

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF081517\  
 Data File : BF097695.D  
 Acq On : 15 Aug 2017 17:09  
 Operator : SJ/JU  
 Sample : I4768-01  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 W-137TH-SLUDGE-52

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

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

Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF081517.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         | 4.987       | 486           | 493         | 500          | rBV      | 210143         | 272901        | 7.97%           | 0.910%        |
| 2         | 5.387       | 556           | 561         | 564          | rBV      | 2883842        | 3168096       | 92.51%          | 10.560%       |
| 3         | 6.410       | 729           | 735         | 744          | rBV      | 3146317        | 3424653       | 100.00%         | 11.415%       |
| 4         | 6.551       | 754           | 759         | 762          | rBV      | 3174136        | 3146405       | 91.88%          | 10.487%       |
| 5         | 6.781       | 794           | 798         | 802          | rBV      | 1105027        | 857503        | 25.04%          | 2.858%        |
| 6         | 6.939       | 821           | 825         | 828          | rVB      | 2579504        | 2189726       | 63.94%          | 7.299%        |
| 7         | 7.345       | 889           | 894         | 897          | rBV      | 2111174        | 1977225       | 57.74%          | 6.590%        |
| 8         | 8.063       | 1012          | 1016        | 1020         | rBV      | 1389772        | 1168023       | 34.11%          | 3.893%        |
| 9         | 9.145       | 1195          | 1200        | 1203         | rBV      | 3075495        | 2878637       | 84.06%          | 9.595%        |
| 10        | 9.533       | 1262          | 1266        | 1269         | rBV      | 402911         | 319137        | 9.32%           | 1.064%        |
| 11        | 9.816       | 1310          | 1314        | 1318         | rBV      | 1332814        | 1258362       | 36.74%          | 4.194%        |
| 12        | 10.104      | 1360          | 1363        | 1369         | rVB      | 78062          | 76438         | 2.23%           | 0.255%        |
| 13        | 10.604      | 1443          | 1448        | 1451         | rBV      | 2184429        | 2071778       | 60.50%          | 6.905%        |
| 14        | 10.733      | 1467          | 1470        | 1478         | rBV      | 48152          | 72586         | 2.12%           | 0.242%        |
| 15        | 11.298      | 1562          | 1566        | 1569         | rBV      | 1576588        | 1347826       | 39.36%          | 4.492%        |
| 16        | 11.369      | 1573          | 1578        | 1581         | rBV4     | 37917          | 42370         | 1.24%           | 0.141%        |
| 17        | 11.610      | 1616          | 1619        | 1625         | rBV4     | 21237          | 41080         | 1.20%           | 0.137%        |
| 18        | 11.833      | 1653          | 1657        | 1661         | rBV      | 173889         | 179040        | 5.23%           | 0.597%        |
| 19        | 12.510      | 1769          | 1772        | 1776         | rBV2     | 35228          | 45580         | 1.33%           | 0.152%        |
| 20        | 12.621      | 1788          | 1791        | 1797         | rBV      | 108364         | 121366        | 3.54%           | 0.405%        |
| 21        | 12.886      | 1832          | 1836        | 1840         | rBV      | 2574421        | 2632225       | 76.86%          | 8.773%        |
| 22        | 13.792      | 1987          | 1990        | 1994         | rBV      | 101945         | 106095        | 3.10%           | 0.354%        |
| 23        | 13.933      | 2010          | 2014        | 2017         | rBV      | 1330614        | 1199686       | 35.03%          | 3.999%        |
| 24        | 14.574      | 2121          | 2123        | 2136         | rVB4     | 91385          | 193599        | 5.65%           | 0.645%        |
| 25        | 15.362      | 2252          | 2257        | 2262         | rVB      | 633218         | 786749        | 22.97%          | 2.622%        |
| 26        | 15.421      | 2265          | 2267        | 2273         | rVB2     | 92158          | 112305        | 3.28%           | 0.374%        |
| 27        | 15.845      | 2336          | 2339        | 2345         | rVB      | 105317         | 156369        | 4.57%           | 0.521%        |
| 28        | 16.333      | 2419          | 2422        | 2429         | rVB      | 91250          | 156392        | 4.57%           | 0.521%        |

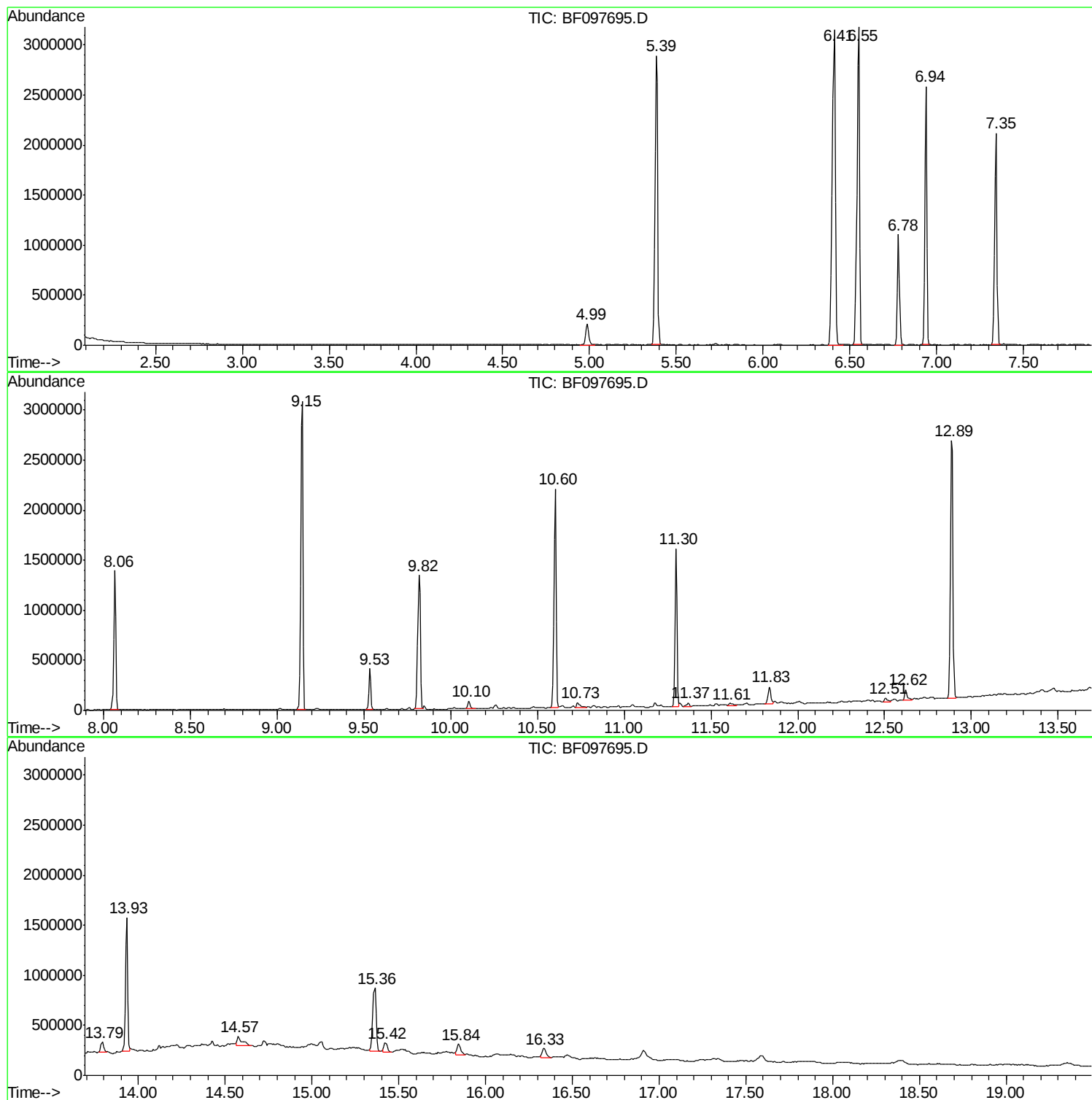
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Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF081517.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



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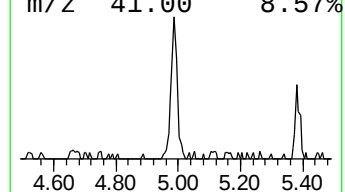
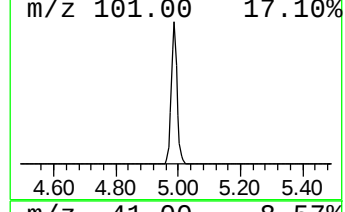
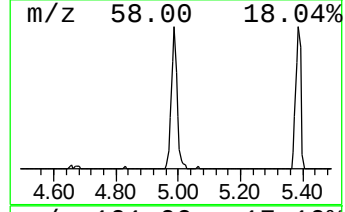
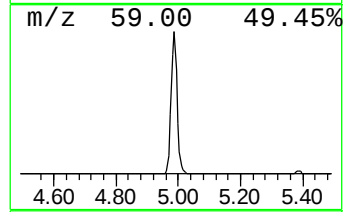
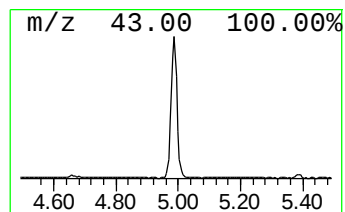
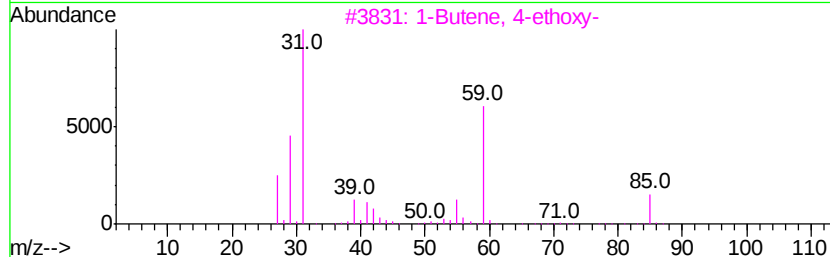
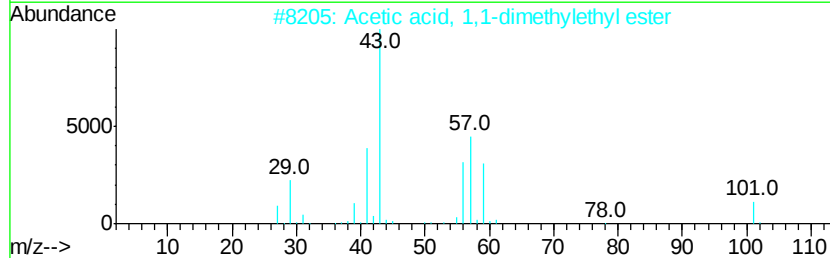
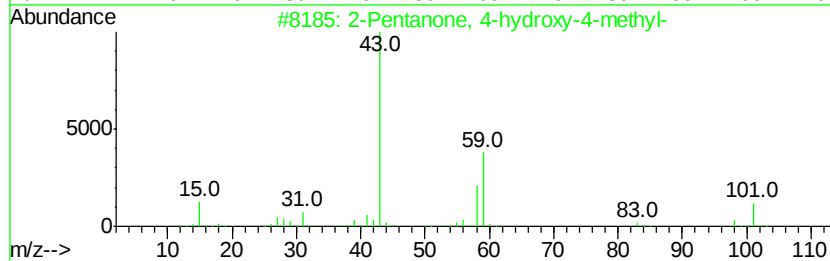
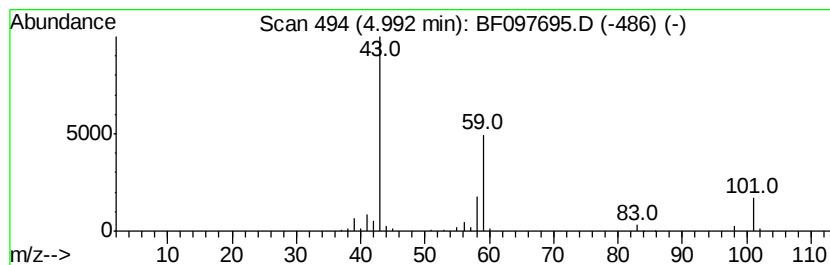
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 1 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 3

| R.T. | EstConc | Area   | Relative to ISTD       | R.T. |
|------|---------|--------|------------------------|------|
| 4.99 | 6.37 ng | 272901 | 1,4-Dichlorobenzene-d4 | 6.78 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|---------|-------------|------|
| 1    |    |   | 2-Pentanone, 4-hydroxy-4-methyl-    | 116 | C6H12O2 | 000123-42-2 | 64   |
| 2    |    |   | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 25   |
| 3    |    |   | 1-Butene, 4-ethoxy-                 | 100 | C6H12O  | 044611-46-3 | 17   |
| 4    |    |   | Acetone                             | 58  | C3H6O   | 000067-64-1 | 16   |
| 5    |    |   | 1-Propen-2-ol, acetate              | 100 | C5H8O2  | 000108-22-5 | 12   |



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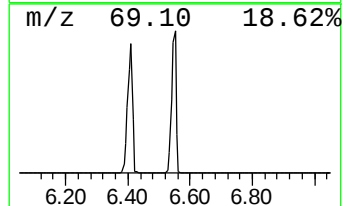
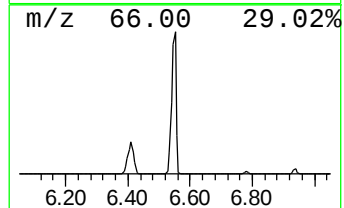
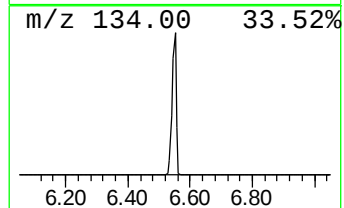
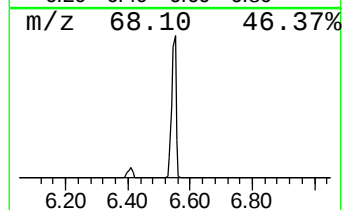
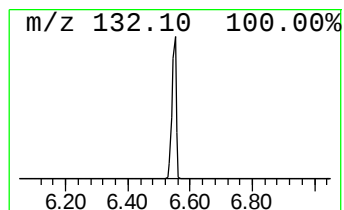
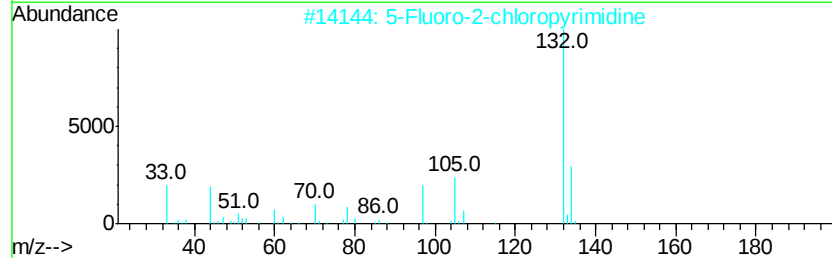
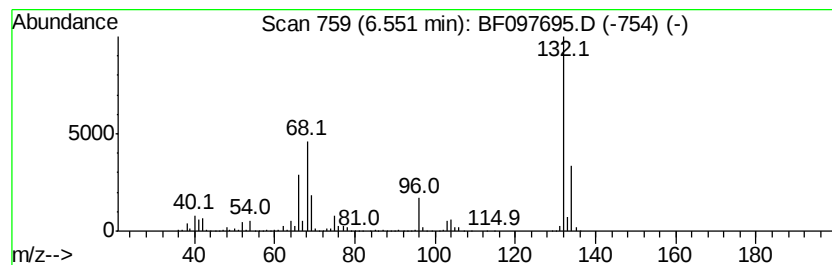
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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Peak Number 2 unknown6.55 Concentration Rank 1

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 6.55 | 73.39 ng | 3146410 | 1,4-Dichlorobenzene-d4 | 6.78 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine          | 132 | C4H2ClFN2 | 1000146-10-7 | 35   |
| 2    |    | 5-Fluoro-2-chloropyrimidine         | 132 | C4H2ClFN2 | 062802-42-0  | 16   |
| 3    |    | Tranvlcypropine-propionyl           | 189 | C12H15NO  | 1000123-86-3 | 10   |
| 4    |    | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12    | 028749-81-7  | 9    |
| 5    |    | 2H-Cyclopenta[d]pyridazine, 2-me... | 132 | C8H8N2    | 022291-85-6  | 9    |



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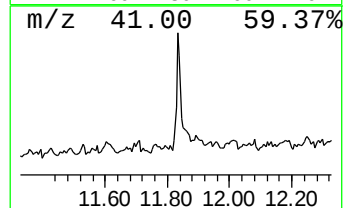
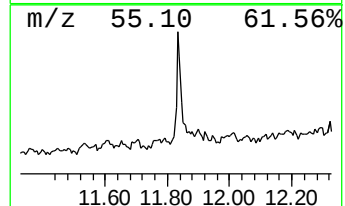
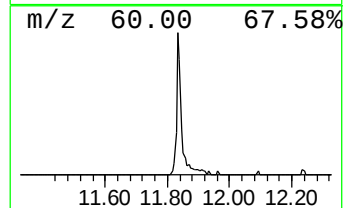
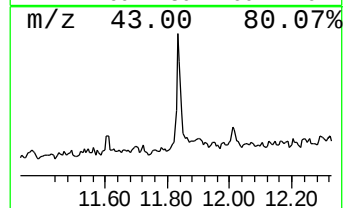
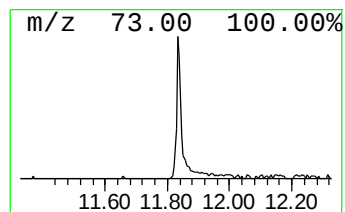
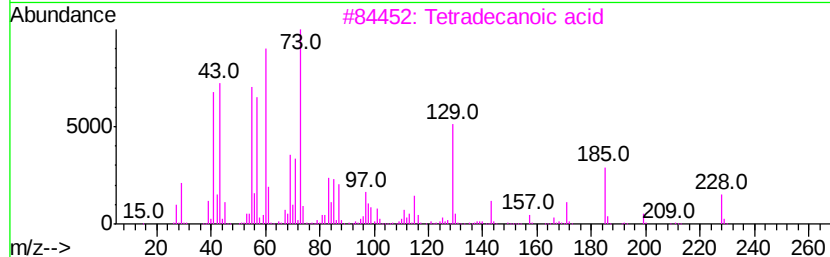
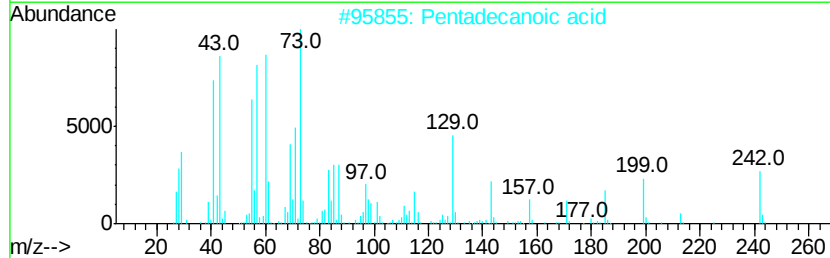
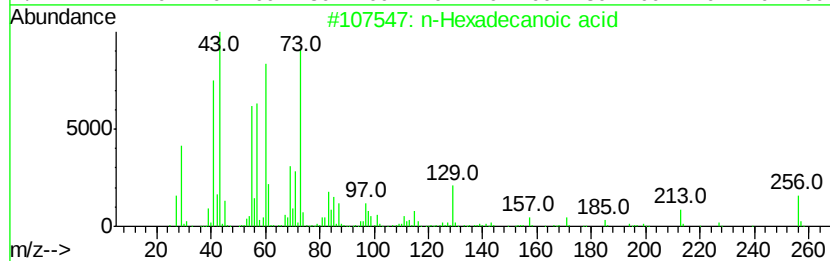
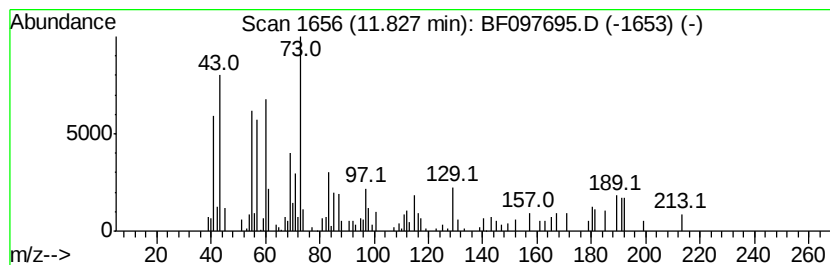
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 4 n-Hexadecanoic acid Concentration Rank 8

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.83 | 2.66 ng | 179040 | Phenanthrene-d10 | 11.30 |

| Hit# of | 5 | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|---------|---|-------------------------------------|-----|-----------|--------------|------|
| 1       |   | n-Hexadecanoic acid                 | 256 | C16H32O2  | 000057-10-3  | 90   |
| 2       |   | Pentadecanoic acid                  | 242 | C15H30O2  | 001002-84-2  | 80   |
| 3       |   | Tetradecanoic acid                  | 228 | C14H28O2  | 000544-63-8  | 80   |
| 4       |   | Sulfurous acid, octadecyl 2-prop... | 376 | C21H44O3S | 1000309-12-7 | 18   |
| 5       |   | Oxalic acid, allyl pentadecyl ester | 340 | C20H36O4  | 1000309-24-3 | 18   |



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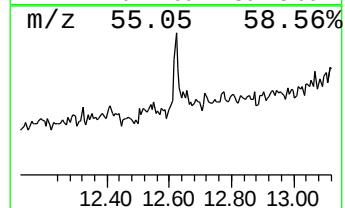
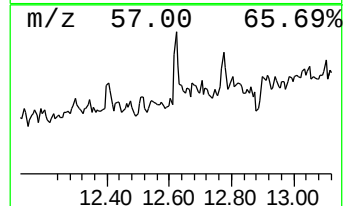
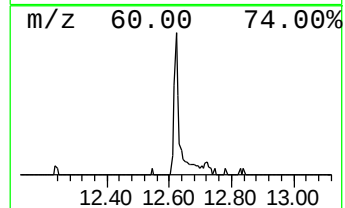
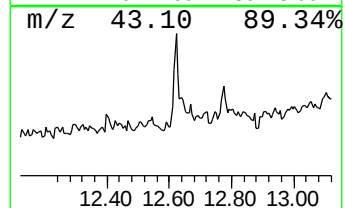
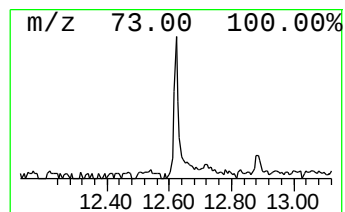
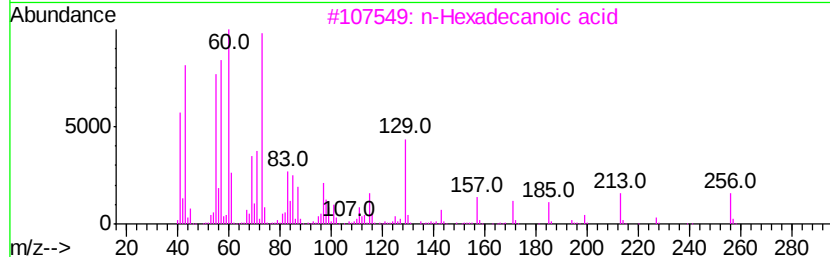
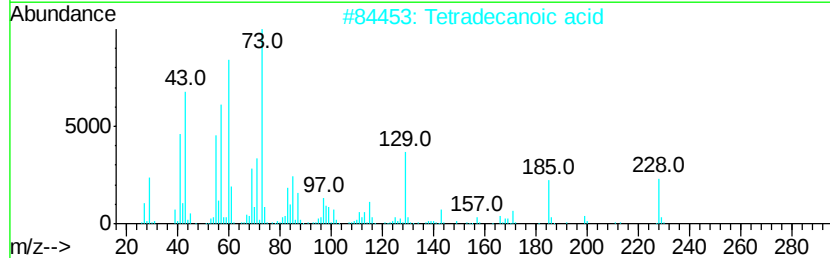
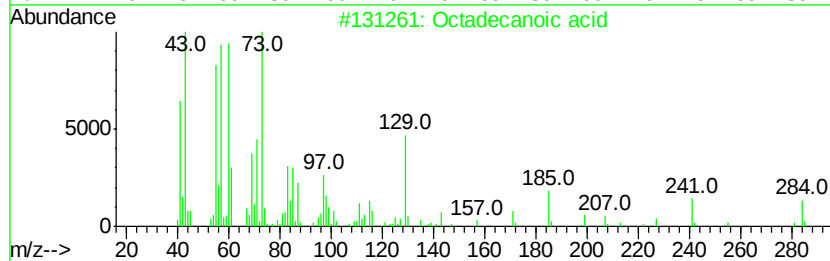
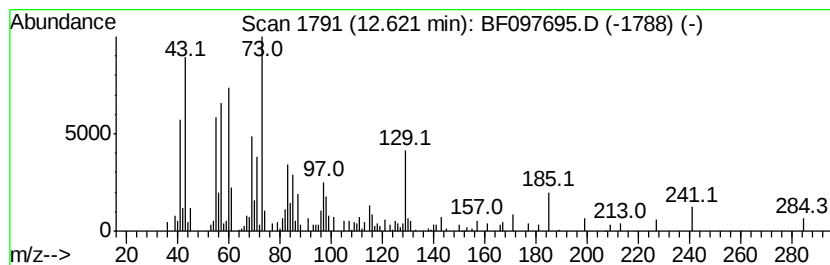
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 5 Octadecanoic acid Concentration Rank 9

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.62 | 2.02 ng | 121366 | Chrysene-d12     | 13.93 |

| Hit# of | 5 | Tentative ID        | MW  | MolForm   | CAS#        | Qual |
|---------|---|---------------------|-----|-----------|-------------|------|
| 1       |   | Octadecanoic acid   | 284 | C18H36O2  | 000057-11-4 | 91   |
| 2       |   | Tetradecanoic acid  | 228 | C14H28O2  | 000544-63-8 | 91   |
| 3       |   | n-Hexadecanoic acid | 256 | C16H32O2  | 000057-10-3 | 83   |
| 4       |   | n-Decanoic acid     | 172 | C10H20O2  | 000334-48-5 | 59   |
| 5       |   | Trehalose           | 342 | C12H22O11 | 000099-20-7 | 50   |



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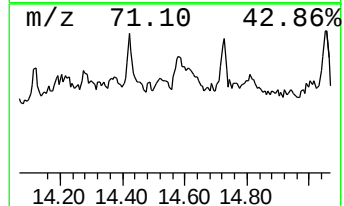
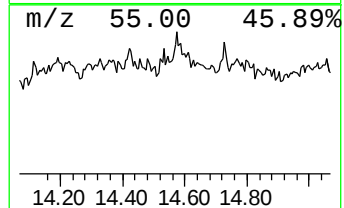
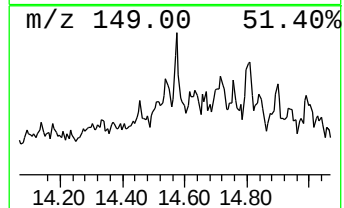
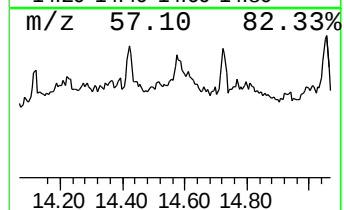
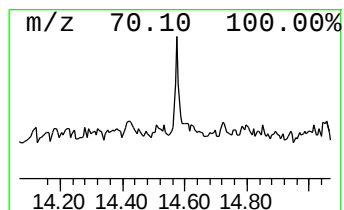
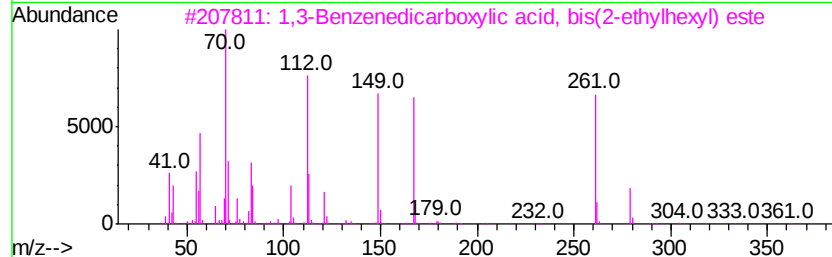
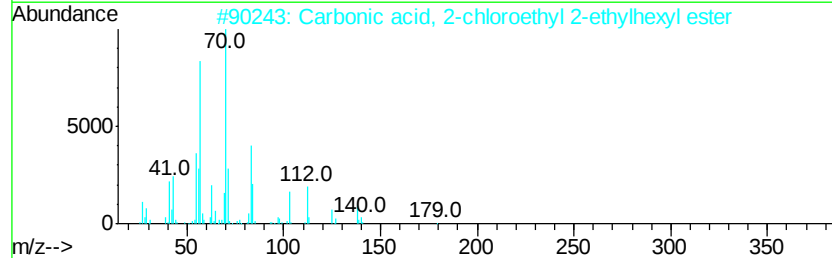
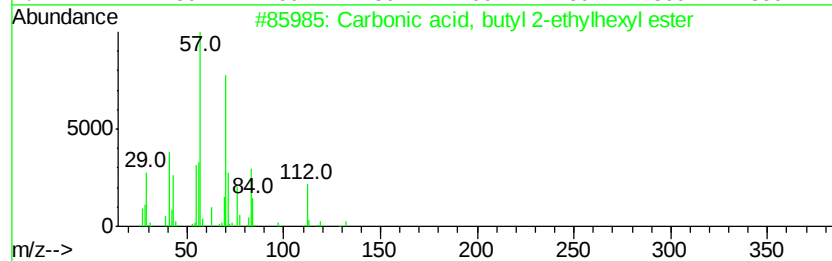
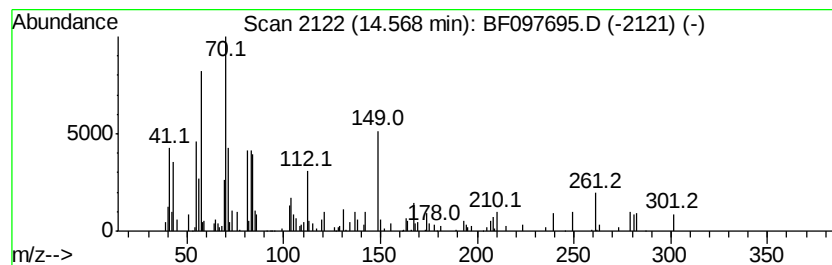
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Peak Number 6 Carbonic acid, butyl 2-ethy... Concentration Rank 6

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.57 | 3.23 ng | 193599 | Chrysene-d12     | 13.93 |

| Hit# | of | Tentative ID                         | MW  | MolForm     | CAS#         | Qual |
|------|----|--------------------------------------|-----|-------------|--------------|------|
| 1    | 5  | Carbonic acid, butyl 2-ethylhexyl... | 230 | C13H26O3    | 1000357-84-4 | 50   |
| 2    |    | Carbonic acid, 2-chloroethyl 2-e...  | 236 | C11H21ClO3  | 1000357-88-2 | 47   |
| 3    |    | 1,3-Benzenedicarboxylic acid, bi...  | 390 | C24H38O4    | 000137-89-3  | 45   |
| 4    |    | Carbonic acid, allyl 2-ethylhexyl... | 214 | C12H22O3    | 1000357-80-6 | 40   |
| 5    |    | Carbonic acid, 2,2,2-trichloroet...  | 304 | C11H19Cl3O3 | 1000357-89-7 | 38   |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF081517\  
Data File : BF097695.D  
Acq On : 15 Aug 2017 17:09  
Operator : SJ/JU  
Sample : I4768-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

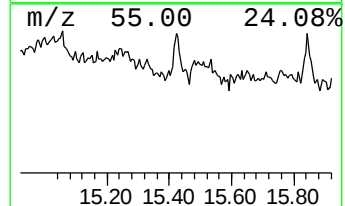
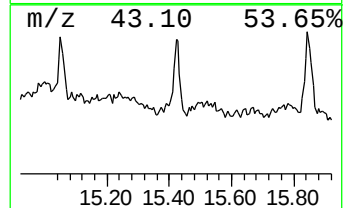
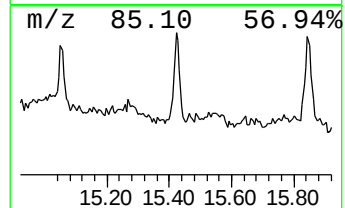
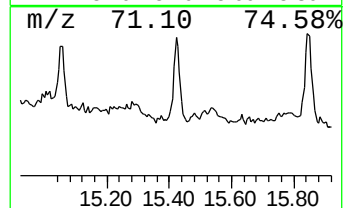
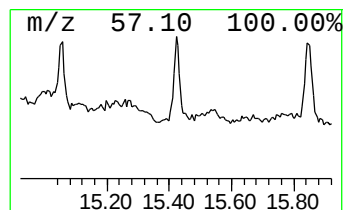
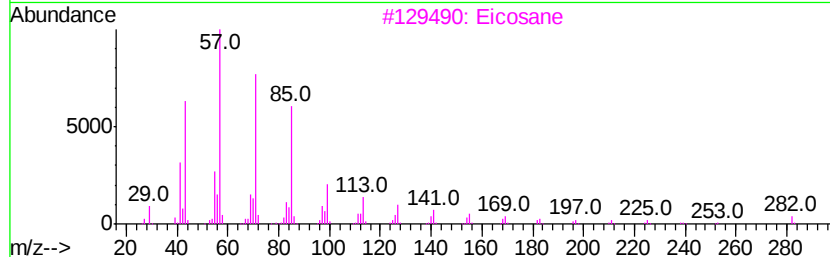
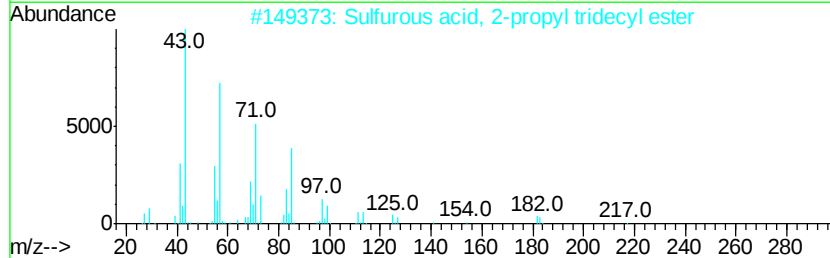
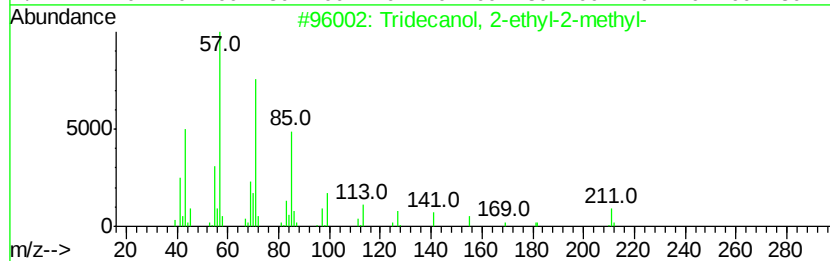
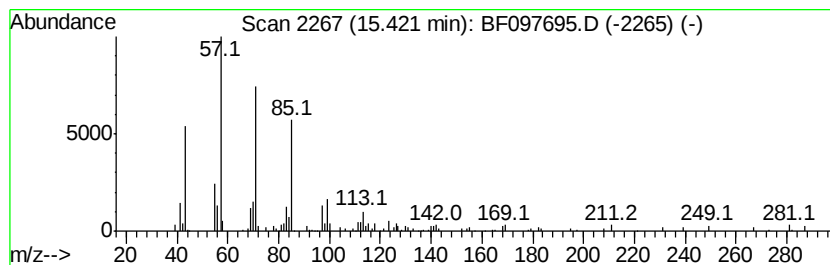
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ClientSampleId :  
W-137TH-SLUDGE-52

Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF081517.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 Tridecanol, 2-ethyl-2-methyl- Concentration Rank 7

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.         |      |
|-----------|-------------------------------------|--------|------------------|--------------|------|
| 15.42     | 2.85 ng                             | 112305 | Perylene-d12     | 15.36        |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#         | Qual |
| 1         | Tridecanol, 2-ethyl-2-methyl-       | 242    | C16H34O          | 1000115-66-1 | 90   |
| 2         | Sulfurous acid, 2-propyl tridecy... | 306    | C16H34O3S        | 1000309-12-4 | 83   |
| 3         | Eicosane                            | 282    | C20H42           | 000112-95-8  | 83   |
| 4         | Heneicosane                         | 296    | C21H44           | 000629-94-7  | 78   |
| 5         | Undecane, 6,6-dimethyl-             | 184    | C13H28           | 017312-76-4  | 47   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF081517\  
Data File : BF097695.D  
Acq On : 15 Aug 2017 17:09  
Operator : SJ/JU  
Sample : I4768-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
W-137TH-SLUDGE-52

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF081517.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

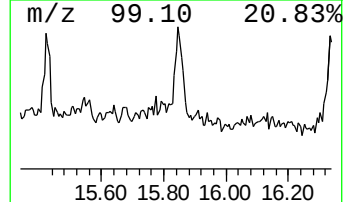
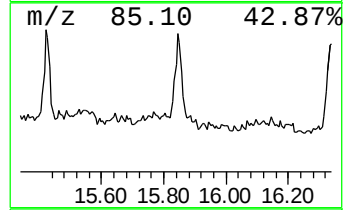
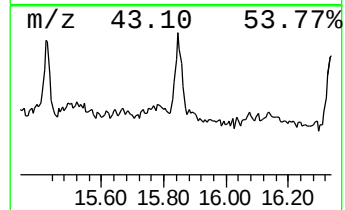
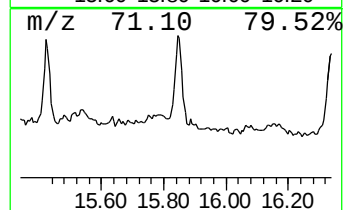
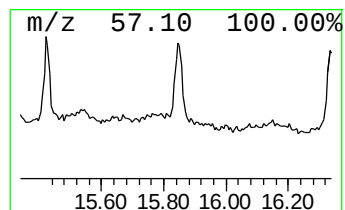
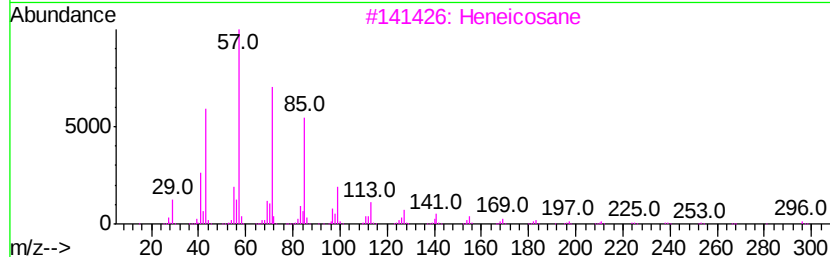
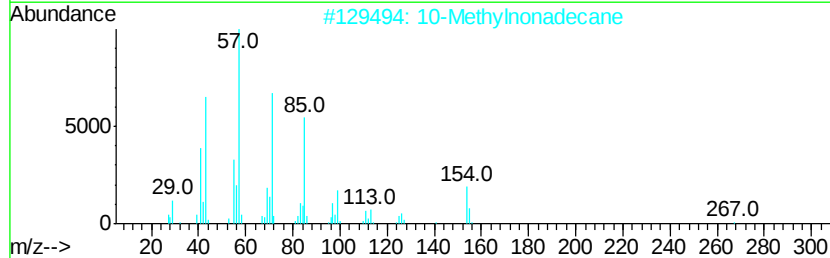
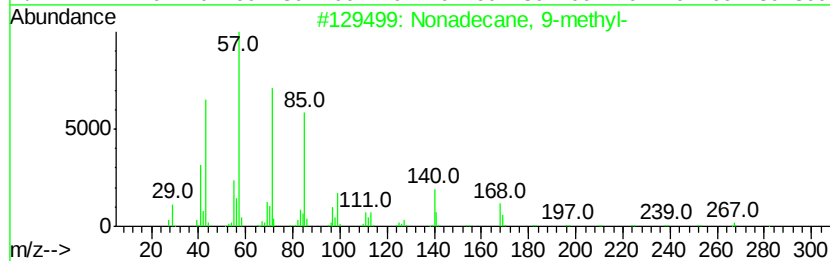
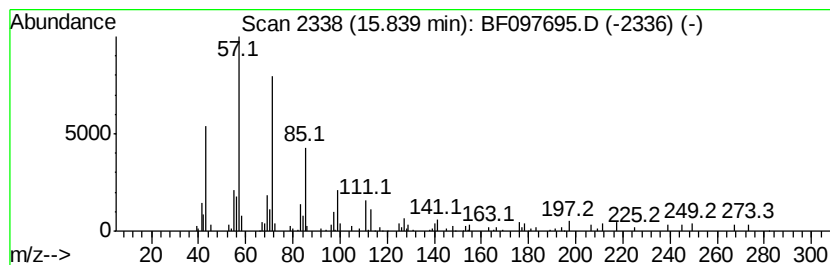
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 8 Nonadecane, 9-methyl- Concentration Rank 5

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.84 | 3.98 ng | 156369 | Perylene-d12     | 15.36 |

| Hit# | of | Tentative ID          | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------|-----|---------|-------------|------|
| 1    | 5  | Nonadecane, 9-methyl- | 282 | C20H42  | 013287-24-6 | 95   |
| 2    |    | 10-Methylnonadecane   | 282 | C20H42  | 056862-62-5 | 91   |
| 3    |    | Heneicosane           | 296 | C21H44  | 000629-94-7 | 91   |
| 4    |    | Hexadecane            | 226 | C16H34  | 000544-76-3 | 90   |
| 5    |    | Heptadecane           | 240 | C17H36  | 000629-78-7 | 90   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF081517\  
Data File : BF097695.D  
Acq On : 15 Aug 2017 17:09  
Operator : SJ/JU  
Sample : I4768-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
W-137TH-SLUDGE-52

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF081517.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

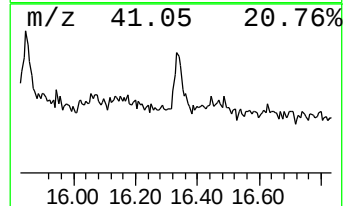
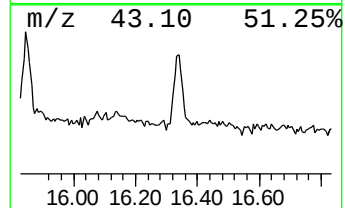
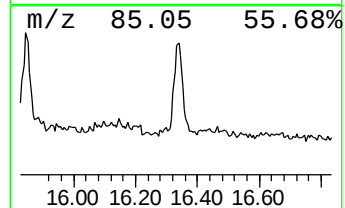
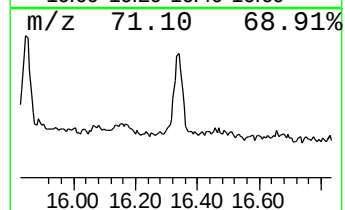
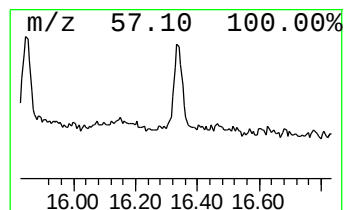
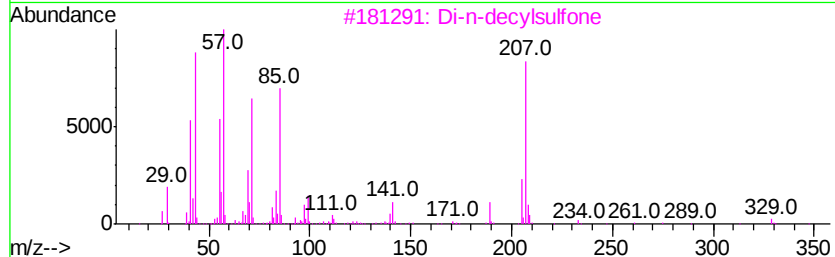
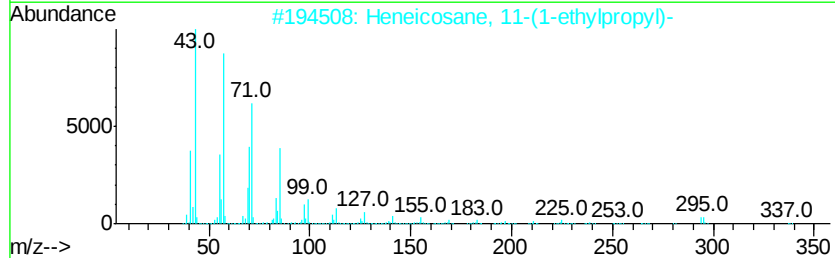
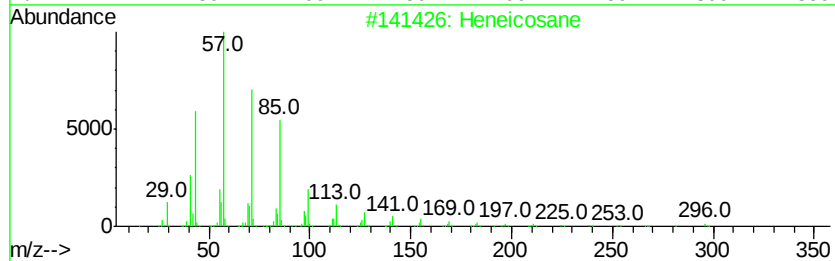
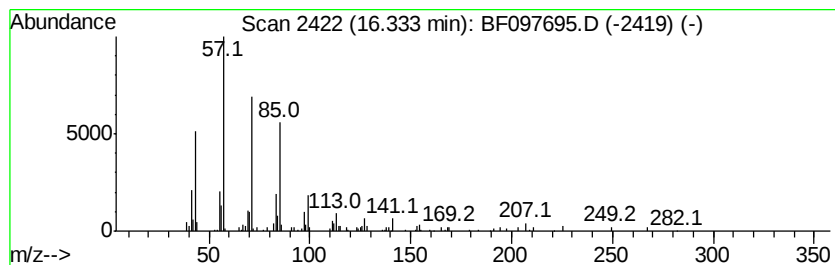
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 Heneicosane Concentration Rank 4

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 16.33 | 3.98 ng | 156392 | Perylene-d12     | 15.36 |

| Hit# of | 5                                | Tentative ID | MW  | MolForm   | CAS#        | Qual |
|---------|----------------------------------|--------------|-----|-----------|-------------|------|
| 1       | Heneicosane                      |              | 296 | C21H44    | 000629-94-7 | 83   |
| 2       | Heneicosane, 11-(1-ethylpropyl)- |              | 366 | C26H54    | 055282-11-6 | 80   |
| 3       | Di-n-decylsulfone                |              | 346 | C20H42O2S | 111530-37-1 | 72   |
| 4       | Octadecane                       |              | 254 | C18H38    | 000593-45-3 | 72   |
| 5       | Heptadecane                      |              | 240 | C17H36    | 000629-78-7 | 72   |



Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF081517\  
Data File : BF097695.D  
Acq On : 15 Aug 2017 17:09  
Operator : SJ/JU  
Sample : I4768-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
W-137TH-SLUDGE-52

Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF081517.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 |
| 2-Pentanone, 4-hy... | 4.99  | 6.4     | ng    | 272901   | 1                     | 6.78  | 857503  | 20.0 |
| unknown6.55          | 6.55  | 73.4    | ng    | 3146410  | 1                     | 6.78  | 857503  | 20.0 |
| n-Hexadecanoic acid  | 11.83 | 2.7     | ng    | 179040   | 4                     | 11.30 | 1347830 | 20.0 |
| Octadecanoic acid    | 12.62 | 2.0     | ng    | 121366   | 5                     | 13.93 | 1199690 | 20.0 |
| Carbonic acid, bu... | 14.57 | 3.2     | ng    | 193599   | 5                     | 13.93 | 1199690 | 20.0 |
| Tridecanol, 2-eth... | 15.42 | 2.9     | ng    | 112305   | 6                     | 15.36 | 786749  | 20.0 |
| Nonadecane, 9-met... | 15.84 | 4.0     | ng    | 156369   | 6                     | 15.36 | 786749  | 20.0 |
| Heneicosane          | 16.33 | 4.0     | ng    | 156392   | 6                     | 15.36 | 786749  | 20.0 |