
Drug Toxicology Reporting

- 1.0 Purpose** - This procedure specifies the required elements for reporting drug toxicology results.
- 2.0 Scope** – This procedure applies to all submissions to Toxicology in the Raleigh, Triad, and Western locations of the State Crime Laboratory
- 3.0 Definitions**
- **Drug** – “a. substances recognized in the official United States Pharmacopoeia, official Homeopathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; b. substances intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; c. substances (other than food) intended to affect the structure or any function of the body of man or other animals; and d. substances intended for use as a component of any article specified in a, b, or c of this subdivision; but does not include devices or their components, parts, or accessories.” (NCGS 90-87 (12))
 - **Impairing Substance** – Alcohol, controlled substance under Chapter 90 of the General Statutes, any other drug or psychoactive substance capable of impairing a person’s physical or mental faculties, or any combination of these substances. (NCGS 20-4.01 (14a))
 - **Metabolite** – A product of a biotransformation action on the drug.
- 4.0 Acceptable Work Product**
- 4.1** Acceptable work product is defined as a report that was generated from the analysis of evidence in accordance with approved Toxicology procedures.
- 4.2** The initial identification of a substance (drug, impairing substance, and/or metabolite) shall be confirmed by a second test.
- 4.3** The following are acceptable tests to make an initial identification of a substance:
- Positive indication by Immunoassay
 - Chromatographic and Mass Spectral Identification
- 4.4** The following are acceptable to confirm an initial identification of a substance:
- Chromatographic and Mass Spectral Identification by a different aliquot of the same specimen
 - Case history verification of a non-immunoassay screened substance (e.g., Lidocaine identified in a base extraction in a case involving medical treatment, or a prescription log)
- 4.5** Substances that are either the parent drug or metabolite of a substance that does have an Immunoassay Drug Screen may be identified from only one aliquot if the parent drug or metabolite is identified in the case.
- 4.6** Acceptable work product must be derived from tests in which the controls perform according to the acceptance criteria outlined in the appropriate procedure.

5.0 Reporting Statements:

5.1 Immunoassay Drug Screen Reporting Statements:

5.1.1 Indicative immunoassay results, the following results statement shall be used:

Immunoassay drug screening tests for the following drugs or classes of drugs gave a positive indication: {list the assays that are positive}.

5.1.2 Negative immunoassay results, the following results statement shall be used:

Immunoassay drug screening tests for the following drugs or classes of drugs were negative: {list the assays that are negative}.

5.2 Drug Confirmation reporting statements

5.2.1 If the submission does not contain any drug specific request(s) and all drug screening tests are negative, no additional analysis will be conducted except as defined in **6.2** and the following results statement shall be added:

No additional analysis was performed.

5.2.2 If the analysis did not identify any drugs and/or their metabolites, use the following statement:

No impairing substances were identified.

5.2.3 If analysis results in the confirmation of alcohol and/or other volatiles, but no drugs and/or their metabolites were identified, and both results will be listed on the report, use the following statement:

No other impairing substances were identified.

5.2.4 If analysis did confirm impairing substances and/or their metabolites, use the statement below followed by the name of the substance(s).

Analysis confirmed the presence of the following substances: {insert the substances}

5.2.5 If analysis did **not** confirm an immunoassay positive indication and/or a requested non-screened substance, use the statement below:

Analysis did not confirm the presence of the following: {insert the assay or requested substance}

5.2.6 If a substance requested cannot be identified based on the limitations listed in **6.1**.

5.2.6.1 (Insert the specifically requested substance(s)) generally cannot be identified by current State Crime Laboratory analytical procedures.

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- 5.2.7** Reporting statements not included above may be needed to convey the analysis results. These reporting statements shall be approved by the Toxicology Technical Leader or designee and the approval shall be documented in the case record.

5.3 Application of Procedure on Evidence - Insufficient Specimen

- 5.3.1** If a specimen is submitted with insufficient volume for analysis, add the following statement to the report:

Quantity of specimen submitted is insufficient for analysis.

- 5.3.2** If the specimen volume is insufficient to complete the requested analysis, add the following statement to the report:

Quantity of specimen submitted is insufficient for complete analysis.

- 5.4 Uncertainty of Measurement** – Refer to [Toxicology Measurement Assurance](#) and the *Toxicology Reporting Index*.

6.0 Limitations

- 6.1** Not all known substances, including those that cross-react with the immunoassay drug screening tests, can generally be confirmed by current State Crime Laboratory analytical procedures. Toxicology capabilities and limitations are listed in the *Toxicology Reporting Index*. These shall be updated as needed by the Toxicology Technical Leader.
- 6.2** No further drug toxicology analysis will be performed unless the Forensic Scientist Manager approves a request from the District Attorney's office.
- 6.3** In the event that additional analysis is performed on the same evidence after a report has been released (i.e., drug analysis is requested after a blood alcohol, volatiles and/or drug screen only report has been issued), the subsequent report shall contain only the results of the additional analysis.

7.0 Safety

- 7.1** Refer to the Laboratory Safety Manual.
- 7.2** Refer to the Toxicology Technical Procedures.

8.0 References

Toxicology Procedures

Toxicology Reporting Index

Williams, Philip L., et al. *Principles of Toxicology Environmental and Industrial Applications*, 2nd edition. A Wiley Interscience Publication John Wiley & Sons, Inc, © 2000: 5.

Forensic Toxicology Laboratory Guidelines, 2006 version; SOFT / AAFS.

9.0 Records

- Case Record

10.0 Attachments – N/A

Revision History		
Effective Date	Version Number	Reason
02/12/2016	1	Initial Version