Administrative Procedure for Sampling

1.0 Purpose - This procedure specifies the required elements for the sampling of suspected controlled substances.

2.0 Scope - This procedure applies to the Drug Chemistry Sections of the State Crime Laboratories.

3.0 Definitions

- **Administrative Sample Selection** - A practice for:
  a) Pharmaceutical preparations.
  b) Non-pharmaceutical items when a statutory threshold does not apply.
- **Homogenous –** Uniform.
- **Hypergeometric Sampling Plan -** A statistically-based sampling plan that allows the Forensic Scientist to analyze a portion of a population and make a statistical inference about the whole population stating that the material was analyzed with a statistical sampling plan that demonstrates with 95 % confidence that at least 90 % of the material contains the identified controlled substance(s). The hypergeometric sampling plan shall be used when there are ten or more units and threshold sampling selection is not practicable.
- **Population -** A carefully inspected group of units found to be homogenous and are to be subjected to sampling.
- **Sample Selection** - A practice of selecting items to test, or portions of items to test, based on the Forensic Scientist's training, experience and competence. In sample selection, there is no assumption about homogeneity.
- **Sampling -** Taking a part of a substance, material or product, for testing in order to reach a conclusion, make an inference about, and report on the whole. Sampling shall only be used when there is a reasonable assumption of homogeneity about the whole population.
- **Sampling Plan -** For an item that consists of a multi-unit population (e.g., tablets, baggies, bindles), a sampling plan is a statistically valid approach to determine the number of sub-items that must be tested in order to make an inference about the whole population.
- **Sampling Procedure** - A defined procedure used to collect a sample or samples from the larger whole, to ensure that the value obtained in the analysis is representative of the whole. The sampling procedure may include details about size and number of sample(s) to be collected, locations from which to collect the sample(s), and a method to ensure the homogeneity of the larger whole (or to make it so.)
- **Threshold Sample Selection** - A practice used when the material present meets a statutory threshold and the individual analysis of the units is practicable. The practicability of analysis is determined by the Forensic Scientist based on his/her training and experience. No inferences about unanalyzed material shall be made.
- **Unit** – A single member of a set of submitted items that are grouped together into a population for analysis purposes.

4.0 Procedure

4.1 The Forensic Scientist shall have this procedure readily available at the location of sampling.

4.2 Material from individual units shall not be combined for analysis.

4.3 Upon completion of the analysis, material from individual units shall not be combined when repackaged for return to the submitting agency.

4.4 Analyzed individual units and data generated will be labeled to ensure that analysis data can be matched with the material it represents.

4.5 Sample Selection

4.5.1 The Forensic Scientist shall evaluate the evidence and submission information based on his/her training and experience, and shall determine which items will be analyzed.

4.5.2 Forensic Scientists shall evaluate which items to analyze in a case based on several factors. These factors include nature of potential charge(s), location of items, and the nature of the item (i.e., biohazard, insufficient sample, etc.).

4.5.2.1 Residues and syringes shall not be analyzed unless accompanied by a written request from a prosecuting attorney.

4.5.2.1.1 However, if a case approved for analysis consists of multiple items that are all residue amounts, analysis shall be performed on at least one item. If a controlled substance is identified in the first item analyzed, no other items shall be analyzed.

4.5.2.1.2 If the first item analyzed in a case approved for analysis does not contain a controlled substance, the complete analysis of no more than two additional items shall be required. If the second analysis identifies a controlled substance, no further analysis shall be required. No other items shall be analyzed.

4.6 Population Determination for Multiple Unit Items

4.6.1 Carefully evaluate the number of units present in an item.

4.6.2 Visually inspect each of the units in the item carefully as well as any contents for homogeneity in size, weight, color, packaging, markings, labeling, indications of tampering and other characteristics.

4.6.2.1 For sampling purposes, each intact piece of blotter paper shall be considered a unit. The Forensic Scientist shall document in the item description any perforations or indications of dosage units.

4.6.3 If after careful visual inspection it is determined that the contents of the units are homogenous, the population shall consist of all of the units.

4.6.4 If there are differences, segregate the units into individual groups, based upon such observed differences. Each group shall be analyzed as a separate population.

4.6.5 If in the course of analysis it becomes apparent that the population is not homogenous, new populations may be formed based upon individual chemical test results. Samples

which are no longer available for indiscriminate selection may not be considered a part of the new population.

4.6.6 If no groups can be formed based upon visual examination, then sampling shall not be utilized.

4.6.7 As outlined below, there are several types of items to which the sampling plan does not apply. In these cases, the lab report shall contain a clear description of what was analyzed.

4.6.7.1 Single unit populations.

4.6.7.2 Items submitted for dilution/diversion.

4.6.7.3 Paraphernalia.

4.6.7.4 Partially consumed hand-rolled cigarettes.

4.6.7.5 Young marijuana plants.

4.6.7.6 Numerous intact marijuana plants/stalks packaged together that would be impracticable to separate.

4.6.7.7 Residues.

4.6.7.8 Evidence seized from clandestine laboratory sites.

4.6.8 For each unit to be analyzed, obtain the material for analysis.

4.6.8.1 If the material is homogenous, take the amount needed for each test to be performed.

4.6.8.2 If the material is not homogenous, obtain a portion of each type of material present.

4.6.8.3 If the material is a residue amount, physically remove a portion from the evidence or perform a chemical wash with a suitable solvent. The "Residue amount" option shall be used in the case notes instead of the spaces for weight received and weight returned. (See the Drug Chemistry Section Technical Procedures for Extractions and Separations for details.)

4.6.8.4 If the material is a liquid removed from a suspected clandestine laboratory, see the Drug Chemistry Section Technical Procedure for Clandestine Laboratory Analysis for details on collection of evidence and subsequent analysis.

4.6.8.5 If the material is a homogenous liquid from a case submission other than a suspected clandestine laboratory, an aliquot shall be considered a suitable portion to represent the item.

4.7 Sampling Plan Selection

4.7.1 If the population contains pharmaceutical preparations, Administrative Sample Selection shall be used.

4.7.2 If the amount of material present does not meet a statutory threshold, Administrative Sample Selection (**4.8)** shall be used.

4.7.3 If there is sufficient material or units present in a population to meet a statutory threshold and the individual analysis of the units is practicable, Threshold Sample Selection (**4.9)** shall be used.

4.7.4 If there is sufficient material or units present in a population to meet a statutory threshold and the individual analysis of the units is not practicable, then the Hypergeometric Sampling Plan (**4.10)** shall be used.

4.7.5 The Forensic Scientist shall document the sample selection method or sampling plan being used in the FA case record.

4.8 Administrative Sample Selection

4.8.1 Pharmaceutical Preparations

4.8.1.1 The complete analysis of one indiscriminately selected unit is required.

4.8.1.1.1 The selection of samples shall be conducted in a manner that prevents the Forensic Scientist from consciously selecting a specific item from the population.

4.8.1.1.2 If additional testing is needed, the prosecuting attorney in the case may contact the Forensic Scientist Manager of the Drug Chemistry Section.

4.8.1.2 Opiate and amphetamine tablet/capsule preparations shall be weighed on a table top balance. Separate net weights and applicable measurement assurance shall be recorded for the analyzed portion and the unanalyzed portion.

4.8.1.2.1 When the net weight of a single unit is less than 0.1 gram, see the Technical Procedure for Drug Chemistry Analysis for reporting guidelines.

4.8.1.2.2 Pharmaceutical delivery systems such as (but not limited to) transdermal patches, sublingual films, and lollipops that contain opiates do not require a weight, and any recorded weights shall not be reported.

4.8.1.3 Pharmaceutical tablets/capsules that contain controlled substances other than opiates and amphetamine do not require a weight, and any recorded weights shall not be reported.

4.8.1.4 Non-controlled pharmaceutical preparations do not require a weight, and any recorded weights shall not be reported.

4.8.1.5 Reporting Identified Substances

4.8.1.5.1 Each population shall be described thoroughly in the "Items Submitted" section of the Laboratory Report to substantiate the grouping of the preparations into the population.

4.8.1.5.2 If an opiate or amphetamine is confirmed and a statutory threshold can be met by the amount of material present in the population, the analyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statements "One tablet was analyzed and found to contain" followed by the results of the analysis and the statement "Net weight of tablet (or capsule) – (insert weight of the analyzed portion with applicable measurement assurance). If additional testing is needed, please contact the Forensic Scientist Manager of the Drug Chemistry Section."

4.8.1.5.3 If an opiate or amphetamine is confirmed and a statutory threshold cannot be met by the amount of material present in the population, the analyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statements "One tablet was analyzed and found to contain" followed by the results of the analysis and the statement "Net weight of tablet (or capsule) – (insert weight of the analyzed portion with applicable measurement assurance).

4.8.1.5.4 If an opiate or amphetamine is confirmed, the unanalyzed portion of the population shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "(insert number of tablets or capsules) (was/were) visually examined; however, no chemical analysis was performed." followed by the statement "Net weight of tablets (or capsules) – (insert weight of that portion, with applicable measurement assurance)." The statement "The physical characteristics, including shape, color and manufacturer's markings of all units were visually examined and found to be consistent with a pharmaceutical preparation containing (insert substance(s) indicated). There were no visual indications of tampering." shall be included in the "Results of Examination" section of the Laboratory Report on the line directly below the line generated in **4.8.1.5.2** or **4.8.1.5.3**.

4.8.1.5.5 If a controlled substance (other than an opiate or amphetamine) or a non-controlled substance is confirmed, the analyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "One tablet (or capsule) was analyzed and found to contain" followed by the results of the analysis.

4.8.1.5.6 If a controlled substance (other than an opiate or amphetamine) or a non-controlled substance is confirmed, the unanalyzed portion of the population shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "(insert number of units) (was/were) visually examined; however, no chemical analysis was performed." followed by the statement "The physical characteristics, including shape, color and manufacturer's markings of all units were visually examined and found to be consistent with a pharmaceutical preparation containing (insert substance(s) indicated)." "There were no visual indications of tampering." shall be included in the "Results of Examination" section of the Laboratory Report on the line directly below the line generated in **4.8.1.5.5**.

4.8.2 Non-pharmaceutical Items

4.8.2.1 For populations consisting of less than a statutory threshold amount of material, complete analysis of one unit shall be required.

4.8.2.2 The net weight and applicable measurement assurance shall be recorded for the analyzed portion.

4.8.2.2.1 When the net weight of a single unit is less than 0.1 gram, report the weight according to the Technical Procedure for Drug Chemistry.

4.8.2.3 The gross weight may be recorded as needed for the unanalyzed portion of the population.

4.8.2.4 Gross weights shall not be reported unless sample matrix prevents the complete removal of item packaging.

4.8.2.5 The unanalyzed portion shall be left intact in the event further analysis is required.

4.8.2.6 Cases involving suspected Synthetic Cannabinoids:

4.8.2.6.1 If a single commercial package is submitted, complete analysis of a single unit is required.

4.8.2.6.2 If multiple commercial packages of the same type are submitted, complete analysis of a single unit shall be required.

4.8.2.6.3 If multiple commercial packages of various types are submitted, the Forensic Scientist, based upon his/her training and experience, shall select units for complete analysis taking into consideration the packaging, labeling and purported contents of the package.

4.8.2.7 Reporting Identified Substances

4.8.2.7.1 Each population shall be described thoroughly in the "Items Submitted" section of the Laboratory Report to substantiate the grouping of the units into the population.

4.8.2.7.2 The analyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "One (insert description of unit)" followed by the results of the analysis and the statement "Net weight of material – (insert net weight of the analyzed portion, with applicable measurement assurance)."

4.8.2.7.3 The unanalyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "No chemical analysis."

4.8.2.8 Reporting Non-controlled Substances

4.8.2.8.1 Each population shall be described thoroughly in the "Items Submitted" section of the Laboratory Report to substantiate the grouping of the units into the population.

4.8.2.8.2 The portion subjected to complete analysis shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "One (insert description of unit) - No controlled substances identified." followed by the statement "Net weight of material – (insert net weight of the analyzed portion, with applicable measurement assurance)."

4.8.2.8.3 The unanalyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "No chemical analysis."

4.9 Threshold Sample Selection

4.9.1 See the North Carolina Controlled Substances Act for North Carolina statutory thresholds and the United States Sentencing Commission Guidelines Manual for federal thresholds.

4.9.2 The selection of samples shall be conducted in a manner that prevents the Forensic Scientist from consciously selecting a specific item from the population.

4.9.2.1 Complete analysis of a single unit shall be required. If testing does not indicate the presence of a controlled substance, results shall be reported according to **4.9.4**.

4.9.2.2 When analysis confirms the presence of a controlled substance, separate and complete analysis of additional units to satisfy the statutory threshold shall be required.

4.9.2.3 The weights and applicable measurement assurance shall be recorded for the analyzed portion.

4.9.2.3.1 When the net weight of a single unit is less than 0.1 gram, report the weight according to the Technical Procedure for Drug Chemistry Analysis.

4.9.2.4 The gross weight may be recorded as needed for the unanalyzed portion of the population.

4.9.2.5 Gross weights shall not be reported unless sample matrix prevents the complete removal of item packaging.

4.9.2.6 The unanalyzed portion shall be left intact in the event further analysis is required.

4.9.3 Reporting Identified Substances

4.9.3.1 Each population shall be described thoroughly in the "Items Submitted" section of the Laboratory Report to substantiate the grouping of the units into the population.

4.9.3.2 For each portion of the population with identical results, the analyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "(insert number of units) (was/were) individually analyzed and (was/were) (each) found to contain" followed by the results of the analysis and the statement "Net weight of material – (insert net weight of the analyzed portion, with applicable measurement assurance)."

4.9.3.3 The unanalyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "No chemical analysis."

4.9.4 Reporting Non-controlled Substances

4.9.4.1 Each population shall be described thoroughly in the "Items Submitted" section of the Laboratory Report to substantiate the grouping of the units into the population.

4.9.4.2 The portion subjected to complete analysis shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "One

(insert description of unit) - No controlled substances identified." followed by the statement "Net weight of material – (insert net weight of the analyzed portion, with applicable measurement assurance)."

4.9.4.3 The unanalyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "No chemical analysis."

4.10 Hypergeometric Sampling Plan

4.10.1 Separate and complete analysis of three units shall be required.

4.10.2 When analysis confirms that these units are a non-controlled substance, the results of the analysis of these units shall be reported as provided in **4.10.11.2.**

4.10.3 When analysis confirms that these units are a controlled substance, determine the average weight of the three analyzed units.

4.10.4 Determine the estimated total net weight by multiplying the average weight of a unit by the number of units in the entire population.

4.10.5 When a statutory threshold cannot be met based on the estimated total net weight, no further analysis is required. Results shall be reported as follows.

4.10.5.1 For each portion of the population with identical results, the analyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "Three (insert description of unit) were individually analyzed and were each found to contain" followed by the results of the analysis and the statement "Net weight of material – (insert net weight of the analyzed portion, with applicable measurement assurance)."

4.10.5.1.1 When the combined net weight of the three units is less than 0.1 gram, report the weight according to the Technical Procedure for Drug Chemistry Analysis.

4.10.5.2 The unanalyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "No chemical analysis."

4.10.6 When analysis of the three units indicates a statutory threshold can be met based on the estimated total net weight, and Threshold Sample Selection is not practicable, use the Hypergeometric Sampling Plan. Additional units shall be examined as determined from the table below.

4.10.6.1 The selection of units shall be conducted in a manner that prevents the Forensic Scientist from consciously selecting a specific unit from the population.

Population Size	**Samples**

10-11	8
12-13	9
14-15	10
16-17	11
18-20	12
21-23	13
24-26	14
27-30	15
31-34	16
35-39	17
40-45	18
46-52	19
53-61	20
62-73	21
74-88	22
89-108	23
109-138	24
139-184	25
185-270	26
271-474	27
475-1619	28
1620-10000	29

4.10.6.2 Separate and complete analysis of each of these units shall be required.

4.10.6.3 The three units analyzed as provided in **4.10.1** shall be included as part of the required number of indiscriminately selected units.

4.10.6.4 Separate weights and applicable measurement assurance shall be recorded for the analyzed portion.

4.10.7 Gross weights may be recorded as needed for the unanalyzed portion of the population.

4.10.8 The unanalyzed material shall be left intact in the event further analysis is required.

4.10.9 If there is material present to satisfy a weight threshold that is not met by the weight of the analyzed portion, then the Forensic Scientist shall obtain individual weights and applicable measurement assurance of enough additional indiscriminately chosen samples to meet the weight threshold. These samples do not require chemical analysis and shall be reported as provided in the reporting guidelines in **4.10.10.7**.

4.10.9.1 When the Forensic Scientist determines, based on his/her training and experience, that it is impracticable to obtain individual weights and

applicable measurement assurance of enough additional indiscriminately chosen units to meet the weight threshold, the weight of the additional indiscriminately chosen units shall be extrapolated.

4.10.9.1.1 Determine the number of units used for extrapolation to 90 % of the population.

- Multiply the total number of units in the entire population by 0.9.
- If this number is not a whole number, round up to the next whole number.
- Subtract from this number the number of units in the analyzed portion.

4.10.9.1.2 Determine the average weight of a unit.

- Divide the total weight of the analyzed portion by the number of units analyzed.

4.10.9.1.3 Determine the extrapolated weight.

- Multiply the average weight of a unit by the number of units in the extrapolated portion.

4.10.9.1.4 The following information shall be reported according to Reporting guidelines in **4.10.10**:

- Number of units analyzed and net weight of the analyzed portion.
- Number of units analyzed and the weight of the extrapolated portion, with a notation that it is an Extrapolated weight.
- Number of units of the remaining 10 % of the total population.

4.10.10 Reporting Identified Substances

4.10.10.1 To use the Hypergeometric statement in **4.10.9.1.4**, the results of analysis to be reported for each sample shall be identical. If non-identical results are to be reported, the Forensic Scientist shall stop following the Hypergeometric Sampling Plan and shall follow the Administrative or Threshold Sample Selection, as applicable.

4.10.10.2 Each population shall be described thoroughly in the "Items Submitted" section of the Laboratory Report to substantiate the grouping of the units into the population.

4.10.10.3 The analyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "(insert number of

units) were individually analyzed and were each found to contain" followed by the results of the analysis and the weight of the analyzed portion, using the statement "Net weight of material – (insert net weight, and applicable measurement assurance)."

4.10.10.4 The results for this population shall also contain the statement "This material was analyzed with a hypergeometric sampling plan that demonstrates with 95 % confidence that at least 90 % of the material contains the identified substance(s)."

4.10.10.5 The extrapolated portion shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "(insert number of units) – No chemical analysis." The extrapolated weight shall be reported using the statement "Extrapolated weight (not individually weighed) – (insert extrapolated weight)."

4.10.10.6 The unanalyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the statement "No chemical analysis."

4.10.10.7 In cases where additional weight was present to reach a threshold, the weighed only portion shall be identified in the "Results of Examination" section of the Laboratory Report and the statement "No chemical analysis. Net Weight of Material – (insert net weight, and applicable measurement assurance)."

4.10.11 Reporting Non-controlled Substances

4.10.11.1 Each population shall be described thoroughly in the "Items Submitted" section of the Laboratory Report to substantiate the grouping of units or into the population.

4.10.11.2 The portion subjected to complete analysis shall be identified in the "Results of Examination" section of the Laboratory Report using the statement "(insert number of units) –No controlled substances identified." "Net weight of material – (insert net weight and applicable measurement assurance)."

4.10.11.3 The unanalyzed portion shall be identified in the "Results of Examination" section of the Laboratory Report with the weight of that portion and the statement "No chemical analysis."

4.10.11.4 No statistical inferences shall be made.

5.0 References

Guidelines on Representative Drug Sampling. United Nations, New York: United Nations Office on Drugs and Crime, 2009.

Frank, Richard S., et. al. "Representative Sampling of Drug Seizures in Multiple Containers." *Journal of Forensic Sciences*, Volume 36, Issue 2 (March 1991), 350-357.

"PART III A - Methods of Analysis/Sampling Seized Drugs for Qualitative Analysis." *Scientific WorkingGroup for the Analysis of Seized Drugs (SWGDRUG) Recommendations.* 5th ed.: January 29, 2010.

6.0 Records

- Case file worksheets

7.0 Attachments - N/A

Revision History		
Effective Date	Version Number	Reason
12/13/2010	1	Technical procedure K-01 rewritten for conversion to ISO.
09/17/2012	2	Formatting changes to match other ISO documents. Definitions added for sample selection, sampling plan, sampling procedure, sampling. Renamed Administrative and Threshold Sampling Plans to Sample selections Extrapolation option added to Hypergeometric Plan. Threshold weight table removed and replaced with reference to General Statutes. Grammar.
02/01/2013	3	**1.0** – "exhibit" removed. **2.0 -** Partial sentence "to items of evidence containing multiple packages, units or tablets in" removed. Partial sentence "at the Raleigh, Triad, and Western locations" removed. **3.0 -** Definitions of Administrative Sample Selection, Threshold Sample Selection and Sampling reworded. Definitions section was alphabetized. All references in definitions to "exhibit" changed to "item." **5.7** New "Sample Selection" Section added. **5.7.1** –Section added here, removed from Technical Procedure for Drug Chemistry Analysis Section **5.5.12.2**. **5.7.2** – Section added here and reworded, removed from Technical Procedure for Drug Chemistry Analysis Section **5.5.13**. **5.8 -** Population Determination "for Multiple Unit Items" added. (Original Section 5.7) **5.8.1** Reference to one unit populations removed.

		5.8.4 and **5.8.6** - Reworded. **5.8.7** Section added here, removed from Technical Procedure for Drug Chemistry Analysis Section **5.5.12.1** with "Single unit populations added as Section **5.8.7.1**. **5.8.8.4** – "(paraphernalia)" removed. **5.8.8.6** – "other than a suspected clandestine laboratory" replaced "regular" **5.8.8** Section added here, removed from Technical Procedure for Drug Chemistry Analysis Sections **5.5.12.3, 15.5.12.3.4,** partial **5.5.12.3.5,** and **5.5.12.4 through 5.5.12.6.** **5.10.1.1.2**– Added reference to contacting the Forensic Scientist Manager of the Drug Chemistry Section if additional analysis is requested. **5.10.1.2** – Added notation that opiate tablet preparations shall be weighed. **5.10.1.3** – Added section stating that controlled substances other than opiate preparations do not require a weight. **5.10.1.4.2/5.10.1.4.3** – Added notations for analyzed and unanalyzed portions when an opiate is confirmed. Added reference to contacting the Forensic Scientist Manager of the Drug Chemistry Section if additional analysis is requested. Applicable measurement assurance added. Corrected section reference number. **5.10.1.4.4** and **5.10.1.4.5** Added new sections for analyzed and unanalyzed portions when a controlled substance other than an opiate is confirmed. Measurement assurance is included. **5.10.2.5** – Notation added for "Measurement assurance does not apply to gross weights. **5.10.2.6** Section added to cover suspected synthetic cannabinoids submitted in commercial packaging. **5.12.6.4** - Section moved from last statement in this section to here. (Original Section **6.5.6.6**). - All references to "exhibit" changed to "item." - All original references to Section numbers updated to reflect new Section numbers. - All references to net and gross weights brought into accordance with current Measurement Assurance requirements and wording being used in Forensic Advantage for laboratory results. Grammar
03/08/2013	4	**5.7.2.1.1** – Added statement to allow for analysis of residues in certain cases.
05/10/2013	5	Transferred from Technical to Administrative Drug Chemistry Section Procedures. **Original 4.0, 5.5, 5.6, 5.13, 5.14, 6.0, 7.0** - Removed sections to

		reformat for an Administrative Procedure. **4.8.1.1** – Require complete analysis of one unit of all marked pharmaceuticals – even if markings indicate non-controlled. **4.8.1.2, 4.8.2.5, 4.9.3, 4.10.4, 4.10.5, 4.10.5.1,** – Added reference to "and applicable measurement assurance." **4.8.1.3, 4.8.1.4.4, 4.8.1.4.5** – Added reference to non-controlled substances. **Original 5.10.1.5** – Removed section "Reporting Non-Controlled Substances." **4.8.1.4.3, 4.8.1.4.5, 4.10.5, 4.10.5.1.5, 4.10.6.1 -** Corrected line references due to sections being removed.
11/15/2013	6	Added issuing authority to header.
04/18/2014	7	**Definitions: Sampling –** Updated wording **4.8.2.6.3** – Added Forensic Scientist Supervisor
08/29/2014	8	**4.5.2.1.1, 4.5.2.1.2** – Clarified analysis requirements for cases involving all residues. **4.6.8.1-** Remove reference to quantitation via HPLC. This technical procedure has been rescinded. **4.8.2.6** – Removed "where no preliminary analysis is available" **4.8.2.6.3 –** Removed partial section requiring TL approval for single unit analysis on multiple commercially packaged suspected synthetic cannabinoids.
05/15/2015	9	**4.6.7.8 –** Removed "by the Forensic Scientist." **4.7.2 thru 4.7.4 –** Added line references for the three sampling options. **4.7.3, 4.7.4** – Added "sufficient." **4.7.5** – Added "sampling." **Section 4.8.1** – Added "and amphetamine" with all opiate tablet requirements. **4.8.1.2 –** Added requirement for opiate and amphetamine tablets/capsules to be weighed on a table top balance, clarified net weight. **4.8.1.2.1** - Referred to Drug Chemistry Analysis Procedure for clarification on reporting of single units less than 0.1 gram. **4.8.1.2.2** – Added no weight requirement for opiate delivery systems. Recorded weights shall not be reported. **4.8.1.3** and **4.8.1.4** – Clarified weight requirements for non-opiate/non-amphetamine controlled, and non-controlled preparations. **4.8.1.5.2** and **4.8.1.5.3** – Removed requirement for statement reference additional testing when a threshold weight of opiate or amphetamine tablets cannot be met. **Section 4.8.1.5** Clarified tablet "or capsule." **Section 4.8.2** – Changed Administrative Sample Selection to minimum of one unit analyzed instead of three. **Original 4.8.2.2 thru Original 4.8.2.5** – Removed obsolete requirements reference preliminary testing.

		Section 4.8, Section 4.9, Section 4.10 - Changed gross weight requirements to record as needed, but not reported unless sample matrix interferes with complete removal of packaging. **4.10.1 thru 4.10.5 –**Added minimum of three analyzed units to be used for estimation of total net weight in order to determine if Hypergeometric Sampling will be used. Stated reporting requirements for controlled/non-controlled results of first three units. **4.10.6** – Clarified when to use Hypergeometric Sampling Plan. **4.10.6.1** – Clarified "units" **4.10.6.3** - Added caveat that three analyzed for total net weight estimate shall be part of required units according to hypergeometric table. **Original 4.10.2** – Removed obsolete requirement reference preliminary screening. **4.10.6.4, 4.10.7** – Renumbered, clarified gross weights recorded as needed. **4.10.9.1** – Clarified "units" **Original 4.10.5.1.4** – Removed obsolete requirement reference gross weight of remaining 10 % of the population. **Original 4.10.5.1.5 (now 4.10.9.1.4)** Removed reporting of gross weight on last 10% of hypergeometric populations. **Original 4.10.6.1.4 (now 4.10.10.1)** – Updated line reference numbers and clarified Threshold Sample Selection. **4.10.10.7** – removed "with the weight of that portion"
10/19/2015	10	**Header -** Revised issuing authority **Definitions –**Added "non-pharmaceutical" to Administrative, added new definition of "unit", edited definition of "population" **Removed Original 4.10.11.3 –** Obsolete from Version 9 changes. **4.8.2.8.2, 4.9.4.2, 4.9.4.3, 4.10.11.2** - Edited results wording to "No controlled substances identified." **Original 4.9.4.4, 4.10.11.3** – Deleted **4.9.1** – Added United States Sentencing Commission Guidelines Manual **4.10.5.1** – Added "individually" **Entire document** – All references to "package, units or tablets" changed to "units"
07/01/2016	11	**Definitions – Administrative Sample Selection** – Added "non-pharmaceutical" and removed second sentence. **4.8.1.3 –** Removed "s" from amphetamine – Threshold applies to all opiates in general, but amphetamine specifically. **4.8.1.5.4, 4.8.1.4.5.5, and 4.8.1.5.6** – Removed "an" in front of amphetamine since threshold only applies to amphetamine specifically.
04/07/2017	12	**4.6.7 –** Added reporting requirement for specific situations in which sampling does not apply. **4.8.2.2.1, 4.9.2.3.1, and 4.10.5.1.1 –** Added instruction for

		reporting of weights less than 0.1 gram. **Original 4.9.2** removed obsolete reference to preliminary testing. **4.9.2.1 and 4.9.2.2 –** Clarified analysis requirements. **4.9.3.2 and 4.9.4.2 –** Updated report wording to correspond with procedural requirements **4.10.10.4** – replaced statistical with hypergeometric