

**Onshore Grab Sample**

**Sample:** PB-12-BB  
**Sample Taken By:** D. Phelps  
**Sample Collected On:** 1/6/09  
**Splits?** N/A

**County:** Palm Beach  
**Latitude:** 26° 49' 0.3"  
**Longitude:** 80° 02' 11.7"  
**Datum:** WGS 84  
**Surf. Elev:** N/A  
**Datum:** N/A

**Fine Data Summary**

Total Sample Weight 60.434 grams  
Total Fines in Sample 0.070 grams  
Total Percent Fines 0.12 %

**Dry Sieving Summary**

Total Sample Weight 60.314 grams  
Total Digested Weight 23.597 grams  
Total Carbonate Weight 36.717 grams  
Total Silica % 39.12 %  
Total Carbonate % 60.88 %  
Carbonate/Silica Ratio 1.556

**General Comments:**

None

**Description**

Worked By: M. Ladle

# Pre-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: PB-12-BB

Total Sample Mass: 60.314 grams

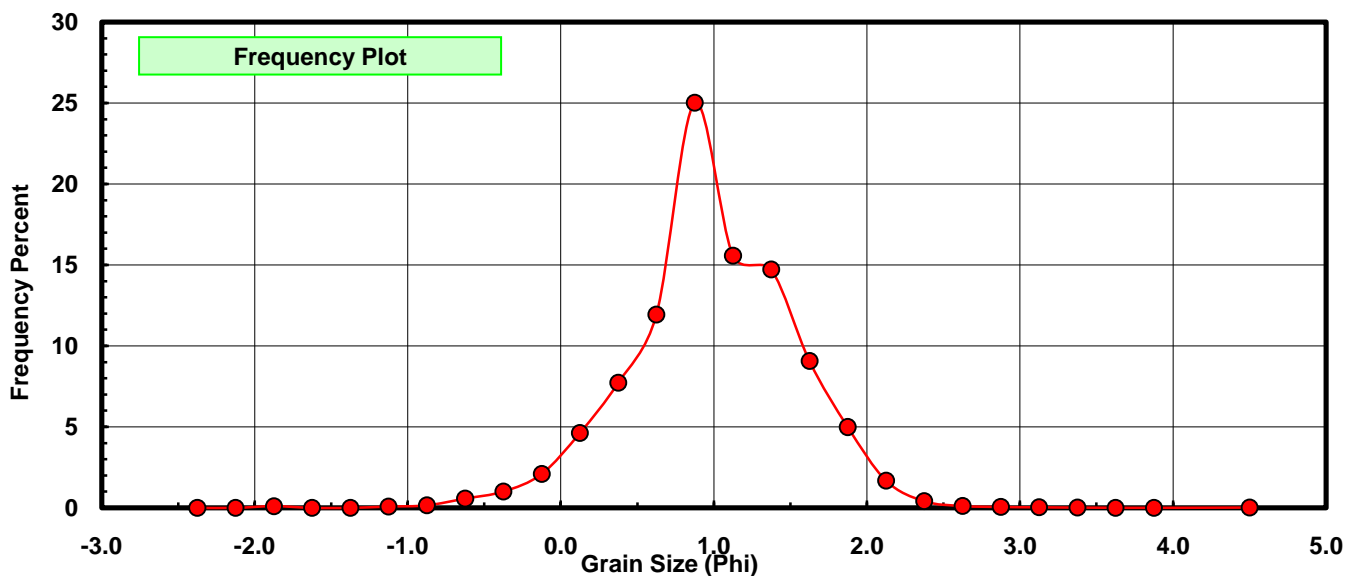
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.000          | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.064          | 0.106         | 0.106               |
| -1.50            | -1.625            | 0.000          | 0.000         | 0.106               |
| -1.25            | -1.375            | 0.000          | 0.000         | 0.106               |
| -1.00            | -1.125            | 0.049          | 0.081         | 0.187               |
| -0.75            | -0.875            | 0.094          | 0.156         | 0.343               |
| -0.50            | -0.625            | 0.345          | 0.572         | 0.915               |
| -0.25            | -0.375            | 0.608          | 1.008         | 1.923               |
| 0.00             | -0.125            | 1.262          | 2.092         | 4.016               |
| 0.25             | 0.125             | 2.788          | 4.622         | 8.638               |
| 0.50             | 0.375             | 4.658          | 7.723         | 16.361              |
| 0.75             | 0.625             | 7.201          | 11.939        | 28.300              |
| 1.00             | 0.875             | 15.087         | 25.014        | 53.314              |
| 1.25             | 1.125             | 9.395          | 15.577        | 68.891              |
| 1.50             | 1.375             | 8.878          | 14.720        | 83.611              |
| 1.75             | 1.625             | 5.466          | 9.063         | 92.673              |
| 2.00             | 1.875             | 3.009          | 4.989         | 97.662              |
| 2.25             | 2.125             | 1.015          | 1.683         | 99.345              |
| 2.50             | 2.375             | 0.245          | 0.406         | 99.751              |
| 2.75             | 2.625             | 0.070          | 0.116         | 99.867              |
| 3.00             | 2.875             | 0.033          | 0.055         | 99.922              |
| 3.25             | 3.125             | 0.020          | 0.033         | 99.955              |
| 3.50             | 3.375             | 0.010          | 0.017         | 99.972              |
| 3.75             | 3.625             | 0.004          | 0.007         | 99.978              |
| 4.00             | 3.875             | 0.002          | 0.003         | 99.982              |
| 5.00             | 4.50              | 0.011          | 0.018         | 100.000             |

| Statistical Results |         |               |             |
|---------------------|---------|---------------|-------------|
| Mean:               | 0.9853  | phi           | (0.5051 mm) |
| Standard Dev:       | 0.5530  | phi-units     | (0.6816 mm) |
| Skewness:           | -0.2718 | dimensionless |             |
| Kurtosis:           | 4.3850  | dimensionless |             |
| 5th Moment:         | -3.6392 | dimensionless |             |
| 6th Moment:         | 54.6538 | dimensionless |             |
| RARD *              | 0.5612  | dimensionless |             |
| Median              | 0.8419  | phi           | (0.5579 mm) |

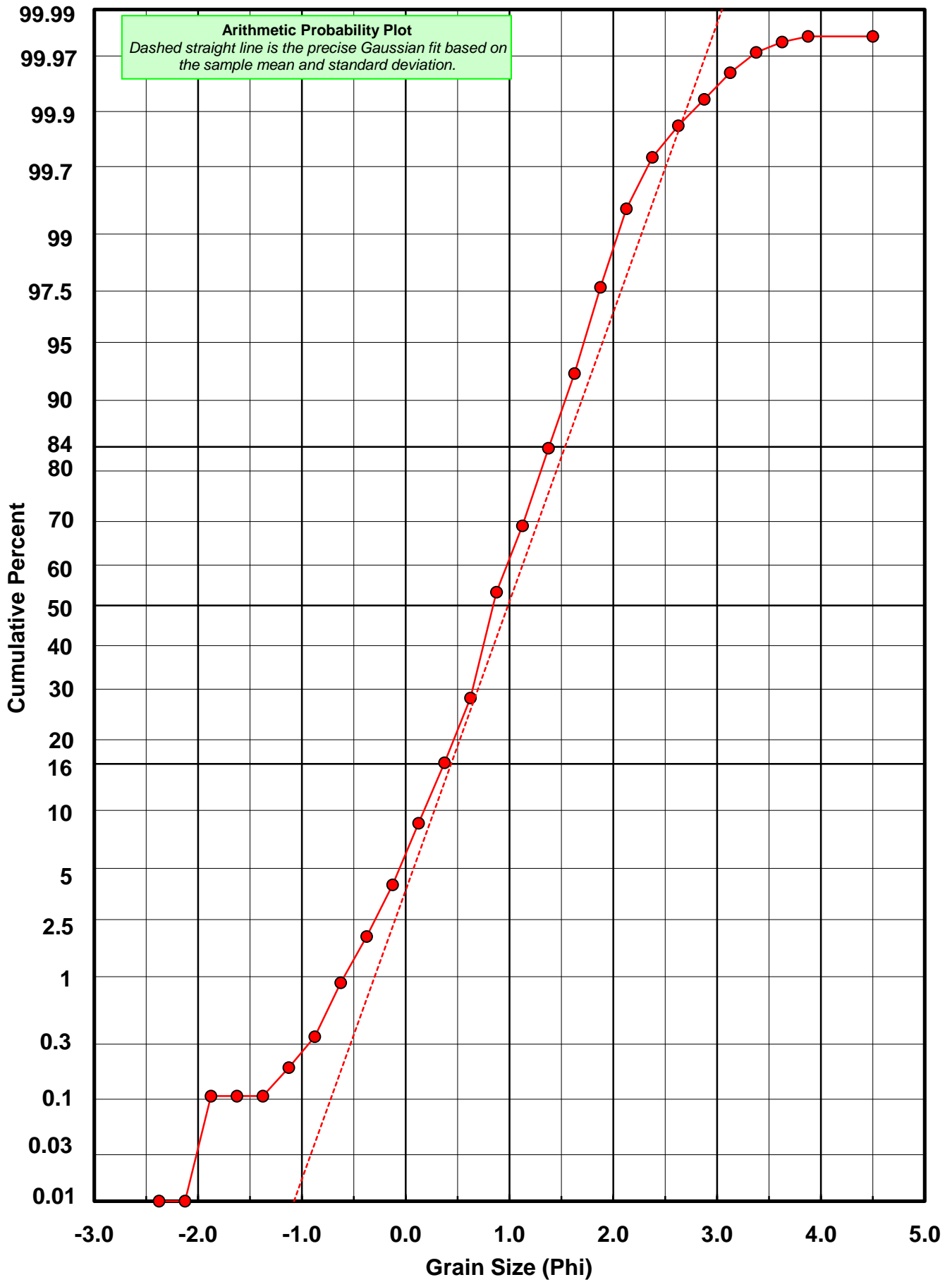
\* RARD = reciprocal absolute relative dispersion (see below)

| 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)      |



# PB-12-BB



# Carbonate Grain Size Distribution

Onshore Grab Sample

Sample: PB-12-BB

Total Carbonate Mass: 36.845 grams

% Carbonate: 60.9 %

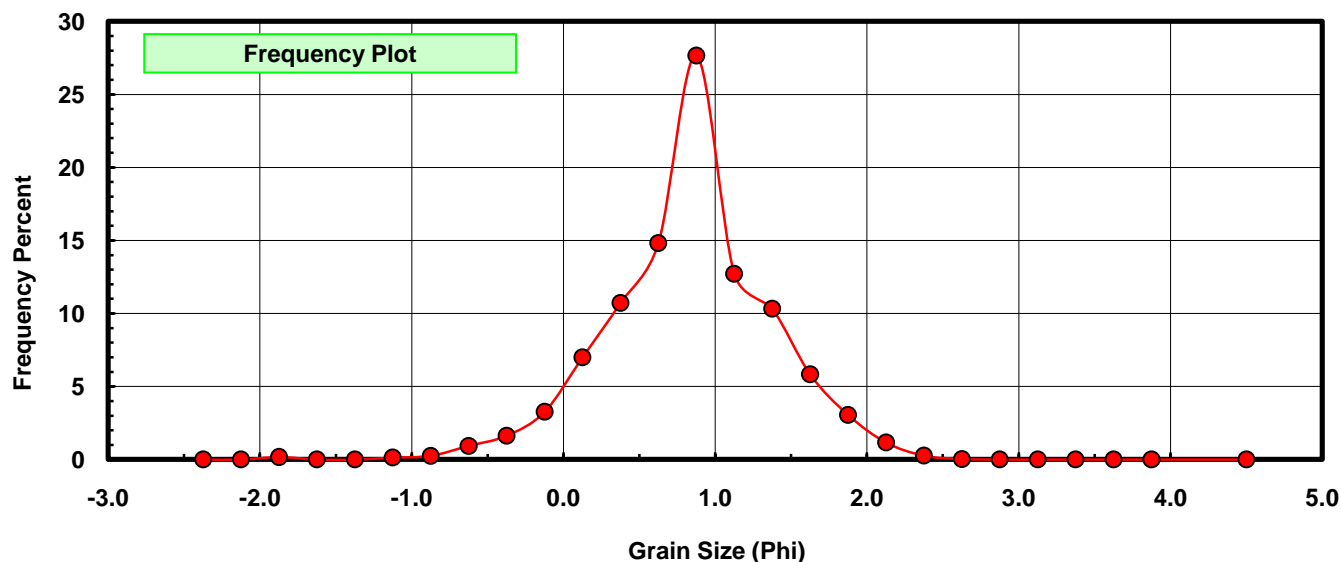
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.000          | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.064          | 0.174         | 0.174               |
| -1.50            | -1.625            | 0.000          | 0.000         | 0.174               |
| -1.25            | -1.375            | 0.000          | 0.000         | 0.174               |
| -1.00            | -1.125            | 0.049          | 0.133         | 0.307               |
| -0.75            | -0.875            | 0.094          | 0.255         | 0.562               |
| -0.50            | -0.625            | 0.345          | 0.936         | 1.498               |
| -0.25            | -0.375            | 0.600          | 1.628         | 3.127               |
| 0.00             | -0.125            | 1.203          | 3.265         | 6.392               |
| 0.25             | 0.125             | 2.576          | 6.991         | 13.383              |
| 0.50             | 0.375             | 3.948          | 10.715        | 24.098              |
| 0.75             | 0.625             | 5.458          | 14.813        | 38.912              |
| 1.00             | 0.875             | 10.194         | 27.667        | 66.579              |
| 1.25             | 1.125             | 4.687          | 12.721        | 79.300              |
| 1.50             | 1.375             | 3.806          | 10.330        | 89.630              |
| 1.75             | 1.625             | 2.150          | 5.835         | 95.465              |
| 2.00             | 1.875             | 1.127          | 3.059         | 98.524              |
| 2.25             | 2.125             | 0.430          | 1.167         | 99.691              |
| 2.50             | 2.375             | 0.099          | 0.269         | 99.959              |
| 2.75             | 2.625             | 0.015          | 0.041         | 100.000             |
| 3.00             | 2.875             | 0.000          | 0.000         | 100.000             |
| 3.25             | 3.125             | 0.000          | 0.000         | 100.000             |
| 3.50             | 3.375             | 0.000          | 0.000         | 100.000             |
| 3.75             | 3.625             | 0.000          | 0.000         | 100.000             |
| 4.00             | 3.875             | 0.000          | 0.000         | 100.000             |
| 5.00             | 4.500             | 0.000          | 0.000         | 100.000             |

| Statistical Results |         |               |             |
|---------------------|---------|---------------|-------------|
| Mean:               | 0.8301  | phi           | (0.5625 mm) |
| Standard Dev:       | 0.5567  | phi-units     | (0.6799 mm) |
| Skewness:           | -0.3389 | dimensionless |             |
| Kurtosis:           | 4.0862  | dimensionless |             |
| 5th Moment:         | -6.4130 | dimensionless |             |
| 6th Moment:         | 39.8229 | dimensionless |             |
| RARD *              | 0.6706  | dimensionless |             |
| Median              | 0.7252  | phi           | (0.6049 mm) |

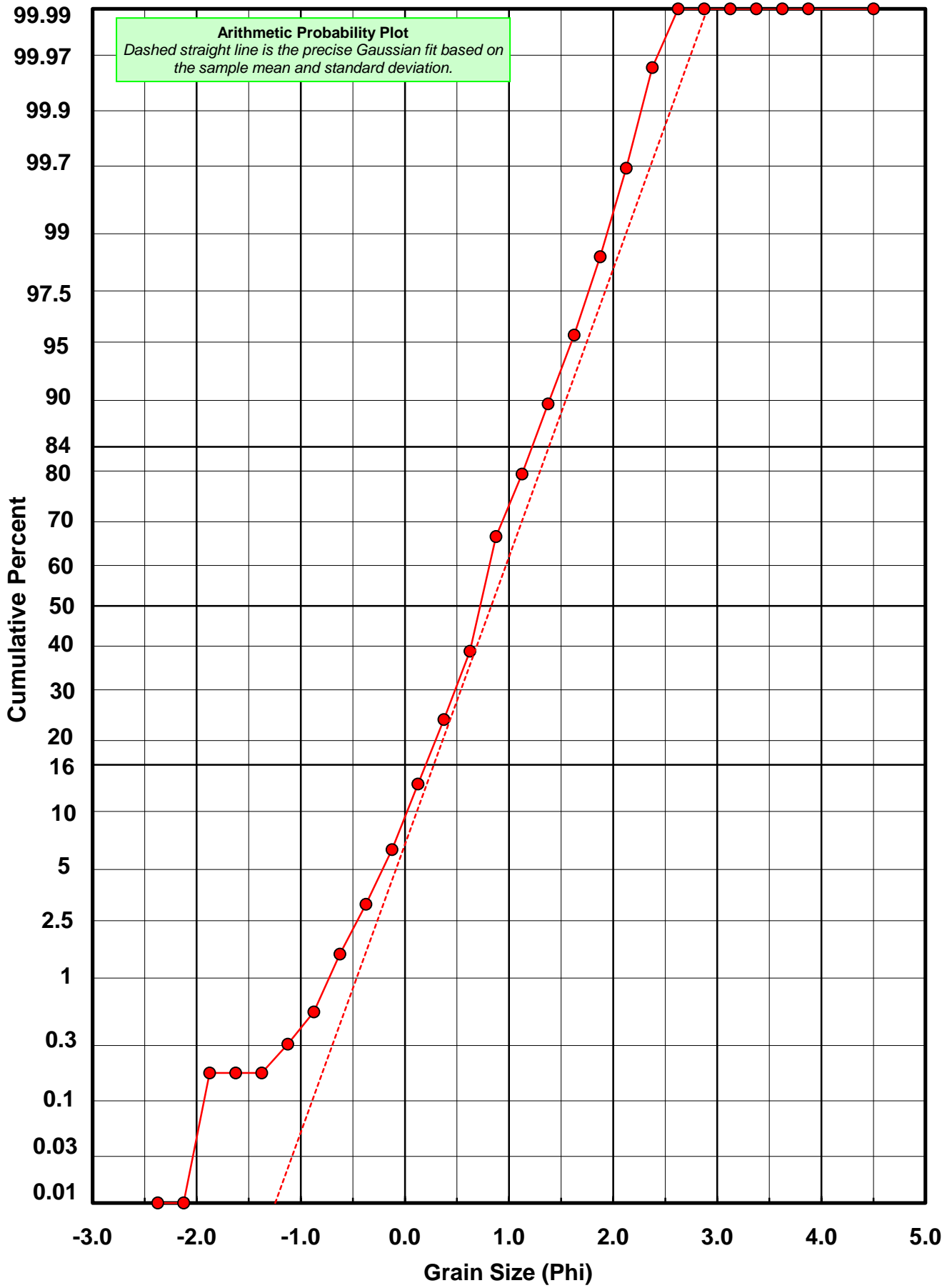
\* RARD = reciprocal absolute relative dispersion (see below)

| 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)      |



# PB-12-BB



# Post-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: PB-12-BB

Total Digested Mass: 23.597 grams

% Silica: 39.1 %

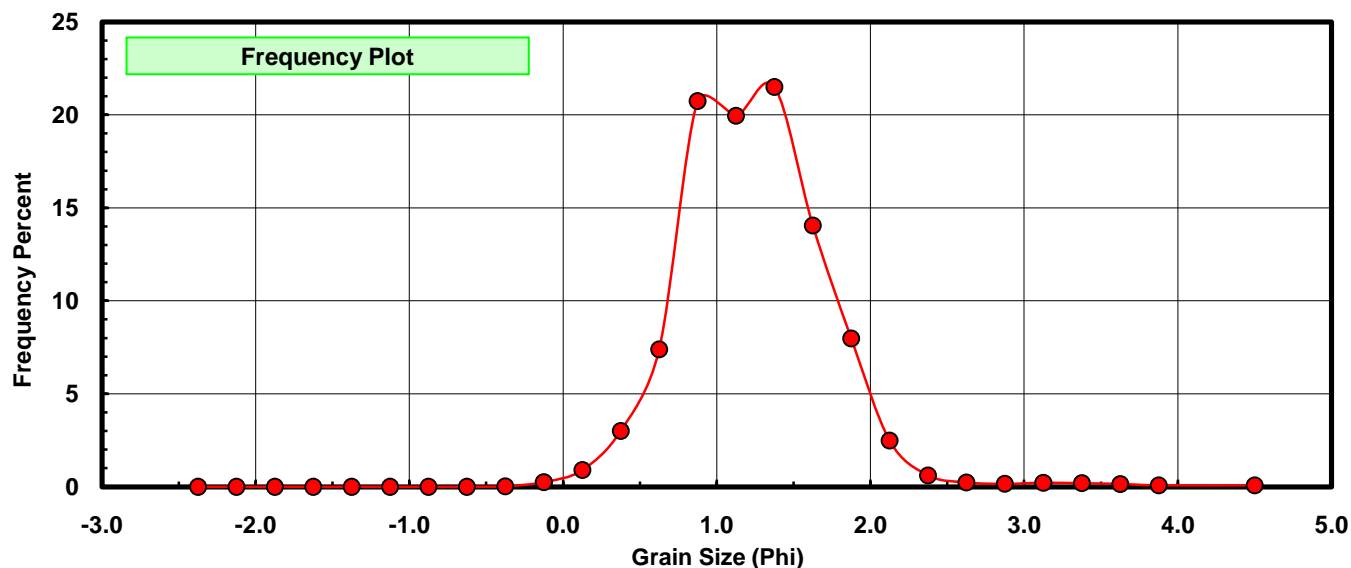
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -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            | 0.008          | 0.034         | 0.034               |
| 0.00             | -0.125            | 0.059          | 0.250         | 0.284               |
| 0.25             | 0.125             | 0.212          | 0.898         | 1.182               |
| 0.50             | 0.375             | 0.710          | 3.009         | 4.191               |
| 0.75             | 0.625             | 1.743          | 7.387         | 11.578              |
| 1.00             | 0.875             | 4.893          | 20.736        | 32.313              |
| 1.25             | 1.125             | 4.708          | 19.952        | 52.265              |
| 1.50             | 1.375             | 5.072          | 21.494        | 73.759              |
| 1.75             | 1.625             | 3.316          | 14.053        | 87.812              |
| 2.00             | 1.875             | 1.882          | 7.976         | 95.788              |
| 2.25             | 2.125             | 0.585          | 2.479         | 98.267              |
| 2.50             | 2.375             | 0.146          | 0.619         | 98.885              |
| 2.75             | 2.625             | 0.055          | 0.233         | 99.119              |
| 3.00             | 2.875             | 0.037          | 0.157         | 99.275              |
| 3.25             | 3.125             | 0.051          | 0.216         | 99.491              |
| 3.50             | 3.375             | 0.045          | 0.191         | 99.682              |
| 3.75             | 3.625             | 0.036          | 0.153         | 99.835              |
| 4.00             | 3.875             | 0.019          | 0.081         | 99.915              |
| 5.00             | 4.500             | 0.020          | 0.085         | 100.000             |

| Statistical Results |          |               |             |
|---------------------|----------|---------------|-------------|
| Mean:               | 1.2411   | phi           | (0.423 mm)  |
| Standard Dev:       | 0.4901   | phi-units     | (0.712 mm)  |
| Skewness:           | 0.8694   | dimensionless |             |
| Kurtosis:           | 6.6556   | dimensionless |             |
| 5th Moment:         | 25.0103  | dimensionless |             |
| 6th Moment:         | 148.7550 | dimensionless |             |
| RARD *              | 0.3949   | dimensionless |             |
| Median              | 1.0966   | phi           | (0.4676 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)      |



# PB-12-BB

