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# Copper, lead, zinc and nickel concentrates — Sampling of slurries



AS ISO 11794:2022

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Australian X-ray Analytical Association  
Chamber of Minerals and Energy of Western Australia  
CSIRO  
International Copper Association Australia  
Minerals Council of Australia

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# Copper, lead, zinc and nickel concentrates — Sampling of slurries

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## Preface

This Standard was prepared by the Standards Australia Committee MN-005, Lead, Zinc and Nickel Ores and Concentrates, to supersede AS ISO 11794:2015.

The objective of this document is to set out the basic methods for sampling particulate material that is mixed with a liquid, usually water, to form a slurry.

The procedures described in this document apply to sampling of particulate materials that are transported in moving streams as slurries, but not pressurized slurries. These streams may fall freely or be confined in pipes, launders, flumes, sluices, spirals or similar channels. Sampling of slurries in stationary situations, such as a settled or even a well-stirred slurry in a holding vessel or dam, is not recommended and is not covered in this document.

This document describes procedures that are designed to provide samples representative of the slurry solids and particle-size distribution of the slurry under examination. After draining the slurry sample of fluid and measuring the fluid volume, damp samples of the contained particulate material in the slurry are available for drying (if required) and measurement of one or more characteristics in an unbiased manner and with a known degree of precision. The characteristics are measured by chemical analysis, physical testing or both.

The sampling methods described are applicable to slurries that require inspection to verify compliance with product specifications, determination of the value of a characteristic as a basis for settlement between trading partners or estimation of a set of average characteristics and variances that describes a system or procedure.

Provided that flow rates are not too high, the reference method against which other sampling procedures are compared is one where the entire stream is diverted into a vessel for a specified time or volume interval. This method corresponds to the stopped-belt method described in AS 2862.1:2021.

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