

Onshore Grab Sample

Sample: MN-13-BB
Sample Taken By: D. Phelps
Sample Collected On: 12/2/09
Splits? N/A

County: Manatee
Latitude: 27° 24' 53.4"
Longitude: 82° 39' 48.3"
Datum: WGS 84
Surf. Elev: N/A
Datum: N/A

Fine Data Summary

Total Sample Weight 50.865 grams
Total Fines in Sample 0.090 grams
Total Percent Fines 0.18 %

Dry Sieving Summary

Total Sample Weight 50.491 grams
Total Digested Weight 49.584 grams
Total Carbonate Weight 0.907 grams
Total Silica % 98.20 %
Total Carbonate % 1.80 %
Carbonate/Silica Ratio 0.018

General Comments:

None

Description

Worked By: M. Ladle

Pre-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: MN-13-BB

Total Sample Mass: 50.491 grams

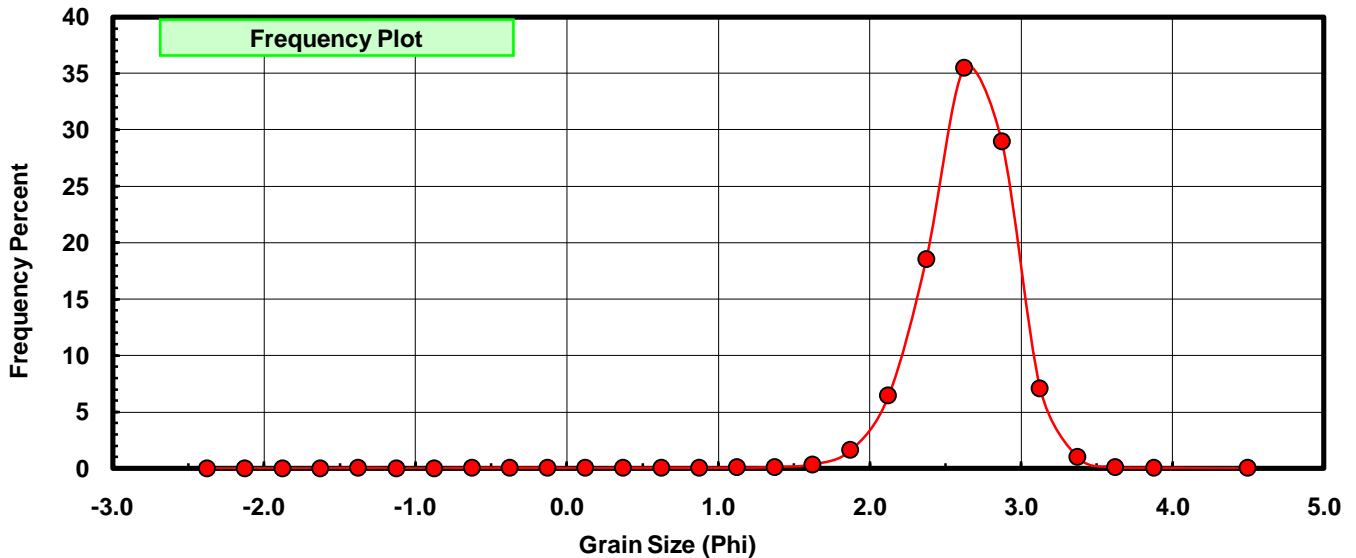
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25 | -2.375 | 0.000 | 0.000 | 0.000 |
| -2.00 | -2.125 | 0.000 | 0.000 | 0.000 |
| -1.75 | -1.875 | 0.000 | 0.000 | 0.000 |
| -1.50 | -1.625 | 0.000 | 0.000 | 0.000 |
| -1.25 | -1.375 | 0.019 | 0.038 | 0.038 |
| -1.00 | -1.125 | 0.000 | 0.000 | 0.038 |
| -0.75 | -0.875 | 0.000 | 0.000 | 0.038 |
| -0.50 | -0.625 | 0.018 | 0.036 | 0.073 |
| -0.25 | -0.375 | 0.016 | 0.032 | 0.105 |
| 0.00 | -0.125 | 0.019 | 0.038 | 0.143 |
| 0.25 | 0.125 | 0.015 | 0.030 | 0.172 |
| 0.50 | 0.375 | 0.016 | 0.032 | 0.204 |
| 0.75 | 0.625 | 0.018 | 0.036 | 0.240 |
| 1.00 | 0.875 | 0.029 | 0.057 | 0.297 |
| 1.25 | 1.125 | 0.032 | 0.063 | 0.360 |
| 1.50 | 1.375 | 0.058 | 0.115 | 0.475 |
| 1.75 | 1.625 | 0.172 | 0.341 | 0.816 |
| 2.00 | 1.875 | 0.813 | 1.610 | 2.426 |
| 2.25 | 2.125 | 3.243 | 6.423 | 8.849 |
| 2.50 | 2.375 | 9.356 | 18.530 | 27.379 |
| 2.75 | 2.625 | 17.905 | 35.462 | 62.841 |
| 3.00 | 2.875 | 14.610 | 28.936 | 91.777 |
| 3.25 | 3.125 | 3.579 | 7.088 | 98.865 |
| 3.50 | 3.375 | 0.491 | 0.972 | 99.838 |
| 3.75 | 3.625 | 0.055 | 0.109 | 99.947 |
| 4.00 | 3.875 | 0.019 | 0.038 | 99.984 |
| 5.00 | 4.50 | 0.008 | 0.016 | 100.000 |

| Statistical Results | | | |
|---------------------|-----------|---------------|-------------|
| Mean: | 2.6378 | phi | (0.1607 mm) |
| Standard Dev: | 0.3332 | phi-units | (0.7938 mm) |
| Skewness: | -2.1027 | dimensionless | |
| Kurtosis: | 20.6817 | dimensionless | |
| 5th Moment: | -184.3643 | dimensionless | |
| 6th Moment: | 1936.4462 | dimensionless | |
| RARD * | 0.1263 | dimensionless | |
| Median | 2.5345 | phi | (0.1726 mm) |

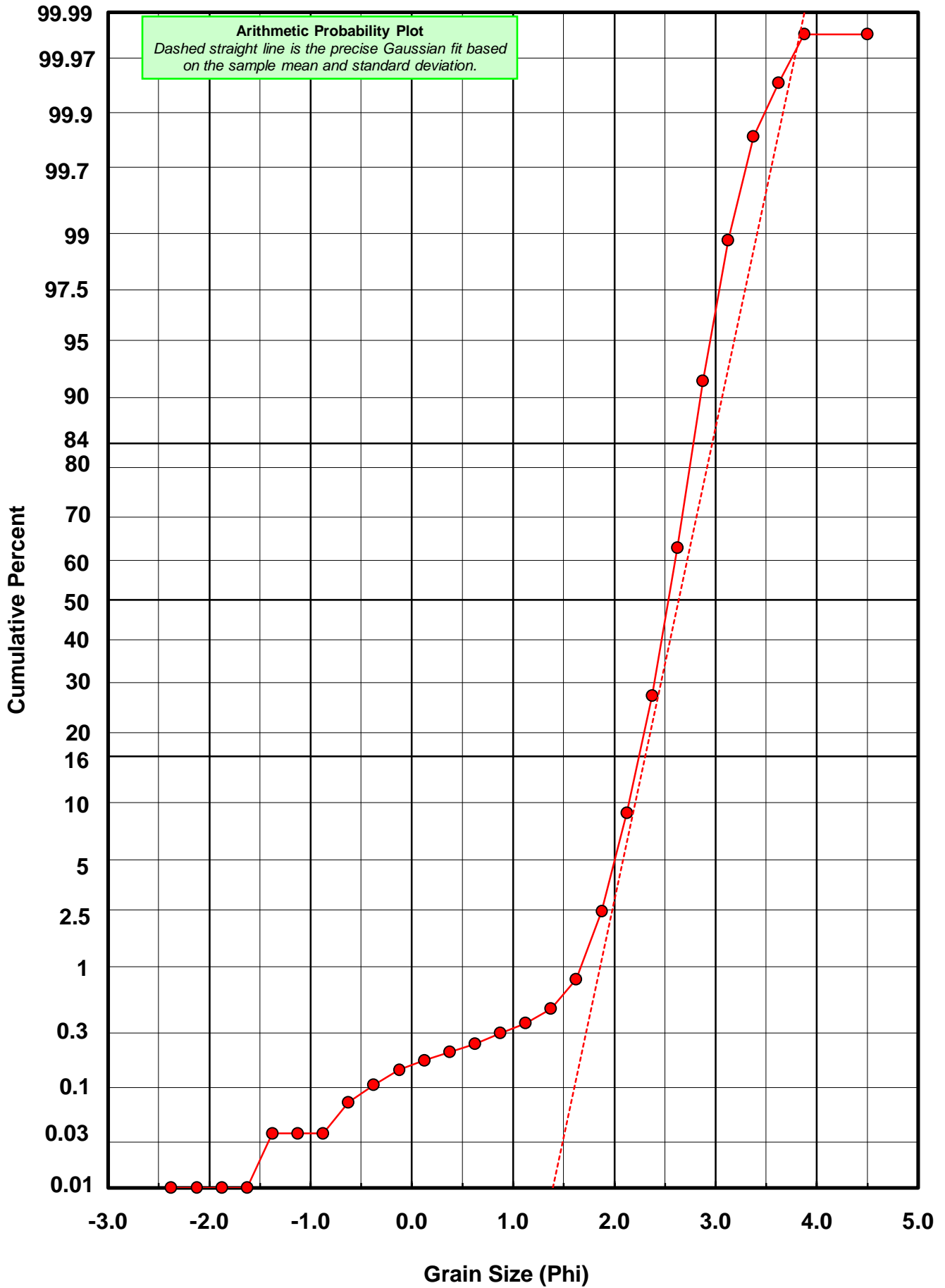
* RARD = reciprocal absolute relative dispersion (see below)

| 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 | |
| For Further Explanation, See Basille et al. 2002 | |
| Millimeter data calculated by $mm = 2^{-(\phi)}$ | |

| 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) |



MN-13-BB



Carbonate Grain Size Distribution

Onshore Grab Sample

Sample: MN-13-BB

Total Carbonate Mass: 1.535 grams

% Carbonate: 1.8 %

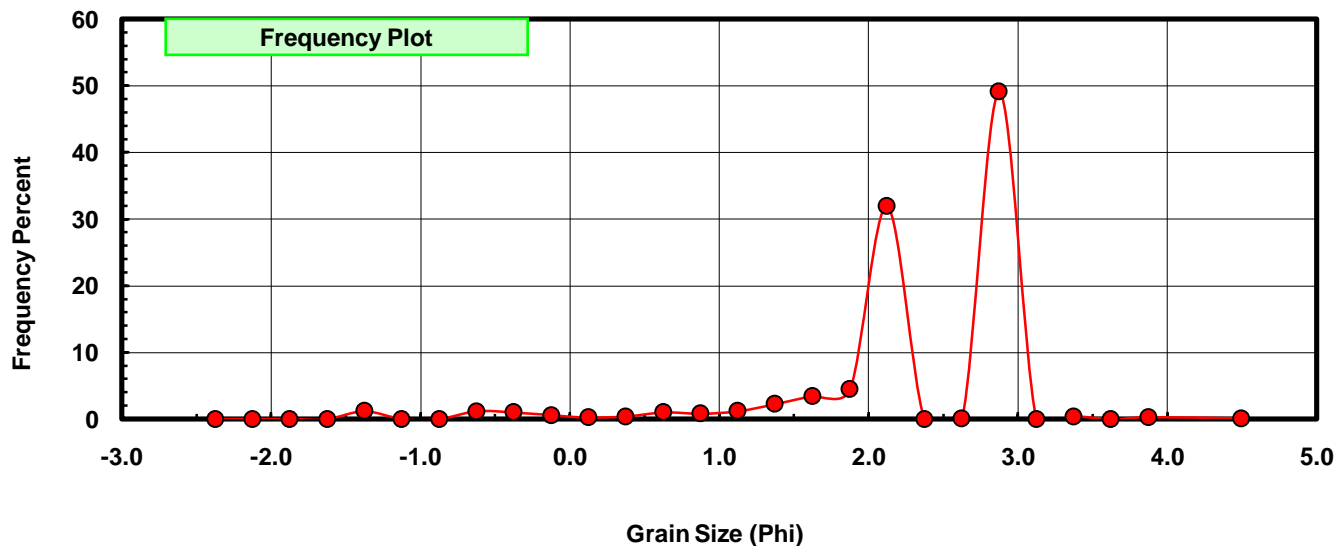
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25 | -2.375 | 0.000 | 0.000 | 0.000 |
| -2.00 | -2.125 | 0.000 | 0.000 | 0.000 |
| -1.75 | -1.875 | 0.000 | 0.000 | 0.000 |
| -1.50 | -1.625 | 0.000 | 0.000 | 0.000 |
| -1.25 | -1.375 | 0.019 | 1.238 | 1.238 |
| -1.00 | -1.125 | 0.000 | 0.000 | 1.238 |
| -0.75 | -0.875 | 0.000 | 0.000 | 1.238 |
| -0.50 | -0.625 | 0.018 | 1.173 | 2.410 |
| -0.25 | -0.375 | 0.016 | 1.042 | 3.453 |
| 0.00 | -0.125 | 0.009 | 0.586 | 4.039 |
| 0.25 | 0.125 | 0.004 | 0.261 | 4.300 |
| 0.50 | 0.375 | 0.006 | 0.391 | 4.691 |
| 0.75 | 0.625 | 0.016 | 1.042 | 5.733 |
| 1.00 | 0.875 | 0.013 | 0.847 | 6.580 |
| 1.25 | 1.125 | 0.019 | 1.238 | 7.818 |
| 1.50 | 1.375 | 0.035 | 2.280 | 10.098 |
| 1.75 | 1.625 | 0.053 | 3.453 | 13.550 |
| 2.00 | 1.875 | 0.069 | 4.495 | 18.046 |
| 2.25 | 2.125 | 0.490 | 31.922 | 49.967 |
| 2.50 | 2.375 | 0.000 | 0.000 | 49.967 |
| 2.75 | 2.625 | 0.001 | 0.065 | 50.033 |
| 3.00 | 2.875 | 0.754 | 49.121 | 99.153 |
| 3.25 | 3.125 | 0.000 | 0.000 | 99.153 |
| 3.50 | 3.375 | 0.006 | 0.391 | 99.544 |
| 3.75 | 3.625 | 0.000 | 0.000 | 99.544 |
| 4.00 | 3.875 | 0.005 | 0.326 | 99.870 |
| 5.00 | 4.500 | 0.002 | 0.130 | 100.000 |

| Statistical Results | | | |
|---------------------|----------|---------------|-------------|
| Mean: | 2.2963 | phi | (0.2036 mm) |
| Standard Dev: | 0.8375 | phi-units | (0.5596 mm) |
| Skewness: | -2.1117 | dimensionless | |
| Kurtosis: | 8.5818 | dimensionless | |
| 5th Moment: | -31.5044 | dimensionless | |
| 6th Moment: | 126.3762 | dimensionless | |
| RARD * | 0.3647 | dimensionless | |
| Median | 2.5000 | phi | (0.1768 mm) |

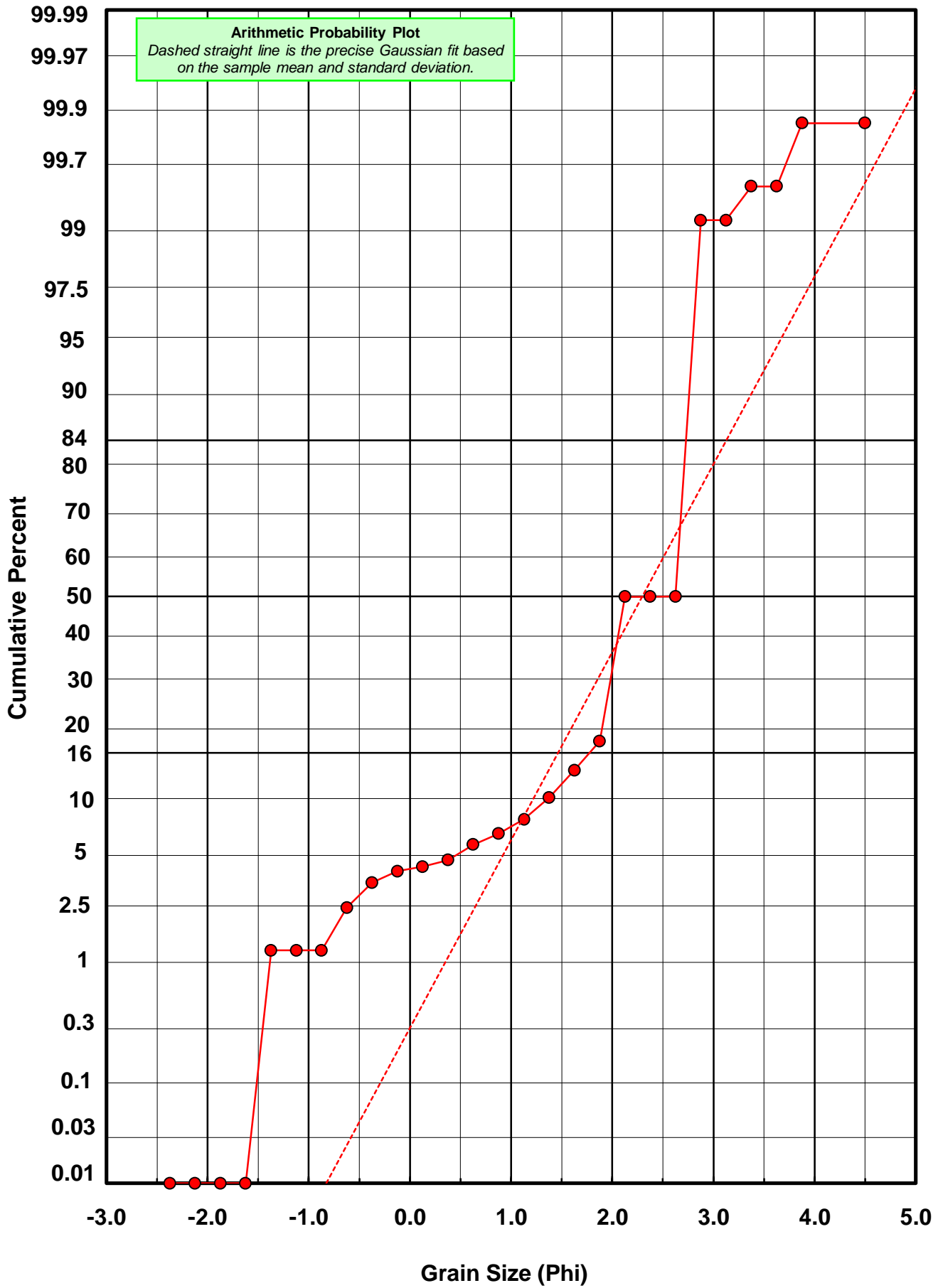
* RARD = reciprocal absolute relative dispersion (see below)

| Statistical Explanation | |
|---|--|
| Calculations based on the Method of Moments | |
| Skewness: 3rd Stand. Moment; Exact Gaussian = 0.0 | |
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| For Further Explanation, See Basille et al. 2002 | |
| Millimeter data calculated by $mm = 2^{-(\phi)}$ | |

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|--|---------------------------------------|
| < 0.5 | Excellent homogeneity (e.g., beaches) |
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| 1.0 to 1.33 | Fair homogeneity |
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MN-13-BB



Post-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: MN-13-BB

Total Digested Mass: 49.584 grams

% Silica: 98.2 %

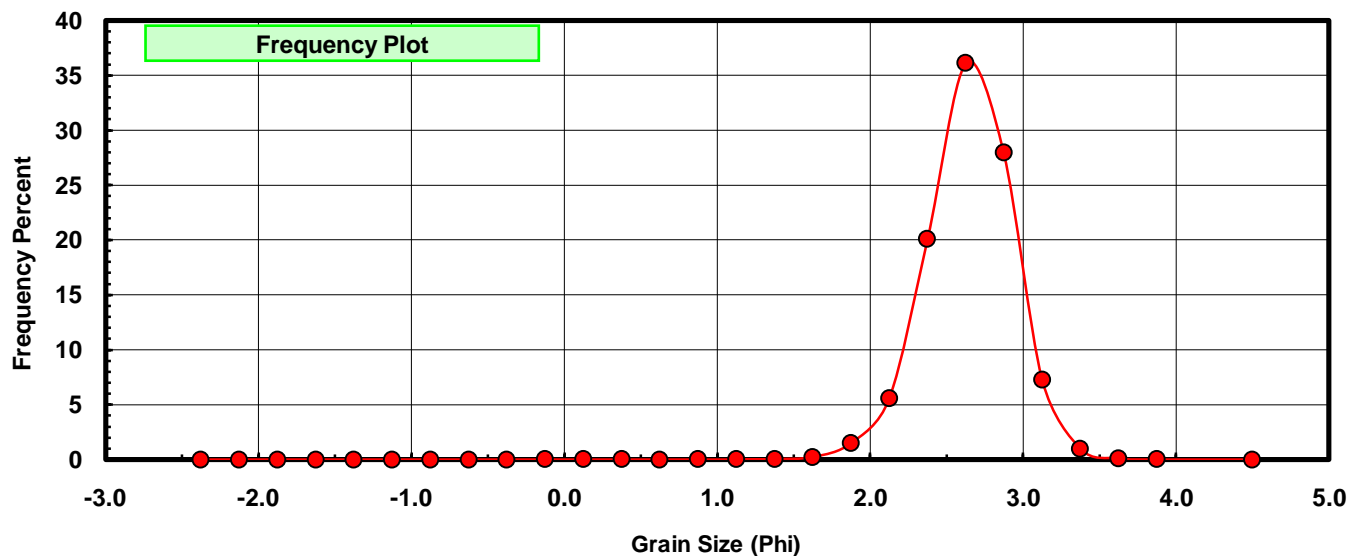
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25 | -2.375 | 0.000 | 0.000 | 0.000 |
| -2.00 | -2.125 | 0.000 | 0.000 | 0.000 |
| -1.75 | -1.875 | 0.000 | 0.000 | 0.000 |
| -1.50 | -1.625 | 0.000 | 0.000 | 0.000 |
| -1.25 | -1.375 | 0.000 | 0.000 | 0.000 |
| -1.00 | -1.125 | 0.000 | 0.000 | 0.000 |
| -0.75 | -0.875 | 0.000 | 0.000 | 0.000 |
| -0.50 | -0.625 | 0.000 | 0.000 | 0.000 |
| -0.25 | -0.375 | 0.000 | 0.000 | 0.000 |
| 0.00 | -0.125 | 0.010 | 0.020 | 0.020 |
| 0.25 | 0.125 | 0.011 | 0.022 | 0.042 |
| 0.50 | 0.375 | 0.010 | 0.020 | 0.063 |
| 0.75 | 0.625 | 0.002 | 0.004 | 0.067 |
| 1.00 | 0.875 | 0.016 | 0.032 | 0.099 |
| 1.25 | 1.125 | 0.013 | 0.026 | 0.125 |
| 1.50 | 1.375 | 0.023 | 0.046 | 0.171 |
| 1.75 | 1.625 | 0.119 | 0.240 | 0.411 |
| 2.00 | 1.875 | 0.744 | 1.500 | 1.912 |
| 2.25 | 2.125 | 2.753 | 5.552 | 7.464 |
| 2.50 | 2.375 | 9.947 | 20.061 | 27.525 |
| 2.75 | 2.625 | 17.904 | 36.108 | 63.633 |
| 3.00 | 2.875 | 13.856 | 27.944 | 91.578 |
| 3.25 | 3.125 | 3.613 | 7.287 | 98.865 |
| 3.50 | 3.375 | 0.485 | 0.978 | 99.843 |
| 3.75 | 3.625 | 0.058 | 0.117 | 99.960 |
| 4.00 | 3.875 | 0.014 | 0.028 | 99.988 |
| 5.00 | 4.500 | 0.006 | 0.012 | 100.000 |

| Statistical Results | | | |
|---------------------|----------|---------------|-------------|
| Mean: | 2.6456 | phi | (0.1598 mm) |
| Standard Dev: | 0.2970 | phi-units | (0.8139 mm) |
| Skewness: | -0.6949 | dimensionless | |
| Kurtosis: | 7.3745 | dimensionless | |
| 5th Moment: | -34.8363 | dimensionless | |
| 6th Moment: | 312.0727 | dimensionless | |
| RARD * | 0.1123 | dimensionless | |
| Median | 2.5306 | phi | (0.1731 mm) |

* RARD = reciprocal absolute relative dispersion (see below)

| Statistical Explanation | |
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