

Data Path : \\74.0.250.170\SV0ASRV\HPCHEM1\BNA G\DATA\BG062217\  
 Data File : BG027607.D  
 Acq On : 22 Jun 2017 22:12  
 Operator : SJ/JU  
 Sample : I3802-03MSD  
 Misc :  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 OK-02-062017MSD

Manual Integrations  
 APPROVED

mohammad  
 6/26/2017 8:33:05 AM

Quant Time: Jun 23 02:47:50 2017  
 Quant Method : Z:\HPCHEM1\BNA G\METHODS\8270-BG062117.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Jun 21 18:52:15 2017  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.50  | 152  | 22320    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 11.32 | 136  | 103972   | 20.00 | ng    | 0.00     |
| 38) Acenaphthene-d10      | 15.09 | 164  | 66012    | 20.00 | ng    | 0.00     |
| 63) Phenanthrene-d10      | 17.84 | 188  | 181489   | 20.00 | ng    | 0.00     |
| 75) Chrysene-d12          | 22.21 | 240  | 209415   | 20.00 | ng    | 0.00     |
| 86) Perylene-d12          | 25.85 | 264  | 198381   | 20.00 | ng    | 0.00     |

|                             |       |     |        |        |    |      |
|-----------------------------|-------|-----|--------|--------|----|------|
| System Monitoring Compounds |       |     |        |        |    |      |
| 5) 2-Fluorophenol           | 6.09  | 112 | 205404 | 130.97 | ng | 0.00 |
| 7) Phenol-d6                | 7.65  | 99  | 265221 | 114.24 | ng | 0.00 |
| 23) Nitrobenzene-d5         | 9.67  | 82  | 200040 | 91.04  | ng | 0.00 |
| 41) 2,4,6-Tribromophenol    | 16.57 | 330 | 161894 | 164.50 | ng | 0.00 |
| 44) 2-Fluorobiphenyl        | 13.71 | 172 | 444218 | 91.92  | ng | 0.00 |
| 78) Terphenyl-d14           | 20.42 | 244 | 863431 | 97.14  | ng | 0.00 |

|                                |       |     |        |        |    |        |
|--------------------------------|-------|-----|--------|--------|----|--------|
| Target Compounds               |       |     |        |        |    | Qvalue |
| 2) 1,4-Dioxane                 | 4.10  | 88  | 20824  | 34.20  | ng | 94     |
| 3) Pyridine                    | 4.48  | 79  | 52785  | 26.78  | ng | # 80   |
| 4) n-Nitrosodimethylamine      | 4.38  | 42  | 37963  | 42.20  | ng | # 81   |
| 6) Aniline                     | 7.83  | 93  | 63519  | 22.42  | ng | 97     |
| 8) 2-Chlorophenol              | 8.07  | 128 | 75812  | 45.69  | ng | 90     |
| 9) Benzaldehyde                | 7.65  | 77  | 45507  | 28.85  | ng | 93     |
| 10) Phenol                     | 7.67  | 94  | 93455  | 39.51  | ng | 94     |
| 11) bis(2-Chloroethyl)ether    | 7.91  | 93  | 72224  | 39.02  | ng | 92     |
| 12) 1,3-Dichlorobenzene        | 8.40  | 146 | 67760  | 38.68  | ng | 97     |
| 13) 1,4-Dichlorobenzene        | 8.54  | 146 | 68957  | 38.99  | ng | 98     |
| 14) 1,2-Dichlorobenzene        | 8.86  | 146 | 67741  | 38.98  | ng | 97     |
| 15) Benzyl Alcohol             | 8.74  | 79  | 84244  | 45.45  | ng | 94     |
| 16) 2,2'-oxybis(1-Chloropropan | 9.01  | 45  | 106052 | 34.53  | ng | 89     |
| 17) 2-Methylphenol             | 8.92  | 107 | 68877  | 41.39  | ng | 94     |
| 18) Hexachloroethane           | 9.59  | 117 | 26920  | 38.82  | ng | 87     |
| 19) n-Nitroso-di-n-propylamine | 9.29  | 70  | 69439  | 37.65  | ng | 90     |
| 20) 3+4-Methylphenols          | 9.25  | 107 | 93276  | 40.93  | ng | 95     |
| 22) Acetophenone               | 9.32  | 105 | 124498 | 43.66  | ng | # 89   |
| 24) Nitrobenzene               | 9.71  | 77  | 102744 | 42.66  | ng | 91     |
| 25) Isophorone                 | 10.23 | 82  | 189924 | 42.07  | ng | 99     |
| 26) 2-Nitrophenol              | 10.42 | 139 | 40402  | 45.35  | ng | 96     |
| 27) 2,4-Dimethylphenol         | 10.46 | 122 | 78292  | 46.54  | ng | 96     |
| 28) bis(2-Chloroethoxy)methane | 10.70 | 93  | 106279 | 41.77  | ng | 99     |
| 29) 2,4-Dichlorophenol         | 10.96 | 162 | 72323  | 49.77  | ng | 97     |
| 30) 1,2,4-Trichlorobenzene     | 11.18 | 180 | 73283  | 44.11  | ng | 92     |
| 31) Naphthalene                | 11.37 | 128 | 236650 | 42.11  | ng | 99     |
| 32) Benzoic acid               | 10.58 | 122 | 50057  | 42.79  | ng | 93     |
| 33) 4-Chloroaniline            | 11.49 | 127 | 7591   | 3.19   | ng | # 87   |
| 34) Hexachlorobutadiene        | 11.64 | 225 | 45231  | 45.05  | ng | 98     |
| 35) Caprolactam                | 12.25 | 113 | 24656m | 36.40  | ng |        |
| 36) 4-Chloro-3-methylphenol    | 12.56 | 107 | 107256 | 48.13  | ng | 97     |
| 37) 2-Methylnaphthalene        | 12.94 | 142 | 181447 | 44.43  | ng | 95     |
| 39) 1,2,4,5-Tetrachlorobenzene | 13.30 | 216 | 93630  | 45.23  | ng | 97     |
| 40) Hexachlorocyclopentadiene  | 13.28 | 237 | 110982 | 100.02 | ng | 99     |

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| Internal Standards             | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|--------------------------------|-------|------|----------|-------|-------|----------|
| 42) 2,4,6-Trichlorophenol      | 13.53 | 196  | 66509    | 49.72 | nq    | 95       |
| 43) 2,4,5-Trichlorophenol      | 13.60 | 196  | 76070    | 48.39 | nq    | 97       |
| 45) 1,1'-Biphenyl              | 13.92 | 154  | 245537   | 44.61 | nq    | 97       |
| 46) 2-Chloronaphthalene        | 13.98 | 162  | 182153   | 44.50 | nq    | 94       |
| 47) 2-Nitroaniline             | 14.17 | 65   | 83808    | 45.60 | nq    | 94       |
| 48) Acenaphthylene             | 14.82 | 152  | 301829   | 42.08 | nq    | 97       |
| 49) Dimethylphthalate          | 14.53 | 163  | 274226   | 47.44 | nq    | 97       |
| 50) 2,6-Dinitrotoluene         | 14.65 | 165  | 60665    | 48.37 | nq    | 95       |
| 51) Acenaphthene               | 15.15 | 154  | 242521   | 48.52 | nq    | 99       |
| 52) 3-Nitroaniline             | 14.99 | 138  | 24494    | 18.50 | nq    | 96       |
| 53) 2,4-Dinitrophenol          | 15.19 | 184  | 68208    | 96.22 | nq #  | 84       |
| 54) Dibenzofuran               | 15.49 | 168  | 307434   | 47.22 | nq    | 100      |
| 55) 4-Nitrophenol              | 15.28 | 139  | 98029    | 88.44 | nq #  | 79       |
| 56) 2,4-Dinitrotoluene         | 15.44 | 165  | 90507    | 50.89 | nq #  | 98       |
| 57) Fluorene                   | 16.13 | 166  | 272297   | 44.16 | nq    | 97       |
| 58) 2,3,4,6-Tetrachlorophenol  | 15.70 | 232  | 76674    | 55.39 | nq    | 92       |
| 59) Diethylphthalate           | 15.88 | 149  | 301515   | 47.81 | nq    | 96       |
| 60) 4-Chlorophenyl-phenylether | 16.12 | 204  | 139995   | 46.14 | nq    | 96       |
| 61) 4-Nitroaniline             | 16.15 | 138  | 65943    | 45.40 | nq    | 87       |
| 62) Azobenzene                 | 16.40 | 77   | 301262   | 46.58 | nq    | 94       |
| 64) 4,6-Dinitro-2-methylphenol | 16.20 | 198  | 50068    | 43.44 | nq    | 86       |
| 65) n-Nitrosodiphenylamine     | 16.33 | 169  | 243784   | 43.82 | nq    | 99       |
| 66) 4-Bromophenyl-phenylether  | 17.01 | 248  | 93423    | 46.80 | nq    | 93       |
| 67) Hexachlorobenzene          | 17.14 | 284  | 98250    | 46.06 | nq    | 99       |
| 68) Atrazine                   | 17.27 | 200  | 98243    | 48.20 | nq    | 97       |
| 69) Pentachlorophenol          | 17.48 | 266  | 124670   | 94.09 | nq    | 96       |
| 70) Phenanthrene               | 17.88 | 178  | 462295   | 44.78 | nq    | 94       |
| 71) Anthracene                 | 17.97 | 178  | 463315   | 44.57 | nq    | 97       |
| 72) Carbazole                  | 18.24 | 167  | 413078   | 40.79 | nq    | 97       |
| 73) Di-n-butylphthalate        | 18.76 | 149  | 527395   | 46.48 | nq #  | 95       |
| 74) Fluoranthene               | 19.87 | 202  | 555693   | 46.20 | nq    | 94       |
| 76) Benzidine                  | 20.04 | 184  | 86915    | 16.91 | nq    | 97       |
| 77) Pyrene                     | 20.23 | 202  | 567219   | 44.56 | nq    | 96       |
| 79) Butylbenzylphthalate       | 21.11 | 149  | 247994   | 46.68 | nq    | 94       |
| 80) Benzo(a)anthracene         | 22.18 | 228  | 564660   | 44.94 | nq    | 94       |
| 81) 3,3'-Dichlorobenzidine     | 22.08 | 252  | 105160   | 23.15 | nq #  | 97       |
| 82) Chrysene                   | 22.26 | 228  | 523388   | 43.96 | nq    | 93       |
| 83) Bis(2-ethylhexyl)phthalate | 22.04 | 149  | 354946   | 45.58 | nq    | 97       |
| 84) Di-n-octyl phthalate       | 23.39 | 149  | 602315   | 46.50 | nq #  | 90       |
| 85) Indeno(1,2,3-cd)pyrene     | 30.03 | 276  | 638663   | 47.07 | nq #  | 94       |
| 87) Benzo(b)fluoranthene       | 24.68 | 252  | 567719   | 44.76 | nq #  | 96       |
| 88) Benzo(k)fluoranthene       | 24.75 | 252  | 544512   | 43.88 | nq #  | 93       |
| 89) Benzo(a)pyrene             | 25.67 | 252  | 533643   | 44.58 | nq #  | 93       |
| 90) Dibenzo(a,h)anthracene     | 30.11 | 278  | 546527   | 44.83 | nq    | 98       |
| 91) Benzo(g,h,i)perylene       | 31.34 | 276  | 522819   | 44.15 | nq #  | 93       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

