



## Latent Print Processing Test No. 17-5190 Summary Report

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This test was sent to 394 participants. Each sample pack contained three pieces of simulated crime scene evidence. Participants were asked to process each piece for latent fingerprints and report their findings. Data were returned from 340 participants (86% response rate) and are compiled into the following tables:

	<u>Page</u>
<a href="#"><u>Manufacturer's Information</u></a>	<a href="#"><u>2</u></a>
<a href="#"><u>Summary Comments</u></a>	<a href="#"><u>3</u></a>
<a href="#"><u>Table 1: Print Location</u></a>	<a href="#"><u>4</u></a>
<a href="#"><u>Table 2: Development Methods</u></a>	<a href="#"><u>25</u></a>
<a href="#"><u>Table 3: Preservation Methods</u></a>	<a href="#"><u>184</u></a>
<a href="#"><u>Table 4: First-Level Detail Findings</u></a>	<a href="#"><u>250</u></a>
<a href="#"><u>Table 5: Additional Comments</u></a>	<a href="#"><u>292</u></a>
<a href="#"><u>Appendix: Data Sheet</u></a>	<a href="#"><u>299</u></a>

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

## Manufacturer's Information

Each sample pack consisted of three items of simulated crime scene evidence. Each item was divided into labeled sections and contained one latent fingerprint. The items consisted of a plastic light switch plate (Item 1), a glossy postcard (Item 2), and a half-sheet of ruled notebook paper (Item 3). Participants were asked to process each item for latent fingerprints, utilizing the method(s) deemed most appropriate for the substrate being examined.

### SAMPLE PREPARATION-

The nonporous switch plate was cleaned with water and a paper towel before latent prints were applied. The postcards were wiped clean with a paper towel before prints were applied. New, unused notebooks were used for the samples that could not be cleaned. Each item was divided into sections labeled A, B, C, and D, as one print would be deposited in only one of the four sections. For each item, either an acid or lipid enhancer was applied to the individual's finger prior to deposition to assist in the longevity of the print. A randomly selected group of samples were processed in-house to confirm the location and viability of the deposited prints before shipping to participants.

### SAMPLE PACK ASSEMBLY-

Each item was packed into its pre-labeled item envelope. Following predistribution testing, each item envelope was sealed with evidence tape and initialed with "CTS". These were then placed into a sample pack box and sealed with packaging tape.

### VERIFICATION-

Predistribution examiners were able to recover ridge detail in the expected section of each item.

<u>Item Number</u>	<u>Test Samples</u>	<u>Enhancer Used</u>	<u>Print Location</u>	<u>Pattern Detail</u>
1	plastic switch plate	oil	C	arch
2	glossy postcard	oil + acid	D	loop
3	ruled notebook paper	acid	B	whorl

## Summary Comments

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Each sample pack contained three items of evidence to be processed for latent prints: a plastic switch plate (Item 1), a glossy postcard (Item 2), and a piece of ruled notebook paper (Item 3). Each item was divided into four sections, which were labeled with the letters A-D. Participants were asked to determine which of the four sections on each piece of evidence contained a latent print. (Refer to the Manufacturer's Information for preparation details).

Due to the tenuous nature of latent fingerprints, it was expected that some participants may not be successful with the recovery of the deposited print on each item. Participants who did not develop a print on an item were therefore not flagged as outliers to the consensus.

Of the 340 participants, 311 (91%) were able to successfully recover a print in the expected section for all three items. For Item 1, 334 participants located the print in section "C" (98%), while five were unable to recover the print and one gave no response. For Item 2, 332 participants (98%) located the print in section "D". Six participants were not able to recover the print on the item, one participant located a print in section "A", and one gave no response. For Item 3, 322 participants (95%) located the print in section "B". Fourteen participants did not recover the print and reported "None," and two participants reported "N/A," which is inconsistent with the required reporting methods. The remaining two participants recovered the print in a different section – one participant identified a print in section "A", and the other participant found a print in section "C".

Summary statistics for the reported development and preservation methods were calculated for each item at the end of each methods table. The techniques included in the summaries are the preloaded options from the CTS Web Portal, and do not reflect every answer provided by participants. These running totals are cumulative for each item; therefore, if a participant listed the same technique multiple times for one item, each occurrence was added into the final total.

A majority of participants reported performing some type of nondestructive visual examination prior to conducting additional development techniques on each item. Also, photography was the predominantly utilized preservation method across all three items.

For print development on the plastic switch plate (Item 1), participants primarily utilized cyanoacrylate fuming to develop the latent print (reported 306 times). This process was followed most frequently by powder dusting (220) or a dye stain technique (188) to enhance development. An alternate light source was often used to assist in visualizing the print (177). For print development on the glossy postcard (Item 2), a majority of participants started with cyanoacrylate fuming (reported 291 times) and followed up with powder dusting (303) to enhance, using a variety of powders. Due to the postcard's semi-porous nature, some participants elected to use porous processing methods after CA fuming, such as ninhydrin (89) or physical developer (45). Once again, ALS was used in conjunction with other methods for enhancement (159). For development of prints on the ruled notebook paper (Item 3), the porous technique of ninhydrin was the most commonly used chemical process of development (reported 271 times). 1,2-Indanedione (102), DFO (76), and physical developer (52) were used either independently or sequentially with ninhydrin to improve the developed ridge details.

For participants who reported observing first level detail in the prints on all three items, there was general consistency in the patterns reported. Some participants do not perform print pattern analysis in their routine casework and, as such, reported "N/A" to the pattern type question; therefore, no official consensus is established for any of the items. For those who identified pattern types, the most common responses for each item were: Item 1 – Arch; Item 2 – Loop; Item 3 – Whorl. The most frequent response for each item corresponds to the expected results for pattern reporting. It was observed by multiple participants that an option for reporting insufficient detail could be useful in future tests; CTS will add an option for those unable to determine pattern type based on the results of their development.

# Print Location

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
23YU83	C	3Z7DCK	C	68WMPM	C
24BJEL	C	42YL2F	C	6D7TD7	C
26F8N6	C	43CXXZ	C	6KLEH4	C
297BQP	C	4939C6	C	6LDH6J	C
2LUD9G	C	4BHZ2C	C	6MRV2	C
2TR6D6	C	4D4TRK	C	6UABFY	C
2TR6FP	C	4D7CXW	C	6UVN4C	C
2WA6XQ	C	4FTZCH	C	6YPQ6Q	C
2XK6UK	C	4FX9PB	C	6ZW3MR	C
2XPDXE	C	4H3XT7	C	77KXAG	C
33QAUJ	C	4L2CEA	C	79L9YP	C
344WEJ	C	4TLLFR	C	7A2MB7	C
36ELTP	C	4UY3ZK	C	7A38DM	C
3QHHD6	C	639T3N	C	7CLLGN	C
3T49GV	C	639TZ3	C	7F9UAX	C
3UYPWX	C	66AYF9	C	7NJDA9	C
3WLBLE	C	66UD77	C	7QRBXX	C
3YTN62	C	67KNUE	C	7WVGBF	C

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
7XRM28	C	9CZMFV	C	BCPMBW	C
7ZDGTf	C	9KQ8J9	C	BD2A76	C
83HLP2	C	9Q2ATH	C	BGNYGA	C
83ZFL6	C	9QGBX7	C	BL2KMV	C
84N79V	C	9TM2YT	C	BLHYQY	C
8C9ZWD	C	9YTGP3	C	BPX7EX	C
8CK2BZ	C	9ZBGVD	C	BR8EJC	C
8F32T2	C	A3Q9HZ	C	BR9DF7	C
8J46L9	C	A4K99J	C	BTFQ2D	C
8KE3TY	C	ABKPJP	C	BTV2PK	C
8NE6WE	C	AFEDNB	C	BUDNN3	C
8R2THE	C	AQANRW	None	BXD28L	C
8U4TE6	C	AT2U7G	C	BYKENM	C
8WUYUV	C	AYB3J6	C	BZTNJ7	C
92WEWP	C	AZ6PEG	C	C33WNJ	C
947EXP	C	AZJZ69	C	C3KVRA	C
96HAL3	C	B73P3N	C	C8DZHR	C
97VLHL	C	B7Q4E8	C	C8VXPX	C
988F2T	C	BAJAN4	C	CJRWKB	C

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
CM9LLY	C	E4P8FN	C	G6ULXE	C
CMA2BT	C	E7EDZK	C	G73XDU	C
CNLYMP	C	EDB9Z6	C	G7P7MY	C
CPUBZK	C	EKBTWT	C	GCVN97	C
CUQV9B	C	EN8J2K	C	GEERRW	C
CV3GXC	C	ENBYJQ	C	GHFX83	C
CWVKD6	C	ERVN8B	C	GLJHK3	C
CZDP4M	C	EUFPZB	C	GPUURN	C
D3UB9F	C	EXFX78	C	GT2647	None
D66AQ3	C	F7T789	C	GTK2F7	C
D66DYK	C	F9HTN3	C	GXTAXB	C
D9MDGL	C	FD8CJ7	C	H3LN7H	C
DBUPGV	C	FG9AER	C	H6L2HA	C
DGH8XR	C	FJEJL4	C	HBD284	C
DGJ8V8	C	FLK494	C	HBVDJG	C
DHREXZ	C	FM9QJQ	C	HCALQW	C
DQ6CKX	C	FXHZGW	C	HCN24X	C
DVB92C	C	FZLZAG	C	HLDP47	C
DX6UWP	C	G4JLWD	C	HMNRP6	C

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
HPD3HJ	C	KVDYM2	C	MPXHTP	C
HRYUMU	C	L3NR24	C	MQBXBW	C
HVHWGK	C	L4423H	C	MR7HZG	C
HZWGLL	C	L866RJ	C	MR9DJM	C
J3YWCN	C	L8HNPV	C	MRLR6B	C
JC22DD	C	LFYFZT	C	MTXM9V	C
JGWTNV	C	LJEULE	C	MYNUEH	C
JNX2DV	C	LV883X	C	MYQGVW	C
JUJ2MG	C	LVTPYT	C	N28CNE	C
JVXHLG	C	LW4UBV	C	N2BR6L	C
JZB846	C	LY6M9L	C	N8E4T7	C
K2Y2FY	C	M779U9	C	NA3BJU	C
KAWTQE	C	MD8GLV	C	NBW37Z	C
KFVFD8	C	MDQH9X	C	NF2UFH	C
KHUCD4	C	MEGL26	C	NFUFCX	C
KL4RCE	C	MEHJ8U	C	NLRBRN	C
KM3LF6	None	MG67G9	C	NMTXUV	C
KRFH4F	C	MH374M	C	NN2ELZ	C
KRGDRR	C	MH43EJ	C	NQ4A2G	C

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
NQLB4X	C	Q2M9DJ	C	RMTHH7	C
NQPQJK	C	Q6LMXN	C	RTLDRQ	C
NWVKGL	C	Q7B326	C	RUWDPK	C
NXN923	C	QAC7TQ	C	RW6CZT	C
NY4JUF	C	QBMW6G	C	RWLTUM	C
NYG9V8	C	QF2HTU	None	RY6X8B	C
P63ECE		QH8YAX	C	T2TJV8	C
P669VK	C	QJMF9W	C	T3MFAT	C
P7UJJR	C	QNC3U6	C	T4Y3XA	C
PAZVQU	C	QUK9RW	C	T6CMUP	C
PF6WN3	C	QVU76D	C	T8DPAD	None
PHU39Y	C	QW6BGG	C	TAHH4C	C
PJ38UB	C	R2DZDV	C	TKPXKX	C
PKD678	C	R49CKG	C	TM926N	C
PP79V6	C	RABJZK	C	TNNDPE	C
PPTRLX	C	RATGAB	C	TV6UE4	C
PTAZAW	C	RB2PGB	C	U2KWW6	C
PX6PWV	C	RH4U9U	C	U4A4F2	C
PY266L	C	RJU3C4	C	U4QGJ6	C



TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
U8XVB6	C	WGXV6N	C	XV9ABQ	C
UA2LHJ	C	WLMPRM	C	XYR823	C
UAGP86	C	WLQ3NW	C	XYUQCJ	C
UCN3XJ	C	WPNLLN	C	Y2P6QK	C
UHDR8V	C	WRT92E	C	Y4EANY	C
UK3W69	C	WUZQ2V	C	Y4WBE8	C
ULELED	C	WYTQFQ	C	Y9PHTA	C
UR2F86	C	WZBHPB	C	YF9TZJ	C
URXX6Y	C	X2GDLY	C	YHE9CV	C
UTE827	C	X2XH7H	C	YHZNMR	C
V7CLQ3	C	X8MXUP	C	YJARG3	C
V7VH89	C	X9ZPPR	C	YVMWMD	C
VH9PXG	C	XCE6EJ	C	YWWZXG	C
VKWWN7	C	XCEALF	C	Z2NKMH	C
W3FAJA	C	XEGDBG	C	Z9MZMX	C
W79HGN	C	XG7JVD	C	ZKLN8	C
W86P8F	C	XKRG7P	C	ZPQNGA	C
WCV92X	C	XN8NUP	C	ZRK9P3	C
WEU8ND	C	XPF99C	C	ZXAQ6Z	C

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
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ZZG4Q8	C				
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Response Summary		Total Participants: 340
Location	Total	

A	0
B	0
C	334
D	0
None	5

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
23YU83	D	42YL2F	D	6KLEH4	D
24BJEL	D	43CXXZ	D	6LDH6J	D
26F8N6	D	4939C6	D	6MRVV2	D
297BQP	D	4BHZ2C	D	6UABFY	D
2LUD9G	D	4D4TRK	D	6UVN4C	D
2TR6D6	D	4D7CXW	D	6YPQ6Q	D
2TR6FP	D	4FTZCH	D	6ZW3MR	D
2WA6XQ	D	4FX9PB	D	77KXAG	D
2XK6UK	D	4H3XT7	D	79L9YP	D
2XPDXE	D	4L2CEA	D	7A2MB7	D
33QAUJ	D	4TLLFR	D	7A38DM	D
344WEJ	D	4UY3ZK	D	7CLLGN	D
36ELTP	D	639T3N	D	7F9UAX	D
3QHHD6	D	639TZ3	D	7NJDA9	D
3T49GV	D	66AYF9	D	7QRBXX	D
3UYPWX	D	66UD77	D	7WVGBF	D
3WLBLE	D	67KNUE	D	7XRM28	D
3YTN62	D	68WMPPM	D	7ZDGTf	D
3Z7DCK	D	6D7TD7	D	83HLP2	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
83ZFL6	D	9QGBX7	D	BL2KMV	D
84N79V	D	9TM2YT	D	BLHYQY	D
8C9ZWD	D	9YTGP3	D	BPX7EX	D
8CK2BZ	D	9ZBGVD	D	BR8EJC	D
8F32T2	D	A3Q9HZ	None	BR9DF7	D
8J46L9	D	A4K99J	D	BTFQ2D	D
8KE3TY	D	ABKPJP	D	BTV2PK	D
8NE6WE	D	AFEDNB	D	BUDNN3	D
8R2THE	D	AQANRW	D	BXD28L	D
8U4TE6	D	AT2U7G	D	BYKENM	D
8WUYUV	D	AYB3J6	None	BZTNJ7	D
92WEWP	D	AZ6PEG	D	C33WNJ	D
947EXP	D	AZJZ69	D	C3KVRA	D
96HAL3	None	B73P3N	D	C8DZHR	D
97VLHL	D	B7Q4E8	D	C8VXPX	D
988F2T	D	BAJAN4	D	CJRWKB	D
9CZMFV	D	BCPMBW	D	CM9LLY	D
9KQ8J9	D	BD2A76	D	CMA2BT	D
9Q2ATH	D	BGNYGA	D	CNLYMP	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
CPUBZK	D	EKBTWT	D	GCVN97	D
CUQV9B	D	EN8J2K	D	GEERRW	D
CV3GXC	D	ENBYJQ	D	GHFX83	D
CWVKD6	D	ERVN8B	D	GLJHK3	D
CZDP4M	D	EUFZB	D	GPUURN	D
D3UB9F	D	EXFX78	D	GT2647	D
D66AQ3	D	F7T789	D	GTK2F7	D
D66DYK	D	F9HTN3	D	GXTAXB	D
D9MDGL	D	FD8CJ7	D	H3LN7H	D
DBUPGV	D	FG9AER	D	H6L2HA	D
DGH8XR	D	FJEJL4	D	HBD284	D
DGJ8V8	D	FLK494	D	HBVDJG	D
DHREXZ	D	FM9QJQ	D	HCALQW	D
DQ6CKX	D	FXHZGW	D	HCN24X	D
DVB92C	D	FZLZAG	D	HLDP47	D
DX6UWP	A	G4JLWD	D	HMNRP6	D
E4P8FN	D	G6ULXE	D	HPD3HJ	None
E7EDZK	D	G73XDU	D	HRYUMU	D
EDB9Z6	D	G7P7MY	D	HVHWGK	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
HZWGLL	D	L866RJ	D	MR9DJM	D
J3YWCN	D	L8HNPV	D	MRLR6B	D
JC22DD	D	LFYFZT	D	MTXM9V	D
JGWTNV	D	LJEULE	D	MYNUEH	D
JNX2DV	D	LV883X	D	MYQGWW	D
JUJ2MG	D	LVTPYT	D	N28CNE	D
JVXHLG	D	LW4UBV	D	N2BR6L	D
JZB846	D	LY6M9L	D	N8E4T7	D
K2Y2FY	D	M779U9	D	NA3BJU	D
KAWTQE	D	MD8GLV	D	NBW37Z	D
KFVFD8	D	MDQH9X	D	NF2UFH	D
KHUCD4	D	MEGL26	D	NFUF CX	D
KL4RCE	D	MEHJ8U	D	NLRBRN	D
KM3LF6	D	MG67G9	D	NMTXUV	D
KRFH4F	D	MH374M	D	NN2ELZ	D
KRGDRR	D	MH43EJ	D	NQ4A2G	D
KVDYM2	D	MPXHTP	D	NQLB4X	D
L3NR24	D	MQBxBW	D	NQPQJK	D
L4423H	D	MR7HZG	D	NWVKGL	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
NXN923	D	QAC7TQ	D	RW6CZT	D
NY4JUF	D	QBMW6G	D	RWLTUM	D
NYG9V8	D	QF2HTU	D	RY6X8B	D
P63ECE		QH8YAX	D	T2TJV8	D
P669VK	D	QJMF9W	D	T3MFAT	D
P7UJJR	D	QNC3U6	D	T4Y3XA	D
PAZVQU	D	QUK9RW	D	T6CMUP	D
PF6WN3	D	QVU76D	D	T8DPAD	D
PHU39Y	D	QW6BGG	D	TAHH4C	None
PJ38UB	D	R2DZDV	D	TKPXKX	D
PKD678	D	R49CKG	D	TM926N	D
PP79V6	D	RABJZK	D	TNNDPE	D
PPTRLX	D	RATGAB	D	TV6UE4	D
PTAZAW	D	RB2PGB	D	U2KWW6	D
PX6PWV	D	RH4U9U	D	U4A4F2	D
PY266L	D	RJU3C4	D	U4QGJ6	D
Q2M9DJ	D	RMTHH7	D	U8XVB6	D
Q6LMXN	D	RTLDRQ	D	UA2LHJ	D
Q7B326	D	RUWDPK	D	UAGP86	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
UCN3XJ	D	WPNLLN	D	Y2P6QK	None
UHDR8V	D	WRT92E	D	Y4EANY	D
UK3W69	D	WUZQ2V	D	Y4WBE8	D
ULELED	D	WYTQFQ	D	Y9PHTA	D
UR2F86	D	WZBHPB	D	YF9TZJ	D
URXX6Y	D	X2GDLY	D	YHE9CV	D
UTE827	D	X2XH7H	D	YHZNMR	D
V7CLQ3	D	X8MXUP	D	YJARG3	D
V7VH89	D	X9ZPPR	D	YVMWMD	D
VH9PXG	D	XCE6EJ	D	YWWZXG	D
VKWWN7	D	XCEALF	D	Z2NKMH	D
W3FAJA	D	XEGDBG	D	Z9MZMX	D
W79HGN	D	XG7JVD	D	ZKLN8	D
W86P8F	D	XKRG7P	D	ZPQNGA	D
WCV92X	D	XN8NUP	D	ZRK9P3	D
WEU8ND	D	XPF99C	D	ZXAQ6Z	D
WGXV6N	D	XV9ABQ	D	ZZG4Q8	D
WLMPRM	D	XYR823	D		
WLQ3NW	D	XYUQCJ	D		



<b>Response Summary</b>	<b>Total Participants: 340</b>
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Location	Total
A	1
B	0
C	0
D	332
None	6

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
23YU83	B	42YL2F	B	6KLEH4	B
24BJEL	None	43CXXZ	B	6LDH6J	B
26F8N6	B	4939C6	B	6MRV2	B
297BQP	B	4BHZ2C	B	6UABFY	B
2LUD9G	B	4D4TRK	B	6UVN4C	B
2TR6D6	B	4D7CXW	B	6YPQ6Q	B
2TR6FP	B	4FTZCH	B	6ZW3MR	B
2WA6XQ	B	4FX9PB	B	77KXAG	None
2XK6UK	B	4H3XT7	B	79L9YP	B
2XPDXE	B	4L2CEA	B	7A2MB7	B
33QAUJ	B	4TLLFR	B	7A38DM	B
344WEJ	None	4UY3ZK	B	7CLLGN	B
36ELTP	B	639T3N	B	7F9UAX	B
3QHHD6	B	639TZ3	B	7NJDA9	B
3T49GV	B	66AYF9	B	7QRBXX	B
3UYPWX	B	66UD77	B	7WVGBF	B
3WLBLE	B	67KNUE	B	7XRM28	B
3YTN62	B	68WMPM	B	7ZDGTf	B
3Z7DCK	None	6D7TD7	B	83HLP2	B

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
83ZFL6	B	9QGBX7	B	BL2KMV	B
84N79V	B	9TM2YT	B	BLHYQY	B
8C9ZWD	B	9YTGP3	B	BPX7EX	B
8CK2BZ	B	9ZBGVD	B	BR8EJC	B
8F32T2	B	A3Q9HZ	B	BR9DF7	B
8J46L9	B	A4K99J	B	BTFQ2D	B
8KE3TY	B	ABKPJP	B	BTV2PK	B
8NE6WE	B	AFEDNB	B	BUDNN3	B
8R2THE	B	AQANRW	B	BXD28L	B
8U4TE6	B	AT2U7G	B	BYKENM	B
8WUYUV	B	AYB3J6	B	BZTNJ7	B
92WEWP	B	AZ6PEG	B	C33WNJ	B
947EXP	B	AZJZ69	B	C3KVRA	B
96HAL3	B	B73P3N	B	C8DZHR	B
97VLHL	B	B7Q4E8	B	C8VXPX	B
988F2T	B	BAJAN4	B	CJRWKB	None
9CZMFV	B	BCPMBW	B	CM9LLY	B
9KQ8J9	B	BD2A76	B	CMA2BT	B
9Q2ATH	B	BGNYGA	B	CNLYMP	B

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
CPUBZK	B	EKBTWT	B	GCVN97	B
CUQV9B	B	EN8J2K	B	GEERRW	B
CV3GXC	B	ENBYJQ	B	GHFX83	B
CWVKD6	B	ERVN8B	B	GLJHK3	B
CZDP4M	B	EUFZB	B	GPUURN	B
D3UB9F	B	EXFX78	B	GT2647	B
D66AQ3	B	F7T789	B	GTK2F7	B
D66DYK	B	F9HTN3	B	GXTAXB	B
D9MDGL	B	FD8CJ7	B	H3LN7H	B
DBUPGV	B	FG9AER	B	H6L2HA	B
DGH8XR	B	FJEJL4	B	HBD284	B
DGJ8V8	None	FLK494	B	HBVDJG	B
DHREXZ	B	FM9QJQ	B	HCALQW	B
DQ6CKX	B	FXHZGW	B	HCN24X	N/A
DVB92C	B	FZLZAG	B	HLDP47	B
DX6UWP	B	G4JLWD	B	HMNRP6	B
E4P8FN	B	G6ULXE	B	HPD3HJ	B
E7EDZK	B	G73XDU	B	HRYUMU	B
EDB9Z6	B	G7P7MY	B	HVHWGK	B

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
HZWGLL	B	L866RJ	B	MR9DJM	B
J3YWCN	B	L8HNPV	B	MRLR6B	B
JC22DD	B	LFYFZT	B	MTXM9V	B
JGWTNV	B	LJEULE	B	MYNUEH	B
JNX2DV	B	LV883X	None	MYQGWW	B
JUJ2MG	B	LVTPYT	B	N28CNE	B
JVXHLG	B	LW4UBV	B	N2BR6L	B
JZB846	None	LY6M9L	B	N8E4T7	B
K2Y2FY	B	M779U9	B	NA3BJU	B
KAWTQE	B	MD8GLV	B	NBW37Z	B
KFVFD8	B	MDQH9X	B	NF2UFH	B
KHUCD4	B	MEGL26	B	NFUF CX	None
KL4RCE	B	MEHJ8U	B	NLRBRN	B
KM3LF6	B	MG67G9	B	NMTXUV	B
KRFH4F	B	MH374M	B	NN2ELZ	None
KRGDRR	B	MH43EJ	B	NQ4A2G	B
KVDYM2	B	MPXHTP	B	NQLB4X	B
L3NR24	B	MQBxBW	B	NQPQJK	B
L4423H	B	MR7HZG	B	NWVKGL	B

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
NXN923	B	QAC7TQ	B	RW6CZT	B
NY4JUF	B	QBMW6G	B	RWLTUM	B
NYG9V8	B	QF2HTU	B	RY6X8B	B
P63ECE	B	QH8YAX	None	T2TJV8	B
P669VK	B	QJMF9W	B	T3MFAT	B
P7UJJR	B	QNC3U6	B	T4Y3XA	B
PAZVQU	B	QUK9RW	B	T6CMUP	B
PF6WN3	B	QVU76D	B	T8DPAD	None
PHU39Y	B	QW6BGG	B	TAHH4C	None
PJ38UB	B	R2DZDV	B	TKPXKX	B
PKD678	B	R49CKG	B	TM926N	B
PP79V6	B	RABJZK	B	TNNDPE	B
PPTRLX	C	RATGAB	B	TV6UE4	B
PTAZAW	N/A	RB2PGB	B	U2KWW6	B
PX6PWV	B	RH4U9U	B	U4A4F2	B
PY266L	B	RJU3C4	B	U4QGJ6	B
Q2M9DJ	B	RMTHH7	B	U8XVB6	B
Q6LMXN	B	RTLDRQ	B	UA2LHJ	B
Q7B326	B	RUWDPK	B	UAGP86	B

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
UCN3XJ	B	WPNLLN	B	Y2P6QK	B
UHDR8V	B	WRT92E	B	Y4EANY	B
UK3W69	B	WUZQ2V	B	Y4WBE8	B
ULELED	B	WYTQFQ	B	Y9PHTA	B
UR2F86	B	WZBHPB	B	YF9TZJ	B
URXX6Y	B	X2GDLY	B	YHE9CV	B
UTE827	B	X2XH7H	B	YHZNMR	B
V7CLQ3	B	X8MXUP	B	YJARG3	B
V7VH89	B	X9ZPPR	B	YVMWMD	B
VH9PXG	B	XCE6EJ	B	YWWZYG	B
VKWWN7	B	XCEALF	B	Z2NKMH	B
W3FAJA	B	XEGDBG	B	Z9MZMX	B
W79HGN	B	XG7JVD	B	ZKLN8	B
W86P8F	B	XKRG7P	A	ZPQNGA	B
WCV92X	B	XN8NUP	None	ZRK9P3	B
WEU8ND	B	XPF99C	B	ZXAQ6Z	B
WGXV6N	B	XV9ABQ	B	ZZG4Q8	B
WLMPRM	B	XYR823	B		
WLQ3NW	B	XYUQCJ	B		

<b>Response Summary</b>	<b>Total Participants: 340</b>
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Location	Total
A	1
B	322
C	1
D	0
None	14



# Development Methods

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
23YU83	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500, optical instruments.
	Cyanoacrylate Fuming	Processing time: 10 min, humidity - 85%.
	Visual Examination	White light, optical instruments.
	Dye Stain	Basic Yellow 40
	Alternate Light Source	Polilight PL 500 (350-505 nm light), orange barrier filter, optical instruments.
24BJEL	Powder Dusting	Black Powder
26F8N6	Visual Examination	exhibit was visualised using rofin PL500 light source to see if there are any visible prints before applying chemicals.
	ASV investigation	a light dusting of anti-stoke powder was applied using magnetic brush.
	Cyanoacrylate Fuming	exhibit was placed in MVC3000 fuming chamber, using 10 drops of cyanobloom for 150 minutes at 120 degree celsius, 80% relative humidity and 20 minutes purge cycle.
297BQP	Visual Examination	Ambient Florescent Light and ALS (Various Wave Lengths)
	Cyanoacrylate Fuming	80% humidity for 15 minutes
	Dye Stain	Basic Yekllow 40
2LUD9G	Visual Examination	ridge structure observed, not comparison value
	Cyanoacrylate Fuming	positive control, fuming 10 minutes, humidity 75%, ridge structure observed, not comparison value
	Alternate Light Source	R.U.V.I.S., ridge structure observed, comparison value, photographed
	Powder Dusting	black powder, ridge structure observed, comparison value, tape lifted
2TR6D6	Visual Examination	Using white light and magnification
	Cyanoacrylate Fuming	12 minute fuming period, 4-5 drops of glue, test print; let set for 1 hour, white light and magnification
	Dye Stain	RAY batch #635, orange filter 460-510nm light
	Powder Dusting	Black powder using white light and magnification
2TR6FP	Visual Examination	
	Cyanoacrylate Fuming	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Visual Examination	
	Dye Stain	
	Alternate Light Source	
2WA6XQ	Visual Examination	Viewed item under lamp.
	Visual Examination	Viewed item under green light from laser.
	Cyanoacrylate Fuming	Using a fish tank item was fumed for 6 minutes.
	Visual Examination	Viewed item under lamp.
	Powder Dusting	Used magnetic black powder to process item.
	Visual Examination	Viewed item under lamp.
2XK6UK	Visual Examination	Ridge Structure no comparison value
	Alternate Light Source	LabKam - Ridge structure no comparison value
	Cyanoacrylate Fuming	MVC 5000 - Auto cycle (control positive) ridge structure no comparison value
	Alternate Light Source	LabKam - Ridge structure no comparison value
	Dye Stain	Rhodamine -R6G (control positive)
	Alternate Light Source	Crimescope 500 at 495 and 515 Ridge structure comparison value
	Powder Dusting	Black powder - Ridge structure no comparison value
2XPDXE	Cyanoacrylate Fuming	approximately 5-7 minutes in glue chamber with glue on hot plate (setting 4) & cup of hot water
	Dye Stain	MRM-10; viewed with ALS blue-green 460-510nm
33QAUJ	Visual Examination	Examined item as is using ambient light, using flashlight, ultra violet light, laser, and alternate light source (ALS)
	Cyanoacrylate Ester Fuming	Superglued item in superglue cabinet along with test print for about 10 minutes.
	Dye Stains (2)	1) Ardrox/ UV, 2) Rhodamine 6G/ Laser
	Powder	Dusted entire surface of item with carbon black powder.
344WEJ	Powder Dusting	Black Magnetic
36ELTP	Visual Examination	Examined in the white light and daylight.
	Alternate Light Source	Examined at 320-405 nm, 450 nm, 470 nm, 490 nm, 505 nm and 530 nm light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Processed in the superglue chamber for 15 min., t - 120 °C, RH - 80%.
	Dye Stain	Basic Yellow 40 (ethanol based), exposure time - 5 sec., dry item examined at 450nm and 470 nm light.
	Powder Dusting	Magnetic black
3QHHD6	Visual Examination	Inherent luminescence examination using Foster + Freeman Crime Lite ML with a 460nm-510nm bandwidth filter and orange barrier, white light and magnification; No prints observed.
	Cyanoacrylate Fuming	With positive test print. One hour processing before exam. No prints were observed.
	Dye Stain	RAY Batch 635; Crime light 460nm-510nm with orange barrier. Prints were observed on Item 1 in the "C" quadrant.
	Powder Dusting	Black powder, brush method. Prints were observed on Item 1 in the "C" quadrant.
3T49GV	Visual Examination	White light, could see a print in square C.
	Cyanoacrylate Fuming	10 minutes processing time. The print was enhanced.
	Dye Stain	BY40 and a green fluorescent light. The print was enhanced further.
3UYPWX	Cyanoacrylate Fuming	Luminescent cyanoacrylate (Lumicyano TM), F&F MVC1000, 1 g Lumicyano, 15 min fuming
3WLBLE	Visual Examination	white light
	Cyanoacrylate Fuming	fuming hood with hot plate; ~15 minutes
	Powder Dusting	Black magnetic powder
	Dye Stain	MRM-10 - ALS
3YTN62	Cyanoacrylate Fuming	temp.21 C, humidity 80%, time 15 min
	Dye Stain	Basic Yellow, light 350-505 nm
3Z7DCK	Black Fingerprint Powder	
42YL2F	Visual Exam	ambient light, UV (254 nm)/ RUVIS & UV (365 nm)
	Cyanoacrylate Fuming	CA-6000 chamber (control: +) @ 20 mins. Fuming time/ 75% RH.
	Black Powder	
43CXXZ	Visual Examination	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	
	Cyanoacrylate Fuming	Fumed for 15 minutes at 80% relative humidity
	Powder Dusting	Black Magnetic powder applied to entire surface. When print was located, magnetic powder applied in one direction
4939C6	Visual Examination	White light/magnification, print observed in quadrant C (low count right loop or tent. arch)
	Cyanoacrylate Fuming	CYVAC vacuum chamber, control print developed, improved print in C
	Powder Dusting	Black fingerprint powder, improved print in Quad C
	Dye Stain	Fluorescent dye staining - RAY Batch #637; examined with Rofin Polylight Flare 450 nm, orange goggles - Print Quad C
4BHZ2C	Visual Examination	
	Cyanoacrylate Fuming	
	Gel lift	approx 20 min set time
	Powder Dusting	black
	Dye Stain	basic yellow
	Alternate Light Source	445nm
4D4TRK	Visual Examination	white light
	Alternate Light Source	365 nm light source, 495 nm light source
	Cyanoacrylate Fuming	15 minute fuming chamber at 80% humidity. Hot plate heats cyanoacrylate 200-230 degrees F
	Dye Stain	RAM (Rhodamine 6G, Ardrex, MBD) examined with 495 nm light source
4D7CXW	Visual Examination	Visible reflection + fluorescence
	Cyanoacrylate Fuming	Glue temperature = 117°C / Relative humidity = 78% / Processing time = 40 mn
	Dye Stain	Basic Yellow / pipetting on section C
4FTZCH	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic Black Powder
	Dye Stain	MRM-10

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
4FX9PB	Visual Examination	Ambient light, flashlight
	Cyanoacrylate Fuming	Lumicyano
	Alternate Light Source	350-575nm
	Dye Stain	Rhodamine 6G
	Alternate Light Source	350-575nm
	Powder Dusting	Black powder
4H3XT7	Visual Examination	
	Cyanoacrylate Fuming	Approximately 10 minutes in the fuming chamber.
	Powder Dusting	Magnetic powder
4L2CEA	Visual Exam	With and without oblique lighting.
	Alternate Light Source	415-530 nm, orange goggles.
	Cyanoacrylate Fuming	20 minutes.
	Dusting	Black powder.
4TLLFR	Visual Examination	Observed latent
	Powder Dusting	Magnetic black powder used to develop latent
4UY3ZK	Visual Examination	Magnifier & white light, ALS, LASER
	Cyanoacrylate Fuming	
	Visual Examination	
	Dye Stain	R6G
	Visual Examination	LASER
	Powder Dusting	Black magnetic powder
	Visual Examination	
	Powder Dusting	Black powder
	Visual Examination	
639T3N	Visual Examination	1) room/oblique lighting, 2) laser, 3) ALS
	Cyanoacrylate Fuming	Fishtank used, followed by visual exam (room light)
	Dye Stain	Rhodamine 6G - sprayed on, followed by visual exam with laser and orange filter

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Powder Dusting	Black magnetic powder, followed by visual exam (room light)
639TZ3	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Air Science Safe Fume (#1) recirculation chamber, 20 minutes, 15 drops of CA
	Powder Dusting	Black magnetic powder applied with magnetic brush
	Dye Stain	RAY Fluorescent dye applied and rinsed off with tap water. Item examined with Foster and Freeman Crime Lite ML2 with a 420nm-470nm bandwidth filter, and an orange barrier
66AYF9	Visual Exam	white light (flashlight) with oblique angles
	Alternate Light Source	455-515 nm with orange goggles
	Cyanoacrylate Ester Fuming	20 minutes processing time, room temperature
	Dusting	with black powder
66UD77	Visual	Frag. ridge detail observed- room temp
	CA Chamber	@ 85% humidity 20 min frag. ridge detail observed
	Black Powder	Room temp
67KNUE	Visual Examination	
	Cyanoacrylate Fuming	approx 30 minutes, humidity 75%
	R6G	
	Alternate Light Source	Spex Crime Scope
68WMPM	Cyanoacrylate Fuming	40 min cycle
	Powder Dusting	fiberglass brush, black fingerprint powder
6D7TD7	Oblique magnified lighting of evidence	observed FRD in quadrant 'C' when viewing switchplate at a grazing (low) angle
	CA	no real contrast enhancement, but preserved FRD for subsequent follow-up powder processing - humidity controlled, 13 mins.
	Black FP powder	contrast enhancement on light colored substrate
6KLEH4	Visual Examination	Oblique lighting detected latent print.
	Alternate Light Source	Inherent Luminescence-multiple wavelengths
	Cyanoacrylate Fuming	Vacuum-25 minutes / Atmosphere 20 minutes

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Dye Stain	Rhodamine 6G
	Alternate Light Source	505nm
	Powder Dusting	Dual-use powder
6LDH6J	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature controlled and timing
	Dye Stain	
	Powder Dusting	
6MRV2	Visual Examination	Examined under white light and magnification. No prints observed.
	Cyanoacrylate Fuming	Processed in the CyanoSafe recirculation chamber. Control print positive. No prints observed.
	Dye Stain	Item treated with RAY batch #635 and examined with Foster and Freeman Crime Lite ML2 with a 450nm filter and orange barrier. Print observed in Quadrant C.
	Powder Dusting	Black print powder applied to item. Examined under white light and magnification. Print observed in Quadrant C.
6UABFY	Visual Examination	white light
	Alternate Light Source	Fluorescence examination using Polylight pl 400 with emission from 350 to 600 nm with viewing filters
	Cyanoacrylate Fuming	Processing time approximately 1 hour, 80 % RH, heated to 100 C degrees
	Dye Stain	Basic Yellow 40 - fingerprint visualised by illuminating it using the UV/blue (350-530 nm), and viewing the resultant fluorescence through yellow/orange viewing filter
6UVN4C	Cyanoacrylate Ester	processed by cyanoacrylate ester for over 1 hour, allowed to cure then dye stain with R6G and viewed using a forensic laser
6YPQ6Q	Cyanoacrylate Fuming	6/6/17 at 9.30-10.15am. Lab temp = 20.5 Inst: MVC 3000 RH79
	Dye Stain	BY40 6/6/17 10:45 to 11:30. Drying cabinet for 30 minutes.
	Crystal Violet	6/6/17 12:00 to 13:00. Drying cabinet
	Sudan Black	6/6/17 13:15 to 14:00. Drying cabinet
	Powder Dusting	7/6/17 09:15 to 09:30
6ZW3MR	Visual Examination	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	R6G
	Dye Stain	ARDROX
	Powder Dusting	
77KXAG	Powder Dusting	
79L9YP	Visual Examination	Polilight PL500
	Cyanoacrylate Fuming	humidity 80 %, 20 min
	Dye Stain	Ardrox
	Dye Stain	Safranin O
7A2MB7	Visual Examination	Crime-Lite 2, white light (400-700 nm); TracER LASER (532 nm)
	Cyanoacrylate Fuming	Foster & Freeman MCV5000, ~4 g Cyanobloom glue, glue heater 120 C, humidity cycle 10 - 15 min. to reach 80%, glue cycle 15 min., purge cycle 40 min., total run time 70 min.
	Dye Stain	Rhodamine 6G, apply R6G to fumed item of evidence and allow to dry completely, examine with TracERLASER (532 nm), photograph, apply methanol to item of evidence and dry, photograph
	Powder Dusting	regular fingerprint powder (black)
7A38DM	Visual Examination	Examined with natural light
	Cyanoacrylate Fuming	MVC-3000, 120°C, 80% RH, Fuming time: 10 minutes.
	Dye Stain	RH6G, examine with 530nm and orange filter.
7CLLGN	Visual Examination	Item 1 was examined visually with a flashlight.
	RUVIS (Reflected Ultraviolet Imaging System)	Item 1 was then observed with RUVIS devices and 254 nm UV light.
	Cyanoacrylate Fuming	Item 1 was then treated with cyanoacrylate fuming for 10 minutes.
	RUVIS (Reflected Ultraviolet Imaging System)	Item 1 was then observed with RUVIS devices and 254 nm UV light.
7F9UAX	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	



TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	
	Dye Stain	
	Alternate Light Source	
7NJDA9	Visual Examination	Oblique lighting with LED flashlight.
	Cyanoacrylate Fuming	0.4g cyanoacrylate, ~3 minute exposure to fumes in atmospheric chamber.
	Dye Stain	Ardrox dye stain sprayed on item; ~10 second saturation of Ardrox on item before rinsing with cool water.
	Alternate Light Source	Wavelength = 415/445, filter = yellow.
7QRBXX	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C, 75% Relative Humidity
	Dye Stain	Ardrox, 350 nm, Yellow Filter
7WVGBF	Cyanoacrylate Fuming	24 hours long + coloured by ARDROX in section A
	Cyanoacrylate Fuming	24 hours + Magnetic Jet Black in section C
	Cyanoacrylate Fuming	24 hours + Magnetic Blitz-Red in section D
	Cyanoacrylate Fuming	24 hours long + coloured by BASIC YELLOW 40 in section B
7XRM28	Cyanoacrylate Fuming	
	Magna Brush	Magnetic brush and powder
7ZDGTf	Visual	flashlight, UV lamp, LASER, ALS
	Cyanoacrylate Ester Fuming	fumed ~15 minutes
	Dye Stains	Ardrox - UV lamp, Rhodamine - LASER
	Powder	Black powder
83HLP2	Visual Examination	
	Cyanoacrylate Fuming	10 min, 80% humidity
	Dye Stain	Basic Yellow
	Powder Dusting	
83ZFL6	Visual Examination	White light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	Blue and green fluorescent light
	Cyanoacrylate Fuming	120 degrees, 80% RH, 7 minutes glue time
	Dye Stain	BY40, examination with green light
84N79V	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C, 75% Relative Humidity
	Dye Stain	R.A.M., 445 nm, Yellow Filter
8C9ZWD	Visual Examination	No ridge structure observed
	Cyanoacrylate Fuming	One hour, 78% humidity, positive control - ridge structure but not of comparison value
	Alternate Light Source	LabKam UV light - comparison value ridge structure, photographed print
	Dye Stain	Rhodamine 6G dye stain, positive control
	Alternate Light Source	Crimescope light, 515nm - comparison value ridge structure, photographed print
8CK2BZ	Powder Dusting	
8F32T2	Visual Examination	Basic lighting (Results: ridge structure; no comparison value)
	Cyanoacrylate Fuming	80% humidity; 10 minutes with superglue heated to 120 degrees celcius (Results: ridge structure; no comparison value)
	Alternate Light Source	Reflected Ultraviolet Imaging System (LabKam) (Results: ridge structure; no comparison value)
	Dye Stain	Basic Yellow 40 with positive control
	Alternate Light Source	Polilight at 450nm and a yellow filter (Results: ridge structure; no comparison value)
	Powder Dusting	Black powder (Results: ridge structure; no comparison value)
8J46L9	Visual Examination	ambient lighting
	Alternate Light Source	all available wavelengths
	Cyanoacrylate Fuming	SafeFume chamber 80% humidity, set time until next business day.
	Powder Dusting	magnetic powder
	Rhodamine 6G-fluorescent dye	sprayed, allowed to dry, viewed with crimescope at 515nm
8KE3TY	Visual Examination	White light and magnification. No prints observed.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	CyanoSafe processing time 12 minutes, then one hour dry time. Viewed with white light and magnification. No prints observed.
	Powder Dusting	Black magnetic powder - observed with white light with magnification. Print observed.
	Dye Stain	RAY batch #636. Observed with Foster and Freeman Crime Lite ML with orange barrier. No enhancement, no new prints.
8NE6WE	Visual Examination (000 A 515 nm) Superglue Deposition Vacuum Metal	Temperature - 129°C, Humidity - 81.4%
8R2THE	Visual Examination Alternate Light Source Cyanoacrylate Fuming Alternate Light Source Dye Stain Alternate Light Source Powder Dusting	Ambient light, white light, oblique light. Ridge structure - No collection value. LabKam. Ridge structure - No collection value. Auto cycle. Glue time: 15 minutes. Glue temperature: 120 degrees Celsius. Relative humidity: 80%. Control sample used - Control results positive. Ridge structure - No collection value. LabKam. Ridge structure - No collection value. Basic Yellow 40. Fluorescence tested positive prior to application. Applied with a squirt bottle and rinsed with tap water. Dried in fume hood. Crimescope - 495 nanometers and 515 nanometers with orange goggles. Ridge structure - No collection value. Black. Ridge structure - No collection value.
8U4TE6	Visual Alternate Light Source CAE Dusting	Oblique light Crimescope 455-515 nm Cyanosafe fumed for 20 min Black powder brush with black powder
8WUYUV	Visual Examination Alternate Light Source Cyanoacrylate Fuming Dye Stain	365nm, 450nm, 532nm, RUVIS VIS, RUVIS RAM - 365nm, 450nm, 532nm
92WEWP	Visual Examination	Fluorescent light; ridge detail detected
947EXP	Visual Examination Cyanoacrylate Fuming	Overhead lights, flashlight 15 minute process time

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Powder Dusting	Black powder
96HAL3	Visual Examination	
	Cyanoacrylate Fuming	Atmospheric, 9 minutes exposure, liquid CAE
	Dye Stain	R6G
	Alternate Light Source	515nm, orange barrier
97VLHL	Visual Examination	
	Powder Dusting	silver black powder, dusted surface
988F2T	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	RAM
9CZMFV	Visual Examination	different light sources and filters
	Cyanoacrylate Fuming	tem. 25 C, humidity 80%, time 20 min, (Chamber Safefume CA 30S), natural and white light
	Ardrox	spray, UV light, UV filter
	Basic Red 14	spray, 505-530 nm light, orange filter
9KQ8J9	Cyanoacrylate Fuming	12 minutes in fuming chamber
	Powder Dusting	black powder
9Q2ATH	Visual Examination	White Light
	Visual Examination	Laser (Green 532 nm & Blue 450 nm)
	Cyanoacrylate Fuming	Misonix CA3000 Fuming Chamber (11 min.)
	Visual Examination	White Light
	Powder Dusting	Black Magnetic Powder
	Visual Examination	White Light
	Dye Stain	Rhodamine 6G
	Visual Examination	Laser (Green 532 nm)
9QGBX7	Visual Examination	overall, ambient, flashlight, ALS, 350nm-650nm, yellow, orange, red filters, white light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Lumicyano	35 min fume, ALS, 390-445nm, yellow and orange filters
	Powder Dusting	black
9TM2YT	Visual Examination	Processing Time: 1 min
	Cyanoacrylate Fuming	Processing Time: 1 hr 20 mins; Temperature: 28°C; Auto humidity cycle; Reagent: Arrowhead Forensics liquid cyanoacrylate
	Powder Dusting	Processing Time: 3 Mins; Bi-Chromatic powder
9YTGP3	Visual Examination	White, Blue and Green light. Result: Fragments of a weak fingerprint was detected in section C, with white light in a sharp angle. The fingerprint was even clearer in blue light.
	Cyanoacrylate Fuming	1g of Cyanoacrylate glue developed for 7min. Cupboard settings: 140°C and 80% RH. Result: the visible print was clearly enhanced by CNA development in section C.
	Powder Dusting	Magnetic Jet Black. Result: A clear fingerprint was developed in section C. Both first level details and pattern could be determined. Referent control – prints by a Latent Print Stamp (Sebaceous Oil Secretions) and human fingerprints, were deposited on similar plastic materials. The best results were obtained when fingerprints on the CNA treated goods was intensified with magnetic powder instead of BY40.
9ZBGVD	Visual Examination	with oblique lighting. Results: Ridge structure present - not suitable for comparison.
	Cyanoacrylate Fuming	Glue time 15 minutes, Glue temperature 120 degrees Celsius, Relative Humidity 80%. Control test positive. Results: Ridge structure present - not suitable for comparison.
	Alternate Light Source	Sirchie Labkam-Reflected Ultraviolet Imaging System. Results: Ridge structure present - not suitable for comparison.
	Dye Stain	Basic Yellow 40. Control test positive.
	Alternate Light Source	Spex CrimeScope; viewed at 415nm wavelength with yellow goggles. Results: Fingerprint present - Comparison value.
A3Q9HZ	Visual Examination	Using white light
	Cyanoacrylate Fuming	Placed in a fuming chamber for approximately 8 minutes
	Powder Dusting	Using black magnetic powder
A4K99J	Visual Examination	cursory visual exam for obvious impressions, no print
	Alternate Light Source	UV, 450nm light w/orange filter, no print
	Cyanoacrylate Fuming	placed in fuming chamber approximately 10 minutes. Checked w/control - possible friction ridges noted.
	Powder (Black)	Dusted lightly, friction ridge impression observed, photographed w/scale.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ABKPJP	Visual Examination	
	Alternate Light Source	All available wavelengths
	Cyanoacrylate Fuming	80% humidity, room temp., 25 minute run time, set time-next business day
	Powder Dusting	Magnetic black powder
	Rhodamine 6G	Set time-next business day, Processed at room temp.
AFEDNB	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber, 12 minutes
	Dye Stain	RAY batch #635 and Foster + Freeman Crime Lite ML with a 460-510nm filter and orange filter/barrier
	Powder Dusting	Black powder and white light
AQANRW	Cyanoacrylate Fuming	MVC3000 setting at 120 degree celsius, 75% relative humidity for 30 minutes.
	Dye Stain	Dye Rhodamine-6G: evidence dryer for overnight
AT2U7G	Visual Examination	
	Cyanoacrylate Fuming	Misonix CA Chamber: 13 minutes @ 70% humidity
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Coherent Tracer Laser @ 532 nm
AYB3J6	Visual Examination	Oblique lighting with a flashlight
	Cyanoacrylate Fuming	Foster & Freeman CA Chamber Automated cycle: Auto humidity 15 minutes, Temp 21 C, Humidity 80%; Auto Glue 15 minutes, Temp 120 C, Humidity 80%; Full Purge 20 minutes, Temp 90 C - 120 C, Humidity 57% - 80%
	Visual Examination	Oblique lighting with a flashlight
	Dye Stain	Rhodamine 6G dye stain, item saturated with dye stain and allowed to dry ten minutes in hood
	Alternate Light Source	Coherent Tracer Laser
AZ6PEG	Visual	
	Cyanoacrylate Fuming	12 min. at 80% humidity followed by a 5 min. purge cycle
	MBD	
	Alternate Light Source	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
AZJZ69	Visual Examination	artificial oblique lighting
	Cyanoacrylate Fuming	Missonix Cabinet, 70% humidity, fume time 15 minutes, purge time 20 minutes
	Powder Dusting	black powder
B73P3N	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	Basic Yellow 40
B7Q4E8	Visual Examination	item visually inspected prior to processing
	Cyanoacrylate (Fuming Chamber)	positive control no lot exp 10/13/17, 70% humidity purge time 10 min, fume 10 min fan 10 sec on 10 sec off
	Black Powder	silk-black powder applied w/fiberglass brush
BAJAN4	Cyanoacrylate Fuming	ITEM 1 PLACED INTO A MASON VACTRON MVC 5000 SUPERGLUE CABINET ALONGSIDE CONTROL SAMPLE. THE RELATIVE HUMIDTY WAS RAISED TO 81%, 3.8g OF CYANOACRYLATE ADHESIVE WAS HEATED TO TO 120C FOR A PERIOD OF 15 MINUTES. DEVELOPMENT OF ANY FINGERMARKS ON THE CONTROL SAMPLE WAS OBSERVED. THE CABINET WAS VENTED AND ITEM 1 AND CONTROL SAMPLE REMOVED USING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE).
	Dye Stain	Item 1 and control sample were immersed into an ethanol based Basic Yellow dye solution, ensuring all areas were covered with the dye solution. Item 1 and the control sample were rinsed under tap water then allowed to dry in a drying cabinet. The control sample was observed using a crimelite 82s at a wavelength of 420-470nm using viewing goggles GG495 (476nm)
BCPMBW	Superglue Fuming Process	Using MVC3000 machine with 10 drops (1.2g) cyanobloom at 120 degree celsius for 10 minutes, 80% relative humidity for 15 minutes and 20 minutes purge cycle to complete the superglue fuming process. visual examination performed using a Rofin PL500 white light with clear filters.
	Dye Stain	Rhodamine 6G?water base was the dye stain of choice and the exhibits were rinsed with water thereafter put into the airdryer to dry. visual examination done using a Rofin PL500 set at 505 nm with orange filters used.
BD2A76	Cyanoacrylate Fuming	ambient temperature and pressure, ~10 minutes
	Dye Stain	MRM-10 with Pet Ether base

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
BGNYGA	Visual Examination	ridge structure observed
	Cyanoacrylate Fuming	Positive control, 1 hour, 78 % humidity, ridge structure with no comparison value
	Dye Stain	Positive control
	Alternate Light Source	515, ridge structure , digital photography
	Powder Dusting	Black powder with ridge structure of comparison value, digital photography
	Powder Dusting	Already powdered then tape lifted
BL2KMV	Visual Examination	Ambient/conventional lighting
	Cyanoacrylate Fuming	Humidity 80%, humidity cycle 4 minutes, glue cycle 8 minutes 50 seconds, purge cycle 10 minutes
	Dye Stain	Basic Yellow 40; sprayed with squirt bottle until covered, rinsed with water
BLHYQY	Visual Examination	
	Cyanoacrylate Fuming	SafeFume Tank at 72 F at 75% humidity for 26 minutes
	Powder Dusting	Dual Use Powder
BPX7EX	Visual Examination	Took photos of patent prints
	Cyanoacrylate Fuming	15 mins
	Powder Dusting	5 mins- Used mag powder
BR8EJC	Visual Examination	Ridge structure of no collection value was observed
	Alternate Light Source	LabKam was utilized; ridge structure of no collection value was observed
	Cyanoacrylate Fuming	positive control; chamber set to run for 10 minutes at 120 degrees Celsius; ridge structure of no collection was observed
	Alternate Light Source	LabKam was utilized; ridge structure of no collection value was observed
	Dye Stain	positive control; Rhodamine 6G was utilized
	Alternate Light Source	Polilight was utilized at 450nm; ridge structure of collection value was observed. Photographs obtained.
	Powder Dusting	black powder utilized; ridge structure of no collection value was observed
BR9DF7	Visual Examination	
	Cyanoacrylate Fuming	Under vacuum, 25 PSI, 20 minutes
	Powder Dusting	Traditional black powder



TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Dye Stain	R.A.M.
	Alternate Light Source	Viewed after using dye stain at 490, 505 and 530nm with orange goggles
	Powder Suspension Solution	Applied onto surface for 10 seconds and then rinsed
BTFQ2D	Visual	light smudge apparent in section C = not suitable for preservation/comparison
	Inherent Luminescence	orange filter w/laser @532nm = no additional detail observed
	Cyanoacrylate Ester	vacuum chamber (A) for approximately 55 minutes; some visible ridge detail; insufficient contrast to photograph/compare
	Magnetic Powder	(1) latent developed in section C
BTV2PK	Visual Examination	Observed a possible patent print in section C.
	Powder Dusting	Processed entire wallplate using magnetic powder. Developed print ridge detail in section C.
BUDNN3	Superglue	Suspended item inside chamber place nickle sized amount of superglue in small aluminum try place on hot plate, small jar of warm water temp at 160 placed inside chamber, closed chamber. Process time 2 1/2 min, vent for 30 mins.
	Rhodamine 6G	Rinse item with F/S dye stain. Let dry for 30 mins. Examined under ALS using orange goggles. Wavelength for ALS 515.
	Black Powder	Powdered (further visualized)
BXD28L	Cyanoacrylate Fuming	12 MINUTES @ 80% HUMIDITY
	Powder Dusting	Magnetic Powder: Brush/wand mag powder over switch wallplate lightly exposing latent print in block "C"
BYKENM	Visual Examination	R6G and Black Latent Fingerprint Powder
	Cyanoacrylate Fuming	
	Dye Stain	
	LASER	
	Powder Dusting	
BZTNJ7	Cyanoacrylate Fuming	12 minutes
	Powder Dusting	
C33WNJ	Visual Examination	
	Cyanoacrylate Fuming	1.3 gram, 2.5 minutes, rh 80%

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Basic Yellow 40 solution	Blue light 420 - 470 nm, Yellow goggles
C3KVRA	Visual Examination	Ridge Structure No Comparison Value
	Alternate Light Source	(LabKam) - Ridge Structure No Comparison Value
	Cyanoacrylate Fuming	Ridge Structure No Comparison Value; Positive Control, Fumed for 15 minutes at glue temperature of 120 degrees Celsius and 80% Relative Humidity
	Alternate Light Source	(LabKam) - Ridge Structure No Comparison Value
	Dye Stain	Positive Control (Basic Yellow 40)
	Alternate Light Source	(Crimescope) - Ridge Structure No Comparison Value
C8DZHR	Visual Examination	White light, magnification
	Cyanoacrylate Fuming	CYVAC 50 minutes
	Powder Dusting	Black and gray print powder
	Dye Stain	RAY fluorescent dye
C8VXPX	Visual Examination	A possible but unclear fingerprint was detected with white light in section C. Lights from different wave length and angels were used.
	Cyanoacrylate Fuming	2 g glue, humidity 80%, 10 min processingtime. Fingerprint in section c was clearer but not good for identification
	Basic Yellow 40	Basic yellow 40 (100%) was applied, rinsed off and item was dried
	Alternate Light Source	445nm - 455nm. A fingerprint with some details in section C. Not good for identification
CJRWKB	Powder Dusting	Black Powder
CM9LLY	Cyanoacrylate Fume, Vacuum Chamber	approx. 20 min
	Magnetic Black Powder	approx. 1 min
CMA2BT	Visual Examination	In daylight and flashlight fingerprint has been disclosed in section - C. In a whole spectrum of Polilight PL500 (UV, 415, 450, 470, 480, 505, 530, 555, 620, 650) none fingerprint
	Cyanoacrylate Fuming	Improved fingerprint quality has been achieved.
	Basic Yellow 40	
CNLYMP	Visual Examination	
	Cyanoacrylate Fuming	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Black Powder Lift Photograph	
CPUBZK	Visual Examination Powder Dusting Cyanoacrylate Fuming Dye Stain	White light - weak visible mark in square C Black magnetic powder - visible mark in square C 80% humidity, 120 degrees on hotplate, processtime 10 min Basic Yellow 40
CUQV9B	Powder Dusting	82 degrees. Processed right away
CV3GXC	Visual Alternate Light Source Cyanoacrylate Fuming RAM	Viewed at 365nm and 495 nm Fuming time approximately 15 minutes at approximately 80%humidity Viewed at 365nm
CWVKD6	Krimesite Imager (KSI) Cyanoacrylate Fuming Alternate Light Source Powder Dusting	Room temp., UV light (254 nm), scan entire surface of item, utilizes RUVIS (Reflective UltraViolet Imaging System) technology Heat superglue on hot plate in a sealed chamber. Expose item to fumes for approximately 5 minutes. Vent. Repeat KSI. Spray item with fluorescent dye (Rhodamine 6G). Allow to dry and view under ALS at appropriate wavelength with filter. Apply fine carbon based powder to item with brush and attempt to lift with clear tape.
CZDP4M	Visual Examination Cyanoacrylate Fuming Powder Dusting Dye Stain	White light, UV light and Blue light. 6 min processing time. Glue 1.4 gram. Magna Jet Black. Basic Yellow 40, 99.5% EtOH based working solution.
D3UB9F	Cyanoacrylate Fuming Dye Stain Alternate Light Source	Vacuum chamber at 37 Degree C for ~ 1 hour (+ test) Object dye stained with R6G using spray bottle (+ test) Coherent Tracer Laser Power High Laser Control H.P. (+ test)
D66AQ3	Visual Examination Cyanoacrylate Fuming	15 minute fume time, 15 minute purge time

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Visual Examination	
	Dye Stain	MBD
	Alternate Light Source	
D66DYK	Visual Examination	Forensic light source
	Cyanoacrylate Fuming	120 degrees C, 80% RH, 4 minutes processing time, 2 grams Cyanoacrylate glue. Basic Yellow 40 after 24 hours. The fingerprint was observed with a light source.
D9MDGL	Visual Examination	Item was photographed. Visual exam at Room temp ambient lighting, Latent visible in section C. (ridge detail partially observed)
	Alternate Light Source	Room temp, viewed at all wavelengths with HandScope Xenon (SPEX Forensics). Latents visible (ridge detail observed). Fingerprint was photographed
	Cyanoacrylate Fuming	Processed the item with 0.8 g of superglue in the superglue fuming chamber (120 °C, 80 % RH) for 20 minutes. Test print positive
	Visual Examination	Fingerprint in section C detected, and was photographed with white light
	Powder Dusting	Black magnetic powder. Fingerprint was photographed
DBUPGV	DNA Swab	Swab for possible DNA
	Visual Examination	Magnification with white light
	Cyanoacrylate Fuming	CYVAC vacuum chamber, control print developed; prints observed on Item 001, light and magnification
	Powder Dusting	Black magnetic powder, light and magnification; prints observed and photographed on Item 001
	Dye Stain	RAY Batch #637
	Alternate Light Source	450nm Rofin Polilite2 with orange filter and magnification; prints observed and photographed on Item 001.
DGH8XR	Visual Examination	Positive w/ambient light
	Cyanoacrylate Fuming	Improved w/ambient light, 80%RH(6":43sec), fume time 15" @120C
	Dye Stain	Not Improved w/BY-40 (blue light w/orange filter)
DGJ8V8	Powder Dusting	
DHREXZ	Visual Examination	visually examined the wallplate
	Cyanoacrylate Fuming	7 minutes in fuming chamber

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Powder Dusting	magnetic powder and brush to develop print
DQ6CKX	Visual Examination	In the initial visual examination a possible but very unclear fingerprint was detected in white light in section C. Different wave length/fluorescence was also used.
	Cyanoacrylate Fuming	Test strip ant the material in cabinet with 2 g glue in 4 minutes in Sandridge Superglue Processing Cabinet.
	Visual Examination	Visual examination with different ligths, teststrip positive, a possible but very unclear fingerprint was detected in section C.
	Basic yellow 40	Basic yellow 40 was applied on the material and rinsed off with water and then was dried.
	Visual Examination	Visual examination with light source/crime scope wave light 430-445 nm. A fingerprint was detected in section C, not a clear fingerprint.
DVB92C	Visual Examination	
	Cyanoacrylate Fuming	71 degrees Fahrenheit, 80% Humidity, 15 minute fume time
	Dye Stain	Rhodamine 6G dye stain, methanol based, viewed with Bright Beam Laser, 532 nm
DX6UWP	Cyanoacrylate Fuming	MVC-1000 - 15 drops of super glue auto humidify, RH 80, 10 min fuming at 120°C, full purge with positive test print
	Black Powder	Process item with black powder, then recover latent print with fingerprint tape and white lift card.
E4P8FN	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm
	Cyanoacrylate Fuming	VIS and RUVIS
	Dye Stain	RAM and 365nm, 450nm, 532nm
E7EDZK	Visual Examination	Viewed the item with specialized lighting, 2 minutes
	Cyanoacrylate Fuming	The Cyanosafe (Super glue chamber) was used for fuming, 15 minutes
	Powder Dusting	Magnetic powder was applied to the surface of the item, 2 minutes
EDB9Z6	Cyanoacrylate Fuming	Purge time set at 10:00 mins, maximum fume cycle time set at 10:00 mins, Cyanoacrylate - Exp. 10/13/17, aluminum dish, positive control, start time: 1632, end time: 1653, cyanoacrylate fuming chamber - target humidity value set at 70%
	Powder Processing	Black powder, fingerprint brush, start time: 1656, end time: 1724 - overall time frame includes powder processing of both Item 1 and Item 2

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
EKBTWT	Cyanoacrylate Fuming	cyanoacrylate fuming chamber MVC3000: 0.52 grams of cyanobloom, 20 minutes, 120 degree celsius, 70% relative humidity and 20 minutes purge cycle.
	Dye Stain	Rhodamine 6G/Water base, 1 minute then rinsed with water then dried in the evidence dryer.
	black powder	black powder applied to further enhance the print as the dye stain reaction was weak. black powder positive
EN8J2K	Visual Examination	
	Cyanoacrylate Fuming	10 minutes, 1 gram glue, 120 degrees C, 80%RH
	Dye Stain	Basic Yellow
ENBYJQ	Visual Examination	Observed under ambient light
	Cyanoacrylate Fuming	Fumed for 6 minutes, chamber was preset for humidity at 80%. Purge cycle for 10 minutes.
	Dye Stain	Applied dye (basic yellow) and rinsed/removed excess with tap water.
ERVN8B	Visual Examination	White light
	Cyanoacrylate Fuming	9 min fuming and 12 min purge
	Alternate Light Source	Wavelength 415-495
	Dye Stain	R6G used and allowed to sit for 3 hours
	Laser	Viewed dy stain with Tracer Laser (532 nm) with orange goggles
EUFZB	Visual Examination	
	Alternate Light Source	UV (365 nm), 495 nm lights
	Cyanoacrylate Fuming	
	Dye Stain	MBD, viewed with 495 nm lights
EXFX78	Visual	Oblique light - one digital photograph, UV, LASER
	Cyanoacrylate Ester Fuming	15 min. One digital photograph
	Ardrox UV/ Rhodamine LASER ALS	Spray, dry. Four digital photographs
	Powder	No additional suitable latents
F7T789	Visual Examination	
	Alternate Light Source	365nm, 495nm
	Cyanoacrylate Fuming	15 minute fuming time, 80% relative humidity

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Dye Stain	Ardrox
F9HTN3	CFC Processing	item placed in Cyanoacrylate fuming chamber with positive control. Chamber set at 70% humidity with fuming time of 10 min and purging time of 10 mins
	Bichromatic Powder	item then lightly powdered with bichromatic powder and fiberglass brush to develop print.
	Tape Lift	print lifted with clear adhesive tape and placed on glossy white card stock
FD8CJ7	Visual	
	Superglue	~15 min
	Ardrox	
	Rhodamine	
	Black Powder	
FG9AER	Visual Examination	High intensity light, reflected light, ambient light, magnifier
	Cyanoacrylate Fuming	Cyanosafe 20 minutes
	Powder Dusting	Black powder and brush - Print C
	Dye Stain	RAY Batch 637; Sprayed on and rinsed off; examined 450 nm light source and orange filter - Print C
FJEJL4	Visual Examination	
	Cyanoacrylate Fuming	.78g CA, 80% RH approximately 10 minutes, hotplate temperature 350F, fume time 10 minutes, purge 5 minutes
	Dye Stain	Rhodamine 6G - methanol formula
	Alternate Light Source	Tracer Laser - 532nm
FLK494	Visual Examination	Natural light and flash light
	Cyanoacrylate Fuming	80% humidity, 351°F, 10 minutes fuming, 5 minute purge
	Dye Stain	Rhodamine 6G methanol based
	Alternate Light Source	
FM9QJQ	Cyanoacrylate Fuming	8 min of developing
	Visual Examination	light source Crime scope
FXHZGW	Visual Examination	White light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	15 min.
	Dye Stain	R6G
	Alternate Light Source	515nm, orange filter
FZLZAG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	10 min
	BY40	
	Alternate Light Source	
G4JLWD	Visual Examination	
	Alternate Light Source	crimescope-all available wavelengths
	Cyanoacrylate Fuming	15 minutes, 80% humidity, room temp., allowed to dry until next business day
	Powder Dusting	magnetic powder
	Rhodamine 6G	crimescope 515nm
G6ULXE	Cyanoacrylate Fuming	3.0 gram, 7 minutes, rh 80%
	Powder Dusting	
G73XDU	Visual Examination	White
	Alternate Light Source	Blue and green light
	Powder Dusting	Carbon powder (black)
	Cyanoacrylate Fuming	1 min 35 sek, 80 RH%, hot plate 120 degrees centigrade
	Powder Dusting	Magnetic powder (black)
G7P7MY	Visual Examination	white light
	Cyanoacrylate Fuming	20 minutes; 80% humidity in Safefume chamber; ~66 °F
	Powder Dusting	Black magnetic powder
GCVN97	Visual Examination	Ambient/Oblique/Magnified light; Control = Not Applicable; Result = No ridge structure
	Cyanoacrylate Fuming	Humidity: 80%, Glue Time: 13 minutes, Glue Temperature: 120 degrees Celsius, Purge: 40 minutes; Control = Positive; Result = Ridge structure - No collection value



TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	LabKam: Short wave ultraviolet light (254 nanometers); Control = Not Applicable; Result = Ridge structure - Collection value
	Dye Stain	RAY: Sprayed with squirt bottle until covered, rinsed with water; Control = Positive; Result = Not Applicable
	Alternate Light Source	Crimescope: Control = Not Applicable; Result = Ridge structure - Collection value
	Powder Dusting	Black Powder: Control = Not Applicable; Result = Ridge structure - Collection value
	Powder Dusting	Second Black Powder Application: Control = Not Applicable; Result = Ridge structure - Collection value
GEERRW	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Laser
	Powder Dusting	Black fingerprint powder
GHFX83	Visual Examination	With no physical enhancement (only eyes) and with white light (flashlight) at direct and oblique angles
	Cyanoacrylate Fuming	Glue time 15 minutes, glue temperature 120 degrees Celcius in MVC 3000
	Dye Stain	Rhodamine 6G premixed aqueous dye stain; once dried, used Crimescope CS- 16-500 utilizing 495 nm and an orange barrier filter to visualize
	Powder Dusting	Black magnetic powder and a magnetic wand used
GLJHK3	Visual Examination	
	Alternate Light Source	LabKam
	Cyanoacrylate Fuming	Control - Positive. Processed using a foster freeman MVC 1000 for 15 minutes at a temperature of 120 C and 80% relative humidity
	Alternate Light Source	LabKam
	Dye Stain	RAY dye stain sprayed on surface, rinsed with water, then viewed at 415 nm
GPUURN	Cyanoacrylate Fuming	MVC using cyanobloom: 120 degree celsius, 20 minutes, 80% relative humidity, and 20 minutes purge cycle.
	Dye Stain	R6G/Water
	Evidence Drier	Evidence Drier
GT2647	Visual Examination	white LED light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	UV-365nm, CrimeScope-CSS with orange filter, Crime-lite 445-510nm with orange filter
	Cyanoacrylate Fuming	80% relative humidity, 15 minute fume time
	Dye Stain	RAM, Crime-lite 445-510nm with orange filter, UV-365nm
GTK2F7	Powder Dusting	
GXTAXB	Alternate Light Source	No mark detected.
	Cyanoacrylate Fuming	Faint mark in section C detected.
	BASIC YELLOW 40	Faint mark in section C detected.
	Lifted with gellifter	Mark in section C has been recovered.
H3LN7H	Visual Examination	VIS, UV - none fingerorint
	Cyanoacrylate Fuming	3 min., 120 degree C, fingerprint - section C
	Dye Stain	Basic Yellow 40, fingerprint - section C
H6L2HA	Visual	Various ways of lighting were used for visual examination
	CA	Super glue fumes for 30 min
	MBD	After visual examination, MBD was applied to the item
	Black Powder	After visual examination, black powder was used on the item
HBD284	Visual Examination	Visual exam under white light for patent prints and/or biological material, no prints
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber, test print positive, no prints.
	Dye Stain	RAY batch #636, examined with a 450nm-510nm bandwidth filter an orange barrier, prints observed.
	Powder Dusting	Bi-chromatic Powder applied with latent print powder brush, prints observed.
HBVDJG	Visual Examination	Possible latent observed in area C
	Cyanoacrylate Fuming	Mason Vactron MVC 5000
	Dye Stain	Rhodamine 6 G
	Alternate Light Source	
	Powder Dusting	
HCALQW	Visual Examination	Viewed sample under natural and forensic lighth.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	The fuming was initiated in the fuming chamber at lats 15 minutes with 65% Humidity. The sample is viewed with natural and forensic lighth.
	Staining with Basic Yellow .	It is applied with a spray application, washed in water and air dried.
	Alternate Light Source	Viewed with Forensic lighth at 415 nm using yellow goggles.
HCN24X	Powder Dusting	Outdoor, Sunny and Warm. 5-10 minutes processing time
HLDP47	Visual Examination	overhead/bench lighting
	Alternate Light Source	Visual w/ ALS
	Visual w/ Laser	Visual w/ Laser
	Cyanoacrylate Fuming	heat and humidity chamber, approx. 10 mins.
HMNRP6	Visual Examination	A visual exam was performed on the light switch wallplate. I observed ridge structure of no collection value.
	Alternate Light Source	The LabKam was used to visualize the evidence, ridge structure of no collection value was observed.
	Cyanoacrylate Fuming	The light switch wall plate was placed in the cyanoacrylate chamber for 10 minutes at approximately 120 degrees Celsius. Ridge structure of no collection value was observed after fuming.
	Alternate Light Source	The LabKam was used to visualize the evidence, ridge structure of no collection value was observed.
	Dye Stain	Rhodamine 6G was applied to the evidence and allowed to dry.
	Alternate Light Source	A Polilight was used to visualize the evidence after treatment with a dye stain. Orange goggles were worn and the evidence was viewed at a wavelength of approximately 450 nanometers. Ridge structure of collection value was observed and digitally photographed.
	Powder Dusting	Black powder was applied to the evidence and no ridge structure was observed.
HPD3HJ	Visual Examination	
	Alternate Light Source	LAS, UV
	Cyanoacrylate Fuming	VIS, RUVIS
	Dye Stain	RAM
HRYUMU	Cyanoacrylate Fuming	120 celsius 7 minutes
	Coumarin (dye fumed in cabinet)	275 celsius 25 minutes with ventilation
	Powder Dusting	Magnetic powder

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Mikrosil	Lifting with mikrosil
HVHWGK	Visual Examination	
	Powder Dusting	Magnetic
	Cyanoacrylate Fuming	1.05g of glue; 10 minutes of fuming in Misonix CA-6000 chamber
	Dye Stain	Rhodamine 6G
	Dye Stain	Gentian Violet
HZWGLL	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Alternate Light Source	
	Dye Stain	
	Alternate Light Source	
J3YWCN	Swabbing	Swabbing for possible DNA - Item 1: Edges of the switch plate
	Visual Examination	Magnification and white LED light - Print observed in Quadrant "C" - faint
	Cyanoacrylate Fuming	Sirchie CyanoSafe, 19 minutes; control print developed. No prints were observed.
	Powder Dusting	Black and bichromatic powders - Camel hair brush; Fingerprint observed on Quadrant "C", and a palmprint, some of which covers sections of all four quadrants, but especially prominent in Quadrant "B".
	Dye Stain	RAY: Batch #637, examination using the Foster-Freeman Crime-Lite, 420-470Nm, blue filter and orange barrier. A print was observed on Quadrant "C".
JC22DD	Powder Dusting	Dusted the surface using black latent powder
JGWTNV	Visual Examination	Print seen in C
	Cyanoacrylate Fuming	Print seen in C
	Dye Stain	BY 40, Print seen in C
	Powder Dusting	Coal then magna, Print seen in C
JNX2DV	Visual Examination	Ridge detail observed
	Powder Dusting	Black silk powder used

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
JUJ2MG	Visual Examination	Ambient and white light from flashlight
	Cyanoacrylate Fuming	Humidity 80%, glue cycle 5 minutes, 0.9 grams of glue, in MVC/D300 Cabinet from Foster and freeman
	Dye Stain	Basic Yellow 40, Sprayed on until covered. Rinsed with water
JVXHLG	LUMICYANO POWDER/SOLUTION 4% Visual Examination	hygrometry > 75% 15 minutes
JZB846	Powder Dusting	Black powder application using fiberglass brush
K2Y2FY	Visual Examination	Oblique Light
	Cyanoacrylate Fuming	atmospheric pressure
	Powder Dusting	Black powder
KAWTQE	Visual Examination	Using oblique lighting (faint mark observed at area D), and ultra-violet light
	Cyanoacrylate Fuming	Using Hot Shot (approximately 5 mins)
	Powder Dusting	Using black fingerprint powder and camel hair brush
KFVFD8	Visual Examination	Inclination of the object
	Alternate Light Source	Light grazing with Crimescope MCS-400
	Cyanoacrylate Fuming	Autocycle for 1g of solution of Lumicyano 5% during 40 minutes. A control trace is placed in the tank.
	Alternate Light Source	Crimescope MCS-400 at CSS filter and orange filter glasses for observation
	Dye Stain	Vaporization of Basic Yellow then drying for 24 hours
	Alternate Light Source	Crimescope MCS-400 at CSS filter and orange filter glasses for observation
KHUCD4	Visual Examination	Latent print ridge structure was observed but determined to not be of value for comparison
	Alternate Light Source	LabKam-reflective UV light was used to visualize any ridge structure. Ridge structure was observed but determined to not be of value for comparison
	Cyanoacrylate Fuming	The item was fumed for approximately 10 minutes at 120C in a fuming chamber. Ridge structure was developed but determined to not be of value for comparison. A test print was also placed into the chamber to verify proper development (control was positive).

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Powder Dusting	Black powder was applied with a fiberglass brush. Ridge structure of comparison value was developed and then photographed using a digital camera.
KL4RCE	Visual Examination	COC Photos, then visual: Did the visual with 000 nm, 350 nm, 450 nm and 505 nm.
	Cyanoacrylate Fuming	Polycyano UV glue Fuming: used the MVC3000 fuming cabinet, set at 230 degree celsius for 20 minutes at 80% relative humidity, with a 20 minutes purge. 2 scoops amount of polycyano uv glue powder.
	Dye Stain	Rhodamine 6G dye staining: dye stained item 1 with rhodamine 6G using the spraying method and allowed to dry in a evidence dryer.
KM3LF6	Visual Examination	
	Alternate Light Source	365nm, 495nm, 535nm
	Cyanoacrylate Fuming	AirScience Fuming Chamber - 15 Min. fume time, 80% humidity
	Dye Stain	MBD, 495nm
KRFH4F	Visual Examination	Crimescope, Lasers 532 nm and 577 nm, coaxial incident white light
	Cyanoacrylate Fuming	Cyanoacrylate luminiscent, 120°C, 30 min fumigation
	Dye Stain	Basic Yellow 40
	VMD	Gold / zinc
KRGDRR	OML/ Oblique magnified light	visual examination - smudged FRD vis in block "C".
	Cyanoacrylate Fuming	70°F/ 72% RH - 9 minutes - vis FRD in block "C"
	Fingerprint Powder (black)	enhanced visibility of FRD in block "C"
KVDYM2	Visual Examination	No comparison value
	Alternate Light Source	LabKam, comparison value fingerprint
	Cyanoacrylate Fuming	Glue time 15 minutes, glue temperature 120 degrees Celsius, relative humidity 80%, control positive, no comparison value
	Alternate Light Source	LabKam, comparison value fingerprint
	Dye Stain	Basic Yellow 40, control positive, no comparison value
	Alternate Light Source	Crimescope, 415 nanometers, yellow goggles, yellow filter, comparison value fingerprint
	Powder Dusting	Magnetic black, comparison value fingerprint

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
L3NR24	Cyanoacrylate Fuming	Foster Freeman MVC5000 chamber; cyanobloom; 120 degrees C; 15 min glue time; 80% RH
	Dye Stain	Rhodamine 6G applied to superglued print and visualized with TracER Laser
L4423H	Visual Examination	Examined Item 1 for prints. Observed ridge detail in quadrant 'C'
	Oblique lighting	Examined Item 1 for prints using a flashlight. Observed ridge detail in quadrant 'C'
	Alternate Light Source	Examined Item 1 for prints using an ALS. Observed a small edge of same area above in quadrant 'C'. No ridge detail was observed.
	Powder Dusting	Dusted Item 1 with black magnetic powder. Observed a print in quadrant 'C'
L866RJ	Visual Examination	No ridge detail was observed
	Cyanoacrylate Fuming	Fumed for 15 minutes
	Powder Dusting	Applied black fingerprint powder with a brush applicator
L8HNPV	Alternate Light Source	
	Cyanoacrylate Fuming	12 minutes in chamber
	Dye Stain	MRM-10
	Visual Examination	
LFYFZT	Visual Examination	Utilizing white light, ridge detail observed in section C.
	Cyanoacrylate Fuming	Approximately 10-15 minutes, monitoring progress.
	Powder Dusting	Black magnetic powder, then re-dusting with regular black powder. This was after gel lift.
LJEULE	Visual Examination	oblique lighting
	Cyanoacrylate Fuming	15 min in chamber
	Dye Stain	R6G - spray with water rinse
	Alternate Light Source	532nm LASER w/orange goggles
LV883X	Powder Dusting	80 degrees, windy, sunny, 1101 photographed item then processed
LVTPYT	Alternate Light Source	white Light, blue/green, green, UV, coaxially reflected light.
	Cyanoacrylate Fuming	Humidity 80%, Humidity cycle: 15 minutes, Glue cycle: 15 minutes, Purge cycle: 40 minutes.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Dye Stain	Staining with basic yellow 40, rinsing with water
	Alternate Light Source	Fluorescence examination with polilyght (400-548 nm)
LW4UBV	Cyanoacrylate Fuming	Super glue chamber with hotplate heat source, 10 min processing time
	Dye Stain	MRM-10, spray bottle application, ALS for visualization
LY6M9L	Visual Examination	The fingerprint was visible but needed enhancement
	Cyanoacrylate Fuming	Temperature 120 celsius, Humidity: 77%, Time: 15 minutes, Cabinet: Foster&Freeman MVC3000
	Powder Dusting	Carbon powder
	Basic Yellow 40	
	Alternate Light Source	Mini-Crimescope 475nm
M779U9	Visual Examination	white light, UV - 555 nm - Polilight PL 500, suitable googles,
	Cyanoacrylate Fuming	processing time - 15 minutes, humidity - 80%
	Visual Examination	white light
	Dye Stain	Basic Yellow 40
	Visual Examination	UV - 495 nm, yellow coloured google
MD8GLV	KSI	The plate was looked at under KSI with 254 nm light for the presence of ridges.
	Cyanoacrylate Fuming	The plate was put into a chamber and superglue fumed for approximately 5 min and the control looked good, then looked at under KSI
	Alternate Light Source	The plate was sprayed with R6G and looked at under the ALS at 515 nm with orange goggles
	Powder Dusting	The plate was dusted with a bichromatic powder and a brush, then lifts were taken with tape and put onto index cards
MDQH9X	Visual Examination	Finger impression observed but no ridge structure observed. (smudge) 2 minutes
	Alternate Light Source	RUVIS- finger impression observed but no ridge structure observed. (3 minutes)
	Cyanoacrylate Fuming	Glue time 10 minutes. control did not work 1st time so ran 2nd time for 10 minutes. Positive control. Relative humidity 75%. No comparison value on ridge structure observed.
	Alternate Light Source	RUVIS- no comparison value on ridge structure observed. 5 minutes.
	Powder Dusting	Dusted with black powder and ridge structure of comparison value was observed. 5 minutes processing.



TABLE 2 - Item 1

WebCode	Development Methods	Method Details
MEGL26	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic
MEHJ8U	RUVIS	Sirchie Krimelite Imager with 254 nm UV light
	Cyanoacrylate Fuming	fumed for approximately 3 minutes, viewed with RUVIS
	Powder Dusting	black carbon powder
	Dye Stain	RAM
MG67G9	Visual Examination	(+) mark needing enhancement
	Powder Dusting	(+) magnetic fingerprint powder
MH374M	Visual Examination	with naked eye
	Cyanoacrylate Fuming	approximate 10 minutes until white ridges formed on control (glass)
	Powder Dusting	Magnetic
MH43EJ	Visual Examination	Ambient/ White lighting
	Cyanoacrylate Fuming	Misonix CA-6000 chamber; 80% humidity for 10 minutes 30 seconds
	Dye Stain	R6G methanol-based solution used and viewed with green light/ orange filter
MPXHTP	Visual Examination	
	Cyanoacrylate Fuming	gluetime 5 min, RH80%
	Basic Yellow 40 + light source	445 nm
MQBXBW	Visual Examination	no ridge structure observed
	Cyanoacrylate Fuming	1 hour, 80% humidity
	Alternate Light Source	Labkam, ridge structure-no comparison value
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Crimescope, ridge structure comparison value, photograph taken
	Powder Dusting	Black powder, ridge structure, photograph taken, no comparison value
MR7HZG	Visual Examination	Item 1 was visually observed on 07-09-17 at 1555-1605 hours

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Oblique lighting w/flashlight	Item 1 was observed using oblique lighting on 07-09-17 at 1555-1605 hours.
	Alternate Light Source	Item 1 was observed using an ALS on 07-09-17 at 1555-1605 hours with an ALS.
	Powder Dusting	Item 1 was processed with black powder on 07-09-17 at 1610 hours.
MR9DJM	Visual Examination	Visual examination, white light, UV, 415 & 505 nm, episcopic coaxial illumination and cycle through all polilight wavelengths
	Cyanoacrylate Fuming	Fume in tank 0.2g superglue - autocycle. 80% RH-10 mins, Glue temp 120 degrees C 10 mins. View under white light pre-staining.
	staining - rhodamine	Spray with rhodamine, let dry. View under 505nm and orange goggles.
	Powder Dusting	Powder using black fingerprint powder
MRLR6B	Visual Examination	Natural light, white light and Polilight PL-500 Forensic Light (all wavelengths)
	Cyanoacrylate Fuming	Cyanoacrylate Fuming Chamber Values: 12 minutes running time, 80% humidity
	Dye Stain	ARDROX used to stain entire item with spray method
MTXM9V	Visual Examination	left loop ref tented arch "C" block; Omega validated 05/22/17; Mystaire CA-6000 70% humidity - 25 minute glue cycle
	Cyanoacrylate Fuming	left loop "C" block
	Powder Dusting	left loop "C" block
	Rhodamine 6 G	no additional development; lot 5/25/17 validated 5/25/17
MYNUEH	Cyanoacrylate Fuming	Fumed at 80% RH for 6 min and 34 sec. The Misonix CA-6000 was used. With a 10 min purge time.
	Dye Stain	Basic Yellow 40 was used
MYQGWW	Visual Examination	Finger impression observed- no comparison value- 5 minutes
	Cyanoacrylate Fuming	Glue time- 10 minutes with relative humidity at 75%. Positive control. Ridge structure observed- no comparison value
	Alternate Light Source	RUVIS- ridge structure observed- no comparison value- 15 minutes
	Powder Dusting	Dusted with black powder- ridge structure observed- no comparison value
N28CNE	Visual Examination	use the oblique light on the item
	Cyanoacrylate Fuming	Foster+Freeman MVC1000, glue 10 drops, Glue time 15 minutes, Mode Auto Cycle

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Powder Dusting	Black Magnetic powder
	Photograph	DCS4, Ring light, ISO 200, F11, Shutter speed 1/125 sec.
N2BR6L	Visual Examination	
	Cyanoacrylate Fuming	Approximately 10 minutes in the superglue fuming chamber.
	Powder Dusting	
N8E4T7	Cyanoacrylate Fuming	3.0 gram, 5 minutes, rh 70%
	Basic Yellow 40 solution	
NA3BJU	Visual Examination	Visual Examination with and without oblique lighting. Photographed ridge detail section C.
	RUVIS (Sirchie)/ALS (Crimelite 82S) Foster/Freeman	RUVIS- photographed ridge detail. ALS- Crimelite 82S Blue/Green and UV Light
	Cyanoacrylate Fuming	Cyanobloom (Foster/Freeman) MVC5000 in Foster/Freeman Superglue chamber - autocycle- RUVIS and photos, ALS - Exam
	Powder Dusting	HiFi Black- Sirchie Brand. Photo- lift mode.
NBW37Z	Visual Examination	
	Alternate Light Source	Crimescope (handscope) 495nm, UV lamp for UV (365 nm)
	Cyanoacrylate Fuming	AirScience Cyanoacrylate chamber with 15 minutes fuming cycle
	Dye Stain	Ardrox , RAM
	Powder Dusting	Black powder
NF2UFH	Visual Examination	The fingerprint was visible but needed enhancement
	Cyanoacrylate Fuming	Temperature: 120 celsius, Humidity: 80%, Glue time: 15 minutes, Cabinet: Foster+Freeman, MVC 3000
	Powder Dusting	Magnetic jet black fingerprint powder
	Basic Yellow 40	
	Alternate Light Source	Obelux and Crime lite (450-560nm)
NFUFCX	Powder Dusting	DAY TIME, SUNNY, 75 TO 80 DEGREES
NLRBRN	SuperGlue (CAE)	Estimated amount of drop of superglue, four minutes inside chamber with warm water estimated 140°F with fan for circulation and hot plate.
	R.A.M.	Squirt with plastic bottle, let it dry and observe with ALS light.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Black Powder	Brush powder over the surface using synthetic brush
NMTXUV	Visual Examination	
	Alternate Light Source	LabKam (Reflective Ultraviolet Imaging System)
	Cyanoacrylate Fuming	Positive Control, Foster Freeman MVC1000, 15 minutes at 120 degrees C and 80% humidity
	Alternate Light Source	LabKam (Reflective Ultraviolet Imaging System)
	Dye Stain	Positive control, Three Blend Dye (Rhodamine 6G, Ardrex, and Basic Yellow)
	Alternate Light Source	Crimescope with yellow goggles at 450 nm
NN2ELZ	Powder Dusting	(black)
NQ4A2G	Cyanoacrylate Fuming	exhibit placed in MVC3000: 1.0 gram of cyanobloom for 25 minutes, at 80% relative humidity at 120 degree celsius.
	Dye Stain	Basic Yellow Dye Stain: exhibit dye stained in chemical fuming chamber by spraying method and rinsed with water.
NQLB4X	Cyanoacrylate Ester Fuming	
	Ardrex Dye Stain	UV light source
	Rhodamine Dye Stain	Laser light source
	Powder (Black)	
NQPQJK	Visual Examination	No comparison value friction ridge detail.
	Alternate Light Source	LABKAM, no comparison value friction ridge detail.
	Cyanoacrylate Fuming	Positive control, no comparison value friction ridge detail.
	Alternate Light Source	LABKAM, no comparison value friction ridge detail.
	Dye Stain	Positive control, basic yellow
	Alternate Light Source	Polilight, comparison value friction ridge detail. Digital photography.
NWVKGL	Visual Examination	White light
	Cyanoacrylate Fuming	Chamber CA02, 13 min, 80% RH, Positive Control
	Dye Stain	R6G
	Alternate Light Source	532 nm laser, Trac01, Orange filter, Positive Control
	Powder Dusting	Black

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
NXN923	Visual Examination	white light
	Visual Examination	polylight 450-555nm (orange filter), UV 350nm
	Cyanoacrylate Fuming	8 min. fuming, 80% humidity
	Reflected UV	
	Dye Stain	BY40 (analyze under 450 nm, orange filter)
	Dye Stain	Crystal violet
NY4JUF	Visually Opticat Method Visual Examination	daily light (natural light), white light, illuminator Polilight PL 500 the whole range of illuminator with filters
	Cyanoacrylate Fuming	cyanoacrylate chamber Safefume CATRI temp. 100°C humidity 80% time 15 minutes
	Basic Yellow 40	fluorescent dye solution spray on ethanol visual - illuminator Polilight PL500 350-505nm with filters 570-590nm.
NYG9V8	Visual Examination	White Light, Ruvis 254
	Lumicyano	2.7g Arrowhead CA, 0.135g CST Lumicyano powder 75% relative humidity 250F hotplate 17 minutes
P669VK	Visual Examination	
	Cyanoacrylate Fuming	25 minutes @ 75% RH (Safe Fume Tank #2 )
	Powder Dusting	
P7UJJR	Visual Examination	
	Cyanoacrylate Fuming	Omega CA / Tested 5/22/17 / Mystaire 70% humidity / 20 minutes
	Powder Dusting	Black Powder
	Dye Stain	Rhodamine (R6G) / Lot 5/25/17 / Tested 5/25/17 / Orange Filter 515-530 nm
	Alternate Light Source	Orange Filter / 515-530 nm
PAZVQU	Visual Examination	
	Alternate Light Source	LabKam
	Cyanoacrylate Fuming	Control - positive, Foster Freeman MVC1000, 15 minutes at 120 degrees Celsius at 80% humidity
	Alternate Light Source	LabKam
	Dye Stain	RAY (Rhodamine 6G, Ardrex, and Basic Yellow), Control - positive
	Alternate Light Source	Crimescope - orange goggles at 450nm

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
PF6WN3	Visual	ambient & oblique light (flashlight)
	CA	air science 48S chamber
	Dye Stain	MBD
	Alternate Light Source	ULT (BMT filter)
PHU39Y	Visual Examination	Visual exam with oblique light
	Alternate Light Source	Visual exam with ALS & Laser
	Cyanoacrylate Fuming	Chamber for ~ 20 minutes, heated cyanoacrylate
	Dye Stain	Rhodamine 6G; visual with Laser
PJ38UB	Visual Examination	A visual examination using different kind of light did not detect any impression on the item.
	Alternate Light Source	
	Cyanoacrylate Fuming	The next method used was Cyanoacrylate fuming. The plastic light switch wallplate was placed in our Essnor cabinet. The first hotplate has a water container on it, and heats until humidity reaches approx. 75%. Then a second hotplate heats the cyanoacrylate to start the fuming, which lasts for 10 minutes. A fan circulates the air in the cabinet during the entire process to ensure an even distribution of humidity and fuming. Still no impression was detected on the item.
	Powder Dusting	I then chose to use a light touch with black magna powder on the surface, and an impression was detected in quadrant C
	Dye Stain	In an attempt to improve the impression, Basic Yellow 40 was used. The item was sprayed with the BY40-solution and rinsed under cold, running tap water. Dried at room temperature, and then examined with 445 nm light and yellow filter glasses. The impression had not been improved.
PKD678	Visual Examination	oblique lighting
	Powder Dusting	magnetic powder
PP79V6	Visual Examination	ambient lighting, room temp., observation time < 1 minute
	Alternate Light Source	mini-crimescope, all available wavelengths, camera filter, observation time < 1 minute, room temp.
	Cyanoacrylate Fuming	SafeFume, run time=15 min., humidity 80%, set time-next business day, room temp.
	Powder Dusting	regular black powder, room temp. process time < 1 minute
	Rhodamine 6G	Sprayed, room temp., wait time-until dry, visualized with crimescope at 515nm

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
PPTRLX	Powder Dusting	
PTAZAW	Powder Dusting	
PX6PWV	Visual Examination	Ridge structure observed in quadrant C
	Cyanoacrylate Fuming	Foster+Freeman MVC-1000, 10 minutes glue time; glue temperature 120 degrees Celsius; 75% relative humidity. Ridge structure observed in quadrant C
	Alternate Light Source	Reflective ultraviolet Imaging System. One latent fingerprint of comparison value observed in quadrant C. Digital photograph taken.
	Dye Stain	Rhodamine (methanol-based) was sprayed on the evidence.
	Alternate Light Source	505 nm light with orange barrier used. Minimal enhancement of latent print in quadrant C
	Powder Dusting	Black powder. Latent print of comparison value observed in quadrant C. A digital photograph was taken, but ultimately not used, as the previous photograph showed more detail.
PY266L	Visual Examination	Visual exam with flashlight
	Cyanoacrylate Fuming	12 min, CA03 White Light \RUVIS1 UV Light, Control Positive
	Dye Stain	Rhodamine with Laser, 532nm, Trac01, Control Positive, Orange Filter
	Powder Dusting	Visual exam with flashlight
Q2M9DJ	Visual Examination	Photographed overall appearance before processing
	Cyanoacrylate Fuming	Item in fume chamber approximately 7.5 minutes
	Powder Dusting	Applied powder with brush
Q6LMXN	Visual Examination	Room temp., ambient lighting
	Alternate Light Source	room temp., all wavelengths on crimescope
	Cyanoacrylate Fuming	SafeFume chamber 80% humidity, set time until next business day.
	Powder Dusting	Room temp., magnetic black powder
	Rhodamine 6G-fluorescent dye	aerosol spray, room temp., wait time-until dry, visualized with crimescope at 515nm
Q7B326	Cyanoacrylate Fuming	7/6/17 at 9.15 - 10.00am. Lab temp 20.5 Inst. MVC3000 RH=79
	Dye Stain	BY40 7/6/17 10.30 - 11.00am placed in drying cabinet for 30 min.
	Crystal Violet	7/6/17 11.30 - 11.50am Then drying cabinet for 20 min

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Sudan Black	7/6/17 12.15 - 12.35am Then drying cabinet for 20 min
	Powder Dusting	7/6/17 1.00 - 1.15pm
QAC7TQ	Cyanoacrylate Fuming	12 minutes
	Dye Stain	MRM-10
QBMW6G	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	CyanoSafe 20 minutes/1 hour to dry, test print positive
	Powder Dusting	Black magnetic powder
	Dye Stain	RAY batch 635, Rofin Polilight Flare 2 and orange goggles
QF2HTU	Visual Examination	
	Superglue Fuming	Missonix 6000 Chamber; 22 minutes fuming time
	RAM/Crime-Lite ML2	
	Black Powder	
QH8YAX	Powder Dusting	
QJMF9W	Visual Examination	Viewed under white light, with flashlight, and under TRACER Laser
	Cyanoacrylate Fuming	Fumed in Misonix CA-6000 (CA Chamber #2) for 8 minutes at 80% humidity.
	Dye Stain	Methanol based Rhodamine 6G (R6G) dye stain applied by spraying onto item. Viewed under TRACER Laser.
	Powder Dusting	Item dusted with black powder.
QNC3U6	Visual Examination	Ambient light
	Alternate Light Source	Laser, UV, RUVIS
	Cyanoacrylate Fuming	MVC 1000 on automatic cycle
	Visual Examination	Ambient light
	Alternate Light Source	Laser, UV, RUVIS
	Dye Stain	Spray method of application
	Alternate Light Source	LASER
	Powder Dusting	Black magnetic powder
	Visual Examination	Ambient light



TABLE 2 - Item 1

WebCode	Development Methods	Method Details
QUK9RW	Visual Examination	
	Cyanoacrylate Fuming	Humidity 80%, 15 Min. Glue cycle 80%, 16 Min, Temp 120 C. Purge Cycle 80%, 20 Min
	Powder Dusting	Bichromatic
QVU76D	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	RAM
QW6BGG	Visual Examination	Crimescope
	LumicynanoTM	Fumigation chamber : MVC3000 Foster&Freeman 0.087g of powder and 2.2 g of solution Glue cycle 25min- Visualization with Crimelite 2 + Labino UV
	Magnetic powder	Black
R2DZDV	Visual	UV, ALS, Laser, oblique lighting
	Superglue Fuming	
	Ardrox & Rhodamine	Ardrox - UV, Rhodamine - Laser
	Powder	Black fingerprint powder
R49CKG	Visual Examination	White light and magnification. Prints observed in Quadrant C.
	Cyanoacrylate Fuming	Cyanoacrylate atmospheric chamber. Test print positive. Prints observed in Quadrant C.
	Powder Dusting	Bichromatic magnetic powder. Prints observed in Quadrant C.
	Dye Stain	Fluorescent dye stain RAY batch #634. Examination using Foster and Freeman Crime Lite ML2 with a 420nm-470nm bandwidth filter and orange barrier. Prints observed in Quadrant C.
RABJZK	Oblique Lighting	viewed with flashlight
	Alternate Light Source	viewed @ 455-515 nm
	CAE Fuming	fumed for 20 minutes
	Black Powder Dusting	dusted with black powder
RATGAB	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C, 75% Relative Humidity

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Dye Stain Powder Dusting	R.A.M., CSS, Orange Filter
RB2PGB	Visual Examination Alternate Light Source Cyanoacrylate Fuming Dye Stain	RAM
RH4U9U	Powder Dusting	
RJU3C4	Visual Examination Cyanoacrylate Fuming Basic Yellow 40 solution	1.0 gram, 4.5 minutes, rh 70% Blue light 420 - 470 nm, Yellow goggles
RMTHH7	Visual Examination Cyanoacrylate Fuming Powder Dusting	6 minutes Black
RTLDRQ	Visual Examination RUVIS/ALS Cyanoacrylate Fuming Powder Dusting	Visual- oblique lighting Sirchie Krimesite Imager. UV and Blue/Green (with orange barrier filter) Foster Freeman Crimelite 82S. Foster Freeman MVC 5000 autocycle. RUVIS/ALS. Black Magnetic Powder
RUWDPK	Cyanoacrylate Fuming Powder Dusting	Item was placed in heated chamber for approximately 20 minutes with water and CAE Black powder was applied to item resulting in one area of ridge detail.
RW6CZT	Visual Examination Cyanoacrylate Ester Fuming Dye Stains - Adrox, Rhodamine Powder	flashlight, LASER, UV used ~15 minutes UV used for Ardrex, Rhodamine - used LASER
RWLTUM	Visual Examination	No fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Disclosure of a fingerprint. The fingerprint is visible in the white and 505 nm light source.
	Dye Stain	No improvement in fingerprint quality after use Basic Yellow 40. The fingerprint is visible in the light source 415 nm with yellow goggles.
RY6X8B	Visual Examination	The fingerprint was visible but needed enhancement
	Cyanoacrylate Fuming	Time: 45 minutes, Underpressure -88kPA, Temperature: 82 celsius, Cabinet: Cyvac M
	Basic Yellow 40	
	Alternate Light Source	Crimescope CS-16-500, 445nm
T2TJV8	Visual Examination	
	Alternate Light Source	mini-crimescope, all wavelengths
	Cyanoacrylate Fuming	SafeFume Chamber wait time (15 min) 80% humidity
	Powder Dusting	
	Rhodamine 6G	wait time until dry, TracER laser (532nm)
T3MFAT	Visual Examination	no ridge structure observed
	Cyanoacrylate Fuming	test print/control (positive); superglue heated at 120C for 10 minutes; no ridge structure observed
	Powder Dusting	black powder; ridge structure of no comparison value developed in section C
T4Y3XA	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C, 75% Relative Humidity
	Dye Stain	R.A.M., 445 nm, Orange Filter
T6CMUP	Visual Examination	
	Cyanoacrylate Fuming	Foster Freeman Chamber, 75RH, 10 minute glue time, positive control
	Alternate Light Source	RUVIS, canon G5 digital camera
	Powder Dusting	Black-Lightning brand, fiberglass brush
T8DPAD	Visual Examination	for any possible visible prints
	Cyanoacrylate Fuming	measure 3 grams of cyanobloom. 120 Degree Celcius, Relative Humidity 80%, 20 minutes.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Visual Examination	Visual/PL500: for any possible latent print using white light
	Dye Stain	basic yellow (Deeping Process)
	Visual Examination	Visual/PL500: 415 UV with yellow filter; 450 & 470 orange filter.
	Black powder	Brush method
TAHH4C	Cyanoacrylate Fuming	fuming exhibit, were placed in the MVC3000, using 10 drops of cyanobloom for 20 minutes at 120 degree celsius, 70% relative humidity and 20 minutes purge cycle with W120481 batch number were powdered with yellow florescent powder unique number 01/2017 using ostrich lynn peavy brush.
	Powder Dusting	fuming exhibit, were placed in the MVC3000, using 10 drops of cyanobloom for 20 minutes at 120 degree celsius, 70% relative humidity and 20 minutes purge cycle with W120481 batch number were powdered with yellow florescent powder unique number 01/2017 using ostrich lynn peavy brush.
TKPXX	Visual Examination	NLOV
	Cyanoacrylate Fuming	Foster & Freeman Chamber - Controlled Time/Humidity
	Powder Dusting	Zephyr Brush
	Visual Examination	LOV/NLOV
TM926N	Cyanoacrylate Fuming	fuming chamber with hot plate, 10 minutes
	Dye Stain	MRM-10, ALS
TNNDPE	Visual Examination	No ridge structure.
	Alternate Light Source	LABKAM exam (Reflected Ultra-Violet Imaging). Ridge Structure - No Collection Value
	Cyanoacrylate Fuming	Control: Positive. Ridge Structure - No Collection Value
	Alternate Light Source	LABKAM exam (Reflected Ultra-Violet Imaging) Ridge Structure - No Collection Value
	Dye Stain	Basic Yellow 40 - Control: Positive
	Alternate Light Source	Polilight exam (450nm). Ridge Structure - No Collection Value (Photograph taken for internal purposes)
	Powder Dusting	Black powder. Ridge Structure - No Collection Value
TV6UE4	Visual Examination	
	Powder Dusting	Silver Black
U2KWW6	Visual Examination	Ridges were visible

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Sirchie Krimsite Scope	Fingerprint located
	Cyanoacrylate Fuming	Processed in the Cyanosafe for 21 minutes
	Visual Examination	Ridges present
	Dye Stain	Ardrox yellow
	Alternate Light Source	Exposed to 350 nm
U4A4F2	Cyanoacrylate Fuming Powder Dusting	~8 min
U4QGJ6	Visual Examination Cyanoacrylate Fuming Visual Examination Dye Stain Alternate Light Source	Friction ridge present but faint in section C Fumed in Cyanosafe for 21 minutes Friction ridge present but faint in section C Item dye stained using Ardrox and left hanging to dry Examined under 350nm UV light, friction ridge present in section C
U8XVB6	Visual Examination Cyanoacrylate Fuming Alternate Light Source Powder Dusting	Magnifier and oblique lighting Processed in chamber for approximately 10 min. Hot plate set at 200C Used UV light (LABKAM) to obtain image of ridge detail. Obtained 1 lift after dusting with powder. Photographed lift location - Section 'C'.
UA2LHJ	Visual Examination RUVIS, FSIS Cyanoacrylate Fuming FSIS	Oblique light (one impression in section C) Shortwave UV light @254nm (one impression in section C) 15min fume cycle, 74% humidity, 5 min purge cycle Shortwave UV light @254nm (one impression in section C)
UAGP86	Visual Examination Cyanoacrylate Fuming Powder Dusting Dye Stain	Processing time: 7 minutes Carbon powder Basic Yellow 40
UCN3XJ	Superglue - Visual Bichromatic Powder	Glue fume chamber for 3 1/2 minutes

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	
UHDR8V	Visual Examination	Latent could be seen.
	Super glue/ Cyanoacrylate Ester	5 min exposure in chamber, heat vaporized. Latent still visible
	Powder Dusting	Black Magnetic Dusting Powder;
UK3W69	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	R.A.M., 475 nm, Orange Filter
ULELED	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	12 drops of CA in cups on heating element, distilled water in cup, test print positive, processed for 12 minutes, purge cycle for 10 minutes, let stand 1 hour to dry
	Powder Dusting	Black powder
	Dye Stain	RAY Batch #636, applied to item and rinsed off, let sit until dry
UR2F86	Visual Examination	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500)
	Cyanoacrylate Fuming	20 min exposure, 120° C, 80% humidity, viewing in white light and with POLILIGHT PL 500 alternate forensic light source in 505-530 nm range + appropriate filters
	Dye Stain	Spraying item with "Basic Yellow 40" working solution, after 1 min exposure the excess of reagent was rinsed under running tap water, viewing with POLILIGHT PL 500 alternate forensic light source in 415-495 nm range + appropriate filters
URXX6Y	Cyanoacrylate Fuming	Lumicyano
	Powder Dusting	Black magnetic powder
UTE827	Cyanoacrylate Fuming	~10 minutes in air-tight chamber with hot water and mug warmer to heat up cyanoacrylate
	Powder Dusting	Black powder applied with a disposable brush
V7CLQ3	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
V7VH89	Visual	ambient light & oblique light
	RUVIS	short wave UV
	Cyanoacrylate	RH 80% 20 min - Autocycle; Foster Freeman
	R6G	Methanol base R6G, water rinse. Blue/green ALS w/orange filter.
VH9PXG	Visual	
	Superglue	3 minutes. Water temp appx 150°F
	R.A.M.	
VKWWN7	Visual Examination	
	Powder Dusting	Black Magnetic
W3FAJA	Visual Examination	Ambient lighting
	Cyanoacrylate Fuming	In Misonix chamber humidity cycle took 3 minutes to reach 80%, 9 minute glue cycle, 10 minute purge cycle
	Dye Stain	sprayed on item then rinsed with water
W79HGN	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Fumed for 20 minutes
	Dye Stain	RAM
	Powder Dusting	Black powder
W86P8F	Visual Examination	
	Cyanoacrylate Fuming	Approximately 24 minute fuming time, test print also placed inside fuming chamber with items
	Powder Dusting	Magnetic black powder, magna brush and lifting tape
WCV92X	Cyanoacrylate Fuming	
	Dye Stain	
WEU8ND	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	MRM-10
	Dye Stain	Basic Yellow

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Methanol rinse	
	Cyanoacrylate Fuming	
	Powder Dusting	
	Dye Stain	Red-Drox
WG XV6N	Visual Examination	white light and polylight (350, 450, 505, 530, 590 nm. 450-505nm with and without orange filter)
	Cyanoacrylate Fuming	80%RH
	Reflected Uv	254nm illumination - FP-1.0
	Dye Stain	BY-40, Crystal violet
WLMPRM	Visual Examination	Ridge detail observed; further processing required (no photo)
	Cyanoacrylate Fuming	Mystaire CA-6000, 70% humidity; 25 minute cycle, 20 minute purge
	Powder Dusting	Black Powder
	Dye Stain	Rhodamine 6G petroleum ether carrier
	Alternate Light Source	Foster + Freeman CrimeLite ML2 (445-510 nm OG550 orange filter)
WLQ3NW	Visual Examination	
	Alternate Light Source	TracER Laser 1 (532nm) and Crimescope ALS (350 to 535nm)
	Cyanoacrylate Fuming	10 minutes with heat and humidity
	Powder Dusting	black magnetic
	Dye Stain	R6G examined w/TracER laser 1 and Ardrex examined with Crimescope ALS 350 to 515nm
	Powder Dusting	black traditional
WPNLLN	Visual Examination	Completed with white light with magnification
	Cyanoacrylate Fuming	Cyanosafe recirculation chamber; Processing time was 12 minutes followed by 1 hour of drying time. Test print positive. Examination under white light with magnification.
	Dye Stain	RAY batch #635. Examination under Foster + Freeman Crime Lite ML with a 460nm-510nm bandwidth filter and orange barrier.
	Powder Dusting	Bi-chromatic powder. Examination under white light with magnification.
WRT92E	Alternate Light Source	White light, 430-470 nm with GG495 filter, 500-550 nm OG570



TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Processed until deemed finished about 7-8 minutes, Loctite 495, 80 % humidity
	Dye Stain	Basic Yellow 40 in 96% ethanol
WUZQ2V	Visual Examination	
	Alternate Light Source	no dye stain
	Cyanoacrylate Fuming	8 minutes
	Visual Examination	
	Dye Stain	R6G
	Alternate Light Source	
	Powder Dusting	black magnetic
	Visual Examination	
WYTQFQ	Visual Examination	White light with magnifier. Results = No ridge structure.
	Cyanoacrylate Fuming	Glue time = 15 minutes at a glue temperature of 120 degrees Celsius with 80% relative humidity, control tested positive. Results = No Ridge structure
	Dye Stain	Rhodamine 6G (.5g per 1 Liter Methanol) solution, control tested positive, washed then rinsed in tap water and allowed to dry. Results = Ridge structure/no comparison value.
	Alternate Light Source	Crimescope, 505nm (515 with -10 step down) with orange barrier filter. Digitally photographed and enhanced. Results = Ridge structure/1 fingerprint/comparison value.
	Alternate Light Source	Sirchie LabKam, shortwave UV (peak 254nm) with clear barrier filter. digitally photographed and enhanced. Results = Ridge structure/no comparison value.
	Powder Dusting	Black powder, nylon brush. Digitally photographed and enhanced. Lifted. Results = Ridge structure/1 fingerprint/comparison value.
WZBHPB	Visual Examination	Item was examined under white light and magnification
	Cyanoacrylate Fuming	Processed in CyanoSafe recirculation chamber, time set for 12 minutes, 12 drops of liquid cyanoacrylate was added to 3 foil cups, distilled water added to cup heater element, Purge cycle for 10 minutes, door opened and evidence allowed to sit for 60 minutes. Test print positive. Examined under white light and magnification.
	Powder Dusting	Black print powder - A fiberglass brush was sanitized in the UV Spectrolinker for 420 seconds. The brush was used in circular motion to brush on the black powder over the surface and examined under white light and magnification.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Dye Stain	Treated with RAY batch #636 and examined under the Foster and Freeman Crime Lite ML2 with a 460nm-520nm bandwidth filter and orange barrier.
X2GDLY	Visual Examination	Visually examined entire wall switch plate and observed patent print on Section C
	Powder Dusting	Processed entire switch wall plate with Magnetic Powder and developed Latent Print on Section C
X2XH7H	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	room temp, Humidity-80%, set overnight
	Powder Dusting	room temp, processed in fume hood, entire surface
	Rhodamine 6G-fluorescent dye	room temp, processed in fume hood until dry, viewed with crinescope at 515nm
X8MXUP	Powder Dusting	
X9ZPPR	KSI	View item under shortwave UV
	Cyanoacrylate Fuming	Place in fuming chamber for approximately 3-5 minutes
	Powder Dusting	Apply powder to item to enhance ridges
	Dye Stain	Spray RAM on object. View with yellow goggles under 445 wavelength
XCE6EJ	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G Methanol base
	Alternate Light Source	TracER Laser
	Powder Dusting	black magnetic powder
XCEALF	Visual Examination	reflected light
	Cyanoacrylate Fuming	30 min.
	Alternate Light Source	basic yellow
XEGDBG	Visual Examination	Viewed visually under white light
	Cyanoacrylate Fuming	MVC 5000 cabinet 4; 3.9g superglue batch 62514
XG7JVD	Visual Examination	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Glue evaporation time: 10 minutes, 2 g superglue used
	Dye Stain	Basic Yellow 40
XKRG7P	Powder Dusting	
XN8NUP	Powder Dusting - Black Powder	
XPF99C	Visual Examination	White light and forensic light sources. Positive reaction in section C.
	Cyanoacrylate Fuming	1.5 min processing time. Followed by powder dusting. Positive reaction in section C -> Lifting with Mikrosil -> Photography
	Dye Stain	Basic Yellow 40. Positive reaction in section C.
XV9ABQ	Visual Examination	visual exam w/ natural & white light
	Alternate Light Source	CS (515nm) & UV
	Cyanoacrylate Fuming	chamber (80% humidity, 20 mins fume time, temp approx 110C)
	Dye Stain	RAM
	Powder Dusting	Black Magnetic Powder was used
XYR823	Powder Dusting	Black magnetic powder using a mag. brush. 3 minutes processing time.
XYUQCJ	Visual Examination	oblique white light
	Cyanoacrylate Fuming	chamber 3000 with CA Batch #CA005, 6 minutes fume @ 80% humidity 15 drops of glue, 10 minute purge cycle
	Powder Dusting	black magnetic powder
	Dye Stain	Rhodamine 6G dye stain (R6G), spray bottle batch #192
	Alternate Light Source	495 nm with an orange barrier
Y2P6QK	Visual Examination	Ridge detail present not sufficient for photograph
	Cyanoacrylate Fuming	Misoniz/Mystair: 70% humidity, 25 minute fuming; 20 purge. Visual exam. RDI - unable to photo
	Powder Dusting	Magnetic Black Powder. LP of value - Arch. Photo with DCS 1.1 A
	Dye Stain	Ram Batch 3/15/17 tested valid - FBI formula; Crime Lite view - no additional development
Y4EANY	Visual Examination	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	
	Cyanoacrylate Fuming	80% humidity, 120 degrees on hotplate, glue time 10 min.
	Dye Stain	Basic Yellow 40
Y4WBE8	Visual Examination	with white light and magnification
	Cyanoacrylate Fuming	Evidence placed in CyanoSafe. Placed 12-15 drops of cyanoacrylate in 3 CYVAC cups, 12 minute processing time, 10 minute purge cycle, let rest for 60 minutes, test print positive
	Dye Stain	RAY batch #636, examination using Foster and Freeman Crime Lite ML with 460nm-510nm with orange barrier bandwidth filter
	Powder Dusting	Black powder, fiberglass brush used to apply powder
Y9PHTA	Visual Examination	oblique lighting
	Alternate Light Source	Crimescope orange/yellow filter 350-515nm
	Cyanoacrylate Fuming	11 minute processing time
	Dye Stain	Basic Yellow 40 with water rinse/air dry
	Alternate Light Source	Crimescope yellow filter 415nm
YF9TZJ	Visual Examination	Ambient lab temp 70 °
	Photographs/Bench Notes	5 minutes
	Cyanoacrylate Fuming	28 minutes
	Powder Dusting	Graphite black powder/5 minutes
YHE9CV	Visual Examination	Print seen in quadrant "C"
	Powder Dusting	Applied silver-black F/P.
YHZNMR	Alternate Light Source	Checking the evidence using LUMATEC 400 forensic light in all wave spectrum range. 23° of ambient temperature.
	Cyanoacrylate Fuming	vaporization of cyanoacrylate in a cyan urn. 128° celsius-86% humidity during about 9 minutes.
	Alternate Light Source	checking the evidence using all wave spectrum range.
	Powder Dusting	staining of latent print with powder-HIFI Volcano HLP01
	Alternate Light Source	checking the evidence using all wave spectrum range.
YJARG3	Visual Examination	
	Cyanoacrylate Fuming	Humidity cycle- 80% 15 mins, Glue cycle- 80% 16 mins 120°C, Purge cycle- <80% 20 mins

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Powder Dusting	Bichromatic powder and brush
YVMWMD	Alternate Light Source	White light, blue light and green light
	Cyanoacrylate Fuming	80% humidity, 120 degrees Celsius on hot plate, 10 minutes processing time
	Dye Stain	Basic Yellow 40
YWWZXG	Visual Examination	
	Alternate Light Source	White light
	Cyanoacrylate Fuming	20 minutes, 77 degrees F, ~80% humidity
	Powder Dusting	Magnetic Black
Z2NKMH	Visual Examination	
	Cyanoacrylate	positive control conducted exp: 10/13/2017, 10 min fuming cycle @ 70% humidity, 10 min purge cycle
	Black Powder	application of powder w/ "Zephyr" brush, print developed in "C" quadrant.
Z9MZMX	Powder Dusting	Visual, CA Fuming, Magnetic Powder
ZKLNMB	Visual Examination	White and colored light before and after each development process (including crime-scope, crime-lite, DCS5)
	Cyanoacrylate Fuming	lumicyano (0.84g, 118°C, 78%RH, 20min) in a Foster&Freeman MVC-1000 cabinet
	Dye Stain	rhodamine 6G
ZPQNGA	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	fuming time 10 min, plate heat 120 C
	Dye Stain	Basic Yellow 40
ZRK9P3	Cyanoacrylate Fuming	Lot#201610028 11 minutes, 80% humidity, 120 degrees celsius
	Dye Stain	MBD Dye Stain Lot#022217-01
	Powder Dusting	Black Magnetic Powder Lot#102714-01
ZXAQ6Z	Alternate Light Source	Multiwavelength lightsearch, including white light using lasers and polilight
	Cyanoacrylate Fuming	atmospheric AirScience cabinet 18 min

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Dye Stain	Rhodamine 6 G aqueous solution
	Dye Stain	Gentian Violet aqueous solution
ZZG4Q8	Visual Examination	Viewed under white light and magnification
	Cyanoacrylate Fuming	Cyanosafe recirculation chamber at 60% humidity for 20 minutes, 18 drops of glue
	Powder Dusting	Black powder, fiberglass brush
	Dye Stain	RAY (batch 637) Fluorescent dye for one minute, then rinsed and patted dry. 450 nm light, orange filter

<b>Response Summary</b>	<b>Participants: 340</b>
<b>Methods Utilized</b>	

Alternate Light Source	177	Physical Developer	0	<b>**Note:</b> Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	306	Powder Dusting	220	
DFO	0	Visual Examination	291	
Dye Stain	188	1,2-Indanedione	0	
Ninhydrin	1			

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
23YU83	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500
	Cyanoacrylate Fuming	Processing time: 10 min, humidity - 85%.
	Visual Examination	White light, optical instruments.
	Powder Dusting	Magnetic powder, black.
	Visual Examination	White light, optical instruments.
	DFO	Processing time: 10 minutes, temperature: 90°C.
	Alternate Light Source	Polilight PL 500 (505 – 530 nm light), orange barrier filter, optical instruments.
	Ninhydrin	Processing time: 72h, room temperature, dark place.
	Visual Examination	White light, optical instruments.
24BJEL	Powder Dusting	Black Magnetic Powder
26F8N6	Visual Examination	exhibit was visualised using rofin PL500 light source to see if the are any visible prints before applying chemicals.
	ASV investigation	a light dusting of anti-stoke powder was applied using magnetic brush.
	Cyanoacrylate Fuming	exhibit was placed in MVC3000 fuming chamber, using 10 drops of cyanobloom for 150minutes at 120 degree celsius, 80% relative humidity and 20 minutes purge cycle.
	Dye Stain	exhibit was stained with Rhodamine 6G which is water base and dried in evidence drying cabinet.
297BQP	Visual Examination	Ambient Florescent Light and ALS (Various Wave Lengths)
	Cyanoacrylate Fuming	80% humidity for 15 minutes
	Dye Stain	Basic Yellow 40
	Powder Dusting	black powder feather duster applied
2LUD9G	Visual Examination	no ridge structure observed
	Cyanoacrylate Fuming	positive control, 10 minute fuming, 75% humidity, ridge structure observed, not comparison value
	Alternate Light Source	R.U.V.I.S., ridge structure observed, comparison value, photographed
	Powder Dusting	ridge structure observed, comparison value, tape lifted
2TR6D6	Visual Examination	Using white light and magnification
	Cyanoacrylate Fuming	12 minute fuming, 4-5 drops of glue, test print. Let set for one hour. White light and magnification.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Magnetic black powder - Using white light and magnification
	Ninhydrin	Ninhydrin batch #279, air dry, place in humidity chamber for 15 minutes, white light and magnification afterwards.
	Physical Developer (PD)	PD Batch #443, processed by [Name], examined with white light and magnification
2TR6FP	Visual Examination	
	Cyanoacrylate Fuming	
	Visual Examination	
	Powder Dusting	
	Visual Examination	
2WA6XQ	Visual Examination	Used lamp to view item.
	Visual Examination	Used green light of laser to view item.
	Cyanoacrylate Fuming	Used Fish Tank to fume item for 6 min.
	Visual Examination	Used lamp to view item.
	Powder Dusting	Used magnetic black powder to process item.
	Visual Examination	Used lamp to view item.
2XK6UK	Visual Examination	No ridge structure
	Alternate Light Source	LabKam- Ridge structure no comparison value
	Cyanoacrylate Fuming	MVC 5000 - Auto Cycle (control positive), Ridge structure no comparison value
	Alternate Light Source	LabKam- Ridge Structure comparison value
	Powder Dusting	Black - Ridge structure no comparison value
2XPDXE	Cyanoacrylate Fuming	approximately 5-7 minutes in glue chamber with glue on hot plate (setting 4) & cup of hot water
	Dye Stain	MRM-10; viewed with ALS blue-green 460-510nm
	Powder Dusting	applied with fiberglass brush
33QAUJ	Visual Examination	Examined item as is using ambient light, flashlight, UV light, laser, and ALS.
	Cyanoacrylate Ester Fuming	Superglued item in superglue cabinet along with test print for about 10 minutes.
	Dye Stains (2)	1) Ardrox/ UV, 2) Rhodamine 6G/ Laser
	Powder	Dusted entire surface of item with carbon black powder.



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
344WEJ	Powder Dusting	Black Magnetic
36ELTP	Visual Examination	Examined in the white light and daylight.
	Alternate Light Source	Examined at 320-405 nm, 450 nm, 470 nm, 490 nm, 505 nm and 530 nm light.
	Cyanoacrylate Fuming	Processed in the superglue chamber for 15 min., t - 120 °C, RH - 80%.
	Powder Dusting	Magnetic black.
3QHHD6	Visual Examination	Inherent luminescence examination using Foster + Freeman Crime Lite ML with a 460nm-510nm bandwidth filter and orange barrier; white light with magnification; No prints observed.
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber with positive test print; One hour processing before exam. No prints observed.
	Powder Dusting	Black magnetic and regular black powder; Prints were observed on item #2 in the "D" quadrant.
	Ninhydrin	Ninhydrin batch #279; Processing in the Caron chamber. No prints observed.
	Physical Developer (PD)	PD Batch #444; Completed by [Name]; Physical Developer item examined. Prints were observed.
3T49GV	Visual Examination	White light. Could see a print in square D.
	Cyanoacrylate Fuming	Processing time 10 minutes. The print was further enhanced.
	Powder Dusting	To improve the contrast.
3UYPWX	Cyanoacrylate Fuming	Luminescent cyanoacrylate (Lumicyano TM), F&F MVC1000, 1 g Lumicyano, 15 min fuming
3WLBLE	Visual Examination	white light
	Cyanoacrylate Fuming	fuming hood with hot plate - ~15 minutes
	Powder Dusting	Black powder
	Dye Stain	MRM-10 - ALS
3YTN62	Cyanoacrylate Fuming	temp.21 C, humidity 80%, time 15 min
	Powder Dusting	Magnetic Powder Black
3Z7DCK	Black Magnetic Powder	
42YL2F	Visual Exam	ambient light, UV (254 nm)/ RUVIS & UV (365 nm)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming Black Powder	CA-6000 chamber (control: +) @ 20 mins. fuming time/ 75% RH.
43CXXZ	Visual Examination Alternate Light Source Cyanoacrylate Fuming Powder Dusting Powder Dusting	Fumed for 15 minutest at 80% relative humidity Black Magnetic powder Standard black powder
4939C6	Visual Examination Cyanoacrylate Fuming Powder Dusting Ninhydrin Physical Developer (PD)	No prints observed (white light and magnification) CYVAC vacuum chamber, control print developed, print observed in Quad D Black powder fingerprint powder, improved print Quad D Ninhydrin Batch #279, heat and humidity chamber 30 minutes, no improved prints PD Batch #444, improved print observed
4BHZ2C	Visual Examination Cyanoacrylate Fuming Gel lift Powder Dusting Visual Examination Powder Dusting Alternate Light Source Ninhydrin	approx 20 min set time black Fluorescent - Redwop 515nm back of card
4D4TRK	Visual Examination Alternate Light Source Cyanoacrylate Fuming Powder Dusting Indanedione-Zinc Chloride	examined with white light examined with 365 nm and 495 nm light source 15 minutes in fuming chamber at 80% humidity, hot plate heats CA 200-230 degrees F applied non-magnetic black powder applied Ind-ZnCl and placed for 20 minutes in humidity chamber (70 degrees C 65% humidity) and examined with 495 nm light source
4D7CXW	Visual Examination	Visible reflection + fluorescence

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Glue temperature = 117°C / Relative humidity = 78% / Processing time = 40 mn
	1,2-Indanedione	+ Zinc Chloride / pipetting / dry heat press at 165°C for 10 seconds
	Ninhydrin	pipetting / 48h development : in the dark, at room temperature, with a relative humidity of 56%
4FTZCH	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic Black Powder
	Dye Stain	MRM-10
	Physical Developer (PD)	
4FX9PB	Visual Examination	
	Cyanoacrylate Fuming	Lumicyano
	Alternate Light Source	350-575nm
	Dye Stain	Rhodamine 6G
	Alternate Light Source	350-575nm
	Powder Dusting	Black powder
4H3XT7	Visual Examination	
	Cyanoacrylate Fuming	Approximately 10 minutes in the fuming chamber.
	Powder Dusting	Magnetic powder.
4L2CEA	Visual Exam	With and without oblique lighting.
	Alternate Light Source	415-530 nm, orange goggles.
	Cyanoacrylate Fuming	20 minutes.
	Dusting	Black powder.
4TLLFR	Visual Examination	Slightly visible latent on letter "D"
	Krimsite imager	Ultra violet light used to locate latent
	Powder Dusting	Magnetic powder used to process/develop latent
4UY3ZK	Visual Examination	Magnifier with white light, ALS, LASER

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	
	Visual Examination	
	Powder Dusting	Black magnetic powder
	Visual Examination	
	Dye Stain	R6G tested in small area, absorbed so not used on full item
	1,2-Indanedione	Heat applied at 100 degrees C for 20 minutes
	Visual Examination	LASER
	Powder Dusting	Black powder
	Visual Examination	
639T3N	Visual Examination	1) room/oblique light, 2) laser, 3) ALS
	Cyanoacrylate Fuming	Fishtank used, followed by visual exam (room light)
	Powder Dusting	Black magnetic powder, followed by visual exam (room light)
	1,2-Indanedione	Sprayed on, placed in oven at 100 degrees C/20 min, no humidity, followed by visual exam with laser and orange filter
	Ninhydrin	Ninhydrin/HFE with initial visual exam (room light), further processed with steam iron followed by visual exam (room light)
639TZ3	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Air Science SafeFume (#1) recirculation chamber, 20 minutes, 15 drops of CA
	Powder Dusting	Black magnetic powder applied with magnetic brush
	Ninhydrin	Batch #279, processed in Caron chamber for 30 minutes
	Physical Developer (PD)	Batch #444, rinsed with tap water, air dried
66AYF9	Visual Exam	white light (flashlight) with oblique angles
	Alternate Light Source	455-515 nm with orange goggles
	Cyanoacrylate Ester Fuming	20 minutes processing time, room temperature
	Dusting	with black powder
66UD77	Visual	no ridge detail observed @ room temp
	CA Chamber	@ 85% humidity approx 20 min w/frag. Ridge detail observed
	Mag Powder	@ room temp
67KNUE	Visual Examination	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	approx 30 minutes, humidity 75%
	Powder Dusting	Black mag
68WMPM	Cyanoacrylate Fuming	40 min cycle
	Powder Dusting	Ultra blue magnetic powder
6D7TD7	Oblique magnified lighting	Could not detect any FRD with the method unlike item #1
	CA	humidity controlled chamber - 13 mins, polymerization occurred but still almost no contrast
	Black powder	powder applied w/camel hair brush, created contrast with visible impression w/detail
6KLEH4	Visual Examination	
	Alternate Light Source	Inherent Luminescence-multiple wavelengths
	Powder Dusting	Magnetic Powder-Black
6LDH6J	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature Controlled and timing
	Powder Dusting	Magnetic
	DFO	
	Ninhydrin	
	Dye Stain	RAM
6MRW2	Visual Examination	Examined under white light and magnification. No prints observed.
	Cyanoacrylate Fuming	Item processed in the CyanoSafe recirculation chamber. Control print positive. No prints observed.
	Powder Dusting	Black magnetic powder was applied to item. Examined under white light and magnification. Print observed in Quadrant D.
	Ninhydrin	Item treated with Ninhydrin batch #279. Processed in the Caron chamber at 60 degrees C and 60% humidity for approximately 30 minutes. Print observed in Quadrant D.
	Physical Developer (PD)	PD batch #443. PD processing completed by [Name]. Item examined with a print observed in Quadrant D.
6UABFY	Visual Examination	white light
	Alternate Light Source	Fluorescence examination using Polylight pl 400 with emission from 350 to 600 nm with viewing filters

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Processing time approximately 1 hour, 80 % RH, heated to 100 C degrees
	Powder Dusting	Black Powder (Black Ruby) - in white and UV light with viewing filter
6UVN4C	Cyanoacrylate Ester	processed by cyanoacrylate ester for over 1 hour, allowed to cure then dye stain with R6G and viewed using a forensic laser
6YPQ6Q	Cyanoacrylate Fuming	6/6/17 9:30-10:15. Lab temp 20.5, Inst: MVC3000, RH79
	Powder Dusting	6/6/17 10:30
6ZW3MR	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	R6G
	Dye Stain	ARDROX
	Powder Dusting	BLACK & MAGNA
77KXAG	Powder Dusting	
79L9YP	Visual Examination	Polilight PL500
	Cyanoacrylate Fuming	humidity 80 %, 20 min
	Powder Dusting	Magnetic Black
	Dye Stain	Ardrox
7A2MB7	Visual Examination	Crime-Lite 2, white light (400-700 nm); TracER LASER (532 nm)
	Cyanoacrylate Fuming	Foster & Freeman MCV5000, ~4 g Cyanobloom glue, glue heater 120 C, humidity cycle 10 - 15 min. to reach 80%, glue cycle 15 min., purge cycle 40 min., total run time 70 min.
	Powder Dusting	black magnetic fingerprint powder
	DFO	apply DFO and allow to dry completely (repeat), Sanyo Gallankamp oven 100 C for 20 min., examine with TracER LASER
	Ninhydrin	apply NIN and allow to dry completely (repeat), Sanyo Gallankamp oven 70 C (wet bulb) & 80 C (dry bulb) for 6 min., examine visually and/or with Crime-Lite 2
7A38DM	Visual Examination	Examined with natural light
	Cyanoacrylate Fuming	MVC-3000, 120°C, 80% RH, Fuming time: 10 minutes.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Alternate Light Source	UV-light
7CLLGN	Visual Examination	Item 2 was examined visually with a flashlight.
	RUVIS (Reflected Ultraviolet Imaging System)	Item 2 was then observed with RUVIS devices and 254nm UV light.
7F9UAX	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Alternate Light Source	
	Powder Dusting	
	1,2-Indanedione	
	Alternate Light Source	
	Dye Stain	
	Alternate Light Source	
	Physical Developer (PD)	
7NJDA9	Visual Examination	Oblique lighting with LED flashlight.
	Powder Dusting	Black magnetic powder.
7QRBXX	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C, 75% Relative Humidity
	Ninhydrin	80°C, 65% Relative Humidity, 3 minutes
	Dye Stain	Ardrox, 350 nm, Yellow Filter
7WVGBF	Cyanoacrylate Fuming	24 hours + Swedish Soot Mix Powder in section A
	Cyanoacrylate Fuming	24 hours + Bristol Black Powder in section B
	Cyanoacrylate Fuming	24 hours + Magnetic Blitz-Red Powder in section C
	Cyanoacrylate Fuming	24 hours + Magnetic Jet Black in section D
7XRM28	Cyanoacrylate Fuming	
	Magna Brush	Magnetic brush and powder

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
7ZDGTf	Visual	Flashlight, UV lamp, LASER, ALS
	Cyanoacrylate Ester Fuming	~15 min
	Black Powder	
	Dye Stains	Ardrox (MEK) - UV, Rhodamine (Aqueous) - LASER
	DFO	Oven (@ 100°C)
	Ninhydrin	Humidity chamber (70°C & 70% humidity)
	ZnCl <sub>2</sub>	Humidity chamber (70°C & 70% humidity)
	Physical Developer	
83HLP2	Visual Examination	
	Cyanoacrylate Fuming	10 min, 80% humidity
	Powder Dusting	
83ZFL6	Visual Examination	White light
	Alternate Light Source	Blue and green light
	Cyanoacrylate Fuming	120 degrees, 80% RH, 7 minutes glue time
	Powder Dusting	Black magnetic powder
84N79V	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C, 75% Relative Humidity
	Dye Stain	R.A.M., 445 nm, Yellow Filter
8C9ZWD	Visual Examination	No ridge structure observed
	Cyanoacrylate Fuming	One hour, 78% humidity, positive control - ridge structure observed but not of comparison value
	Alternate Light Source	LabKam UV light - comparison value ridge structure, photographed print
	Powder Dusting	Black powder used - comparison value ridge structure, photographed print
8CK2BZ	Powder Dusting	
8F32T2	Visual Examination	Basic lighting (Results: ridge structure; comparison value)
	Alternate Light Source	Reflected Ultraviolet Imaging System (LabKam) (Results: ridge structure; comparison value)



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	80% humidity; 10 minutes with superglue heated to 120 degrees celcius (Results: ridge structure; comparison value)
	Alternate Light Source	Reflected Ultraviolet Imaging System (LabKam) (Results: ridge structure; comparison value)
	Powder Dusting	Black powder (Results: ridge structure; comparison value)
8J46L9	Visual Examination	same as item 1
	Alternate Light Source	same as item 1
	Cyanoacrylate Fuming	same as item 1
	Powder Dusting	same as item 1
	1,2-Indanedione	sprayed, set time overnight at room temp. then viewed with crimescope at 515nm
	Ninhydrin	sprayed, allowed to dry, placed in humid microwave for approx. 30 minutes then sat for 2 days and viewed with ambient lighting
	Rhodamine 6G	same as item 1
8KE3TY	Visual Examination	white light with magnification. No print(s) observed.
	Cyanoacrylate Fuming	CyanoSafe processing time 12 minutes, then one hour dry time. Viewed with white light with magnification. No print(s) observed.
	Powder Dusting	Black magnetic powder observed with white light with magnification. Print(s) observed.
	Ninhydrin	Ninhydrin processing time approx. 5 seconds, dried for approx. 30 minutes in fume hood. Next Caren latent print development chamber for 21 minutes. Viewed under white light with magnification. No print(s) observed.
	Physical Developer (PD)	PD Batch #443. Completed by [Name]. Examination revealed no print(s)
8NE6WE	Visual Examination (000 A 515 nm)	
	Superglue	Temperature - 129 C, Humidity - 81.4%
	Basic Yellow	
8R2THE	Visual Examination	Ambient light, white light, oblique light. No ridge structure.
	Alternate Light Source	LabKam. Ridge structure - Collection value. Image captured with LabKam.
	Cyanoacrylate Fuming	Auto cycle. Glue time: 15 minutes. Glue temperature: 120 degrees Celsius. Relative humidity: 80%. Control sample used - control results positive. Ridge structure - No collection value.
	Alternate Light Source	LabKam. Ridge structure - Collection value. Image captured with LabKam.
	Powder Dusting	Black Magnetic. Ridge structure - Collection value.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	1,2-Indanedione	Control tested positive prior to processing. Dip application; dried in fume hood. Dry heat press at 160 degrees Celsius for 10 seconds. No ridge structure.
	Alternate Light Source	Crimescope - 495 nanometers and 515 nanometers with orange goggles. No ridge structure.
	Ninhydrin	Control tested positive prior to processing. Spray application; dried in fume hood. Caron heat and humidity chamber at 80 degrees Celsius and 65% Relative Humidity for 3 minutes (2 minutes after no further development was observed in a second control sample). Reviewed after 24 hours for further development. No ridge structure.
8U4TE6	Visual	Oblique light, examined for indented writing
	Alternate Light Source	Crimescope 455-515 nm
	CAE	Cyanosafe fumed for 20 min
	Dusting	Black powder with black powder brush
8WUYUV	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm
	Cyanoacrylate Fuming	VIS, RUVIS
	Powder Dusting	Magnetic
	1,2-Indanedione	532nm
	Dye Stain	RAM - 365nm, 450nm, 532nm
	Physical Developer (PD)	
92WEWP	Visual Examination	Fluorescent light; LASER 532 nm; no visual ridge detail
	Cyanoacrylate Fuming	Test prints positive; 20 minutes fuming at 60% RH
	Powder Dusting	Black magnetic powder; right detail detected
947EXP	Visual Examination	Overhead lights, flashlight
	Cyanoacrylate Fuming	15 minute process time
	Powder Dusting	black powder
96HAL3	Visual Examination	
	Cyanoacrylate Fuming	Atmospheric, 9 minutes exposure, liquid CAE
	Powder Dusting	Black magnetic (applied to semi-glossy side)
	DFO	Post treatment: 100 degrees C for 20 min

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Alternate Light Source	515nm, orange barrier
	Ninhydrin	Post-treatment: 80 degrees C for 20 minutes
97VLHL	Visual Examination	
	Powder Dusting	black magnetic powder, dusted surface using wand
988F2T	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	1,2-Indanedione	
	Physical Developer (PD)	
	Dye Stain	RAM
9CZMFV	Visual Examination	different light sources and filters
	Cyanoacrylate Fuming	tem. 25 C, humidity 80%, time 20 min, (Chamber Safefume CA 30S), natural and white light
	Powder Dusting	Black Ruby, magnetic applicator, natural- UV- 505 -530 light, suitable filters
	DFO	spray, tem. 90-95 C, time 10 min, (Chamber Safefume CA 30S), 505-530 nm light, orange filter
	Ninhydrin	tem. 30 C, humidity 65%, time 2 h, (Chamber Nincha S31), natural and white light
9KQ8J9	Cyanoacrylate Fuming	12 minutes in fuming chamber
	Powder Dusting	black powder
9Q2ATH	Visual Examination	White Light
	Visual Examination	Laser (Green 532 nm & Blue 450 nm)
	Cyanoacrylate Fuming	Misonix CA3000 Fuming Chamber (11 min.)
	Visual Examination	White Light
	Powder Dusting	Black Magnetic Powder
	Visual Examination	White Light
	Dye Stain	Rhodamine 6G
	Visual Examination	Laser (Green 532 nm)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
9QGBX7	Visual Examination	overall, ambient light, flashlight, ALS, 350nm-650nm, yellow, orange, red filters, white light
	Lumicyano	35 minute fume
	Powder Dusting	RedWop Fluor. powder, glossy side, ALS, 455nm-515nm, orange filter
	Ninhydrin	humidity chamber, 80 degrees celsius, 65% humidity, 20 minutes
	Physical Developer (PD)	20 minute processing time
	Powder Dusting	black powder, glossy side
9TM2YT	Visual Examination	Processing Time: 1 min
	Cyanoacrylate Fuming	Processing Time: 1 hr 20 mins; Temperature: 28°C; Auto humidity cycle; Reagent: Arrowhead Forensics liquid cyanoacrylate
	Powder Dusting	Processing Time: 3 Mins; Bi-Chromatic powder
9YTGP3	Visual Examination	White, Blue and Green light. Result: Fregments of a weak fingerprint was detected in section D, with white light in a sharp angle. The fingerprint was clearer in blue and green light.
	Cyanoacrylate Fuming	1g of Cyanoacrylate glue developed for 7min. Cupboard settings: 140°C and 80% RH. Result: the visible print was clearly enhanced by CNA development but not clear enough to determine the pattern.
	Powder Dusting	Magnetic Jet Black. Result: The print was enhanced but still weak ridges was observed. Referent control – prints were deposited on a similar piece of semi porous paper, both with a Latent Print Stamp (Sebaceous Oil Secretions) and human fingerprints, days before development. Treated with CNA \ Magna Jet \ BY40. Development of this test gave prints of good quality.
	Dye Stain	BY40. Before the front was treated with BY40, the backside and the edges of the postcard were covered with lifting tape to avoid the nonporous background to stained by the BY40. Worksolution Basic Yellow 40 (100%) was applied, quickly rinsed off in water and dried with compressed air. Result: The print in section D was enhanced, visible in Blue light. Both first level details and pattern could be determined.
9ZBGVD	Visual Examination	with oblique lighting. Results: No ridge structure present.
	Cyanoacrylate Fuming	Glue time 15 minutes, Glue temperature 120 degrees Celsius, Relative Humidity 80%. Control test positive. Results: Ridge structure present - not suitable for comparison.
	Alternate Light Source	Sirchie Labkam-Reflected Ultraviolet Imaging System. Results: Fingerprint present - comparison value (photographed).
	Powder Dusting	Magnetic Black. Results: Fingerprint present - comparison value (no lifts collected; previous photo sufficient).

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Ninhydrin	Due to somewhat porous glossy surface - Item placed in humidity chamber after processing with ninhydrin. Exposed to 80 degrees Celsius, humidity 65%, for 20 minutes. Control test Positive. Results: No ridge structure present (ninhydrin did not develop fingerprint visualized at previous stages).
A3Q9HZ	Visual Examination	Using white light
	Cyanoacrylate Fuming	Placed in a fuming chamber for approximately 8 minutes
	Powder Dusting	Black magnetic powder was used
	1,2-Indanedione	Squirt bottle used for application and then into the oven for approximately 1.25 hours
A4K99J	Visual	cursory visual exam for obvious impressions, no print
	Alternate Light Source	UV, 450nm, orange filter, no print
	Cyanoacrylate Fuming	placed in chamber, fumed 10 minutes, control used. Possible friction ridges noted. CA used due to glossy coating.
	Powder (Black)	Dusted lightly, friction ridges noted, photographed w/scale
ABKPJP	Visual Examination	
	Alternate Light Source	80% humidity, room temp., 25 min run time, set time next business day
	Cyanoacrylate Fuming	80% humidity, room temp., 25 min run time, set time next business day
	Powder Dusting	bichromatic powder
	1,2-Indanedione	processed at room temp., set time-next business day
	Ninhydrin	processed at room temp., set time-next business day
	Rhodamine 6G	set time-until dry, processed at room temp.
AFEDNB	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber, 12 minutes
	Powder Dusting	Black magnetic powder and black powder
	Ninhydrin	Ninhydrin batch #279; processing/development in Caron chamber, 1 hour at 60 degrees C and 60% humidity
	Physical Developer (PD)	PD batch #443 by [Name], Examination observed prints.
AQANRW	Cyanoacrylate Fuming	MVC3000 setting at 120 degree celsius, 75% relative humidity for 30 minutes.
	Dye Stain	Orange Fluorescent Powder: Powder downflow using fibre brush.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
AT2U7G	Visual Examination	
	Powder Dusting	Black Magnetic Powder
AYB3J6	Visual Examination	Oblique lighting with a flashlight
	Cyanoacrylate Fuming	Foster & Freeman CA Chamber Automated cycle: Auto humidity 15 minutes, Temp 21 C, Humidity 80%; Auto Glue 15 minutes, Temp 120 C, Humidity 80%; Full Purge 20 minutes, Temp 90 C - 120 C, Humidity 57% - 80%
	Visual Examination	Oblique lighting with a flashlight
	Dye Stain	Rhodamine 6G dye stain, item saturated with dye stain and allowed to dry ten minutes in hood
	Alternate Light Source	Coherent Tracer Laser
AZ6PEG	Visual	
	Cyanoacrylate Fuming	12 min. at 80% humidity followed by 5 min. purge cycle
	MBD	
	Alternate Light Source	
AZJZ69	Visual Examination	artificial oblique lighting
	Cyanoacrylate Fuming	Missonix Cabinet 70% humidity, fume time 15 minutes, purge time 20 minutes
	Dye Stain	Rhodamine 6G; Pet-Ether based
	Alternate Light Source	Foster + Freeman Crimelite 480nm orange filter
	Powder Dusting	Black powder
B73P3N	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Black Ruby
B7Q4E8	Visual Examination	item visually inspected prior to processing
	Cyanoacrylate (Fuming Chamber)	positive control. No lot #, Exp 10/13/17, 70% humidity purge time 10 min, fume 10 min fan 10 sec on 10 sec off
	Magnetic Powder	magnetic powder applied w/magnetic brush/wand

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
BAJAN4	Cyanoacrylate Fuming	ITEM 2 PLACED INTO A MASON VACTRON MVC 5000 SUPERGLUE CABINET ALONGSIDE CONTROL SAMPLE. THE RELATIVE HUMIDTY WAS RAISED TO 81%, 3.8g OF CYANOACRYLATE ADHESIVE WAS HEATED TO 120C FOR A PERIOD OF 15 MINUTES TO POLYMERISE TO THE CYANOACRYLATE. DEVELOPMENT OF ANY FINGERMARKS ON THE CONTROL SAMPLE WAS OBSERVED. THE CABINET WAS VENTED AND ITEM 2 AND CONTROL SAMPLE WERE REMOVED USING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE).
	Powder Dusting	ITEM 2 ASSESSED OPTICALLY USING A CRIMELITE 2 WHITE LIGHT AND A FINGERMARK NOTED, BUT DUE TO THE CYANOACRYLATE AND SUBSTRATE TYPE BEING THE SAME COLOUR IT WAS DIFFICULT TO OBTAIN A GOOD CONTRAST SO A BLACK MAGNETA GRANULAR POWDER WAS EVENLY APPLIED USING A MAGNETIC POWDER WAND TO IMPROVE CONTRAST FOR ASSESSMENT AND PHOTOGRAPHY.
	Ninhydrin	ITEM 2 AND A CONTROL SAMPLE WERE DRAWN QUICKLY THROUGH A PROCESSING TROUGH CONTAINING NINHYDRIN WORKING SOLUTION. ITEM 2 AND THE CONTROL SAMPLE WERE PLACED ONTO A FLAT TRAY NOT OVERLAPPING AND ALLOWED TO DRY. THEY WERE THEN PUT INTO A WEISS GALLENKAMP NINHYDRIN DEVELOPMENT OVEN AT A RELATIVE HUMIDITY OF 62% WITH A TEMPERATURE OF 80C FOR 6 MINUTES. AFTER REMOVAL FROM THE PROCESSING OVEN AND COOLING THE ITEMS WERE ASSESSED VISUALLY USING A CRIMELITE 2 WHITE LIGHT. THE CONTROL SAMPLE WAS POSITIVE.
BCPMBW	Superglue Fuming Process	Using MVC3000 machine with 10 drops (1.2g) cyanobloom at 120 degree celsius for 10 minutes, 80% relative humidity for 15 minutes and 20 minutes purge cycle to complete the superglue fuming process. visual examination performed using a Rofin PL500 white light with clear filters.
	Dye Stain	Rhodamine 6G water base was the dye stain of choice and the exhibits were rinsed with water thereafter put into the airdryer to dry. visual examination done using a Rofin PL500 set at 505 nm with orange filters used.
	DFO	the exhibit was immersed in the DFO/HFE base solution for 5 minutes and thereafter put into the nincha s31 machine for 20 minutes at 100 degree celsius. visual examination performed using a Rofin PL500 set at 450 nm with orange filters used.
	Ninhydrin	the exhibit was immersed in the nin/HFE base solution for 5 minutes and thereafter put into the nincha S31 machine for 20 minutes at 80 degree celsius and 65% relative humidity. visual examination performed using a Rofin PL500 set for white light with clear filters.
BD2A76	Cyanoacrylate Fuming	ambient temperature, pressure ~10 minutes
	Dye Stain	MRM-10 with PET ether base

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
BGNYGA	Visual Examination	Ridge structure observed, no value
	Cyanoacrylate Fuming	Positive, 1 hour, 78% humidity, ridge structure observed with no value
	Alternate Light Source	Labkam UV light, comparison value ridge structure, photographed
	Powder Dusting	Black powder, comparison value ridge structure, photographed print, then tape lifted
BL2KMV	Visual Examination	Ambient/conventional, blue light with yellow filter, green light with green filter
	Cyanoacrylate Fuming	Humidity 80%, humidity cycle: 4 minutes, glue cycle: 8 minutes 50 seconds, purge cycle: 10 minutes
	DFO	100 degrees Celsius for 20 minutes
	Ninhydrin	80 degrees Celsius, 65% humidity for 2 minutes
	Physical Developer (PD)	10 minute pre-wash in distilled water, 5 minutes in Maleic Acid, rinse in distilled water, physical developer for 15 minutes, rinse in distilled water
BLHYQY	Visual Examination	
	Cyanoacrylate Fuming	SafeFume Tank at 72 F at 75% humidity for 26 minutes
	Powder Dusting	Dual Use Powder
BPX7EX	Visual Examination	Took photos of patent print
	Cyanoacrylate Fuming	15 mins
	Powder Dusting	5 mins- used magnetic powder and regular powder
BR8EJC	Visual Examination	Ridge structure of no collection value was observed
	Alternate Light Source	LabKam was utilized; ridge structure of no collection value was observed
	Cyanoacrylate Fuming	Positive control; Chamber set to run for 10 minutes at 120 degrees Celsius; ridge structure of no collection value was observed
	Alternate Light Source	LabKam was utilized; ridge structure of collection value was observed; photographs were obtained.
	Powder Dusting	Small amount of magnetic powder was used, but did not adhere to the ridge structure.
	Dye Stain	Positive control; Rhodamine 6G was utilized
	Alternate Light Source	Polilight was utilized at 450nm; ridge structure of collection value was observed; photographs were obtained
	Powder Dusting	Black powder was utilized; ridge structure of no collection value was observed



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
BR9DF7	Visual Examination	
	Cyanoacrylate Fuming	Under vacuum, 25 PSI, 20 minutes
	Powder Dusting	Traditional black powder
	Dye Stain	R.A.M.
	Alternate Light Source	Viewed after dye stain at 490, 505 and 530nm with orange goggles
	Powder Suspension Solution	Applied onto surface for 10 seconds and then rinsed
BTFQ2D	Visual	light smudge apparent in section D = not suitable for preservation/comparison
	Inherent Luminescence	orange filter w/laser @ 532nm = no additional detail observed
	Cyanoacrylate Ester	vacuum chamber (A) for approximately 55 minutes = no additional detail observed
	Magnetic Powder	(1) latent developed in section D
BTV2PK	Visual Examination	Observed a possible patent print in section D.
	Powder Dusting	Processed entire postcard using magnetic powder. Developed print ridge detail in section D.
BUDNN3	Superglue	Suspended item inside chamber, place nickle sized amount of superglue in small aluminum tray, place on hot plate, small jar of warm water temp 160° placed inside chamber close chamber process time 2 1/2 min. Vent 30 mins.
	Black Powder	Enhanced with black powder.
BXD28L	Cyanoacrylate Fuming	12 MINUTES @ 80% HUMIDITY
	Powder Dusting	Magnetic Powder: Brush/wand mag powder over post card lightly exposing latent print in block "D"
BYKENM	Visual Examination	Black Latent Fingerprint Powder
	Cyanoacrylate Fuming	
	Powder Dusting	
BZTNJ7	Cyanoacrylate Fuming	12 minutes
	Powder Dusting	
C33WNJ	Visual Examination	
	Cyanoacrylate Fuming	1.3 gram, 2.5 minutes, rh 80%

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Magnetic powder, Jet Black
C3KVRA	Visual Examination	Ridge Structure No Comparison Value
	Alternate Light Source	(LabKam) - Ridge Structure Comparison Value
	Cyanoacrylate Fuming	Ridge Structure No Comparison Value; Positive Control, Fumed for 15 minutes at at glue temperature of 120 degrees Celsius and 80% Relative Humidity
	Alternate Light Source	(LabKam) - Ridge Structure Comparison Value
	Powder Dusting	(Black Powder) - Ridge Structure Comparison Value
C8DZHR	Visual Examination	White light
	Cyanoacrylate Fuming	CYVAC 50 minutes
	Powder Dusting	Black and grey powder
	Ninhydrin	Ninhydrin, Caron chamber 30 minutes
	Physical Developer (PD)	20 minutes
C8VXPX	Visual Examination	A possible but not clear fingerprint was detected in section D using the white light with an angle. Several wave length were used.
	Cyanoacrylate Fuming	2 g, humidity 80%, 10 min processing time,
	Visual Examination	Clear fingerprint in section D, several details, in white light
	Powder Dusting	Magnetic Jet Black, even clearer fingerprint in sektion D
CJRWKB	Powder Dusting	Black Magnetic Powder
CM9LLY	Cyanoacrylate Fume, Vacuum Chamber	approx. 20 min
	Magnetic Black Powder	approx. 1 min
CMA2BT	Visual Examination	In daylight and flashlight fingerprint has been disclosed in section - D. In a whole spectrum of Polilight PL 500 (UV, 415, 450, 470, 480, 505, 530, 555, 620, 650) none fingerprint
	Cyanoacrylate Fuming	Improved fingerprint quality has been achieved
	Powder Black Emerald	
CNLYMP	Visual	
	Cyanoacrylate Fuming	~15 minutes
	Black Powder	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
CPUBZK	Visual Examination	Visible mark in square D
	Powder Dusting	Black magnetic powder - visible mark.
	Cyanoacrylate Fuming	80% humidity, 120 degrees on hotplate, processtime 10 min
	Dye Stain	Basic Yellow 40.
CUQV9B	Powder Dusting	82 degress-processed right away
CV3GXC	Visual	
	Alternate Light Source	Viewed at 365nm and 495nm
	Cyanoacrylate Fuming	Fuming time approximately 15 minutes at approximately 80% humidity
	Powder Dusting	Black powder and black magnetic powder
	1,2-Indanedione-ZnCl	Approximately 70 C, 65% humidity for approximately 30 minutes. Viewed at 495 nm.
CWWKD6	Krimesite Imager (KSI)	Room temp., UV light (254 nm), scan entire surface of item, utilizes RUVIS (Reflective UltraViolet Imaging System) technology
	Cyanoacrylate Fuming	Heat superglue on hot plate in a sealed chamber. Expose item to fumes for approximately 5 minutes. Vent. Repeat KSI.
	Alternate Light Source	Spray item with fluorescent dye (Rhodamine 6G). Allow to dry and view under ALS at appropriate wavelength with filter.
	Powder Dusting	Apply fine carbon based powder to item with brush and attempt to lift with clear tape.
	Ninhydrin	Apply liquid ninhydrin to item, apply heat and humidity with steam from iron
CZDP4M	Visual Examination	White light, UV light, Blue light and Green light
	Cyanoacrylate Fuming	6 min+ 3 min+ 4 min processing time. Glue 1.4 gram+ 1.3 gram+ 1.2 gram
	Powder Dusting	Charcoal and Magna Jet Black.
	Dye Stain	Basic Yellow 40, 99.5% EtOH based working solution.
	Black Mikrosil (casting mass)	Lifting the fingerprint
D3UB9F	Cyanoacrylate Fuming	Vacuum chamber at 37 Degree C for ~ 1 Hr (+ test)
	Full Spectrum Imaging System (FSIS)	Viewed using UV Light
D66AQ3	Visual Examination	
	Cyanoacrylate Fuming	15 minute fume time, 15 minute purge time

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Visual Examination	
	Powder Dusting	black powder
	Visual Examination	
D66DYK	Visual Examination	Forensic light source
	Cyanoacrylate Fuming	120 degrees C, 80% RH, 4 minutes processing time, 2 grams Cyanoacrylate glue. Basic Yellow 40 after 24 hours. The fingerprint was observed with a light source.
D9MDGL	Visual Examination	Item was photographed at Room temp, ambient lighting, No latent visible.
	Alternate Light Source	Room temp, viewed at all wavelengths with HandScope Xenon (SPEX Forensics). Latent Visible. (no ridge detail observed)
	Cyanoacrylate Fuming	Processed the item with 0.8 g of superglue in the superglue fuming chamber (120 °C, 80 % RH) for 20 minutes. Test print positive
	Visual Examination	Fingerprint in section D detected. Fingerprint was photographed with white light (ridge detail observed)
	Powder Dusting	Black magnetic powder. Fingerprint was photographed
DBUPGV	Visual Examination	white light with magnification
	Cyanoacrylate Fuming	CYVAC vacuum chamber, control print developed
	Powder Dusting	Black magnetic powder, white light and magnification
	Ninhydrin	Ninhydrin batch #279, Caron chamber, white light and magnification; print observed and scanned on Item 002
	Physical Developer (PD)	PD Batch #444
	Dye Stain	Ardrox batch #91
DGH8XR	Visual Examination	Positive w/ambient light
	Cyanoacrylate Fuming	Improved w/ambient light, 80%RH(6":43sec), fume time 15" @120C
	Powder Dusting	Not Improved w/ambient light
	DFO	Improved w/green light (Tracer) Caron - 6105 100C (20 minutes)
	Ninhydrin	Improved w/ambient light, Caron - 6105, 80C w/65%RH (2 minutes)
	Physical Developer (PD)	Not Improved w/ambient light
DGJ8V8	Black Magnetic Powder	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
DHREXZ	Visual Examination	visually examined the postcard
	Cyanoacrylate Fuming	7 minutes in fuming chamber
	Powder Dusting	magnetic powder and brush to develop print
DQ6CKX	Visual Examination	In the initial visual examination was something visible in section D that could be a fingerprint.
	Cyanoacrylate Fuming	2 g glue in 4 minutes, teststrip
	Visual Examination	still something visible in section D not a securable print
	Powder Dusting	Fingerprint powder magnetic jet black. A partial print became visible in section D. The same that earlier were detected as something that could be a print.
DVB92C	Visual Examination	
	Powder Dusting	Black Magnetic Powder
DX6UWP	Cyanoacrylate Fuming	MVC-1000 15 drops super glue, auto humidify RH-80, 10 min. Fuming 10 mins at 120°C, full purge - positive on test print
	Black Powder	Dusted surface of submitted item with latent print developed in A quadrant.
E4P8FN	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm
	Cyanoacrylate Fuming	VIS and RUVIS
	Powder Dusting	Magnetic powder
	1,2-Indanedione	VIS and 532nm
	Dye Stain	RAM with 365nm, 450nm, 532nm
	Physical Developer (PD)	
E7EDZK	Visual Examination	Viewed the item with specialized lighting, 2 minutes
	Cyanoacrylate Fuming	The Cyanosafe (super glue chamber) was used for fuming, 15 minutes
	Powder Dusting	Magnetic powder was applied to the surface of the item
EDB9Z6	Cyanoacrylate Fuming	Purge time set at 10:00 mins, maximum fume cycle time set at 10:00 mins, Cyanoacrylate - exp. 10/13/17, aluminum dish, positive control, start time: 16:32, end time: 16:53, cyanoacrylate fuming chamber - target humidity value set at 70%

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Processing	Magnetic powder, black powder, magnetic wand, fingerprint brush, start time: 1656, end time: 1724, overall time frame includes powder processing of both Item 1 and Item 2
	Ninhydrin	Ninhydrin - exp: 05/09/18, processed at 1755, positive control, humidity chamber - cleaned before and after with 70% isopropyl alcohol, temperature control set to 32.2 degrees Celsius, humidity control set to 90.0%, time placed into humidity chamber: 1757, time removed from humidity chamber: 1842
EKBTWT	Cyanoacrylate Fuming	cyanoacrylate fuming chamber MVC3000: 0.52 grams of cyanobloom, 20 minutes, 120 degree celsius, 70% relative humidity and 20 minutes purge cycle.
	black powder	black powder, with a squirrel brush.
	DFO	DFO (Nincha): DFO/HFE, 100 degree celsius, 0% relative humidity, 20 minutes.
	Ninhydrin	Ninhydrin (Nincha): ninhydrin methanol, 80 degree celsius, 65% relative humidity, 20 minutes.
EN8J2K	Visual Examination	
	Cyanoacrylate Fuming	10 minutes, 1 gram glue, 120 degrees C, 80%RH
	Powder Dusting	BVDA Swedish soot mix black B-422000
ENBYJQ	Visual Examination	Observed under ambient light
	Cyanoacrylate Fuming	Fumed for 6 minutes, chamber was preset for humidity at 80%. Purge cycle for 10 minutes.
	Dye Stain	Applied dye (basic yellow) and rinsed/removed excess with tap water.
ERVN8B	Visual Examination	White Light
	Cyanoacrylate Fuming	9 min. fuming 12 min purge
	Alternate Light Source	415-495 nm
	Powder Dusting	Magnetic Powder
	Visual Examination	White Light
	1,2-Indanedione	Left sitting under venthood 6 hrs to develop
	Laser	Tracer Laser (532 nm)
	Ninhydrin	Items repackaged and left overnight to develop
	Visual Examination	White Light
	Dye Stain	R6G water allowed to dry for 4 hrs.
	Laser	Tracer Laser (532 nm)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
EUFZB	Visual Examination	
	Alternate Light Source	UV (365 nm), 495 nm lights
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic Black Powder
	1,2-Indanedione-Zinc Chloride	Viewed with 495 nm light
EXFX78	Visual	Oblique light, UV, LASER
	Cyanoacrylate Ester Fuming	15 min
	Ardrox UV	spray, dry
	Rhodamine/ LASER ALS	spray, dry. Three digital photographs
F7T789	Visual Examination	
	Alternate Light Source	365nm, 495 nm
	Cyanoacrylate Fuming	15 minute fuming time, 80% relative humidity
	Powder Dusting	Black magnetic followed by black powder
	Ninhydrin	70 degrees celcius, 65% relative humidity for a minimum of 20 minutes
F9HTN3	Cyanoacrylate Fuming	item placed in Cyanoacrylate fuming chamber with positive control. Chamber set for fuming time of 10 mins and purging time of 10 mins. Control yielded appropriate reaction.
	Bichromatic Magnetic Powder	item lightly dusted with bichromatic magnetic powder until print was visualized
FD8CJ7	Visual	
	Superglue	~15 min
	Ardrox	
	Rodamine	
	Powder	
	DFO	DFO - 100°C for ~20 min.
	Nin	Nin - 70°C/ 70% humidity ~5 min
	ZC	ZC - 70°C/ 70% humidity ~5 min
PD	Maleic Acid prewash ~10 min. PD ~20 min	
FG9AER	Visual Examination	High intensity light, reflected light, ambient light, magnifier

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Cyanosafe 20 minutes
	Powder Dusting	Black magnetic powder and magna brush - Print D
	Ninhydrin	Batch 280, dipped in Ninhydrin and 45 minutes in caron chamber
	Physical Developer (PD)	Batch 444; 10 minutes each step: Maleic acid, PD, and rinse
FJEJL4	Visual Examination	
	Cyanoacrylate Fuming	.78g CA, 80% RH approximately 10 minutes, hotplate temperature 350F, fume time 10 minutes, purge 5 minutes
	1,2-Indanedione	HFE-7100 formula. Heat press 100C for approximately 1 minute
	Alternate Light Source	Tracer Laser - 532nm
	Powder Dusting	Black magnetic powder
	Dye Stain	Rhodamine 6G - methanol formula
	Alternate Light Source	Tracer Laser - 532nm
	Powder Dusting	Black magnetic powder - used a different magnetic wand
FLK494	Visual Examination	Natural light and ALS
	Cyanoacrylate Fuming	80% humidity, 351°F, 10 minute fuming, 5 minute purge
	Powder Dusting	Red Fluorescent Powser
	Alternate Light Source	ALS and Laser
FM9QJQ	Cyanoacrylate Fuming	8 min
	Visual Examination	light source crime scope
	Ninhydrin	
FXHZGW	Visual Examination	White light
	Cyanoacrylate Fuming	15 min.
	Powder Dusting	Black magnetic
	DFO	20 min, 100 Celcius,
	Ninhydrin	15 min, 80 Celcius, 70 humidity
	Alternate Light Source	455 nm, orange filter
FZLZAG	Visual Examination	
	Alternate Light Source	



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	
	Alternate Light Source	
	BY40	
	Alternate Light Source	
G4JLWD	Visual Examination	
	Alternate Light Source	same as item 1
	Cyanoacrylate Fuming	same as item 1
	Powder Dusting	same as item 1
	Rhodamine 6G	same as item 1
G6ULXE	Cyanoacrylate Fuming	3.0 gram, 7 minutes, rh 80%
	Powder Dusting	Magnetic Powder, Jet Black
G73XDU	Visual Examination	White
	Alternate Light Source	blue and green light
	Cyanoacrylate Fuming	1 min 35 sec, 80 RH%, hot plate 120 degrees centigrade
	Powder Dusting	Magnetic powder (black) and carbon powder (black)
	1,2-Indanedione	Heat press, 165 degrees centigrade, 15 sec
	Ninhydrin	80 degrees centigrade, 65 RH%, 5 min
G7P7MY	Visual Examination	white light
	Cyanoacrylate Fuming	20 minutes; 80% humidity in Safefume chamber; ~66 °F
	Powder Dusting	Black powder
GCVN97	Visual Examination	Oblique/Magnified light; Control = Not Applicable; Result = No ridge structure
	Cyanoacrylate Fuming	Humidity: 80%, Glue Time: 13 minutes, Glue Temperature: 120 degrees Celsius, Purge: 40 minutes; Control = Positive; Result = No ridge structure
	Alternate Light Source	LabKam: Short wave ultraviolet light (254 nanometers); Control = Not Applicable; Result = Ridge structure - Collection value
	Powder Dusting	Black Powder: Control = Not Applicable; Result = Ridge structure - Collection value
	Powder Dusting	Second Black Powder Application: Control = Not Applicable; Result = Ridge structure - Collection value

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
GEERRW	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Black fingerprint powder
GHFX83	Visual Examination	With no physical enhancement (only eyes) and with white light (flashlight) at direct and oblique angles
	Cyanoacrylate Fuming	Glue time 15 minutes, glue temperature 120 degrees Celcius in MVC 3000
	Ninhydrin	Special formula pump spray; allowed to air dry and then placed in Caron chamber at 80 degrees Celcius for 5 minutes at 65% humidity
	Powder Dusting	Black magnetic powder and a magnetic wand used
GLJHK3	Visual Examination	
	Alternate Light Source	LabKam
	Cyanoacrylate Fuming	Control - Positive. Processed using a foster freeman MVC 1000 for 15 minutes at a temperature of 120 C and 80% relative humidity
	Alternate Light Source	LabKam
	Ninhydrin	Control - Positive. Dipped in Ninhydrin and placed in a humidity chamber at 80 C and 70% humidity
GPUURN	Cyanoacrylate Fuming	MVC using cyanobloom: 120 degree celsius, 20 minutes, 80% relative humidity, and 20 minutes purge cycle.
	Dye Stain	R6G/Water
	Evidence Drier	Evidence Drier
GT2647	Visual Examination	white LED light
	Alternate Light Source	UV-365nm, CrimeScope-CSS with orange filter, Crime-lite 445-510nm with orange filter
	Cyanoacrylate Fuming	80% relative humidity, 15 minute fume time
	Powder Dusting	regular black powder, white LED light
	1,2-Indanedione-Zinc Chloride	humidity chamber (70 degrees Celsius, 65% relative humidity, 20 minutes), Crime-lite 445-510nm with orange filter
GTK2F7	Powder Dusting	
GXTAXB	Alternate Light Source	Faint mark in section D detected.
	Cyanoacrylate Fuming	Mark in section D has been recovered.
	BASIC YELLOW 40	Mark in section D has been recovered.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
H3LN7H	Visual Examination	VIS, UV - none fingerprint
	Cyanoacrylate Fuming	3 min, 120 degree C, fingerprint - section D
	Dye Stain	Basic Yellow 40, fingerprint - section D
H6L2HA	Visual	side lighting
	CA	Super glue fumes for 30 min
	Black Powder & Magnetic Powder	Magnetic powder was applied first with negative results - Black powder was applied & a print was developed
	Nin & PD	Ninhydrin was used & then physical developer
HBD284	Visual Examination	Visual exam under white light for patent prints and/or biological material; no prints.
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber, test print positive; no prints.
	Powder Dusting	Black magnetic powder applied with magnetic powder brush; Prints observed.
	Ninhydrin	Ninhydrin batch #278, Caron chamber at 60 degrees C and 60% humidity; no enhancements
	Physical Developer (PD)	PD batch #443 processed by [Name], Examination observed prints.
HBVDJG	Visual Examination	
	Powder Dusting	Magnetic
HCALQW	Visual Examination	Viewed sample under natural and forensic lighth.
	Lumicyano Fluorescent Cyanocrilate Fuming.	The fuming was initiated in the fuming chamber al lats 15 minutes with 65% Humidity. The sample is viewed with natural and forensic lighth.
	Alternate Light Source	Viewed with Forensic lighth at 495 nm using yellow goggles.
	Powder Dusting	Applied Magnetic Latent Print Powder- Midnigh Black-.
	Visual Examination	Viewed under natural lighth.
HCN24X	Magenetic Black Powder	Outdoor, Sunny and Warm. 5-10 Minutes processing time.
HLDP47	Visual Examination	with overhead/bench lighting
	Alternate Light Source	Visual w/ ALS
	Laser	Visual w/ Laser
	Cyanoacrylate Fuming	heat and humidity chamber, approx 10 mins

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Black magnetic powder
HMNRP6	Visual Examination	A visual exam was performed on the postcard. I observed ridge structure of no collection value.
	Alternate Light Source	The LabKam was used to visualize the evidence, ridge structure of no collection value was observed.
	Cyanoacrylate Fuming	The postcard was placed in the cyanoacrylate chamber for 10 minutes at approximately 120 degrees Celsius. Ridge structure of no collection value was observed after fuming.
	Alternate Light Source	The LabKam was used to visualize the evidence, ridge structure of collection value was observed and digitally photographed.
	Powder Dusting	A small amount of magnetic black powder was applied to the postcard with no ridge structure being developed, and was not used further. Black powder was then applied to the postcard with ridge structure of collection value being developed. The ridge structure was digitally photographed.
	Dye Stain	Rhodamine 6G was applied to the evidence and allowed to dry.
	Alternate Light Source	A Polilight was used to visualize the evidence after treatment with a dye stain. Orange goggles were worn and the evidence was viewed at a wavelength of approximately 450 nanometers. Ridge structure of no collection value was observed.
	Powder Dusting	Black powder was applied to the postcard, and the ridge structure of collection value was further enhanced and photographed digitally.
HPD3HJ	Visual Examination	
	Alternate Light Source	LAS, UV
	Cyanoacrylate Fuming	VIS, RUVIS
	Powder Dusting	MAG POW
	1,2-Indanedione	LAS
	Dye Stain	RAM
	Physical Developer (PD)	
HRYUMU	Cyanoacrylate Fuming	120 celsius 7 minutes
	Coumarin (as described previously)	275 celsius 25 minutes with ventilation
	DFO	100 celsius 10 minutes
HVHWGK	Visual Examination	
	Powder Dusting	Magnetic
	Cyanoacrylate Fuming	1.05g of glue; 10 minutes of fuming in Misonix CA-6000 chamber

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	DFO	20 minutes at 100 degrees Celsius in Caron 6105 chamber
	Ninhydrin	2 minutes at 80 degrees Celsius and 65% humidity in Caron 6105 chamber
	Physical Developer (PD)	20 mL of solution A and 360 mL of solution B; 15 minutes in PD solution
HWGGL	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Alternate Light Source	
	Magnetic Powder	
	1,2-Indanedione	
	Alternate Light Source	
	Dye Stain	
	Alternate Light Source	
	Physical Developer (PD)	
J3YWCN	Swabbing	Swabbing for possible DNA - Item 2: Edges of the invitation (glossy side)
	Visual Examination	Visual Examination using magnification and white LED light: A very faint print was observed in Quadrant "D"
	Cyanoacrylate Fuming	Sirchie CyanoSafe, 19 minutes; control print developed. No prints were observed.
	Powder Dusting	Black and bi-chromatic powders - Fingerprint observed on Quadrant "D", and a palmprint, some of which covers sections of all four quadrants, but especially prominent in Quadrant "B".
	Ninhydrin	Ninhydrin batch #279 - Processing was enhanced using the Caron 6115 controlled heat/humidity chamber, 60 degrees, for approximately 20 minutes. No prints were observed.
	Physical Developer (PD)	PD Batch #444 - Silver immersion after Maleic Acid wash, followed by rinsing, each stage took 10 min. (total of 30 min.). No prints were observed.
JC22DD	Powder Dusting	Dusted the surface using black magnetic powder
JGWTNV	Visual Examination	see practically nothing, D?
	Cyanoacrylate Fuming	
	Powder Dusting	Coal then microsils, tendency to see print, D
	Ninhydrin	see nothing

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Dye Stain	BY40, tendency to see print, D
JNX2DV	Visual Examination	ridge detail observed
	Powder Dusting	Black silk powder used
JUJ2MG	Visual Examination	Ambient and white/green/blue/red light
	Cyanoacrylate Fuming	Humidity 80%, glue cycle 5 minutes, 0.9 g of glue, in MVC/D300 Cabinet from Foster and freeman
	Powder Dusting	Magna jet black
JVXHLG	LUMICYANO POWDER/SOLUTION 4 % 1,2-Indanedione	hygrometry > 75 % 15 minutes and zinc chloride 200° F 20 minutes
	Ninhydrin	room temperature 48 hours development
	Visual Examination	
JZB846	Cyanoacrylate Fuming	Superglue chamber; 15 min, 80% Humidity
	Powder Dusting	Magnetic (black) powder applied with magnetic wand
	Powder Dusting	Black powder applied with a fiberglass brush
K2Y2FY	Visual Examination	Oblique light
	Powder Dusting	Black Powder
KAWTQE	Visual Examination	Using oblique lighting (faint mark observed at area C) and UV light
	Cyanoacrylate Fuming	Using Hot Shot (approximately 5 mins)
	Powder Dusting	Using black fingerprint powder and camel hair brush
KFVFD8	Visual Examination	Inclination of the object
	Alternate Light Source	Light grazing with Crimescope MCS-400
	Powder Dusting	Black magnetic powder deposited with a magnetic brush - revelation in a few seconds by light and rotating movements. The powder is tested on a control beforehand.
	Alternate Light Source	White with Crimescope MCS-400
KHUCD4	Visual Examination	Item #2 was visually examined with no ridge structure of comparison being obsrved.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Alternate Light Source	LabKam-Reflective UV light was used to visualize any ridge structure. Ridge structure of comparison value was observed and photographed using the LabKam.
	Cyanoacrylate Fuming	The item was fumed for approximately 10 minutes at 120C in a fuming chamber. Ridge structure was developed but determined to not be of value for comparison. A test print was also placed into the chamber to verify proper development (control was positive).
	Powder Dusting	Black powder was applied with a fiberglass brush. Ridge structure of comparison value was developed and digitally photographed. The ridge structure developed appeared to be of better quality than the print observed/photographed with LabKam.
KL4RCE	Visual Examination	COC Photos, then visual: Did the visual with 000 nm, 350 nm, 450 nm and 505 nm.
	Cyanoacrylate Fuming	Polycyano UV glue Fuming: used the MVC3000 fuming cabinet, set at 230 degree celsius for 20 minutes at 80% relative humidity, with a 20 minutes purge. 2 scoops amount of polycyano uv glue powder.
	Dye Stain	Rhodamine 6G dye staining: dye stained item 1 with rhodamine 6G using the spraying method and allowed to dry in a evidence dryer.
KM3LF6	Visual Examination	
	Alternate Light Source	365nm, 495nm, 535nm
	Cyanoacrylate Fuming	AirScience Fuming Chamber - 15 Min. fume time, 80% humidity
	Powder Dusting	Black non-fluorescent, feather brush
	1, 2 Indanedione/Zinc Chloride	495nm, humidity chamber - 20 min., 70 degrees Celsius, 65% relative humidity
KRFH4F	Visual Examination	Crimescope, Lasers 532 nm and 577 nm
	Cyanoacrylate Fuming	Cyanoacrylate luminescent, 120°C, 30 min fumigation
	Powder Dusting	Supra nano black powder
KRGDRR	OML/ ALS	OML - nothing visible, ALS - possible smear in block "C" - 600nm w/orange filter - no FRD
	Cyanoacrylate Fume	70°F/ 72% RH - 9 mins - vis FRD impression in Block "D".
	Magnetic Powder (blk)	FRD in block "D" made more visible, pattern is not discernable.
KVDYM2	Visual Examination	comparison value fingerprint
	Alternate Light Source	LabKam, comparison value fingerprint

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Glue time 15 minutes, glue temperature 120 degrees Celsius, relative humidity 80%, control positive, comparison value fingerprint
	Alternate Light Source	LabKam, comparison value fingerprint
	Powder Dusting	Magnetic black, comparison value fingerprint
	Ninhydrin	Control positive, humidity chamber at 80 degrees Celsius, relative humidity 65%, no ridge structure
L3NR24	Cyanoacrylate Fuming	Foster Freeman MVC5000 chamber; cyanobloom; 120 degrees C; 15 min glue time; 80% RH
	Powder Dusting	Magnetic black powder applied to surface (superglued print)
L4423H	Visual Examination	Examined Item 2 for prints. Observed possible ridge detail in quadrant 'D'
	Oblique lighting	Examined Item 2 for prints using a flashlight. No ridge detail observed.
	Alternate Light Source	Examined Item 2 for prints using an ALS. No ridge detail observed.
	Powder Dusting	Dusted Item 2 with black magnetic powder. Observed a print in quadrant 'D'
L866RJ	Visual Examination	No ridge detail was observed
	Powder Dusting	Applied black magnetic powder with a wand applicator
L8HNPV	Visual Examination	
	Cyanoacrylate Fuming	Front of card
	Powder Dusting	Front of card, black powder
	Ninhydrin	Back of card
LFYFZT	Visual Examination	Utilizing white light, no ridge detail observed.
	Cyanoacrylate Fuming	Approximately 10 to 15 minutes while monitoring progress.
	Powder Dusting	Black magnetic powder used after gel lift.
LJEULE	Visual Examination	oblique lighting
	Cyanoacrylate Fuming	15 min in chamber
	Powder Dusting	magnetic
	DFO	spray/ heat with dry iron
	Alternate Light Source	532nm LASER w/orange goggles



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Ninhydrin	spray/ wet heat with steam iron
LV883X	Powder Dusting	80 degrees, windy, sunny, 11:08 photographed then processed
LVTPYT	Alternate Light Source	white Light, blue/green, green, UV, coaxially reflected light.
	Cyanoacrylate Fuming	Humidity 80%, Humidity cycle: 15 minutes, Glue cycle: 15 minutes, Purge cycle: 40 minutes.
	Dye Stain	Staining with basic yellow 40, rinsing with water
	Alternate Light Source	Fluorescence examination with polilyght (400-548 nm)
LW4UBV	Cyanoacrylate Fuming	Super glue chamber with hotplate heat source, 10 min processing time
	Powder Dusting	Black magnetic powder applied with magnetic powder wand
LY6M9L	Visual Examination	The fingerprint was visible but needed enhancement
	Cyanoacrylate Fuming	Temperature: 120 celsius, Humidity: 77%, Time: 15 minutes, Cabinet: Foster&Freeman MVC3000
	Powder Dusting	Magnetic jet black fingerprint powder
	Basic Yellow 40	
	Alternate Light Source	Mini-Crimescope 475nm
M779U9	Visual Examination	white light, UV - 555 nm - Polilight PL 500, suitable googles,
	Cyanoacrylate Fuming	processing time - 15 minutes, humidity - 80%
	Visual Examination	white light
	Powder Dusting	Mag. Black Ruby
	Visual Examination	white light, UV
MD8GLV	KSI	The postcard was looked at under KSI with 254 nm light for the presence of ridges
	Cyanoacrylate Fuming	The postcard was put into a chamber and superglue fumed for approximately 5 min and the control looked good, then looked at under KSI
	Alternate Light Source	The postcard was sprayed with R6G and looked at under the ALS at 515 nm with orange goggles
	Powder Dusting	The postcard was dusted with a bichromatic powder and a brush, then lifts were taken with tape and put onto index cards
	Ninhydrin	Ninhydrin was applied to the backside of the postcard, then heated and steamed under an iron

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
MDQH9X	Visual Examination	Finger impression observed but no ridge structure observed. 2 minutes
	Alternate Light Source	RUVIS- finger impression observed but no ridge structure observed. (3 minutes)
	Cyanoacrylate Fuming	Glue time 10 minutes- control did not work 1st time so ran 2nd time. Positive control. 10 minutes. Relative humidity 75%. No comparison value on ridge structure observed.
	Alternate Light Source	RUVIS- No comparison value on ridge structure observed. 5 minutes processing.
	Powder Dusting	Dusted with black powder and ridge structure of comparison value was observed. 5 minutes processing.
MEGL26	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic
	Powder Dusting	Black
MEHJ8U	RUVIS	Sirchie Krimesite Imager
	Cyanoacrylate Fuming	fumed for approximately 3 minutes, viewed with RUVIS
	Powder Dusting	black carbon powder
	Dye Stain	RAM
MG67G9	Visual Examination	(+) mark needing enhancement
	Krimescope	(+) mark needing enhancement
	Powder Dusting	(+) magnetic fingerprint powder
MH374M	Visual Examination	naked eye/ oblique lighting
	Cyanoacrylate Fuming	Approximate 10 minutes until white ridges appeared on the control (glass)
	Powder Dusting	Black magnetic
MH43EJ	Visual Examination	green light (Tracer laser) used
	Cyanoacrylate Fuming	Misonix CA-6000 chamber; 80% humidity for 10 minutes 30 seconds
	DFO	Caron Environmental chamber at 100 degrees Celsius for 20 minutes
	Ninhydrin	80 degrees Celsius at 65% humidity for 2 minutes
	Physical Developer (PD)	14 minutes in PD solution (Sirchie Solutions)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
MPXHTP	Visual Examination	
	Cyanoacrylate Fuming	gluetime 5 min, RH 80%
	Powder Dusting	Magnetic Jet Black
MQBXBW	Visual Examination	no ridge structure observed
	Cyanoacrylate Fuming	1 hour, 80% humidity
	Alternate Light Source	Labkam, ridge structure comparison value photograph taken
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Crimescope, ridge structure comparison value, photograph taken
	Powder Dusting	Black powder, ridge structure comparison value, photograph taken with white light
MR7HZG	Visual Examination	Item 2 was visually observed on 07-09-17 at 1515-1525 hours.
	Oblique lighting (flashlight)	Item 2 was observed with oblique lighting on 07-09-17 at 1515-1525 hours.
	Alternate Light Source	Item 2 was observed with an ALS on 07-09-17 at 1515-1525 hours.
	Magnetic powder	Item 2 was processed with magnetic powder on 07-09-17 at 1545 hours.
MR9DJM	Visual Examination	Visual examination - white light, UV, 415nm, 450nm, 505nm
	Cyanoacrylate Fuming	Fume in tank 0.2g superglue autocycle (80% RH-10 mins, Glue temp 120 degrees C - 10 min run). View white light, episcopic.
	1,2-Indanedione	Spray, let dry, heat press at 170 degrees C for 10 secs, view under 505nm with orange goggles
	Ninhydrin	Spray, let dry, humidity cabinet for 10 mins at 80 degrees C and 65%RH. View white light, 530nm.
	Powder Dusting	Apply black, magna powder with magnetic brush. Clean out.
MRLR6B	Visual Examination	Natural light, white light and Polilight PL-500 Forensic Light (all wavelenghts)
	Cyanoacrylate Fuming	Cyanoacrylate Fuming Chamber Values: 12 minutes running time, 80% humidity
	Powder Dusting	Fluorescent Magnetic Latent Print Powder
	1,2-Indanedione	Dipped 1,2-Indanedione - Zinc Chloride working solution. After drying chamber with these valeues: Temperature 100°C, Humidity 0% and Time 20 minutes.
	Ninhydrin	Dipped in Ninhydrin petroleum ether based working solution. After drying chamber with these valeues: Temperature 80°C, Humidity 62% and Time 20 minutes

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Physical Developer (PD)	Dipped in PD working solution during 30 minutes and after dry at room temperature 24 hours
MTXM9V	Visual Examination	no detail observed
	Cyanoacrylate Fuming	70% humidity - 25 minute glue cycle
	Powder Dusting	RT loop "D" block
	Rhodamine 6G	no additional development
MYNUEH	Cyanoacrylate Fuming	Fumed at 80% RH for 6 min and 34 sec. The Misonix CA-6000 was used. With a 10 min purge time.
	Powder Dusting	Black Magnetic Powder was used
	DFO	Caron 6105 chamber was used. Item was processed for 20 mins at 100 degrees C
	Ninhydrin	Caron 6105 chamber was used. Item was processed for 2 mins at 65%RH and 80 degrees C.
	Physical Developer (PD)	Item was soaked in Distilled water for 10 mins then soaked into maleic acid for 5 mins. It was then dipped into distilled water then processed in PD for 16 min and 12 sec. Item was then rinsed and left to be air dried
MYQGWW	Visual Examination	Ridge structure observed- no value for comparison purposes- 5 minutes
	Cyanoacrylate Fuming	Glue time 10 minutes with relative humidity at 75%. Positive control. Ridge structure observed- no comparison value
	Alternate Light Source	RUVIS- ridge structure observed- fingerprint of value photographed- 15 minutes
	Powder Dusting	Dusted with black powder- ridge structure observed no new fingerprints developed.
N28CNE	Visual Examination	Use the oblique light on the item
	Cyanoacrylate Fuming	Foster+Freeman MVC1000, glue 10 drops, Glue time 15 minutes, Mode Auto Cycle
	Powder Dusting	Black Magnetic powder and Photograph by using DCS4, goose neck, Iso 200m F11
	1,2-Indanedione	Photograph by using DCS4, uv 365 nm. Filter GG420
N2BR6L	Visual Examination	
	Cyanoacrylate Fuming	Approximately 10 minutes in the superglue fuming chamber.
	Powder Dusting	
N8E4T7	Powder Dusting	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
NA3BJU	Visual Examination	Visual exam with and without oblique lighting
	RUVIS/ALS	RUVIS exam- photos of ridge detail. ALS- Blue/Green and UV light Crimelite 82S (Foster/Freeman)
	Powder Dusting	Sirchie Brand Black powder - photography of ridge detail developed.
NBW37Z	Visual Examination	
	Alternate Light Source	Crimescope (handscope) 495nm, UV lamp for UV (365 nm)
	Powder Dusting	Black Magnetic powder
	1,2 Indanedione-Zinc Chloride	Hotpack humidity chamber and examined with 495 using Crimescope (Handscope)
	Ninhydrin	Hotpack Humidity Chamber examined after 30 minutes and 24 hours
NF2UFH	Visual Examination	The fingerprint was visible but needed enhancement
	Cyanoacrylate Fuming	Temperature: 120 celsius, Humidity: 80%, Glue time: 15 minutes, Cabinet: Foster+Freeman, MVC 3000
	Powder Dusting	Magnetic jet black fingerprint powder and carbon powder
	Basic Yellow 40	
	Alternate Light Source	Crime lite (450-560nm)
NFUFCX	MAGNETIC POWDER	DAY TIME, SUNNY, 75 TO 80 DEGREES
NLRBRN	SuperGlue (CAE)	Estimated amount of drop of superglue, four minutes inside chamber with warm water, 140°F (estimated) with fan for circulation and hot plate.
	Black Powder	Brush powder over the surface using synthetic brush.
NMTXUV	Visual Examination	
	Alternate Light Source	LabKam (Reflective Ultraviolet Imaging System)
	Cyanoacrylate Fuming	Positive Control, Foster Freeman MVC1000, 15 minutes at 120 degrees C and 80% humidity
	Alternate Light Source	LabKam (Reflective Ultraviolet Imaging System)
	Dye Stain	Positive control, Three Blend Dye (Rhodamine 6G, Ardrex, and Basic Yellow)
	Alternate Light Source	Crimescope with yellow goggles at 450 nm
NN2ELZ	Powder Dusting	(black)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
NQ4A2G	Powder Dusting	Fingerprint powdering: exhibit powdered on a down-flow-bench using an animal hair brush and an orange fluorescent fingerprint powder.
NQLB4X	Cyanoacrylate Ester Fuming Powder (Black) Ardrox Dye Stain Rhodamine Dye Stain DFO Ninhydrin Physical Developer	UV light source Laser light source oven, laser light source (wait 24 hours) Humidity chamber (wait 24 hours)
NQPQJK	Visual Examination Alternate Light Source Cyanoacrylate Fuming Alternate Light Source Powder Dusting	No friction ridge detail. LABKAM, comparison value friction ridge detail. Digital photography. Positive control, no friction ridge detail. LABKAM, comparison value friction ridge detail. Digital photography. Black powder, no friction ridge detail.
NWVKGL	Visual Examination Cyanoacrylate Fuming Alternate Light Source	White light Chamber CA02, 13 min, 80% RH, Positive Control Ultraviolet, RUVIS system for visualization, Positive Control
NXN923	Visual Examination Visual Examination Vacuum metal deposition	white light polylight (450-555nm, orange filter), UV 350nm 1. gold fuming - 30 s 2. zinc fuming
NY4JUF	Visually Optical Method Visual Examination Cyanoacrylate Fuming Black Rubby Powder	daily light (natural light) white light, illuminator Polilight PL500 in the whole range of illuminator with filters cyanoacrylate chamber Safefume CATRI temps. 100°C, humidity 80%, time 15 mints. magnetic applicator, natural light, white light. Illuminator Polilight PL 500
NYG9V8	Visual Examination Lumicyano	White light and RUVIS 254 2.7g Arrowhead CA, 0.135g CST Lumicyano powder 75% relative humidity 250F hotplate 17 minutes

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
P669VK	Visual Examination	
	Cyanoacrylate Fuming	25 minutes @ 75% RH (Safe Fume Tank #2)
	Powder Dusting	
P7UJJR	Visual Examination	
	Cyanoacrylate Fuming	Omega CA / Tested 5/22/17 / Mystaire 70% humidity / 20 minutes
	Powder Dusting	Black Powder / Magnetic Black Powder
	Dye Stain	Rhodamine (R6G) - Lot 5/25/17 / Tested 5/25/17 / Orange Filter 515-530 nm
	Alternate Light Source	Orange Filter / 515-530 nm
PAZVQU	Visual Examination	
	Alternate Light Source	LabKam
	Cyanoacrylate Fuming	Control - positive, Foster Freeman MVC1000, 15 minutes at 120 degrees Celcius at 80% humidity
	Alternate Light Source	LabKam
	Ninhydrin	Control - positive, dipped, let dry, humidity chamber at 80 degrees Celsius at 70% humidity
PF6WN3	Visual	ambient & oblique light (flashlight)
	CA	air science 48S chamber
	Dye Stain/ ALS	MBD/ ULT (BMT filter)
	Powder	black magnetic
PHU39Y	Visual Examination	Visual exam with oblique light
	Alternate Light Source	Visual exam with ALS & Laser
	Cyanoacrylate Fuming	Chamber for ~ 20 minutes, heated cyanoacrylate
PJ38UB	Visual Examination	A visual examination and
	Alternate Light Source	using different kind of light did not detect any impression on the item.
	Cyanoacrylate Fuming	The next method used was cyanoacrylate (mentioned under item 1). Still no impression was detected on the item.
	Powder Dusting	Again I used a light touch with black magna powder and also a little Swedish black fingerprint powder. An impression of poor quality in quadrant D was detected.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Ninhydrin	In an attempt to improve the impression, Ninhydrin was used. The glossy save-the date postcard was dipped in the solution and left to dry for a few minutes. Then placed in a humidity-cabinet for about 4 minutes with approx. 80 Celsius and approx. 75% humidity. The finger impression in quadrant D was improved.
PKD678	Visual Examination	oblique lighting
	Powder Dusting	magnetic powder
PP79V6	Visual Examination	same as item 1
	Alternate Light Source	same as item 1
	Cyanoacrylate Fuming	same as item 1
	Powder Dusting	same as item 1
	Rhodamine 6G	same as item 1
PPTRLX	Powder Dusting	
PTAZAW	Powder Dusting	
PX6PWV	Visual Examination	No ridge structure observed.
	Cyanoacrylate Fuming	Foster+Freeman MVC-1000, 10 minutes glue time; glue temperature 120 degrees Celsius; 75% relative humidity. Ridge structure observed in quadrant D
	Alternate Light Source	Reflective ultraviolet Imaging System. One latent fingerprint of comparison value observed in quadrant D. Digital photograph taken.
	Dye Stain	Rhodamine (methanol-based) was sprayed on the evidence.
	Alternate Light Source	505 nm light with orange barrier used. Minimal enhancement of latent print in quadrant D.
	Powder Dusting	Black powder. Latent print of comparison value observed in quadrant D. A digital photograph was taken, but ultimately not used, as the previous photograph showed more detail.
PY266L	Visual Examination	visual exam with flashlight
	Cyanoacrylate Fuming	12 min, CA03 White Light \RUVIS1 UV Light, Control Positive
	1,2-Indanedione	1,2-Indanedione, 45 min at 50c/60% Humidity Chamber, 532nm, Orange Filter, Hum2\Trac01, Control Positive
Q2M9DJ	Visual Examination	Photographed overall appearance before processing
	Cyanoacrylate Fuming	Item in fume chamber for approximately 7.5 minutes



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Applied magnetic powder with magnetic wand, then applied black powder with brush
Q6LMXN	Visual Examination	same as item 1
	Alternate Light Source	same as item 1
	Cyanoacrylate Fuming	same as item 1
	Powder Dusting	same as item 1
	1,2-Indanedione	aerosol spray, wait time-until dry, room temp., visualized with crimescope at 515nm
	Ninhydrin	aerosol spray, room temp., set time-next business day, added moisture with steam to develop,
	Rhodamine 6G	same as item 1.
Q7B326	Cyanoacrylate Fuming	7/6/17 at 9.15 - 10.00am. Lab temp 20.5 Inst. MVC3000 RH=79
	Powder Dusting	7/6/17 at 1.20pm
QAC7TQ	Cyanoacrylate Fuming	12 minutes
	Powder Dusting	Black powder
QBMW6G	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	CyanoSafe 20 minutes/1 hour to dry, test print positive
	Powder Dusting	Black magnetic powder
	Ninhydrin	Ninhydrin batch 279, Caron chamber 1 hour
	Physical Developer (PD)	PD batch 443 by [Name], examination shows no further enhancement
QF2HTU	Visual Examination	
	Superglue Fuming	Missonix 6000 Chamber; 22 minutes fuming time
	RAM/Crime-Lite ML2	
	Black Powder	
QH8YAX	Powder Dusting	
QJMF9W	Visual Examination	Viewed under white light and TRACER Laser.
	Cyanoacrylate Fuming	Fumed in Misonix CA-6000 (CA Chamber #2) for 8 minutes at 80% humidity.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	1,2-Indanedione	Sprayed with 1,2-Indanedione (HFE-7100), left at room temperature for approximately 4 hours. Viewed under TRACER Laser.
	Ninhydrin	Sprayed with Ninhydrin (HFE-7100), left at room temperature for approximately 20 hours.
	Dye Stain	Methanol based Rhodamine 6G (R6G) dye stain, viewed under TRACER Laser.
	Powder Dusting	Item dusted with magnetic powder.
QNC3U6	Alternate Light Source	LASER, UV, RUVIS
	Visual Examination	Ambient light
	Cyanoacrylate Fuming	MVC 1000 on automatic cycle
	Alternate Light Source	RUVIS
	Visual Examination	Ambient light
	1,2-Indanedione	Dip/bath method of application. Placed in humidity cabinet at 80% Rh for 10 min.
	Alternate Light Source	LASER
	Ninhydrin	Dip/bath method of application. Placed in humidity cabinet at 80% Rh for 10 min.
	Visual Examination	Ambient light
	Dye Stain	Spray method of application
	Alternate Light Source	LASER
	Powder Dusting	Black Magnetic Powder
	Visual Examination	Ambient light
	Physical Developer (PD)	Series of baths method of application
	Visual Examination	Ambient light
QUK9RW	Visual Examination	
	Cyanoacrylate Fuming	Humidity 80%, 15 Min. Glue cycle 80%, 16 Min, Temp 120 C. Purge Cycle 80%, 20 Min
	Powder Dusting	Bichromatic
QVU76D	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Magnetic powder	
	Indanedione	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Dye Stain	RAM
	Physical Developer (PD)	
QW6BGG	Visual Examination	Crimescope
	LumicyanoTM	Fumigation chamber : MVC3000 Foster&Freeman 0.087g of powder and 2.2 g of solution Glue cycle 25min- Visualization with Crimelite 2 + Labino UV
	1,2-Indanedione	160°C during 10 sec
	Ninhydrin	48H at room temperature
R2DZDV	Visual	UV, ALS, Laser, oblique lighting
	Superglue fuming	
	Powder	Black fingerprint powder
	Ardrox and Rhodamine	Ardrox - UV, Rhodamine Laser
	1,8-Diazafluoren-9-one (DFO)	Laser, item was placed in oven @100°C
	Ninhydrin	Humidity chamber
	Zinc Chloride	ALS, humidity chamber
	Physical Developer	
R49CKG	Visual Examination	White light and magnification. No prints observed.
	Cyanoacrylate Fuming	Cyanoacrylate atmospheric chamber, test print positive, no prints observed.
	Powder Dusting	Bichromatic magnetic powder. No prints observed.
	Ninhydrin	Ninhydrin batch #279. Processed in Caron chamber. Prints observed in Quadrant D.
	Physical Developer (PD)	Item treated with PD Batch #443. Prints observed in Quadrant D.
RABJZK	Oblique Lighting	viewed with flashlight
	Alternate Light Source	viewed @ 455-515 nm
	CAE Fuming	fumed for 20 minutes
	Black Powder Dusting	dusted with black powder
RATGAB	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C, 75% Relative Humidity

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Dye Stain	Ardrox, 445 nm, Orange Filter
	Powder Dusting	
RB2PGB	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic
	1,2-Indanedione	
	Dye Stain	RAM
	Physical Developer (PD)	
RH4U9U	Powder Dusting	
RJU3C4	Visual Examination	
	Photo	
	Cyanoacrylate Fuming	1.0 gram 4.5 minutes, rh 70%
	Powder Dusting	Magnetic powder, Jet Black
RMTHH7	Visual Examination	
	Cyanoacrylate Fuming	6 minutes
	Powder Dusting	Magnetic
RTLDRQ	Visual Examination	Visual- oblique lighting
	RUVIS/ALS	Sirchie Krimesite Imager. UV and Blue/Green (with orange barrier filter) Foster Freeman Crimelite 82S.
	Powder Dusting	
RUWDPK	Cyanoacrylate Fuming	Item was palced in heated chamber for approximatley 20 minutes with water and CAE.
	Powder Dusting	Black powder was applied to item resulting in one area of ridge detail.
RW6CZT	Visual	Flashlight, LASER, & UV used
	Cyanoacrylate Ester Fuming	~15 minutes
	Powder	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Dye Stains - Mek Ardrex, Aqueous Rhodamine DFO Ninhydrin Zinc Chloride Physical Developer	UV - MEK Adrox, LASER - Aqueous Rhodamine LASER to visualize - waited 24 hours waited 24 hours ALS to visualize - waited 24 hours waited until dry
RWLTUM	Visual Examination Cyanoacrylate Fuming Powder Dusting	No fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white. Disclosure of a fingerprint. The fingerprint is visible in the white and 505 nm light source. Improve the quality of fingerprint after use fingerprint powder "Magnetic Two Tone" B-47730 (BVDA) in white light source..
RY6X8B	Visual Examination Cyanoacrylate Fuming Powder Dusting Basic Yellow 40 Alternate Light Source	The fingerprint was visible but needed enhancement Time: 45 minutes, Underpressure -88kPA, Temperature: 82 celsius, Cabinet: Cyvac M Magnetic jet black fingerprint powder Crimescope CS-16-500, 445nm
T2TJV8	Visual Examination Alternate Light Source Cyanoacrylate Fuming Powder Dusting 1,2-Indanedione Ninhydrin Rhodamine 6G	mini-crimescope, all wavelengths same as item 1 Regular black powder set time-next business day, TracER laser 532nm set time-next business day set time-until dry, TracER laser 532nm
T3MFAT	Visual Examination Cyanoacrylate Fuming Powder Dusting	no ridge structure observed test print/control (positive); superglue heated at 120C for 10 minutes; no ridge structure observed black powder; ridge structure of comparison value developed in section D
T4Y3XA	Visual Examination Alternate Light Source Cyanoacrylate Fuming	120°C, 75% Relative Humidity

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Ninhydrin	80°C, 65% Relative Humidity, 3 minutes
	Dye Stain	R.A.M.
	Powder Dusting	
T6CMUP	Visual Examination	
	Cyanoacrylate Fuming	Foster Freeman chamber, 75RH, 10 minute glue time, positive control
	Alternate Light Source	RUVIS-G5 digital camera
	Powder Dusting	Black-Lightning brand, fiberglass brush
T8DPAD	Visual Examination	for any possible visible prints
	Cyanoacrylate Fuming	measure 3 grams of cyanobloom. 120 Degree Celcius, Relative Humidity 80%, 20 minutes.
	Visual Examination	Visual/PL500: for any possible latent print using white light
	Dye Stain	basic yellow (Deeping Process)
	Visual Examination	Visual/PL500: 415 UV with yellow filter; 450 & 470 orange filter
	Black powder	Brush method
TAHH4C	Cyanoacrylate Fuming	fuming exhibit, were placed in the MVC3000, using 10 drops of cyanobloom for 20 minutes at 120 degree celsius, 70% relative humidity and 20 minutes purge cycle with W120481 batch number.
	Perform ASV investigation	Batch number B-430060X003 placed into viewing enclosure, position exhibit with rod manually in ASV.
TKPXX	Visual Examination	NLOV
	Cyanoacrylate Fuming	Foster & Freeman Chamber - Controlled Time/Humidity
	Powder Dusting	Zephyr Brush
	Visual Examination	LOV/NLOV
TM926N	Cyanoacrylate Fuming	fuming chamber, hot plate, 10 minutes
	Powder Dusting	black magnetic powder with magnetic wand
TNNDPE	Visual Examination	No Ridge Structure.
	Alternate Light Source	LABKAM exam (Reflected Ultra-Violet Imaging). Ridge Structure - Collection Value
	Cyanoacrylate Fuming	Control: Positive. No Ridge Structure.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Alternate Light Source	LABKAM exam (Reflected Ultra-Violet Imaging). Ridge Structure - Collection Value
	Powder Dusting	Black powder. Ridge Structure - Collection Value
TV6UE4	Visual Examination	
	Powder Dusting	Magnetic powder
U2KWW6	Visual Examination	Nothing observed
	Sirchie Krimsite Imager	Exposued to 254 nm of UV light, ridges visible
	Powder Dusting	Mag Powder applied, usable latent develeped
U4A4F2	Cyanoacrylate Fuming	~8 min
	Powder Dusting	
U4QGJ6	Visual Examination	No friction ridges visible
	Sirchie Krimesite Imager	Item examined using Krimesite Imager and 254nm UV light revealing a friction ridge impression in section D.
	Powder Dusting	Black magnetic powder applied, thus enhancing the impression in section D. No other friction ridge impressions were visible on the item.
U8XVB6	Visual Examination	Magnifier and oblique lighting
	Cyanoacrylate Fuming	Processed in chamber for approximately 10 min. Hot plate set at 200C.
	Alternate Light Source	Used UV light (LABKAM) to obtain image of ridge detail.
	Powder Dusting	Obtained 1 lift after dusting with powder. Photographed lift location - Section 'D'.
UA2LHJ	Visual Examination	Oblique light
	RUVIS, FSIS	Shortwave UV light @254nm (one impression in section D)
	Cyanoacrylate Fuming	15min fume cycle, 74% humidity, 5 min purge cycle
	FSIS	Shortwave UV light @254nm (one impression in section D)
UAGP86	Alternate Light Source	
	Cyanoacrylate Fuming	Processing time: 6 minutes
	Powder Dusting	Magnet powder (Magna Jet Black)
	Dye Stain	Basic Yellow 40

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
UCN3XJ	Superglue - Visual Bichromatic Powder Magnetic Powder Ninhydrin	Glue fume chamber for 3 1/2 minutes
UHDR8V	Visual Examination Super Glue/Cyanoacrylate ester Powder Dusting	Florescent Ambient and LED lighting; No latents visualized No latent Prints Visualized magnetic dusting powder; latent print found
UK3W69	Visual Examination Alternate Light Source Cyanoacrylate Fuming Ninhydrin Dye Stain	120°C, 75% Relative Humidity 80°C, 65% Relative Humidity, 3 minutes R.A.M., 495 nm, Orange Filter
ULELED	Visual Examination Cyanoacrylate Fuming Powder Dusting Ninhydrin Physical Developer (PD)	White light and magnification 12 drops of CA in cups on heating element, distilled water in cup, test print positive, process for 12 minutes, purge cycle for 10 minutes, let stand 1 hour Black magnetic powder Ninhydrin batch #279, agitated for 5 seconds, completely dried and put in Caron chamber set at 60% humidity and 60 degrees C for 30 minutes PD batch #444 by [Name], no further enhancement upon examination
UR2F86	Visual Examination Cyanoacrylate Fuming Powder Dusting DFO	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500) 20 min exposure, 120° C, 80% humidity, viewing in white light and with POLILIGHT PL 500 alternate forensic light source in 505-530 nm range + appropriate filters Dusting surface with Aluminum latent print powder (colour – grey/silver), viewing in a white light Spraying item with DFO working solution, after drying – heating the item for 10 min in 95° C, viewing with POLILIGHT PL 500 alternate forensic light source in ~515 nm range + appropriate filters



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Ninhydrin	Spraying item with ninhydrin aerosol spray, after drying – heating the item for 90 min in 40 °C, 80% humidity, viewing in a daylight and with POLILIGHT PL 500 alternate forensic light source in white light and in ~515 nm range + appropriate filters, viewing again after few days
URXX6Y	Cyanoacrylate Fuming DFO	Lumicyano 90 °C during 30 minutes and visualisation at day 0, +3, +10 & +17
UTE827	Cyanoacrylate Fuming Powder Dusting	~10 minutes in air-tight chamber with hot water and mug warmer to heat up cyanoacrylate Black powder applied with a disposable brush
V7CLQ3	Visual Examination Cyanoacrylate Fuming Powder Dusting	
V7VH89	Visual (glossy side) RUVIS (glossy side) Cyanoacrylate (glossy side) RUVIS (glossy side) Graphite Powder - dark (glossy side) Visual (non-glossy side) 1,2-Indanedione (non-glossy side) NIN-HFE (non-glossy side)	ambient light & oblique light short wave UV RH 80% 20 min - Autocycle, Foster Freeman short wave UV Fiberglass brush ambient light Caron heat & humidity chamber RH 80% 50°C 20 min Caron heat & humidity chamber RH 80% 50°C 20 min
VH9PXG	Visual Superglue Black Powder	3 minutes. Water temp appx 150°F
VKWWN7	Visual Examination Powder Dusting	Black Magnetic
W3FAJA	Visual Examination Cyanoacrylate Fuming	viewed with green, blue, UV, and ambient lighting Misonix chamber, humidity cycle took 3 minutes to reach 80%, 9 minute glue cycle, 10 minute purge cycle

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	DFO	Put in Caron chamber for 20 minutes at 100 degrees celcius
	Ninhydrin	Put in Caron chamber for 2 minutes at 80 degrees celcius with 65% humidity
	Physical Developer (PD)	Soaked 10 minutes in distilled water, 5 minutes in maleic acid, rinsed in distilled water, 15 minutes in PD, and rinsed in distilled water
W79HGN	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Black Magnetic Powder
	DFO	
	Ninhydrin	
	Dye Stain	RAM
W86P8F	Visual Examination	
	Cyanoacrylate Fuming	card laid flat with glossy side up, approximate 24 hour fume time, test print placed in fuming chamber with evidence
	Powder Dusting	magnetic black powder and magna brush
	DFO	used on non-glossy side, premixed solution in a spray bottle, dry heat applied, alternative light source used to visualize
WCV92X	Cyanoacrylate Fuming	
WEU8ND	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	MRM-10
	Dye Stain	Basic Yellow
	Cyanoacrylate Fuming	
	Powder Dusting	Black Magna Powder
WGXV6N	Visual Examination	white light and polylight (350, 450, 505, 530, 590 nm. 450-505nm with and without orange filter)
	Cyanoacrylate Fuming	80%RH
	Reflected UV	254nm FP-2.0
	Powder Dusting	magnetic black powder
	1,2-Indanedione	160C, 10S press. 505nm orange filter

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Ninhydrin	room temp. 72hrs.
WLMPRM	Visual Examination	
	Cyanoacrylate Fuming	Mystaire CA-6000: 70% humidity; 25 minute cycle, 20 minute purge
	Powder Dusting	Black Powder
	Dye Stain	Rhodamine 6G petroleum ether carrier
	Alternate Light Source	Foster + Freeman CrimeLite ML2 (445-510 nm 0G550 orange filter)
WLQ3NW	Visual Examination	
	Alternate Light Source	TracER laser 1 (532nm) and Crimescope ALS (350 to 535nm)
	Cyanoacrylate Fuming	10 minutes with heat and humidity
	Powder Dusting	black magnetic
	1,2-Indanedione	20 minutes 100 degrees Celsius, examined with TracER laser 1
	Ninhydrin	steam iron
WPNLLN	Visual Examination	Completed under white light with magnification
	Cyanoacrylate Fuming	Cyanosafe recirculation chamber; Processing time was 12 minutes followed by 1 hour of drying time. Test print positive. Examination under white light with magnification.
	Powder Dusting	Black magnetic powder. Examination under white light with magnification.
	Ninhydrin	Ninhydrin batch #279. Caron processing time was 30 minutes. Examination under white light and magnification.
	Physical Developer (PD)	PD batch #443. Examination under white light and magnification.
WRT92E	Cyanoacrylate Fuming	Processed until deemed finished, about 7-8 minutes. Loctite 495, 80 % humidity
	Powder Dusting	Magnetic powder
	DFO	10 min at 100 degrees C, 0% humidity in cyclohexane/alcohol solution
	Ninhydrin	5 min at 80 degrees C, 60% humidity in cyclohexane/alcohol solution
	Physical Developer (PD)	Developed until deemed finished about 5 minutes
	Dye Stain	Basic Yellow 40 in 96% ethanol
WUZQ2V	Visual Examination	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Alternate Light Source	no dye stain
	Cyanoacrylate Fuming	8 minutes
	Visual Examination	
	Powder Dusting	magnetic black
	Visual Examination	
WYTQFQ	Visual Examination	White light with magnifier. Results = No Ridge structure.
	Cyanoacrylate Fuming	Glue time = 15 minutes at a glue temperature of 120 degrees Celsius with 80% relative humidity, control tested positive. Results = No Ridge structure
	Alternate Light Source	Sirchie LabKam, shortwave UV (peak 254nm) with clear barrier filter. Digitally photographed and enhanced. Results = Ridge structure/1 fingerprint/comparison value.
	Powder Dusting	Fluorescent Orange applied with feather duster. Results = No Ridge structure.
	Alternate Light Source	Crimescope, 505nm (515 with -10 step down) with orange barrier filter. Digitally photographed and enhanced. Results = Ridge structure/no comparison value.
	Ninhydrin	Hexanes based formula, control tested positive, Sprayed then allowed to dry, Caron humidity chamber for approximately 5 - 10 minutes at 80 degrees Celsius and 65% relative humidity. Results = Ridge structure/no comparison value.
	Powder Dusting	Magnetic black applied with a magnetic wand. Results = Ridge structure/no comparison value.
WZBHPB	Visual Examination	Examined under white light and magnification
	Cyanoacrylate Fuming	Proceeded in CyanoSafe recirculation chamber, 12 drops of liquid cyanoacrylate was added to 3 foil cups, distilled water was added to cup heater element, time set for 12 minutes, purge cycle for 10 minutes, door opened and evidence allowed to sit for 60 minutes. Test print positive. Examined under white light and magnification.
	Powder Dusting	Magnetic powder - magnetic wand was used to brush on black magnetic powder in a circular motion. Examined under white light and magnification.
	Ninhydrin	Treated with Ninhydrin batch #060 solution, immersed for approximately 5 seconds and allowed to dry in a fume hood. Developed in Caron chamber for 45 minutes at 60 degrees C and 60% humidity and examined under white light and magnification.
	Physical Developer (PD)	Treated with Physical Developer batch #443 by [Name]. Examination revealed prints.
X2GDLY	Visual Examination	Visually examined card and did not observe latent print

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Sirchie Krimesite Imager	Inspected card with Krimesite Imager and observed latent print on Section D
	Powder Dusting	Processed entire card with Magnetic Powder and developed latent print on Section D
X2XH7H	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	same as item 1
	1,2-Indanedione	room temp, set time until dry
	Ninhydrin	room temp, aided with humidity in water steamed microwave allowed to set 2 days
	Rhodamine 6G	same as item 1
X8MXUP	Powder Dusting	
X9ZPPR	KSI	View ridges using shortwave UV to reflect off of ridges
	Cyanoacrylate Fuming	Place object in fuming chamber for approximately 3-5 minutes
	Powder Dusting	Apply powder to object to enhance ridges
	Dye Stain	Spary RAM on object and view with yellow goggles under 445 wavelength
XCE6EJ	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G H2O based
	Alternate Light Source	TracER Laser
	Powder Dusting	black magnetic powder
	1,2-Indanedione	
	Alternate Light Source	Rofin Polilight PL500
XCEALF	Visual Examination	reflected light, photography
	Cyanoacrylate Fuming	30 min.
	Powder Dusting	fluorescent power
XEGDBG	Visual Examination	Visually looked at exhibit with white light
	Cyanoacrylate Fuming	MVC 5000 cabinet 4; 3.9g superglue batch 62514

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
XG7JVD	Visual Examination	
	Cyanoacrylate Fuming	Glue evaporation time: 10 minutes, 2 g cyanoacrylate used
	Powder Dusting	Magnetic powder
	Dye Stain	Basic Yellow 40 (on the glossy side of the postcard)
XKRG7P	Powder Dusting	
XN8NUP	Powder Dusting-Black Magnetic Powder	
XPF99C	Visual Examination	White light, Forensic light sources. Weak reaction in section D.
	Cyanoacrylate Fuming	1.5 min processing time. Followed by powder dusting. No enhancement of the latent.
	DFO	20 min processing time. A weak fragment of a latent was visible. No improvement from before, in fact it was less visible.
	Ninhydrin	5 min processing time. Weak enhancement of the latent in section D.
	Physical Developer (PD)	The latent was no longer visible.
XV9ABQ	Visual Examination	visual exam w/ natural & white light
	Alternate Light Source	CS (515nm) & UV
	Cyanoacrylate Fuming	chamber (80% humidity, 20 mins fume time, temp approx 110C)
	Powder Dusting	Black Magnetic Powder
	DFO	accelerated for 20 mins in 100C oven
	Ninhydrin	Faint development with iron, placed in bag and allowed to sit overnight
	Dye Stain	RAM
XYR823	Powder Dusting	Black magnetic powder using a mag. brush. 3 minutes processing time.
XYUQCJ	Visual Examination	oblique white light
	Cyanoacrylate Fuming	Chamber 3000 with CA Batch# CA005, 6 minutes fume @ 80 % humidity, 15 drops of CA and 10 minute purge cycle
	Powder Dusting	black magnetic powder
	Dye Stain	Rhodamine 6G dye staining, spray bottle, Batch #192,
	Alternate Light Source	495nm with an orange barrier filter

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
Y2P6QK	Visual Examination	No ridge detail visible with oblique light
	Cyanoacrylate Fuming	Misonix/Mystair - 70% humidity, 25 minute fuming; 20 purge - visual exam RDNI - unable to photo
	Powder Dusting	Black Powder Magnetic - RDNI - Photo with DCS - Digital Capture Station + enhancement , still no value
	Dye Stain	RAM - Batch 3/15/17 tested valid - FBI formula; Crime Lite view - no additional development
Y4EANY	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	80% humidity, 120 degrees on hotplate, gluetime 10 min.
	Powder Dusting	Black magnetic powder
	Ninhydrin	
Y4WBE8	Visual Examination	white light and magnification
	Cyanoacrylate Fuming	Evidence placed in cyanosafe, 12-15 drops of cyanoacrylate in 3 CYVAC cups, 12 minute processing time, 10 minute purge cycle, let rest for 60 minutes, test print positive
	Powder Dusting	Black magnetic powder applied with magnetic wand.
	Ninhydrin	Ninhydrin batch #279-after coating item with ninhydrin, allowed to completely dry, placed in Caron chamber at 60 degrees C, 60% humidity for 30 minutes, no further enhancement
	Physical Developer (PD)	PD batch #444, completed by [Name], examination had no further enhancements
Y9PHTA	Visual Examination	oblique lighting
	Alternate Light Source	Crimescope orange/yellow filters at 350-515nm
	Cyanoacrylate Fuming	11 minute processing time
	Powder Dusting	Black Powder
YF9TZJ	Visual Examination	5 minutes/ambient lab temp 70°
	Photographs/Bench Notes	5 minutes
	Cyanoacrylate Fuming	28 minutes/43% humidity
	Powder Dusting	magnetic powder/5 minutes
YHE9CV	Visual Examination	None seen
	Powder Dusting	Applied magnetic F/P. Print seen.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
YHZNMR	Alternate Light Source	Checking the evidence using LUMATEC 400 forensic light in all wave spectrum range. 23° of ambient temperature
	Cyanoacrylate Fuming	vaporization of cyanoacrylate in a cyan urn. 128° celsius-86% humidity during about 9 minutes.
	Alternate Light Source	check the evidence using all wave spectrum range.
	Powder Dusting	staining of latent print with powder-HIFI Volcano HLP01
	Alternate Light Source	checking the evidence using all wave spectrum range.
YJARG3	Visual Examination	
	Cyanoacrylate Fuming	Humidity cycle- 80% 15 mins, Glue cycle- 80% 16 mins 120°C, Purge cycle- <80% 20 mins
	Powder Dusting	Bichromatic powder and brush
YVMWMD	Alternate Light Source	White light, blue light and green light
	Cyanoacrylate Fuming	80% humidity, 120 degrees Celsius on the hot plate, 10 minutes processing time
	Powder Dusting	Black magnetic powder
YWWZXG	Visual Examination	
	Alternate Light Source	White light
	Cyanoacrylate Fuming	20 minutes, 77 degrees F, ~80% humidity
	Powder Dusting	Heavy Black (Volcano)
Z2NKMH	Visual Examination	
	Cyanoacrylate	positive control conducted exp: 10/13/2017, 10 min fuming cycle @ 70% humidity, 10 min purge cycle
	Magnetic Powder	application of powder w/magnetic wand.
Z9MZMX	Powder Dusting	Visual, CA Fuming, Magnetic Powder
ZKLNMB	Visual Examination	White and colored light before and after each development process (including crime-scope, crime-lite, DCS5)
	Cyanoacrylate Fuming	lumicyano (0.84g, 118°C, 78%RH, 20min) in a Foster&Freeman MVC-1000 cabinet
	Powder Dusting	redwop
	1,2-Indanedione	165°C heating for 10s exposition under a press
	Ninhydrin	examination 24 hours after processing



TABLE 2 - Item 2

WebCode	Development Methods	Method Details
ZPQNGA	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	fuming time 10 min, plate heat 120 C
	Powder Dusting	Magnetic powder
	Dye Stain	Basic Yellow 40
ZRK9P3	Cyanoacrylate Fuming	Lot#201610028, 11 minutes, 80% humidity, 120 degrees celsius
	Powder Dusting	Black magnetic powder Lot#102714-01
ZXAQ6Z	Alternate Light Source	Multiwavelength lightsearch, including white light using lasers and polilight
	Cyanoacrylate Fuming	Atmospheric Airscience cabinet, 18 min
	DFO	20 min development at 100 degrees C
	Ninhydrin	20 min development at 65% humidity at 80 degrees C
ZZG4Q8	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Cyanosafe recirculation chamber at 60% humidity for 20 minutes, 18 drops of glue
	Powder Dusting	Black powder, fiberglass brush
	Ninhydrin	Immersed in liquid ninhydrin (batch 279), air dried and Caron humidity chamber for 45 minutes at 60 degrees C and 60% humidity in chamber
	Physical Developer (PD)	Maleic acid bath 10 minutes, PD bath 10 minutes, water rinse 10 minutes, air dried

Response Summary				Participants: 340
Methods Utilized				
Alternate Light Source	159	Physical Developer	45	**Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	291	Powder Dusting	303	
DFO	29	Visual Examination	298	
Dye Stain	72	1,2-Indanedione	40	
Ninhydrin	89			

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
23YU83	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500.
	DFO	Processing time: 10 minutes, temperature: 90°C.
	Alternate Light Source	Polilight PL 500 (505 – 530 nm light), orange barrier filter, optical instruments.
	Ninhydrin	Processing time: 72h, room temperature, dark place.
	Visual Examination	White light, optical instruments.
24BJEL	Powder Dusting	Black Magnetic Powder
26F8N6	Visual Examination	exhibit was visualised using rofin PL500 light source to see if there are any visible prints before applying chemicals.
	Dye Stain	exhibit was treated with Nindrin/HFE and put in Nincha equipment set at 70 degree celsius and 80% humidity for 20 minutes.
297BQP	Visual Examination	Ambient Florescent and ALS (Various Wave Lengths)
	Ninhydrin	Heptane carrier applied via brush, atir dried 30 minutes and exposed to heat/humidity
2LUD9G	Visual Examination	no ridge structure observed
	1,2-Indanedione	positive control, heat press 320 degrees F, UV light at 505nm, orange barrier, 15 minute process, no ridge structure observed
	Ninhydrin	positive control, humidity chamber, 70 degrees C, 80% humidity, 15 minute process, ridge structure observed, comparison value
2TR6D6	Visual Examination	Using white light and magnification
	Ninhydrin	Ninhydrin batch #279, air dry, place in humidity chamber for 15 minutes, white light and magnification afterwards
	Physical Developer PD	PD batch #443; processed by [Name], examined using white light and magnification
2TR6FP	Visual Examination	
	1,2-Indanedione	35.2% humidity / 69.3 degrees F
	Alternate Light Source	
2WA6XQ	Visual Examination	Used lamp to view item.
	Visual Examination	Used green light of laser to view item.
	1,2-Indanedione	Sprayed item, let it dry, and used heat press on item.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Visual Examination	Used green light and blue light of laser to view item.
	Ninhydrin	Sprayed item with NIN HFE, let it dry, used steam iron to process item
	Visual Examination	Used lamp to view item.
	Physical Developer PD	Placed item in maleic acid wash then placed in PD for a couple of seconds. Then let it sit in water bath. Then dried it.
	Visual Examination	Used lamp to view item.
2XK6UK	Visual Examination	No ridge structure
	1,2-Indanedione	Heat press 165 degrees Celsius at 10 seconds (control positive)
	Alternate Light Source	Crimescope CS500 at 515- Ridge structure comparison value
	Ninhydrin	Hexane based (control positive)- Ridge structure comparison value
2XPDXE	Ninhydrin	approximately 5-7 minutes in the humidity chamber at 80 degrees Celsius/ 65% humidity
33QAUJ	Visual Examination	Examined item as is using ambient light, flashlight, UV light, laser, and ALS.
	1,8-Diazafuoren-9-one (DFO)	Dipped item twice in DFO, let it dry for a few seconds, then put it in the oven (100°C) for 20 min. Examined under laser.
	Ninhydrin	Dipped item in Ninhydrin, let it dry for a few seconds, then put it humidity chamber (70°C) for ~10 min or until the print turned Ruhemman's Purple.
	Zinc Chloride	Sprayed item with Zinc Chloride. Examined under ALS.
	Physical Developer (PD)	Dipped item in Maleic Acid first for ~5-10 min, then in PD for 20 minutes. Let it dry under lights.
344WEJ	Powder Dusting	Black Magnetic
36ELTP	Visual Examination	Examined in the white light and daylight.
	Alternate Light Source	Examined at 320-405 nm, 430 nm, 450 nm, 470 nm, 490 nm, 505 nm and 530 nm light.
	DFO	Processed in the DFO/Ninhydrin chamber for 30 min., t - 100 °C, RH - 0%, examined at 470 nm, 490 nm, 505 nm and 530 nm light.
	Ninhydrin	Solution was HFE 7100 based. The item was processed in the DFO/Ninhydrin chamber for 15 min., t - 80°C, RH - 65% and examined in the white light.
3QHHD6	Visual Examination	Inherent luminescence examination using Foster + Freeman Crime Lite ML with a 460nm-510nm bandwidth filter and orange barrier; white light with magnification; No prints observed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Ninhydrin (batch #279) and processing in the Caron chamber. Prints were observed on item #3 in the "B" quadrant.
	Physical Developer PD	PD Batch #443; completed by [Name]; Physical Developer examination with no additional prints observed.
3T49GV	Visual Examination	White light, no prints were observed.
	Ninhydrin	5 minutes processing time, 80 degrees, 62% RH.
3UYPWX	1,2-Indanedione	Application by spraying, placement in an oven for 20 minutes at 100°C
3WLBLE	Visual Examination	white light
	Ninhydrin	heat: 80C; humidity: 65% ~10 minutes
3YTN62	1,2-Indanedione	temp.90 C, humidity 10% time 15 min
	Ninhydrin	temp.21 C, humidity 80%, time 30 min
3Z7DCK	Black Magnetic Powder	
42YL2F	Visual Exam	ambient light & ALS (495 nm)/ orange filter
	Indanedione/ Zinc Chloride	Batch date: 8/3/16, control: +
	Ninhydrin/Hexane	Batch date: 4/26/17, control: +
43CXXZ	Visual Examination	
	Ninhydrin	Freon based ninhydrin. Item submerged in freon based ninhydrin solution. Item was allowed to fully dry. Item was further processed with steam iron; adding heat and humidity to the process.
4939C6	Visual Examination	No prints observed (white light and magnification)
	Ninhydrin	Ninhydrin batch #279, heat and humidity chamber 30 minutes, print observed - Quad B, whorl
	Physical Developer PD	PD Batch #444, no prints observed
4BHZ2C	Ninhydrin	
	Visual Examination	
4D4TRK	Visual Examination	examined with white light
	Alternate Light Source	examined with 495 nm and 365 nm light source

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Indanedione-Zinc Chloride	applied Ind-ZnCl and placed for 20 minutes in humidity chamber (70 degrees C 65% humidity) and examined with 495 nm light source
4D7CXW	Visual Examination 1,2-Indanedione Ninhydrin	Visible reflection + fluorescence + Zinc Chloride / pipetting / dry heat press at 165°C for 10 seconds pipetting / 48h development : in the dark, at room temperature, with a relative humidity of 56%
4FTZCH	Visual Examination Alternate Light Source DFO Ninhydrin Physical Developer PD	
4FX9PB	Visual Examination Ninhydrin	15 min. in humidity/heat chamber
4H3XT7	Visual Examination 1,2-Indanedione	Warmed heating oven to approx. 200° Fahrenheit. Processed item with IND and left in oven for approx. 1 hour to develop.
4L2CEA	Visual Exam Alternate Light Source Ninhydrin	With and without oblique lighting. 415-530 nm, orange goggles. Dipped in solution.
4TLLFR	Visual Examination 1,2-Indanedione Heat chamber Zinc Chloride Alternate Light Source	nothing to note 5 minutes processing time 10 minutes/100 C / 0% RH / Minimal result in letter "B" 5 minutes processing time 505 on the light spectrum with orange filter glasses / positive result for latent in letter "B"
4UY3ZK	Visual Examination 1,2-Indanedione Visual Examination	Magnifier with white light, ALS, LASER Heat applied at 100 degrees C for 20 minutes LASER

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
639T3N	Visual Examination	1) room light, 2) laser, 3) ALS
	1,2-Indanedione	Sprayed on, placed in oven at 100 degrees C/20 min, no humidity, followed by visual exam with laser and orange filter
	Ninhydrin	Ninhydrin/HFE - sprayed on, initial visual exam with room light, further processed with steam iron and visual exam
639TZ3	Visual Examination	White light and magnification
	Ninhydrin	Batch #279, processed in Caron chamber for 30 minutes
	Physical Developer PD	Batch #444, rinsed with tap water, air dried
66AYF9	Visual Exam	white light (flashlight) with oblique angles
	Alternate Light Source	455-515 nm with orange goggles
	Ninhydrin	dipped item in ninhydrin solution, air dried 15 minutes of steam treatment and developed in dark over several days
66UD77	Visual	@ room temp - no ridge detail observed
	Ether Ninhydrin	Spray both sides of paper @ room tem and let hang dry appx 5 min
	Steam Iron	applied steam iron on high setting just above item 3 w/frag ridge detail developing
67KNUE	Visual Examination	
	Ninhydrin	humidity approx 80%, temp approx 80.
68WMMPM	DFO	oven @ 212F for 10 min
	Alternate Light Source	495nm w/ orange filter
	Ninhydrin	steam iron (faint development)
	Ninhydrin	(repeated Nin process twice) steam iron
6D7TD7	Oblique magnified lighting	No FRD observed with this method unlike item #1
	Indandione	sprayed notepaper under fume hood, dry heat 80°C for ten minutes, no obvious development visible at room light
	Alternate Light Source	print developed in quadrant 'B' under alternate light source 495-530 nm using orange filter - photographed
6KLEH4	Visual Examination	
	Alternate Light Source	Inherent Luminescence-multiple wavelengths
	Iodine Fuming	Fuming Wand

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	1 min. dipping, 20 min. oven @ 212 degrees
	Alternate Light Source	505nm
6LDH6J	Visual Examination Alternate Light Source DFO Ninhydrin	
6MRV2	Visual Examination Ninhydrin Physical Developer PD	Examined under white light and magnification. No prints observed. Item treated with Ninhydrin batch #279. Processed in the Caron chamber at 60 degrees C and 60% humidity for 30 minutes. Print observed in Quadrant B. PD batch #443 processing completed by [Name]. Item examined with no prints observed.
6UABFY	Visual Examination Alternate Light Source DFO Ninhydrin	white light Fluorescence examination using Polylight pl 400 with emission from 350 to 600 nm with viewing filters Working solution is applied on paper. Once dry, paper is heated in a non-humidified oven at 100 C degrees for 20 minutes, followed by examination in white light and subsequent fluorescence examination (green region of the spectrum, with proper filter). Print recovered. Working solution is applied on paper. Once dry, paper is placed into a humidity-controlled oven at 80 C degrees and 65% RH for 5 minutes, followed by examination in white light. Print photographed immediately and after 1 week (after keeping in dark)
6UVN4C	DFO	processed by DFO and placed in oven @ 100°C for 20 minutes and viewed by a forensic laser
6YPQ6Q	DFO Ninhydrin	6/6/17 9:00-9:20. Humidity Chamber @ 100C Temp. 7/6/17 09:30-09:50. Humidity Chamber Temp = 75C RH65%.
6ZW3MR	Visual Examination Alternate Light Source IODINE FUMING DFO Ninhydrin	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
77KXAG	Powder Dusting	
79L9YP	Visual Examination	Polilight PL500
	DFO	100 Celsius, 10 min
	Ninhydrin	60 Celsius, 60 min
7A2MB7	Visual Examination	Crime-Lite 2, white light (400-700 nm); TracER LASER (532 nm)
	DFO	apply DFO and allow to dry completely (repeat), Sanyo Gallankamp oven 100 C for 20 min., examine with TracER LASER
	Ninhydrin	apply NIN and allow to dry completely (repeat), Sanyo Gallankamp oven 70 C (wet bulb) & 80 C (dry bulb) for 6 min., examine visually and/or with Crime-Lite 2
7A38DM	Visual Examination	Examined with natural light
	DFO	Heated in dry oven for 15 minutes, observed in blue-green light through orange filter.
	Ninhydrin	temperature 25 °C, RH80%, 2 hours.
7CLLGN	1,2-Indanedione	1,2-Indanedione solution was prepared as follows: 0.125g of 1,2-Indanedione was dissolved in solution of 5 mL glacial acetic acid and 45 mL ethyl acetate followed by 450 mL petroleum ether at room temperature. Item 3 was treated with 1,2-Indanedione solution for 10 seconds. The sample was left to air-dry for a few minutes and was then put in an oven at 80°C for 20 minutes.
	Alternate Light Source	Item 3 was observed with light source of 515 nm. An orange filter was used for visual observation.
7F9UAX	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Alternate Light Source	
	Physical Developer PD	
7NJDA9	Visual Examination	Oblique lighting with LED flashlight.
	Ninhydrin	Petroleum Ether-based Ninhydrin; soaked item in shallow tray of Ninhydrin, and removed immediately after item completely saturated. Hang dry for five minutes. Steam iron used to accelerate development process.



TABLE 2 - Item 3

WebCode	Development Methods	Method Details
7QRBXX	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80°C, 65% Relative Humidity, 3 minutes
7WVGBF	Ninhydrin	45 degrees celsius, 66% humidity, 1 hour in section A
	1,2-Indanedione	Submerged the paper into the fluid. + Drying about 150 degrees, 5 minutes long In section B
	DFO	Submerged the paper into the fluid. + Drying about 150 degrees, 5 minutes long In section C
	Powder Dusting	Magnetic Jet Black (BVDA) in section D
7XRM28	Photocopy	
	DFO	Applied DFO, heat, view under ALS
	Ninhydrin	Applied Ninhydrin, wait, applied Ninhydrin again after five days, wait, check, total of twelve days processing time
7ZDGTf	Visual	Flashlight, UV lamp, LASER, ALS
	DFO	Oven @ 100°C
	Ninhydrin then ZnCl <sub>2</sub>	Humidity chamber (70°C & 70% humidity)
	Physical Developer	
83HLP2	1,2-Indanedione	50°C, 40% humidity, 3h
	Ninhydrin	65% humidity, 26°C, 24h
83ZFL6	Visual Examination	White light
	Alternate Light Source	Blue and green light
	Ninhydrin	80 degrees, 65% RH, 5 minutes
84N79V	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80°C, 65% Relative Humidity, 3 minutes
8C9ZWD	Visual Examination	No ridge structure observed
	1,2-Indanedione	Positive control, heat press 325°F
	Alternate Light Source	Crimescope light used, 515nm - comparison value ridge structure, photographed print

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Ninhydrin with hexanes, positive control - no ridge structure observed
8CK2BZ	Ninhydrin	HFE preparation
8F32T2	Visual Examination	Basic lighting (Results: no ridge structure)
	1,2-Indanedione	Positive control. Heat press at 320 degrees fahrenheit for ten seconds (Results: ridge structure; comparison value)
	Alternate Light Source	Polilight at 505nm with an orange filter (Results: ridge structure; comparison value)
	Ninhydrin	Positive control (Results: ridge structure; no comparison value)
8J46L9	Visual Examination	same as other items
	Alternate Light Source	same as other items
	1,2-Indanedione	same as item 2
	Ninhydrin	same as item 2
8KE3TY	Visual Examination	White light with magnification. No print(s) observed.
	Ninhydrin	Ninhydrin batch #279 processing time approx. 5 seconds, then dried in fume hood for approx. 30 minutes. Next Caron latent print development chamber for 25 minutes. Print(s) observed.
	Physical Developer PD	PD batch #443; completed by [Name]. No print(s) observed during examination. No enhancement.
8NE6WE	Visual Examination (white light)	
	DFO	
8R2THE	Visual Examination	Ambient light, white light, oblique light. No ridge structure.
	1,2-Indanedione	Control tested positive prior to processing. Dip application; dried in fume hood. Dry heat press at 160 degrees Celsius for 10 seconds. Ridge structure - Collection value.
	Alternate Light Source	Crimescope - 495 nanometers and 515 nanometers with orange goggles. Ridge structure - Collection value.
	Ninhydrin	Control tested positive prior to processing. Spray application; dried in fume hood. Caron Heat and humidity chamber at 80 degrees Celsius and 65% Relative Humidity for 3 minutes (2 minutes after no further development was observed in a second control sample). Reviewed after 24 hours for further development. Ridge structure - No collection value.
8U4TE6	Visual	Oblique light, examined for indented writing
	Alternate Light Source	Crimescope 455-515 nm

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Working solution made 5/25/17. Solution sprayed on
8WUYUV	Visual Examination Alternate Light Source 1,2-Indanedione Physical Developer PD	365nm, 450nm, 532nm 532nm
92WEWP	Visual Examination Ninhydrin	Fluorescent light; LASER 532 nm; no visual ridge detail Test prints positive; heat and humidity 60 degrees C and 65% RH for 60 minutes
947EXP	Visual Examination Ninhydrin Humidity Chamber	overhead lights, flashlight Pump spray pre-mix solution
96HAL3	Visual Examination DFO Ninhydrin	Post treatment: 100 degrees C for 20 min Post-treatment: 80 degrees C for 20 minutes
97VLHL	Visual Examination Ninhydrin	sprayed paper with ninhydrin
988F2T	Visual Examination Alternate Light Source 1,2-Indanedione Physical Developer PD	
9CZMFV	Visual Examination DFO Ninhydrin	different light sources and filters spray, tem. 90-95 C, time 10 min, (Chamber Safefume CA 30S), 505-530 nm light, orange filter tem. 30 C, humidity 65%, time 2 h, (Chamber Nincha S31), natural and white light
9KQ8J9	Ninhydrin	approx. 30 minutes in heat press
9Q2ATH	Visual Examination	White Light

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Visual Examination	Laser (Green 532 nm & Blue 450 nm)
	1,2-Indanedione	1,2-Indanedione Zinc Chloride; Heat Press 212 degrees Fahrenheit for 30 sec.
	Visual Examination	Laser (Green 532 nm)
	Ninhydrin	Ninhydrin HFE; Steam Iron
	Visual Examination	White Light
	Physical Developer PD	Maleic Acid Pre-Wash (5 min.); PD (5 min.)
	Visual Examination	White Light
9QGBX7	Visual Examination	overall, ambient light, flashlight
	Ninhydrin	humidity chamber, 80 degrees celsius, 65% humidity for 20 minutes
	Physical Developer PD	35 minute processing time
9TM2YT	Visual Examination	Processing Time: 1 Min
	Ninhydrin	Processing Time: 24 hours (item was allowed to sit overnight after reagent application); Reagent: SIRCHIE Special Formula
	Steam Iron	Processing Time: 4 Mins
9YTGP3	Visual Examination	White, Blue and Green light. No observation of fingerprint was made on the paper.
	Ninhydrin	Developed 5min in cupboard at 80°C and 65% RH. Result: a clear fingerprint was shown in section B. Both first level details and pattern could be determined. Referent control – prints were deposited on a similar piece of paper, both by a Latent Print Stamp (Amino Acid Based) and human fingerprints, days before. Development of this paper gave prints of good quality the day of this CTS-testing.
9ZBGVD	Visual Examination	Results: No ridge structure present.
	1,2-Indanedione	Exposed to dry heat press - 320 degrees Fahrenheit for 10 seconds. Control test positive.
	Alternate Light Source	Spex CrimeScope, item viewed at 515nm wavelength with orange goggles. Results: Fingerprint present - comparison value (photographed).
	Ninhydrin	Item placed in humidity chamber after processing with ninhydrin. Exposed to 80 degrees Celsius, humidity 65%, for 20 minutes. Control test Positive. Ninhydrin did not further develop the print. Results: Ridge structure present, not suitable for comparison.
A3Q9HZ	Visual Examination	Using white light

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	Squirt bottle was used for application then into the oven for approximately 1.25 hours
A4K99J	Visual	cursory exam for obvious friction ridge impressions - no print
	Alternate Light Source	UV, 450nm w/orange filter, no print
	Ninhydrin	Item dipped in ninhydrin, allowed to sit for approximately 5-10 min, assisted w/steam iron, print/ friction ridges observed
ABKPJP	Visual Examination	
	Alternate Light Source	all available wavelengths
	1,2-Indanedione	Set time-next business day, Processed at room temp.
	Ninhydrin	Set time-next business day, Processed at room temp.
AFEDNB	Visual Examination	White light and magnification
	Ninhydrin	Ninhydrin batch #279, processing/development in Caron chamber for 1 hour at 60 degrees C and 60% humidity
	Physical Developer PD	PD batch #443 by [Name], Examination showed no further enhancement.
AQANRW	DFO	using Nincha settings at: 100 degree celsius and no humidity for 10 minutes.
	Ninhydrin	using nincha settings at: 65 degree celsius and 75% relative humidity for 30 minutes.
AT2U7G	Visual Examination	
	Ninhydrin	Caron Chamber: 20 minutes @ 80 degrees C & 70% humidity
AYB3J6	Visual Examination	Oblique lighting with a flashlight
	1,2-Indanedione	Soaked evidence item in a dish with reagent; allowed to dry (5 minutes), followed by a second treatment
	Environmental Chamber (small)	Placed in environmental chamber for ten minutes; temperature 80 degrees C, humidity 65%
	Alternate Light Source	Coherent Tracer Laser
AZ6PEG	Visual	
	Ninhydrin	
	Humidity	steam iron
AZJZ69	Visual Examination	artificial oblique lighting

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Pet_ether based; Caron Humidity Chamber 70 degrees C 70% humidity - 2 hours
B73P3N	Visual Examination Alternate Light Source DFO Ninhydrin	
B7Q4E8	Visual Examination Ninhydrin (Humidity chamber)	item visually inspected prior to processing positive control, Exp 05/09/18, 90% humidity @ 32.2°C, remain in chamber ~1 hour, removed and placed in secure locker for ~24 hrs (1522 7/6/17 - 1538 7/7/17) to cure
BAJAN4	Ninhydrin	ITEM 2 AND A CONTROL SAMPLE WERE DRAWN QUICKLY THROUGH A PROCESSING TROUGH CONTAINING NINHYDRIN WORKING SOLUTION. ITEM 2 AND THE CONTROL SAMPLE WERE PLACED ONTO A FLAT TRAY NOT OVERLAPPING AND ALLOWED TO DRY. THEY WERE THEN PUT INTO A WEISS GALLENKAMP NINHYDRIN DEVELOPMENT OVEN AT A RELATIVE HUMIDITY OF 62% WITH A TEMPERATURE OF 80C FOR 6 MINUTES. AFETR REMOVAL FROM THE PROCESSING OVEN AND COOLING THE ITEMS WERE ASSESSED VISUALLY USING A CRIMELITE 2 WHITE LIGHT. THE CONTROL SAMPLE WAS POSITIVE.
BCPMBW	DFO Ninhydrin	the exhibit was immersed in the DFO/HFE base solution for 5 minutes and thereafter put into the nincha s31 machine for 20 minutes at 100 degree celsius. visual examination performed using a Rofin PL500 set at 450 nm with orange filters used. the exhibit was immersed in the nin/HFE base solution for 5 minutes and thereafter put into the nincha S31 machine for 20 minutes at 80 degree celsius and 65% relative humidity. visual examination performed using a Rofin PL500 set for white light with clear filters.
BD2A76	Ninhydrin	PET ether base, 80 degrees C at 65% humidity, ~15 minutes
BGNYGA	Visual Examination Ninhydrin 1,2-Indanedione Alternate Light Source	No ridge structure Hexane, positive control, ridge structure developed with no comparison value Positive control, heat press at 325 degree Crime-scope at 515, comparison value ridge structure, then photographed
BL2KMV	Visual Examination	Blue light with yellow filter, green light with orange filter

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	DFO	100 degrees Celsius
	Ninhydrin	80 degrees Celsius, 65% humidity for 2 minutes
	Physical Developer PD	10 minute pre-wash in distilled water, 5 minutes in Maleic Acid, rinse in distilled water, physical developer for 15 minutes, rinse in distilled water
BLHYQY	Visual Examination	
	RTX	Dipped
	Ninhydrin	Dipped (2 times), SafeDevelop Heat & Humidity Chamber 3 times at 80 F, 65% humidity for 3 minutes
BPX7EX	Visual Examination	
	1,2-Indanedione	For one hour put in oven for 200 degrees
BR8EJC	Visual Examination	no ridge structure was observed
	Ninhydrin	Positive control; humidity chamber was at 70%, paper was placed in chamber for approximately 5 minutes. Ridge structure of collection value was observed. Photographs were obtained
	1,2-Indanedione	Positive control; heat press utilized for approximately 10 seconds with item #3
	Alternate Light Source	Polilight was utilized at multiple wavelengths between 415nm to 515nm; ridge structure of no collection value was observed
BR9DF7	Visual Examination	
	DFO	Item was immersed in DFO for 10 seconds and then dried for 3 min (these two steps were then repeated). The item was placed in an oven for 20 min at approximately 90-100 degrees Celsius
	Alternate Light Source	Examined DFO processed item at 505 and 530nm with orange goggles
	Ninhydrin	Added heat and humidity immediately after spraying ninhydrin by using a steam iron, let item sit in a dark location 7/10/17 to 7/13/17 prior to examination.
	Oil Red O	Item was immersed in stain solution for 90 minutes and then immersed in a buffer solution for 5 minutes.
BTFQ2D	Visual	no visible ridge detail
	Inherent Luminescence	orange filter w/laser @ 532nm = no visible ridge detail
	DFO	DFO oven approximately 20 minutes; viewed w/laser & orange filter = (1) latent developed in section B
	Ninhydrin	Ninhydrin oven approximately 20 minutes = (1) latent developed in section B (same as DFO - no additional)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
BTV2PK	Visual Examination	No detail was observed.
	1,2-Indanedione	The item was placed in a vented hood and sprayed with 1,2 Indanedione. The item was allowed to air dry for 3 minutes. After item was dry it was placed in a fingerprint chamber for 10 minutes at 100 degrees Celsius and zero percent relative humidity. After 10 minutes the item was removed and allowed to cool for 3 minutes. The was place in a vented hood and sprayed with Zinc Chloride. The item was allowed to air dry for 5 minutes.
	Alternate Light Source	The paper was examined with an ALS using 505nm light band and orange goggles. Latent print ridge detail was observed in section B.
BUDNN3	Ninhydrin	Using squirt bottle, completely wet item with ninhydrin, let dry 48 hours.
	Zinc-Chloride	Enhanced with Zinc-Chloride, view using ALS, wavelength 480 - yellow goggles - no enhancement.
	Physical Developer	Further development with physical developer 5mL - solution A, 90 mL solution B mixed together in clean glass tray. Pre-soak item in maleic acid for 10 min place item in physical developer solution for 15 min. Let dry for 1 hr - no prints developed
BXD28L	Ninhydrin	Ran notebook paper through Ninhydrin and allowed it to dry. Then ran a hot steam iron just above the paper until latent print lifted in Block "B".
BYKENM	Visual Examination	
	Ninhydrin	
BZTNJ7	Ninhydrin	30 minutes, heat press
C33WNJ	Visual Examination	
	Alternate Light Source	519 - 548 nm, orange goggles
	Ninhydrin	Dipped in Ninhydrin and then waited for 10 minutes. Owen in 5 minutes in 80 degree celcius and rh 70%
	Visual Examination	Finally examined after 24 hour
C3KVRA	Visual Examination	No Ridge Structure
	1,2-Indanedione	Ridge Structure Comparison Value - Positive Control, Heatpress at 320 degree Farenheit for 10 seconds
	Alternate Light Source	Ridge Structure Comparison Value; (CrimeScope) 505nm with orange filter/goggles
	Ninhydrin	Ridge Structure Comparison Value - Positive Control; Humidity Chamber, 80 degrees Celcius and 65% Humidity for 20 minutes



TABLE 2 - Item 3

WebCode	Development Methods	Method Details
C8DZHR	Visual Examination	White light and magnification
	Ninhydrin	Ninhydrin, caron chamber 30 minutes
	Physical Developer PD	20 minutes
C8VXPX	Visual Examination	Several wave length was used - With the green light something that could be a fingerprint was detected i section B. Not good for identification.
	Ninhydrin	Humidity 62%, temperatur 80 degrees, 6 min. A vague but very clear fingerprint became visable in section B.
CJRWKB	Powder Dusting	Black Magnetic Powder
CM9LLY	Ninhydrin	approx. 2 min, checked results ~2 hrs after processing
CMA2BT	Visual Examination	In daylight and flashlight and in whole spectrum of Polilight PL 500 (UV, 415, 450, 470, 480, 505, 530, 555, 620, 650) none fingerprint
	DFO	A fingerprint has been disclosed section B
	Ninhydrin	No improvement in a fingerprint quality
CNLYMP	Ninhydrin	faint ridges ~45 minutes after dipping, allowed to sit for another 30 - took pictures and then allowed to sit for the weekend - further processing time did not improve ridge quality - will use photographs taken Friday.
CPUBZK	Visual Examination	
	Ninhydrin	80 degrees, 65% humidity, processtime 5 min.
CUQV9B	Powder Dusting	82 degrees, processed right away
CV3GXC	Visual	
	Alternate Light Source	Viewed at 365nm and 495nm
	1,2-Indanedione-ZnCl	Approximately 70 C, 65% humidity for approximately 30 minutes. Viewed at 495 nm.
CWVKD6	Ninhydrin	Apply liquid ninhydrin to item, apply head and humidity with steam from iron
CZDP4M	Visual Examination	White light, Blue light and Green light.
	DFO	25 min processing time. HFE71DE/HFE7100 based working solution.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	6 min processing time. HFE71DE/HFE7100 based working solution.
D3UB9F	DFO	Object wetted using spray bottle and air dried for ~ 3 min. (+ test)
	Oven	Placed in oven at 100 Degree C for ~ 20 min.
	Alternate Light Source	Coherent Tracer Laser Power High Laser Control H. P. (+ test)
D66AQ3	Visual Examination	
	Ninhydrin	humidified incubator for 30 minutes
	Visual Examination	
D66DYK	Visual Examination	Forensic light source
	Ninhydrin	65 degrees C, 80% RH, 5 minutes processing time. A fingerprint was observed with a light source (white light).
D9MDGL	Visual Examination	Item was photographed. No Latent visible.
	Alternate Light Source	Room temp, viewed at all wavelengths with HandScope Xenon (SPEX Forensics). No Latents visible.
	1,2-Indanedione	Utilized a combined technique. First one the sample was dipped in the solution Indanedione /ZnCl and left to dry for a few minutes. Then placed in a humidity-cabinet (approx. 65 %) for 10 minutes, followed by heat press (~160C/10sec). Light Examination (532nm using orange barrier filter). Ridge detail observed in quadrant B; whorl pattern. Test print positive. Work solution preparation: 1,2-indanedione solution was prepared as follows: 0.4 g of 1,2-indanedione was dissolved in solution of 5 mL glacial acetic acid and 45 mL ethyl acetate followed by 450mL petroleum ether. Zinc Chloride solution was prepared as follows: 0.4 g of Zinc Chloride was dissolved in solution of 10 ml ethanol and 1 mL ethyl acetate followed by 190 mL petroleum ether Indanedione /ZnCl Work Solution 100 ml of 1,2-indanedione solution was mixed with 2 ml of Zinc Chloride solution
	Ninhydrin	The second treatment, in order to improve the quality of the sample. It was dipped in Ninhydrin solution and dried at room temperature. Ninhydrin developmet was accelerated under control conditions at 80°C, 65 % RH for 3 min and then allowed to develop for 72 hours at room temperature and dark place. Test print positive. Visual examination with HandScope Xenon (SPEX Forensics) (white light). Ninhydrin Work Solution Ninhydrin solution was prepared as follows: 2 g of Ninhydrin was dissolved in solution of 10 mL ethanol, 5 ml glacial acetic acid and 35 mL ethyl acetate followed by 450mL petroleum ether.
	Visual Examination	Fingerprint in section D detected, fingerprint was photographed with white light.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
DBUPGV	Visual Examination	White light and magnification.
	Ninhydrin	Ninhydrin Batch #279, Caron chamber, white light and magnification; Print observed and scanned
	Physical Developer PD	PD Batch #444, no print observed or scanned.
DGH8XR	Visual Examination	Negative w/Ambient & Green Light (Tracer)
	DFO	Positive w/Green Light (Tracer) Caron-6015 100C for 20 minutes
	Ninhydrin	Improved w/Ambient light Caron-6105 80C 65%RH for 2 minutes
	Physical Developer PD	Not Improved w/ambient ight
DGJ8V8	Black Magnetic Powder	
DHREXZ	Visual Examination	visually examined the piece of paper
	DFO	sprayed the paper with DFO, applied heat, and an ALS
DQ6CKX	Visual Examination	Light from different angels and different wave lengths. Possible very thin fingerprint briefly seen in section C.
	Ninhydrin	80 degrees C, 62% humidity, 5 minutes
	Visual Examination	Visual examination during development. A fingerprint became visible in section B.
	Visual Examination	Visual examination immediately after finished development and after 24 hours. A fingerprint was visible in section B.
DVB92C	Visual Examination	
	1,2-Indanedione	Heat Press, viewed with Bright Beam Laser, 532 nm
	Ninhydrin	Steam Iron
DX6UWP	Ninhydrin - Spray - Acetone Base	In processing hood with fan active for 15 min. Steam applied over item with a faint print being developed in Quadrant "B", test print - positive reaction
E4P8FN	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm
	1,2-Indanedione	VIS and 532nm
	Physical Developer PD	
E7EDZK	Visual Examination	Viewed the item with specialized lighting, 2 minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Ninhydrin was applied to the surface of the item and stored in a secured location for approximately 18 hours to allow for print development.
EDB9Z6	Ninhydrin	Ninhydrin - exp: 05/09/18, processed at 1755, positive control, humidity chamber - cleaned before and after with 70% isopropyl alcohol, temperature control set to 32.2 degrees Celsius, humidity control set to 90.0%, time placed into humidity chamber: 1757, time removed from humidity chamber: 1842
EKBTWT	DFO	DFO/HFE 100 degree celsius, 0% relative humidity, 20 minutes.
	Ninhydrin	Ninhydrin Methanol (Nincha): 80 degree celsius, 65% relative humidity, 20 minutes.
EN8J2K	Visual Examination	
	DFO	20 minutes, 100 degrees C
	Ninhydrin	5 minutes, 62 %RH, 80 degrees C
ENBYJQ	Visual Examination	Utilized ALS (Tracer) with orange filter and Rofin (blue light) with yellow filter.
	DFO	Utilized Caron at 100 degrees Celsius for 20 minutes.
	Ninhydrin	Utilized Caron at 80 degrees Celsius and 65% humidity for 2 minutes.
	Physical Developer PD	Prewashed with distilled water for 10 minutes, submerged in maleic acid for 5 minutes and rinsed in distilled water. Applied PD, submerged for 5 minutes and rinsed in distilled water.
ERVN8B	Visual Examination	White Light
	Alternate Light Source	415-495 nm
	1,2-Indanedione	Left sitting under venthood 6 hrs. to develop
	Laser	Tracer Laser (532 nm)
	Ninhydrin	Item repackaged and left overnight to develop
	Visual Examination	White Light
EUFZB	Visual Examination	
	Alternate Light Source	UV (365 nm), 495/535 nm lights
	1,2-Indanedione-Zinc Chloride	Viewed with 495 nm light
EXFX78	Visual	Oblique light, UV, LASER
	DFO, LASER	Dip, dry, dip, dry. Let stand 24 hrs. Two digital photographs

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
F7T789	Visual Examination Alternate Light Source 1,2-Indanedione-Zinc Chloride	365nm, 495nm 70 degrees celcius, 65% relative humidity for a minimum of 20 minutes, visualized at 495nm
F9HTN3	Ninhydrin exp 05/09/18	ninhydrin applied to item while under hood while wearing appropriate PPE. item placed in humidity chamber. item in chamber for 72 mins with 90% humidity at 32.3°C. item placed in plastic evidence bag and secured in locker for additional 24 hour processing.
FD8CJ7	Visual DFO Nin ZC PD	100°C for ~20 min 70°C/ 70% humidity ~5 min 70°C/ 70% humidity ~5 min Maleic Acid prewash ~10 min. PD ~20 min
FG9AER	Visual Examination Ninhydrin Physical Developer PD	High intensity light, ambient light, magnifier Batch 280; dipped, dried and 45 minutes in caron chamber Print B Batch 444; 10 minutes each step: Maleic acid, PD, and rinse
FJEJL4	Visual Examination 1,2-Indanedione Alternate Light Source	HFE-7100 formula. Heat press 100C for approximately 1 minute Tracer Laser - 532nm
FLK494	Visual Examination Ninhydrin	Natural light Caron processed at 80°F 65% RT and 3 mintues processing
FM9QJQ	1,2-Indanedione Visual Examination Visual Examination	
FXHZGW	Visual Examination DFO Ninhydrin	White light 20 min, 100 Celcius 15 min, 80 Celcius, 70 humidity

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Alternate Light Source	455nm & orange filter
FZLZAG	Visual Examination	
	Alternate Light Source	
	DFO	20 min
	Alternate Light Source	
	Ninhydrin	5 min
G4JLWD	Visual Examination	
	Alternate Light Source	same as items 1 and 2
	1,2-Indanedione	use with crimescope at 515nm
	Ninhydrin	applied humidity to item to enhance development of ninhydrin's purple color
G6ULXE	Visual Examination	
	Ninhydrin	Dipped in Ninhydrin and then waited for 10 minutes. Owen in 7 minutes in 80 degree celcius and rh 70%
G73XDU	Visual Examination	White light
	Alternate Light Source	Blue and green light
	1,2-Indanedione	Heat press, 165 degrees centigrade, 15 sec
G7P7MY	Visual Examination	white light
	Alternate Light Source	Polilight at 530nm and 505nm
	Powder Dusting	black magnetic powder
	Ninhydrin	Acetone carrier, heat (~50 °C for 10 minutes)
GCVN97	Visual Examination	Ambient/Magnified light; Control = Not Applicable; Result = No ridge structure
	Alternate Light Source	LabKam: Short wave ultraviolet light (254 nanometers); Control = Not Applicable; Result = No ridge structure
	DFO	100 degrees Celsius for 20 minutes; Control = Positive; Result = Not Applicable
	Alternate Light Source	Crimescope: Control = Not Applicable; Result = Ridge structure - Collection value
	Ninhydrin	Humidity: 70%, Time: 10 minutes, Temperature: 80 degrees Celsius; Control = Positive; Result = Ridge structure - Collection value

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	165 degrees Celsius for 10 minutes; Control = Positive; Result = Not Applicable
	Alternate Light Source	Crimescope: Control = Not Applicable; Result = Ridge structure - Collection value
GEERRW	Visual Examination	
	Ninhydrin	w/hexane formula
GHFX83	Visual Examination	With no physical enhancement (only eyes) and with white light (flashlight) at direct and oblique angles
	Alternate Light Source	Visual examination with alternate light source prior to processing using 350-415nm and a yellow barrier filter and 495-515nm and an orange barrier filter
	DFO	DFO spray; allowed to air dry and then placed in Caron chamber at 100 degrees Celcius for 20 minutes with no humidity
	Ninhydrin	Special formula pump spray; allowed to air dry and then placed in Caron chamber at 80 degrees Celcius for 5 minutes at 65% humidity
	Ninhydrin	Special formula pump spray; allowed to air dry and then placed in Caron chamber at 80 degrees Celcius for 5 minutes at 65% humidity
	Powder Dusting	Black magnetic powder and a magnetic wand used
GLJHK3	Visual Examination	
	1,2-Indanedione	Control - Positive. Dipped in 1,2-Indanedione then allowed to dry before placing on a heat press for 10 seconds at 160 C.
	Alternate Light Source	Viewed at 505 nm with orange goggles using the Crimescope
	Ninhydrin	Control - Positive. Dipped in Ninhydrin and placed in a humidity chamber at 80 C and 70% humidity
GPUURN	Ninhydrin	Nincha S31 Using Nin: 65 degree celsius and 65 % relative humidity for 20 minutes.
GT2647	Visual Examination	white LED light
	Alternate Light Source	UV-365nm, CrimeScope-CSS with orange filter, Crime-lite 445-510nm with orange filter
	1,2-Indanedione-Zinc Chloride	humidity chamber (70 degrees Celsius, 65% relative humidity, 20 minutes), Crime-lite 445-510nm with orange filter
GTK2F7	Magnetic powder	
GXTAXB	Alternate Light Source	No marks were found.
	Ninhydrin	Mark in section B has been recovered.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
H3LN7H	Visual Examination	VIS, UV, none fingerprint
	DFO	CAST recepture, 100 degree C, 20 min., fingerprint - section B
	Ninhydrin	CAST recepture, 80 degree C, 62 %RH, fingerprint - section B
H6L2HA	Visual	
	Ninhydrin	Item was dipped in Nin and 2 days later was examined for latent prints
	Physical Developer	
HBD284	Visual Examination	Visual exam under white light for patent prints and/or biological material; no prints observed.
	Ninhydrin	Ninhydrin batch #278, Caron chamber at 60 degrees C and 60% humidity; prints observed.
	Physical Developer PD	PD batch #443 processed by [Name]; No prints observed during examination.
HBVDJG	Ninhydrin	
HCALQW	Visual Examination	Viewed sample under natural and forensic lighth.
	Ninhydrin	It was sprayed with Ninhydrin and placed in the oven for 5 minutes with 80° C Temperature and 65% Humidity.
HCN24X	Magnetic Black Powder	Outdoors, Sunny and Warm. 5-10 minutes processing time.
HLDP47	Visual Examination	overhead lighting/bench light
	Alternate Light Source	visual w/ ALS
	Laser	visual w/ Laser
	DFO	temperature humidity chamber, heat only at 100 degree C, 20 mins
HMNRP6	Visual Examination	A visual exam was performed on the lined notebook paper. No ridge structure was observed.
	Ninhydrin	The lined notebook paper was dipped in Ninhydrin and allowed to dry. It was then placed in a humidity chamber at seventy percent humidity for approximately three to four minutes. Ridge structure of collection value was observed and digitally photographed.
	1,2-Indanedione	The lined notebook paper was then dipped in 1,2-Indanedione and allowed to dry. It was placed between two pieces of clean paper and placed in a heat press for approximately ten seconds.



TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Alternate Light Source	The dye stain applied to the notebook paper was visualized with a Polilight. Orange goggles were worn and the evidence was viewed at various wavelengths between 415-505 nanometers. Ridge structure of no collection value was observed.
HPD3HJ	Visual Examination Alternate Light Source 1,2-Indanedione Physical Developer PD	LAS, UV LAS
HRYUMU	DFO	100 celsius 10 minutes
HVHWGK	Visual Examination DFO Ninhydrin Physical Developer PD	20 minutes at 100 degrees Celsius in Caron 6105 chamber 2 minutes at 80 degrees Celsius and 65% humidity in Caron 6105 chamber 20 mL of solution A and 360 mL of solution B; 15 minutes in PD solution
HZWGLL	Visual Examination Alternate Light Source 1,2-Indanedione Alternate Light Source Physical Developer PD	
J3YWCN	Visual Examination Ninhydrin Physical Developer PD	Magnification and white LED light, no prints observed Ninhydrin Batch #279; caron 6115, controlled heat and humidity, 60 degrees C for 30 minutes, one print observed Quadrant "B" PD batch #443 - Immersion with silver nitrate suspension; 10 minutes each method: maleic acid, actual processing and rinsing. Air dried. No prints observed.
JC22DD	Ninhydrin	Dipped the item and allowed the item to completely dry. Applied heat
JGWTNV	Visual Examination DFO Ninhydrin	negative print in section B print in section B

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JNX2DV	Visual Examination	neg ridge detail observed
	Ninhydrin	soaked evidence in Ninhydrin until entire surface was wet
	Hot steam	Steam used to develop / accelerate processing of latent prints
JUJ2MG	Visual Examination	white/green/blue/red light
	DFO	100 degrees Celsius for 20 minutes
	Ninhydrin	80 degrees Celsius and 65 % humidity, for 7 minutes
JXHLG	1,2-Indanedione	and zinc chloride 200° F 20 minutes
	Ninhydrin	room temperature 48 hours development
	Visual Examination	
JZB846	Ninhydrin	Tray immersion (5 sec), developed using iron on steam setting
	Ninhydrin	2nd application, tray immersion (5 sec), developed using iron on steam setting
K2Y2FY	Ninhydrin	HFE Formulation, Steam Iron
KAWTQE	Visual Examination	Using oblique lighting and UV light (no visible print observed)
	Ninhydrin	Ninhydrin prepared in acetone. Ninhydrin was applied to the paper by spraying. It was air dried before being put in an oven (90 degree Celsius, 5 to 8 mins)
KFVFD8	Visual Examination	Inclination of the object - No result
	Alternate Light Source	Light grazing with Crimescope MCS-400 - No result
	1,2-Indanedione	Vaporization of a solution 1,2-Indanedione/Cl <sub>2</sub> on the paper, waiting for evaporation of the product under hood, then object placed under a heating press at 180 °C during 10 secondes. The solution is tested on a control beforehand.
	Alternate Light Source	Crimescope MCS-400 at CSS filter and orange filter glasses for observation
	Ninhydrin	Vaporization Ninhydrine on the paper, waiting for evaporation of the product under hood then object placed in an oven at 80 °C with a beaker of water for 20 minutes. The solution is tested on a control beforehand.
	Alternate Light Source	With light with Crimescope MCS-400
KHUCD4	Visual Examination	The item was visually examined with no ridge structure being observed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	Indanedione was applied to item #3, dried , and then the item was placed in a heat press. No ridge structure of comparison value was developed. A control was used during this process and the control produced positive results.
	Alternate Light Source	This step was done in conjunction with the application of Indanedione. After applying Indanedione and after using the heat press the item was visualized using an alternative light source (polilight - wavelength 450nm). No ridge structure was observed.
	Ninhydrin	Item #3 was treated with Ninhydrin and then allowed to dry. The item was then placed into a humidity chamber for approximately 5 minutes (temperature of 65C and a humidity of 70%). Ridge structure of comparison value was observed and photographed.
KL4RCE	Visual Examination	COC Photos, then visual: Did the visual with 000 nm, 350 nm, 450 nm and 505 nm.
	DFO	sprayed the exhibits with DFO and put it inside a Nincha S31 for 15 minutes at 100 degree celsius.
	Ninhydrin	sprayed the item with ninhydrin and put it inside Nincha S31 for 20 minutes at 70 degree celsius and 70% relative humidity.
KM3LF6	Visual Examination	
	Alternate Light Source	365nm, 495nm, 535nm
	1, 2 Indanedione/Zinc Chloride	495nm, humidity chamber - 20 min., 70 degrees Celsius, 65% relative humidity
KRFH4F	Visual Examination	Crimescope, Lasers 532 nm and 577 nm
	1,2-Indanedione	10 sec at 165°C
	Ninhydrin	5 days waiting
KRGDRR	OML/ ALS	No vis FRD w/OML or under ALS - all wavelengths 350nm to 670nm w/filters.
	Indanedione	Item sprayed, allowed to dry, then placed under direct dry heat - 45 seconds w/iron.
	Alternate Light Source	Fluorescence detected w/visible impression at 495nm w/orange filter in block "B".
KVDYM2	Visual Examination	No ridge structure
	1,2-Indanedione	Dip method, dried, 10 seconds in 320 degree Fahrenheit heat press, no comparison value, control positive
	Alternate Light Source	Crimescope, 505 nanometers, orange goggles, orange filter, comparison value fingerprint
	Ninhydrin	Control positive, humidity chamber at 80 degrees Celsius, relative humidity 65%, comparison value fingerprint

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
L3NR24	1,2-Indanedione	Amino acid sensitive processing reagent for porous items; Caron Chamber at 100 degrees C for 10 min; visualization using Coherent TracER Laser
	Ninhydrin	Amino acid sensitive processing reagent for porous item; Caron Chamber at 85 degrees C and 65% RH for 3 min.; 3 day waiting period for latents to develop
L4423H	Visual Examination	Examined Item 3 for prints. No ridge detail observed.
	Oblique lighting	Examined Item 3 for prints using a flashlight. No ridge detail observed.
	Alternate Light Source	Examined Item 3 for prints using an ALS. No ridge detail observed.
	Ninhydrin	Dipped Item 3 into solution until it appeared fully saturated/wet, approx. 10-15s. Paper appeared to have substance on it that reduced absorption of solution.
L866RJ	Visual Examination	No ridge detail was observed.
	Ninhydrin	Secured in my locker to air dry until 06/07/17.
L8HNPV	Visual Examination	
	Ninhydrin	
LFYFZT	Ninhydrin	After Ninhydrin application, item was left to dry and allow any latents to develop naturally.
	steam heat application	Steam heat applied after initial development and photo documentation.
LJEULE	Visual Examination	oblique lighting
	DFO	spray/ dry heat with iron
	Alternate Light Source	532nm LASER w/orange goggles
LV883X	Powder Dusting	80 degrees, windy, sunny, 11:11 photographed and then processed
LVTPYT	Alternate Light Source	white Light, blue/green, green, UV
	DFO	100 degrees Celsius for 20 minutes
	Ninhydrin	3.5 minutes in humidity chamber at 50 degrees Celsius and 70% relative humidity.
LW4UBV	Ninhydrin	Petroleum ether formula, Spray bottle application, Caron heat/humidity chamber development - 80 degrees C, 65 percent humidity, 20 mins processing time

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
LY6M9L	Ninhydrin	Temperature: 80 celsius, Humidity: 62%, Time: 7 minutes, Cabinet: Labrum Klimat
M779U9	Visual Examination DFO Visual Examination Ninhydrin Visual Examination	white light, UV - 555 nm - Polilight PL 500, suitable googles, processing time - 20 minutes, temperature - 95 degree Celsius 495 nm, orange coloured google processing time - 3 hours, temperature - 25 - 30 degree Celsius, humidity - 70% white light
MD8GLV	Ninhydrin	Ninhydrin was applied using a brush to the paper which was then allowed to dry; heat and steam were then applied to the paper using a handheld steam iron
MDQH9X	Visual Examination 1,2-Indanedione Ninhydrin Powder Dusting	No ridge structure observed. positive control. Dipped paper and dried ( 5 minutes). Heat press at 320 degrees F for 10 seconds. Ultra Violet light source used 505 nanometers using orange goggles. 10 minutes. No ridge structure observed. Positive control- sprayed paper and placed in humidity chamber. Temperature set at 70 degrees C and 80% humidity. 15 minutes processing time. Ridge structure observed. Black Magna powder used. No additional ridge structure observed. 5 minutes processing time.
MEGL26	Visual Examination 1,2-Indanedione Alternate Light Source	
MEHJ8U	Ninhydrin	"painted" on, passed over with an iron approximately 1.5 minutes
MG67G9	Visual Examination 1,2-Indanedione Heat Chamber Zinc Chloride Alternate Light Source	(-) results needing enhancement 5 minute process time 10 minute process time/100 degree C./ 0% RH with (-) visual results 5 minute process time, (-) visual results 505 light spectrum with orange filter goggles, (+) results
MH374M	1,2-Indanedione	Approximately 1 hour at 200 degrees F

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
MH43EJ	Visual Examination	green light (Tracer laser) used
	DFO	Caron Environmental chamber at 100 degrees Celsius for 20 minutes
	Ninhydrin	80 degrees Celsius at 65% humidity for 2 minutes
	Physical Developer PD	15 minutes in PD solution (Sirchie Solutions)
MPXHTP	Visual Examination	
	DFO	100 degrees Celsius, 20 min, + light source 515 nm
	Ninhydrin	80 degrees Celsius, 62%, 5 min
MQBXBW	Visual Examination	No ridge structure observed
	1,2-Indanedione	heat press for 10 seconds at 320 degrees
	Alternate Light Source	Crimescope, ridge structure comparison value, photograph taken
	Ninhydrin	humidity chamber, ridge structure no comparison value
MR7HZG	Visual Examination	Item 3 was visually observed on 07-09-17 at 1500-1505 .
	Oblique lighting (flashlight)	Item 3 was observed with oblique lighting on 07-09-17 at 1500-1505 hours.
	Alternate Light Source	Item 3 was observed using an ALS on 07-09-17 at 1500-1505 hours.
	Ninhydrin	Item 3 was processed with ninhydrin on 07-09-17 at 1510 hours.
MR9DJM	Visual Examination	Initial visual examination using white light, UV, 415nm and 505nm - no prints
	1,2-Indanedione	Spray with 1,2-indanedione, let dry. Heat press at 170 degrees C for 10 secs. View under 505nm with orange goggles - one print.
	Ninhydrin	Spray with ninhydrin. Let dry. Place in humidity cabinet for 10 mins (65% humidity, 80 degrees C). View under white light or 505nm/450nm/530nm
	Turner method (post treatment)	Cover/mark ninhydrin developed print with orange highlighter pen. View under 415nm with clear or orange goggles.
MRLR6B	Visual Examination	Natural light, white light and Polilight PL-500 Forensic Light (all wavelengths)
	1,2-Indanedione	Dipped in 1,2-Indanedione - Zinc Chloride working solution. After drying chamber with these values: Temperature 100°C, Humidity 0% and Time 20 minutes.
	Ninhydrin	Dipped in Ninhydrin petroleum ether based working solution. After drying chamber with these values: Temperature 80°C, Humidity 62% and Time 20 minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Physical Developer PD	Dipped in PD working solution during 30 minutes and after dry at room temperature 24 hours
MTXM9V	Visual Examination Ninhydrin	no ridge detail observed lot 5/2/17 validated 5/2/17 & Caron Humidity Chamber 70 degrees C 70% humidity, 20 minutes; faint ridge detail "B" block
MYNUEH	DFO Ninhydrin Physical Developer PD	Caron 6105 chamber was used. Item was processed for 20 mins at 100 degrees C Caron 6105 chamber was used. Item was processed for 2 mins at 65%RH and 80 degrees C. Item was soaked in Distilled water for 10 mins then soaked into maleic acid for 5 mins. It was then dipped into distilled water then processed in PD for 22 min and 17 sec. Item was then rinsed and left to be air dried
MYQGWW	Visual Examination 1,2-Indanedione Ninhydrin Powder Dusting	No ridge structure observed- 5 minutes Positive control. Heat press- 320 degree F, ultra-violet light source- 505 nanometers with orange goggles. 15 minutes processing time. Humidity chamber- 70 degrees C, 80% humidity. Positive control. Ridge structure observed- 15 minutes processing. Black magnetic powder used- no additional ridge structure was observed. 15 minutes processing time.
N28CNE	Visual Examination Ninhydrin Photograph	use the oblique light on the item Ninhydrin (Acetone base), Ninhydrin development oven (CARON) T=80 c, H=62 +/-5%RH DCS4, Ring light, ISO200, F11
N2BR6L	Visual Examination 1,2-Indanedione	Sprayed item with Indanedione then put item into our oven at 200 degrees fahrenheit, for approximately 1 hour.
N8E4T7	Ninhydrin	
NA3BJU	Visual Examination RUVIS/ALS Ninhydrin	With and without oblique lighting Alternate light source exam. RUVIS Crimelite 82S Blue/Green and UV Light. Ninhydrin-petroleum ether based solution placed in Caron Fingerprint Chamber 20 min@ 80 degrees/65% humidity
NBW37Z	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Alternate Light Source 1,2 Indanedione - Zinc Chloride	Crimescope (handscope) 495nm, UV lamp for UV (365 nm) Placed in Hotpack humidity chamber for 30-40 minutes and examined with 495nm using Crimescope (Handscope)
NF2UFH	Ninhydrin	Temperature: 72 celsius, Humidity: 65%, Time: 7 minutes, Cabinet: Labrum Klimat, Forensic climate cabinet FKC-MV4KC
NFUFCX	MAGNETIC POWDER	DAY TIME, SUNNY, 75 TO 80 DEGREES
NLRBRN	Indanedione Ninhydrin	Squirt with plastic bottle, let it dry and observe with ALS lighting. Squirt with plastic bottle, let it dry and leave overnight and observe next day.
NMTXUV	Visual Examination 1,2-Indanedione Alternate Light Source Ninhydrin	Positive control, dipped and let dry, dry heat press for 20 seconds at 160 degrees celsius Crimescope with orange goggles at 505 nm Positive control, dipped and let dry, humidity chamber at 80 degrees celsius and 70% humidity
NN2ELZ	Powder Dusting	magnetic powder (black)
NQ4A2G	DFO	chemical Processing: exhibit treated with DFO/HFE, by dipping method. exhibit placed in Nincha oven, at 100 degree celsius for 20 minutes with a DFO filter.
NQLB4X	DFO Ninhydrin Zinc Chloride Physical Developer	Laser light source (wait 24 hours) (oven) humidity chamber (wait 24 hours) humidity chamber (wait 24 hours), alternate light source
NQPQJK	Visual Examination 1,2-Indanedione Alternate Light Source Ninhydrin	No friction ridge detail. Positive control, no comparison value friction ridge detail. Polilight, comparison value friction ridge detail. Digital photography. Positive control, no comparison value friction ridge detail.
NWVKGL	Visual Examination 1,2-Indanedione Alternate Light Source	Ambient light Chamber Hum2 (60 min, 50 deg C, 60% RH) 532 nm laser (Trac01), Orange filter, Positive Control



TABLE 2 - Item 3

WebCode	Development Methods	Method Details
NXN923	Visual Examination	white light
	Visual Examination	polylight (450nm-555nm, orange filter), UV- 350nm
	1,2-Indanedione	press for 10s, 160C
	Ninhydrin	10 min. humidity cabine (80C, 65%humidity)
NY4JUF	Visually Optical Method Visual Examination	daily lihght (natural light) white light illuminator Polilight PL500 in the whole range of illuminator with filtrs.
	DFO	sprry - tempr. 90°C, 10 min. chamber DFC 200A illuminator Polilight PL500 450-530nm
	Ninhydrine	spray - temp. 90°C, 20 min. humidity 60%
NYG9V8	Visual Examination	White light and laser 532nm with orange filter
	1,2-Indanedione	200F heat press for 2 min
	Ninhydrin	steam applied
P63ECE	Visual Examination	White light and magnification
	Ninhydrin	Batch 279; Item 3 soaked in Ninhydrin then air dried for 10 minutes. Further processing on Caron Chamber for 45 minutes.
	Physical Developer PD	Batch 443; Item 3 soaked in Maleic Acid for 10 minutes, PD for 10 minutes and then water for 10 minutes. Air dried afterwards.
P669VK	Visual Examination	
	RTX (Ruthenium Tetroxide)	dipped
	Ninhydrin	dipped - 3 minutes @ 80 degrees celsius & 65% RH (Fingerprint Development Heat & Humidity Chamber)
P7UJJR	Visual Examination	
	Ninhydrin	lot 5/2/17 tested 5/22/17; Caron 70% humidity / 15 minutes
PAZVQU	Visual Examination	
	1,2-Indanedione	Control - positive, dipped, let dry, heat press for 10 seconds at 160 degrees Celcius
	Alternate Light Source	Crimescope- orange goggles at 505nm
	Ninhydrin	Control - positive, dipped, let dry, humidity chamber at 80 degrees Celsius at 70% humidity
PF6WN3	Ninhydrin	submerged, humidity (iron)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
PHU39Y	Visual Examination	Visual exam with oblique light
	Alternate Light Source	Visual exam with ALS & Laser
	1,2-Indanedione	Heat in oven @ 100 degrees Celsius for ~ 20 minutes; visual with Laser
PJ38UB	Visual Examination	A visual examination did not detect any impression on the item.
	1,2-Indanedione	The next method used was Indanedione Zinc. The sheet of ruled notebook paper was dipped in the solution, and left to dry for a few minutes. Then placed in a humidity-cabinet for 15 minutes with approx. 80 Celsius and 75% humidity.
	Alternate Light Source	An impression in quadrant B fluoresced in examination with 495 nm light and orange filter glasses.
	Ninhydrin	Ninhydrin was used as an additional method, but the impression was not improved.
PKD678	Ninhydrin	7 hours
PP79V6	Visual Examination	same as other items
	Alternate Light Source	same as other items
	1,2-Indanedione	room temp., process time <1 minute, applied via spray bottle, wait time-until dry, visualized with crimescope at 515nm
	Ninhydrin	room temp, process time <1 minute, wait time-until dry, applied via spray bottle
PPTRLX	Powder Dusting	
PTAZAW	Powder Dusting	
PX6PWV	Visual Examination	No ridge structure observed.
	1,2-Indanedione	Evidence was dipped into Indanedione, allowed to dry, then put in a heat press at 320 degrees Fahrenheit for 10 seconds. It was then viewed with a polilight at 505 nanometers with an orange barrier. No ridge structure observed.
	Ninhydrin	Methanol-based ninhydrin sprayed on the evidence, allowed to dry, then placed in Caron brand humidity chamber; developed for 10 minutes at 80% humidity and a temperature of 70 degrees Celsius. One latent fingerprint developed in quadrant B. A digital photograph was taken.
	Powder Dusting	Magnetic black powder used; no additional latent print enhancement or development observed.
PY266L	Visual Examination	Visual exam with flashlight

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	45 min at 50c/60% Humidity, 532nm, Orange Filter, Hum2\Trac01, Control Positive
Q2M9DJ	Visual Examination	Photographed overall appearance before processing
	1,2-Indanedione	Applied IND, let dry in fume hood for 10 min, placed in IND oven for 2 hours
Q6LMXN	Visual Examination	same as other items
	Alternate Light Source	same as other items
	1,2-Indanedione	same as item 2
	Ninhydrin	same as item 2
Q7B326	DFO	7/6/17 8.30 - 8.50am Humidity Chamber @ 100C temp.
	Ninhydrin	7/6/17 9.30 - 9.50am Humidity Chamber Temp 75C RH65%.
QAC7TQ	Ninhydrin	1 hour up until reaches 200 degrees
QBMW6G	Visual Examination	White light and magnification
	Ninhydrin	Ninhydrin batch 279, Caron chamber 1 hour
	Physical Developer PD	PD batch 443 by [Name], no prints on examination
QF2HTU	Visual Examination	
	Ninhydrin	Caron Chamber; 70 degrees C/70% humidity for 30 minutes
QH8YAX	Powder Dusting	
QJMF9W	Visual Examination	Viewed under white light and TRACER Laser.
	1,2-Indanedione	Sprayed with 1,2-Indanedione (HFE-7100), left at room temperature for approximately 4 hours, viewed under TRACER Laser.
	Ninhydrin	Sprayed with Ninhydrin (HFE-7100), left at room temperature for approximately 20 hours.
QNC3U6	Alternate Light Source	LASER, RUVIS, UV
	Visual Examination	Ambient Light
	1,2-Indanedione	Dip/bath method of application. Placed in humidity cabinet at 80% Rh for 10 min.
	Alternate Light Source	LASER

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Dip/bath method of application. Placed in humidity cabinet at 80% Rh for 10 min.
	Visual Examination	Ambient light
	Physical Developer PD	Series of baths method of application.
	Visual Examination	Ambient light
QUK9RW	Visual Examination	
	Ninhydrin	Special formula drying 20 Min.
	Steam iron	10-15 Min. print developed
QVU76D	Visual Examination	
	Alternate Light Source	
	Indanedione	
	Physical Developer PD	
QW6BGG	Visual Examination	Crimescope
	1,2-Indanedione	160°C during 10 sec
	Ninhydrin	48H at room temperature
R2DZDV	Visual	UV, ALS, Laser, oblique lighting
	1,8-Diazafluoren-9-one (DFO)	oven, Laser
	Ninhydrin	Humidity chamber
	Zinc Chloride	Humidity chamber
	Physical Developer	
R49CKG	Visual Examination	White light and magnification. No prints observed.
	Ninhydrin	Treated with Ninhydrin Batch #279. Processed in Caron chamber. Prints observed in Quadrant B.
	Physical Developer PD	Item treated with PD Batch #443. No prints observed.
RABJZK	Oblique Lighting	viewed with flashlight
	Alternate Light Source	viewed @ 455-515 nm
	Ninhydrin	sprayed on ninhydrin working solution used iron to heat ninhydrin and further development
RATGAB	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Alternate Light Source Ninhydrin Zinc Chloride	80°C, 65% Relative Humidity, 3 minutes
RB2PGB	Visual Examination Alternate Light Source 1,2-Indanedione Physical Developer PD	
RH4U9U	Powder Dusting	
RJU3C4	Visual Examination Photo Ninhydrin	Dipped in ninhydrin and then waited for 2 minutes. Owen in 5 minutes in 70 celcius and rh 70%
RMTHH7	Visual Examination Ninhydrin	
RTLDRQ	Visual Examination RUVIS/ALS Ninhydrin	Visual- Oblique lighting Sirchie Krimesite Imager. UV and Blue/Green (with orange barrier filter) Foster Freeman Crimelite 82S. Caron 6105 Fingerprint Chamber 80 dergrees celsius/65% R.H. for 20 minutes
RUWDPK	Ninhydrin	Item dipped in ninhydrin then after drying it was placed in a humidity chamber for approximatley 20 minutes. Item was checked for results after waiting overnight. One area of ridge detail was observed.
RW6CZT	Visual DFO Ninhydrin Zinc Chloride Physical Developer	UV, LASER, & flashlight LASER to visualize - waited 24 hours waited 24 hours ALS to visualize - waited 24 hours waited until dry
RWLTUM	Visual Examination	No fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	DFO	Discloses a fingerprint. The fingerprint is visible in the light source 505 nm with orange goggles.
	Ninhydrin	No improvement in fingerprint quality after use Ninhydrin.
RX6X8B	Ninhydrin	Temperature: 72 celsius, Humidity: 65%, Time: 6 min. Cabinet: Forensic Climatic Cabinet FK4-MK4
T2TJV8	Visual Examination	
	Alternate Light Source	same as other items
	1,2-Indanedione	same as item 2
	Ninhydrin	Set time-next business day
T3MFAT	Visual Examination	no ridge structure observed
	Ninhydrin	test print/control (positive); after ninhydrin processing, placed item in humidity chamber at 65C with 70% humidity for 8 minutes; ridge structure of comparison value developed in section B
T4Y3XA	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80°C, 65% Relative Humidity, 3 minutes
T6CMUP	Visual Examination	
	1,2-Indanedione	Heat press-320 degrees F, 10 seconds in press, Goldpanther Forensic Light, 505 nm, positive control
	Ninhydrin	Humidity chamber, 5 minutes at 70 degrees C, 80% humidity, positive control
T8DPAD	Visual Examination	for any possible visible prints.
	Ninhydrin	spraying in a chemical fume extraction cabinet, dry it, put it in an oven, out of oven check the results for the following day.
	Visual Examination	Visual/PL500: 415 uv yellow goggles; 470 - 490 uv orange goggles, spraying in a chemical fume extraction cabinet.
	Ninhydrin	Ninhydrin/Methanol. dry it put it in an oven, then check for for the results.
TAHH4C	DFO	using forceps, draw exhibit through solution for 5 seconds. remove oily droplets on the surface, allow excess solution to draw back dry exhibit in evidence drier horizontally. placed into Nincha S31 methanol/acetic acid and petroleum ether base at 100 degree celsius for 20 minutes, unique number 01/2017. Relative umidity was switched off. removed viewed orange goggles at 450 nm light.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	using forceps, draw exhibit through the solution for 5 seconds. allowed excess solution to draw back, oily droplets was removed from surface by blotting. exhibit placed horizontally in evidence drier. placed into Nincha S31 after treated with Ninhydrin acetone base at 60 degree celsius and 80% humidity for 20 minutes, unique number: 04/2017.
TKPXKX	Visual Examination	NRDF
	Ninhydrin	(+) Lot # N082716
	Steam Iron	Steam Setting
	Visual Examination	LOV/NLOV
TM926N	Ninhydrin	Petroleum Ether formula, spray wash bottle, Caron Fingerprint Development Chamber - 80 degrees Celsius, 65% humidity, 20 minutes
TNNDPE	Visual Examination	No Ridge Structure
	Alternate Light Source	LABKAM exam (Reflected Ultra-Violet Imaging). No ridge structure.
	1,2-Indanedione	Control: Positive. 320 degrees F at 10 seconds using a heat press. Ridge Structure - No Collection Value
	Alternate Light Source	Polilight exam (490nm). Ridge Structure - Collection Value
	Ninhydrin	Control: Positive. 80 degrees C at 80% relative humidity for 10 minutes in self-contained chamber. Ridge Structure - Collection Value
TV6UE4	Visual Examination	
	Ninhydrin	Sprayed paper with Ninhydrin, allowed to sit over night
U2KVV6	Visual Examination	Nothing observed
	Ninhydrin	Sprayed with Ninhydrin and palced into oven for 6 minutes at 80 degree C with 65% humidity
U4A4F2	Ninhydrin	used iron to accelerate process
U4QGJ6	Visual Examination	No friction ridges visible
	Ninhydrin	Ninhydrin applied to paper and air dried under fuming hood.
	Visual Examination	No friction ridges visible
	Forensic Oven	Item placed in forensic oven at 80 degrees fahrenheit, 65% relative humidity initially for 3 minutes, followed by an additional 3 minutes, to allow for visible friction ridge impression in section B to continue to develop.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
U8XVB6	Visual Examination Ninhydrin	Magnifier and oblique lighting Dipped in ninhydrin (Heptane based) for approximately 10 seconds. Dried in fuming hood. Once dry, put in fingerprint chamber for 10 min at 70C and 65% humidity.
UA2LHJ	Visual Examination Ninhydrin	Oblique light Aqueous Ninhydrin (Working solution: 2.5g Ninhydrin d, 500ml distilled water). Applied heat and steam through iron filled with solution for ~5min (one impression in section B)
UAGP86	Visual Examination DFO Ninhydrin	Processing time: 20 minutes Processing time: 9 minutes
UCN3XJ	Ninhydrin	Allowed to process for 24 hours then resprayed and allowed to process for another 24 hours.
UHDR8V	1,2-Indanedione	Heat press at 320 for 10 sec
UK3W69	Visual Examination Alternate Light Source Ninhydrin	80°C, 65% Relative Humidity, 3 minutes
ULELED	Visual Examination Ninhydrin Physical Developer PD	White light and magnification Ninhydrin batch #279, agitated for 5 seconds, completely dried and put in Caron chamber set at 60% humidity and 60 degrees C for 30 minutes PD Batch #444 by [Name], no further enhancement upon examination
UR2F86	Visual Examination DFO Ninhydrin	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500) Spraying item with DFO working solution, after drying – heating the item for 10 min in 95° C, viewing with POLILIGHT PL 500 alternate forensic light source in ~515 nm range + appropriate filters Spraying item with ninhydrin aerosol spray, after drying – heating the item for 90 min in 40 °C, 80% humidity, viewing in a daylight and with POLILIGHT PL 500 alternate forensic light source in white light and in ~515 nm range + appropriate filters, viewing again after few days



TABLE 2 - Item 3

WebCode	Development Methods	Method Details
URXX6Y	DFO	90 °C during 30 minutes and visualisation at day 0, +3, +10 & +17
UTE827	Ninhydrin	Day 1 - dipped paper; Day 2 - dipped paper; Day 3 - applied steam using an iron
V7CLQ3	Visual Examination Ninhydrin	
V7VH89	Visual 1,2-Indanedione NIN-HFE	ambient light Caron heat & humidity chamber RH 80% 50°C 20 min. Caron heat & humidity chamber RH 80% 50°C 20 min.
VH9PXG	Visual Indanedione Ninhydrin	Applied heat. Allowed to react overnight Humidity chamber 40°C, 80% humidity
VKWWN7	Visual Examination Ninhydrin	Dipping Method - Application of Heat & Humidity
W3FAJA	Visual Examination DFO Ninhydrin Physical Developer PD	viewed with green, blue, UV, and ambient lighting Put in Caron chamber for 20 minutes at 100 degrees celcius Put in Caron chamber for 2 minutes at 80 degrees celcius with 65% humidity Soaked 10 minutes in distilled water, 5 minutes in maleic acid, rinsed with distilled water, 15 minutes in PD, and rinsed with distilled water
W79HGN	Visual Examination Alternate Light Source DFO Ninhydrin Powder Dusting	Black Magnetic Powder
W86P8F	Visual Examination DFO	premixed solution in spray bottle applied to both sides of paper, dry heat applied, alternative light source used to visualize

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
WCV92X	Ninhydrin	
WEU8ND	Visual Examination	
	Ninhydrin	Steam iron
	Silver Nitrate	Sun exposure
WGXV6N	Visual Examination	white light and polylight (350, 450, 505, 530, 590 nm. 450-505nm with and without orange filter)
	1,2-Indanedione	press 160C/10sec. 505nm orange filter FP-3.0
	Ninhydrin	room temp. 72hrs
WLMPRM	Visual Examination	
	Ninhydrin	Petroleum Ether Carrier; Caron 6105 Humidity Chamber: 70 Degrees C, 70% Humidity
WLQ3NW	Visual Examination	
	Alternate Light Source	TracER laser 1 (532nm) and Crimescope ALS (350 to 535nm)
	1,2-Indanedione	20 minutes at 100 degrees Celsius, examined with TracER laser 1
	Ninhydrin	steam iron
WPNLLN	Visual Examination	Completed under white light with magnification.
	Ninhydrin	Ninhydrin batch #279. Caron processing time was 30 minutes. Examination under white light and magnification.
	Physical Developer PD	PD batch #443. Examination under white light and magnification.
WRT92E	DFO	10 min at 100 degrees C, 0% humidity in cyclohexane/alcohol solution
	Ninhydrin	5 min at 80 degrees C, 60% humidity in cyclohexane/alcohol solution
	Physical Developer PD	Developed until deemed finished about 5 minutes
WUZQ2V	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Heat Press	100 degrees C, 30 seconds
	Alternate Light Source	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
WYTQFQ	Visual Examination	White light with magnifier. Results = No Ridge structure.
	1,2-Indanedione	Control tested positive, Dipped then allowed to dry, heat pressed at 320 degrees Fahrenheit for 10 seconds. Results = Ridge structure/no comparison value.
	Alternate Light Source	Crimescope, 505nm (515 with -10 step down) with orange barrier filter. Digitally photographed and enhanced. Results = Ridge structure/1 fingerprint/comparison value.
	Ninhydrin	Hexanes based formula, Control tested positive, Caron humidity chamber for approximately 5 - 10 minutes at 80 degrees Celsius and 65% relative humidity. Digitally photographed and enhanced. Results = Ridge structure/1 fingerprint/comparison value.
WZBHPB	Visual Examination	Examined under white light and magnification
	Ninhydrin	Treated with Ninhydrin batch #060, immersed for approximately 5 seconds and allowed to dry in a fume hood. Developed in Caron chamber for 45 minutes at 60 degrees C and 60% humidity and then examined under white light and magnification.
	Physical Developer PD	Treated with Physical Developer batch #443 by [Name]. No prints.
X2GDLY	Visual Examination	Visually examined notebook paper, no patent fingerprint observed
	1,2-Indanedione	Sprayed card with 1,2-Indanedione in fuming chamber, allowed to dry for three (3) minutes, placed in fingerprint chamber at 100 degrees Celsius for ten (10) minutes, allowed to cool for three (3) minutes, sprayed with Zinc Chloride in the fuming chamber and allowed to dry for three (3) minutes
X2XH7H	Visual Examination	
	1,2-Indanedione	same as item 2
	Ninhydrin	same as item 2
X8MXUP	Powder Dusting	
X9ZPPR	Ninhydrin	Apply ninhydrin to paper then use steam iron with heat and moisture to observe any development
XCE6EJ	Visual Examination	
	Ninhydrin	HFE7100 base
XCEALF	Ninhydrin	wet oven, 120 'C, 60 min.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
XEGDBG	DFO	Gallenkamp oven 4; DFO batch 15AT229; 20mins 100 degrees C 10% RH.
	Alternate Light Source	Looked at item 3 under HILS to visualise.
XG7JVD	Visual Examination	
	DFO	Process time: 30 minutes, temperature: 100°C
	Ninhydrin	Process time: 6 minutes, temperature: 80°C, humidity: 62% RH
XKRG7P	Powder Dusting	
XN8NUP	Powder Dusting- Black Megnetic Powder	
XPF99C	Visual Examination	White light and forensic light sources.
	DFO	20 min processing time. Weak enhancement of a latent, with first and second degree details in section B. -> Photography
	Ninhydrin	5 min processing time. Further enhancement of the latent, with first and second degree details in section B. -> Photography
	Physical Developer PD	The latent was no longer visible.
XV9ABQ	Visual Examination	visual exam w/ natural & white light
	Alternate Light Source	CS (515nm) & UV
	DFO	accelerated for 20 mins in 100C oven
	Ninhydrin	Faint development with iron, placed in bag and allowed to sit overnight
XYR823	Ninhydrin	Item immersed in petroleum ether ninhydrin solution, dried, & allowed to process at room temperature.
XYUQCJ	Visual Examination	
	DFO	Batch #190, spray application, allowed to dry then placed in the pre-heated DFO/Ninhydrin chamber at 99 degrees C for 20 minutes
	Alternate Light Source	Examined initially at 475 nm with orange barrier filter; ALS starts at 495nm when turned on and areas of FRO appeared more vibrant. Item #3 ws also examined at 495nm
	Ninhydrin	Batch #188, spray method of application allowed to dry, placed in DFO/ninhydrin chamber for 4 minutes @ 75 degrees C with humidity present
	Ninhydrin	Batch #188, spray method of application allowed to dry, placed in DFO/ninhydrin chamber for 4 minutes @ 75 degrees C with humidity present

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
Y2P6QK	Visual Examination	No ridge detail observed
	Ninhydrin	Batch 5/2/17 tested valid - FBI formula; dipped and dried 2x; Caron Humidity Chamber 70% + 70 degrees C
	Visual Examination	Latent developed, Section B, RDI; DCS - Digital Capture Station with enhancement
Y4EANY	Visual Examination	
	Alternate Light Source	
	Ninhydrin	65% humidity, 80 degrees, processtime 5 min.
Y4WBE8	Visual Examination	completed with white light and magnification
	Ninhydrin	Ninhydrin batch #279 - after coating with ninhydrin, allowed to completely dry and placed in Caron chamber at 60 degrees C and 60% humidity for 30 minutes
	Physical Developer PD	PD batch #444, completed by [Name], examination reveals no further enhancement
Y9PHTA	Visual Examination	oblique lighting
	Alternate Light Source	Crimescope orange/yellow filters at 350-515nm
	DFO	Caron humidity chamber 20 min @100 degrees
	Alternate Light Source	Coherent Tracer Laser @ 532nm
	Ninhydrin	Caron humidity chamber 20 min @80 degrees, 65% humidity
YF9TZJ	Visual Examination	5 minutes/ambient lab temperature 70°
	Photographs/bench notes	5 minutes
	Ninhydrin	2 day development time
YHE9CV	Visual Examination	None seen
	Ninhydrin	Applied ninhydrin. Print appeared in Quadrant "B"
YHZNMR	Alternate Light Source	Checking the evidence using LUMATEC 400 forensic light in all wave spectrum range. 23° of ambient temperature
	DFO	Spray DFO, natural drying. Use of oven to visualice the latent prints with the following parameters- 100° C and 0% humidity.
	Alternate Light Source	checking the evidence using all wave spectrum range. The latent print TM "IT 3.1" is located in section B when use 415 nm.
	Ninhydrin	Spray ninhydrin, natural drying. The evidence is introduce into a plastic bag for at least 36 hours.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Alternate Light Source	checking the evidence using all wave spectrum range. To visualize latent print TM "IT 3.1" is used white light (400-700 nm).
YJARG3	Visual Examination Ninhydrin	ninhydrin acetone solution set/ dry 10-15mins, followed by hot iron with steam ~10-15 mins to develop
YVMWMD	Alternate Light Source DFO Ninhydrin	White light, blue light and green light 100 degrees Celsius, 20 minutes processing time 65% humidity, 80 degrees Celsius, 5 minutes processing time
YVWZXG	Visual Examination Alternate Light Source Powder Dusting Ninhydrin	White light Magnetic Black Dipped followed by heat and steam ~10 minutes
Z2NKMH	Visual Inspection Ninhydrin Humidity Chamber Curing	+ control conducted prior to application on item, exp. 05/09/2018 20 mins @ 32°C/ 90% humidity maintained in secure locker for 24 hours to allow development.
Z9MZMX	Ninhydrin	Visual, Photocopy, Heptane Ninhydrin
ZKLN8	Visual Examination 1,2-Indanedione Ninhydrin	White and colored light before and after each development process (including crime-scope, crime-lite) 165°C heating for 10s exposition under a press examination 24 hours after processing
ZPQNGA	Visual Examination Alternate Light Source Ninhydrin	80 C, 62% rH, 6 min
ZRK9P3	Ninhydrin	Lot#022117-01, 75 degrees celsius, 80% humidity, 5 minutes
ZXAQ6Z	Alternate Light Source	Multiwavelength lightsearch, including white light using lasers and polilight

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	DFO	20 min development at 100 degrees C
	Ninhydrin	20 min development at 65% humidity and 80 degrees C
	Physical Developer PD	Pre immersion in 5% Nitric Acid, PD aqueous solution
ZZG4Q8	Visual Examination	white light and magnification
	Ninhydrin	Immersed in liquid ninhydrin (batch 279), air dried, Caron chamber for 45 minutes at 60 degrees C and 60% humidity
	Physical Developer PD	Maleic acid bath 10 minutes, PD bath 10 minutes, water rinse 10 minutes, air dried

## Response Summary

Participants: 340

### Methods Utilized

Alternate Light Source	122	Physical Developer	52	<b>**Note:</b> Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	0	Powder Dusting	27	
DFO	76	Visual Examination	272	
Dye Stain	1	1,2-Indanedione	102	
Ninhydrin	271			

# Preservation Methods

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
23YU83	Photography	Canon EOS 60D, 100 mm lens.
24BJEL	Photography	
26F8N6	Dye Staining powdering	exhibit was stained with Rhodamine 6G which is water base and dried in evidence drying cabinet. exhibi was lightly dusted with black powder.
297BQP	Photography	Digital
2LUD9G	Photography Lifting	Nikon D810 digital camera, Foray- image enhancement Scotch 3M clear tape / clear backer
2TR6D6	Photography Photography	RAY: Three (3) digital images taken with scanner thirteen using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. See image metadata for settings. Black Powder: One (1) digital image taken with scanner thirteen. See image metadata for settings.
2TR6FP	Photography	
2WA6XQ	Photography	For photo of print after powdering used flash light to light item.
2XK6UK	Photography Lifting	Foray - Adams Digital Capture System Clear backer - print of no value
2XPDXE	Photography	Nikon D700 Fstop 57.0/aperture 4/iso 200/exposure time 1/1 with ALS at blue-green 460-510nm
33QAUJ	Digital Photography	Took two digital photographs of latent impressions with scale at Ardrox/ UV and at Rhodamine 6G/ Laser.
344WEJ	Photography	
36ELTP	Photography	Digital capture (Nikon D300) after visual exam. (in the white diffuse light), cyanoacrylate fuming (in the white diffuse light), BY40 (at 450 nm) and powder (in the white diffuse light).
3QHHD6	Photography Photography	RAY print - Two (2) digital images taken with camera/lens three using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. See image metadata for settings. Black powder - Three (3) digital images taken with camera/lens three.



TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
	Envelope/box	For storage - sealed with evidence tape.
3T49GV	Photography	Between methods and after the whole process.
3UYPWX	Photography	F&F DCS4 system, light UVA 325 nm
3WLBLE	Photography	one digital image after black mag powder - white light (Nikon D700 camera)
	Lifting	one white accutrans lift after black mag powder
3YTN62	Photography	
3Z7DCK	Photography	
42YL2F	Photography	post CA fuming w/UV (365 nm) light & digital imaging system
	Photography	post black powder w/ambient light & digital imaging system
43CXXZ	Scanning	Scanned at 1000 DPI with scale and further enhanced using AFIS software
4939C6	Photography	6-19-17: Visible, CA and Black Powder print, Camera 9, Lens 2, overhead lighting
	Photography	6-20-17: RAY print, Camera 9, Lens 2, orange YA2 filter, Rofin Polylight Flare 450 nm
4BHZ2C	Photography	General and ALS: yellow 2 (8) barrier filter
	Lifting	Gel and standard adhesive
	Scanning	GLScan: 1044ppi tiff; flatbed: 1000ppi tiff
4D4TRK	Photography	Nikon D810
4D7CXW	Photography	A photograph of the fingermark was conducted (DCS4 system) after Lumicyano Powder treatment
	Safe packaging and storage	
4FTZCH	Photography	
4FX9PB	Photography	with orange filter
	Lifting	clear hinge lift
4H3XT7	Lifting	I used fingerprint tape to lift one latent print from quadrant C and I placed that lift on a fingerprint card.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
4L2CEA	Tape Lift	Collected on a latent print lift card.
4TLLFR	Photography Lifting	Digital photographs taken Lifted the latent with lifting tape and placed on lift card with diagram
4UY3ZK	Photography Photography	Axial lighting Used LASER and enhanced in Photoshop CC
639T3N	Photography	Using laser and orange filter after R6G; using room light after black magnetic powder
639TZ3	Photography Photography	Nikon D810 camera with 105mm lens; lighting: Black Magnetic Powder=Direct Lighting Nikon D810 camera with 105mm lens; lighting: RAY=Rofin Polylight Flare Plus 2 with orange filter
66AYF9	Lifting	used clear tape on white glossy card
66UD77	Photographed Tape Lift	into laboratory case file in Justice Trax and digital image system Foray Placed on 3x5 white lift card scanned into Justice Trax & Foray 1:1 ratio
67KNUE	Photography	Nikon 810, micro lens, orange filter, photoshop, calibration software, levels.
68WMPM	Photography Lifting	overall/close-up, scale, macro-tiff lift card
6D7TD7	Photography Lifting tape	FTK file created (images with & without a scale in place) tape applied to surface over LP - not lifted (to preserve print on surface so as not to be wiped away when returned to envelope, tape labeled & initialed
6KLEH4	Photography Lifting	Digital format - RAW Clear tape lift affixed to lift card.
6LDH6J	Photography	
6MRV2	Photography	RAY - Camera 3/Lens 3. See image metadata for camera settings. Lighting: Rofin Polilight FLARE Plus with 450nm filter Filter: ProMaster Orange YA2, 2 Images

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
	Scanning	Black powder - Scanner 13, 1 image. See image metadata for settings.
6UABFY	Photography	
6UVN4C	Photo	One photo of all four quadrants. One photo of close up of latent print
6YPQ6Q	Photography	After every step of the processing. Hard and soft copies obtained.
6ZW3MR	Photography	AFTER VISUAL, CYANOACRYLATE, AND R6G PROCESSES
77KXAG	Photography	
79L9YP	Photography	Nikon D90, AF Micro NIKKOR 60mm
7A2MB7	Photography	Nikon D300 body with a Nikon 60 mm lens, file type RAW
7A38DM	Photography	
7CLLGN	Photography	Photographed with scale.
7F9UAX	None	
7NJDA9	Photography	Nikon RAW + JPEG format, Alternate Light Source wavelength = 415, filter = yellow.
7QRBXX	Photography	
7WVGBF	Photography	
7XRM28	Lifting	
7ZDGTf	Photography Lift	Digital photography of black powder
83HLP2	Photography Lifting	
83ZFL6	Photography	Between methods and after the process was done

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
84N79V	Photography	
8C9ZWD	Photography	Captured into computer through LabKam
	Photography	Captured into computer via Nikon DSLR while using Crimescope
8CK2BZ	Scanning	
8F32T2	Photography	Nikon D810 camera. Photograph taken after Black Powder processing for case file. Ridge structure of no comparison value developed.
8J46L9	Photography	documentation after each processing step, taken with white light except after Rhodaminewhich was taken with crimescope at 515nm and filter
8KE3TY	Photography	Black magnetic powder - Camera 3, Lens 3, Item 1, 1 photo, direct lighting
8NE6WE	Photography	
8R2THE	Photography	Captured with a Fujifilm S5 Pro with a 60mm Micro Nikkor lens after Alternate Light Source stage with orange filter and after Black Powder processing. (Photography not typical after observing ridge structure of no value, but was used for documentation purposes for this test.)
	Digital image storage, management and chain of custody	Authenticated Digital Asset Management System through Foray Digital Workplace
8U4TE6	Tape lift	on card
8WUYUV	None	
92WEWP	Photography	Digital camera
947EXP	Photography	measurement scale, macro lens, RAW+JPG, 400 Iso, F/11, 1/80, flash
	Lifting	tape lift
96HAL3	Photography	
97VLHL	Photography	photographed print
	Lifting	used grip lifter, lifted print, and placed on card

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
988F2T	None	
9CZMFV	Photography	Photo Evidence Scale
9KQ8J9	Scanning	flatbed scanner
	Lifting	lifting tape
9Q2ATH	Photography	unprocessed, after CA, and after Powder (all white light)
	Lifting	Powder, White Lift Card, & 3M Tape
9QGBX7	Photography	
	Lifting	clear hinge lift
	Scanning	of hinge lift
9TM2YT	Lifting	Fingerprint lift tape applied to lift card with unique case identifiers and description of location of recovery
9YTGP3	Photography	After treatment with Magnetic Jet Black.
9ZBGVD	Photography	Photographs were captured with both alternate light sources used (Sirchie Labkam-Reflected Ultraviolet Imaging System and Spex CrimeScope). With the CrimeScope, a yellow filter was placed on the camera.
A3Q9HZ	Lifting	clear lift tape onto a white latent lift card
A4K99J	Photographs	close up w/60mm macro lens, w/scale
ABKPJP	Photography	with flashlight-white light
AFEDNB	Photography	RAY - One (1) digital image taken with camera/lens three using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. See image metadata for settings.
	Photography	Black powder - One (1) digital image taken with camera/lens three using direct white lighting. See image metadata for settings.
AT2U7G	Photography	Nikon D810
AYB3J6	Photography	Fuji IS UV-IR digital camera
AZ6PEG	Photography	Nikon D5100

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
AZJZ69	Photography	Foster + Freeman DCS4 Digital Capture System with white light F11 shutter speed 1/90
B73P3N	Photography	
B7Q4E8	Tape Lift -> card	print lifted and placed on print card. Location, time, etc noted on card
BAJAN4	Photography	A label of a predetermined size with unique referencing written on in was placed near to the fingermark then Digital capture of fingermark using a Nikon D700 camera with settings of ; ISO200, TIFF images of medium quality. I used a depth of field F16 as the item was flat and used a crimelite viewing filter OG515 (495nm), the fingermark was fluoresced to make it visible to photograph using a Mason Vactron 4x4 light source at wavelength of 430-470nm. The image was then enhanced on the MAson Vactron DCS4 (digital capture software system). All modifications to improve contrast to any images are fully auditable. The images at a 1000dpi are remotely transferred using a secure forensic imaging hub to our identification unit. All images are saved to a picture storage ssystem (EPICS) on the police secure network for archiving.
BCPMBW	Photography	Digital capturing: digital photographing using a Nikon D800 camera connected to a pliview capturing system, that captures and validates the images.
BD2A76	Photography	Orange filter under 495 nm light, Nikon D700 SLR
BGNYGA	Photography	Captured with Image Enhancement System with Nikon camera with Crime-scope at 515
	Lifting	Black powdered tape lift
BL2KMV	Photography	Digital Capturing system (DCS-4).. Visual: paddle light, Basic Yellow: blue light with yellow filter
BLHYQY	Photography	
BPX7EX	Lifting	Used tape, lifted print, placed on a lift card, lifted from quardrant C
	Photography	Photographed visual print prior to powder processing
BR8EJC	Photography	Digital photography was utilized after dye stain with use of the polilight at 450nm.
BR9DF7	Photography	Photographed print with white light after visual exam, powder dusting and powder suspension solution processing steps. The print was also photographed after the dye stain at 505nm with a Tiffen red 23A filter.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
BTFQ2D	Photography	photographed w/scale under white light after application of magnetic powder
BTV2PK	Photography	Photographed developed print with a metric scale sticker in the photograph.
	Lifting	Lifted developed print with lifting tape and placed on a latent print lift card.
BUDNN3	Photograph	Photographed with Nikon DZX. Used Photoshop to enhance image. Image photo'd 1:1
	Lift Card	Lift tape, lift card, documented info on back of card
BXD28L	Lifting	Fingerprint lifting tape and latent card
BYKENM	Photography	Nikon D800
	Lifting	
BZTNJ7	Scanning	
	Lifting	
C33WNJ	Photography	
C8DZHR	Photography	Visible - digital camera
	Photography	Powder - digital camera
C8VXPX	Photography	After BY 40.
CJRWKB	Photography	Photographs take in Raw & Fine
CM9LLY	Frosted Tape Lift	frosted tape onto latent lift card
CMA2BT	Photography	The fingerprint was photographed at every step of a research
CNLYMP	Lift	
	Photograph	
CPUBZK	Photography	After powder dusting and dye stain
CUQV9B	Photography	Digital photos taken in Raw, Fine
CV3GXC	Photography	Digital, Nikon D810

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
CWVKD6	Photography Lifting	Comparison photography would be used - RAW format, camera stabilized, digital enhancement Lifts were attempted
CZDP4M	Photography	After applied Powder Dusting and after applied Basic Yellow 40.
D3UB9F	Photography	Raw- Camera Nikon D800 (After R6G)
D66AQ3	Photography	
D66DYK	Photography	
D9MDGL	Photography	Latent print on Item was photographed with a macro camera lens ( Nikon D3300)
DBUPGV	Photography Photography Photography	CA print - Direct reflection, no filter, 1 photo Black magnetic powder - direct, no filter, 1 photo RAY with ALS - Polilight 2 Promaster orange YA2 filter, 1 photo
DGH8XR	Photography Photography No Photograph taken as Not Improved	DCS4-LP DCS4-QD
DGJ8V8	Photography	
DHREXZ	Lifting	I tape lifted the latent print
DQ6CKX	Photography	The material/fingerprint in section C was photographed after the examination with the Basic yellow 40 solution. In between the methods the unclear fingerprint was not photographed. It might be a loop.
DVB92C	Photography Photography	Nikon D7000, visible lighting Nikon D7000 with orange filter, Bright Beam Laser, 532 nm
DX6UWP	Lift Tape	Latent print lifted with lift tape on contrasting white card.
E4P8FN	None	



TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
E7EDZK	Lifting	Clear tape was used to recover/lift the print and was placed on a fingerprint card
EDB9Z6	Lifting Tape/ Backing Card	Lifting tape, white backing card, completed information on reverse side of backing card
EKBTWT	Photography	Polyview digital capturing system: white light no filter.
EN8J2K	Photography	
ENBYJQ	Photography	Utilized paddle light on item at angle; captured with digital capturing device (DCS-4). Applied basic yellow and utilized ALS (e.g., Rofin at 490 nm/blue light and yellow filter); captured with DCS-4.
ERVN8B	Photography	F-22 exposure- 1/30 sec.
EUFZB	Photography	
EXFX78	Digital Photography Filters	
F7T789	Photography	Nikon D810, ADAMS
F9HTN3	Tape Lift and Card Stock	clear adhesive tape used to lift print from surface and placed on glossy white card stock. Placed in envelope and sealed.
FD8CJ7	Photographs Lift	
FG9AER	Photography Photography	Nikon camera - direct lighting on powder print Nikon camera - orange filter and ALS 450nm on RAY print
FJEJL4	Photography	Nikon D810 with AF-S micro Nikko 105mm VR lens
FLK494	Photography	Nikon D810
FM9QJQ	Photography	done by photography-expert
FXHZGW	Photography	
FZLZAG	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
G4JLWD	Photography	room light after magnetic powder and using crimescope at 515nm with filter after R6G
G6ULXE	Photography	
G73XDU	Photography	White light
G7P7MY	Scanning	
GCVN97	Photography	LabKam: Sirchie LabKam Capture System; RAY+Crimescope: Nikon D810 Camera Control Pro 2 Capture System with orange filter; Black Powder: Nikon D810 Camera Control Pro 2 Capture System
	Lifting	Transparent backer
	Photography	Second Black Powder Application: Nikon D810 Camera Control Pro 2 Capture System
	Lifting	Re-lift of black powder on white backer
GEERRW	Photography	
GHFX83	Photography	Capture method: Nikon D810; 5 total photos taken after magnetic powder used to include: 1 overall with room light, 2 close-ups with room light, and 2 close-ups with oblique light using the Fiber-lite MI-150 high intensity illuminator
GLJHK3	Photography	photographed using a Nikon D180 and stored in the Foray Adams program
GTK2F7	Photography	
GXTAXB	Photography	
	Lifting	Lifted with gellifter.
	Scanning	GLScan FP Imaging system for capturing Gellifters.
H3LN7H	Photography	Digital camera, 415 nm, yellow filter, RAW/TIFF format
H6L2HA	Photography	Visual prints observed & MBD prints observed were digitally photographed & burned onto a DVD.
	Lifting	After black powder, prints were lifted with tape & latent lift cards were submitted.
HBD284	Photography	RAY - One (1) digital image taken with camera/lens three using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter with photo tag and scale. See image metadata for settings.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
	Scanning	Bi-chromatic Powder - One (1) digital image taken with scanner 13 using direct white lighting with photo tag and scale. See image metadata for settings.
HBVDJG	Photography Lifting	Digital
HCALQW	Photography	A photo of the print was taken in digital format and saved it. Then the photo was treated in order to clearly identify the print.
HLDP47	Photography	Sent to our Imaging Unit
HMNRP6	Photography	Digital photography
HPD3HJ	None	
HRYUMU	Photography	
HVHWGK	Photography	Nikon D700 camera, Crime-lite 8x4, and Polytec with Schott light attachment
HZWGLL	None	
J3YWCN	Photography Photography Photography	Visual - Nikon D810, Camera Control Pro 2, Rofin Polilight Flare +, white light, bounce lighting from ceiling: 4 images Powder - Nikon D810, Camera Control Pro 2, using the Rofin Polilight Flare +, white light, direct reflection: 4 images RAY - Nikon D810, Camera Control Pro 2, Rofin Polilight Flare +, 450Nm blue filter, Promaster YA2 orange barrier: 2 images
JC22DD	Lifting	Used latent print tape to lift the latent print
JGWTNV	Photography	
JNX2DV	Lifting	LP lifted with clear tape and transferred to white glossy card
JVXHLG	Photography	405 nm light and orange filter (DCS4)
JZB846	Photography Lifting	Using DSLR camera, RAW setting with and without scale clear tape placed on glossy card stock
K2Y2FY	Lifting	Tape lift mounted on lift card

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
KAWTQE	Photography	
KFVFD8	Photography	Applying a centimeter test to the trace - Orange filter on the camera
KHUCD4	Photography	When ridge structure was observed and determined to be of comparison value it was digitally photographed. With item #1 ridge structure of comparison value was recorded/ photographed after the use of black powder. The only ridge structure observed was in section C.
KL4RCE	Photography  Burning the verified captured prints onto the masters and archive disks for filing	Digital print capturing: capture prints that are developed using Nikon camera and enhanced the print using V+ + programe. burn the captured prints onto masters and archive CD's and also file a printed giant arch.
KRFH4F	Photography	Nikon 105mm on Nikon D800, Filter TIFFEN 15, LABINO UV and 445nm light
KRGDRR	Digital Photography	FRD photographed with scale. Tip detail visible, core area did not develop
KVDYM2	Photography  Photography	LabKam  Fuji S5 Pro camera
L3NR24	Photography	captured with camera at 1000 ppi resolution
L4423H	Lifting	Print was lifted with lifting tape and placed on a card. The card was sealed as evidence.
L866RJ	Lifting	Lifted with clear tape and affixed to a latent print card
L8HNPV	Photography	Image uploaded to ADAMS, processed in Photoshop
LFYFZT	Lifting  Scanning  Photography	Black gel lift after Cyanoacrylate fuming. Tape lifts taken after powder processing. Gel lift scan. Photographed after dusting, prior to tape lifting.
LJEULE	Photography	macrophotography
LV883X	Photography	with scale, raw photographs of latent

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
LVTPTYT	Photography	Digital capturing system (DCS-4). Cyanoacrylate: a light source for white light. Dye Stain (basic yellow 40): Blue light with yellow filter.
LW4UBV	Photography	ALS light source with orange filter, saved in Foray Digital Workplace
LY6M9L	Photography	After Carbon powder and Basic Yellow. With Basic Yellow used Light source: Mini-Crimescope, 475nm, orange filter
M779U9	Photography	
MD8GLV	Photography Lifting	Comparison photography was taken through the KSI with an attachment, enhanced on the computer, and then printed Lifts were attempted after dusting; lifted with tape and put onto index cards; lifts were not sufficient for ID
MDQH9X	Photography	Used digital camera to capture image. Nikon D801. Image enhancement done in Adams Foray. Images saved to a file and to a disc. 40 minutes on enhancements
MEGL26	Photography Lifting	
MEHJ8U	Photography Lifting	camera attached to Krimesite Imager after dust, lifting tape, 3"x5" card
MG67G9	Photography Lifting	Without and with scale. Lift tape successful. Card with diagram and identifying information completed.
MH374M	Lifting	tape and lift card
MH43EJ	Photography	Foster & Freeman DCS-4 used to record positive/ improved development
MPXHTP	Photography	
MQBXBW	Photography Photography	Digital photography after Rhodamine 6G with crimescope Digital photography with white light after black powder
MR7HZG	Photography	Nikon D600 with macro lens 1:1 photo/RAW file
MR9DJM	Photography	Photograph print at all stages of enhancement and development

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
MRLR6B	Photography Enhance image	Ridge detail observed in quadrant C. Potographed after Cyanoacrylate fuming and ARDROX treatments with UV Light Use Adobe Photoshop CS6 enhance the image
MTXM9V	Photography	DCS-4 Digital Capture System
MYNUEH	Photography	Digital Capturing System (DCS) was used.
MYQGVW	Photography	RUVIS camera- FORAY digital enhancement- 20 minutes for enhancement
N28CNE	Photography	DCS4, Ring light, ISO 200, F11, Shutter speed 1/125 sec.
N2BR6L	Lifting	Using tape, I lifted the print and placed the tape on a fingerprint lift card.
N8E4T7	Photography	
NA3BJU	Photography Lifting	Beginning to end - pre-processing photos, visual photos, RUVIS photos, post-processing photos Clear tape on white backer labeled 1L1
NBW37Z	Photography	used Nikon 810 camera, acquired and stored using ADAMS software
NF2UFH	Photography	The fingerprint was checked and photographed after every method. Best result was after Powder dusting.
NFUFCX	Photography	
NLRBRN	Photography	capture latent print impression with scale, and proper lighting.
NMTXUV	Photography	LabKam camera and Nikon D810 SLR, acquired in Foray System, images enhanced with Adobe Photoshop CS
NN2ELZ	Photography	
NQ4A2G	Photography	Digital Capturing: poliview capturing system, 610 nm filter and 450 nm polilight
NQLB4X	Digital Photography Lifting	Saved onto a CD Lift tape, lift cards
NQPQJK	Photography	Digital photography with polilight after basic yellow, of one latent print.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
NWVKGL	Photography	Orange filter due to 532 nm ALS
NXN923	Photography	
NY4JUF	Photo	camera Nikon D800e lens AF Nikkor 105mm illuminator Polilight PL 500 with evidence scales.
NYG9V8	Photography	
P669VK	Photography	
P7UJRR	Photography	Foster + Freeman Digital Capture System 4 / audit trail within file
PAZVQU	Photography	Nikon D810, acquired in FORAY/Adams enhancement
PF6WN3	Photography	Nikon D-5100
PHU39Y	Photography	Photography after cyanoacrylate fuming by Imaging Unit
PJ38UB	Photo of the item are taken to show where the impression is located on the item. The original item is always retained until the case is closed by us.	The impression was photographed after the use of black magna powder.
PKD678	Photography Lifting	with scale hinge lifter
PP79V6	Photography	photo after Rhodamine 6G-Nikon D3 using mini-crimescope 515nm, orange camera filter. Documentation photos taken after visual, superglue, powder, and R6G
PTAZAW	Photography	
PX6PWW	Photography	Digital photography using the Canon Powershot G5 and Nikon model 810 in raw format. Images were processed using Foray Digital Workplace, and saved to a disc.
PY266L	Photography Photography	Labeled 1.1, RAW, acquired to ADAMS 1.1 re-photographed, RAW, Laser with Orange Filter, acquired to ADAMS

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
Q2M9DJ	Lifting	Lifted print with tape and placed tape on lift card
Q6LMXN	Photography	documentation purposes after visual, CE, powder, and R6G, test print conducted and pictures of it with processing steps
Q7B326	Photography	After each step of the process
QAC7TQ	Photography	Saved in Adams
QBMW6G	Scanning	Black magnetic powder - One (1) digital image taken with scanner thirteen using direct white lighting. See image metadata for settings.
	Photography	RAY - Camera/Lens 3, One (1) digital image taken with camera/lens three using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. See image metadata for settings.
QH8YAX	Photography	
QJMF9W	Photography	Photos taken with Nikon D700 with 60mm micro lens and 549nm barrier filter for R6G.
QNC3U6	Photography	Simulated photography. We have a separate division that photographs our latent prints.
QUK9RW	Lifting	lifted with tape from wallplate placed on to lift card
QVU76D	None	
QW6BGG	Photography	DCS 5
R2DZDV	Digital Photography	Photos were taken at ardrox & rhodamine steps
R49CKG	Photography	Nikon D810. Direct reflection and direct diffused lighting on Visual Exam and CA print.
	Photography	Nikon D 810. Direct diffused lighting on powder print.
	Photography	Nikon D810. Rofin polilight 450nm promaster lens, orange YA2 filter on RAY print
RABJZK	Tape-Lift	lifted print and placed on fingerprint card
RATGAB	Photography	
RB2PGB	None	



TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
RH4U9U	Photography	
RJU3C4	Photography	
RMTHH7	Lifting	
RTLDRQ	Digital Imaging	NIKON D7000
	Lifting	Lift tape with agency specific lift backer
RUWDPK	Lifting	The ridge detail was lifted with fingerprint tape and placed on a lift card.
RW6CZT	Photography - Digital	2 digital photographs were taken with cyanoacrylate ester fuming & Rhodamine
	Lifting	2 latent lifts were taken after powder
RWLTUM	Photography	The fingerprint was photographed at every stage of research after disclosure.
RY6X8B	Photography	After Basic Yellow 40
T2TJV8	Photography	white light
T3MFAT	Photography	overall and close-range photos taken; uploaded into Authenticated Digital Asset Management System
T4Y3XA	Photography	
T6CMUP	Photography	Nikon D810 digital camera, Foray image enhancement, images were stored in folder "PT17-312"
TAHH4C	Photography	Nikon D700 camera, orange filter, Rofin PL500, 450 nm light.
	Packaging of exhibit	placed into brown envelope, sealed in evidence bag, placed in cool, dark safe.
TKPXKX	Lifting	
	Scanning	100% @ 1200 ppi
TM926N	Photography	Nikon D700, ALS with orange filter, Foray Digital Workplace
TNNDPE	Photography	Photographed using Nikon D810 Camera and Polilight at 450nm using yellow barrier filter for internal purposes.
TV6UE4	Photography	with and without a scale

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
	Lifting	used grip lifter to lift and preserve print
U2KVV6	Photography	The item was photographed upon visual examination, after fuming, and during exposure to UV Light
U4A4F2	Photography	sub item # 1.1
U4QGJ6	Photography	Photographs taken at time of visual examination and under 350nm UV lighting after Cyanoacrylate fuming and dye staining.
U8XVB6	Photography	UV Light (LABKAM) - digital image of ridge detail.
	Photography	Digital Photography - digital image of lift location.
	Lifting	Lift secured on latent print card.
UA2LHJ	Photography	FSIS digital image capture after CA cycle
	Adobe Photoshop CS6	Image calibration; processed for best detail (Lasso - invert ridge detail; Lasso - Curves adjustment with feathering; Burn); created 1:1 composite and a CD
UAGP86	Photography	
	Lifting	Mikrosil
UCN3XJ	Photograph w/Scale	Photograph in raw setting with & without a scale
	Lift Print	Collected onto a latent print card
UHDR8V	Photography	
UK3W69	Photography	
ULELED	Photography	Visual - One (1) digital image taken with camera/lens three using oblique white lighting. See image metadata for settings.
	Photography	CA - One (1) digital image taken with camera/lens three using oblique white lighting. See image metadata for settings.
	Scanning	Black Powder - One (1) digital image taken with scanner thirteen. See image metadata for settings.
	Photography	RAY - One (1) digital image taken with camera/lens three using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. See image metadata for settings.
UR2F86	Photography	NIKON D7100
URXX6Y	Photography	UV light after Lumicyano & white light after black magnetic powder

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
UTE827	Photography	Digital photograph taken using Nikon D3100 digital camera
V7CLQ3	Lifting	
V7VH89	Digital Photography	Foster Freeman DCS-4 w/Nikon D700.
VH9PXG	Photography	
VKWWN7	Photography Scanning	High Resolution Non-Lossy 1200 DPI TIFF
W3FAJA	Photography	DCS-4 QD, visual was photographed with ambient lighting from the paddle light, CA was photographed using white light, and BY was photographed using a blue light with an orange filter
W79HGN	Photography	
W86P8F	Lifting	lifting tape placed onto latent print card
WCV92X	Photography	
WEU8ND	Photography Lifting	Developed latent photographed before lifting. Existing light.
WGXV6N	Photography	universal imaging system spec. forensics A-11
WLMPRM	Digital Image Capture (x3)	Foster + Freeman Digital Capture System (DCS-4); Superglue/Powder: White Light; Rhodamine 6G: 470 nm + orange filter OG530
WLQ3NW	Photography	barrier filters used when appropriate
WPNLLN	Photography Scanning	RAY - Three (3) digital images taken with camera/lens three using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. See image metadata for settings. Bi-chromatic powder - One (1) digital image taken with scanner thirteen. See image metadata for settings.
WRT92E	Photography	
WUZQ2V	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
WYTQFQ	Photography	Fuji S5 Pro, Aperture priority with F stop of 16, enhanced on Foray digital imaging system
	Lifting	Clear lift tape applied to a clear transparent backer
WZBHPB	Scanning	After black powder method, Scanner 13, 1 image. was taken
	Photography	After RAY, Camera/Lens 3 and Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 Camera Filter (see image metadata for settings) Item 001, 1 image.
X2GDLY	Photography	Photographed latent print with metric scale
	Lifting	Lifted latent print using fingerprint tape and print card
X2XH7H	Photography	photos after superglue and powder with white light, photo after R6G with 515nm
X8MXUP	Photography	
X9ZPPR	Photography	Attach camera to KSI - Manual 80
	Lifting	Clear lifting tape with 3" x 5" card
XCE6EJ	Photography	Canon 50D -Documentation and Exam quality photos
XCEALF	Photography	differntial reflected light
	Photography	Under blue light fluorecence
XEGDBG	Photography	DCS4 camera system
XKRG7P	Photography	
XN8NUP	Photography	
XPF99C	Lifting	With Mikrosil
	Photography	
XV9ABQ	Photography	
XYR823	Lifting	Print lifted using tape & placed on latent lift card with information.
XYUQCJ	Photography	Overall photography with packaging and pos-it note with case information

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
	Photography	1:1 on a copy stand with ambient room lighting (after mag powder)
	Lifting	tape lift placed on to a clear backing (after mag powder)
	Photography	Photo stand and ALS; 1:1 photograph with ALS set to 495 nm with an orange barrier filter on camera (after R6G)
Y2P6QK	Photography	with DCS - Digital Capture Station; plain and digitally enhanced
Y4EANY	Photography	After CNA/BY40. The print was very weak.
Y4WBE8	Photography	Camera 3, lens 3; one photograph in RAY
	Scanning	Scanner 13- print scanned after powder application
Y9PHTA	Photography	.TIFF image taken with Canon 5D with yellow filter/Crimescope @415nm
YF9TZJ	Photography	digital photo's of latent prior to lifting
	Lifting	Clear lift tape on white latent card
YHE9CV	Photography	Photographed developed print
	Lifting	tilized lift tape and placed on white backing card.
YHZNMR	Photography	use of 400-700nm white light to photograph developed latent print (partial and detail). TM "IT 1.1"
YJARG3	Lifting	lift tape and lift card
YVMWMD	Photography	Blue light, yellow filter
YWWZXG	Scanning	
Z2NKMH	Tape Lifting	"Sirchie" fingerprint tape applied, print lifted and preserved on fingerprint lift card w/pertinent information listed on back of card.
ZKLN8	Photography	picture(s) taken under visible light and/or fluorescent examination
ZPQNGA	Photography	After Basic Yellow 40
ZRK9P3	Photography	DCS4 System, yellow filter, print to scale, MBD dye print
	Lifting	2" tape on lift card, black magnetic powder

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
ZXAQ6Z	Photography	Canon camera, Digital photo professional software, photoshop
ZZG4Q8	Photography	Visual, CA, Powder - one photograph taken after each process using camera Nikon D810 >1000 ppi
	Photography	RAY - one photograph taken using Polylight Flare Plus 2 light and orange filter

<b>Response Summary</b>	<b>Participants: 334</b>
<b>Methods Utilized</b>	

Lifting	88
Photography	305
Scanning	19

**\*\*Note:** Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
23YU83	Photography	Canon EOS 60D, 100 mm lens.
24BJEL	Photography	
26F8N6	powdering	exhibi was lightly dusted with black powder.
297BQP	Scanning	Digital
2LUD9G	Photography Lifting	Nikon D810 digital camera, Foray - image enhancement Scotch 3M clear tape / clear backer
2TR6D6	Scanning Scanning	Black magnetic powder - One (1) digital image taken with scanner thirteen. See image metadata for settings. PD - One (1) digital image taken with scanner thirteen. See image metadata for settings.
2TR6FP	Photography	
2WA6XQ	Photography	For photo of print after powdering used flash light to view item.
2XK6UK	Photography Lifting	LabKam in conjunction with Foray- Adams Digital Capture System Tape with clear backer
2XPDXE	Photography	Nikon D700 Fstop 51.0/aperture 4/iso 200/exposure time 1/160 with ambient room light (1st image); Nikon D700 Fstop 51.0/aperture 4/iso 200/exposure time 1/30 with ambient room light (2nd image)
33QAUJ	Digital Photography Latent Lift Tape	Took three digital photographs of latent impressions with scale at visual/ Laser, Ardrex/ UV, and Rhodamine 6G/ Laser Used lift tape to lift off the latent from item and taped onto latent lift card.
344WEJ	Photography	
36ELTP	Photography	Digital capture (Nikon D300) after cyanoacrylate fuming (in the white diffuse light) and powder (in the white diffuse light).
3QHHD6	Photography Scanning	Black magnetic powder - One (1) digital image taken with camera/lens three on using direct white lighting. See image metadata for settings. Black Powder - Three (3) digital images taken with camera/lens three using oblique white lighting. See image metadata for settings. PD - One (1) digital image of the latent print taken on scanner 13.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Envelope/box	For storage - sealed with evidence tape.
3T49GV	Photography	Between methods and after the whole process.
3UYPWX	Photography	F&F DCS4 system, light 500 nm, orange filter
3WLBLE	Photography	one image taken after black powder - white light (Nikon D700 camera)
	Lifting	one white accutrans lift taken after black powder
3YTN62	Photography	
3Z7DCK	Photography	
42YL2F	Photography	on initial visual exam w/UV (254 nm)/ RUVIS & digital imaging system
	Photography	post black powder w/ambient light & digital imaging system
43CXXZ	Scanning	Scanned at 1000 DPI with scale and further enhanced using AFIS software
4939C6	Photography	CA print, Camera 9, Lens 2, overhead lighting
	Photography	Powder print, Camera 9, Lens 2, overhead lighting
	Scanning	PD print, scanned using scanner #10, 1200 ppi
4BH22C	Photography	General and ALS: Red 23A barrier filter
	Lifting	Gel and standard adhesive
	Scanning	GLScan: 1044ppi tiff; flatbed: 1000ppi tiff
4D4TRK	Photography	Nikon D810
4D7CXW	Photography	A photography of the fingermark was conducted (DCS4 system) after Ninhydrin treatment
	Safe packaging and storage	
4FTZCH	Photography	
4FX9PB	Photography	with orange filter
	Lifting	clear hinge lift



TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
4H3XT7	Lifting	I used fingerprint tape to lift one latent print from quadrant D and I placed that lift on a fingerprint card.
4L2CEA	Tape lift	Collected on a latent print lift card.
4TLLFR	Photography Lifting	Digital photography taken Lifted the latent with lifting tape and placed on lift card with diagram and documented with diagram
4UY3ZK	Photography	White light & enhanced in Photoshop CC
639T3N	Photography	Using room light after cyanoacrylate, using room light after black magnetic powder, using room light (with and without green filter) after Ninhydrin
639TZ3	Photography Scanning	Nikon D810 camera with 105mm lens, direct lighting on Black Magnetic Powder Epson V600 #7 on PD
66AYF9	Photograph Lifting	used Pentax 645Z camera and Adobe Lightroom 6 software for 1:1 photo used clear tape on white glossy card
66UD77	Photographed Tape lift	into laboratory case file in Justice Trax and digital image system Foray on white 3x5 lift card- scanned into Justice Trax & Foray 1:1 ratio
67KNUE	Scanning	Epson 11000XL, 1200 ppi, photoshop, levels
68WMPPM	Photography Lifting	overall/close-up, scale, macro-tiff lift card
6D7TD7	Photography Lifting tape	tape applied to surface over developed print - (not lifted) to preserve in place & not get wiped away.
6KLEH4	Photography	Digital Format - RAW
6MRV2	Scanning Scanning Scanning	Black magnetic powder - Scanner 13, 1 image. See image metadata for settings. Ninhydrin - Scanner 13, 1 image. See image metadata for settings. PD - Scanner 13, 1 image. See image metadata for settings.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
6UABFY	Photography	
6UVN4C	Photo	One photo of all four quadrants. One photo of close up of latent print
6YPQ6Q	Photography Lifting	For powder
6ZW3MR	Photography	AFTER VISUAL, CYANOACRYLATE, AND R6G PROCESSES
77KXAG	Photography	
79L9YP	Photography	Nikon D90, AF Micro NIKKOR 60mm
7A2MB7	Photography	Nikon D300 body with a Nikon 60 mm lens, file type RAW
7A38DM	Photography	
7CLLGN	Photography	Photographed with scale.
7F9UAX	None	
7NJDA9	Lifting	Lifting tape placed over developed print and left on item in order to prevent possible damage to item or print inherent in tape removal from paper-based substrate.
7QRBXX	Photography	
7WVGBF	Photography	
7XRM28	Lifted and photographed	
7ZDGTF	Photography	Digital photography
83HLP2	Photography Lifting	
83ZFL6	Photography	Between methods and after the process was done
84N79V	Photography	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
8C9ZWD	Photography	Captured into computer with LabKam
	Photography	Captured into computer with Nikon DSLR while using white light after powdering
8CK2BZ	Scanning	
8F32T2	Photography	Reflected Ultraviolet Imaging System (LabKam). Images captured after visual exam and after Cyanoacrylate Fuming.
	Photography	Nikon D810 camera. Photograph taken after Black Powder processing.
8J46L9	Photography	photos taken with white light after steps 1-6. step 5 also one takedn with crimescope at 515nm. Step 7 only recorded using 515nm
8KE3TY	Photography	Black magnetic powder - Camera 3, lens 3, Item 2, 1 photo with direct lighting
8NE6WE	Photography	
8R2THE	Photography	Captured with a Fujifilm S5 Pro with a 60mm Micro Nikkor lens after Black Magna powder development stage
	Digital image storage, management and chain of custody system	Authenticated Digital Asset Management System through Foray Digital Workplace
8U4TE6	Tape lift	on card
8WUYUV	None	
92WEWP	Scanning	1200 dpi
947EXP	Photography	Macro lens, measurement scale, RAW+JPG, 400 iso, F-11, 1/80, Flash
	Lifting	Tape lift
97VLHL	Photography	photographed print and placed griplifter on same
988F2T	None	
9CZMFV	Photography	Photo Evidence Scale
9KQ8J9	Scanning	flatbed scanner
	Lifting	lifting tape

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
9Q2ATH	Photography Lifting	unprocessed, after CA, and after Powder (all white light) Powder, White Lift Card, & 3M Tape
9QGBX7	Photography Lifting Scanning	clear hinge lift of hinge lift
9TM2YT	Lifting	Fingerprint lift tape applied to lift card with unique case identifiers and description of location of recovery
9YTGP3	Photography	After treatment with Magnetic Jet Black and BY40.
9ZBGVD	Photography	Captured with Sirchie Labkam-Reflected Ultraviolet Imaging System. Fingerprint also developed with magnetic black powder, but lift was not collected as previous photograph was sufficient quality.
A4K99J	Photographs	close up, 60 mm macro lens, w/scale
ABKPJP	Photography	photography lamp-white light, flashlight-white light
AFEDNB	Scanning Scanning Scanning	Black magnetic and black powders - Prints were observed. One (1) digital image taken with scanner thirteen using direct white lighting. See image metadata for settings. Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings. PD - One (1) digital image taken with scanner thirteen. See image metadata for settings.
AQANRW	PL500 (Poliview)	light wavelength - 450 nm, 555 nm filter with orange goggle.
AT2U7G	Photography	Nikon D810
AZ6PEG	Photography	Nikon D5100
AZJZ69	Photography	Foster + Freeman DCS-4 Digital Capture System; ALS 480 nm, orange filter F11 shutter speed 1/10; white light F11 shutter speed 1/90
B73P3N	Photography	
B7Q4E8	Tape Lift -> card	print lifted and placed on print card. Location, date, time, etc noted on card

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
BAJAN4	Photography	A label of a predetermined size with unique referencing written on in was placed near to the fingermark then Digital capture of fingermark using a Nikon D700 camera with settings of ; ISO200, TIFF images of medium quality. I used a depth of field F16 as the item was flat.The fingermark was visible to the naked eye and photographed using a Mason Vactron 4x4 light source using the white light range. The image was then enhanced on the MAson Vactron DCS4 (digital capture software system). All modifications to improve contrast to any images are fully auditable. The images at a 1000dpi are remotely transferred using a secure forensic imaging hub to our identification unit. All images are saved to a picture storage sysytem (EPICS) on the police secure network for archiving.
	Photography	A label of a predetermined size with unique referencing written on in was placed near to the fingermark then Digital capture of fingermark using a Nikon D700 camera with settings of ; ISO200, TIFF images of medium quality. I used a depth of field F16 as the item was flat and used a crimelite viewing filter OG515 (495nm), the fingermark was vivible to the naked eye and photographed using a Mason Vactron 4x4 light source with white light but using a white light filter wheel under the green section to improve contrast between the ninhydrin colour of the fingermark and substrate background colour. The image was then enhanced on the MAson Vactron DCS4 (digital capture software system). All modifications to improve contrast to any images are fully auditable. The images at a 1000dpi are remotely transferred using a secure forensic imaging hub to our identification unit. All images are saved to a picture storage sysytem (EPICS) on the police secure network for archiving.
BCPMBW	Photography	Digital capturing: digital photographing using a Nikon D800 camera connected to a pliview capturing system, that captures and validates the images..
BD2A76	Photography	Orange filter with 495 nm light, Nikon D700 SLR
BGNYGA	Photography	Digital photography with Image Enhancement System via LabKam
	Lifting	Black powdered, captured with Image Enhancement System with Nikon camera with Crime-scope white light at 000, then tape lifted
BL2KMV	Photography	Digital Capturing System (DCS-4): Cyanoacrylate, blue/green light.. DFO: green light with orange filter
BLHYQY	Photography	
BPX7EX	Photography	Photographed prints prior to and after powder processing from quadrant D

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
BR8EJC	Photography	A digital photo was collected after cyanoacrylate fuming and subsequent viewing with the alternate light source, LabKam.
	Photography	A digital photo was collected after dye staining and with viewing under the alternate light source, the Polilight at 450nm.
BR9DF7	Photography	Photographed after Powder Suspension Solution with white light.
BTFQ2D	Photography	photographed w/scale under white light after application of magnetic powder
BTV2PK	Photography	Photographed developed print with a metric scale sticker in the photograph.
	Lifting	Lifted developed print with lifting tape and placed on a latent print lift card.
BUDNN3	Photograph	Photographed with Nikon DZX - used Photoshop to enhance image. Image photo'd 1:1
	Lift Card	Lift tape, lift card, documented info on back of card
BXD28L	Lifting	DIFF-Lift Lifting Tape and latent card
BYKENM	Scanning	Epson Perfection 3200 at 1,200ppi and saved as .tiff
BZTNJ7	Scanning	
	Lifting	
C33WNJ	Lifting	White Mikrosil
	Photography	
C3KVRA	Photography	Alternate Light Source; LabKam (Ridge Structure Comparison Value)
	Photography	Alternate Light Source; LabKam (Ridge Structure Comparison Value) - After cyanoacrylate fuming
	Photography	Black Powder (Ridge Structure Comparison Value)
C8DZHR	Photography	Powder dusting - digital camera
C8VXPX	Photography	Fingerprint was photographed after CNA and after powder
CJRWKB	Photography	Photographs taken in Raw & Fine
CM9LLY	Frosted Tape Lift	frosted tape onto latent lift card

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
CMA2BT	Photography	The fingerprint was photographed at every step of a research
CNLYMP	Photograph	
CPUBZK	Photography	After powder dustin and dye stain.
CUQV9B	Photography	Digital photos taken in Raw, Fine
CV3GXC	Photography	Digital, Nikon D810
CWVKD6	Photography Lifting	Comparison photography would be used - RAW format, camera stabilized, digital enhancement Lifts were successfully made for this item.
CZDP4M	Photography	After applied Basic Yellow 40. Lifted the fingerprint with Black Mikrosil and used light source (angle).
D3UB9F	Photography	Full Spectrum Imaging System (FSIS)
D66AQ3	Lifting	
D66DYK	Photography	
D9MDGL	Photography	Latent print on Item was photographed with a macro camera lens ( Nikon D 3300)
DBUPGV	Scanning Scanning	Ninhydrin print - scanned, see image metadata for settings, 1 image PD - scanned image, see metadata for settings, 1 image
DGH8XR	Photography Photography No photograph taken as item Not Improved Photography Photography No photograph taken as item Not Improved	DCS4-QD DCS4-QD DCS4-QD (green light w/orange filter) DCS4-QD
DGJ8V8	Photography	
DHREXZ	Photography	2 latent photographs were taken of the print

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Lifting	additionally, I lifted the latent print
DQ6CKX	Photography	The print in section D was photographed after fingerprint powder. Before fingerprint powder no papillarylines were visible to photograph. Not pattern visible, partial print.
DVB92C	Photography	Nikon D7000, visible lighting
DX6UWP	Lift Tape	Latent print lifted using lift tape and placed on white latent print card
E4P8FN	None	
E7EDZK	Lifting	Clear tape was used to recover/lift the print and was placed on a fingerprint card
EDB9Z6	Lifting Tape/Backing Card	Lifting tape, white backing card, completed information on reverse side of backing card
	Digital Photography	Camera on copy stand, 90-degree angle to latent print, RAW format, aperture priority, scale included, enhanced in Photoshop and printed - lmg 0233
EKBTWT	Photography	Polyview Digital Capturing System: white light no filter.
EN8J2K	Photography	
	Lifting	Mikrosil casting material
	Photography	
ENBYJQ	Photography	Utilized paddle light on item at an angle; captured with digital capturing system (DCS-4). Utilized enhancement (digital) tools with DCS-4.
ERVN8B	Photography	F-22 exposure 1/50 sec.
EUFZB	Photography	
EXFX78	Digital Photographs	
	Filters	
F7T789	Photography	Nikon D810, ADAMS
F9HTN3	Photography	item photographed in uncompressed format of .NEF using Nikon Camera with scale then printed on Canon photo printer. Also an f-stop of 22 and calibrated



TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Tape Lift and Card Stock	print also lifted using clear tape and placed on a glossy white card stock.
FD8CJ7	Photograph Lift	
FG9AER	Photography Scanning	Nikon camera - direct lighting on powder print 1200mp - tiff file on PD print D
FJEJL4	Photography	Nikon D810 with AF-S micro Nikko 105mm VR lens
FLK494	Photography	Nikon D810
FM9QJQ	Scanning	
FXHZGW	Photography	
FZLZAG	Photography	
G4JLWD	Photography	same as item 1
G6ULXE	None	
G73XDU	Photography	White light
G7P7MY	Scanning	
GCVN97	Photography Lifting Photography Lifting	LabKam: Sirchie LabKam Capture System; Black Powder: Nikon D810 Camera Control Pro 2 Capture System White backer Second Black Powder Application: Nikon D810 Camera Control Pro 2 Capture System Re-lift of black powder on white backer
GEERRW	Scanning	
GHF83	Photography	Capture method: Nikon D810; 3 total photos taken after magnetic powder used to include: 1 overall with room light, 1 close-up with room light, and 1 close-up with oblique light using the Fiber-lite MI-150 high intensity illuminator
GLJHK3	Photography	photographed using a Nikon D180 and stored in the Foray Adams program

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
GT2647	Photography	Nikon D810 DSLR camera, AF MICRO NIKKOR 60mm lens
GTK2F7	Photography	
GXTAXB	Photography	
H3LN7H	Photography	Digital camera, 415 nm, yellow filter, RAW/TIFF format
H6L2HA	Photograph Lift	The latent print was photographed and copied to a DVD The latent print was lifted with tape and placed on a latent lift card
HBD284	Scanning  Scanning	Black magnetic powder - One (1) digital image taken with scanner thirteen using direct white lighting with photo tag and scale. See image metadata for settings. PD - One (1) digital image taken with scanner thirteen with photo tag and scale. See image metadata for settings.
HBVDJG	Photography	Digital
HCALQW	Photography	A photo of the print was taken in digital format and saved it. Then the photo was treated in order to clearly identify the print.
HLDP47	Photography	Sent to our Imaging Unit
HMNRP6	Photography	Digital Photography
HPD3HJ	None	
HRYUMU	Photography	
HVHWGK	Photography	Nikon D700 camera, Crime-lite 8x4, and Polytec with Schott light attachment
HZWGLL	None	
J3YWCN	Photography  Photography	Visual - Nikon D810, Camera Control Pro, Rofin Polilight Flare +, white light, bounce lighting: 4 images Black powder - Nikon D810, Camera Control Pro 2, white light, direct reflection: 3 images
JC22DD	Lifting	Used a gel lift to lift the latent print

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
JGWTNV	Lifting	microsil
JNX2DV	clear tape	LP was preserved by placing clear tape over entire piece of evidence
JVXHLG	Photography	white light - DCS4
JZB846	Photography Lifting	Using DCS-4 camera clear tape placed onto glossy card stock
K2Y2FY	Lifting	Tape lift mounted on lift card
KAWTQE	Photography	
KFVFD8	Photography Lifting	Applying a centimeter test to the trace - No filter on the camera Trace raised with adhesive tape then affixed on a white support with centimeter test
KHUCD4	Photography	When ridge structure of comparison value was observed and determined to be of comparison value it was digitally photographed. With item #2 ridge structure was observed and photographed at two different stages. The first stage ridge structure was observed with an alternative light source (LabKam) and the second stage ridge structure was observed with the application of black powder. The ridge structure observed with black powder was of better quality than the one observed/photographed with the alternative light source. The only ridge structure observed was in section D.
KL4RCE	Photography Burning the verified captured prints onto the masters and archive disks for filing	Digital print capturing: capture prints that are developed using Nikon camera and enhanced the print using V++ programe. burn the captured prints onto masters and archive CD's and also file a printed giant arch.
KM3LF6	Photography	Nikon D810, Nikkor 60mm lens, Foray/ADAMS
KRFH4F	Photography	Nikon 105 mm on Nikon D800, Filter TIFFEN 15, Coaxial incident white light and LABINO UV
KRGDRR	Digital Photography	FRD photographed w/scale. Pattern not discernable - smudged.
KVDYM2	Photography Photography	LabKam Fuji S5 Pro camera

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
L3NR24	Photography	captured with camera at 1000 ppi resolution
L4423H	Photography Lifting	Captured print in quadrant 'D' in lossless image format (NEF). The surface of Item 2 appeared textured. Greater ridge detail can be seen in the photograph vs. the lift. The photo was printed and sealed as evidence. Print was lifted with lifting tape and placed on a card. The card was sealed as evidence.
L866RJ	Lifting	Lifted with clear tape and affixed to one latent print card.
L8HNPV	Photography	Image uploaded to ADAMS, processed in Photoshop
LFYFZT	Lifting Scanning Photography	Gel lift after Cyanoacrylate fuming. Scan of gel lift, then used Photoshop to visualize and document. Impression photographed with scale after dusting.
LJEULE	Photography	macro
LV883X	Photography	Raw photographs of laten
LVTPYT	Photography	Digital capturing system (DCS-4). Cyanoacrylate :a light source for white light. Dye Stain(basic yellow 40):Blue light with yellow filter.
LW4UBV	Photography	White light, saved in Foray Digital Workplace
LY6M9L	Photography	After Carbon powder and Basic Yellow. With Basic Yellow used Light source: Mini-Crimescope, 475nm, orange filter
M779U9	Photography	
MD8GLV	Photography Lifting	Comparison photography was taken through the KSI with an attachment, enhanced on the computer, and then printed Lifts were taken after dusting; lifted with tape and put onto index cards; lifts were of good quality
MDQH9X	Photography	Used digital camera to capture image with Nikon D810. Image enhancement done in Adams Foray. Images saved to a file and to a disc. 40 minutes on enhancements.
MEGL26	Photography Lifting	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
MEHJ8U	Photography Lifting	Camera attached to Krimesite Imager after dust, lifting tape, 3"x5" card
MG67G9	Photography Lifting	Without and with scale. Lift tape successful. Card with diagram and identifying information.
MH374M	Lifting	tape and lift card
MH43EJ	Photography	Foster & Freeman DCS-4 used to record positive/ improved development
MPXHTP	Photography	
MQBxBW	Photography Photography Photography	Digital photography with Labkam after cyanoacrylate fuming Digital photography with Crimescope after dye stain Rhodamine 6G Digital photography with white light after black powder dusting
MR7HZG	Lifting	Item 2 was lifted with fingerprint tape.
MR9DJM	Photography	Photograph prints at all stages of enhancement and development.
MRLR6B	Photography Enhance image	Ridge detail observed in quadrant D. Potographed After cyanoacrylate fuming treatment and Powder Fluorescent Magnetic Latent Print Powder with oblique lighting-white light Use Adobe Photoshop CS6 enhance the image
MTXM9V	Photography	DCS-4 Digital Capture System
MYNUEH	Photography	Digital Capturing System (DCS) was used.
MYQGVW	Photography	Nikon D810 camera to capture image. Digital FORAY used for digital enhancement. Saved images to disc. 25 minutes for enhancement
N28CNE	Photography	by using DCS4
N2BR6L	Lifting	Using tape, I lifted the print and placed the tape on a fingerprint lift card.
N8E4T7	Lifting	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
NA3BJU	Photography Lifting	Photography from pre-processing to post-processing. RUVIS-photos photo of developed ridge detail with powder Clear tape on white backer (labeled 2L1)
NBW37Z	Photography	used Nikon 810 camera, acquired and stored using ADAMS software
NF2UFH	Photography	The fingerprint was checked and photographed after every method. Best result was after Powder dusting.
NFUFCX	Photography	
NLRBRN	Photography	capture latent print impression with scale and proper lighting.
NMTXUV	Photography	LabKam camera and Nikon D810 SLR, acquired in Foray System, images enhanced with Adobe Photoshop CS
NN2ELZ	Photography	
NQ4A2G	Photography	Digital Capturing: poliview capturing system, 610 nm filter and 450 nm polilight
NQLB4X	Digital Photography	
NQPQJK	Photography Photography	Digital photography of one latent print. Digital photography after cyanoacrylate of one latent print.
NWVKGL	Photography	RUVIS imaging system
NXN923	Photography	
NY4JUF	Photo	camera Nikon D800e lens AF Nikkor 105 mm illuminator Polilight PL500 with evidence scales.
NYG9V8	Photography	
P669VK	Photography	
P7UJJR	Photography	Foster + Freeman Digital Capture System 4 / audit trail within file
PAZVQU	Photography	Nikon D810, acquired in FORAY/ADAMS enhancement
PHU39Y	Photography	Photography after cyanoacrylate fuming by Imaging Unit

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
PJ38UB	Photography	After the powder dusting the impression of poor quality was photographed with a black lens-filter.
	Photography	The impression was re-photographed with a green lens-filter.
	Photo of the item are taken to show where the impression is located on the item. If possible we cut out the impression from the item, and store it within the case papers. The original item is always retained until the case is closed by us.	
PKD678	Photography	with scale
	Lifting	hinge lifter
PP79V6	Photography	same as item 1
PTAZAW	Photography	
PX6PWW	Photography	Digital photography using the Canon Powershot G5 and Nikon model 810 in raw format. Images were processed using Foray Digital Workplace, and saved to a disc.
PY266L	Photography	Labeled 2.1, RAW, acquired to ADAMS
	Photography	2.1 re-photographed, RAW, Laser with Orange Filter, acquired to ADAMS
Q2M9DJ	Photography	Photographed print before attempting lift due to nature of the item
	Lifting	Lifted print with tape and placed tape on lift card
Q6LMXN	Photography	photos after each step except alternate light source, test print conducted and pictures taken after processing steps.
Q7B326	Photography	powder
	Lifting	
QAC7TQ	Photography	Saved in ADAMS
QBMW6G	Scanning	Black magnetic powder - One (1) digital image taken with scanner thirteen using direct white lighting. See image metadata for settings.
QF2HTU	DCS4	Digital Capture Station

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
QH8YAX	Photography	
QJMF9W	Photography	Photos taken with Nikon D700 with 60mm micro lens.
QNC3U6	Photography	Simulated photography. We have a separate unit that photographs our latent prints.
QUK9RW	Lifting	lifted with tape from postcard on to lift card
QVU76D	None	
QW6BGG	Photography	DCS 5
R2DZDV	Digital Photography	one photograph was taken after powder
R49CKG	Scanning	Epson V600, 1200ppi resolution on Ninhydrin print.
	Scanning	Epson V600, 1200ppi resolution on PD print.
RABJZK	Tape-Lift	lifted print and placed on fingerprint card
RATGAB	Photography	
RB2PGB	None	
RH4U9U	Photography	
RJU3C4	Lifting Photography	Mikrosil
RMTHH7	Lifting	
RTLDRQ	Digital Imagery Lifting	NIKON D7000 Lift tape with agency specific lift backer
RUWDPK	Lifting	The ridge detail was lifted with fingerprint tape and placed on a lift card.
RW6CZT	Photography - Digital Lifting	3 digital photographs 1 latent lift



TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
RWLTUM	Photography	The fingerprint was photographed at every stage of research after disclosure.
RY6X8B	Photography	After Basic Yellow 40
T2TJV8	Photography	white light
T3MFAT	Photography	overall and close-range photos taken; uploaded into Authenticated Digital Asset Management System
T4Y3XA	Photography	
T6CMUP	Photography	Nikon D810 digital camera, Foray image enhancement, images stored in folder "PT17-312"
T8DPAD	Fuming/MVC3000	cyanobloom: temperature 120 degree celsius, relative humidity 80%, 20 minutes
TKPXKX	Lifting Scanning	100% @ 1200 ppi
TM926N	Scanning	Epson flatbed scanner, 1200 dpi, Foray Digital Workplace
TNNDPE	Photography	Photographed before & after cyanoacrylate processing using LABKAM system, then photographed using Nikon D810 Camera after black powder processing.
TV6UE4	Photography Lifting	with and without a scale lifted with a grip lifter
U2KWW6	Photography Taped	The item was photographed through the Krimsite Imager and after the latent was developed Tape was placed over the latent print and the entire card was preserved as evidence
U4A4F2	Photography	sub item # 2.1
U4QGJ6	Photography Preserved with lifting tape	Photographs taken at time of visual examination, through the Krimsite Imager and after dusting with magnetic powder. Friction ridge impression preserved in place using lifting tape and item was returned to evidence envelope.
U8XVB6	Photography Photography Lifting	UV Light (LABKAM) - digital image of ridge detail. Digital Photography - digital image of lift location. Lift secured on latent print card.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
UA2LHJ	Photography Adobe Photoshop CS6	FSIS digital image capture after CA cycle Image calibration; processed for best detail (Lasso - invert ridge detail; Lasso - Curves adjustment with feathering; Burn); created 1:1 composite and a CD
UAGP86	Photography Lifting	Mikrosil
UCN3XJ	Photograph w/Scale Lift Print	Photograph in raw setting with & without a scale Collected onto a latent print card
UHDR8V	Photography	
UK3W69	Photography	
ULELED	Scanning	Black Magnetic Powder - One (1) digital image taken with scanner thirteen. See image metadata for settings.
UR2F86	Photography	NIKON D7100
URXX6Y	Photography	green light with red filter
UTE827	Photography	Digital photograph taken using a Nikon D3100 digital camera
V7CLQ3	Lifting	
V7VH89	Digital Photography	Foster Freeman DCS-4 w/Nikon D700.
VH9PXG	Photography Lift Card	
VKWWN7	Photography Scanning	High Resolution Non-Lossy 100 DPI TIFF
W3FAJA	Photography	DCS-4 QD, CA was photographed with blue/green light, DFO was photographed using green light with orange filter
W86P8F	Lifting	on glossy side
WCV92X	Photography	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
WEU8ND	Photography Lifting	Developed latent photographed before lifting. Existing light.
WGXV6N	Photography	universal imaging system . spec. forensics
WLMPRM	Digital Image Capture (x2)	Foster + Freeman Digital Capture System (DCS-4); Powder: White Light; Rhodamine 6G: 470 nm + orange filter 0G530
WLQ3NW	Photography	barrier filters used when appropriate
WPNLLN	Photography Scanning Scanning	Black magnetic powder - Four (4) digital images taken with camera/lens three using diffused white lighting. See image metadata for settings. Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings. PD - One (1) digital image taken with scanner thirteen. See image metadata for settings.
WRT92E	Photography	
WUZQ2V	Photography	
WYTQFQ	Photography	Fuji S5 Pro, Aperture priority with F stop of 16, enhanced on Foray digital imaging system
WZBHPB	Scanning Scanning	After Black magnetic powder - Scanner 13 (see image metadata for settings) Item 002, 1 image. After PD - Scanner 13 (see image metadata for settings) Item 002, 1 image.
X2GDLY	Photography Lifting	Photographed latent print with metric scale Lifted latent print using fingerprint tape and print card
X2XH7H	Photography	photos after 1,2 indanedione and R6G taken with crimescope at 515nm; superglue and Ninhydrin photos taken with white light
X8MXUP	Photography	
X9ZPPR	Photography Lifting	Attach camera to KSI - Manual 80 Clear lifting tape with 3" x 5" card
XCE6EJ	Photography Scanning	Canon 50D -Documentation and Exam quality V300 Photo and enhanced with Photoshop CS5

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
XCEALF	Photography	using alternative light source
	Lifting	gel lifter
XEGDBG	Photography	DCS4 camera system
XKRG7P	Photography	
XN8NUP	Photography	
XYR823	Lifting	Print lifted using tape & placed on latent lift card with information.
XYUQCJ	Photography	overall photograph with evidence packaging and a posit note with the case information
	Photography	1:1 Photograph taken on a copy stand with ambient room lighting (after mag powder)
	Lifting	tape lift placed on to a clear backing
Y2P6QK	Photography	With DCS - Digital Capture Station - RDNV with enhancement
Y4EANY	Photography	Between CNA and powder, after black magnetic powder, after ninhydrin - slightly improved print
Y4WBE8	Scanning	Black magnetic powder - One (1) digital image taken with scanner thirteen. See image metadata for settings.
Y9PHTA	Scanning	Epson scanner @1200dpi. Image saved in .TIFF format
YF9TZJ	Cyanoacrylate fuming	28 minutes/43% humidity
	Lifting	Clear lift tape/white latent card/texture of post card affected the fine detail of latent print
YHE9CV	Photography	Photographed print
	Lifting	Lifted print with polyvinyl tape and applied to white backing card.
YHZNMR	Photography	use of 400-700nm white light to photograph developed latent print (partial and detail). TM "IT 2.1"
YJARG3	Lifting	lift tape and lift card
YVMWMD	Photography	White light

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
YWWZXG	Scanning	
Z2NKM8	Tape Lifting	"Sirchie" fingerprint tape applied, print lifted and preserved on fingerprint lift card w/pertinent information on back of card
ZKLN8	Photography	picture(s) taken under visible light and/or fluorescent examination
ZPQNGA	Photography	After Basic Yellow 40
ZRK9P3	Photography Lifting	DCS4 System, green filter, print to scale, black magnetic powder print 2" tape on lift card, black magnetic powder print
ZXAQ6Z	Photography	Canon camera, Digital photo professional software, photoshop
ZZG4Q8	Scanning	Powder - One image taken with Epson scanner at 1200 dpi

## Response Summary

Participants: 334

### Methods Utilized

Lifting	92
Photography	274
Scanning	46

**\*\*Note:** Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
23YU83	Photography	Canon EOS 60D, 100 mm lens.
24BJEL	Photography	
26F8N6	Dye Staining	exhibit was treated with Nindrin/HFE and put in Nincha equipment set at 70 degree celsius and 80% humidity for 20 minutes.
297BQP	Scanning	Digital
2LUD9G	Photography	Nikon D810 digital camera, Foray - image enhancement
2TR6D6	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings.
2TR6FP	Photography	
2WA6XQ	Photography	Used laser with green light and orange filter on camera to photograph item after processing with 1,2-Indanedione.
	Scanning	Scanned item after NIN processing at resolution of 1200 dpi and 24-bit color.
2XK6UK	Photography	Foray-Adams Digital Capture System
2XPDXE	Scanning	Epson v750 Pro at 2400ppi
33QAUJ	Digital Photography	Took three digital photographs of latent impressions with scale at DFO/ Laser, Ninhydrin, and Zinc Chloride/ALS.
344WEJ	Photography	
36ELTP	Photography	Digital capture (Nikon D300) after DFO (at 470 nm and 490 nm) and ninhydrin (in the white diffuse light).
3QHHD6	Scanning	Item was scanned for the purpose of preservation (normally photocopied) of the original item in case of destruction of the ink during ninhydrin and physical developer processing.
	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen.
	Envelope/Box	For storage, sealed with evidence tape.
3T49GV	Photography	Between methods and after the whole process.
3UYPWX	Photography	F&F DCS4 system, light 500 nm, orange filter

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
3WLBLE	Scanning	one image taken (Epson V750 Pro scanner)
3YTN62	Photography	
3Z7DCK	Photography	
42YL2F	Photography	post-ninhydrin processing w/ambient light & digital imaging system
43CXXZ	Scanning	Scanned at 1000 DPI with scale and further enhanced with AFIS software
4939C6	Scanning	Ninhydrin scanned with scanner #10, 1200 ppi
4BHZ2C	Photography Scanning	flatbed: 1000ppi tiff
4D4TRK	Photography	Nikon D8110
4D7CXW	Photography Safe packaging and storage	A photograph of the fingermark was conducted (DCS4 system) after Indanedione/Zinc Chloride treatment
4FTZCH	Photography	
4FX9PB	Photography	
4H3XT7	Photography	Used DCS camera system to photograph developed print in quadrant B.
4L2CEA	Photo	Converted to 1:1 and printed.
4TLLFR	Photography	Digital photography
4UY3ZK	Photography	LASER
639T3N	Photography	Using laser and orange filter after 1,2-Indanedione ZnCl
639TZ3	Scanning	Epson V600 #7 on Ninhydrin print
66AYF9	Photograph	used Pentax 645Z camera and Adobe lightroom 6 software for 1:1 photo

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
66UD77	Flat Bed Scanner	scanned into laboratory case file Justice Trax & digital image system Foray @ 1:1 ratio
67KNUE	Scanning	1200ppi, photoshop, printed
68WMPM	Photography Photography	overall - ALS 495nm w/ orange filter after DFO overall/close-up, scale, macro-tiff after Ninhydrin
6D7TD7	Photography	
6KLEH4	Photography	Digital Format - RAW
6LDH6J	Photography	
6MRV2	Scanning	Ninhydrin - Scanner 13, 1 image. See image metadata for settings.
6UABFY	Photography	
6UVN4C	Photo	One photo of all four quadrant. One photo of close up of latent print
6YPQ6Q	Photography	For Ninhydrin
6ZW3MR	Photography	AFTER DFO PROCESS
79L9YP	Photography	Nikon D90, AF Micro NIKKOR 60mm
7A2MB7	Photography	Nikon D300 body with a Nikon 60 mm lens, file type RAW
7A38DM	Scanning	
7CLLGN	Photography	Photographed with scale.
7F9UAX	none	
7NJDA9	Scanning	Scanned at 1200dpi resolution in JPEG format.
7QRBXX	Photography	
7WVGBF	Photography	



TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
7XRM28	Photography	
7ZDGTf	Photography	Digital photography
83HLP2	Photography	
83ZFL6	Photography	Between methods and after the process was done
84N79V	Photography	
8C9ZWD	Photography	Captured into computer with Nikon DSLR while using Crimescope
8CK2BZ	Scanning	
8F32T2	Photography	Nikon D810 camera. (With polilight at 505nm and an orange filter. After 1,2-Indanedione).
8J46L9	Photography	photos taken after steps 1-4 with white light, also after step 3 photo taken with crimescope at 515nm
8KE3TY	Photography	Ninhydrin - camera 3, lens 3, 1 photo with direct lighting.
8NE6WE	Photography	
8R2THE	Photography  Digital image storage, management and chain of custody system	Captured with a Fujifilm S5 Pro with a 60mm Micro Nikkor lens after Indanedione stage and after Alternate Light Source stage. Authenticated Digital Asset Management System through Foray Digital Workplace
8U4TE6	Photograph	Printed 1:1 of latent print
8WUYUV	None	
92WEWP	Scanning	1200 dpi
947EXP	Photography	Macro lense, measurement scale, 400 Iso, F-11, 1/80, flash
96HAL3	Photography	
97VLHL	Photography	photographed print

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
988F2T	None	
9CZMFV	Photography	Photo Evidence Scale
9KQ8J9	Scanning	flatbed scanner
9Q2ATH	Photography Photography	after 1,2-Indanedione using Laser (Green 532nm) after Ninhydrin using White Light
9QGBX7	Scanning	
9TM2YT	Photography	Request was submitted to the Photography Unit to photograph and print 1:1
9YTGP3	Photography	After development with Ninhydrin.
9ZBGVD	Photography	Photographs were captured utilizing the alternate light source (Spex CrimeScope); an orange filter was placed on the camera.
A3Q9HZ	Photography	DCS with orange filter (529 nm) and light at 480nm
A4K99J	Photographs	close up, 60mm macro lens, w/scale.
ABKPJP	Photography	TracER Laser-532nm
AFEDNB	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings.
AQANRW	PL500 (Poliview)	light wavelength - 530 nm, 555 nm filter with orange goggle.
AT2U7G	Photography	Nikon D810
AYB3J6	Photography	Fuji IS UV-IR digital camera
AZ6PEG	Scanning/ Photography	Epson V800, Nikon D40
AZJZ69	Photography	Foster + Freeman DCS-4 Digital Capture System; white light F11 shutter speed 1/125
B73P3N	Photography	
B7Q4E8	Photography	poss. latent print marked "A" and photographed w/scale in RAW on copy stand

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
	Photoshop CS6	Print enhanced for 1 to 1 calibration (CMYK (Magenta) -> Grayscale Auto levels & burn tool)
BAJAN4	Photography	A label of a predetermined size with unique referencing written on in was placed near to the fingermark then Digital capture of fingermark using a Nikon D700 camera with settings of ; ISO200, TIFF images of medium quality. I used a depth of field F16 as the item was flat and used a crimelite viewing filter OG515 (495nm), the fingermark was visible to the naked eye and photographed using a Mason Vactron 4x4 light source with white light but using a white light filter wheel under the green section to improve contrast between the ninhydrin colour of the fingermark and substrate background colour. The image was then enhanced on the MAson Vactron DCS4 (digital capture software system). All modifications to improve contrast to any images are fully auditable. The images at a 1000dpi are remotely transferred using a secure forensic imaging hub to our identification unit. All images are saved to a picture storage system (EPICS) on the police secure network for archiving.
BCPMBW	Photography	digital photographing using a Nikon D800 camera connected to a pliview capturing system, that captures and validates the images..
BD2A76	Scanning	Epson Perfection V700 Photo scanner
BGNYGA	Photography	Captured with Digital Enhancement System with Nikon camera with crime-scope white light at 000
BL2KMV	Photography	Digital Capturing System (DCS-4): DFO, green light with orange filter... Ninhydrin: green light, no filter
BLHYQY	Photography	
BPX7EX	Photography	Photographed prints from Quadrant B
BR8EJC	Photography	Digital photography was utilized after ninhydrin
BR9DF7	Photography	Photographed after DFO at 505nm with a Tiffen red 23A filter and photographed after ninhydrin with white light
BTFQ2D	Photography	photographed w/scale using orange filter & laser @ 532nm after application of DFO. photographed w/scale under white light after application of ninhydrin
BTV2PK	Photography	A metric scaled sticker was placed on the paper next to the latent print and photographed with a Nikon camera with an orange filter on the lens.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
BUDNN3	Photograph	Photographed with Nikon DZX - used Photoshop to enhance image, image photo'd 1:1
BXD28L	Photography	Obtain a digital scaled image using the Image Enhancement System on the desktop computer.
BYKENM	Scanning	Epson Perfection 3200 at 1,200ppi and saved as .tiff
BZTNJ7	Scanning	
C33WNJ	Photography	
C3KVRA	Photography	Alternate Light Source (Crimescope); 505nm with an orange filter (Ridge Structure Comparison Value)
C8DZHR	Photography	Ninhydrin - digital camera
C8VXPX	Photography	After development
CJRWKB	Photography	No friction ridge visible after processing
CM9LLY	Photograph	black & white enhanced brightness & contrast
CMA2BT	Photography	DFO
CNLYMP	Photograph	
CPUBZK	Photography	After Ninhydrin.
CUQV9B	Photography	Digital Photos taken in Raw, Fine
CV3GXC	Photography	Digital, Nikon D810
CWVKD6	Scanning	Scanned in at 1000 dpi, digital enhancement
CZDP4M	Photography	After applied DFO and after applied Ninhydrin.
D3UB9F	Photography	Raw. Camera Nikon D800 (After DFO)
D66AQ3	Photography	
D66DYK	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
D9MDGL	Photography	Latent print on Item was photographed with a macro camera lens (Nikon D3300)
DBUPGV	Scanning	Ninhydrin print scanned - see image metadata for settings, 1 image
DGH8XR	Negative - no photograph taken Photography Photography Not Improved - no photograph taken	DCS4-QD (green light w/orange filter) DCS4-QD (ambient light)
DGJ8V8	Photography	
DHREXZ	Photography	2 photographs were taken of the latent prints
DQ6CKX	Photography Photography	The whole sheet before development. Fingerprint was photographed after development.
DVB92C	Photography Photography	Nikon D7000 with orange filter, Bright Beam Laser, 532 nm Nikon D7000, visible lighting
DX6UWP	Scanned The Images	Using Epson scanner, 1200 DPI as a 1:1 TIFF image. Image enhanced in Adobe Photo Shop. Enhanced latent: green channel - to gray scale, adjustment: levels: 189 - 1.61 - 255, burn setting on areas of latent print. Print 1:1 on Noritsu printer
E4P8FN	None	
E7EDZK	Photography	A photograph was taken of the print with a scale and photo was saved to a CD.
EDB9Z6	Digital Photography	Camera on copy stand, 90-degree angle to latent print, RAW format, aperture priority, scale included, enhanced in Photoshop and printed- Img 0234
EN8J2K	Photography	
ENBYJQ	Photography	Utilized Tracer with orange filter and captured utilizing the digital capturing system (DCS-4) for DFO development.
ERVN8B	Photography Photography	Indandione- F-22 exposure 1/8 sec. Ninhydrin F-22 exposure 1/2 sec.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
EUIPZB	Photography	
EXFX78	Digital Photography Filters	
F7T789	Photography	Nikon D810, ADAMS
F9HTN3	Photography	item photographed using Nikon camera in uncompressed format of .NEF and a f-stop of 22 and with scale. item put in grayscale and calibrated in Photoshop CS6. image printed on photo paper on Canon photo printer
FD8CJ7	Photograph	
FG9AER	Scanning	Epson scanner set at 12 MP and tiff format of Ninhydrin print B
FJEJL4	Photography	Nikon D810 with AF-S micro Nikko 105mm VR lens
FLK494	Scanning	Epson V800
FM9QJQ	Photography	light source crime scope
FXHZGW	Photography	
FZLZAG	Photography	
G4JLWD	Photography	after Indanedione with crimescope and filter-515nm, and after Ninhydrin
G6ULXE	Photography	
G7P7MY	Scanning	
GCVN97	Photography	Nikon D810 Camera Control Pro 2 Capture System; DFO+Crimescope: With orange filter; Ninhydrin: With orange filter and with no filter; 1,2-Indanedione+Crimescope: Green light with orange filter
GEERRW	Scanning	
GHFX83	Photography	Capture method: Nikon D810; 6 total photos taken to include: 1 overall with room light, 2 close-ups after DFO using 495nm and an orange barrier filter, and 3 close-ups with room light after the second spraying of ninhydrin

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
GLJHK3	Photography	photographed using a Nikon D180 and stored in the Foray Adams program
GT2647	Photography	Nikon D810 DSLR camera, AF MICRO NIKKOR 60mm lens
GTK2F7	Photography	
GXTAXB	Photography	
H3LN7H	Photography	Digital camera, 415 nm, yellow filter, RAW/TIFF format
H6L2HA	Photography	The latent print developed was photographed and placed on a DVD
HBD284	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen with photo tag and scale. See image metadata for settings.
HBVDJG	Scanning	
HCALQW	Photography	A photo of the print was taken in digital format and saved it. Then the photo was treated in order to clearly identify the print.
HLDP47	Photography	Sent to our Imaging Unit
HMNRP6	Photography	Digital Photography
HPD3HJ	None	
HRYUMU	Photography	
HVHWGK	Photography	Nikon D700 camera, Crime-lite 8x4, and Tracer Laser with orange filter
HZWGLL	None	
J3YWCN	Scanning	Ninhydrin - Item 3, Quadrant "B" was scanned using Scanner 9 at 1200ppi: 1 image. See image metadata for scanner settings.
JC22DD	Photography	Photographed the latent with scale
JGWTNV	Photography	
JNX2DV	Scanning	Scanned LP

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
JVXHLG	Photography	blue-green light
K2Y2FY	Scanning	Flatbed scanner
KAWTQE	Photography	
KFVFD8	Photography	Applying a centimeter test to the trace - Orange filter for 1,2-Indanedione and no filter for Ninhydrin
KHUCD4	Photography	When ridge structure was observed and determined to be of comparison value it was digitally photographed. With item #3 ridge structure was observed/photographed after the application of Ninhydrin. The only ridge structure developed was in section B.
KL4RCE	Photography  Burning the verified captured prints onto the masters and archive disks for filing	Digital print capturing: capture prints that are developed using Nikon camera and enhanced the print using V++ programe. burn the captured prints onto masters and archive CD's and also file a printed giant arch.
KM3LF6	Photography	Nikon D810, Nikkor 60mm lens, Foray/ADAMS
KRFH4F	Photography	Nikon 105 nm on Nikon D800, Laser 532 nm and filter laser coherent, white light and 515 nm light
KRGDRR	Digital Photography	photographed under ALS 495nm w/orange barrier filter.
KVDYM2	Photography	Fuji S5 Pro camera, orange filter
L3NR24	Photography	captured with camera at 1000 ppi resolution
L4423H	Photography	Captured print in quadrant 'B' in lossless image format (NEF). The photo was printed and sealed as evidence.
L866RJ	Photography  The paper was heat sealed in clear plastic.	Ridge detail was photographed with a scale.
L8HNPV	Scanning	Image uploaded to ADAMS, processed in Photoshop
LFYFZT	Photography	Digital SLR with scale next to impression.
LJEULE	Photography	macro



TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
LV883X	Photography	
LVTPTYT	Photography	Digital capturing system (DCS-4). DFO:Blue /green light with orange filter. Ninhydrine: white light
LW4UBV	Scanning	Scanned on flatbed scanner, 1200 dpi, saved in Foray Digital Workplace
LY6M9L	Photography	
M779U9	Photography	
MD8GLV	Scanning	The area marked on the paper was scanned in, enhanced on the computer, and then printed
MDQH9X	Photography	Nikon D810 digital camera was used to capture image after Ninhydrin. Image enhancement done in Adams Foray. Images saved to a file and to a disc. 40 minutes on enhancements.
MEGL26	Photography	
MEHJ8U	Scanning	Area scanned and saved for future enhancement
MG67G9	Photography	Without and with scale.
MH374M	Photography	DCS / with a color filter
MH43EJ	Photography	Foster & Freeman DCS-4 used to record positive/ improved development
MPXHTP	Photography	
MQBxBW	Photography	Digital photography with Crimescope after Indanedione
MR7HZG	Scanning	Epson V700 scanner
MR9DJM	Photography	Photograph print at all stages of enhancement and development to avoid potential contamination or destruction.
MRLR6B	Photography Enhance image	Ridge detail observed in quadrant B. Potographed After 1,2-Indanedione - Zinc Chloride treatment and use Polilight PL-500 Forensic Light (525 wavelenght) Use Adobe Photoshop CS6 enhance the image
MTXM9V	Photography	DCS-4 Digital Capture System

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
MYNUEH	Photography	Digital Capturing System (DCS) was used.
MYQGWW	Photography	Nikon D810 camera to capture fingerprint image. Digital FORAY for image enhancement. Saved images to disc. 20 minutes for enhancement
N28CNE	Photography	DCS4, Ring light, ISO200, F11
N2BR6L	Photography	I used a digital camera to photograph the developed print using an alternate light source from our digital capturing system with an orange barrier filter.
N8E4T7	Photography	
NA3BJU	Photography	Photography utilized from pre-processing to post-processing. At development of friction ridge detail after ninhydrin- some photographed (labeled 3L1)
NBW37Z	Photography	used Nikon 810 camera, acquired and stored using ADAMS software
NF2UFH	Photography	
NFUFCX	Photography	
NLRBRN	Photography	capture latent print impression with scale and proper lighting.
NMTXUV	Photography	Nikon D810 SLR Nikon D810 SLR, acquired in Foray System, images enhanced with Adobe Photoshop CS
NN2ELZ	Photography	
NQ4A2G	Photography	Digital Capturing: poliview capturing system, 610 nm filter and 450 nm polilight
NQLB4X	Digital Photography	
NQPQJK	Photography	Digital photography with polilight of one latent print.
NWVKGL	Photography	Orange filter due to 532 nm ALS
NXN923	Photography	
NY4JUF	Photo	camera Nikon D-800e lens AF Nikkor 105mm with evidence scales illuminator Polilight PL 500 orange filtr

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
NYG9V8	Photography	
P63ECE	Scanning	Ninhydrin - Flatbed scanner, 1200 DPI
P669VK	Photography	
P7UJJR	Photography	Foster + Freeman Digital Capture System 4 / audit trail within file
PAZVQU	Photography	Nikon D810, acquired in FORAY/ADAMS enhancement
PF6WN3	Scanned	Epson V700
PHU39Y	Photography	Photography after 1,2-Indanedione by Imaging Unit
PJ38UB	Photography  Photo or photocopies of the item are taken to show where the impression is located on the item. If possible we cut out the impression from the item, and store it within the case papers. The original item is always retained until the case is closed by us.	The impression was photographed with 495 nm light and orange lens-filter.
PKD678	Photography	with scale
PP79V6	Photography	documentation photos taken before visual, after fluorescent dye, and Ninhydrin. Same camera for indanedione photo crimescope at 515nm
PTAZAW	Photography	
PX6PWV	Photography	Digital photography. Nikon model 810 in raw format. Images were processed using Foray Digital Workplace, and saved to a disc.
PY266L	Photography Photography	Labeled 3.1, RAW, acquired to ADAMS 3.1 re-photographed, RAW, Laser with Orange Filter, acquired to ADAMS
Q2M9DJ	Photography	Using DCS-4 with ALS 480NM and an orange/yellow filter

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
Q6LMXN	Photography	documentation photos after visual, indanedione, Ninhydrin, test print conducted and pictures taken after each processing step.
Q7B326	Photography	For Ninhydrin
QAC7TQ	Photography	Saved in ADAMS
QBMW6G	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings.
QF2HTU	DCS4	Digital Capture Station
QJMF9W	Photography	Photos taken with Nikon D700 with 60mm micro lens and 549mm barrier filter for 1,2-Indanedione.
QNC3U6	Photography	Simulated photography. We have a separate unit that photographs our latent prints.
QUK9RW	Copier	photo copied
QVU76D	None	
QW6BGG	Photography	DCS 5
R2DZDV	Digital Photography	Two photos were taken at DFO
R49CKG	Scanning	Epson V600, 1200 ppi resolution on Ninhydrin print.
RABJZK	Photographed	photographed print with scale and printed photo 1:1
RATGAB	Photography	
RB2PGB	None	
RH4U9U	Photography	
RJU3C4	Photography	
RMTHH7	Scanning	
RTLDRQ	Digital Imagery	NIKON D7000

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
RUWDPK	Scanning	Ridge detail was scanned into the computer then the ridge detail was enhanced, printed and placed on a lift card.
RW6CZT	Photography - Digital	1 digital photograph
RWLTUM	Photography	The fingerprint photographed using DFO.
RY6X8B	Photography	
T2TJV8	Photography	TracER Laser-532nm
T3MFAT	Photography	overall and close-range photos taken; uploaded into Authenticated Digital Asset Management System
T4Y3XA	Photography	
T6CMUP	Photography	Nikon D810 digital camera, Foray image enhancement, images were stored in a folder "PT17-312"
TKPXKX	Scanning	100% @ 1200 ppi
TM926N	Scanning	Epson flatbed scanner, 1200 dpi, Foray Digital Workplace
TNNDPE	Photography	Photographed after Indanedione at 490nm with orange barrier filter using Nikon D810 Camera; and photographed after Ninhydrin using Nikon D810 Camera.
TV6UE4	Photography	with and without a scale
U2KWW6	Photography	Once the friction ridge was developed on the item it was preserved by photography
U4A4F2	Photography	sub item #3.1
U4QGJ6	Photography	Photographs taken at time of initial visual examination.
	Scanning	Friction ridge impression in section B scanned for further examination.
U8XVB6	Photography	Digital image of ridge detail.
UA2LHJ	Photography	Digital photography (Nikon D200: 1/40sec; f11; ISO 200)
	Adobe Photoshop CS6	Image calibration; processed for best detail (Black & White channel; convert to grayscale; brightness/contrast adjusted; Lasso - Curves adjustment with feathering; Burn; Dodge); created 1:1 composite and a CD

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
UAGP86	Photography	
UCN3XJ	Photograph w/scale	Photograph in raw setting with & without a scale
UHDR8V	Photography	505 nm/orange filter
UK3W69	Photography	
ULELED	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings.
UR2F86	Photography	NIKON D7100
URXX6Y	Photography	green light with red filter
UTE827	Scanning	Digital image taken using Photoshop CS5 and Epson Scanner. Image scanned at 1000dpi, cropped, and saved.
V7CLQ3	Photography	
V7VH89	Digital Photography	Foster Freeman DCS-4 w/Nikon D700.
VH9PXG	Photography	
VKWWN7	Photography	High Resolution Non-Lossy
	Scanning	1200 DPI TIFF
W3FAJA	Photography	DCS-4 QD, DFO was photographed using green light with an orange filter, NIN was photographed using ambient/white lighting
W79HGN	Photography	
W86P8F	Photography	DCS4 with alternative light source
WCV92X	Photography	
WEU8ND	Scanning	
WGXV6N	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
WLMPRM	Digital Image Capture	Foster + Freeman Digital Capture System (DCS-4); Ninhydrin: 533 nm + no filter
WLQ3NW	Photography	barrier filters used when appropriate
WPNLLN	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings.
WRT92E	Photography	
WUZQ2V	Photography	
WYTQFQ	Photography	Fuji S5 Pro, Aperture priority with F stop of 16, enhanced on Foray digital imaging system
WZBHPB	Scanning	Ninhydrin - Scanner 13 (see image metadata for settings) Item 003, 1 image.
X2GDLY	Photography	Examined under alternate light source set at a wavelength of 505nm and wearing orange goggles. Photographed using orange camera filter.
X2XH7H	Photography	Nin photo-white light, Indanedione photo-515nm
X8MXUP	Photography	
X9ZPPR	Photography	Photograph evidence
XCE6EJ	Scanning Photography	Documentation prior to processing - 11000XL Canon 50D-Doc. and exam photos post processing
XCEALF	Scanning	image processing
XEGDBG	Photography	DCS4 camera system
XKRG7P	Photography	
XN8NUP	Photography	
XPF99C	Photography	
XV9ABQ	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
XYR823	Photography	Developed print was photographed & later submitted for analysis. Paper photocopied for file.
XYUQCJ	Photography	overall photography with packaging and case information on post it note in frame
	Photography	1:1 photographs of one (1) area; copy stand with ambient lighting and with lamp
	Scanning	1:1 Scan @ 1200 dpi (after NIN #2 process)
	Photography	1:1 photograph taken on copy stand with lamp for lighting assistance
Y2P6QK	Photography	DCS - Digital Capture Station - RDI whorl
Y4EANY	Photography	
Y4WBE8	Scanning	Ninhydrin - One (1) digital image taken with scanner thirteen. See image metadata for settings.
Y9PHTA	Scanning	Epson scanner @1200dpi. Image saved in .TIFF format
YF9TZJ	Photography	digital photography/latent printed out & preserved. Impression was very faint.
YHE9CV	Photography	Photographed print
		Stored document in zip lock type bag.
YHZNMR	Photography	415nm forensic light is used after DFO treatment and the 400-700 nm (white light) after ninhydrin treatment.
YJARG3	Photography	sent to Photography unit for 1:1 photograph
YVMWMD	Photography	For DFO: green light and red filter. For ninhydrin: white light.
YWWZXG	Scanning	
Z2NKMH	Digital Photography	Captured print w/a scale.
	Latent Print Enhancement	Photoshop CS6
ZKLN8	Photography	picture(s) taken under visible light and/or fluorescent examination
ZPQNGA	Photography	After Ninhydrin
ZRK9P3	Photography	DCS4 System, green filter, print to scale, ninhydrin print



TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
ZXAQ6Z	Photography	Canon camera, Digital photo professional software, photoshop
ZZG4Q8	Scanning	Ninhydrin - One image taken with Epson scanner at 1200 dpi

<b>Response Summary</b>	<b>Participants: 334</b>
<b>Methods Utilized</b>	

Lifting	0
Photography	267
Scanning	64

**\*\*Note:** Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

# First-Level Detail Findings

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
23YU83	Yes	Arch
24BJEL	Yes	Arch
26F8N6	Yes	Arch
297BQP	Yes	Loop
2LUD9G	Yes	Arch
2TR6D6	N/A	N/A
2TR6FP	Yes	Loop
2WA6XQ	Yes	Loop
2XK6UK	Yes	Arch
2XPDXE	Yes	Arch
33QAUJ	No	
344WEJ	Yes	Arch
36ELTP	Yes	N/A
3QHHD6	N/A	N/A
3T49GV	N/A	N/A
3UYPWX	N/A	N/A
3WLBLE	Yes	Arch
3YTN62	Yes	Arch
3Z7DCK	Yes	Arch
42YL2F	No	N/A
43CXXZ	Yes	Arch
4939C6	Yes	Arch
4BHZ2C	Yes	Arch
4D4TRK	N/A	N/A

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
4D7CXW	No	
4FTZCH	N/A	N/A
4FX9PB	Yes	Arch
4H3XT7	Yes	Arch
4L2CEA	N/A	N/A
4TLLFR	Yes	Arch
4UY3ZK	Yes	Arch
639T3N	Yes	N/A
639TZ3	N/A	N/A
66AYF9	N/A	N/A
66UD77	N/A	N/A
67KNUE	Yes	Arch
68WMPM	Yes	Arch
6D7TD7	Yes	Arch
6KLEH4	Yes	Arch
6LDH6J	Yes	N/A
6MRV2	N/A	N/A
6UABFY	No	N/A
6UVN4C	N/A	N/A
6YPQ6Q	Yes	N/A
6ZW3MR	Yes	Arch
77KXAG	Yes	Arch
79L9YP	Yes	Arch
7A2MB7	N/A	N/A
7A38DM	Yes	

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
7CLLGN	No	
7F9UAX	Yes	N/A
7NJDA9	N/A	N/A
7QRBXX	No	
7WVGBF	Yes	Loop
7XRM28	N/A	N/A
7ZDGTG	Yes	Arch
83HLP2	No	
83ZFL6	N/A	N/A
84N79V	No	
8C9ZWD	Yes	Arch
8CK2BZ	Yes	Loop
8F32T2	No	
8J46L9	Yes	Arch
8KE3TY	N/A	N/A
8NE6WE	Yes	Loop
8R2THE	N/A	N/A
8U4TE6	N/A	N/A
8WUYUV	Yes	Arch
92WEWP	Yes	Arch
947EXP	N/A	N/A
96HAL3	N/A	N/A
97VLHL	N/A	N/A
988F2T	Yes	N/A
9CZMFV	Yes	Arch

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
9KQ8J9	Yes	N/A
9Q2ATH	Yes	Arch
9QGBX7	Yes	Arch
9TM2YT	N/A	N/A
9YTGP3	Yes	Arch
9ZBGVD	Yes	Arch
A3Q9HZ	N/A	N/A
A4K99J	Yes	Arch
ABKPJP	Yes	Arch
AFEDNB	N/A	N/A
AQANRW	No	
AT2U7G	Yes	Arch
AYB3J6	Yes	Arch
AZ6PEG	Yes	Arch
AZJZ69	Yes	Arch
B73P3N	Yes	Arch
B7Q4E8	N/A	N/A
BAJAN4	N/A	N/A
BCPMBW	Yes	Arch
BD2A76	Yes	Arch
BGNYGA	Yes	Arch
BL2KMV	Yes	Arch
BLHYQY	N/A	N/A
BPX7EX	N/A	N/A
BR8EJC	Yes	Arch

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
BR9DF7	Yes	Arch
BTFQ2D	Yes	Arch
BTV2PK	Yes	Arch
BUDNN3	Yes	Arch
BXD28L	Yes	Arch
BYKENM	Yes	Loop
BZTNJ7	Yes	N/A
C33WNJ	Yes	N/A
C3KVRA	No	N/A
C8DZHR	N/A	N/A
C8VXPX	Yes	
CJRWKB	No	
CM9LLY	N/A	N/A
CMA2BT	Yes	Arch
CNLYMP	N/A	N/A
CPUBZK	Yes	Arch
CUQV9B	Yes	Arch
CV3GXC	N/A	N/A
CWVKD6	Yes	Loop
CZDP4M	Yes	Loop
D3UB9F	N/A	N/A
D66AQ3	Yes	N/A
D66DYK	Yes	Loop
D9MDGL	Yes	Arch
DBUPGV	No	

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
DGH8XR	N/A	N/A
DGJ8V8	Yes	Arch
DHREXZ	N/A	N/A
DQ6CKX	Yes	Loop
DVB92C	Yes	Arch
DX6UWP	N/A	N/A
E4P8FN	Yes	Arch
E7EDZK	N/A	N/A
EDB9Z6	N/A	N/A
EKBTWT	Yes	Arch
EN8J2K	Yes	Arch
ENBYJQ	Yes	Arch
ERVN8B	Yes	Arch
EUFPZB	N/A	N/A
EXFX78	Yes	N/A
F7T789	N/A	N/A
F9HTN3	Yes	Loop
FD8CJ7	Yes	Loop
FG9AER	N/A	N/A
FJEJL4	Yes	Arch
FLK494	Yes	Arch
FM9QJQ	N/A	N/A
FXHZGW	N/A	N/A
FZLZAG	N/A	N/A
G4JLWD	Yes	Arch

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
G6ULXE	N/A	N/A
G73XDU	Yes	Arch
G7P7MY	Yes	Arch
GCVN97	Yes	N/A
GEERRW	No	N/A
GHFX83	Yes	Arch
GLJHK3	Yes	Arch
GPUURN	Yes	Loop
GT2647	N/A	N/A
GTK2F7	Yes	Arch
GXTAXB	Yes	Loop
H3LN7H	Yes	Arch
H6L2HA	N/A	N/A
HBD284	N/A	N/A
HBVDJG	Yes	Arch
HCALQW	Yes	Arch
HCN24X	Yes	Arch
HLDP47	Yes	Arch
HMNRP6	Yes	Arch
HPD3HJ	Yes	Arch
HRYUMU	N/A	N/A
HVHWGK	Yes	Arch
HZWGLL	N/A	N/A
J3YWCN	Yes	Loop
JC22DD	Yes	Arch



TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
JGWTNV	Yes	Arch
JNX2DV	No	N/A
JUJ2MG	Yes	Arch
JVXHLG	Yes	N/A
JZB846	N/A	N/A
K2Y2FY	N/A	N/A
KAWTQE	No	
KFVFD8	Yes	Arch
KHUCD4	Yes	Arch
KL4RCE	N/A	N/A
KM3LF6	N/A	N/A
KRFH4F	Yes	Loop
KRGDRR	No	
KVDYM2	Yes	Arch
L3NR24	Yes	Arch
L4423H	N/A	N/A
L866RJ	N/A	N/A
L8HNPV	Yes	Arch
LFYFZT	Yes	Loop
LJEULE	Yes	Arch
LV883X	Yes	Arch
LVTPYT	Yes	Arch
LW4UBV	Yes	Arch
LY6M9L	N/A	N/A
M779U9	Yes	Arch

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
MD8GLV	Yes	Arch
MDQH9X	Yes	Arch
MEGL26	Yes	Arch
MEHJ8U	Yes	Loop
MG67G9	Yes	Arch
MH374M	Yes	N/A
MH43EJ	Yes	Arch
MPXHTP	N/A	N/A
MQBXBW	Yes	Arch
MR7HZG	N/A	N/A
MR9DJM	Yes	Arch
MRLR6B	Yes	Arch
MTXM9V	Yes	Loop
MYNUEH	N/A	N/A
MYQGVW	Yes	Arch
N28CNE	Yes	Arch
N2BR6L	Yes	Arch
N8E4T7	Yes	Arch
NA3BJU	Yes	Arch
NBW37Z	N/A	N/A
NF2UFH	N/A	N/A
NFUFCX	Yes	Arch
NLRBRN	Yes	Arch, Loop
NMTXUV	Yes	Arch
NN2ELZ	Yes	Arch

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
NQ4A2G	Yes	Arch
NQLB4X	Yes	Loop
NQPQJK	Yes	Arch
NWVKGL	N/A	N/A
NXN923	N/A	N/A
NY4JUF	Yes	Arch
NYG9V8	N/A	N/A
P669VK	N/A	N/A
P7UJJR	Yes	Arch
PAZVQU	Yes	Arch
PF6WN3	Yes	Arch
PHU39Y	Yes	Arch
PJ38UB	Yes	Arch
PKD678	Yes	Arch
PP79V6	Yes	Arch
PPTRLX	Yes	Arch
PTAZAW	No	N/A
PX6PWV	Yes	Arch
PY266L	No	N/A
Q2M9DJ	N/A	N/A
Q6LMXN	Yes	Arch
Q7B326	Yes	N/A
QAC7TQ	Yes	Arch
QBMW6G	N/A	N/A
QF2HTU	No	

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
QH8YAX	Yes	Arch
QJMF9W	Yes	Arch
QNC3U6	Yes	Loop
QUK9RW	N/A	N/A
QVU76D	Yes	Loop
QW6BGG	Yes	Arch
R2DZDV	Yes	Arch
R49CKG	No	N/A
RABJZK	N/A	N/A
RATGAB	No	
RB2PGB	Yes	N/A
RH4U9U	Yes	
RJU3C4	Yes	N/A
RMTTH7	Yes	Arch
RTLDRQ	Yes	Arch
RUWDPK	N/A	N/A
RWLTUM	Yes	Arch
RY6X8B	N/A	N/A
T2TJV8	Yes	Loop
T3MFAT	No	
T4Y3XA	Yes	Arch
T6CMUP	Yes	Loop
T8DPAD	No	
TAHH4C	No	
TKPXKX	Yes	Arch

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
TM926N	Yes	Arch
TNNDPE	No	N/A
TV6UE4	Yes	Arch
U2KWW6	Yes	Arch
U4A4F2	N/A	N/A
U4QGJ6	Yes	Arch
U8XVB6	N/A	N/A
UA2LHJ	Yes	Loop
UAGP86	Yes	Arch
UCN3XJ	No	N/A
UHDR8V	N/A	N/A
UK3W69	Yes	Loop
ULELED	N/A	N/A
UR2F86	Yes	N/A
URXX6Y	Yes	Arch
UTE827	N/A	N/A
V7CLQ3	Yes	Arch
V7VH89	Yes	Arch
VH9PXG	Yes	Arch, Loop
VKWWN7	Yes	Arch
W3FAJA	Yes	Arch
W79HGN	Yes	Arch
W86P8F	N/A	N/A
WCV92X	N/A	N/A
WEU8ND	N/A	N/A

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
WGXV6N	N/A	N/A
WLMPRM	Yes	Arch
WLQ3NW	Yes	Arch
WPNLLN	N/A	N/A
WRT92E	Yes	Arch
WUZQ2V	Yes	Arch
WYTQFQ	Yes	Arch
WZBHPB	N/A	N/A
X2GDLY	Yes	Arch
X2XH7H	Yes	Arch
X8MXUP	Yes	Arch
X9ZPPR	Yes	Loop
XCE6EJ	Yes	Arch
XCEALF	Yes	Loop
XEGDBG	Yes	N/A
XG7JVD	N/A	N/A
XKRG7P	Yes	Arch
XN8NUP	Yes	Arch
XPF99C	Yes	
XV9ABQ	Yes	Arch
XYR823	N/A	N/A
XYUQCJ	Yes	Loop
Y2P6QK	Yes	Arch
Y4EANY	N/A	N/A
Y4WBE8	N/A	N/A

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
Y9PHTA	Yes	Loop
YF9TZJ	Yes	Loop
YHE9CV	N/A	N/A
YHZNMR	Yes	Arch
YJARG3	N/A	N/A
YVMWMD	N/A	N/A
YWWZXG	Yes	Arch
Z2NKMH	N/A	N/A
Z9MZMX	Yes	Arch
ZKLN8	No	
ZPQNGA	Yes	Arch
ZRK9P3	N/A	N/A
ZXAQ6Z	Yes	Arch
ZZG4Q8	N/A	N/A

Findings Summary		Total Participants: 340
1st Level	Total	
Arch	161	*NOTE: These numbers may not add up to the total # of participants, as not all who found first level detail could determine one specific pattern type.
Loop	34	
Whorl	0	
No	28	
N/A	94	

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
23YU83	Yes	Loop
24BJEL	Yes	Loop
26F8N6	Yes	Loop
297BQP	Yes	Loop
2LUD9G	Yes	Loop
2TR6D6	N/A	N/A
2TR6FP	Yes	Loop
2WA6XQ	Yes	Loop
2XK6UK	Yes	Loop
2XPDXE	Yes	Loop
33QAUJ	Yes	Loop
344WEJ	Yes	Loop
36ELTP	Yes	Loop
3QHHD6	N/A	N/A
3T49GV	N/A	N/A
3UYPWX	Yes	Loop
3WLBLE	Yes	Loop
3YTN62	Yes	Loop
3Z7DCK	Yes	Loop
42YL2F	Yes	Loop
43CXXZ	Yes	Loop
4939C6	Yes	Loop
4BHZ2C	Yes	Loop
4D4TRK	N/A	N/A
4D7CXW	Yes	Loop



TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
4FTZCH	N/A	N/A
4FX9PB	Yes	Loop
4H3XT7	Yes	Loop
4L2CEA	N/A	N/A
4TLLFR	Yes	Loop
4UY3ZK	Yes	Loop
639T3N	Yes	Loop
639TZ3	N/A	N/A
66AYF9	N/A	N/A
66UD77	N/A	N/A
67KNUE	No	N/A
68WMPM	Yes	Loop
6D7TD7	Yes	Loop
6KLEH4	Yes	N/A
6LDH6J	No	N/A
6MRVV2	N/A	N/A
6UABFY	Yes	Loop
6UVN4C	N/A	N/A
6YPQ6Q	Yes	N/A
6ZW3MR	Yes	Loop
77KXAG	Yes	Loop
79L9YP	Yes	Loop
7A2MB7	N/A	N/A
7A38DM	Yes	Loop
7CLLGN	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
7F9UAX	Yes	Loop
7NJDA9	N/A	N/A
7QRBXX	Yes	Loop
7WVGBF	Yes	Loop
7XRM28	N/A	N/A
7ZDGTf	Yes	Loop
83HLP2	Yes	Loop
83ZFL6	N/A	N/A
84N79V	Yes	Loop
8C9ZWD	Yes	Loop
8CK2BZ	Yes	Loop
8F32T2	Yes	Loop
8J46L9	Yes	N/A
8KE3TY	N/A	N/A
8NE6WE	Yes	Loop
8R2THE	N/A	N/A
8U4TE6	N/A	N/A
8WUYUV	Yes	Loop
92WEWP	Yes	Loop
947EXP	Yes	Loop
96HAL3	N/A	N/A
97VLHL	N/A	N/A
988F2T	Yes	N/A
9CZMFV	Yes	Loop
9KQ8J9	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
9Q2ATH	Yes	Loop
9QGBX7	No	N/A
9TM2YT	N/A	N/A
9YTGP3	Yes	Loop
9ZBGVD	Yes	Loop
A3Q9HZ	N/A	N/A
A4K99J	Yes	Loop
ABKPJP	Yes	Loop
AFEDNB	N/A	N/A
AQANRW	Yes	Loop
AT2U7G	Yes	Loop
AYB3J6	No	
AZ6PEG	Yes	
AZJZ69	Yes	Loop
B73P3N	Yes	Loop
B7Q4E8	N/A	N/A
BAJAN4	N/A	N/A
BCPMBW	Yes	Loop
BD2A76	Yes	Loop
BGNYGA	Yes	Loop
BL2KMV	Yes	Loop
BLHYQY	N/A	N/A
BPX7EX	N/A	N/A
BR8EJC	Yes	Loop
BR9DF7	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
BTFQ2D	Yes	Loop
BTV2PK	Yes	Loop
BUDNN3	Yes	Loop
BXD28L	Yes	Loop
BYKENM	Yes	Loop
BZTNJ7	Yes	Loop
C33WNJ	Yes	N/A
C3KVRA	Yes	Loop
C8DZHR	N/A	N/A
C8VXPX	Yes	Loop
CJRWKB	No	
CM9LLY	N/A	N/A
CMA2BT	Yes	Loop
CNLYMP	N/A	N/A
CPUBZK	Yes	Loop
CUQV9B	Yes	Loop
CV3GXC	N/A	N/A
CWVKD6	Yes	Loop
CZDP4M	Yes	N/A
D3UB9F	N/A	N/A
D66AQ3	Yes	N/A
D66DYK	Yes	Loop
D9MDGL	Yes	Loop
DBUPGV	No	
DGH8XR	N/A	N/A

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
DGJ8V8	Yes	Loop
DHREXZ	N/A	N/A
DQ6CKX	Yes	
DVB92C	Yes	Loop
DX6UWP	N/A	N/A
E4P8FN	Yes	Loop
E7EDZK	N/A	N/A
EDB9Z6	N/A	N/A
EKBTWT	Yes	Loop
EN8J2K	Yes	Loop
ENBYJQ	Yes	Loop
ERVN8B	No	N/A
EUFZB	N/A	N/A
EXFX78	Yes	Loop
F7T789	N/A	N/A
F9HTN3	Yes	Loop
FD8CJ7	Yes	Loop
FG9AER	N/A	N/A
FJEJL4	Yes	Loop
FLK494	Yes	Loop
FM9QJQ	N/A	N/A
FXHZGW	N/A	N/A
G4JLWD	Yes	Loop
G6ULXE	N/A	N/A
G73XDU	No	N/A

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
G7P7MY	Yes	Loop
GCVN97	Yes	Loop
GEERRW	Yes	Loop
GHFX83	Yes	Loop
GLJHK3	Yes	Loop
GPUURN	Yes	Loop
GT2647	N/A	N/A
GTK2F7	Yes	Loop
GXTAXB	Yes	Loop
H3LN7H	Yes	Loop
H6L2HA	N/A	N/A
HBD284	N/A	N/A
HBVDJG	Yes	Loop
HCALQW	Yes	Loop
HCN24X	Yes	Loop
HLDP47	Yes	Loop
HMNRP6	Yes	Loop
HPD3HJ	No	N/A
HRYUMU	N/A	N/A
HVHWGK	Yes	Loop
HZWGLL	Yes	Loop
J3YWCN	Yes	N/A
JC22DD	Yes	Loop
JGWTNV	No	
JNX2DV	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
JUJ2MG	Yes	Loop
JVXHLG	Yes	Loop
JZB846	N/A	N/A
K2Y2FY	N/A	Arch
KAWTQE	Yes	Loop
KFVFD8	Yes	Loop
KHUCD4	Yes	Loop
KL4RCE	N/A	N/A
KM3LF6	N/A	N/A
KRFH4F	Yes	Loop
KRGDRR	No	
KVDYM2	Yes	Loop
L3NR24	Yes	Loop
L4423H	N/A	N/A
L866RJ	N/A	N/A
L8HNPV	Yes	Loop
LFYFZT	Yes	Loop
LJEULE	Yes	Loop
LV883X	Yes	Loop
LVTPYT	Yes	Loop
LW4UBV	Yes	Loop
LY6M9L	N/A	N/A
M779U9	Yes	Loop
MD8GLV	Yes	Loop
MDQH9X	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
MEGL26	Yes	Loop
MEHJ8U	Yes	Loop
MG67G9	Yes	Loop
MH374M	Yes	N/A
MH43EJ	Yes	Loop
MPXHTP	N/A	N/A
MQBXBW	Yes	Loop
MR7HZG	N/A	N/A
MR9DJM	Yes	Loop
MRLR6B	Yes	Loop
MTXM9V	Yes	Loop
MYNUEH	N/A	N/A
MYQGWW	Yes	Loop
N28CNE	Yes	Loop
N2BR6L	Yes	Loop
N8E4T7	Yes	Whorl
NA3BJU	Yes	Loop
NBW37Z	N/A	N/A
NF2UFH	N/A	N/A
NFUFCX	Yes	Loop
NLRBRN	No	
NMTXUV	Yes	Loop
NN2ELZ	Yes	Loop
NQ4A2G	Yes	Loop
NQLB4X	Yes	Loop



TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
NQPQJK	Yes	Loop
NWVKGL	N/A	N/A
NXN923	N/A	N/A
NY4JUF	Yes	Loop
NYG9V8	N/A	N/A
P669VK	N/A	N/A
P7UJJR	Yes	Loop
PAZVQU	Yes	Loop
PF6WN3	No	
PHU39Y	Yes	Loop
PJ38UB	Yes	Loop
PKD678	Yes	Loop
PP79V6	Yes	Loop
PPTRLX	Yes	Loop
PTAZAW	Yes	Loop
PX6PWV	Yes	Loop
PY266L	Yes	Loop
Q2M9DJ	N/A	N/A
Q6LMXN	Yes	N/A
Q7B326	Yes	N/A
QAC7TQ	Yes	Loop
QBMW6G	N/A	N/A
QF2HTU	Yes	Loop
QH8YAX	Yes	Loop
QJMF9W	No	N/A

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
QNC3U6	No	Loop
QUK9RW	N/A	N/A
QVU76D	Yes	Loop
QW6BGG	Yes	Loop
R2DZDV	Yes	Loop
R49CKG	No	N/A
RABJZK	N/A	N/A
RATGAB	No	
RB2PGB	Yes	N/A
RH4U9U	Yes	
RJU3C4	Yes	N/A
RMTTH7	Yes	N/A
RTLDRQ	Yes	Loop
RUWDPK	N/A	N/A
RW6CZT	Yes	Loop
RWLTUM	Yes	Loop
RY6X8B	N/A	N/A
T2TJV8	Yes	Loop
T3MFAT	Yes	Loop
T4Y3XA	Yes	Loop
T6CMUP	Yes	Loop
T8DPAD	Yes	Loop
TAHH4C	No	
TKPXKX	Yes	Loop
TM926N	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
TNNDPE	Yes	Loop
TV6UE4	Yes	Loop
U2KVV6	Yes	Loop
U4A4F2	N/A	N/A
U4QGJ6	Yes	Loop
U8XVB6	N/A	N/A
UA2LHJ	Yes	Loop
UAGP86	Yes	Loop
UCN3XJ	Yes	Loop
UHDR8V	N/A	N/A
UK3W69	Yes	Loop
ULELED	N/A	N/A
UR2F86	Yes	Loop
URXX6Y	Yes	Loop
UTE827	N/A	N/A
V7CLQ3	No	
V7VH89	Yes	Loop
VH9PXG	Yes	Loop, Whorl
VKWWN7	Yes	Loop
W3FAJA	Yes	Loop
W79HGN	No	N/A
W86P8F	N/A	N/A
WCV92X	N/A	N/A
WEU8ND	N/A	N/A
WGXV6N	N/A	N/A

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
WLMPRM	Yes	Loop
WLQ3NW	Yes	Loop
WPNLLN	N/A	N/A
WRT92E	Yes	Loop
WUZQ2V	Yes	Loop
WYTQFQ	Yes	Loop
WZBHPB	N/A	N/A
X2GDLY	Yes	Loop
X2XH7H	Yes	N/A
X8MXUP	Yes	Loop
X9ZPPR	Yes	Loop
XCE6EJ	Yes	Loop
XCEALF	Yes	Arch
XEGDBG	Yes	N/A
XG7JVD	N/A	N/A
XKRG7P	Yes	Loop
XN8NUP	Yes	Loop
XPF99C	No	
XV9ABQ	No	
XYR823	N/A	N/A
XYUQCJ	Yes	Loop
Y2P6QK	No	
Y4EANY	N/A	N/A
Y4WBE8	N/A	N/A
Y9PHTA	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
YF9TZJ	Yes	Arch
YHE9CV	N/A	N/A
YHZNMR	Yes	Loop
YJARG3	N/A	N/A
YVMWMD	N/A	N/A
YWWZXG	Yes	Loop
Z2NKMH	N/A	N/A
Z9MZMX	No	N/A
ZKLN8	Yes	Loop
ZPQNGA	Yes	Loop
ZRK9P3	N/A	N/A
ZXAQ6Z	Yes	Loop
ZZG4Q8	N/A	N/A

<b>Findings Summary</b>		<b>Total Participants: 340</b>
<b>1st Level</b>	<b>Total</b>	

Arch	2
Loop	202
Whorl	2
No	24
N/A	90

\*NOTE: These numbers may not add up to the total # of participants, as not all who found first level detail could determine one specific pattern type.

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
23YU83	Yes	Whorl
24BJEL	No	
26F8N6	Yes	Whorl
297BQP	Yes	Whorl
2LUD9G	Yes	Whorl
2TR6D6	N/A	N/A
2TR6FP	Yes	Whorl
2WA6XQ	Yes	Whorl
2XK6UK	Yes	Whorl
2XPDXE	Yes	Whorl
33QAUJ	Yes	Whorl
344WEJ	No	N/A
36ELTP	Yes	Whorl
3QHHD6	N/A	N/A
3T49GV	N/A	N/A
3UYPWX	Yes	Whorl
3WLBLE	Yes	Whorl
3YTN62	Yes	Whorl
3Z7DCK	No	
42YL2F	Yes	Whorl
43CXXZ	Yes	Whorl
4939C6	Yes	Whorl
4BHZ2C	Yes	Whorl
4D4TRK	N/A	N/A
4D7CXW	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
4FTZCH	N/A	N/A
4FX9PB	Yes	Whorl
4H3XT7	Yes	Whorl
4L2CEA	N/A	N/A
4TLLFR	Yes	Whorl
4UY3ZK	Yes	Whorl
639T3N	Yes	Whorl
639TZ3	N/A	N/A
66AYF9	N/A	N/A
66UD77	N/A	N/A
67KNUE	Yes	Whorl
68WMPM	Yes	Whorl
6D7TD7	Yes	Whorl
6KLEH4	Yes	Whorl
6LDH6J	Yes	N/A
6MRV2	N/A	N/A
6UABFY	Yes	Whorl
6UVN4C	N/A	N/A
6YPQ6Q	Yes	N/A
6ZW3MR	Yes	Whorl
77KXAG	No	
79L9YP	Yes	Whorl
7A2MB7	N/A	N/A
7A38DM	Yes	Whorl
7CLLGN	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
7F9UAX	Yes	Whorl
7NJDA9	N/A	N/A
7QRBXX	Yes	Whorl
7WVGBF	Yes	Whorl
7XRM28	N/A	N/A
7ZDGTf	Yes	Whorl
83HLP2	Yes	Whorl
83ZFL6	N/A	N/A
84N79V	Yes	Whorl
8C9ZWD	Yes	Whorl
8CK2BZ	Yes	Whorl
8F32T2	Yes	Whorl
8J46L9	Yes	Whorl
8KE3TY	N/A	N/A
8NE6WE	Yes	Whorl
8R2THE	N/A	N/A
8U4TE6	N/A	N/A
8WUYUV	Yes	Whorl
92WEWP	Yes	Whorl
947EXP	Yes	Whorl
96HAL3	N/A	N/A
97VLHL	N/A	N/A
988F2T	Yes	Whorl
9CZMFV	Yes	Whorl
9KQ8J9	Yes	Whorl



TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
9Q2ATH	Yes	Whorl
9QGBX7	Yes	Whorl
9TM2YT	N/A	N/A
9YTGP3	Yes	Whorl
9ZBGVD	Yes	Whorl
A3Q9HZ	N/A	N/A
A4K99J	Yes	Loop
ABKPJP	Yes	Whorl
AFEDNB	N/A	N/A
AQANRW	Yes	Whorl
AT2U7G	Yes	Whorl
AYB3J6	Yes	Whorl
AZ6PEG	Yes	Whorl
AZJZ69	Yes	Whorl
B73P3N	Yes	Whorl
B7Q4E8	N/A	N/A
BCPMBW	Yes	Whorl
BD2A76	Yes	Whorl
BGNYGA	Yes	Whorl
BL2KMV	Yes	Whorl
BLHYQY	N/A	N/A
BPX7EX	N/A	N/A
BR8EJC	Yes	Whorl
BR9DF7	Yes	Whorl
BTFQ2D	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
BTV2PK	Yes	Whorl
BUDNN3	Yes	Whorl
BXD28L	Yes	Whorl
BYKENM	Yes	Whorl
BZTNJ7	Yes	Whorl
C33WVJ	Yes	N/A
C3KVRA	Yes	Whorl
C8DZHR	N/A	N/A
C8VXPX	Yes	Whorl
CJRWKB	No	
CM9LLY	N/A	N/A
CMA2BT	No	Whorl
CNLYMP	N/A	N/A
CPUBZK	Yes	Whorl
CUQV9B	Yes	Whorl
CV3GXC	N/A	N/A
CWVKD6	Yes	Whorl
CZDP4M	Yes	Whorl
D3UB9F	N/A	N/A
D66AQ3	Yes	Whorl
D66DYK	Yes	Whorl
D9MDGL	Yes	Whorl
DBUPGV	Yes	Whorl
DGH8XR	N/A	N/A
DGJ8V8	No	

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
DHREXZ	N/A	N/A
DQ6CKX	Yes	Loop
DVB92C	Yes	Whorl
DX6UWP	N/A	N/A
E4P8FN	Yes	Whorl
E7EDZK	N/A	N/A
EDB9Z6	N/A	N/A
EKBTWT	Yes	
EN8J2K	Yes	Whorl
ENBYJQ	Yes	Whorl
ERVN8B	Yes	Whorl
EUFZB	N/A	N/A
EXFX78	Yes	Whorl
F7T789	N/A	N/A
F9HTN3	No	
FD8CJ7	Yes	Whorl
FG9AER	N/A	N/A
FJEJL4	Yes	Whorl
FLK494	Yes	Whorl
FM9QJQ	N/A	N/A
FXHZGW	N/A	N/A
G4JLWD	Yes	Whorl
G6ULXE	N/A	N/A
G73XDU	Yes	Loop
G7P7MY	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
GCVN97	Yes	Whorl
GEERRW	Yes	Whorl
GHFX83	Yes	Whorl
GLJHK3	Yes	Whorl
GPUURN	Yes	Whorl
GT2647	N/A	N/A
GTK2F7	Yes	Whorl
GXTAXB	Yes	Whorl
H3LN7H	Yes	Whorl
H6L2HA	N/A	N/A
HBD284	N/A	N/A
HBVDJG	Yes	Whorl
HCALQW	Yes	Whorl
HCN24X	No	
HLDP47	Yes	Whorl
HMNRP6	Yes	Whorl
HPD3HJ	Yes	Whorl
HRYUMU	N/A	N/A
HVHWGK	Yes	Whorl
HZWGLL	Yes	Whorl
J3YWCN	Yes	Whorl
JC22DD	Yes	Whorl
JGWTNV	Yes	Whorl
JNX2DV	Yes	Whorl
JUJ2MG	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
JVXH LG	Yes	Whorl
JZB846	N/A	N/A
K2Y2FY	N/A	N/A
KAWTQE	Yes	Whorl
KFVFD8	Yes	Whorl
KHU CD4	Yes	Whorl
KL4RCE	N/A	N/A
KM3LF6	N/A	N/A
KRFH4F	Yes	Whorl
KRGDRR	Yes	Whorl
KVDYM2	Yes	Whorl
L3NR24	Yes	Whorl
L4423H	N/A	N/A
L866RJ	N/A	N/A
L8HNPV	Yes	Whorl
LFYFZT	Yes	Whorl
LJEULE	Yes	Whorl
LV883X	No	N/A
LVTPYT	Yes	Whorl
LW4UBV	Yes	Whorl
LY6M9L	N/A	N/A
M779U9	Yes	Whorl
MD8GLV	Yes	Whorl
MDQH9X	Yes	Whorl
MEGL26	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
MEHJ8U	Yes	Whorl
MG67G9	Yes	Whorl
MH374M	Yes	Whorl
MH43EJ	Yes	Whorl
MPXHTP	N/A	N/A
MQBXBW	Yes	Whorl
MR7HZG	N/A	N/A
MR9DJM	Yes	Whorl
MRLR6B	Yes	Whorl
MTXM9V	Yes	Whorl
MYNUEH	N/A	N/A
MYQGVW	Yes	Whorl
N28CNE	Yes	Whorl
N2BR6L	Yes	Whorl
N8E4T7	Yes	Whorl
NA3BJU	Yes	Whorl
NBW37Z	N/A	N/A
NF2UFH	N/A	N/A
NFUFCX	No	
NLRBRN	Yes	Whorl
NMTXUV	Yes	Whorl
NN2ELZ	No	
NQ4A2G	Yes	Whorl
NQLB4X	Yes	Whorl
NQPQJK	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
NWVKGL	N/A	N/A
NXN923	N/A	N/A
NY4JUF	Yes	Whorl
NYG9V8	N/A	N/A
P63ECE	N/A	N/A
P669VK	N/A	N/A
P7UJJR	Yes	Whorl
PAZVQU	Yes	Whorl
PF6WN3	Yes	Whorl
PHU39Y	Yes	Whorl
PJ38UB	Yes	Whorl
PKD678	Yes	Whorl
PP79V6	Yes	Whorl
PPTRLX	No	
PTAZAW	No	N/A
PX6PWV	Yes	Whorl
PY266L	Yes	Whorl
Q2M9DJ	N/A	N/A
Q6LMXN	Yes	Whorl
Q7B326	Yes	N/A
QAC7TQ	Yes	Whorl
QBMW6G	N/A	N/A
QF2HTU	Yes	Whorl
QH8YAX	No	
QJMF9W	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
QNC3U6	Yes	Loop
QUK9RW	N/A	N/A
QVU76D	Yes	Whorl
QW6BGG	Yes	Whorl
R2DZDV	Yes	Whorl
R49CKG	Yes	Whorl
RABJZK	N/A	N/A
RATGAB	Yes	Whorl
RB2PGB	Yes	Whorl
RH4U9U	Yes	Whorl
RJU3C4	Yes	N/A
RMTTH7	Yes	Whorl
RTLDRQ	Yes	Whorl
RUWDPK	N/A	N/A
RW6CZT	Yes	Whorl
RWLTUM	Yes	Whorl
RY6X8B	N/A	N/A
T2TJV8	Yes	Whorl
T3MFAT	Yes	Whorl
T4Y3XA	Yes	Whorl
T6CMUP	No	
T8DPAD	No	
TAHH4C	No	
TKPXKX	Yes	Whorl
TM926N	Yes	Whorl



TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
TNNDPE	Yes	Whorl
TV6UE4	Yes	Whorl
U2KVV6	Yes	Whorl
U4A4F2	N/A	N/A
U4QGJ6	Yes	Whorl
U8XVB6	N/A	N/A
UA2LHJ	Yes	Whorl
UAGP86	Yes	Whorl
UCN3XJ	Yes	Whorl
UHDR8V	N/A	N/A
UK3W69	Yes	Whorl
ULELED	N/A	N/A
UR2F86	Yes	Whorl
URXX6Y	Yes	Whorl
UTE827	N/A	N/A
V7CLQ3	No	
V7VH89	Yes	Whorl
VH9PXG	Yes	Whorl
VKWWN7	Yes	Whorl
W3FAJA	Yes	Whorl
W79HGN	Yes	Whorl
W86P8F	N/A	N/A
WCV92X	N/A	N/A
WEU8ND	N/A	N/A
WGXV6N	N/A	N/A

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
WLMPRM	Yes	Whorl
WLQ3NW	Yes	Whorl
WPNLLN	N/A	N/A
WRT92E	Yes	Whorl
WUZQ2V	Yes	Whorl
WYTQFQ	Yes	Whorl
WZBHPB	N/A	N/A
X2GDLY	Yes	Whorl
X2XH7H	Yes	Whorl
X8MXUP	No	
X9ZPPR	Yes	Whorl
XCE6EJ	Yes	Whorl
XCEALF	Yes	Whorl
XEGDBG	Yes	N/A
XG7JVD	N/A	N/A
XKRG7P	No	
XN8NUP	No	
XPF99C	Yes	Whorl
XV9ABQ	Yes	Whorl
XYR823	N/A	N/A
XYUQCJ	No	
Y2P6QK	Yes	Whorl
Y4EANY	N/A	N/A
Y4WBE8	N/A	N/A
Y9PHTA	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
YF9TZJ	Yes	Whorl
YHE9CV	N/A	N/A
YHZNMR	Yes	Whorl
YJARG3	N/A	N/A
YVMWMD	N/A	N/A
YWWZXG	Yes	Whorl
Z2NKMH	N/A	N/A
Z9MZMX	N/A	N/A
ZKLN8	Yes	Whorl
ZPQNGA	Yes	Whorl
ZRK9P3	N/A	N/A
ZXAQ6Z	Yes	Whorl
ZZG4Q8	N/A	N/A

<b>Findings Summary</b>		<b>Total Participants: 340</b>
<b>1st Level</b>	<b>Total</b>	

Arch	0
Loop	4
Whorl	213
No	23
N/A	91

\*NOTE: These numbers may not add up to the total # of participants, as not all who found first level detail could determine one specific pattern type.

# Additional Comments

TABLE 5

WebCode	Additional Comments
26F8N6	please note that i could not use DFO on porous exhibit because we do not have it in stock, we only received the powder but did not receive solvent for preparing it. please note that I have given the case a station name, cas number, [Laboratory] name and the charge because it was written on the documents. in normal circumstances I would have rejected it but after liasing with the Provincial Quality management it was concluded that its best if I give the Cas th detaile so that I can be able to process.
2TR6FP	Item 1 pattern, low count loop with reference to a tented arch.
2WA6XQ	Item 1: 1-6) Pattern could be low count loop or arch. Item 2: 2-6) Pattern appears as loop but could be double loop whorl.
36ELTP	Item 1: One fingerprint was developed in the section C, but friction ridges in the pattern area were blurred therefore it was unable to determine if it was an Arch or a Loop.
42YL2F	Shipping packaging was inadequate for non-porous & semi-porous items (1 & 2) as the envelope was in direct contact w/surface. Only the latent prints developed on items 2 & 3 were deemed of value for ID. No ridge detail at all developed on item 3 w/indanedione & nin print is very faint.
4939C6	See image metadata for camera and scanner settings. All items marked with case ID, initials, item numbers and resealed in original packaging. Images transferred to J Drive. Items transferred for review. Note: On Item 1, from an LPE standpoint, I would reference this print as a loop as well as an arch if I did an AFIS search.
4BHZ2C	Packaging the non-porous items, unsecured, in brown envelopes is not conducive to latent print survival. Any ridge detail on the item can rub against the envelope surface and become damaged as the package is being handled.
4D7CXW	Item 1 : all the methods listed in paragraph 1-3), except Basic Yellow, have been applied on the whole item (front & back). Basic Yellow has been applied only on section C. The fingermark was already visible during visual examination. Improvement of the fingermark quality was observed after Lumicyano Powder treatment. No improvement was observed after Basic Yellow treatment. Item 2 : the whole item (front & back) was treated with the methods listed in paragraph 2-3). The fingermark was already visible during visual examination, and after Lumicyano Powder treatment. Improvement of the fingermark quality was observed after Ninhydrin treatment Item 3 : the whole item (front & back) was treated with the methods listed in paragraph 3-3). The fingermark was already visible after Indanedione/Zinc Chloride treatment. No improvement was observed after Ninhydrin treatment
639T3N	1-6) Friction ridge detail was developed on Item 1 in quadrant C; however, though there is some discernable general ridge flow (level 1 detail), there is insufficient clarity/quality in the ridge characteristics to determine a definite pattern type, and this friction ridge detail has been deemed not suitable for comparison.
6D7TD7	[From Table 4 - First-Level Detail Findings: Item 1 "The pattern could also be referenced as a low-count loop"]
6KLEH4	Item 2: Center of pattern area was smudged. Appeared to be a possible right slant loop but distortion prevented an accurate assessment. Test page could use a check box for "indeterminate" or "unclear" for the above scenario.
6LDH6J	Item 2 had faint development but was unable to capture
6UABFY	In 1.6 none should be marked. Laboratory staff are trained to make detail/pattern determinations.
6YPQ6Q	Although first level detail could be seen, 'N/A' was given as the answers for question 6 for each item as examiner is not an expert in fingerprint comparison.

TABLE 5

WebCode	Additional Comments
7A38DM	we found that the fingermark on item 1(plastic light switch wallplate) can be seen after being developed but without clear patterns. This may be due to when the fingermarks were made, the tips were clear, but the centre part was blurred. The same thing also happened last year.
7F9UAX	Unable to determine pattern type for latent print on Item 1
8J46L9	Item 1: arch pattern type, referenced: loop. Item 2: No pattern type discernible, tip of finger only
8NE6WE	Item 1: one latent were recovered. Item 2: one latent were recovered.
8R2THE	Photographs of prints imported into the digital management system to be used for comparison would be calibrated in Foray Digital Workplace and processed using Adobe Photoshop CS6.
96HAL3	Fragments noted on Item 2, Section D.
988F2T	Item 1 and Item 2 - Unable to determine pattern type
9CZMFV	All chemicals usednduring Latent Print Processing on items nr: 1, 2, 3 were tested on similar types of surfaces with positive results.
9KQ8J9	The fingerprint developed from section C of item 1 (plastic light switch wallplate) appears to be an arch pattern based on first level detail (ridge flow); however, a pattern type could not be conclusively determined due to matrix distortion (smearing) in the pattern area.
9Q2ATH	In regards to Item 2, I answered Loop for the pattern type because there appears to be a re-curve; however due to a diagonal swiping/smudging through the core and towards the bottom of the latent print, I would not 100% rule out an Arch.
AYB3J6	For Item 2 considered applying Ninhydrin reagent to the postcard after CA fuming but determined the glossy coating on the postcard was too thick(making the item more non-porous as compared to semi-porous) to allow the amino acid component present in latent print residue to absorb into the card.
AZ6PEG	On Item 2, ridge detail was developed in section D on the save-the-date card. There is ridge detail in the upper pad of the impression, but a pattern cannot be determined due to fading ridges. [From Table 4 - First-Level Detail Findings: Item 2 "*pattern not discernible"]
BAJAN4	All the items submitted were presumed not to have been wet as this was not indicated in the scenario - as this would have altered the sequential treatment plan for each exhibit. The items were treated in accordance with our police force in house standard policy for volume crime - so 1 best treatment process was selected with the most likelihood of success for the substrate type. If the items were submitted as a serious/violent crime then more sequential treatment options were available. All of the treatments undertaken were in accordance with the substrate type guidance given in the [Laboratory] manual. The processes are performed to an accredited international standard (ISO:17025), which ensures that all processes have been validated, all chemicals used are to the correct specification from accredited suppliers, all processing equipment are maintained, serviced and calibrated regularly. The correct control measures were put into place including P.P.E and waste disposal. All photography equipment, capture enhancement and storage systems are maintained regularly and image quality is verified in accordance to the standards expected for laboratory and digital capture requirements of accreditation. I am a qualified laboratory member of staff with on-going competence assessment in place to national standards. The exhibits/Items were held in a secure environment upon receipt and during and processing.
BD2A76	Print from item #1 has been reported as an arch but would be referenced to a low ridge count loop if possible within the testing environment.
BR9DF7	Faint ridge detail was observed on Item 2 (save the date card). A pattern type could not be confidently

TABLE 5

WebCode	Additional Comments
	determined, however the print looked to possibly be a loop. Suggestion: for the instance described above, it would be helpful to have an additional category/checkbox similar to "not suitable for pattern determination" for #6 of the results sheet for each test item.
BYKENM	R6G was not used on item 2 because of the porous nature of the item and potentially limiting further processing.
BZTNJ7	item 1 latent - unable to determine pattern type (either low count loop or arch) due to pressure distortion in delta area of pattern
C8VXPX	We are trained to see details in fingerprints but we have very little training in the pattern determination.
CWVKD6	Item 1 - The core area of the print was distorted and could not be accurately interpreted. The print was either a short count loop or an arch.
D66AQ3	Ridge detail was developed on Items 1 and 2; however, the pattern type could not be determined. Both impressions were end joints from fingers, but only the tip area developed clearly. It appears as though friction from the cardboard insert of the packaging may have caused some damage to the core area of the prints.
D9MDGL	Test prints were created (fingerprint deposited by a laboratory technician) and processed contemporaneously with evidence. Documentation photographs were retained in the case record. Performance checks were completed on each chemical/reagent prior to using on items.
DBUPGV	For Item 1, in a real case scenario I would run the print as an Arch and Loop, but not a whorl. However, there is not an option to pick two types.
EKBTWT	there was not enough detail to determine the pattern of the print for Item 3.
EXFX78	Pattern #1 could not be determined because the core was spoiled.
FJEJL4	Item 2 was difficult to process because of its semi-porous nature. The developed print was poor in quality and very difficult to visualize.
FZLZAG	The print on item 1 was identifiable after BY40. The print on item 2 was identifiable after BY40. The print on item 3 was not identifiable after DFO and after Ninhydrin it was most likely still not identifiable. E
GCVN97	The latent print developed on Item 1 had distortion on the upper left side so the pattern type couldn't be determined. Clarity improved with black powder but not enough to determine if the print was a low count loop or an arch.
GEERRW	I was unable to determine the pattern type of the developed latent impression in section C on Item 1. It appears to be a tented arch but due to a lack of clarity in the core area and in the area just to the left of the core, I also referenced it to a short count right slant loop.
GPUURN	in item 1 and 2 on the first day the print were not developed clearly, we could see there is something but there was no ridges until the following day we were able to capture the prints. i did not have DFO.
GT2647	Item #1- no prints recovered, ridge detail observed in section C
HCALQW	A control simple was taken with each sample to check the capability of the treatments.
HZWGLL	Unable to determine pattern type for Item 1.
J3YWCN	Item 2-6: First level detail was recovered, but a pattern type was not discernible; there should be an answer block to note this for examiners who are trained to make "detail/pattern determination". Also, the question under 1-6 should give any examiner the ability to choose more than one print/pattern type, due to the poor quality of some prints. This is a situation that examiners face during real life

TABLE 5

WebCode	Additional Comments
	cases.
JVXHLG	Concerning item 1, the detected fingerprint is usable but it's center and core point aren't well visible. But, there is no delta. So, its pattern is very probably an arch pattern, but it isn't certain.
JZB846	For item 3, I observed extremely faint area of possible ridges. They were so faint I did not consider them a positive result. Additionally, the faint area was very small.
K2Y2FY	Test prints for all processing steps were positive
KAWTQE	Item 1: No first level detail recovered. Item 2: The pattern appeared to be a loop, with a sufficient recurve and more than one ridge count across the looping ridge. However, we could not identify the delta. Item 3: The pattern appeared to be a whorl. However, we could not identify at least 2 deltas in the print.
KM3LF6	Ridge detail was observed on the C section of item 1 (light switch wall plate)but was not a print that was potentially of value.
KRFH4F	No visible latent print during visual examination, only a visible spot in item 1 section C. The latent print in item 1 section C was recovered with low quality that's why identifying pattern was no easy, but using a VMD treatment highlights a very small loop. Cyanoacrylate luminescent treatment coupled with coaxial incident light highlights a latent print in item 2 section D 1,2 Indanedione / ZnCl2 treatment highlights a latent print in item 3 section B, but Ninhydrine gives a very poor result
L866RJ	All three items were repackaged in their original packaging.
LFYFZT	Item 1 developed print pattern listed as loop. However, the delta to core area detail was not very clear. I would reference an arch.
LJEULE	The center of the pattern of the print on Item 1 was smudged and may have been a short-count loop (left or right slope) - arch pattern was reported as this was a best guess.
LV883X	On Item 3 at the bottom on number 3-6 it was supposed to be blank, but I pushed N/A then could not unselect it. It forced me to choose something. So the answer to 3-6 should not have any selections but currently does read N/A.
LVTPTYT	A tests on similar surfaces was done to make sur that the right methods was used.
MEHJ8U	The core of the print on Item 1 was unclear, making it difficult to determine the pattern. I observed what appeared to be a recurve which led to my decision of loop. This print could possible be an arch. In casework, it would be searched as both. An option of "cannot determine" should be included on the test or the participant should be instructed not to mark anything if the pattern cannot be determined.
MH374M	For item #1, it could possibly be a loop. So my answer is loop/ reference whorl. The pattern is hard to see. However in the online report I could not mark two options. For item #2, I can definitely see that the item was touched but the ridge detail was too smeared to see the pattern
MRLR6B	Attached annex document with the fingerprints developed. [No attachments provided.]
NBW37Z	Item #2 - deposited print was very light
NQ4A2G	all fingerprints developed on item 1 - 3 were marked with scale stickers prior capturing, viewed with a 450 nm polilight and orange goggles.
NQLB4X	[From Table 4 - First-Level Detail Findings: Item 1 "(somewhat), reference an arch"]
P63ECE	Only trained in processing of porous items.
PF6WN3	[From Table 4 - First-Level Detail Findings: Item 2 "Ridge detail only, no pattern visible"]

TABLE 5

WebCode	Additional Comments
PTAZAW	No friction ridge detail was observed
Q6LMXN	Date(s) analyzed: 7/5/2017-date analysis started. Item 1: arch pattern type referenced: loop; Item 2: No pattern visible, tip area
Q7B326	Question 6 for each item marked as N/A. Pattern was visible but examiner is not Expert in Fingerprint Comparison. Fingermarks were faint compared to the fingermarks in previous tests.
QJMF9W	Pre-overall and post-overall photos were taken of the items before and after processing. Test strips were created with each chemical process.
QNC3U6	Section 2-6 1st level detail not recorded, however, a right side delta was developed. Therefore, the pattern could be a left slant loop or a whorl. Section 3-6 Because the evidence was not photographed (photography was simulated), I could not recall for sure if the pattern was a loop or whorl. I believe it was a loop.
QVU76D	Item 1 pattern type in quadrant C is either a loop or tented arch depending ridge count.
R49CKG	On Item 001, I would run it as an arch and a loop. Due to the limited amount of ridge detail near the core area. Same thing with Item 002. I would run it as loop or whorl. For answers on 1-6 and 2-6, all items should be left blank. The N/A radial buttons were clicked by mistake and unable to "unclick".
RB2PGB	Unable to determine pattern for Item 1 and Item 2.
RH4U9U	Items 1-1 and 1-2. Observed first level detail. Pattern type not discernible due to the lack of clear core and delta(s).
RMTTH7	Unable to determine pattern type on print developed on item 2 based on the clarity.
RW6CZT	The latents on the light switch cover & the save the date card slightly smudged. It made it difficult to tell the pattern on the light switch cover. The pattern on the light switch cover (Item 1) is either an arch or a low count loop, but can't tell for sure since it is smudged near the core.
RWLTUM	During the tests we use the following equipment: POLILIGHT PL 500 SC made by Roofin: it's a high intensity light source that emit light in a controlled spectrum centered at the labeled wavelength 350-650 nm, white and IR. MVC 3000 made by Foster+Freeman: it's cyanokarylate fuming chamber. NINcha S31 made by Attestor Forensics: it's forensic climate chamber for Ninhydrin and DFO treated fingerprint evidence.
T4Y3XA	For Q 1-6.) Arch / Loop
T8DPAD	in the exhibit lo only three items/exhibits were mentioned. during the opening it was found that exhibit number three consist of two: sheet of rulled notebook paer and it was labelled as exhibit 3.1 and exhibit 3.2.
TAHH4C	control samples done, all samples positive results control samples was done to test the equipment and chemicals which gave positive results. control samples with exhibits was also positive with sufficient ridge characteristics to make a comparison on control samples. mark on exhibit 1 c had no fiction impressions or ridge characteristics to make a comparison.
TNNDPE	Ridge structure developed on Item 1 (Wall plate) was photographed for internal purposes.
UA2LHJ	No fluorescent dyes were used on items 1 and 2. An impression of sufficient quality for comparison purposes was developed on each item with Cyanoacrylate fuming, and was captured with FSIS (Full Spectrum Imaging System) under shortwave UV light @ 254nm.
UR2F86	Ad. 1.6 - because of the center of the pattern being unclear the detailed pattern determination couldn't be made. The result could be either an Arch or a Loop.



TABLE 5

WebCode	Additional Comments
UTE827	Latent prints were developed in Section C of the wallplate (Exhibit 1), Section D of the postcard (Exhibit 2), and Section B of the paper (Exhibit 3). Documentation of these prints consists of two digital photographs (Exhibits 1A and 2A) and one digital image (Exhibit 3A). These prints were forwarded for latent print comparison.
W79HGN	Item 2- I noted that there was ridge detail present in Quadrant D after Superglue. There was very little ridge detail present. No noticeable pattern type was apparent and it was not of value.
WCV92X	Item#1, manila envelope had a hole above the label.
WLQ3NW	Item 1 was best observed after CA fuming and also with Ardrex using Crimescope ALS at 475 nm. Item 2 was best observed after NIN/HFE and Steam iron. Item 3 was best observed after Ind-Zn with TracER Laser 1.
X2XH7H	Item 2: pattern type discernible
X8MXUP	Item 3 (3-6) Unable to determine pattern type. Lack of delta and core.
XCE6EJ	Impression developed on Item 1 could also be a loop due to the distortion present in the pattern area; difficult to determine.
XEGDBG	The marks seen on item 1 and item 2 were very obvious even before any treatment and if this was a real case, I would have photographed prior to treatment. Also if this was a major crime case (like a murder, sexual assault etc.) I would have used the full range of high intensity light sources (HILS) to look for marks prior to any chemical treatments. I could have done further chemical enhancements on item 1 if this was necessary (i.e. looking for a mark if nothing had come up, or looking for further marks), this would have been BY40 fluorescent staining of the cyanoacrylate (CNA) marks and examined under high intensity light source to visualise the marks. A further 2 chemical treatment options could have been Basic violet 3 treatment or solvent black 3 treatment. I would have photographed any marks at each stage, as well as take entirety photographs to show where the mark was in relation to the exhibit. If I was to do further chemical treatments on item 2, I would have powdered and photographed the marks, or else gel lifted them and photographed. I would have then treated the porous side of the exhibit (as if it was a real exhibit, I wouldn't know which side of the exhibit had been handled and therefore had marks on). I would have treated it with 1,8-diazafuoren-9-one (DFO), then ninhydrin and possibly physical developer, to optimise ridge detail enhancement. These processes are in line with our procedures which follow the [Laboratory] manual that is available on-line. If I was to do a full sequential treatment on item 3, I would have first preformed an ESDA (Electrostatic document analysis) examination to see if any indented handwriting or fingerprints were revealed. I would also use various oblique lighting techniques to see if any marks/indentations were revealed. Then I would treat with DFO, ninhydrin, physical developer. These processes would be following the [Laboratory] manual and any marks would be photographed and recorded as they were found.
XPF99C	"Forensic light sources" refers to blue, blue/green and green light. Due to poor clarity the fingerprint pattern could not be determined for item 1.
XV9ABQ	Item 2 had very faint development throughout. Distinct ridge detail was seen after processing with Ninhydrin but did not contain enough information for the detail to be preserved.
XYUQCJ	Upon receipt, the envelope of item #1 was found to have a hole in it. This was recorded in the worksheet notes. It does not appear to have affected the results. After DFO processing item #3, ALS examination only fluoresced the extreme top of the print enough to know that something was there. The are was deemed no value at that time. Ninhydrin reaction was also very faint and difficult to see. Rhodamine 6G processing of item #2 was listed as "No Improvement/NO Additional Development" because there were very few discernible ridges visible.
Y4EANY	During fluorescence examination on item 1 and 2, weak latent prints could be seen on 1c and 2d. They were not good enough to be photographed.

TABLE 5

WebCode	Additional Comments
Y9PHTA	The latent print developed on item 1 was distorted/unclear in the core/delta area. I would start search with small ridge count loops, but also consider arch patterns for comparison.
ZKLN8	The 3 fingerprints developed are valuable for comparison. For item 1, we were not able to determine if the pattern was a tented arch or a loop. So, we selected "no"

# Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

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## Test No. 17-5190: Latent Print Processing

DATA MUST BE RECEIVED BY July 17, 2017 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

### Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB and A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section on the last page must be completed and submitted.)
- This participant's data is **NOT** intended for submission to ASCLD/LAB, ANAB or A2LA.

#### Scenario:

During the week of 12 March 2017, three items of evidence were recovered from a crime scene. Police have requested that you process each item of evidence for latent prints. These items will not undergo additional testing in other departments, so you may use destructive testing if necessary.

#### Instructions:

All item packaging has been labeled with a CTS item number and each item divided into four sections, which have been indicated as A-D. A single latent print has been deposited in one of these areas for each item. Only those areas within the A-D labeled sections need to be processed.

#### Items Submitted (Sample Pack LAP1):

Item 1: Plastic light switch wallplate, divided into sections A-D.

Item 2: Glossy save-the-date postcard, divided into sections A-D.

Item 3: Sheet of ruled notebook paper, divided into sections A-D.

*Please inspect your sample sets upon receipt. If the tape seal on any of your individual items is broken, please contact CTS for replacement samples.*

#### **For each item, in which section (A, B, C, D) was the latent print recovered?**

*Please indicate only the single letter of your determined location; further explanation may be provided in the Additional Comments. If no print is recovered, please enter "None". **Responses such as "N/A", "-", "No Result" are unacceptable.***

Item 1 \_\_\_\_\_

Item 2 \_\_\_\_\_

Item 3 \_\_\_\_\_

**Please return all pages of this data sheet.**

Page 1 of 6

Participant Code:

WebCode:

**Results for Item 1:**

Plastic light switch wallplate, divided into sections A-D.

**1-1.) Date Received:** \_\_\_\_\_ **1-2.) Date(s) Analyzed:** \_\_\_\_\_

**1-3.) What method(s) of development were used during your examination?**

Method (please list in order)                      Method-specific information (ex. temperature, processing time)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**1-4.) What method(s) of preservation were used, if any, following latent print development?**

Method (please list in order)                      Method-specific information

_____	_____
_____	_____
_____	_____
_____	_____

(If additional space is needed, copy this page and attach in the appropriate place within the data sheet.)

**1-5.) Was first level detail recovered?**

If you are not trained to make detail/pattern determinations, please select "N/A".

Yes     No     N/A

**1-6.) If first level detail was recovered, what pattern was identified?**

If you are not trained to make detail/pattern determinations, please select "N/A".

Arch     Loop     Whorl     N/A

**Please return all pages of this data sheet.**

Participant Code:

WebCode:

**Results for Item 2:**

Glossy save-the-date postcard, divided into sections A-D.

**2-1.) Date Received:** \_\_\_\_\_ **2-2.) Date(s) Analyzed:** \_\_\_\_\_

**2-3.) What method(s) of development were used during your examination?**

Method (please list in order)

Method-specific information (ex. temperature, processing time)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**2-4.) What method(s) of preservation were used, if any, following latent print development?**

Method (please list in order)

Method-specific information

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(If additional space is needed, copy this page and attach in the appropriate place within the data sheet.)

**2-5.) Was first level detail recovered?**

If you are not trained to make detail/pattern determinations, please select "N/A".

Yes     No     N/A

**2-6.) If first level detail was recovered, what pattern was identified?**

If you are not trained to make detail/pattern determinations, please select "N/A".

Arch     Loop     Whorl     N/A

**Please return all pages of this data sheet.**

Participant Code:

WebCode:

**Results for Item 3:**

Sheet of ruled notebook paper, divided into sections A-D.

**3-1.) Date Received:** \_\_\_\_\_ **3-2.) Date(s) Analyzed:** \_\_\_\_\_

**3-3.) What method(s) of development were used during your examination?**

Method (please list in order)                      Method-specific information (ex. temperature, processing time)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**3-4.) What method(s) of preservation were used, if any, following latent print development?**

Method (please list in order)                      Method-specific information

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(If additional space is needed, copy this page and attach in the appropriate place within the data sheet.)

**3-5.) Was first level detail recovered?**

If you are not trained to make detail/pattern determinations, please select "N/A".

Yes     No     N/A

**3-6.) If first level detail was recovered, what pattern was identified?**

If you are not trained to make detail/pattern determinations, please select "N/A".

Arch     Loop     Whorl     N/A

**Please return all pages of this data sheet.**

Participant Code:

WebCode:

**Additional Comments**

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<p><b>Return Instructions:</b> Data must be received via online data entry, fax (please include a cover sheet), or mail by <i>July 17, 2017</i> to be included in the report. Emailed data sheets are not accepted.</p>	<p>Participant Code:  ONLINE DATA ENTRY: <a href="http://www.cts-portal.com">www.cts-portal.com</a></p>
<p>QUESTIONS? TEL: +1-571-434-1925 (8 am - 4:30 pm EST) EMAIL: <a href="mailto:forensics@cts-interlab.com">forensics@cts-interlab.com</a> <a href="http://www.ctsforensics.com">www.ctsforensics.com</a></p>	<p>FAX: +1-571-434-1937 MAIL: Collaborative Testing Services, Inc. P.O. Box 650820 Sterling, VA 20165-0820 USA</p>

**Please return all pages of this data sheet.**

## Collaborative Testing Services - Forensic Testing Program

**RELEASE OF DATA TO ACCREDITATION BODIES**

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **17-5190: Latent Print Processing**

This release page must be completed and received by **July 17, 2017** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

Have the laboratory's designated individual complete the following steps **only if your laboratory is accredited in this testing/calibration discipline** by one or more of the following Accreditation Bodies.

**Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory**

ASCLD/LAB Certificate No. \_\_\_\_\_

ANAB Certificate No. \_\_\_\_\_

A2LA Certificate No. \_\_\_\_\_

**Step 2: Complete the Laboratory Identifying Information in its entirety**

Signature and Title \_\_\_\_\_

Laboratory Name \_\_\_\_\_

Location (City/State) \_\_\_\_\_

**Return Instructions****Accreditation Release**

*Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.*

*Questions? Contact us 8 am-4:30 pm EST  
Telephone: +1-571-434-1925  
email: forensics@cts-interlab.com*

**Please return all pages of this data sheet.**

Page 6 of 6