

# Quality Control Statistical Summary

Onshore Grab Sample: VO-30-BB

Sample Taken By: J. Ladner                      Latitude: 29° 04' 43.44'  
 Sample Taken On: 12/03/03                      Longitude: 80° 55' 9.90"  
 County: Volusia                                      Datum: NAD 83

Statistical Results: Pre-CaCO3		
	Duplicate	Original
Mean:	2.6599 phi (0.1582 mm)	2.6611 phi (0.1581 mm)
Standard Dev:	0.2693 phi-units (0.8297 mm)	0.2719 phi-units (0.8282 mm)
Skewness:	-0.3358 dimensionless	-0.2474 dimensionless
Kurtosis:	6.8470 dimensionless	6.9902 dimensionless
5th Moment:	-26.0638 dimensionless	-23.1091 dimensionless
6th Moment:	275.1889 dimensionless	267.9355 dimensionless
RARD*:	0.1012 dimensionless	0.1022 dimensionless
Median:	2.5341 phi (0.1726 mm)	2.5344 phi (0.1726 mm)

Statistical Results: CaCO3		
	Duplicate	Original
Mean:	2.3412 phi (0.1974 mm)	2.3412 phi (0.1974 mm)
Standard Dev:	0.2959 phi-units (0.8145 mm)	0.2959 phi-units (0.8145 mm)
Skewness:	-4.1055 dimensionless	-4.1055 dimensionless
Kurtosis:	27.4446 dimensionless	27.4446 dimensionless
5th Moment:	##### dimensionless	##### dimensionless
6th Moment:	##### dimensionless	##### dimensionless
RARD*:	0.1264 dimensionless	0.1264 dimensionless
Median:	2.2486 phi (0.2104 mm)	2.2486 phi (0.2104 mm)

Statistical Results: Post-CaCO3		
	Duplicate	Original
Mean:	2.6854 phi (0.1555 mm)	2.6854 phi (0.1555 mm)
Standard Dev:	0.2650 phi-units (0.8322 mm)	0.2650 phi-units (0.8322 mm)
Skewness:	0.1707 dimensionless	0.1707 dimensionless
Kurtosis:	4.5103 dimensionless	4.5103 dimensionless
5th Moment:	5.6728 dimensionless	5.6728 dimensionless
6th Moment:	64.5052 dimensionless	64.5052 dimensionless
RARD*:	0.0987 dimensionless	0.0987 dimensionless
Median:	2.5559 phi (0.1701 mm)	2.5559 phi (0.1701 mm)

Additional Data	
<b>Total Fines</b>	
Original:	0.51 %
Duplicate:	0.52 %
<b>Total Carbonates</b>	
Original:	1.68 %
Duplicate:	1.68 %

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



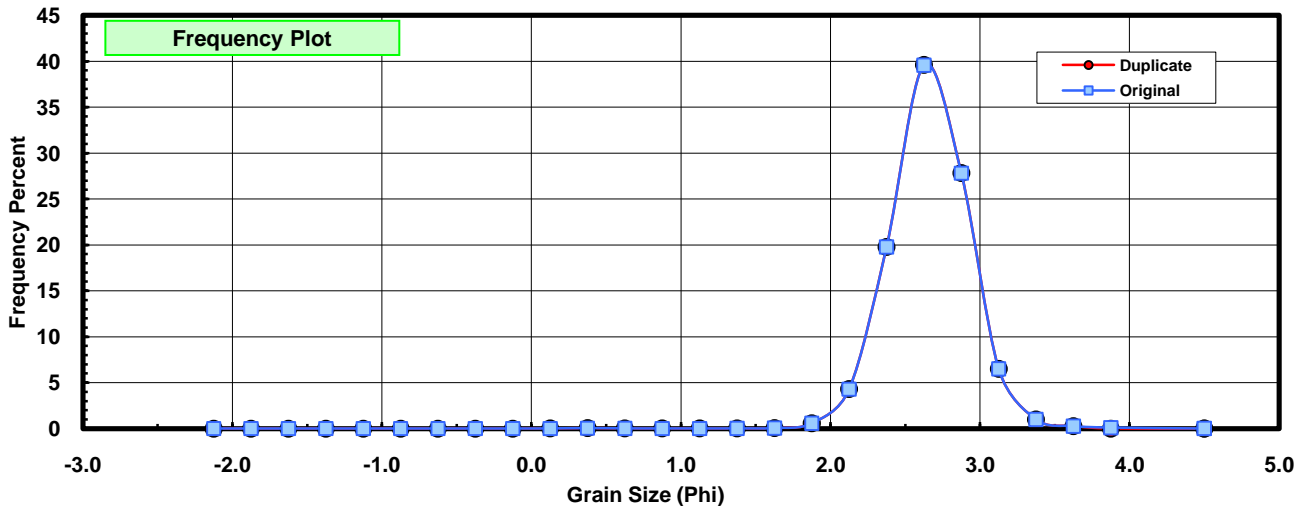
# Pre-Digestion Grain Size Distribution

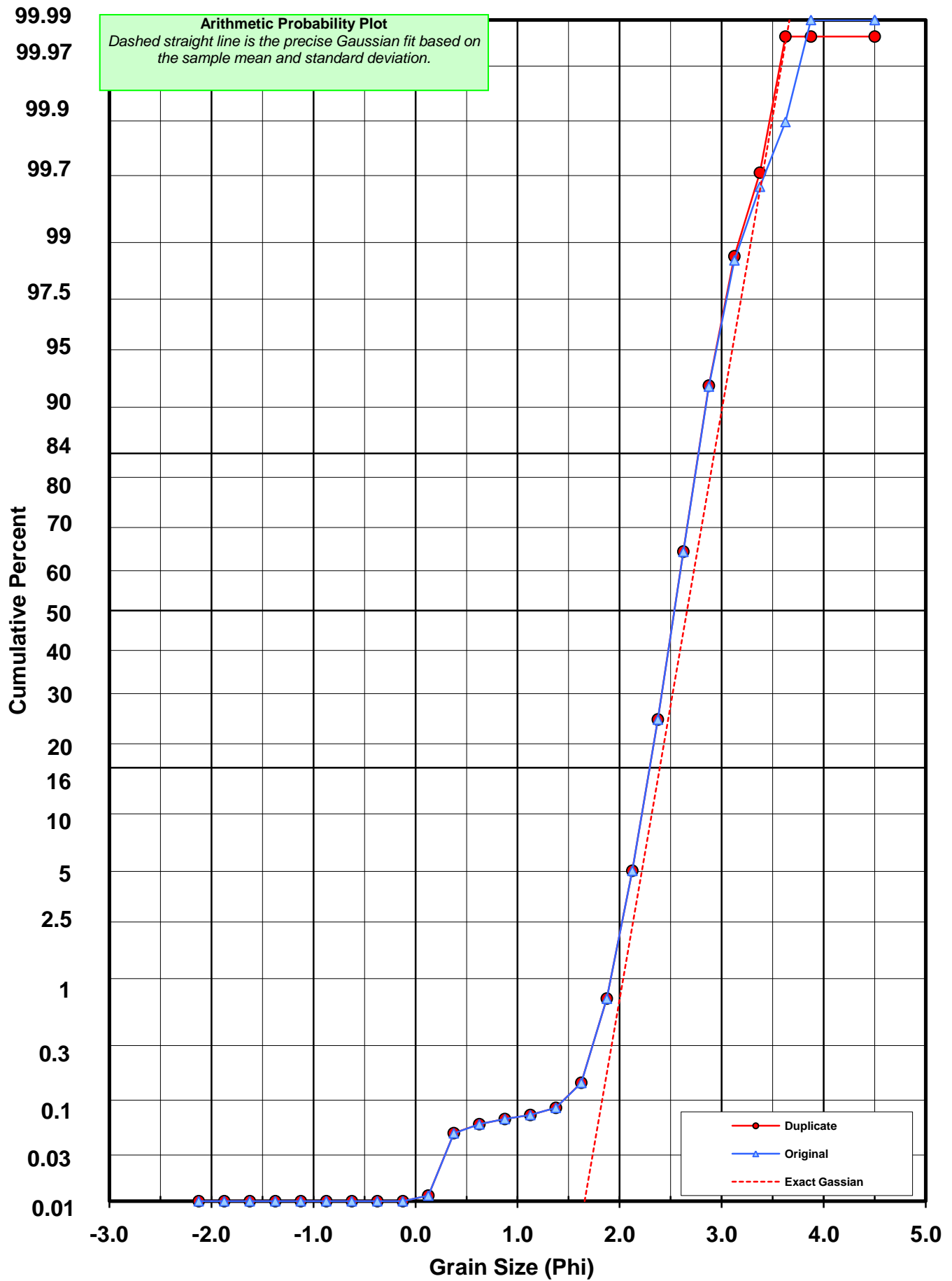
Onshore Grab Sample: VO-30-BB

Total Duplicate Sample Mass: 85.397 grams

Total Original Sample Mass: 85.484 grams

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-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	0.000	0.000	0.000	0.000	0.000	0.000
0.25	0.125	0.006	0.007	0.007	0.006	0.007	0.007
0.50	0.375	0.037	0.043	0.050	0.037	0.043	0.050
0.75	0.625	0.009	0.011	0.061	0.009	0.011	0.061
1.00	0.875	0.006	0.007	0.068	0.006	0.007	0.068
1.25	1.125	0.005	0.006	0.074	0.005	0.006	0.074
1.50	1.375	0.010	0.012	0.085	0.010	0.012	0.085
1.75	1.625	0.048	0.056	0.142	0.048	0.056	0.142
2.00	1.875	0.493	0.577	0.719	0.493	0.577	0.718
2.25	2.125	3.669	4.296	5.015	3.669	4.293	5.011
2.50	2.375	16.898	19.788	24.803	16.898	19.770	24.781
2.75	2.625	33.810	39.592	64.395	33.810	39.556	64.337
3.00	2.875	23.767	27.831	92.226	23.767	27.806	92.144
3.25	3.125	5.548	6.497	98.722	5.548	6.491	98.635
3.50	3.375	0.851	0.997	99.719	0.851	0.996	99.630
3.75	3.625	0.229	0.268	99.987	0.229	0.268	99.898
4.00	3.875	0.000	0.000	99.987	0.087	0.102	100.000
5.00	4.500	0.000	0.000	99.987	0.000	0.000	100.000
5.00	4.500	0.011	0.013	100.000	0.011	0.013	100.013



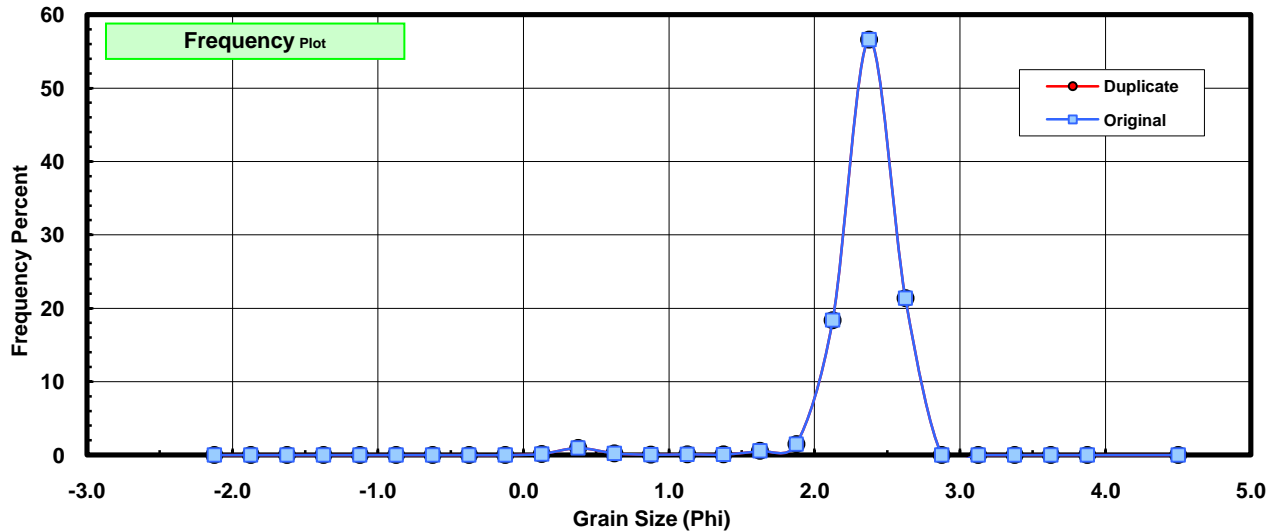


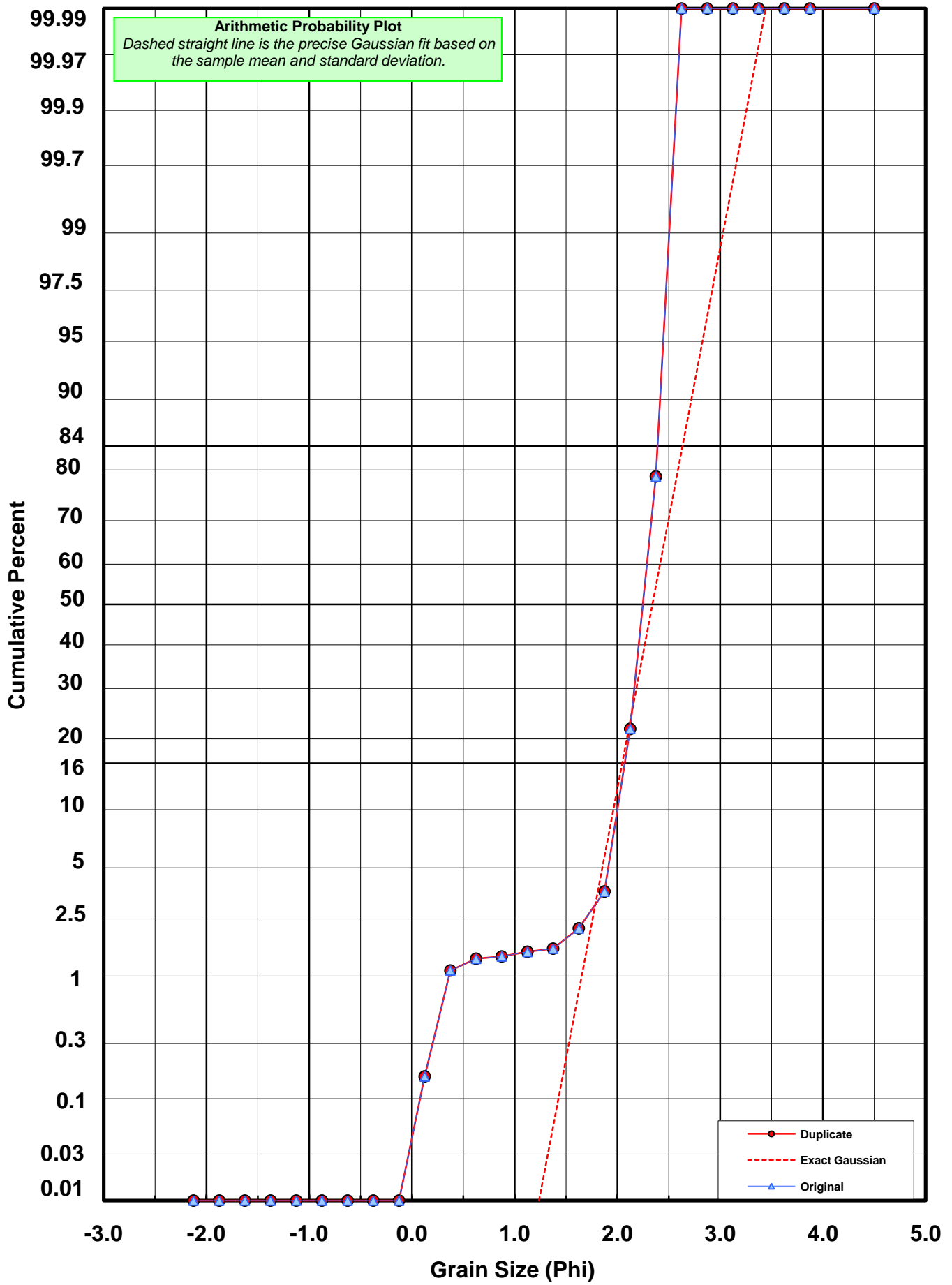
# Carbonate Grain Size Distribution

Onshore Grab Sample: VO-30-BB

Total Duplicate Carbonate Mass: 3.856 grams  
 % Carbonate in Duplicate: 1.7 %  
 Total Original Carbonate Mass: 3.856 grams  
 % Carbonate in Original: 1.7 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-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	0.000	0.000	0.000	0.000	0.000	0.000
0.25	0.125	0.006	0.156	0.156	0.006	0.156	0.156
0.50	0.375	0.037	0.960	1.115	0.037	0.960	1.115
0.75	0.625	0.009	0.233	1.349	0.009	0.233	1.349
1.00	0.875	0.002	0.052	1.400	0.002	0.052	1.400
1.25	1.125	0.004	0.104	1.504	0.004	0.104	1.504
1.50	1.375	0.003	0.078	1.582	0.003	0.078	1.582
1.75	1.625	0.022	0.571	2.152	0.022	0.571	2.152
2.00	1.875	0.057	1.478	3.631	0.057	1.478	3.631
2.25	2.125	0.709	18.387	22.018	0.709	18.387	22.018
2.50	2.375	2.183	56.613	78.631	2.183	56.613	78.631
2.75	2.625	0.824	21.369	100.000	0.824	21.369	100.000
3.00	2.875	0.000	0.000	100.000	0.000	0.000	100.000
3.25	3.125	0.000	0.000	100.000	0.000	0.000	100.000
3.50	3.375	0.000	0.000	100.000	0.000	0.000	100.000
3.75	3.625	0.000	0.000	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
5.00	4.500	0.000	0.000	100.000	0.000	0.000	100.000





# Post-Digestion Grain Size Distribution

Onshore Grab Sample: VO-30-BB

Total Duplicate Digested Mass: 84.046 grams  
 % Silica in Duplicate: 98.3 %  
 Total Original Digested Mass: 84.046 grams  
 % Silica in Original: 98.3 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-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	0.000	0.000	0.000	0.000	0.000	0.000
0.25	0.125	0.000	0.000	0.000	0.000	0.000	0.000
0.50	0.375	0.000	0.000	0.000	0.000	0.000	0.000
0.75	0.625	0.000	0.000	0.000	0.000	0.000	0.000
1.00	0.875	0.004	0.005	0.005	0.004	0.005	0.005
1.25	1.125	0.001	0.001	0.006	0.001	0.001	0.006
1.50	1.375	0.007	0.008	0.014	0.007	0.008	0.014
1.75	1.625	0.026	0.031	0.045	0.026	0.031	0.045
2.00	1.875	0.436	0.519	0.564	0.436	0.519	0.564
2.25	2.125	2.960	3.522	4.086	2.960	3.522	4.086
2.50	2.375	14.715	17.508	21.594	14.715	17.508	21.594
2.75	2.625	32.986	39.248	60.842	32.986	39.248	60.842
3.00	2.875	25.332	30.141	90.982	25.332	30.141	90.982
3.25	3.125	6.213	7.392	98.375	6.213	7.392	98.375
3.50	3.375	0.987	1.174	99.549	0.987	1.174	99.549
3.75	3.625	0.256	0.305	99.854	0.256	0.305	99.854
4.00	3.875	0.101	0.120	99.974	0.101	0.120	99.974
5.00	4.500	0.000	0.000	99.974	0.000	0.000	99.974
5.00	4.500	0.022	0.026	100.000	0.022	0.026	100.000

