

Forensic Services Newsletter

SUMMER 2010

Idaho State Police Forensic Services has experienced a great deal of change and growth in the last few months.



The biggest change is in the laboratory system management structure. Major Ralph Powell rotated into an assignment over ISP Operations and Major Kedrick Wills was promoted into the position of Commander over the Police Services Division and Director of ISP Forensic Services. Major Powell was instrumental in many of the improvements at the laboratory including ASCLD/LAB ISO 17025 accreditation, a retention program for scientists, and many other quality and operational improvements. Major Powell will be greatly missed. Major Wills is also a dynamic and progressive leader and we look forward to his direction for the lab system. We are constantly trying to improve the services we provide, offer more services, and support local law enforcement efforts in as many ways as possible. The changes at the laboratory in the last few months will be highlighted in this newsletter. Please use the contact information in this newsletter to let us know how we are doing. We strive to provide the best forensic services available in the country.

A change was recently made to the leadership of the breath alcohol program. Jeremy Johnston (located in the Coeur d'Alene Laboratory) is the new Discipline Leader over this program. Jeremy will now calibrate all new breath testing instruments from the manufacturers and issue the original certifications. Jeremy will also issue all the certificates for the "performance verification solutions" purchased from RepCo. These certificates have been updated and will contain more information. Agencies should still continue to send instruments for repair and calibration to the lab specified on the ISPFS website. The lab is quickly moving toward ISO certification for breath testing so you will notice many changes in the next few months. The lab is publishing new reference manuals for the instruments, revising the operating procedures for BTS and operators, and standardizing the BTS and operator training. Updates are also coming to IDAPA 11.03.01 in the near future. Future newsletters and the alcohol website will have more information on these changes.

BREATH ALCOHOL

WHAT'S NEW

ISPFS operates three laboratories in Idaho. Because each lab offers different services, the evidence submission process can be quite confusing for agencies. We recently added a document to the [ISPFS website](#) to aid agencies submitting evidence. If agencies will consult this resource, it will speed up the evidence processing by the evidence going to the correct laboratory for initial processing and analysis.



ISP Forensics Website

SFST Manuals Available

ISPFS and Idaho POST are working together to make the SFST Student and Instructor manuals available to officers in Idaho. The manuals have been placed on the "Alcohol" page of the ISPFS website. The sections are password protected and are limited access to sworn officers currently employed by a law enforcement agency in Idaho. Instructions for accessing the information are available on the site. Officer credentials will be verified before they obtain login and password information.

Did you Know?

Idaho State Police Forensic Services has processed 135,000 pieces of evidence since November 1999.

The laboratory will be purchasing a new Laboratory Information Management System in the next few months to handle the increased volume. We also hope to be able to expedite the submission and reporting process when the new system is fully implemented.

Updated Submission Form

ISPFS updated the Laboratory Submission Form for evidence. Agencies are able to fill it out electronically and the examination codes were updated. The form is available on the [ISPFS website](#). The new form also requests an investigator email address to make contact during the examination process quicker and easier.

UPCOMING TRAINING

Course	Location	Dates	Contact
Breath Testing Specialist	POST	9/9-9/10	Register
Advanced Digital Photography (Investigators)	Pocatello	10/18-10/22	Register
Breath Testing Specialist	ISP Patrol Pocatello	10/28-10/29	Register
Breath Testing Specialist	POST	12/2-12/3	Register

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

FOCUS ON

How Can We Help?

- Got an impression but no suspect? We may be able to figure out the make and model of footwear or tire.
- Got a similar impression showing up at different crime scenes? We could help link scenes by linking the impressions.
- Got an impression and suspect / vehicle? We can do a comparison between the shoes/tires and the impression.
- We can't tell you who was wearing the shoes or driving the vehicle.



What is Impression Evidence?

What is it?

A shoe or tire impression is the direct physical contact of footwear or a tire with a surface leaving visible or partially visible designs.



Location, Location, Location

- The perpetrator has to get to and from the scene. Check the entrances, exits and pathways.
- Remember that while a perpetrator may wear gloves, they must still walk through the scene leaving hidden footwear evidence.
- Impressions may be found on assault or hit-and-run victims.

What are Class Characteristics?

There are a lot of shoes made from the same size mold. It's the same with tires. If shoes came out of the same mold, they all have the same design, size and shape. The same applies to tires with the added characteristics of pitch sequence or noise treatment. Look at your tires and you'll see noise treatment – the variation in element size around the circumference of the tire to maximize tire performance and cut down on the noise they make.



GOALS FOR 2010

- Two new Impression examiners by December 2010.
- 90% of cases turned around in less than 90 days.

Casting



Photograph First and use a scale!!!

Use dental stone!!! Dental stone is stronger and much easier to use than plaster of paris...and easier to clean.

Pre-measure 2 pounds of dental stone into heavy duty gallon-size ziplock bags. Shelf life: indefinite as long as no punctures or moisture added.

Cast a shoe impression: add about 8-9 ounces of water to ziplock bag and mix for two to three minutes by squeezing the bag. It should be like pancake batter. Pour to one side of impression and let flow into it.

Cast a tire impression: 10 pounds of dental stone in a bucket. Add about 8 cups of water and mix well. Block off about 3' long area of impression. Pour mix onto a piece of cardboard and let flow into impression.

Let them dry thoroughly. Hasty lifting is a broken cast waiting to happen.

Wrap the casts in newspaper to transport.

Dry at least 24 hours before packaging in paper for evidence.

Do not use plastic: Casts give off moisture for weeks and they will go moldy and crumble if padded with bubble-wrap or put in Styrofoam lined boxes.



IMPRESSION EVIDENCE

Impressions

Dusty Impressions

- Any static charge will destroy these.
- **Keep plastic away from dusty impressions.**
- You can see dusty impressions from an angle but the photograph has to be taken from above. Set the light or flash down on the surface to “skim” the impression.

Impressions on Paper, Cardboard or Glass

- Protect the items from rubbing with sheets of clean notebook paper.
- Protect the glass from breakage by wrapping with paper first then adding a layer of bubble wrap.
- Don't cover any impressions with tape: it will destroy the dusty impressions and prevent the lab from chemical enhancement methods.

Test Impressions

- The lab will do the test impressions on the shoes.
- Seize the vehicle and call Meridian for assistance with tire test impressions. Easy but not as good method: Vaseline and butcher paper. Best method: black printer's ink on clear plastic film.
- If you have tire impression casts, the lab will need the tires submitted as evidence too.

Photography and Digital Cameras



If your camera has the capability, use TIFF or RAW file format when shooting for maximum resolution and information. If not, use maximum resolution JPEG file format. The **Rule of Thumb**: highest resolution = fewest number of photographs.

- Turn off the flash. The camera flash just washes out the detail in the picture. Use side lighting.
- Tripod if possible: Steadies the camera and lets you format better.
- **Place a scale next to impression, at same level as bottom of impression.**
- Fill the frame with the impression and scale, with the camera perpendicular (90°) to the impression.
- Focus carefully, manually if possible.
- Tire tracks are long. Take overlapping photos along the impression. A tape measure laid along the tire track will help with this. **Add a scale too.**
- Take extra photos of the impression to ensure the best evidence possible.



Digital Images as Evidence

- **Your digital images of the impressions are evidence.**
- **Don't run them through Photoshop to adjust or crop or “fix”. THE ORIGINAL IMAGES ARE REQUIRED FOR ANALYSIS.**
- **Burn them directly onto a CD or DVD and package into an evidence envelope.**
- **JPEG images lose resolution each time they are opened. The image quality and resolution will be preserved by shooting in RAW or TIFF formats.**
- **Due to stability issues on some forms of digital storage media, an electronic evidence protocol should be followed by the collecting agency.**



Collaboration



Idaho State Police Forensic Services and the Utah Bureau of Forensic Services have joined efforts. ISPFS sends each Impression case to Utah for technical review. Because Idaho only has one Impression Examiner, we must make arrangements for external technical review. The technical review process ensures that each case has been examined correctly and all conclusions are correct. When we have fully trained our two Impression Examiners (several months away) this exchange will no longer be necessary, but we appreciate the Utah State Crime Lab for performing this great service for Idaho.



[For more information on Impression Evidence](#)

CONTACTS



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Employee of the Year

Forensic Evidence Specialist Stefani Herridge from the ISPFS R5 (Pocatello) Laboratory was recently awarded the 2010 ISP Region 5 Civilian Employee of the Year award from the Greater Pocatello Chamber of Commerce. High achievement, exemplary performance, ideal professionalism, and commendable public service are examples of the criteria to be considered for this award. Stefani is an exemplary employee who up holds the integrity and quality of the Idaho State Police Forensics Lab in Pocatello. As part of her many duties she compiles yearly statistical data for the annual toxicology report on Safe and Drug Free Schools and Communities. She is a trainer and was instrumental in writing a new Forensic Evidence Specialist training manual. She is an active volunteer in our community and excels in everything she does. Congratulations to Stefani on this award!



Toxicology Submittal Form—New Policy

Laboratory personnel greatly appreciate well filled out toxicology submittal forms. Please legibly fill out **all** lines and check **all** applicable boxes. **Cases with incomplete forms will not be processed until the form is corrected by the submitting agency.** Properly filled out forms serve many purposes:

- Forensic Evidence Specialists do not have to contact your agency to clarify details or obtain required information.
- Description of subject's symptoms, even without a listing of drugs admitted to, assists the analysts when making decisions when there is limited sample.
- Provided information saves analysis time. Analysts are not pursuing drug compounds that are not applicable to your case.
- Information assists analysts in the identification of newly introduced prescription drugs, over-the-counter drugs and herbal supplements.
- Laboratory policy states that when the blood alcohol concentration is 0.10g/100cc or greater, additional testing is not pursued without an outline of extenuating circumstances. If extenuating circumstances exist for your case, please provide this information with your submittal form to expedite the process.
- When available, please provide your work e-mail on the toxicology submittal form along with the rest of your contact information.

FEEDBACK

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

I personally appreciate all the help from Susan Williamson with my case and the assistance getting prepared for court. I also very much appreciate her willingness to come over to Boise and explain things for the jury. She explains things clearly and her comments were well received by the jury. She is an excellent expert witness—Boise City Deputy Prosecutor. —*Thank you for the nice comments. Susan is the Toxicology Discipline Leader and she is well traveled in Idaho for court testimony. She does her best to balance time in the lab and time testifying. She does a great job.*

I wanted to take time to applaud Shannon Larson for her recent performance testifying in a prescription drug DUI trial. As you may know, these are difficult cases. Clear, persuasive testimony from State's witnesses is essential. At the jury trial Ms. Larson testified for a full hour. Through her superb use of metaphor, she was able to translate complicated and often dry scientific concepts into interesting, understandable evidence for the jury to consider. Ms. Larson kept the jury's attention throughout her testimony by bringing the evidence to life. By the end of her testimony, at which time Ms. Larson explained the impairing effects of the drugs present in Defendant's body, the jury saw her as a highly knowledgeable person whom they could trust. I have always been impressed by Ms. Larson's willingness to make the long drive from Pocatello to Boise. Now, I can add to that the confidence that when a case doesn't settle, Ms. Larson will deliver clear and helpful testimony—Ada County Deputy Prosecutor.—*Shannon is the R5 Laboratory Manager and she does a fantastic job. She makes great personal sacrifice to testify all over Idaho. Thanks for the nice comments.*

Submit your questions

If you have questions you would like answered in future editions of this newsletter, please [email](#) them to us. Please be concise and specific.