



Ron Smith & Associates, Inc.

Testing Division

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Summary Report

Latent Print Processing Proficiency Test #23502
Issued: November 20, 2023

On September 4, 2023, Ron Smith and Associates, Inc. (RS&A) shipped the Latent Print Processing Proficiency Test #23502. Participants were required to submit their responses no later than October 13, 2023 in order for them to be included in this summary report.

A total of 93 tests were ordered and shipped, with 69 participants returning their responses. **This summary report is based on 276 individual responses (69 participants returning 4 responses each).** The test included four items for latent print processing.

The results presented in this report reflect whether or not the participants' submitted results agree or disagree with the assigned values garnered from pre-distribution testing and outlined in *The Manufacturer's Report* (Appendix 1). The primary purpose of a Summary Report is to provide an overall documentation of all the submitted responses. It is RS&A's intention to go a step further by providing more meaningful statistical results through analyzing the submitted responses in relation to the demographics obtained from each of the examiners participating in this proficiency test. All results and statistics for this test will be outlined through graphs and charts found in the remainder of this report.

Prior to distribution of this test, all the expected responses were determined, by internal and external consensus, to be either "Friction Ridge Detail **was** Developed" or "Friction Ridge Detail **was not** Developed". In designing this proficiency test, it is understood that sometimes friction ridge detail may be present on an item during the manufacturing process. For this reason, all items are cleaned prior to being included in a test. Because of the latent nature of the prints, it is possible that some portions of friction ridge detail can be missed in the cleaning process. To satisfy this condition for the test, all developed friction ridge detail has to be photographed in order to be given credit. If the photograph is accepted, the participant will be given credit for the friction ridge development in instances when the expected answer was "Friction Ridge Detail **was not** Developed".

RS&A strives to maintain the confidentiality of all its clients and participants. All results are obtained and published using randomly generated test codes. RS&A will not release the identity of any participant without the written consent of the participant and/or the agency involved.

For any questions or further information, please contact our Proficiency Testing Coordinator by emailing testing@ronsmithandassociates.com or by calling toll free at 1-866-832-6772.

Appendix 1

Test Manufacturer's Information

Latent Print Processing Proficiency Test #23502

This proficiency test consisted of four items labeled as Item #1 (Sunglasses), Item #2 (Lollipop Wrapper), Item #3 (Toy Car) and Item #4 (Paper). The items were similar to those normally encountered in latent print processing casework. The participant was required to process the items for the presence or absence of friction ridge detail. The assigned values are as follows:

Item #	Assigned Value
Item #1 (Sunglasses)	Friction Ridge Detail <u>Was Not</u> developed
Item #2 (Lollipop Wrapper)	Friction Ridge Detail <u>Was</u> Developed
Item #3 (Toy Car)	Friction Ridge Detail <u>Was</u> Developed
Item #4 (Paper)	Friction Ridge Detail <u>Was</u> Developed

The assigned values below were determined through the ground truth information and verified through unanimous agreement during pre-distribution testing.

Known Matrix used:

Item 1: N/A, **Item 2:** Sebaceous oils, **Item 3:** Sebaceous oils, **Item 4:** Amino Acids

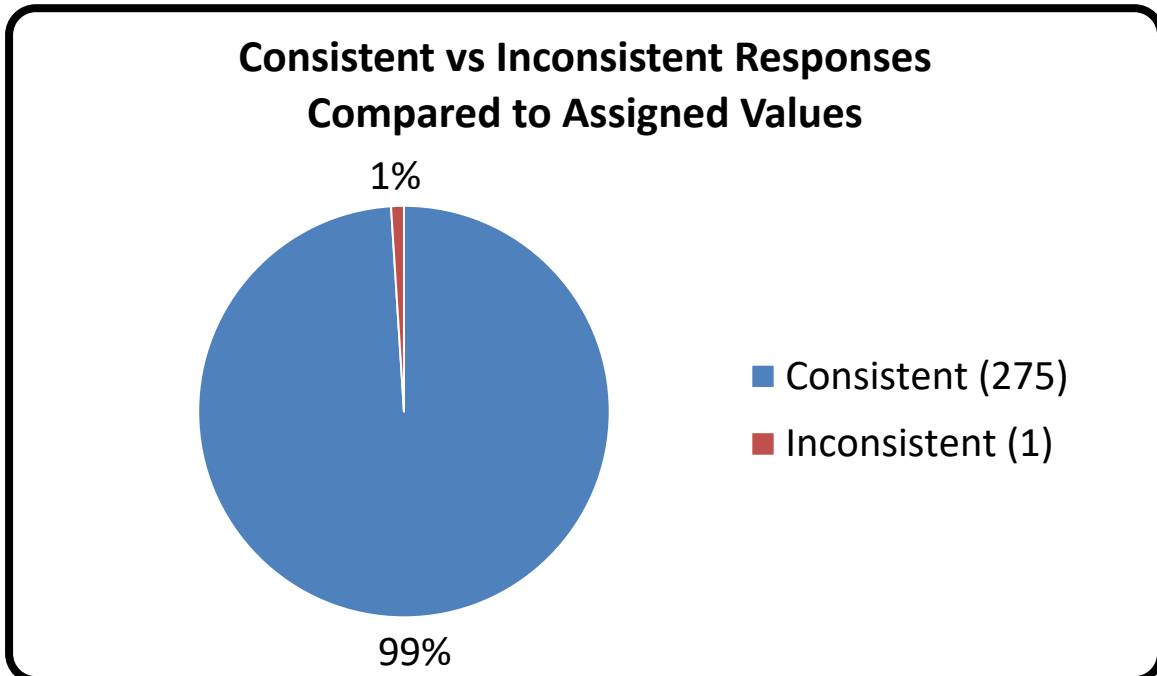
Individual reports will be provided to participants by early November 2023. The final summary report for this test will be posted on the Ron Smith and Associates website by mid November 2023 using the following link: <http://www.ronsmithandassociates.com/proficiency/lpprocessing.html>

It is recommended to postpone evaluating an individual's performance until after you have received the statistical averages contained in the summary report.

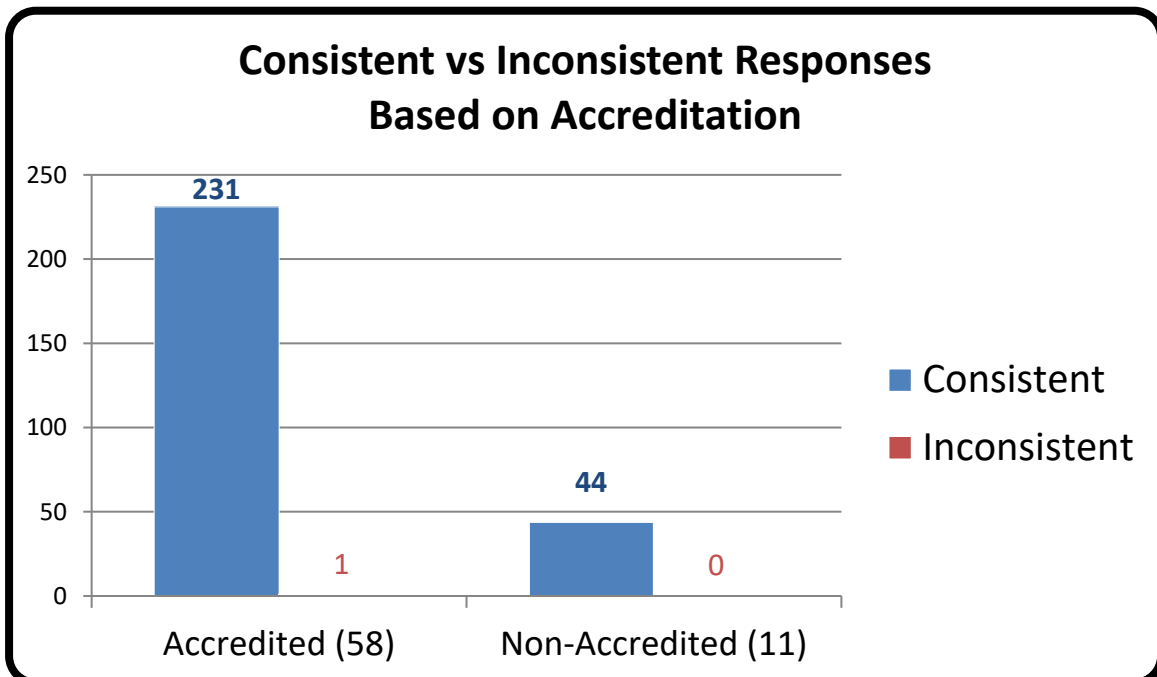
For any questions or further information, contact the Proficiency Testing Coordinator by emailing testing@ronsmithandassociates.com or call toll free at 1-866-832-6772.

Authorized by: Jon Byrd, CEO
Issue Date: October 23, 2023

Appendix 2



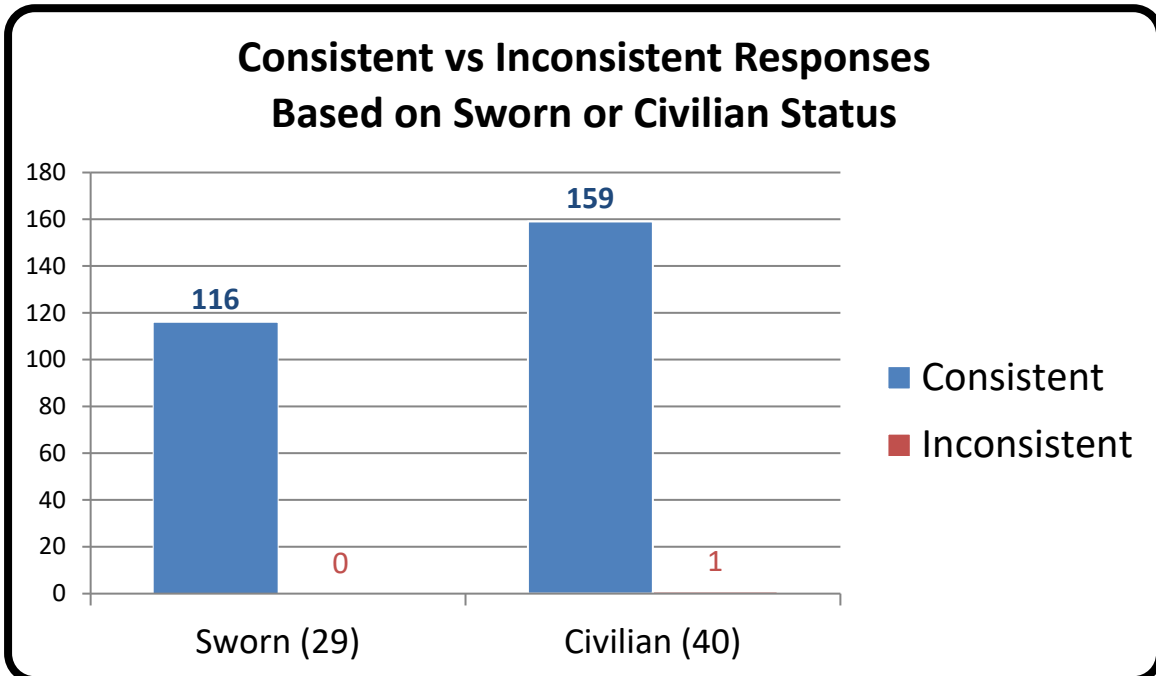
Appendix 3



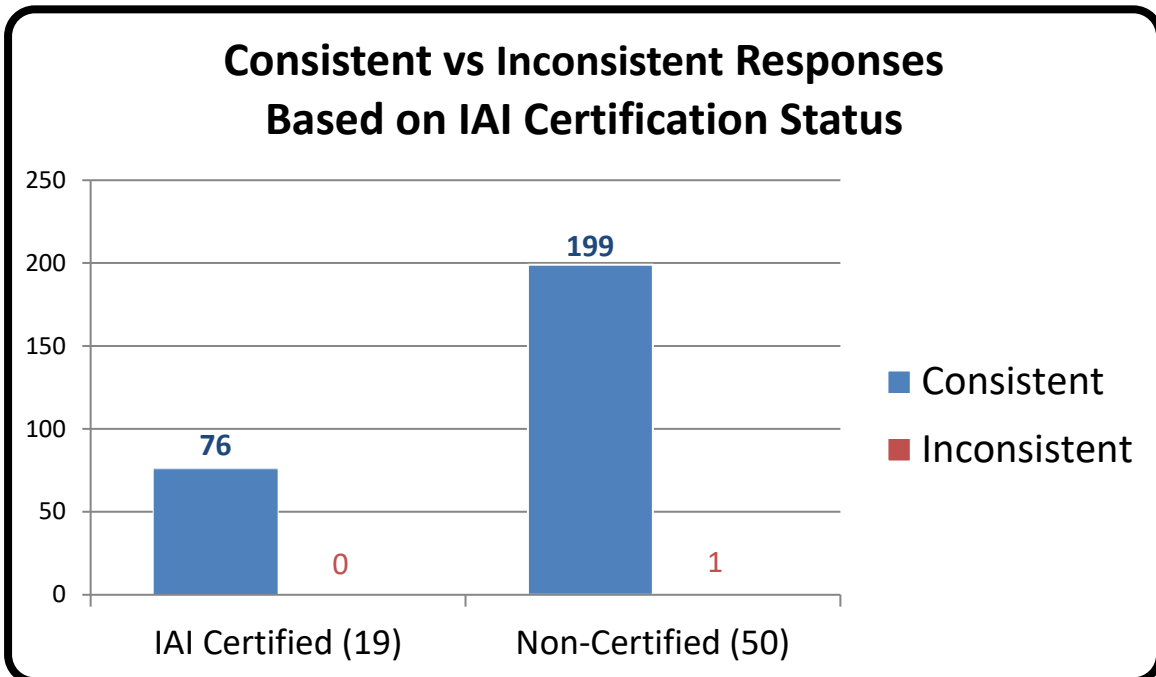
*Numerical values shown are based on 69 participant submissions, each with 4 responses, equaling 276 total responses.

*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 4



Appendix 5

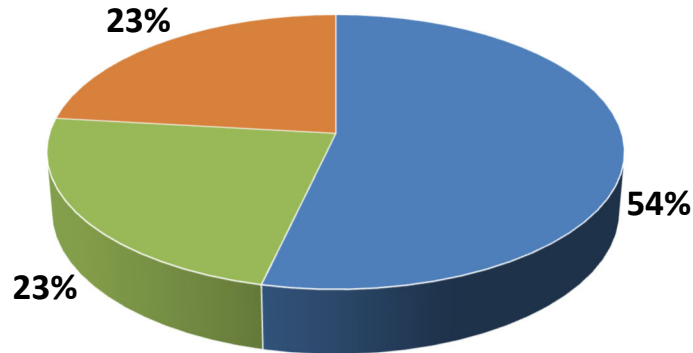


*Numerical values shown are based on 69 participant submissions, each with 4 responses, equaling 276 total responses.

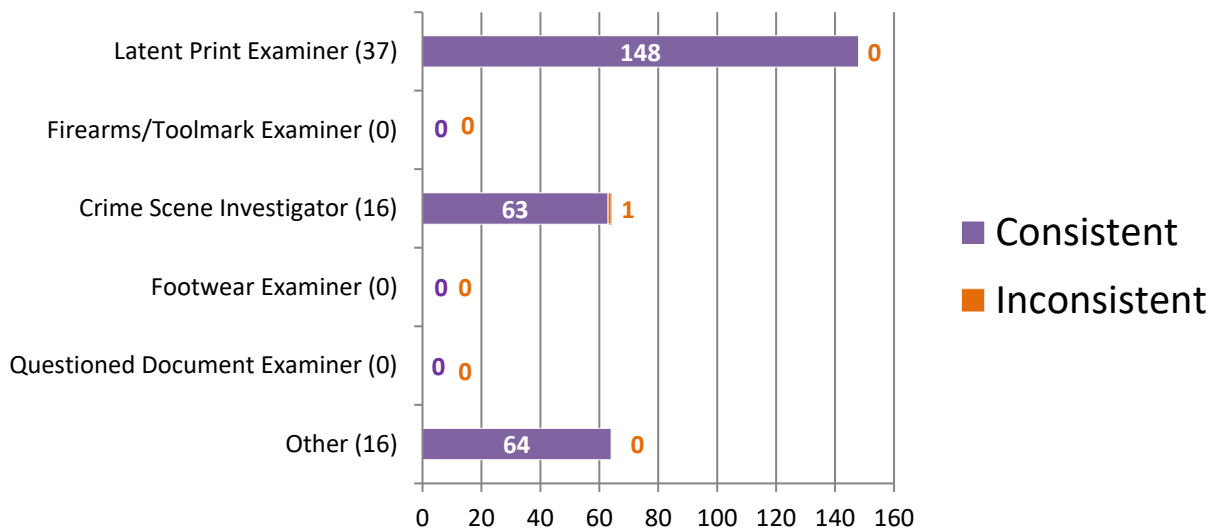
*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 6

Percentage of Participants Based on Primary Job Position



Consistent vs Inconsistent Responses Based on Primary Job Position

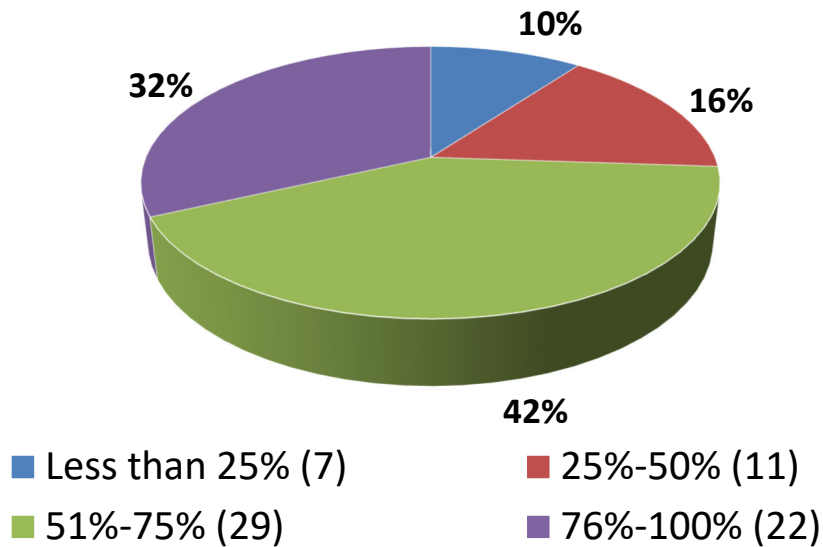


*Numerical values shown are based on **69 participant submissions, each with 4 responses, equaling 276 total responses.**

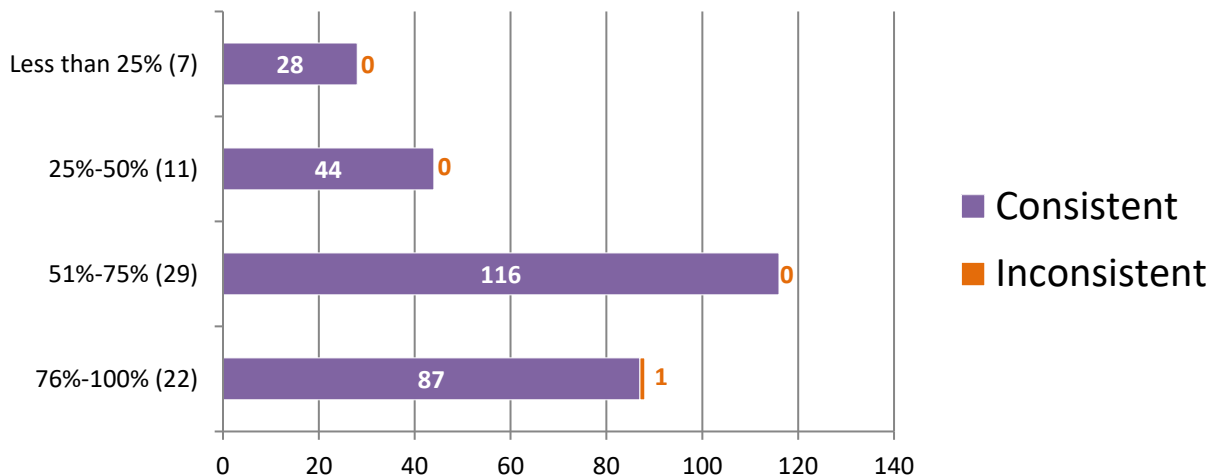
*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 7

Percentage of Participants Based on Time Devoted to Processing of Latent Print Evidence



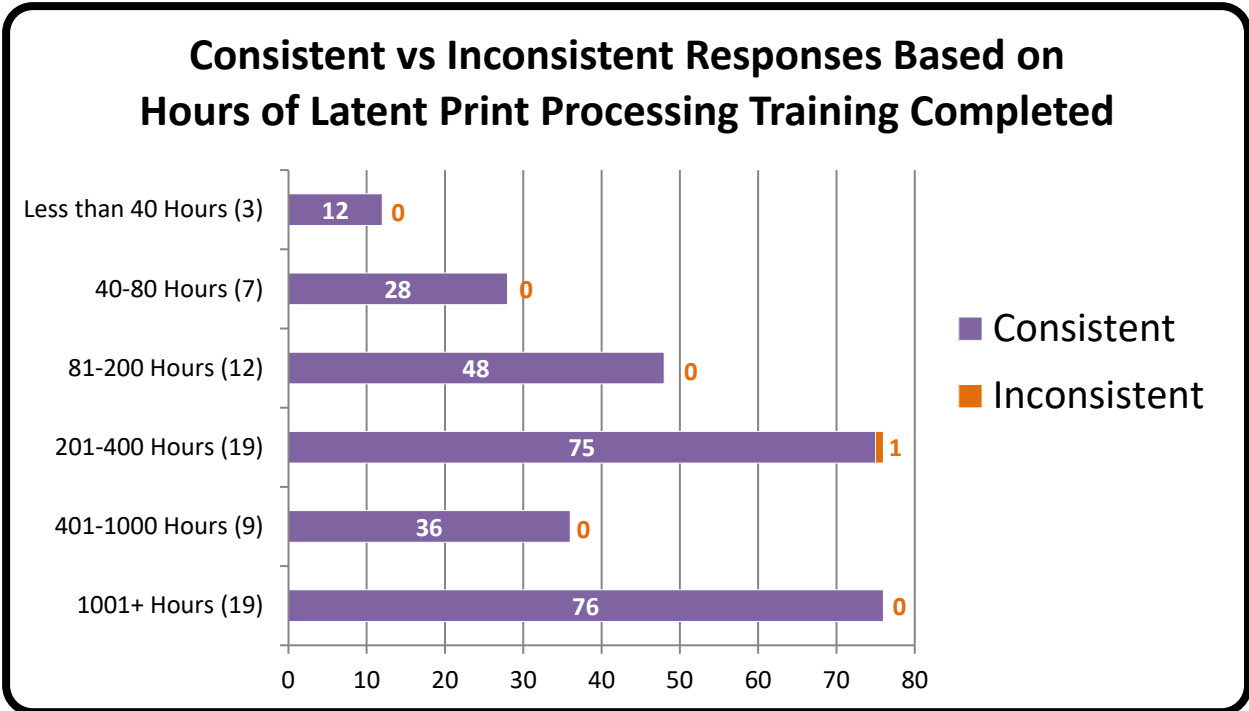
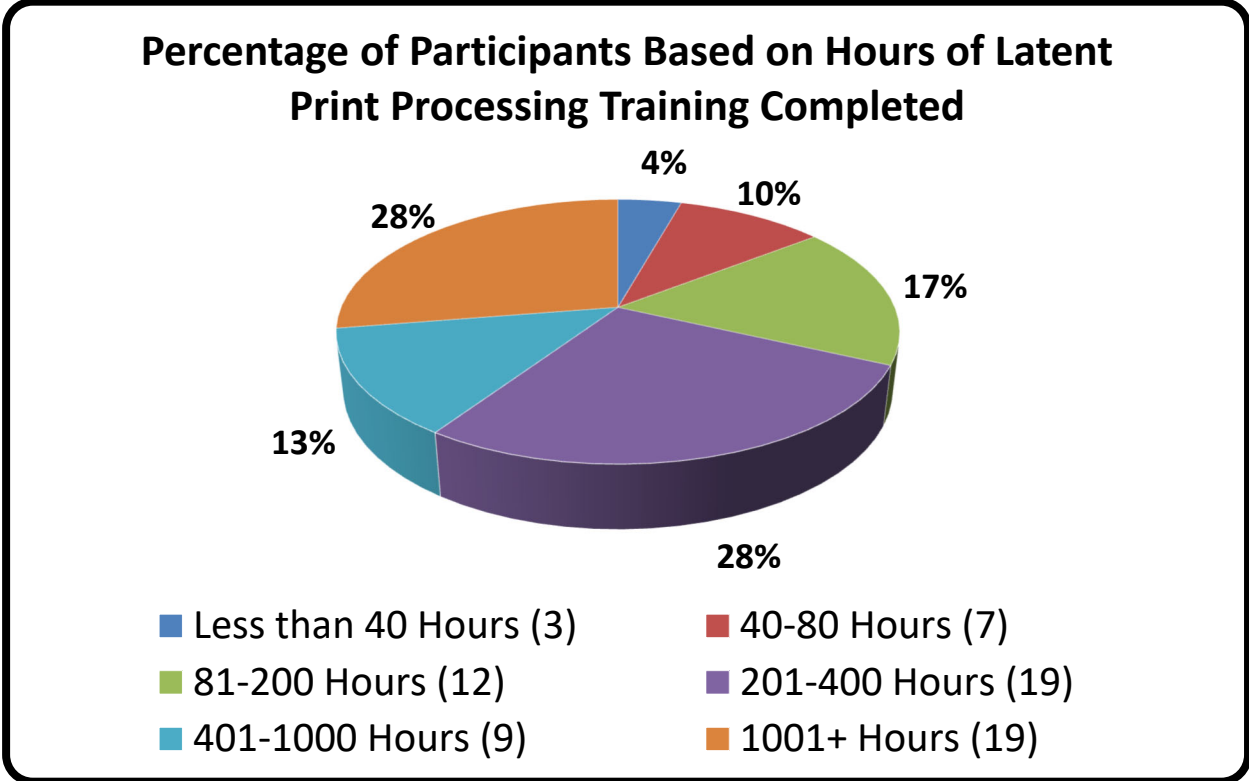
Consistent vs Inconsistent Responses Based on Time Devoted to Processing of Latent Print Evidence



**Numerical values shown are based on 69 participant submissions, each with 4 responses, equaling 276 total responses.

*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 8

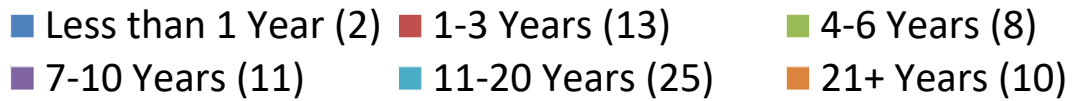
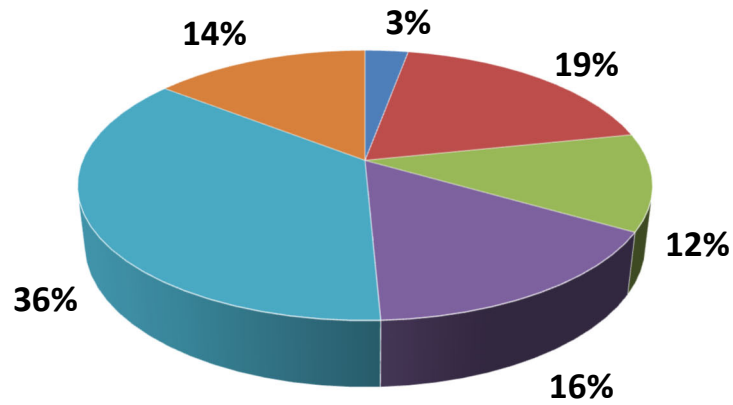


*Numerical values shown are based on **69 participant submissions, each with 4 responses, equaling 276 total responses.**

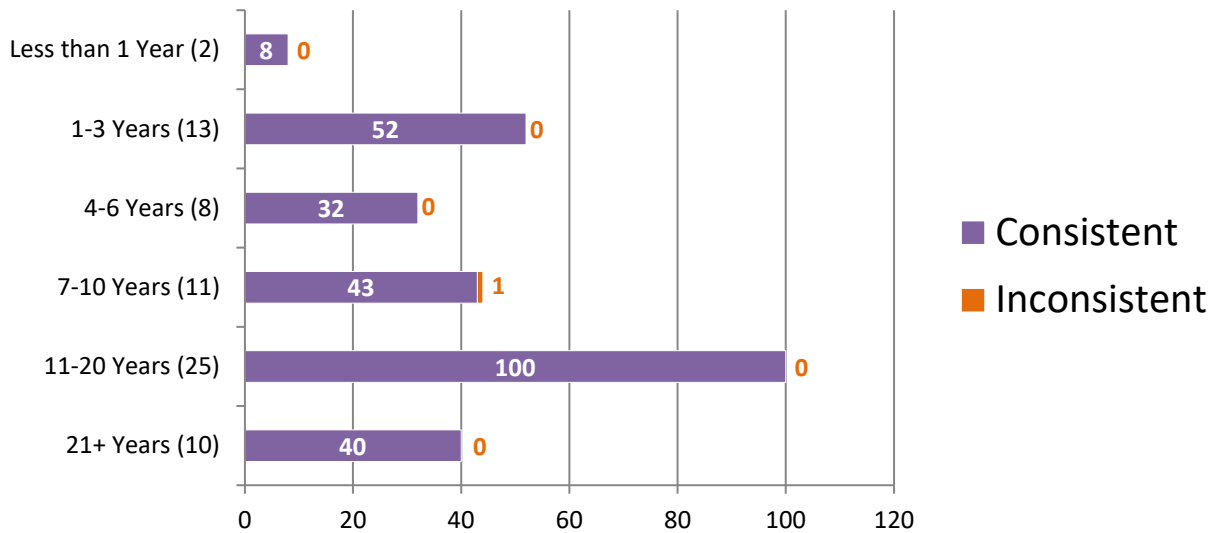
*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 9

Percentage of Participants Based on Years of Experience in Latent Print Processing



Consistent vs Inconsistent Responses Based on Years of Experience in Latent Print Processing

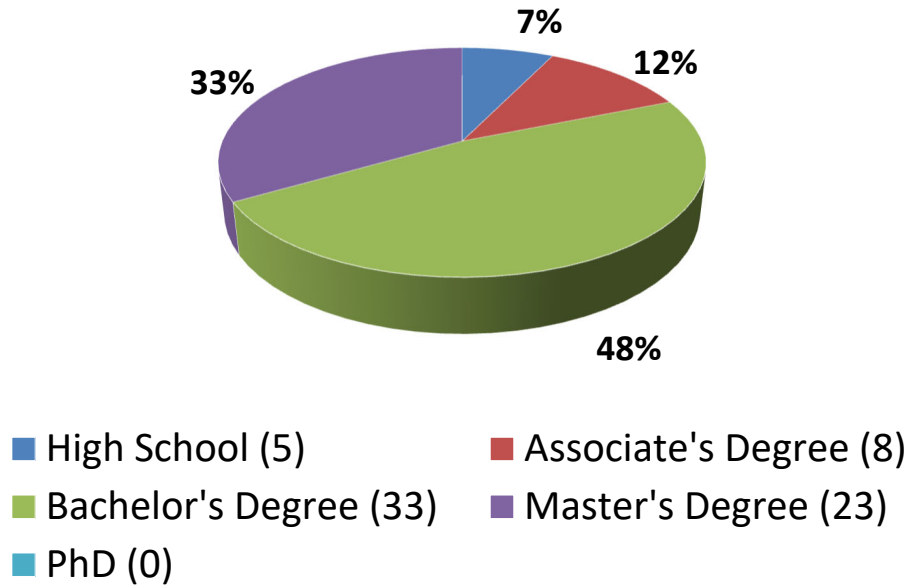


*Numerical values shown are based on **69 participant submissions, each with 4 responses, equaling 276 total responses.**

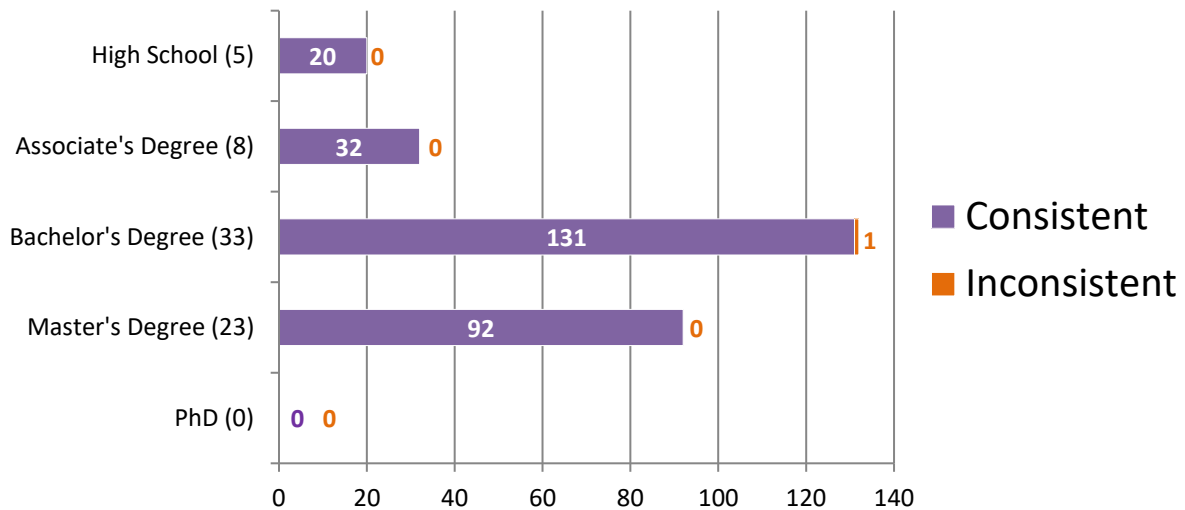
*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 10

Percentage of Participants Based on Highest Level of Education Completed



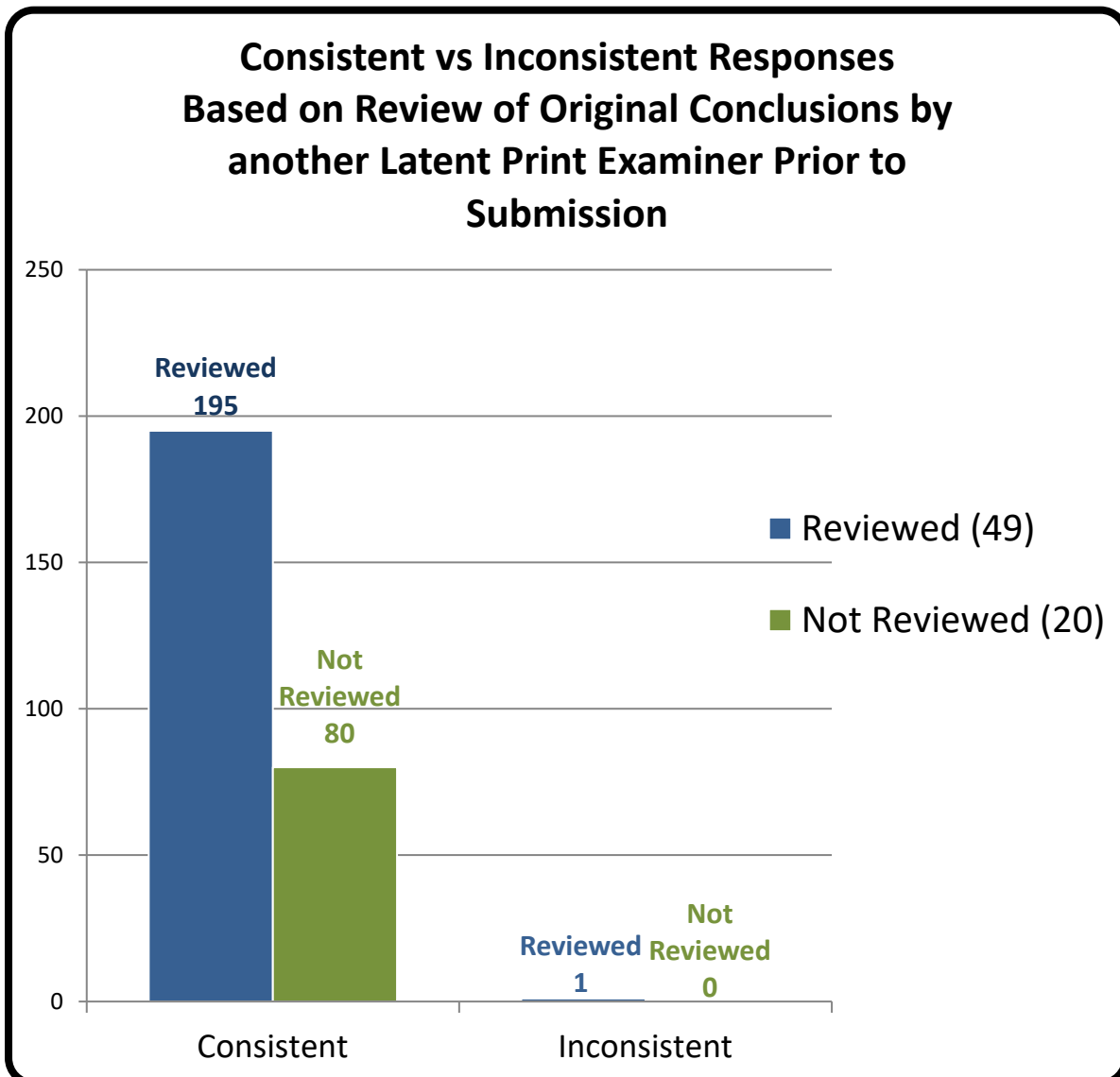
Consistent vs Inconsistent Responses Based on Highest Level of Education Completed



*Numerical values shown are based on **69 participant submissions**, each with **4 responses**, equaling **276 total responses**.

*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 11



*Numerical values shown are based on **69 participant submissions, each with 4 responses, equaling 276 total responses.**

*For further information, please read *Manufacturer's Additional Observations* on the final page of this report.

Appendix 12

Participant Responses Listed by Test Code

Item #	Item #1	Item #2	Item #3	Item #4
Assigned Values	<u>Friction Ridge Detail Was or Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
4482F23502	<u>Friction Ridge Detail Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
9034W23502	<u>Friction Ridge Detail Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
7990W23502	<u>Friction Ridge Detail Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
5918C23502	<u>Friction Ridge Detail Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
2980K23502	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
2013W23502	<u>Friction Ridge Detail Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
6917L23502	<u>Friction Ridge Detail Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
8320G23502	<u>Friction Ridge Detail Was Not Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
1608Y23502	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>
4432H23502	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>	<u>Friction Ridge Detail Was Developed and Supported with photograph</u>

Test Code

	3329C23502	Friction Ridge Detail <u>Was Not</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph
	4842O23502	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph
	3350D23502	Friction Ridge Detail <u>Was Not</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph
	2546N23502	Friction Ridge Detail <u>Was Not</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph
	6650T23502	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph
	6586O23502	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph
	6972S23502	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph

Totals

Item #	Item #1	Item #2	Item #3	Item #4
Assigned Values	Friction Ridge Detail <u>Was Not</u> or <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph	Friction Ridge Detail <u>Was</u> Developed and Supported with photograph
Consistent Responses	69	69	69	68
Inconsistent Responses	0	0	0	1
Percentage of Consistent Responses	100%	100%	100%	99%

Participant's Additional Comments

Test Code	Comments
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LP Processing Proficiency Test
Test #23502



Summary Report
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4482F23502	<p>Item No 1: In the internal part of the left lens there was an ignition of finger touch without any ridge detail.</p> <p>Item No 3: When we opened the sealed cardboard box the toy car was already split into two separate pieces.</p>
9034W23502	<p>On the item#2 we've found a third friction ridge with a poor quality that's why we uploaded the two best one.</p> <p>For the item#4 we've found one friction ridge but tried two different methods of revelation (Ninhydrine and Indanedione) and have uploaded the results of each one.</p>
2980K23502	<p>Item#1 - Examined with light sources and then treated with Powder Suspension.</p> <p>Item#2 - Examined with light sources and then treated with Superglue. Superglue was then secondarily enhanced with Black Magnetic Powder and Basic Red 14 dye.</p> <p>Item#3 - Examined with light sources and then treated with Superglue. Superglue was then secondarily enhanced with Basic Yellow 40 dye.</p> <p>Item#4 - Examined with light sources and then treated with DFO, Ninhydrin and Physical Developer sequentially.</p>
8153N23502	<p>The ridge detail on Item 1 was likely an incidental touch, not intended to be part of the test, but I documented it anyway.</p>
852C23502	<p>Item 1: Very small area of ridge detail visible on outside right eye lens and frame at top outer corner (as worn) - not suitable for recovery after sequential treatments.</p>
7670A23502	<p>Se utilizaron reactivos verificados.</p>
3707S23502	<p>Item #1 was treated with Cyanoacrylate and additionally with dactyloscopy powder;</p> <p>Item #2 was treated with Cyanoacrylate and additionally with Ardrex;</p> <p>Item #3 was treated with Cyanoacrylate and additionally with Ardrex;</p> <p>Item #2 was treated with Ninhydrin.</p>
7653M23502	<p>Item 1 had some marks that could have been interpreted as possible ridge detail but it was so minor and insignificant compared to the others which had clear and significant ridge detail that I opted to answer "not developed".</p>
9339Y23502	<p>item 2 :</p> <ul style="list-style-type: none"> - photo 1 : detection of a fingerprint, before revelation treatment (optical detection) - photo 2 : the same fingerprint, after revelation treatment (lumicyano) <p>Observation : The trace in photo 1 is of better quality. The ridges are more contrasted and better defined.</p> <p>Item 3 :</p> <p>The fingerprint was visible in optical detection, but difficult to photograph due to the curved shape of the support.</p> <p>To facilitate shooting, the car has been dismantled.</p> <p>Photo 1 represents the trace after revelation treatment with Lumicyano.</p> <p>Item 4 :</p> <p>The treatments used on this support are Indanedione ZnCl and Ninhydrin.</p> <p>Photo 1 represents the trace after revelation treatment with Indanedione ZnCl.</p>
5456S23502	<p>Examination Sequence: (* denotes image uploaded)</p> <p>Item 1: Visual > Fluorescence > VMD > White Powder Suspension NO MARKS</p> <p>Item 2: Visual > Visible Mark photographed* > Fluorescence > Black Powder Suspension (MARK NOT FURTHER ENHANCED WITH ANY TREATMENT)</p> <p>Item 3: Visual > Visible Mark photographed* > Fluorescence > VMD (mark further enhanced)* > Black Powder Suspension</p> <p>Item 4: Visual > Fluorescence (mark developed) > Indandione (mark further developed)* > Ninhydrin (mark further developed)* > Physical Developer (mark not further developed)</p> <p>Images resized down to 2MB .jpg format for upload</p>

5121L23502	Regular Dual-Contrast powder QC: Pass + Ninhydrin QC: Pass +
3683M23502	Item 1 did not disclose any friction ridge detail following treatment / examination. Item 2 developed using the superglue fuming process, visually examined using white light and recorded using digital photography. Item 3 developed using the superglue fuming process, visually examined using white light and recorded using digital photography. Item 4 developed using Indandione, visually examined using green 532nm laser and recorded using digital photography. Sequentially treated using the Ninhydrin process, visually examined using white light and recorded using digital photography.

Manufacturer's Additional Observations

Based upon a review of the submitted responses, the following observations were noted:

- 1) There was only one inconsistent response that could not be supported.

Authorized by: Jon S. Byrd, CEO
Date of Issue: November 20, 2023