Australian Standard™

Heavy mineral sand concentrates—Sampling

Part 2: Sampling from stationary situations

Standards Australia

This Australian Standard was prepared by Committee MN-004, Heavy Mineral Sands. It was approved on behalf of the Council of Standards Australia on 1 October 2003 and published on 1 December 2003.

The following are represented on Committee MN-004:

Australian Institute of Mining and Metallurgy

Chamber of Minerals and Energy of Western Australia

Additional interests participating in the preparation of this Standard:

Producers of heavy mineral sand concentrates

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PREFACE

This Standard was prepared by the Standards Australia Committee MN-004, Heavy Mineral Sands to supersede AS 2884.2—1993, *Heavy mineral sand concentrates—Sampling*, Part 2: *Sampling from stationary situations*.

The objective of this Standard is to provide sampler and superintending companies with a method for safely obtaining samples of heavy mineral sands for analytical purposes when the preferred method of sampling from a moving stream is not possible.

This revision confirms the method of sampling from stationary situations. Editorial changes have been made to bring the Standard into line with current style.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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1 SCOPE

This Standard sets out methods for the sampling of heavy mineral sands from stationary situations to provide samples for chemical analysis, physical testing and determination of moisture. Stopped-belt sampling is specifically included.

The methods of sampling outlined in this Standard should be considered only where the preferred method of sampling from a moving stream is not possible.

The preparation of samples taken by methods outlined in this Standard is covered in AS 2884.3.

Clauses 4 to 8 provide general sampling theory that may not be relevant to sampling from stationary situations.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1152	Specification for test sieves	
2884	Heavy mineral sand concentrates—Sampling	
2884.3	Part 3:	Preparation of samples
2884.4	Part 4:	Determination of precision and bias

3 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

3.1 Bias

The tendency to obtain a value that is either persistently higher or persistently lower than the reference value. In practice, it is the difference between the reference value and the average result obtained from a large number of determinations using a biased method.

3.2 Coefficient of variation

The ratio of the standard deviation to the mean value, expressed as a percentage.

3.3 Constant-mass division

The method of sample division in which the retained portion is of uniform mass.

3.4 Divided increment

The quantity of concentrate obtained by division of the increment to decrease its mass.

3.5 Division

The process of decreasing the sample mass (without modification of the particle size of the constituent pieces) whereby one or more representative parts of the sample are retained.

