



Quality Division Use Only

Quality Tracking #:	2023-043	Classification:	Corrective Action
Risk Level:	Low	Section:	Latent Print Section
Date of Discovery:	12/11/23	Date of Incident:	12/11/23

Forensic Case Number(s), if applicable:	Agency Case Number(s), if applicable:
2021-33665	150027821

Description of Non-conformance:

During the administrative review of case 2021-33665 it was discovered that some of the photographs taken by a latent print processor for item 006-01 were not captured at a resolution of 1000 pixels per inch (ppi) or higher and the possible suitable latent (PSL) did not fill the frame after the indanedione reagent was applied.

Additional Information/Follow-Up:

It is best and normal practice in latent print processing to fill the frame with the PSL(s) when photographing and to capture the PSL(s) at the resolution of 1000ppi or higher for use during latent print comparison. There may be instances when it is not possible to fill the frame or to use 1000ppi based on the evidence, however in most instances 1000ppi is used and the frame can be filled. The practice of filling the frame of the image with the PSL helps to ensure that the resolution of the photograph is sufficient of at least 1000ppi.

After this issue was noticed by the reviewer, the Digital Imaging SOP was referenced as it was a newly drafted and published document. The SOP stated, "Latent/inked print images should be captured at a calibrated resolution of 1000ppi or greater" and "The examiner/processor should fill the frame of the image to contain the possible suitable latent (PSL) and the scale with minimal extraneous information." While the clauses used the word "should" which is a recommendation, not a requirement, the intent of the policy was to require the frame to be filled and 1000ppi or greater resolution for every photograph, except in instances where it is not possible based on the evidence. In this instance it was possible to fill the frame and use 1000ppi.

It should be noted that after the indanedione reagent was used, the processor then subsequently used ninhydrin as was appropriate based on the evidence and in accordance with policy. Some of the PSLs were no longer visible after the application of ninhydrin, which is common as it is a more destructive reagent, and the reason this reagent



is used after least destructive reagents in sequential processing. The processor scanned the remaining possible suitable latents after ninhydrin processing with resolution of 1000ppi or greater.

The quality specialist spoke with the processor involved and the processor explained that they had “calibrated” the new camera that they used in this case. Calibrated in this sense meant that the processor was determining the range up and down that the camera could be moved on the camera stand which would still produce images of at least 1000ppi based on how zoomed in or out the camera is. The processor created a reference card for all processors to use. The card was intended to be used as a tool to provide a reference size of how far out the camera could be zoomed while still maintaining 1000ppi or higher and prevent any photos to be taken at less than 1000ppi. For example, if the card was smaller than the frame visible on the camera screen, the camera was zoomed too far out.

As stated in the Digital Imaging SOP, it is the responsibility of the processor to ensure that photographs of PSLs fill the frame and are taken at 1000ppi (i.e. optimal resolution). The method for ensuring photographs are taken at optimal resolution is included in the training program for latent print processing. This verification can be done by the processor by calibrating an image in Photoshop, if necessary, based on the evidence. ‘Calibrating’ in this sense means to calculate the pixels per inch. In this case the processor relied on the reference card and did not calibrate an image or test image. The processor explained that based on their experience as a qualified latent print examiner (this individual is authorized to perform processing and comparison casework), they believed that the image was of sufficient resolution.

The PSLs in the case proceeded through to latent print comparison. The assigned examiner was aware of the situation and was asked to follow up with management and the Quality Specialist regarding their opinion on the resolution of the photographs. The examiner stated that they believed the resolution did not have a negative impact on their ability to perform analysis in the case.

Summary of Root Cause Analysis:

Note: Incidents are documented for tracking purposes and trend analysis. Root Cause Analysis is not required for incidents.

Once the processor was made aware of the issue by the reviewer, the processor reviewed the reference card and discovered it was too large by one centimeter. Since the reference card was slightly oversized, this resulted in excessive zooming out and consequently, the photographs were captured at a lower resolution. As required by section policy, it is the processor’s responsibility to ensure photographs of PSL are at optimal resolution, but in this case the processor solely relied on the reference card tool and did not verify optimal resolution.



Actions Taken:

The processor re-evaluated and revised the size of the reference card to ensure it would help produce the proper range of zoom. As the processing lab has two photography rooms that each contain a camera, the processor also revised the reference card in the second room. The processor acknowledged that it is their normal practice to photograph at 1000ppi or greater and that it was not their intent in this case to use a lower resolution. The Digital Imaging SOP was revised on 2/2/2024 to change the recommendation language to a requirement for photographing latent images at 1000ppi or greater and for filling the image frame with the PSL. In addition, in the section meeting on 2/20/2024 management reiterated the expectations, best practices and policies in the Digital Imaging SOP and reminded processors that it is their responsibility to verify image resolution. In this meeting it was also reiterated that as included in the Reviews SOP it is the responsibility of the suitability and/or technical reviewer to ensure images are captured at optimal resolution.

Section Manager: Rebecca Green Date: 04/24/24
Division Director: Amy Castillo Date: 04/24/24

Incidents or Corrective Actions that involve the Biology/DNA section are reviewed by the Technical Leader and CODIS Administrator.

Technical Leader: Jeniffer Molina Date: 04/22/24
CODIS Administrator: N/A Date: _____

Quality Director: Jackeline Moral Date Closed: 05/08/24