## Onshore Grab Sample

**Sample:** NA-09-MB
**Sample Taken By:** J. Ladner
**Sample Collected On:** 12/4/02
**Splits?** N/A

**County:** Nassau
**Latitude:** 30° 35' 41.6"
**Longitude:** 81° 26' 33.7"
**Datum:** WGS 84
**Surf. Elev:** N/A
**Datum:** N/A

### Fine Data Summary

| | | |
|---|---|---|
| Total Sample Weight | 54.29 | grams |
| Total Fines in Sample | 0.038 | grams |
| Total Percent Fines | 0.07 | % |

### Dry Sieving Summary

| | | |
|---|---|---|
| Total Sample Weight | 54.171 | grams |
| Total Digested Weight | 51.173 | grams |
| Total Carbonate Weight | 2.998 | grams |
| Total Silica % | 94.47 | % |
| Total Carbonate % | 5.53 | % |
| Carbonate/Silica Ratio | 0.059 | |

### General Comments:

None

### Description

Worked By: C. Fischler
Reviewed and Editted By: M. Ladle

# Pre-Digestion Grain Size Distribution

**Onshore Grab Sample**

**Sample:** NA-09-MB

**Total Sample Mass:** 54.171 grams

| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|---|---|---|---|---|
| -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 | 0.053 | 0.098 | 0.098 |
| -1.00 | -1.125 | 0.036 | 0.066 | 0.164 |
| -0.75 | -0.875 | 0.044 | 0.081 | 0.246 |
| -0.50 | -0.625 | 0.103 | 0.190 | 0.436 |
| -0.25 | -0.375 | 0.169 | 0.312 | 0.748 |
| 0.00 | -0.125 | 0.260 | 0.480 | 1.228 |
| 0.25 | 0.125 | 0.349 | 0.644 | 1.872 |
| 0.50 | 0.375 | 0.427 | 0.788 | 2.660 |
| 0.75 | 0.625 | 0.692 | 1.277 | 3.938 |
| 1.00 | 0.875 | 2.074 | 3.829 | 7.766 |
| 1.25 | 1.125 | 3.020 | 5.575 | 13.341 |
| 1.50 | 1.375 | 5.188 | 9.577 | 22.918 |
| 1.75 | 1.625 | 7.212 | 13.313 | 36.232 |
| 2.00 | 1.875 | 10.409 | 19.215 | 55.447 |
| 2.25 | 2.125 | 9.313 | 17.192 | 72.638 |
| 2.50 | 2.375 | 7.128 | 13.158 | 85.797 |
| 2.75 | 2.625 | 4.901 | 9.047 | 94.844 |
| 3.00 | 2.875 | 1.780 | 3.286 | 98.130 |
| 3.25 | 3.125 | 0.565 | 1.043 | 99.173 |
| 3.50 | 3.375 | 0.279 | 0.515 | 99.688 |
| 3.75 | 3.625 | 0.119 | 0.220 | 99.908 |
| 4.00 | 3.875 | 0.045 | 0.083 | 99.991 |
| 5.00 | 4.500 | 0.005 | 0.009 | 100.000 |

| Statistical Results | | | |
|---|---|---|---|
| Mean: | 1.8819 | phi | (0.2713 mm) |
| Standard Dev: | 0.6340 | phi-units | (0.6444 mm) |
| Skewness: | -0.7760 | dimensionless | |
| Kurtosis: | 5.0423 | dimensionless | |
| 5th Moment: | -12.3902 | dimensionless | |
| 6th Moment: | 60.9252 | dimensionless | |
| RARD * | 0.3369 | dimensionless | |
| Median | 1.8041 | phi | (0.2864 mm) |

* RARD = reciprocal absolute relative dispersion (see below)

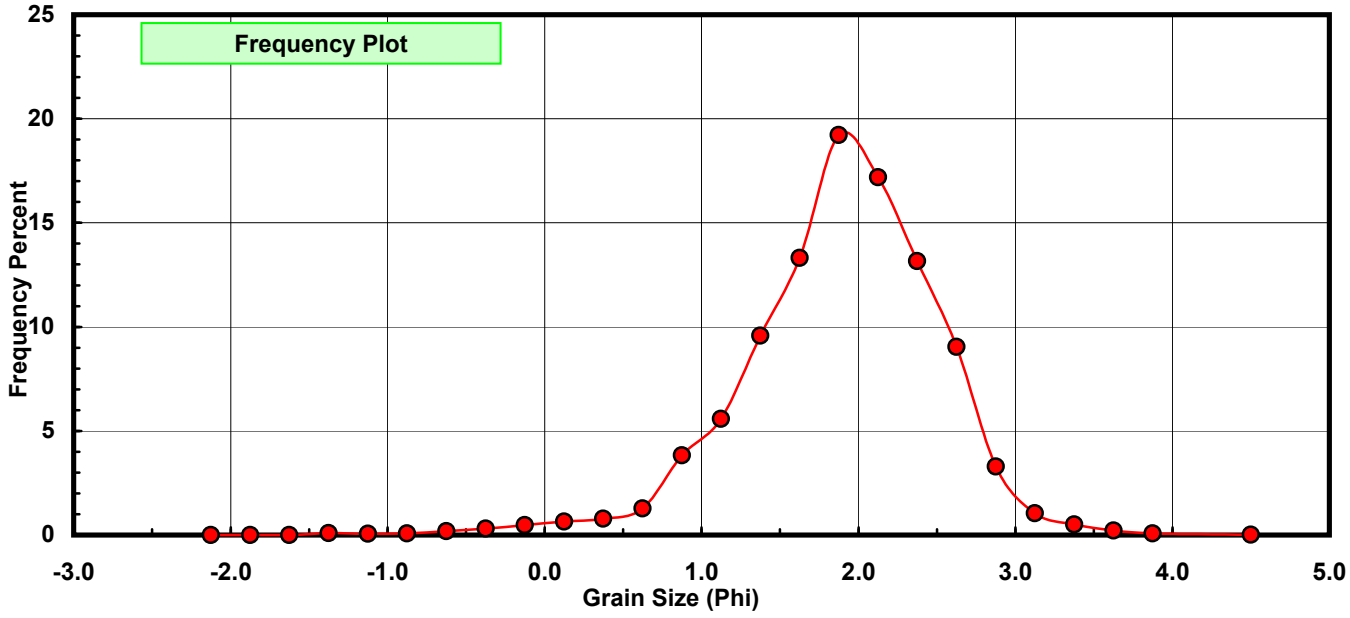
**Statistical Explanation**

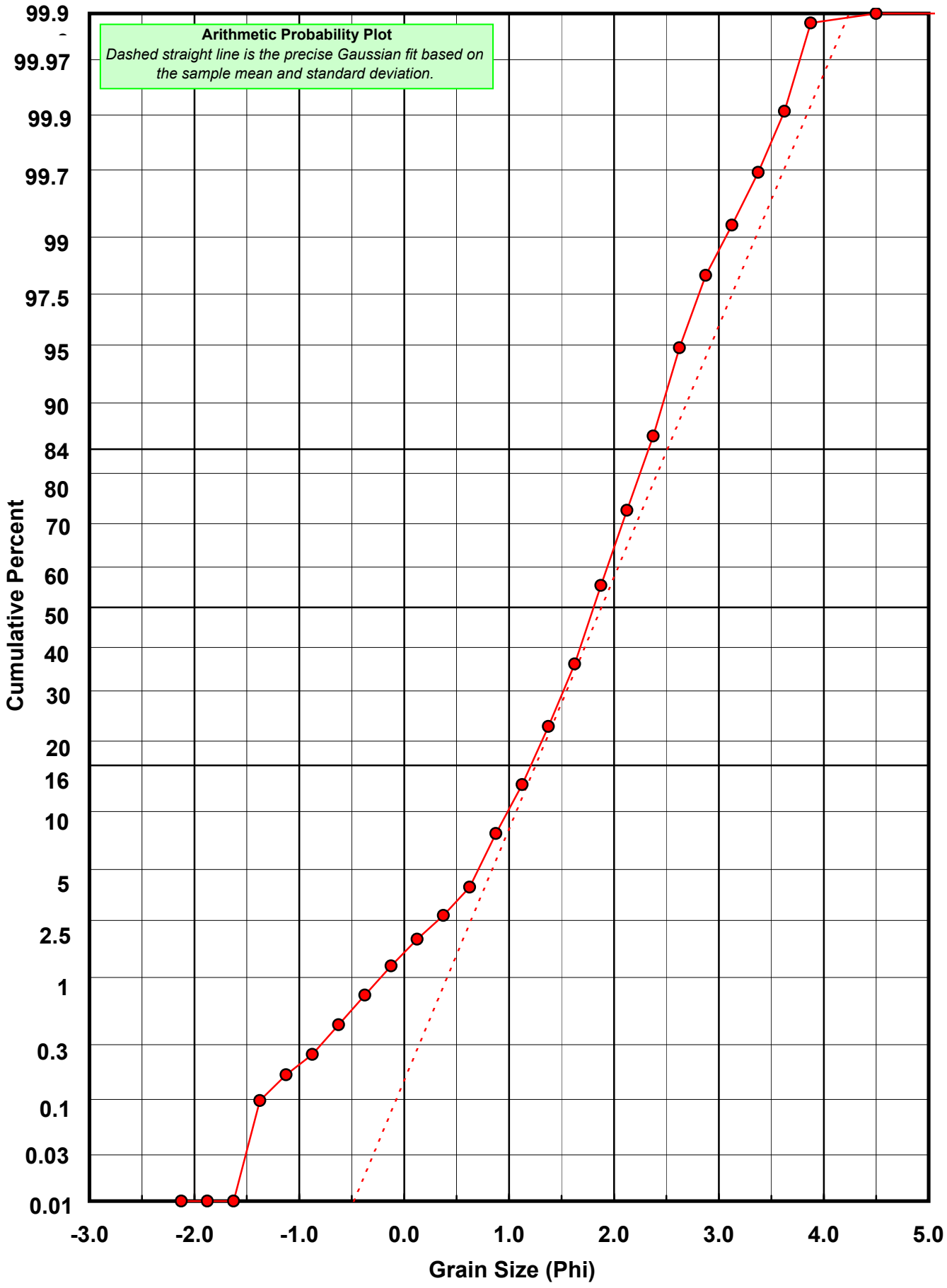
Calculations based on the Method of Moments
Skewness: 3rd Stand. Moment; Exact Gaussian = 0.0
Kurtosis: 4th Stand. Moment; Exact Gaussian = 3.0

For Further Explanation, See Calculation Sheets

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) |




Arithmetic Probability Plot
Dashed straight line is the precise Gaussian fit based on the sample mean and standard deviation.
Cumulative Percent
99.9
99.97
99.9
99.7
99
97.5
95
90
84
80
70
60
50
40
30
20
16
10
5
2.5
1
0.3
0.1
0.03
0.01
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0
5.0
Grain Size (Phi)

# Carbonate Grain Size Distribution

**Onshore Grab Sample**

**Sample:** NA-09-MB

**Total Carbonate Mass:** 3.069 grams

**% Carbonate:** 5.5 %

| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|---|---|---|---|---|
| -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 | 0.053 | 1.727 | 1.727 |
| -1.00 | -1.125 | 0.036 | 1.173 | 2.900 |
| -0.75 | -0.875 | 0.044 | 1.434 | 4.334 |
| -0.50 | -0.625 | 0.095 | 3.095 | 7.429 |
| -0.25 | -0.375 | 0.145 | 4.725 | 12.154 |
| 0.00 | -0.125 | 0.159 | 5.181 | 17.335 |
| 0.25 | 0.125 | 0.179 | 5.833 | 23.167 |
| 0.50 | 0.375 | 0.156 | 5.083 | 28.250 |
| 0.75 | 0.625 | 0.191 | 6.224 | 34.474 |
| 1.00 | 0.875 | 0.300 | 9.775 | 44.249 |
| 1.25 | 1.125 | 0.279 | 9.091 | 53.340 |
| 1.50 | 1.375 | 0.100 | 3.258 | 56.598 |
| 1.75 | 1.625 | 0.266 | 8.667 | 65.266 |
| 2.00 | 1.875 | 0.000 | 0.000 | 65.266 |
| 2.25 | 2.125 | 0.270 | 8.798 | 74.063 |
| 2.50 | 2.375 | 0.002 | 0.065 | 74.128 |
| 2.75 | 2.625 | 0.430 | 14.011 | 88.139 |
| 3.00 | 2.875 | 0.295 | 9.612 | 97.752 |
| 3.25 | 3.125 | 0.039 | 1.271 | 99.022 |
| 3.50 | 3.375 | 0.003 | 0.098 | 99.120 |
| 3.75 | 3.625 | 0.008 | 0.261 | 99.381 |
| 4.00 | 3.875 | 0.019 | 0.619 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 |

| Statistical Results | | | |
|---|---|---|---|
| Mean: | 1.2548 | phi | (0.4191 mm) |
| Standard Dev: | 1.1999 | phi-units | (0.4353 mm) |
| Skewness: | -0.1305 | dimensionless | |
| Kurtosis: | 2.0750 | dimensionless | |
| 5th Moment: | -0.9158 | dimensionless | |
| 6th Moment: | 5.9458 | dimensionless | |
| RARD * | 0.9562 | dimensionless | |
| Median | 1.0332 | phi | (0.4886 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 Calculation Sheets

Millimeter data calculated by mm = 2^(-phi)

| Reciprocal Absolute Relative Dispersion (RARD) Scale | |
|---|---|
| < 0.5 | Excellent homogeneity (e.g., beaches) |
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| 1.0 to 1.33 | Fair homogeneity |
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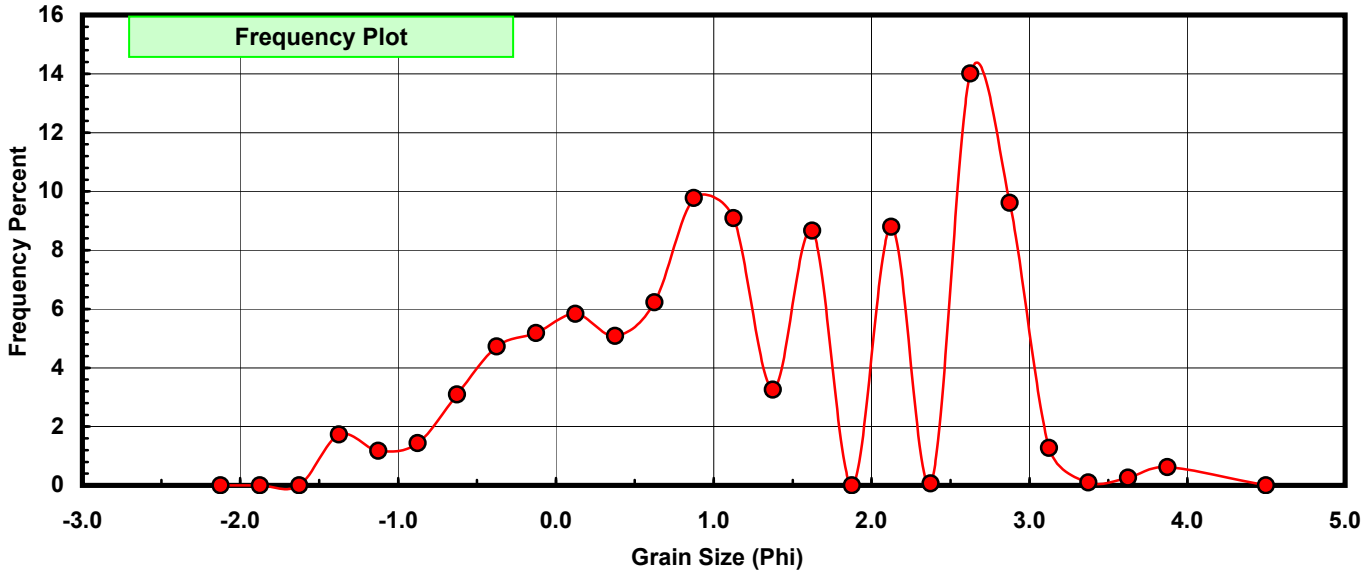

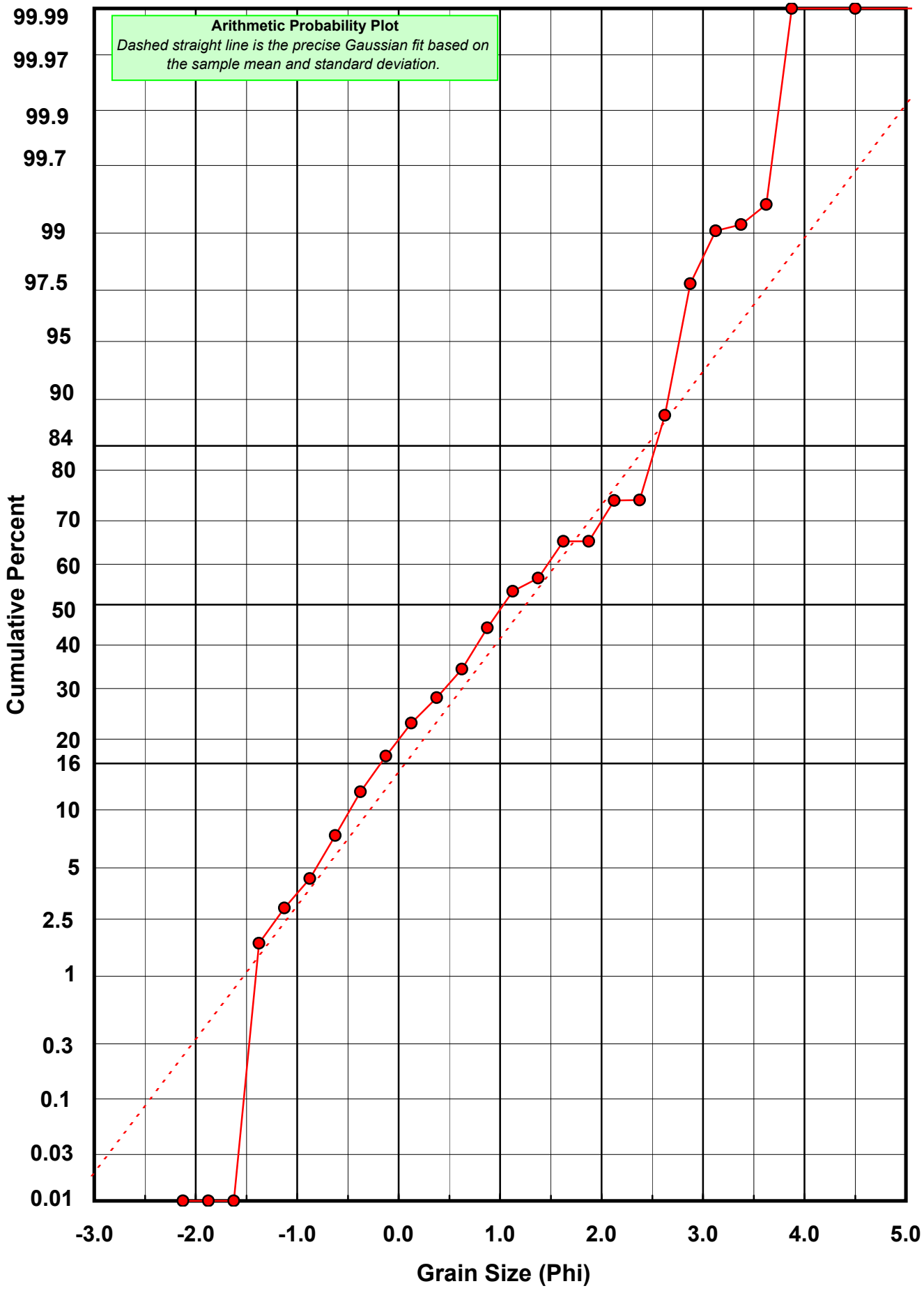
Arithmetic Probability Plot
Dashed straight line is the precise Gaussian fit based on the sample mean and standard deviation.
Cumulative Percent
99.99
99.97
99.9
99.7
99
97.5
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50
40
30
20
16
10
5
2.5
1
0.3
0.1
0.03
0.01
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0
5.0
Grain Size (Phi)

# Post-Digestion Grain Size Distribution

**Onshore Grab Sample**

**Sample:** NA-09-MB

**Total Digested Mass:** 51.167 grams

**% Silica:** 94.5 %

| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|---|---|---|---|---|
| -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 | 0.008 | 0.016 | 0.016 |
| -0.25 | -0.375 | 0.024 | 0.047 | 0.063 |
| 0.00 | -0.125 | 0.101 | 0.197 | 0.260 |
| 0.25 | 0.125 | 0.170 | 0.332 | 0.592 |
| 0.50 | 0.375 | 0.271 | 0.530 | 1.122 |
| 0.75 | 0.625 | 0.501 | 0.979 | 2.101 |
| 1.00 | 0.875 | 1.774 | 3.467 | 5.568 |
| 1.25 | 1.125 | 2.741 | 5.357 | 10.925 |
| 1.50 | 1.375 | 5.088 | 9.944 | 20.869 |
| 1.75 | 1.625 | 6.946 | 13.575 | 34.444 |
| 2.00 | 1.875 | 10.479 | 20.480 | 54.924 |
| 2.25 | 2.125 | 9.043 | 17.674 | 72.598 |
| 2.50 | 2.375 | 7.126 | 13.927 | 86.525 |
| 2.75 | 2.625 | 4.471 | 8.738 | 95.263 |
| 3.00 | 2.875 | 1.485 | 2.902 | 98.165 |
| 3.25 | 3.125 | 0.526 | 1.028 | 99.193 |
| 3.50 | 3.375 | 0.276 | 0.539 | 99.732 |
| 3.75 | 3.625 | 0.111 | 0.217 | 99.949 |
| 4.00 | 3.875 | 0.026 | 0.051 | 100.000 |
| 5.00 | 4.500 | 0.000 | 0.000 | 100.000 |

| Statistical Results | | | |
|---|---|---|---|
| Mean: | 1.9192 | phi | (0.2644 mm) |
| Standard Dev: | 0.5584 | phi-units | (0.679 mm) |
| Skewness: | -0.2977 | dimensionless | |
| Kurtosis: | 3.5903 | dimensionless | |
| 5th Moment: | -3.3288 | dimensionless | |
| 6th Moment: | 25.0109 | dimensionless | |
| RARD * | 0.2910 | dimensionless | |
| Median | 1.8149 | phi | (0.2842 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

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Millimeter data calculated by mm = 2^(-phi)

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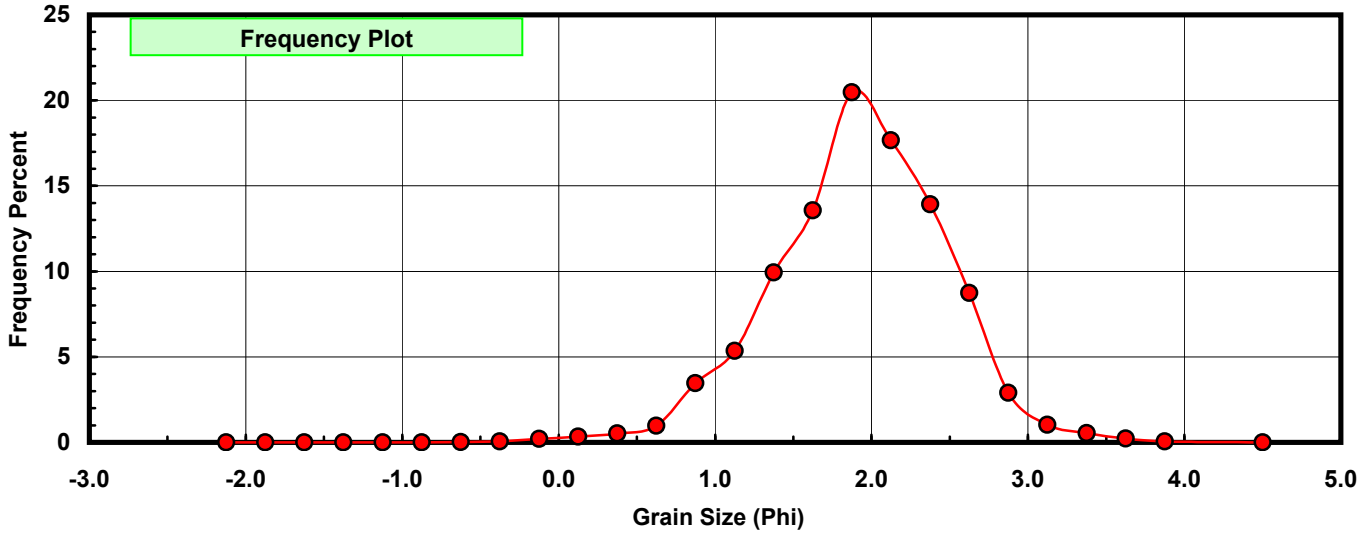

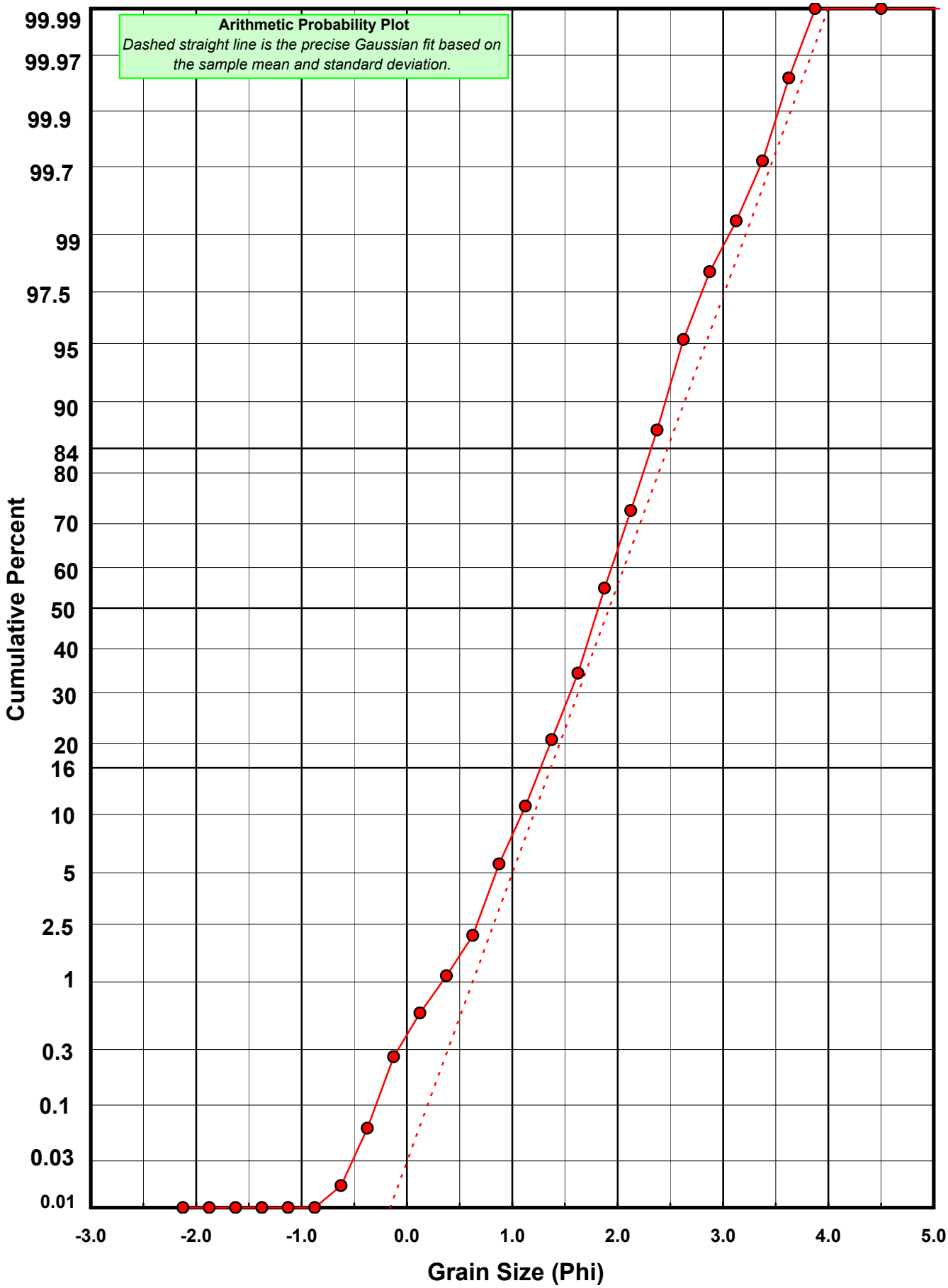
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Grain Size (Phi)