

Scientific Working Group on Bloodstain Pattern Analysis: Guidelines for Report Writing in Bloodstain Pattern Analysis

Scientific Working Group on Bloodstain Pattern Analysis (SWGSTAIN)

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Objective

This document provides guidelines for report writing in bloodstain pattern analysis (BPA). In addition, guidance is provided regarding statements to be avoided in the report.

Introduction

The Scientific Working Group on Bloodstain Pattern Analysis (SWGSTAIN) comprises recognized bloodstain pattern analysis experts from North America, Europe, New Zealand, and Australia. The objective of SWGSTAIN is to serve as a professional forum in which BPA practitioners and practitioners from related fields discuss and evaluate methods, techniques, protocols, quality assurance, education, and research relating to BPA. SWGSTAIN's ultimate goal is to use these professional exchanges to address substantive and operational issues within the field of BPA and to work to build consensus-based "best practice" guidelines for the enhancement of the discipline of BPA.

Statement of Purpose

The purpose of this document is to provide a guide for the report content and issuance of BPA reports.

Definitions

As used by SWGSTAIN, the following terms are meant to convey the meanings specified:

Must – Done without exception

Should – Expected to be done

Recommended – Appropriate, but not mandatory

1. Preamble

This document summarizes the elements to be contained within a written BPA report. The term “report” throughout this document may also refer to statements, declarations, or other evidentiary documents prepared as a result of the BPA examination.

General considerations when generating BPA reports include:

- The report must be clearly written without misleading language or jargon.
- The report format must be designed to minimize confusion by the reader.
- Reports authored by multiple parties must clearly define the role of each contributor.
- Headings should be standardized within the agency.
- When the conclusions rely in part on the results of examinations reported by third parties (e.g., DNA, pathology, and fingerprint) a reference to these results must be included in the BPA report. Quotations from associated documents (e.g., witness statements) must be clearly defined and referenced.
- The page number must appear on each page of the report and the total number of pages must be defined.
- There must be a clear identification of the report end.
- Abbreviations and acronyms not commonly recognized must be fully defined upon first use (e.g., Bloodstain Pattern Analysis [BPA]).
- It is recommended the report includes a statement specifying that the report shall not be reproduced, except in full, without written approval of the reporting agency.
- Any amendments to the original report must be clearly identified and issued as a supplemental report.

2. Report Elements

2.1 Title - This section of the report must identify the subject matter of the document.

For example:

- *“Bloodstain Pattern Analysis Report”*
- *“Report of Findings”*
- *“Witness Statement”*
- *“Supplemental Report”*

2.2 Case Identifier - The report must have a unique case identifier which is clearly displayed on each page of the report. It is recommended the requesting agency's case identifier be displayed on the first page.

2.3 Name and Address of Reporting Agency – The name and address of the reporting agency must be included.

2.4 Date of Report – The date of the report must be included.

2.5 Case Information - This section of the report should outline the background information supplied or question(s) posed to the analyst during the course of the investigation and analysis. This may include, but is not limited to:

- Information supplied by investigating officers
- Medical/DNA reports
- Environmental conditions
- Conditions surrounding the author's involvement in the case
- Summary of case background
- Name and address of the submitting agency or requesting officer

2.6 Description of Items - The report must include a description of the items of evidence or materials received which are relevant to the bloodstain pattern analysis.

At minimum, this should include:

- Physical description (e.g., size, color, etc.)
- Unambiguous identification (e.g., item number, serial number, etc.)
- Recovery location, if known

2.6.1 The extent to which the items are further described within the report may be case dependent (e.g., damp condition, moldy, soiled, fabric damage, fabric type, etc.)

2.6.2 It is recommended the date and manner of receipt of items be included.

2.7 Location of the Tests or Examinations - The report must identify the locations where examinations took place.

For example:

- *“The scene was located at (address)...”*
- *“I examined the following items at (agency location)...”*

2.8 Methods - This section of the report should define the techniques utilized in the examination. The extent to which the method is described (or referenced) in the report is agency and jurisdiction dependent.

For example:

- *“Phenolphthalein, a presumptive test for blood, was employed...”*
- *“An area of origin was determined utilizing a forensic software technique...”*

2.9 Limitations and Assumptions - Statements of evidence limitations and assumptions (e.g., photographic review, evidence condition, lack of DNA profiling testing, etc.) should be included in the report.

For example:

- *“Limitations may exist when basing any conclusions on photographic evidence alone. From a technical perspective, the photographic record of the scene and exhibits specific for conducting a bloodstain pattern analysis is partly inadequate and as such, has restricted a more comprehensive interpretation.”*
- *“The contamination caused by multiple items packaged together limited the bloodstain pattern examination.”*
- *“Numerous sampled bloodstains failed to yield DNA profiles and as such, have restricted a more comprehensive examination.”*

2.10 Observations and Examinations - This section of the report must include the observations and examinations recorded in the course of the BPA which provide the basis upon which subsequent conclusions will be made.

2.10.1 Each general location where observations are recorded should be separately addressed in this section. The subsections defined here will be case dependent.

For example:

- Crime scene divided into logical subsections (e.g., room by room, areas within a room, etc.)
- Victim/Deceased
- Physical evidence (e.g., victim's clothing, suspect's clothing, etc.)

2.10.2 Descriptors of the reported stains and stain patterns should be included. The extent and manner the stains or patterns are described is agency dependent.

For example:

- *“Numerous bloodstains less than “x” millimeters in size were present...”*
- *“Elliptical shaped bloodstains were present...”*
- *“Directionality was present that indicated direction of travel upwards...”*
- *“A linear distribution of bloodstains was present...”*

2.10.3 Compass points - When describing scene observations, it is recommended that compass points be incorporated into the description for accuracy in referencing the location.

2.10.4 Measurements - Measurements should be included in this section of the report and may be reported using the system commonly employed in that jurisdiction; however, it is recommended measurements are reported using the metric system. Due to their size, individual spatter stains should be reported using the metric system. Measurement examples include but are not limited to:

- Area(s) of origin
- Room size
- Locations of bloodstains
- Dimensions of a bloodstain pattern

2.10.5 Terminology - Bloodstain pattern analysis terminology must be defined and referenced. This may be accomplished by the use of footnotes, an appendix or glossary, or defining within the body of the report.

2.10.6 Photographs – Photographs should be utilized to assist in the reporting of stain observations. If used, these must be identified and referenced. Photographs may be annotated.

2.10.7 Sketches - It is recommended sketches, scene diagrams and plans are included.

2.10.8 Chemical applications - The results of any chemical application (e.g., chemical enhancements, presumptive blood testing, etc.) must be reported.

For example:

- *“Leuco Crystal Violet (LCV) was applied to (location or item) and this revealed...”*
- *“Presumptive testing for blood was positive on the stains located on...”*

2.10.9 Negative Findings - It may be appropriate to combine negative findings for ease of reporting. When reporting a negative finding, the basis for this should be indicated.

For example:

- *“No blood-like stains were visibly or chemically detected on (list of items)”*
- *“No apparent bloodstaining was visible on (list of items)”*

2.10.10 Collected Samples - The location(s) of collected stain sample(s) relevant to the bloodstain pattern analysis must be reported with reference to their unique identifier(s).

2.11 Conclusions - This section must include a collation of the findings drawn from the analysis and based on the information and observations previously presented in the body of the report. This section of the report must be clear and concise. Observations previously stated in the report must be referenced within the wording of the conclusion.

For example:

- *“The directionality of the drip stains and flow patterns of blood observed on the clothing worn by the deceased indicated he was in an upright position while bleeding.”*

2.11.1 Opinion - When an opinion is reported, it must be clearly marked as such. The basis upon which the opinion has been made must be documented and if applicable, referenced.

2.12 Qualifying Statements - A statement must be included that acknowledges if information changes, the conclusions rendered in the original report may be affected.

For example:

- *“This report is based solely on the information and materials made available at this time and may be modified with the submission of new information.”*
- *“This statement is based on information provided to me during this investigation. If further information becomes available, I may need to reappraise my findings and conclusions. If such a reappraisal were required, it would be more effective carried out in advance of any trial.”*

2.13 Signature - Each report must have the name and signature of the reporting analyst(s) and, when appropriate, a co-signature. Consideration should be made to placing a signature or initials on each page of the report.

3. Review and Issuance

Each report must be subjected to a technical [peer] and administrative review prior to release. The review must be documented. Reports should be issued prior to providing expert testimony.

4. Other Considerations

4.1 Unsubstantiated conclusions and opinions must be avoided.

For example:

- *“The bloodstains on the front door handle established the victim attempted to leave the residence.”*
- *“The victim was shot in bed while sleeping.”*
- *“The presence of back spatter indicated a non-jacketed round was used.”*
- *“Based on the extent of bloodstaining at the scene, the perpetrator must have been covered in blood.”*
- *“The cast-off pattern showed the assailant was right handed.”*

4.2 Statements made outside the author’s area of expertise must be avoided.

For example:

- *“The victim was not capable of purposeful movement due to the large volume of blood loss.”*
- *“The victim would not have been able to walk due to their blood alcohol level.”*

4.3 Use of emotive or biased language must be avoided.

For example:

- *“The bloodstain patterns indicated this was a vicious attack.”*
- *“The presence of bloodstains on the clothing items worn by Ms. X showed she was the assailant in this brutal crime as indicated in the investigative reports.”*

4.4 Misrepresentation of qualifications, training and experience must be avoided.

4.5 Use of unsubstantiated quantifiable data must be avoided.

For example:

- *“The blood spatter on Mr. X’s clothing indicated he was less than two meters away from the victim at time of impact.”*
- *“Based upon the size of the bloodstain pattern on the bed, a minimum of two liters of blood was present.”*
- *“The presence of clotting within spatter stains showed that bleeding had commenced more than X minutes prior to impact.”*

5. References

ISO/IEC 17025:2005. *General Requirements for the Competence of Testing and Calibration Laboratories*. Pages 20-22.

James, S., Kish P. and Sutton, T.P., *Principles of Bloodstain Pattern Analysis* Taylor & Francis-CRC Press, Boca Raton, Florida 2005, Chapter 18.

ILAC-G19:2002. *Guidelines for Forensic Science Laboratories*. Pages 12-13.

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SWGSTAIN Document Revision History

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