This document provides examples of the scientifically-supported conclusions and opinions that may be contained in Department of Justice reports and testimony. These examples are not intended to be all inclusive and may be dependent upon the precedent set by the judge or locality in which a testimony is provided. Further, these examples are not intended to serve as precedent for other forensic laboratories and do not imply that statements by other forensic laboratories are incorrect, indefensible, or erroneous. This document is not intended to, does not, and may not be relied upon to create any rights, substantive or procedural, enforceable by law by any party in any matter, civil or criminal, nor does it place any limitation on otherwise lawful investigative and litigative prerogatives of the Department.

DEPARTMENT OF JUSTICE
PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS FOR THE FORENSIC METALLURGY DISCIPLINE

Purpose and Scope

If adopted, this document will apply to Department of Justice personnel who perform forensic examinations and/or provide expert witness testimony regarding the forensic examination of metallurgical evidence. This document does not imply that statements made or language used by Department personnel that differed from these proposed statements were incorrect, indefensible, or erroneous.

This document provides the acceptable range of opinions expressed in both laboratory reports and during expert witness testimony while acknowledging that this document cannot address every variable in every examination.

Statements Approved for Use in Forensic Metallurgy Examination Testimony and/or Laboratory Reports

1. The examiner may report the physical mechanism(s) responsible for a particular failure (e.g., fatigue, creep, hydrogen embrittlement).

2. The examiner may report and/or state an estimate of the forces required to produce a given fracture. The examiner may also discuss the basis of the estimate.

3. The examiner may report and/or state other factors which contributed to the failure such as inclusions, improperly machined notches, corrosive environment, etc.

4. An examiner may report and/or state a determination that automotive lamps were operating or were off when subjected to an impact if the physical changes in the lamp are sufficient to support such a conclusion.

5. If the physical characteristics are inconclusive, the examiner may report and/or state the operating condition of the lamp could not be determined.

6. An examiner may identify the company that is assigned a particular trademark, barcode, Underwriters Laboratory (UL) listing code, etc., by reference to an appropriate source (i.e., a database). The examiner will identify the source of the information.

7. An examiner may report an association between two or more items based on their chemical and/or physical properties. For the large majority of such cases, these comparisons are limited to the class characteristics of such items and, as such, are not individualizing.

8. The examiner may report and/or state the relative strength of the association. For example, a physical fit between fractured pieces of a component is generally accepted to be a very strong association. In contrast, some items are so generic that an association between them may be of little value (i.e., two Coca Cola cans). There are many potential gradations between these two extremes.

9. An examiner may report and/or state that an *Elimination* is the determination that two items did not originate from the same source due to sufficient differences in their physical or chemical properties.

10. An examiner may report and/or state that an examination to evaluate whether two items may share a common origin was *Inconclusive* based on the lack of quality and/or quantity of corresponding information.

11. The examiner may report and/or state the limitations of his/her examinations and expert opinion.

12. An examiner may report and/or state the elemental composition of the item. For example, an examiner may report that a piece of jewelry is a gold-copper alloy. If the results are quantitative in nature, the uncertainty of the measurement may also be reported.

13. An examiner may report and/or state the alloy an object is comprised of, based on an elemental analysis of the item and comparison with published standards. For example, an examiner may state a drill bit is comprised of W2 tool steel and not M3 tool steel.

14. An examiner may report and/or state the mechanical properties of an item, if supported by appropriate testing, and may opine as to whether these results are consistent with a particular published or contractual specification.

15. An examiner may report and/or state the production process used to manufacture an item when the physical characteristics permit such an inference. For example, an examiner may indicate that fine wire is produced using a drawing process.

Statements Not Approved For Use in Forensic Metallurgy Testimony and/or Laboratory Reports

1. An examiner may not report or state an opinion that any metallurgical examination is subject to a zero error rate.

2. Under most circumstances, an examiner may not report or state an opinion that the damage to an automotive lamp was the result of the particular accident under investigation.

3. An examiner may not report or state an opinion that a particular company must have produced an item based on the markings present on it.

4. An examiner may not report or state an opinion that a mass produced item can be exclusively associated with others of its type in the possession of an individual.

5. An examiner may not report or state the results of calculations pertaining to evidence that is presented for the first time to the examiner in the courtroom. The examiner will respectfully decline to perform such calculations on the grounds that such work requires technical verification. Estimates based on prior analysis are permissible.

DEPARTMENT OF JUSTICE PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS REVIEW SHEET

Directions: This review sheet is designed to assist you in evaluating the attached Proposed Uniform Language for Testimony and Reports document against certain criteria while maintaining internal consistency in review and assessing comments.

Your use of this rating sheet is completely **optional**. While it is anticipated this review sheet will encourage comments on issues of particular importance, you are welcome to submit comments in any format that you believe appropriate. This review sheet is not intended to limit comments in any way.

If you elect to use the review sheet, you may find it helpful to frame your comments as suggested below.

Proposed Uniform Language Discipline Reviewed:
Reviewer Name:
Reviewer Organization:
Reviewer Email:

Statements Approved for Use in Laboratory Reports and Expert Witness Testimony
Provide a summary of your assessment of the statements approved for use, including the most important highlights from the individual criteria comments.

- The statements approved for use are supported by scientific research.
- The statements approved for use accurately reflect consensus language.
- The statements approved for use are stated clearly.

Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony
Provide a summary of your assessment of the statements not approved for use, including the most important highlights from the individual criteria comments.

- The statements not approved for use are supported by scientific research.
- The statements not approved for use accurately reflect consensus language.
- The statements not approved for use are stated clearly.