

Data Path : Z:\svoasrv\HPCHEM1\BNA F\Data\BF100319\  
 Data File : BF117323.D  
 Acq On : 3 Oct 2019 18:26  
 Operator : JU  
 Sample : K5160-01  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 CSA-3-1

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-BF091319.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         | 2.128       | 3             | 7           | 18           | rVB      | 88455          | 120147        | 6.93%           | 0.860%        |
| 2         | 5.440       | 566           | 570         | 591          | rBV      | 1158061        | 1285321       | 74.19%          | 9.204%        |
| 3         | 6.451       | 738           | 742         | 760          | rBV      | 1179373        | 1517316       | 87.58%          | 10.866%       |
| 4         | 6.581       | 760           | 764         | 776          | rVV      | 1558207        | 1529892       | 88.30%          | 10.956%       |
| 5         | 6.804       | 799           | 802         | 813          | rBV      | 329302         | 313678        | 18.11%          | 2.246%        |
| 6         | 6.963       | 825           | 829         | 844          | rBV      | 1196502        | 1116445       | 64.44%          | 7.995%        |
| 7         | 7.369       | 894           | 898         | 923          | rBV      | 715844         | 929012        | 53.62%          | 6.653%        |
| 8         | 8.086       | 1016          | 1020        | 1036         | rBV      | 320593         | 394873        | 22.79%          | 2.828%        |
| 9         | 9.163       | 1197          | 1203        | 1221         | rBV      | 1677513        | 1732537       | 100.00%         | 12.407%       |
| 10        | 9.557       | 1266          | 1270        | 1281         | rBV      | 99529          | 113483        | 6.55%           | 0.813%        |
| 11        | 9.839       | 1314          | 1318        | 1330         | rBV      | 470545         | 460120        | 26.56%          | 3.295%        |
| 12        | 10.633      | 1448          | 1453        | 1468         | rBV      | 849307         | 991526        | 57.23%          | 7.100%        |
| 13        | 11.327      | 1567          | 1571        | 1580         | rBV      | 383312         | 456742        | 26.36%          | 3.271%        |
| 14        | 11.851      | 1654          | 1660        | 1667         | rBV5     | 35439          | 64832         | 3.74%           | 0.464%        |
| 15        | 12.539      | 1773          | 1777        | 1783         | rBV      | 80245          | 82718         | 4.77%           | 0.592%        |
| 16        | 12.769      | 1810          | 1816        | 1822         | rBV      | 82017          | 94081         | 5.43%           | 0.674%        |
| 17        | 12.910      | 1835          | 1840        | 1843         | rBV      | 1614492        | 1494466       | 86.26%          | 10.702%       |
| 18        | 13.098      | 1865          | 1872        | 1875         | rBV3     | 11973          | 24959         | 1.44%           | 0.179%        |
| 19        | 13.804      | 1985          | 1992        | 1994         | rBV5     | 41525          | 65183         | 3.76%           | 0.467%        |
| 20        | 13.968      | 2015          | 2020        | 2023         | rBV2     | 327698         | 365790        | 21.11%          | 2.619%        |
| 21        | 14.357      | 2081          | 2086        | 2090         | rBV3     | 12526          | 20821         | 1.20%           | 0.149%        |
| 22        | 14.416      | 2090          | 2096        | 2100         | rBV5     | 26636          | 38159         | 2.20%           | 0.273%        |
| 23        | 14.715      | 2142          | 2147        | 2151         | rBV      | 32972          | 38242         | 2.21%           | 0.274%        |
| 24        | 14.792      | 2156          | 2160        | 2166         | rVB2     | 15399          | 19731         | 1.14%           | 0.141%        |
| 25        | 15.004      | 2189          | 2196        | 2199         | rBV      | 49711          | 83267         | 4.81%           | 0.596%        |
| 26        | 15.039      | 2200          | 2202        | 2207         | rVB      | 46217          | 64219         | 3.71%           | 0.460%        |
| 27        | 15.304      | 2243          | 2247        | 2251         | rVB      | 21616          | 28266         | 1.63%           | 0.202%        |
| 28        | 15.363      | 2253          | 2257        | 2261         | rVV      | 35564          | 43716         | 2.52%           | 0.313%        |
| 29        | 15.421      | 2261          | 2267        | 2278         | rVB      | 198028         | 308486        | 17.81%          | 2.209%        |
| 30        | 15.827      | 2332          | 2336        | 2344         | rVB      | 33794          | 51060         | 2.95%           | 0.366%        |
| 31        | 16.321      | 2415          | 2420        | 2426         | rVB4     | 19315          | 32607         | 1.88%           | 0.234%        |
| 32        | 16.880      | 2509          | 2515        | 2524         | rVB4     | 26990          | 49492         | 2.86%           | 0.354%        |
| 33        | 17.315      | 2584          | 2589        | 2598         | rVB3     | 14132          | 33031         | 1.91%           | 0.237%        |

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ALS Vial : 9 Sample Multiplier: 1

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ClientSampleId :  
CSA-3-1

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:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF091319.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

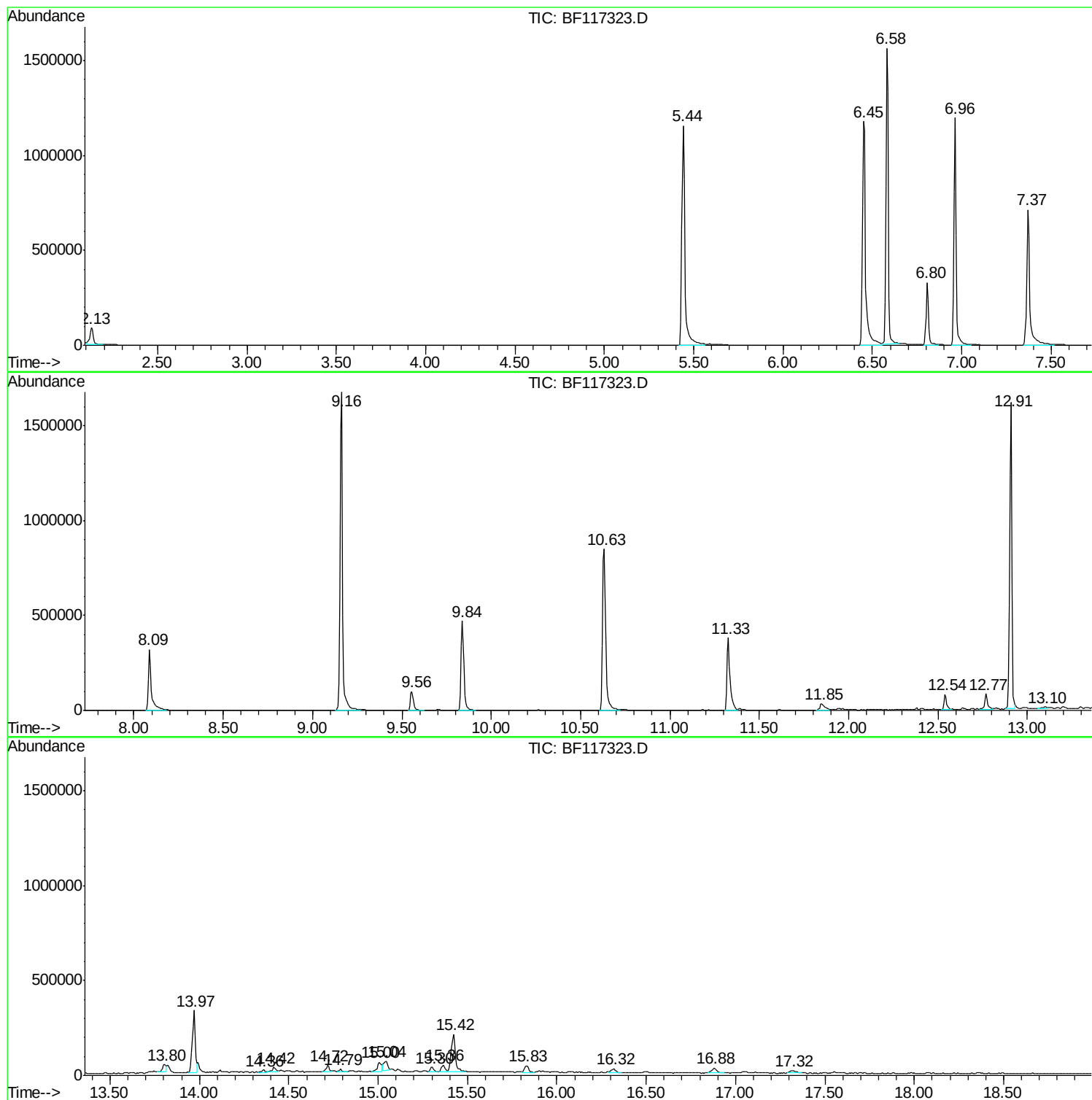
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



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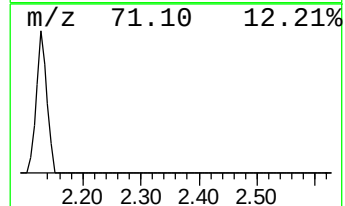
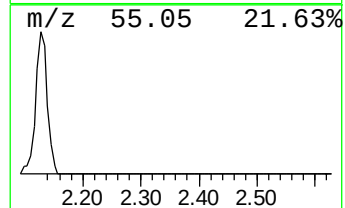
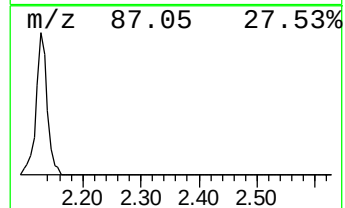
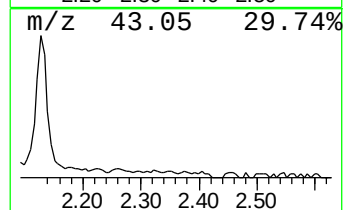
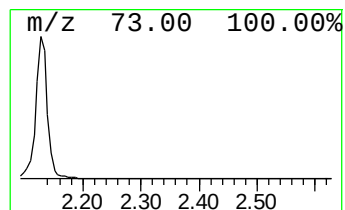
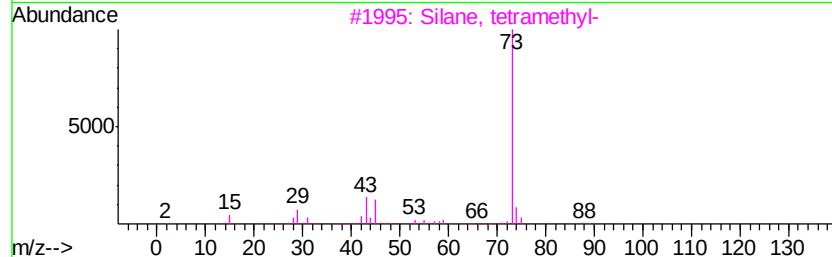
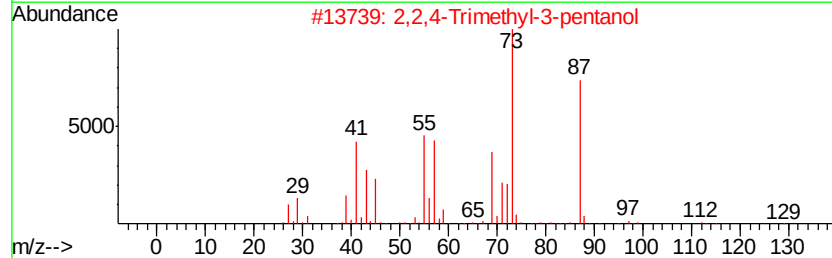
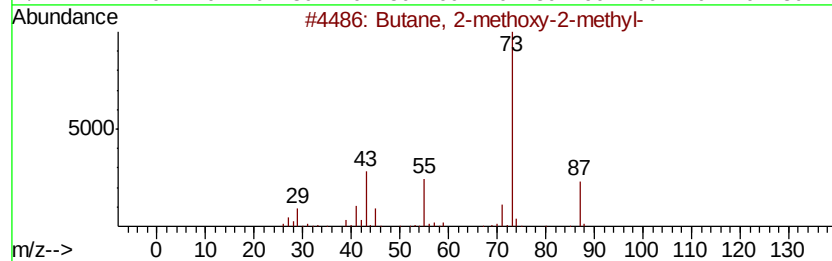
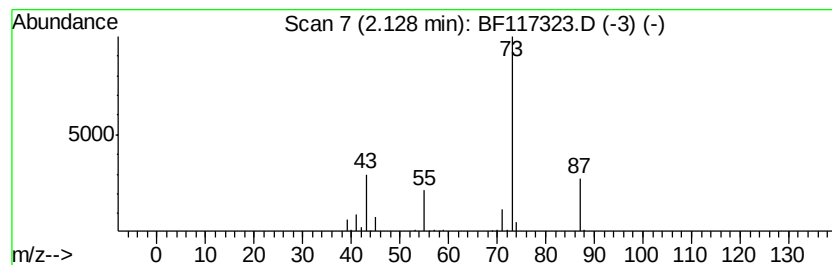
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 3

| R.T. | EstConc | Area   | Relative to ISTD       | R.T. |
|------|---------|--------|------------------------|------|
| 2.13 | 7.66 ng | 120147 | 1,4-Dichlorobenzene-d4 | 6.80 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#         | Qual |
|------|----|-------------------------------------|-----|---------|--------------|------|
| 1    | 5  | Butane, 2-methoxy-2-methyl-         | 102 | C6H14O  | 000994-05-8  | 90   |
| 2    |    | 2,2,4-Trimethyl-3-pentanol          | 130 | C8H18O  | 005162-48-1  | 43   |
| 3    |    | Silane, tetramethyl-                | 88  | C4H12Si | 000075-76-3  | 32   |
| 4    |    | 1-(2-Methoxyethoxy)-2-methyl-2-p... | 162 | C8H18O3 | 1000364-24-4 | 23   |
| 5    |    | Pentane, 3-methoxy-                 | 102 | C6H14O  | 036839-67-5  | 23   |



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Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

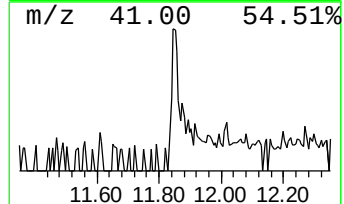
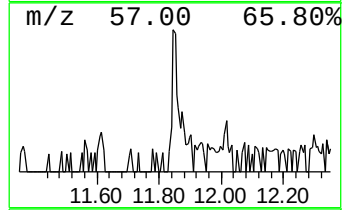
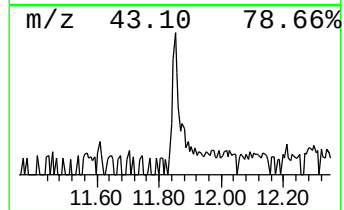
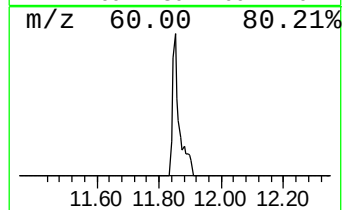
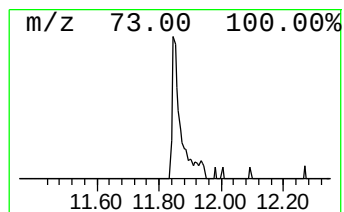
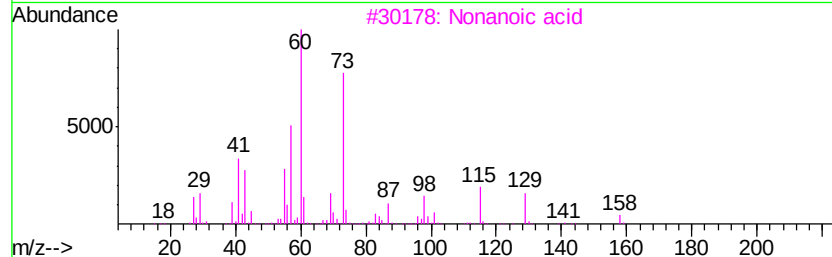
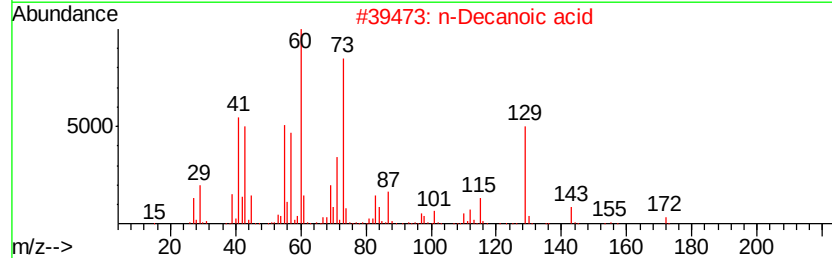
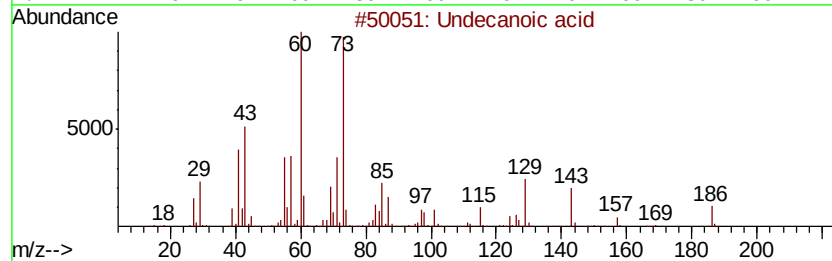
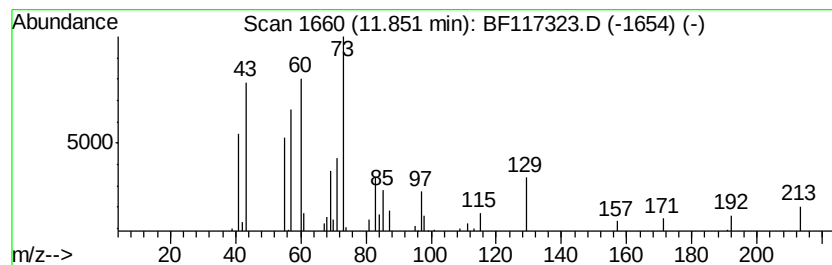
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 4 Undecanoic acid Concentration Rank 6

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 11.85 | 2.84 ng | 64832 | Phenanthrene-d10 | 11.33 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#         | Qual |
|------|----|-------------------------------------|-----|----------|--------------|------|
| 1    | 5  | Undecanoic acid                     | 186 | C11H22O2 | 000112-37-8  | 59   |
| 2    |    | n-Decanoic acid                     | 172 | C10H20O2 | 000334-48-5  | 50   |
| 3    |    | Nonanoic acid                       | 158 | C9H18O2  | 000112-05-0  | 27   |
| 4    |    | Sedoheptulosan                      | 192 | C7H12O6  | 000469-90-9  | 27   |
| 5    |    | Oxalic acid, cyclobutyl tridecyl... | 326 | C19H34O4 | 1000309-70-4 | 14   |



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ALS Vial : 9 Sample Multiplier: 1

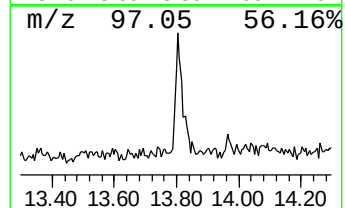
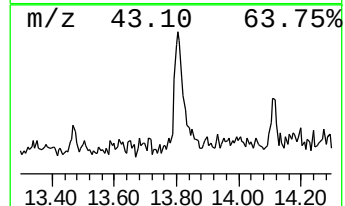
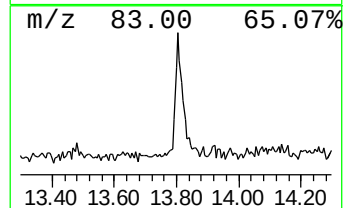
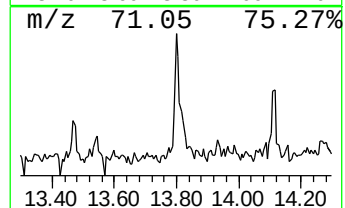
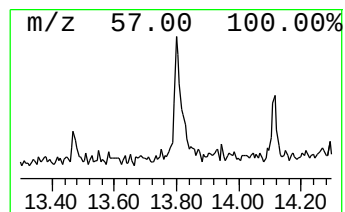
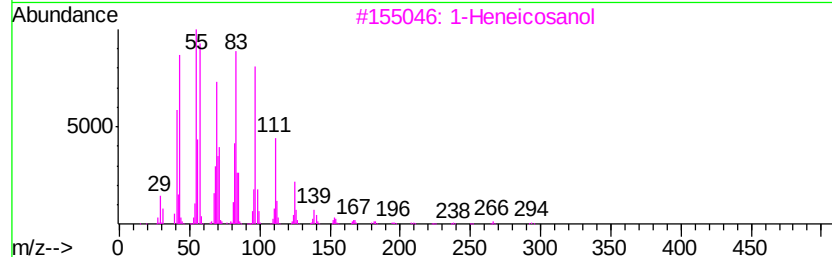
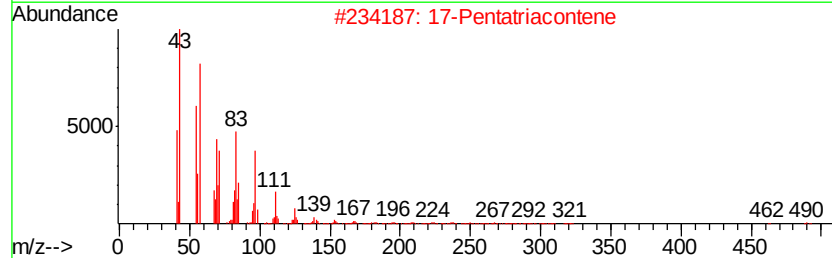
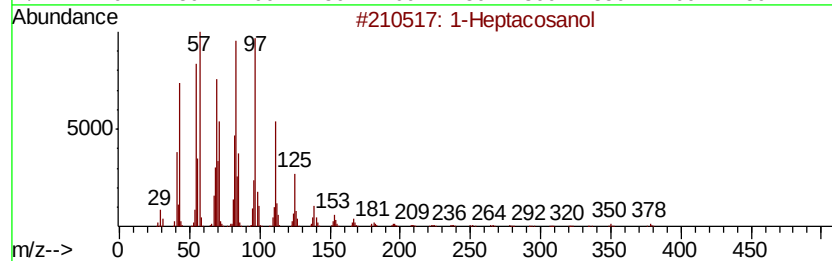
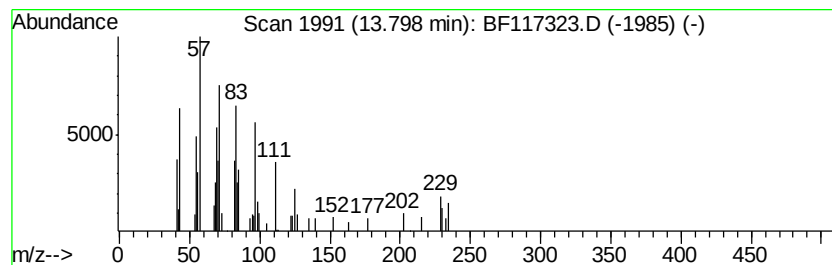
Instrument :  
BNA\_F  
ClientSampleId :  
CSA-3-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.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 1-Heptacosanol Concentration Rank 4

| R.T.      | EstConc             | Area  | Relative to ISTD |             | R.T.  |
|-----------|---------------------|-------|------------------|-------------|-------|
| 13.80     | 3.56 ng             | 65183 | Chrysene-d12     |             | 13.97 |
| Hit# of 5 | Tentative ID        | MW    | MolForm          | CAS#        | Qual  |
| 1         | 1-Heptacosanol      | 396   | C27H56O          | 002004-39-9 | 93    |
| 2         | 17-Pentatriacontene | 491   | C35H70           | 006971-40-0 | 91    |
| 3         | 1-Heneicosanol      | 312   | C21H44O          | 015594-90-8 | 90    |
| 4         | Behenic alcohol     | 326   | C22H46O          | 000661-19-8 | 90    |
| 5         | n-Tetracosanol-1    | 354   | C24H50O          | 000506-51-4 | 90    |



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Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

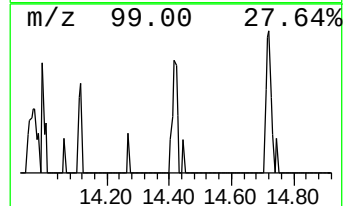
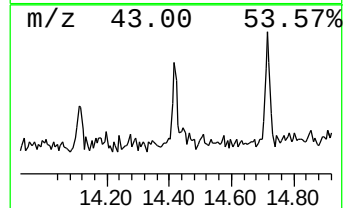
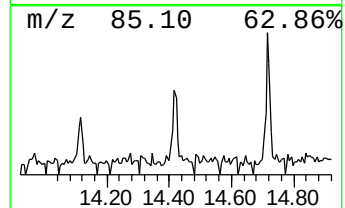
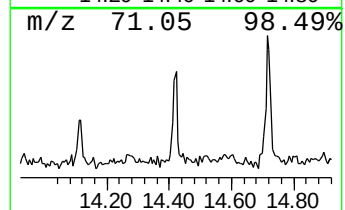
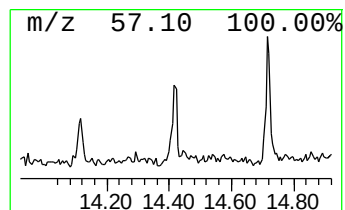
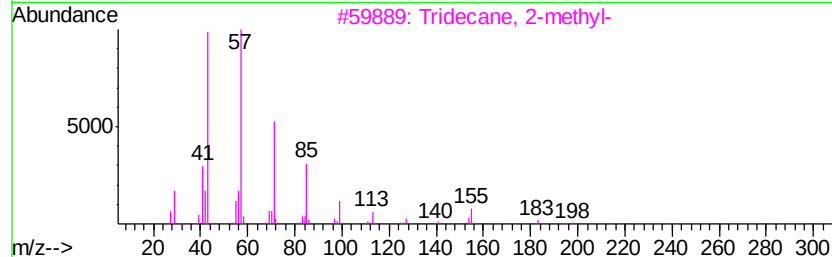
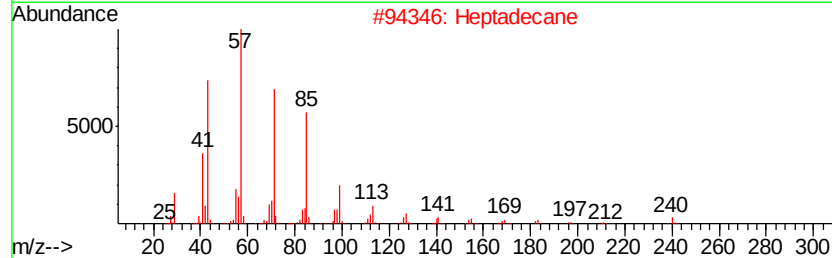
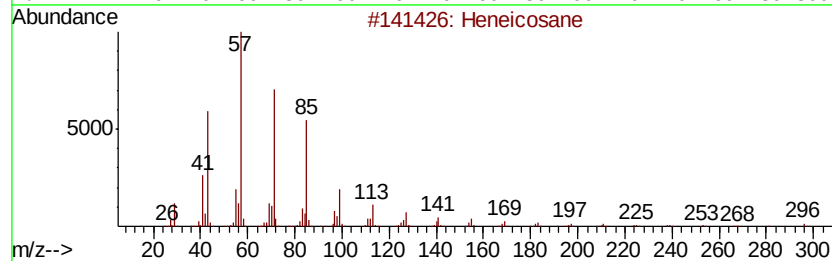
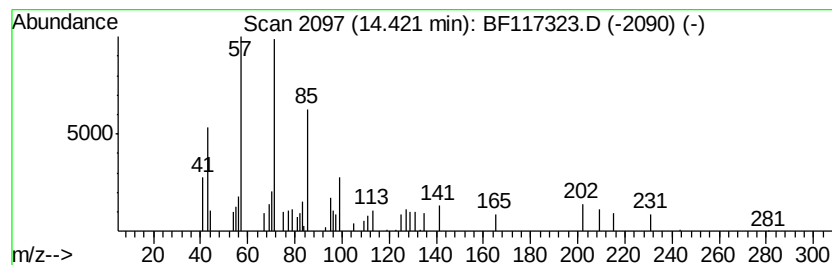
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 6 Heneicosane Concentration Rank 9

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 14.42 | 2.09 ng | 38159 | Chrysene-d12     | 13.97 |

| Hit# of | 5                    | Tentative ID | MW  | MolForm | CAS#         | Qual |
|---------|----------------------|--------------|-----|---------|--------------|------|
| 1       | Heneicosane          |              | 296 | C21H44  | 000629-94-7  | 52   |
| 2       | Heptadecane          |              | 240 | C17H36  | 000629-78-7  | 50   |
| 3       | Tridecane, 2-methyl- |              | 198 | C14H30  | 001560-96-9  | 50   |
| 4       | 2-methyltetracosane  |              | 352 | C25H52  | 1000376-72-6 | 49   |
| 5       | Eicosane, 10-methyl- |              | 296 | C21H44  | 054833-23-7  | 47   |



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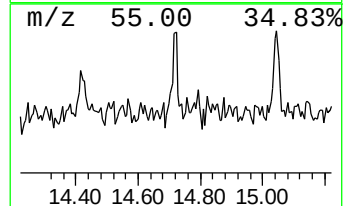
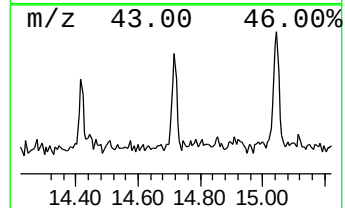
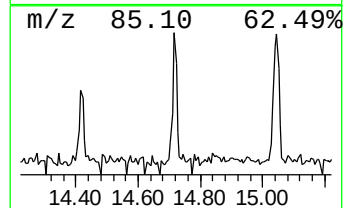
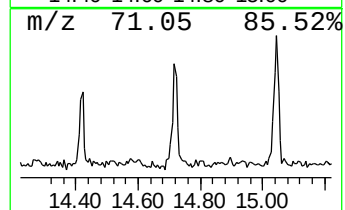
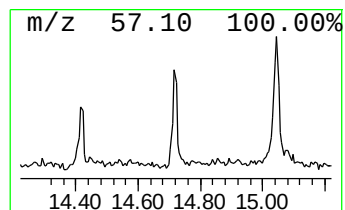
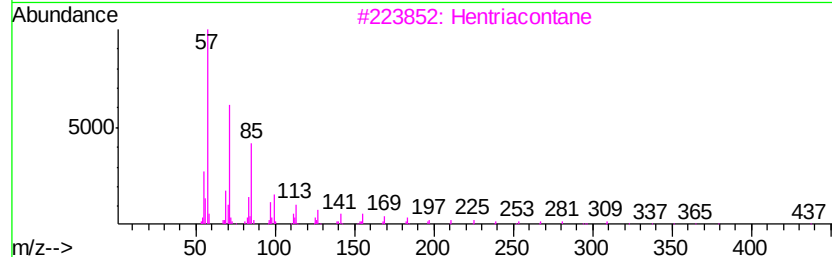
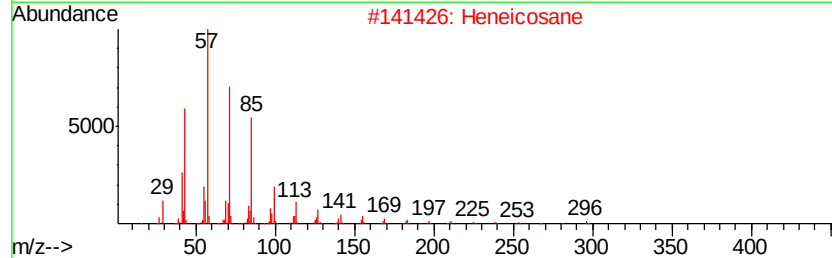
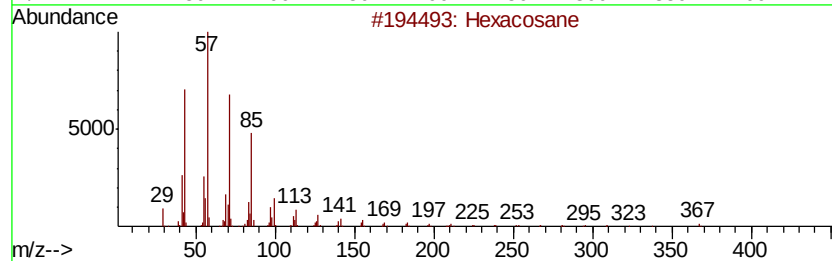
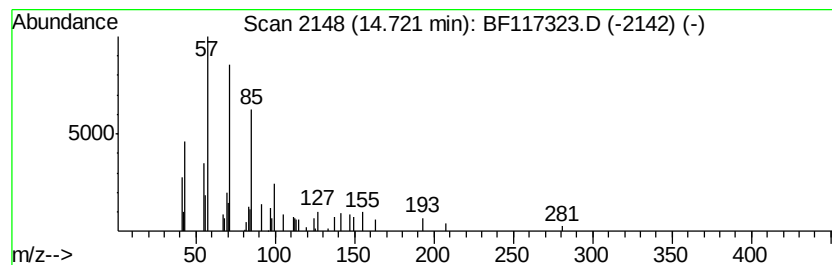
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Hexacosane Concentration Rank 7

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 14.72 | 2.48 ng | 38242 | Perylene-d12     | 15.42 |

| Hit# | of | Tentative ID           | MW  | MolForm | CAS#         | Qual |
|------|----|------------------------|-----|---------|--------------|------|
| 1    | 5  | Hexacosane             | 366 | C26H54  | 000630-01-3  | 87   |
| 2    |    | Heneicosane            | 296 | C21H44  | 000629-94-7  | 87   |
| 3    |    | Hentriacontane         | 437 | C31H64  | 000630-04-6  | 86   |
| 4    |    | Heptadecane, 8-methyl- | 254 | C18H38  | 013287-23-5  | 86   |
| 5    |    | 2-methyloctacosane     | 408 | C29H60  | 1000376-72-8 | 86   |





Data Path : Z:\svoasrv\HPCHEM1\BNA F\Data\BF100319\  
Data File : BF117323.D  
Acq On : 3 Oct 2019 18:26  
Operator : JU  
Sample : K5160-01  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
CSA-3-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

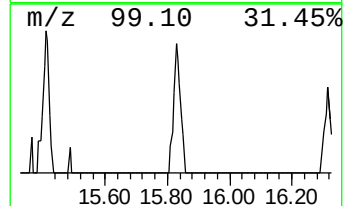
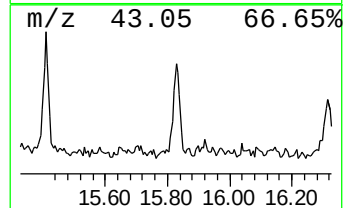
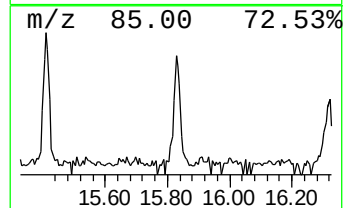
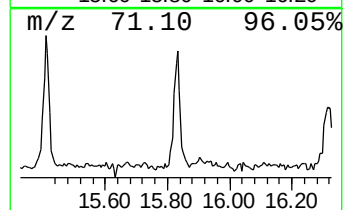
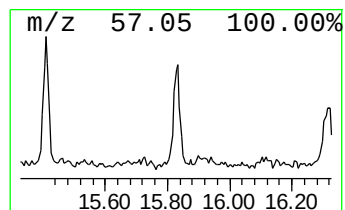
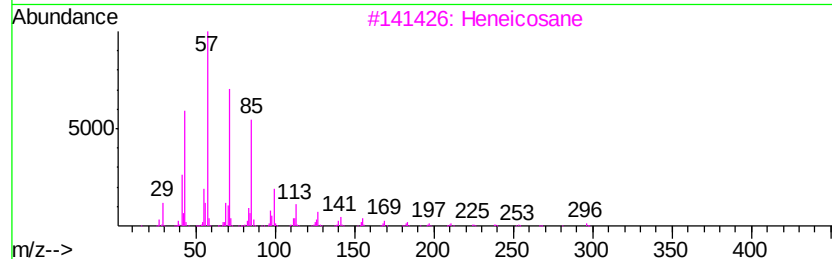
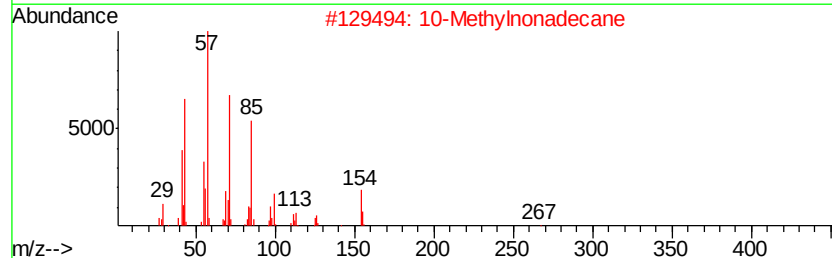
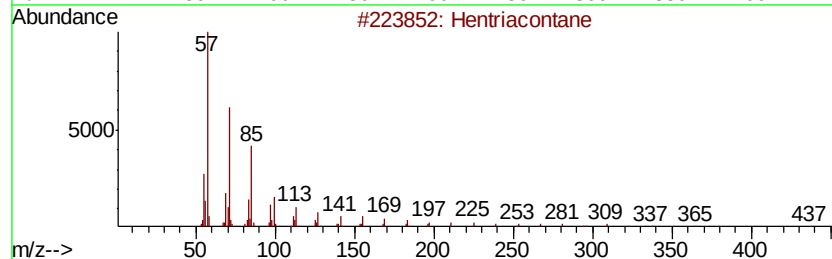
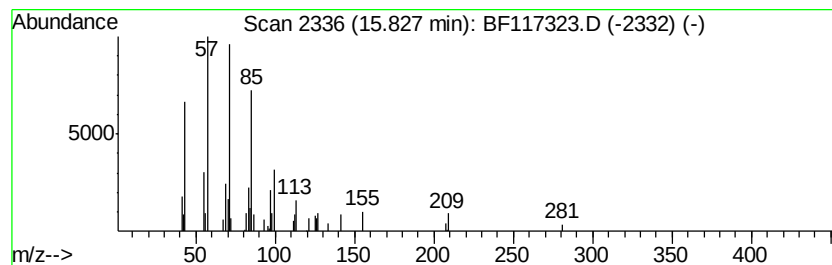
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 8 Hentriacontane Concentration Rank 5

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 15.83 | 3.31 ng | 51060 | Perylene-d12     | 15.42 |

| Hit# of | 5 | Tentative ID        | MW  | MolForm | CAS#        | Qual |
|---------|---|---------------------|-----|---------|-------------|------|
| 1       |   | Hentriacontane      | 437 | C31H64  | 000630-04-6 | 90   |
| 2       |   | 10-Methylnonadecane | 282 | C20H42  | 056862-62-5 | 80   |
| 3       |   | Heneicosane         | 296 | C21H44  | 000629-94-7 | 80   |
| 4       |   | Heptacosane         | 380 | C27H56  | 000593-49-7 | 80   |
| 5       |   | Hexacosane          | 366 | C26H54  | 000630-01-3 | 80   |



Data Path : Z:\svoasrv\HPCHEM1\BNA F\Data\BF100319\  
Data File : BF117323.D  
Acq On : 3 Oct 2019 18:26  
Operator : JU  
Sample : K5160-01  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

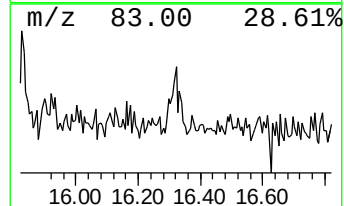
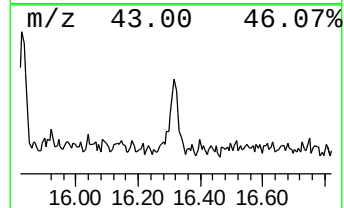
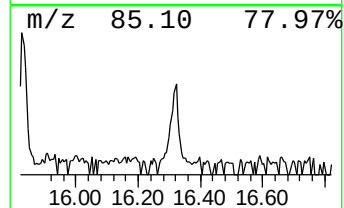
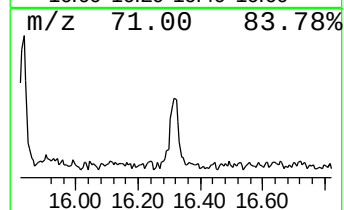
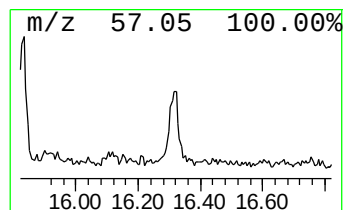
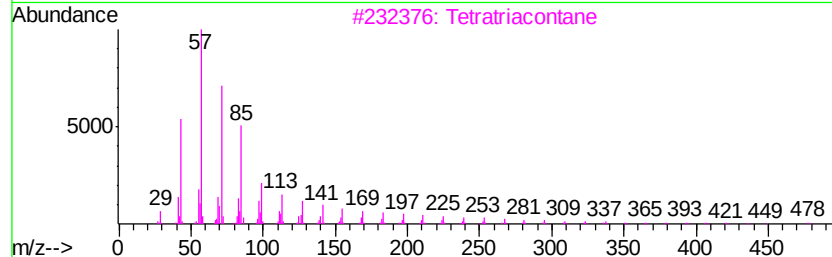
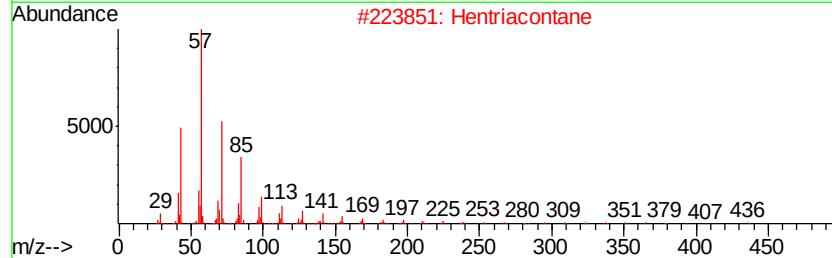
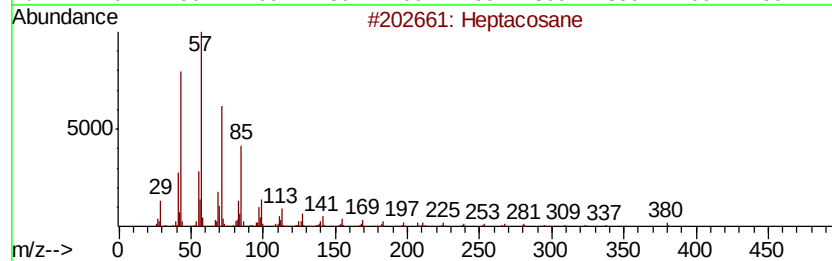
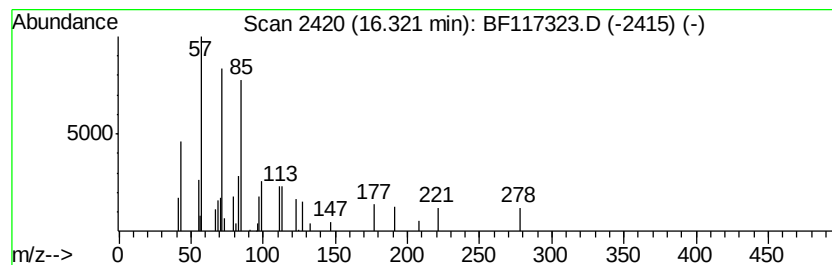
Instrument :  
BNA\_F  
ClientSampleId :  
CSA-3-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.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 Heptacosane Concentration Rank 8

| R.T.    | EstConc          | Area         | Relative to ISTD | R.T.      |
|---------|------------------|--------------|------------------|-----------|
| 16.32   | 2.11 ng          | 32607        | Perylene-d12     | 15.42     |
| Hit# of | 5                | Tentative ID | MW MolForm       | CAS# Qual |
| 1       | Heptacosane      | 380 C27H56   | 000593-49-7      | 64        |
| 2       | Hentriacontane   | 437 C31H64   | 000630-04-6      | 64        |
| 3       | Tetratriacontane | 479 C34H70   | 014167-59-0      | 59        |
| 4       | Tetracontane     | 563 C40H82   | 004181-95-7      | 59        |
| 5       | triacontane      | 422 C30H62   | 000638-68-6      | 59        |



Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF100319\  
Data File : BF117323.D  
Acq On : 3 Oct 2019 18:26  
Operator : JU  
Sample : K5160-01  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
CSA-3-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF091319.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 |
| Butane, 2-methoxy... | 2.13  | 7.7     | ng    | 120147   | 1                     | 6.80  | 313678 | 20.0 |
| Undecanoic acid      | 11.85 | 2.8     | ng    | 64832    | 4                     | 11.33 | 456742 | 20.0 |
| 1-Heptacosanol       | 13.80 | 3.6     | ng    | 65183    | 5                     | 13.97 | 365790 | 20.0 |
| Heneicosane          | 14.42 | 2.1     | ng    | 38159    | 5                     | 13.97 | 365790 | 20.0 |
| Hexacosane           | 14.72 | 2.5     | ng    | 38242    | 6                     | 15.42 | 308486 | 20.0 |
| Hentriacontane       | 15.83 | 3.3     | ng    | 51060    | 6                     | 15.42 | 308486 | 20.0 |
| Heptacosane          | 16.32 | 2.1     | ng    | 32607    | 6                     | 15.42 | 308486 | 20.0 |