

Guidelines for Report Writing in Bloodstain Pattern Analysis

*Bloodstain Pattern Analysis Subcommittee
Physics/Pattern Interpretation Scientific Area Committee
Organization of Scientific Area Committees (OSAC) for Forensic Science*



OSAC Proposed Standard

Guidelines for Report Writing in Bloodstain Pattern Analysis

Prepared by
Bloodstain Pattern Analysis Subcommittee
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This document has been developed by the Bloodstain Pattern Analysis Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science through a consensus process and is *proposed* for further development through a Standard Developing Organization (SDO). This document is being made available so that the forensic science community and interested parties can consider the recommendations of the OSAC pertaining to applicable forensic science practices. The document was developed with input from experts in a broad array of forensic science disciplines as well as scientific research, measurement science, statistics, law, and policy.

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Guidelines for Report Writing in Bloodstain Pattern Analysis

Keywords: *Report, case information, methods, limitations, assumptions, observations, analysis, conclusions, review*

The purpose of this document is to provide a guide for the report content and issuance of Bloodstain Pattern Analysis (BPA) reports. It is not intended to set forth a specific format for report writing.

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Foreword

This document provides guidelines for report writing in Bloodstain Pattern Analysis (BPA). In addition, it provides guidance regarding statements to be avoided in the report. It has been prepared by the Organization of Scientific Area Committees (OSAC) Subcommittee on Bloodstain Pattern Analysis based on a document originating with the Scientific Working Group on Bloodstain Pattern Analysis (SWGSTAIN).

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1 Scope

This document applies to all BPA reports regardless of where the analysis was performed. This includes, but is not limited to, scenes, examination of evidence, and analysis of any images or video.

2 Normative

Scientific Working Group on Bloodstain Pattern Analysis: Guidelines for Report Writing in Bloodstain Pattern Analysis, issue date July 7, 2012.

3 Terms and Definitions

3.1

Bloodstain Pattern Analysis Terminology

Refer to the *Terms and Definitions in Bloodstain Pattern Analysis* document for all terms specific to BPA.

3.2

Recommended

Appropriate, but not mandatory.

3.3

Shall

Done without exception.

3.4

Should

Expected to be done, unless otherwise documented for noncompliance (non-compliance requires non-compliance be documented).

4 Requirements

4.1. Preamble

This document summarizes the elements to be contained within a written BPA report. General considerations when generating BPA reports include:

- The report shall be clearly written without misleading language or jargon.
- The report format shall be designed to minimize confusion by the reader.
- Reports authored by multiple parties shall clearly define the role of each contributor.
- Headings should be standardized within the agency.

- Bloodstain pattern analysis terminology shall be defined and referenced. This may be accomplished by the use of footnotes, an appendix or glossary, or defined within the body of the report.
- 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 shall be included in the BPA report. Quotations from associated documents (e.g., witness statements) shall be clearly defined and referenced.
- Case-related experimentation and findings shall be reported.
- The page number shall appear on each page of the report and the total number of pages shall be defined.
- Abbreviations and acronyms not commonly recognized shall 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 corrections or additions to the original report should be clearly identified and issued as a separate report.

4.2. Report Elements

4.2.1. Title

The report shall identify the subject matter of the document. For example:

- “Bloodstain Pattern Analysis Report”
- “Report of Findings”
- “Supplemental Report”
- “BPA Case Experimentation Report”

4.2.2. Case Identifier

The report shall 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.

4.2.3. Name and Address of Reporting Agency

The name and address of the reporting agency shall be included.

4.2.4. Date of Report

The date of the report shall be included.

4.2.5. Case Information

The report should outline the background information pertinent to BPA and 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 and when the information was supplied, that is, before, during or after the examination, analysis, and/or report
- Medical/DNA information
- Environmental conditions
- Explanation of how the author(s) became involved in the case
- Summary of case background and source(s) of this information

Name and address of the submitting agency or requesting officer

4.2.6. Items

The report shall include a list of the items of evidence or materials reviewed which are relevant to the bloodstain pattern analysis. This should include but not limited to:

- Evidence examined: Physical description (e.g., size, color, etc.)
- Unambiguous identification (e.g., item number, serial number, etc.)
- Reported recovery location, if applicable
- Materials reviewed:
 - Medical/Autopsy Reports
 - Laboratory Reports
 - Investigative Reports
 - Photographs

4.2.6.1

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.)

4.2.6.2

The date and manner of receipt of items should be included.

4.2.7. Location of the Tests or Examinations

The report shall identify the locations where examinations took place. For example:

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

4.2.8. Methods

The report should list the method(s) utilized in the examination. The extent to which the method should be described (or referenced) in the report is agency and jurisdiction dependent. For example:

- “Phenolphthalin, a presumptive test for blood, was employed.”
- “An area of origin was determined utilizing a forensic software technique.”
- “Infrared photography was utilized.....”

4.2.9. 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.”
- “The potential for contamination caused by multiple items packaged together limited the bloodstain pattern analysis.”
- “Numerous sampled bloodstains failed to yield DNA profiles and as such, have restricted a more comprehensive analysis.”

4.2.10. Observations

The report should include the observations recorded in the course of the BPA which provide the basis upon which subsequent conclusions will be made.

4.2.10.1

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.)

4.2.10.2

Descriptors of the reported stains and stain patterns should be included. The extent and manner the stains or patterns are described is agency dependent. 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...”
- “A linear distribution of bloodstains was present...”

4.2.10.3

Reference points - When describing stain and pattern locations, references, such as cardinal points, shall be incorporated into the description for clarity.

4.2.10.4

Measurements - Measurements should be included in the report and may be reported using the system commonly employed in that jurisdiction. Measurement examples include but are not limited to:

- Room size
- Locations of bloodstains
- Dimensions of bloodstain patterns and spatter stains
- Area of origin

4.2.10.5

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

4.2.10.6

Sketches – It is recommended that sketches, scene diagrams, or plans be included. If used, these shall be identified and referenced. Sketches may be annotated.

4.2.10.7

Absence of bloodstains – When relevant to the conclusions, the absence of bloodstains should be reported.

4.2.11. Analysis

Examinations conducted in the course of a BPA shall be included in the report. The examinations conducted in the course of the BPA provide the basis upon which subsequent conclusions will be made.

4.2.11.1. Chemical applications

The results of any chemical application (e.g., chemical enhancements, presumptive blood testing, etc.) shall 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...”

4.2.11.2. Classification

Any classified bloodstain patterns shall be included in the BPA report if relevant to the conclusions. It is recommended that the classification reference the stain and pattern descriptors.

4.2.11.3. Collected Samples

The location(s) of stain sample(s) collected by the analyst, if not reported elsewhere, shall be reported with reference to their unique identifier(s).

4.2.12. Case Conclusions

When rendering case conclusions, the report shall include the findings drawn from the analysis and be based upon the information and observations previously presented in the report. Justification(s) shall be clearly stated in 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.”

4.2.13. Qualifying Statements

A statement shall 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/the analyst) may need to reappraise (my/the) findings and conclusions. If such a reappraisal were required, it would be more effective carried out in advance of any trial.”

4.2.14. Signature

Each report shall have the name and signature of the reporting analyst(s).

4.3. Review and Issuance

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

4.4. Other Considerations

4.4.1. Unsubstantiated conclusions

Unsubstantiated conclusions and opinions shall 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 shall have been covered in blood.”
- “The cast off pattern showed the assailant was right handed.”

4.4.2. Author’s Area of Expertise

Statements made outside the author’s area of expertise shall 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.”

4.4.3. Use of Emotive or Biased Language

Use of emotive or biased language shall 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.”

4.4.4. Use of Unsubstantiated Data

The use of unsubstantiated data shall 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.”

4.5 Reference(s)

Terms and Definitions in Bloodstain Pattern Analysis (OSAC document under review)

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