

# Quality Control Statistical Summary

Onshore Grab Sample: MO-18

Sample Taken By: D. Phelps  
 Sample Taken On: 04/14/10  
 County: Monroe

Latitude: 24° 38' 52.8"  
 Longitude: 81° 18' 49.2"  
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	-0.7839	phi (1.7218 mm)	-1.0201	phi (2.0281 mm)
Standard Dev:	1.3171	phi-units (0.4014 mm)	1.4512	phi-units (0.3657 mm)
Skewness:	1.1465	dimensionless	1.1442	dimensionless
Kurtosis:	5.3084	dimensionless	4.3339	dimensionless
5th Moment:	15.5872	dimensionless	11.8267	dimensionless
6th Moment:	56.6691	dimensionless	38.1461	dimensionless
RARD*:	1.6801	dimensionless	1.4226	dimensionless
Median:	-0.8159	phi (1.7604 mm)	-1.3099	phi (2.4792 mm)

Statistical Results: CaCO3
Not Enough Sample to do Post-Digestion Analysis

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Additional Data	
<b>Total Fines</b>	
Original:	2.19 %
Duplicate:	2.89 %
<b>Total Carbonates</b>	
Original:	99.96 %
Duplicate:	99.96 %

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 $mm = 2^{(-\phi)}$	
<b>* Reciprocal Absolute Relative Dispersion (RARD) Scale</b>	
< 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)

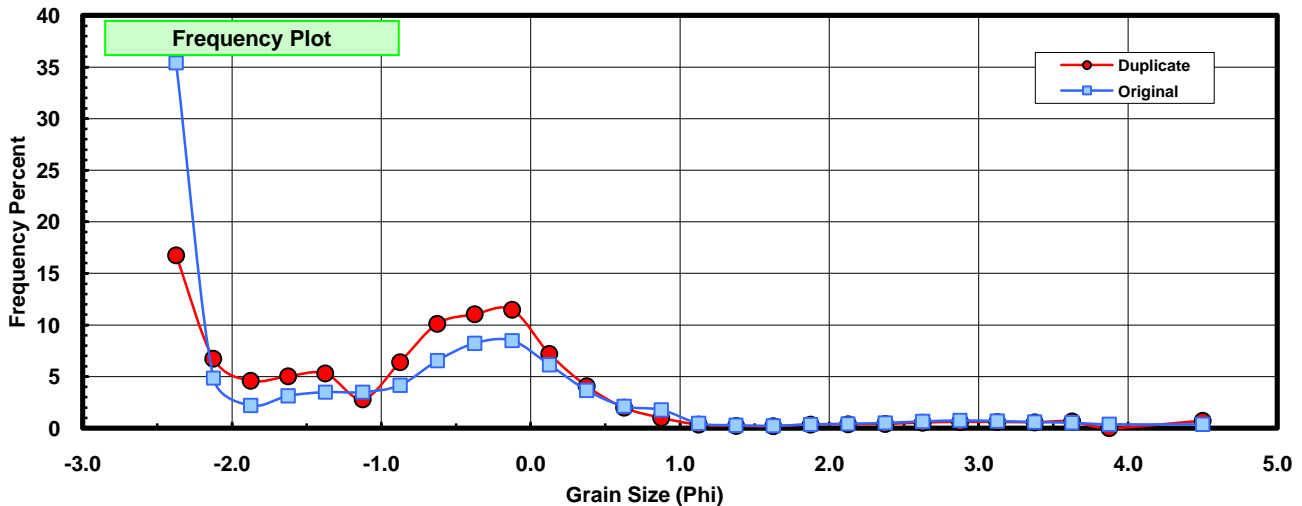
# Pre-Digestion Grain Size Distribution

Onshore Grab Sample: MO-18

Total Duplicate Sample Mass: 46.577 grams

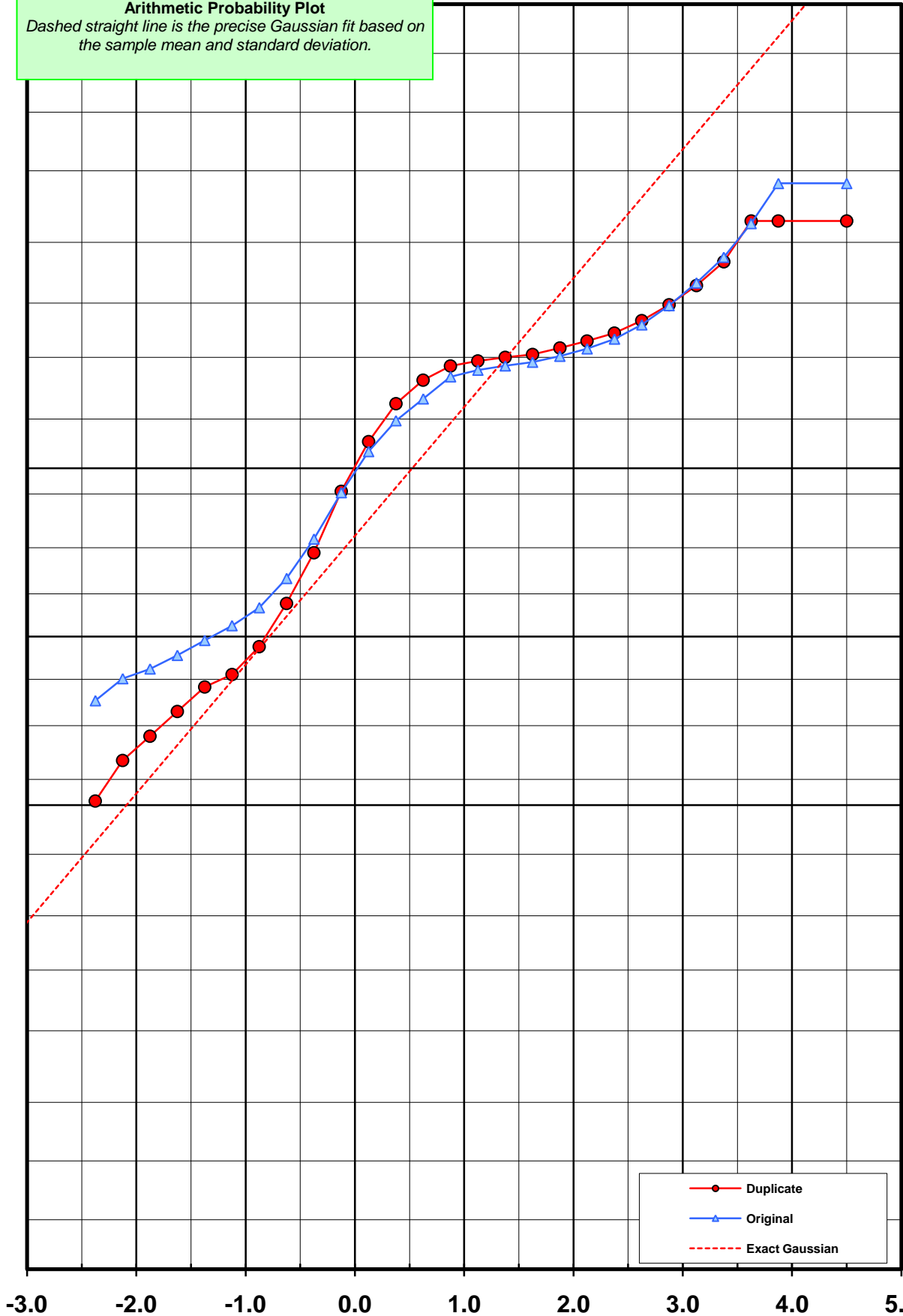
Total Original Sample Mass: 53.440 grams

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	7.800	16.746	16.746	18.921	35.406	35.406
-2.00	-2.125	3.139	6.739	23.486	2.595	4.856	40.262
-1.75	-1.875	2.137	4.588	28.074	1.177	2.202	42.464
-1.50	-1.625	2.341	5.026	33.100	1.673	3.131	45.595
-1.25	-1.375	2.467	5.297	38.397	1.868	3.496	49.091
-1.00	-1.125	1.306	2.804	41.201	1.866	3.492	52.582
-0.75	-0.875	2.985	6.409	47.609	2.227	4.167	56.750
-0.50	-0.625	4.711	10.114	57.724	3.501	6.551	63.301
-0.25	-0.375	5.138	11.031	68.755	4.399	8.232	71.533
0.00	-0.125	5.342	11.469	80.224	4.533	8.482	80.015
0.25	0.125	3.355	7.203	87.427	3.282	6.141	86.156
0.50	0.375	1.900	4.079	91.507	1.963	3.673	89.830
0.75	0.625	0.920	1.975	93.482	1.136	2.126	91.955
1.00	0.875	0.463	0.994	94.476	0.952	1.781	93.737
1.25	1.125	0.155	0.333	94.809	0.251	0.470	94.207
1.50	1.375	0.100	0.215	95.023	0.153	0.286	94.493
1.75	1.625	0.084	0.180	95.204	0.126	0.236	94.729
2.00	1.875	0.167	0.359	95.562	0.195	0.365	95.094
2.25	2.125	0.171	0.367	95.929	0.228	0.427	95.520
2.50	2.375	0.184	0.395	96.324	0.275	0.515	96.035
2.75	2.625	0.253	0.543	96.868	0.353	0.661	96.695
3.00	2.875	0.279	0.599	97.467	0.398	0.745	97.440
3.25	3.125	0.277	0.595	98.061	0.370	0.692	98.132
3.50	3.375	0.265	0.569	98.630	0.315	0.589	98.722
3.75	3.625	0.304	0.653	99.283	0.283	0.530	99.251
4.00	3.875	0.000	0.000	99.283	0.200	0.374	99.626
5.00	4.500	0.334	0.717	100.000	0.200	0.374	100.000



99.99  
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

**Arithmetic Probability Plot**  
*Dashed straight line is the precise Gaussian fit based on the sample mean and standard deviation.*



● Duplicate  
▲ Original  
- - - Exact Gaussian

Grain Size (Phi)