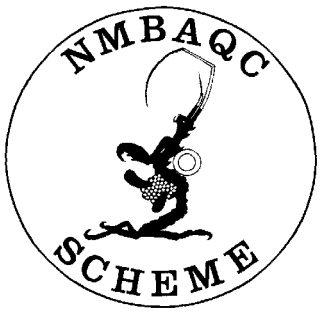

The National Marine Biological
Analytical Quality Control Scheme
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Particle Size Results – PS36

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Table 1. Summary of the particle size information received from participating laboratories and replicate analysis laboratory for the thirty-sixth particle size distribution - PS36.

Benchmark Data

Sample	Method	%<63µm	Median	Mean	Sort	IGS (Ski)
PS36 60	L[1]	54.74	4.32	4.77	2.23	0.28
PS36 61	L[1]	54.13	4.28	4.74	2.24	0.28
PS36 62	L[1]	55.15	4.35	4.79	2.23	0.27
PS36 63	L[1]	54.15	4.28	4.74	2.23	0.28
PS36 64	L[1]	53.77	4.26	4.72	2.24	0.29
PS36 65	L[1]	54.69	4.32	4.77	2.24	0.28
PS36 66	L[1]	54.93	4.33	4.77	2.23	0.27
PS36 67	L[1]	55.15	4.35	4.78	2.23	0.27
PS36 68	L[1]	54.21	4.83	4.74	2.23	0.29
PS36 69	L[1]	54.33	4.30	4.75	2.24	0.28
UM	**L[1]RepAv**	**54.53**	**4.36**	**4.76**	**2.23**	**0.28**

Participant Data

Lab	Method	%<63µm	Median	Mean	Sort	IGS (Ski)
LB1701	L	57.06	4.51	4.86	2.22	2.70
LB1702	L	60.85	-	-	-	-
LB1703	S/L	75.63	5.55	5.27	2.06	-0.20
LB1705	L	53.73	-	-	-	-
LB1707#2	WS/DS/L	53.21	4.24	4.99	2.35	0.48
LB1707#1	WS/DS/L	49.91	4.00	4.72	2.17	0.52
LB1712	L	58.30	4.63	4.93	2.17	0.27
LB1713	L	64.10	4.98	5.19	2.25	0.13
LB1714	L	62.57	5.00	5.27	2.51	0.18
LB1715	CL	62.30	4.84	5.11	2.32	0.19
LB1716	L	55.84	-	-	-	-
LB1726	L	48.18	-	-	-	-
LB1727	-	-	-	-	-	-
LB1728	L	61.10	-	-	-	-

Key to methods:
L[1] - Replicate analysis by Malvern MS2000+Hydro-G 0.02-2000µm; no blue laser
L - Laser analysis
S - Sieve
WS - Wet Sieve
DS - Dry Sieve
CL - Coulter Laser Sizer

"-" - No data provided

Table 2. Summary of z-scores for each phi interval for PS36.

	Phi Intervals																		
	-6.50 to -6.00	-6.00 to -5.50	-5.50 to -5.00	-5.00 to -4.50	-4.50 to -4.00	-4.00 to -3.50	-3.50 to -3.00	-3.00 to -2.50	-2.50 to -2.00	-2.00 to -1.50	-1.50 to -1.00	-1.00 to -0.50	-0.50 to 0.00	0.00 to 0.50	0.50 to 1.00	1.00 to 1.50	1.50 to 2.00	2.00 to 2.50	2.50 to 3.00	3.00 to 3.50
LB1701	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.41	-0.45	-0.03	0.65	0.58	0.40	0.10	-0.33
LB1702	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	-0.78	-0.83	0.15	0.33	-0.33	-0.20
LB1703	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	-0.78	-1.09	-1.23	-1.28	-1.59	-1.33
LB1705	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	-0.56	0.26	0.51	0.63	0.68	0.24
LB1707#1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	1.27	-0.18	-0.99	-1.22	-1.28	1.72	2.35
LB1707#2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	0.42	0.64	-0.37	-0.98	-1.24	-1.49	2.07	1.61
LB1712#2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	-0.53	0.21	0.23	0.28	-0.24	0.03
LB1713	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	-0.59	-0.25	-0.20	-0.48	-0.98	-0.34
LB1714	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	-0.59	-0.25	-0.20	-0.48	-0.98	-0.34
LB1715	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	1.49	-0.07	0.03	-0.19	-0.76	-0.33
LB1716	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.42	2.33	-0.07	-0.79	-0.08	-0.08	-1.28
LB1726	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	-0.67	0.27	0.40	0.66	0.17	0.25
LB1728	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	-0.45	1.47	2.90	2.61	2.32	-0.04	-0.80
BENCHMARK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.32	2.97	-0.21	0.24	0.36	0.67	0.26	0.45

	Phi Intervals																		
	3.50 to 4.00	4.00 to 4.50	4.50 to 5.00	5.00 to 5.50	5.50 to 6.00	6.00 to 6.50	6.50 to 7.00	7.00 to 7.50	7.50 to 8.00	8.00 to 8.50	8.50 to 9.00	9.00 to 9.50	9.50 to 10.00	10.00 to 10.50	10.50 to 11.00	11.00 to 11.50	11.50 to 12.00	12.00 to 12.50	12.50 to 13.00	13.00 to 13.50
LB1701	-0.31	-0.33	0.23	0.07	0.43	-0.14	0.41	-0.13	0.40	-0.27	0.44	0.02	-0.60	-0.89	-0.85	-0.74	-0.39	0.00	0.00	0.00
LB1702	-0.42	-0.64	-0.02	-0.39	0.17	-0.21	0.44	-0.16	0.34	-0.28	0.69	0.89	1.20	1.28	1.16	0.73	-0.39	0.00	0.00	0.00
LB1703	-1.32	2.21	-3.15	3.15	-3.08	3.17	-2.93	3.26	-2.84	3.35	-2.16	-2.13	-1.48	-0.95	-0.85	-0.74	-0.39	0.00	0.00	0.00
LB1705	0.02	-0.48	0.04	0.09	0.24	-0.33	0.19	-0.37	0.18	0.54	-2.16	-2.13	-1.48	-0.95	-0.85	-0.74	-0.39	0.00	0.00	0.00
LB1707#1	2.52	1.62	1.14	-0.24	-0.68	-1.16	-1.04	-1.05	-1.12	-0.60	-0.43	-0.10	0.52	0.85	1.09	1.48	2.21	0.00	0.00	0.00
LB1707#2	1.82	-0.59	0.38	-0.32	-0.25	-0.76	-0.52	-0.75	-0.58	-0.47	0.11	0.46	1.02	1.25	1.47	1.87	2.51	0.00	0.00	0.00
LB1712#2	-0.24	-0.36	0.16	-0.01	0.56	0.07	0.81	0.03	0.59	-0.25	0.49	-0.11	-1.16	-0.95	-0.85	-0.74	-0.39	0.00	0.00	0.00
LB1713	-0.21	0.21	0.54	0.37	0.72	0.12	0.90	0.16	0.98	-0.15	0.90	0.31	-0.47	-0.87	-0.85	-0.74	-0.39	0.00	0.00	0.00
LB1714	-0.21	0.21	0.54	0.37	0.72	0.12	0.90	0.16	0.98	-0.15	0.90	0.31	-0.47	-0.87	-0.85	-0.74	-0.39	0.00	0.00	0.00
LB1715	-0.44	-0.40	-0.04	-0.38	0.23	-0.13	0.56	-0.02	0.58	-0.27	0.73	1.01	1.10	1.28	1.14	0.92	-0.39	0.00	0.00	0.00
LB1716	0.04	0.99	0.77	-0.84	1.06	0.49	-0.03	0.01	0.56	-0.26	0.05	1.00	0.85	0.09	0.09	-0.29	-0.39	0.00	0.00	0.00
LB1726	-0.28	-0.85	-0.29	-0.74	-0.15	-0.51	-0.02	-0.42	-0.02	-0.35	0.52	0.78	1.12	1.24	1.36	1.21	-0.39	0.00	0.00	0.00
LB1728	-0.94	-1.51	-0.50	-1.03	-0.25	-0.46	0.08	-0.44	-0.22	-0.51	-0.32	-0.14	0.45	0.37	-0.38	-0.74	-0.39	0.00	0.00	0.00
BENCHMARK	-0.02	-0.08	0.21	-0.12	0.28	-0.27	0.24	-0.29	0.17	-0.34	0.22	-0.18	-0.59	-0.86	-0.85	-0.74	-0.39	0.00	0.00	0.00

Intervals left blank or marked "-" (not analysed) have been entered as "0" to calculate z-scores.

Figure 1. Particle size distribution curves resulting from analysis of ten replicate samples of sediment distributed as PS36 (Benchmark Data). All ten replicates analysed by Malvern Mastersizer 2000.

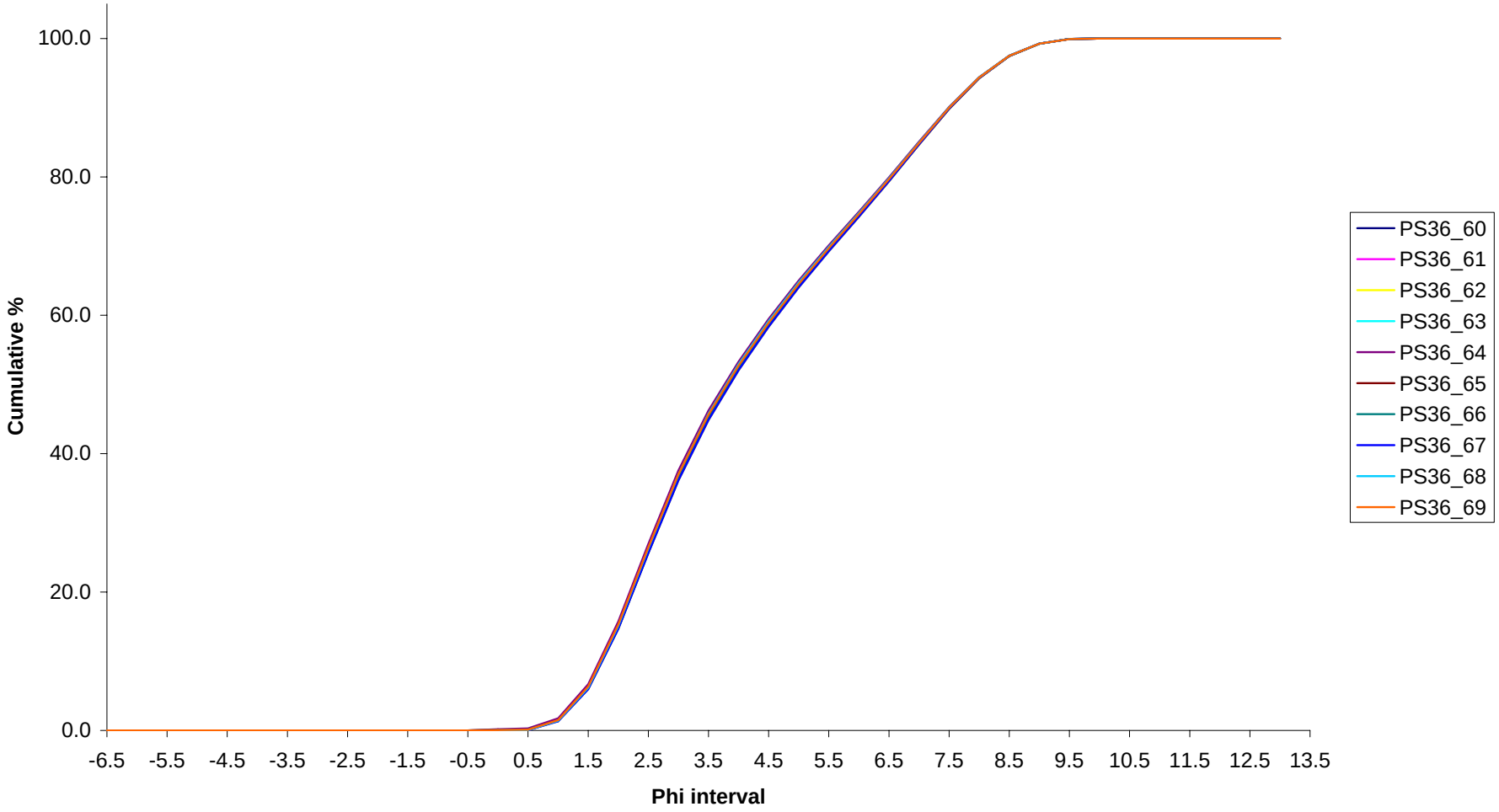
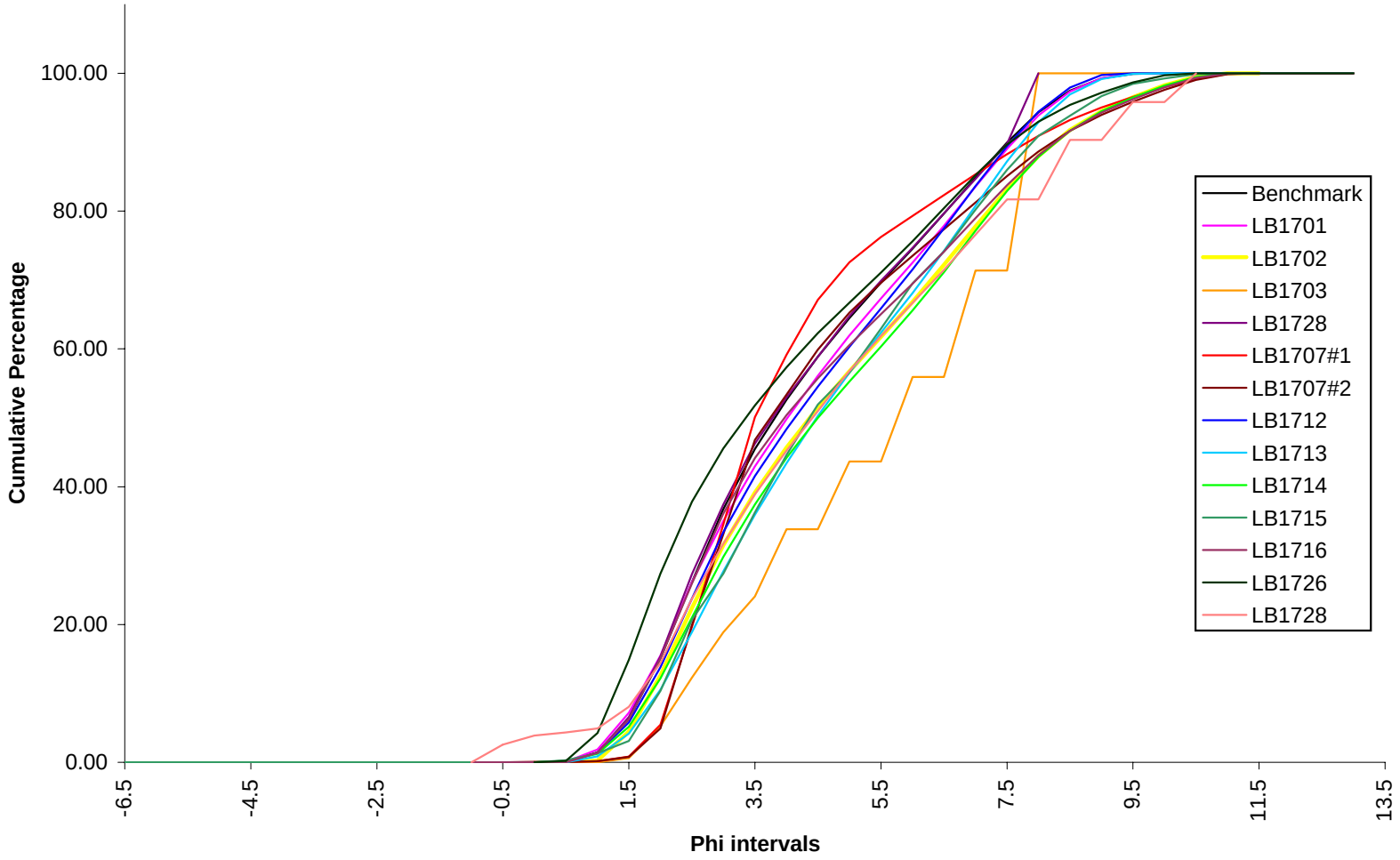


Figure 2. Particle size distribution curves from all participating laboratories for sediment samples from PS36.



Results of SIMPROF testing on PSA Ring test PS36 data

Sediment fractions were first reduced to lowest common denominators to allow full comparison between test labs

- all fractions >8φ were combined
- fractions between 4φ and 8φ were combined into 1φ intervals rather than 0.5φ intervals).

The data was then entered into PRIMER v. 6.1.13 and used to create a Manhattan distance matrix. From this distance matrix cluster analysis was carried out, including a SIMPROF test at a 5% significance level. The results are presented as cluster diagrams below:

Figure 3. Replicates from the control lab kept separate.

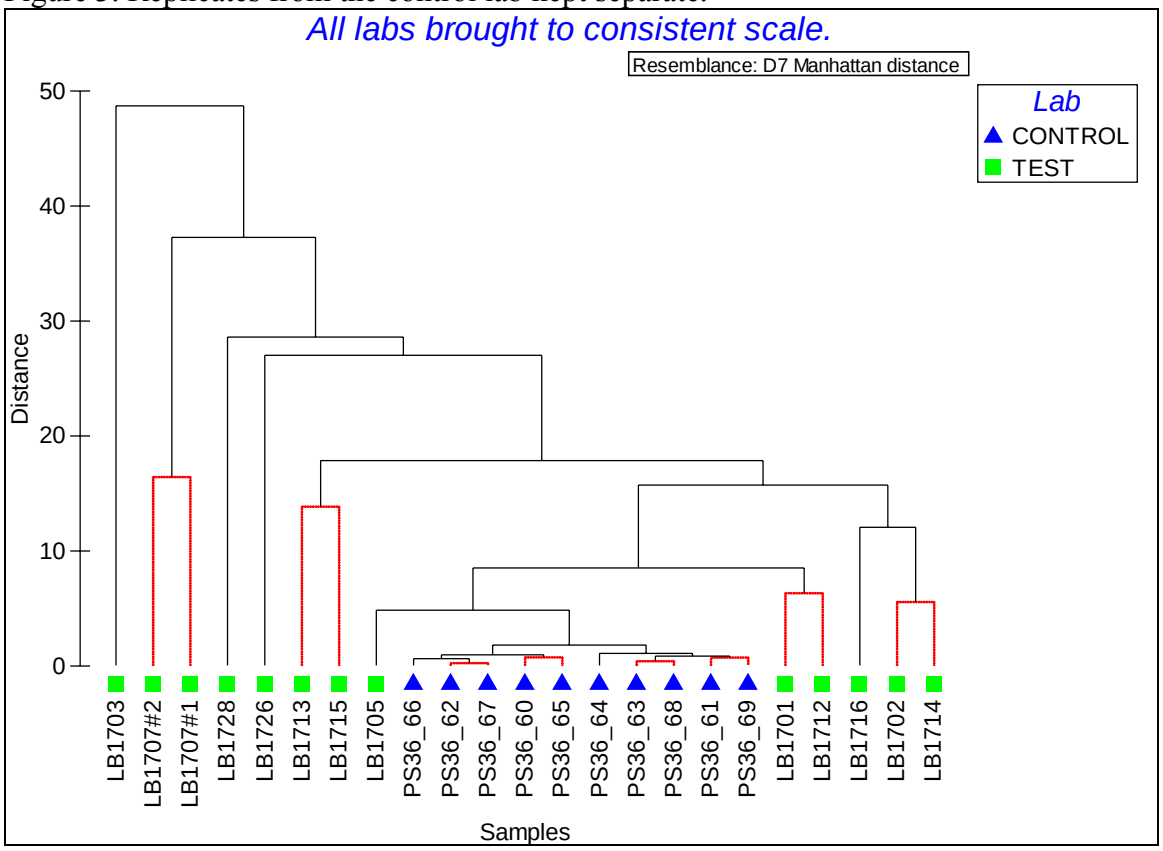


Figure 4. Replicates from control data averaged

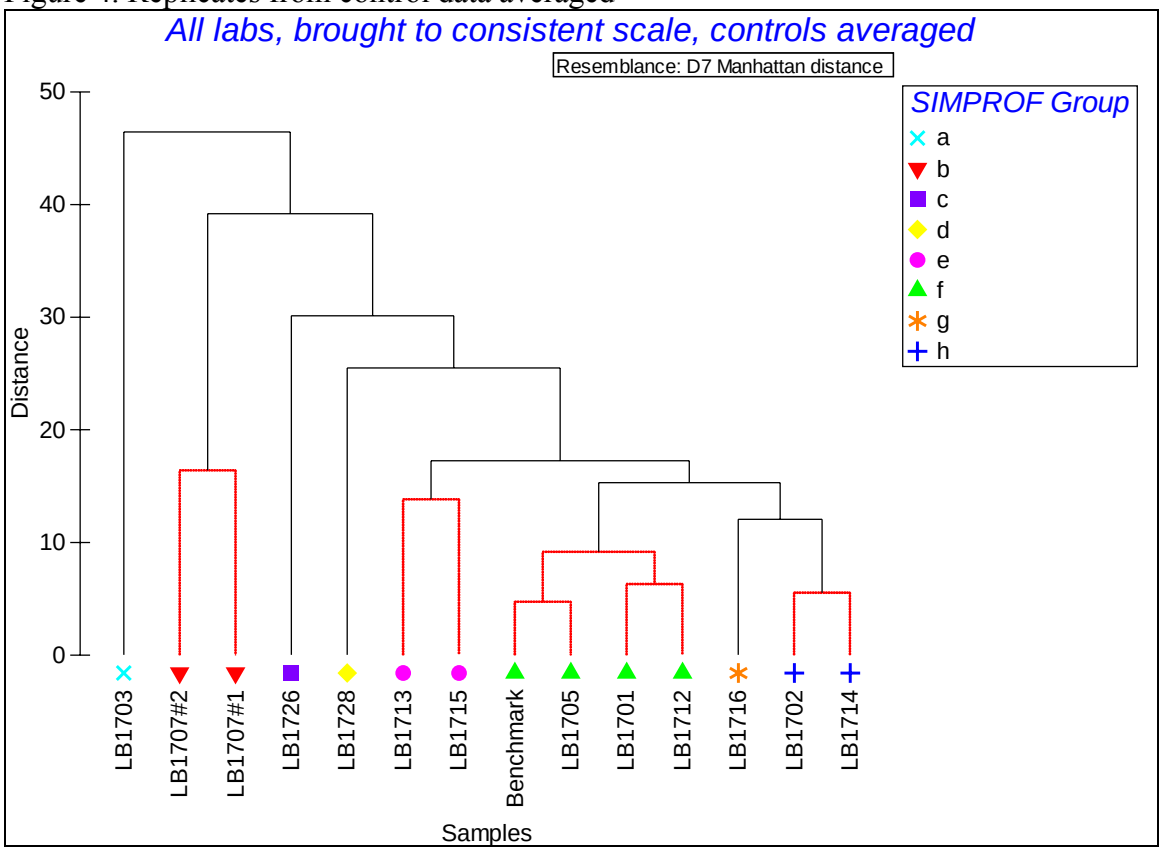
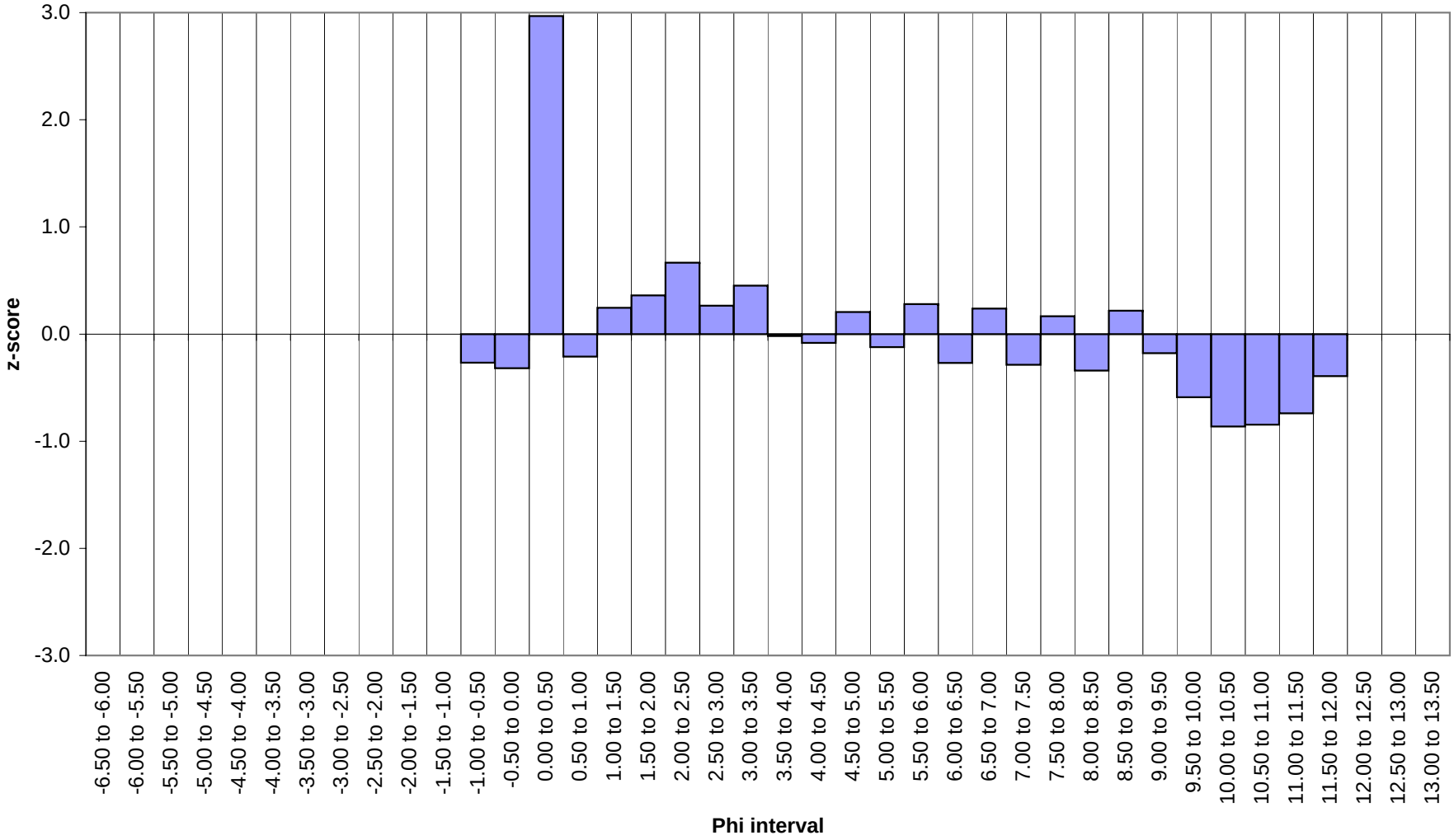
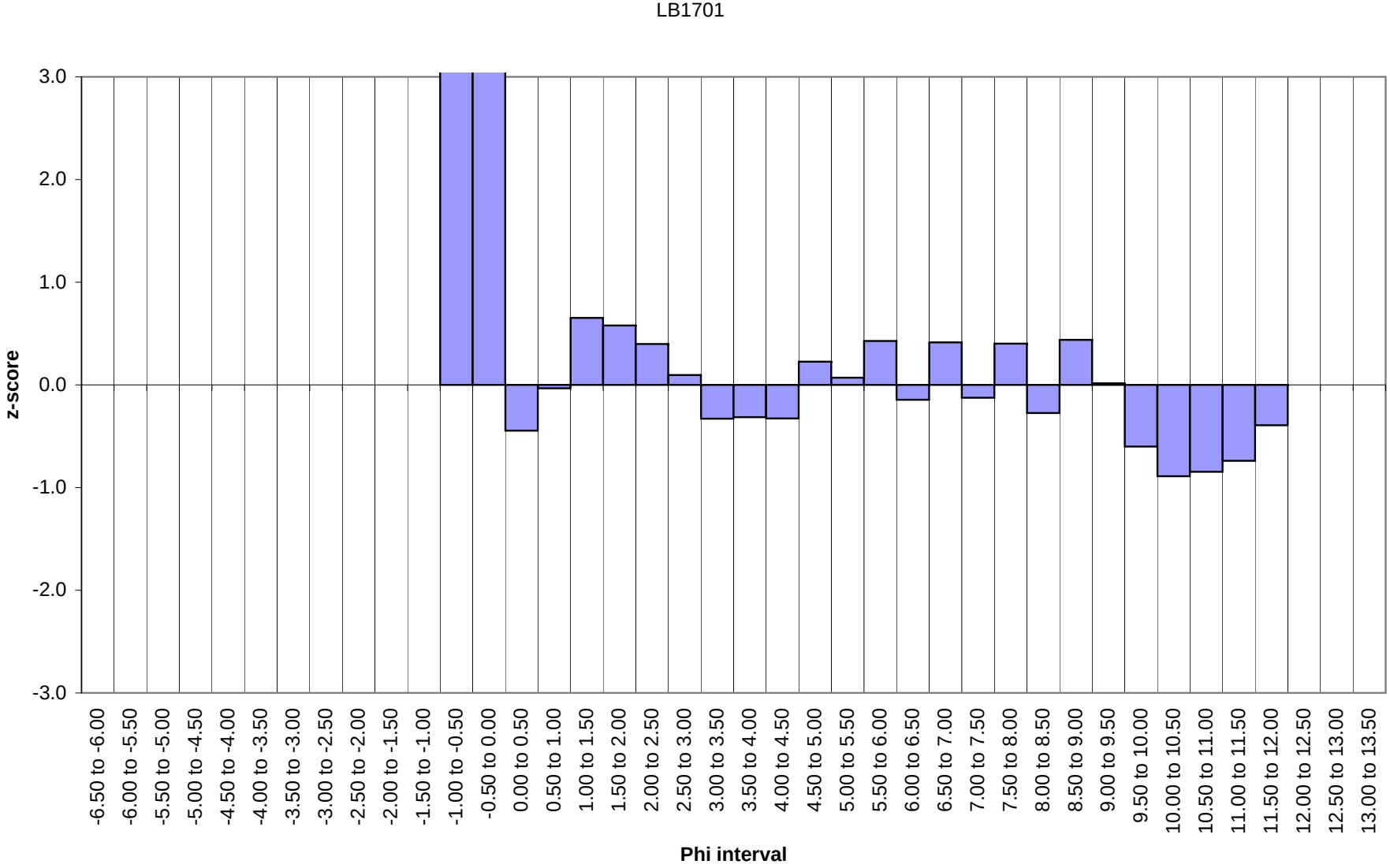
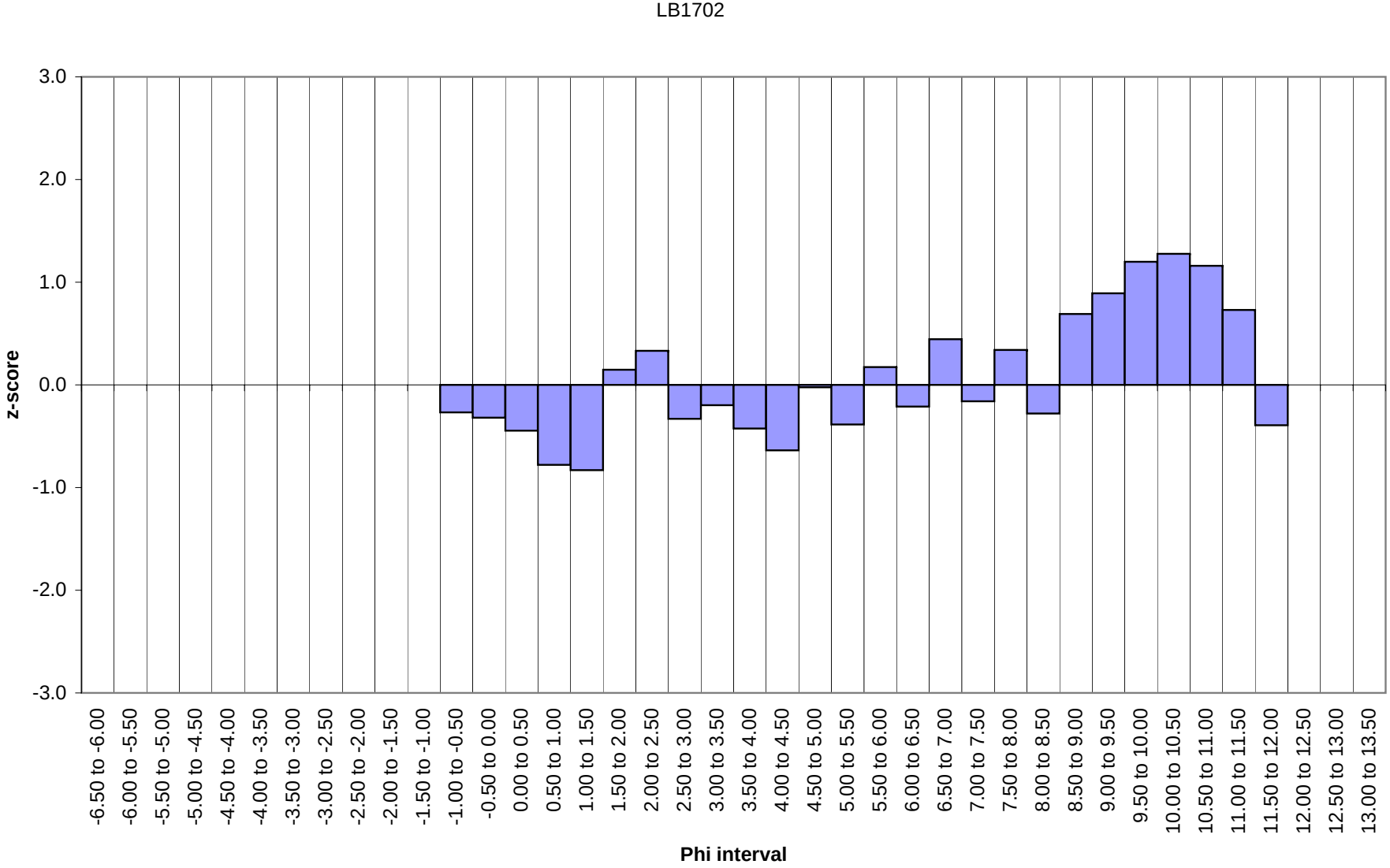


Figure 5. Z-scores for each phi interval for the benchmark data for sediment PS36.




LB1701
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
z-score
-6.50 to -6.00
-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1702
z-score
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2.0
1.0
0.0
-1.0
-2.0
-3.0
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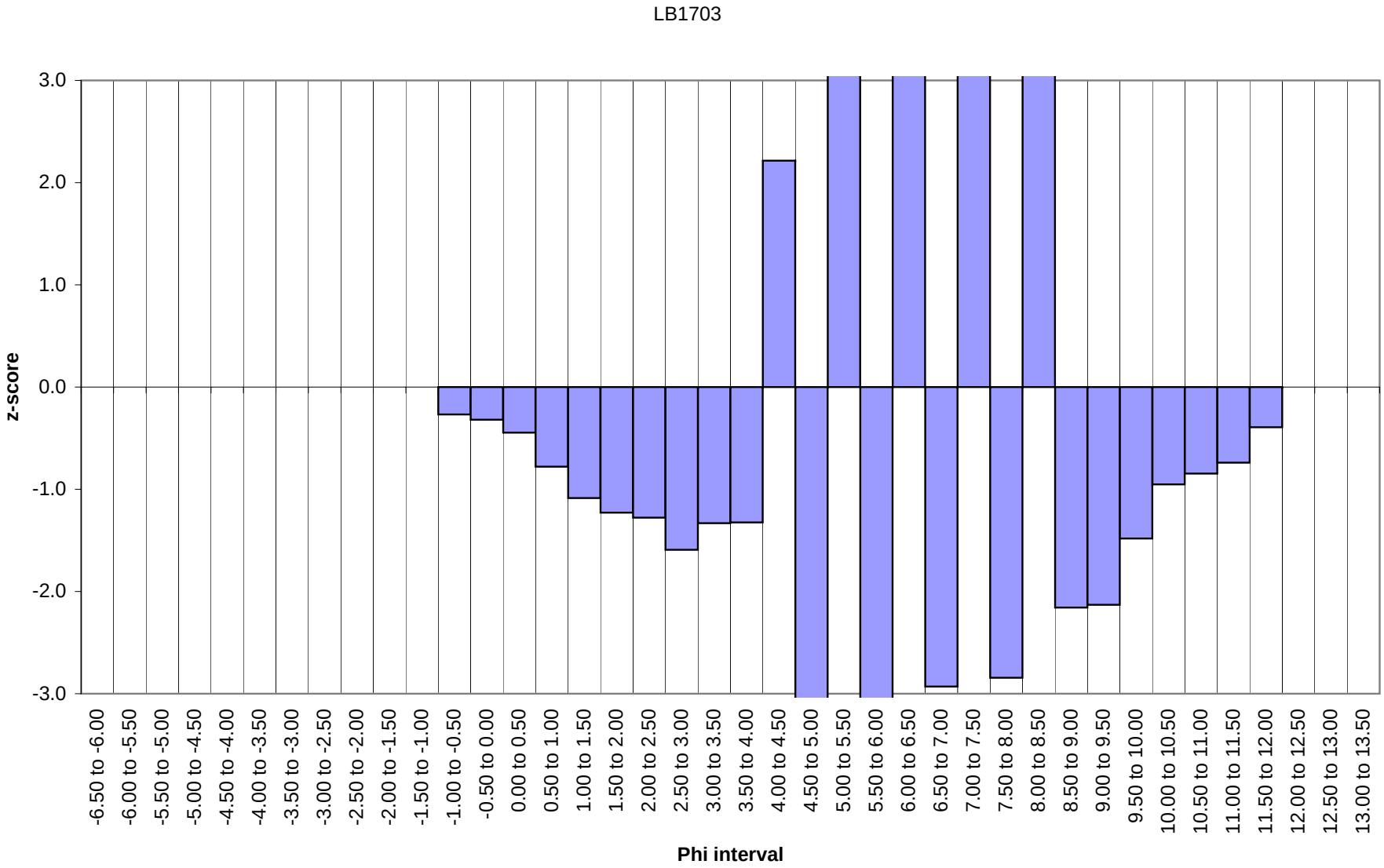
-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1703
z-score
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2.0
1.0
0.0
-1.0
-2.0
-3.0
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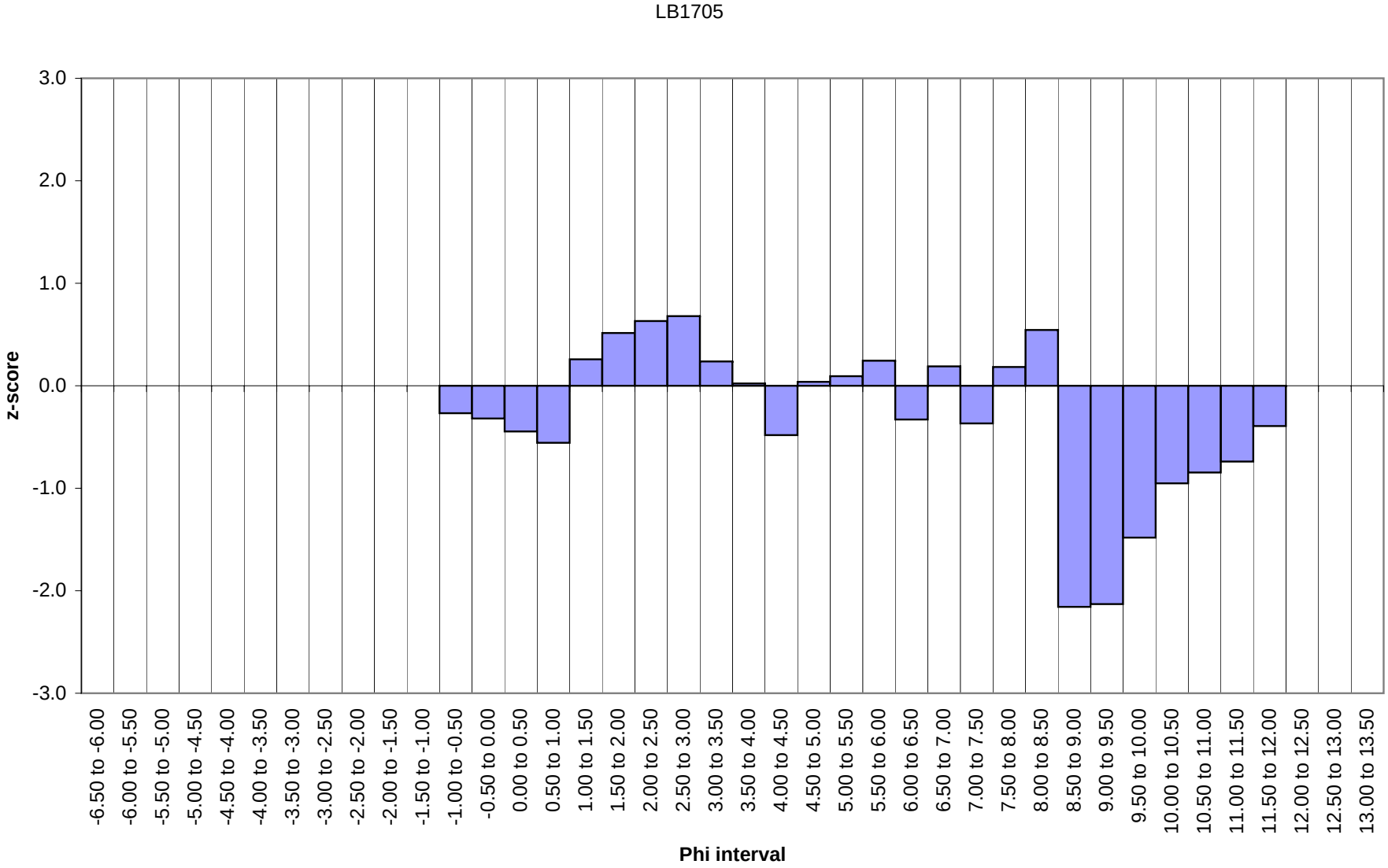
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1705
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
z-score
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-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
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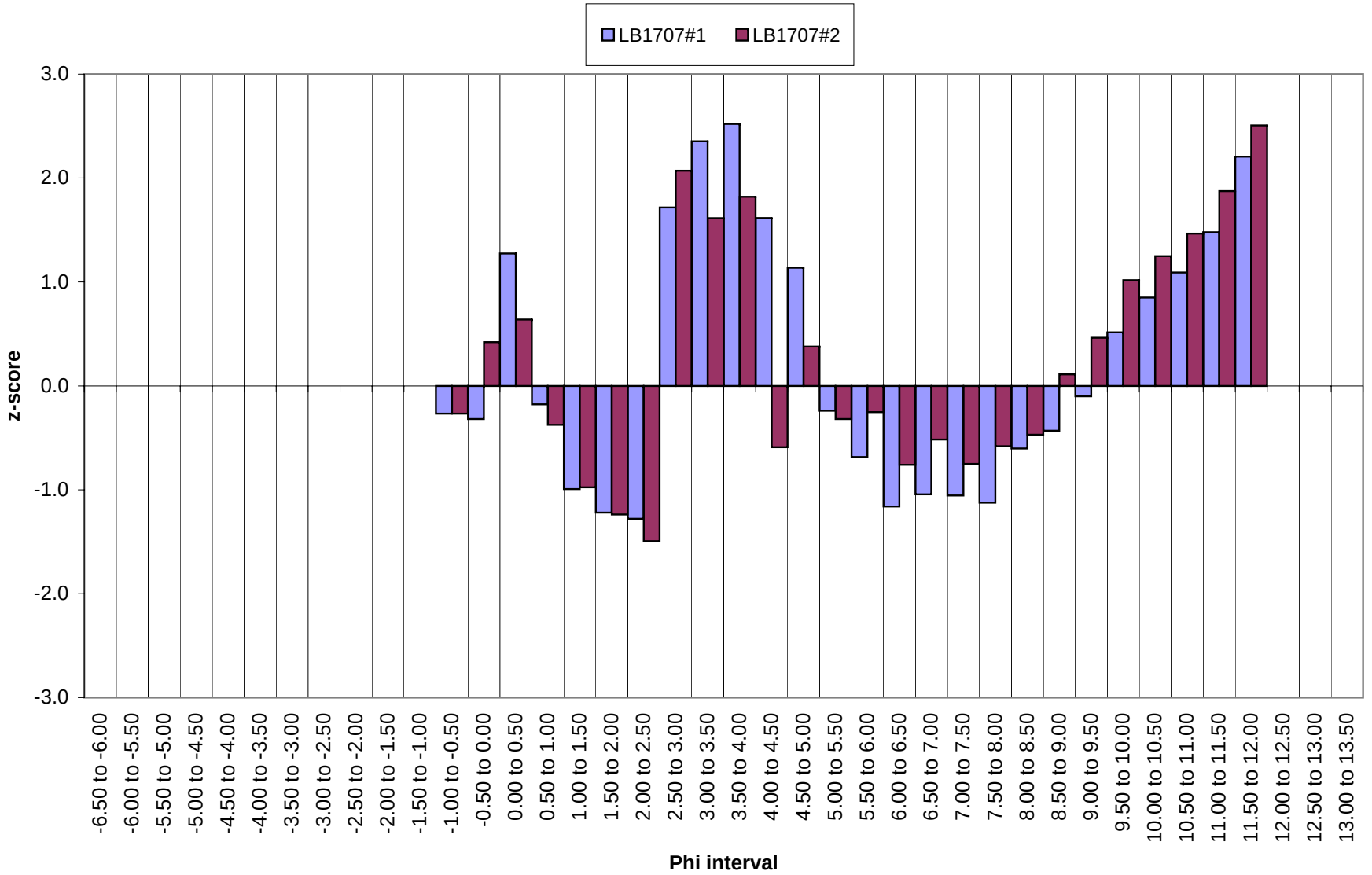
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1707#1
LB1707#2
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
z-score
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-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
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-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
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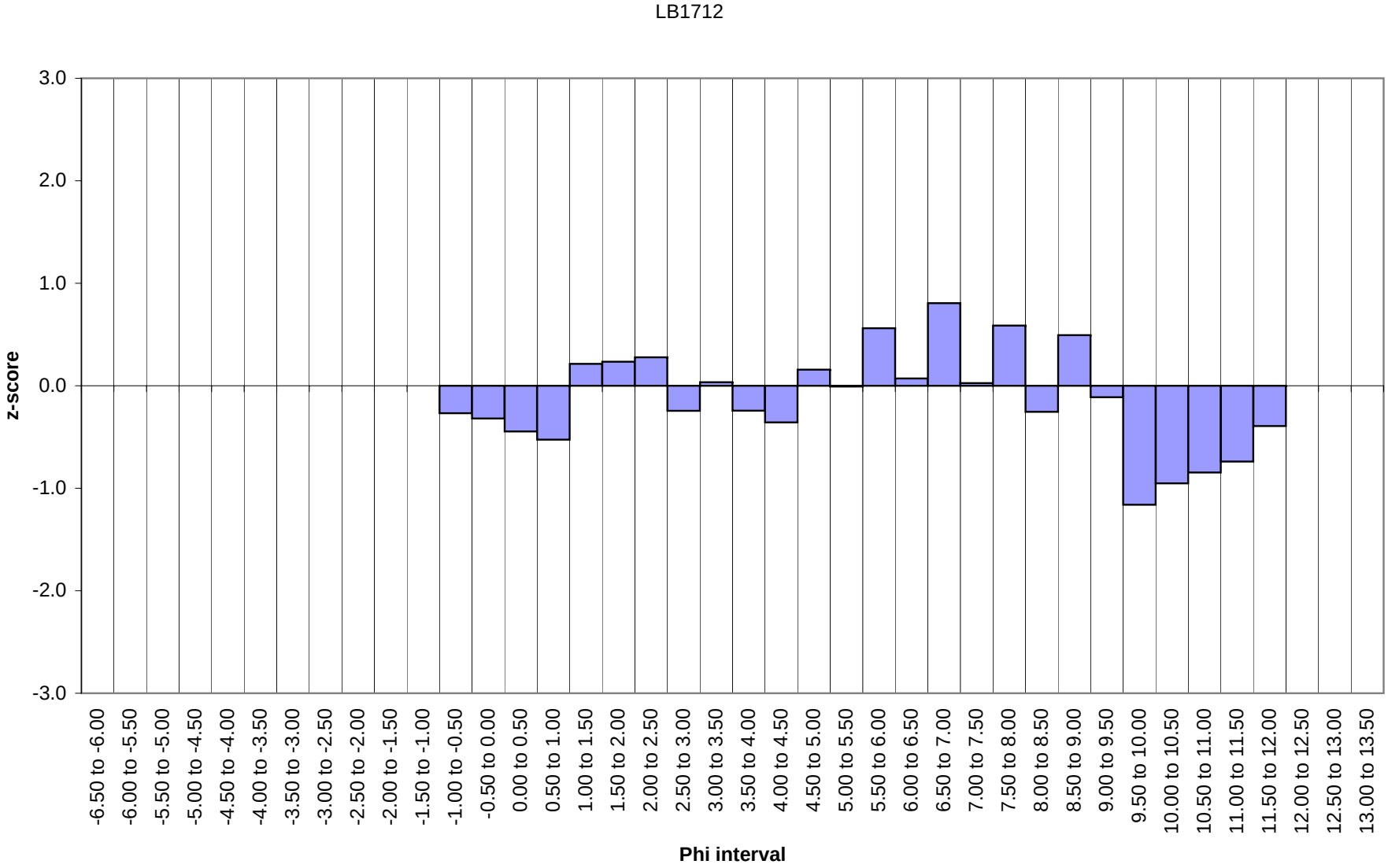
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval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-2.0
-3.0
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-6.00 to -5.50
-5.50 to -5.00
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-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
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1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
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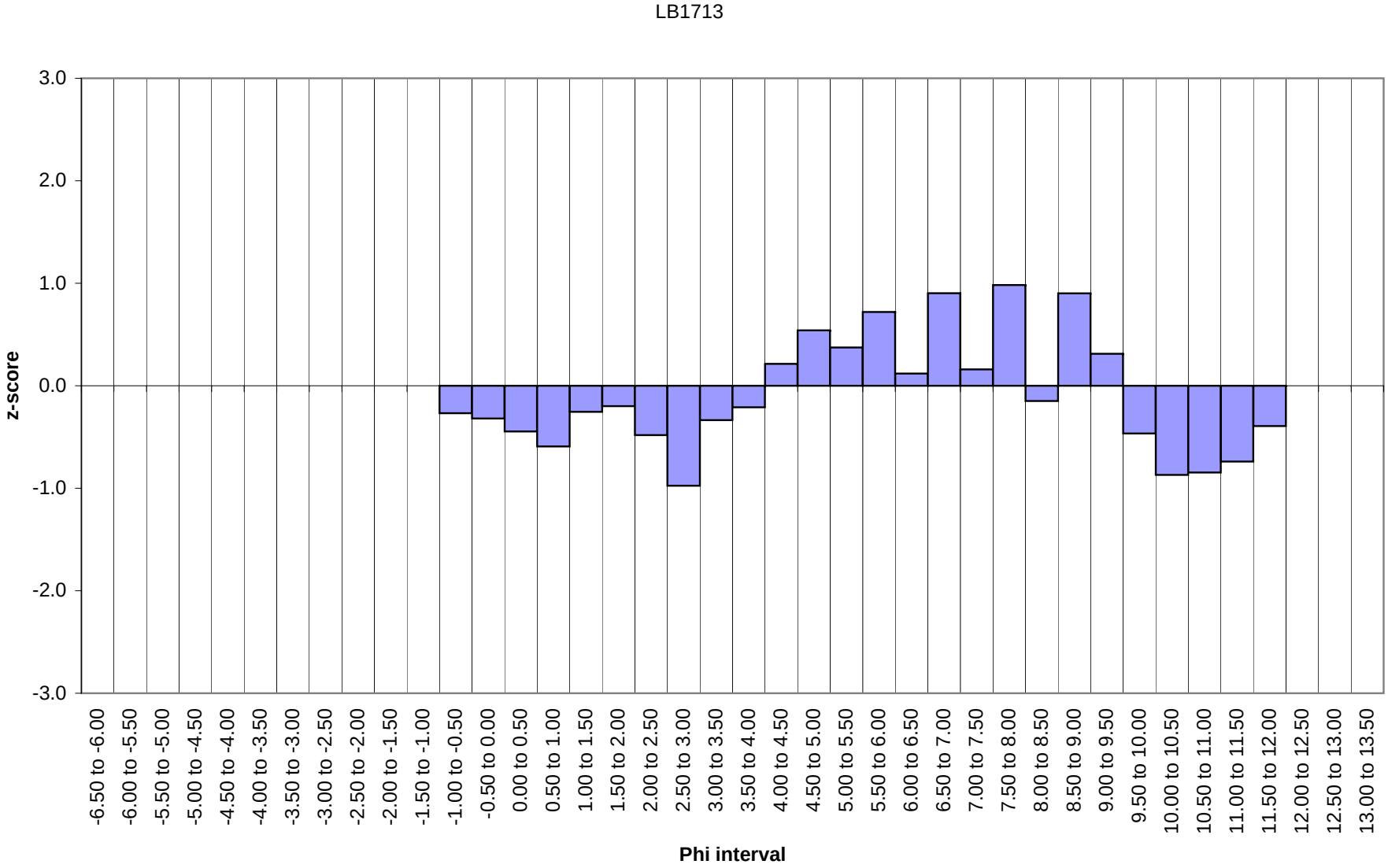
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1713
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
z-score
-6.50 to -6.00
-6.00 to -5.50
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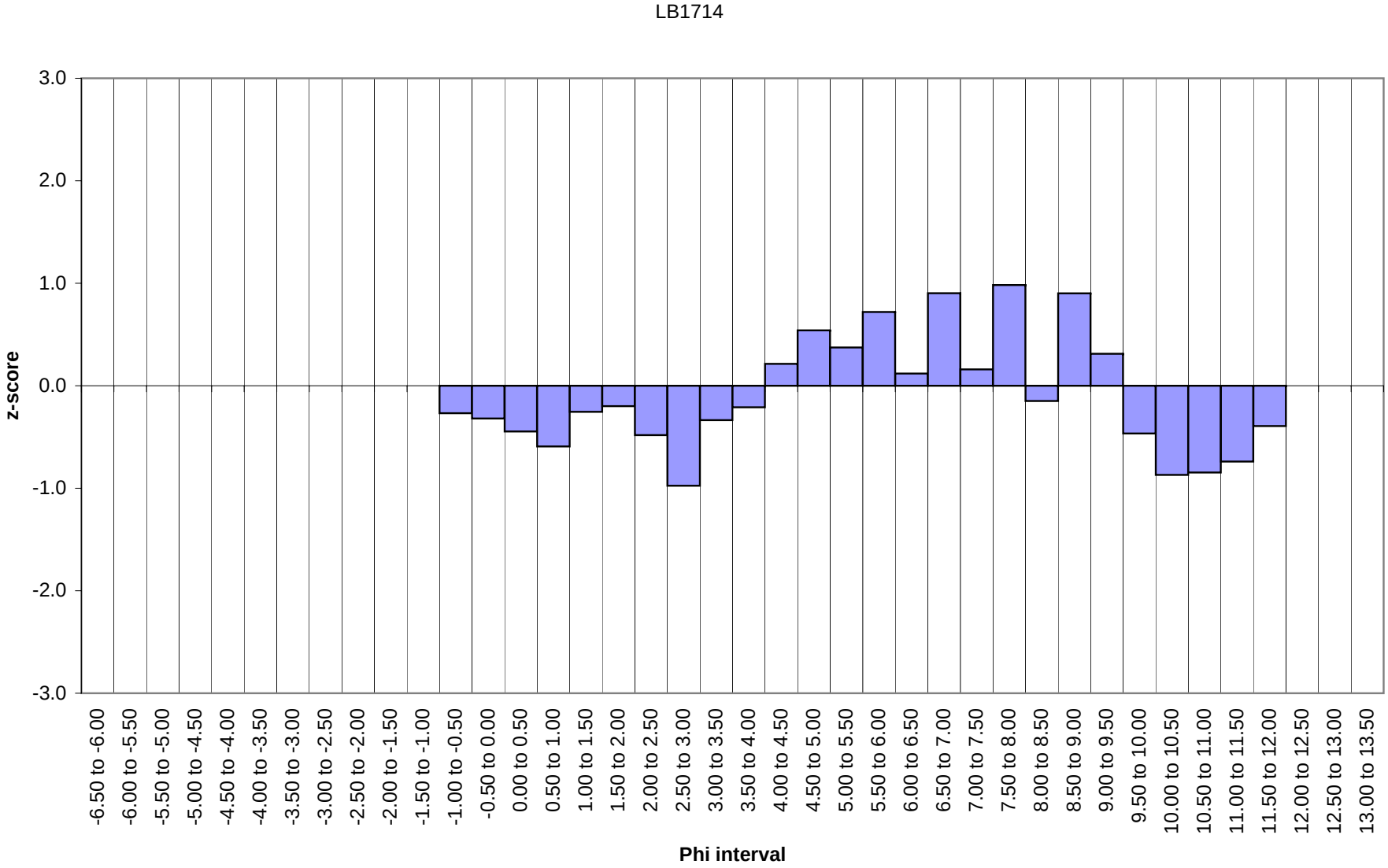
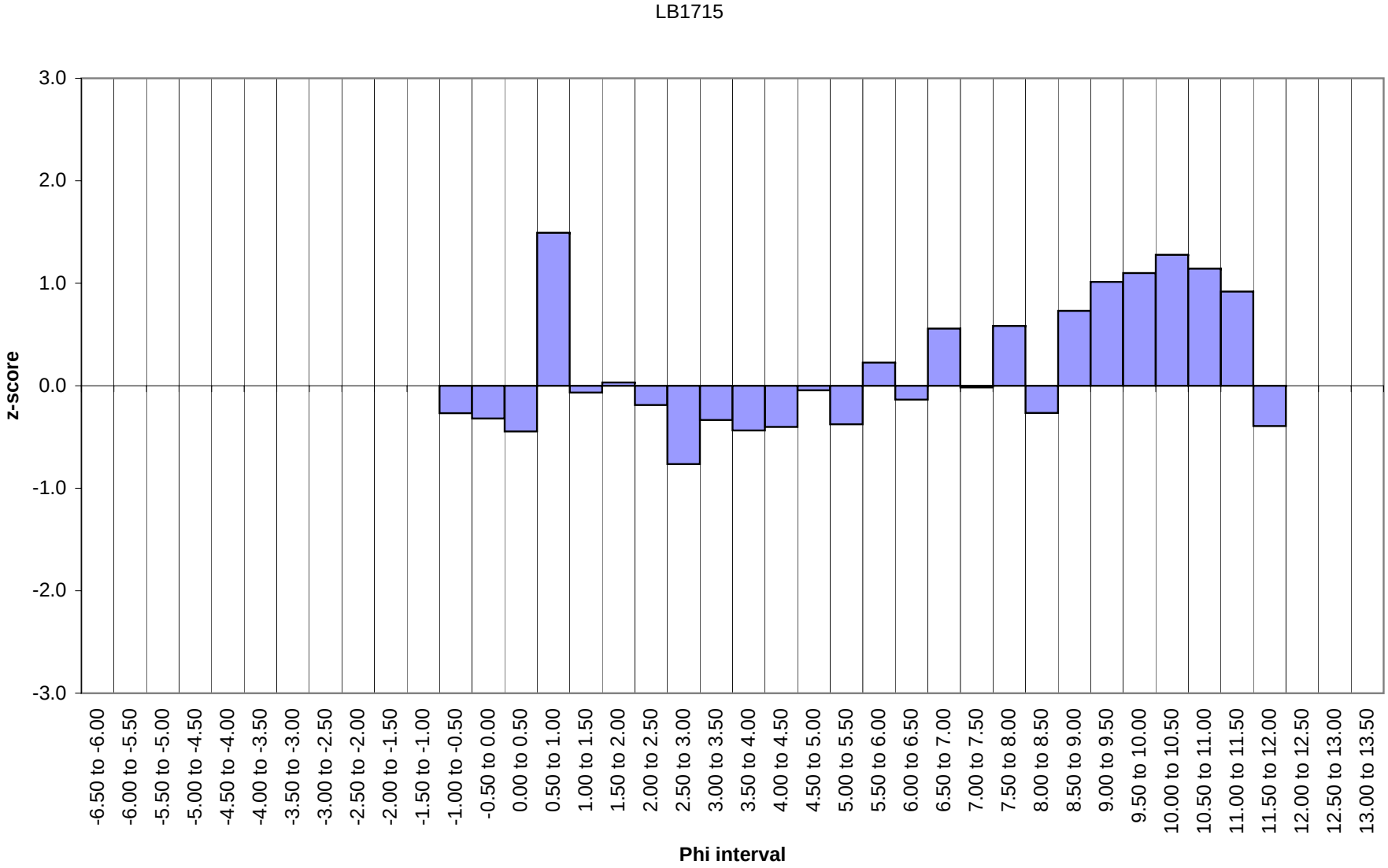
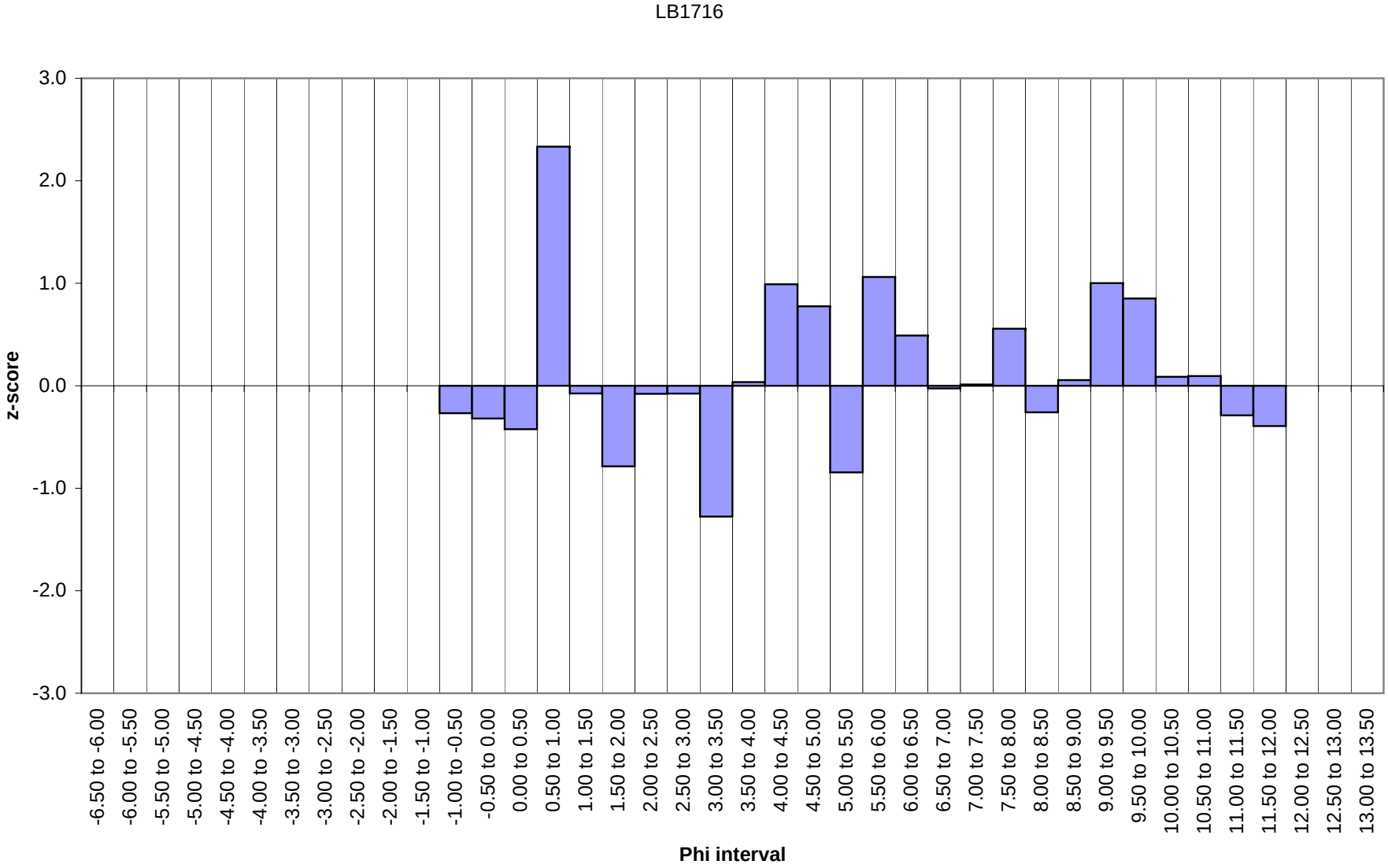
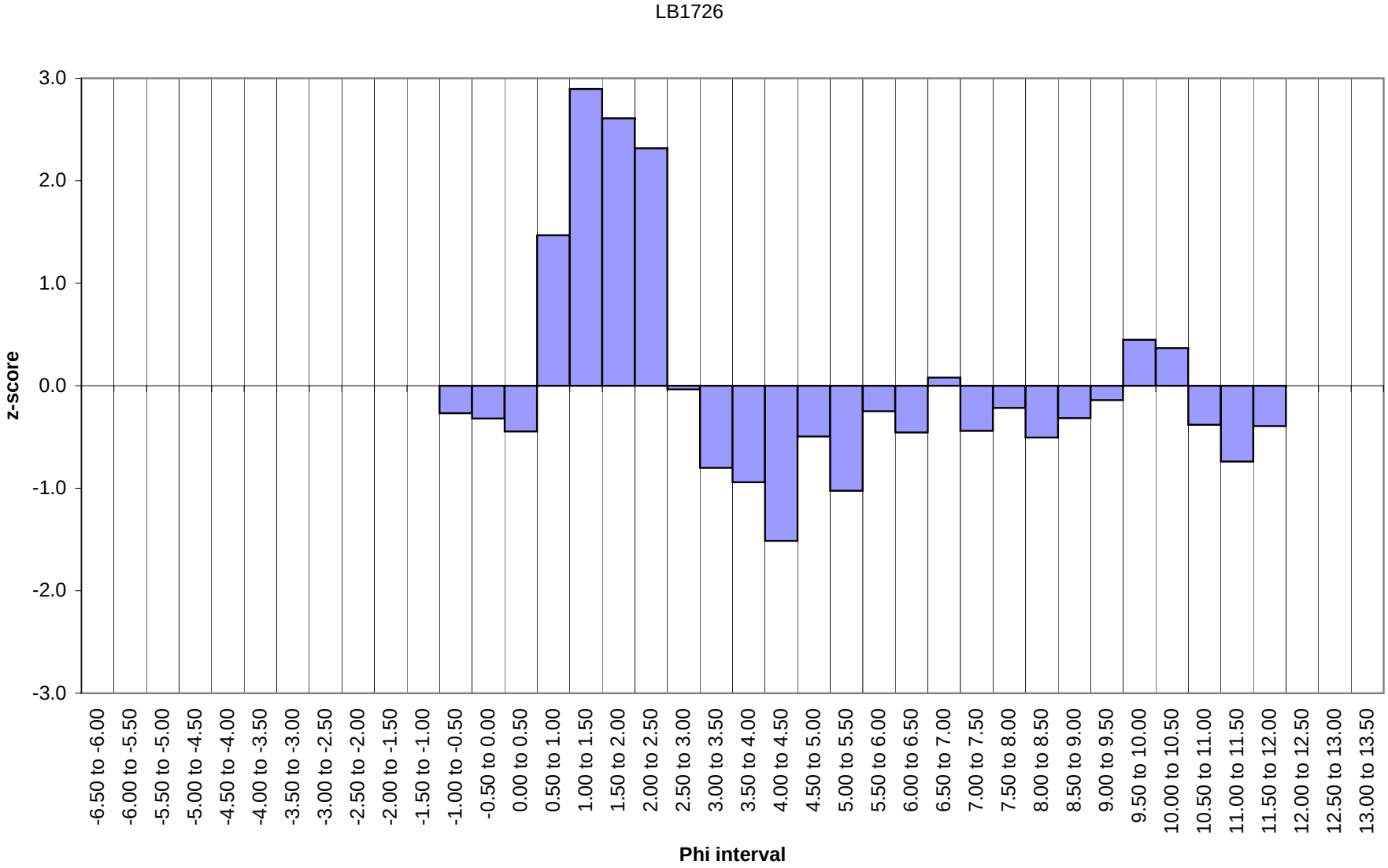
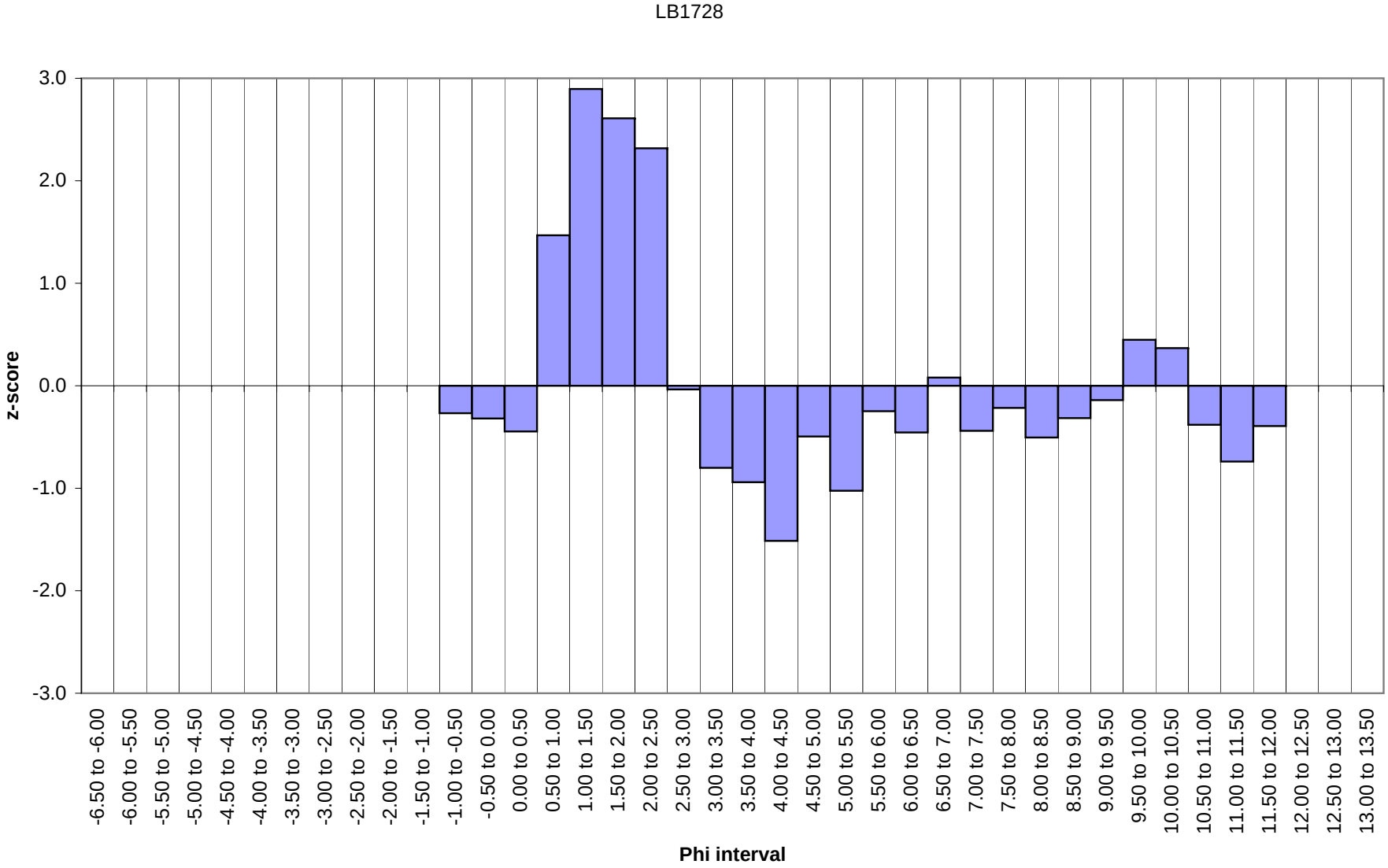
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1714
z-score
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-6.50 to -6.00
-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1715
z-score
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-6.50 to -6.00
-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1716
z-score
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-6.50 to -6.00
-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1726
z-score
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-6.50 to -6.00
-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval


LB1728
z-score
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-6.50 to -6.00
-6.00 to -5.50
-5.50 to -5.00
-5.00 to -4.50
-4.50 to -4.00
-4.00 to -3.50
-3.50 to -3.00
-3.00 to -2.50
-2.50 to -2.00
-2.00 to -1.50
-1.50 to -1.00
-1.00 to -0.50
-0.50 to 0.00
0.00 to 0.50
0.50 to 1.00
1.00 to 1.50
1.50 to 2.00
2.00 to 2.50
2.50 to 3.00
3.00 to 3.50
3.50 to 4.00
4.00 to 4.50
4.50 to 5.00
5.00 to 5.50
5.50 to 6.00
6.00 to 6.50
6.50 to 7.00
7.00 to 7.50
7.50 to 8.00
8.00 to 8.50
8.50 to 9.00
9.00 to 9.50
9.50 to 10.00
10.00 to 10.50
10.50 to 11.00
11.00 to 11.50
11.50 to 12.00
12.00 to 12.50
12.50 to 13.00
13.00 to 13.50
Phi interval

Appendices

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1701**
Sample Code:	**PS361701**
Equipment used (e.g. laser model and range):	Malvern Mastersizer 2000
Method used:	NMBAQC PSA SOP for supporting biological data[¤]
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	57.06
Median particle diameter (phi):	4.51
Mean particle diameter (phi):	4.86
Sorting Coefficient:	2.22
Inclusive Graphic Skewness (SKi):	2.70
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy mud
Sediment Description Post-analysis (Folk Triangle)#:	Sandy mud - sM

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	-
-6.00 to -5.50	*0.00*
-5.50 to -5.00	*0.00*
-5.00 to -4.50	*0.00*
-4.50 to -4.00	*0.00*
-4.00 to -3.50	*0.00*
-3.50 to -3.00	*0.00*
-3.00 to -2.50	*0.00*
-2.50 to -2.00	*0.00*
-2.00 to -1.50	*0.00*
-1.50 to -1.00	*0.00*
-1.00 to -0.50	*0.01*
-0.50 to 0.00	*0.01*
0.00 to 0.50	*0.00*
0.50 to 1.00	*0.07*
1.00 to 1.50	*1.77*
1.50 to 2.00	*5.34*
2.00 to 2.50	*8.28*
2.50 to 3.00	*10.72*
3.00 to 3.50	*8.82*
3.50 to 4.00	*7.93*
4.00 to 4.50	*6.87*
4.50 to 5.00	*6.27*
5.00 to 5.50	*5.87*
5.50 to 6.00	*5.38*
6.00 to 6.50	*5.21*
6.50 to 7.00	*5.33*
7.00 to 7.50	*5.69*
7.50 to 8.00	*5.50*
8.00 to 8.50	*4.83*
8.50 to 9.00	*3.45*
9.00 to 9.50	*1.94*
9.50 to 10.00	*0.67*
10.00 to 10.50	*0.05*
10.50 to 11.00	*0.00*
11.00 to 11.50	*0.00*
11.50 to 12.00	-
12.00 to 12.50	-
12.50 to 13.00	-
13.00 to 13.50	-

[†] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1702**
Sample Code:	**PS361702**
Equipment used (e.g. laser model and range):	Malvern 2000 (0.02 - 2000 µm) Hydro G
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	60.85
Median particle diameter (phi):	-
Mean particle diameter (phi):	-
Sorting Coefficient:	-
Inclusive Graphic Skewness (SKi):	-
Visual Sediment Description Pre-analysis (e.g. sandy mud):	sM
Sediment Description Post-analysis (Folk Triangle)#:	sM

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	
-6.00 to -5.50	
-5.50 to -5.00	
-5.00 to -4.50	
-4.50 to -4.00	
-4.00 to -3.50	
-3.50 to -3.00	
-3.00 to -2.50	
-2.50 to -2.00	
-2.00 to -1.50	
-1.50 to -1.00	
-1.00 to -0.50	
-0.50 to 0.00	
0.00 to 0.50	
0.50 to 1.00	*0.00*
1.00 to 1.50	*0.26*
1.50 to 2.00	*4.22*
2.00 to 2.50	*8.14*
2.50 to 3.00	*9.80*
3.00 to 3.50	*9.11*
3.50 to 4.00	*7.63*
4.00 to 4.50	*6.52*
4.50 to 5.00	*5.81*
5.00 to 5.50	*5.28*
5.50 to 6.00	*4.99*
6.00 to 6.50	*5.07*
6.50 to 7.00	*5.38*
7.00 to 7.50	*5.59*
7.50 to 8.00	*5.39*
8.00 to 8.50	*4.80*
8.50 to 9.00	*3.78*
9.00 to 9.50	*2.73*
9.50 to 10.00	*2.03*
10.00 to 10.50	*1.74*
10.50 to 11.00	*1.26*
11.00 to 11.50	*0.48*
11.50 to 12.00	*0.00*
12.00 to 12.50	
12.50 to 13.00	
13.00 to 13.50	

[1] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1703**
Sample Code:	**PS361703**
Equipment used (e.g. laser model and range):	sieve and malvern laser mam5004
Method used:	In House
Peroxide pre-treatment used:	Yes
Chemical dispersant used:	NO*
% <63µm	75.63
Median particle diameter (phi):	5.55
Mean particle diameter (phi):	5.27
Sorting Coefficient:	2.06
Inclusive Graphic Skewness (SKi):	-0.20
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Mud
Sediment Description Post-analysis (Folk Triangle)#:	Sandy Mud

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	
-6.00 to -5.50	
-5.50 to -5.00	
-5.00 to -4.50	
-4.50 to -4.00	*0.00*
-4.00 to -3.50	
-3.50 to -3.00	
-3.00 to -2.50	
-2.50 to -2.00	
-2.00 to -1.50	*0.00*
-1.50 to -1.00	*0.00*
-1.00 to -0.50	*0.00*
-0.50 to 0.00	*0.00*
0.00 to 0.50	*0.00*
0.50 to 1.00	*0.00*
1.00 to 1.50	*0.00*
1.50 to 2.00	*0.35*
2.00 to 2.50	*2.52*
2.50 to 3.00	*3.86*
3.00 to 3.50	*3.59*
3.50 to 4.00	*2.85*
4.00 to 4.50	
4.50 to 5.00	*5.33*
5.00 to 5.50	
5.50 to 6.00	*5.39*
6.00 to 6.50	
6.50 to 7.00	*6.71*
7.00 to 7.50	
7.50 to 8.00	*8.44*
8.00 to 8.50	
8.50 to 9.00	
9.00 to 9.50	
9.50 to 10.00	
10.00 to 10.50	
10.50 to 11.00	
11.00 to 11.50	
11.50 to 12.00	
12.00 to 12.50	
12.50 to 13.00	
13.00 to 13.50	*15.66*

[!] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1705**
Sample Code:	**PS361705**
Equipment used (e.g. laser model and range):	Malvern 2000
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	53.7256
Median particle diameter (phi):	-
Mean particle diameter (phi):	-
Sorting Coefficient:	-
Inclusive Graphic Skewness (SKi):	-
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Mud
Sediment Description Post-analysis (Folk Triangle)#:	Sandy Mud

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	
-6.00 to -5.50	
-5.50 to -5.00	
-5.00 to -4.50	
-4.50 to -4.00	
-4.00 to -3.50	
-3.50 to -3.00	
-3.00 to -2.50	
-2.50 to -2.00	
-2.00 to -1.50	
-1.50 to -1.00	
-1.00 to -0.50	-
-0.50 to 0.00	*0.0000*
0.00 to 0.50	*0.0000*
0.50 to 1.00	*0.0211*
1.00 to 1.50	*1.3678*
1.50 to 2.00	*5.1711*
2.00 to 2.50	*8.7956*
2.50 to 3.00	*11.9900*
3.00 to 3.50	*10.0889*
3.50 to 4.00	*8.8300*
4.00 to 4.50	*6.6922*
4.50 to 5.00	*5.9200*
5.00 to 5.50	*5.9011*
5.50 to 6.00	*5.0967*
6.00 to 6.50	*4.8167*
6.50 to 7.00	*4.9711*
7.00 to 7.50	*4.9978*
7.50 to 8.00	*5.1256*
8.00 to 8.50	*10.2044*
8.50 to 9.00	-
9.00 to 9.50	
9.50 to 10.00	
10.00 to 10.50	
10.50 to 11.00	
11.00 to 11.50	
11.50 to 12.00	
12.00 to 12.50	
12.50 to 13.00	
13.00 to 13.50	

† Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1707#1**
Sample Code:	**PS3607#1**
Equipment used (e.g. laser model and range):	Endecotts Test Sieves, Malvern Mastersizer Micro Laser Diffractor (Model: MAF5000)
Method used:	Wet Sieve at 63um and Dry Sieve >63um fraction (Based on BS1377: 1990 Parts 1-2). Laser Diffraction (Mastersizer Micro) a subsample of the wet <63um fraction (based on BS13320: 2009).
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	49.91
Median particle diameter (phi):	4.00
Mean particle diameter (phi):	4.72
Sorting Coefficient:	2.17
Inclusive Graphic Skewness (SKi):	0.52
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy Mud
Sediment Description Post-analysis (Folk Triangle)#:	Muddy Sand

Phi interval (explicit)	Volumet (%) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	0.00
-6.00 to -5.50	0.00
-5.50 to -5.00	0.00
-5.00 to -4.50	0.00
-4.50 to -4.00	0.00
-4.00 to -3.50	0.00
-3.50 to -3.00	0.00
-3.00 to -2.50	0.00
-2.50 to -2.00	0.00
-2.00 to -1.50	0.00
-1.50 to -1.00	0.00
-1.00 to -0.50	0.00
-0.50 to 0.00	0.00
0.00 to 0.50	0.02
0.50 to 1.00	0.06
1.00 to 1.50	0.09
1.50 to 2.00	0.66
2.00 to 2.50	4.60
2.50 to 3.00	14.25
3.00 to 3.50	14.85
3.50 to 4.00	15.55
4.00 to 4.50	9.07
4.50 to 5.00	7.96
5.00 to 5.50	5.47
5.50 to 6.00	3.67
6.00 to 6.50	3.05
6.50 to 7.00	3.01
7.00 to 7.50	3.02
7.50 to 8.00	2.91
8.00 to 8.50	2.67
8.50 to 9.00	2.29
9.00 to 9.50	1.83
9.50 to 10.00	1.52
10.00 to 10.50	1.40
10.50 to 11.00	1.21
11.00 to 11.50	0.72
>11.50	0.09

[!] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1707#2**
Sample Code:	**PS3607#2**
Equipment used (e.g. laser model and range):	Endecotts Test Sieves, Malvern Mastersizer Micro Laser Diffractor (Model: MAF5000)
Method used:	Wet Sieve at 63um and Dry Sieve >63um fraction (Based on BS1377: 1990 Parts 1-2). Laser Diffraction (Mastersizer Micro) a subsample of the wet <63um fraction (based on BS13320: 2009).
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	53.21
Median particle diameter (phi):	4.24
Mean particle diameter (phi):	4.99
Sorting Coefficient:	2.35
Inclusive Graphic Skewness (SKi):	0.48
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy Mud
Sediment Description Post-analysis (Folk Triangle)#:	Sandy Mud

Phi interval (explicit)	Volumet (%) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	0.00
-6.00 to -5.50	0.00
-5.50 to -5.00	0.00
-5.00 to -4.50	0.00
-4.50 to -4.00	0.00
-4.00 to -3.50	0.00
-3.50 to -3.00	0.00
-3.00 to -2.50	0.00
-2.50 to -2.00	0.00
-2.00 to -1.50	0.00
-1.50 to -1.00	0.00
-1.00 to -0.50	0.00
-0.50 to 0.00	0.00
0.00 to 0.50	0.01
0.50 to 1.00	0.04
1.00 to 1.50	0.11
1.50 to 2.00	0.62
2.00 to 2.50	4.13
2.50 to 3.00	15.01
3.00 to 3.50	13.18
3.50 to 4.00	13.67
4.00 to 4.50	6.57
4.50 to 5.00	6.55
5.00 to 5.50	5.37
5.50 to 6.00	4.34
6.00 to 6.50	3.90
6.50 to 7.00	3.85
7.00 to 7.50	3.90
7.50 to 8.00	3.83
8.00 to 8.50	3.54
8.50 to 9.00	3.01
9.00 to 9.50	2.34
9.50 to 10.00	1.90
10.00 to 10.50	1.72
10.50 to 11.00	1.45
11.00 to 11.50	0.85
>11.50	0.10

[1] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1712**
Sample Code:	**PS361712**
Equipment used (e.g. laser model and range):	Malvern Mastersizer 2000 with HydroG dispersion unit
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	58.3
Median particle diameter (phi):	4.57
Mean particle diameter (phi):	4.75
Sorting Coefficient:	1.90
Inclusive Graphic Skewness (SKi):	0.10
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy Mud
Sediment Description Post-analysis (Folk Triangle)#:	Very Coarse Silt

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	
-6.00 to -5.50	
-5.50 to -5.00	
-5.00 to -4.50	
-4.50 to -4.00	
-4.00 to -3.50	
-3.50 to -3.00	
-3.00 to -2.50	
-2.50 to -2.00	
-2.00 to -1.50	
-1.50 to -1.00	
-1.00 to -0.50	
-0.50 to 0.00	0
0.00 to 0.50	0.024
0.50 to 1.00	1.324
1.00 to 1.50	4.443
1.50 to 2.00	8.021
2.00 to 2.50	9.985
2.50 to 3.00	9.633
3.00 to 3.50	8.12
3.50 to 4.00	6.834
4.00 to 4.50	6.142
4.50 to 5.00	5.771
5.00 to 5.50	5.584
5.50 to 6.00	5.668
6.00 to 6.50	5.955
6.50 to 7.00	6.129
7.00 to 7.50	5.812
7.50 to 8.00	4.964
8.00 to 8.50	3.523
8.50 to 9.00	1.824
9.00 to 9.50	0.244
9.50 to 10.00	0
10.00 to 10.50	0
10.50 to 11.00	0
11.00 to 11.50	
11.50 to 12.00	
12.00 to 12.50	
12.50 to 13.00	
13.00 to 13.50	

[1] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1712(re-submitted)**
Sample Code:	
Equipment used (e.g. laser model and range):	Malvern Mastersizer 2000 with HydroG dispersion unit
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	58.3
Median particle diameter (phi):	4.57
Mean particle diameter (phi):	4.75
Sorting Coefficient:	1.90
Inclusive Graphic Skewness (SKi):	0.10
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy Mud
Sediment Description Post-analysis (Folk Triangle)#:	Very Coarse Silt

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	
-6.00 to -5.50	
-5.50 to -5.00	
-5.00 to -4.50	
-4.50 to -4.00	
-4.00 to -3.50	
-3.50 to -3.00	
-3.00 to -2.50	
-2.50 to -2.00	
-2.00 to -1.50	
-1.50 to -1.00	
-1.00 to -0.50	
-0.50 to 0.00	0
0.00 to 0.50	0
0.50 to 1.00	0.024
1.00 to 1.50	1.324
1.50 to 2.00	4.443
2.00 to 2.50	8.021
2.50 to 3.00	9.985
3.00 to 3.50	9.633
3.50 to 4.00	8.12
4.00 to 4.50	6.834
4.50 to 5.00	6.142
5.00 to 5.50	5.771
5.50 to 6.00	5.584
6.00 to 6.50	5.668
6.50 to 7.00	5.955
7.00 to 7.50	6.129
7.50 to 8.00	5.812
8.00 to 8.50	4.964
8.50 to 9.00	3.523
9.00 to 9.50	1.824
9.50 to 10.00	0.244
10.00 to 10.50	0
10.50 to 11.00	0
11.00 to 11.50	0
11.50 to 12.00	
12.00 to 12.50	
12.50 to 13.00	
13.00 to 13.50	

[†] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

Appendix 1. Final data sheets supplied by participating labaoratories (arranged by LabCode).

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1713**
Sample Code:	**PS361713**
Equipment used (e.g. laser model and range):	Mastersizer 2000 and accessory unit (0.02um to 1000um
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	64.1
Median particle diameter (phi):	4.98
Mean particle diameter (phi):	5.19
Sorting Coefficient:	2.25
Inclusive Graphic Skewness (SKi):	0.13
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Mud (M)
Sediment Description Post-analysis (Folk Triangle)#:	Sandy Mud (sM)

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	"-"
-6.00 to -5.50	"-"
-5.50 to -5.00	"-"
-5.00 to -4.50	"-"
-4.50 to -4.00	"-"
-4.00 to -3.50	"-"
-3.50 to -3.00	"-"
-3.00 to -2.50	"-"
-2.50 to -2.00	"-"
-2.00 to -1.50	"-"
-1.50 to -1.00	"-"
-1.00 to -0.50	*0.0000*
-0.50 to 0.00	*0.0000*
0.00 to 0.50	*0.0000*
0.50 to 1.00	*0.0178*
1.00 to 1.50	*0.8467*
1.50 to 2.00	*3.3167*
2.00 to 2.50	*6.3533*
2.50 to 3.00	*8.3956*
3.00 to 3.50	*8.8033*
3.50 to 4.00	*8.2078*
4.00 to 4.50	*7.4800*
4.50 to 5.00	*6.8544*
5.00 to 5.50	*6.2633*
5.50 to 6.00	*5.8256*
6.00 to 6.50	*5.7711*
6.50 to 7.00	*6.1089*
7.00 to 7.50	*6.5144*
7.50 to 8.00	*6.4822*
8.00 to 8.50	*5.6511*
8.50 to 9.00	*4.0656*
9.00 to 9.50	*2.2067*
9.50 to 10.00	*0.7711*
10.00 to 10.50	*0.0644*
10.50 to 11.00	*0.0000*
11.00 to 11.50	*0.0000*
11.50 to 12.00	*0.0000*
12.00 to 12.50	*0.0000*
12.50 to 13.00	*0.0000*
13.00 to 13.50	*0.0000*

† Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

Appendix 1. Final data sheets supplied by participating labaoratories (arranged by LabCode).

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1714**
Sample Code:	**PS361714**
Equipment used (e.g. laser model and range):	Mastersizer Hydro 2000MU
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	62.57
Median particle diameter (phi):	5.00
Mean particle diameter (phi):	5.27
Sorting Coefficient:	2.51
Inclusive Graphic Skewness (SKi):	0.18
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy Mud
Sediment Description Post-analysis (Folk Triangle)#:	Sandy Mud

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	**0.0000**
-6.00 to -5.50	**0.0000**
-5.50 to -5.00	**0.0000**
-5.00 to -4.50	**0.0000**
-4.50 to -4.00	**0.0000**
-4.00 to -3.50	**0.0000**
-3.50 to -3.00	**0.0000**
-3.00 to -2.50	**0.0000**
-2.50 to -2.00	**0.0000**
-2.00 to -1.50	**0.0000**
-1.50 to -1.00	**0.0000**
-1.00 to -0.50	**0.0000**
-0.50 to 0.00	**0.0000**
0.00 to 0.50	*0.0000*
0.50 to 1.00	*0.2153*
1.00 to 1.50	*1.0386*
1.50 to 2.00	*3.9169*
2.00 to 2.50	*6.9996*
2.50 to 3.00	*8.8548*
3.00 to 3.50	*8.8061*
3.50 to 4.00	*7.6011*
4.00 to 4.50	*6.7840*
4.50 to 5.00	*5.7680*
5.00 to 5.50	*5.2960*
5.50 to 6.00	*5.0687*
6.00 to 6.50	*5.2296*
6.50 to 7.00	*5.5589*
7.00 to 7.50	*6.0102*
7.50 to 8.00	*5.8059*
8.00 to 8.50	*4.8891*
8.50 to 9.00	*3.8377*
9.00 to 9.50	*2.8409*
9.50 to 10.00	*1.9582*
10.00 to 10.50	*1.7378*
10.50 to 11.00	*1.2464*
11.00 to 11.50	*0.5366*
11.50 to 12.00	*" "*
12.00 to 12.50	*" "*
12.50 to 13.00	*" "*
13.00 to 13.50	*" "*

† Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

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NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1715**
Sample Code:	**PS361715**
Equipment used (e.g. laser model and range):	Coulter Laser Sizer
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	62.3
Median particle diameter (phi):	4.84
Mean particle diameter (phi):	5.11
Sorting Coefficient:	2.32
Inclusive Graphic Skewness (SKi):	0.19
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy Mud
Sediment Description Post-analysis (Folk Triangle)#:	Coarse Silt

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	**0.0000**
-6.00 to -5.50	**0.0000**
-5.50 to -5.00	**0.0000**
-5.00 to -4.50	**0.0000**
-4.50 to -4.00	**0.0000**
-4.00 to -3.50	**0.0000**
-3.50 to -3.00	**0.0000**
-3.00 to -2.50	**0.0000**
-2.50 to -2.00	**0.0000**
-2.00 to -1.50	**0.0000**
-1.50 to -1.00	**0.0000**
-1.00 to -0.50	**0.0000**
-0.50 to 0.00	**0.0000**
0.00 to 0.50	*0.0003*
0.50 to 1.00	*0.2950*
1.00 to 1.50	*1.0300*
1.50 to 2.00	*1.7900*
2.00 to 2.50	*7.2400*
2.50 to 3.00	*10.3500*
3.00 to 3.50	*6.6900*
3.50 to 4.00	*8.8700*
4.00 to 4.50	*8.3600*
4.50 to 5.00	*7.2900*
5.00 to 5.50	*4.6900*
5.50 to 6.00	*6.3500*
6.00 to 6.50	*6.5600*
6.50 to 7.00	*4.6300*
7.00 to 7.50	*6.0900*
7.50 to 8.00	*5.7600*
8.00 to 8.50	*4.9300*
8.50 to 9.00	*2.9400*
9.00 to 9.50	*2.8300*
9.50 to 10.00	*1.7700*
10.00 to 10.50	*0.8100*
10.50 to 11.00	*0.5900*
11.00 to 11.50	*0.1460*
11.50 to 12.00	-
12.00 to 12.50	-
12.50 to 13.00	-
13.00 to 13.50	-

[1] Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

[#] The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1716**
Sample Code:	**PS361716**
Equipment used (e.g. laser model and range):	Malvern Mastersizer2000
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	55.84
Median particle diameter (phi):	-
Mean particle diameter (phi):	-
Sorting Coefficient:	-
Inclusive Graphic Skewness (SKi):	-
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Silt
Sediment Description Post-analysis (Folk Triangle)#:	Silt

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	_
-6.00 to -5.50	_
-5.50 to -5.00	_
-5.00 to -4.50	_
-4.50 to -4.00	_
-4.00 to -3.50	_
-3.50 to -3.00	_
-3.00 to -2.50	_
-2.50 to -2.00	_
-2.00 to -1.50	_
-1.50 to -1.00	_
-1.00 to -0.50	**0.0000**
-0.50 to 0.00	**0.0000**
0.00 to 0.50	*0.0000*
0.50 to 1.00	*0.0100*
1.00 to 1.50	*1.3800*
1.50 to 2.00	*4.8600*
2.00 to 2.50	*8.8600*
2.50 to 3.00	*10.8800*
3.00 to 3.50	*10.1200*
3.50 to 4.00	*8.0300*
4.00 to 4.50	*6.2700*
4.50 to 5.00	*5.3200*
5.00 to 5.50	*4.8200*
5.50 to 6.00	*4.5000*
6.00 to 6.50	*4.4300*
6.50 to 7.00	*4.6400*
7.00 to 7.50	*4.8500*
7.50 to 8.00	*4.7800*
8.00 to 8.50	*4.3500*
8.50 to 9.00	*3.5600*
9.00 to 9.50	*2.6300*
9.50 to 10.00	*1.9700*
10.00 to 10.50	*1.7100*
10.50 to 11.00	*1.3800*
11.00 to 11.50	*0.6300*
11.50 to 12.00	*0.0000*
12.00 to 12.50	*0.0000*
12.50 to 13.00	*0.0000*
13.00 to 13.50	*0.0000*

† Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

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NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1726**
Sample Code:	**PS361726**
Equipment used (e.g. laser model and range):	Mastersizer 2000 with Hydro2000G
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	48.18
Median particle diameter (phi):	-
Mean particle diameter (phi):	-
Sorting Coefficient:	-
Inclusive Graphic Skewness (SKi):	-
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Fine Sandy Mud
Sediment Description Post-analysis (Folk Triangle)#:	Sandy Mud

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	
-6.00 to -5.50	
-5.50 to -5.00	
-5.00 to -4.50	
-4.50 to -4.00	
-4.00 to -3.50	
-3.50 to -3.00	
-3.00 to -2.50	
-2.50 to -2.00	
-2.00 to -1.50	
-1.50 to -1.00	
-1.00 to -0.50	
-0.50 to 0.00	
0.00 to 0.50	*0.00*
0.50 to 1.00	*0.21*
1.00 to 1.50	*4.05*
1.50 to 2.00	*10.62*
2.00 to 2.50	*12.50*
2.50 to 3.00	*10.44*
3.00 to 3.50	*7.76*
3.50 to 4.00	*6.24*
4.00 to 4.50	*5.53*
4.50 to 5.00	*4.93*
5.00 to 5.50	*4.46*
5.50 to 6.00	*4.34*
6.00 to 6.50	*4.55*
6.50 to 7.00	*4.80*
7.00 to 7.50	*4.79*
7.50 to 8.00	*4.45*
8.00 to 8.50	*3.31*
8.50 to 9.00	*2.45*
9.00 to 9.50	*1.80*
9.50 to 10.00	*1.46*
10.00 to 10.50	*1.03*
10.50 to 11.00	*0.29*
11.00 to 11.50	*0.00*
11.50 to 12.00	*0.00*
12.00 to 12.50	*0.00*
12.50 to 13.00	*0.00*
13.00 to 13.50	*0.00*

† Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

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NMBAQCS - PS Exercise Record Sheet

Return to Unicomarine Ltd. by 29-10-10

Exercise Code:	**PS36**
LabCode:	**LB1728**
Sample Code:	**PS361728**
Equipment used (e.g. laser model and range):	Malvern Mastersizer 2000 and hydro MU
Method used:	NMBAQC PSA SOP for supporting biological data*
Peroxide pre-treatment used:	NO*
Chemical dispersant used:	NO*
% <63µm	61.1
Median particle diameter (phi):	-
Mean particle diameter (phi):	-
Sorting Coefficient:	-
Inclusive Graphic Skewness (SKi):	-
Visual Sediment Description Pre-analysis (e.g. sandy mud):	Sandy MUD
Sediment Description Post-analysis (Folk Triangle)#:	Sandy MUD

Phi interval (explicit)	Volume/ Weight (%/g) (Mark as"-" for not analysed; "0" for no material)
-6.50 to -6.00	
-6.00 to -5.50	
-5.50 to -5.00	
-5.00 to -4.50	
-4.50 to -4.00	
-4.00 to -3.50	
-3.50 to -3.00	
-3.00 to -2.50	
-2.50 to -2.00	
-2.00 to -1.50	
-1.50 to -1.00	
-1.00 to -0.50	
-0.50 to 0.00	*2.54*
0.00 to 0.50	*1.35*
0.50 to 1.00	*0.45*
1.00 to 1.50	*0.57*
1.50 to 2.00	*3.13*
2.00 to 2.50	*6.39*
2.50 to 3.00	*9.32*
3.00 to 3.50	*7.98*
3.50 to 4.00	*7.18*
4.00 to 4.50	*6.34*
4.50 to 5.00	*5.71*
5.00 to 5.50	*5.84*
5.50 to 6.00	*5.09*
6.00 to 6.50	*4.82*
6.50 to 7.00	*4.77*
7.00 to 7.50	*5.10*
7.50 to 8.00	*5.12*
8.00 to 8.50	
8.50 to 9.00	*8.65*
9.00 to 9.50	
9.50 to 10.00	*5.49*
10.00 to 10.50	
10.50 to 11.00	*4.17*
11.00 to 11.50	
11.50 to 12.00	
12.00 to 12.50	
12.50 to 13.00	
13.00 to 13.50	

† Blott, S.J. and Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26, 1237-1248.

The Folk Sediment Description Triangle can be found on the British Geological Surveys web site or Folk, R. L. (1974) The Petrology of Sedimentary Rocks. Hemphill Publishing Co.

Appendix 2. z-score calculations.

	-6.50 to -6.00	-6.00 to -5.50	-5.50 to -5.00	-5.00 to -4.50	-4.50 to -4.00	-4.00 to -3.50	-3.50 to -3.00	-3.00 to -2.50	-2.50 to -2.00	-2.00 to -1.50	-1.50 to -1.00	-1.00 to -0.50	z-score	-0.50 to 0.00	z-score	0.00 to 0.50	z-score
LB1701	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0077	3.47	0.0077	3.41	0.0000	-0.45
LB1702	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1703	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1705	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1707#1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0219	1.27
LB1707#2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0015	0.42	0.0138	0.64
LB1712	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1713	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1714	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1715	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1716	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0003	-0.42
LB1726	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
LB1728	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0000	-0.45
BENCHMARK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	-0.27	0.0000	-0.32	0.0435	2.97
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.01	
STDEV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.01	

	0.50 to 1.00	z-score	1.00 to 1.50	z-score	1.50 to 2.00	z-score	2.00 to 2.50	z-score	2.50 to 3.00	z-score	3.00 to 3.50	z-score	3.50 to 4.00	z-score	4.00 to 4.50	z-score
LB1701	0.0707	-0.03	1.7705	0.65	5.3361	0.58	8.2842	0.40	10.7236	0.10	8.8161	-0.33	7.9281	-0.31	6.8684	-0.33
LB1702	0.0000	-0.78	0.2600	-0.83	4.2166	0.15	8.1387	0.33	9.7964	-0.33	9.1120	-0.20	7.6298	-0.42	6.5165	-0.64
LB1703	0.0000	-0.78	0.0000	-1.09	0.6399	-1.23	4.6069	-1.28	7.0567	-1.59	6.5631	-1.33	5.2102	-1.32	9.7441	2.21
LB1705	0.0211	-0.56	1.3679	0.26	5.1716	0.51	8.7965	0.63	11.9912	0.68	10.0899	0.24	8.8309	0.02	6.6929	-0.48
LB1707#1	0.0570	-0.18	0.0950	-0.99	0.6633	-1.22	4.6039	-1.28	14.2453	1.72	14.8463	2.35	15.5532	2.52	9.0664	1.62
LB1707#2	0.0384	-0.37	0.1120	-0.98	0.6184	-1.24	4.1326	-1.49	15.0142	2.07	13.1848	1.61	13.6694	1.82	6.5703	-0.59
LB1712	0.0240	-0.53	1.3240	0.21	4.4430	0.23	8.0210	0.28	9.9850	-0.24	9.6330	0.03	8.1200	-0.24	6.8340	-0.36
LB1713	0.0178	-0.59	0.8467	-0.25	3.3167	-0.20	6.3533	-0.48	8.3956	-0.98	8.8033	-0.34	8.2078	-0.21	7.4800	0.21
LB1714	0.0178	-0.59	0.8467	-0.25	3.3167	-0.20	6.3533	-0.48	8.3956	-0.98	8.8033	-0.34	8.2078	-0.21	7.4800	0.21
LB1715	0.2153	1.49	1.0386	-0.07	3.9169	0.03	6.9995	-0.19	8.8548	-0.76	8.8061	-0.33	7.6011	-0.44	6.7840	-0.40
LB1716	0.2950	2.33	1.0299	-0.07	1.7898	-0.79	7.2392	-0.08	10.3488	-0.08	6.6892	-1.28	8.8690	0.04	8.3591	0.99
LB1726	0.0100	-0.67	1.3803	0.27	4.8610	0.40	8.8618	0.66	10.8822	0.17	10.1220	0.25	8.0316	-0.28	6.2713	-0.85
LB1728	0.2129	1.47	4.0542	2.90	10.6161	2.61	12.4963	2.32	10.4388	-0.04	7.7575	-0.80	6.2430	-0.94	5.5252	-1.51
BENCHMARK	0.0538	-0.21	1.3548	0.24	4.7681	0.36	8.8723	0.67	11.0905	0.26	10.5717	0.45	8.7205	-0.02	7.1452	-0.08
MEAN	0.07		1.11		3.83		7.41		10.52		9.56		8.77		7.24	
STDEV	0.09		1.02		2.60		2.19		2.17		2.25		2.69		1.13	

z-score = 0

Appendix 2. z-score calculations.

	4.50 to 5.00	z-score	5.00 to 5.50	z-score	5.50 to 6.00	z-score	6.00 to 6.50	z-score	6.50 to 7.00	z-score	7.00 to 7.50	z-score	7.50 to 8.00	z-score	8.00 to 8.50	z-score
LB1701	6.2702	0.23	5.8719	0.07	5.3790	0.43	5.2083	-0.14	5.3300	0.41	5.6932	-0.13	5.4969	0.40	4.8316	-0.27
LB1702	5.8076	-0.02	5.2832	-0.39	4.9877	0.17	5.0677	-0.21	5.3788	0.44	5.5943	-0.16	5.3932	0.34	4.7988	-0.28
LB1703	0.0000	-3.15	9.8537	3.15	0.0000	-3.08	12.2669	3.17	0.0000	-2.93	15.4296	3.26	0.0000	-2.84	28.6289	3.35
LB1705	5.9206	0.04	5.9017	0.09	5.0972	0.24	4.8172	-0.33	4.9716	0.19	4.9983	-0.37	5.1261	0.18	10.2054	0.54
LB1707#1	7.9622	1.14	5.4717	-0.24	3.6744	-0.68	3.0487	-1.16	3.0058	-1.04	3.0242	-1.05	2.9138	-1.12	2.6745	-0.60
LB1707#2	6.5522	0.38	5.3686	-0.32	4.3359	-0.25	3.9011	-0.76	3.8468	-0.52	3.8951	-0.75	3.8347	-0.58	3.5448	-0.47
LB1712	6.1420	0.16	5.7710	-0.01	5.5840	0.56	5.6680	0.07	5.9550	0.81	6.1290	0.03	5.8120	0.59	4.9640	-0.25
LB1713	6.8544	0.54	6.2633	0.37	5.8256	0.72	5.7711	0.12	6.1089	0.90	6.5144	0.16	6.4822	0.98	5.6511	-0.15
LB1714	6.8544	0.54	6.2633	0.37	5.8256	0.72	5.7711	0.12	6.1089	0.90	6.5144	0.16	6.4822	0.98	5.6511	-0.15
LB1715	5.7680	-0.04	5.2960	-0.38	5.0687	0.23	5.2295	-0.13	5.5589	0.56	6.0102	-0.02	5.8059	0.58	4.8891	-0.27
LB1716	7.2892	0.77	4.6895	-0.84	6.3493	1.06	6.5593	0.49	4.6295	-0.03	6.0893	0.01	5.7594	0.56	4.9294	-0.26
LB1726	5.3211	-0.29	4.8210	-0.74	4.5009	-0.15	4.4309	-0.51	4.6409	-0.02	4.8510	-0.42	4.7810	-0.02	4.3509	-0.35
LB1728	4.9308	-0.50	4.4561	-1.03	4.3437	-0.25	4.5466	-0.46	4.7971	0.08	4.7910	-0.44	4.4504	-0.22	3.3110	-0.51
BENCHMARK	6.2328	0.21	5.6252	-0.12	5.1516	0.28	4.9426	-0.27	5.0480	0.24	5.2301	-0.29	5.0975	0.17	4.3854	-0.34
MEAN	5.85		5.78		4.72		5.52		4.67		6.05		4.82		6.63	
STDEV	1.86		1.29		1.53		2.13		1.59		2.87		1.69		6.57	

	8.50 to 9.00	z-score	9.00 to 9.50	z-score	9.50 to 10.00	z-score	10.00 to 10.50	z-score	10.50 to 11.00	z-score	11.00 to 11.50	z-score	11.50 to 12.00	z-score	12.00 to 12.50	12.50 to 13.00	13.00 to 13.50
LB1701	3.4503	0.44	1.9387	0.02	0.6684	-0.60	0.0485	-0.89	0.0000	-0.85	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
LB1702	3.7844	0.69	2.7311	0.89	2.0333	1.20	1.7366	1.28	1.2577	1.16	0.4755	0.73	0.0000	-0.39	0.00	0.00	0.00
LB1703	0.0000	-2.16	0.0000	-2.13	0.0000	-1.48	0.0000	-0.95	0.0000	-0.85	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
LB1705	0.0000	-2.16	0.0000	-2.13	0.0000	-1.48	0.0000	-0.95	0.0000	-0.85	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
LB1707#1	2.2942	-0.43	1.8341	-0.10	1.5152	0.52	1.4047	0.85	1.2146	1.09	0.7177	1.48	0.0920	2.21	0.00	0.00	0.00
LB1707#2	3.0134	0.11	2.3431	0.46	1.8962	1.02	1.7150	1.25	1.4493	1.47	0.8454	1.87	0.1027	2.51	0.00	0.00	0.00
LB1712	3.5230	0.49	1.8240	-0.11	0.2440	-1.16	0.0000	-0.95	0.0000	-0.85	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
LB1713	4.0656	0.90	2.2067	0.31	0.7711	-0.47	0.0644	-0.87	0.0000	-0.85	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
LB1714	4.0656	0.90	2.2067	0.31	0.7711	-0.47	0.0644	-0.87	0.0000	-0.85	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
LB1715	3.8377	0.73	2.8409	1.01	1.9582	1.10	1.7378	1.28	1.2464	1.14	0.5366	0.92	0.0000	-0.39	0.00	0.00	0.00
LB1716	2.9397	0.05	2.8297	1.00	1.7698	0.85	0.8099	0.09	0.5899	0.09	0.1460	-0.29	0.0000	-0.39	0.00	0.00	0.00
LB1726	3.5607	0.52	2.6305	0.78	1.9704	1.12	1.7103	1.24	1.3803	1.36	0.6301	1.21	0.0000	-0.39	0.00	0.00	0.00
LB1728	2.4466	-0.32	1.7980	-0.14	1.4644	0.45	1.0279	0.37	0.2921	-0.38	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
BENCHMARK	3.1563	0.22	1.7634	-0.18	0.6769	-0.59	0.0686	-0.86	0.0000	-0.85	0.0000	-0.74	0.0000	-0.39	0.00	0.00	0.00
MEAN	2.87		1.92		1.12		0.74		0.53		0.24		0.01		0.00	0.00	0.00
STDEV	1.33		0.90		0.76		0.78		0.63		0.32		0.04		0.00	0.00	0.00

z-score = 0