

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
 Data File : BF119626.D  
 Acq On : 28 Mar 2020 19:35  
 Operator : CG/JU  
 Sample : L2052-02  
 Misc :  
 ALS Vial : 56 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SOIL-PILE

Integration Parameters: rteint.p

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF031820.M

Title : ASP BNA STANDARDS FOR 5 POINT 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         | 2.116       | 3             | 5           | 11           | rVB      | 251669         | 252572        | 3.59%           | 0.269%        |
| 2         | 2.222       | 18            | 23          | 36           | rVB      | 109244         | 160061        | 2.28%           | 0.171%        |
| 3         | 5.051       | 497           | 504         | 510          | rBV      | 130597         | 178939        | 2.55%           | 0.191%        |
| 4         | 5.451       | 567           | 572         | 575          | rBV      | 7392223        | 7026693       | 100.00%         | 7.490%        |
| 5         | 6.463       | 738           | 744         | 747          | rBV      | 6347255        | 6789447       | 96.62%          | 7.237%        |
| 6         | 6.834       | 804           | 807         | 813          | rVB      | 2265414        | 1835853       | 26.13%          | 1.957%        |
| 7         | 6.992       | 830           | 834         | 837          | rBV      | 6234941        | 5454249       | 77.62%          | 5.814%        |
| 8         | 7.398       | 895           | 903         | 906          | rBV      | 4818481        | 4450109       | 63.33%          | 4.743%        |
| 9         | 7.651       | 941           | 946         | 951          | rBV2     | 61981          | 81787         | 1.16%           | 0.087%        |
| 10        | 7.845       | 974           | 979         | 981          | rBV      | 111914         | 126514        | 1.80%           | 0.135%        |
| 11        | 8.028       | 1007          | 1010        | 1013         | rBV      | 87493          | 109911        | 1.56%           | 0.117%        |
| 12        | 8.122       | 1020          | 1026        | 1028         | rBV      | 2200484        | 2187169       | 31.13%          | 2.331%        |
| 13        | 8.139       | 1028          | 1029        | 1033         | rVB      | 955716         | 664950        | 9.46%           | 0.709%        |
| 14        | 8.716       | 1123          | 1127        | 1130         | rBV      | 108596         | 104073        | 1.48%           | 0.111%        |
| 15        | 8.833       | 1144          | 1147        | 1150         | rVB      | 343581         | 271999        | 3.87%           | 0.290%        |
| 16        | 8.933       | 1160          | 1164        | 1168         | rBV      | 271650         | 246465        | 3.51%           | 0.263%        |
| 17        | 9.198       | 1204          | 1209        | 1212         | rBV      | 7160877        | 6055300       | 86.18%          | 6.454%        |
| 18        | 9.280       | 1219          | 1223        | 1228         | rBV2     | 194666         | 274943        | 3.91%           | 0.293%        |
| 19        | 9.457       | 1250          | 1253        | 1258         | rBV      | 97306          | 132431        | 1.88%           | 0.141%        |
| 20        | 9.533       | 1261          | 1266        | 1269         | rVV      | 171654         | 211597        | 3.01%           | 0.226%        |
| 21        | 9.563       | 1269          | 1271        | 1273         | rVV      | 130599         | 110552        | 1.57%           | 0.118%        |
| 22        | 9.592       | 1273          | 1276        | 1280         | rVV2     | 295365         | 374020        | 5.32%           | 0.399%        |
| 23        | 9.657       | 1284          | 1287        | 1291         | rVB2     | 92648          | 121588        | 1.73%           | 0.130%        |
| 24        | 9.739       | 1297          | 1301        | 1306         | rBV      | 276578         | 271724        | 3.87%           | 0.290%        |
| 25        | 9.810       | 1311          | 1313        | 1318         | rVB      | 203515         | 183794        | 2.62%           | 0.196%        |
| 26        | 9.880       | 1318          | 1325        | 1327         | rBV      | 2282601        | 2100959       | 29.90%          | 2.239%        |
| 27        | 9.910       | 1327          | 1330        | 1333         | rVB      | 682575         | 523663        | 7.45%           | 0.558%        |
| 28        | 10.080      | 1356          | 1359        | 1364         | rVB      | 405038         | 368870        | 5.25%           | 0.393%        |
| 29        | 10.198      | 1376          | 1379        | 1381         | rBV3     | 85929          | 96164         | 1.37%           | 0.103%        |
| 30        | 10.310      | 1396          | 1398        | 1401         | rVB      | 265542         | 229425        | 3.27%           | 0.245%        |
| 31        | 10.427      | 1414          | 1418        | 1423         | rBV      | 572072         | 593359        | 8.44%           | 0.632%        |
| 32        | 10.533      | 1434          | 1436        | 1439         | rVV      | 233075         | 218964        | 3.12%           | 0.233%        |
| 33        | 10.580      | 1442          | 1444        | 1448         | rVB      | 151199         | 144508        | 2.06%           | 0.154%        |
| 34        | 10.669      | 1454          | 1459        | 1462         | rBV      | 3278229        | 3246660       | 46.20%          | 3.461%        |

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Integration Parameters: rteint.p

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % 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:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF031820.M

Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 35 | 10.786 | 1476 | 1479 | 1487 | rVB2 | 443642  | 668561  | 9.51%  | 0.713% |
| 36 | 11.004 | 1513 | 1516 | 1519 | rVB3 | 84534   | 85701   | 1.22%  | 0.091% |
| 37 | 11.127 | 1535 | 1537 | 1541 | rVB  | 105430  | 83267   | 1.19%  | 0.089% |
| 38 | 11.169 | 1541 | 1544 | 1549 | rVB2 | 148601  | 146610  | 2.09%  | 0.156% |
| 39 | 11.233 | 1549 | 1555 | 1558 | rBV2 | 349797  | 470850  | 6.70%  | 0.502% |
| 40 | 11.263 | 1558 | 1560 | 1566 | rVB2 | 409793  | 427222  | 6.08%  | 0.455% |
| 41 | 11.369 | 1574 | 1578 | 1579 | rBV  | 1727375 | 1619371 | 23.05% | 1.726% |
| 42 | 11.392 | 1579 | 1582 | 1585 | rVV  | 3497238 | 2851779 | 40.58% | 3.040% |
| 43 | 11.439 | 1587 | 1590 | 1594 | rVV  | 1369279 | 1199155 | 17.07% | 1.278% |
| 44 | 11.474 | 1594 | 1596 | 1600 | rVB2 | 119165  | 120925  | 1.72%  | 0.129% |
| 45 | 11.592 | 1611 | 1616 | 1618 | rBV  | 365928  | 389514  | 5.54%  | 0.415% |
| 46 | 11.616 | 1618 | 1620 | 1623 | rVV  | 114467  | 114435  | 1.63%  | 0.122% |
| 47 | 11.663 | 1625 | 1628 | 1632 | rVB  | 380588  | 295842  | 4.21%  | 0.315% |
| 48 | 11.868 | 1660 | 1663 | 1665 | rVV  | 397215  | 356412  | 5.07%  | 0.380% |
| 49 | 11.892 | 1665 | 1667 | 1671 | rVV  | 1046745 | 1023797 | 14.57% | 1.091% |
| 50 | 11.945 | 1673 | 1676 | 1678 | rVV  | 241345  | 262014  | 3.73%  | 0.279% |
| 51 | 11.980 | 1678 | 1682 | 1684 | rVV  | 761513  | 798390  | 11.36% | 0.851% |
| 52 | 12.004 | 1684 | 1686 | 1690 | rVB  | 250910  | 226760  | 3.23%  | 0.242% |
| 53 | 12.068 | 1695 | 1697 | 1700 | rVB  | 256732  | 222873  | 3.17%  | 0.238% |
| 54 | 12.163 | 1711 | 1713 | 1715 | rBV  | 280165  | 224946  | 3.20%  | 0.240% |
| 55 | 12.186 | 1715 | 1717 | 1721 | rVB2 | 193541  | 168126  | 2.39%  | 0.179% |
| 56 | 12.316 | 1737 | 1739 | 1741 | rVB2 | 119598  | 92093   | 1.31%  | 0.098% |
| 57 | 12.345 | 1741 | 1744 | 1746 | rBV  | 100500  | 104129  | 1.48%  | 0.111% |
| 58 | 12.416 | 1753 | 1756 | 1760 | rBV  | 208592  | 218234  | 3.11%  | 0.233% |
| 59 | 12.457 | 1760 | 1763 | 1768 | rVB2 | 306713  | 378097  | 5.38%  | 0.403% |
| 60 | 12.504 | 1768 | 1771 | 1776 | rBV3 | 181548  | 206508  | 2.94%  | 0.220% |
| 61 | 12.586 | 1780 | 1785 | 1788 | rVV  | 4435843 | 4213414 | 59.96% | 4.491% |
| 62 | 12.627 | 1788 | 1792 | 1797 | rVB3 | 243078  | 320490  | 4.56%  | 0.342% |
| 63 | 12.680 | 1797 | 1801 | 1808 | rBV3 | 326648  | 469084  | 6.68%  | 0.500% |
| 64 | 12.733 | 1808 | 1810 | 1817 | rVB2 | 178206  | 210228  | 2.99%  | 0.224% |
| 65 | 12.810 | 1817 | 1823 | 1826 | rBV2 | 3853460 | 4322314 | 61.51% | 4.607% |
| 66 | 12.857 | 1829 | 1831 | 1836 | rVB2 | 190246  | 232195  | 3.30%  | 0.247% |
| 67 | 12.927 | 1840 | 1843 | 1844 | rBV  | 236596  | 202412  | 2.88%  | 0.216% |
| 68 | 12.957 | 1844 | 1848 | 1855 | rVB  | 4650705 | 4372856 | 62.23% | 4.661% |
| 69 | 13.027 | 1855 | 1860 | 1863 | rBV2 | 283629  | 464611  | 6.61%  | 0.495% |
| 70 | 13.115 | 1872 | 1875 | 1876 | rBV2 | 159077  | 169570  | 2.41%  | 0.181% |
| 71 | 13.139 | 1876 | 1879 | 1882 | rVB  | 771186  | 689244  | 9.81%  | 0.735% |

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 ALS Vial : 56 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SOIL-PILE

Integration Parameters: rteint.p

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

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Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF031820.M

Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 13.204 | 1885 | 1890 | 1893 | rBV2 | 594705  | 569892  | 8.11%  | 0.607% |
| 73  | 13.239 | 1893 | 1896 | 1899 | rBV2 | 411134  | 436834  | 6.22%  | 0.466% |
| 74  | 13.298 | 1904 | 1906 | 1910 | rBV3 | 79560   | 114416  | 1.63%  | 0.122% |
| 75  | 13.333 | 1910 | 1912 | 1915 | rVB  | 248530  | 194788  | 2.77%  | 0.208% |
| 76  | 13.363 | 1915 | 1917 | 1921 | rBV  | 261052  | 255499  | 3.64%  | 0.272% |
| 77  | 13.539 | 1944 | 1947 | 1949 | rBV2 | 114662  | 125718  | 1.79%  | 0.134% |
| 78  | 13.645 | 1962 | 1965 | 1970 | rVB  | 238446  | 285071  | 4.06%  | 0.304% |
| 79  | 13.757 | 1980 | 1984 | 1987 | rBV2 | 370461  | 495462  | 7.05%  | 0.528% |
| 80  | 13.786 | 1987 | 1989 | 1991 | rVV  | 345908  | 252789  | 3.60%  | 0.269% |
| 81  | 13.810 | 1991 | 1993 | 1997 | rVB2 | 267046  | 283400  | 4.03%  | 0.302% |
| 82  | 13.851 | 1998 | 2000 | 2002 | rBV  | 151988  | 164815  | 2.35%  | 0.176% |
| 83  | 14.004 | 2022 | 2026 | 2029 | rBV2 | 2787280 | 3848976 | 54.78% | 4.103% |
| 84  | 14.039 | 2029 | 2032 | 2037 | rVB  | 1914386 | 1966774 | 27.99% | 2.096% |
| 85  | 14.115 | 2043 | 2045 | 2048 | rVB  | 331327  | 238053  | 3.39%  | 0.254% |
| 86  | 14.227 | 2061 | 2064 | 2069 | rBV2 | 204042  | 290327  | 4.13%  | 0.309% |
| 87  | 14.398 | 2090 | 2093 | 2096 | rVB  | 330382  | 324978  | 4.62%  | 0.346% |
| 88  | 14.427 | 2096 | 2098 | 2101 | rVB  | 206863  | 179034  | 2.55%  | 0.191% |
| 89  | 14.486 | 2105 | 2108 | 2111 | rBV2 | 312707  | 298118  | 4.24%  | 0.318% |
| 90  | 14.521 | 2111 | 2114 | 2116 | rBV2 | 306379  | 371053  | 5.28%  | 0.396% |
| 91  | 15.051 | 2200 | 2204 | 2207 | rBV  | 1531060 | 2262514 | 32.20% | 2.412% |
| 92  | 15.133 | 2215 | 2218 | 2220 | rBV2 | 285420  | 310429  | 4.42%  | 0.331% |
| 93  | 15.157 | 2220 | 2222 | 2225 | rVB  | 311126  | 269728  | 3.84%  | 0.288% |
| 94  | 15.357 | 2252 | 2256 | 2261 | rVB  | 825473  | 1168509 | 16.63% | 1.246% |
| 95  | 15.415 | 2262 | 2266 | 2273 | rVV  | 1171774 | 1517608 | 21.60% | 1.618% |
| 96  | 15.480 | 2273 | 2277 | 2280 | rVV  | 961492  | 1276451 | 18.17% | 1.361% |
| 97  | 15.509 | 2280 | 2282 | 2288 | rVB3 | 514286  | 677291  | 9.64%  | 0.722% |
| 98  | 15.956 | 2355 | 2358 | 2363 | rBV2 | 214363  | 305267  | 4.34%  | 0.325% |
| 99  | 16.945 | 2521 | 2526 | 2534 | rVB2 | 493210  | 959443  | 13.65% | 1.023% |
| 100 | 17.386 | 2597 | 2601 | 2611 | rVB  | 382269  | 753737  | 10.73% | 0.803% |

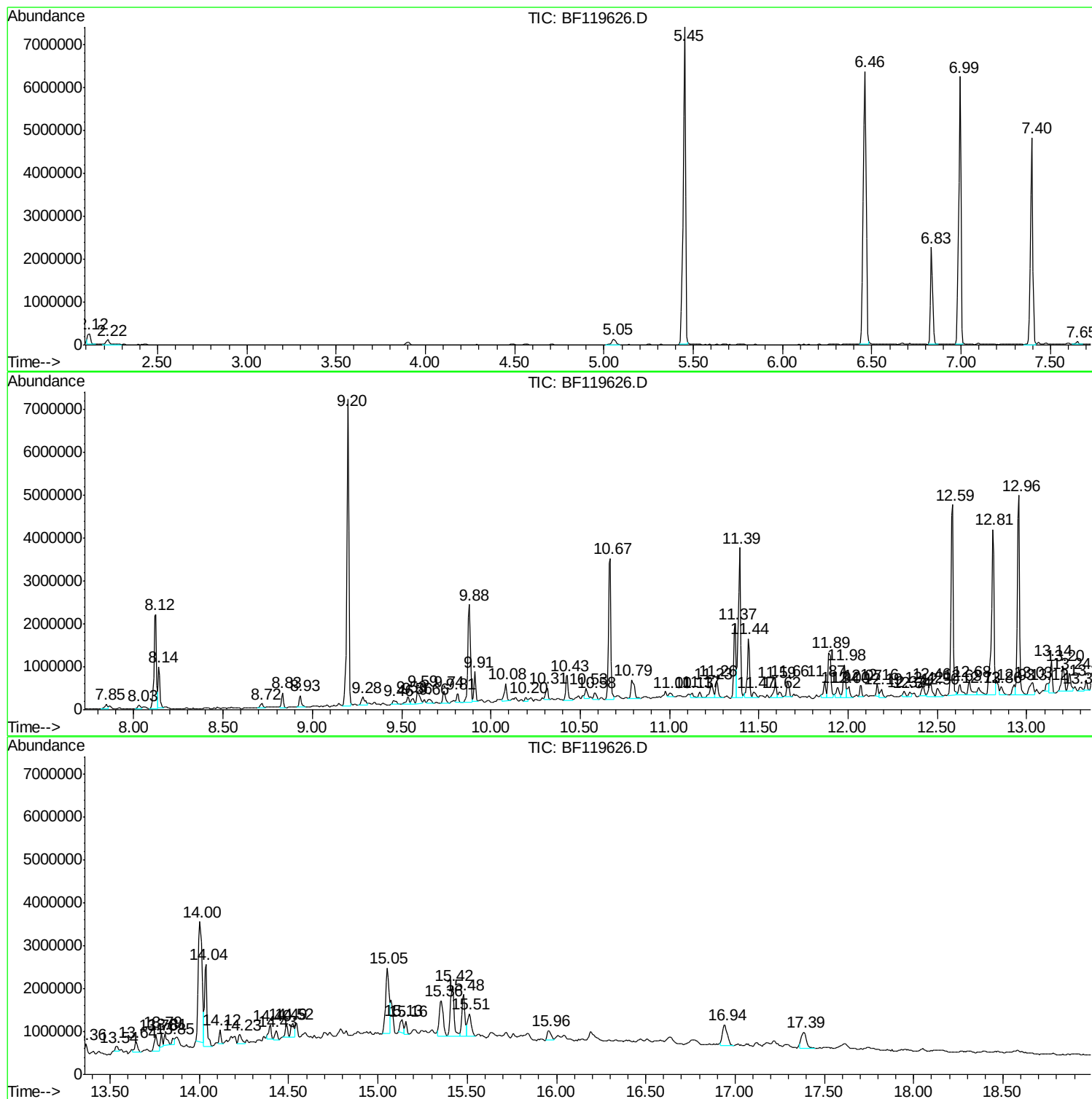
Sum of corrected areas: 93818315

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Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampled :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
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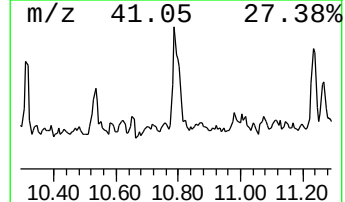
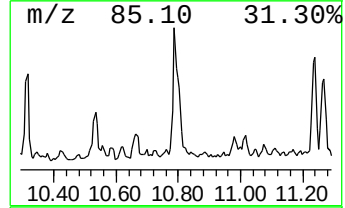
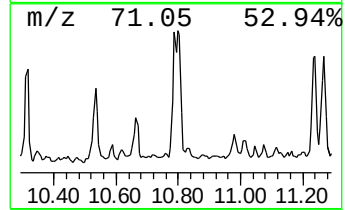
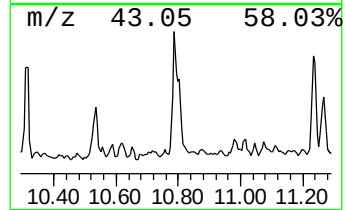
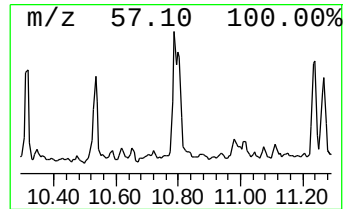
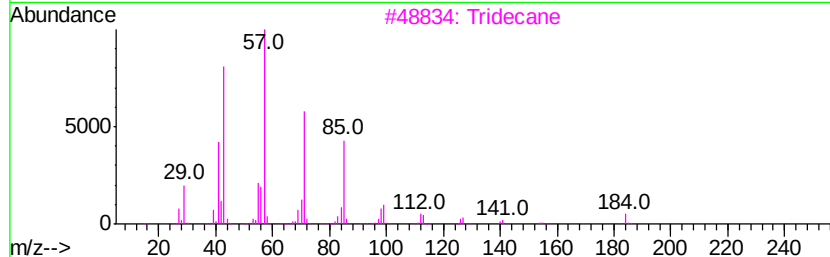
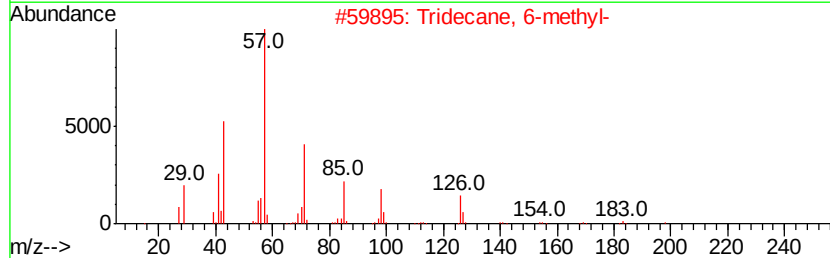
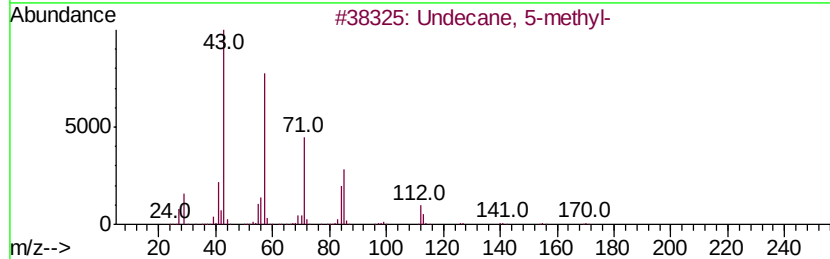
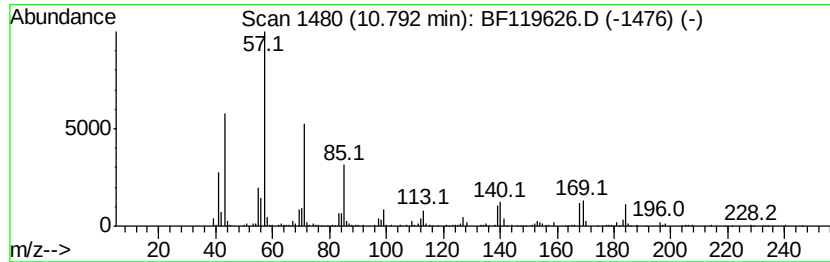
Instrument :  
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 2 Undecane, 5-methyl- Concentration Rank 5

| R.T.      | EstConc              | Area   | Relative to ISTD | R.T.        |      |
|-----------|----------------------|--------|------------------|-------------|------|
| 10.79     | 8.26 ng              | 668561 | Phenanthrene-d10 | 11.37       |      |
| Hit# of 5 | Tentative ID         | MW     | MolForm          | CAS#        | Qual |
| 1         | Undecane, 5-methyl-  | 170    | C12H26           | 001632-70-8 | 76   |
| 2         | Tridecane, 6-methyl- | 198    | C14H30           | 013287-21-3 | 70   |
| 3         | Tridecane            | 184    | C13H28           | 000629-50-5 | 70   |
| 4         | Dodecane             | 170    | C12H26           | 000112-40-3 | 68   |
| 5         | Undecane, 2-methyl-  | 170    | C12H26           | 007045-71-8 | 64   |



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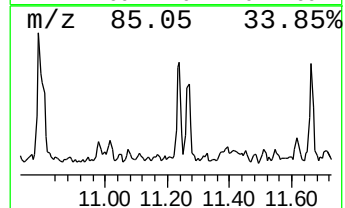
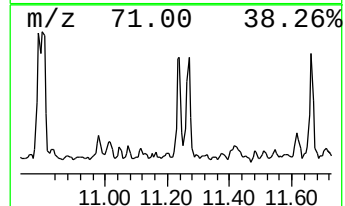
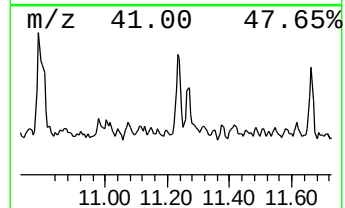
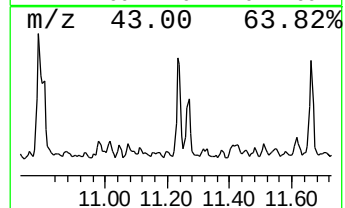
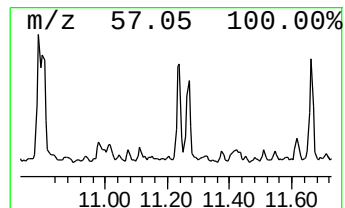
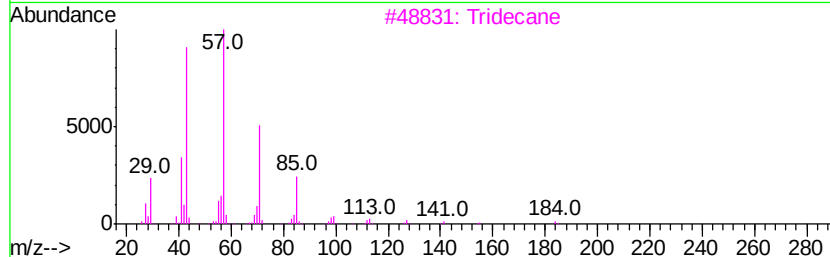
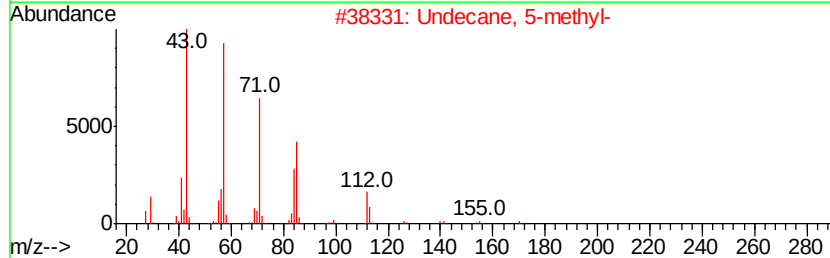
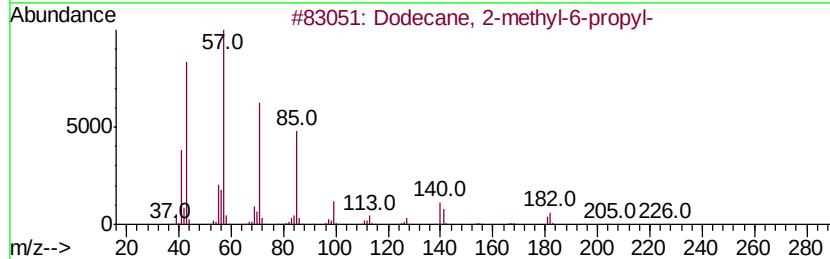
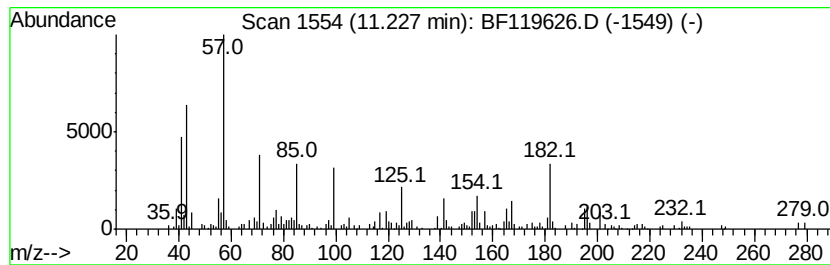
Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 3 Dodecane, 2-methyl-6-propyl- Concentration Rank 6

| R.T.      | EstConc                      | Area   | Relative to ISTD | R.T.        |      |
|-----------|------------------------------|--------|------------------|-------------|------|
| 11.23     | 5.82 ng                      | 470850 | Phenanthrene-d10 | 11.37       |      |
| Hit# of 5 | Tentative ID                 | MW     | MolForm          | CAS#        | Qual |
| 1         | Dodecane, 2-methyl-6-propyl- | 226    | C16H34           | 055045-08-4 | 80   |
| 2         | Undecane, 5-methyl-          | 170    | C12H26           | 001632-70-8 | 64   |
| 3         | Tridecane                    | 184    | C13H28           | 000629-50-5 | 64   |
| 4         | Tridecane, 7-propyl-         | 226    | C16H34           | 055045-09-5 | 64   |
| 5         | Decane, 3,8-dimethyl-        | 170    | C12H26           | 017312-55-9 | 62   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

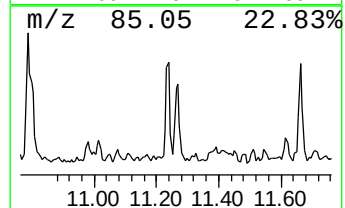
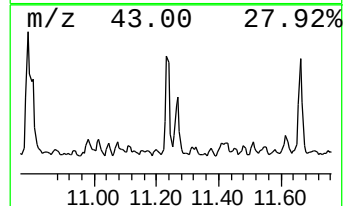
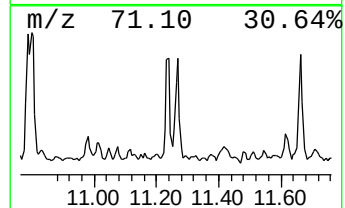
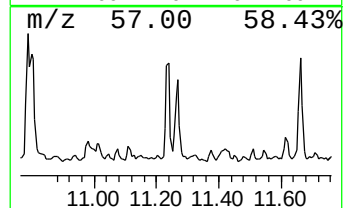
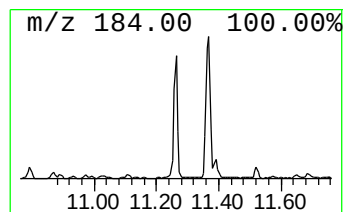
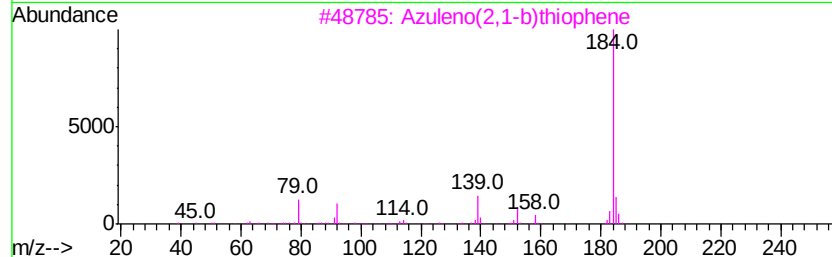
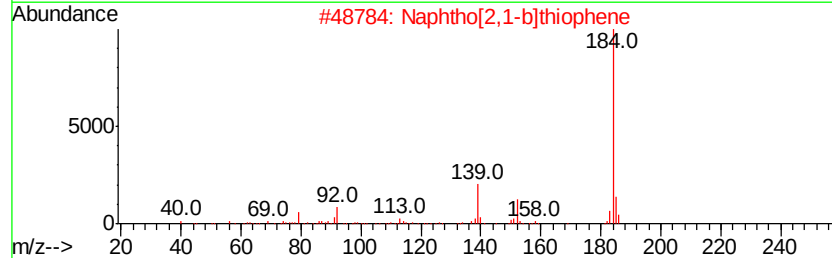
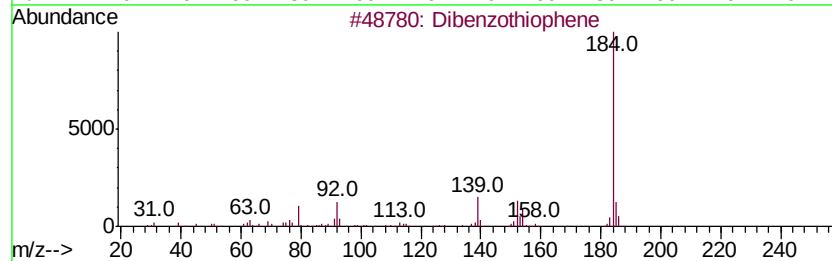
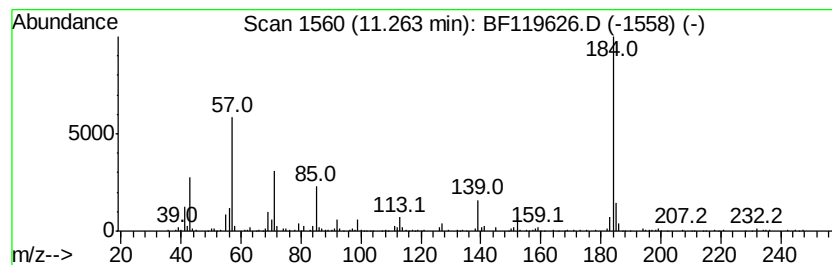
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TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 Dibenzothiophene Concentration Rank 8

| R.T.  | EstConc | Area   | Relative to ISTD |  | R.T.  |
|-------|---------|--------|------------------|--|-------|
| 11.26 | 5.28 ng | 427222 | Phenanthrene-d10 |  | 11.37 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|---------|-------------|------|
| 1    |    |   | Dibenzothiophene                    | 184 | C12H8S  | 000132-65-0 | 86   |
| 2    |    |   | Naphtho[2,1-b]thiophene             | 184 | C12H8S  | 000233-02-3 | 70   |
| 3    |    |   | Azuleno(2,1-b)thiophene             | 184 | C12H8S  | 000248-13-5 | 58   |
| 4    |    |   | Naphtho[1,2-b]thiophene             | 184 | C12H8S  | 000234-41-3 | 58   |
| 5    |    |   | 2,5-Cyclohexadiene-1,4-dione, 2,... | 184 | C8H8O5  | 000085-23-4 | 50   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

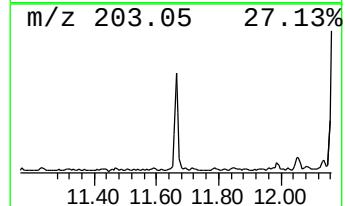
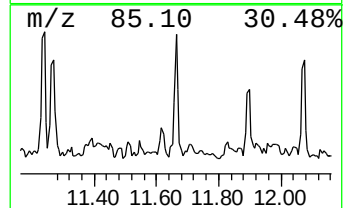
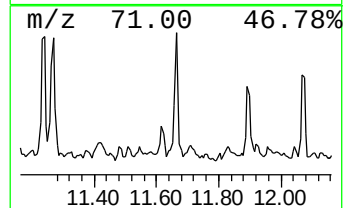
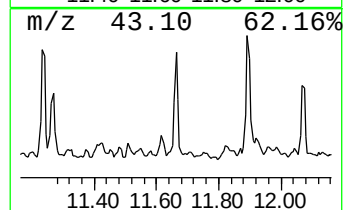
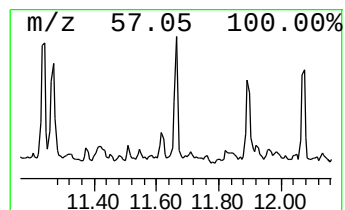
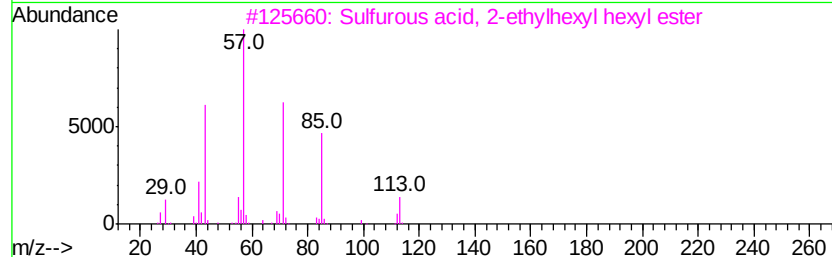
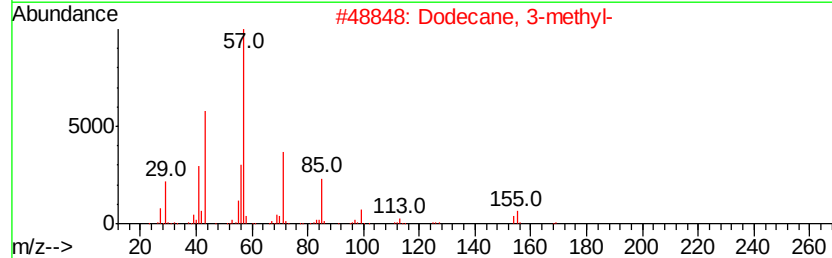
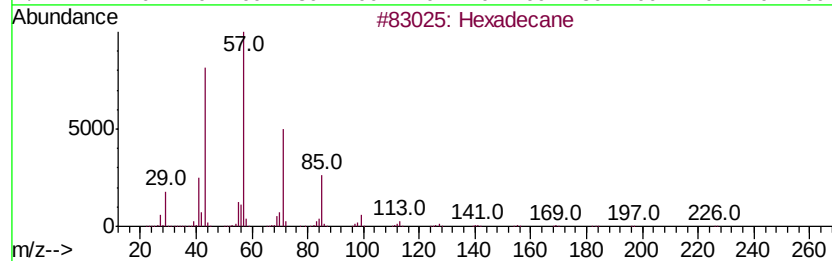
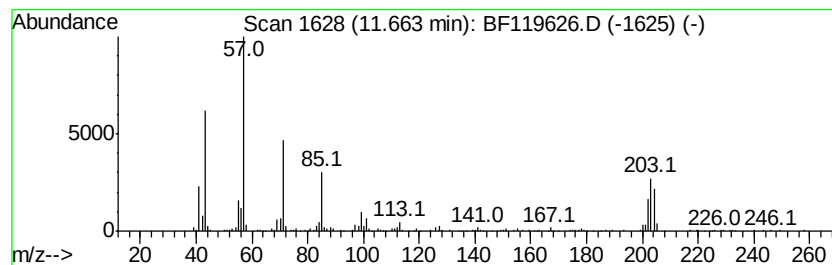
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 5 unknown11.66 Concentration Rank 14

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.66 | 3.65 ng | 295842 | Phenanthrene-d10 | 11.37 |

| Hit# of | 5 | Tentative ID                         | MW  | MolForm   | CAS#         | Qual |
|---------|---|--------------------------------------|-----|-----------|--------------|------|
| 1       |   | Hexadecane                           | 226 | C16H34    | 000544-76-3  | 49   |
| 2       |   | Dodecane, 3-methyl-                  | 184 | C13H28    | 017312-57-1  | 47   |
| 3       |   | Sulfurous acid, 2-ethylhexyl hex...  | 278 | C14H30O3S | 1000309-20-2 | 46   |
| 4       |   | Pentadecane                          | 212 | C15H32    | 000629-62-9  | 46   |
| 5       |   | Sulfurous acid, 2-propyl tetradec... | 320 | C17H36O3S | 1000309-12-5 | 46   |





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Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

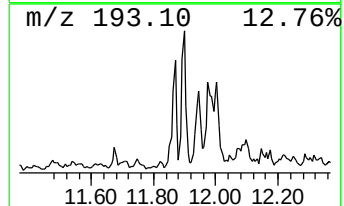
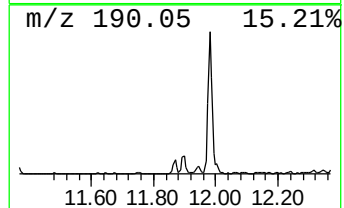
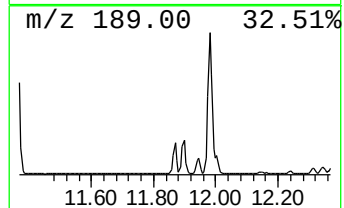
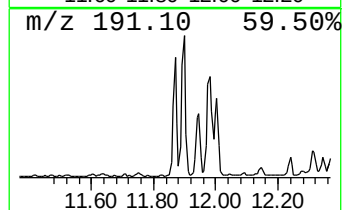
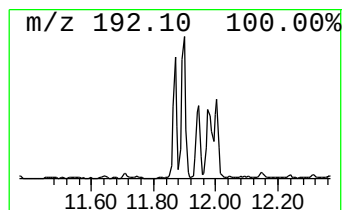
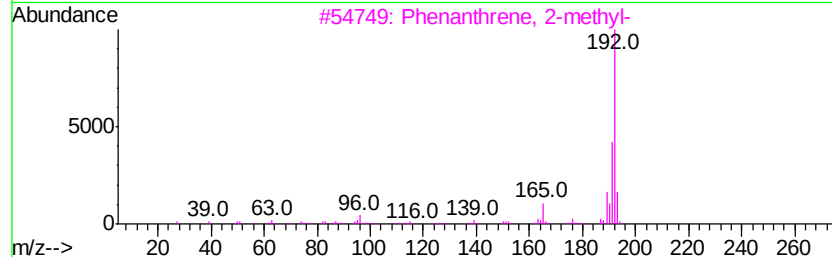
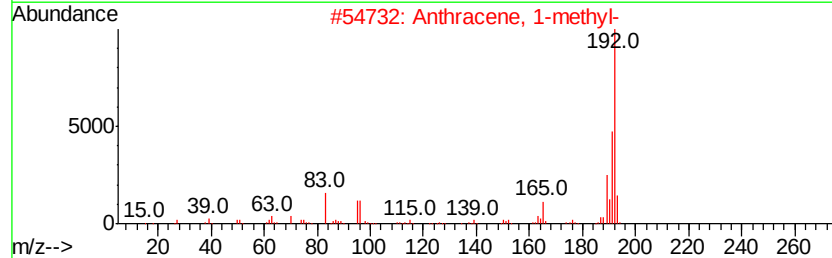
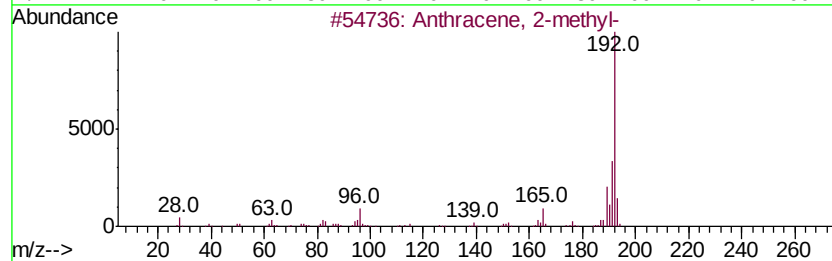
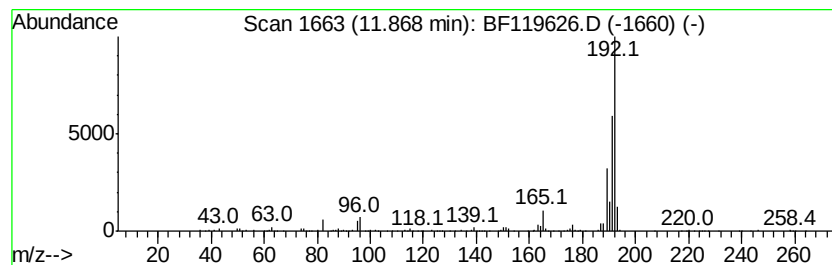
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 6 Anthracene, 2-methyl- Concentration Rank 12

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.87 | 4.40 ng | 356412 | Phenanthrene-d10 | 11.37 |

| Hit# of | 5 | Tentative ID                            | MW  | MolForm | CAS#        | Qual |
|---------|---|-----------------------------------------|-----|---------|-------------|------|
| 1       |   | Anthracene, 2-methyl-                   | 192 | C15H12  | 000613-12-7 | 96   |
| 2       |   | Anthracene, 1-methyl-                   | 192 | C15H12  | 000610-48-0 | 93   |
| 3       |   | Phenanthrene, 2-methyl-                 | 192 | C15H12  | 002531-84-2 | 91   |
| 4       |   | 1H-Cyclopropa[1,1]phenanthrene, 1a, ... | 192 | C15H12  | 000949-41-7 | 91   |
| 5       |   | Anthracene, 9-methyl-                   | 192 | C15H12  | 000779-02-2 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

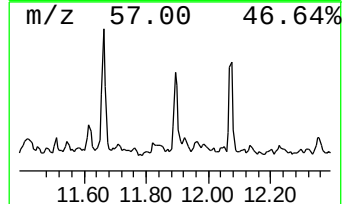
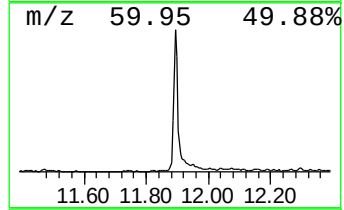
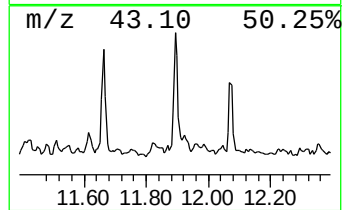
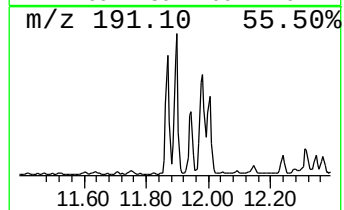
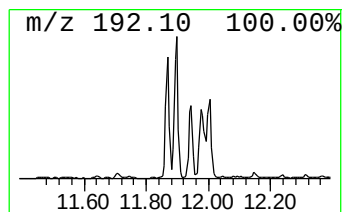
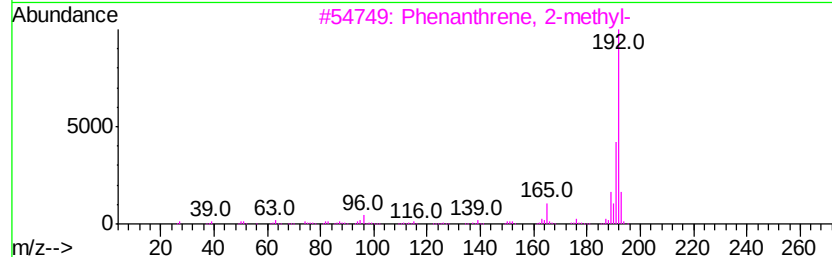
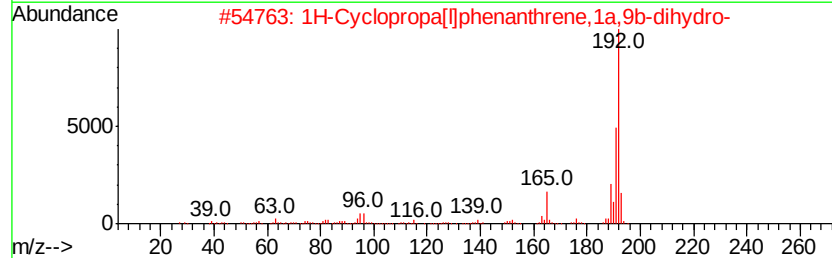
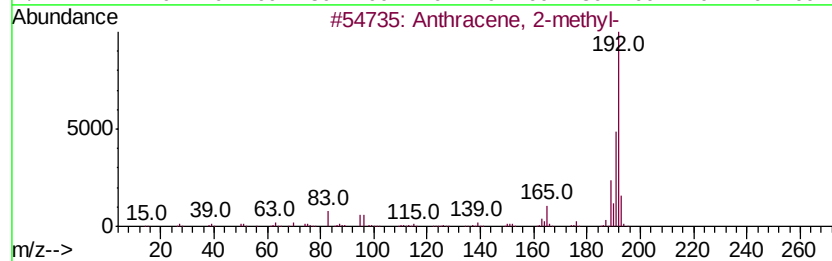
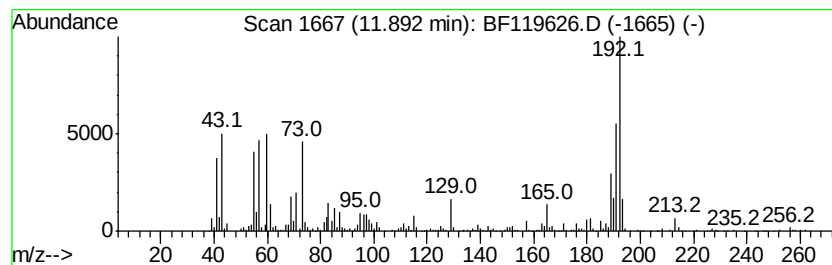
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 1H-Cyclopropa[l]phenanthren... Concentration Rank 3

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 11.89 | 12.64 ng | 1023800 | Phenanthrene-d10 | 11.37 |

| Hit# of 5 | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|-----------|-------------------------------------|-----|---------|-------------|------|
| 1         | Anthracene, 2-methyl-               | 192 | C15H12  | 000613-12-7 | 97   |
| 2         | 1H-Cyclopropa[l]phenanthrene,1a,... | 192 | C15H12  | 000949-41-7 | 96   |
| 3         | Phenanthrene, 2-methyl-             | 192 | C15H12  | 002531-84-2 | 95   |
| 4         | Phenanthrene, 1-methyl-             | 192 | C15H12  | 000832-69-9 | 95   |
| 5         | Anthracene, 1-methyl-               | 192 | C15H12  | 000610-48-0 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampled :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

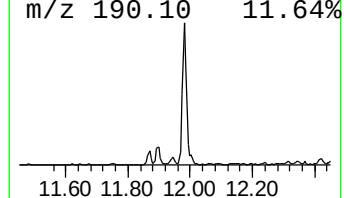
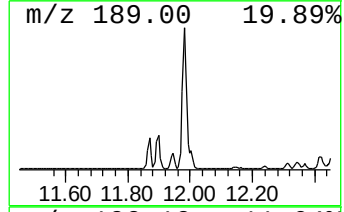
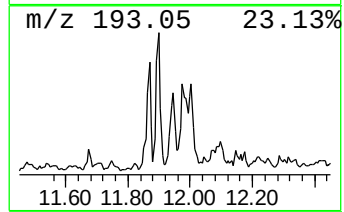
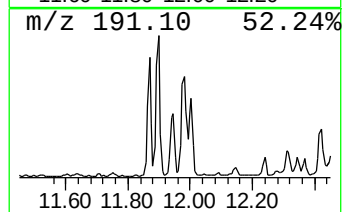
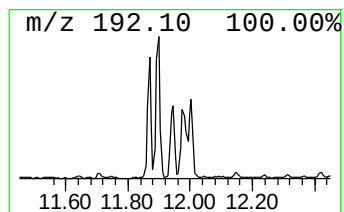
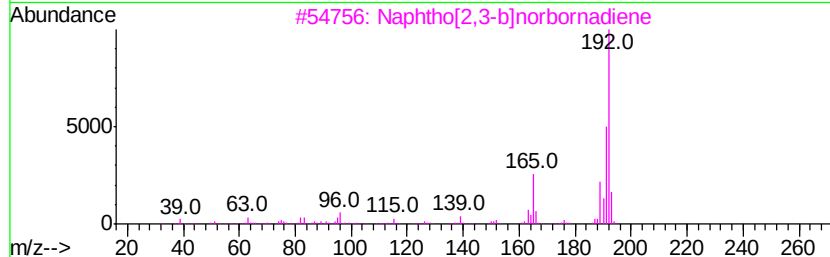
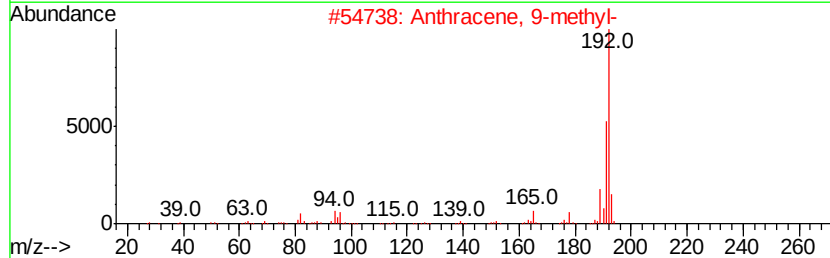
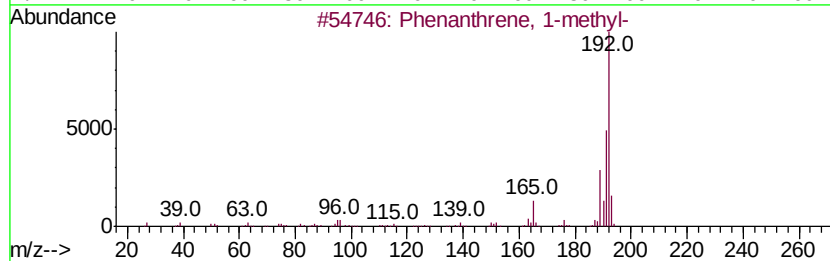
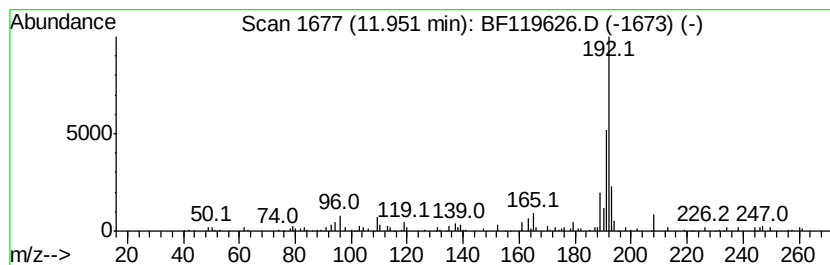
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 8 Phenanthrene, 1-methyl- Concentration Rank 16

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.95 | 3.24 ng | 262014 | Phenanthrene-d10 | 11.37 |

| Hit# of | 5 | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|---------|---|-----------------------------|-----|---------|-------------|------|
| 1       |   | Phenanthrene, 1-methyl-     | 192 | C15H12  | 000832-69-9 | 94   |
| 2       |   | Anthracene, 9-methyl-       | 192 | C15H12  | 000779-02-2 | 94   |
| 3       |   | Naphtho[2,3-b]norbornadiene | 192 | C15H12  | 107426-38-0 | 93   |
| 4       |   | Phenanthrene, 3-methyl-     | 192 | C15H12  | 000832-71-3 | 93   |
| 5       |   | Anthracene, 1-methyl-       | 192 | C15H12  | 000610-48-0 | 92   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
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Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

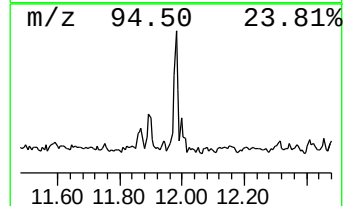
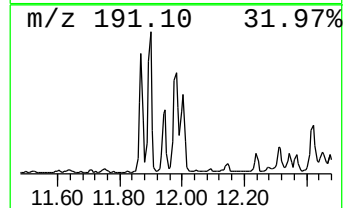
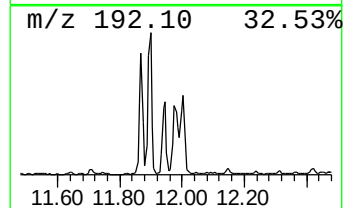
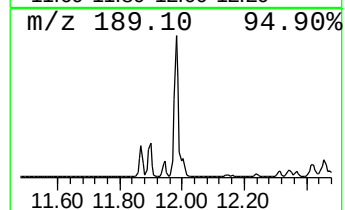
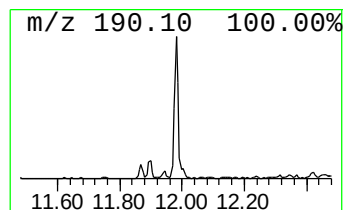
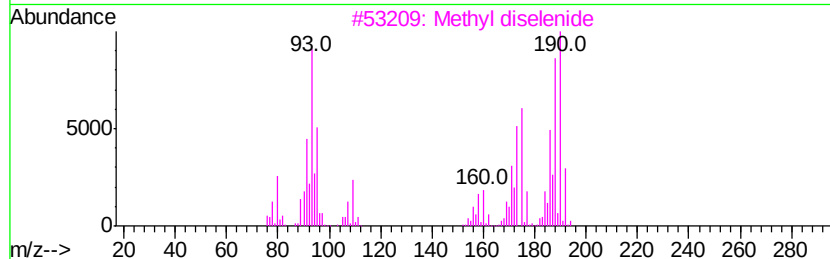
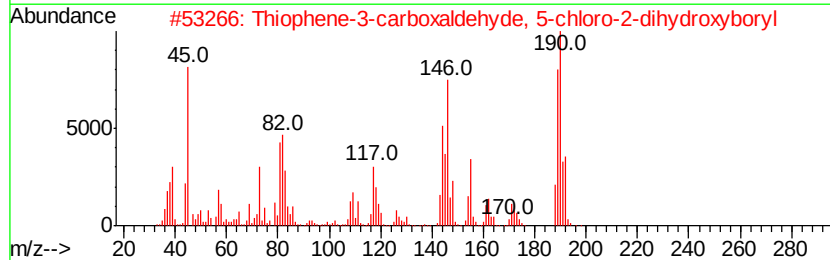
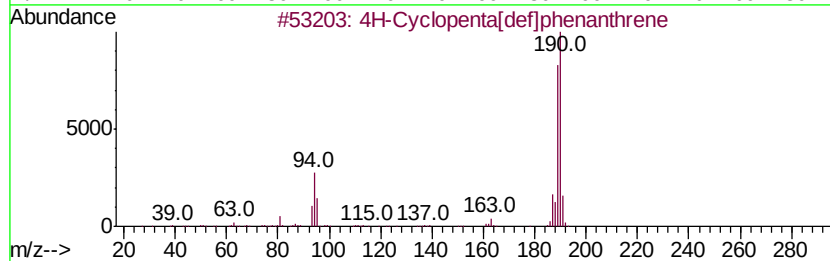
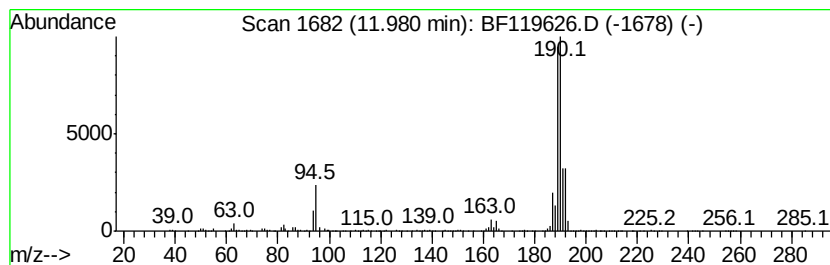
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 4H-Cyclopenta[def]phenanthrene Concentration Rank 4

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.98 | 9.86 ng | 798390 | Phenanthrene-d10 | 11.37 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#        | Qual |
|------|----|-------------------------------------|-----|------------|-------------|------|
| 1    | 5  | 4H-Cyclopenta[def]phenanthrene      | 190 | C15H10     | 000203-64-5 | 93   |
| 2    |    | Thiophene-3-carboxaldehyde, 5-ch... | 190 | C5H4BClO3S | 036155-87-0 | 53   |
| 3    |    | Methyl diselenide                   | 190 | C2H6Se2    | 007101-31-7 | 46   |
| 4    |    | 2,2'-Bis(4,5-dimethylimidazole)     | 190 | C10H14N4   | 069286-06-2 | 40   |
| 5    |    | 6H-Cyclobuta[jk]phenanthrene        | 190 | C15H10     | 083469-43-6 | 33   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

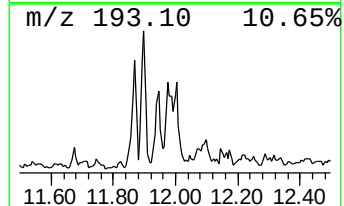
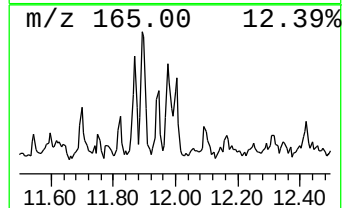
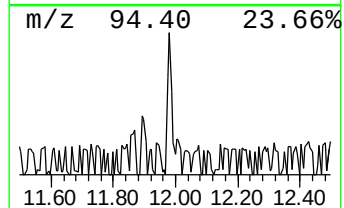
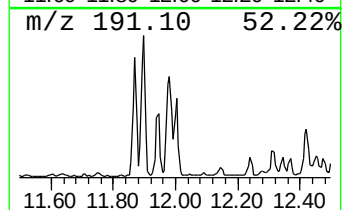
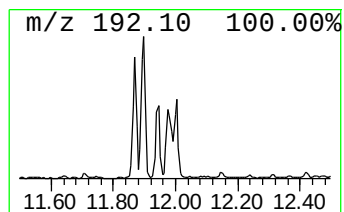
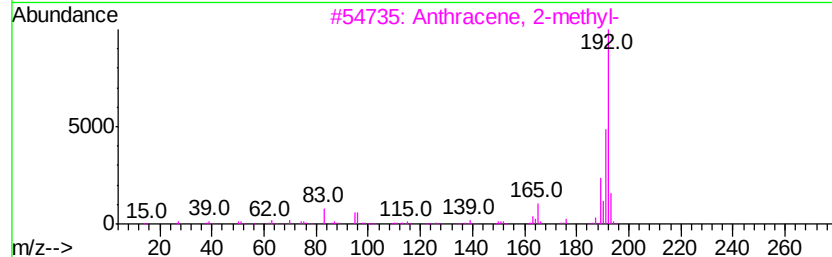
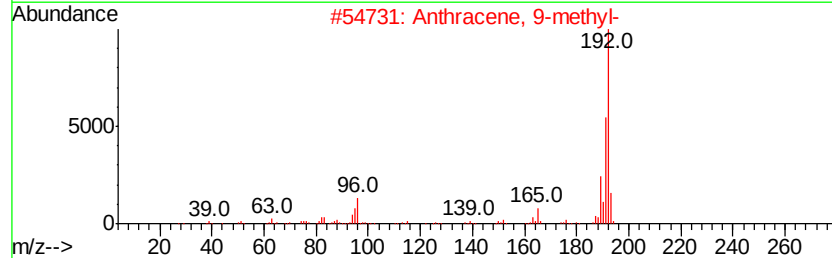
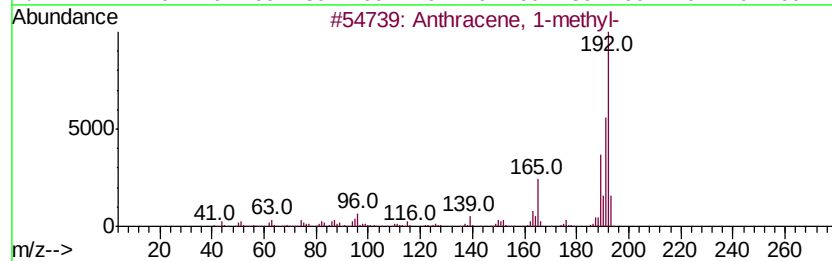
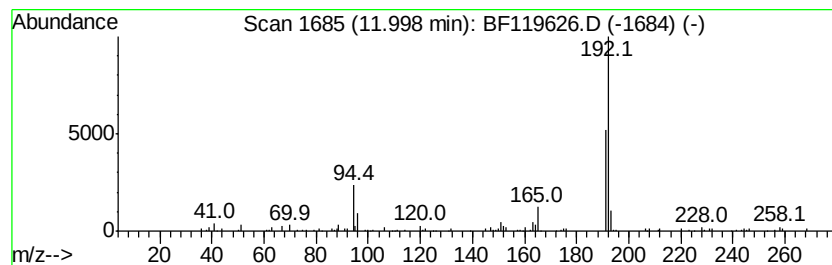
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TIC Integration Parameters: LSCINT.P

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Peak Number 10 Anthracene, 1-methyl- Concentration Rank 18

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.00 | 2.80 ng | 226760 | Phenanthrene-d10 | 11.37 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Anthracene, 1-methyl-               | 192 | C15H12  | 000610-48-0 | 87   |
| 2    |    | Anthracene, 9-methyl-               | 192 | C15H12  | 000779-02-2 | 86   |
| 3    |    | Anthracene, 2-methyl-               | 192 | C15H12  | 000613-12-7 | 81   |
| 4    |    | 1a,9b-Dihydro-1H-cyclopropa[alan... | 192 | C15H12  | 006109-24-6 | 78   |
| 5    |    | Phenanthrene, 2-methyl-             | 192 | C15H12  | 002531-84-2 | 78   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

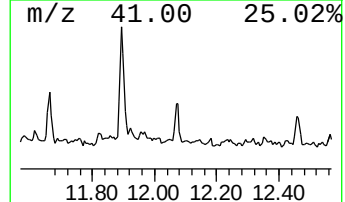
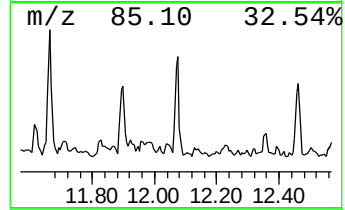
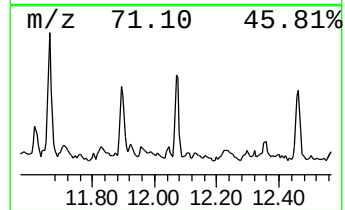
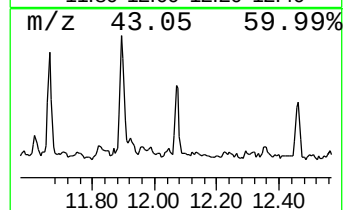
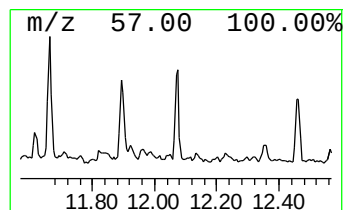
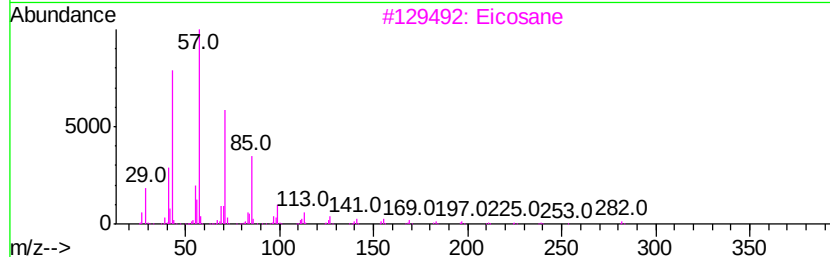
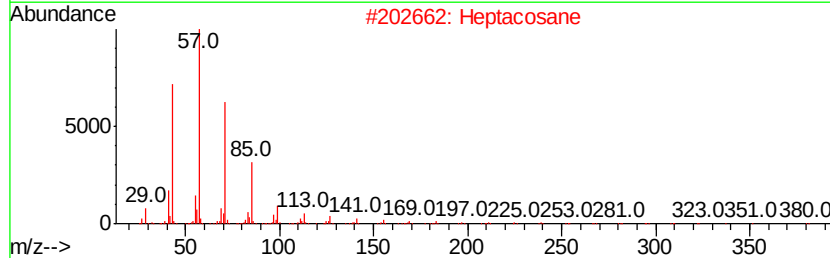
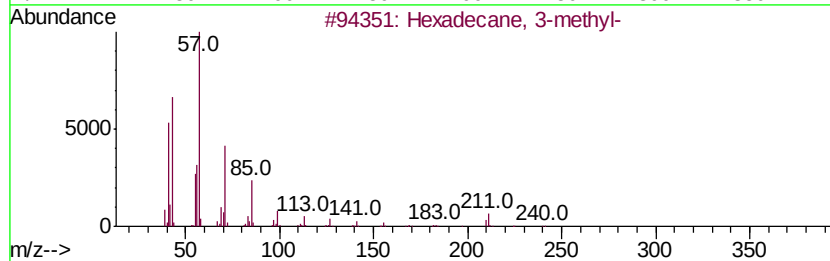
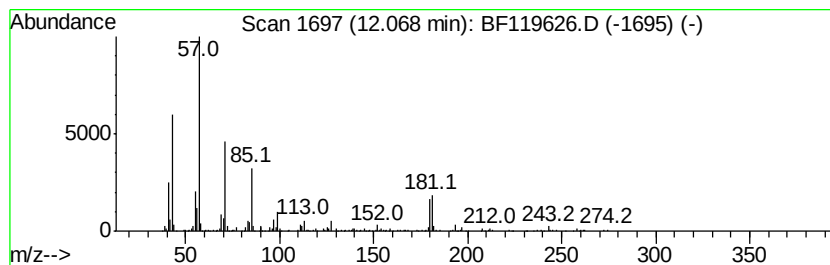
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 11 Hexadecane, 3-methyl- Concentration Rank 20

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.07 | 2.75 ng | 222873 | Phenanthrene-d10 | 11.37 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | Hexadecane, 3-methyl-               | 240 | C17H36    | 006418-43-5  | 70   |
| 2    |    | Heptacosane                         | 380 | C27H56    | 000593-49-7  | 62   |
| 3    |    | Eicosane                            | 282 | C20H42    | 000112-95-8  | 62   |
| 4    |    | Sulfurous acid, butyl pentadecyl... | 348 | C19H40O3S | 1000309-18-2 | 53   |
| 5    |    | Undecane, 5-ethyl-                  | 184 | C13H28    | 017453-94-0  | 53   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

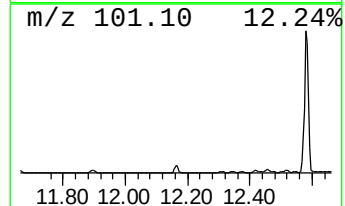
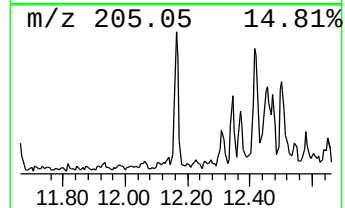
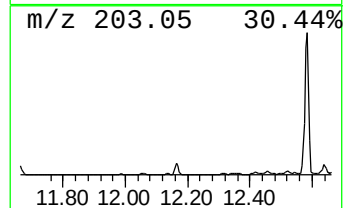
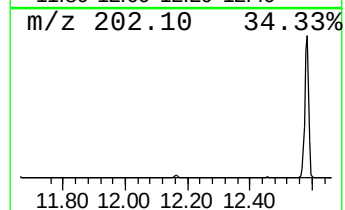
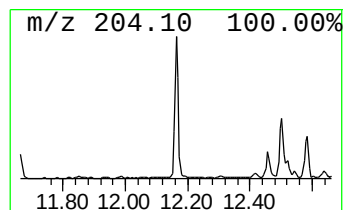
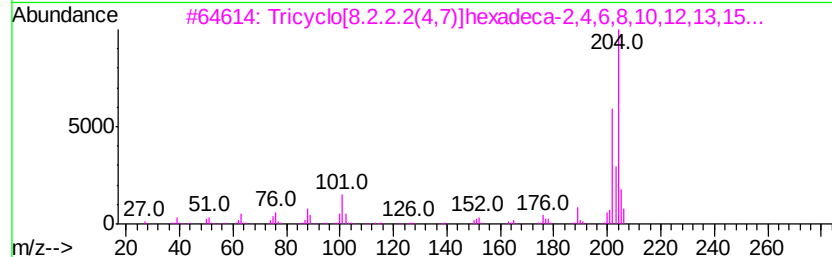
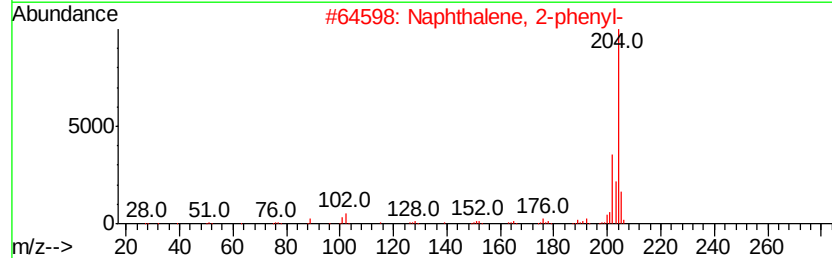
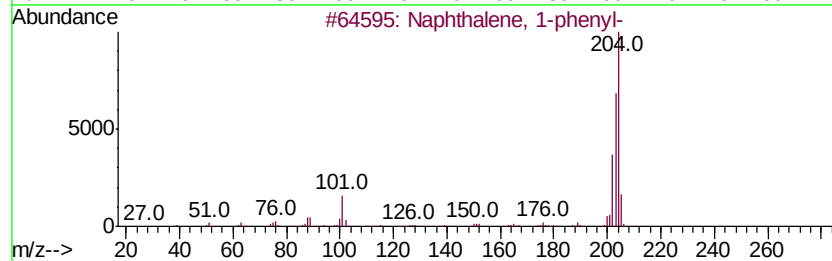
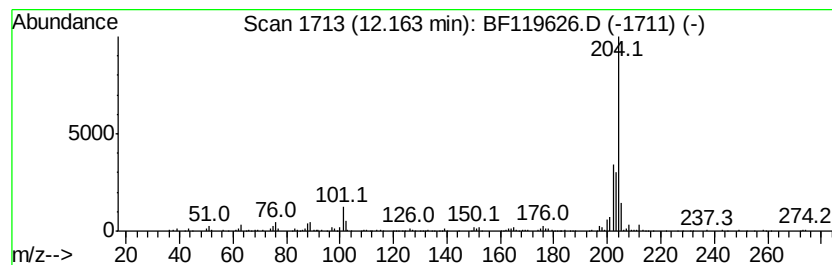
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 12 Naphthalene, 1-phenyl- Concentration Rank 19

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.16 | 2.78 ng | 224946 | Phenanthrene-d10 | 11.37 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|------|----|-------------------------------------|-----|-----------|-------------|------|
| 1    | 5  | Naphthalene, 1-phenyl-              | 204 | C16H12    | 000605-02-7 | 86   |
| 2    |    | Naphthalene, 2-phenyl-              | 204 | C16H12    | 000612-94-2 | 76   |
| 3    |    | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12    | 006572-60-7 | 72   |
| 4    |    | 9,10-di(Chloromethyl)anthracene     | 274 | C16H12Cl2 | 010387-13-0 | 53   |
| 5    |    | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2   | 001591-30-6 | 52   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

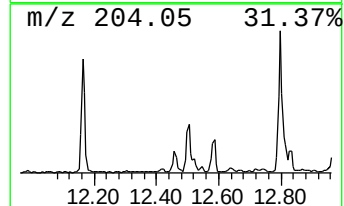
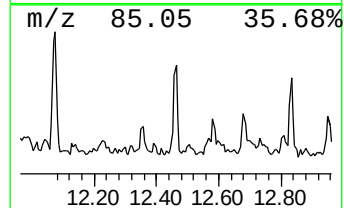
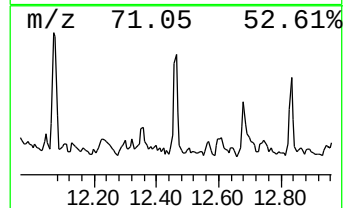
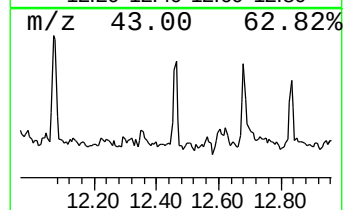
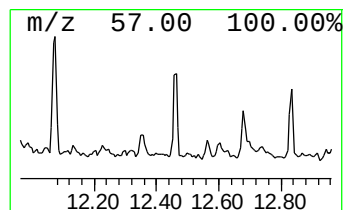
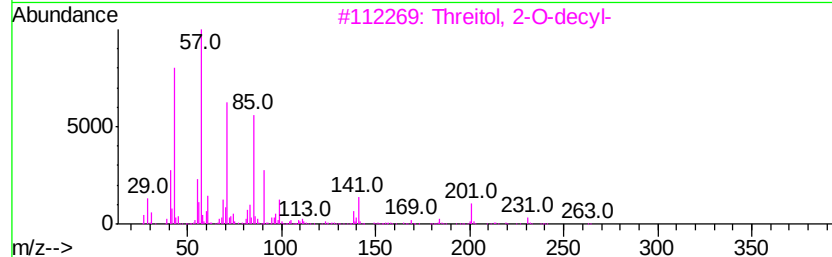
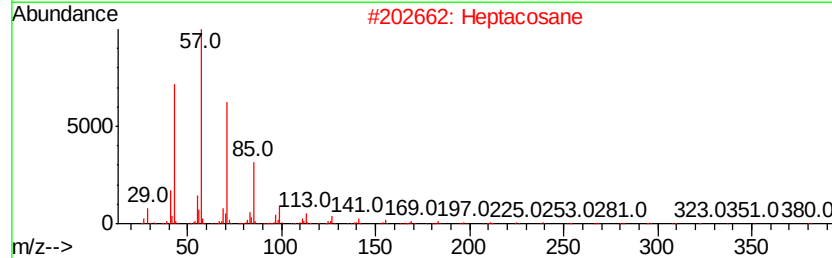
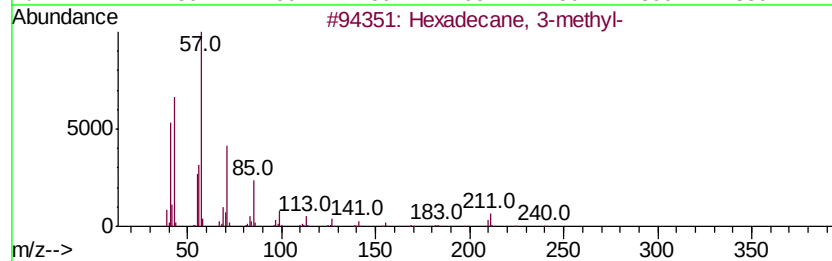
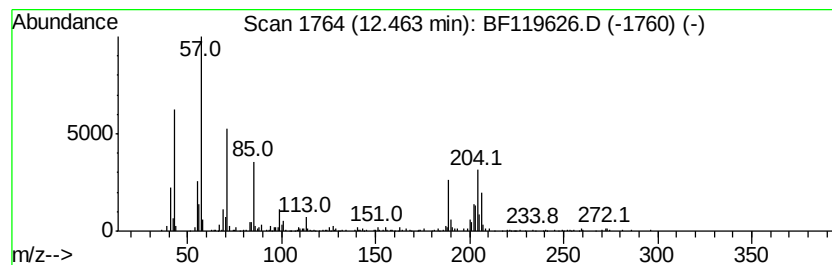
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 13 unknown12.46 Concentration Rank 11

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.46 | 4.67 ng | 378097 | Phenanthrene-d10 | 11.37 |

| Hit# | of | Tentative ID                      | MW  | MolForm   | CAS#         | Qual |
|------|----|-----------------------------------|-----|-----------|--------------|------|
| 1    | 5  | Hexadecane, 3-methyl-             | 240 | C17H36    | 006418-43-5  | 15   |
| 2    |    | Heptacosane                       | 380 | C27H56    | 000593-49-7  | 11   |
| 3    |    | Threitol, 2-O-decyl-              | 262 | C14H30O4  | 1000156-80-6 | 11   |
| 4    |    | Octacosane                        | 394 | C28H58    | 000630-02-4  | 11   |
| 5    |    | Sulfurous acid, butyl octyl ester | 250 | C12H26O3S | 1000309-17-5 | 11   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

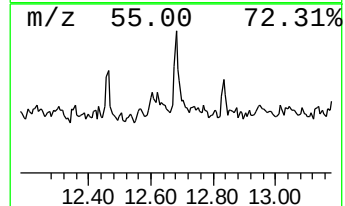
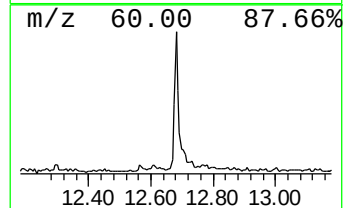
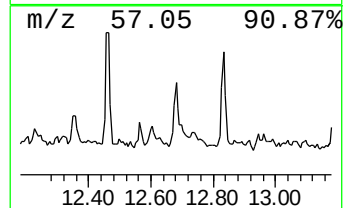
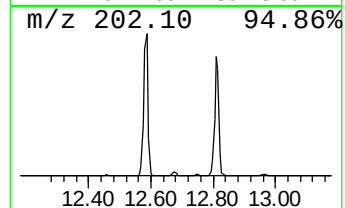
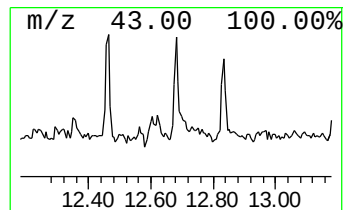
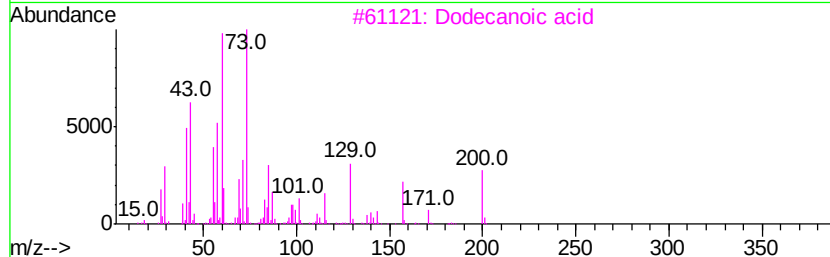
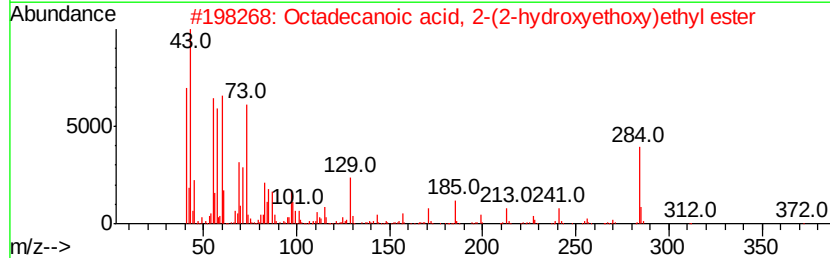
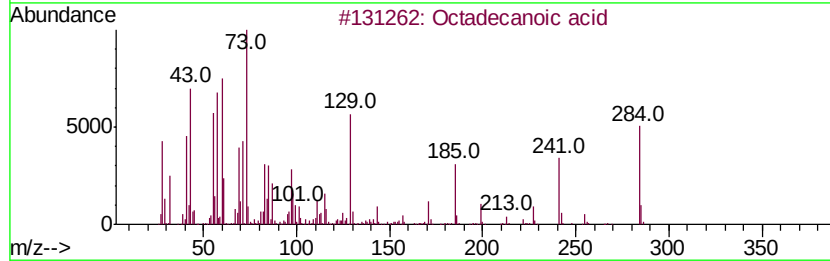
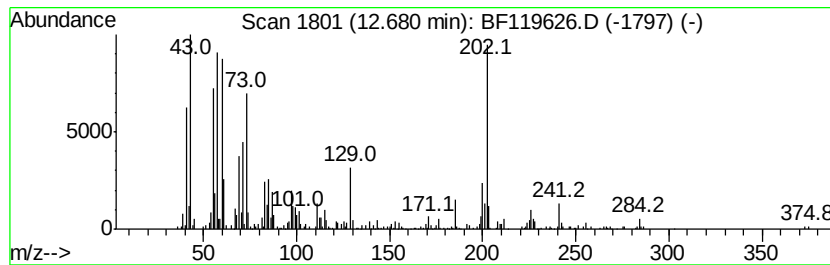
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 14 Octadecanoic acid Concentration Rank 7

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.68 | 5.79 ng | 469084 | Phenanthrene-d10 | 11.37 |

| Hit# | of | Tentative ID                         | MW  | MolForm  | CAS#        | Qual |
|------|----|--------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Octadecanoic acid                    | 284 | C18H36O2 | 000057-11-4 | 86   |
| 2    |    | Octadecanoic acid, 2-(2-hydroxyve... | 372 | C22H44O4 | 000106-11-6 | 60   |
| 3    |    | Dodecanoic acid                      | 200 | C12H24O2 | 000143-07-7 | 49   |
| 4    |    | Tetradecanoic acid                   | 228 | C14H28O2 | 000544-63-8 | 47   |
| 5    |    | Pentadecanoic acid                   | 242 | C15H30O2 | 001002-84-2 | 45   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

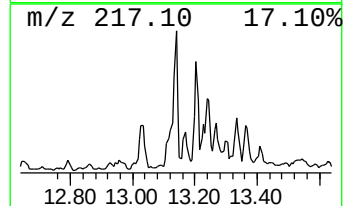
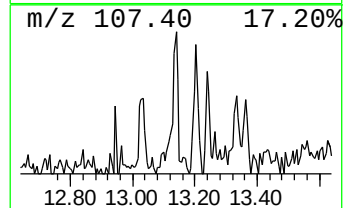
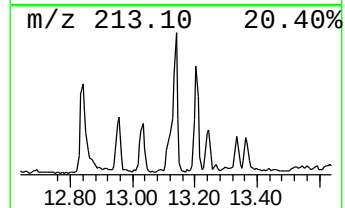
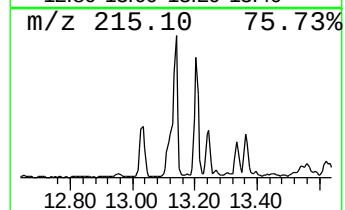
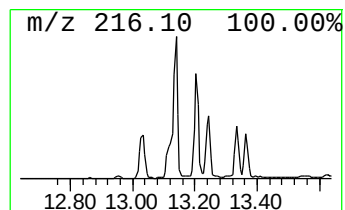
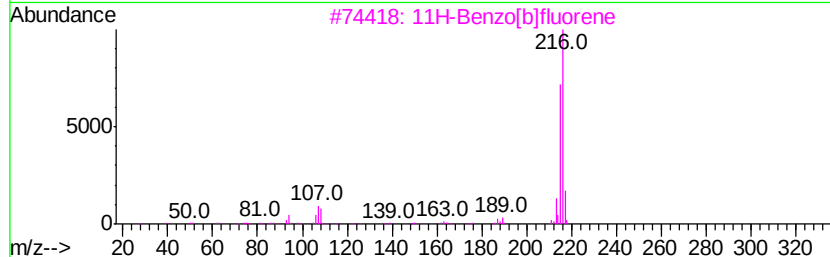
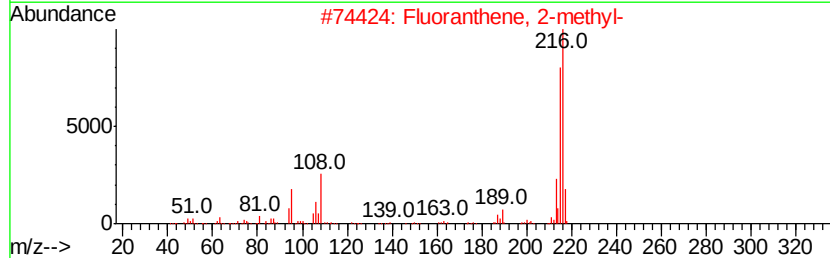
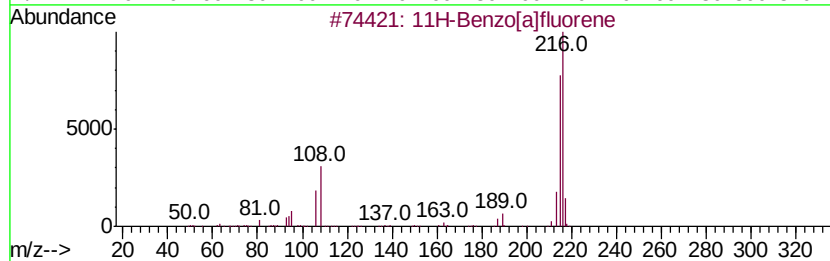
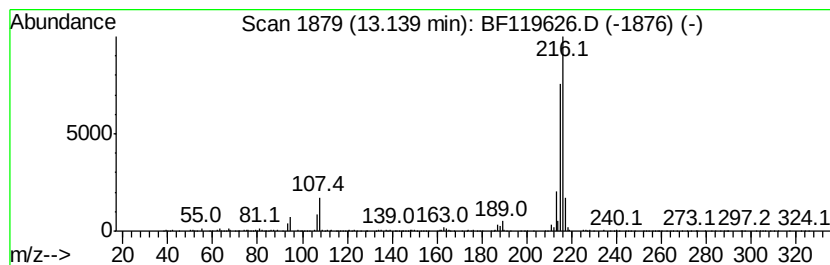
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 11H-Benzo[a]fluorene Concentration Rank 15

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 13.14 | 3.58 ng | 689244 | Chrysene-d12     | 14.01 |

| Hit# | of | Tentative ID            | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------|-----|---------|-------------|------|
| 1    | 5  | 11H-Benzo[a]fluorene    | 216 | C17H12  | 000238-84-6 | 94   |
| 2    |    | Fluoranthene, 2-methyl- | 216 | C17H12  | 033543-31-6 | 93   |
| 3    |    | 11H-Benzo[b]fluorene    | 216 | C17H12  | 000243-17-4 | 90   |
| 4    |    | Pyrene, 1-methyl-       | 216 | C17H12  | 002381-21-7 | 87   |
| 5    |    | Pyrene, 2-methyl-       | 216 | C17H12  | 003442-78-2 | 76   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

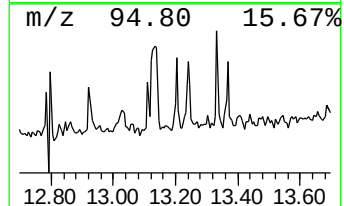
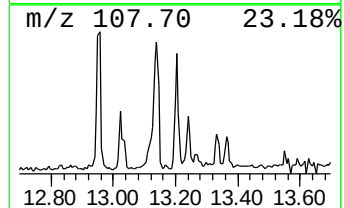
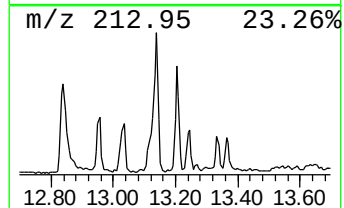
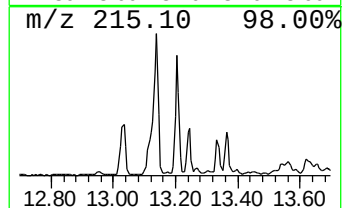
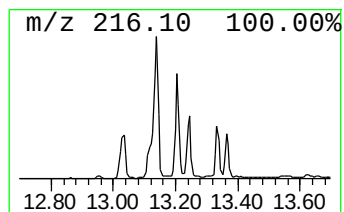
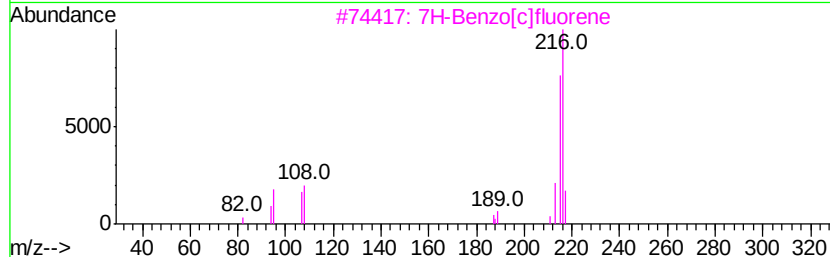
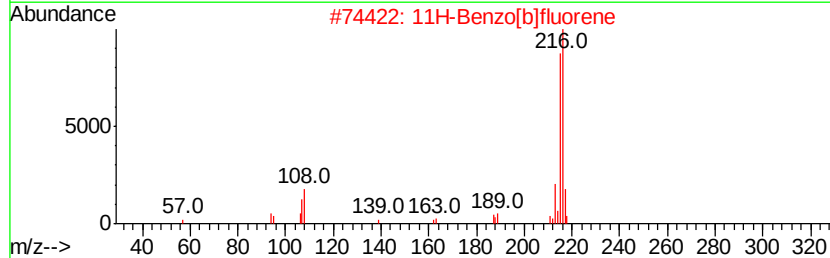
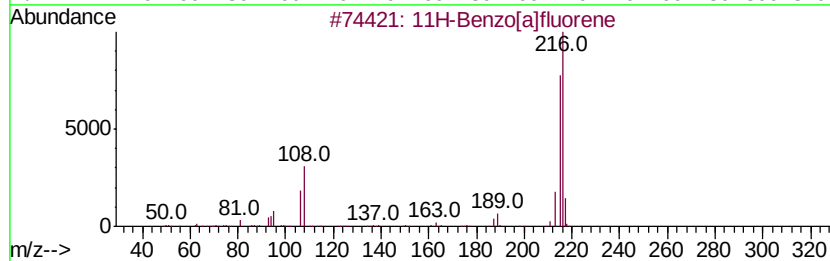
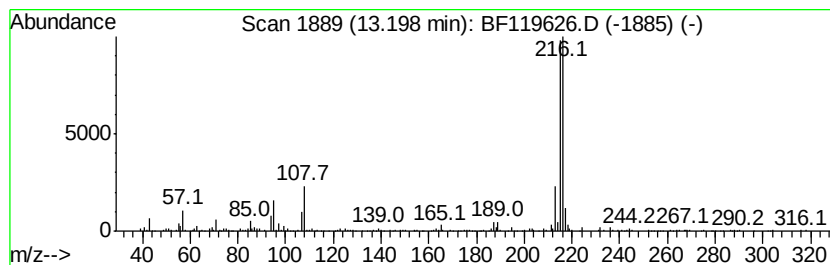
Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.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 16 11H-Benzo[b]fluorene Concentration Rank 17

| R.T.    | EstConc | Area                 | Relative to ISTD | R.T.           |
|---------|---------|----------------------|------------------|----------------|
| 13.20   | 2.96 ng | 569892               | Chrysene-d12     | 14.01          |
| Hit# of | 5       | Tentative ID         | MW MolForm       | CAS# Qual      |
| 1       |         | 11H-Benzo[a]fluorene | 216 C17H12       | 000238-84-6 91 |
| 2       |         | 11H-Benzo[b]fluorene | 216 C17H12       | 000243-17-4 91 |
| 3       |         | 7H-Benzo[c]fluorene  | 216 C17H12       | 000205-12-9 81 |
| 4       |         | Pyrene, 2-methyl-    | 216 C17H12       | 003442-78-2 62 |
| 5       |         | Pyrene, 1-methyl-    | 216 C17H12       | 002381-21-7 62 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
 Data File : BF119626.D  
 Acq On : 28 Mar 2020 19:35  
 Operator : CG/JU  
 Sample : L2052-02  
 Misc :  
 ALS Vial : 56 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

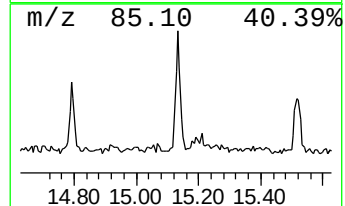
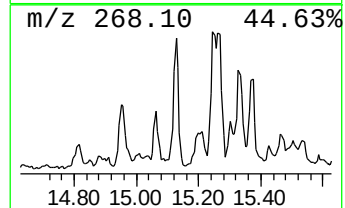
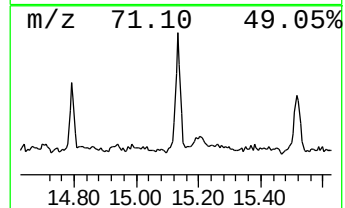
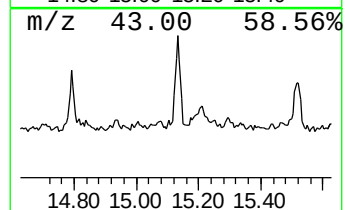
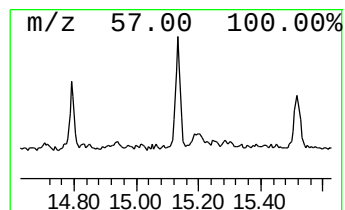
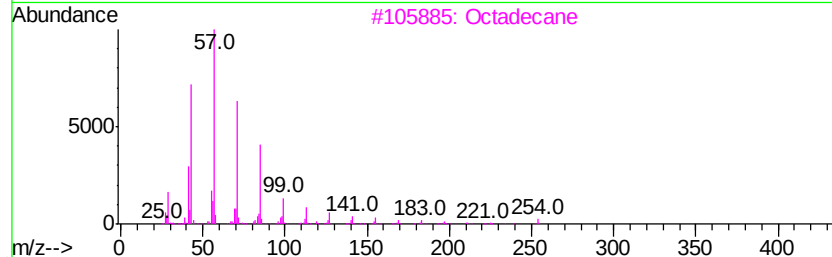
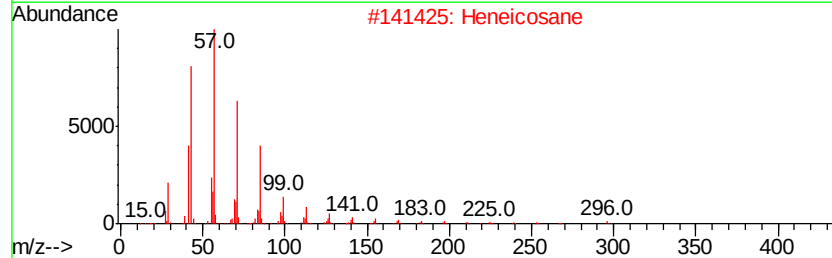
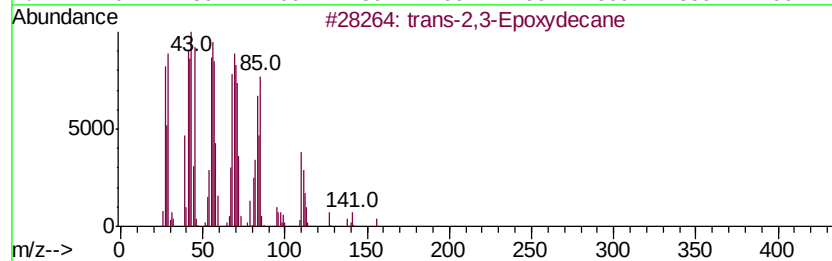
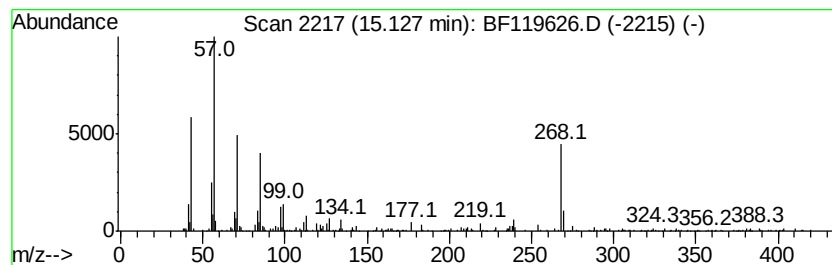
TIC Library : C:\DATABASE\NIST11.L  
 TIC Integration Parameters: LSCINT.P

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 Peak Number 17 trans-2,3-Epoxydecane Concentration Rank 9

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.13 | 4.86 ng | 310429 | Perylene-d12     | 15.48 |

| Hit# | of | 5 | Tentative ID          | MW  | MolForm | CAS#        | Qual |
|------|----|---|-----------------------|-----|---------|-------------|------|
| 1    |    |   | trans-2,3-Epoxydecane | 156 | C10H20O | 054125-39-2 | 90   |
| 2    |    |   | Heneicosane           | 296 | C21H44  | 000629-94-7 | 89   |
| 3    |    |   | Octadecane            | 254 | C18H38  | 000593-45-3 | 86   |
| 4    |    |   | Pentacosane           | 352 | C25H52  | 000629-99-2 | 81   |
| 5    |    |   | Nonadecane            | 268 | C19H40  | 000629-92-5 | 80   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

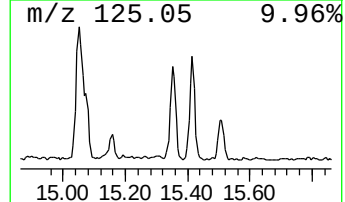
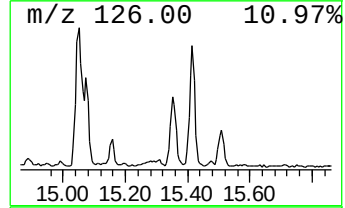
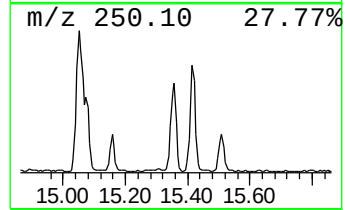
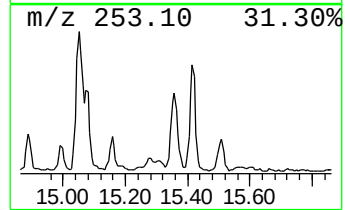
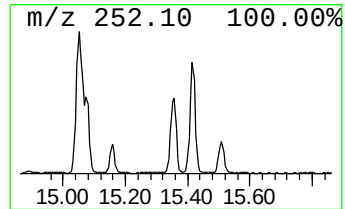
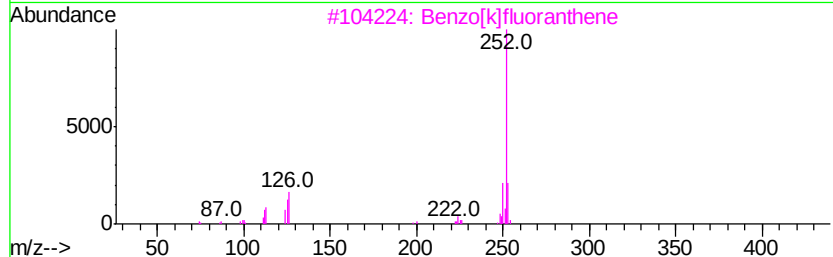
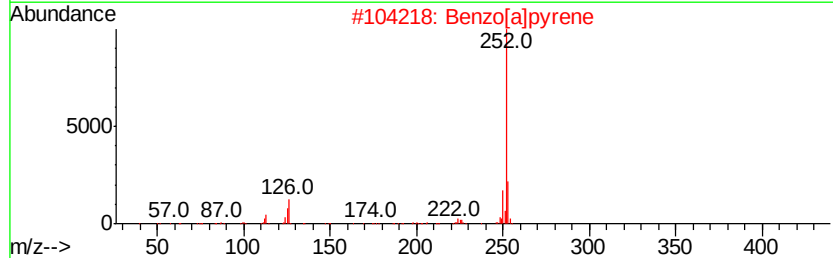
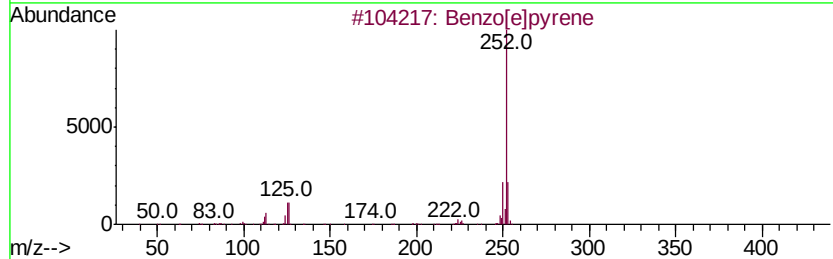
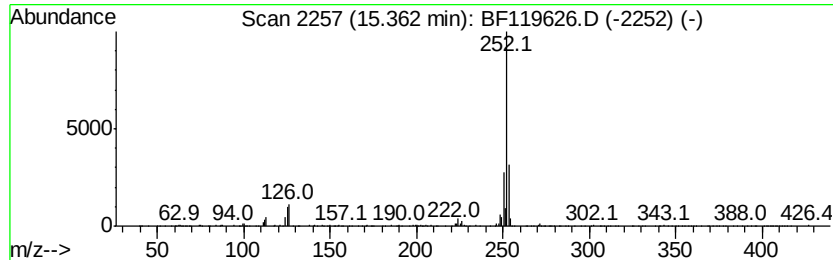
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 19 Benzo[e]pyrene Concentration Rank 2

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 15.36 | 18.31 ng | 1168510 | Perylene-d12     | 15.48 |

| Hit# | of | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[e]pyrene           | 252 | C20H12  | 000192-97-2 | 99   |
| 2    |    | Benzo[a]pyrene           | 252 | C20H12  | 000050-32-8 | 97   |
| 3    |    | Benzo[k]fluoranthene     | 252 | C20H12  | 000207-08-9 | 95   |
| 4    |    | Perylene                 | 252 | C20H12  | 000198-55-0 | 93   |
| 5    |    | Benz[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF032720\  
Data File : BF119626.D  
Acq On : 28 Mar 2020 19:35  
Operator : CG/JU  
Sample : L2052-02  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

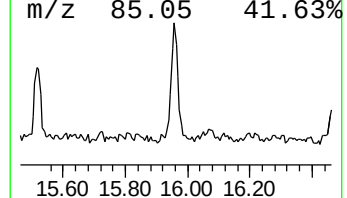
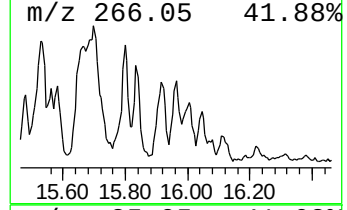
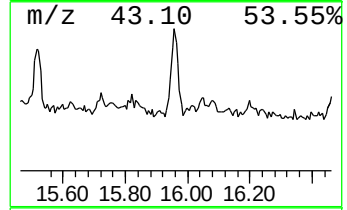
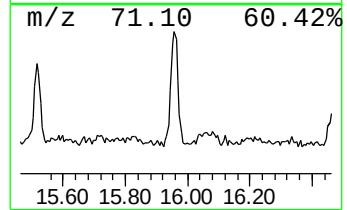
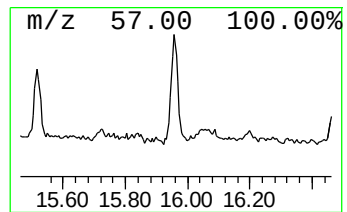
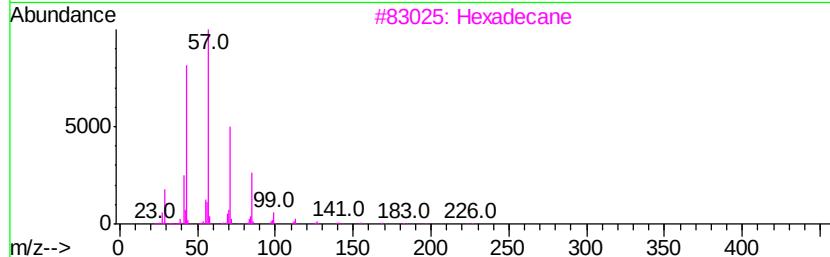
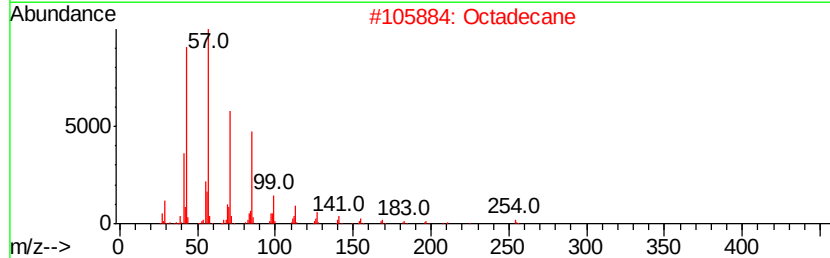
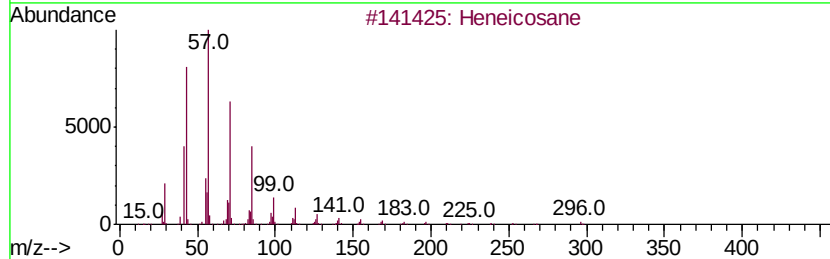
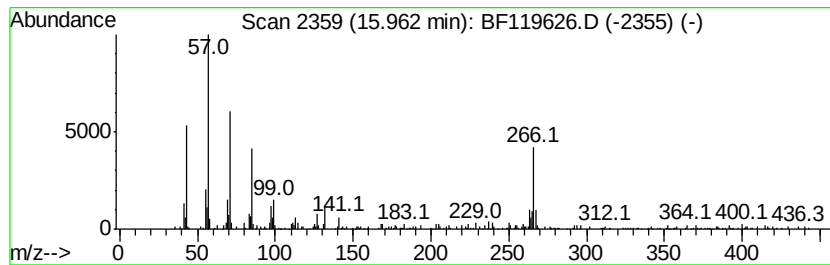
Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF031820.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 20 Heneicosane Concentration Rank 10

| R.T.      | EstConc                           | Area   | Relative to ISTD | R.T.         |      |
|-----------|-----------------------------------|--------|------------------|--------------|------|
| 15.96     | 4.78 ng                           | 305267 | Perylene-d12     | 15.48        |      |
| Hit# of 5 | Tentative ID                      | MW     | MolForm          | CAS#         | Qual |
| 1         | Heneicosane                       | 296    | C21H44           | 000629-94-7  | 89   |
| 2         | Octadecane                        | 254    | C18H38           | 000593-45-3  | 86   |
| 3         | Hexadecane                        | 226    | C16H34           | 000544-76-3  | 60   |
| 4         | Hexacosane                        | 366    | C26H54           | 000630-01-3  | 52   |
| 5         | Sulfurous acid, butyl nonyl ester | 264    | C13H28O3S        | 1000309-17-6 | 49   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF032720\  
 Data File : BF119626.D  
 Acq On : 28 Mar 2020 19:35  
 Operator : CG/JU  
 Sample : L2052-02  
 Misc :  
 ALS Vial : 56 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SOIL-PILE

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF031820.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT 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 |
| Undecane, 5-methyl-  | 10.79 | 8.3     | ng    | 668561   | 4                     | 11.37 | 1619370 | 20.0 |
| Dodecane, 2-methy... | 11.23 | 5.8     | ng    | 470850   | 4                     | 11.37 | 1619370 | 20.0 |
| Dibenzothiophene     | 11.26 | 5.3     | ng    | 427222   | 4                     | 11.37 | 1619370 | 20.0 |
| unknown11.66         | 11.66 | 3.6     | ng    | 295842   | 4                     | 11.37 | 1619370 | 20.0 |
| Anthracene, 2-met... | 11.87 | 4.4     | ng    | 356412   | 4                     | 11.37 | 1619370 | 20.0 |
| 1H-Cyclopropa[l]p... | 11.89 | 12.6    | ng    | 1023800  | 4                     | 11.37 | 1619370 | 20.0 |
| Phenanthrene, 1-m... | 11.95 | 3.2     | ng    | 262014   | 4                     | 11.37 | 1619370 | 20.0 |
| 4H-Cyclopenta[def... | 11.98 | 9.9     | ng    | 798390   | 4                     | 11.37 | 1619370 | 20.0 |
| Anthracene, 1-met... | 12.00 | 2.8     | ng    | 226760   | 4                     | 11.37 | 1619370 | 20.0 |
| Hexadecane, 3-met... | 12.07 | 2.8     | ng    | 222873   | 4                     | 11.37 | 1619370 | 20.0 |
| Naphthalene, 1-ph... | 12.16 | 2.8     | ng    | 224946   | 4                     | 11.37 | 1619370 | 20.0 |
| unknown12.46         | 12.46 | 4.7     | ng    | 378097   | 4                     | 11.37 | 1619370 | 20.0 |
| Octadecanoic acid    | 12.68 | 5.8     | ng    | 469084   | 4                     | 11.37 | 1619370 | 20.0 |
| 11H-Benzo[a]fluorene | 13.14 | 3.6     | ng    | 689244   | 5                     | 14.01 | 3848980 | 20.0 |
| 11H-Benzo[b]fluorene | 13.20 | 3.0     | ng    | 569892   | 5                     | 14.01 | 3848980 | 20.0 |
| trans-2,3-Epoxyde... | 15.13 | 4.9     | ng    | 310429   | 6                     | 15.48 | 1276450 | 20.0 |
| Benzo[e]pyrene       | 15.36 | 18.3    | ng    | 1168510  | 6                     | 15.48 | 1276450 | 20.0 |
| Heneicosane          | 15.96 | 4.8     | ng    | 305267   | 6                     | 15.48 | 1276450 | 20.0 |