

# Quality Control Statistical Summary

## Onshore Grab Sample: NA-07-SS

**Sample Taken By:** J. Ladner                      **Latitude:** 30° 37' 25.6"  
**Sample Taken On:** 12/04/02                      **Longitude:** 81° 26' 18.7"  
**County:** Nassau                                      **Datum:** WGS 84

| Statistical Results: Pre-CaCO3 |                              |                              |
|--------------------------------|------------------------------|------------------------------|
|                                | Duplicate                    | Original                     |
| <b>Mean:</b>                   | 2.0678 phi (0.2385 mm)       | 2.0414 phi (0.2429 mm)       |
| <b>Standard Dev:</b>           | 0.4246 phi-units (0.7451 mm) | 0.5575 phi-units (0.6795 mm) |
| <b>Skewness:</b>               | -0.1645 dimensionless        | -0.8766 dimensionless        |
| <b>Kurtosis:</b>               | 3.8071 dimensionless         | 5.3679 dimensionless         |
| <b>5th Moment:</b>             | -6.5399 dimensionless        | -17.2047 dimensionless       |
| <b>6th Moment:</b>             | 71.2204 dimensionless        | 90.8254 dimensionless        |
| <b>RARD*:</b>                  | 0.2053 dimensionless         | 0.2731 dimensionless         |
| <b>Median:</b>                 | 1.9475 phi (0.2593 mm)       | 1.9549 phi (0.2579 mm)       |

| Statistical Results: CaCO3 |                              |                            |
|----------------------------|------------------------------|----------------------------|
|                            | Duplicate                    | Original                   |
| <b>Mean:</b>               | 1.7592 phi (0.2954 mm)       | 1.4581 phi (0.364 mm)      |
| <b>Standard Dev:</b>       | 0.5816 phi-units (0.6682 mm) | 1.0291 phi-units (0.49 mm) |
| <b>Skewness:</b>           | -1.2406 dimensionless        | -0.4970 dimensionless      |
| <b>Kurtosis:</b>           | 9.8174 dimensionless         | 2.8136 dimensionless       |
| <b>5th Moment:</b>         | -27.3996 dimensionless       | -3.5940 dimensionless      |
| <b>6th Moment:</b>         | 203.5256 dimensionless       | 13.3442 dimensionless      |
| <b>RARD*:</b>              | 0.3306 dimensionless         | 0.7058 dimensionless       |
| <b>Median:</b>             | 1.5949 phi (0.331 mm)        | 1.6272 phi (0.3237 mm)     |

| Statistical Results: Post-CaCO3 |                              |                              |
|---------------------------------|------------------------------|------------------------------|
|                                 | Duplicate                    | Original                     |
| <b>Mean:</b>                    | 2.0763 phi (0.2371 mm)       | 2.0682 phi (0.2385 mm)       |
| <b>Standard Dev:</b>            | 0.4179 phi-units (0.7485 mm) | 0.5082 phi-units (0.7031 mm) |
| <b>Skewness:</b>                | 0.0057 dimensionless         | -0.4484 dimensionless        |
| <b>Kurtosis:</b>                | 2.8775 dimensionless         | 3.5241 dimensionless         |
| <b>5th Moment:</b>              | 0.9527 dimensionless         | -5.6571 dimensionless        |
| <b>6th Moment:</b>              | 17.9881 dimensionless        | 30.7124 dimensionless        |
| <b>RARD*:</b>                   | 0.2012 dimensionless         | 0.2457 dimensionless         |
| <b>Median:</b>                  | 1.9507 phi (0.2587 mm)       | 1.9735 phi (0.2546 mm)       |

| Additional Data         |        |
|-------------------------|--------|
| <b>Total Fines</b>      |        |
| <b>Original:</b>        | 0.49 % |
| <b>Duplicate:</b>       | 1.12 % |
| <b>Total Carbonates</b> |        |
| <b>Original:</b>        | 3.93 % |
| <b>Duplicate:</b>       | 2.14 % |

| Statistical Explanation                                |                                       |
|--|---------------------------------------|
| Calculations based on the Method of Moments            |                                       |
| Skewness: 3rd Stand. Moment; Exact Gaussian = 0.0      |                                       |
| Kurtosis: 4th Stand. Moment; Exact Gaussian = 3.0      |                                       |
| Millimeter data calculated by $mm = 2^{\sqrt{-\phi}}$  |                                       |
| * Reciprocal Absolute Relative Dispersion (RARD) Scale |                                       |
| < 0.5  | Excellent homogeneity (e.g., beaches) |
| 0.5 to 1.0   | Good homogeneity                      |
| 1.0 to 1.33  | Fair homogeneity                      |
| > 1.33   | Poor homogeneity (e.g., glacial)      |

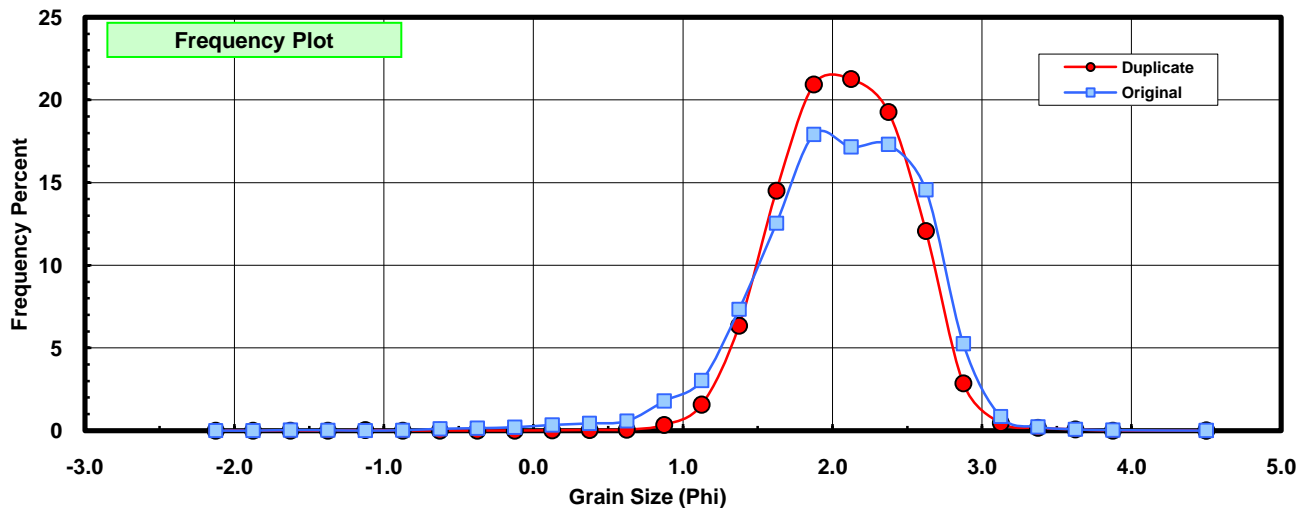
# Pre-Digestion Grain Size Distribution

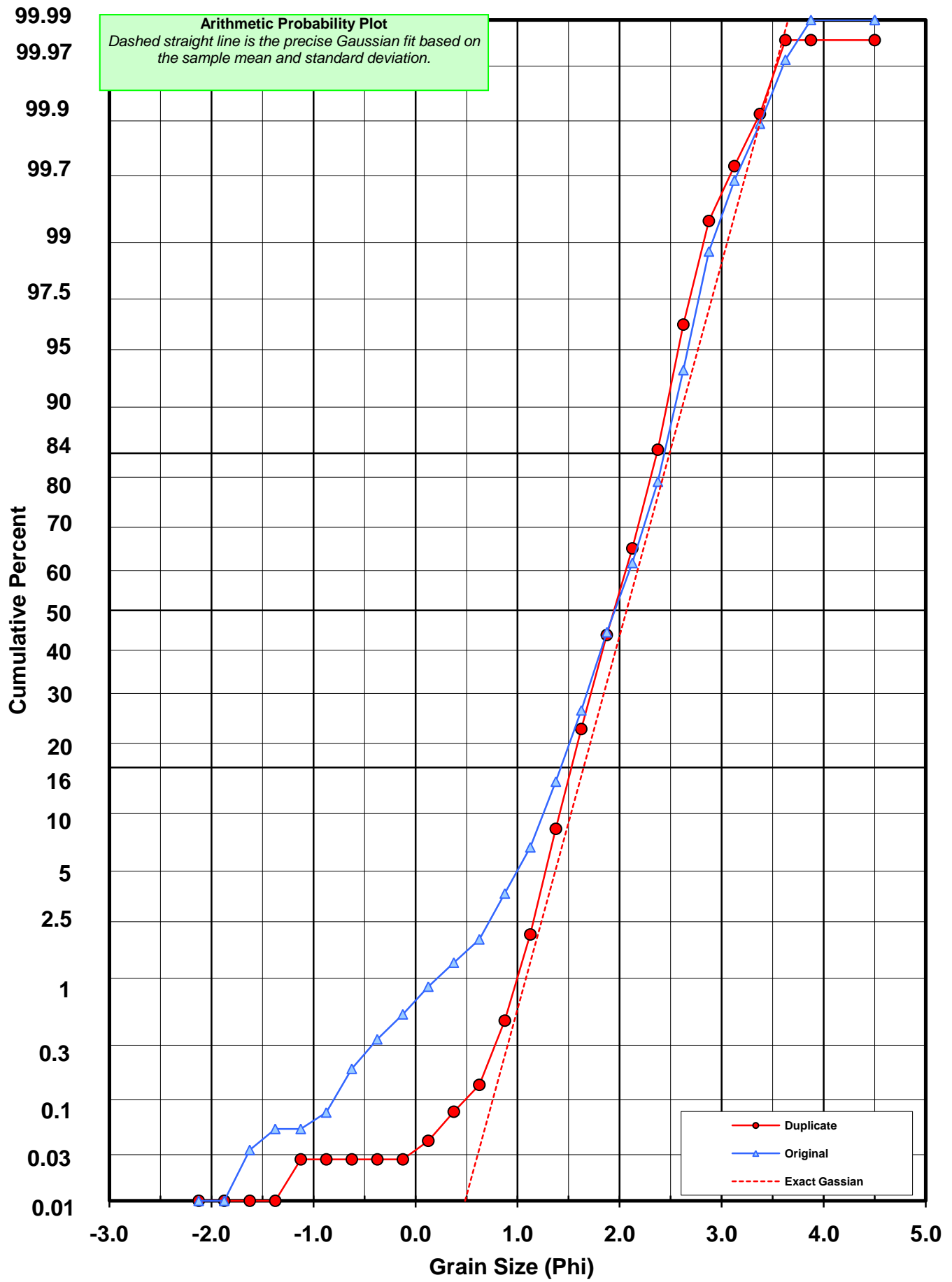
Onshore Grab Sample: NA-07-SS

Total Duplicate Sample Mass: 47.332 grams

Total Original Sample Mass: 49.289 grams

| Sieve Size (phi) | Sieve Midpt (phi) | Weight of Dupl (grams) | Freq Weight % | Cumulative Weight % | Weight of Original (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|------------------------|---------------|---------------------|----------------------------|---------------|---------------------|
| -2.00            | -2.125            | 0.000                  | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.000                  | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.50            | -1.625            | 0.000                  | 0.000         | 0.000               | 0.017                      | 0.034         | 0.034               |
| -1.25            | -1.375            | 0.000                  | 0.000         | 0.000               | 0.010                      | 0.020         | 0.055               |
| -1.00            | -1.125            | 0.013                  | 0.027         | 0.027               | 0.000                      | 0.000         | 0.055               |
| -0.75            | -0.875            | 0.000                  | 0.000         | 0.027               | 0.011                      | 0.022         | 0.077               |
| -0.50            | -0.625            | 0.000                  | 0.000         | 0.027               | 0.054                      | 0.110         | 0.187               |
| -0.25            | -0.375            | 0.000                  | 0.000         | 0.027               | 0.073                      | 0.148         | 0.335               |
| 0.00             | -0.125            | 0.000                  | 0.000         | 0.027               | 0.100                      | 0.203         | 0.538               |
| 0.25             | 0.125             | 0.007                  | 0.015         | 0.042               | 0.170                      | 0.345         | 0.883               |
| 0.50             | 0.375             | 0.017                  | 0.036         | 0.078               | 0.215                      | 0.436         | 1.319               |
| 0.75             | 0.625             | 0.027                  | 0.057         | 0.135               | 0.288                      | 0.584         | 1.903               |
| 1.00             | 0.875             | 0.162                  | 0.342         | 0.477               | 0.881                      | 1.788         | 3.691               |
| 1.25             | 1.125             | 0.743                  | 1.570         | 2.047               | 1.492                      | 3.027         | 6.718               |
| 1.50             | 1.375             | 3.001                  | 6.340         | 8.388               | 3.618                      | 7.341         | 14.059              |
| 1.75             | 1.625             | 6.869                  | 14.512        | 22.900              | 6.184                      | 12.548        | 26.607              |
| 2.00             | 1.875             | 9.910                  | 20.937        | 43.837              | 8.827                      | 17.910        | 44.517              |
| 2.25             | 2.125             | 10.064                 | 21.263        | 65.100              | 8.458                      | 17.162        | 61.679              |
| 2.50             | 2.375             | 9.124                  | 19.277        | 84.376              | 8.531                      | 17.310        | 78.989              |
| 2.75             | 2.625             | 5.711                  | 12.066        | 96.442              | 7.179                      | 14.567        | 93.556              |
| 3.00             | 2.875             | 1.353                  | 2.859         | 99.301              | 2.593                      | 5.261         | 98.817              |
| 3.25             | 3.125             | 0.214                  | 0.452         | 99.753              | 0.421                      | 0.854         | 99.671              |
| 3.50             | 3.375             | 0.076                  | 0.161         | 99.913              | 0.110                      | 0.223         | 99.894              |
| 3.75             | 3.625             | 0.034                  | 0.072         | 99.985              | 0.039                      | 0.079         | 99.974              |
| 4.00             | 3.875             | 0.000                  | 0.000         | 99.985              | 0.013                      | 0.026         | 100.000             |
| 5.00             | 4.500             | 0.000                  | 0.000         | 99.985              | 0.000                      | 0.000         | 100.000             |
| 5.00             | 4.500             | 0.007                  | 0.015         | 100.000             | 0.005                      | 0.010         | 100.010             |



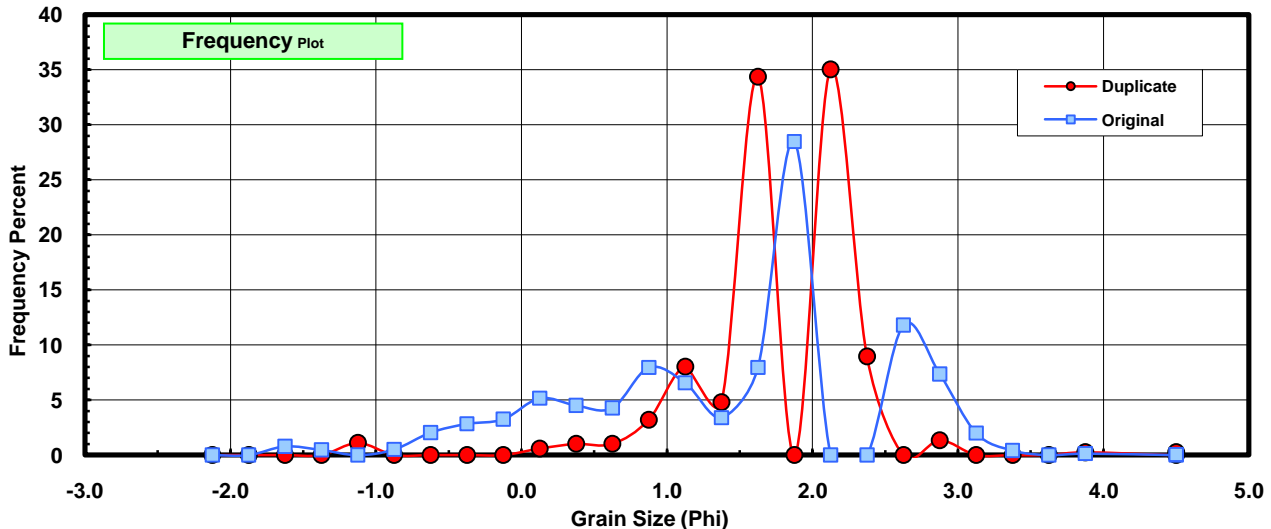


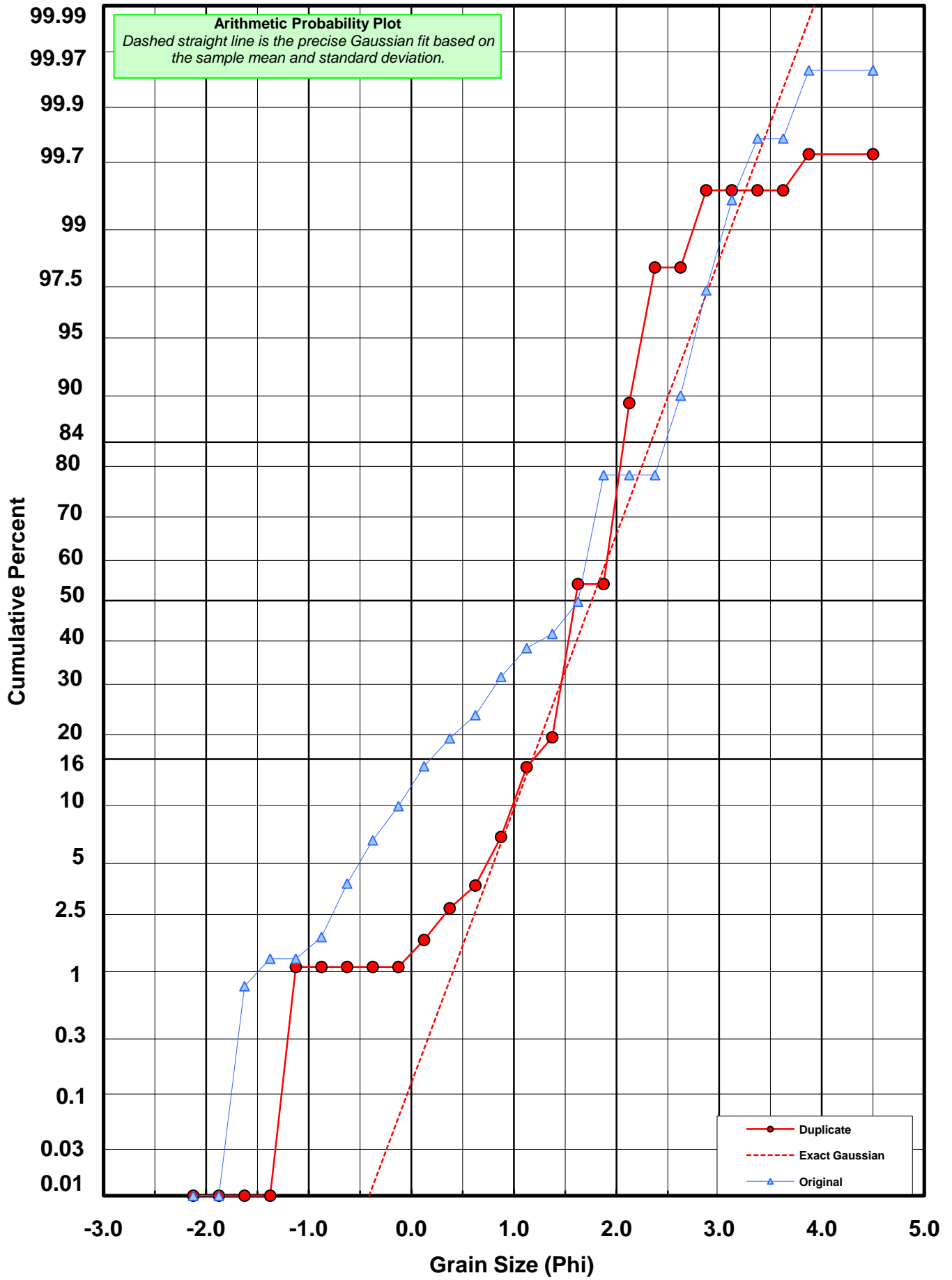
# Carbonate Grain Size Distribution

Onshore Grab Sample: NA-07-SS

**Total Duplicate Carbonate Mass:** 1.184 grams  
**% Carbonate in Duplicate:** 2.1 %  
**Total Original Carbonate Mass:** 2.149 grams  
**% Carbonate in Original:** 3.9 %

| Sieve Size (phi) | Sieve Midpt (phi) | Weight of Dupl (grams) | Freq Weight % | Cumulative Weight % | Weight of Original (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|------------------------|---------------|---------------------|----------------------------|---------------|---------------------|
| -2.00            | -2.125            | 0.000                  | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.000                  | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.50            | -1.625            | 0.000                  | 0.000         | 0.000               | 0.017                      | 0.791         | 0.791               |
| -1.25            | -1.375            | 0.000                  | 0.000         | 0.000               | 0.010                      | 0.465         | 1.256               |
| -1.00            | -1.125            | 0.013                  | 1.098         | 1.098               | 0.000                      | 0.000         | 1.256               |
| -0.75            | -0.875            | 0.000                  | 0.000         | 1.098               | 0.011                      | 0.512         | 1.768               |
| -0.50            | -0.625            | 0.000                  | 0.000         | 1.098               | 0.044                      | 2.047         | 3.816               |
| -0.25            | -0.375            | 0.000                  | 0.000         | 1.098               | 0.061                      | 2.839         | 6.654               |
| 0.00             | -0.125            | 0.000                  | 0.000         | 1.098               | 0.070                      | 3.257         | 9.912               |
| 0.25             | 0.125             | 0.007                  | 0.591         | 1.689               | 0.111                      | 5.165         | 15.077              |
| 0.50             | 0.375             | 0.012                  | 1.014         | 2.703               | 0.097                      | 4.514         | 19.591              |
| 0.75             | 0.625             | 0.012                  | 1.014         | 3.716               | 0.092                      | 4.281         | 23.872              |
| 1.00             | 0.875             | 0.038                  | 3.209         | 6.926               | 0.171                      | 7.957         | 31.829              |
| 1.25             | 1.125             | 0.095                  | 8.024         | 14.949              | 0.141                      | 6.561         | 38.390              |
| 1.50             | 1.375             | 0.057                  | 4.814         | 19.764              | 0.073                      | 3.397         | 41.787              |
| 1.75             | 1.625             | 0.407                  | 34.375        | 54.139              | 0.171                      | 7.957         | 49.744              |
| 2.00             | 1.875             | 0.000                  | 0.000         | 54.139              | 0.612                      | 28.478        | 78.222              |
| 2.25             | 2.125             | 0.415                  | 35.051        | 89.189              | 0.000                      | 0.000         | 78.222              |
| 2.50             | 2.375             | 0.106                  | 8.953         | 98.142              | 0.000                      | 0.000         | 78.222              |
| 2.75             | 2.625             | 0.000                  | 0.000         | 98.142              | 0.254                      | 11.819        | 90.042              |
| 3.00             | 2.875             | 0.016                  | 1.351         | 99.493              | 0.158                      | 7.352         | 97.394              |
| 3.25             | 3.125             | 0.000                  | 0.000         | 99.493              | 0.043                      | 2.001         | 99.395              |
| 3.50             | 3.375             | 0.000                  | 0.000         | 99.493              | 0.009                      | 0.419         | 99.814              |
| 3.75             | 3.625             | 0.000                  | 0.000         | 99.493              | 0.000                      | 0.000         | 99.814              |
| 4.00             | 3.875             | 0.003                  | 0.253         | 99.747              | 0.003                      | 0.140         | 99.953              |
| 5.00             | 4.500             | 0.000                  | 0.000         | 99.747              | 0.000                      | 0.000         | 99.953              |
| 5.00             | 4.500             | 0.003                  | 0.253         | 100.000             | 0.001                      | 0.047         | 100.000             |





# Post-Digestion Grain Size Distribution

Onshore Grab Sample: NA-07-SS

**Total Duplicate Digested Mass:** 46.332 grams  
**% Silica in Duplicate:** 97.9 %  
**Total Original Digested Mass:** 47.350 grams  
**% Silica in Original:** 96.1 %

| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % | Weight of Original (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|----------------------------|---------------|---------------------|
| -2.00            | -2.125            | 0.000          | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.000          | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.50            | -1.625            | 0.000          | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.25            | -1.375            | 0.000          | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -1.00            | -1.125            | 0.000          | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -0.75            | -0.875            | 0.000          | 0.000         | 0.000               | 0.000                      | 0.000         | 0.000               |
| -0.50            | -0.625            | 0.000          | 0.000         | 0.000               | 0.010                      | 0.021         | 0.021               |
| -0.25            | -0.375            | 0.000          | 0.000         | 0.000               | 0.012                      | 0.025         | 0.046               |
| 0.00             | -0.125            | 0.000          | 0.000         | 0.000               | 0.030                      | 0.063         | 0.110               |
| 0.25             | 0.125             | 0.000          | 0.000         | 0.000               | 0.059                      | 0.125         | 0.234               |
| 0.50             | 0.375             | 0.005          | 0.011         | 0.011               | 0.118                      | 0.249         | 0.484               |
| 0.75             | 0.625             | 0.015          | 0.032         | 0.043               | 0.196                      | 0.414         | 0.898               |
| 1.00             | 0.875             | 0.124          | 0.268         | 0.311               | 0.710                      | 1.499         | 2.397               |
| 1.25             | 1.125             | 0.648          | 1.399         | 1.709               | 1.351                      | 2.853         | 5.250               |
| 1.50             | 1.375             | 2.944          | 6.354         | 8.064               | 3.545                      | 7.487         | 12.737              |
| 1.75             | 1.625             | 6.462          | 13.947        | 22.011              | 6.013                      | 12.699        | 25.436              |
| 2.00             | 1.875             | 10.047         | 21.685        | 43.696              | 8.215                      | 17.350        | 42.786              |
| 2.25             | 2.125             | 9.649          | 20.826        | 64.521              | 8.667                      | 18.304        | 61.090              |
| 2.50             | 2.375             | 9.018          | 19.464        | 83.985              | 8.532                      | 18.019        | 79.109              |
| 2.75             | 2.625             | 5.720          | 12.346        | 96.331              | 6.925                      | 14.625        | 93.734              |
| 3.00             | 2.875             | 1.337          | 2.886         | 99.217              | 2.435                      | 5.143         | 98.876              |
| 3.25             | 3.125             | 0.236          | 0.509         | 99.726              | 0.378                      | 0.798         | 99.675              |
| 3.50             | 3.375             | 0.079          | 0.171         | 99.896              | 0.101                      | 0.213         | 99.888              |
| 3.75             | 3.625             | 0.034          | 0.073         | 99.970              | 0.039                      | 0.082         | 99.970              |
| 4.00             | 3.875             | 0.010          | 0.022         | 99.991              | 0.010                      | 0.021         | 99.992              |
| 5.00             | 4.500             | 0.000          | 0.000         | 99.991              | 0.000                      | 0.000         | 99.992              |
| 5.00             | 4.500             | 0.004          | 0.009         | 100.000             | 0.004                      | 0.008         | 100.000             |

