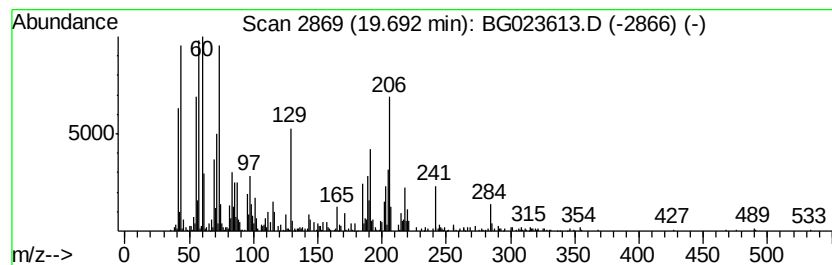
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 13 Octadecanoic acid Concentration Rank 8

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 19.69 | 3.83 ng/ul | 579410 | Phenanthrene-d10 | 17.55 |

| Hit# | of | 5 | Tentative ID        | MW  | MolForm  | CAS#        | Qual |
|------|----|---|---------------------|-----|----------|-------------|------|
| 1    |    |   | Octadecanoic acid   | 284 | C18H36O2 | 000057-11-4 | 97   |
| 2    |    |   | Octadecanoic acid   | 284 | C18H36O2 | 000057-11-4 | 92   |
| 3    |    |   | Octadecanoic acid   | 284 | C18H36O2 | 000057-11-4 | 86   |
| 4    |    |   | Octadecanoic acid   | 284 | C18H36O2 | 000057-11-4 | 60   |
| 5    |    |   | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 55   |





Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

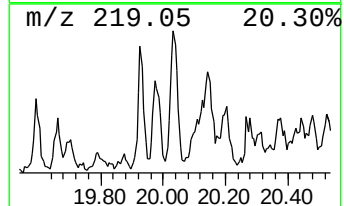
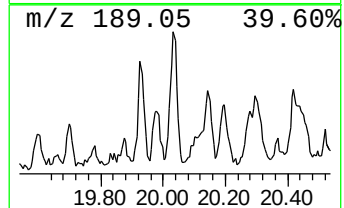
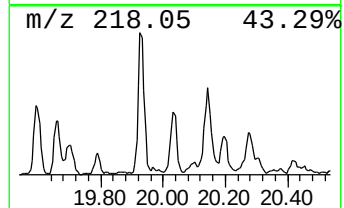
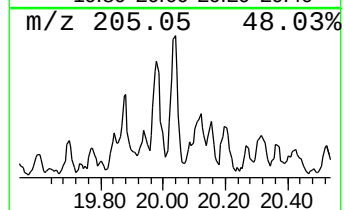
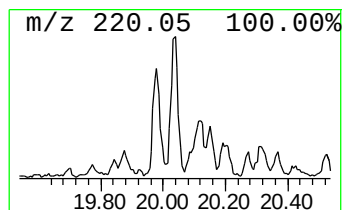
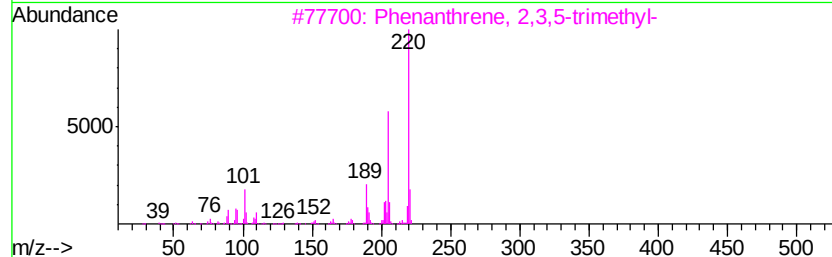
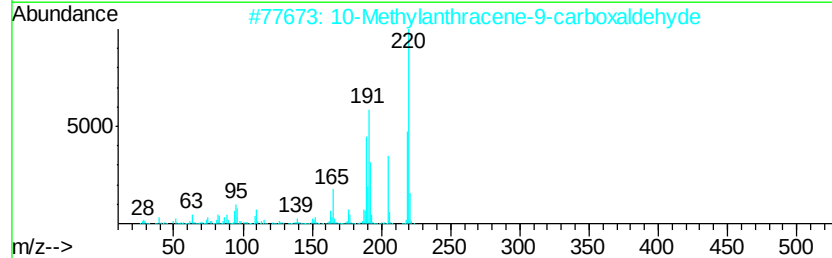
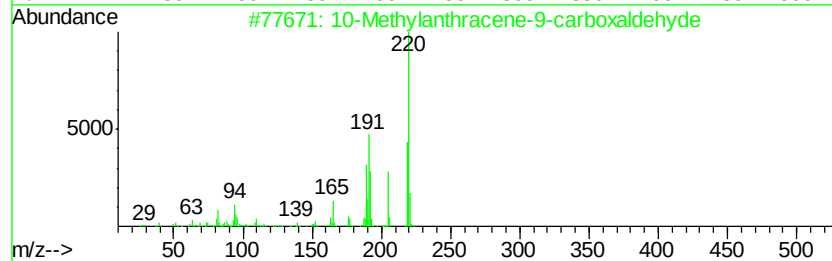
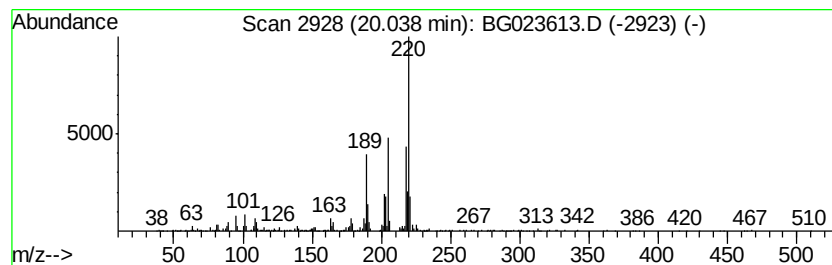
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 14 10-Methylantracene-9-carbo... Concentration Rank 23

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 20.04 | 2.21 ng/ul | 604361 | Chrysene-d12     | 21.87 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#         | Qual |
|------|----|-------------------------------------|-----|------------|--------------|------|
| 1    | 5  | 10-Methylantracene-9-carboxalde...  | 220 | C16H12O    | 007072-00-6  | 53   |
| 2    |    | 10-Methylantracene-9-carboxalde...  | 220 | C16H12O    | 007072-00-6  | 49   |
| 3    |    | Phenanthrene, 2,3,5-trimethyl-      | 220 | C17H16     | 003674-73-5  | 47   |
| 4    |    | 1-(4-Methylphenyl)-4-phenylbuta...  | 220 | C17H16     | 037985-11-8  | 45   |
| 5    |    | 5-(2,5-Dimethoxy-phenyl)-2H-pyra... | 220 | C11H12N2O3 | 1000278-26-9 | 43   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

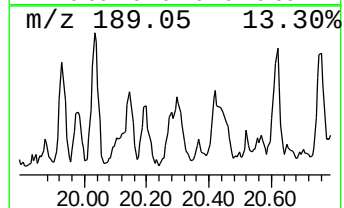
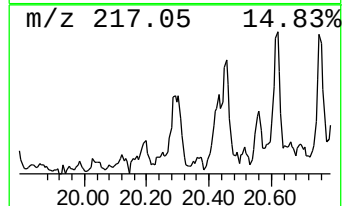
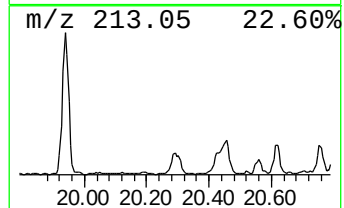
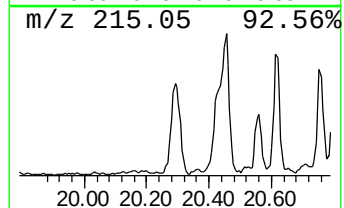
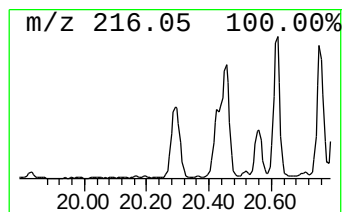
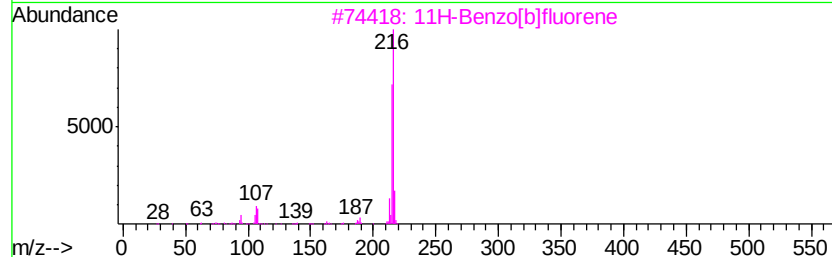
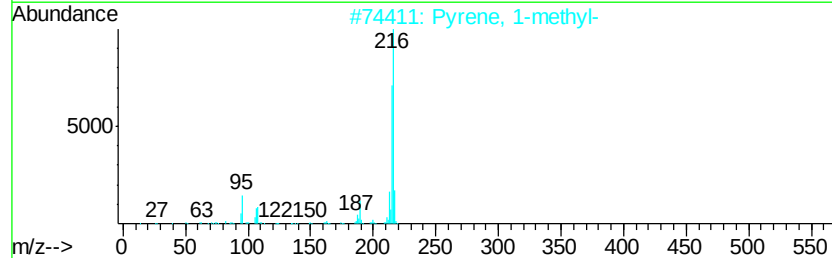
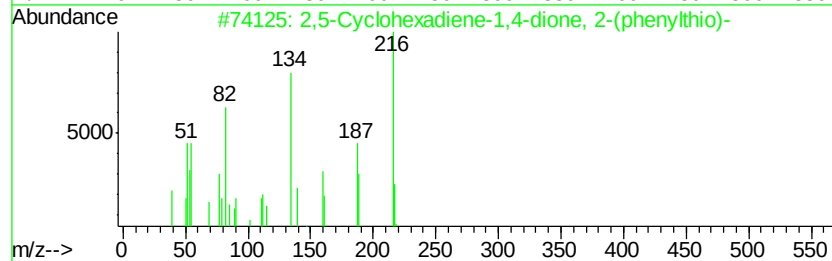
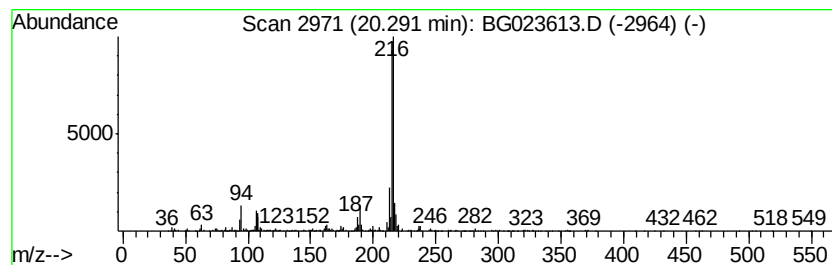
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 15 2,5-Cyclohexadiene-1,4-dione... Concentration Rank 9

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 20.29 | 3.56 ng/ul | 974071 | Chrysene-d12     | 21.87 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | 2,5-Cyclohexadiene-1,4-dione, 2-... | 216 | C12H8O2S | 018232-03-6 | 93   |
| 2    |    | Pyrene, 1-methyl-                   | 216 | C17H12   | 002381-21-7 | 91   |
| 3    |    | 11H-Benzo[b]fluorene                | 216 | C17H12   | 000243-17-4 | 90   |
| 4    |    | Pyrene, 1-methyl-                   | 216 | C17H12   | 002381-21-7 | 89   |
| 5    |    | 11H-Benzo[a]fluorene                | 216 | C17H12   | 000238-84-6 | 83   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

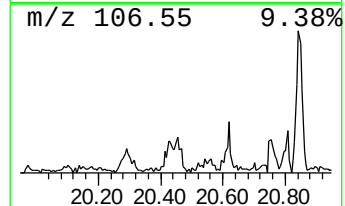
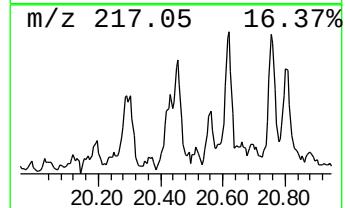
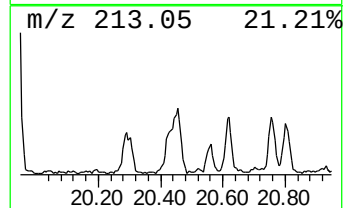
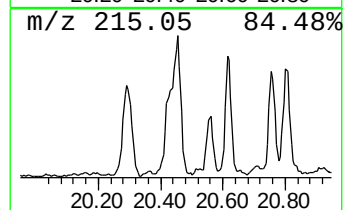
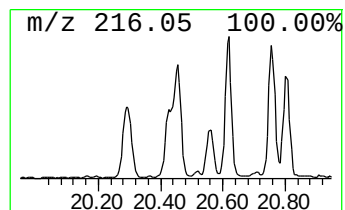
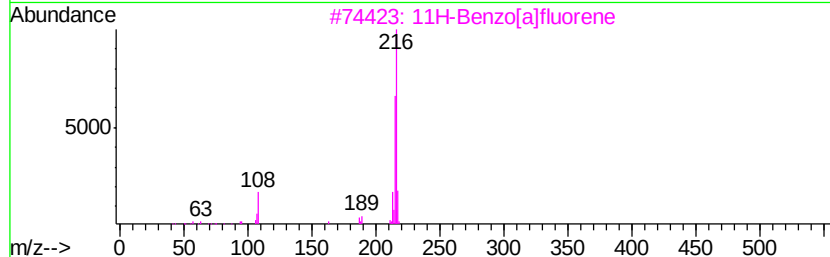
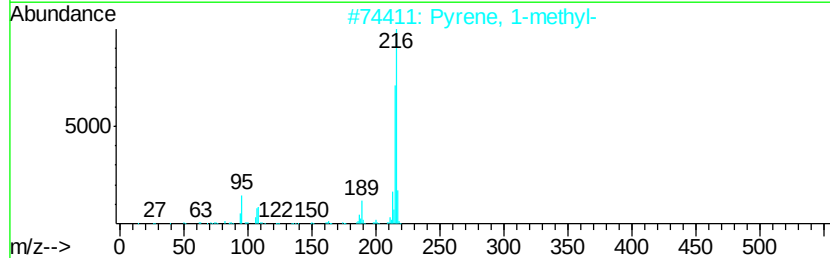
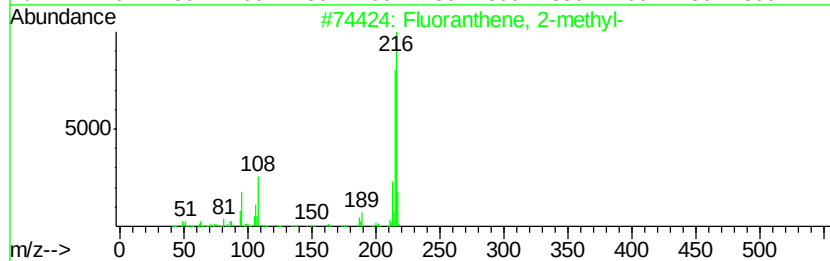
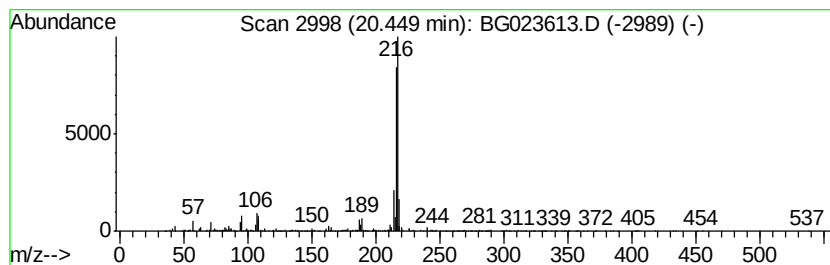
Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 16 Fluoranthene, 2-methyl- Concentration Rank 5

| R.T.      | EstConc                 | Area    | Relative to ISTD | R.T.        |      |
|-----------|-------------------------|---------|------------------|-------------|------|
| 20.45     | 5.26 ng/ul              | 1436750 | Chrysene-d12     | 21.87       |      |
| Hit# of 5 | Tentative ID            | MW      | MolForm          | CAS#        | Qual |
| 1         | Fluoranthene, 2-methyl- | 216     | C17H12           | 033543-31-6 | 95   |
| 2         | Pyrene, 1-methyl-       | 216     | C17H12           | 002381-21-7 | 93   |
| 3         | 11H-Benzo[a]fluorene    | 216     | C17H12           | 000238-84-6 | 90   |
| 4         | 11H-Benzo[a]fluorene    | 216     | C17H12           | 000238-84-6 | 87   |
| 5         | 11H-Benzo[b]fluorene    | 216     | C17H12           | 000243-17-4 | 87   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

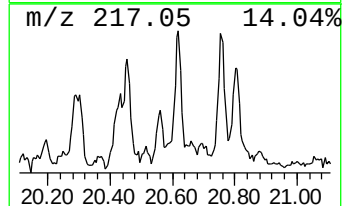
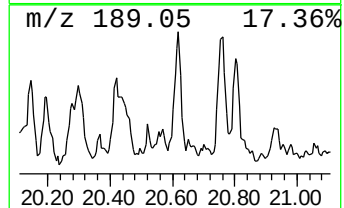
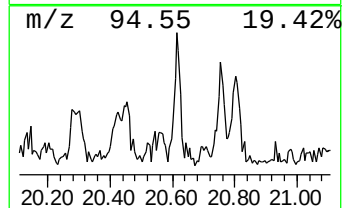
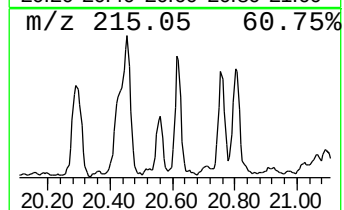
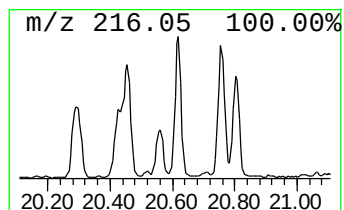
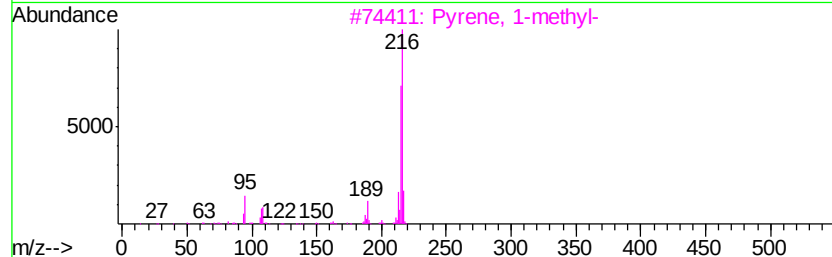
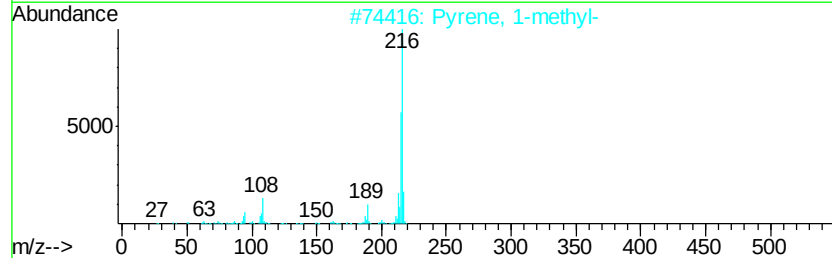
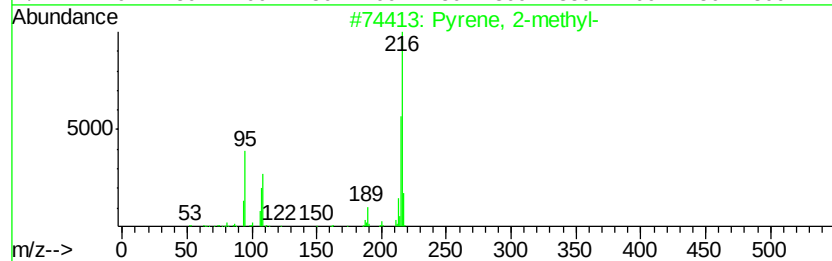
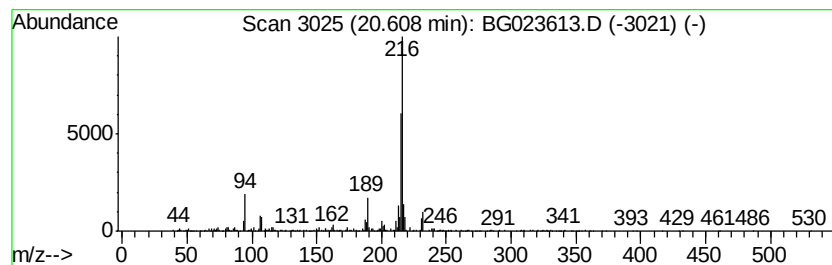
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 17 Pyrene, 2-methyl- Concentration Rank 16

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 20.61 | 2.81 ng/ul | 768386 | Chrysene-d12     | 21.87 |

| Hit# | of | 5 | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------|-----|---------|-------------|------|
| 1    |    |   | Pyrene, 2-methyl-       | 216 | C17H12  | 003442-78-2 | 93   |
| 2    |    |   | Pyrene, 1-methyl-       | 216 | C17H12  | 002381-21-7 | 93   |
| 3    |    |   | Pyrene, 1-methyl-       | 216 | C17H12  | 002381-21-7 | 93   |
| 4    |    |   | Pyrene, 1-methyl-       | 216 | C17H12  | 002381-21-7 | 93   |
| 5    |    |   | Fluoranthene, 2-methyl- | 216 | C17H12  | 033543-31-6 | 91   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

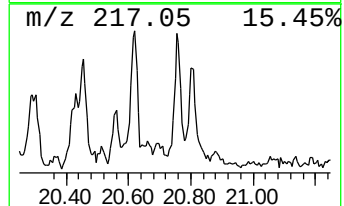
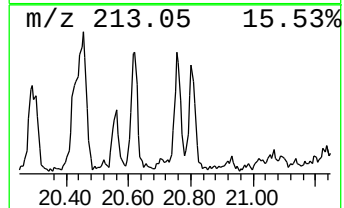
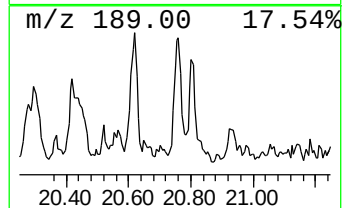
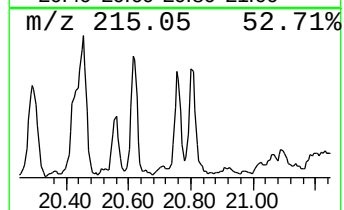
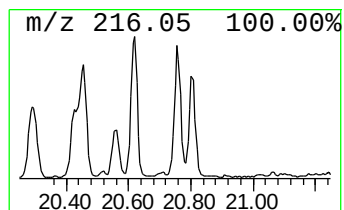
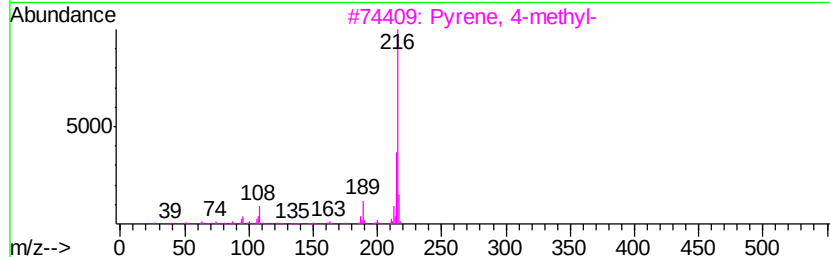
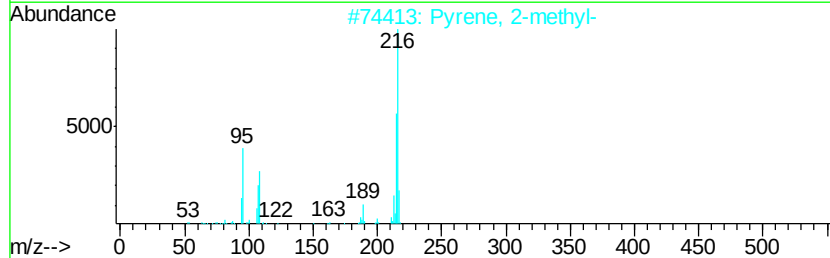
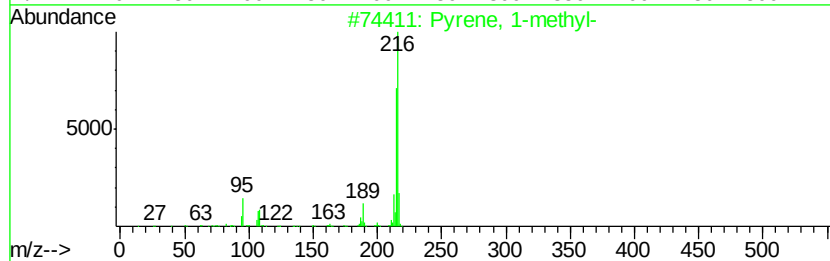
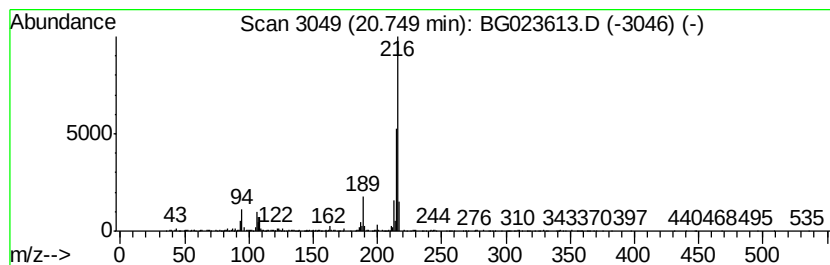
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 18 Pyrene, 1-methyl- Concentration Rank 18

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 20.75 | 2.56 ng/ul | 700425 | Chrysene-d12     | 21.87 |

| Hit# | of | Tentative ID      | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------|-----|---------|-------------|------|
| 1    | 5  | Pyrene, 1-methyl- | 216 | C17H12  | 002381-21-7 | 95   |
| 2    |    | Pyrene, 2-methyl- | 216 | C17H12  | 003442-78-2 | 94   |
| 3    |    | Pyrene, 4-methyl- | 216 | C17H12  | 003353-12-6 | 93   |
| 4    |    | Pyrene, 1-methyl- | 216 | C17H12  | 002381-21-7 | 93   |
| 5    |    | Pyrene, 1-methyl- | 216 | C17H12  | 002381-21-7 | 93   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

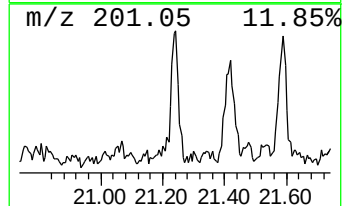
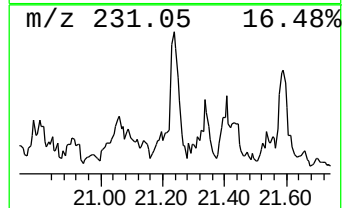
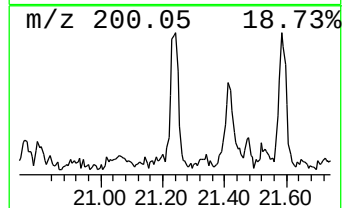
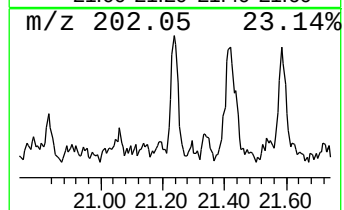
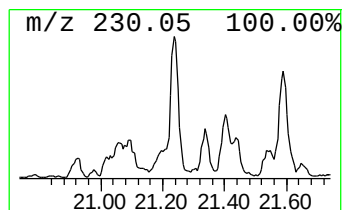
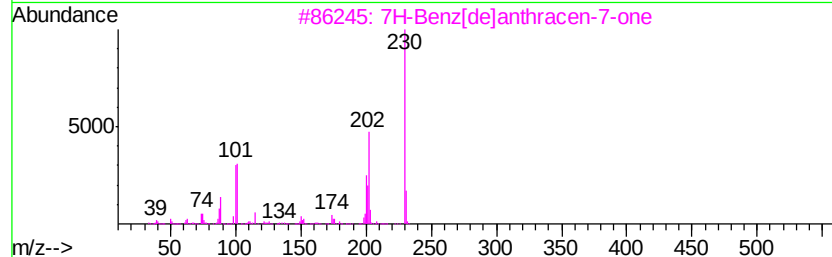
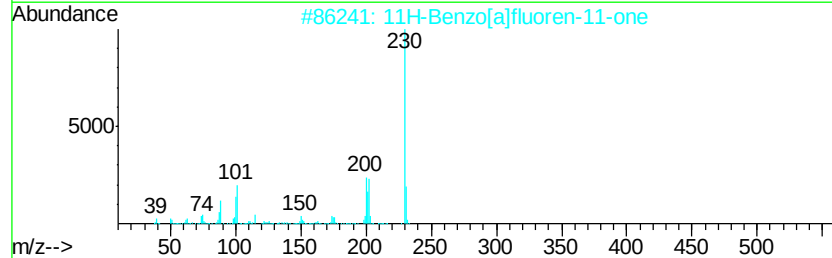
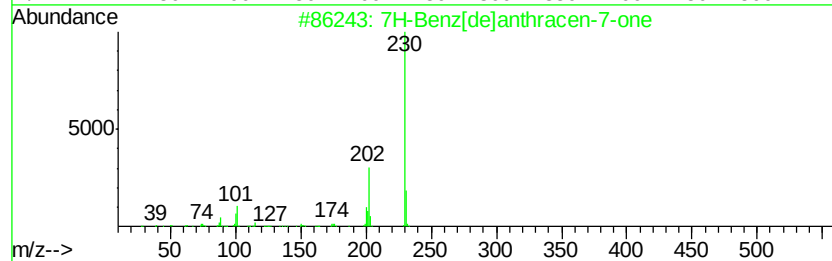
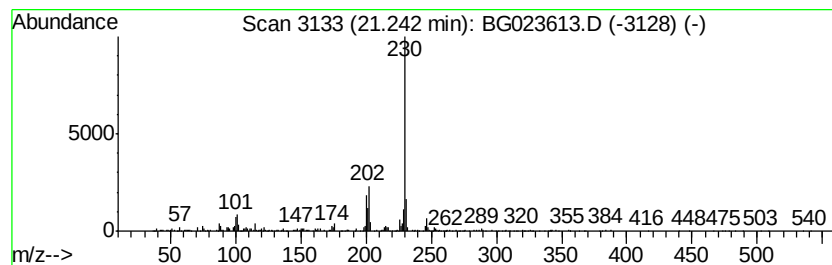
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 19 7H-Benz[de]anthracen-7-one Concentration Rank 20

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 21.24 | 2.44 ng/ul | 667433 | Chrysene-d12     | 21.87 |

| Hit# | of | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------|-----|---------|-------------|------|
| 1    | 5  | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 93   |
| 2    |    | 11H-Benzo[a]fluoren-11-one | 230 | C17H10O | 000479-79-8 | 90   |
| 3    |    | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 87   |
| 4    |    | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 87   |
| 5    |    | 7H-Benz[de]anthracen-7-one | 230 | C17H10O | 000082-05-3 | 76   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

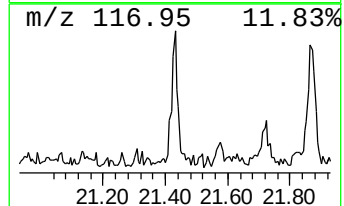
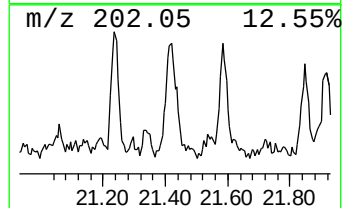
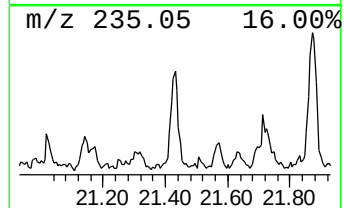
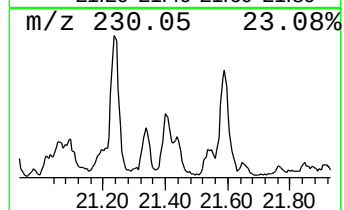
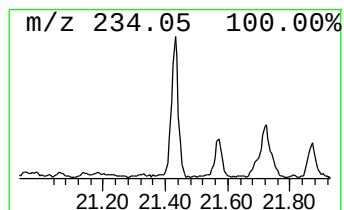
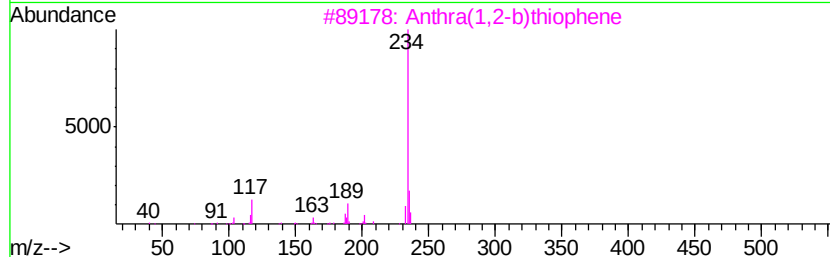
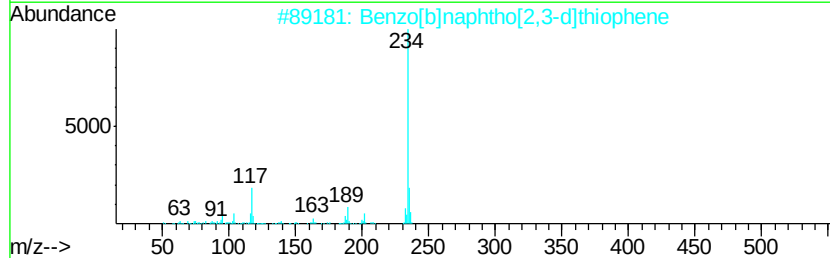
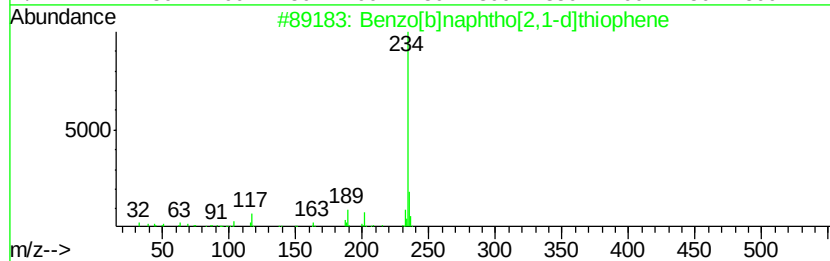
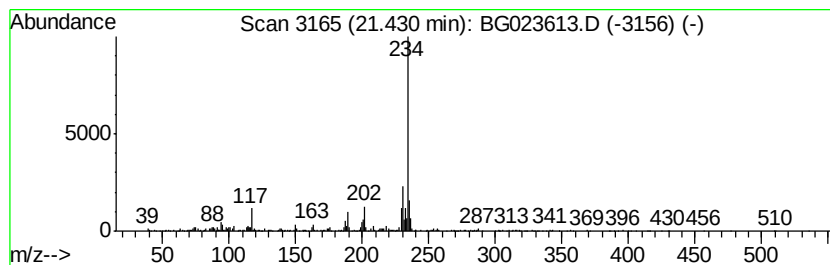
Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 20 Benzo[b]naphtho[2,1-d]thiop... Concentration Rank 11

| R.T.    | EstConc    | Area                            | Relative to ISTD | R.T.    |             |      |
|---------|------------|---------------------------------|------------------|---------|-------------|------|
| 21.43   | 3.30 ng/ul | 901701                          | Chrysene-d12     | 21.87   |             |      |
| Hit# of | 5          | Tentative ID                    | MW               | MolForm | CAS#        | Qual |
| 1       |            | Benzo[b]naphtho[2,1-d]thiophene | 234              | C16H10S | 000239-35-0 | 96   |
| 2       |            | Benzo[b]naphtho[2,3-d]thiophene | 234              | C16H10S | 000243-46-9 | 94   |
| 3       |            | Anthra(1,2-b)thiophene          | 234              | C16H10S | 000227-86-1 | 93   |
| 4       |            | Benzo[b]naphtho[2,1-d]thiophene | 234              | C16H10S | 000239-35-0 | 90   |
| 5       |            | Benzo[b]naphtho[2,1-d]thiophene | 234              | C16H10S | 000239-35-0 | 86   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

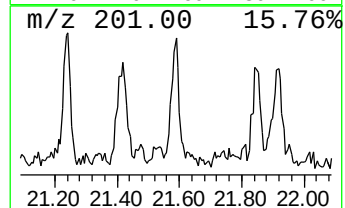
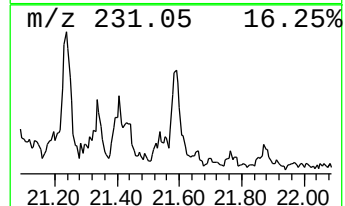
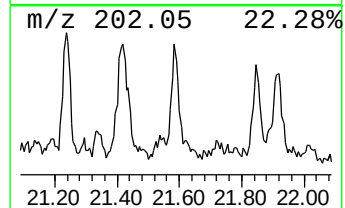
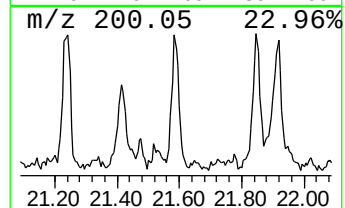
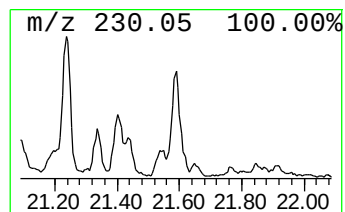
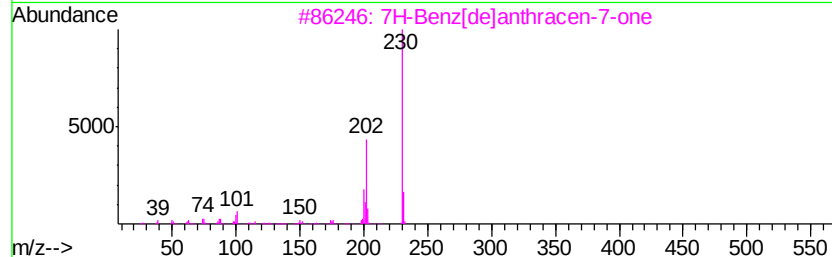
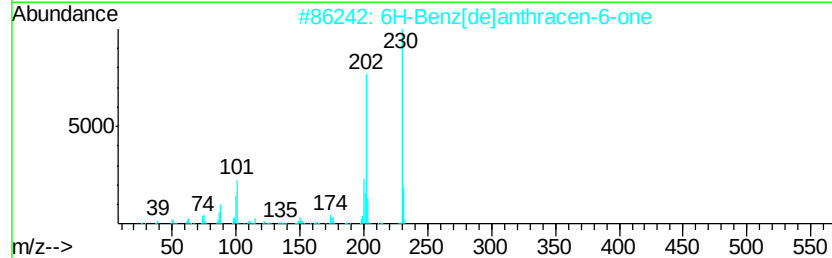
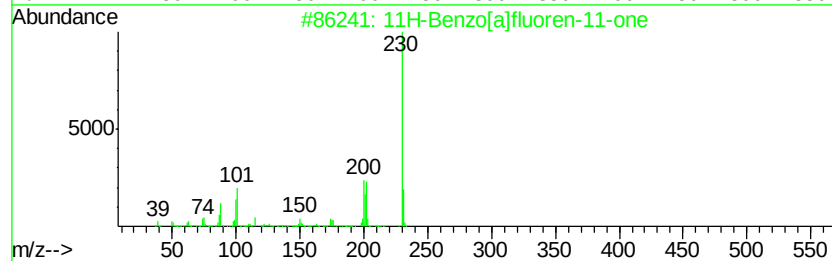
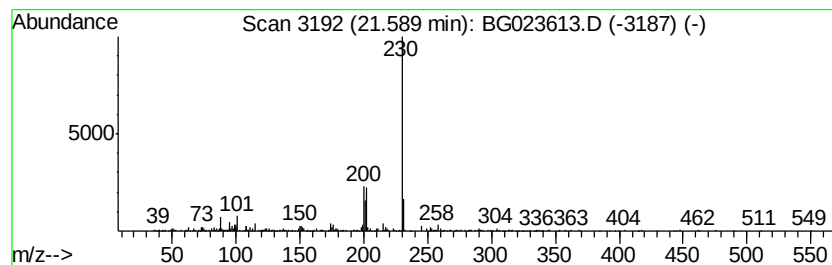
Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 21 11H-Benzo[a]fluoren-11-one Concentration Rank 19

| R.T.    | EstConc    | Area                       | Relative to ISTD |         | R.T.        |      |
|---------|------------|----------------------------|------------------|---------|-------------|------|
| 21.59   | 2.46 ng/ul | 672368                     | Chrysene-d12     |         | 21.87       |      |
| Hit# of | 5          | Tentative ID               | MW               | MolForm | CAS#        | Qual |
| 1       |            | 11H-Benzo[a]fluoren-11-one | 230              | C17H10O | 000479-79-8 | 90   |
| 2       |            | 6H-Benz[de]anthracen-6-one | 230              | C17H10O | 080252-14-8 | 76   |
| 3       |            | 7H-Benz[de]anthracen-7-one | 230              | C17H10O | 000082-05-3 | 76   |
| 4       |            | 7H-Benz[de]anthracen-7-one | 230              | C17H10O | 000082-05-3 | 58   |
| 5       |            | p-Terphenyl                | 230              | C18H14  | 000092-94-4 | 49   |





Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

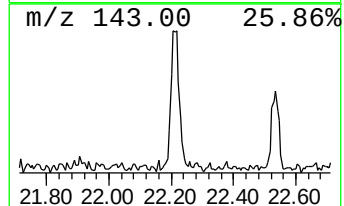
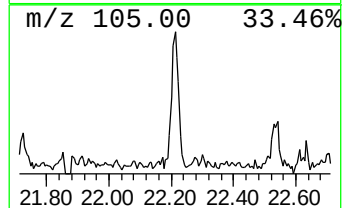
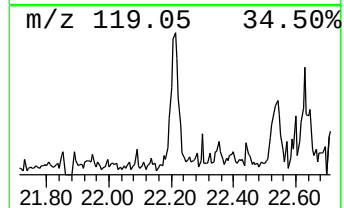
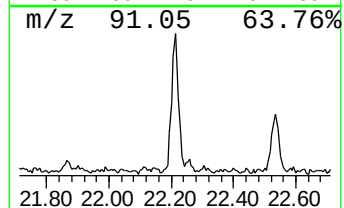
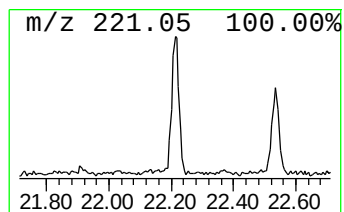
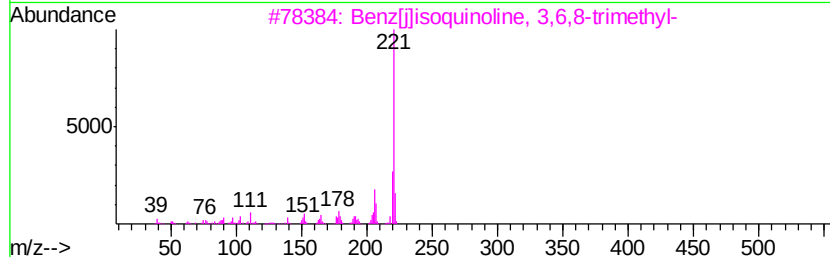
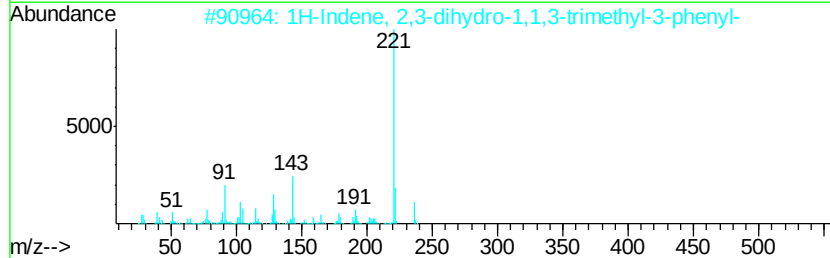
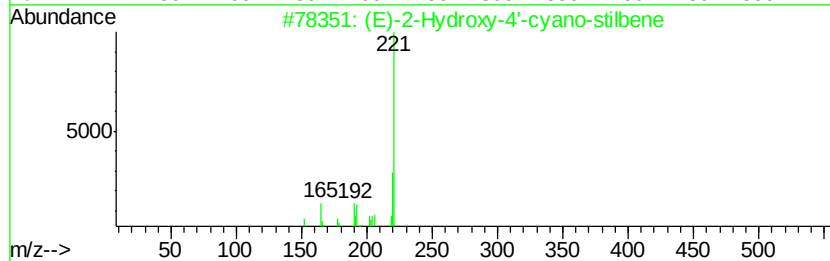
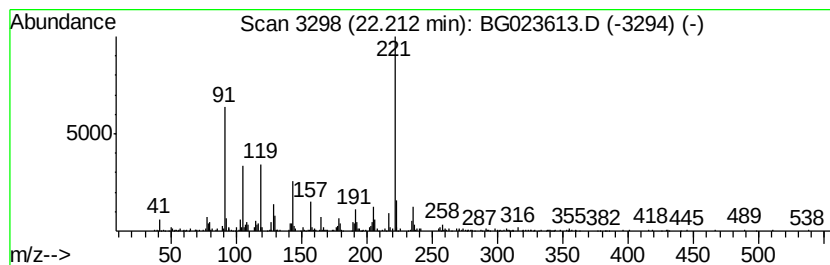
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 22 (E)-2-Hydroxy-4'-cyano-stil... Concentration Rank 22

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 22.21 | 2.31 ng/ul | 630620 | Chrysene-d12     | 21.87 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|---|-------------------------------------|-----|-----------|--------------|------|
| 1    |    |   | (E)-2-Hydroxy-4'-cyano-stilbene     | 221 | C15H11NO  | 1000147-85-5 | 60   |
| 2    |    |   | 1H-Indene, 2,3-dihydro-1,1,3-tri... | 236 | C18H20    | 003910-35-8  | 52   |
| 3    |    |   | Benz[j]isoquinoline, 3,6,8-trime... | 221 | C16H15N   | 061171-16-2  | 49   |
| 4    |    |   | 2-Pentene, 4-methyl-2,4-diphenyl-   | 236 | C18H20    | 006258-73-7  | 47   |
| 5    |    |   | 3,4-Bis-(methylthio)-quinoline      | 221 | C11H11NS2 | 074579-34-3  | 47   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
Data File : BG023613.D  
Acq On : 11 Aug 2016 4:30  
Operator : UM/SJ  
Sample : H4384-03  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
Quant Title : SVOA CALIBRATION

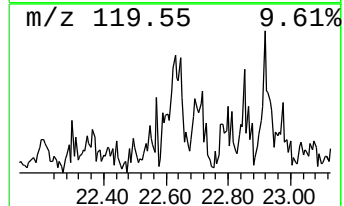
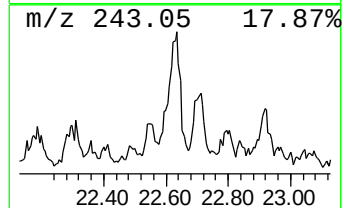
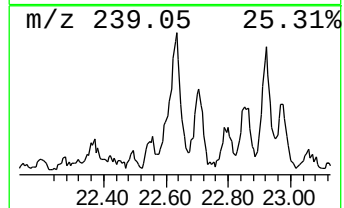
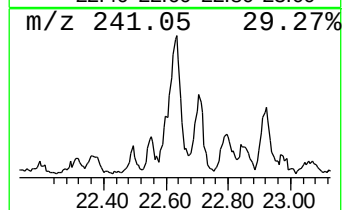
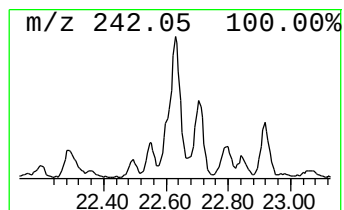
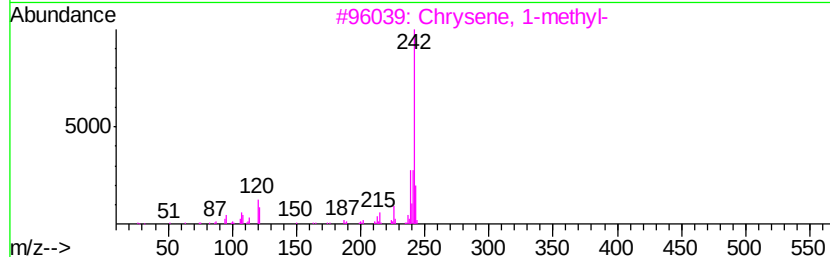
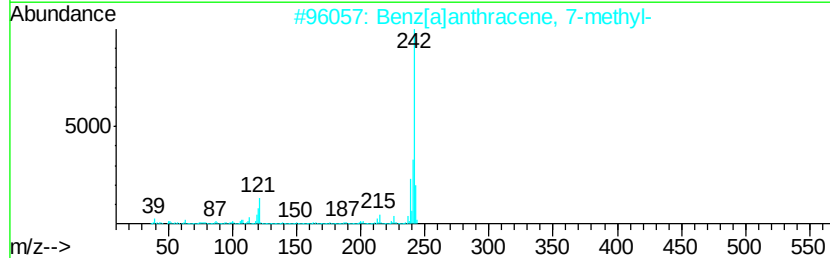
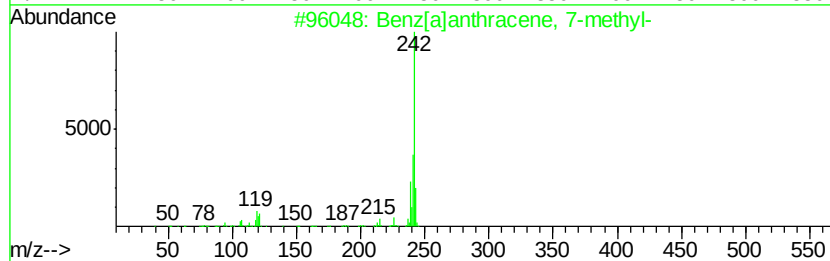
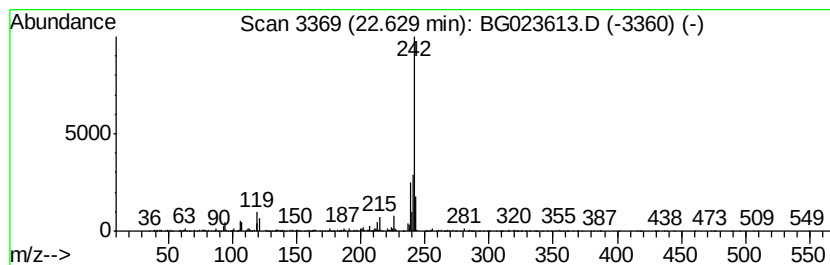
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 23 Benz[a]anthracene, 7-methyl- Concentration Rank 13

| R.T.  | EstConc    | Area   | Relative to ISTD | R.T.  |
|-------|------------|--------|------------------|-------|
| 22.63 | 3.16 ng/ul | 863614 | Chrysene-d12     | 21.87 |

| Hit# | of | 5 | Tentative ID                 | MW  | MolForm | CAS#        | Qual |
|------|----|---|------------------------------|-----|---------|-------------|------|
| 1    |    |   | Benz[a]anthracene, 7-methyl- | 242 | C19H14  | 002541-69-7 | 91   |
| 2    |    |   | Benz[a]anthracene, 7-methyl- | 242 | C19H14  | 002541-69-7 | 90   |
| 3    |    |   | Chrysene, 1-methyl-          | 242 | C19H14  | 003351-28-8 | 89   |
| 4    |    |   | Chrysene, 5-methyl-          | 242 | C19H14  | 003697-24-3 | 89   |
| 5    |    |   | Benz[a]anthracene, 8-methyl- | 242 | C19H14  | 002381-31-9 | 89   |



Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG081016\  
 Data File : BG023613.D  
 Acq On : 11 Aug 2016 4:30  
 Operator : UM/SJ  
 Sample : H4384-03  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 P001-SS001-0612-01

Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG080416.M  
 Quant Title : SVOA CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
 TIC Integration Parameters: LSCINT.P

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| Hexanoic acid, 2-... | 9.40  | 2.1     | ng/ul | 96127    | 1                     | 8.11  | 910268  | 20.0 |
| Phenanthrene, 2-m... | 18.42 | 10.3    | ng/ul | 1552110  | 4                     | 17.55 | 3028780 | 20.0 |
| Anthracene, 1-met... | 18.62 | 7.3     | ng/ul | 1110570  | 4                     | 17.55 | 3028780 | 20.0 |
| 1H-Cyclopropa[l]p... | 18.66 | 4.0     | ng/ul | 610474   | 4                     | 17.55 | 3028780 | 20.0 |
| Naphthalene, 2-ph... | 18.92 | 2.8     | ng/ul | 422548   | 4                     | 17.55 | 3028780 | 20.0 |
| 9,10-Anthracenedione | 18.97 | 3.1     | ng/ul | 471999   | 4                     | 17.55 | 3028780 | 20.0 |
| Phenanthrene, 3,6... | 19.16 | 3.3     | ng/ul | 498441   | 4                     | 17.55 | 3028780 | 20.0 |
| 9,10-Dimethylantr... | 19.34 | 7.7     | ng/ul | 1172060  | 4                     | 17.55 | 3028780 | 20.0 |
| Phenanthrene, 1,7... | 19.39 | 3.1     | ng/ul | 474153   | 4                     | 17.55 | 3028780 | 20.0 |
| Cyclopenta(def)ph... | 19.48 | 5.0     | ng/ul | 752218   | 4                     | 17.55 | 3028780 | 20.0 |
| Octadecanoic acid    | 19.69 | 3.8     | ng/ul | 579410   | 4                     | 17.55 | 3028780 | 20.0 |
| 10-Methylanthrace... | 20.04 | 2.2     | ng/ul | 604361   | 5                     | 21.87 | 5466850 | 20.0 |
| 2,5-Cyclohexadien... | 20.29 | 3.6     | ng/ul | 974071   | 5                     | 21.87 | 5466850 | 20.0 |
| Fluoranthene, 2-m... | 20.45 | 5.3     | ng/ul | 1436750  | 5                     | 21.87 | 5466850 | 20.0 |
| Pyrene, 2-methyl-    | 20.61 | 2.8     | ng/ul | 768386   | 5                     | 21.87 | 5466850 | 20.0 |
| Pyrene, 1-methyl-    | 20.75 | 2.6     | ng/ul | 700425   | 5                     | 21.87 | 5466850 | 20.0 |
| 7H-Benz[de]anthra... | 21.24 | 2.4     | ng/ul | 667433   | 5                     | 21.87 | 5466850 | 20.0 |
| Benzo[b]naphtho[2... | 21.43 | 3.3     | ng/ul | 901701   | 5                     | 21.87 | 5466850 | 20.0 |
| 11H-Benzo[a]fluor... | 21.59 | 2.5     | ng/ul | 672368   | 5                     | 21.87 | 5466850 | 20.0 |
| (E)-2-Hydroxy-4'-... | 22.21 | 2.3     | ng/ul | 630620   | 5                     | 21.87 | 5466850 | 20.0 |
| Benz[a]anthracene... | 22.63 | 3.2     | ng/ul | 863614   | 5                     | 21.87 | 5466850 | 20.0 |