



Elimination Factors Related to FA/TM Examinations

SWGGUN recognizes the **Association of Firearm and Tool Mark Examiners (AFTE)** "**Range of Conclusions Possible When Comparing Toolmarks**" as set forth in the AFTE Glossary (Appendix 1) and the AFTE Procedures Manual (Appendix 2) to be the generally accepted standard.

As defined in the AFTE Glossary *eliminations* are, "Significant disagreement of discernible class characteristics and/or individual characteristics". Furthermore, the AFTE Procedures Manual states the following in regards to firearm and/or toolmark eliminations:

Firearms

The discipline recognizes that an elimination of a firearm by other than class characteristics is possible but that such an elimination is an exceptional situation (1.2.3)

If an examiner arrives at an opinion where he/she eliminates a firearm, for any reason, the examiner must substantiate the reasons supporting his/her opinion and incorporate them into his/her work notes (1.2.5)

Toolmarks

The discipline recognizes that an elimination of a toolmark by other than class characteristics is possible but that such an elimination is an exceptional situation (2.2.3)

SWGGUN acknowledges that eliminations based on individual characteristics in firearm and toolmark examinations are exceptional situations and the following factors should be considered.

1. Condition of the working surface of the tool and/or substrate
2. Material composition of the working surface of the tool and/or substrate
3. Time of event to time of analysis factors
4. History of the tool
5. Number of items
6. Consistency and reproducibility of the individual characteristics

Appendix 1

AFTE Glossary – Range of Conclusions Possible When Comparing Toolmarks

1. IDENTIFICATIONS – Agreement of a combination of individual characteristics and all discernible class characteristics where the extent of agreement exceeds that which can occur in the comparison of toolmarks made by different tools and is consistent with the agreement demonstrated by toolmarks known to have been produced by the same tool.
2. INCONCLUSIVE –
 - A. Some agreement of individual characteristics and all discernible class characteristics, but insufficient for an identification.
 - B. Agreement of all discernible class characteristics without agreement or disagreement of individual characteristics due to an absence, insufficiency, or lack of reproducibility.
 - C. Agreement of all discernible class characteristics and disagreement of individual characteristics, but insufficient for an elimination.
3. ELIMINATION – Significant disagreement of discernible class characteristics and/or individual characteristics.
4. UNSUITABLE – Unsuitable for microscopic examination.

Appendix 2

AFTE Procedures Manual – Appendix 1 Range of Conclusions

The following information is provided for your review and consideration. **IT IS IN NO WAY INTENDED TO MANDATE COMPLIANCE OR SUPER CEDE THE EXAMINERS LABORATORY'S STANDARDS**

1.0 Firearms

1.1 Identification

- 1.1.1 The fired evidence in question was fired with the suspect firearm.
- 1.1.2 The fired evidence in question was fired from the same firearm, firearm not received.

1.2 Elimination

- 1.2.1 The fired evidence in question was not fired with the suspect firearm.
- 1.2.2 The fired evidence in question was not fired from the same firearm, firearm not received.
- 1.2.3 The discipline recognizes that an elimination of a firearm by other than class characteristics is possible but that such an elimination is an exceptional situation.
- 1.2.4 The discipline does not consider the routine comparison of test shots to the open case file to normally constitute an exceptional situation.
- 1.2.5 If an examiner arrives at an opinion where he/she eliminates a firearm, for any reason, the examiner must substantiate the reasons supporting his/her opinion and incorporate them into his/her work notes.

1.3 Inconclusive

- 1.3.1 The fired evidence in question cannot be identified or eliminated as having been fired with the suspect firearm.
- 1.3.2 The fired evidence in question cannot be identified or eliminated as having been fired with the same firearm, firearm not submitted.

1.4 Unsuitable

- 1.4.1 The fired evidence in question is not suitable for comparison purposes.

1.5 Unidentifiable

1.5.1 The evidence in question cannot be identified as being fired evidence.

2.0 Toolmarks

2.2 Identification

2.2.1 The toolmark evidence in question was made with the suspect tool.

2.2.2 The toolmark evidence in question was made with the same tool, tool not received.

2.3 Elimination

2.3.1 The toolmark evidence in question was not made with the suspect tool.

2.3.2 The toolmark evidence in question was not made with the same tool, tool not received.

2.3.3 The discipline recognizes that an elimination of a toolmark by other than class characteristics is possible but that such an elimination is an exceptional situation.

2.4 Inconclusive

2.4.1 The toolmark evidence in question cannot be identified or eliminated as having been made with the suspect tool.

2.4.2 The toolmark evidence in question cannot be identified or eliminated as having been made with the same tool, tool not submitted.

2.5 Unsuitable

2.5.1 The toolmark evidence in question is not suitable for comparison purposes.

2.6 Unidentifiable

2.6.1 The evidence in question cannot be identified as being a toolmark.