

Range of Conclusions Standard for Footwear and Tire Impression Examinations (03/2013)

1. Scope

- 1.1 This standard is provided to define the range of conclusions applicable to forensic footwear and tire impression examinations.
- 1.2 The range of conclusions in this standard may not address every variable in every examination. Wording expressing conclusions in each case should be constructed specific to the results of the examination in that case.
- 1.3 This standard is not a substitute for training in the examination of forensic footwear and tire impression evidence. Completion of a training program and experience are essential to understanding and applying the principles outlined in this standard.
- 1.4 This standard is not intended to provide a specific format for writing an expert report. Refer to *Standard for Report Writing for Footwear and Tire Impression Examinations* for examples of wording for conclusions (under construction).
- 1.5 This standard is not intended to include the examination process. Refer to *Standard for the Examination of Footwear and Tire Impression Evidence* for further guidance.

2. Terminology

Refer to the *Standard for Terminology Used for Forensic Footwear and Tire Impression Evidence* for a definition of terms used in this document.

3. Significance and Use

- 3.1 The purpose of this document is to standardize the range of conclusions for footwear and tire impression evidence examinations.
- 3.2 The range of conclusions regarding footwear and tire impression evidence should be readily understandable and transparent.

4. Opinions and Conclusions

The following descriptions are meant to provide context to the levels of opinions reached in footwear and tire impression comparisons. Each level may not include every variable in every case. This applies to both partial and full impressions.

4.1 Lacks sufficient detail

4.1.1 No comparison was conducted: the examiner determined there were no discernible questioned footwear/tire impressions or features present. This opinion applies when there is insufficient detail to conduct any comparison.

In the opinion of the examiner, an impression was either not present or the impression lacked sufficient detail for any comparison.

4.1.2 A comparison was conducted: the examiner determined that there was insufficient detail in the questioned impression for a meaningful conclusion. This opinion only applies to the known footwear or tire that was examined and does not necessarily preclude future examinations with other known footwear or tires.

In the opinion of the examiner, the impression lacked sufficient detail for a meaningful conclusion regarding the particular known footwear outsole or tire tread.

4.2 Exclusion – This is the highest degree of non-association expressed in footwear and tire impression examinations. Sufficient differences were noted in the comparison of class and/or randomly acquired characteristics between the questioned impression and the known footwear or tire.

In the opinion of the examiner, the particular known footwear or tire was not the source of, and did not make, the impression.

4.3 Indications of non-association – The questioned impression exhibits dissimilarities when compared to the known footwear or tire; however, the details or features were not sufficiently clear to permit an exclusion.

In the opinion of the examiner, dissimilarities between the questioned impression and the known footwear or tire indicated non-association; however, the details or features were not sufficient to permit an exclusion.

4.4 Limited association of class characteristics – Some similar class characteristics were present; however, there were significant limiting factors in the questioned impression that did not permit a stronger association between the questioned impression and the known footwear or tire. These factors may include but were not limited to: insufficient detail, lack of scale, improper position of scale, improper photographic techniques, distortion or significant lengths of time between the date of the occurrence and when the footwear or tires were recovered that could

account for a different degree of general wear. No confirmable differences were observed that could exclude the footwear or tire.

In the opinion of the examiner, factors (such as those listed above) have limited the conclusion to a general association of some class characteristics. Other footwear or tires with the same class characteristics observed in the impression are included in the population of possible sources.

4.5 Association of class characteristics – The class characteristics of both design and physical size must correspond between the questioned impression and the known footwear or tire. Correspondence of general wear may also be present.

In the opinion of the examiner, the known footwear or tire is a possible source of the questioned impression and therefore could have produced the impression. Other footwear or tires with the same class characteristics observed in the impression are included in the population of possible sources.

4.6 High degree of association – The questioned impression and known footwear or tire must correspond in the class characteristics of design, physical size, and general wear. For this degree of association there must also exist: (1) wear that, by virtue of its specific location, degree and orientation make it unusual and/or (2) one or more randomly acquired characteristics.

In the opinion of the examiner, the characteristics observed exhibit strong associations between the questioned impression and known footwear or tire; however, the quality and/or quantity were insufficient for an identification. Other footwear or tires with the same class characteristics observed in the impression are included in the population of possible sources only if they display the same wear and/or randomly acquired characteristics observed in the questioned impression.

4.7 Identification – This is the highest degree of association expressed by a footwear and tire impression examiner. The questioned impression and the known footwear or tire share agreement of class and randomly acquired characteristics of sufficient quality and quantity.

In the opinion of the examiner, the particular known footwear or tire was the source of, and made, the questioned impression. Another item of footwear or tire being the source of the impression is considered a practical impossibility.

5. Limitations

Accurate and reliable data and/or statistical models for use in calculations do not currently exist. Therefore, SWGTREAD does not support the use of statistics to determine the strength of conclusions related to shoe and tire impression evidence at this time.

6. Bibliography

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