LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

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

Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.019 | 521 | 524 | 534 | rBV | 71574 | 124821 | 5.21% | 0.400% |
| 2 | 5.678 | 632 | 636 | 663 | rBV | 541761 | 929271 | 38.81% | 2.975% |
| 3 | 6.166 | 716 | 719 | 727 | rBV | 21719 | 39552 | 1.65% | 0.127% |
| 4 | 7.260 | 901 | 905 | 922 | rBV | 818459 | 1151790 | 48.11% | 3.688% |
| 5 | 7.389 | 922 | 927 | 935 | rVB | 873048 | 1156412 | 48.30% | 3.702% |
| 6 | 7.725 | 980 | 984 | 995 | rBV | 452707 | 547823 | 22.88% | 1.754% |
| 7 | 7.966 | 1020 | 1025 | 1036 | rBV | 676081 | 818529 | 34.19% | 2.621% |
| 8 | 8.619 | 1131 | 1136 | 1152 | rBV | 656570 | 798426 | 33.35% | 2.556% |
| 9 | 9.748 | 1324 | 1328 | 1343 | rBV | 595996 | 704867 | 29.44% | 2.257% |
| 10 | 11.524 | 1624 | 1630 | 1645 | rBV | 1907631 | 2206505 | 92.16% | 7.064% |
| 11 | 12.213 | 1742 | 1747 | 1759 | rBV | 192299 | 255006 | 10.65% | 0.816% |
| 12 | 12.577 | 1804 | 1809 | 1814 | rBV2 | 662507 | 811593 | 33.90% | 2.598% |
| 13 | 12.630 | 1814 | 1818 | 1825 | rVB | 72785 | 104801 | 4.38% | 0.336% |
| 14 | 13.424 | 1945 | 1953 | 1957 | rBV4 | 42104 | 57926 | 2.42% | 0.185% |
| 15 | 13.477 | 1957 | 1962 | 1967 | rVV | 56273 | 70770 | 2.96% | 0.227% |
| 16 | 13.871 | 2024 | 2029 | 2039 | rBV | 1170699 | 1520510 | 63.51% | 4.868% |
| 17 | 13.948 | 2039 | 2042 | 2051 | rVB6 | 20834 | 37534 | 1.57% | 0.120% |
| 18 | 14.195 | 2081 | 2084 | 2087 | rBV | 44157 | 56518 | 2.36% | 0.181% |
| 19 | 14.377 | 2108 | 2115 | 2118 | rBV2 | 37484 | 68708 | 2.87% | 0.220% |
| 20 | 14.418 | 2118 | 2122 | 2128 | rVB3 | 31905 | 52016 | 2.17% | 0.167% |
| 21 | 14.601 | 2150 | 2153 | 2157 | rBV4 | 20845 | 35406 | 1.48% | 0.113% |
| 22 | 14.695 | 2165 | 2169 | 2176 | rVB5 | 27629 | 50310 | 2.10% | 0.161% |
| 23 | 14.777 | 2176 | 2183 | 2186 | rVV4 | 22486 | 45126 | 1.88% | 0.144% |
| 24 | 14.812 | 2186 | 2189 | 2193 | rVB | 30213 | 36250 | 1.51% | 0.116% |
| 25 | 14.930 | 2203 | 2209 | 2213 | rBV2 | 30937 | 39085 | 1.63% | 0.125% |
| 26 | 14.977 | 2213 | 2217 | 2220 | rVV | 645645 | 756146 | 31.58% | 2.421% |
| 27 | 15.012 | 2220 | 2223 | 2229 | rVV | 857705 | 948603 | 39.62% | 3.037% |
| 28 | 15.095 | 2233 | 2237 | 2243 | rVB | 183137 | 218020 | 9.11% | 0.698% |
| 29 | 15.195 | 2248 | 2254 | 2258 | rBV5 | 22125 | 38399 | 1.60% | 0.123% |
| 30 | 15.465 | 2297 | 2300 | 2303 | rBV | 70256 | 70480 | 2.94% | 0.226% |
| 31 | 15.759 | 2345 | 2350 | 2353 | rVV | 259626 | 274040 | 11.45% | 0.877% |
| 32 | 15.795 | 2353 | 2356 | 2365 | rVV | 287038 | 338722 | 14.15% | 1.084% |
| 33 | 15.871 | 2365 | 2369 | 2371 | rVV | 84915 | 93347 | 3.90% | 0.299% |
| 34 | 15.906 | 2371 | 2375 | 2379 | rVV2 | 347566 | 446513 | 18.65% | 1.430% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

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

Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 15.948 | 2379 | 2382 | 2392 | rVB | 263407 | 320653 | 13.39% | 1.027% |
| 36 | 16.200 | 2419 | 2425 | 2428 | rVV | 187011 | 227231 | 9.49% | 0.727% |
| 37 | 16.236 | 2428 | 2431 | 2435 | rVV | 114797 | 125654 | 5.25% | 0.402% |
| 38 | 16.300 | 2439 | 2442 | 2446 | rBV | 51639 | 48350 | 2.02% | 0.155% |
| 39 | 16.406 | 2456 | 2460 | 2465 | rBV2 | 65374 | 97105 | 4.06% | 0.311% |
| 40 | 16.453 | 2465 | 2468 | 2471 | rVV | 51704 | 52296 | 2.18% | 0.167% |
| 41 | 16.489 | 2471 | 2474 | 2479 | rVB | 46455 | 53596 | 2.24% | 0.172% |
| 42 | 16.553 | 2479 | 2485 | 2489 | rBV | 167160 | 230555 | 9.63% | 0.738% |
| 43 | 16.595 | 2489 | 2492 | 2496 | rVV | 94558 | 127865 | 5.34% | 0.409% |
| 44 | 16.630 | 2496 | 2498 | 2500 | rVB | 51500 | 42764 | 1.79% | 0.137% |
| 45 | 16.665 | 2500 | 2504 | 2511 | rVB3 | 130086 | 219592 | 9.17% | 0.703% |
| 46 | 16.753 | 2511 | 2519 | 2524 | rBV | 1268414 | 1543711 | 64.48% | 4.942% |
| 47 | 16.800 | 2524 | 2527 | 2533 | rVB | 80875 | 94068 | 3.93% | 0.301% |
| 48 | 16.853 | 2533 | 2536 | 2539 | rBV | 77770 | 85144 | 3.56% | 0.273% |
| 49 | 16.883 | 2539 | 2541 | 2549 | rVB2 | 36826 | 59396 | 2.48% | 0.190% |
| 50 | 16.953 | 2549 | 2553 | 2555 | rBV3 | 50028 | 71611 | 2.99% | 0.229% |
| 51 | 17.059 | 2564 | 2571 | 2576 | rBV | 1811070 | 2113072 | 88.26% | 6.765% |
| 52 | 17.142 | 2581 | 2585 | 2589 | rVV4 | 49528 | 80412 | 3.36% | 0.257% |
| 53 | 17.177 | 2589 | 2591 | 2596 | rVB | 37894 | 41321 | 1.73% | 0.132% |
| 54 | 17.242 | 2596 | 2602 | 2607 | rBV2 | 43902 | 74930 | 3.13% | 0.240% |
| 55 | 17.306 | 2607 | 2613 | 2617 | rVV | 2095041 | 2394261 | 100.00% | 7.665% |
| 56 | 17.377 | 2619 | 2625 | 2632 | rBV5 | 106487 | 200006 | 8.35% | 0.640% |
| 57 | 17.483 | 2638 | 2643 | 2646 | rBV3 | 102371 | 180858 | 7.55% | 0.579% |
| 58 | 17.518 | 2646 | 2649 | 2654 | rVB | 172683 | 210995 | 8.81% | 0.676% |
| 59 | 17.606 | 2661 | 2664 | 2668 | rVB2 | 79577 | 85356 | 3.57% | 0.273% |
| 60 | 17.647 | 2668 | 2671 | 2675 | rBV2 | 179658 | 240612 | 10.05% | 0.770% |
| 61 | 17.765 | 2688 | 2691 | 2694 | rVV | 128503 | 128558 | 5.37% | 0.412% |
| 62 | 17.806 | 2694 | 2698 | 2704 | rVB | 121544 | 135529 | 5.66% | 0.434% |
| 63 | 17.936 | 2717 | 2720 | 2726 | rVB4 | 19136 | 37773 | 1.58% | 0.121% |
| 64 | 18.030 | 2732 | 2736 | 2739 | rBV6 | 20842 | 40635 | 1.70% | 0.130% |
| 65 | 18.077 | 2739 | 2744 | 2747 | rVV4 | 25595 | 39963 | 1.67% | 0.128% |
| 66 | 18.189 | 2760 | 2763 | 2768 | rVB | 100157 | 104651 | 4.37% | 0.335% |
| 67 | 18.324 | 2781 | 2786 | 2788 | rBV2 | 77071 | 120122 | 5.02% | 0.385% |
| 68 | 18.353 | 2788 | 2791 | 2793 | rVV | 137794 | 152862 | 6.38% | 0.489% |
| 69 | 18.383 | 2793 | 2796 | 2799 | rVV2 | 95605 | 111266 | 4.65% | 0.356% |
| 70 | 18.418 | 2799 | 2802 | 2806 | rVB4 | 31128 | 42473 | 1.77% | 0.136% |
| 71 | 18.459 | 2806 | 2809 | 2814 | rBV | 114060 | 129233 | 5.40% | 0.414% |

LSC Area Percent Report

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Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

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

Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 18.600 | 2825 | 2833 | 2834 | rBV8 | 26301 | 63564 | 2.65% | 0.204% |
| 73 | 18.636 | 2834 | 2839 | 2843 | rVV2 | 823257 | 1365479 | 57.03% | 4.372% |
| 74 | 18.671 | 2843 | 2845 | 2849 | rVV | 547489 | 612619 | 25.59% | 1.961% |
| 75 | 18.706 | 2849 | 2851 | 2855 | rVV5 | 48851 | 55627 | 2.32% | 0.178% |
| 76 | 18.771 | 2858 | 2862 | 2867 | rVB2 | 84747 | 99212 | 4.14% | 0.318% |
| 77 | 18.965 | 2890 | 2895 | 2900 | rBV8 | 25746 | 39508 | 1.65% | 0.126% |
| 78 | 19.100 | 2914 | 2918 | 2920 | rBV | 37195 | 42212 | 1.76% | 0.135% |
| 79 | 19.141 | 2920 | 2925 | 2930 | rVV | 117733 | 169029 | 7.06% | 0.541% |
| 80 | 19.183 | 2930 | 2932 | 2936 | rVB | 60130 | 66995 | 2.80% | 0.214% |
| 81 | 19.259 | 2942 | 2945 | 2948 | rVB2 | 62118 | 65651 | 2.74% | 0.210% |
| 82 | 19.300 | 2948 | 2952 | 2957 | rBV4 | 43966 | 87675 | 3.66% | 0.281% |
| 83 | 19.400 | 2965 | 2969 | 2975 | rVB2 | 48229 | 72024 | 3.01% | 0.231% |
| 84 | 19.565 | 2991 | 2997 | 3000 | rBV4 | 23744 | 46676 | 1.95% | 0.149% |
| 85 | 19.630 | 3005 | 3008 | 3012 | rBV5 | 33914 | 45540 | 1.90% | 0.146% |
| 86 | 19.783 | 3031 | 3034 | 3037 | rBV | 63544 | 64616 | 2.70% | 0.207% |
| 87 | 19.900 | 3049 | 3054 | 3057 | rBV | 424656 | 626140 | 26.15% | 2.005% |
| 88 | 20.012 | 3070 | 3073 | 3078 | rVB | 72842 | 79130 | 3.30% | 0.253% |
| 89 | 20.159 | 3089 | 3098 | 3100 | rBV5 | 41045 | 92170 | 3.85% | 0.295% |
| 90 | 20.194 | 3100 | 3104 | 3110 | rVB | 291155 | 356537 | 14.89% | 1.141% |
| 91 | 20.247 | 3110 | 3113 | 3119 | rBV | 460862 | 527921 | 22.05% | 1.690% |
| 92 | 20.306 | 3119 | 3123 | 3126 | rBV | 534201 | 592243 | 24.74% | 1.896% |
| 93 | 20.788 | 3201 | 3205 | 3215 | rVB7 | 40564 | 118165 | 4.94% | 0.378% |
| 94 | 21.594 | 3337 | 3342 | 3350 | rVV2 | 179545 | 329643 | 13.77% | 1.055% |
| 95 | 21.747 | 3364 | 3368 | 3371 | rVV | 40722 | 64912 | 2.71% | 0.208% |
| 96 | 21.794 | 3373 | 3376 | 3382 | rVB | 39066 | 65243 | 2.72% | 0.209% |
| 97 | 21.971 | 3400 | 3406 | 3417 | rBV | 151112 | 304468 | 12.72% | 0.975% |
| 98 | 22.188 | 3439 | 3443 | 3453 | rVB | 23380 | 65010 | 2.72% | 0.208% |
| 99 | 22.300 | 3458 | 3462 | 3468 | rVB9 | 17417 | 36554 | 1.53% | 0.117% |
| 100 | 23.894 | 3722 | 3733 | 3740 | rBV3 | 32368 | 111920 | 4.67% | 0.358% |

Sum of corrected areas: 31234787

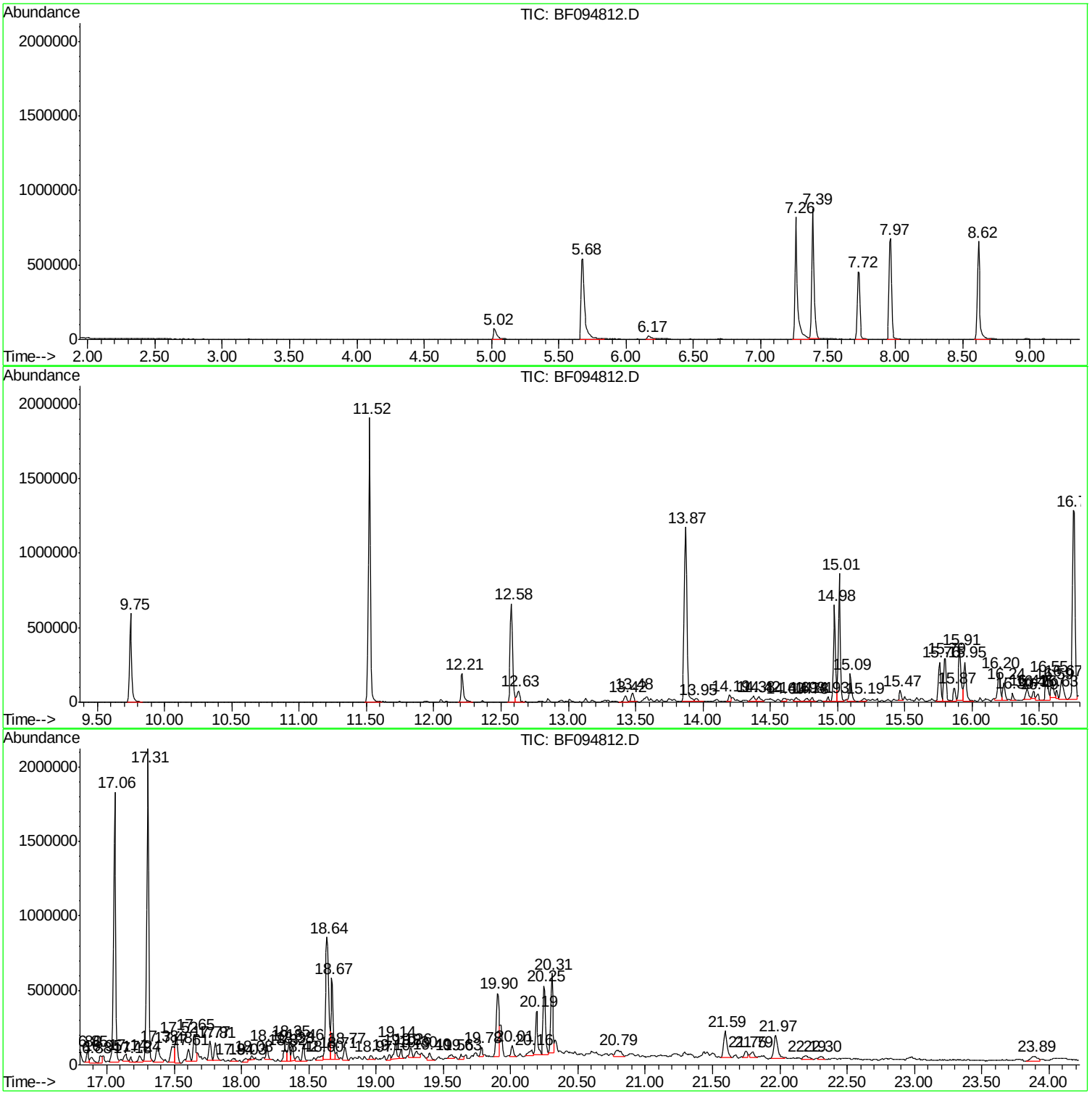
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

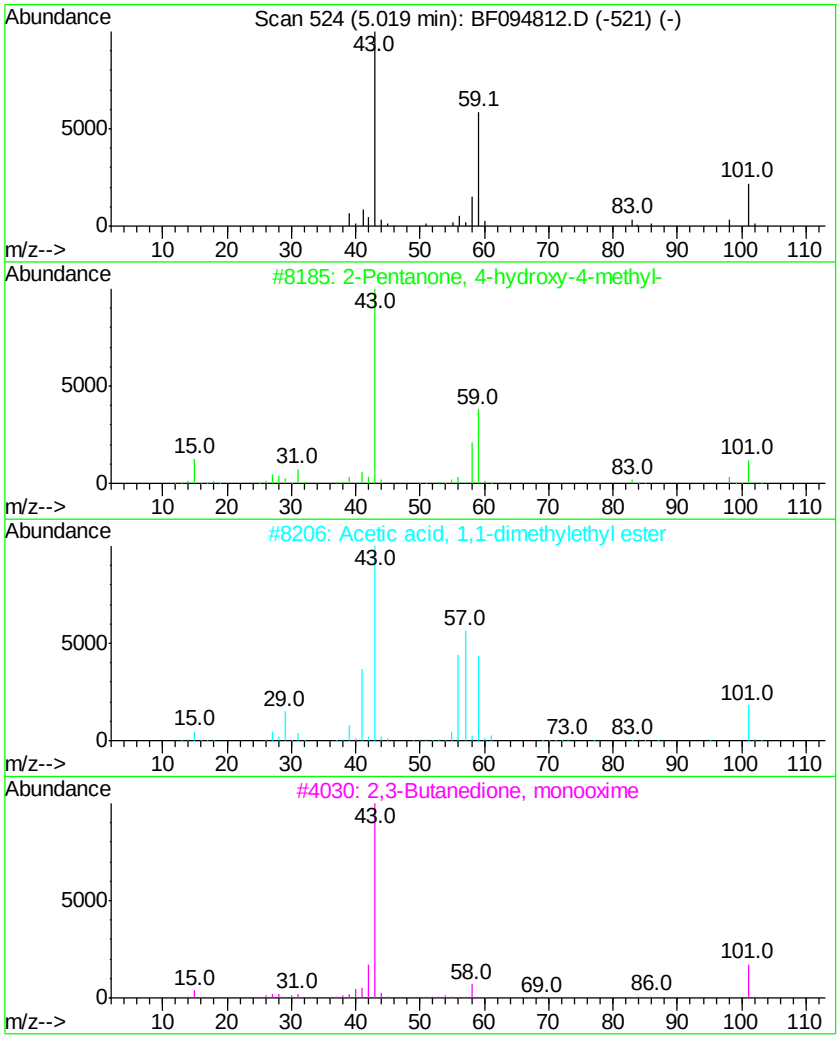
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

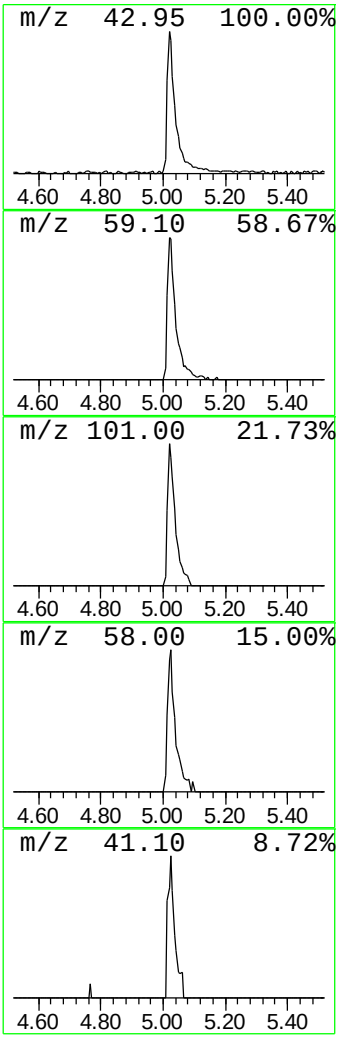
**********

Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.02 | 4.56 ng | 124821 | 1,4-Dichlorobenzene-d4 | 7.72 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 56 |
| 2 | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 38 |
| 3 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 32 |
| 4 | 3-Hexanol, 4-methyl- | 116 | C7H16O | 000615-29-2 | 25 |
| 5 | 3-Heptanol, 4-methyl- | 130 | C8H18O | 014979-39-6 | 25 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

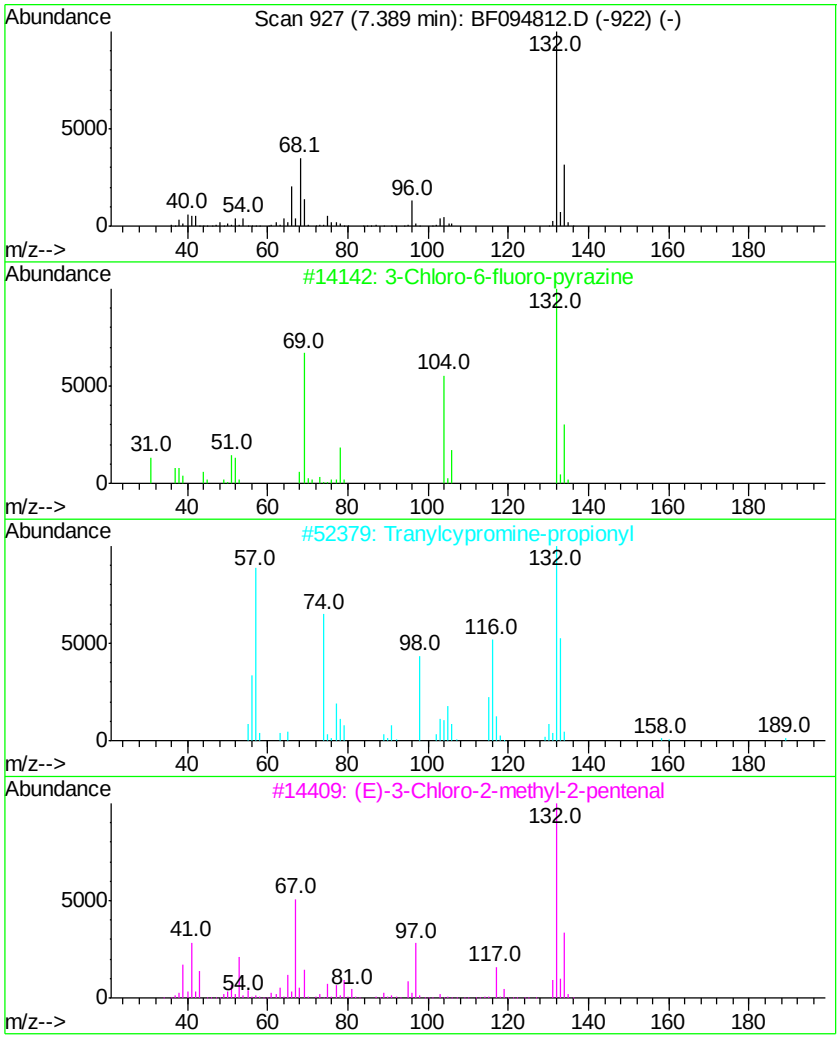
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

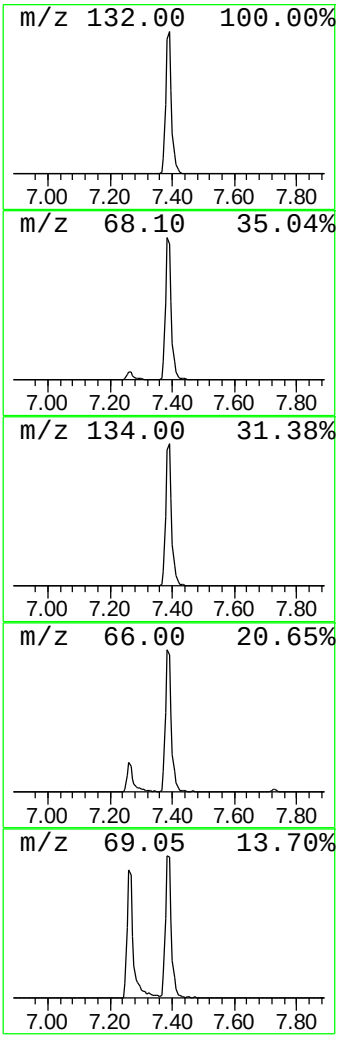
**********

Peak Number 2 unknown7.39 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.39 | 42.22 ng | 1156410 | 1,4-Dichlorobenzene-d4 | 7.72 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 38 |
| 2 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 12 |
| 3 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 12 |
| 4 | 5-Aminoindole | 132 | C8H8N2 | 005192-03-0 | 12 |
| 5 | 4-Methylpyrrolo[1,2-a]pyrazine | 132 | C8H8N2 | 064608-60-2 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

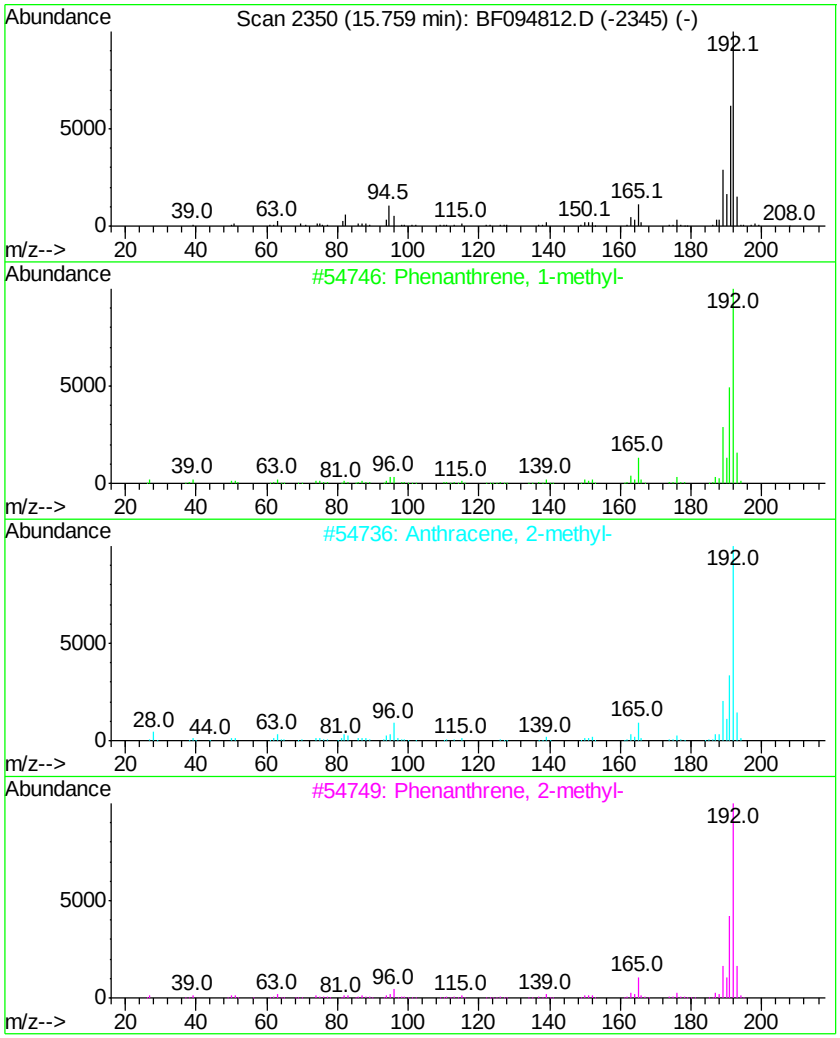
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

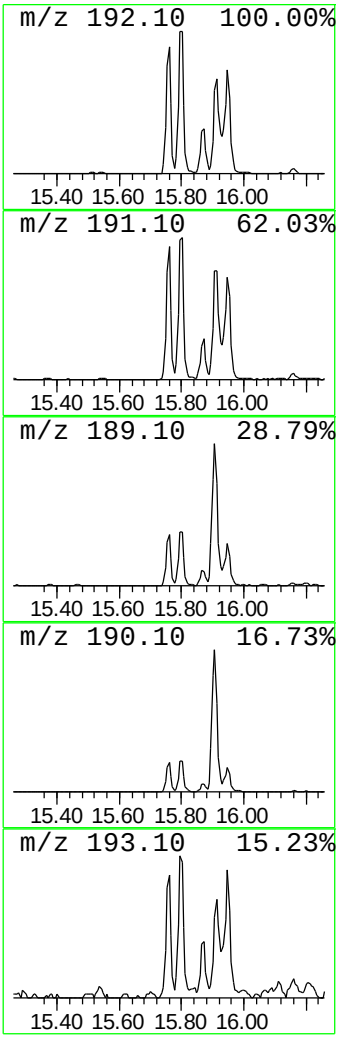
**********

Peak Number 4 Phenanthrene, 1-methyl- Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.76 | 7.25 ng | 274040 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 93 |
| 2 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 92 |
| 3 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 90 |
| 4 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 90 |
| 5 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 89 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

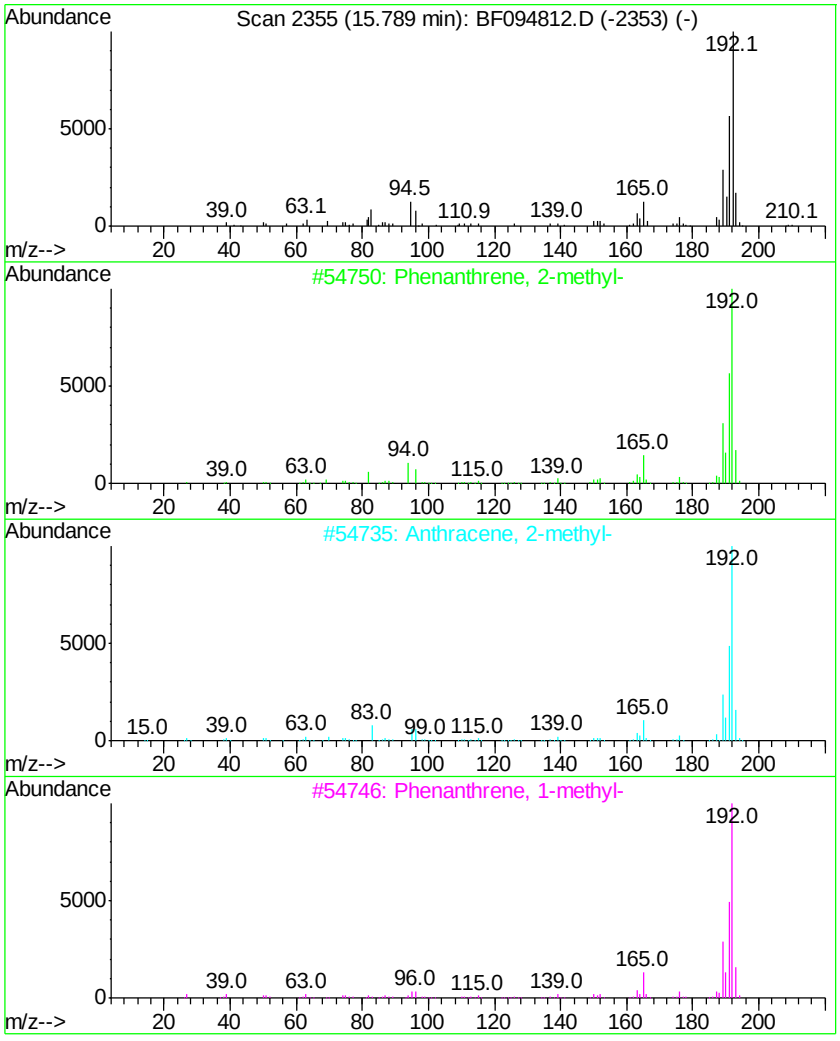
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

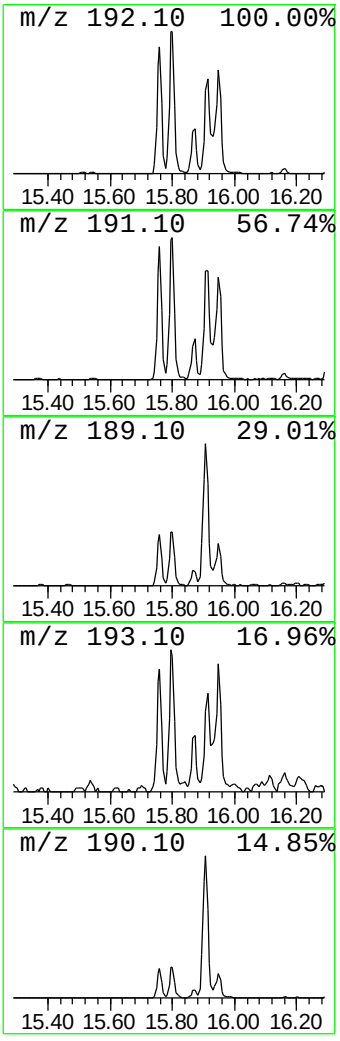
**********

Peak Number 5 Phenanthrene, 2-methyl- Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.79 | 8.96 ng | 338722 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 97 |
| 2 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 3 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 96 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 95 |
| 5 | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12 | 000949-41-7 | 95 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

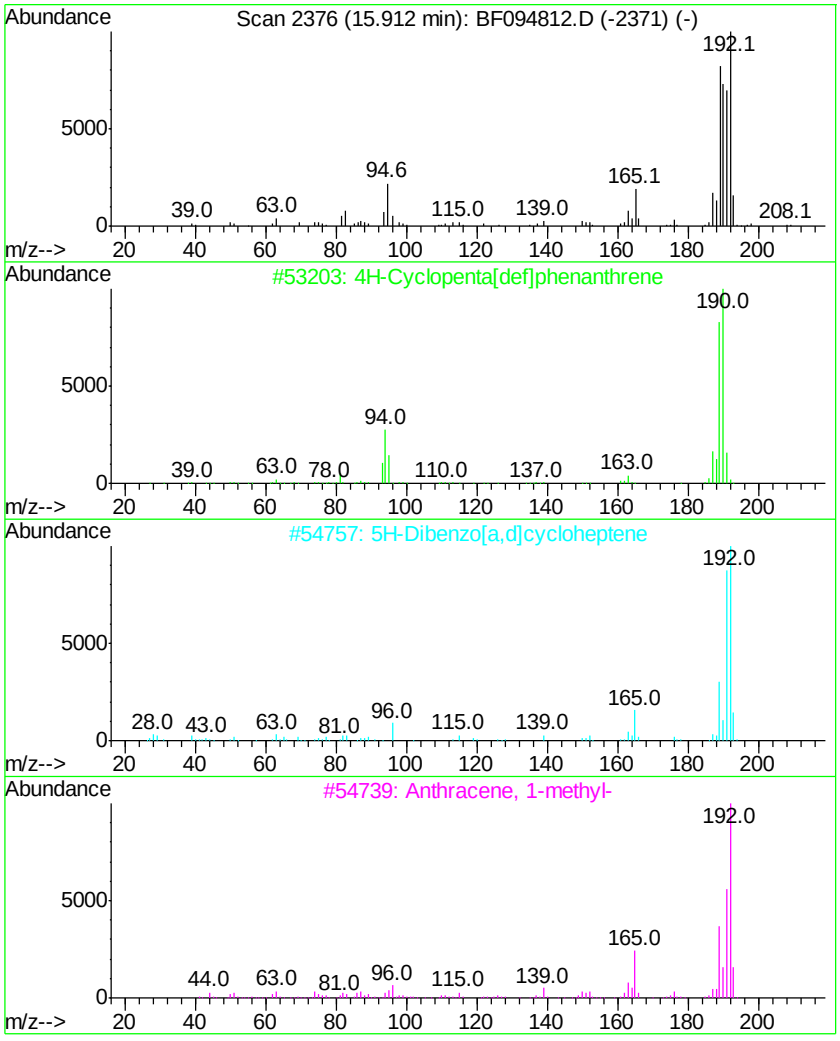
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

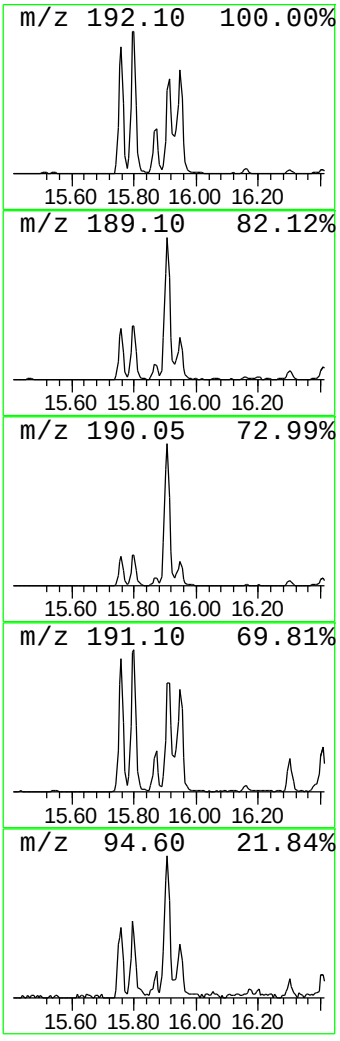
**********

Peak Number 6 4H-Cyclopenta[def]phenanthrene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.91 | 11.81 ng | 446513 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 92 |
| 2 | 5H-Dibenzo[a,d]cycloheptene | 192 | C15H12 | 000256-81-5 | 42 |
| 3 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 38 |
| 4 | Benzene, 1,1'-(1,2-propadienylid... | 192 | C15H12 | 014251-57-1 | 38 |
| 5 | 1a,9b-Dihydro-1H-cyclopropa[a]an... | 192 | C15H12 | 006109-24-6 | 38 |



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Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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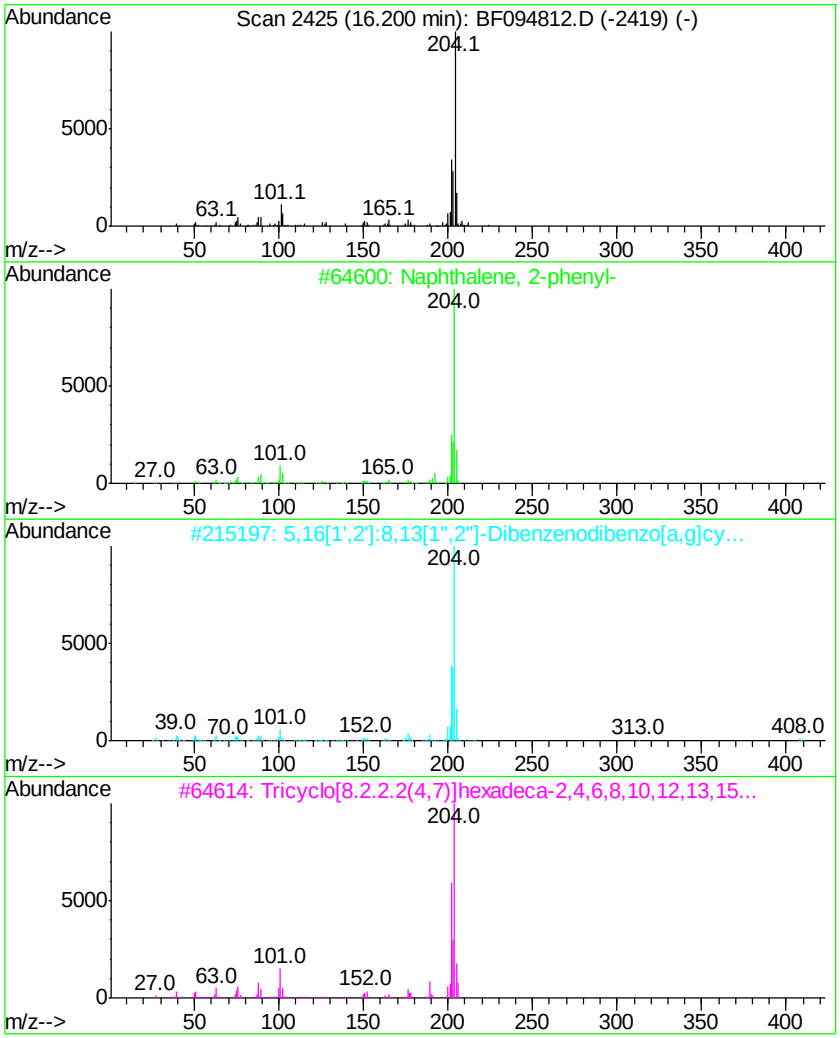
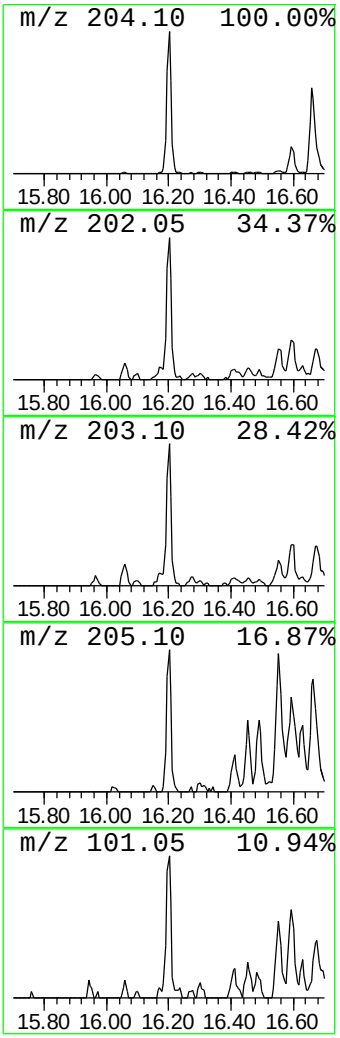
Peak Number 8 Naphthalene, 2-phenyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.20 | 6.01 ng | 227231 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 96 |
| 2 | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 | C32H24 | 005672-97-9 | 87 |
| 3 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 81 |
| 4 | Naphthalene, 1-phenyl- | 204 | C16H12 | 000605-02-7 | 64 |
| 5 | 9,10-Bis(bromomethyl)anthracene | 362 | C16H12Br2 | 034373-96-1 | 62 |



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Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

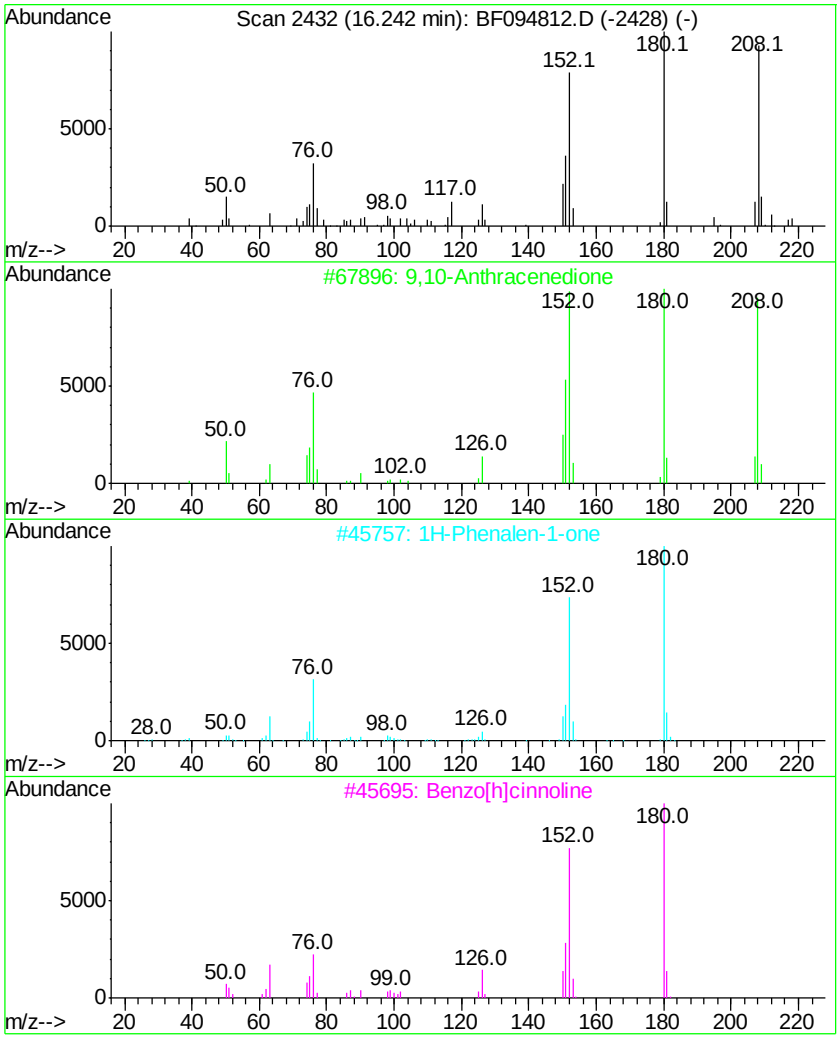
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

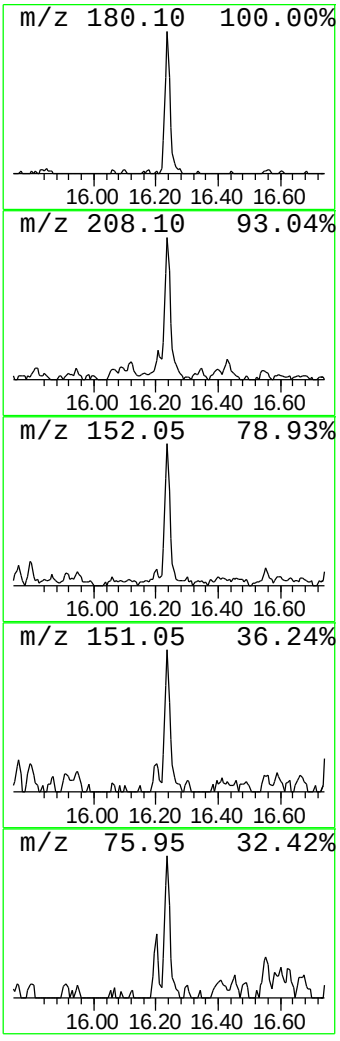
**********

Peak Number 9 9,10-Anthracenedione Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.24 | 3.32 ng | 125654 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 99 |
| 2 | 1H-Phenalen-1-one | 180 | C13H8O | 000548-39-0 | 83 |
| 3 | Benzo[h]cinnoline | 180 | C12H8N2 | 000230-31-9 | 78 |
| 4 | Benzo[c]cinnoline | 180 | C12H8N2 | 000230-17-1 | 70 |
| 5 | Diphenic anhydride | 224 | C14H8O3 | 006050-13-1 | 58 |



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Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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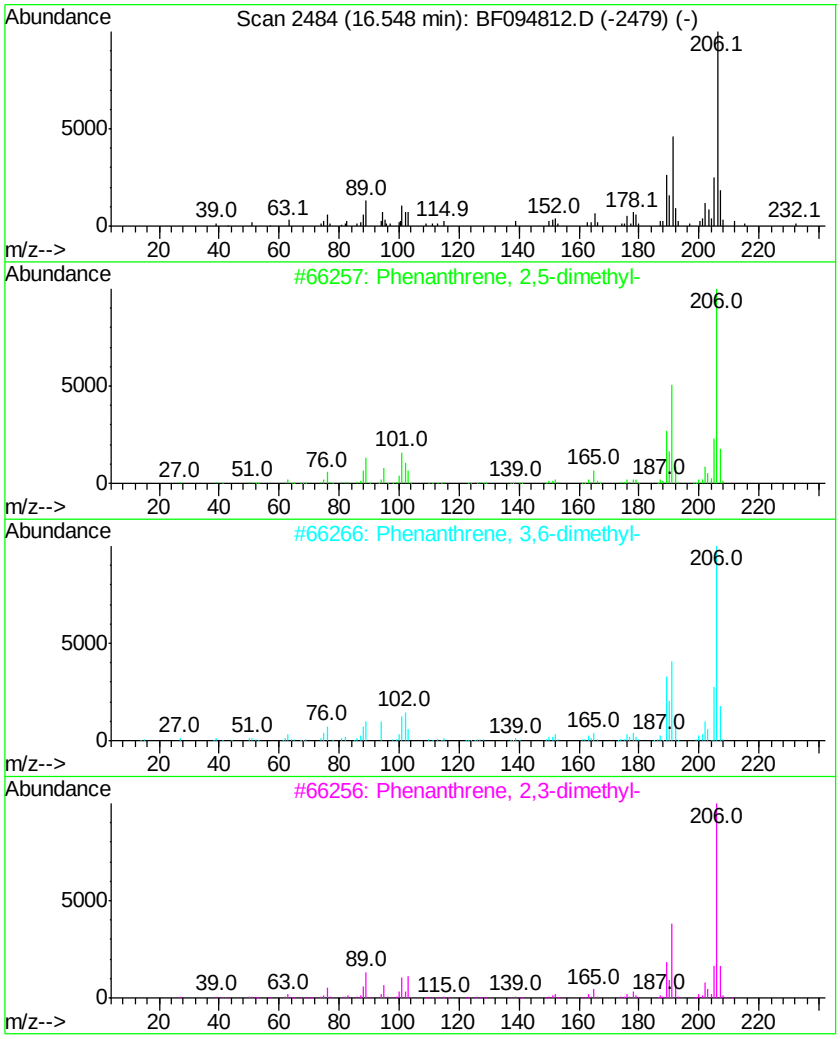
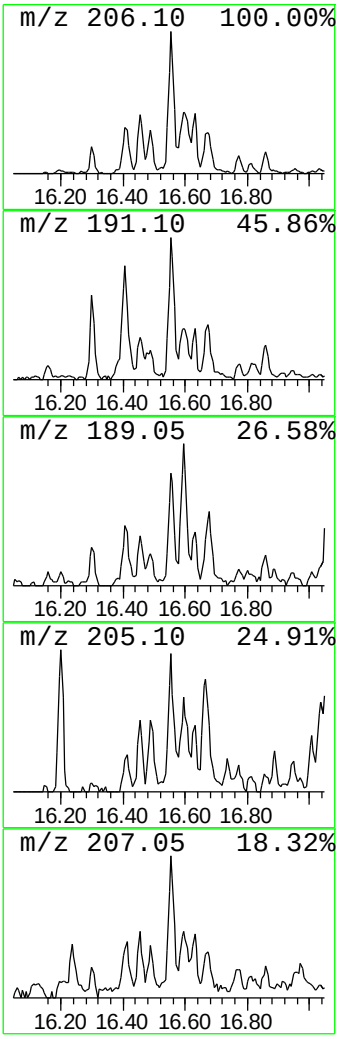
Peak Number 10 Phenanthrene, 2,5-dimethyl- Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.55 | 6.10 ng | 230555 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 97 |
| 2 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 94 |
| 3 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 94 |
| 4 | Phenanthrene, 1,7-dimethyl- | 206 | C16H14 | 000483-87-4 | 93 |
| 5 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 91 |



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Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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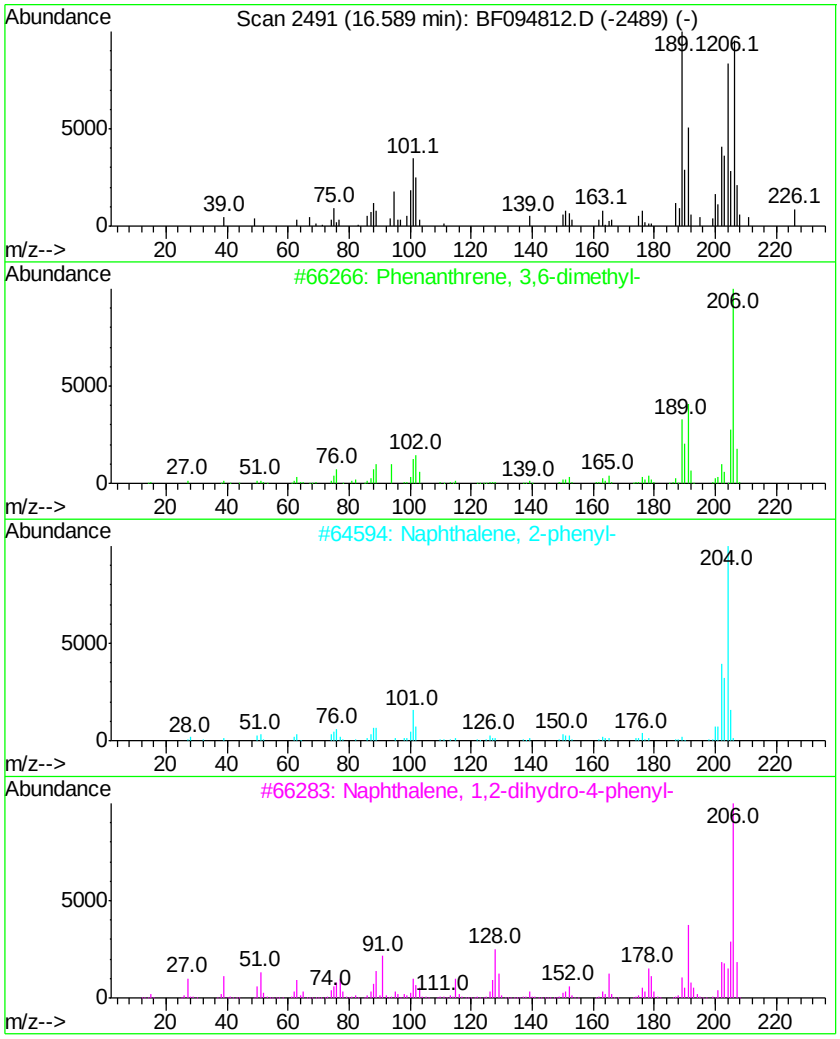
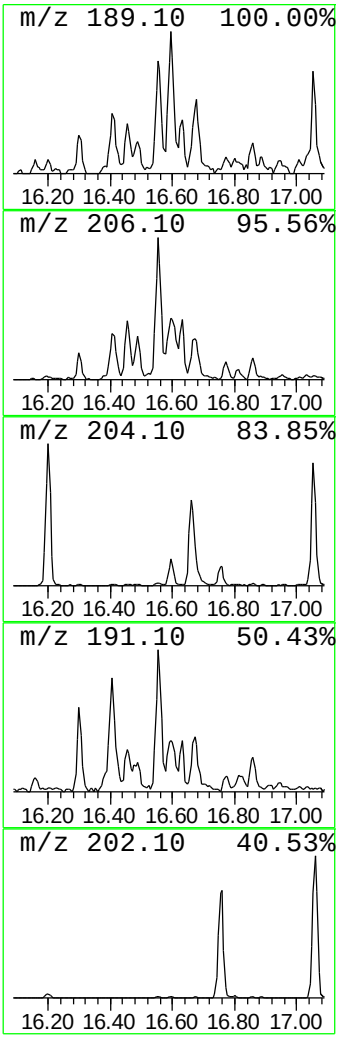
Peak Number 11 Phenanthrene, 3,6-dimethyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.59 | 3.38 ng | 127865 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 3,6-dimethyl- | 206 | C16H14 | 001576-67-6 | 66 |
| 2 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 35 |
| 3 | Naphthalene, 1,2-dihydro-4-phenyl- | 206 | C16H14 | 007469-40-1 | 30 |
| 4 | 1,3-Butadiene, 1,4-diphenyl-, (E... | 206 | C16H14 | 000538-81-8 | 30 |
| 5 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 30 |



Library Search Compound Report

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Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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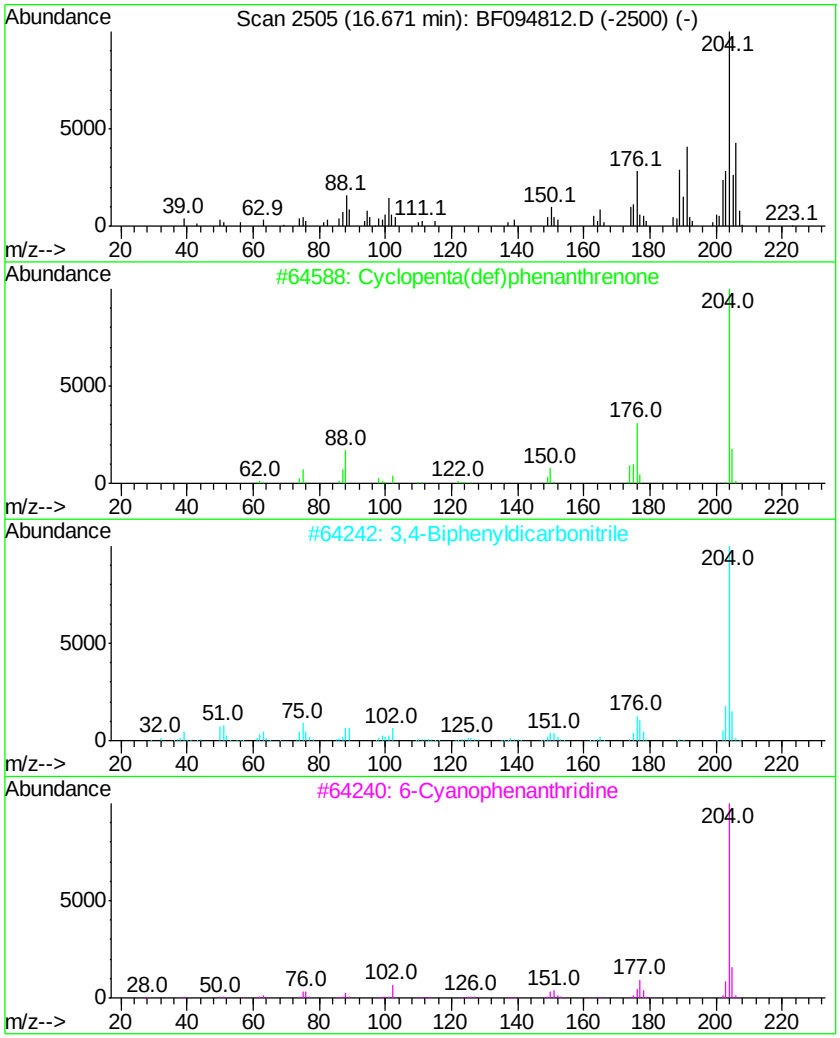
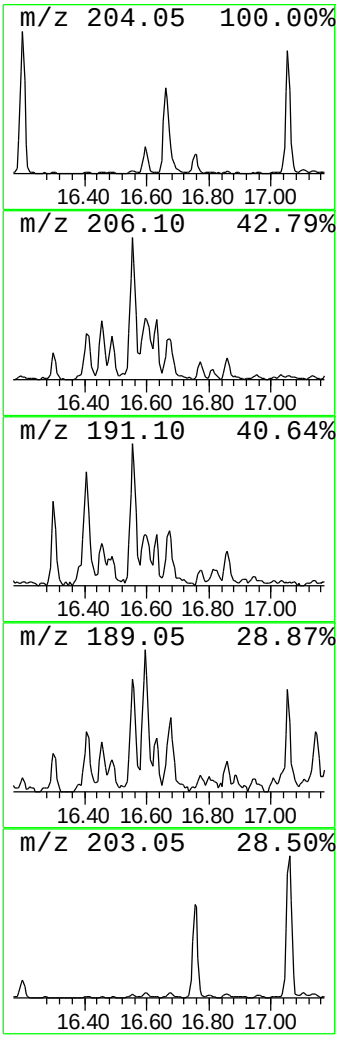
Peak Number 12 Cyclopenta(def)phenanthrenone Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.67 | 5.81 ng | 219592 | Phenanthrene-d10 | 14.98 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 96 |
| 2 | 3,4-Biphenyldicarbonitrile | 204 | C14H8N2 | 004128-63-6 | 64 |
| 3 | 6-Cyanophenanthridine | 204 | C14H8N2 | 002176-28-5 | 50 |
| 4 | Tetracyano-p-quinodimethane | 204 | C12H4N4 | 001518-16-7 | 47 |
| 5 | [1,1'-Biphenyl]-2,2'-dicarbonitrile | 204 | C14H8N2 | 004341-02-0 | 47 |



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Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

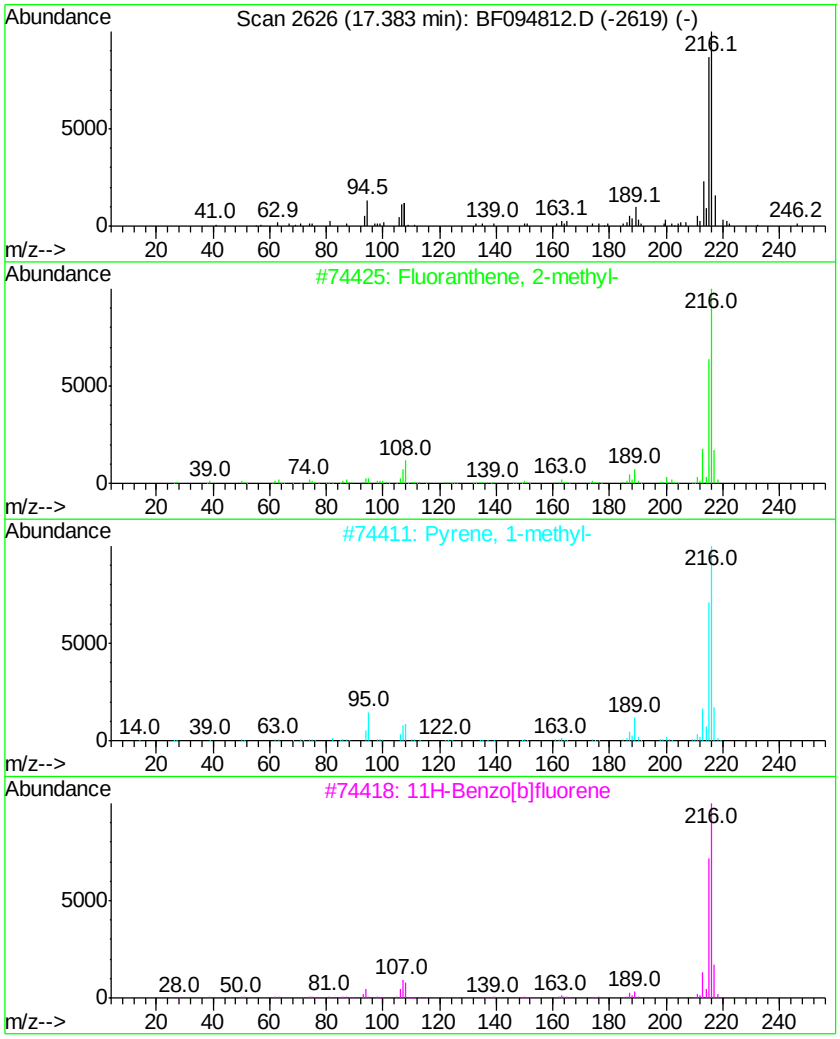
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

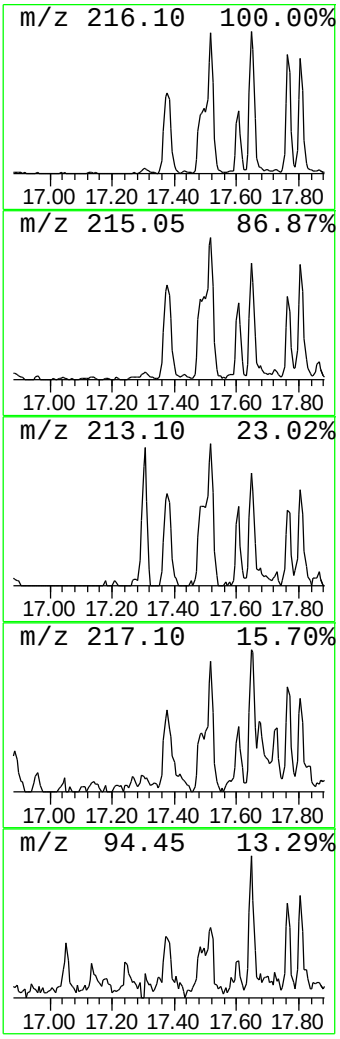
**********

Peak Number 13 Fluoranthene, 2-methyl- Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.38 | 2.93 ng | 200006 | Chrysene-d12 | 18.64 |

| 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 | 94 |
| 3 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 90 |
| 4 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 86 |
| 5 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 81 |



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Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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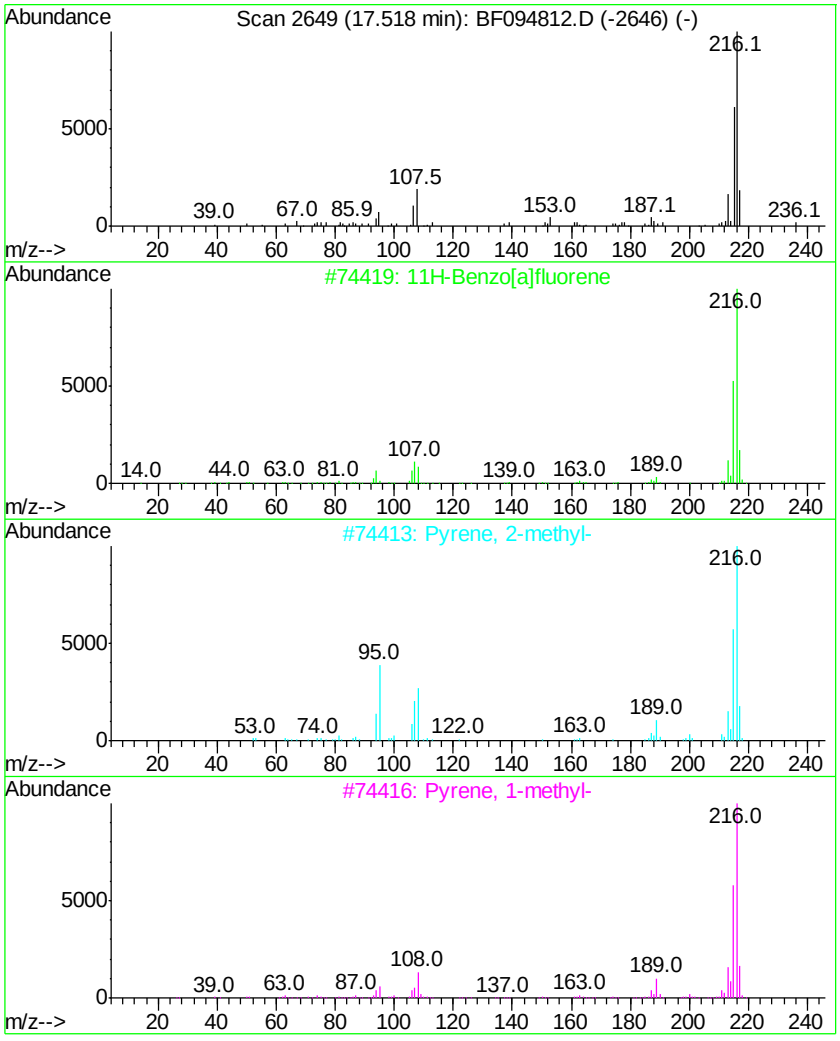
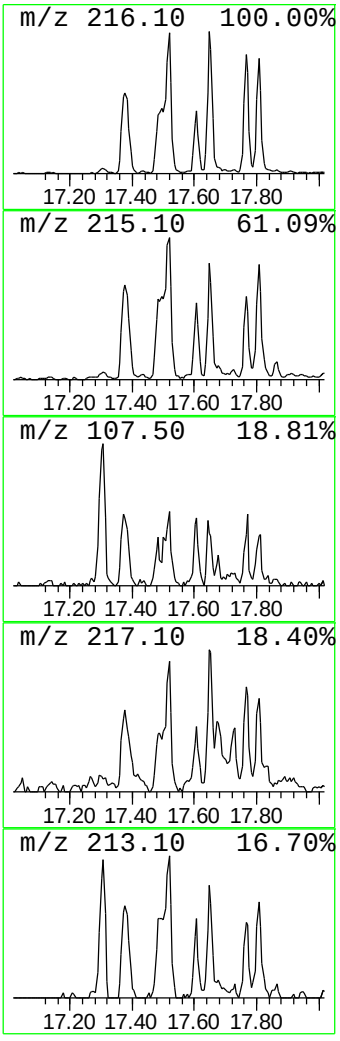
Peak Number 14 11H-Benzo[a]fluorene Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.52 | 3.09 ng | 210995 | Chrysene-d12 | 18.64 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 91 |
| 2 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 90 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 83 |
| 4 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 74 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 64 |



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Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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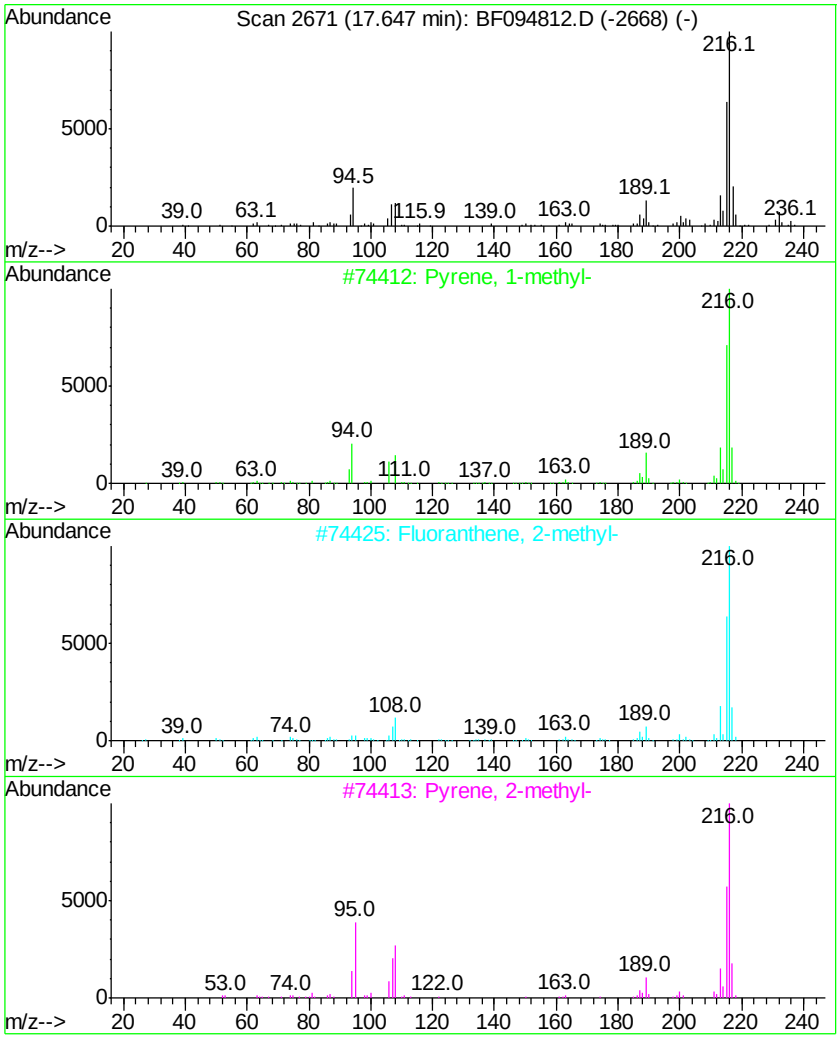
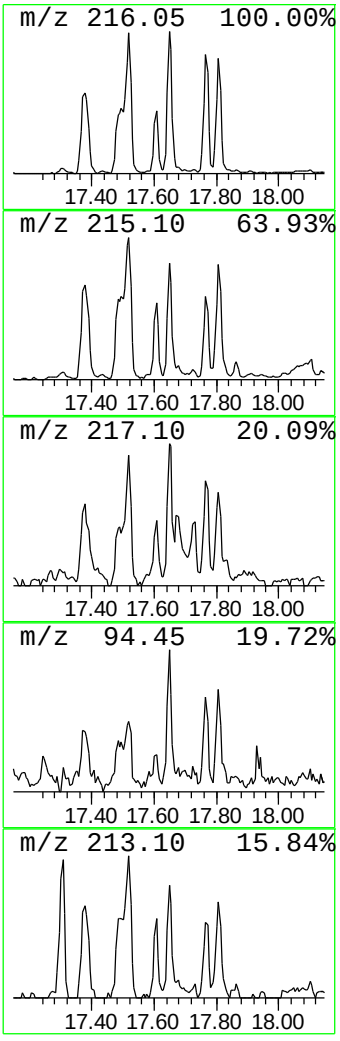
Peak Number 15 Pyrene, 1-methyl- Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.65 | 3.52 ng | 240612 | Chrysene-d12 | 18.64 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 98 |
| 2 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 96 |
| 3 | Pyrene, 2-methyl- | 216 | C17H12 | 003442-78-2 | 93 |
| 4 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 87 |
| 5 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 80 |



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Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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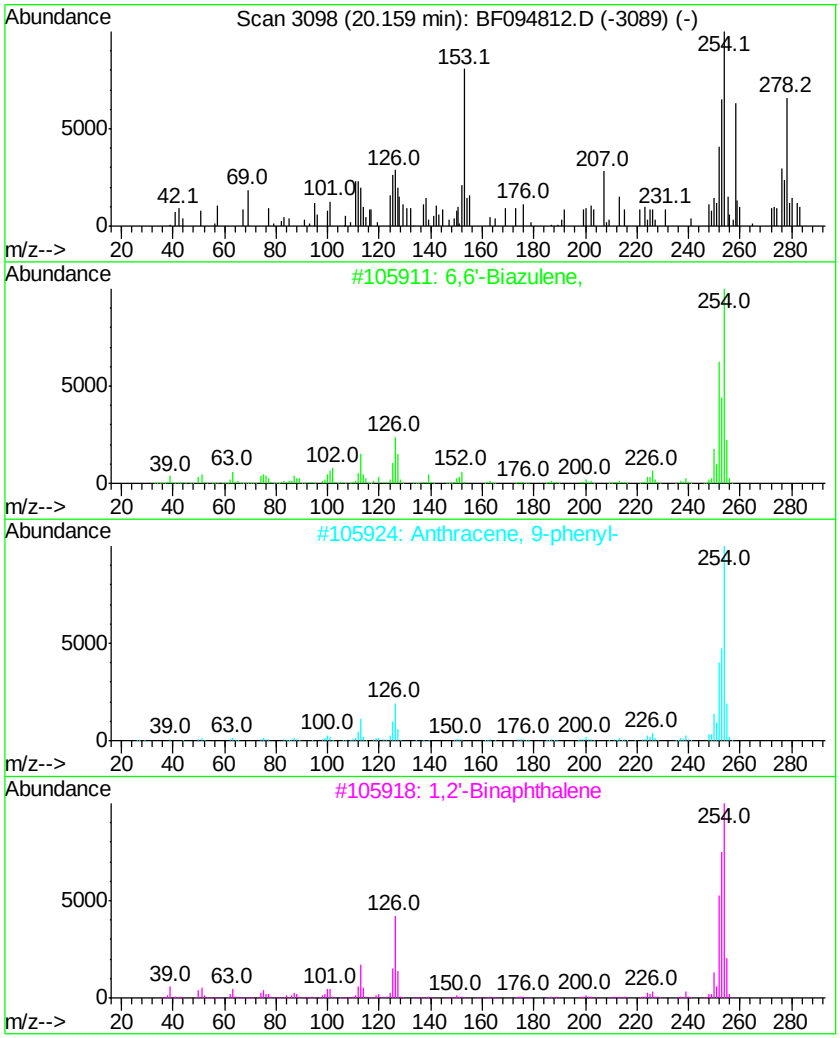
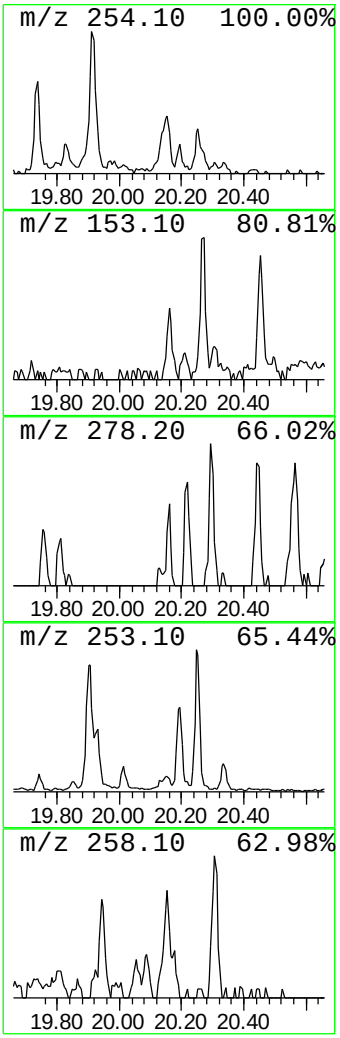
Peak Number 17 unknown20.16 Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.16 | 3.11 ng | 92170 | Perylene-d12 | 20.31 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 6,6'-Biazulene, | 254 | C20H14 | 073393-11-0 | 20 |
| 2 | Anthracene, 9-phenyl- | 254 | C20H14 | 000602-55-1 | 18 |
| 3 | 1,2'-Binaphthalene | 254 | C20H14 | 004325-74-0 | 18 |
| 4 | Benzo(a)pyrene, 7,8-dihydro- | 254 | C20H14 | 017573-23-8 | 18 |
| 5 | Benzo[a]pyrene, 4,5-dihydro- | 254 | C20H14 | 057652-66-1 | 18 |



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Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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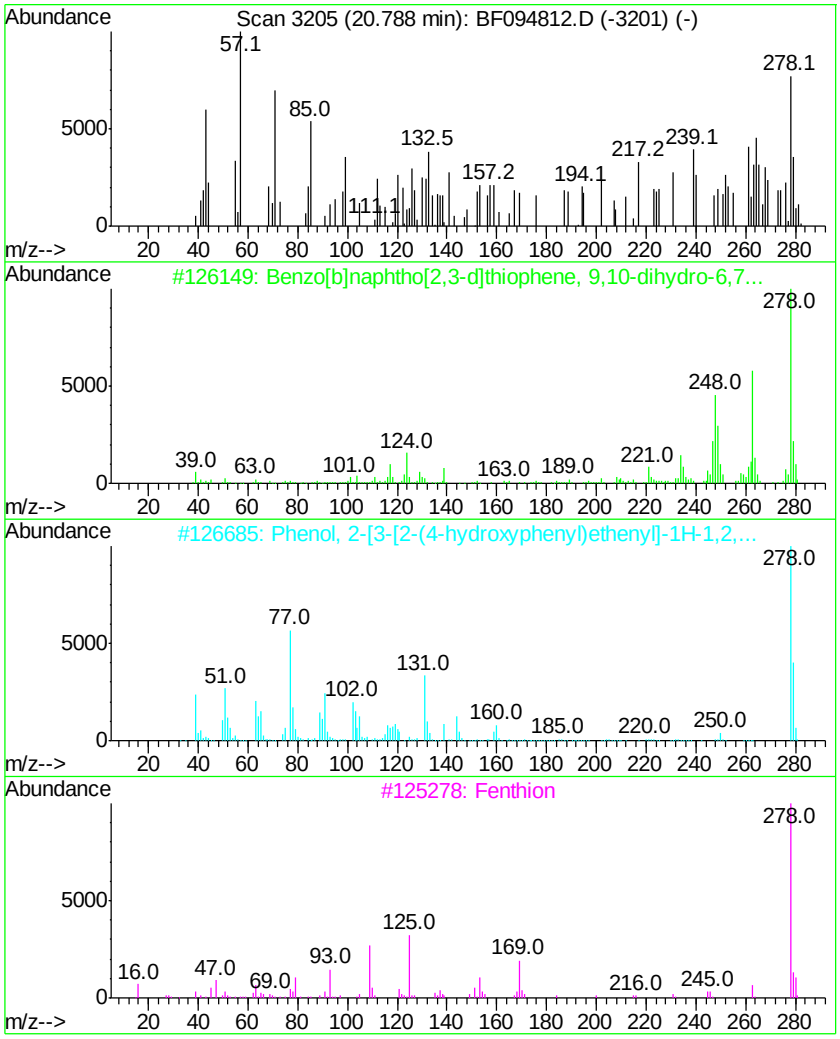
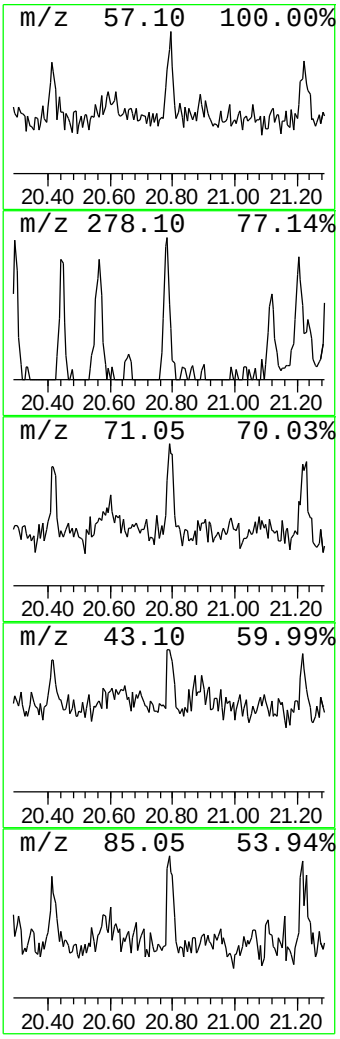
Peak Number 19 unknown20.79 Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.79 | 3.99 ng | 118165 | Perylene-d12 | 20.31 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[b]naphtho[2,3-d]thiophene,... | 278 | C19H18S | 024964-01-0 | 38 |
| 2 | Phenol, 2-[3-[2-(4-hydroxyphenyl... | 279 | C16H13N3O2 | 1000362-51-6 | 14 |
| 3 | Fenthion | 278 | C10H15O3PS2 | 000055-38-9 | 14 |
| 4 | 6-[(3-Allylsalicylidene)amino]-1... | 278 | C16H14N4O | 339108-60-0 | 14 |
| 5 | Benzo[4,5]furo[3,2-d]pyrimidin-4... | 279 | C16H10FN3O | 1000294-28-0 | 14 |



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ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
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Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
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TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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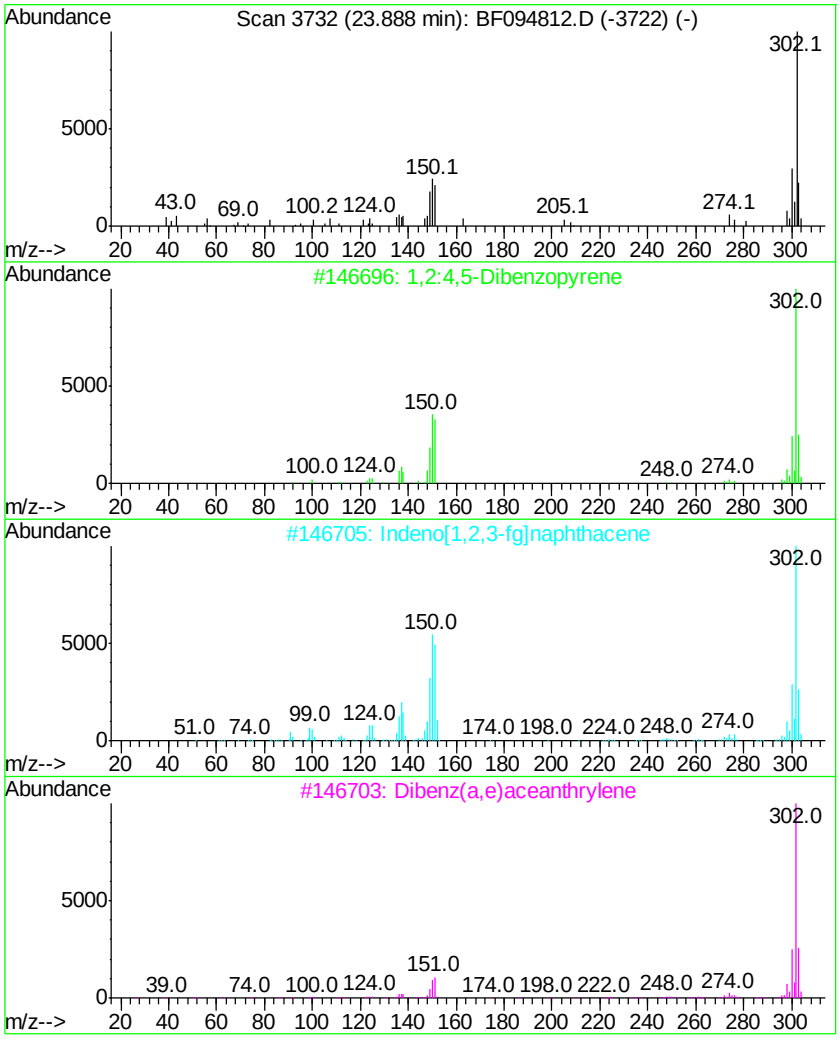
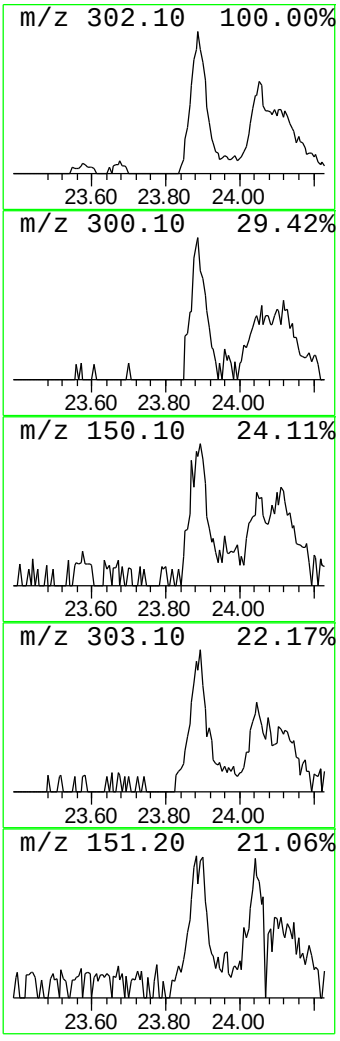
Peak Number 20 1,2:4,5-Dibenzopyrene Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 23.89 | 3.78 ng | 111920 | Perylene-d12 | 20.31 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,2:4,5-Dibenzopyrene | 302 | C24H14 | 000192-65-4 | 94 |
| 2 | Indeno[1,2,3-fg]naphthacene | 302 | C24H14 | 000203-11-2 | 87 |
| 3 | Dibenz(a,e)aceanthrylene | 302 | C24H14 | 005385-75-1 | 81 |
| 4 | Dibenzo(a,i)pyrene | 302 | C24H14 | 000189-55-9 | 76 |
| 5 | 3,4:8,9-Dibenzopyrene | 302 | C24H14 | 000189-64-0 | 64 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF050217\
Data File : BF094812.D
Acq On : 3 May 2017 1:12
Operator : SJ/MA
Sample : I2919-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** TEST-PIT-COMP

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF050217.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| 2-Pentanone, 4-hy... | 5.02 | 4.6 | ng | 124821 | 1 | 7.72 | 547823 | 20.0 |
| unknown7.39 | 7.39 | 42.2 | ng | 1156410 | 1 | 7.72 | 547823 | 20.0 |
| Phenanthrene, 1-m... | 15.76 | 7.3 | ng | 274040 | 4 | 14.98 | 756146 | 20.0 |
| Phenanthrene, 2-m... | 15.79 | 9.0 | ng | 338722 | 4 | 14.98 | 756146 | 20.0 |
| 4H-Cyclopenta[def... | 15.91 | 11.8 | ng | 446513 | 4 | 14.98 | 756146 | 20.0 |
| Naphthalene, 2-ph... | 16.20 | 6.0 | ng | 227231 | 4 | 14.98 | 756146 | 20.0 |
| 9,10-Anthracenedione | 16.24 | 3.3 | ng | 125654 | 4 | 14.98 | 756146 | 20.0 |
| Phenanthrene, 2,5... | 16.55 | 6.1 | ng | 230555 | 4 | 14.98 | 756146 | 20.0 |
| Phenanthrene, 3,6... | 16.59 | 3.4 | ng | 127865 | 4 | 14.98 | 756146 | 20.0 |
| Cyclopenta(def)ph... | 16.67 | 5.8 | ng | 219592 | 4 | 14.98 | 756146 | 20.0 |
| Fluoranthene, 2-m... | 17.38 | 2.9 | ng | 200006 | 5 | 18.64 | 1365480 | 20.0 |
| 11H-Benzo[a]fluorene | 17.52 | 3.1 | ng | 210995 | 5 | 18.64 | 1365480 | 20.0 |
| Pyrene, 1-methyl- | 17.65 | 3.5 | ng | 240612 | 5 | 18.64 | 1365480 | 20.0 |
| unknown20.16 | 20.16 | 3.1 | ng | 92170 | 6 | 20.31 | 592243 | 20.0 |
| unknown20.79 | 20.79 | 4.0 | ng | 118165 | 6 | 20.31 | 592243 | 20.0 |
| 1,2:4,5-Dibenzopy... | 23.89 | 3.8 | ng | 111920 | 6 | 20.31 | 592243 | 20.0 |