

Australian Standard[®]

Forensic analysis

Part 3: Interpretation



This Australian Standard® was prepared by Committee CH-041, Forensic Analysis. It was approved on behalf of the Council of Standards Australia on 25 March 2013. This Standard was published on 2 May 2013.

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- Australasian Association of Forensic Physicians
- Australia New Zealand Policing Advisory Agency
- Australian and New Zealand Forensic Science Society
- Australian Federal Police
- Consumer Action
- Expertise, Evidence and Law Program, School of Law, University of New South Wales
- National Association of Testing Authorities
- New South Wales Bar Association
- New South Wales Police Force
- Queensland Police Service
- Standing Council on Law and Justice Secretariat
- University of Canberra
- Victoria Police Forensic Services Department
- Victorian Institute Forensic Medicine
- Western Australia Chemistry Centre
- Western Australia Police

Additional Interests:

- Australian Federal Police Forensic and Data Centres
- Commonwealth Attorney General's Department
- Forensic Science South Australia
- New South Wales Police Force Forensic Services Group
- Northern Territory Police Fire and Emergency Services, Forensic Science Branch
- Queensland Police Service Forensic Services Branch
- Senior Managers of Australia and New Zealand Forensic Laboratories' Specialist

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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PREFACE

This Standard was prepared by the Standards Australia Committee CH-041, Forensic Analysis. This Standard is the result of a consensus among the representatives of the Committee to produce it as an Australian Standard.

This Standard is part of a series which, when complete, will include the following:

AS

- 5388 Forensic analysis
- 5388.1 Part 1: Recognition, recording, recovery, transport and storage of material
- 5388.2 Part 2: Analysis and examination of material
- 5388.3 Part 3: Interpretation (this Standard)
- 5388.4 Part 4: Reporting

The objective of this Standard is to provide guidelines and requirements for interpreting observations and analytical output to obtain information and knowledge and formulate an opinion.

The provisions of this document are aimed at qualified personnel with demonstrated competence in the evaluation of data from appropriate scientific instrumentation and techniques, and the interpretation of the derived information, in an appropriate forensic context.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

The Committee wishes to acknowledge the support provided by the Commonwealth Attorney General’s Department in the development of the Forensic Analysis series (AS 5388) as an Australian Government initiative.

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STANDARDS AUSTRALIA

Australian Standard
Forensic analysis**Part 3: Interpretation****1 SCOPE**

This Standard sets out guidelines and requirements for interpreting observations and analytical data to obtain information and knowledge and formulate an opinion.

This document covers the following process:

- (a) Derivation of information from observations and analytical output.
- (b) Interpretation of information to derive knowledge and formulate an opinion.

2 REFERENCED AND RELATED DOCUMENTS**2.1 Referenced documents**

The following documents are referred to in this Standard:

AS

- 5388 Forensic analysis
5388.1 Part 1: Recognition, recording, recovery, transport and storage of material
5388.2 Part 2: Analysis and examination of material
5388.4 Part 4: Reporting

ISO/IEC

- 17025 General requirements for the competence of testing and calibration laboratories

Technical Note

- 33 Guidelines for estimating measurement uncertainty of chemical test results, NATA.

2.2 Related documents

Further information may be found in the following documents:

Aitken, C Roberts, P and Jackson, G 2010, *Communicating and Interpreting Statistical Evidence in the Administration of Justice, Practitioner Guide No.1: Fundamentals of Probability and Statistical Evidence in Criminal Proceedings*, Royal Statistical Society, UK.

Freckelton, I and Selby, H (eds) 1993, *Expert Evidence*, Law Book Company Limited, North Ryde, Australia.

Kaye, D and Freedman, D 2011, *Reference Manual on Scientific Evidence, 3rd Edition pp. 211–302: Reference Guide on DNA Evidence*, The National Academies Press, Washington DC.

Kaye, D and Sensabaugh, G 2011, *Reference Manual on Scientific Evidence, 3rd Edition pp. 129–210: Reference Guide on Statistics*, The National Academies Press, Washington DC.

National Association of Testing Authorities, Australia 2013, *Forensic Science ISO/IEC 17025 Application Document*.

National Association of Testing Authorities, Australia 2013, *ISO/IEC 17025 Standard Application Document for Accreditation of Testing and Calibration Laboratories*.