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# **Forensic Services Newsletter**

**SPRING 2009** 

The Idaho State Police Forensic Services Laboratories provide forensic services to all local, state, and federal law enforcement agencies in the State of Idaho. There is no

charge for any services provided by the ISP laboratories. Forensic Services employs twenty seven (27) scientists and eight (8) support staff located in the Coeur d'Alene, Pocatello, and Meridian laboratories. The laboratories perform forensic work in Latent print processing, Latent print comparison, Shoe/Tire track impressions, DNA, Biological Screening, DNA database (CODIS), Controlled substances, Firearms, Blood and Urine Toxicology, Blood alcohol, and Breath alcohol.

Starting April 2009, Forensic Services will begin soliciting feedback regarding quality, timeliness, and other issues by using a new survey tool. Many of you have

# WHAT'S NEW

**Dates** 

Contact

become familiar with the "Customer Comment Cards" that we mail out with cases. We found that in many cases the survey is not reaching it's intended recipient and that some recipients get multiple surveys in a month. We will begin a more targeted approach to surveying by soliciting the investigating officer's email address on the intake of evidence. For a few cases selected by the laboratory, we will email a copy of the laboratory report and a link to a short survey that the investigator can fill out. These surveys will also be available on the ISP Forensic Services website for those that are not surveyed but would like to provide feedback.

# **UPCOMING TRAINING**

Idaho State Police Forensic Services provides free training for law enforcement. We know that many departments are facing budget shortfalls that do not allow travel for training. We are committed to provide forensic related training to our customers at their locations. We will post upcoming forensic training events in this newsletter. We will also update this information on our website. To schedule training for your

Course

Breath Testi

Evidence Pa

ISP Forensics Website



# Did you Know?

agency please email us.

The ISP Forensics
Labs processed 8,232
cases last year. 83%
of this caseload was
in support of local
law enforcement
agencies.

Breath Testing Specialist (BTS) Course	CDA P.D.	4/2-4/3	
Evidence Packaging and Preservation	Clearwater Co.		
Evidence Packaging and Preservation	Bonner Co.		
Evidence Packaging and Preservation	Shoshone Co.		
Evidence Packaging and Preservation	Kootenai Co.		
Latent Print Basics	Meridian POST	5/10	
Breath Testing Specialist (BTS)	Pocatello P.D.	5/21-5/22	
Breath Testing Specialist (BTS)	Meridian POST	6/4-6/5	
Latent Print Basics	Meridian POST	8/9	
Breath Testing Specialist (BTS)	R1 ISP	8/27-8/28	
Breath Testing Specialist (BTS)	Meridian POST	9/10-9/11	
Latent Print Basics	Meridian POST	10/25	
Breath Testing Specialist (BTS)	Meridian POST	12/3-12/4	

Location

<sup>\*</sup> The first day of all BTS classes is Alcosensor/Lifeloc and the second is Intoxilyzer 5000/EN.

# FOCUS ON DNA

- The best evidence in a sexual assault case is usually the sexual assault kit. This should always be the first evidence submitted.
- ISP only performs nuclear DNA typing. No Mitochondrial DNA or Y-DNA testing is currently offered by the ISP laboratory.
- The only Forensic DNA laboratory in Idaho is at the ISP Meridian Laboratory.
- The lab does not perform ABO blood typing.



The laboratory does not perform DNA analysis on vehicular crashes (fatality or otherwise) at this time. Exceptions may be made on a case-by-case basis but will typically not include analysis to determine the driver of the vehicle.

# **GOALS FOR 2009**

- 60 day turnaround for Serology cases
- 60 day turnaround for DNA cases
- Two new full-time trained DNA examiners





# **Point of Fact:**

Providing your agency case report (including case details) with the evidence submission will speed up the analysis.



# **PROPERTY CRIMES**

We continue to analyze evidence on property crimes, such as burglary and arson. The majority of our CODIS hits have been on unsolved burglary cases. Biological evidence from these scenes typically consists of blood or occasionally personal items such as hats or masks (depending on individual

case circumstances) left at the scene. Items will be limited to one or two for processing on these types of cases.





# WHAT IS SCREENING?

In most cases, when your evidence first comes into the lab, a scientist will look for evidence of biological staining. A number of screening tests are used to detect and identify blood and semen. Screening tests can also presumptively detect saliva, urine, and feces. The source of a stain can only be determined with DNA typing, screening does not identify the contributor of the stain or the exact time that the stain was deposited. Screening is not helpful if the item was just touched, worn, or handled as there is no screening test for skin cells.

### WHAT IS A DNA PROFILE?

A profile is just a series of numbers. ISP evaluates 15 Loci (or areas on the chromosomes) where the DNA sequence repeats. The number of times the sequence repeats is the number assigned for the profile at that area. Because one chromosome comes from your mother and one comes from your father, it is possible to have two different repeat numbers at each area (e.g. 15,16). If the mother and father both had the same number of repeats at an area, the number will be listed twice (e.g. 15,15).

# WHY DO I NEED A REFERENCE SAMPLE?

A reference sample is obtained directly from an individual (while supervised). When a DNA profile has been obtained from an evidence item, the only way to identify it to an individual is by comparison to a DNA profile from a known individual. All the cells from one body have the same DNA profile, so almost any body fluid or tissue could be used as a reference sample. The laboratory prefers to have dried blood or mouth (Buccal) swabs, but other sources of DNA may also be used if the circumstances require. Your case will be processed more quickly if the reference sample(s) arrive with the rest of the evidence. A DNA database (CODIS) reference sample cannot be used as a casework reference sample.

# **CODIS**

# Processing

- Agency Collection: A DNA sample is collected from a qualifying offender by law enforcement. The sample is mailed to the CODIS Lab.
- Administrative Processing: In the lab, the offender data is reviewed, assigned a unique lab number, and entered into the laboratory's administrative database.
- DNA Typing: The sample is processed, analyzed, and peer reviewed to obtain a DNA profile.
- CODIS Entry: The profile is entered into the CODIS database and subsequently searched against all eligible casework profiles. A "hit" occurs when an offender profile matches a forensic profile, providing important leads to the submitting agency. Hits can occur at the state level of CODIS or at the national level.





**Check the qualifying offenses** 

# Casework Profiles:

DNA profiles from casework must be associated with a known crime, cannot match the victim in the case, and must be attributable to the perpetrator of the specific crime in order to be eligible for entry into the database.

Eligible DNA profiles from both solved and unsolved cases are entered into and retained in the database.

If you receive a report indicating that an evidence profile from your case was entered into CODIS, then the profile will remain in the database and will be searched, automatically, on a weekly basis. It is not necessary for you to request it to be searched. You will be notified if the profile hits to any other profile in the database, and may be at any time (up to years) after the original entry.

Missing persons and relatives of missing persons may be entered into the database.

# Did you Know?

When a DNA profile from a "major" crime such as a homicide or sexual assault is entered into CODIS, approximately 60% of the CODIS hits are to a convicted offender in the database for a "minor" crime such as drug possession or burglary.

# Offender Hit

A previously unidentified evidence profile matching a known convicted offender sample.

### **ISD Offender Hits**

National	11
Idaho	1

# **Forensic Hit**

Two evidence profiles from different cases (solved or unsolved) matching each other.

### **ISP Forensic Hits**

_	
National	2

# Convicted Offender Samples:

- Currently Idaho statute does not allow for collection of samples from Suspects or Arrestees and does not include every felony crime. Samples may ONLY be collected from those individual CONVICTED of a qualifying crime under Idaho Code 19-5506.
- You may call the lab to find out if a particular offender has a sample in the database; however, if you have a known suspect on your case you must still collect and submit a reference sample from that individual on that case, even if the person is in the database. Relying on the database as a reference actually delays the testing process. This is because database samples are not evidentiary and a database match only gives probable cause to obtain another reference sample (required) for comparison to the case. Additionally, when a hit occurs, the offender sample must first be verified (could take up to 30 days) prior to the lab being allowed to release the hit and the offender's name to your agency.
- The DNA Database Sample Collection Kits are not suitable for use as a reference sample for cases submitted to the lab for testing. These samples are not treated as evidence (i.e. no chain of custody) and are processed using very different procedures than those used in casework.

There are currently 3,687 offender and 210 evidence profiles in the Idaho database.

## MORE HITS?

Idaho has a backlog of nearly 4,500 samples and we continue to receive anywhere from 100-300 additional samples each month. Idaho will start processing it's own samples this year. Every new sample entered represents a potential hit!





# **CONTACTS**



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> Lab Manager Anne Nord

# Did you miss a letter from forensic Services?

If you did not receive one of the following communications, it is likely that your email address listed with ISP Headquarters is not correct. Your email address is used for many communications from ISP and may be updated by sending your new email address to us. We will make sure that your email is updated in the ISP database for all future communications. ISP Forensic Services pulls the email address for every Sheriff and Police Chief from our ISP Headquarters database.

December 2008 Letter from Major Powell regarding "Uncertainty of Measurement in Blood Alcohol Cases"

December 2008 Letter from Major Powell regarding "Amended Reports for Blood Alcohol Uncertainty of Measurement"

March 2009 Letter from Major Powell regarding "Updated Scheduling Reporting for Controlled Substances"

March 2009 Updated Schedule of Controlled Substances being reported by ISP Forensic Services

# FEEDBACK

ISP Forensic Services welcomes your feedback, questions, and kudos.

The feedback you provide is reviewed by the ISP Police Services Major, ISP Quality Manager, and Laboratory Mangers.

Complaints are continually tracked and resolved by the appropriate laboratory management level. Personal contact will be initiated by the laboratory management for all submitted complaints.

Questions will be answered as quickly as possible and we will publish as many as possible as future articles in the newsletter.

Kudos will be forwarded to the Forensic Services employee and then published (as space permits) in this newsletter.

# **Submit your questions**

If you have questions you would like answered in future editions of this newsletter, please <u>email</u> them to us. Please be concise and specific.