ER 1.1 Guidelines for Evidence Submission

Approved by Director: Dr. Guy Vallaro

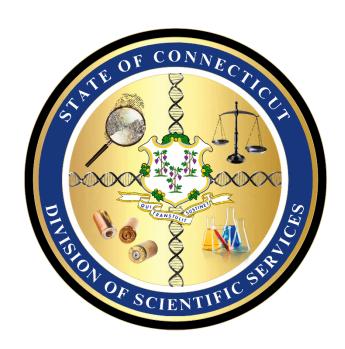
Document ID: 33799

Revision: 2

Effective Date: 06/04/2025

Status: Published Page 1 of 37

DIVISION OF SCIENTIFIC SERVICES
EVIDENCE SUBMISSION GUIDELINES



ER 1.1 Guidelines for Evidence Submission

Approved by Director: Dr. Guy Vallaro

Document ID: 33799

Revision: 2

Effective Date: 06/04/2025

Status: Published Page 2 of 37

Table of Contents

| 1.0 | GENERAL EVIDENCE SUBMISSION INFORMATION | 4 |
|------|--------------------------------------------------------------|----|
| 1.1 | GENERAL PACKAGING REQUIREMENTS | 4 |
| 1.2 | REQUEST FOR ANALYSIS FORM | 7 |
| 1.3 | FORENSIC LABORATORY SCOPE OF ACCREDITATION | 9 |
| 1.4 | CRITERIA FOR EVIDENCE SUBMISSION | 9 |
| 1.5 | JOYCE WARRANTS | 10 |
| 1.6 | LABORATORY CONTACT INFORMATION | 10 |
| 1.7 | GUIDELINES FOR CASE TYPE | 10 |
| 2.0 | COLLECTION/PACKAGING OF DIFFERENT TYPES OF PHYSICAL EVIDENCE | 11 |
| 2.1 | SEROLOGICAL TESTING | 11 |
| 2.2 | BIOLOGICAL SAMPLE/DNA SAMPLE COLLECTION | 15 |
| 2.3 | BIOLOGICAL EVIDENCE – PREVENTING CONTAMINATION | 21 |
| 2.4 | BIOLOGICAL EVIDENCE – COLLECTION | 22 |
| 2.5 | COMPUTER CRIMES AND ELECTRONIC EVIDENCE | 23 |
| 2.6 | FIREARMS EVIDENCE | 24 |
| 2.7 | LATENT PRINTS | 27 |
| 2.8 | MULTIMEDIA EVIDENCE | 31 |
| 2.9 | QUESTIONED DOCUMENTS | 33 |
| 2.10 | DRUG EVIDENCE | 35 |
| 2.11 | TOXICOLOGY TESTING | 36 |
| 2.12 | FIRE SCENE EVIDENCE | 38 |
| 2.13 | PRIMER GUNSHOT RESIDUE (PGSR) EXAMINATION | 38 |

ER 1.1 Guidelines for Evidence Submission Document ID: 33799

Revision: 2

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro Status: Published Page 3 of 37

1.0 GENERAL EVIDENCE SUBMISSION INFORMATION

In general, physical evidence must be submitted according to the following guidelines. Evidence examination request forms (SOP-ER-02:1) must be completed in full. If there are questions or concerns about the submission of physical evidence, please contact the Case Management Unit at 203-427-4098.

The Evidence Receiving Unit of the Division of Scientific Services (DSS) is the first point of contact for all agencies submitting evidence to the DSS. This Unit plays an integral role in maintaining the proper storage and chain of custody of all evidence. The Evidence Receiving Officers or other DSS personnel will evaluate the evidence, the requested services, and the case history to ensure that the needs of the submitting agency can be met by the DSS. A case synopsis or report can assist in evaluating the requested services. Due to accreditation requirements concerning proper submission of evidence, strict adherence to the following guidelines is necessary in order to protect evidence from being lost or contaminated.

Submitting agencies are requested to keep the DSS informed of any changes in the case (e.g. new suspects developed, arrests made, court disposition, case closed at the Troop/P.D. – including why the case was closed). All case updates should be communicated to the Case Management Unit via email at CT.ForensicLab@ct.gov.

GENERAL PACKAGING REQUIREMENTS 1.1

1.1.1 All evidence shall be submitted under proper seal. The term "proper seal" means evidence is prevented from contamination, sample loss, and the packaging has no evidence of tampering. The packaging of all evidence shall be of the appropriate size and containers must not be re-used.

> Manufactured evidence storage bags must have a self-sealing capability with initials placed on the seal(s). It is suggested that all other plastic bags used for packaging be heat-sealed and initialed over the seal.

- 1.1.2 A tamper-evident seal must be initialed. Tamper-evident tape is evidence tape that will not remain intact upon its removal. Tamper-evident includes:
 - Heat seal on zip-lock or other plain plastic bags. a.
 - Paper bags and envelopes taped end to end over the opening. b.
 - c. Staples alone are **not** sufficient. If staples are used, they must be covered with evidence tape.
 - Metal cans taped over the top on opposing sides.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 4 of 37 |

- e. Specially manufactured evidence storage bags (Tyvek, plastic, etc.) must be sealed with tamper evident material.
- f. When submitting evidence in a gun or knife box, all punch holes must be sealed.
- 1.1.3 Computer towers with visible date ports should have evidence tape placed over the power supply, as well as over the optical disc drive. Use evidence tape to seal across the tower in a way that shows the inside cannot be accessed to ensure computer case integrity. Other electronic devices (i.e., laptops, tablets, cellphones, thumb drives, etc.) should be sealed inside appropriate packaging (i.e., paper bag, plastic bag, etc.). Initials shall be placed on the tape and seal(s). Faraday bags may be used to contain smaller electronic devices (i.e., cellphones, tablets, etc.). The Faraday bag should not be used as the tamper evidence packaging. Place the Faraday bag into a sealed package for submission to laboratory. Cell phones should be placed in airplane mode if possible.

Large items of evidence that do not lend themselves to packaging should be submitted with the areas of interest protected. Example: car bumper – cover the damaged portion.

- 1.1.4 All outer packaging or containers should be labeled with:
 - a. Submitting Agency case number
 - b. Description of item
 - c. Item number
- 1.1.5 Refer to packaging guidelines below.

Note: All physical hazards (i.e. sharps or broken glass) must be packaged in a puncture proof container.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| , | Page 5 of 37 |

| Packaging Type | Uses |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paper bags or envelopes | Any biological material (blood or semen stained items, dry condoms etc.) and plant material (suspected marijuana, psilocybin mushrooms). |
| | Note: All items are to be air-dried prior to packaging. If unable to air dry, freeze any items containing biological materials and submit to the DSS as soon as possible. Notify Evidence Receiving that the evidence was not dried and needs to remain frozen. |
| | Note: Condoms containing fluid should be placed in a plastic container and frozen. |
| Plastic bags or Ziplocs | A non-biological material such as powder drug samples, cartridges casing, or projectiles. |
| | Note: Heat-sealed is preferred to ensure integrity of the seal, but if they are manufactured evidence bags, the adhesive seal is sufficient. |
| Metal Cans | Fire debris evidence, suspected liquid PCP samples |
| | Note: Firearms received in water should be in a leak proof container (e.g., Tupperware container or a paint can). |
| Glass vials | Liquid drug samples, syringe contents, blood samples. |
| | Note: Glass vials should be packaged inside a cardboard box or other protective device to prevent breakage. |
| Paper folds placed into a heat-sealed plastic bag. | Small pieces of trace evidence such as residue amount of powder drugs, debris or hairs. |
| Cardboard boxes | Firearms, knives, large pieces of plate glass, surfaces with shoe prints, large clothing items, bedding. Cover all openings in boxes with evidence/packing tape. |
| | Note: The submitting agency seals will be broken in accessing the contents of these boxes. |
| Plastic containers | Condoms or other items containing liquids. |
| | Note: Do not use for arson samples; biological evidence should be frozen immediately. |

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |

1.2 REQUEST FOR ANALYSIS FORM

Each case must have its own request form. Separate request forms are not required for each piece of evidence submitted. Related cases can be cross-referenced.

Page 6 of 37

- 12.1 The form is generated so that it may be typed or neatly and legibly handwritten. This form is available on the DSS website and may be downloaded by its customers. Please ensure that you are using the most current form available on the website. The DSS will post notification in the Evidence Receiving Unit of any changes/updates made to this form.
- 1.2.2 If evidence from a case was previously submitted to the DSS, mark the appropriate box and list the previously assigned DSS case number.
- Fill in or respond to all blank spaces and questions included on this form, including agency case number, name and contact information for the investigating officer with an email address.
- List the full names and DOB of all suspects and victims in the appropriate location. Also provide a full name and DOB for elimination samples. If additional suspects are developed at a later time, please contact the Case Management Unit of the DSS at 203-427-4098 to update this information or via email at CT.ForensicLab@ct.gov.

In this area, please indicate if the suspect has been arrested in connection to the incident and evidence being submitted.

- Give a brief summary of the case. Emphasize facts that are relevant to the evidence examination request. If there is a companion case, state that fact in the summary. List each item and a brief description of that item. The agency may attach the incident report or search warrant to provide the case summary details.
- 12.6 The listed item numbers <u>must</u> correspond with the evidence numbers written on the actual evidence containers.
- 12.7 For all evidence items please describe the PHYSICAL contents of the package. Use the guide below for the preferred description formats. Preferred Evidence Descriptions:
 - a. For DNA swabs include the location swabbed
 - ex: swabbing- front drivers' side door handle

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 7 of 37 |

- o Preferred description using the word "swab" or "swabbing"
- Not preferred "DNA sample" (unknown if DNA is present until tested)
- b. For GSR kits include the location collected
 - ex: GSR kit- John Smith
 - ex: GSR kit- driver side door
- c. For DNA known samples include name
 - ex: buccal swabs & FTA card- John Smith
 - "buccal swab", "elimination DNA", "DNA known" acceptable verbiage
- d. For Elimination fingerprints include name
 - ex: Elimination prints John Smith
- e. For Firearm evidence please include the type of evidence
 - ex: Luger 9mm casing vs Luger 9mm firearm
- f. For drug evidence include Approx. quantity
 - ex: Approx. 130 glassine folds with white powder substance
- 1.2.8 Check off all examinations that you want completed for each piece of evidence. DSS personnel will evaluate the evidence and determine the appropriate type and sequence of testing. If NIBIN entry has been conducted at a kiosk or another agency, the "NIBIN Entry Has Been Made" should be indicated.
- Remarks: Include any pertinent information. (e.g., evidence previously examined, evidence exposed to known adverse chemical or environmental factors)
- 12.10 Remote Evidence Drop-off: For remote evidence drop-off, lockers are available in the inner lobby (foyer) of the Evidence Receiving Unit (ERU). The lockers and the key assigned to each locker are numbered.
 - 1.2.8.1 The keys for the lockers in the inner lobby will be placed on the counter in Evidence Receiving.
 - 1.2.8.2 Brief instructions below:
 - 1. Sign in to Log Book
 - 2. Fill out an RFA one per case
 - 3. Place cases & paperwork in a Locker
 - 4. Place key on front counter or clear box on door
 - 5. Evidence Control Officers or designee will scan your returns.
 - 6. Receipts may be paper or electronic, copies may be physical documents or emailed.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
|-------------------------------------------|--------------------|

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

State
Page

Status: Published Page 8 of 37

Web Links to Forms

Request for Analysis Form, Addendum Form and additional laboratory forms:

https://portal.ct.gov/-/media/DESPP/DSS/Forms/Evidence-Receiving-Addendum-to-the-Request-for-Analysis.pdf

1.3 FORENSIC LABORATORY SCOPE OF ACCREDITATION

1.3.1 The Division of Scientific Services ANAB/ANSI scope of accreditation can be found here:

https://search.anab.org/public/organization_files/State-of-Connecticut-Department-of-Emergency-Services--Public-Protection-Division-of-Scientific-Services-Cert-and-Scope-File-05-20-2025 1747770636.pdf

1.3.2 If you need assistance with testing not listed in this chart please refer to the table of contents or call the laboratory to determine if we can assist.

1.4 CRITERIA FOR EVIDENCE SUBMISSION

Examination of evidence will *not* be performed at the Forensic laboratory unless the submitted items meet the following criteria:

- 1.4.1 Evidence or material generated in the course of criminal investigations that is intended to support criminal prosecution/defense, determine innocence, exoneration or to further a criminal investigation.
- 1.42 Evidence or material where the examination of such is necessary to further the cause of public safety or welfare.
- 1.4.3 Evidence or material that was **not** previously examined by another analyst or law enforcement laboratory unless prior approval by the Director of the DSS has been obtained.
- 1.4.4 DSS examinations may require reference materials for comparison or additional communications with the investigating officer and/or prosecutor. If a response to a documented request is not received within a reasonable time, the DSS reserves the right to return the submitted evidence to the investigating agency until an appropriate response has been obtained.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 9 of 37 |

- 1.4.5 The Director of the DSS or his/her designee may refuse to accept evidence that does not meet these criteria or that could endanger the safety of DSS personnel.
- 1.4.6 For large cases or "Cold" cases, DSS staff will review the evidence with the submitting agency prior to submission. Please contact the Case Management Unit via email at CT.ForensicLab@ct.gov or (203) 427-4098.
- 1.4.7 Evidence of a civil nature will not be analyzed, unless prior approval by the Director of the DSS has been obtained.

1.5 JOYCE WARRANTS

- 1.5.1 Clearly identify the submitted evidence that will be examined pursuant to the issuance of a "Joyce" search and seizure warrant.
- 1.52 Submit a copy of a signed search and seizure warrant (only required for Computer Crime submissions), with Joyce language present in this warrant.
- 1.5.3 The Joyce Warrant should be signed if DSS is listed as the location of the warrant. Otherwise, the warrant is not for DSS to acknowledge receipt.
- When a Joyce Warrant is required, the warrants should be submitted at the same time the physical evidence is submitted. If evidence was submitted without a Joyce warrant and subsequently you are advised of the need for a warrant, notify the DSS **IMMEDIATELY** so that testing is placed on hold until the warrant is received.

1.6 LABORATORY CONTACT INFORMATION

Case Management: 203-427-4098

Email: <u>CT.ForensicLab@ct.gov</u>

Evidence Receiving: 203-639-6466

1.7 GUIDELINES FOR CASE TYPE

1.7.1 All reference specimens of identified individuals should be collected and submitted prior to DNA analysis or fingerprint examination. These reference samples will include elimination samples from individuals that may have reason to be on evidence (e.g., homeowner's samples in a burglary case involving their residence).

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 10 of 37 |

- 1.72 DSS does not normally analyze the following types of cases: Suicides, Found Property, Criminal Mischief, Infractions and Administrative Inquires. Exceptions may be addressed to the Director of DSS through Evidence Receiving and/or Case Management.
- 1.73 To ensure optimal use of DSS resources, the lab may limit the number of samples that they will examine per case. The following are general guidelines for the number of samples examined:
 - 1. Burglary/property crimes: 1-2 DNA samples. *Note: There are no restrictions on Latent Print evidence submitted for property crimes.*
 - 2. Sexual Assault cases: The most intimate samples (CT 100 Kit), plus one or two additional samples of clothing/bedding items if needed.
 - 3. Robbery/Assault 2nd and 3rd cases: Up to 5 DNA samples
 - 4. Other cases: Number of samples is case-dependent. DSS staff will review cases with the submitting agency if there is a large amount of evidence to be tested. Contact Case Management prior to submission.
- 1.7.4 All expedited requests should be made in writing via letter or email addressed to the Director of the DSS. The letter should come from your agency's Chief of Police/Commanding Officer or a State's Attorney.
- 1.7.5 All DNA or fingerprint comparison testing from one case to another must be requested by the State's Attorney via letter or other form of written communication such as email. For other case-to-case comparison types that involve other disciplines, a letter from the submitting agency is sufficient.
- 1.7.6 The State's Attorney of the jurisdiction from which the evidence was submitted will be notified via email or by letter of any samples identified as a consumption issue. Testing on such samples may be released for testing approximately 30 days after the communication of the consumption issue. Should the Defense Attorney or his/her representative request to be present or have an expert present during such testing, the State's Attorney should communicate such requests to the DSS as soon as possible prior to the 30 days elapsing.

2.0 COLLECTION/PACKAGING OF DIFFERENT TYPES OF PHYSICAL EVIDENCE

2.1 SEROLOGICAL TESTING

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
|-------------------------------------------|--------------------|

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

Status: Published
Page 11 of 37

The Forensic Biology Unit examines evidence to indicate the presence of blood and other body fluids, such as semen and saliva. This Unit determines which samples will be forwarded to the DNA Unit for further analysis.

2.1.1 Blood

A series of tests is used to indicate the presence of human blood on evidence.

Note: The use of Luminol, BlueStar®, other blood detection tests or latent print blood enhancements chemicals at the scene may cause the screening test to give false negative results. Please notify the DSS if this type of test was used on the evidence being submitted.

Spraying evidence with aerosol screening tests is not recommended if "trace DNA" testing will also be requested on this evidence.

2.1.2 Semen

The DSS tests evidence for the presence of semen. This type of testing is routinely conducted on clothing and bedding. For items contained in a Sexual Assault Evidence Collection Kit the laboratory can test for semen when requested by the State's Attorney's Office. If a stain is suspected of being semen and if the entire item cannot be collected, cut out the area containing the stain. Note: Semen stains are sometimes not visible to the naked eye. An alternate light source might need to be used to visualize such stains.

2.1.3 Other Biological Materials

The Forensic Biology Unit is also responsible for the indication of other types of biological material, such as saliva. When possible, provide information if this type of stain should be searched for on the evidence submitted.

If the examiner determines that no biological fluid is present on an item of evidence, but an individual may have come in contact with that item, then a "trace DNA" sample may be collected. The premise behind a "trace DNA" sample is that through normal handling or wearing of an object, there is a potential transfer of skin cells. A sample is collected from an area on the evidence that is a potential site of transferred skin cells. These samples may then be forwarded for DNA analysis or preserved for future testing if necessary.

Note: If a piece of evidence requires latent print processing and trace DNA collection, please add the latent print request to the request for analysis form at the time of

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 12 of 37 |

submission by checking the appropriate boxes on the form.

2.1.4 Packaging of Evidence for Serological Testing

Evidence that is to be submitted for serological testing should be packaged in paper bags. When collecting bloody or wet evidence at the scene, make sure to air dry prior to sealing inside the paper bags.

2.1.5 Sexual Assault Cases

Pursuant to CT Public Act 15-207 (effective 10/01/2015), sexual assault evidence shall be submitted to the DSS within 10 days of collection. This includes evidence collected from an individual who wishes to remain anonymous.

https://www.cga.ct.gov/2015/act/pa/pdf/2015PA-00207-R00HB-06498-PA.pdf

Arrange for the victim to proceed to a hospital or medical facility themselves as soon as possible. Instruct the victim to avoid going to the bathroom or cleaning in any capacity. If the victim has cleaned themselves, an effort should be made to obtain any paper towels/ tissues that may have been used. Additional guidance on the collection and handling of Sexual Assault Evidence may be obtained at the State of Connecticut Commission on the Standardization of Collection of Sexual Assault Evidence website:

https://portal.ct.gov/DCJ/19a-112a-Evidence-Commission/Commission-Home-Page/Commission-Home-Page

- 2.15.1 A 'CT100' Sexual Assault Evidence Collection Kit is normally utilized during the physician's examination at the hospital for Forensic Biology and DNA analysis. A 'CT-400' Sexual Assault Evidence Collection Kit is utilized for toxicology testing only in cases where the victim was suspected to have been incapacitated.
- Take custody of the sealed and labeled 'CT100' or 'CT-400' Kit(s) and corresponding bag of victim's clothing.
- 2.153 Refrigerate (Do Not Freeze) the Kit(s) and arrange for submission to the DSS within 10 days of the evidence being collected. The clothing may be kept at room temperature.
- 2.1.5.4 The submission of evidence should include the Kit(s), victim's clothing, and any other associated evidence (i.e. CT-400 Kit).

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 13 of 37 |

- If a suspect is developed, the DSS may need known biological (buccal) samples from the suspect. A sexual assault offender kit ('CT 200') is also available. The kit contains materials for other samples and clothing if a suspect is developed soon after the incident.
- 2.1.5.6 A summary of the case should include information such as the use of a condom, ejaculation, etc.
- 2.1.5.7 If there is an indication that the assault may have been drug facilitated, a 'CT-400' kit may be collected at the hospital and submitted to the DSS to be tested by the Toxicology Unit.

Note: the victim consent form should be included in this kit. If a 'CT-400' Kit was not collected, the blood from the 'CT100' Kit can be used with the proper consent form signed by the victim. Call or email the DSS Case Management Unit for guidance.

- 2.15.8 The victim may choose at the time of presenting to the hospital to remain anonymous. In such cases, a 'CT100' Kit and/or 'CT-400' will still be collected and identified with a numeric code instead of the victim's name.
- 2.159 "Anonymous" evidence must still be submitted to the Laboratory. It will be held unexamined at the DSS for at least 5 years. Should an individual choose to make a police complaint during that time frame, notify the Case Management Unit at (203) 427-4098 or via email at CT.ForensicLab@ct.gov so that testing can be initiated.

2.1.6 <u>Sexual Assault Non-Kit Evidence</u>

Effective May 1, 2018, the Division of Scientific Services (DSS) will require the Sexual Assault Non-Kit Evidence Form to be submitted for sexual assault evidence when a CT 100/400 is not collected.

The intent of this form is to capture and record incident related information needed to streamline evidence examination within the laboratory. This type of information is typically captured within the medical report accompanying sexual assault evidence collection kits (CT 100/400). In the event that a kit is not collected and only non-kit evidence is submitted for a case (ex. bedding, clothing, etc.), the laboratory is not supplied with the necessary information needed to conduct examinations.

This PDF-fillable form is available on our website: https://portal.ct.gov/-/media/DESPP/DSS/Forms/SexualAssaultNonKitEvidenceFormRev1pdf.pdf

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
|-------------------------------------------|--------------------|

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

Status: Published
Page 14 of 37

2.2 BIOLOGICAL SAMPLE/DNA SAMPLE COLLECTION

Due to the potential of contamination, it is recommended that crime scene personnel wear masks and hair nets when collecting evidence. Gloves should be changed <u>regularly</u>. Collection tools such as tweezers must be cleaned with bleach and alcohol between samples. Single use supplies are recommended whenever possible.

Generally, any body fluid or cellular material can be tested as a potential source of DNA. These sources would include, but are not limited to, blood, semen, saliva, skin, sweat, hair roots, bone, tooth pulp, sloughed cells.

DNA recovery can be unpredictable. Many factors influence the recovery of DNA from a stain including age, exposure to light, moisture, heat and other environmental insults.

Note: foam-tipped swabs should only be used for collection of buccal samples and NOT for evidentiary samples. Please contact the Case Management Unit for additional questions.

2.2.1 Swabbing of Blood or other Bodily Fluids:

- 22.1.1 Place gloves on hands. Use a disposable mask for the mouth/nose and a hair net. If you touch something which may contaminate the sample, replace gloves.
- Open the packaging of 1-2 sterile swabs and remove swab(s).

Retain the swab(s)' packaging.

The swab(s) should only come into contact with the suspected stain/area of interest.

If you must store the swab(s) prior to collection, return them to the packaging.

- Indicate on the packaging where the swabbing(s) were collected from.

If stain/suspected sample is dry, moisten the swab(s) with one or two drops of sterile distilled water or saline solution. Do not saturate the swab(s) or you may dilute the sample.

The wet swab(s) will add moisture to dry stains, loosening the stain material and allowing it to be transferred more easily to the swab(s).

- If the stain/suspected sample is wet, the sterile swab(s) is used directly on the stain/suspected sample.
- Swab the area of interest vigorously until the stain is collected (approximately 10-30 seconds).

| ER 1.1 Guidelines for Evi | | Document ID: 33799 Revision: 2 Effective Date: 06/04/2025 Status: Published Page 15 of 37 |
|---------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | |
| | Try to collect the sample on the to on one area of each swab. | ip of the swab(s) thus concentrating the stain |
| | Do not swab so hard that the swa | b surface starts to break down. |
| | Swab(s) should be dried before pa | ackaging in outer envelope/paper bag. |
| | Swab(s) can be returned to origin | al packaging to dry. |
| | Multiple swabs can be dried in the the same time to collect the same | e packaging of one swab (if they were used at sample). |
| | When possible, place swabs used dry. | for the same sample in the same packaging to |
| 2.2.1.6 | Swab(s) and/or swab(s) in original material: | al packaging should be packaged in paper |
| | - Envelope | |
| | - Paper bag | |
| | - Cardboard box | |
| | *Do not use plastic for outer pa | ckaging. |
| | placed in the same package. In a stain/location using Cap-Sh | cation (collected simultaneously) should be the event that two swabs are collected from ure® brand collection swabs, place both elope/paper bag and indicate on the label |
| 2.2.1.7 | Envelope/paper bag should be lab (i.e.): | peled to identify sample taken and location |
| | - Blood-like stain from table | |
| | - Saliva sample from ground | |
| 22.1.8 | Seal envelope/paper bag with evi | dence tape. Initial the seal. |
| 22.1.9 | Store at room temperature. | |
| 2.2.2 <u>Swab</u> | bing for Trace DNA: | |
| 2.2.2.1 | Place face mask over mouth and | nose. Hair net may also be used. |

State of Connecticut Department of Emergency Services and Public Protection Division of Scientific Services

Place gloves on hands.

2222

| [| | |
|----------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| ER 1.1 Guidelines for Evidance Approved by Director: Dr. | | Document ID: 33799 Revision: 2 Effective Date: 06/04/2025 Status: Published Page 16 of 37 |
| | - If you touch something v | which may contaminate the sample, replace gloves. |
| 2.2.2.3 | Open the packaging of 1-2 - Retain the swab(s)' packa | swabs and remove swab(s). ging. |
| | - The swab(s) should only o | come into contact with the area of interest. |
| | - If you must store the swal | o(s) prior to collection, return to packaging. |
| 2.2.2.4 | Moisten the swab(s) with a solution. Do not saturate the | one or two drops of sterile distilled water or saline e swab(s). |
| 2.2.2.5 | ` | s indicated on supporting documentation/d by the victim) vigorously (evenly applied -30 seconds). |
| | - Try to collect the sample | on the tip of the swab(s). |
| | - Do not swab so hard that | the swab(s) surface breaks down. |
| 2226 | Swab(s) should be dried be | fore packaging in outer envelope/paper bag. |
| | - Swab(s) can be returned to original packaging to dry. | |
| | - Multiple swabs can be dri at the same time to collect | ed in the packaging of one swab (if they were used the same sample). |
| | - When possible, place swa to dry. | bs used for the same sample in the same packaging |
| 2.2.2.7 | Swab(s) and/or swab(s) in omaterial: | original packaging should be packaged in paper |
| | - Envelope | |
| | - Paper bag | |
| | - Cardboard box | |
| | *Do not use plastic for ou | ter packaging. |
| 2.2.2.8 | Envelope/paper bag should (i.e.): | be labeled to identify sample taken and location |
| | - Swabbing of counter top | |
| | - Sample from cash register | r keys |
| 2.2.2.9 | Seal envelope/paper bag w | ith evidence tape. Initial the seal. |

ER 1.1 Guidelines for Evidence Submission

Document ID: 33799

Revision: 2

Effective Date: 06/04/2025

Status: Published Page 17 of 37

Approved by Director: Dr. Guy Vallaro

22.2.10 Store at room temperature.

NOTE: Swabs from the same location (collected simultaneously) should be placed in the same package. In the event that two swabs are collected from a stain/location using a Cap-Shure® brand collection swab, place both capped swabs in the same envelope/paper bag and indicate on the label "two swabbing(s) from..."

2.2.3 Collection of Buccal Sample

Swabbing:

- 1. Place gloves on hands.
 - If you touch something which may contaminate the sample, replace gloves.
- 2. Place FTA card on clean dry surface. Recommended: Label the card with identifying information.
- 3. Open packaging of the swab and remove swab.
 - Retain the swab's packaging.
 - Do not let the swab come into contact with anything prior to swabbing.
 - If you must store the swab prior to collection, return to packaging.
- 4. Moisten the swab on both sides by inserting the swab end into the mouth and scraping/rubbing against the gums and under the tongue.
- 5. Once the sponge is wet,
 - Vigorously swab the inside cheek area on one side of the mouth.
 - Use the opposite side of the swab to collect a sample from the other cheek.
 - Lift cover of the FTA card.



- 6. In the circle lined area of the FTA card, place the swab flat to the surface of the FTA card.
 - Press down for 15-30 seconds. Do not rub the sponge back and forth (this may damage the FTA card).
 - Flip the swab and repeat with the other side of the swab.
 - The FTA card should turn from pink to white. If the card does not turn from pink to white, use a new FTA card kit and re-collect.
 - Once the swab touches the FTA card, do not return to the mouth.

Example of a good collection and transfer:



ergency Services a entific Services are considered und



ER 1.1 Guidelines for Evidence Submission

Document ID: 33799

Revision: 2

Effective Date: 06/04/2025

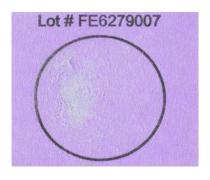
Status: Published Page **18** of **37**

Approved by Director: Dr. Guy Vallaro

Front side

Reverse side

Example of a poor collection and transfer:





Front side

Reverse side

- 7. Repackage the swab in the original wrapper.
- 8. Allow the swab and FTA card to dry.
- 9. Place FTA card and repackaged swab in an envelope or paper bag. Do not use plastic for outer packaging. Seal and label the packaging. Note: Label should include source's full name.
- 10. Store at room temperature.
- 11. When filling out the Request for Analysis form, make sure to clearly indicate the source of the sample(s) with their full name, arrest status, DOB, race, gender at birth.

Note: If Indicating FTA cards are unavailable, a sample may be collected using the sterile swab technique.

2.2.4 Collection of Pseudo Knowns:

If there is insufficient probable cause to obtain reference sample(s) from a suspect, the investigator may submit a water bottle, straw, cigarette filter or similar item that was used by the suspected individual. The investigator should be able to document that an individual used the item submitted and that this item is reasonably expected to contain DNA from only the user. Upon collection of the item it should be treated as evidence with a documented chain of custody.

The DNA profile obtained from the "pseudo known" item can be compared to the DNA results from the evidence. The conclusion in the report will compare the questioned

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
|-------------------------------------------|--------------------|

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

Status: Published
Page 19 of 37

sample(s) to the item submitted as a "pseudo known" and not to the individual in question. If the profile appears to match, your agency may be able to use the report confirming the match as probable cause to obtain a reference sample from the suspect to confirm. A known sample will still need to be obtained and submitted to the DSS for comparison purposes.







2.2.5 <u>Products of Conception</u>

In the event that products of conception are to be collected as evidence, please alert the medical staff to provide the biological material/tissue in a sterile specimen container. It is preferred that no liquid media is provided in this container, but if the medical facility needs to add a liquid, saline is preferred. **Do not use formalin or formaldehyde since these preservatives may affect the DNA results.**

2.2.6 <u>Missing Persons/Unidentified Human Remains</u>

DNA samples related to a missing person or unidentified humans remains case can be submitted to DSS for testing. All samples should be submitted with an Evidence Examination Request Form (ER-SOP 2:1). Also, the Additional Information Required for Requests for Missing Persons Testing Form is required. https://portal.ct.gov/-/media/DESPP/DSS/Forms/MissingPersonsFormrev-3.pdf

All relevant areas are to be filled out in full to better facilitate the processing of these cases; this includes NamUs, NCIC and VICAP numbers. If there are specific questions or concerns about the submission of physical evidence for these types of cases, please contact the Case Management Unit.

22.6.1 Sources of Samples

- a. Direct Reference Sample (DRS): samples obtained directly from the missing person.
 - Medically obtained blood cards, whole blood, or a tissue specimen that

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|-----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 20 of 37 |

was collected from the missing person

- A toothbrush/hairbrush used ONLY by the missing person
- b. Family Reference Samples (FRS): samples obtained from family members of the missing person.
 - · Buccal/Oral swabs
 - Blood Cards
- c. Unidentified Human Remains Samples (UHR): samples obtained from unidentified human remains
 - Tissue (blood is preferred when available)
 - Bones (long bones are preferred when available)
 - Teeth (non-restored teeth are preferred when available)

22.62 Collection of family samples

Family reference samples should be submitted in the following order (when permitted):

- a. Biological Mother and Father
- b. Biological Child(ren)
- c. Biological Full-sibling(s)
- d. Maternal Relative
- e. Paternal Relative (only when the UHR are male)

2.3 BIOLOGICAL EVIDENCE – PREVENTING CONTAMINATION

It is important when collecting an item of evidence or collecting a stain to take precautions to avoid contamination by transferring DNA/biological materials from one piece of evidence to another within a crime scene. The following is a list of preventative measures that can be used to reduce contamination:

- 2.3.1 Wear protective equipment (i.e. gloves, masks, hair net, booties, and gowns) when collecting biological evidence.
- 2.3.2 Change gloves frequently and between samples.
- 2.3.3 Sterile collecting material such as swabs or gauze should be used to collect evidence. Swabs should be lightly moistened with sterile distilled water prior to collecting dried

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|-----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 21 of 37 |

stains. If gauze is used, lightly moisten the area that the sample will be collected onto with sterile distilled water.

2.3.4 Use clean or disposable tools with each sample being collected (razors, forceps, swabs, etc.). A diluted bleach solution followed by alcohol should be used for cleaning between uses if the tools are not disposable.

2.4 BIOLOGICAL EVIDENCE – COLLECTION

To obtain the best sample possible for analysis, the following measures should be taken when collecting evidence for DNA analysis:

- 2.4.1 Collect the entire item or take a cutting of the item.
- 2.4.2 Collect sufficient material for testing and preservation. When possible, **collect at least** 2 swabs of a suspected biological material.
- 2.4.3 Document how the swabs were collected, simultaneously (at the same time) or consecutively (one after the other).
- 2.4.4 When collecting a small stain, attempt to concentrate the stain on the tip of one swab.
- 2.4.5 <u>Liquid Samples:</u> Collect on a sterile cotton swab and air dry before packaging.
- 2.4.6 <u>Known Blood Samples:</u> Obtain one purple top (EDTA additive) vial of blood, ensure that the date on the tube is not expired.
- 2.4.7 <u>Dried Bloodstains:</u> Photograph and document the pattern with a scale prior to collecting. The preferred method is to send the entire article containing the stain to the DSS. The second option is to use a sterile cotton swab moistened with sterile distilled H₂O. Air-dry the swab prior to packaging. Place into a druggist fold/paper fold.
- 2.4.8 <u>Bloodstained clothing or clothing and articles containing other body fluids</u>: air dry and wrap in paper or place in a paper bag. (If possible, lay flat and wrap/fold with a paper protecting the stained area.)
- 2.4.9 <u>Condoms with liquid</u> can use a plastic specimen container. Refrigerate or freeze and deliver as soon as possible to the DSS. DO NOT PACKAGE IN PAPER.
- 2.4.10 Bedding mark position of top/foot of bedding and circle any wet stains using a permanent marker. Package in a paper bag, box or wrap in brown paper. If submitting bedding for a sexual assault, it is recommended that the agency submit only the layer

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|-----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 22 of 37 |

of bedding that was in direct contact with the victim.

2.4.11 Mattresses/cushions: Remove the top portion (or the portion that was in contact with the victim) and package separately in paper bag. Remove the cover from the cushion and package separately in paper bags.

2.5 COMPUTER CRIMES AND ELECTRONIC EVIDENCE

The Computer Crimes Unit performs forensic analysis on a wide range of electronic evidence ranging from memory cards to phones and computers. Every effort should be made to collect any passwords needed to access these devices.

In order for some of the forensic extraction processes to be completed on cellular devices, some of the device settings may need to be changed or reset.

2.5.1 Collection of Evidence

- 2.5.1.1 Whenever computer equipment is seized, caution should be directed toward the proper shut down of the equipment to prevent damage or data loss. One method of preventing data loss is the use of Faraday bags to protect the evidence from receiving digital signals.
- 25.12 Investigators should consult with Computer Crimes Unit personnel describing the type of equipment to be seized, if known, in the event that either hardware or software will pose a problem for the investigator. Technical assistance can be provided for complicated evidence collections that may include servers.
- 25.13 All hardware including printers, scanners and peripheral devices, data storage disks, CD-ROM, DVD and other data storage media should be described and removed whenever possible.
- 25.1.4 Prior to startup, a person skilled in computer operations should be consulted to prevent loss of data or sabotage, or to defeat password protection placed on the device.

2.5.2 Computer Crimes Evidence Checklist

Prior to submission, the agency must complete the Computer Crimes Evidence Checklist.

This form is located on the DSS website:

https://portal.ct.gov/despp/-/media/despp-beta/pdf/scientific-services/cc/qr-cc-01-incoming-

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
| | Davision: 2 |

Effective Date: 06/04/2025

Status: Published Page 23 of 37

evidence-checklist.pdf?rev=c7dad653e9254f6ab419ed2d5a5b893b

2.5.3 Vehicle Infotainment Data

Approved by Director: Dr. Guy Vallaro

The Division of Scientific Services has acquired software that can forensically extract data from infotainment and telematics systems of supported vehicles. Depending on the infotainment system, extracted data may include GPS information, favorite locations, connected devices such as phones/media devices, call logs, contact lists, SMS messages, emails, photographs, videos and navigation history and data relating to the operation of the vehicle.

Please have the following information: vehicle year, make, model and VIN available to determine if a vehicle is supported. A photo of the center console that includes the screen of the infotainment unit is needed. If supported, DSS can respond to the location of the vehicle to provide this technical assistance.

Contact Computer Crimes Unit 203-427-4060 or the Deputy Director of Identification at 203-694-6534 to inquire if a specific vehicle is supported.

2.5.4 iPhone Technology

The Computer Crimes Unit has forensic software that has the increased ability to unlock or extract data from iPhones. For best results, cell phones should not be powered off. When possible, iPhones should be submitted in the "on" state, in Airplane Mode, and secured in a Faraday bag.

2.6 FIREARMS EVIDENCE

Firearms evidence includes weapons, ammunition and conversion devices.

No loaded firearms will be accepted without prior approval. Please contact the Evidence Receiving Unit prior to submitting a loaded firearm.

If you are unable to check firearm or you are unsure if it is safe, notify the personnel in Evidence Receiving prior to submission.

Packaging of Firearms Evidence 2.6.1

All firearms submitted to the DSS must be unloaded and rendered safe before 2.6.1.1 entering the laboratory. In order to "render a firearm safe", the ammunition

| ER 1.1 Guidelines for Evid | dence Submission | Document ID: 33799 Revision: 2 Effective Date: 06/04/2025 |
|----------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approved by Director: Dr. | Guy Vallaro | Status: Published Page 24 of 37 |
| | zip tie be placed through the actio | and packaged separately. It is preferred that a n of the firearm. It is preferable that firearms x. If DNA testing is needed on the firearm, |
| 2.6.1.2 | <u> </u> | rm. Include all the types of examinations lysis form (SOP-ER-02:1). |
| 26.13 | the DSS. Live ammunition may | g with a firearm should also be submitted to be packaged in the same container as the that it is not loose in the container (i.e. Plastic |
| 2.61.4 | of a revolver may be critical, requ | and the position of the hammer in the cylinder airing the numbering of each chamber and its be accomplished with photography or by both. |
| 2.6.1.5 | <u> </u> | from the weapon and secured in the gun box. e same box, these should be secured and not in boxes. |
| 2.6.1.6 | Submit fired cartridge cases and containers. Do not physically mar | projectiles in sealed envelopes or non-metal k bullets or cartridge cases. |
| 2.6.1.7 | The outside of the box should have Caliber and Serial Number for the | we the following information: Make, Model, e gun contained in the box. |
| 2.6.2 <u>Firear</u> | ms in Water | |
| For fi | rearms recovered from bodies of wa | ater, special precautions must be taken: |
| 2.62.1 | removed from (e.g. lake, ocean, l | submerged in the same type of water it was brackish, etc.) and transport it to the DSS to d in water should be in a leak proof container paint can). |
| 2.62.2 | Do not seal a damp firearm in pla | stic. |
| 2.623 | - | rted in water due to unusual circumstances, ance. The firearm should be coated with a |

State of Connecticut Department of Emergency Services and Public Protection Division of Scientific Services

Firearms recovered from water should be considered loaded whenever it is

2.6.2.4

ER 1.1 Guidelines for Evidence SubmissionDocument ID: 33799

Revision: 2

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

Status: Published Page **25** of **37**

impossible to check the status or to unload them. Such firearms should be forwarded to the DSS and identified and labeled as loaded and communicated to Evidence Receiving personnel as such. Please notify the Evidence Receiving Unit prior to submitting the loaded firearm so safety precautions can be made ahead of time.

2.6.3 NIBIN

Suitable firearms cartridge casings and cartridge casings from scenes submitted to the DSS will be entered into the NIBIN (National Integrated Ballistic Information Network). An entry notification report will be issued to the submitting agency. If a 'hit' is generated in NIBIN, the agency/agencies will be notified.

Bullets are not entered or searched in NIBIN.

2.6.4 Duty Weapon Test Fires

Duty weapon test fires submitted to the Division of Scientific Services (DSS) by law enforcement agencies shall be received by the Evidence Receiving Unit (ERU). Submitting paperwork includes a memo on department letterhead with the make, model, serial number, and the number of tests fires being submitted. The submitted items are checked versus the paperwork to ensure each test fire submitted. Each envelope should be labeled with the "Make", "Model", "serial number" and "name" (of the person that produced the test fire). Each envelope should be sealed and initialed before being placed in a single package to submit.

2.6.5 Collection of Firearms Evidence from Crime Scene

The recovery of fired bullets from the ceiling, walls, floor, furniture, body of victim, etc. should be performed so as not to alter them in any way.

When bullets are embedded in wood or some other object, it is recommended to secure that portion of the substance so that the bullet might be removed at the DSS. Avoid prying the bullet out of an object with a hard, sharp object such as a pocketknife which may alter the evidence.





Care should be taken when collecting firearms evidence due to small markings on these surfaces that are necessary for analysis.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |

Status: Published Page **26** of **37**

2.7 LATENT PRINTS

Approved by Director: Dr. Guy Vallaro

The Latent Print Unit processes a variety of physical evidence utilizing the latest physical and chemical development techniques, examines photographs, lifts and negatives for identifiable impressions, conducts comparisons between the latent print and known impressions, and operates the Automated Fingerprint Identification System (AFIS) and the Next Generation Identification (NextGen).

2.7.1 Packaging Recommendations for Latent Prints

All <u>hard evidence</u> being submitted to the DSS should <u>be fumed with cyanoacrylate</u> (<u>superglue</u>) <u>prior to submission</u>. This step will help to maintain the integrity of the latent print evidence during transport and while it is being processed by other units of the DSS. Gloves should always be worn when collecting latent print evidence.

Submission of images of latent prints (with scales) prior to being lifted is encouraged.

- 2.7.1.1 It is recommended that after developing a latent print, the print(s) should be photographed with a scale <u>prior</u> to lifting. Sometimes the photograph/digital image file contains better detail than the actual lift.
- 2.7.12 Generally, packaging should be performed in such a manner as to minimize contact between the object with possible prints and the surface of the packaging material.
- After dusting an object that has not been fumed, photograph the latent with a scale and proceed to collect the developed print with a lifter. Each lift shall have identifying marks (Case number and Lift number). If you are unable to lift the developed print, firmly secure the dusted object within a box.
- 2.7.1.4 Any item with a porous surface, such as paper, can be placed in an envelope and submitted to the DSS for chemical processing. Do not fold the evidence or the envelope.
- 2.7.1.5 Elimination Prints should be submitted whenever possible.
- 27.1.6 Should the agency want a specific person's fingerprints compared to latent impression of value, the subject's fingerprint card should be submitted with the evidence.

ER 1.1 Guidelines for Evidence Submission

Approved by Director: Dr. Guy Vallaro

Document ID: 33799

Revision: 2

Effective Date: 06/04/2025

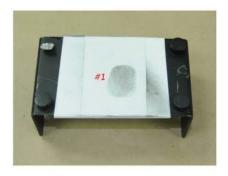
Status: Published Page 27 of 37

Documentation of Fingerprint Lifts

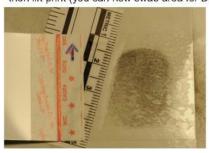
1. Take Overall Photo Prior to Processing



3. Take Overall Photo of Print w/Print #



5. Place Lifter on Print, Draw an Up Arrow then lift print (you can now swab area for DNA)

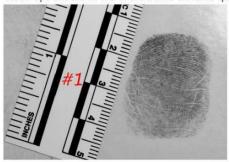


- 7. Staple lift to 3x5 index card list the following information:
 - 1. Lift#
 - 2. Case#
 - 3. Date/Time Collected
 - 4. Lifted By
 - Description of item lift was taken from and location where processing was performed
 - 6. Draw a simple diagram with up arrow

2. Dust for Latent Prints



4. Add Scale with Print # and Photograph at 90° Close-ups should fill 1/3 of the frame for AFIS quality



6. On Front of Lift write Lift/Print #
On Back of Lift write Case#, Initials and Date







| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |

Status: Published

Approved by Director: Dr. Guy Vallaro

Page 28 of 37

2.7.2 Recommendations for Photographing Latent Print for Email or Submission

2.7.2.1 Physical lifts must be scanned or photographed.

2.7.2.2 Scanned lifts must be at least 1000ppi and saved as .jpg images compressed not more than 30% or less than High Quality setting if using Adobe Photoshop.

2.7.2.3 Digital photographs of latent prints:

- Use your camera's macro mode if available. Note: Many cameras have to be zoomed out to wide-angle to achieve the closest possible image focusing.
- The latent print must occupy at least 1/3 of the camera's image frame or achieve at least 1000ppi resolution.
- The photograph must contain a scale that shows inches or cm/mm.
- 2.7.2.4 Image file names should incorporate an itemized number of your latent impression or lift. It is important to be consistent with your labeling and file naming. Some examples of file numbering: DCS00123, LP-1 or DCS00123, Latent-1 or DCS00123, Lift-1 or DCS00123, Lift-1, LP-1 or DCS00123, Lift-1. Latent-1

2.7.3 Evidence Not Conducive to Latent Print Processing

Certain types of evidence submitted for latent print processing either have a nonexistent or extremely low chance of developing friction ridge impressions of value. Therefore, the latent print unit will not process or examine the following types of evidence without prior approval by the Latent Print Unit Supervisor/Lead or the Deputy Director of Identification Services.

- Bullets/Cartridges (live and spent)
- Cigarettes/E-Cigarettes or small hand-held smoking devices (i.e. crack pipes)
- Cords, Ropes and Wires
- Cloth and Woven Fabric and Leather-type items
- Coins/Currency (does not include counterfeit paper currency)
- Dye Packs
- Footwear
- Glassine Bags
- Heavy Gauge Rubber Gloves (*latex/nitrile or vinyl gloves are accepted*)
- Pens, Pencils or other Writing Instruments
- Rocks, Stones, Bricks, Concrete Blocks, or similar masonry type objects

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |

- Rusted Weapons/Rusted Metal Instruments/Tools
- Small hand tools that are rusty or textured handle areas
- Straws
- Syringes

If appropriate, this type of evidence will be sent directly to the Forensic Biology/DNA Section for processing.

Page 29 of 37

* Note: Unless blood-like stains are noted, DNA and latent print testing will not be conducted on currency due to the high exchange rate of this evidence.

2.8 MULTIMEDIA EVIDENCE

Multimedia evidence may be considered analog or digital media which contains images, video or audio files. This type of media may be contained in analog (VHS, 8mm, VHS-C) and digital (digital 8, MiniDV, camera cards/cameras, USB drives or digital video recorders [DVRs] and CDs/DVDs with various video file formats *eg. .avi, .mov, .mpg, etc. including proprietary files*) format. It is essential that video evidence be preserved until working copies can be generated.

2.8.1 <u>Analysis Capabilities of the Multimedia Unit</u>

The Multimedia Unit has the ability to perform redactions. Due to the complexity of audio evidence processing, we request that evidence be submitted at least three weeks prior to the date needed for court.

The Multimedia Unit is able to export images, enhance images and conduct image comparisons to a known subject/item of evidence. Additionally, the Unit may be able to research the make/model of a vehicle and provide a comparative image for the submitting agency.

2.8.2 Submission of Multimedia Evidence

When submitting audio, video and MiniDV tapes, ensure that the erasure prevention tab has been placed in the "SAVE" or "NON-RECORD" Mode. Any audio, video or MiniDV cassette tapes which require enhancement should be cued to the appropriate location or the time/date of the incident must be provided in order to locate the area for enhancement.

2.8.3 Collection of Analog Media

Other considerations for Analog video (VHS, 8mm and VHS-C)

| | ER 1.1 Guidelin | es for Evid | lence Submission | Document ID: 33799 | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| | Approved by Dire | ector: Dr. (| Guy Vallaro | Revision: 2 Effective Date: 06/04/2025 Status: Published Page 30 of 37 | |
| | | 2.8.3.1 | Note the time/date on the video or cell phone). | monitor and note the real time (i.e. using | g watch |
| | | 2.8.3.2 | If a time-lapsed recording is bei A6, A12, A18, VRT, A24 or other | ng utilized, note the recording mode (e . er). | g. A2, |
| | | 2.833 | Note the make and model of the | recorder and multiplexer if present. | |
| | | 2.83.4 | • | mera view of interest. Note if any came age the colors of some materials). | ras are |
| | | 2.8.3.5 | Stop the recorder; do not rewind | I the tape. | |
| | | 2.83.6 | Remove tape. Once the tape is recording slide to "save". | removed, remove the recording tab or | set the |
| | | 2.83.7 | Place the tape in an appropriate storing near magnetic devices. | evidence bag/envelope. Avoid transpo | rting or |
| | | 2.8.3.8 | | or investigative purposes, make a copy of the trial of trial of the trial of trial of the trial of tri | = |
| | | 2.8.3.9 | Do not use the "pause/still" or original tape. | "freeze frame" functions at any time | on the |
| | 2.8.4 | Collec | ction of Media on CD/DVD | | |
| Any media submitted on CD or DVD which is from a private security office should have the appropriate proprietary player file with the appropriate CODEC provided on the media. | | | | | |
| | All CDs and DVDs must be finalized prior to submission. | | | | |
| | 2.8.5 | Collec | ction of Digital Video Recorders | or Network Video Recorders | |
| | | 2.8.5.1 | _ | all administrative, user and software partical support phone numbers or contact r | |
| | | 2.8.52 | | er, stop all recordings first. Prior to coltem; as a last resort remove the plug f | _ |
| | | 2052 | Ta .1 | | 11141 |

State of Connecticut Department of Emergency Services and Public Protection Division of Scientific Services

2.8.5.3

It should be noted that video evidence files located on a DVR have limited

archival time and will be overwritten depending on the system's settings.

Documents outside of Qualtrax are considered uncontrolled.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|-----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 31 of 37 |

| Note the DVR's make, model and serial number and collect any manuals/software if present. Note the time/date on the video monitor and note the real time (i.e. using watch or cell phone). Note any active cameras and camera view of interest. Note if any cameras are infrared sensitive (this will change the colors of some materials). Note if the system has a continuous recording mode or is time-lapsed or alarm/motion activated. If exporting the video file from a DVR onto external media (e.g. CD, DVD, thumb or flash drives) make sure a copy of the proprietary player/viewer software is also included. When possible, it is preferable to export in both the native proprietary format and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file formats, use the least compression possible. When exporting still images/single frames, utilize the .bmp option. If extensive analysis or retrieval assistance is needed, it is preferred that the DVR be submitted directly to the DSS for examination. | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------|
| or cell phone). Note any active cameras and camera view of interest. Note if any cameras are infrared sensitive (this will change the colors of some materials). Note if the system has a continuous recording mode or is time-lapsed or alarm/motion activated. If exporting the video file from a DVR onto external media (e.g. CD, DVD, thumb or flash drives) make sure a copy of the proprietary player/viewer software is also included. When possible, it is preferable to export in both the native proprietary format and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file formats, use the least compression possible. When exporting still images/single frames, utilize the .bmp option. If extensive analysis or retrieval assistance is needed, it is preferred that the | 2.8.5.4 | • |
| infrared sensitive (this will change the colors of some materials). Note if the system has a continuous recording mode or is time-lapsed or alarm/motion activated. If exporting the video file from a DVR onto external media (e.g. CD, DVD, thumb or flash drives) make sure a copy of the proprietary player/viewer software is also included. When possible, it is preferable to export in both the native proprietary format and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file formats, use the least compression possible. When exporting still images/single frames, utilize the .bmp option. If extensive analysis or retrieval assistance is needed, it is preferred that the | 2.85.5 | , , |
| alarm/motion activated. 285.8 If exporting the video file from a DVR onto external media (e.g. CD, DVD, thumb or flash drives) make sure a copy of the proprietary player/viewer software is also included. 285.9 When possible, it is preferable to export in both the native proprietary format and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file formats, use the least compression possible. 285.10 When exporting still images/single frames, utilize the .bmp option. 285.11 If extensive analysis or retrieval assistance is needed, it is preferred that the | 2.8.5.6 | · |
| thumb or flash drives) make sure a copy of the proprietary player/viewer software is also included. 285.9 When possible, it is preferable to export in both the native proprietary format and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file formats, use the least compression possible. 285.10 When exporting still images/single frames, utilize the .bmp option. 285.11 If extensive analysis or retrieval assistance is needed, it is preferred that the | 2.8.5.7 | • |
| and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file formats, use the least compression possible. 28.5.10 When exporting still images/single frames, utilize the .bmp option. 28.5.11 If extensive analysis or retrieval assistance is needed, it is preferred that the | 2.8.5.8 | thumb or flash drives) make sure a copy of the proprietary player/viewer |
| 2.85.11 If extensive analysis or retrieval assistance is needed, it is preferred that the | 2.8.5.9 | and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file |
| • | 2.8.5.10 | When exporting still images/single frames, utilize the .bmp option. |
| | 2.8.5.11 | • |

28.5.12 Package any DVRs in a cardboard box or paper bag for submission. Avoid transporting or storing near magnetic devices.

2.8.6 Video Retrievals

Laboratory personnel may assist law enforcement agencies in retrieving video evidence from digital video recorders on-scene. The burden of consent or search rights will be the responsibility of the requesting agency. Video retrieval assistance may be requested by contacting the Deputy Director of Identification or Case Management. Examiners will make arrangements to meet law enforcement personnel at the scene of the retrieval. The retrieved video will be turned over to law enforcement personnel on-scene.

2.9 QUESTIONED DOCUMENTS

The laboratory is not accredited in the Questioned Document discipline but has resources to assist in getting this type of examination completed. DSS has contacts with the Federal Bureau of Investigation, Philadelphia Police Department and the United States Secret Service to provide assistance in the examination.

Questioned Document analysis consists of writing/hand printing/signature identifications and comparisons, document alterations, counterfeit and composite

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |

documents, obliteration and/or erasures, alternate light source, charred documents, document sequencing, indented writing, lottery tickets, rubber stamp and other types of forensic analysis.

Page 32 of 37

In cases such as bank robbery notes, a latent print and DNA request will be added to the evidence being submitted.

- 2.9.1 Originals of the questioned and known materials are the preferable evidence but 1st generation photocopies/high resolution scans are acceptable for submission.
- 2.9.2 Known standards must be collected. Known standards can be obtained through requested writings or from genuine handwriting samples. Known standards must be packaged <u>separately</u> from questioned samples.
- 2.9.3 If more than one set of standards are submitted, each set must be packaged separately.
- 2.9.4 Each questioned document should be packaged individually.
- 2.9.5 In many situations handwriting exemplars may be required for examination purposes.
- 2.9.6 Any agency requesting the examination of questioned documents will provide DSS with the following information:

29.6.1 Type of Crime

- a. The FBI will only accept cases for the following: \$100,000.00 or above in financial loss, Bank Robbery, Homicide, Violent Crime, Bomb Threats, Threatening Letters, Suicides and incidents of a serial nature (ex. car theft ring).
- b. The FBI has a Bank Robbery Database that can be used to see if similar language, characters and phrasing was used other bank robbery incidents. If the agency would like to have this conducted, a high-resolution image of the bank robbery note must be submitted along with a completed request for analysis. The images are emailed to the following address:

 HQ-DIV07-BANKROBBERY-SEARCH@ic.fbi.gov

2.9.6.2 Analysis needed on the document

a. The agency must complete a Request for Analysis form and also include an incident report to be provided to the FBI. If additional analysis such as DNA and latent print processing is needed, the DNA collection must be conducted prior to sending the document to the FBI.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|-----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| | Page 33 of 37 |

b. The FBI prefers to have the original document since a scan can only result in a limited conclusion. If latent print analysis is also needed on the document, this information should be clearly indicated to the FBI prior to submission. The latent print request will need to be completed once the evidence is returned back to the laboratory.

29.63 Known handwriting

- a. If known handwriting is being collected, it is suggested that the submitting agency tries to replicate the size and composition of the questioned document as best as possible. For example, if the questioned document is a 4" X 10" lined paper with writing, the known handwriting exemplar should also be provided on similar size and lined paper.
- b. Additionally, the FBI has two documents that should be provided to assist in the collection of handwriting exemplars from an individual for a comparison. The document titles are "blank_exemplar-collection_forms" and "obtaining_known_writing". Please contact the Case Management Unit to be provided with these forms.

2.10 DRUG EVIDENCE

2.10.1 Vegetative Material

Plant material includes items such as suspected marijuana, psilocybin-containing mushrooms, and vegetative material possibly laced with drugs.

- 2.10.1.1 Use containers which will prevent sample loss, contamination, and tampering. Wet plant material in plastic may cause decomposition of the plant material and fungal growth.
- 2.10.12 Samples should be individually packaged, labeled appropriately and sealed properly.
- 2.10.13 If your evidence is comprised of a potted plant, submit a sample of the leaf material. Do not submit the entire potted plant.
- 2.10.14 Do not send drug paraphernalia (e.g., pipes and scales) if there are measurable amounts of drug material being submitted.
- 2.10.15 Any questions regarding packaging or submission should be directed to the DSS laboratory.

NOTE: Tea/mint leaves or marijuana that are charred and suspected to be coated with PCP should not be packaged as above. This type of substance should be

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
|-------------------------------------------|--------------------|

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

State
Page

Status: Published Page **34** of **37**

placed into a plastic bag and then into a metal can.

2.10.2 <u>Liquid Samples</u>

Liquid samples must be submitted in a manner which prevents leakage. Liquid samples may be collected in capped glass vials and placed into larger plastic bottles and/or metal paint cans to prevent spillage. If liquid from an open container is transferred to a sealed container, the original container should not be discarded. Questions should be directed at the Case Management Unit.

2.10.3 <u>Syringes</u>

Syringes containing needles should be packaged in a sharps-type container to prevent injury. If liquid is present within the syringe, then leave in the syringe and package to ensure that no leakage occurs during transport. If both bulk and residue evidence is submitted then agencies should contact the laboratory's Controlled Substances Unit to discuss a sampling plan.

2.10.4 Single Use Vape Pens

Due to safety concerns, vape pens that do not have a removable cartridge and will not be accepted by the Controlled Substances Unit without prior approval from the Section Manager.

2.10.5 Clandestine Laboratories

In the event that the submitting agency encounters a clandestine laboratory, all precautions should be taken to safely collect the evidence. The Division of Scientific Services can be contacted for guidance.

2.11 TOXICOLOGY TESTING

The Toxicology Unit performs alcohol and drug analysis testing on blood/urine samples taken from individuals believed to have been driving under the influence.

- a. With the exception of fatalities, in submissions where ethanol findings from samples are high (i.e., equal to or over 0.100 g% blood alcohol content (BAC) for adult drivers, equal to or over 0.040 g% BAC for drivers operating commercial vehicles, equal to or over 0.020 g% BAC for drivers under 21 years old), analyses for drugs may be omitted from analytical schemes unless specifically requested.
- b. Drug and alcohol analysis will performed on all surviving operator samples in cases involving fatalites, serious motor vehicle accidents and boating accidents.

State of Connecticut Department of Emergency Services and Public Protection Division of Scientific Services

Documents outside of Qualtrax are considered uncontrolled.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|-----------------------------|
| | Revision: 2 |
| | Effective Date: 06/04/2025 |
| Approved by Director: Dr. Guy Vallaro | Status: Published |
| , | Page 35 of 37 |

c. Information regarding ethanol levels within hospital reports can be converted using the alcohol conversion website (dssbac.ct.gov). For additional questions please reach out to the Toxicology unit at ct.forensiclab.breathalyzer@ct.gov.

The unit also performs similar testing on samples taken from victims of sexual assault. Appropriate kits are available for the submission of toxicological evidence (e.g., DUI – blood, DUI – urine, CT400 Sexual Assault).

- a. All Drug Facilitated Crime (DFC)-type cases will receive testing for alcohol and/or drugs unless outside acceptable times ranges.
 - i. For gamma- hydroxybutyric acid (GHB), blood collection times must be less than eight (8) hours after the time of drugging/incident. Ethanol should not be analyzed within blood specimens if their collection times are greater than twenty-four (24) hours. Blood samples that have been collected after two (2) days of the alleged incident will not be analyzed.
 - ii. For gamma-hydroxybutyric acid (GHB), urine collection times must be less than twelve (12) hours from the suspected drugging/incident. Ethanol should not be analyzed within urine specimens if urine specimen collection times are greater than twenty-four (24) hours after the incident. Samples that have been collected five (5) days (120 hours) after the alleged incident will not be analyzed

For toxicology cases, the preferred collection tube is a grey-top Vacutainer® which contains a mixture of sodium fluoride and potassium oxalate in order to enhance the stability of the analytes.

While the majority of submissions within the DSS laboratory's Toxicology Unit will be from suspected DUI or suspected DFC this procedure doesn't preclude other types of cases involving human biological materials to be examined within the Unit (e.g., special events testing, office of the chief medical examiner submissions).

Poisonings

For cases of suspected poisoning, contact the DSS laboratory's Toxicology Unit prior to submission.

Draeger 9510 Instrument or Breath Alcohol Program

Please reach out to the Toxicology Unit (203-427-4050 or ct.forensiclab.breathalzyer@ct.gov) for questions or assistance with scheduling training classes, instrument maintenance/repair or troubleshooting.

| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
|-------------------------------------------|--------------------|

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

Status: Published Page **36** of **37**

2.12 FIRE SCENE EVIDENCE

2.12.1 Collect relevant debris or clothing that are suspected of containing accelerants. The use of certified K-9 or Fire Marshal personnel to assist in locating evidence may assist with relevant evidence collection. If more than three (3) samples are to be taken from a scene, please contact the DSS laboratory's Chemistry Unit at (203) 437-4065.

- 2.12.2 Place debris or clothing in an unused metal paint can and seal with metal lid. The can should be not more than 2/3 full. If your item is large and you cannot obtain a 5 gallon can, contact the DSS laboratory. Only properly approved plastic nylon bags should be used to package evidence and must be heat-sealed. Glass jars can be used for liquid accelerant/ flammable samples. Jars should be placed in a metal can with packaging material to avoid breakage.
- 2.12.3 Collect control samples from areas of the same material as far away from a burn pattern or suspected point of origin (e.g. carpeting, insulation, foam, if necessary).
- 2.12.4 If DNA testing is necessary, please indicate on the Request for Analysis form. The fire debris analysis testing method may destroy any DNA present on the evidence, therefore the request must be made when initially submitting the evidence for examination.

2.13 PRIMER GUNSHOT RESIDUE (PGSR) EXAMINATION

Use a 2-stub GSR Collection Kit (or only 2 stubs from a 4-stub collection kit) containing discs with adhesive for sampling (e.g., hands). When sampling hands use one (1) stub for the front and back of the left hand and one disc for the front and back of the right hand.

Optimally, collect samples within 4-6 hours after an incident and prior to any cleaning. During collection of samples from people, collectors should thoroughly wash their hands and must wear new disposable gloves in-between sampling multiple people to minimize the possibility of contamination. When collecting from one object/source, changing gloves is not necessary.



| ER 1.1 Guidelines for Evidence Submission | Document ID: 33799 |
|-------------------------------------------|--------------------|
|-------------------------------------------|--------------------|

Effective Date: 06/04/2025

Approved by Director: Dr. Guy Vallaro

Status: Published Page **37** of **37**

- 2.13.1 Obtain the samples as soon as possible and before the individual is fingerprinted or allowed to wash his/her hands.
- 2.13.2 Label appropriately and place evidence under proper seal



2.13.3 GSR collection kits can be used to collect GSR samples from vehicle interiors or other surfaces suspected of containing GSR. Use as few stubs as possible and use each stub until the adhesiveness has been depleted. Prior to the collection of samples collectors should thoroughly wash their hands and must wear new disposable gloves in-between multiple vehicles to minimize the possibility of contamination. When collecting from one object/source (e.g., inside of vehicle) changing gloves is not necessary. A maximum of four (4) stubs should be used per vehicle. Separation of stubs between front/back or driver/passenger sides within a vehicle is not necessary because determination of pGSR, as a whole, will be tested.