NMBAQC

NE Atlantic Marine Biological Analytical Quality Control Scheme

Particle Size Report – PS85

Particle Size Component 2022/23

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CONTENTS

APPENDICES

- No data provided.
n/p - not participating in this exercise at current time/ non-particpation not communicated.
n/p* - not participating in this exercise at current time - non-particpation communicated.

BENCHMARK DATA

Table 1. Summary data for the benchmark replicates distributed as PS85.

	Method	% Gravel	% Sand	% Mud	Sediment Description (Post analysis)
PSA_2936 BM REP 1	NMBAQC	44.97	52.13	2.90	Sandy gravel
PSA_2937 BM REP 2	NMBAQC	45.06	52.18	2.76	Sandy gravel
PSA_2938 BM REP 3	NMBAQC	44.91	52.27	2.82	Sandy gravel
PSA_2939 BM REP 4	NMBAQC	45.31	51.55	3.14	Sandy gravel
PSA_2940 BM REP 5	NMBAQC	44.16	52.84	3.00	Sandy gravel
BM REP AVERAGE	NMBAQC	44.88	52.19	2.92	Sandy Gravel

Table 2. Summary of sieve data for the benchmark replicates distributed as PS85.

		PSA_2936 BM REP 1	PSA_2937 BM REP 2	PSA_2938 BM REP 3	PSA_2939 BM REP 4	PSA_2940 BM REP 5	BM Average
Sieves used		Yes	Yes	Yes	Yes	Yes	Yes
Phi interval	Microns	**Weight in grams**					
-6.5 to -6.0	>63000	0.00	0.00	0.00	0.00	0.00	0.00
-6.0 to -5.5	45000 - 63000	0.00	0.00	0.00	0.00	0.00	0.00
-5.5 to -5.0	31500 - 45000	0.00	0.00	0.00	0.00	0.00	0.00
-5.0 to -4.5	22400 - 31500	0.00	0.00	0.00	0.00	0.00	0.00
-4.5 to -4.0	16000 - 22400	0.00	0.00	0.00	0.00	0.00	0.00
-4.0 to -3.5	11200 - 16000	0.00	0.00	0.00	0.00	0.00	0.00
-3.5 to -3.0	8000 - 11200	0.00	0.00	0.00	0.00	0.00	0.00
-3.0 to -2.5	5600 - 8000	0.00	0.00	0.00	0.00	0.00	0.00
-2.5 to -2.0	4000 - 5600	50.42	51.30	50.03	52.64	53.32	51.54
-2.0 to -1.5	2800 - 4000	84.97	83.35	82.91	85.06	81.23	83.50
-1.5 to -1.0	2000 - 2800	76.66	75.76	76.65	76.23	75.88	76.24
-1.0 to -0.5	1400 - 2000	18.95	19.58	20.20	18.72	19.78	19.45
-0.5 to 0.0	1000 - 1400	0.21	0.16	0.11	0.11	0.12	0.14
>1.0 mm		231.21	230.15	229.90	232.76	230.33	230.87
<1.0 mm	Base Pan	0.08	0.11	0.08	0.10	0.09	0.09
	Oven Dried	240.25	236.70	236.69	239.26	246.05	239.79
Total Weight (g)		471.54	466.96	466.67	472.12	476.47	470.75

BENCHMARK DATA

Table 3. Summary of final laser data for the benchmark replicates distributed as PS85.

Phi interval	Microns	PSA_2936 BM REP 1	PSA_2937 BM REP 2	PSA_2938 BM REP 3	PSA_2939 BM REP 4	PSA_2940 BM REP 5	BM AVERAGE
0.0 to 0.5	710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00
0.5 to 1.0	500 - 710	0.98	1.30	1.18	1.18	1.17	1.16
1.0 to 1.5	355 - 500	4.85	5.61	5.81	5.28	5.28	5.37
1.5 to 2.0	250 - 355	14.46	15.80	16.14	14.24	14.63	15.06
2.0 to 2.5	180 - 250	32.05	32.22	32.76	31.71	32.09	32.17
2.5 to 3.0	125 - 180	29.50	28.09	27.46	28.82	28.75	28.52
3.0 to 3.5	90 - 125	10.17	9.34	9.10	10.01	9.92	9.71
3.5 to 4.0	63 - 90	2.31	2.19	1.99	2.57	2.35	2.28
4.0 to 4.5	44.19 - 63	0.63	0.62	0.58	0.72	0.65	0.64
4.5 to 5.0	31.25 - 44.19	0.41	0.35	0.34	0.40	0.37	0.37
5.0 to 5.5	22.097 - 31.25	0.34	0.32	0.34	0.37	0.34	0.34
5.5 to 6.0	15.625 - 22.097	0.39	0.36	0.34	0.37	0.34	0.36
6.0 to 6.5	11.049 - 15.625	0.45	0.43	0.45	0.49	0.45	0.45
6.5 to 7.0	7.813 - 11.049	0.47	0.45	0.49	0.53	0.48	0.48
7.0 to 7.5	5.524 - 7.813	0.49	0.48	0.51	0.56	0.51	0.51
7.5 to 8.0	3.906 - 5.524	0.46	0.46	0.47	0.52	0.49	0.48
8.0 to 8.5	2.762 - 3.906	0.36	0.35	0.36	0.40	0.38	0.37
8.5 to 9.0	1.953 - 2.762	0.29	0.28	0.28	0.31	0.31	0.30
9.0 to 9.5	1.381 - 1.953	0.29	0.28	0.28	0.31	0.31	0.29
9.5 to 10.0	0.977 - 1.381	0.28	0.27	0.27	0.30	0.30	0.29
10.0 to 10.5	0.691 - .0977	0.24	0.23	0.24	0.26	0.26	0.24
10.5 to 11.0	0.488 - 0.691	0.19	0.18	0.19	0.20	0.20	0.19
11.0 to 11.5	0.345 - 0.488	0.14	0.13	0.14	0.15	0.15	0.14
11.5 to 12.0	0.244 - 0.345	0.10	0.10	0.10	0.11	0.10	0.10
12.0 to 12.5	0.173 - 0.244	0.07	0.07	0.07	0.07	0.07	0.07
12.5 to 13.0	0.122 - 0.173	0.05	0.05	0.05	0.05	0.05	0.05
13.0 to 13.5	0.086 - 0.122	0.03	0.03	0.03	0.03	0.03	0.03
13.5 to 14.0	0.061 - 0.086	0.01	0.01	0.01	0.02	0.01	0.01
14.0 to 14.5	0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00
> 14.5	0.01 - 0.043	0.00	0.00	0.00	0.00	0.00	0.00
	Total	100.00	100.00	100.00	100.00	100.00	100.00
	MEAN:	180.03	186.72	188.38	179.46	181.70	183.22
	SORTING:	1.73	1.71	1.73	1.85	1.77	1.76
	SKEWNESS:	-0.18	-0.14	-0.15	-0.22	-0.19	-0.18
	KURTOSIS:	1.59	1.51	1.57	1.85	1.68	1.64
	MODE:	Unimodal	Unimodal	Unimodal	Unimodal	Unimodal	Unimodal
	MODE 1 (µm):	213.4	213.4	213.4	213.4	213.4	213.4
	MODE 2 (µm):	-	-	-	-	-	-
	MODE 3 (µm):	-	-	-	-	-	-

BENCHMARK DATA

Table 4. Summary of Coefficient of Variation for Benchmark laser replicates for PS85.

		PSA_2936 BM REP 1	PSA_2937 BM REP 2	PSA_2938 BM REP 3	PSA_2939 BM REP 4	PSA_2940 BM REP 5
D_{10}	Subsample 1	0.19	0.43	0.40	0.25	0.32
	Subsample 2	0.38	0.49	0.40	0.17	0.41
	Subsample 3	0.31	0.61	0.47	0.41	0.20
					n	
D_{50}	Subsample 1	0.07	0.10	0.04	0.18	0.04
	Subsample 2	0.05	0.14	0.13	0.21	0.09
	Subsample 3	0.17	0.02	0.17	0.09	0.03
D_{90}	Subsample 1	0.19	0.37	0.28	0.10	0.13
	Subsample 2	0.02	0.34	0.38	0.41	0.28
	Subsample 3	0.37	0.17	0.41	0.16	0.05

$$COV = \left(\frac{StDev}{Mean}\right) * 100$$

ISO 133020 defines good reproducibility when: COV is <3% for D50
COV is <5% for D10 and D90

All limits double when the D50 is <10microns.

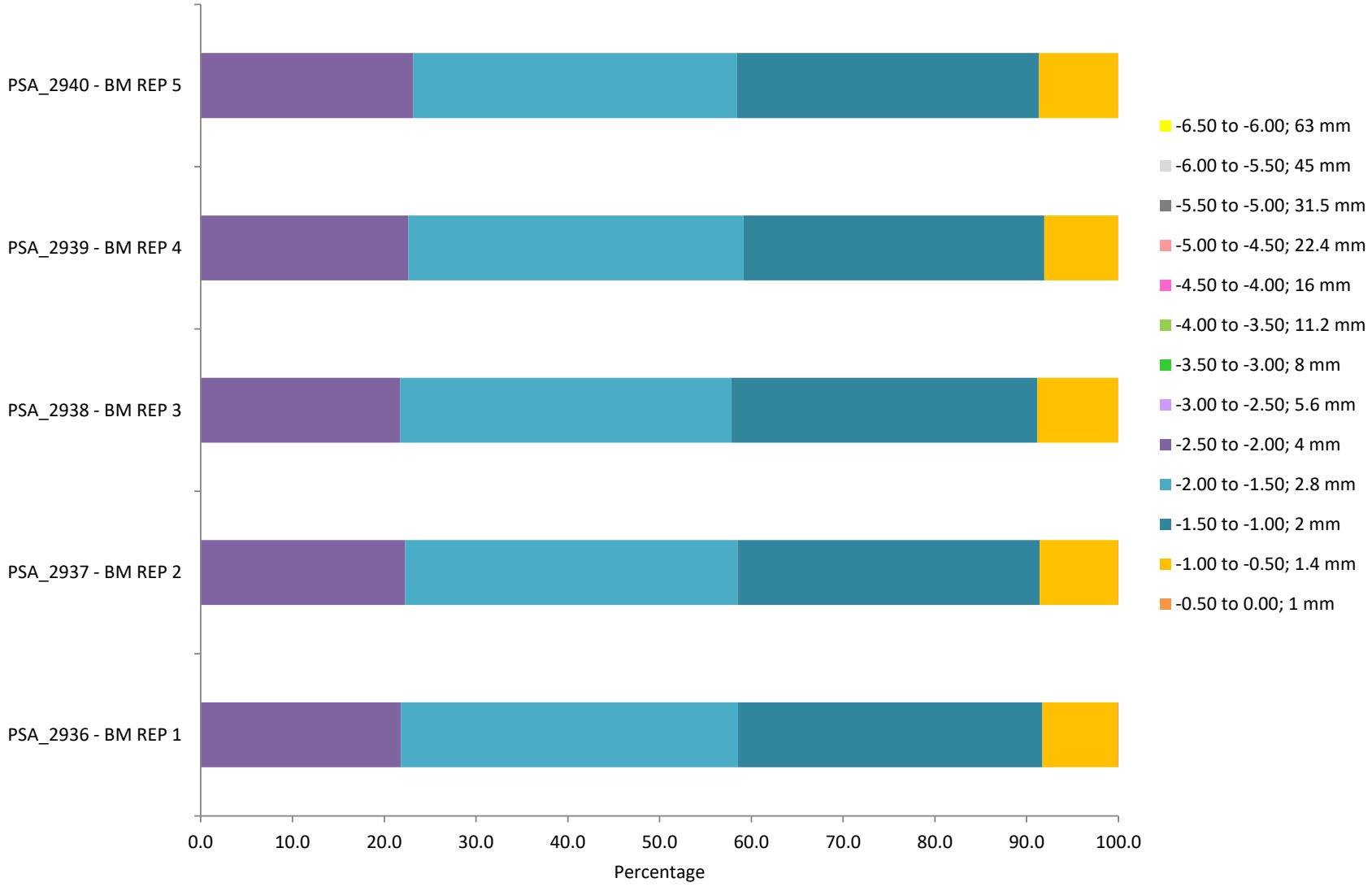
In reality 3% and 5% are low and greater variability is expected for natural sediment samples therefore a maximum of 20% (based on three replicates being measured) will be used as a guide.

The Benchmark replicates show good reproducibility

Table 5. Laser metadata for Benchmark replicates for PS85.

If laser used, provide manufacturer/model:	Beckman Coulter LS 13320
Dispersion unit:	Universal Liquid Module
Analysis model:	Mie
Dispersant used:	Water (RI - 1.33)
Particle Refractive Index:	1.55
Particle Absorption Index:	0.1
Fines extension	PIDS system
Obscuration (average):	10%
Pump speed (% or rpm)	80%
Stirrer speed (% or rpm)	n/a
Ultrasonic duration (seconds)	20
Ultrasonic level (eg %, unit as described by instrument manual)	2

Figure 1a. Percentage bar charts resulting from final sieve analysis of 5 replicate samples of sediment distibuted as PS85 (Benchmark Data).



NMBAQC Particle Size Analysis
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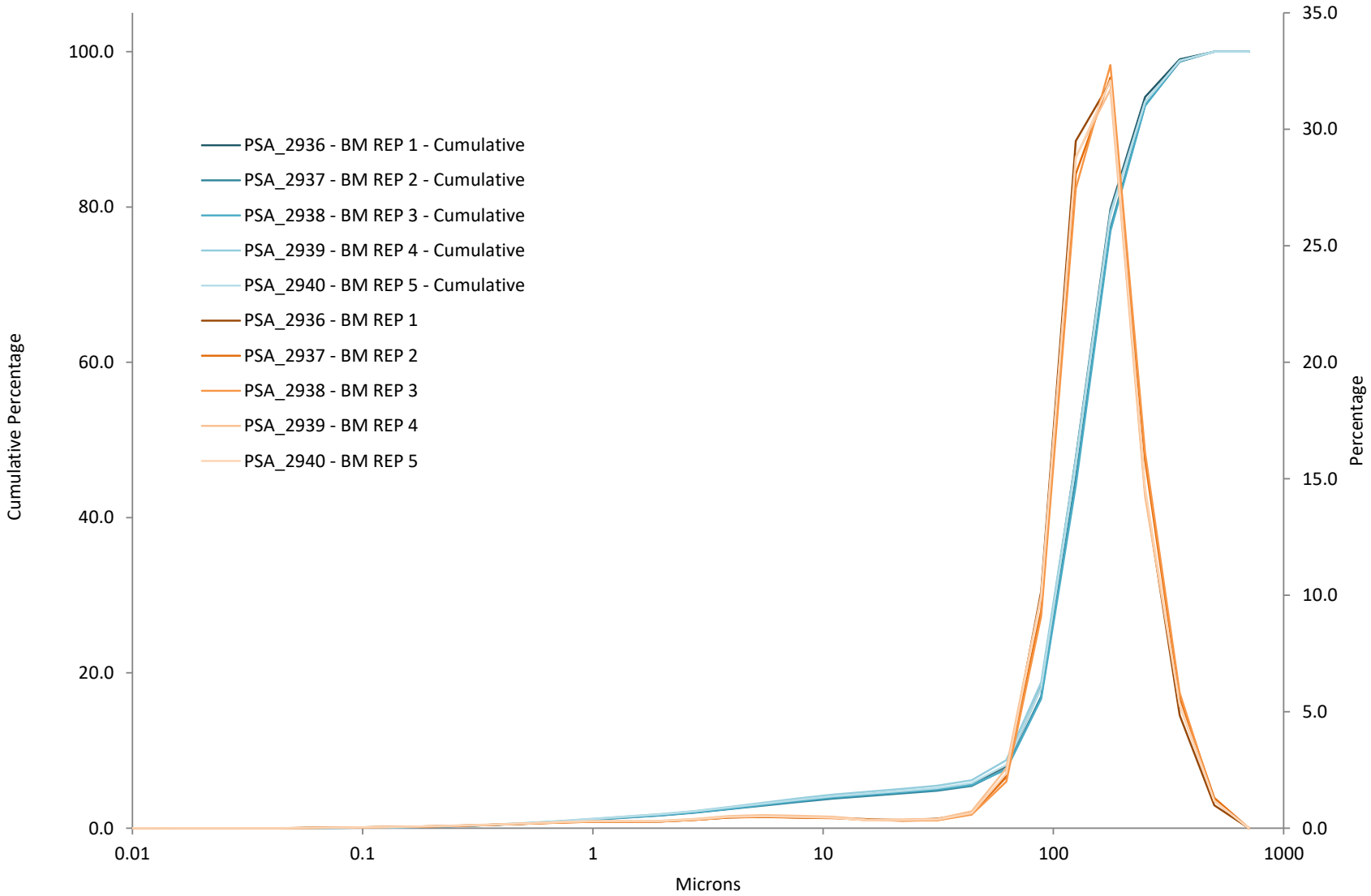
Figure 1b. Particle size distribution curves resulting from final laser analysis of 5 replicate samples of sediment distibuted as PS85 (Benchmark Data).



NMBAQC Particle Size Analysis
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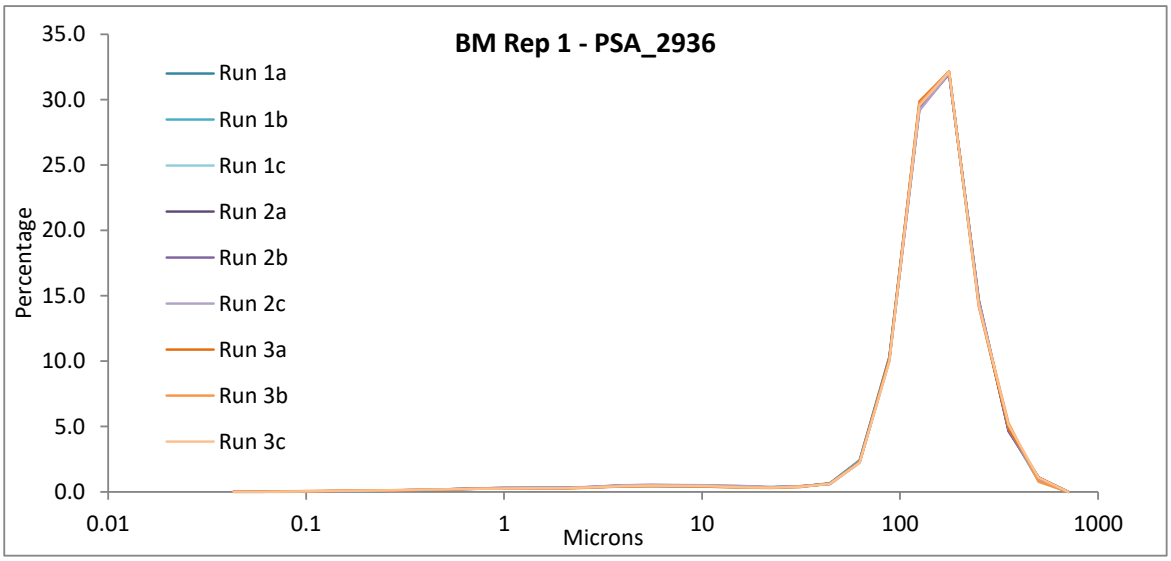
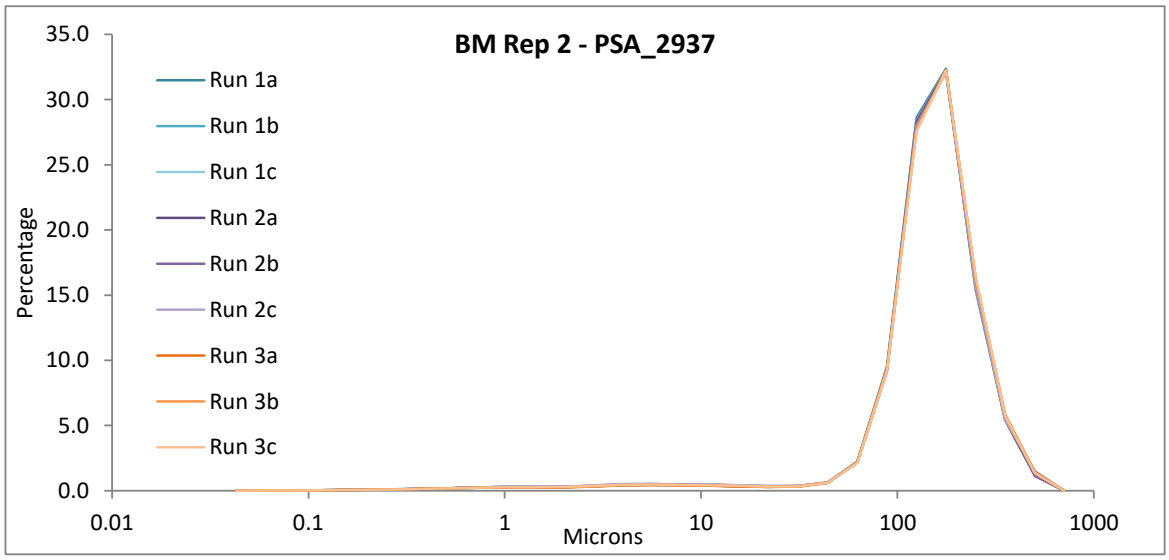
Figure 2. Particle size distribution curves resulting from laser analysis of five replicate samples of sediment distributed as PS85.





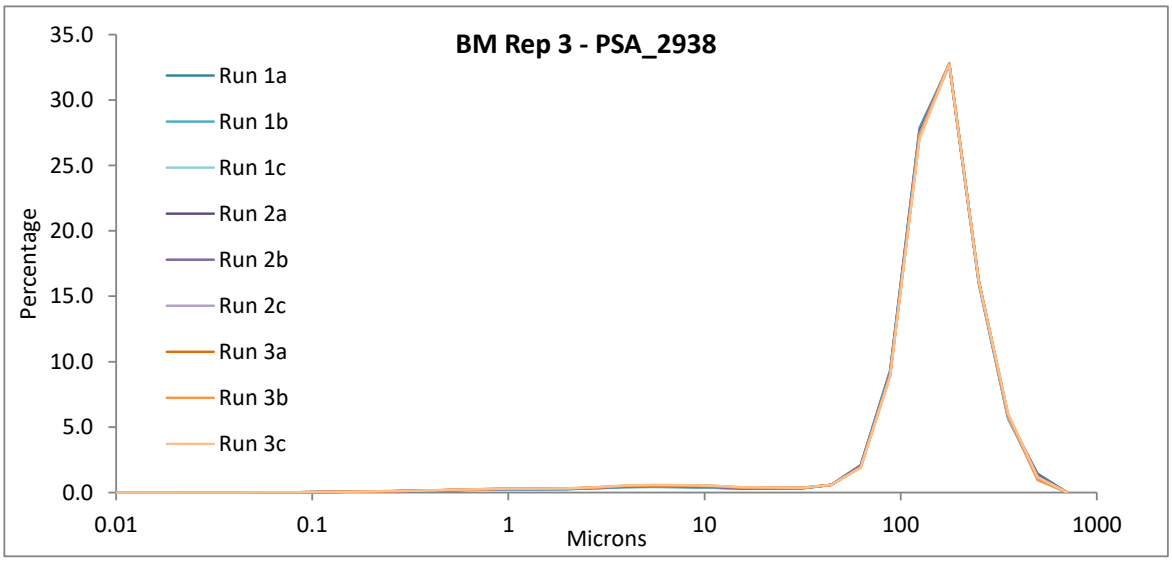
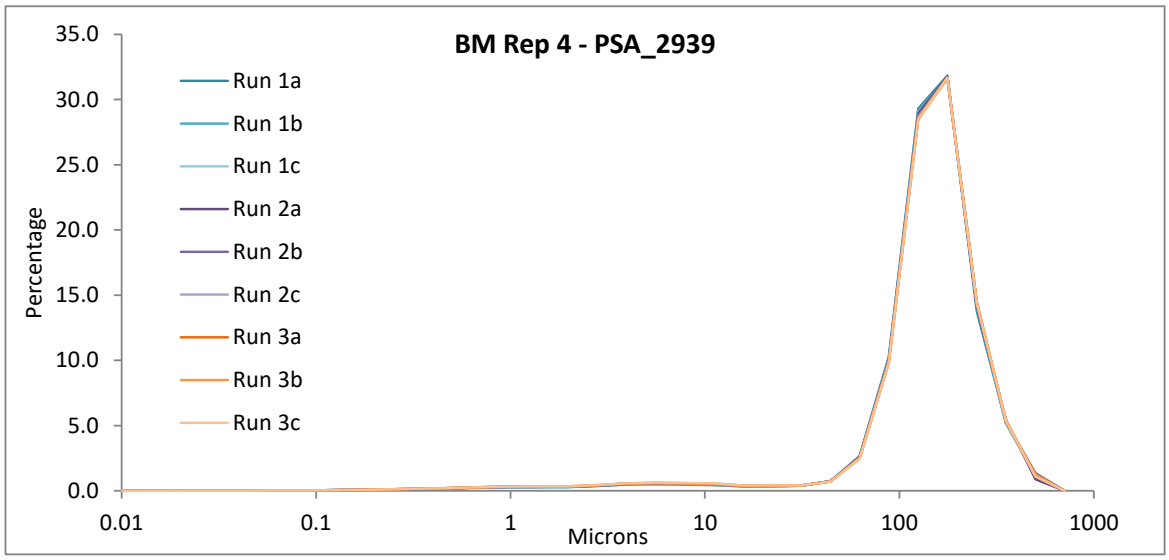


Figure 2. Particle size distribution curves resulting from laser analysis of five replicate samples of sediment distributed as PS85.



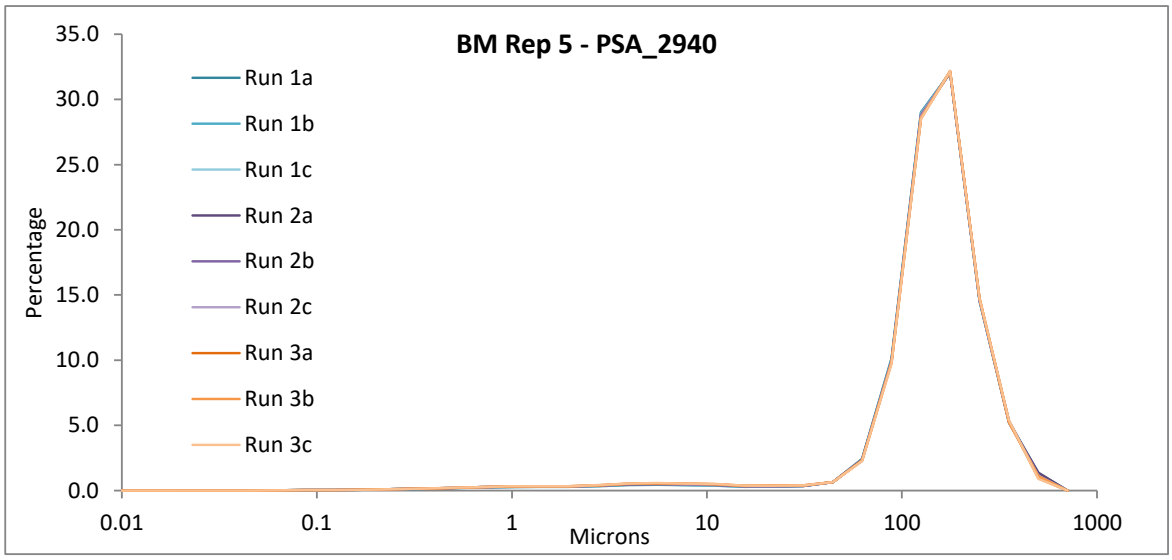
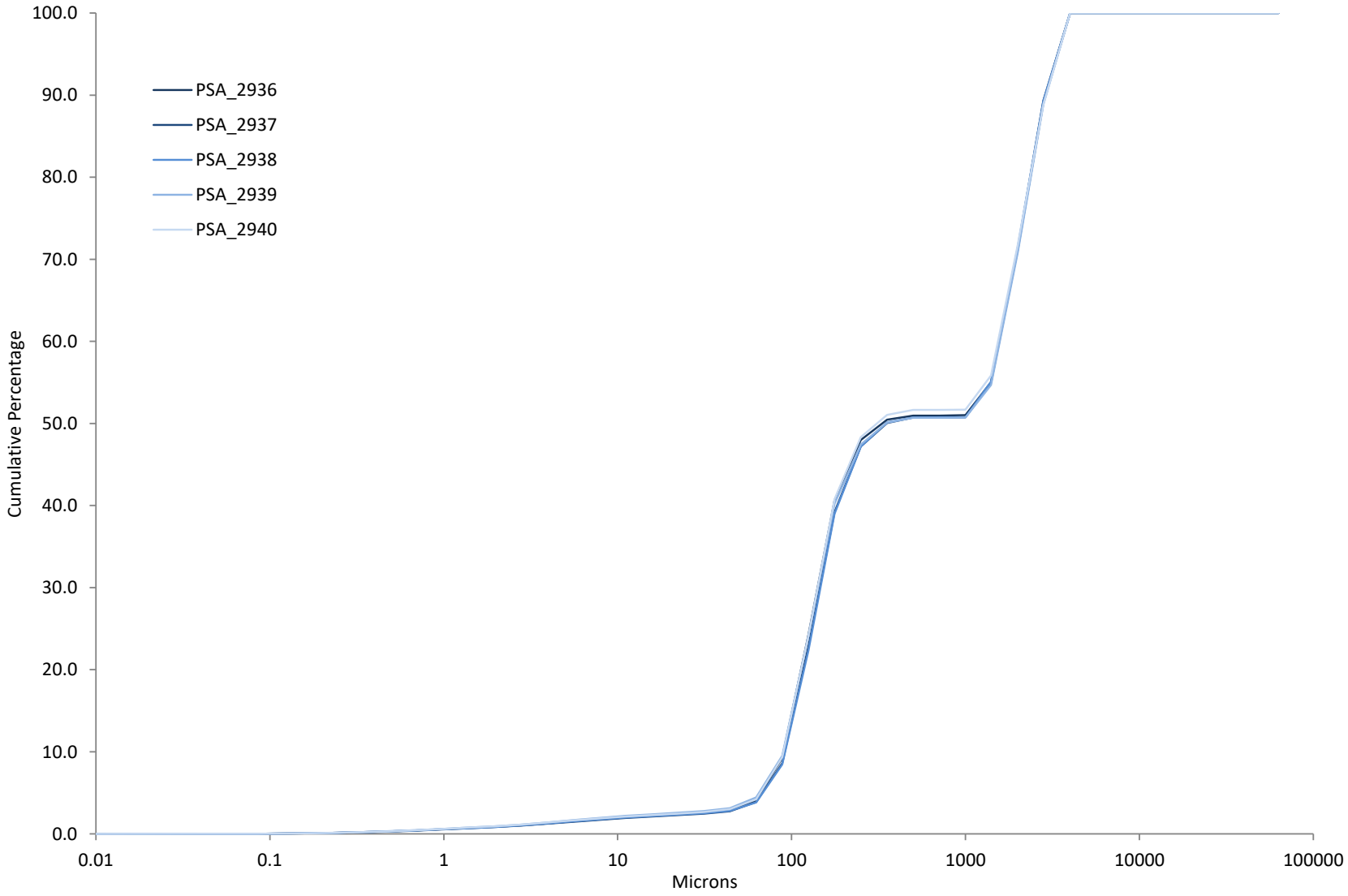


Figure 3. Particle size distribution curves resulting from analysis of 5 replicate samples of sediment distibuted as PS85 (Benchmark Data).



NMBAQC Particle Size Analysis
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PARTICIPANT DATA

Table 6. Summary of equipment and methods used by participants and sample summary data provided by participants for sediment distributed as PS85.

Lab	Equipment Used		Method Used	Chemical Dispersant Used	Peroxide pre-treatment Used	Summary Data			Sediment Description (Post Analysis)	Sediment Description* Gradistat Textural Group
	Sieves	Laser				% Gravel	% Sand	% Mud		
Benchmark Average	Yes	Yes	NMBAQC	No	No	44.88	52.19	2.92	Sandy Gravel	Sandy Gravel
PSA_2901	Yes	Yes	NMBAQC	No	No	44.70	52.47	2.83	Sandy Gravel	Sandy Gravel
PSA_2902	Yes	Yes	NMBAQC	No	No	43.61	53.16	3.22	Sandy Gravel	Sandy Gravel
PSA_2903	Yes	Yes	NMBAQC	No	No	54.7	45.1	0.2	Sandy Gravel	Sandy Gravel
PSA_2904	Yes	Yes	NMBAQC	No	No	45.51	52.05	2.43	Sandy Gravel	Sandy Gravel
PSA_2905	Yes	Yes	OTHER	No	No	45.32	53.51	1.17	Sandy Gravel	Sandy Gravel
PSA_2906	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p
PSA_2907	Yes	Yes	NMBAQC	No	No	44.67	52.71	2.63	Sandy Gravel	Sandy Gravel
PSA_2908	n/p*	n/p*	n/p*	n/p*	n/p*	n/p*	n/p*	n/p*	n/p*	n/p*
PSA_2909	Yes	Yes	NMBAQC	No	No	43.45	53.03	3.53	Coarse Sediment	Sandy Gravel
PSA_2910	Yes	Yes	NMBAQC	No	No	44.73	54.49	0.77	Sandy Gravel	Sandy Gravel
PSA_2911	Yes	Yes	OTHER	No	No	38.41	59.55	2.04	Sandy Gravel	Sandy Gravel
PSA_2912	Yes	Yes	NMBAQC	No	No	43.62	54.61	1.77	Sandy Gravel	Sandy Gravel
PSA_2913	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p
PSA_2914	Yes	Yes	OTHER	No	No	49.65	48.82	1.52	Sandy Gravel	Sandy Gravel
PSA_2916	Yes	Yes	NMBAQC	No	No	45.59	52.98	1.44	Sandy Gravel	Sandy Gravel
PSA_2917	Yes	Yes	NMBAQC	No	No	44.69	52.07	3.25	Sandy Gravel	Sandy Gravel
PSA_2918	Yes	Yes	NMBAQC	No	No	43.4	54.9	1.7	Sandy Gravel	Sandy Gravel

NB: Decimal places as supplied by participant.

* Sediment description from Gradistat textural group based on final data supplied by participant.

PARTICIPANT DATA

Table 7. Raw sieve data (weight in grams) provided by participants for sediment distributed as PS85.

			Participant															
Phi interval	Microns	Benchmark Average	PSA_2901	PSA_2902	PSA_2903*	PSA_2904	PSA_2905	PSA_2906	PSA_2907	PSA_2908	PSA_2909	PSA_2910	PSA_2911	PSA_2912	PSA_2913	PSA_2914	PSA_2916	PSA_2917	PSA_2918
Sieves Used		Yes	Yes	Yes	Yes	Yes	n/p	n/p	Yes	n/p*	Yes	Yes	Yes	Yes	n/p	Yes	Yes	Yes	Yes
-6.5 to -6.0	>63000	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-6.0 to -5.5	45000 - 63000	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-5.5 to -5.0	31500 - 45000	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-5.0 to -4.5	22400 - 31500	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-4.5 to -4.0	16000 - 22400	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-4.0 to -3.5	11200 - 16000	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-3.5 to -3.0	8000 - 11200	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-3.0 to -2.5	5600 - 8000	0.00	0.00	0.24	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.73	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-2.5 to -2.0	4000 - 5600	51.54	45.02	45.68	57.55	49.06	34.93	n/p	49.93	n/p*	35.58	48.89	0.00	40.38	n/p	0.00	47.63	51.63	48.60
-2.0 to -1.5	2800 - 4000	83.50	82.55	85.06	163.52	73.94	107.90	n/p	79.90	n/p*	76.07	73.32	0.00	69.23	n/p	0.00	94.64	78.44	70.48
-1.5 to -1.0	2000 - 2800	76.24	74.87	85.56	106.51	79.74	85.17	n/p	77.10	n/p*	65.61	63.45	226.40	67.01	n/p	252.41	87.08	74.55	76.67
-1.0 to -0.5	1400 - 2000	19.45	20.31	27.39	21.93	16.65	22.03	n/p	20.83	n/p*	21.41	18.27	0.00	22.80	n/p	0.00	20.27	20.78	18.99
-0.5 to 0.0	1000 - 1400	0.14	0.42	0.84	0.14	0.08	0.23	n/p	0.72	n/p*	0.11	0.72	0.00	0.18	n/p	2.13	0.14	0.12	1.09
	Total	230.87	223.17	244.77	349.65	219.47	250.27	n/p	228.48	a/d	198.78	205.38	226.40	199.59	n/p	254.54	249.76	225.52	215.83
Summary Data																			
< 0.00; >1 mm		230.87	223.17	244.77	349.65	219.47	250.27	n/p	228.48	n/p*	198.78	205.38	226.40	199.59	n/p	254.54	249.76	225.52	215.83
> 0.00;	Base pan	0.09	0.40	0.39	0.47	0.21	-	n/p	0.42	n/p*	0.08	0.32	48.68	0.05	n/p	-	1.22	0.08	0.40
<1 mm	Oven dried	239.79	229.27	251.36	248.99	225.79	252.80	n/p	234.39	n/p*	209.15	210.97	314.32	205.25	n/p	-	252.22	232.28	234.44
Total Sample Weight		470.75	452.84	496.52	599.11	445.47	503.07	n/p	463.29	n/p*	408.01	416.67	589.40	404.89	n/p	-	503.20	457.88	450.67

- No data provided.

* Do to human error during replicate creation this sample contained a higher weight of sediment gretaer than 1mm.

PARTICIPANT DATA

Table 8. Summary of final laser data for the participants for sediment distributed as PS85 with Gradistat output.

Microns	Benchmark Average	PSA_2901	PSA_2902	PSA_2903	PSA_2904	PSA_2905	PSA_2906	PSA_2907	PSA_2908	PSA_2909
1400 - 2000	-	-	-	-	-	-	-	-	-	-
1000 - 1400	-	-	-	-	-	-	-	-	-	-
710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	1.06
500 - 710	1.16	1.34	0.00	0.07	0.23	0.16	n/p	2.96	n/p*	1.70
355 - 500	5.37	5.87	3.72	7.92	4.32	3.79	n/p	14.07	n/p*	4.43
250 - 355	15.06	13.30	17.78	21.37	17.34	16.24	n/p	24.05	n/p*	13.56
180 - 250	32.17	32.49	31.14	30.27	29.38	29.01	n/p	24.66	n/p*	31.42
125 - 180	28.52	28.95	27.60	25.65	27.94	29.14	n/p	14.09	n/p*	28.23
90 - 125	9.71	9.84	11.78	12.15	13.51	15.75	n/p	10.87	n/p*	10.00
63 - 90	2.28	2.59	1.61	2.04	2.48	3.58	n/p	4.11	n/p*	2.72
44.19 - 63	0.64	0.85	0.00	0.00	0.04	0.10	n/p	0.98	n/p*	0.86
31.25 - 44.19	0.37	0.30	0.12	0.02	0.08	0.00	n/p	0.24	n/p*	0.32
22.097 - 31.25	0.34	0.37	0.79	0.22	0.42	0.28	n/p	0.27	n/p*	0.47
15.625 - 22.097	0.36	0.26	0.80	0.21	0.50	0.33	n/p	0.36	n/p*	0.26
11.049 - 15.625	0.45	0.32	0.56	0.08	0.46	0.26	n/p	0.28	n/p*	0.23
7.813 - 11.049	0.48	0.45	0.57	0.00	0.47	0.25	n/p	0.36	n/p*	0.51
5.524 - 7.813	0.51	0.52	0.73	0.00	0.56	0.30	n/p	0.37	n/p*	0.61
3.906 - 5.524	0.48	0.49	0.79	0.00	0.60	0.31	n/p	0.38	n/p*	0.56
2.762 - 3.906	0.37	0.38	0.70	0.00	0.55	0.28	n/p	0.38	n/p*	0.48
1.953 - 2.762	0.30	0.28	0.53	0.00	0.42	0.20	n/p	0.34	n/p*	0.45
1.381 - 1.953	0.29	0.25	0.36	0.00	0.25	0.01	n/p	0.28	n/p*	0.44
0.977 - 1.381	0.29	0.25	0.24	0.00	0.18	0.00	n/p	0.22	n/p*	0.39
0.691 - .0977	0.24	0.22	0.15	0.00	0.21	0.00	n/p	0.13	n/p*	0.31
0.488 - 0.691	0.19	0.19	0.01	0.00	0.05	0.00	n/p	0.15	n/p*	0.26
0.345 - 0.488	0.14	0.15	0.00	0.00	0.00	0.00	n/p	0.14	n/p*	0.21
0.244 - 0.345	0.10	0.12	0.00	0.00	0.00	0.00	n/p	0.12	n/p*	0.17
0.173 - 0.244	0.07	0.09	0.00	0.00	0.00	0.00	n/p	0.10	n/p*	0.13
0.122 - 0.173	0.05	0.07	0.00	0.00	0.00	0.00	n/p	0.06	n/p*	0.10
0.086 - 0.122	0.03	0.04	0.00	0.00	0.00	0.00	n/p	0.02	n/p*	0.07
0.061 - 0.086	0.01	0.02	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.03
0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.01
0.01 - 0.043	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	n/p	100.00	n/p*	100.00
GRADISTAT OUTPUTS										
MEAN:	183.22	181.38	178.35	198.30	177.38	174.18	n/p	206.15	n/p*	178.01
SORTING:	1.76	1.72	1.96	1.56	1.63	1.56	n/p	1.85	n/p*	2.07
SKEWNESS:	-0.18	-0.14	-0.32	0.00	-0.12	-0.04	n/p	-0.22	n/p*	-0.27
KURTOSIS:	1.64	1.54	2.05	0.95	1.15	1.00	n/p	1.06	n/p*	2.30
MODE:	Unimodal	Unimodal	Unimodal	Unimodal	Unimodal	Unimodal	n/p	Unimodal	n/p*	Unimodal
MODE 1 (µm):	213.4	213.4	213.4	213.4	213.4	150.9	n/p	213.40	n/p*	213.40
MODE 2 (µm):	-	-	-	-	-	-	n/p	-	n/p*	-
MODE 3 (µm):	-	-	-	-	-	-	n/p	-	n/p*	-

PARTICIPANT DATA

Table 8. Summary of final laser data for the participants for sediment distributed as PS85 with Gradistat output.

Microns	Benchmark Average	PSA_2910	PSA_2911	PSA_2912	PSA_2913	PSA_2914	PSA_2916	PSA_2917	PSA_2918
1400 - 2000	-	-	-	-	-	-	-	-	-
1000 - 1400	-	-	0.24	-	-	-	-	-	-
710 - 1000	0.00	0.00	0.06	0.00	n/p	0.00	0.00	0.00	0.00
500 - 710	1.16	0.32	0.80	0.21	n/p	0.26	0.23	0.88	0.22
355 - 500	5.37	8.09	7.60	5.47	n/p	7.10	4.34	5.15	4.31
250 - 355	15.06	22.16	21.45	20.11	n/p	19.81	17.54	13.76	17.63
180 - 250	32.17	31.20	30.74	32.41	n/p	29.60	29.87	31.50	29.95
125 - 180	28.52	24.99	24.60	26.70	n/p	25.77	28.57	29.22	28.48
90 - 125	9.71	10.47	10.06	10.46	n/p	12.26	13.97	10.44	13.71
63 - 90	2.28	1.25	1.13	1.15	n/p	2.16	2.62	2.66	2.45
44.19 - 63	0.64	0.00	0.00	0.00	n/p	0.00	0.05	0.77	0.04
31.25 - 44.19	0.37	0.02	0.05	0.04	n/p	0.03	0.00	0.44	0.00
22.097 - 31.25	0.34	0.20	0.59	0.53	n/p	0.48	0.21	0.41	0.21
15.625 - 22.097	0.36	0.19	0.54	0.53	n/p	0.51	0.36	0.40	0.39
11.049 - 15.625	0.45	0.11	0.28	0.26	n/p	0.24	0.35	0.51	0.38
7.813 - 11.049	0.48	0.13	0.27	0.23	n/p	0.18	0.35	0.54	0.41
5.524 - 7.813	0.51	0.29	0.40	0.39	n/p	0.31	0.42	0.56	0.47
3.906 - 5.524	0.48	0.32	0.46	0.50	n/p	0.41	0.44	0.53	0.49
2.762 - 3.906	0.37	0.21	0.39	0.47	n/p	0.39	0.38	0.41	0.45
1.953 - 2.762	0.30	0.05	0.27	0.33	n/p	0.30	0.26	0.32	0.29
1.381 - 1.953	0.29	0.00	0.07	0.20	n/p	0.20	0.03	0.32	0.11
0.977 - 1.381	0.29	0.00	0.00	0.00	n/p	0.00	0.00	0.31	0.00
0.691 - .0977	0.24	0.00	0.00	0.00	n/p	0.00	0.00	0.26	0.00
0.488 - 0.691	0.19	0.00	0.00	0.00	n/p	0.00	0.00	0.20	0.00
0.345 - 0.488	0.14	0.00	0.00	0.00	n/p	0.00	0.00	0.15	0.00
0.244 - 0.345	0.10	0.00	0.00	0.00	n/p	0.00	0.00	0.10	0.00
0.173 - 0.244	0.07	0.00	0.00	0.00	n/p	0.00	0.00	0.07	0.00
0.122 - 0.173	0.05	0.00	0.00	0.00	n/p	0.00	0.00	0.05	0.00
0.086 - 0.122	0.03	0.00	0.00	0.00	n/p	0.00	0.00	0.03	0.00
0.061 - 0.086	0.01	0.00	0.00	0.00	n/p	0.00	0.00	0.01	0.00
0.043 - 0.061	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
0.01 - 0.043	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	n/p	100.00	100.00	100.00	100.00
GRADISTAT OUTPUTS									
MEAN:	183.22	201.79	200.15	193.33	n/p	191.06	180.25	176.41	180.32
SORTING:	1.76	1.56	1.58	1.53	n/p	1.59	1.56	1.87	1.57
SKEWNESS:	-0.18	-0.01	-0.02	-0.04	n/p	-0.03	-0.05	-0.25	-0.06
KURTOSIS:	1.64	0.97	1.00	1.00	n/p	1.00	1.00	1.91	1.02
MODE:	Unimodal	Unimodal	Unimodal	Unimodal	n/p	Unimodal	Unimodal	Unimodal	Unimodal
MODE 1 (µm):	213.4	213.40	213.40	213.40	n/p	213.40	213.40	213.40	213.40
MODE 2 (µm):	-	-	-	-	n/p	-	-	-	-
MODE 3 (µm):	-	-	-	-	n/p	-	-	-	-

Figure 4. Final sieve data (in percentages) provided by each participant for sediment distributed as PS85.

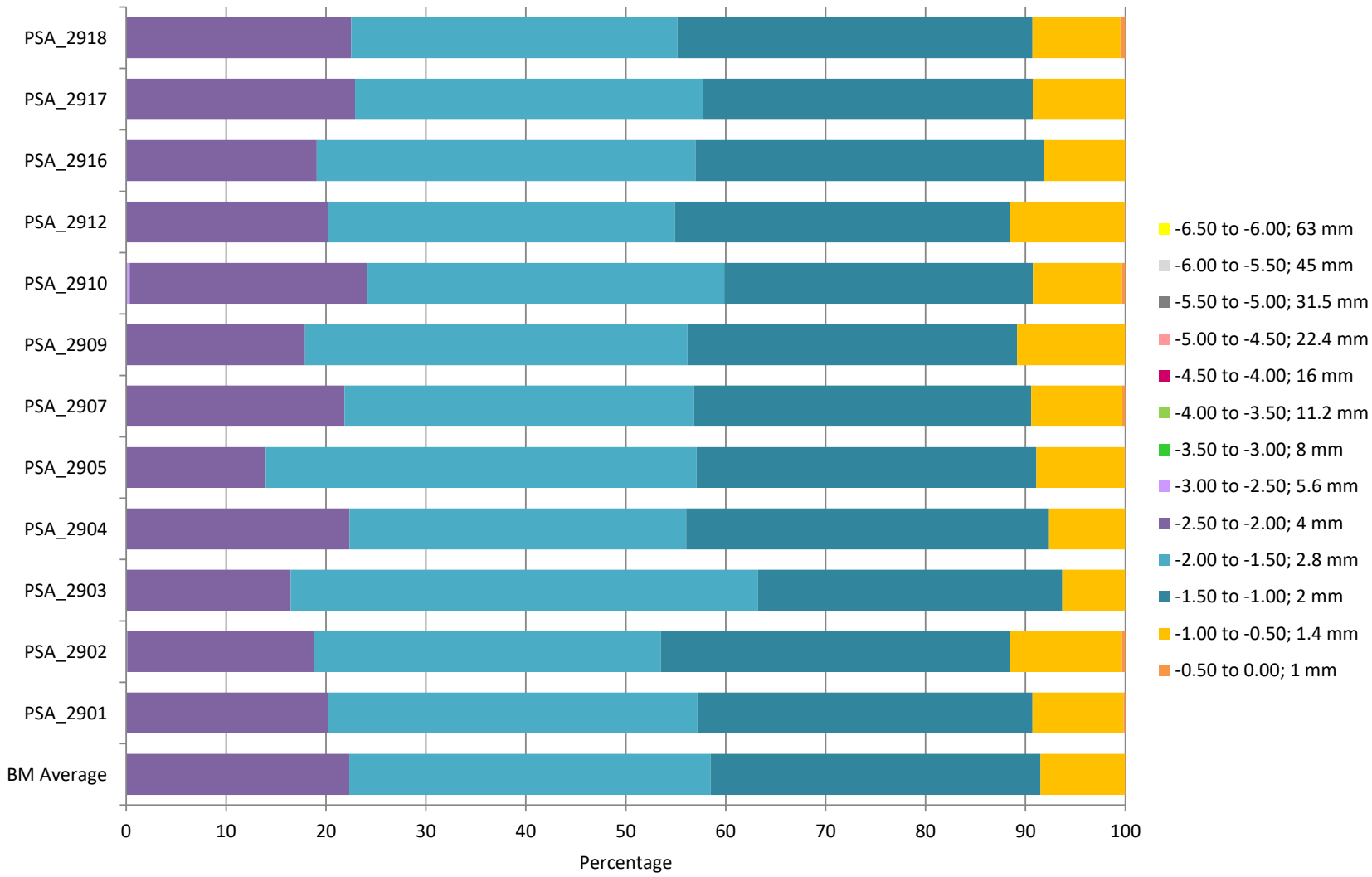
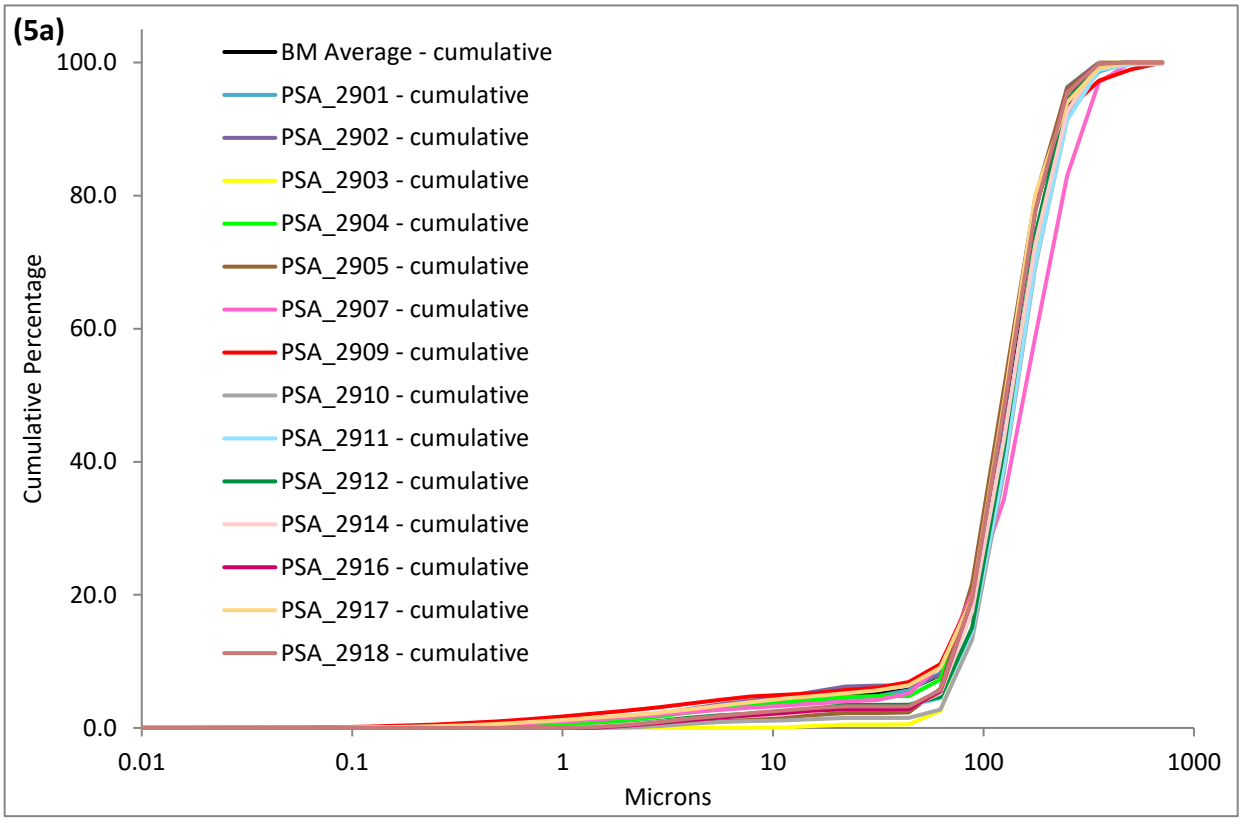


Figure 5. (a) Cumulative and (b) Differential final laser data provided by the participants and Benchmark average for sediment distributed as PS85.



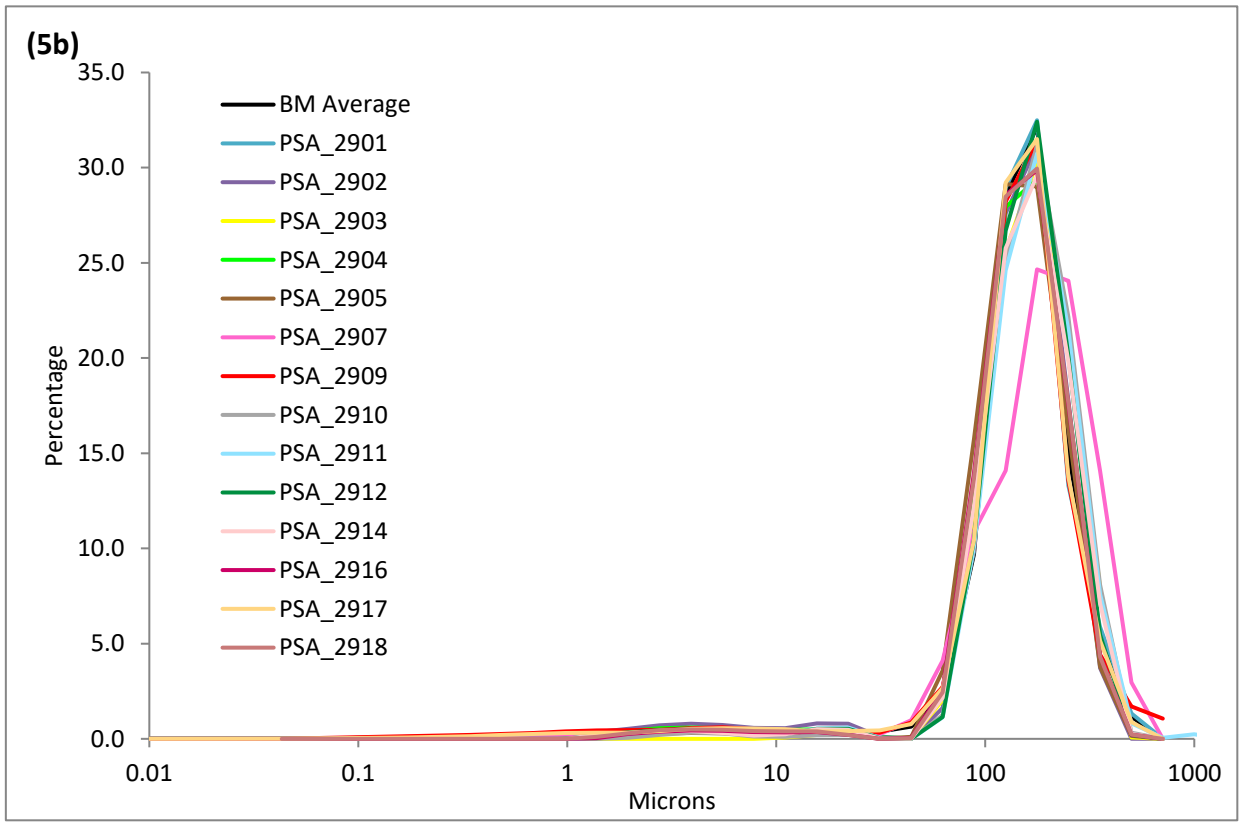


Figure 6. Particle size distribution curves from all participating laboratories and the Benchmark Average for sediment distributed as PS85.

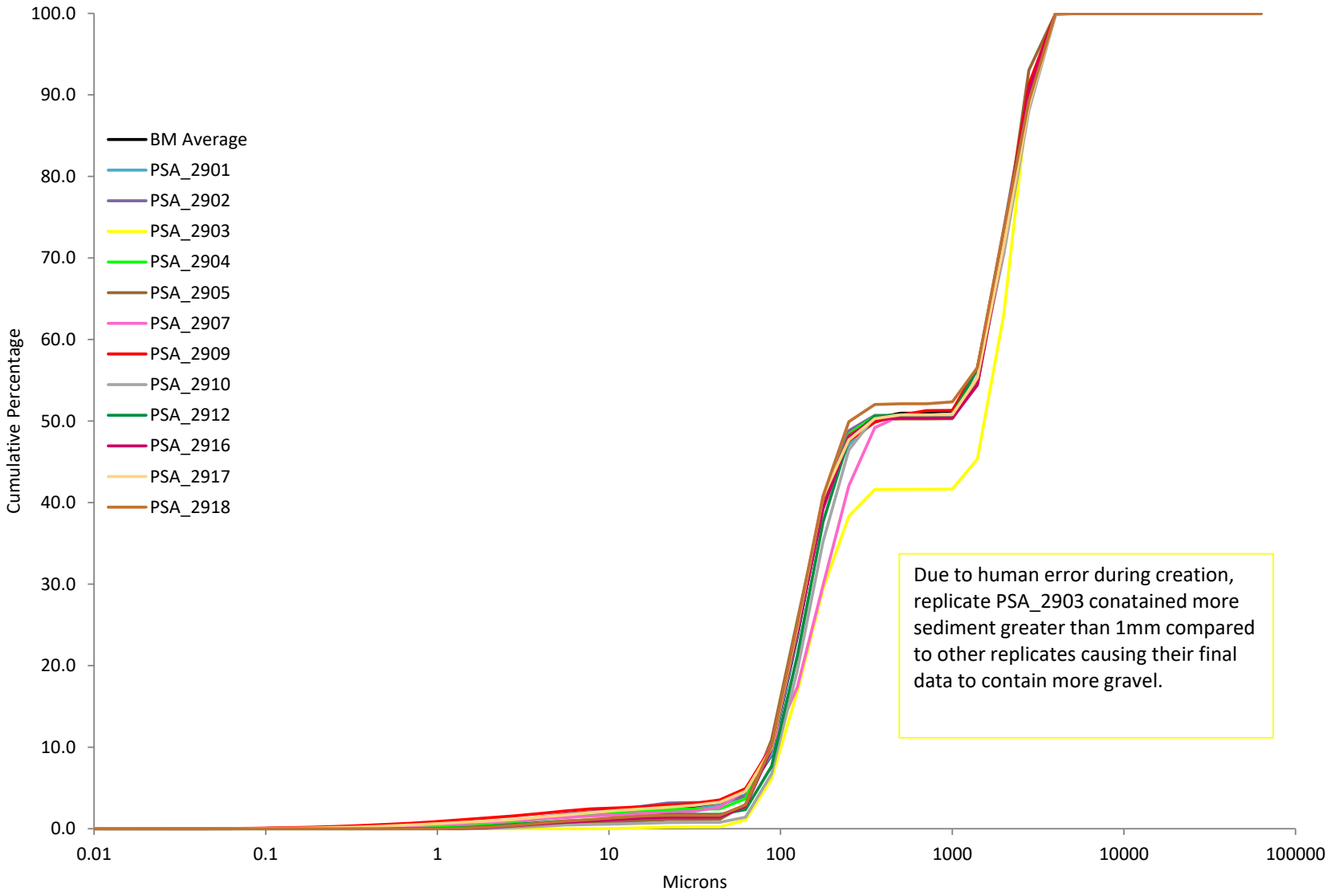


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Figure 7. Bar chart showing the percentage gravel, sand, silt and clay recorded by each participating laboratory and the Benchmark Average for PS85.

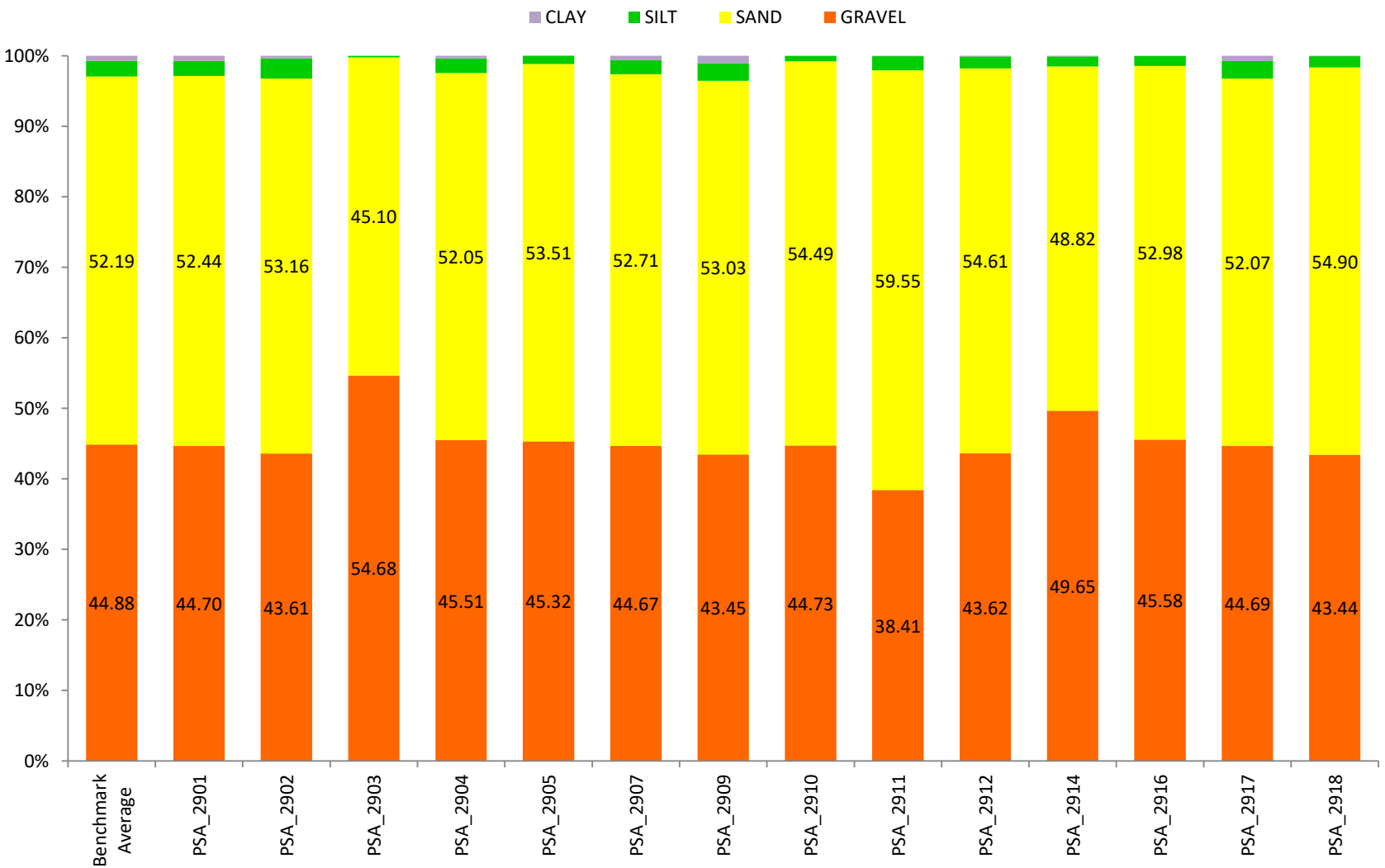


Figure 8. Individual comparisons of participant sieve data with the Benchmark Average for sediment distributed as PS85.

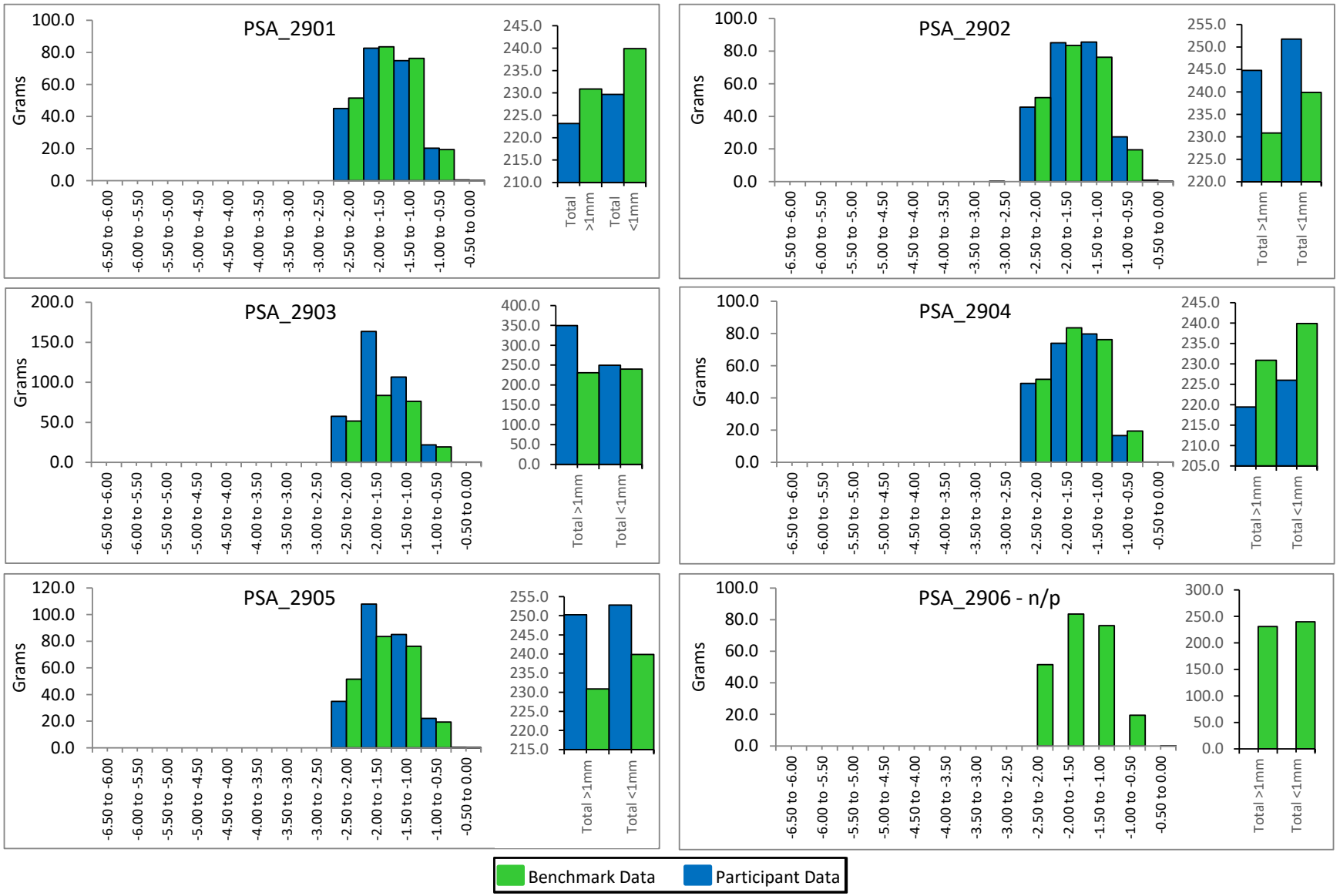


Figure 8. Individual comparisons of participant sieve data with the Benchmark Average for sediment distributed as PS85.

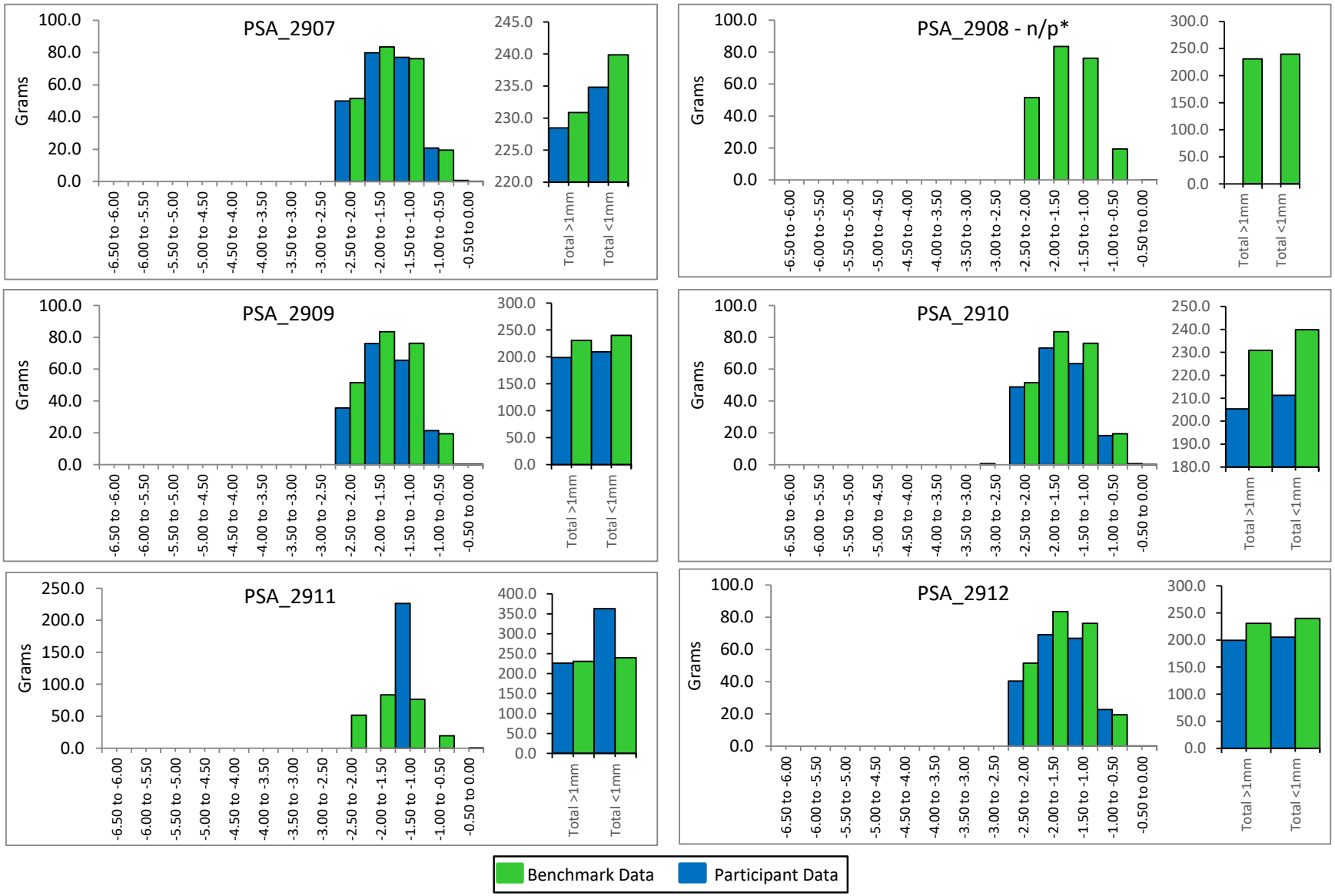


Figure 8. Individual comparisons of participant sieve data with the Benchmark Average for sediment distributed as PS85.

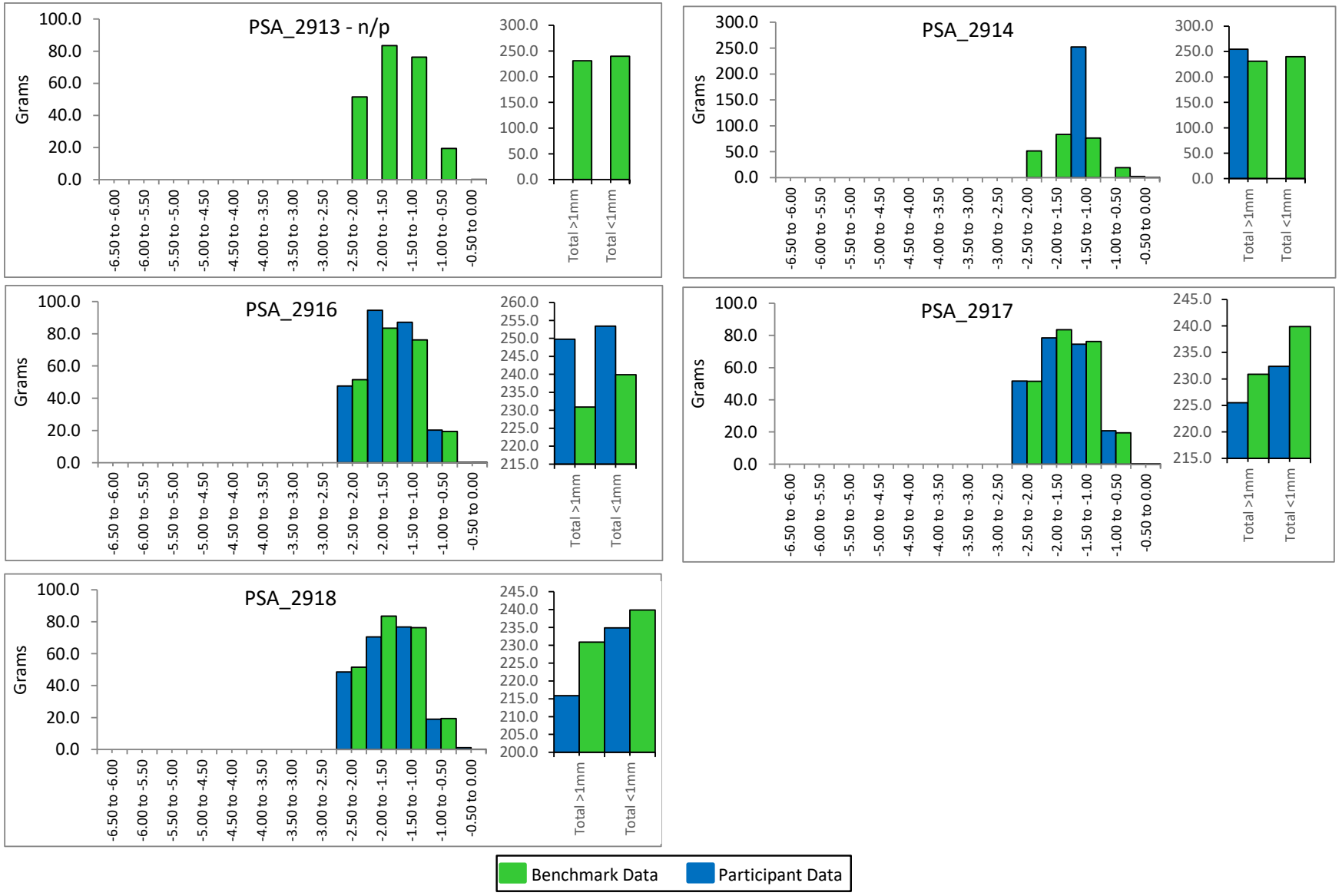


Figure 9. Comparison of participant laser replicate data with the Benchmark Average for sediment distributed as PS85.

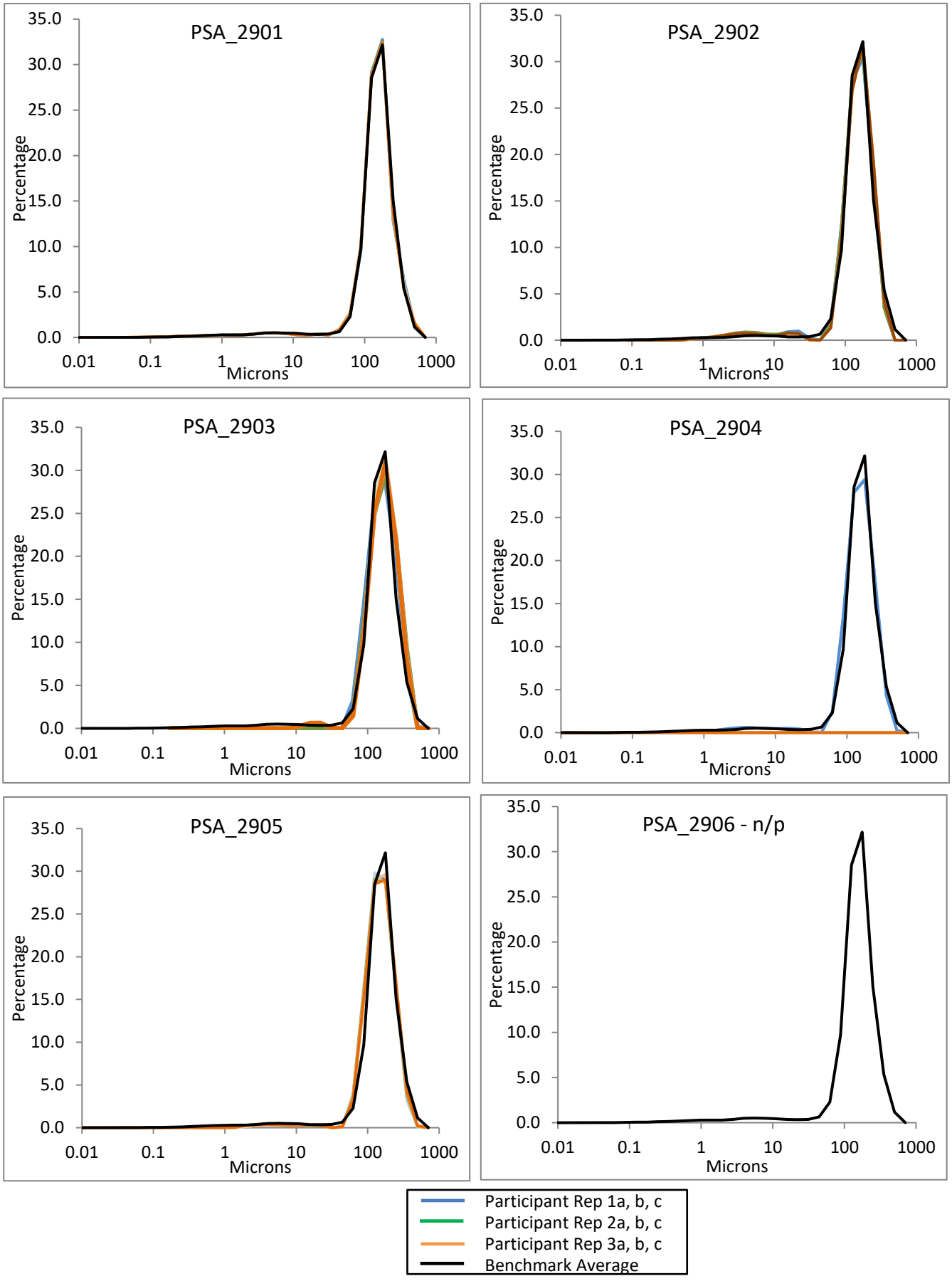


Figure 9. Comparison of participant laser replicate data with the Benchmark Average for sediment distributed as PS85.

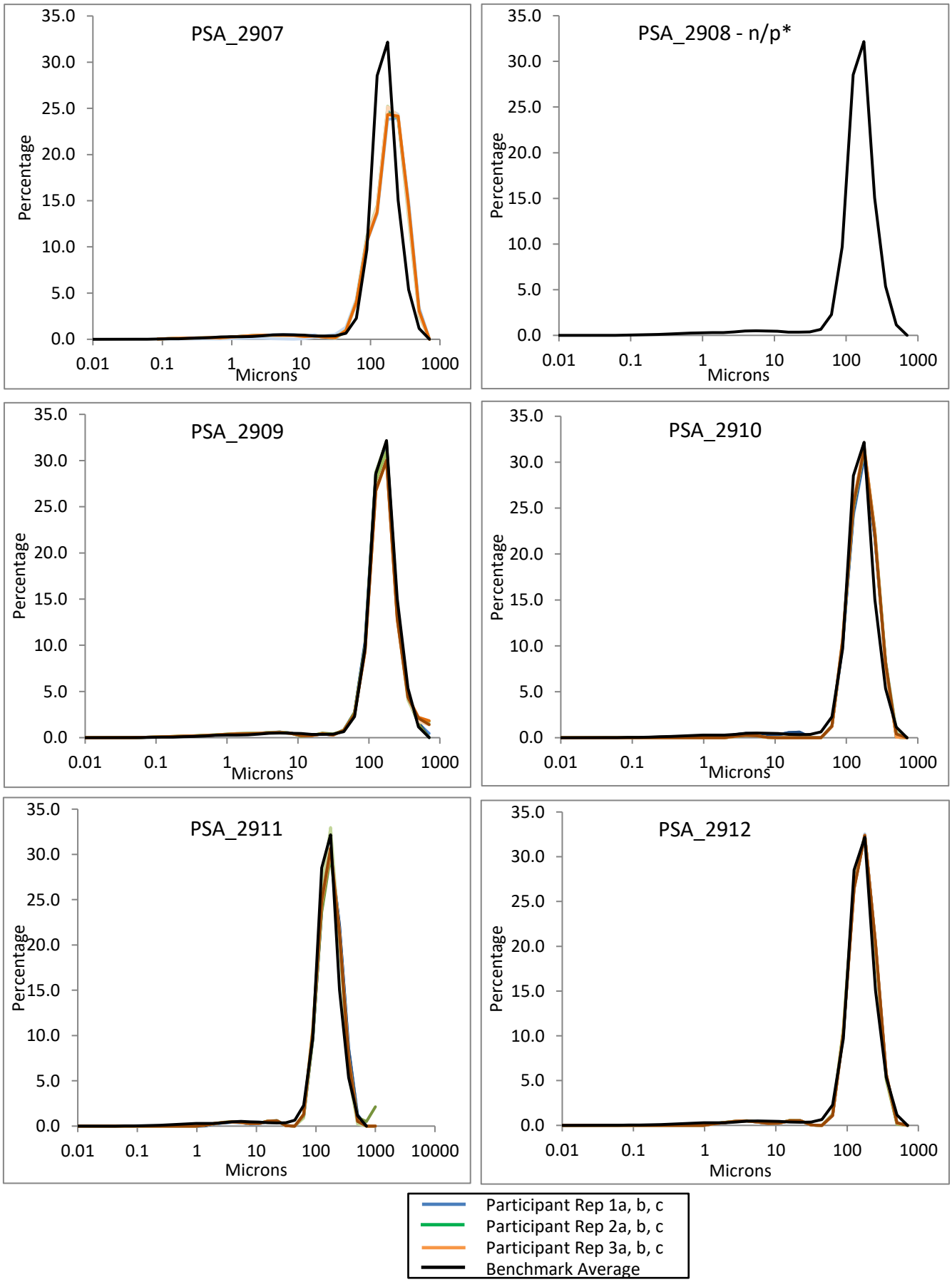
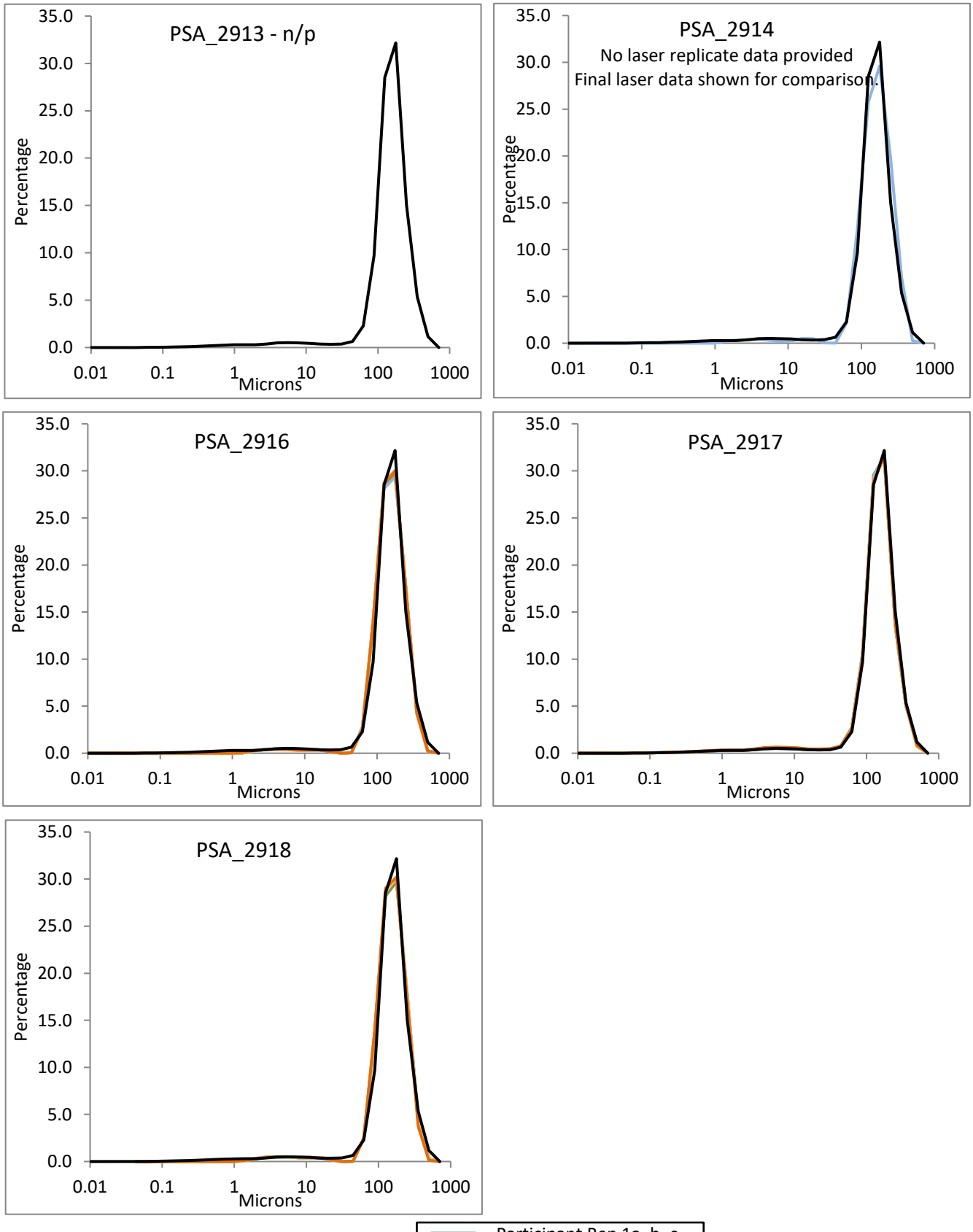


Figure 9. Comparison of participant laser replicate data with the Benchmark Average for sediment distributed as PS85.



APPENDICES

APPENDIX 1. Benchmark laser replicate data for sediment distributed as PS85.

	Replicate Sample 1								
	Subsample 1			Subsample 2			Subsample 3		
Microns	Run 1a	Run 1b	Run 1c	Run 2a	Run 2b	Run 2c	Run 3a	Run 3b	Run 3c
710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500 - 710	0.93	0.85	1.05	1.10	1.07	0.86	1.09	0.78	1.10
355 - 500	4.77	4.73	4.74	4.65	4.65	4.88	4.84	5.25	5.12
250 - 355	14.51	14.63	14.48	14.54	14.70	14.58	14.20	14.24	14.27
180 - 250	31.94	32.05	32.00	32.01	31.98	32.04	32.16	32.16	32.12
125 - 180	29.62	29.51	29.45	29.38	29.25	29.17	29.87	29.73	29.56
90 - 125	10.33	10.29	10.27	10.19	10.11	10.12	10.20	10.04	9.98
63 - 90	2.42	2.41	2.34	2.30	2.27	2.24	2.29	2.28	2.23
44.19 - 63	0.67	0.65	0.63	0.62	0.61	0.60	0.64	0.62	0.62
31.25 - 44.19	0.42	0.39	0.40	0.41	0.43	0.45	0.38	0.41	0.40
22.097 - 31.25	0.36	0.36	0.34	0.35	0.36	0.37	0.31	0.33	0.32
15.625 - 22.097	0.38	0.37	0.39	0.42	0.43	0.45	0.32	0.36	0.36
11.049 - 15.625	0.43	0.41	0.45	0.46	0.48	0.50	0.39	0.43	0.44
7.813 - 11.049	0.44	0.43	0.47	0.48	0.50	0.52	0.43	0.46	0.47
5.524 - 7.813	0.47	0.47	0.49	0.51	0.52	0.54	0.44	0.47	0.48
3.906 - 5.524	0.45	0.47	0.47	0.48	0.49	0.51	0.41	0.44	0.44
2.762 - 3.906	0.35	0.37	0.36	0.37	0.38	0.39	0.32	0.34	0.35
1.953 - 2.762	0.28	0.30	0.29	0.30	0.31	0.31	0.26	0.28	0.28
1.381 - 1.953	0.28	0.30	0.29	0.30	0.31	0.31	0.25	0.27	0.27
0.977 - 1.381	0.27	0.29	0.29	0.29	0.30	0.31	0.25	0.26	0.27
0.691 - .0977	0.22	0.24	0.24	0.25	0.25	0.26	0.23	0.23	0.24
0.488 - 0.691	0.17	0.17	0.19	0.19	0.19	0.20	0.19	0.19	0.20
0.345 - 0.488	0.11	0.12	0.14	0.14	0.14	0.14	0.15	0.14	0.16
0.244 - 0.345	0.08	0.08	0.10	0.10	0.10	0.10	0.12	0.11	0.12
0.173 - 0.244	0.05	0.05	0.07	0.07	0.07	0.07	0.09	0.08	0.09
0.122 - 0.173	0.03	0.03	0.05	0.05	0.05	0.05	0.07	0.05	0.07
0.086 - 0.122	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.03	0.04
0.061 - 0.086	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

d10	94.82	94.76	94.48	94.18	93.85	93.47	95.80	95.34	95.24
d50	180.95	181.18	181.18	181.26	181.45	181.34	181.24	181.48	181.86
d90	319.02	318.44	319.68	319.58	319.62	319.48	320.22	320.97	322.55

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	94.69	0.18	0.19	93.83	0.35	0.38	95.46	0.30	0.31
d50	181.10	0.13	0.07	181.35	0.10	0.05	181.53	0.31	0.17
d90	319.05	0.62	0.19	319.56	0.07	0.02	321.25	1.19	0.37

APPENDIX 1. Benchmark laser replicate data for sediment distributed as PS85.

	Replicate Sample 2								
	Subsample 1			Subsample 2			Subsample 3		
Microns	Run 1a	Run 1b	Run 1c	Run 2a	Run 2b	Run 2c	Run 3a	Run 3b	Run 3c
710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500 - 710	1.17	1.35	1.23	1.19	1.13	1.51	1.41	1.35	1.35
355 - 500	5.42	5.56	5.60	5.47	5.70	5.44	5.84	5.73	5.75
250 - 355	15.43	15.40	15.39	15.65	15.70	15.72	16.20	16.33	16.39
180 - 250	32.37	32.24	32.26	32.23	32.11	32.12	32.22	32.28	32.20
125 - 180	28.62	28.39	28.39	28.30	28.15	27.95	27.76	27.69	27.54
90 - 125	9.54	9.48	9.41	9.34	9.25	9.13	9.37	9.32	9.21
63 - 90	2.23	2.22	2.24	2.19	2.19	2.18	2.19	2.16	2.14
44.19 - 63	0.61	0.61	0.63	0.62	0.62	0.64	0.61	0.61	0.61
31.25 - 44.19	0.34	0.35	0.36	0.36	0.36	0.38	0.32	0.32	0.33
22.097 - 31.25	0.30	0.31	0.33	0.33	0.34	0.37	0.29	0.29	0.31
15.625 - 22.097	0.33	0.35	0.36	0.38	0.40	0.42	0.32	0.34	0.38
11.049 - 15.625	0.40	0.41	0.43	0.45	0.47	0.49	0.38	0.39	0.43
7.813 - 11.049	0.42	0.44	0.45	0.47	0.49	0.48	0.41	0.42	0.45
5.524 - 7.813	0.45	0.47	0.48	0.50	0.52	0.52	0.43	0.45	0.48
3.906 - 5.524	0.43	0.45	0.46	0.48	0.49	0.52	0.41	0.43	0.46
2.762 - 3.906	0.33	0.35	0.36	0.37	0.38	0.40	0.32	0.33	0.35
1.953 - 2.762	0.27	0.28	0.30	0.29	0.29	0.31	0.25	0.26	0.28
1.381 - 1.953	0.26	0.27	0.30	0.28	0.29	0.31	0.25	0.26	0.28
0.977 - 1.381	0.26	0.27	0.29	0.28	0.29	0.30	0.25	0.26	0.27
0.691 - .0977	0.22	0.23	0.24	0.24	0.24	0.25	0.22	0.22	0.23
0.488 - 0.691	0.18	0.18	0.18	0.19	0.19	0.18	0.17	0.18	0.18
0.345 - 0.488	0.14	0.14	0.12	0.14	0.14	0.13	0.13	0.13	0.13
0.244 - 0.345	0.10	0.10	0.08	0.10	0.10	0.09	0.10	0.10	0.10
0.173 - 0.244	0.07	0.07	0.05	0.07	0.07	0.06	0.07	0.07	0.07
0.122 - 0.173	0.05	0.05	0.04	0.05	0.05	0.04	0.05	0.05	0.05
0.086 - 0.122	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03
0.061 - 0.086	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

d10	96.94	96.56	96.12	95.84	95.42	94.91	98.01	97.72	96.87
d50	185.30	185.65	185.52	185.65	185.88	186.18	187.91	187.92	187.96
d90	327.52	329.84	329.22	328.39	329.71	330.62	333.36	332.31	332.57

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	96.54	0.41	0.43	95.39	0.47	0.49	97.53	0.59	0.61
d50	185.49	0.18	0.10	185.90	0.27	0.14	187.93	0.03	0.02
d90	328.86	1.20	0.37	329.57	1.12	0.34	332.74	0.55	0.17

APPENDIX 1. Benchmark laser replicate data for sediment distributed as PS85.

	Replicate Sample 3								
	Subsample 1			Subsample 2			Subsample 3		
Microns	Run 1a	Run 1b	Run 1c	Run 2a	Run 2b	Run 2c	Run 3a	Run 3b	Run 3c
710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500 - 710	1.43	1.18	1.17	1.03	1.32	1.19	1.14	0.96	1.18
355 - 500	5.66	5.62	5.71	5.86	5.87	5.70	5.93	5.88	6.03
250 - 355	15.97	16.20	16.18	16.13	16.11	16.15	16.23	16.16	16.15
180 - 250	32.70	32.80	32.80	32.75	32.68	32.80	32.75	32.83	32.73
125 - 180	27.86	27.72	27.64	27.61	27.39	27.41	27.23	27.28	27.03
90 - 125	9.32	9.28	9.20	9.17	9.08	9.06	8.96	8.96	8.87
63 - 90	2.10	2.08	2.03	2.03	1.98	1.97	1.94	1.92	1.89
44.19 - 63	0.59	0.58	0.58	0.59	0.58	0.58	0.58	0.59	0.58
31.25 - 44.19	0.32	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.37
22.097 - 31.25	0.30	0.31	0.32	0.33	0.34	0.36	0.37	0.38	0.39
15.625 - 22.097	0.28	0.29	0.31	0.32	0.34	0.35	0.37	0.39	0.40
11.049 - 15.625	0.37	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.53
7.813 - 11.049	0.42	0.44	0.45	0.47	0.49	0.51	0.53	0.55	0.57
5.524 - 7.813	0.44	0.46	0.48	0.50	0.51	0.53	0.54	0.57	0.58
3.906 - 5.524	0.41	0.43	0.44	0.46	0.47	0.49	0.50	0.52	0.53
2.762 - 3.906	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40
1.953 - 2.762	0.25	0.26	0.27	0.28	0.29	0.29	0.30	0.31	0.31
1.381 - 1.953	0.25	0.26	0.27	0.27	0.28	0.29	0.29	0.30	0.30
0.977 - 1.381	0.24	0.26	0.26	0.27	0.28	0.28	0.29	0.29	0.30
0.691 - .0977	0.21	0.22	0.23	0.23	0.24	0.24	0.24	0.25	0.25
0.488 - 0.691	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19
0.345 - 0.488	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.14	0.14
0.244 - 0.345	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.173 - 0.244	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
0.122 - 0.173	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0.086 - 0.122	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.061 - 0.086	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

d10	98.62	98.12	97.85	97.32	97.09	96.57	96.39	95.72	95.54
d50	187.94	187.96	188.08	187.93	188.39	188.05	188.49	187.99	188.58
d90	331.98	330.20	330.72	330.73	332.91	330.77	332.13	330.38	333.03

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	98.20	0.39	0.40	96.99	0.38	0.40	95.88	0.45	0.47
d50	187.99	0.08	0.04	188.12	0.24	0.13	188.35	0.32	0.17
d90	330.97	0.92	0.28	331.47	1.25	0.38	331.84	1.35	0.41

APPENDIX 1. Benchmark laser replicate data for sediment distributed as PS85.

	Replicate Sample 4								
	Subsample 1			Subsample 2			Subsample 3		
Microns	Run 1a	Run 1b	Run 1c	Run 2a	Run 2b	Run 2c	Run 3a	Run 3b	Run 3c
710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500 - 710	1.25	1.27	1.14	0.89	1.36	1.11	1.23	1.24	1.09
355 - 500	5.18	5.17	5.13	5.45	5.27	5.28	5.33	5.33	5.38
250 - 355	13.76	13.98	14.33	14.13	14.30	14.49	14.40	14.46	14.34
180 - 250	31.84	31.71	31.75	31.77	31.62	31.69	31.66	31.64	31.70
125 - 180	29.31	29.15	28.99	28.96	28.74	28.68	28.59	28.47	28.50
90 - 125	10.28	10.24	10.13	10.07	9.98	9.92	9.86	9.82	9.82
63 - 90	2.65	2.64	2.62	2.61	2.56	2.53	2.51	2.50	2.49
44.19 - 63	0.74	0.73	0.72	0.73	0.72	0.72	0.72	0.71	0.71
31.25 - 44.19	0.39	0.39	0.39	0.41	0.39	0.40	0.41	0.41	0.41
22.097 - 31.25	0.34	0.34	0.35	0.39	0.37	0.38	0.39	0.40	0.41
15.625 - 22.097	0.33	0.34	0.34	0.37	0.36	0.38	0.39	0.40	0.42
11.049 - 15.625	0.43	0.44	0.45	0.49	0.49	0.50	0.52	0.54	0.56
7.813 - 11.049	0.47	0.49	0.50	0.53	0.53	0.55	0.56	0.58	0.60
5.524 - 7.813	0.50	0.52	0.53	0.55	0.56	0.57	0.59	0.61	0.62
3.906 - 5.524	0.47	0.49	0.49	0.52	0.52	0.53	0.55	0.56	0.58
2.762 - 3.906	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.43
1.953 - 2.762	0.28	0.29	0.30	0.31	0.31	0.32	0.32	0.33	0.34
1.381 - 1.953	0.28	0.29	0.29	0.31	0.31	0.31	0.32	0.32	0.33
0.977 - 1.381	0.27	0.28	0.29	0.30	0.30	0.31	0.31	0.32	0.32
0.691 - .0977	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.28
0.488 - 0.691	0.19	0.19	0.20	0.19	0.20	0.20	0.21	0.21	0.21
0.345 - 0.488	0.14	0.15	0.15	0.14	0.15	0.15	0.15	0.16	0.16
0.244 - 0.345	0.11	0.11	0.11	0.10	0.11	0.11	0.11	0.11	0.11
0.173 - 0.244	0.07	0.07	0.07	0.06	0.08	0.08	0.08	0.08	0.08
0.122 - 0.173	0.05	0.05	0.05	0.04	0.05	0.05	0.05	0.06	0.05
0.086 - 0.122	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.061 - 0.086	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02
0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

d10	93.40	93.06	92.95	92.34	92.39	92.10	91.78	91.41	91.03
d50	180.77	180.98	181.39	181.18	181.82	181.84	181.94	182.04	181.72
d90	323.22	323.74	323.12	323.27	325.90	324.36	325.47	325.67	324.67

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	93.14	0.23	0.25	92.28	0.15	0.17	91.41	0.38	0.41
d50	181.05	0.32	0.18	181.62	0.38	0.21	181.90	0.17	0.09
d90	323.36	0.33	0.10	324.51	1.32	0.41	325.27	0.53	0.16

APPENDIX 1. Benchmark laser replicate data for sediment distributed as PS85.

	Replicate Sample 5								
	Subsample 1			Subsample 2			Subsample 3		
Microns	Run 1a	Run 1b	Run 1c	Run 2a	Run 2b	Run 2c	Run 3a	Run 3b	Run 3c
710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500 - 710	1.31	1.32	1.31	1.36	1.13	1.13	0.95	1.10	0.90
355 - 500	5.21	5.28	5.33	5.24	5.32	5.24	5.32	5.22	5.39
250 - 355	14.57	14.54	14.51	14.61	14.60	14.65	14.73	14.73	14.74
180 - 250	32.06	32.05	32.06	32.05	32.05	32.13	32.18	32.10	32.17
125 - 180	29.01	28.94	28.88	28.77	28.81	28.70	28.54	28.58	28.49
90 - 125	10.12	10.06	9.97	9.95	9.92	9.90	9.81	9.81	9.72
63 - 90	2.44	2.41	2.39	2.36	2.35	2.32	2.32	2.28	2.27
44.19 - 63	0.66	0.65	0.65	0.65	0.65	0.65	0.66	0.65	0.65
31.25 - 44.19	0.35	0.35	0.36	0.36	0.37	0.37	0.40	0.39	0.40
22.097 - 31.25	0.30	0.31	0.32	0.33	0.34	0.35	0.39	0.38	0.39
15.625 - 22.097	0.30	0.30	0.31	0.32	0.34	0.35	0.37	0.37	0.38
11.049 - 15.625	0.38	0.39	0.41	0.42	0.44	0.46	0.50	0.49	0.51
7.813 - 11.049	0.42	0.43	0.45	0.46	0.48	0.50	0.53	0.53	0.55
5.524 - 7.813	0.45	0.47	0.48	0.50	0.51	0.53	0.54	0.56	0.58
3.906 - 5.524	0.43	0.45	0.46	0.48	0.49	0.51	0.51	0.53	0.55
2.762 - 3.906	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42
1.953 - 2.762	0.28	0.29	0.30	0.30	0.31	0.32	0.33	0.33	0.33
1.381 - 1.953	0.28	0.29	0.30	0.30	0.31	0.32	0.33	0.33	0.33
0.977 - 1.381	0.27	0.29	0.29	0.30	0.31	0.31	0.31	0.32	0.33
0.691 - .0977	0.24	0.24	0.25	0.25	0.26	0.26	0.26	0.27	0.27
0.488 - 0.691	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21
0.345 - 0.488	0.14	0.14	0.14	0.15	0.15	0.15	0.14	0.15	0.15
0.244 - 0.345	0.10	0.10	0.10	0.10	0.10	0.11	0.10	0.11	0.11
0.173 - 0.244	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
0.122 - 0.173	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0.086 - 0.122	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.061 - 0.086	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

d10	95.57	95.32	94.98	94.71	94.25	93.95	93.34	93.29	92.99
d50	182.92	183.00	183.05	183.15	182.83	182.89	182.97	182.90	183.01
d90	325.49	326.06	326.32	326.22	325.02	324.45	323.91	324.24	324.08

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	95.29	0.30	0.32	94.30	0.38	0.41	93.21	0.19	0.20
d50	182.99	0.07	0.04	182.96	0.17	0.09	182.96	0.05	0.03
d90	325.96	0.43	0.13	325.23	0.91	0.28	324.08	0.16	0.05

APPENDIX 2. Gradistat output of size categories based on final merged data provided by each participant and the Benchmark Average for sediment distributed as PS85 (used to create Figure 7).

	BM Average	PSA_2901	PSA_2902	PSA_2903	PSA_2904	PSA_2905	PSA_2906	PSA_2907	PSA_2908	PSA_2909	PSA_2910	PSA_2911	PSA_2912	PSA_2913	PSA_2914	PSA_2916	PSA_2917	PSA_2918
VERY COARSE GRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
COARSE GRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
MEDIUM GRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
FINE GRAVEL	10.95	9.94	9.25	9.61	11.01	6.94	n/p	10.78	n/p*	8.72	11.91	0.00	9.97	n/p	0.00	9.47	11.28	10.78
VERY FINE GRAVEL	33.94	34.76	34.36	45.07	34.50	38.38	n/p	33.89	n/p*	34.72	32.82	38.41	33.65	n/p	49.65	36.11	33.41	32.65
VERY COARSE SAND	4.16	4.58	5.68	3.68	3.76	4.43	n/p	4.65	n/p*	5.27	4.56	0.15	5.68	n/p	0.42	4.06	4.56	4.46
COARSE SAND	0.59	0.68	0.00	0.03	0.12	0.08	n/p	1.50	n/p*	1.42	0.16	0.53	0.11	n/p	0.13	0.12	0.45	0.09
MEDIUM SAND	10.40	9.72	10.90	12.20	10.99	10.07	n/p	19.32	n/p*	9.22	15.34	17.89	12.97	n/p	13.43	11.02	9.59	11.21
FINE SAND	30.93	31.16	29.79	23.29	29.08	29.22	n/p	19.64	n/p*	30.59	28.49	34.09	29.97	n/p	27.64	29.43	30.81	30.70
VERY FINE SAND	6.11	6.30	6.79	5.91	8.11	9.72	n/p	7.59	n/p*	6.52	5.94	6.89	5.88	n/p	7.20	8.36	6.65	8.45
VERY COARSE SILT	0.52	0.59	0.06	0.01	0.06	0.05	n/p	0.62	n/p*	0.61	0.01	0.03	0.02	n/p	0.02	0.03	0.61	0.02
COARSE SILT	0.36	0.32	0.81	0.18	0.47	0.30	n/p	0.32	n/p*	0.37	0.20	0.69	0.54	n/p	0.49	0.29	0.41	0.30
MEDIUM SILT	0.48	0.39	0.57	0.03	0.47	0.26	n/p	0.32	n/p*	0.38	0.12	0.34	0.25	n/p	0.21	0.35	0.53	0.43
FINE SILT	0.51	0.51	0.77	0.00	0.59	0.30	n/p	0.38	n/p*	0.60	0.31	0.53	0.45	n/p	0.36	0.43	0.56	0.50
VERY FINE SILT	0.34	0.33	0.63	0.00	0.49	0.24	n/p	0.36	n/p*	0.48	0.13	0.40	0.41	n/p	0.34	0.32	0.37	0.36
CLAY	0.72	0.71	0.38	0.00	0.35	0.01	n/p	0.62	n/p*	1.09	0.00	0.05	0.10	n/p	0.10	0.02	0.76	0.05

GRAVEL	44.88	44.70	43.61	54.68	45.51	45.32	n/p	44.67	n/p*	43.45	44.73	38.41	43.62	n/p	49.65	45.58	44.69	43.44
SAND	52.19	52.44	53.16	45.10	52.05	53.51	n/p	52.71	n/p*	53.03	54.49	59.55	54.61	n/p	48.82	52.98	52.07	54.90
SILT	2.20	2.14	2.84	0.22	2.08	1.16	n/p	2.01	n/p*	2.44	0.77	2.00	1.67	n/p	1.42	1.42	2.48	1.61
CLAY	0.72	0.71	0.38	0.00	0.35	0.01	n/p	0.62	n/p*	1.09	0.00	0.05	0.10	n/p	0.10	0.02	0.76	0.05

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2901 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	1.36	1.06	1.45	1.16	1.12	1.18	1.58	1.52	1.58
353.6	6.14	6.28	6.35	6.00	5.72	5.80	5.61	5.54	5.42
250	12.92	13.02	12.80	13.16	13.42	13.30	13.66	13.67	13.73
176.8	32.71	32.78	32.75	32.08	32.56	32.58	32.20	32.39	32.37
125	29.18	29.16	29.11	28.80	28.97	28.97	28.69	28.81	28.85
88.39	9.54	9.50	9.45	10.20	9.99	9.98	10.01	9.95	9.91
62.5	2.50	2.50	2.46	2.87	2.64	2.62	2.61	2.55	2.55
44.19	0.84	0.84	0.81	0.94	0.85	0.85	0.87	0.85	0.85
31.25	0.32	0.33	0.31	0.30	0.29	0.29	0.30	0.28	0.28
22.097	0.38	0.39	0.38	0.38	0.37	0.37	0.37	0.36	0.37
15.625	0.26	0.27	0.27	0.25	0.25	0.25	0.26	0.25	0.26
11.049	0.33	0.34	0.33	0.32	0.31	0.31	0.30	0.30	0.30
7.813	0.45	0.45	0.45	0.47	0.45	0.45	0.45	0.44	0.44
5.524	0.52	0.52	0.51	0.53	0.52	0.51	0.53	0.52	0.52
3.906	0.49	0.50	0.49	0.50	0.49	0.49	0.50	0.49	0.49
2.762	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.38
1.953	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
1.381	0.25	0.25	0.25	0.25	0.25	0.26	0.25	0.25	0.25
0.977	0.24	0.25	0.25	0.24	0.25	0.25	0.24	0.24	0.25
0.691	0.22	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22
0.488	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
0.345	0.15	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16
0.244	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.12
0.173	0.09	0.09	0.09	0.09	0.09	0.08	0.10	0.09	0.09
0.122	0.07	0.06	0.06	0.07	0.06	0.06	0.07	0.07	0.07
0.086	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04
0.061	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	94.55	94.35	94.82	92.68	94.02	94.12	93.90	94.40	94.36
d50	182.77	182.75	183.18	181.43	182.18	182.26	182.68	182.81	182.77
d90	330.68	329.42	333.14	328.07	325.87	326.83	329.24	328.24	327.82

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	94.57	0.23	0.25	93.61	0.81	0.86	94.22	0.28	0.29
d50	182.90	0.24	0.13	181.96	0.46	0.25	182.76	0.07	0.04
d90	331.08	1.89	0.57	326.93	1.10	0.34	328.43	0.73	0.22

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2902 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
353.6	3.53	3.50	3.48	3.58	3.58	3.42	4.07	4.28	4.08
250	16.94	16.92	16.97	17.51	17.37	17.10	19.03	19.17	18.98
176.8	30.44	30.44	30.47	31.25	31.06	30.88	32.02	31.86	31.87
125	27.88	27.87	27.81	28.09	28.02	28.03	27.04	26.79	26.91
88.39	12.42	12.41	12.34	12.06	12.10	12.20	10.87	10.79	10.83
62.5	1.89	1.89	1.88	1.59	1.62	1.67	1.32	1.33	1.33
44.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.25	0.23	0.24	0.25	0.06	0.06	0.06	0.04	0.05	0.06
22.097	0.96	0.97	0.98	0.73	0.73	0.75	0.59	0.70	0.71
15.625	0.90	0.91	0.92	0.75	0.79	0.83	0.65	0.74	0.76
11.049	0.61	0.62	0.63	0.51	0.58	0.64	0.44	0.50	0.52
7.813	0.60	0.61	0.62	0.52	0.61	0.68	0.45	0.50	0.52
5.524	0.75	0.76	0.77	0.69	0.77	0.85	0.63	0.66	0.68
3.906	0.80	0.81	0.82	0.76	0.82	0.90	0.74	0.74	0.76
2.762	0.71	0.71	0.71	0.68	0.71	0.77	0.70	0.67	0.69
1.953	0.53	0.53	0.53	0.51	0.52	0.54	0.56	0.51	0.52
1.381	0.36	0.36	0.36	0.34	0.34	0.34	0.40	0.35	0.36
0.977	0.25	0.25	0.25	0.23	0.22	0.22	0.28	0.24	0.24
0.691	0.19	0.19	0.19	0.12	0.11	0.12	0.15	0.12	0.17
0.488	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.02
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	91.43	91.24	91.07	94.95	93.93	92.61	97.37	97.00	96.28
d50	178.64	178.54	178.65	181.44	180.79	179.63	186.87	187.32	186.53
d90	309.76	309.50	309.48	311.41	311.05	309.52	317.38	318.87	317.35

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	91.24	0.18	0.19	93.83	1.17	1.25	96.88	0.56	0.57
d50	178.61	0.06	0.04	180.62	0.92	0.51	186.91	0.39	0.21
d90	309.58	0.15	0.05	310.66	1.00	0.32	317.87	0.87	0.27

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2903 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	0.01	0.22	0.03	0.05	0.08	0.08	0.07	0.06	0.06
353.6	5.87	7.94	6.87	7.73	9.21	9.22	8.21	8.15	8.10
250	20.28	19.94	20.18	22.14	22.02	21.91	21.92	22.02	21.88
176.8	31.18	28.75	29.18	31.72	29.59	29.48	30.75	30.97	30.83
125	27.41	25.98	26.34	25.94	24.91	24.94	25.08	25.13	25.15
88.39	13.02	14.00	14.18	11.06	12.19	12.30	10.91	10.74	10.92
62.5	2.22	3.16	3.21	1.36	2.00	2.06	1.49	1.36	1.49
44.19	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
31.25	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.06
22.097	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.66	0.64
15.625	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.61	0.62
11.049	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.23	0.24
7.813	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.524	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.906	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.762	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.953	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.381	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.691	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	108.70	104.69	104.32	115.87	110.96	110.55	110.19	111.07	110.20
d50	191.82	192.02	190.44	200.77	200.87	200.48	200.01	200.41	199.78
d90	329.55	342.47	335.26	341.52	349.67	349.71	344.11	343.78	343.44

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	105.90	2.43	2.29	112.46	2.96	2.63	110.49	0.51	0.46
d50	191.43	0.86	0.45	200.70	0.20	0.10	200.07	0.32	0.16
d90	335.76	6.48	1.93	346.97	4.72	1.36	343.78	0.33	0.10

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2904 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	-	-	-	-	-	-
500	0.24	0.22	0.24	-	-	-	-	-	-
353.6	4.34	4.26	4.36	-	-	-	-	-	-
250	17.33	17.33	17.36	-	-	-	-	-	-
176.8	29.35	29.44	29.34	-	-	-	-	-	-
125	27.93	27.99	27.91	-	-	-	-	-	-
88.39	13.52	13.51	13.51	-	-	-	-	-	-
62.5	2.48	2.46	2.48	-	-	-	-	-	-
44.19	0.04	0.04	0.04	-	-	-	-	-	-
31.25	0.08	0.08	0.08	-	-	-	-	-	-
22.097	0.43	0.42	0.42	-	-	-	-	-	-
15.625	0.51	0.50	0.50	-	-	-	-	-	-
11.049	0.46	0.45	0.45	-	-	-	-	-	-
7.813	0.48	0.47	0.47	-	-	-	-	-	-
5.524	0.58	0.56	0.55	-	-	-	-	-	-
3.906	0.61	0.59	0.59	-	-	-	-	-	-
2.762	0.56	0.55	0.55	-	-	-	-	-	-
1.953	0.42	0.41	0.41	-	-	-	-	-	-
1.381	0.24	0.25	0.25	-	-	-	-	-	-
0.977	0.18	0.18	0.18	-	-	-	-	-	-
0.691	0.21	0.21	0.22	-	-	-	-	-	-
0.488	0.01	0.07	0.08	-	-	-	-	-	-
0.345	0.00	0.00	0.00	-	-	-	-	-	-
0.244	0.00	0.00	0.00	-	-	-	-	-	-
0.173	0.00	0.00	0.00	-	-	-	-	-	-
0.122	0.00	0.00	0.00	-	-	-	-	-	-
0.086	0.00	0.00	0.00	-	-	-	-	-	-
0.061	0.00	0.00	0.00	-	-	-	-	-	-
0.043	0.00	0.00	0.00	-	-	-	-	-	-
Total	100.00	100.00	100.00	-	-	-	-	-	-

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	94.73	94.84	94.80	-	-	-	-	-	-
d50	179.44	179.42	179.55	-	-	-	-	-	-
d90	317.23	316.64	317.48	-	-	-	-	-	-

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	94.79	0.05	0.05	-	-	-	-	-	-
d50	179.47	0.07	0.04	-	-	-	-	-	-
d90	317.12	0.43	0.14	-	-	-	-	-	-

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2905 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	0.06	0.13	0.15	0.08	0.15	0.18	0.25	0.20	0.22
353.6	3.17	3.57	3.64	3.51	3.68	3.86	4.31	4.09	4.28
250	15.50	16.16	16.05	15.68	16.03	16.14	16.73	16.98	16.89
176.8	29.04	29.34	29.13	28.60	28.79	28.70	28.85	29.66	29.03
125	29.85	29.45	29.36	29.39	29.18	28.99	28.60	28.90	28.52
88.39	16.36	15.69	15.73	16.48	16.06	15.93	15.48	14.83	15.19
62.5	3.82	3.47	3.51	4.01	3.76	3.72	3.56	3.05	3.37
44.19	0.12	0.10	0.10	0.13	0.11	0.11	0.10	0.07	0.09
31.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.097	0.28	0.29	0.30	0.28	0.29	0.24	0.29	0.28	0.24
15.625	0.34	0.33	0.34	0.34	0.34	0.30	0.33	0.33	0.30
11.049	0.26	0.25	0.27	0.26	0.27	0.26	0.26	0.27	0.26
7.813	0.24	0.24	0.26	0.24	0.25	0.27	0.25	0.25	0.27
5.524	0.27	0.28	0.31	0.28	0.29	0.32	0.28	0.29	0.33
3.906	0.28	0.29	0.32	0.29	0.30	0.35	0.29	0.30	0.36
2.762	0.26	0.26	0.29	0.26	0.27	0.33	0.26	0.27	0.34
1.953	0.15	0.15	0.22	0.15	0.20	0.26	0.15	0.20	0.26
1.381	0.00	0.00	0.02	0.00	0.02	0.03	0.00	0.02	0.03
0.977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.691	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	96.17	97.29	96.67	95.62	96.11	96.02	97.14	98.56	97.13
d50	172.27	175.15	174.68	172.42	173.97	174.44	177.09	178.73	177.69
d90	303.94	308.95	309.24	306.88	309.36	311.09	315.89	314.68	315.86

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	96.71	0.56	0.58	95.92	0.26	0.27	97.61	0.82	0.84
d50	174.03	1.54	0.89	173.61	1.06	0.61	177.84	0.83	0.47
d90	307.38	2.98	0.97	309.11	2.11	0.68	315.48	0.69	0.22

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2906 LASER DATA - n/p

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	-	-	-	-	-	-	-	-	-
500	-	-	-	-	-	-	-	-	-
353.6	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-
176.8	-	-	-	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-
88.39	-	-	-	-	-	-	-	-	-
62.5	-	-	-	-	-	-	-	-	-
44.19	-	-	-	-	-	-	-	-	-
31.25	-	-	-	-	-	-	-	-	-
22.097	-	-	-	-	-	-	-	-	-
15.625	-	-	-	-	-	-	-	-	-
11.049	-	-	-	-	-	-	-	-	-
7.813	-	-	-	-	-	-	-	-	-
5.524	-	-	-	-	-	-	-	-	-
3.906	-	-	-	-	-	-	-	-	-
2.762	-	-	-	-	-	-	-	-	-
1.953	-	-	-	-	-	-	-	-	-
1.381	-	-	-	-	-	-	-	-	-
0.977	-	-	-	-	-	-	-	-	-
0.691	-	-	-	-	-	-	-	-	-
0.488	-	-	-	-	-	-	-	-	-
0.345	-	-	-	-	-	-	-	-	-
0.244	-	-	-	-	-	-	-	-	-
0.173	-	-	-	-	-	-	-	-	-
0.122	-	-	-	-	-	-	-	-	-
0.086	-	-	-	-	-	-	-	-	-
0.061	-	-	-	-	-	-	-	-	-
0.043	-	-	-	-	-	-	-	-	-
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	-	-	-	-	-	-	-	-	-
d50	-	-	-	-	-	-	-	-	-
d90	-	-	-	-	-	-	-	-	-

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	-	-	-	-	-	-	-	-	-
d50	-	-	-	-	-	-	-	-	-
d90	-	-	-	-	-	-	-	-	-

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2907 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	3.14	3.40	2.74	2.75	2.47	2.97	2.69	3.07	3.08
353.6	14.43	14.88	13.56	13.75	13.05	14.05	13.59	14.37	14.44
250	24.36	23.92	23.89	24.23	23.84	23.95	24.18	24.11	24.17
176.8	24.98	23.81	24.92	25.08	25.25	24.57	25.16	24.33	24.33
125	14.33	13.57	14.31	14.25	14.54	14.06	14.32	13.82	13.76
88.39	11.14	10.56	11.01	10.82	11.18	10.87	10.90	10.69	10.59
62.5	4.37	3.99	4.10	3.91	4.20	4.06	4.02	4.08	4.01
44.19	1.31	0.87	0.92	0.79	1.01	0.90	0.89	0.96	0.94
31.25	0.56	0.12	0.20	0.12	0.27	0.15	0.18	0.19	0.18
22.097	0.40	0.24	0.29	0.24	0.30	0.23	0.23	0.23	0.23
15.625	0.22	0.43	0.42	0.37	0.39	0.36	0.34	0.35	0.36
11.049	0.05	0.37	0.33	0.30	0.29	0.30	0.27	0.29	0.31
7.813	0.01	0.50	0.43	0.39	0.38	0.42	0.38	0.41	0.43
5.524	0.02	0.49	0.41	0.40	0.39	0.43	0.39	0.43	0.44
3.906	0.07	0.48	0.41	0.42	0.40	0.46	0.41	0.45	0.46
2.762	0.10	0.46	0.40	0.41	0.39	0.45	0.40	0.44	0.45
1.953	0.11	0.40	0.36	0.38	0.35	0.40	0.36	0.39	0.40
1.381	0.09	0.33	0.29	0.31	0.28	0.32	0.29	0.32	0.33
0.977	0.07	0.26	0.23	0.24	0.22	0.25	0.22	0.25	0.26
0.691	0.04	0.16	0.14	0.15	0.14	0.15	0.13	0.15	0.16
0.488	0.04	0.19	0.16	0.17	0.16	0.17	0.16	0.17	0.18
0.345	0.04	0.17	0.14	0.16	0.15	0.15	0.14	0.16	0.16
0.244	0.04	0.15	0.13	0.14	0.13	0.14	0.13	0.14	0.14
0.173	0.03	0.12	0.10	0.11	0.11	0.11	0.11	0.11	0.12
0.122	0.02	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
0.086	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	95.21	88.86	89.60	90.94	89.33	89.70	90.82	89.53	89.45
d50	223.53	223.25	218.14	219.98	216.07	220.10	219.25	221.66	222.09
d90	424.11	429.03	415.36	416.58	409.46	420.45	415.04	423.12	423.49

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	91.22	3.47	3.80	89.99	0.85	0.94	89.93	0.77	0.86
d50	221.64	3.03	1.37	218.72	2.29	1.05	221.00	1.53	0.69
d90	422.84	6.92	1.64	415.50	5.57	1.34	420.55	4.78	1.14

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2908 LASER DATA - n/p*

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	-	-	-	-	-	-	-	-	-
500	-	-	-	-	-	-	-	-	-
353.6	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-
176.8	-	-	-	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-
88.39	-	-	-	-	-	-	-	-	-
62.5	-	-	-	-	-	-	-	-	-
44.19	-	-	-	-	-	-	-	-	-
31.25	-	-	-	-	-	-	-	-	-
22.097	-	-	-	-	-	-	-	-	-
15.625	-	-	-	-	-	-	-	-	-
11.049	-	-	-	-	-	-	-	-	-
7.813	-	-	-	-	-	-	-	-	-
5.524	-	-	-	-	-	-	-	-	-
3.906	-	-	-	-	-	-	-	-	-
2.762	-	-	-	-	-	-	-	-	-
1.953	-	-	-	-	-	-	-	-	-
1.381	-	-	-	-	-	-	-	-	-
0.977	-	-	-	-	-	-	-	-	-
0.691	-	-	-	-	-	-	-	-	-
0.488	-	-	-	-	-	-	-	-	-
0.345	-	-	-	-	-	-	-	-	-
0.244	-	-	-	-	-	-	-	-	-
0.173	-	-	-	-	-	-	-	-	-
0.122	-	-	-	-	-	-	-	-	-
0.086	-	-	-	-	-	-	-	-	-
0.061	-	-	-	-	-	-	-	-	-
0.043	-	-	-	-	-	-	-	-	-
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	-	-	-	-	-	-	-	-	-
d50	-	-	-	-	-	-	-	-	-
d90	-	-	-	-	-	-	-	-	-

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	-	-	-	-	-	-	-	-	-
d50	-	-	-	-	-	-	-	-	-
d90	-	-	-	-	-	-	-	-	-

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2909 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.19	0.00	0.19	0.02	0.00	2.00	1.28	1.49
1000	0.00	0.97	0.00	1.86	1.29	0.00	2.61	2.56	2.73
707	0.00	0.45	0.00	1.51	1.77	0.00	1.36	1.83	1.42
500	1.51	1.55	1.68	1.65	1.87	1.45	1.75	2.21	2.10
353.6	4.46	4.32	4.41	4.06	4.24	4.51	4.30	4.46	4.36
250	14.00	14.08	14.24	12.90	13.24	13.69	13.00	12.77	12.98
176.8	31.73	31.19	31.75	30.92	30.98	32.11	30.07	29.96	30.06
125	28.70	28.08	28.57	27.88	27.74	28.72	26.81	26.68	26.73
88.39	10.43	10.18	10.28	9.79	9.68	9.92	9.36	9.34	9.35
62.5	2.75	2.68	2.70	2.62	2.58	2.76	2.48	2.53	2.48
44.19	0.85	0.83	0.84	0.85	0.84	0.76	0.78	0.81	0.78
31.25	0.28	0.28	0.29	0.28	0.28	0.41	0.29	0.29	0.30
22.097	0.43	0.41	0.41	0.45	0.45	0.51	0.40	0.43	0.41
15.625	0.24	0.25	0.25	0.24	0.24	0.24	0.23	0.24	0.24
11.049	0.23	0.23	0.24	0.18	0.18	0.16	0.24	0.23	0.24
7.813	0.51	0.49	0.50	0.48	0.48	0.50	0.47	0.48	0.48
5.524	0.62	0.60	0.60	0.60	0.59	0.61	0.56	0.55	0.56
3.906	0.57	0.55	0.55	0.56	0.56	0.55	0.52	0.51	0.52
2.762	0.47	0.45	0.46	0.48	0.48	0.48	0.45	0.45	0.45
1.953	0.41	0.40	0.41	0.45	0.44	0.47	0.41	0.43	0.41
1.381	0.38	0.38	0.38	0.43	0.43	0.45	0.39	0.41	0.40
0.977	0.34	0.34	0.34	0.38	0.38	0.39	0.35	0.36	0.35
0.691	0.28	0.28	0.28	0.31	0.31	0.32	0.29	0.29	0.29
0.488	0.23	0.22	0.23	0.25	0.25	0.26	0.23	0.23	0.23
0.345	0.18	0.18	0.18	0.20	0.20	0.21	0.18	0.19	0.19
0.244	0.14	0.14	0.14	0.16	0.16	0.17	0.15	0.15	0.15
0.173	0.11	0.11	0.11	0.13	0.12	0.14	0.12	0.12	0.12
0.122	0.08	0.08	0.08	0.10	0.10	0.10	0.09	0.09	0.09
0.086	0.05	0.05	0.05	0.06	0.06	0.07	0.06	0.06	0.06
0.061	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.043	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Total	99.97	98.81	99.97	97.91	98.65	99.96	95.35	96.12	95.75

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	90.87	91.49	91.19	90.81	91.09	89.62	92.63	92.04	92.46
d50	180.12	182.30	180.86	183.05	183.69	180.19	187.49	187.48	187.59
d90	319.98	332.40	321.51	346.79	346.24	319.18	416.32	424.14	417.92

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	91.18	0.31	0.34	90.50	0.78	0.86	92.38	0.30	0.33
d50	181.09	1.11	0.61	182.31	1.86	1.02	187.52	0.06	0.03
d90	324.63	6.77	2.09	337.40	15.78	4.68	419.46	4.13	0.98

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2910 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	0.89	0.39	0.06	0.89	0.05	0.07	0.05	0.06	0.40
353.6	8.23	8.17	7.98	8.30	7.85	8.37	7.77	8.02	8.15
250	21.78	21.84	21.95	22.24	22.27	22.65	22.14	22.50	22.07
176.8	30.32	30.56	30.74	31.20	31.64	31.49	31.68	31.73	31.41
125	24.15	24.37	24.52	24.97	25.49	25.05	25.65	25.34	25.39
88.39	10.13	10.19	10.25	10.48	10.74	10.47	10.77	10.50	10.66
62.5	1.25	1.24	1.24	1.28	1.30	1.26	1.26	1.20	1.25
44.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.25	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00
22.097	0.61	0.61	0.62	0.00	0.00	0.00	0.00	0.00	0.00
15.625	0.56	0.56	0.56	0.00	0.00	0.00	0.00	0.00	0.00
11.049	0.33	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00
7.813	0.32	0.31	0.32	0.04	0.04	0.04	0.04	0.04	0.04
5.524	0.44	0.44	0.44	0.22	0.22	0.22	0.23	0.22	0.22
3.906	0.46	0.46	0.46	0.24	0.25	0.25	0.26	0.25	0.26
2.762	0.34	0.34	0.35	0.14	0.15	0.15	0.15	0.15	0.15
1.953	0.14	0.14	0.15	0.00	0.00	0.00	0.00	0.00	0.00
1.381	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.691	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	106.67	106.67	106.41	115.46	114.59	115.53	114.55	115.64	114.95
d50	200.97	200.19	199.51	203.42	201.22	203.02	200.81	202.22	201.90
d90	348.69	345.59	342.83	349.19	342.27	345.20	341.74	343.26	345.67

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	106.58	0.15	0.14	115.20	0.52	0.45	115.05	0.55	0.48
d50	200.22	0.73	0.37	202.55	1.17	0.58	201.64	0.74	0.37
d90	345.70	2.93	0.85	345.56	3.48	1.01	343.56	1.98	0.58

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2911 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	2.14	0.00	0.00	0.00
707	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00
500	1.14	1.27	1.20	0.22	0.68	0.97	0.57	0.65	0.53
353.6	8.51	8.62	8.52	5.68	7.13	7.61	7.34	7.69	7.32
250	22.09	22.10	22.13	20.81	20.72	21.13	21.34	21.48	21.28
176.8	30.50	30.43	30.50	32.98	30.50	29.82	30.76	30.49	30.69
125	24.01	23.90	23.91	26.30	25.26	23.61	24.91	24.62	24.92
88.39	9.71	9.62	9.61	9.66	10.86	9.68	10.48	10.41	10.53
62.5	1.02	1.00	1.00	0.87	1.34	1.14	1.26	1.27	1.27
44.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.25	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05
22.097	0.58	0.58	0.59	0.60	0.60	0.58	0.58	0.58	0.59
15.625	0.51	0.51	0.52	0.56	0.56	0.54	0.53	0.54	0.55
11.049	0.25	0.25	0.26	0.30	0.30	0.29	0.28	0.30	0.30
7.813	0.24	0.25	0.25	0.29	0.29	0.28	0.27	0.28	0.28
5.524	0.37	0.38	0.39	0.42	0.42	0.41	0.40	0.41	0.41
3.906	0.42	0.43	0.44	0.49	0.49	0.47	0.46	0.46	0.47
2.762	0.35	0.36	0.37	0.41	0.42	0.40	0.39	0.40	0.41
1.953	0.24	0.25	0.25	0.28	0.29	0.28	0.27	0.28	0.28
1.381	0.01	0.01	0.01	0.10	0.11	0.10	0.10	0.10	0.11
0.977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.691	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	109.31	109.47	109.23	108.18	104.18	107.48	105.68	105.55	105.13
d50	203.15	203.65	203.42	195.72	195.89	203.66	197.91	198.76	197.52
d90	351.64	353.00	352.05	330.21	340.88	373.87	341.80	344.26	341.43

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	109.33	0.12	0.11	106.61	2.14	2.01	105.45	0.29	0.27
d50	203.41	0.25	0.12	198.42	4.54	2.29	198.06	0.64	0.32
d90	352.23	0.70	0.20	348.32	22.76	6.54	342.49	1.54	0.45

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2912 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	0.18	0.25	0.30	0.14	0.11	0.18	0.21	0.29	0.26
353.6	5.40	5.56	5.68	5.19	5.05	5.39	5.47	5.77	5.72
250	20.17	20.16	20.26	19.82	19.68	20.01	20.13	20.42	20.38
176.8	32.54	32.42	32.38	32.37	32.39	32.37	32.45	32.40	32.37
125	26.73	26.66	26.54	26.97	27.11	26.79	26.70	26.40	26.41
88.39	10.41	10.40	10.32	10.72	10.81	10.56	10.43	10.22	10.28
62.5	1.12	1.12	1.10	1.21	1.23	1.18	1.14	1.08	1.12
44.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.25	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
22.097	0.53	0.53	0.53	0.54	0.53	0.53	0.53	0.53	0.53
15.625	0.53	0.53	0.53	0.55	0.55	0.54	0.53	0.52	0.52
11.049	0.26	0.26	0.26	0.27	0.28	0.27	0.26	0.25	0.26
7.813	0.22	0.22	0.22	0.24	0.24	0.23	0.22	0.22	0.22
5.524	0.38	0.38	0.38	0.40	0.40	0.39	0.39	0.38	0.38
3.906	0.50	0.50	0.49	0.52	0.52	0.51	0.51	0.49	0.50
2.762	0.46	0.46	0.45	0.48	0.48	0.47	0.47	0.45	0.46
1.953	0.33	0.33	0.33	0.34	0.35	0.34	0.33	0.33	0.33
1.381	0.20	0.20	0.20	0.21	0.21	0.20	0.20	0.20	0.20
0.977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.691	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	105.90	105.97	106.21	104.59	104.29	105.14	105.74	106.55	106.16
d50	193.11	193.38	193.86	191.60	191.03	192.49	193.11	194.43	194.14
d90	327.72	329.01	330.05	325.82	324.75	327.43	328.29	330.75	330.25

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	106.03	0.16	0.15	104.67	0.44	0.42	106.15	0.41	0.38
d50	193.45	0.38	0.20	191.71	0.73	0.38	193.89	0.69	0.36
d90	328.93	1.17	0.36	326.00	1.35	0.41	329.76	1.30	0.39

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2913 LASER DATA - n/p

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	-	-	-	-	-	-	-	-	-
500	-	-	-	-	-	-	-	-	-
353.6	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-
176.8	-	-	-	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-
88.39	-	-	-	-	-	-	-	-	-
62.5	-	-	-	-	-	-	-	-	-
44.19	-	-	-	-	-	-	-	-	-
31.25	-	-	-	-	-	-	-	-	-
22.097	-	-	-	-	-	-	-	-	-
15.625	-	-	-	-	-	-	-	-	-
11.049	-	-	-	-	-	-	-	-	-
7.813	-	-	-	-	-	-	-	-	-
5.524	-	-	-	-	-	-	-	-	-
3.906	-	-	-	-	-	-	-	-	-
2.762	-	-	-	-	-	-	-	-	-
1.953	-	-	-	-	-	-	-	-	-
1.381	-	-	-	-	-	-	-	-	-
0.977	-	-	-	-	-	-	-	-	-
0.691	-	-	-	-	-	-	-	-	-
0.488	-	-	-	-	-	-	-	-	-
0.345	-	-	-	-	-	-	-	-	-
0.244	-	-	-	-	-	-	-	-	-
0.173	-	-	-	-	-	-	-	-	-
0.122	-	-	-	-	-	-	-	-	-
0.086	-	-	-	-	-	-	-	-	-
0.061	-	-	-	-	-	-	-	-	-
0.043	-	-	-	-	-	-	-	-	-
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	-	-	-	-	-	-	-	-	-
d50	-	-	-	-	-	-	-	-	-
d90	-	-	-	-	-	-	-	-	-

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	-	-	-	-	-	-	-	-	-
d50	-	-	-	-	-	-	-	-	-
d90	-	-	-	-	-	-	-	-	-

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2914 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	-	-	-	-	-	-	-	-
500	0.26	-	-	-	-	-	-	-	-
353.6	7.10	-	-	-	-	-	-	-	-
250	19.81	-	-	-	-	-	-	-	-
176.8	29.60	-	-	-	-	-	-	-	-
125	25.77	-	-	-	-	-	-	-	-
88.39	12.26	-	-	-	-	-	-	-	-
62.5	2.16	-	-	-	-	-	-	-	-
44.19	0.00	-	-	-	-	-	-	-	-
31.25	0.03	-	-	-	-	-	-	-	-
22.097	0.48	-	-	-	-	-	-	-	-
15.625	0.51	-	-	-	-	-	-	-	-
11.049	0.24	-	-	-	-	-	-	-	-
7.813	0.18	-	-	-	-	-	-	-	-
5.524	0.31	-	-	-	-	-	-	-	-
3.906	0.41	-	-	-	-	-	-	-	-
2.762	0.39	-	-	-	-	-	-	-	-
1.953	0.30	-	-	-	-	-	-	-	-
1.381	0.20	-	-	-	-	-	-	-	-
0.977	0.00	-	-	-	-	-	-	-	-
0.691	0.00	-	-	-	-	-	-	-	-
0.488	0.00	-	-	-	-	-	-	-	-
0.345	0.00	-	-	-	-	-	-	-	-
0.244	0.00	-	-	-	-	-	-	-	-
0.173	0.00	-	-	-	-	-	-	-	-
0.122	0.00	-	-	-	-	-	-	-	-
0.086	0.00	-	-	-	-	-	-	-	-
0.061	0.00	-	-	-	-	-	-	-	-
0.043	0.00	-	-	-	-	-	-	-	-
Total	100.00	-	-	-	-	-	-	-	-

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	101.21	-	-	-	-	-	-	-	-
d50	191.37	-	-	-	-	-	-	-	-
d90	337.62	-	-	-	-	-	-	-	-

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	-	-	-	-	-	-	-	-	-
d50	-	-	-	-	-	-	-	-	-
d90	-	-	-	-	-	-	-	-	-

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2916 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	0.23	0.26	0.24	0.24	0.24	0.24	0.20	0.20	0.23
353.6	4.33	4.61	4.39	4.40	4.35	4.36	4.16	4.16	4.30
250	17.57	17.69	17.53	17.61	17.53	17.53	17.49	17.38	17.55
176.8	29.88	29.38	29.84	29.89	29.89	29.85	30.07	29.99	30.00
125	28.53	28.12	28.55	28.52	28.59	28.57	28.77	28.82	28.68
88.39	13.91	14.15	13.94	13.89	13.94	13.95	13.98	14.06	13.93
62.5	2.60	2.83	2.60	2.59	2.59	2.60	2.58	2.60	2.56
44.19	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.05	0.04
31.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.097	0.25	0.20	0.24	0.25	0.24	0.24	0.17	0.17	0.17
15.625	0.37	0.32	0.37	0.36	0.37	0.37	0.35	0.35	0.35
11.049	0.38	0.33	0.36	0.35	0.35	0.36	0.34	0.34	0.33
7.813	0.37	0.36	0.37	0.36	0.36	0.36	0.34	0.33	0.33
5.524	0.44	0.45	0.43	0.43	0.42	0.43	0.41	0.40	0.39
3.906	0.44	0.48	0.44	0.44	0.44	0.44	0.43	0.43	0.42
2.762	0.37	0.42	0.37	0.37	0.37	0.38	0.38	0.38	0.38
1.953	0.25	0.30	0.25	0.24	0.25	0.26	0.26	0.26	0.26
1.381	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.08	0.08
0.977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.691	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	98.76	98.01	98.85	98.99	98.95	98.82	99.26	99.02	99.32
d50	180.97	180.90	180.96	181.23	180.97	180.90	180.76	180.37	181.10
d90	317.60	319.78	317.98	318.18	317.72	317.78	316.20	315.99	317.39

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	98.54	0.46	0.47	98.92	0.09	0.09	99.20	0.16	0.16
d50	180.94	0.04	0.02	181.03	0.17	0.10	180.74	0.37	0.20
d90	318.45	1.17	0.37	317.89	0.25	0.08	316.53	0.76	0.24

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2917 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	1.22	0.97	1.01	0.81	0.81	0.76	0.85	0.70	0.83
353.6	5.00	5.11	4.97	5.17	5.18	5.27	5.19	5.29	5.15
250	13.55	13.73	13.74	13.74	13.72	13.69	13.84	13.95	13.85
176.8	31.51	31.47	31.46	31.55	31.53	31.52	31.44	31.50	31.55
125	29.53	29.42	29.40	29.29	29.23	29.17	29.06	28.96	28.90
88.39	10.60	10.59	10.57	10.49	10.47	10.42	10.31	10.24	10.23
62.5	2.74	2.74	2.72	2.71	2.67	2.67	2.60	2.56	2.55
44.19	0.78	0.77	0.77	0.78	0.77	0.77	0.77	0.76	0.77
31.25	0.42	0.42	0.42	0.43	0.43	0.45	0.45	0.45	0.46
22.097	0.37	0.37	0.39	0.41	0.40	0.43	0.44	0.44	0.45
15.625	0.37	0.37	0.37	0.38	0.40	0.40	0.43	0.44	0.45
11.049	0.44	0.46	0.47	0.49	0.51	0.52	0.55	0.56	0.58
7.813	0.47	0.49	0.51	0.51	0.54	0.54	0.58	0.59	0.61
5.524	0.50	0.52	0.53	0.54	0.56	0.56	0.61	0.62	0.63
3.906	0.47	0.49	0.50	0.51	0.53	0.55	0.57	0.58	0.59
2.762	0.36	0.37	0.39	0.40	0.41	0.43	0.43	0.43	0.45
1.953	0.29	0.30	0.31	0.32	0.32	0.34	0.34	0.34	0.35
1.381	0.28	0.29	0.30	0.32	0.31	0.33	0.33	0.33	0.34
0.977	0.28	0.29	0.30	0.31	0.31	0.32	0.32	0.33	0.33
0.691	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.28
0.488	0.19	0.19	0.20	0.19	0.20	0.20	0.21	0.21	0.21
0.345	0.14	0.14	0.14	0.14	0.15	0.14	0.15	0.15	0.15
0.244	0.10	0.10	0.10	0.10	0.11	0.10	0.11	0.11	0.11
0.173	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07
0.122	0.05	0.05	0.05	0.04	0.05	0.04	0.05	0.05	0.05
0.086	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.061	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	92.55	92.18	91.81	91.49	91.21	90.83	90.47	90.32	89.91
d50	179.29	179.29	179.14	179.28	179.24	179.22	179.40	179.62	179.49
d90	320.97	320.25	319.57	319.44	319.55	319.72	320.22	320.05	319.72

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	92.18	0.37	0.40	91.18	0.33	0.37	90.24	0.29	0.32
d50	179.24	0.09	0.05	179.24	0.03	0.02	179.50	0.11	0.06
d90	320.26	0.70	0.22	319.57	0.14	0.04	320.00	0.25	0.08

APPENDIX 3. Participant laser replicate data for sediment distributed as PS85.

PSA_2918 LASER DATA

Microns	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
707	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500	0.23	0.21	0.20	0.24	0.28	0.27	0.19	0.20	0.12
353.6	4.36	4.27	4.27	4.50	4.70	4.57	4.18	4.20	3.76
250	17.60	17.56	17.64	17.83	17.96	17.71	17.60	17.56	17.22
176.8	29.83	29.91	29.97	29.90	29.85	29.71	30.14	30.08	30.21
125	28.42	28.50	28.46	28.23	28.13	28.23	28.64	28.67	29.02
88.39	13.76	13.77	13.71	13.57	13.48	13.67	13.67	13.75	13.97
62.5	2.50	2.48	2.47	2.45	2.40	2.49	2.39	2.41	2.46
44.19	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04
31.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.097	0.21	0.25	0.26	0.22	0.21	0.26	0.18	0.17	0.17
15.625	0.36	0.41	0.41	0.35	0.34	0.41	0.40	0.39	0.40
11.049	0.36	0.40	0.39	0.35	0.35	0.39	0.40	0.40	0.41
7.813	0.40	0.41	0.41	0.40	0.39	0.41	0.43	0.42	0.44
5.524	0.48	0.47	0.46	0.48	0.46	0.47	0.48	0.47	0.49
3.906	0.52	0.48	0.48	0.51	0.50	0.48	0.48	0.47	0.49
2.762	0.49	0.44	0.44	0.49	0.47	0.44	0.43	0.42	0.44
1.953	0.33	0.29	0.29	0.33	0.32	0.29	0.27	0.26	0.27
1.381	0.12	0.10	0.10	0.12	0.12	0.16	0.09	0.09	0.10
0.977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.691	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.244	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.086	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Run 1 - a	Run 1 - b	Run 1 - c	Run 2 - a	Run 2 - b	Run 2 - c	Run 3 - a	Run 3 - b	Run 3 - c
d10	98.23	98.32	98.41	98.55	98.98	98.22	98.87	98.93	98.32
d50	180.99	180.85	181.10	181.92	182.62	181.52	181.14	181.01	179.47
d90	317.85	317.09	317.19	319.22	320.93	319.64	316.48	316.59	312.60

	Subsample 1			Subsample 2			Subsample 3		
	Mean	StDev	COV	Mean	StDev	COV	Mean	StDev	COV
d10	98.32	0.09	0.09	98.58	0.38	0.39	98.71	0.34	0.34
d50	180.98	0.13	0.07	182.02	0.55	0.30	180.54	0.93	0.52
d90	317.38	0.41	0.13	319.93	0.89	0.28	315.22	2.27	0.72

APPENDIX 4. Final Merged Data as supplied by participating laboratories (in percentages) and the Benchmark Replicates for sediment distributed as PS85.

		Benchmark Samples					Participant data						
Phi interval	Microns	PSA_2936	PSA_2937	PSA_2938	PSA_2939	PSA_2940	PSA_2901	PSA_2902	PSA_2903	PSA_2904	PSA_2905	PSA_2906	PSA_2907
-6.50 to -6.00	>63000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
-6.00 to -5.50	45000 - 63000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
-5.50 to -5.00	31500 - 45000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
-5.00 to -4.50	22400 - 31500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
-4.50 to -4.00	16000 - 22400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
-4.00 to -3.50	11200 - 16000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
-3.50 to -3.00	8000 - 11200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
-3.00 to -2.50	5600 - 8000	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	n/p	0.00
-2.50 to -2.00	4000 - 5600	10.69	10.99	10.72	11.15	11.19	9.94	9.20	9.61	11.01	6.94	n/p	10.78
-2.00 to -1.50	2800 - 4000	18.02	17.85	17.77	18.02	17.05	18.23	17.13	27.29	16.60	21.45	n/p	17.25
-1.50 to -1.00	2000 - 2800	16.26	16.22	16.42	16.15	15.93	16.53	17.23	17.78	17.90	16.93	n/p	16.64
-1.00 to -0.50	1400 - 2000	4.02	4.19	4.33	3.97	4.15	4.49	5.52	3.66	3.74	4.38	n/p	4.50
-0.50 to 0.00	1000 - 1400	0.04	0.03	0.02	0.02	0.03	0.09	0.17	0.02	0.02	0.05	n/p	0.16
0.00 to 0.50	710 - 1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
0.50 to 1.00	500 - 710	0.50	0.66	0.60	0.60	0.60	0.68	0.00	0.03	0.12	0.08	n/p	1.50
1.00 to 1.50	355 - 500	2.47	2.85	2.95	2.68	2.73	2.98	1.89	3.30	2.19	1.90	n/p	7.13
1.50 to 2.00	250 - 355	7.37	8.01	8.19	7.22	7.56	6.74	9.01	8.90	8.80	8.16	n/p	12.19
2.00 to 2.50	180 - 250	16.34	16.34	16.62	16.08	16.58	16.48	15.79	12.61	14.90	14.58	n/p	12.50
2.50 to 3.00	125 - 180	15.04	14.24	13.93	14.61	14.85	14.68	14.00	10.68	14.17	14.64	n/p	7.14
3.00 to 3.50	90 - 125	5.18	4.74	4.62	5.08	5.12	4.99	5.97	5.06	6.86	7.92	n/p	5.51
3.50 to 4.00	63 - 90	1.18	1.11	1.01	1.30	1.21	1.31	0.82	0.85	1.26	1.80	n/p	2.08
4.00 to 4.50	44.19 - 63	0.32	0.31	0.30	0.37	0.34	0.43	0.00	0.00	0.02	0.05	n/p	0.50
4.50 to 5.00	31.25 - 44.19	0.21	0.18	0.17	0.20	0.19	0.15	0.06	0.01	0.04	0.00	n/p	0.12
5.00 to 5.50	22.097 - 31.25	0.17	0.16	0.17	0.19	0.18	0.19	0.40	0.09	0.22	0.14	n/p	0.14
5.50 to 6.00	15.625 - 22.097	0.20	0.18	0.17	0.19	0.17	0.13	0.41	0.09	0.26	0.17	n/p	0.18
6.00 to 6.50	11.049 - 15.625	0.23	0.22	0.23	0.25	0.23	0.16	0.28	0.03	0.23	0.13	n/p	0.14
6.50 to 7.00	7.813 - 11.049	0.24	0.23	0.25	0.27	0.25	0.23	0.29	0.00	0.24	0.13	n/p	0.18
7.00 to 7.50	5.524 - 7.813	0.25	0.24	0.26	0.28	0.27	0.26	0.37	0.00	0.29	0.15	n/p	0.19
7.50 to 8.00	3.906 - 5.524	0.23	0.23	0.24	0.27	0.25	0.25	0.40	0.00	0.30	0.16	n/p	0.19
8.00 to 8.50	2.762 - 3.906	0.18	0.18	0.18	0.20	0.20	0.19	0.36	0.00	0.28	0.14	n/p	0.19
8.50 to 9.00	1.953 - 2.762	0.15	0.14	0.14	0.16	0.16	0.14	0.27	0.00	0.21	0.10	n/p	0.17
9.00 to 9.50	1.381 - 1.953	0.15	0.14	0.14	0.16	0.16	0.13	0.18	0.00	0.13	0.01	n/p	0.14
9.50 to 10.00	0.977 - 1.381	0.14	0.14	0.14	0.15	0.16	0.12	0.12	0.00	0.09	0.00	n/p	0.11
10.00 to 10.50	0.691 - .0977	0.12	0.12	0.12	0.13	0.13	0.11	0.08	0.00	0.11	0.00	n/p	0.07
10.50 to 11.00	0.488 - 0.691	0.10	0.09	0.09	0.10	0.10	0.10	0.00	0.00	0.03	0.00	n/p	0.08
11.00 to 11.50	0.345 - 0.488	0.07	0.07	0.07	0.08	0.08	0.08	0.00	0.00	0.00	0.00	n/p	0.07
11.50 to 12.00	0.244 - 0.345	0.05	0.05	0.05	0.05	0.05	0.06	0.00	0.00	0.00	0.00	n/p	0.06
12.00 to 12.50	0.173 - 0.244	0.04	0.03	0.04	0.04	0.04	0.05	0.00	0.00	0.00	0.00	n/p	0.05
12.50 to 13.00	0.122 - 0.173	0.03	0.02	0.03	0.03	0.02	0.03	0.00	0.00	0.00	0.00	n/p	0.03
13.00 to 13.50	0.086 - 0.122	0.02	0.01	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	n/p	0.01
13.50 to 14.00	0.061 - 0.086	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	n/p	0.00
14.00 to 14.50	0.043 - 0.061	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00
> 14.50	0.01 - 0.043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00

APPENDIX 4. Final Merged Data as supplied by participating laboratories (in percentages) and the Benchmark Replicates for sediment distributed as PS85.

		Participant Data									
Phi interval	Microns	PSA_2908	PSA_2909	PSA_2910	PSA_2911	PSA_2912	PSA_2913	PSA_2914	PSA_2916	PSA_2917	PSA_2918
-6.50 to -6.00	>63000	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-6.00 to -5.50	45000 - 63000	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-5.50 to -5.00	31500 - 45000	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-5.00 to -4.50	22400 - 31500	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-4.50 to -4.00	16000 - 22400	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-4.00 to -3.50	11200 - 16000	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-3.50 to -3.00	8000 - 11200	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-3.00 to -2.50	5600 - 8000	n/p*	0.00	0.18	0.00	0.00	n/p	0.00	0.00	0.00	0.00
-2.50 to -2.00	4000 - 5600	n/p*	8.72	11.73	0.00	9.97	n/p	0.00	9.47	11.28	10.78
-2.00 to -1.50	2800 - 4000	n/p*	18.64	17.60	0.00	17.10	n/p	0.00	18.81	17.13	15.64
-1.50 to -1.00	2000 - 2800	n/p*	16.08	15.23	38.41	16.55	n/p	49.65	17.31	16.28	17.01
-1.00 to -0.50	1400 - 2000	n/p*	5.25	4.38	0.00	5.63	n/p	0.00	4.03	4.54	4.21
-0.50 to 0.00	1000 - 1400	n/p*	0.03	0.17	0.15	0.04	n/p	0.42	0.03	0.03	0.24
0.00 to 0.50	710 - 1000	n/p*	0.54	0.00	0.03	0.00	n/p	0.00	0.00	0.00	0.00
0.50 to 1.00	500 - 710	n/p*	0.87	0.16	0.49	0.11	n/p	0.13	0.12	0.45	0.09
1.00 to 1.50	355 - 500	n/p*	2.27	4.10	4.68	2.78	n/p	3.54	2.19	2.61	2.11
1.50 to 2.00	250 - 355	n/p*	6.95	11.24	13.21	10.20	n/p	9.89	8.84	6.98	9.10
2.00 to 2.50	180 - 250	n/p*	16.11	15.82	18.93	16.43	n/p	14.78	15.04	15.99	15.71
2.50 to 3.00	125 - 180	n/p*	14.48	12.67	15.15	13.54	n/p	12.86	14.39	14.83	15.00
3.00 to 3.50	90 - 125	n/p*	5.13	5.31	6.20	5.30	n/p	6.12	7.04	5.30	7.19
3.50 to 4.00	63 - 90	n/p*	1.39	0.63	0.70	0.58	n/p	1.08	1.32	1.35	1.26
4.00 to 4.50	44.19 - 63	n/p*	0.44	0.00	0.00	0.00	n/p	0.00	0.03	0.39	0.02
4.50 to 5.00	31.25 - 44.19	n/p*	0.17	0.01	0.03	0.02	n/p	0.01	0.00	0.22	0.00
5.00 to 5.50	22.097 - 31.25	n/p*	0.24	0.10	0.36	0.27	n/p	0.24	0.11	0.21	0.09
5.50 to 6.00	15.625 - 22.097	n/p*	0.13	0.09	0.33	0.27	n/p	0.25	0.18	0.20	0.21
6.00 to 6.50	11.049 - 15.625	n/p*	0.12	0.05	0.17	0.13	n/p	0.12	0.18	0.26	0.21
6.50 to 7.00	7.813 - 11.049	n/p*	0.26	0.07	0.17	0.11	n/p	0.09	0.18	0.27	0.22
7.00 to 7.50	5.524 - 7.813	n/p*	0.31	0.15	0.25	0.20	n/p	0.15	0.21	0.29	0.25
7.50 to 8.00	3.906 - 5.524	n/p*	0.29	0.16	0.28	0.26	n/p	0.20	0.22	0.27	0.25
8.00 to 8.50	2.762 - 3.906	n/p*	0.25	0.11	0.24	0.24	n/p	0.19	0.19	0.21	0.22
8.50 to 9.00	1.953 - 2.762	n/p*	0.23	0.02	0.17	0.17	n/p	0.15	0.13	0.16	0.14
9.00 to 9.50	1.381 - 1.953	n/p*	0.22	0.00	0.05	0.10	n/p	0.10	0.02	0.16	0.05
9.50 to 10.00	0.977 - 1.381	n/p*	0.20	0.00	0.00	0.00	n/p	0.00	0.00	0.16	0.00
10.00 to 10.50	0.691 - .0977	n/p*	0.16	0.00	0.00	0.00	n/p	0.00	0.00	0.13	0.00
10.50 to 11.00	0.488 - 0.691	n/p*	0.13	0.00	0.00	0.00	n/p	0.00	0.00	0.10	0.00
11.00 to 11.50	0.345 - 0.488	n/p*	0.11	0.00	0.00	0.00	n/p	0.00	0.00	0.07	0.00
11.50 to 12.00	0.244 - 0.345	n/p*	0.09	0.00	0.00	0.00	n/p	0.00	0.00	0.05	0.00
12.00 to 12.50	0.173 - 0.244	n/p*	0.07	0.00	0.00	0.00	n/p	0.00	0.00	0.04	0.00
12.50 to 13.00	0.122 - 0.173	n/p*	0.05	0.00	0.00	0.00	n/p	0.00	0.00	0.02	0.00
13.00 to 13.50	0.086 - 0.122	n/p*	0.04	0.00	0.00	0.00	n/p	0.00	0.00	0.02	0.00
13.50 to 14.00	0.061 - 0.086	n/p*	0.02	0.00	0.00	0.00	n/p	0.00	0.00	0.01	0.00
14.00 to 14.50	0.043 - 0.061	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00
> 14.50	0.01 - 0.043	n/p*	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00