

Quality Control Statistical Summary

Onshore Grab Sample: SA-23-BB

Sample Taken By: D. Phelps
 Sample Taken On: 12/15/09
 County: Sarasota

Latitude: 27° 08' 22.3"
 Longitude: 82° 28' 33.9"
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	0.8718	phi (0.5465 mm)	0.9770	phi (0.508 mm)
Standard Dev:	1.0237	phi-units (0.4919 mm)	0.9723	phi-units (0.5097 mm)
Skewness:	0.2707	dimensionless	0.2144	dimensionless
Kurtosis:	2.4328	dimensionless	2.5425	dimensionless
5th Moment:	1.2442	dimensionless	1.0072	dimensionless
6th Moment:	8.1469	dimensionless	8.9934	dimensionless
RARD*:	1.1742	dimensionless	0.9952	dimensionless
Median:	0.6642	phi (0.631 mm)	0.7695	phi (0.5866 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	0.4333	phi (0.7406 mm)	0.5446	phi (0.6856 mm)
Standard Dev:	0.7865	phi-units (0.5798 mm)	0.7505	phi-units (0.5944 mm)
Skewness:	0.1675	dimensionless	-0.0044	dimensionless
Kurtosis:	2.8608	dimensionless	2.8212	dimensionless
5th Moment:	1.4220	dimensionless	0.3838	dimensionless
6th Moment:	12.8756	dimensionless	12.4382	dimensionless
RARD*:	1.8152	dimensionless	1.3781	dimensionless
Median:	0.3094	phi (0.807 mm)	0.4778	phi (0.7181 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	1.7038	phi (0.307 mm)	1.7075	phi (0.3062 mm)
Standard Dev:	0.9171	phi-units (0.5296 mm)	0.8803	phi-units (0.5433 mm)
Skewness:	-0.2763	dimensionless	-0.1881	dimensionless
Kurtosis:	2.1319	dimensionless	2.1386	dimensionless
5th Moment:	-1.6385	dimensionless	-1.2147	dimensionless
6th Moment:	7.0348	dimensionless	7.2102	dimensionless
RARD*:	0.5383	dimensionless	0.5156	dimensionless
Median:	1.6419	phi (0.3204 mm)	1.6102	phi (0.3276 mm)

Additional Data	
Total Fines	
Original:	0.16 %
Duplicate:	0.13 %
Total Carbonates	
Original:	62.5 %
Duplicate:	65.23 %

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)

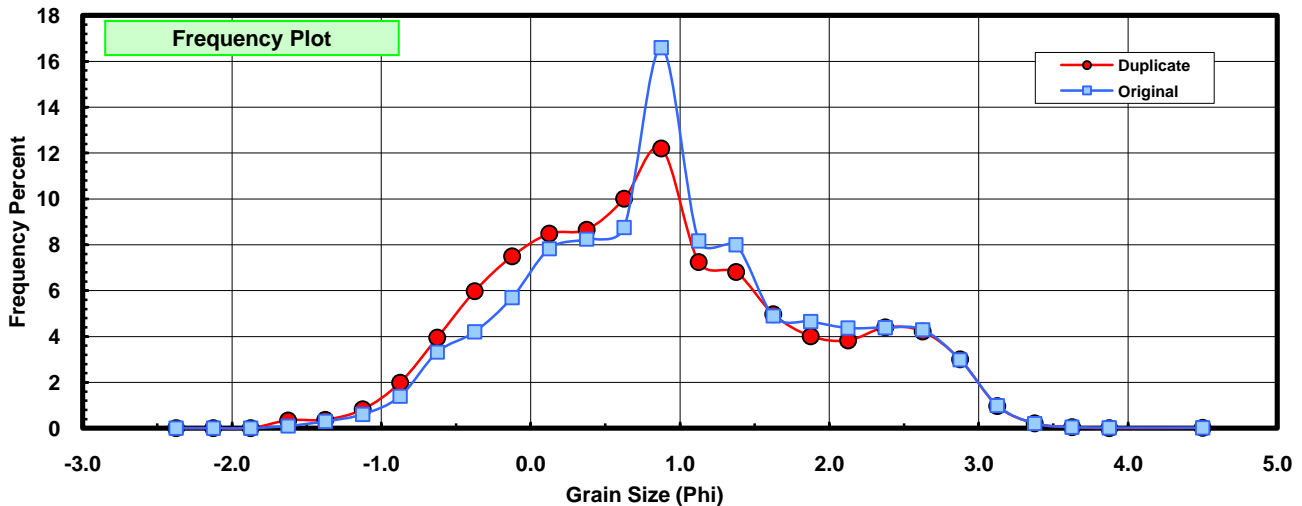
Pre-Digestion Grain Size Distribution

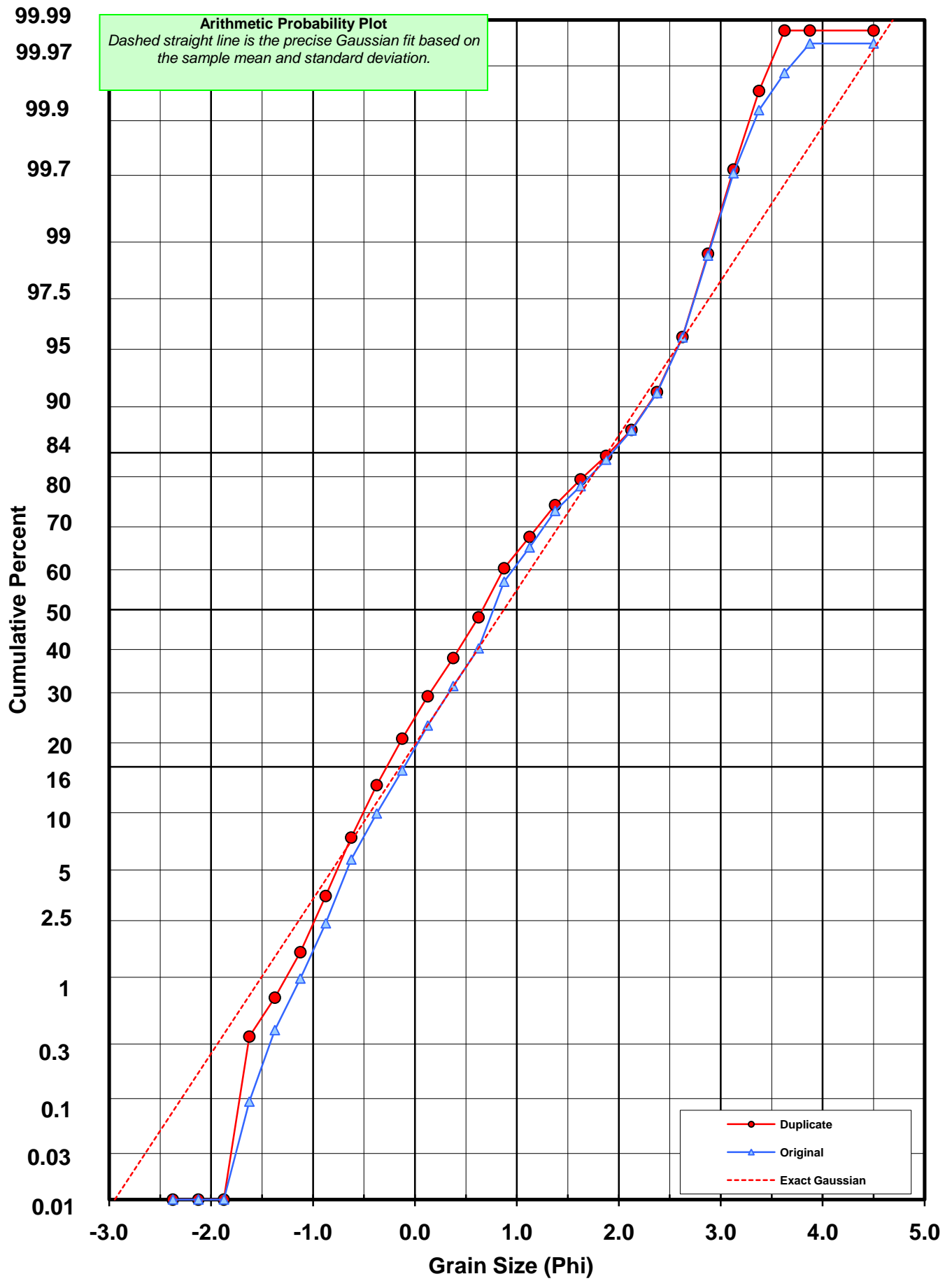
Onshore Grab Sample: SA-23-BB

Total Duplicate Sample Mass: 61.309 grams

Total Original Sample Mass: 66.035 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	0.211	0.344	0.344	0.062	0.094	0.094
-1.25	-1.375	0.227	0.370	0.714	0.196	0.297	0.391
-1.00	-1.125	0.502	0.819	1.533	0.399	0.604	0.995
-0.75	-0.875	1.217	1.985	3.518	0.917	1.389	2.384
-0.50	-0.625	2.422	3.950	7.469	2.190	3.316	5.700
-0.25	-0.375	3.663	5.975	13.443	2.773	4.199	9.899
0.00	-0.125	4.595	7.495	20.938	3.759	5.692	15.592
0.25	0.125	5.202	8.485	29.423	5.166	7.823	23.415
0.50	0.375	5.310	8.661	38.084	5.442	8.241	31.656
0.75	0.625	6.132	10.002	48.086	5.779	8.751	40.407
1.00	0.875	7.481	12.202	60.288	10.958	16.594	57.002
1.25	1.125	4.445	7.250	67.538	5.394	8.168	65.170
1.50	1.375	4.177	6.813	74.351	5.281	7.997	73.167
1.75	1.625	3.045	4.967	79.318	3.232	4.894	78.062
2.00	1.875	2.461	4.014	83.332	3.068	4.646	82.708
2.25	2.125	2.344	3.823	87.155	2.883	4.366	87.074
2.50	2.375	2.695	4.396	91.551	2.893	4.381	91.455
2.75	2.625	2.585	4.216	95.767	2.835	4.293	95.748
3.00	2.875	1.839	3.000	98.767	1.968	2.980	98.728
3.25	3.125	0.593	0.967	99.734	0.651	0.986	99.714
3.50	3.375	0.130	0.212	99.946	0.136	0.206	99.920
3.75	3.625	0.027	0.044	99.990	0.029	0.044	99.964
4.00	3.875	0.000	0.000	99.990	0.013	0.020	99.983
5.00	4.500	0.006	0.010	100.000	0.011	0.017	100.000



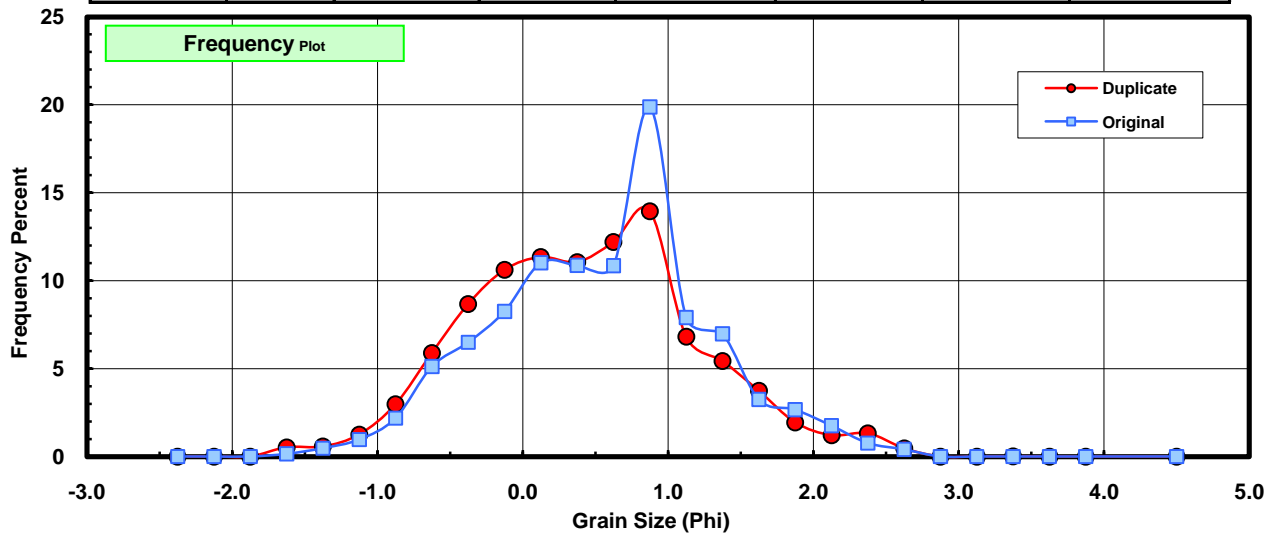


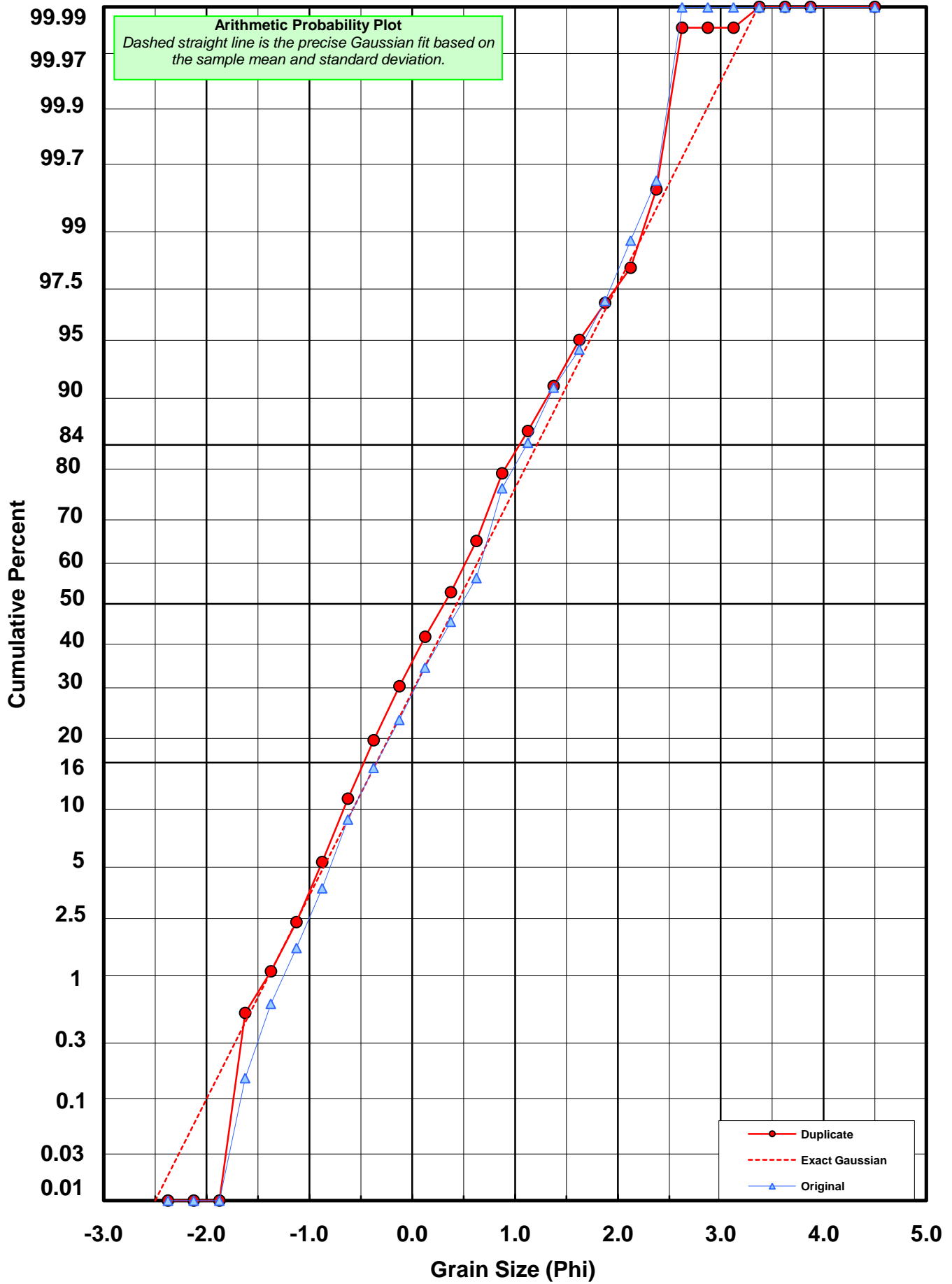
Carbonate Grain Size Distribution

Onshore Grab Sample: SA-23-BB

Total Duplicate Carbonate Mass: 39.999 grams
% Carbonate in Duplicate: 65.2 %
Total Original Carbonate Mass: 41.272 grams
% Carbonate in Original: 62.5 %

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	0.211	0.528	0.528	0.062	0.150	0.150
-1.25	-1.375	0.227	0.568	1.095	0.196	0.475	0.625
-1.00	-1.125	0.502	1.255	2.350	0.399	0.967	1.592
-0.75	-0.875	1.188	2.970	5.320	0.902	2.186	3.777
-0.50	-0.625	2.355	5.888	11.208	2.112	5.117	8.895
-0.25	-0.375	3.469	8.673	19.880	2.680	6.494	15.388
0.00	-0.125	4.247	10.618	30.498	3.406	8.253	23.641
0.25	0.125	4.537	11.343	41.841	4.548	11.020	34.660
0.50	0.375	4.425	11.063	52.904	4.488	10.874	45.535
0.75	0.625	4.882	12.205	65.109	4.482	10.860	56.394
1.00	0.875	5.582	13.955	79.064	8.206	19.883	76.277
1.25	1.125	2.725	6.813	85.877	3.263	7.906	84.183
1.50	1.375	2.173	5.433	91.310	2.881	6.981	91.164
1.75	1.625	1.494	3.735	95.045	1.339	3.244	94.408
2.00	1.875	0.777	1.943	96.987	1.100	2.665	97.073
2.25	2.125	0.484	1.210	98.197	0.724	1.754	98.827
2.50	2.375	0.529	1.323	99.520	0.316	0.766	99.593
2.75	2.625	0.186	0.465	99.985	0.167	0.405	99.998
3.00	2.875	0.000	0.000	99.985	0.000	0.000	99.998
3.25	3.125	0.000	0.000	99.985	0.000	0.000	99.998
3.50	3.375	0.006	0.015	100.000	0.000	0.000	99.998
3.75	3.625	0.000	0.000	100.000	0.000	0.000	99.998
4.00	3.875	0.000	0.000	100.000	0.000	0.000	99.998
5.00	4.500	0.000	0.000	100.000	0.001	0.002	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: SA-23-BB

Total Duplicate Digested Mass: 21.452 grams
% Silica in Duplicate: 35.0 %
Total Original Digested Mass: 24.944 grams
% Silica in Original: 37.8 %

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	0.029	0.135	0.135	0.015	0.060	0.060
-0.50	-0.625	0.067	0.312	0.448	0.078	0.313	0.373
-0.25	-0.375	0.194	0.904	1.352	0.093	0.373	0.746
0.00	-0.125	0.348	1.622	2.974	0.353	1.415	2.161
0.25	0.125	0.665	3.100	6.074	0.618	2.478	4.638
0.50	0.375	0.885	4.125	10.200	0.954	3.825	8.463
0.75	0.625	1.250	5.827	16.026	1.297	5.200	13.663
1.00	0.875	1.899	8.852	24.879	2.752	11.033	24.695
1.25	1.125	1.720	8.018	32.897	2.131	8.543	33.238
1.50	1.375	2.004	9.342	42.238	2.400	9.622	42.860
1.75	1.625	1.551	7.230	49.469	1.893	7.589	50.449
2.00	1.875	1.684	7.850	57.319	1.968	7.890	58.339
2.25	2.125	1.860	8.671	65.989	2.159	8.655	66.994
2.50	2.375	2.166	10.097	76.086	2.577	10.331	77.325
2.75	2.625	2.399	11.183	87.269	2.668	10.696	88.021
3.00	2.875	1.932	9.006	96.275	2.062	8.267	96.288
3.25	3.125	0.630	2.937	99.212	0.717	2.874	99.162
3.50	3.375	0.124	0.578	99.790	0.146	0.585	99.747
3.75	3.625	0.030	0.140	99.930	0.037	0.148	99.896
4.00	3.875	0.009	0.042	99.972	0.016	0.064	99.960
5.00	4.500	0.006	0.028	100.000	0.010	0.040	100.000

