

Crime Lab News

Volume II Issue III

Fall / Winter 2018

Case	Management	2
	Guidelines	

Case Coordinators

Section Focus — **CODIS**

Staffing Updates

Medicolegal Death **Investigator Log**

> **ASCL Training Opportunities**

Updates—SA Kit 5 **Tracking & Drug Backlog**

Performance **Survey Results**



A Message from our Director

Keeping up with technology is critical in forensic science. This is especially true with the advances in DNA technology, as well as new investigative tools available for law enforcement.

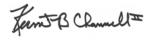
Recently, the Arkansas State Crime Laboratory, in conjunction with our criminal justice partners in Faulkner County, applied new technology to further the investigative efforts in a cold case homicide from 1990.

Parabon Snapshot Advanced DNA Phenotyping provided the Faulkner County Sheriff's Office with a prediction, based on DNA

typing, of the physical appearance and ancestry of the unknown suspect in the case. After exhausting the developed leads from this information, Genetic Genealogy was utilized which quickly identified a subject by matching their DNA to a family member.

This innovative approach and the utilization of new technologies is just one example of advancement in forensic science.

If you have any questions about this new technology, please feel free to contact me. kermit.channell@crimelab.arkansas.gov or 501-227-5952



Current Turn Around Times

Digital Evidence

- Computers: 51 days - Mobile devices: 19 days

Firearms

- Comparisons: 30 months (Homicide): 3 months - NIBIN: 24 days

Latent Prints

-Comparisons: 42 days (Homicide): 30 days **Drug Analysis** 8 months Toxicology 30 days

Physical Evidence—Trace

- Arson: 40 days - All other: 6 months

Physical Evidence—Serology

- Homicide: 46 days - Sexual Assault: 59 days - Property/other: 8 months

DNA

- Homicide: 4 months - Sexual Assault Kit: 8 months - Property/other: 30 months



Important Changes to Case Management Guidelines

The Arkansas State Crime Laboratory is constantly looking for ways to streamline testing and become more efficient in the services we provide to the criminal justice system. The following are updates to our case management guidelines. Please contact the laboratory if you have any questions or concerns regarding these guidelines.

Forensic Chemistry

- The ASCL has recently discontinued quantitative analysis. The weight and identification of the drug will still be reported, but not the percent purity.
- Pharmaceutical tablets/capsules that have the potential to be the highest charged item in the case will have an "identification" performed on the entire lot, with at least one confirmation test on a single tablet/capsule. All other tablets/capsules will only be identified.
- When analyzing illicitly-manufactured tablets/capsules, a sufficient number of tablets/capsules will be tested to reach the highest charge.

Physical Evidence—Trace

Trace services include only Gunshot Residue and Ignitable Liquid Testing. Please call if you need assistance with services that we no longer provide.

NIBIN Database Entry Guidelines

The following will be routinely entered into the NIBIN database:

- Cartridge cases from all semiautomatic pistols.
- Cartridge cases from the following rifles:
 - □ .223 Remington
 - □ 5.56mm
 - □ 7.62×39mm
 - Rifles that use semiautomatic pistol caliber ammunition (e.g., .22 Long Rifle, 9mm Luger)
 - Shotshells from 12 gauge shotguns

The following is a partial list of items that will **NOT** be routinely entered into the NIBIN database or test fired:

- Cartridge cases from all other caliber rifles and gauges of shotguns.
- Cartridge cases from revolvers, single shot or bolt action rifles, and derringers.
- Cartridge cases from firearms used to commit suicide.
- Cartridge cases from a Law Enforcement Officer's firearm.

Note: NIBIN instrumentation at the ASCL currently does not support bullet entry.

ATTENTION CASE COORDINATORS!

- ⇒ We have a new subpoena coordinator!
 - * **Amanda Thomas:** Latent Prints, Firearms, Digital Evidence, Physical Evidence & DNA (501) 683-6152
- ⇒ All other subpoenas will still be coordinated by:
 - * Isabel Higgins-Threats: Drugs & Toxicology (501) 683-6149
 - * Kelle Hutson: Medical Examiner & Homicide (501) 683-6114



Volume II Issue III Page 3

Section Focus — CODIS

CODIS (Combined DNA Index System) is a system of DNA databases at the local, state, and national levels. These DNA databases contain DNA profiles from crime scene evidence, convicted offenders, arrestees, relatives of missing persons, and unidentified remains.

The Arkansas State Crime Laboratory is the only laboratory in the state that is a CODIS-participating laboratory. Arkansas laws require DNA collection with all felony convictions, sexual misdemeanor convictions, and all felony arrests.

The Arkansas CODIS database is searched daily (crime scene evidence against offenders and arrestees). These searches result in a list of potential matches, or CODIS Hits. These CODIS Hits provide law enforcement with the identity of the individual matching the DNA profile found in crime scene evidence. Missing Person searches are also routinely performed that can help identify a missing person or a set of human remains.

The Arkansas database uploads eligible DNA profiles into the national database, enabling Arkansas cases to be searched against DNA profiles identified in other states. Searches are performed daily at the national level, resulting in many state to state CODIS Hits.

Once a CODIS Hit is verified, the investigating agency will receive a CODIS Hit Letter. For CODIS Hits involving a convicted offender or an arrestee, the identifying information of the individual is included in the letter. A known reference sample from that individual should then be collected and submitted to the lab for confirmation and statistical reporting. For CODIS Hits that link a case to another case (solved or unsolved), the contact information of the investigating officer, agency, and case numbers is included in the letter. This information is provided for officers to discuss their case similarities and hopefully develop an investigative lead.

For more information, visit https://www.fbi.gov/services/laboratory/biometric-analysis/codis or contact the CODIS Administrator at 501-227-5747.

Staffing Updates

Since the publication of our Summer 2018 newsletter, we have hired a few new employees:

- ★ Katherine Mayberry, DNA Analyst
- ★ Mary Lynn Heffington, Toxicologist
- ★ Megan Peters, Drug Chemist
- ★ David Arellano, Drug Chemist
- ★ Brittany Reed, Toxicologist
- ★ Amanda Thomas, Subpoena Coordinator
- ★ Cleary Chapman, Evidence Technician



Medicolegal Death Investigator Log

MDILog is a web-based software tool that is provided free of charge to the Coroners of Arkansas. This tool enables Coroners to conduct Medicolegal Death Investigation in a consistent manner across all counties. This software also ensures that national guidelines are followed in any case involving the deaths in Arkansas.



This program also has many advantages for Coroners, which include the following:

- Data Sharing Opportunities:
 - Local (ME, LE, Funeral Home, other offices, etc.); Sharing of data in a timely manner facilitates the flow of information that could be critical for death investigation and families
 - State (EDRS, OPO, etc.)
- o Federal (Namus, NVDRS, SUIDI, Toxicology labs, IAM&ME, NAME, etc.)
- Real-Time Data Access
- iPhone/iPad App
- Media Rich (photos/docs)
- Local Control National Focus
- Economical (shared services)
- Secure

Arkansas has an opportunity through MDILog to facilitate Medicolegal Death Investigation in accordance with national standards. This is the first time in Arkansas history that a tool of this importance is available to **ALL** county Coroners free of charge.

ASCL Training Opportunities

CODIS Collection Training — Thursday, November 29th 10:00 – 12:00, ASCL

This training is open for any agency that collects DNA Database offender and arrestee samples. The training will cover instructions on the kit collection process as well as information on our Remote Collection website. This new process allows collection sites to verify if a sample is needed from an individual, which will help reduce duplicate and non-qualifying submissions. The training provides 2 CLEST hours. Please call 501-227-5747 and ask for the CODIS section to register.

ASCL Law Enforcement Training — Thursday, Dec. 13, 8:00-12:00

Over the last 2 years, the ASCL has offered training opportunities for Law Enforcement Agencies and Court Officials. This training is led by the Section Chiefs of the forensic disciplines. This training takes you through a few case scenarios to emphasize our current capabilities, best samples for testing, how to package evidence, and understanding the results. There is also time for questions and a tour of the facility after the training. All trainings will be held at the Arkansas State Crime Laboratory in Little Rock. Seats are limited to 35 for each session. Please go to our website (www.crimelab.arkansas.gov) to register for this training.

Volume II Issue III Page 5

Updates Since the Last Newsletter—Sexual Assault Kit Tracking

Thank you to those who have signed up to use the Sexual Assault Kit tracking program. We now have **36 Medical Facilities** and **52 Law Enforcement** Agencies using the program!

This Sexual Assault Kit program tracks all distributed kits . This program is very easy to use and has several benefits:

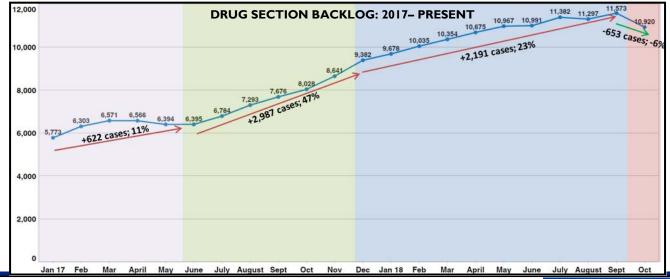
- ◆ This program helps to comply with the inventory required in Act 1168 of 2015
- The health care provider or law enforcement agency can track all their kits and the progress of testing
- The victim can see the progress of their kit through the Criminal Justice System

How To Sign Up:

- Click on the SA Kit Banner on the ASCL website (<u>www.crimelab.arkansas.gov</u>)
 OR
- · Call Beverly Pannell 501-683-0470

Updates Since the Last Newsletter—Drug Backlog

As noted in the last newsletter, the drug backlog was increasing as cases received into the lab continued to increase at an alarming rate. To battle this problem, we have increased (and continue to increase) staffing. In October, we completed more drug cases than we received, decreasing the backlog by 653 cases. Although this may not seem significant, it is a success that we are going to continue to build on. Since June, 4 Drug Chemists have completed training, 2 Drug Chemists have been hired and are in training, and we are hiring 4 additional chemists. We are confident that this staffing increase will decrease the backlog.



Page 6

ARKANSAS STATE CRIME LABORATORY

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Mission



To provide the highest quality scientific services to the criminal justice community and the State of Arkansas. This is accomplished through a team of skilled and dedicated employees utilized scientific equipment and appropriate validated methodologies. The laboratory strives to provide these services in a timeframe amenable to our customers.

Ensuring a safer Arkansas by providing the Criminal Justice System quality results within thirty days of submission.





<u>Clear Communication</u>: Communicate often, promptly, professionally and in person when appropriate

Quality: Excellence, getting it right the first time, consistent performance, continuous improvement, taking pride in one's work

<u>Professional Development</u>: Growing and engaging employees through training, mentoring, and providing leadership opportunities

<u>Safety</u>: Providing a safe work environment and educating employees on safety practices

Accountability: Holding oneself and others responsible for productive and ethical behavior.

<u>Teamwork</u>: Having a common vision, ensuring cohesiveness, assisting one another, supporting other sections, putting others interests first and making decisions based on what is best for the laboratory

ASCL Performance Survey Results



The Arkansas State Crime Laboratory Performance Survey is located on the Law Enforcement page (<u>iResults</u>) of the ASCL website. We welcome your feedback so that we can continue to improve and meet your needs.

"I cannot sufficiently express my heart-felt appreciation and admiration for all ASCL and State M.E. Office staff with whom I have been privileged to interact."

"Every visit to ASCL has been a pleasure the staff is great and very helpful. I am grateful for all they do."

"Very knowledgeable and courteous. Also, they are great about returning calls and available to answer questions."

"Have a location in northwest Arkansas to help with the wait times."

"More resources and people to help the crime lab."





