

Quality Control Statistical Summary

Onshore Grab Sample: VO-01-SS

Sample Taken By: J. Ladner
 Sample Taken On: 12/03/03
 County: Volusia

Latitude: 29° 25' 2.40"
 Longitude: 81° 05' 52.56"
 Datum: NAD 83

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	1.2866	phi (0.4099 mm)	1.3259	phi (0.3989 mm)
Standard Dev:	0.5489	phi-units (0.6835 mm)	0.5700	phi-units (0.6736 mm)
Skewness:	0.1060	dimensionless	0.2248	dimensionless
Kurtosis:	3.4105	dimensionless	3.2934	dimensionless
5th Moment:	1.8520	dimensionless	1.7902	dimensionless
6th Moment:	25.0130	dimensionless	17.2380	dimensionless
RARD*:	0.4266	dimensionless	0.4299	dimensionless
Median:	1.1554	phi (0.4489 mm)	1.1762	phi (0.4425 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	0.9320	phi (0.5241 mm)	1.0271	phi (0.4907 mm)
Standard Dev:	0.4826	phi-units (0.7157 mm)	0.5991	phi-units (0.6602 mm)
Skewness:	-0.0227	dimensionless	0.8461	dimensionless
Kurtosis:	3.3665	dimensionless	4.6100	dimensionless
5th Moment:	2.3070	dimensionless	9.4429	dimensionless
6th Moment:	35.8594	dimensionless	35.3432	dimensionless
RARD*:	0.5178	dimensionless	0.5833	dimensionless
Median:	0.8014	phi (0.5738 mm)	0.8461	phi (0.5563 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	1.5007	phi (0.3534 mm)	1.5075	phi (0.3517 mm)
Standard Dev:	0.4822	phi-units (0.7159 mm)	0.4745	phi-units (0.7197 mm)
Skewness:	0.4941	dimensionless	0.3729	dimensionless
Kurtosis:	3.5790	dimensionless	2.9384	dimensionless
5th Moment:	6.7440	dimensionless	3.0389	dimensionless
6th Moment:	35.7417	dimensionless	14.8718	dimensionless
RARD*:	0.3213	dimensionless	0.3147	dimensionless
Median:	1.3352	phi (0.3963 mm)	1.3472	phi (0.3931 mm)

Additional Data	
Total Fines	
Original:	1.1 %
Duplicate:	0.66 %
Total Carbonates	
Original:	37.74 %
Duplicate:	37.11 %

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)

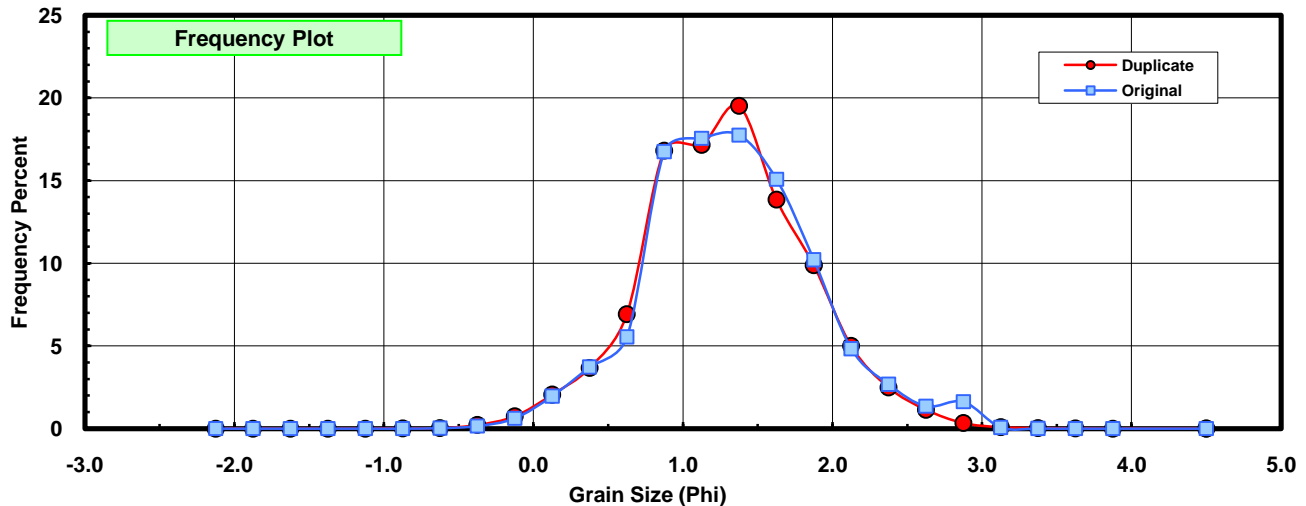
Pre-Digestion Grain Size Distribution

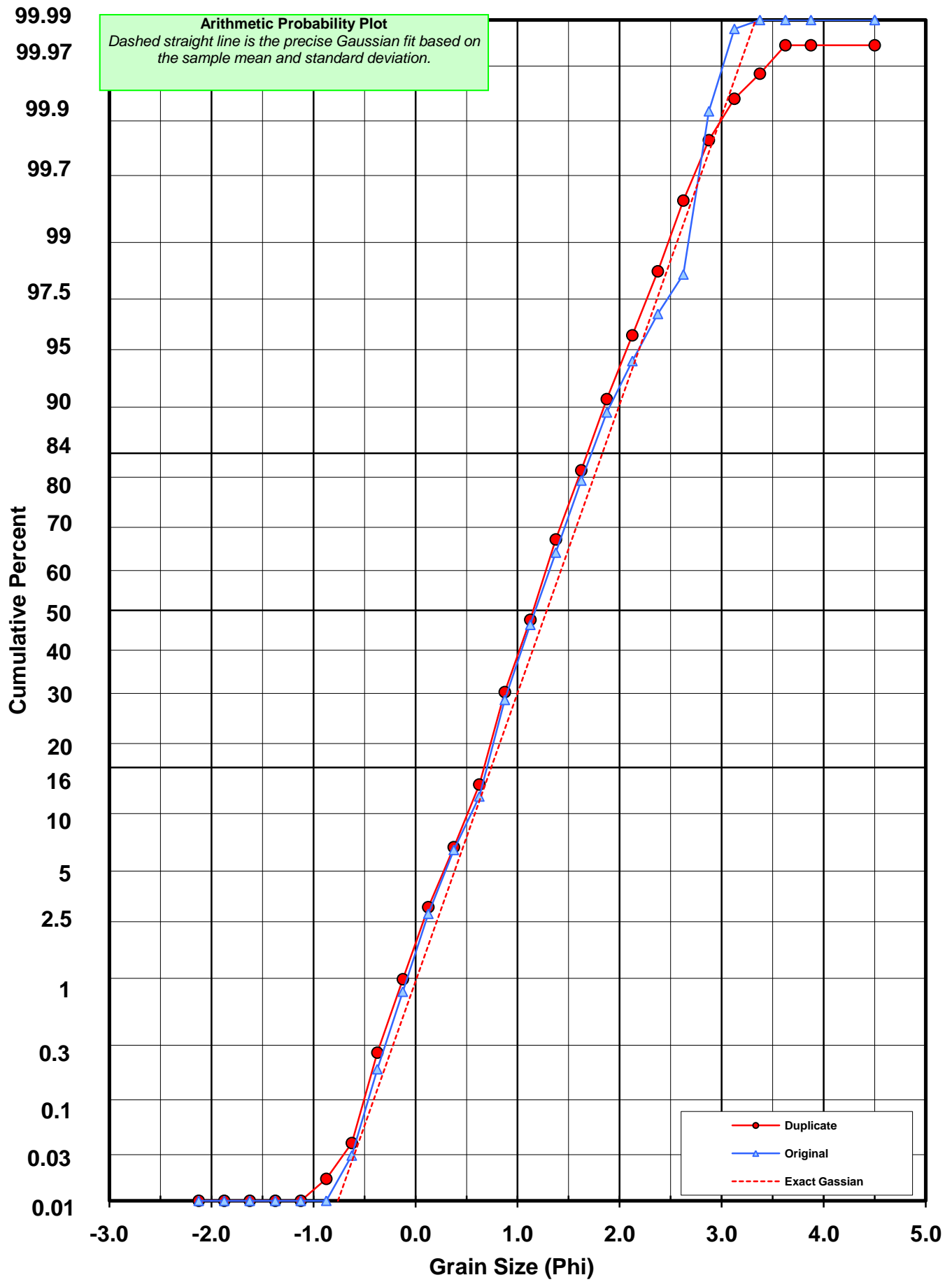
Onshore Grab Sample: VO-01-SS

Total Duplicate Sample Mass: 57.050 grams

Total Original Sample Mass: 56.146 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	0.009	0.016	0.016	0.001	0.002	0.002
-0.50	-0.625	0.014	0.025	0.040	0.016	0.028	0.030
-0.25	-0.375	0.124	0.217	0.258	0.087	0.155	0.185
0.00	-0.125	0.424	0.743	1.001	0.350	0.623	0.809
0.25	0.125	1.172	2.054	3.055	1.106	1.970	2.778
0.50	0.375	2.095	3.672	6.727	2.092	3.726	6.504
0.75	0.625	3.950	6.924	13.651	3.115	5.548	12.053
1.00	0.875	9.597	16.822	30.473	9.405	16.751	28.803
1.25	1.125	9.787	17.155	47.628	9.858	17.558	46.361
1.50	1.375	11.134	19.516	67.145	9.967	17.752	64.113
1.75	1.625	7.904	13.855	80.999	8.468	15.082	79.195
2.00	1.875	5.638	9.883	90.882	5.735	10.214	89.410
2.25	2.125	2.855	5.004	95.886	2.716	4.837	94.247
2.50	2.375	1.419	2.487	98.373	1.509	2.688	96.935
2.75	2.625	0.653	1.145	99.518	0.761	1.355	98.290
3.00	2.875	0.191	0.335	99.853	0.914	1.628	99.918
3.25	3.125	0.048	0.084	99.937	0.041	0.073	99.991
3.50	3.375	0.015	0.026	99.963	0.005	0.009	100.000
3.75	3.625	0.011	0.019	99.982	0.000	0.000	100.000
4.00	3.875	0.000	0.000	99.982	0.000	0.000	100.000
5.00	4.500	0.000	0.000	99.982	0.000	0.000	100.000
5.00	4.500	0.010	0.018	100.000	0.000	0.000	100.000



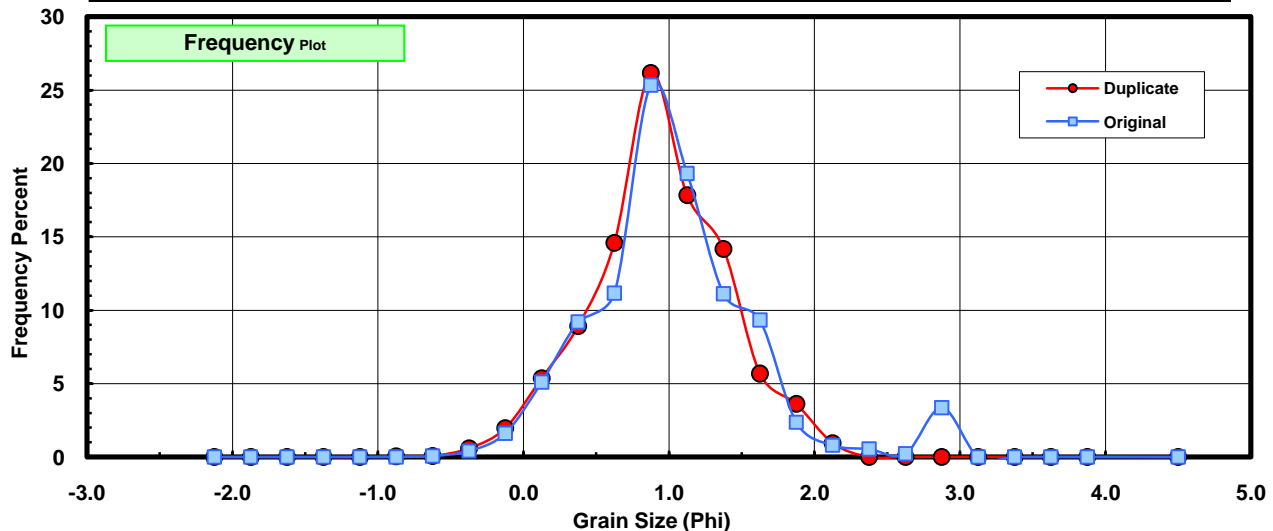


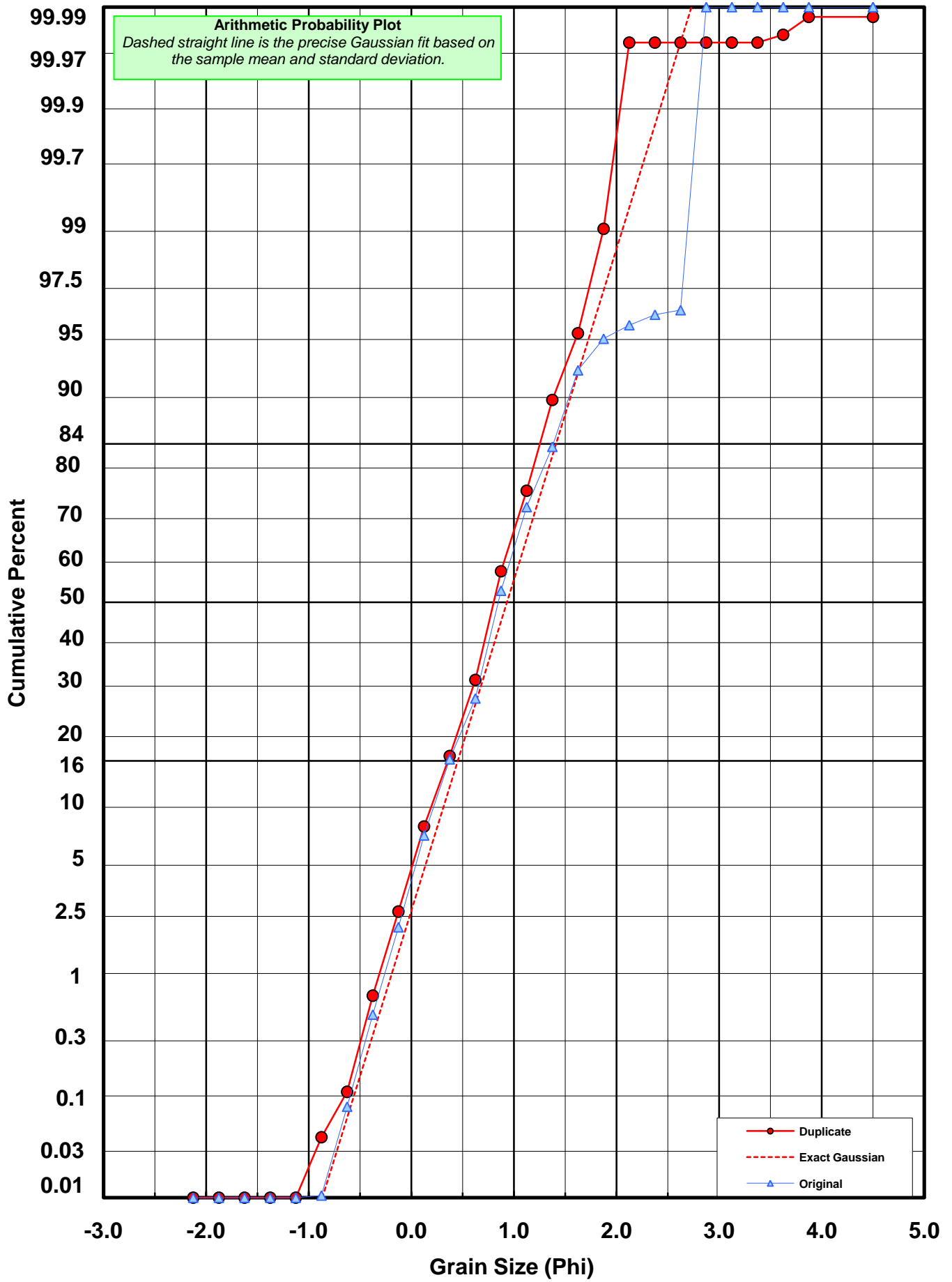
Carbonate Grain Size Distribution

Onshore Grab Sample: VO-01-SS

Total Duplicate Carbonate Mass: 21.252 grams
% Carbonate in Duplicate: 37.1 %
Total Original Carbonate Mass: 21.198 grams
% Carbonate in Original: 37.7 %

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	0.009	0.042	0.042	0.001	0.005	0.005
-0.50	-0.625	0.014	0.066	0.108	0.016	0.075	0.080
-0.25	-0.375	0.124	0.583	0.692	0.087	0.410	0.491
0.00	-0.125	0.416	1.957	2.649	0.343	1.618	2.109
0.25	0.125	1.142	5.374	8.023	1.082	5.104	7.213
0.50	0.375	1.895	8.917	16.940	1.951	9.204	16.417
0.75	0.625	3.103	14.601	31.541	2.368	11.171	27.588
1.00	0.875	5.560	26.162	57.703	5.372	25.342	52.930
1.25	1.125	3.790	17.834	75.536	4.097	19.327	72.257
1.50	1.375	3.015	14.187	89.723	2.357	11.119	83.376
1.75	1.625	1.208	5.684	95.407	1.978	9.331	92.707
2.00	1.875	0.769	3.618	99.026	0.502	2.368	95.075
2.25	2.125	0.202	0.950	99.976	0.170	0.802	95.877
2.50	2.375	0.000	0.000	99.976	0.115	0.543	96.419
2.75	2.625	0.000	0.000	99.976	0.046	0.217	96.636
3.00	2.875	0.000	0.000	99.976	0.713	3.364	100.000
3.25	3.125	0.000	0.000	99.976	0.000	0.000	100.000
3.50	3.375	0.000	0.000	99.976	0.000	0.000	100.000
3.75	3.625	0.001	0.005	99.981	0.000	0.000	100.000
4.00	3.875	0.002	0.009	99.991	0.000	0.000	100.000
5.00	4.500	0.000	0.000	99.991	0.000	0.000	100.000
5.00	4.500	0.002	0.009	100.000	0.000	0.000	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: VO-01-SS

Total Duplicate Digested Mass: 35.888 grams
% Silica in Duplicate: 62.9 %
Total Original Digested Mass: 34.954 grams
% Silica in Original: 62.3 %

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	0.008	0.022	0.022	0.007	0.020	0.020
0.25	0.125	0.030	0.084	0.106	0.024	0.069	0.089
0.50	0.375	0.200	0.557	0.663	0.141	0.403	0.492
0.75	0.625	0.847	2.360	3.023	0.747	2.137	2.629
1.00	0.875	4.037	11.249	14.272	4.033	11.538	14.167
1.25	1.125	5.997	16.710	30.983	5.761	16.482	30.649
1.50	1.375	8.119	22.623	53.606	7.610	21.771	52.420
1.75	1.625	6.696	18.658	72.264	6.490	18.567	70.988
2.00	1.875	4.869	13.567	85.831	5.233	14.971	85.959
2.25	2.125	2.653	7.392	93.223	2.546	7.284	93.243
2.50	2.375	1.428	3.979	97.202	1.394	3.988	97.231
2.75	2.625	0.695	1.937	99.139	0.715	2.046	99.276
3.00	2.875	0.204	0.568	99.707	0.201	0.575	99.851
3.25	3.125	0.053	0.148	99.855	0.046	0.132	99.983
3.50	3.375	0.023	0.064	99.919	0.006	0.017	100.000
3.75	3.625	0.010	0.028	99.947	0.000	0.000	100.000
4.00	3.875	0.011	0.031	99.978	0.000	0.000	100.000
5.00	4.500	0.000	0.000	99.978	0.000	0.000	100.000
5.00	4.500	0.008	0.022	100.000	0.000	0.000	100.000

