AS 2862.3—1999
ISO 13292:1997

Australian Standard™

# Copper, lead and zinc sulfide concentrates—Sampling

## Part 3: Experimental methods for checking the bias of sampling

[ISO title: Copper, lead and zinc sulfide concentrates—Experimental methods for checking the bias of sampling]

This Australian Standard was prepared by Committee MN/5, Copper, Lead, Zinc, Gold and Silver Ores and Concentrates. It was approved on behalf of the Council of Standards Australia on 15 July 1999 and published on 5 August 1999.

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The following interests are represented on Committee MN/5:

Australasian Institute of Mining and Metallurgy

Australian Lead Development Association

CSIRO, Division of Minerals

Minerals Council of Australia

The Royal Australian Chemical Institute

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# Copper, lead and zinc sulfide concentrates—Sampling

## Part 3: Experimental methods for checking the bias of sampling

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# PREFACE

This Standard was prepared by the Standards Australia Committee MN/5, Copper, Lead, Zinc, Gold and Silver Ores and Concentrates as part of a programme of standardizing methods for the determination of elements of commercial interest in such materials.

This Standard supersedes AS 2862.3—1986, *Copper, lead and zinc sulphide concentrates—Sampling*, Part 3: *Preparation of samples*.

The objective of this Standard is to provide those involved in the sampling of sulfide concentrates with a standardized method of checking the bias of sampling.

This Standard is identical with and has been reproduced from ISO 13292:1997, *Copper, lead and zinc sulfide concentrates—Experimental methods for checking the bias of sampling* which has been prepared by ISO/TC 183 copper, Lead and Zinc Ores and Concentrates. Australia holds the Chairmanship and Secretariat of ISO/TC 183 and has made a significant contribution to the preparation of ISO 13292.

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| ISO | | AS | |
| 12743 | Copper, lead and zinc sulfide concentrates—Sampling procedures for determination of metal and moisture content | 2862<br>2862.1 | Copper, lead and zinc sulfide concentrates—Sampling<br>Part 1: Sampling procedures for determination of metal and moisture content |

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NOTES

AUSTRALIAN STANDARD

# Copper, lead and zinc sulfide concentrates—Sampling

## Part 3:
## Experimental methods for checking the bias of sampling

## 1 Scope

This International Standard specifies methods for checking whether there is any bias in the sampling of copper, lead and zinc sulfide concentrates, where the sampling is carried out in accordance with the methods specified in ISO 12743. These methods can also be used for checking whether there is any bias in sample processing and for checking possible significant differences in the analyses of exchange samples and lot samples taken at different places, e.g. at loading and discharge points. Numerical examples are given in annex A.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 12743:—[1)] *Copper, lead and zinc sulfide concentrates—Sampling procedures for determination of metal and moisture content.*

## 3 General requirements and recommendations

The procedures specified in this International Standard are applicable to paired data only. The results obtained from the method to be checked for bias (referred to as Method B) are compared with the results for a reference method (referred to as Method A), which is considered to produce unbiased results from technical and empirical viewpoints. If there is no significant difference between the results obtained using Method B and Method A, then Method B may be adopted as a routine method.

While the procedures specified in clause 5 are principally designed for checking bias against a reference method, separate measurements of quality characteristics, e.g. at loading (Method A) and discharge (Method B), or analyses of exchange samples may also be compared to check whether there is a statistically significant difference between the results.

Mechanical sampling systems or manual sampling methods are tested for bias by comparing the test results for final system or manually collected samples (Method B) with test results for reference

1) To be published.