

# Quality Control Statistical Summary

Onshore Grab Sample: BV-01-BB

Sample Taken By: D. Phelps                      **Latitude:** 28° 46' 55.7"  
 Sample Taken On: 03/19/09                      **Longitude:** 80° 43' 36.9"  
 County: Brevard                                      **Datum:** WGS 84

Statistical Results: Pre-CaCO3		
	Duplicate	Original
<b>Mean:</b>	1.0922 phi (0.469 mm)	1.1450 phi (0.4522 mm)
<b>Standard Dev:</b>	0.8750 phi-units (0.5453 mm)	0.8545 phi-units (0.5531 mm)
<b>Skewness:</b>	0.0431 dimensionless	-0.0655 dimensionless
<b>Kurtosis:</b>	1.9322 dimensionless	2.0178 dimensionless
<b>5th Moment:</b>	0.1740 dimensionless	-0.3511 dimensionless
<b>6th Moment:</b>	5.2510 dimensionless	5.6322 dimensionless
<b>RARD*:</b>	0.8011 dimensionless	0.7463 dimensionless
<b>Median:</b>	0.9233 phi (0.5273 mm)	1.0332 phi (0.4886 mm)

Statistical Results: CaCO3		
	Duplicate	Original
<b>Mean:</b>	0.5864 phi (0.666 mm)	0.6455 phi (0.6393 mm)
<b>Standard Dev:</b>	0.7454 phi-units (0.5965 mm)	0.7480 phi-units (0.5954 mm)
<b>Skewness:</b>	0.5002 dimensionless	0.3738 dimensionless
<b>Kurtosis:</b>	2.5989 dimensionless	2.5672 dimensionless
<b>5th Moment:</b>	3.0208 dimensionless	2.5074 dimensionless
<b>6th Moment:</b>	11.1477 dimensionless	10.2791 dimensionless
<b>RARD*:</b>	1.2710 dimensionless	1.1588 dimensionless
<b>Median:</b>	0.3584 phi (0.78 mm)	0.4798 phi (0.7171 mm)

Statistical Results: Post-CaCO3		
	Duplicate	Original
<b>Mean:</b>	1.3891 phi (0.3818 mm)	1.4379 phi (0.3691 mm)
<b>Standard Dev:</b>	0.8161 phi-units (0.568 mm)	0.7957 phi-units (0.5761 mm)
<b>Skewness:</b>	-0.2232 dimensionless	-0.3257 dimensionless
<b>Kurtosis:</b>	1.9885 dimensionless	2.4044 dimensionless
<b>5th Moment:</b>	-0.6532 dimensionless	-1.6838 dimensionless
<b>6th Moment:</b>	5.7502 dimensionless	11.0392 dimensionless
<b>RARD*:</b>	0.5875 dimensionless	0.5534 dimensionless
<b>Median:</b>	1.3976 phi (0.3796 mm)	1.4454 phi (0.3672 mm)

Additional Data	
<b>Total Fines</b>	
<b>Original:</b>	0.4 %
<b>Duplicate:</b>	0.33 %
<b>Total Carbonates</b>	
<b>Original:</b>	36.54 %
<b>Duplicate:</b>	36.9 %

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 $mm = 2^{-(\phi)}$	
* 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)

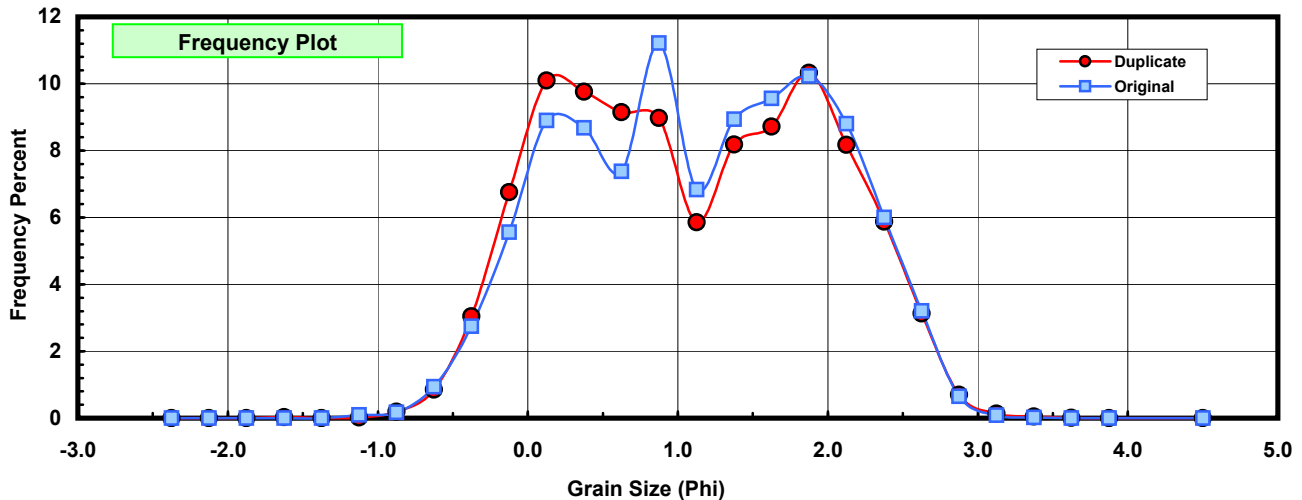
# Pre-Digestion Grain Size Distribution

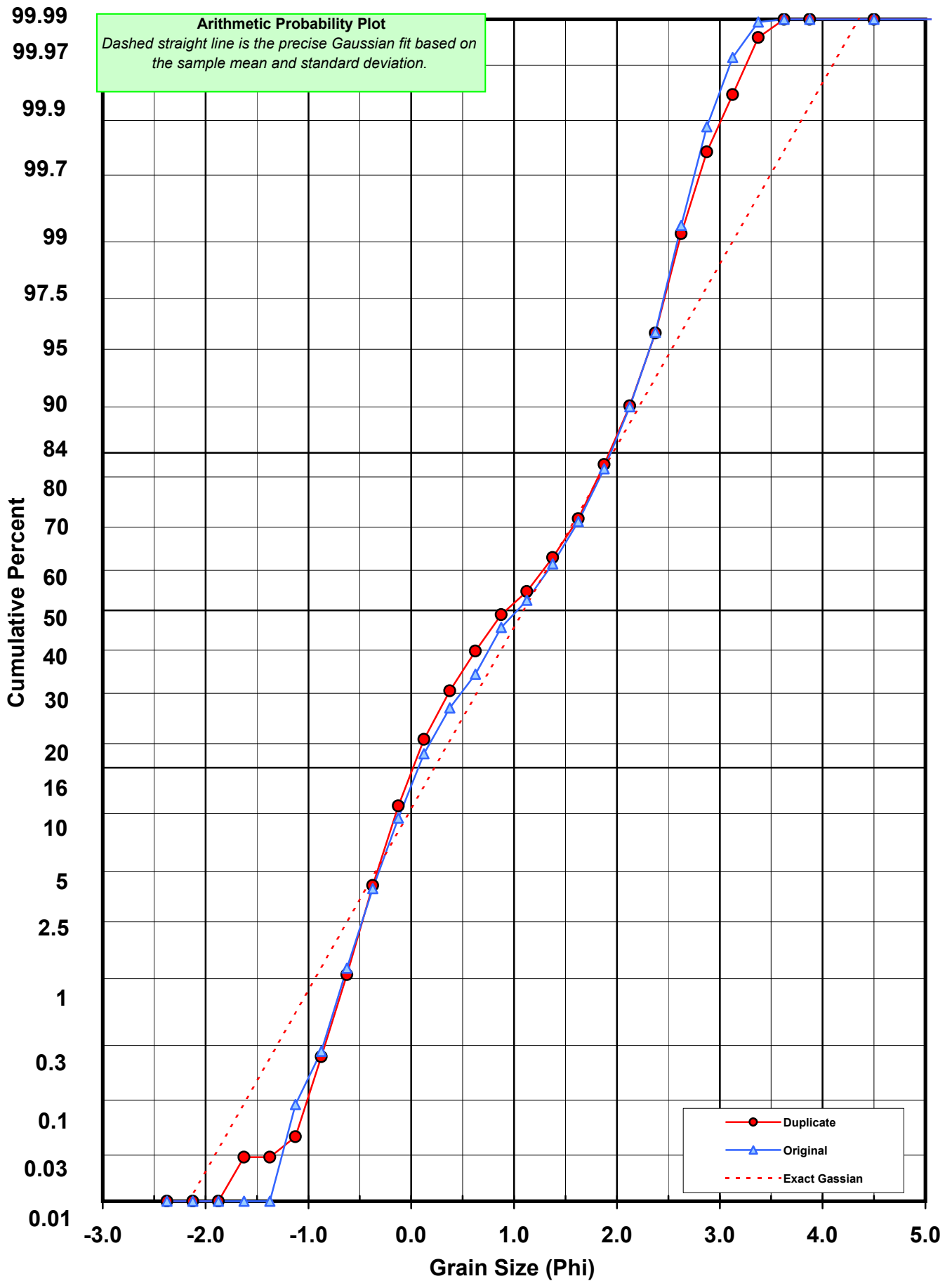
Onshore Grab Sample: BV-01-BB

Total Duplicate Sample Mass: 57.887 grams

Total Original Sample Mass: 59.108 grams

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-2.25	-2.375	0.000	0.000	0.000	0.000	0.000	0.000
-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	0.017	0.029	0.029	0.000	0.000	0.000
-1.25	-1.375	0.000	0.000	0.029	0.000	0.000	0.000
-1.00	-1.125	0.010	0.017	0.047	0.054	0.091	0.091
-0.75	-0.875	0.111	0.192	0.238	0.103	0.174	0.266
-0.50	-0.625	0.491	0.848	1.087	0.557	0.942	1.208
-0.25	-0.375	1.759	3.039	4.125	1.623	2.746	3.954
0.00	-0.125	3.911	6.756	10.882	3.284	5.556	9.510
0.25	0.125	5.845	10.097	20.979	5.260	8.899	18.409
0.50	0.375	5.652	9.764	30.743	5.132	8.683	27.092
0.75	0.625	5.298	9.152	39.895	4.359	7.375	34.466
1.00	0.875	5.195	8.974	48.869	6.628	11.214	45.680
1.25	1.125	3.391	5.858	54.727	4.036	6.828	52.508
1.50	1.375	4.736	8.181	62.909	5.281	8.935	61.443
1.75	1.625	5.047	8.719	71.627	5.650	9.559	71.002
2.00	1.875	5.977	10.325	81.953	6.046	10.229	81.231
2.25	2.125	4.728	8.168	90.120	5.204	8.804	90.035
2.50	2.375	3.399	5.872	95.992	3.544	5.996	96.031
2.75	2.625	1.809	3.125	99.117	1.895	3.206	99.237
3.00	2.875	0.402	0.694	99.812	0.384	0.650	99.887
3.25	3.125	0.075	0.130	99.941	0.052	0.088	99.975
3.50	3.375	0.026	0.045	99.986	0.012	0.020	99.995
3.75	3.625	0.007	0.012	99.998	0.002	0.003	99.998
4.00	3.875	0.000	0.000	99.998	0.001	0.002	100.000
5.00	4.500	0.001	0.002	100.000	0.001	0.002	100.002



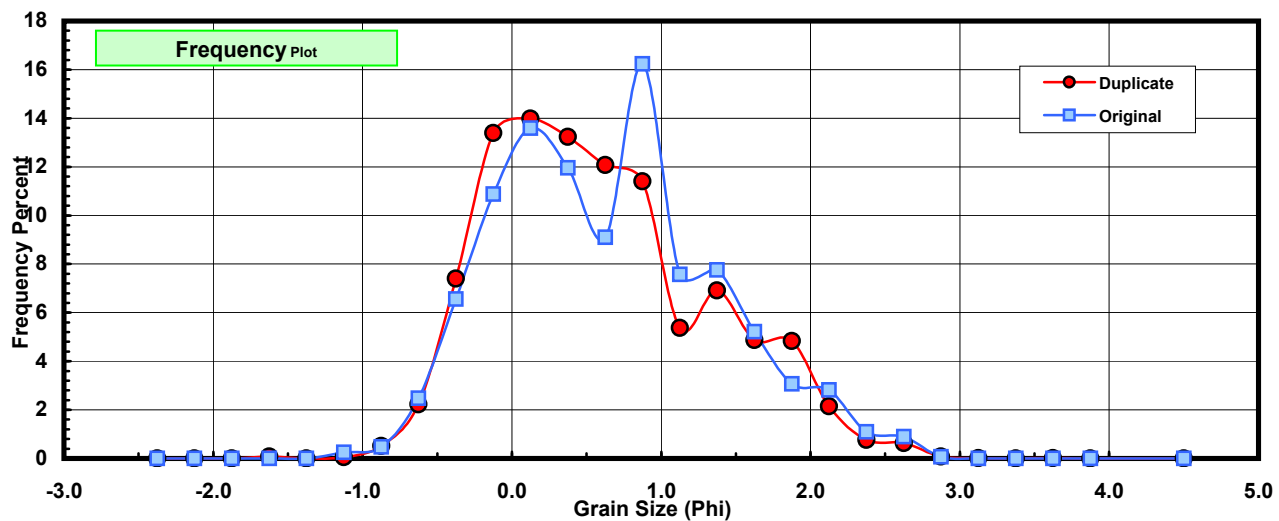


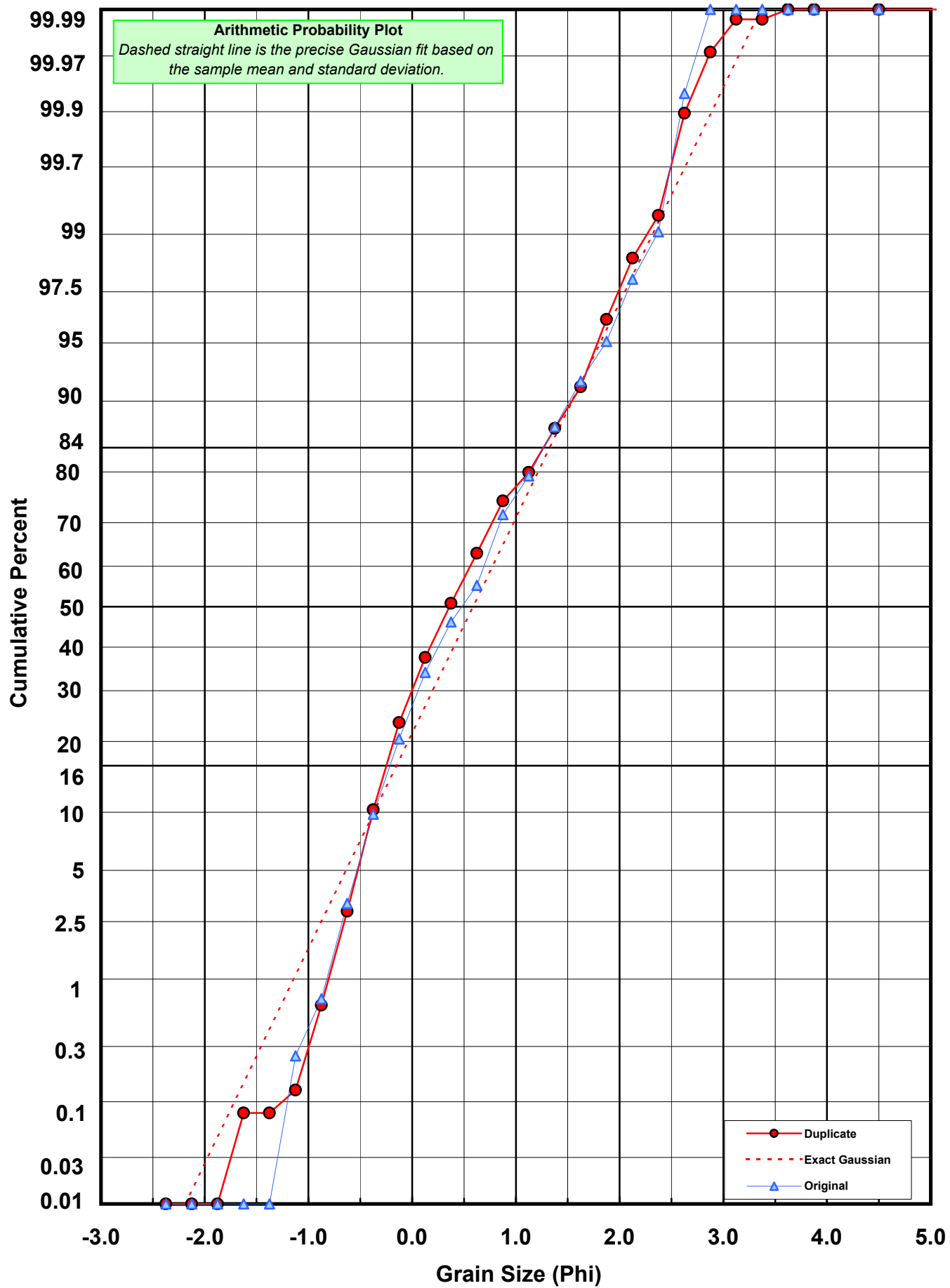
# Carbonate Grain Size Distribution

Onshore Grab Sample: BV-01-BB

**Total Duplicate Carbonate Mass:** 21.369 grams  
**% Carbonate in Duplicate:** 36.9 %  
**Total Original Carbonate Mass:** 21.732 grams  
**% Carbonate in Original:** 36.5 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-2.25	-2.375	0.000	0.000	0.000	0.000	0.000	0.000
-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	0.017	0.080	0.080	0.000	0.000	0.000
-1.25	-1.375	0.000	0.000	0.080	0.000	0.000	0.000
-1.00	-1.125	0.010	0.047	0.126	0.054	0.248	0.248
-0.75	-0.875	0.111	0.519	0.646	0.103	0.474	0.722
-0.50	-0.625	0.476	2.228	2.873	0.539	2.480	3.203
-0.25	-0.375	1.581	7.399	10.272	1.425	6.557	9.760
0.00	-0.125	2.862	13.393	23.665	2.363	10.873	20.633
0.25	0.125	2.988	13.983	37.648	2.954	13.593	34.226
0.50	0.375	2.827	13.229	50.877	2.599	11.959	46.185
0.75	0.625	2.580	12.074	62.951	1.977	9.097	55.283
1.00	0.875	2.436	11.400	74.351	3.529	16.239	71.521
1.25	1.125	1.148	5.372	79.723	1.645	7.569	79.091
1.50	1.375	1.478	6.917	86.640	1.686	7.758	86.849
1.75	1.625	1.042	4.876	91.516	1.132	5.209	92.058
2.00	1.875	1.034	4.839	96.355	0.667	3.069	95.127
2.25	2.125	0.460	2.153	98.507	0.611	2.812	97.939
2.50	2.375	0.162	0.758	99.265	0.237	1.091	99.029
2.75	2.625	0.135	0.632	99.897	0.196	0.902	99.931
3.00	2.875	0.016	0.075	99.972	0.015	0.069	100.000
3.25	3.125	0.004	0.019	99.991	0.000	0.000	100.000
3.50	3.375	0.000	0.000	99.991	0.000	0.000	100.000
3.75	3.625	0.002	0.009	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





# Post-Digestion Grain Size Distribution

Onshore Grab Sample: BV-01-BB

**Total Duplicate Digested Mass:** 36.529 grams  
**% Silica in Duplicate:** 63.1 %  
**Total Original Digested Mass:** 37.512 grams  
**% Silica in Original:** 63.5 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-2.25	-2.375	0.000	0.000	0.000	0.000	0.000	0.000
-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	0.040	0.107	0.107
-1.25	-1.375	0.000	0.000	0.000	0.000	0.000	0.107
-1.00	-1.125	0.000	0.000	0.000	0.000	0.000	0.107
-0.75	-0.875	0.000	0.000	0.000	0.000	0.000	0.107
-0.50	-0.625	0.015	0.041	0.041	0.018	0.048	0.155
-0.25	-0.375	0.178	0.487	0.528	0.198	0.528	0.682
0.00	-0.125	1.049	2.872	3.400	0.921	2.455	3.138
0.25	0.125	2.857	7.821	11.221	2.306	6.147	9.285
0.50	0.375	2.825	7.734	18.955	2.533	6.753	16.038
0.75	0.625	2.718	7.441	26.395	2.382	6.350	22.388
1.00	0.875	2.759	7.553	33.948	3.099	8.261	30.649
1.25	1.125	2.243	6.140	40.089	2.391	6.374	37.023
1.50	1.375	3.258	8.919	49.008	3.595	9.584	46.606
1.75	1.625	4.005	10.964	59.972	4.518	12.044	58.651
2.00	1.875	4.943	13.532	73.503	5.379	14.339	72.990
2.25	2.125	4.268	11.684	85.187	4.593	12.244	85.234
2.50	2.375	3.237	8.861	94.049	3.307	8.816	94.050
2.75	2.625	1.674	4.583	98.631	1.699	4.529	98.579
3.00	2.875	0.386	1.057	99.688	0.369	0.984	99.563
3.25	3.125	0.071	0.194	99.882	0.061	0.163	99.725
3.50	3.375	0.027	0.074	99.956	0.025	0.067	99.792
3.75	3.625	0.005	0.014	99.970	0.048	0.128	99.920
4.00	3.875	0.003	0.008	99.978	0.020	0.053	99.973
5.00	4.500	0.008	0.022	100.000	0.010	0.027	100.000

