

Quality Control Statistical Summary

Onshore Grab Sample: SA-13-BB

Sample Taken By: D. Phelps
 Sample Taken On: 12/03/09
 County: Sarasota

Latitude: 27° 15' 45.7"
 Longitude: 82° 32' 51.3"
 Datum: WGS 84

Statistical Results: Pre-CaCO3		
	Duplicate	Original
Mean:	2.7065 phi (0.1532 mm)	2.6964 phi (0.1543 mm)
Standard Dev:	0.2516 phi-units (0.84 mm)	0.3032 phi-units (0.8105 mm)
Skewness:	-1.0816 dimensionless	-3.3184 dimensionless
Kurtosis:	10.6666 dimensionless	35.1137 dimensionless
5th Moment:	-69.6568 dimensionless	##### dimensionless
6th Moment:	705.9317 dimensionless	##### dimensionless
RARD*:	0.0929 dimensionless	0.1124 dimensionless
Median:	2.5937 phi (0.1657 mm)	2.5941 phi (0.1656 mm)

Statistical Results: CaCO3		
	Duplicate	Original
Mean:	2.9069 phi (0.1333 mm)	2.3144 phi (0.201 mm)
Standard Dev:	0.1855 phi-units (0.8794 mm)	0.7290 phi-units (0.6033 mm)
Skewness:	-3.6541 dimensionless	-3.1918 dimensionless
Kurtosis:	34.1259 dimensionless	13.3181 dimensionless
5th Moment:	##### dimensionless	-56.7099 dimensionless
6th Moment:	##### dimensionless	251.3432 dimensionless
RARD*:	0.0638 dimensionless	0.3150 dimensionless
Median:	2.7755 phi (0.1461 mm)	2.4486 phi (0.1832 mm)

Statistical Results: Post-CaCO3		
	Duplicate	Original
Mean:	2.6622 phi (0.158 mm)	2.7209 phi (0.1517 mm)
Standard Dev:	0.3057 phi-units (0.809 mm)	0.2779 phi-units (0.8248 mm)
Skewness:	-2.9573 dimensionless	-1.4973 dimensionless
Kurtosis:	24.6582 dimensionless	16.2438 dimensionless
5th Moment:	##### dimensionless	##### dimensionless
6th Moment:	##### dimensionless	##### dimensionless
RARD*:	0.1148 dimensionless	0.1021 dimensionless
Median:	2.5520 phi (0.1705 mm)	2.6149 phi (0.1632 mm)

Additional Data	
Total Fines	
Original:	0.27 %
Duplicate:	0.14 %
Total Carbonates	
Original:	3.84 %
Duplicate:	8.23 %

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)

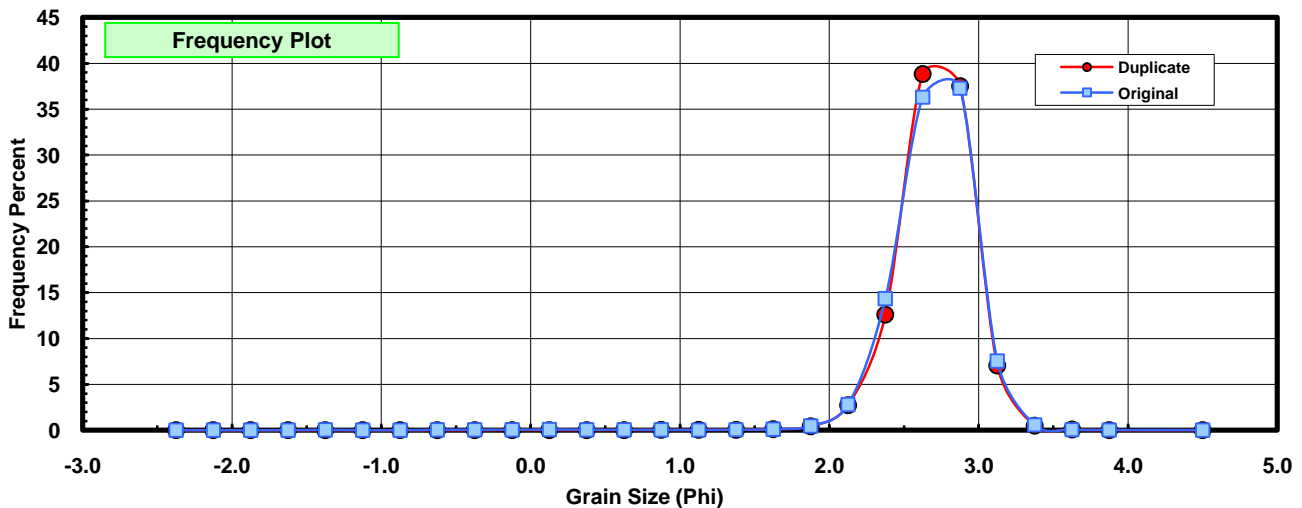
Pre-Digestion Grain Size Distribution

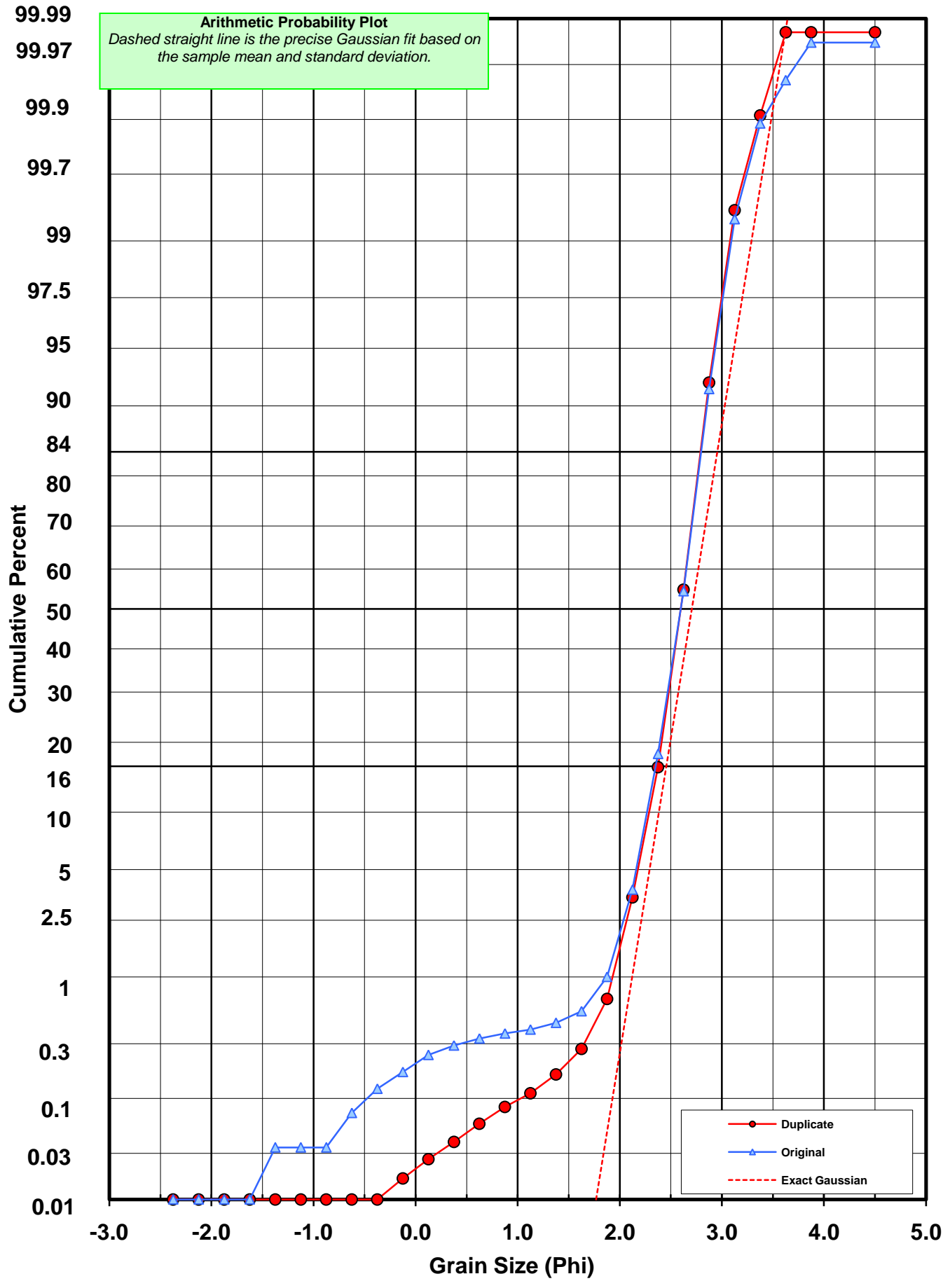
Onshore Grab Sample: SA-13-BB

Total Duplicate Sample Mass: 52.376 grams

Total Original Sample Mass: 59.336 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	0.000	0.000	0.000	0.000	0.000	0.000
-1.25	-1.375	0.000	0.000	0.000	0.021	0.035	0.035
-1.00	-1.125	0.000	0.000	0.000	0.000	0.000	0.035
-0.75	-0.875	0.000	0.000	0.000	0.000	0.000	0.035
-0.50	-0.625	0.000	0.000	0.000	0.023	0.039	0.074
-0.25	-0.375	0.000	0.000	0.000	0.028	0.047	0.121
0.00	-0.125	0.008	0.015	0.015	0.029	0.049	0.170
0.25	0.125	0.006	0.011	0.027	0.041	0.069	0.239
0.50	0.375	0.007	0.013	0.040	0.029	0.049	0.288
0.75	0.625	0.010	0.019	0.059	0.025	0.042	0.330
1.00	0.875	0.013	0.025	0.084	0.020	0.034	0.364
1.25	1.125	0.014	0.027	0.111	0.017	0.029	0.393
1.50	1.375	0.027	0.052	0.162	0.032	0.054	0.447
1.75	1.625	0.056	0.107	0.269	0.064	0.108	0.554
2.00	1.875	0.223	0.426	0.695	0.275	0.463	1.018
2.25	2.125	1.433	2.736	3.431	1.661	2.799	3.817
2.50	2.375	6.593	12.588	16.019	8.517	14.354	18.171
2.75	2.625	20.343	38.840	54.859	21.545	36.310	54.481
3.00	2.875	19.646	37.510	92.369	22.124	37.286	91.767
3.25	3.125	3.687	7.039	99.408	4.473	7.538	99.306
3.50	3.375	0.262	0.500	99.908	0.348	0.586	99.892
3.75	3.625	0.042	0.080	99.989	0.038	0.064	99.956
4.00	3.875	0.000	0.000	99.989	0.016	0.027	99.983
5.00	4.500	0.006	0.011	100.000	0.010	0.017	100.000



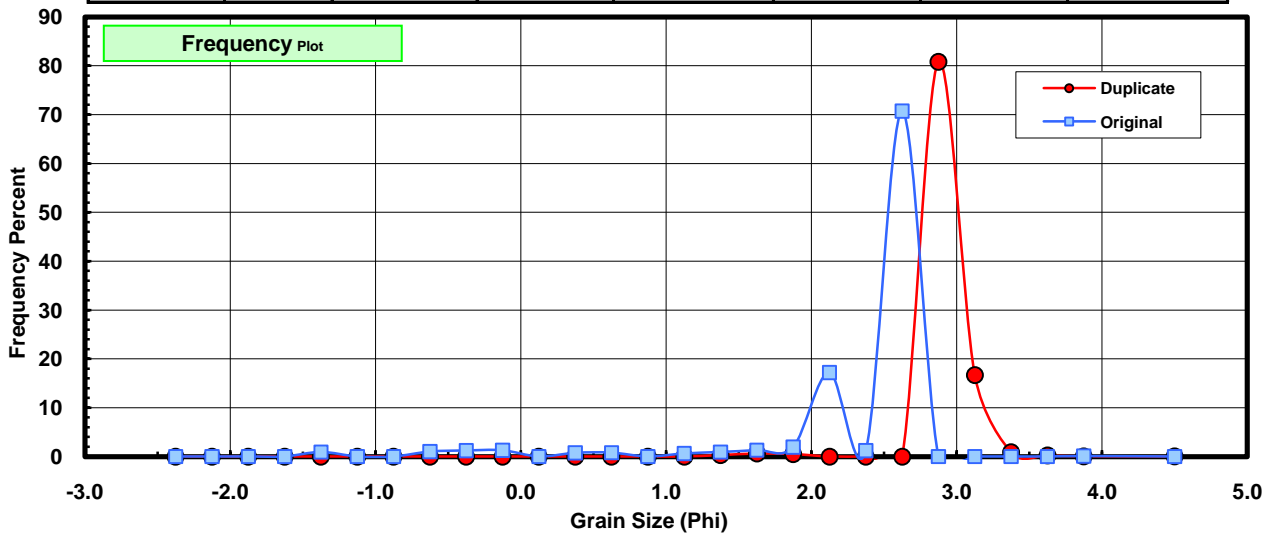


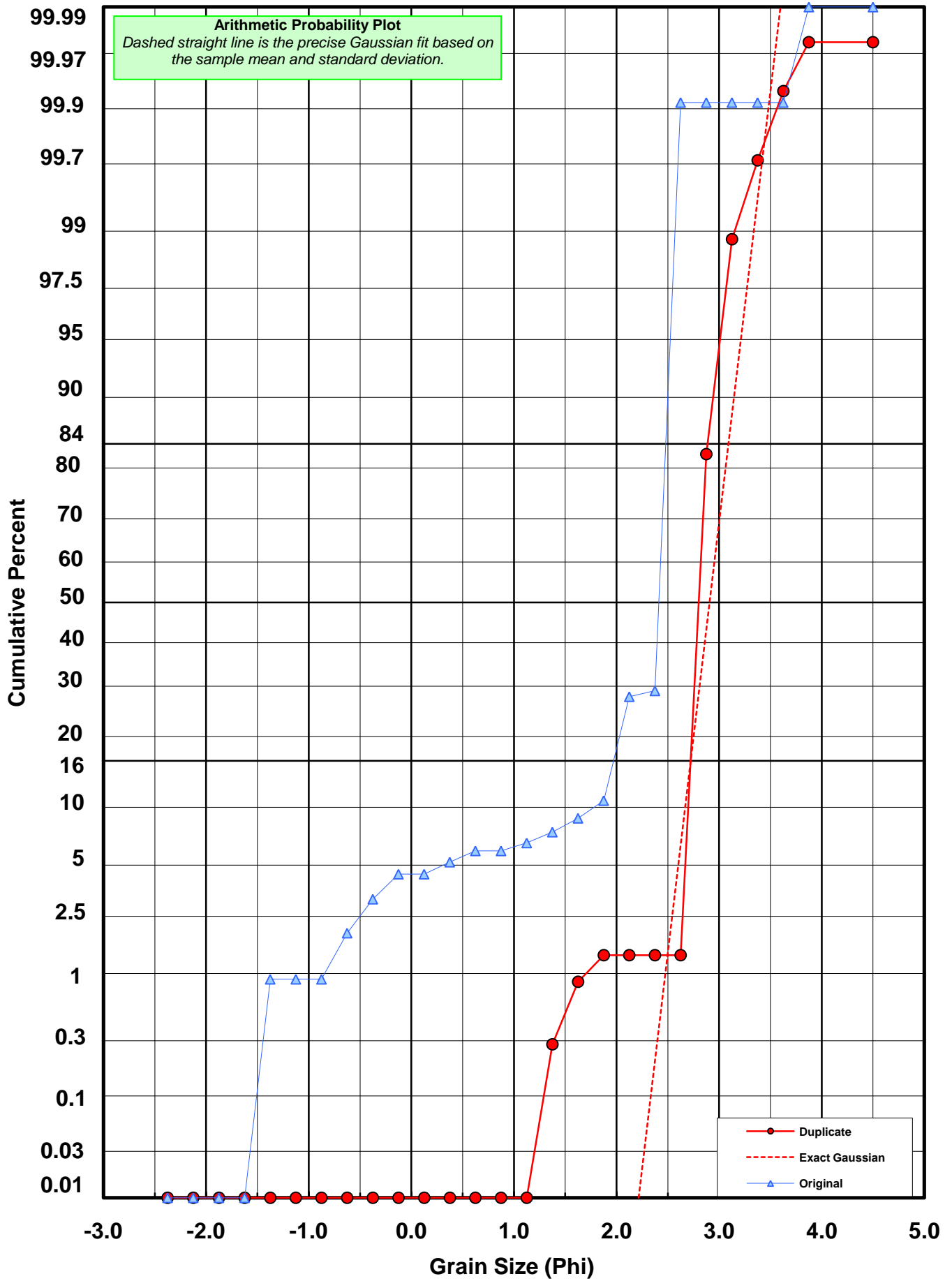
Carbonate Grain Size Distribution

Onshore Grab Sample: SA-13-BB

Total Duplicate Carbonate Mass: 4.314 grams
 % Carbonate in Duplicate: 8.2 %
 Total Original Carbonate Mass: 2.278 grams
 % Carbonate in Original: 3.8 %

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	0.000	0.000	0.000	0.000	0.000	0.000
-1.25	-1.375	0.000	0.000	0.000	0.021	0.922	0.922
-1.00	-1.125	0.000	0.000	0.000	0.000	0.000	0.922
-0.75	-0.875	0.000	0.000	0.000	0.000	0.000	0.922
-0.50	-0.625	0.000	0.000	0.000	0.023	1.010	1.932
-0.25	-0.375	0.000	0.000	0.000	0.028	1.229	3.161
0.00	-0.125	0.000	0.000	0.000	0.029	1.273	4.434
0.25	0.125	0.000	0.000	0.000	0.000	0.000	4.434
0.50	0.375	0.000	0.000	0.000	0.017	0.746	5.180
0.75	0.625	0.000	0.000	0.000	0.018	0.790	5.970
1.00	0.875	0.000	0.000	0.000	0.000	0.000	5.970
1.25	1.125	0.000	0.000	0.000	0.014	0.615	6.585
1.50	1.375	0.012	0.278	0.278	0.021	0.922	7.507
1.75	1.625	0.026	0.603	0.881	0.030	1.317	8.824
2.00	1.875	0.021	0.487	1.368	0.044	1.932	10.755
2.25	2.125	0.000	0.000	1.368	0.392	17.208	27.963
2.50	2.375	0.000	0.000	1.368	0.028	1.229	29.192
2.75	2.625	0.000	0.000	1.368	1.611	70.720	99.912
3.00	2.875	3.486	80.807	82.174	0.000	0.000	99.912
3.25	3.125	0.719	16.667	98.841	0.000	0.000	99.912
3.50	3.375	0.038	0.881	99.722	0.000	0.000	99.912
3.75	3.625	0.009	0.209	99.930	0.000	0.000	99.912
4.00	3.875	0.002	0.046	99.977	0.002	0.088	100.000
5.00	4.500	0.001	0.023	100.000	0.000	0.000	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: SA-13-BB

Total Duplicate Digested Mass: 51.592 grams
% Silica in Duplicate: 98.5 %
Total Original Digested Mass: 58.575 grams
% Silica in Original: 98.7 %

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	0.000	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	0.000	0.000	0.000
0.00	-0.125	0.056	0.109	0.109	0.000	0.000	0.000
0.25	0.125	0.048	0.093	0.202	0.082	0.140	0.140
0.50	0.375	0.097	0.188	0.390	0.012	0.020	0.160
0.75	0.625	0.101	0.196	0.585	0.007	0.012	0.172
1.00	0.875	0.033	0.064	0.649	0.024	0.041	0.213
1.25	1.125	0.020	0.039	0.688	0.003	0.005	0.219
1.50	1.375	0.015	0.029	0.717	0.011	0.019	0.237
1.75	1.625	0.030	0.058	0.775	0.034	0.058	0.295
2.00	1.875	0.202	0.392	1.167	0.231	0.394	0.690
2.25	2.125	1.679	3.254	4.421	1.269	2.166	2.856
2.50	2.375	8.024	15.553	19.974	8.489	14.493	17.349
2.75	2.625	21.885	42.419	62.393	19.934	34.032	51.380
3.00	2.875	16.160	31.323	93.716	22.378	38.204	89.584
3.25	3.125	2.968	5.753	99.469	5.303	9.053	98.638
3.50	3.375	0.224	0.434	99.903	0.717	1.224	99.862
3.75	3.625	0.033	0.064	99.967	0.044	0.075	99.937
4.00	3.875	0.012	0.023	99.990	0.014	0.024	99.961
5.00	4.500	0.005	0.010	100.000	0.023	0.039	100.000

