

Quality Control Statistical Summary

Onshore Grab Sample: FG-16-SS

Sample Taken By: J. Ladner **Latitude:** 29° 28' 38.1"
Sample Taken On: 12/03/03 **Longitude:** 81° 07' 30.8"
County: Flagler **Datum:** NAD 83

| Statistical Results: Pre-CaCO3 | | | | |
|--------------------------------|-----------|-----------------------|----------|-----------------------|
| | Duplicate | | Original | |
| Mean: | 1.7377 | phi (0.2998 mm) | 1.6726 | phi (0.3137 mm) |
| Standard Dev: | 0.5836 | phi-units (0.6673 mm) | 0.6315 | phi-units (0.6455 mm) |
| Skewness: | -0.3658 | dimensionless | -0.4552 | dimensionless |
| Kurtosis: | 3.2008 | dimensionless | 2.7014 | dimensionless |
| 5th Moment: | -4.0744 | dimensionless | -3.1992 | dimensionless |
| 6th Moment: | 23.6916 | dimensionless | 12.4028 | dimensionless |
| RARD*: | 0.3358 | dimensionless | 0.3775 | dimensionless |
| Median: | 1.6686 | phi (0.3146 mm) | 1.6384 | phi (0.3212 mm) |

| Statistical Results: CaCO3 | | | | |
|----------------------------|-----------|-----------------------|----------|----------------------|
| | Duplicate | | Original | |
| Mean: | 1.1713 | phi (0.444 mm) | 1.0636 | phi (0.4784 mm) |
| Standard Dev: | 0.5920 | phi-units (0.6634 mm) | 0.5799 | phi-units (0.669 mm) |
| Skewness: | 0.5335 | dimensionless | 0.0690 | dimensionless |
| Kurtosis: | 5.4788 | dimensionless | 2.3327 | dimensionless |
| 5th Moment: | 9.0040 | dimensionless | -0.0684 | dimensionless |
| 6th Moment: | 63.6611 | dimensionless | 7.9760 | dimensionless |
| RARD*: | 0.5054 | dimensionless | 0.5453 | dimensionless |
| Median: | 1.0217 | phi (0.4925 mm) | 0.8832 | phi (0.5422 mm) |

| Statistical Results: Post-CaCO3 | | | | |
|---------------------------------|-----------|-----------------------|----------|-----------------------|
| | Duplicate | | Original | |
| Mean: | 1.9004 | phi (0.2679 mm) | 1.8884 | phi (0.2701 mm) |
| Standard Dev: | 0.4774 | phi-units (0.7183 mm) | 0.5056 | phi-units (0.7044 mm) |
| Skewness: | -0.1859 | dimensionless | -0.3408 | dimensionless |
| Kurtosis: | 2.5169 | dimensionless | 2.7214 | dimensionless |
| 5th Moment: | -0.9448 | dimensionless | -2.6382 | dimensionless |
| 6th Moment: | 9.4007 | dimensionless | 14.2823 | dimensionless |
| RARD*: | 0.2512 | dimensionless | 0.2677 | dimensionless |
| Median: | 1.8033 | phi (0.2865 mm) | 1.8110 | phi (0.285 mm) |

| Additional Data | |
|-------------------------|---------|
| Total Fines | |
| Original: | 0.9 % |
| Duplicate: | 0.98 % |
| Total Carbonates | |
| Original: | 24.75 % |
| Duplicate: | 21.47 % |

| 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) |

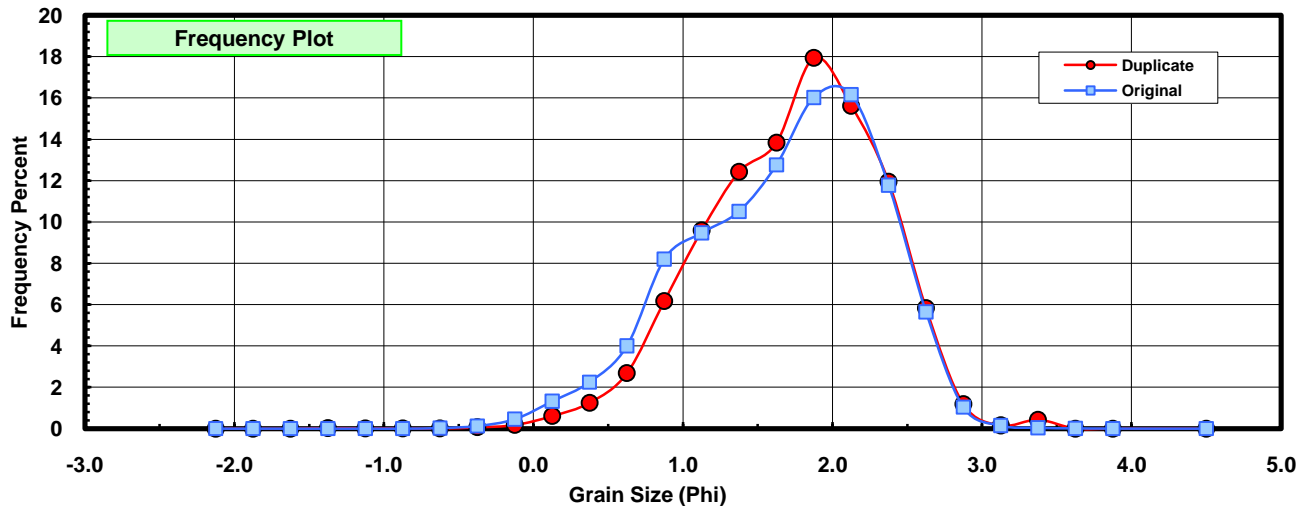
Pre-Digestion Grain Size Distribution

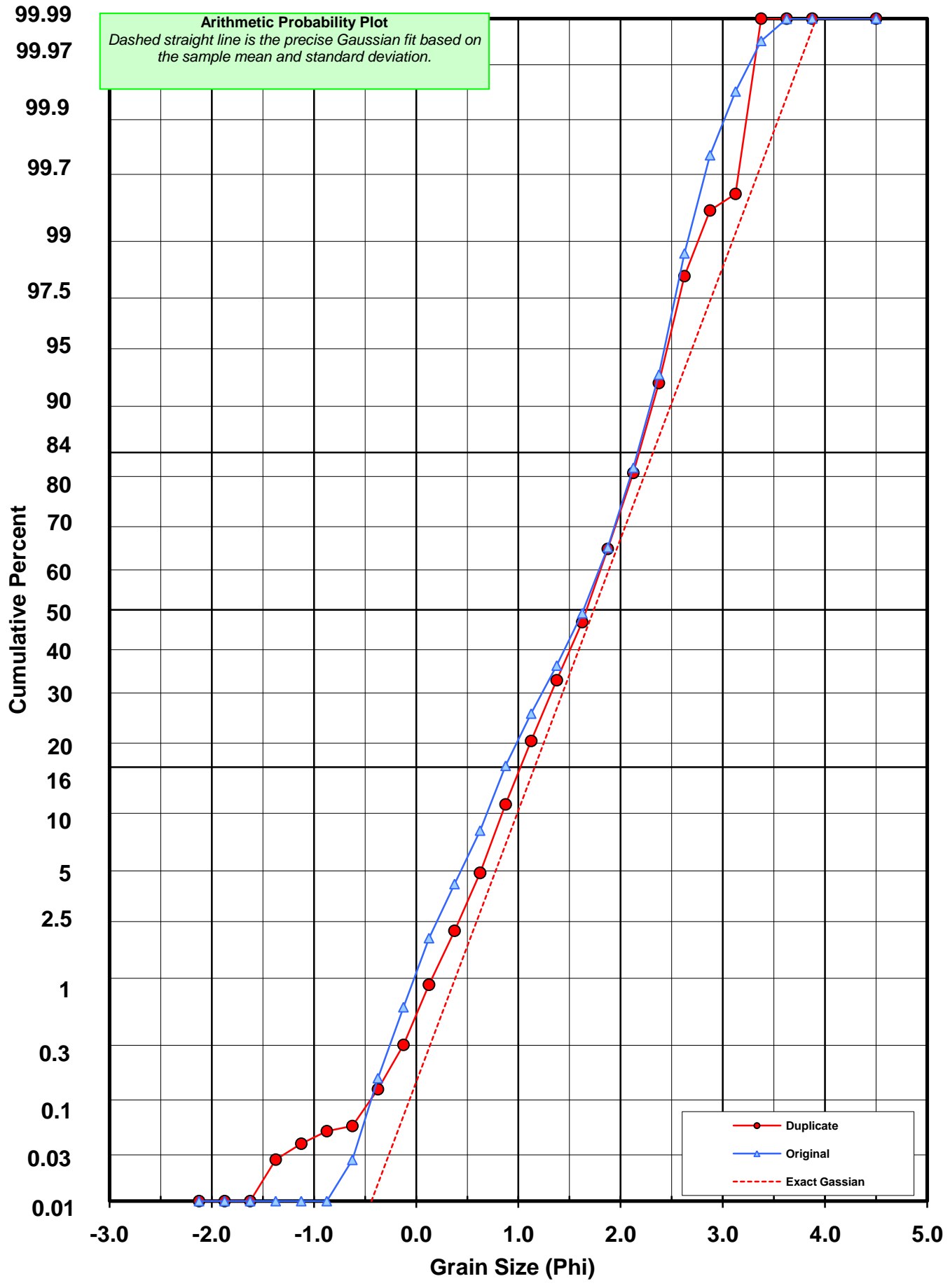
Onshore Grab Sample: FG-16-SS

Total Duplicate Sample Mass: 120.050 grams

Total Original Sample Mass: 87.756 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 | 0.000 | 0.000 | 0.000 |
| -1.25 | -1.375 | 0.033 | 0.027 | 0.027 | 0.000 | 0.000 | 0.000 |
| -1.00 | -1.125 | 0.015 | 0.012 | 0.040 | 0.000 | 0.000 | 0.000 |
| -0.75 | -0.875 | 0.015 | 0.012 | 0.052 | 0.000 | 0.000 | 0.000 |
| -0.50 | -0.625 | 0.007 | 0.006 | 0.058 | 0.024 | 0.027 | 0.027 |
| -0.25 | -0.375 | 0.079 | 0.066 | 0.124 | 0.112 | 0.128 | 0.155 |
| 0.00 | -0.125 | 0.212 | 0.177 | 0.301 | 0.402 | 0.458 | 0.613 |
| 0.25 | 0.125 | 0.734 | 0.611 | 0.912 | 1.161 | 1.323 | 1.936 |
| 0.50 | 0.375 | 1.504 | 1.253 | 2.165 | 1.974 | 2.249 | 4.185 |
| 0.75 | 0.625 | 3.224 | 2.686 | 4.850 | 3.514 | 4.004 | 8.190 |
| 1.00 | 0.875 | 7.411 | 6.173 | 11.024 | 7.198 | 8.202 | 16.392 |
| 1.25 | 1.125 | 11.514 | 9.591 | 20.615 | 8.313 | 9.473 | 25.865 |
| 1.50 | 1.375 | 14.916 | 12.425 | 33.040 | 9.225 | 10.512 | 36.377 |
| 1.75 | 1.625 | 16.607 | 13.833 | 46.873 | 11.200 | 12.763 | 49.140 |
| 2.00 | 1.875 | 21.533 | 17.937 | 64.810 | 14.060 | 16.022 | 65.161 |
| 2.25 | 2.125 | 18.757 | 15.624 | 80.434 | 14.185 | 16.164 | 81.325 |
| 2.50 | 2.375 | 14.345 | 11.949 | 92.383 | 10.340 | 11.783 | 93.108 |
| 2.75 | 2.625 | 7.008 | 5.838 | 98.221 | 4.958 | 5.650 | 98.758 |
| 3.00 | 2.875 | 1.428 | 1.190 | 99.410 | 0.911 | 1.038 | 99.796 |
| 3.25 | 3.125 | 0.188 | 0.157 | 99.567 | 0.130 | 0.148 | 99.944 |
| 3.50 | 3.375 | 0.520 | 0.433 | 100.000 | 0.035 | 0.040 | 99.984 |
| 3.75 | 3.625 | 0.000 | 0.000 | 100.000 | 0.012 | 0.014 | 99.998 |
| 4.00 | 3.875 | 0.000 | 0.000 | 100.000 | 0.002 | 0.002 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |



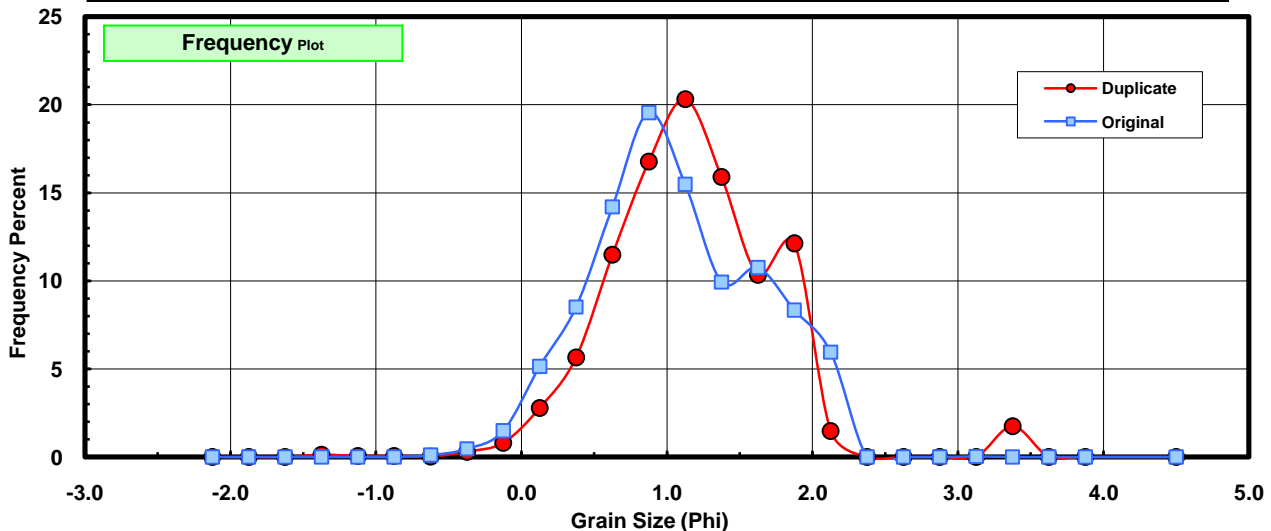


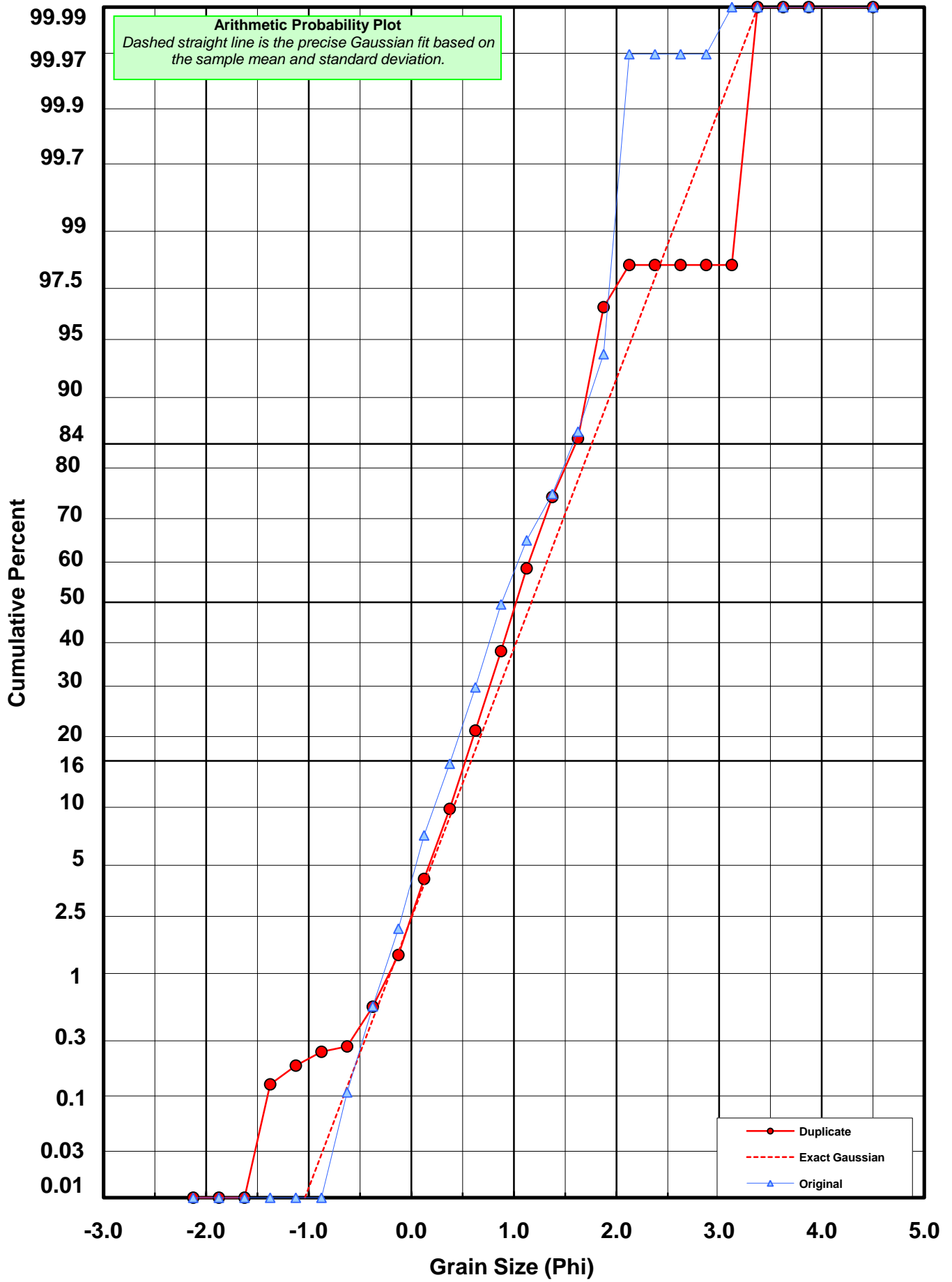
Carbonate Grain Size Distribution

Onshore Grab Sample: FG-16-SS

Total Duplicate Carbonate Mass: 26.253 grams
% Carbonate in Duplicate: 21.5 %
Total Original Carbonate Mass: 22.380 grams
% Carbonate in Original: 24.7 %

| 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 | 0.000 | 0.000 | 0.000 |
| -1.25 | -1.375 | 0.033 | 0.126 | 0.126 | 0.000 | 0.000 | 0.000 |
| -1.00 | -1.125 | 0.015 | 0.057 | 0.183 | 0.000 | 0.000 | 0.000 |
| -0.75 | -0.875 | 0.015 | 0.057 | 0.240 | 0.000 | 0.000 | 0.000 |
| -0.50 | -0.625 | 0.007 | 0.027 | 0.267 | 0.024 | 0.107 | 0.107 |
| -0.25 | -0.375 | 0.079 | 0.301 | 0.568 | 0.104 | 0.465 | 0.572 |
| 0.00 | -0.125 | 0.212 | 0.808 | 1.375 | 0.334 | 1.492 | 2.064 |
| 0.25 | 0.125 | 0.732 | 2.788 | 4.163 | 1.153 | 5.152 | 7.216 |
| 0.50 | 0.375 | 1.483 | 5.649 | 9.812 | 1.906 | 8.517 | 15.733 |
| 0.75 | 0.625 | 3.014 | 11.481 | 21.293 | 3.179 | 14.205 | 29.937 |
| 1.00 | 0.875 | 4.405 | 16.779 | 38.072 | 4.377 | 19.558 | 49.495 |
| 1.25 | 1.125 | 5.336 | 20.325 | 58.397 | 3.465 | 15.483 | 64.978 |
| 1.50 | 1.375 | 4.176 | 15.907 | 74.304 | 2.223 | 9.933 | 74.911 |
| 1.75 | 1.625 | 2.714 | 10.338 | 84.642 | 2.407 | 10.755 | 85.666 |
| 2.00 | 1.875 | 3.185 | 12.132 | 96.774 | 1.868 | 8.347 | 94.013 |
| 2.25 | 2.125 | 0.389 | 1.482 | 98.255 | 1.333 | 5.956 | 99.969 |
| 2.50 | 2.375 | 0.000 | 0.000 | 98.255 | 0.000 | 0.000 | 99.969 |
| 2.75 | 2.625 | 0.000 | 0.000 | 98.255 | 0.000 | 0.000 | 99.969 |
| 3.00 | 2.875 | 0.000 | 0.000 | 98.255 | 0.000 | 0.000 | 99.969 |
| 3.25 | 3.125 | 0.000 | 0.000 | 98.255 | 0.007 | 0.031 | 100.000 |
| 3.50 | 3.375 | 0.458 | 1.745 | 100.000 | 0.000 | 0.000 | 100.000 |
| 3.75 | 3.625 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |
| 4.00 | 3.875 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |





Post-Digestion Grain Size Distribution

Onshore Grab Sample: FG-16-SS

Total Duplicate Digested Mass: 94.275 grams
% Silica in Duplicate: 78.5 %
Total Original Digested Mass: 66.039 grams
% Silica in Original: 75.3 %

| 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 | 0.000 | 0.000 | 0.000 |
| -0.25 | -0.375 | 0.000 | 0.000 | 0.000 | 0.008 | 0.012 | 0.012 |
| 0.00 | -0.125 | 0.000 | 0.000 | 0.000 | 0.068 | 0.103 | 0.115 |
| 0.25 | 0.125 | 0.002 | 0.002 | 0.002 | 0.008 | 0.012 | 0.127 |
| 0.50 | 0.375 | 0.021 | 0.022 | 0.024 | 0.068 | 0.103 | 0.230 |
| 0.75 | 0.625 | 0.210 | 0.223 | 0.247 | 0.335 | 0.507 | 0.737 |
| 1.00 | 0.875 | 3.006 | 3.189 | 3.436 | 2.821 | 4.272 | 5.009 |
| 1.25 | 1.125 | 6.178 | 6.553 | 9.989 | 4.848 | 7.341 | 12.350 |
| 1.50 | 1.375 | 10.740 | 11.392 | 21.381 | 7.002 | 10.603 | 22.953 |
| 1.75 | 1.625 | 13.893 | 14.737 | 36.118 | 8.793 | 13.315 | 36.268 |
| 2.00 | 1.875 | 18.348 | 19.462 | 55.580 | 12.192 | 18.462 | 54.730 |
| 2.25 | 2.125 | 18.368 | 19.483 | 75.063 | 12.852 | 19.461 | 74.191 |
| 2.50 | 2.375 | 14.438 | 15.315 | 90.378 | 10.509 | 15.913 | 90.104 |
| 2.75 | 2.625 | 7.220 | 7.658 | 98.037 | 5.354 | 8.107 | 98.212 |
| 3.00 | 2.875 | 1.512 | 1.604 | 99.640 | 1.004 | 1.520 | 99.732 |
| 3.25 | 3.125 | 0.277 | 0.294 | 99.934 | 0.123 | 0.186 | 99.918 |
| 3.50 | 3.375 | 0.062 | 0.066 | 100.000 | 0.038 | 0.058 | 99.976 |
| 3.75 | 3.625 | 0.000 | 0.000 | 100.000 | 0.012 | 0.018 | 99.994 |
| 4.00 | 3.875 | 0.000 | 0.000 | 100.000 | 0.004 | 0.006 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 | 0.000 | 0.000 | 100.000 |

