



GLHK1002

**HEAVY METALS
IN CRUSTACEAN SEAFOOD
PROFICIENCY TESTING
PROGRAM**

FINAL REPORT

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The program was organized by
The Government Laboratory of Hong Kong (GLHK)
& in collaboration with
Guangdong Inspection and Quarantine Technology
Center (IQTC), China

Report Summary

1. The objective of the proficiency testing program (GLHK1002) is to evaluate the measurement capability of participating laboratories in the quantitative analysis of total arsenic, cadmium and lead in crustacean seafood sample.
2. A total of 68 laboratories from 19 economies enrolled in the program and 63 of them returned their results to the organizers.
3. Consensus value and performance standard deviation were respectively determined by robust statistics and Horwitz equation. z-Score is used as a numerical indicator to assess the performance of participants.

4. Statistics of participants' results:

	Total Arsenic	Cadmium	Lead
No. of data submitted	56	62	62
No. of data used for calculation	56	61	62
Consensus value \pm MU (mg/kg)	57.9 \pm 1.8	0.179 \pm 0.006	1.26 \pm 0.07
Median (mg/kg)	59.4	0.179	1.27
Performance SD (mg/kg)	4.98	0.0369	0.193
Between-laboratory variation	10.3%	10.1%	16.9%

5. Statistics of participants' z-scores:

Performance	Number of Participants (Percentage)		
	Total Arsenic	Cadmium	Lead
$ z \leq 2$	47 (83.9 %)	54 (88.5%)	55 (88.7 %)
$2 < z < 3$	2 (3.6 %)	1 (1.6%)	3 (4.8 %)
$ z \geq 3$	7 (12.5 %)	6 (9.8%)	4 (6.5 %)
Total:	56 (100 %)	61 (100%)	62 (100 %)