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FORENSIC TESTING PROGRAM

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Latent Print Processing - Varied Surfaces
Test No. 22-5191 Summary Report

Each sample pack contained three pieces of simulated crime scene evidence. Participants were asked to process each piece for latent prints and report their findings. Data were returned from 245 participants and are compiled into the following tables:

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 piece of newsprint paper (Item 1), a plastic switch plate (Item 2), and a glossy photograph (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 plastic switch plates were cleaned with a paper towel before the latent print was applied. New, sealed packs of newsprint paper and photo paper, were used for Items 1 and 3, respectively. Each item was divided into sections labeled A, B, C, and D using a chemical-safe marker or manufactured by a printing process. For each item, either an acid and/or oil enhancer was applied to the individual's finger prior to deposition to assist in the longevity of the print.

SAMPLE PACK ASSEMBLY:
Each item was packed into its pre-labeled item envelope or heat seal packet with necessary protective materials. Following predistribution testing, each item envelope was sealed with evidence tape and initialed with "CTS" while each heat seal was closed using a heat sealer. These were then placed into a sample pack box with bubble wrap and sealed with packaging tape.

VERIFICATION:
A random selection of prepared test items was processed in-house for latent prints to verify their durability and proper latent print location. Predistribution examiners were able to recover ridge detail in the expected section on all three items.

Please Note: Following the return of results, it was noted that Item 3 did not reach a clear consensus thus, no results are highlighted as inconsistent.

Item No.	Test Material	Enhancer	Print Location	Pattern
1	Newsprint Paper	Acid	C	Loop
2	Plastic Switch Plate	Oil	B	Loop
3	Glossy Photograph	Acid & Oil	A	Whorl

Summary Comments

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

Due to the tenuous nature of latent fingerprints, it is 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 243 participants that reported results for Item 1, approximately 30% were unable to locate a print. And of the 242 participants that reported results for Item 3, approximately 71% were unable to locate a print.

The following breakdown does not include the participants who reported "Not Tested", "None", or did not provide an answer. For Item 1, 166 of 169 participants (98.7%) developed a print in section “C.” Three participants reported friction ridge detail in quadrants where friction ridge detail was not expected to be seen. Seventy-four participants reported finding no friction ridge detail on Item 1. For Item 2, all 244 responding participants (100%) reported ridge detail in section “B.” For Item 3, a consensus was achieved, 53 of 71 participants (74.6%) recovered ridge detail in section “A” of the photograph. For this item, 18 participants reported friction ridge detail in quadrants where ridge detail was not expected to be seen.

No correlation could be found between how participants processed Items 1 and 3 and the results they obtained. In fact, for both items, participants that reporting using the same processing methods obtained different results.

A visual examination was reported by the majority of participants as the starting point for development for all three items. For the newsprint paper (Item 1), Ninhydrin was the prevalent first method of development. For the plastic switch plate (Item 2) and the glossy photograph (Item 3), Cyanoacrylate fuming was the most common first method of development.

The First Level Detail section allows participants to report the pattern type(s) of each recovered latent print. Some participants do not perform print pattern analysis in their routine casework and reported “N/A” to the pattern type question; therefore, no consensus is established for any of the items. For those who identified pattern types, the most common responses for each item were: Item 1 - Loop; Item 2 - Loop; Item 3 - Whorl. The most frequent response for each item corresponds to the expected results for pattern reporting.

Print Location

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
27AWUM	C	6UAFKN	C	ABWJ3Y	C
2F243T	C	6WRNJN	None	AHL3EF	C
2J6WZX	C	6YF49X	None	AQBTX2	None
2JZKC2	C	7648GR	C	AV99QH	None
2KE2F8	C	77GJR4	C	B2M8MG	C
2M69WX	None	7ALAWX	None	B3LHDH	C
2PRQTP	C	7BRJ2N	C	B4F7VD	None
2U2Z6R	C	7C6BRK	C	BEAG82	C
2VVNMM	C	7KTBYG	C	BFAKUP	None
2YAG6F	C	7NFU6L	C	BJ8ZAY	C
34YEBH	C	7UPY88	None	BLX76H	None
39C6NP	C	7W882Z	C	BX2UFY	C
3DRRAG	None	7ZWFMM	C	C2K2LD	C
4KA74E	B	82D9W3	C	C3FLLJ	C
4L3C47	C	8CH9DG	C	C3HBQG	C
4PKCMR	C	8ETYVX	C	C7YNMX	None
4PYYL9	C	8JEBD8	C	C8VXHZ	None
4VKUMC	C	8TMFTH	C	C949CH	C
4WY6RW	C	8WMV8L	C	CDY6VH	C
4ZK34T	C	8ZM72Z	C	CHR4CY	D
4ZZ9L4	C	8ZQN46	C	CL7XXX	None
68C2XL	Not Tested	9JDLWG	C	CQZTY6	C
6FPZHP	None	9KRXQF	C	CRVFC9	None
6GJNZK	C	9MCZHK	None	CUY4V6	C
6GPULN	None	9ZLMMC	C	CV2M7M	C

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
CVG46L	C	GNMMHD	C	K2WDXP	C
CY3TMD	C	GPDKYR	C	K3BYHC	C
D62PRV	D	GUTYYJ	None	K7B64A	C
D9FE6D	C	HBRRNP	C	KAU4DX	None
DRCRUE	None	HFFG6T	C	KDUF9X	None
E4MP4Z	None	HHCVN6	C	KHLR29	None
EAC3AU	C	HVW8C9	C	KHP6TB	C
EAWQMH	C	HXMJUE	None	KJEFQV	None
ECUDR7	C	J22CTK	C	KMGDXH	None
ER64P6	C	J6UPYG	C	L8JLTT	None
EV9LFL	C	J6YXCA	None	LBKPLF	C
EW7WBP	C	J92T36	C	LCRZGJ	None
FD2ZZ6	None	J9G6RW	C	LCTWUA	C
FEHXM3	None	JDTCT2	C	LGZGH7	C
FJDRMP	None	JDVV4J	C	LH32WV	C
FMGJVP	None	JJ3JJ7	C	LP48F4	None
FPZJQC	C	JKXUQ3	C	LTY4Y4	C
FQWBLH	None	JL69VM	C	LUNPE8	C
FRNCLE	None	JLN22Q	None	M2ALEG	None
FT2LWZ	None	JNFXR7	None	MC9KJ8	C
FY8D8J	C	JRUQAY	C	MDEZZL	C
G32X4E	C	JTR49C	C	METJL6	C
G4Y9YG	C	JW8F6T	None	MJQU84	C
GA332P	C	JW8HN7	C	MK2PVG	C
GEFTLY	None	JYRL8W	C	MK6B9P	C
GKHWDH	None	K22RLB	C	MMPC3B	C

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
MQNJQU	None	QZLKEA	C	V2FULF	None
MTFDUP	C	R6WWBB	None	V9EHYD	C
MWZENC	C	RA788B	C	VF2FV2	C
N7D3UU	C	RAAUKH	C	VF34A7	C
N9MW2F	C	RN2PLN	C	VVU2AF	C
NDFA9X	C	RQAWQ2	C	WLNFVE	C
NPC3DF	C	RYGJXG		WMELC6	C
NQAD9J	None	T8B6KU	C	WPJC6D	None
NQMZB6	C	T8UQDK	None	WT9H3G	C
NVHXQN	None	T9RA8Y	C	WV9TQ4	C
NWMGLB	C	TBT8PE	None	X38TPW	C
NYRC3T	None	TEUDYH	None	X4LZBD	None
P94RLE	None	TFZYDH	C	X82ERT	C
PAFAYT	None	TGL83E	None	X8KB7D	None
PFJB28	None	TJPYX8	C	XA6C2Z	None
PJLAF8	C	TPQF8T	None	XEVXJL	C
PKE4U3	C	TPVTUN	C	XFRC7E	None
PUXH2L	None	TURD6Z	C	XG9AVX	C
PXHKTR	C	U9YZHM	None	XMBJY6	C
Q8KAXY	C	UAWBEP	C	XWEMXM	C
QGXXEF	None	UAYXXN	C	Y28ZKW	C
QQWR96	C	ULPQ3Q	C	Y7MM39	C
QR8NLW	C	UM2GG2	None	YBC4BT	C
QVMB48	C	UNC7V8	C	YF7226	C
QYRRTY	C	UPU4FJ	None	YKDNJM	C
QZ73YJ	None	UW8BP9	C	YLCQLX	None

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
YNZ3B3	C				
YQT3HE	None				
YTCBC8	C				
YUNYYT	C				
YWGMMF	C				
YY6YN7	None				
Z28CLX	None				
Z9RFT2	None				
ZGB6XZ	C				
ZGVRKN	C				
ZJ29Q7	C				
ZKXJMA	C				
ZLFFNA	C				
ZXMAUT	C				

Item 1 - Location Response Summary

Location	Total	Total Participants: 245
A	0	
B	1	
C	166	
D	2	
None	74	
Not Tested	1	

**NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.*

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
27AWUM	B	6WRNJN	B	AQBTX2	B
2F243T	B	6YF49X	B	AV99QH	B
2J6WZX	B	7648GR	B	B2M8MG	B
2JZKC2	B	77GJR4	B	B3LHDH	B
2KE2F8	B	7ALAWX	B	B4F7VD	B
2M69WX	B	7BRJ2N	B	BEAG82	B
2PRQTP	B	7C6BRK	B	BFAKUP	B
2U2Z6R	B	7KTBYG	B	BJ8ZAY	B
2VVNMM	B	7NFU6L	B	BLX76H	B
2YAG6F	B	7UPY88	B	BX2UFY	B
34YEBH	B	7W882Z	B	C2K2LD	B
39C6NP	B	7ZWFMM	B	C3FLLJ	B
3DRRAG	B	82D9W3	B	C3HBQG	B
4KA74E	B	8CH9DG	B	C7YNMX	B
4L3C47	B	8ETYVX	B	C8VXHZ	B
4PKCMR	B	8JEBD8	B	C949CH	B
4PYYL9	B	8TMFTH	B	CDY6VH	B
4VKUMC	B	8WMV8L	B	CHR4CY	B
4WY6RW	B	8ZM72Z	B	CL7XXX	B
4ZK34T	B	8ZQN46	B	CQZTY6	B
4ZZ9L4	B	9JDLWG	B	CRVFC9	B
68C2XL	B	9KRXQF	B	CUY4V6	B
6FPZHP	B	9MCZHK	B	CV2M7M	B
6GJNZK	B	9ZLMMC	B	CVG46L	B
6GPULN	B	ABWJ3Y	B	CY3TMD	B
6UAFKN	B	AHL3EF	B	D62PRV	B

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
D9FE6D	B	HBRRNP	B	KAU4DX	B
DRCRUE	B	HFFG6T	B	KDUF9X	B
E4MP4Z	B	HHCVN6	B	KHLR29	B
EAC3AU	B	HVW8C9	B	KHP6TB	B
EAWQMH	B	HXMJUE	B	KJEFQV	B
ECUDR7	B	J22CTK	B	KMGDXH	B
ER64P6	B	J6UPYG	B	L8JLTT	B
EV9LFL	B	J6YXCA	B	LBKPLF	B
EW7WBP	B	J92T36	B	LCRZGJ	B
FD2ZZ6	B	J9G6RW	B	LCTWUA	B
FEHXM3	B	JDTCT2	B	LGZGH7	B
FJDRMP	B	JDVV4J	B	LH32WV	B
FMGJVP	B	JJ3JJ7	B	LP48F4	B
FPZJQC	B	JKXUQ3	B	LTY4Y4	B
FQWBLH	B	JL69VM	B	LUNPE8	B
FRNCLE	B	JLN22Q	B	M2ALEG	B
FT2LWZ	B	JNFXR7	B	MC9KJ8	B
FY8D8J	B	JRUQAY	B	MDEZZL	B
G32X4E	B	JTR49C	B	METJL6	B
G4Y9YG	B	JW8F6T	B	MJQU84	B
GA332P	B	JW8HN7	B	MK2PVG	B
GEFTLY	B	JYRL8W	B	MK6B9P	B
GKHWDH	B	K22RLB	B	MMPC3B	B
GNMMHD	B	K2WDXP	B	MQNJQU	B
GPDKYR	B	K3BYHC	B	MTFDUP	B
GUTYYJ	B	K7B64A	B	MWZENC	B

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
N7D3UU	B	RAAUKH	B	VF34A7	B
N9MW2F	B	RN2PLN	B	VVU2AF	B
NDFA9X	B	RQAWQ2	B	WLNFVE	B
NPC3DF	B	RYGJXG	B	WMELC6	B
NQAD9J	B	T8B6KU	B	WPJC6D	B
NQMZB6	B	T8UQDK	B	WT9H3G	B
NVHXQN	B	T9RA8Y	B	WV9TQ4	B
NWMGLB	B	TBT8PE	B	X38TPW	B
NYRC3T	B	TEUDYH	B	X4LZBD	B
P94RLE	B	TFZYDH	B	X82ERT	B
PAFAYT	B	TGL83E	B	X8KB7D	
PFJB28	B	TJPYX8	B	XA6C2Z	B
PJLAF8	B	TPQF8T	B	XEVXJL	B
PKE4U3	B	TPVTUN	B	XFRC7E	B
PUXH2L	B	TURD6Z	B	XG9AVX	B
PXHKTR	B	U9YZHM	B	XMBJY6	B
Q8KAXY	B	UAWBEP	B	XWEMXM	B
QGXXEF	B	UAYXXN	B	Y28ZKW	B
QQWR96	B	ULPQ3Q	B	Y7MM39	B
QR8NLW	B	UM2GG2	B	YBC4BT	B
QVMB48	B	UNC7V8	B	YF7226	B
QYRRTY	B	UPU4FJ	B	YKDNJM	B
QZ73YJ	B	UW8BP9	B	YLCQLX	B
QZLKEA	B	V2FULF	B	YNZ3B3	B
R6WWBB	B	V9EHYD	B	YQT3HE	B
RA788B	B	VF2FV2	B	YTCBC8	B

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
YUNYYT	B				
YWGMMF	B				
YY6YN7	B				
Z28CLX	B				
Z9RFT2	B				
ZGB6XZ	B				
ZGVRKN	B				
ZJ29Q7	B				
ZKXJMA	B				
ZLFFNA	B				
ZXMAUT	B				

Item 2 - Location Response Summary

Location	Total
	Total Participants: 245
A	0
B	244
C	0
D	0
None	0
Not Tested	0

**NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.*

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
27AWUM	A	6WRNJN	A	AQBTX2	D
2F243T	None	6YF49X	None	AV99QH	None
2J6WZX	None	7648GR	None	B2M8MG	A
2JZKC2	A	77GJR4	A	B3LHDH	None
2KE2F8	None	7ALAWX	None	B4F7VD	None
2M69WX	None	7BRJ2N	None	BEAG82	D
2PRQTP	A	7C6BRK	None	BFAKUP	A
2U2Z6R	None	7KTBYG	None	BJ8ZAY	None
2VVNMM	None	7NFU6L	None	BLX76H	None
2YAG6F	None	7UPY88	None	BX2UFY	A
34YEBH	None	7W882Z	None	C2K2LD	None
39C6NP	None	7ZWFMM	None	C3FLLJ	None
3DRRAG	None	82D9W3	None	C3HBQG	None
4KA74E	C	8CH9DG	A	C7YNMX	None
4L3C47	None	8ETYVX	None	C8VXHZ	None
4PKCMR	None	8JEBD8	A	C949CH	None
4PYYL9	A	8TMFTH	A	CDY6VH	None
4VKUMC	A	8WMV8L	None	CHR4CY	C
4WY6RW	A	8ZM72Z	None	CL7XXX	A
4ZK34T	None	8ZQN46	None	CQZTY6	A
4ZZ9L4	None	9JDLWG	A	CRVFC9	None
68C2XL	Not Tested	9KRXQF	None	CUY4V6	A
6FPZHP	None	9MCZHK	None	CV2M7M	A
6GJNZK	A	9ZLMMC	None	CVG46L	A
6GPULN	None	ABWJ3Y	None	CY3TMD	None
6UAFKN	None	AHL3EF	None	D62PRV	None

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
D9FE6D	None	HBRRNP	None	KAU4DX	None
DRCRUE	None	HFFG6T	None	KDUF9X	None
E4MP4Z	None	HHCVN6	None	KHLR29	D
EAC3AU	None	HVW8C9	A	KHP6TB	None
EAWQMH	None	HXMJUE	None	KJEFQV	A
ECUDR7	A	J22CTK	A	KMGDXH	None
ER64P6	None	J6UPYG	None	L8JLTT	A
EV9LFL	A	J6YXCA	None	LBKPLF	None
EW7WBP	None	J92T36	None	LCRZGJ	None
FD2ZZ6	None	J9G6RW	None	LCTWUA	None
FEHXM3	D	JDTCT2	None	LGZGH7	None
FJDRMP	None	JDVV4J	None	LH32WV	None
FMGJVP	None	JJ3JJ7	None	LP48F4	None
FPZJQC	C	JKXUQ3	None	LTY4Y4	A
FQWBLH	None	JL69VM	A	LUNPE8	D
FRNCLE	None	JLN22Q	None	M2ALEG	None
FT2LWZ	D	JNFXR7	None	MC9KJ8	None
FY8D8J	None	JRUQAY	Not Tested	MDEZZL	None
G32X4E	None	JTR49C	None	METJL6	A
G4Y9YG	None	JW8F6T	None	MJQU84	None
GA332P	None	JW8HN7	None	MK2PVG	None
GEFTLY	None	JYRL8W	A	MK6B9P	None
GKHWDH	A	K22RLB	None	MMPC3B	None
GNMMHD	None	K2WDXP	None	MQNJQU	C
GPDKYR	None	K3BYHC	None	MTFDUP	C
GUTYYJ	A	K7B64A	None	MWZENC	None

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
N7D3UU	None	RAAUKH	None	VF34A7	None
N9MW2F	None	RN2PLN	None	VVU2AF	None
NDFA9X	None	RQAWQ2	A	WLNFVE	None
NPC3DF	A	RYGJXG		WMELC6	None
NQAD9J	D	T8B6KU	None	WPJC6D	None
NQMZB6	D	T8UQDK	None	WT9H3G	A
NVHXQN	None	T9RA8Y	None	WV9TQ4	A
NWMGLB	None	TBT8PE	A	X38TPW	None
NYRC3T	None	TEUDYH	None	X4LZBD	None
P94RLE	A	TFZYDH	None	X82ERT	None
PAFAYT	D	TGL83E	None	X8KB7D	None
PFJB28	None	TJPYX8	None	XA6C2Z	None
PJLAF8	None	TPQF8T	None	XEVXJL	A
PKE4U3	None	TPVTUN	None	XFRC7E	A
PUXH2L	None	TURD6Z	None	XG9AVX	None
PXHKTR	None	U9YZHM	A	XMBJY6	A
Q8KAXY	None	UAWBEP	None	XWEMXM	A
QGXXEF	None	UAYXXN	None	Y28ZKW	None
QQWR96	None	ULPQ3Q	None	Y7MM39	None
QR8NLW	None	UM2GG2	B	YBC4BT	None
QVMB48	None	UNC7V8	A	YF7226	A
QYRRTY	A	UPU4FJ	None	YKDNJM	A
QZ73YJ	None	UW8BP9	A	YLCQLX	None
QZLKEA	None	V2FULF	None	YNZ3B3	None
R6WWBB	None	V9EHYD	None	YQT3HE	None
RA788B	None	VF2FV2	B	YTCBC8	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
YUNYYT	None				
YWGMMF	None				
YY6YN7	C				
Z28CLX	None				
Z9RFT2	None				
ZGB6XZ	None				
ZGVRKN	None				
ZJ29Q7	A				
ZKXJMA	A				
ZLFFNA	D				
ZXMAUT	A				

Item 3 - Location Response Summary

Total Participants: 245

Location	Total
A	53
B	2
C	6
D	10
None	171
Not Tested	2

**NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.*

Development Methods

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
27AWUM	Visual Examination	Visually looked at the item for any prints
	Alternate Light Source	Used 520nm Laser, 445nm Blue light, and 365nm UV
	1,2-Indanedione	Used Indanedione and placed the item in the oven for 20 minutes, afterwards used the 520nm Laser
	Ninhydrin	Used Ninhydrin and then placed the item in the humidity cabinet for 15 minutes and then performed a visual examination
	Physical Developer (PD)	Used physical developer on the item and then performed a visual examination
2F243T	Visual Examination	11/1-ambient light
	Ninhydrin	Special formula 11/1- first application, let sit overnight. 11/2- observed very light purple fingermark in quadrant C, re-applied, let sit overnight. 11/14- additional light detail observed in quadrant C
2J6WZX	Visual Examination	No friction ridge impressions were observed upon visual examination with and without oblique lighting. Item also examined under Krime Scope using UV lighting with negative results.
	Ninhydrin	Ninhydrin applied to paper under the fuming hood. Paper placed in forensic oven set at 80C, 65% RH for 3 minutes resulting in the successful development of a faint friction ridge impression in section C.
	Alternate Light Source	Item observed under ALS at 555nm using orange goggles which improved the visibility of the impression.
2JZKC2	DFO	Visual examination (000-590nm); photography; 100 °c
2KE2F8	Visual Examination	11/04/2022 - Initial visual examination performed upon opening item 1. No friction ridge detail was observed.
	DFO	11/04/2022 - DFO was applied, and item 1 was placed in a heating chamber at 100 degrees celsius for 20 minutes.
	Alternate Light Source	11/07/2022 - Item 1 was examined with an ALS set to 475nm (orange barrier goggles used). Friction ridge detail was observed to have been developed in quadrant C.
	Ninhydrin	11/07/2022 - Post DFO processing, item 1 was treated with Ninhydrin and placed in a chamber with heat (75 degrees celsius) and humidity for approximately 4 minutes.
	Visual Examination	11/07/2022 - After removal from the chamber, a visual examination was conducted to determine if any friction ridge detail had developed as a result of the Ninhydrin processing. No additional friction ridge detail was observed and there was no improvement from the DFO processing (development was no value). No further actions were taken.
2M69WX	Ninhydrin	first, a visual examine of Item #1, then spray the item with ninhydrin solution followed by chamber.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
2PRQTP	Visual Examination	
	DFO	DFO- 20 minutes; 100 degrees C
	Laser	Laser
2U2Z6R	Visual Examination	
	Ninhydrin	20 minutes in 50 degrees Celsius heat and 80% humidity
2VVNMM	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
2YAG6F	Powder Dusting	Magnetic powder on the newspaper; no results.
	Ninhydrin	Novec Ninhydrin due to the marker ink on the newspaper; positive results in square C.
34YEBH	Visual Examination	Visual inspection - Natural light and laser.
	1,2-Indanedione	Sprayed item with 1, 2 Indanedione, applied heat after item dried.
	Ninhydrin	Sprayed item with Ninhydrin, allowed to dry and placed in humidifier (40 degrees C 80%RH). Allowed to sit over night.
39C6NP	Visual Examination	Item 1 was visually examined with white light and magnification on 11/15/22. No ridge detail was observed.
	Heptane	Heptane was used on item 1 to remove tape to facilitate processing on 11/15/22.
	DFO	Item 1 was treated with DFO on 11/15/22. Post treatment processing in Caron chamber on 11/15/22. Post processing visual exam with white light and magnification on 11/15/22. No ridge detail was observed. Post processing visual exam with the Foster+Freeman CrimeLite 82s blue/green (450-510nm) and orange glasses on 11/15/22. Ridge detail was observed in quadrant C.
	Ninhydrin	Item 1 was treated with Ninhydrin on 11/15/22. Post treatment processing in Caron chamber on 11/15/22. Faint development of ridge detail was observed in quadrant C. Item was retreated with Ninhydrin and processed in the Caron chamber on 11/15/22. No improvement on development of observed ridge detail. Observed ridge detail is not suitable for scanning/photography.
3DRRAG	Visual Examination	Did visual examination with white light.
	1,2-Indanedione	Applied indanedione to item, allowed to dry, then applied dry heat to item.
	Alternate Light Source	Viewed item with Fluorescent dye under ALS.
	Ninhydrin	Applied ninhydrin, allowed to dry. Placed item in humidifier for 20 minutes. Placed item in dark place to allow enough time for development.
	Visual Examination	Did visual examination after Ninhydrin with white light.
	Physical Developer (PD)	Saturated item. Physical Developer process
	Visual Examination	Did visual examination with white light.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
4KA74E	Visual Examination	First I did an visual examination of the piece of evidence to identify the possible fingerprint.
	Alternate Light Source	I used an alternate light source to have a better visibility of the piece of evidence and the possible fingerprint.
	Ninhydrin	I proceeded to use Ninhydrin in the evidence to identify the possible fingerprint. The fingerprint was weak but it was located in the letter B.
4L3C47	Visual Examination	oblique lighting used
	Alternate Light Source	420-470 nm
	Ninhydrin	
4PKCMR	Visual Examination	Oblique light.
	Alternate Light Source	At 455-515 nm wavelengths.
	Ninhydrin	
4PYYL9	Ninhydrin	Visual examination under white light, in the envelope with a humidity 60 % and temperature 20C in the period from 5 to 48 hours; visual examination under white light
4VKUMC	Ninhydrin	Ninhydrin was successfully verified using a control test. Item 1 was sprayed with ninhydrin (8 inches away at room temperature and relative humidity for 24 hours).
	Visual Examination	The items were visually examined.
4WY6RW	DFO	DFO (Oven, 100 C for ~20min)
	Ninhydrin	(Steam Iron)
4ZK34T	Ninhydrin	Dipped in Ninhydrin, dried and placed in heat humidity chamber for 20min
4ZZ9L4	Visual Examination	Items was photographed and documented as received. Item visually examined using KrimeSite with negative results
	Ninhydrin	Item Processed with Ninhydrin. Area of touch located in section C.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
6FPZHP	Visual Examination	11/15/2022-visually examined sheet of newsprint paper divided into four sections.
	Ninhydrin	11/15/22-Ninhydrin with acetone was applied twice to a QC (filter paper with known print) upon drying, a purple color change was produced which is indicative of a positive result. Ninhydrin with acetone was then applied twice to all four sections of the newsprint paper. No color change was observed. Let dry overnight to see if detail will develop. 11/21/22-observed upon drying, no purple color change/ridge detail observed. Applied Ninhydrin Special formula twice to all four sections of the newsprint paper. Upon drying, a purple color change was observed towards the bottom edge of section C. Let dry overnight to see if detail would develop. 11/28/22-observed upon drying, same result as 11/21/22. Re-applied Ninhydrin Special formula twice to all four sections of the newsprint paper, will allow to dry overnight. 12/1/22-observed upon drying, same result as 11/21/22, will move forward with further processing.
	VMD	12/6/2022-the newsprint paper was placed in the Vacuum Metal Deposition (VMD) chamber along with a QC (known print on paper). The metals used were gold followed by zinc followed by silver. Under the vacuum state, gold is deposited onto the evidence then zinc is deposited onto the gold then silver follows to provide better contrast. Ridge detail did not develop.
6GJNZK	Visual Examination	white light
	Alternate Light Source	polylight. 440 - 520nm. orange filter
	1,2-Indanedione	520nm. orange filter
6GPULN	Visual Examination	with TracER Laser & white CrimeLite
	DFO	20 minutes in 100C oven -- viewed with Polilight500 505nm & orange goggles
	Ninhydrin	3 minutes in 80C oven with 65 relative humidity -- redipped & reran a second time -- viewed with incandescent light
6UAFKN	Visual Examination	Examined the item in natural light
	Alternate Light Source	Examined the item under different lights (Alternative Light Sources including white light and observed for any inherent fluorescence)
	Ninhydrin	Chemical Ninhydrin used Lot # 071422-01. Dipped item in chemical for 10 seconds and let it dry before adding it to the humidified Chamber. Chamber- CARON Fingerprint Chamber. ID No: 011612-6105-2-202. Temperature: 75C. Humidity: 80%. Time: 5:00 minutes. (test print positive)

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
6WRNJN	Visual Examination	Viewed item with regular light
	Alternate Light Source	Viewed item under ALS (Coherent Tracer Laser)
	Ninhydrin	Due to the item being recycled material, I applied Ninhydrin to the item. Once the item was dry, I placed the item between two paper towels and applied heat with an iron to attempt to develop detail. No detail was located. A control print was utilized and was positive.
	Dye Stain	I added enough ORO stain to a plastic bag to cover the piece of evidence and control print. I agitated the item in the bag using an orbital shaker for approximately 5 minutes. I then completed a water post-wash after submersion in the ORO stain and agitated using an orbital shaker for 5 minutes. No detail was seen, and the control print was positive. I allowed the evidence to dry on butcher paper.
	Physical Developer (PD)	I was sure to use clean glassware without scratches for mixing the PD solution. I added enough maleic acid pre-wash (twice as much as needed to cover the evidence) to a re-sealable plastic bag and let stand for approximately 5 minutes. I then used a plastic tweezer to carefully transfer evidence from maleic acid pre-wash into physical developer working solution. (The PD solution was mixed according to the manufacturer instructions). I added enough PD working solution (twice as much as needed to cover the evidence) to a re-sealable plastic bag. I processed in a re-sealable plastic bag to keep the mixed solution (silver) from falling out. I then used the orbital shaker to agitate the plastic bag and contents. I then rinsed with water to remove un-reacted physical developer and dried on a paper towel. No detail was seen. The control print was positive.
6YF49X	Visual Examination	white light
	Alternate Light Source	range of light sources used: blue, green, UV
	DFO	20 minutes @100 C, 0% humidity
	Ninhydrin	4 mins @ 80 C , 62% relative humidity
7648GR	Ninhydrin	It was apllied and left to act at room temperature for 48 hours
77GJR4	Visual Examination	*Please note that gloves were worn at all times throughout processing. Item 1 was first removed from its packaging and visually examined. No ridge detail was observed at this time.
	Ninhydrin	*Please note that gloves were worn at all times throughout processing. Because item 1 was observed to be a paper item, ninhydrin was selected for processing. A humidity chamber was cleaned prior to use with isopropyl alcohol. A clean sheet of butcher paper was placed onto the shelving within the chamber. A positive control was created utilizing a clean piece of white butcher paper. Ninhydrin (Lot #06062022JRL, EXP: 06/06/2023) was sprayed onto the control paper and allowed to dry for approximately 60 seconds. The control was then placed into the humidity chamber set to 90% humidity and 32.2 degrees Celsius for approximately ten minutes. Positive results were observed. Identical steps were taken to process item 1. The item was left in the humidity chamber for approximately 30 minutes. At this time, no possible ridge detail was observed. The item along with the control were then placed into an unsealed plastic bag and placed into a temporary locker pending analysis at a later date. The item was retrieved approximately 48 hours later and very faint purple discoloration was observed in quadrant "C".

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
7ALAWX	Visual Examination	Cursory search of item before processing.
	Ninhydrin	Suspended in humidity chamber for approximately 60 minutes.
	Steam Iron	Item placed between two sheets of clean white copy paper and carefully heated using a steam iron.
7BRJ2N	Ninhydrin	the sample was sprayed with ninhydrin and the result showed in 25 minutes>
7C6BRK	Visual Examination	I observed the newsprint paper (item 1) under ambient light. No latent ridge detail was observed.
	Full Spectrum Imaging System	I viewed the newsprint paper (item 1) using the Full Spectrum Imaging System (FSIS) at 254 nanometers. No latent ridge detail was observed
	Ninhydrin	I immersed the newsprint paper (item 1) in the chemical compound Ninhydrin. I allowed the item to completely dry inside of a vented hood. I then used a steam iron to introduce heat and humidity. I noted that latent ridge detail was observed in Quadrant "C"
7KTBYG	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	
7NFU6L	Ninhydrin	
7UPY88	Ninhydrin	Object #1 (Item 1) was treated, spraying Ninhydrin (#A-2643) , and later allowed to dry at room temperature, already for an hour; it did not developed the purple color, that indicates the presence of Amino Acids (Fingerprint).
7W882Z	Dye Stain	Dye stained with DFO (SV2022-DFO-04); dried in caron chamber for 20 mins @ 100C and 0% humidity; viewed under forensic laser
7ZWFMM	Visual Examination	Viewed using magnification and oblique lighting.
	1,2-Indanedione	Sprayed with Indanedione. Allowed to dry. Placed in oven at 100 C for 10 minutes. Viewed using laser - see ALS notes. Control processed before item.
	Alternate Light Source	Control and item viewed using green laser (532) with red filter.
	Ninhydrin	Control processed before item. Both control and item were sprayed with ninhydrin and allowed to dry. Then placed in oven at 80 C with relative humidity set at 67% for approximately 10 minutes.
82D9W3	Ninhydrin	photografic fixations were made with metric witness, it was sprayal with ninhydrine and the developer was allowed to act for several days
8CH9DG	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
8ETYVX	Ninhydrin	First processed a paper control using thermal premixed ninhydrin spray and light steam exposure, and the result was positive--processed item 1, the newsprint paper, with thermal premixed ninhydrin spray twice and then exposed the paper briefly to light steam—no development occurred immediately, and the item was placed in a plastic bag—checked on the item later and opted to process the item again using ninhydrin HFE-7100 after first processing a new newspaper control with positive results-dipped item 1 in ninhydrin HFE-7100 and placed it in a plastic bag after processing (and once dry) and later checked on the item and found a faint print beginning to develop in "C"--stored the item until return to work on 10/25/2022—faint print had developed further
8JEBD8	Visual Examination	White light, RUVIS, LASER
	DFO	NOVEC formula - Heat press
	Ninhydrin	NOVEC formula - Steam heat
8TMFTH	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. No useful marks were developed.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 480nm-560nm with 571nm viewing filter followed by Blue Crime Lite 420nm-470nm with 476nm viewing filter and UV Crime Lite 350nm- 380nm with 408nm viewing filter. QA adhered to and control test pieces passed. No useful marks were developed.
	1,2-Indanedione	Item was treated with 1,2-Indandione and item was placed in the Thermo Fisher oven for 12 minutes (10 minutes plus the current 2 minute recovery time). Following dark adaptation, the item was examined using the Green Crime Lite ML2 490-560nm with 571nm viewing filter. QA adhered to throughout and control test piece passed. An area of ridge detail was developed. This was marked up and exhibited.
	Ninhydrin	Item was treated with Ninhydrin and allowed to dry. Treated in oven set at 62% RH & 80°C for 4 minutes (2 minutes recovery time included in time). Examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles on same day. QA adhered to and control test piece passed. No further marks were developed and there were no further enhancements of previously developed marks.
	Physical Developer (PD)	Item was treated with Physical Developer. Ensured all solutions and room temperature >17°C. Pre-treated with Maleic Acid for 10 minutes, treated with Physical Developer Working Solution for 20 minutes followed by 3 x water rinses as per procedure. All treatment stages carried out on rockers so exhibit was constantly agitated throughout. When dry, item was examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles. QA adhered to and control test piece passed. No further marks were developed and there were no further enhancements of previously developed marks.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
8WMV8L	Visual Examination	Visually examined the evidence, using natural light source
	Iodine Fuming	used iodine crystals on the porous surface causing fumes to develop the latent print reacting to the fatty and oily components in the print, forming a yellowish-brown fingerprint (IO221116)
	Ninhydrin	sprayed evidence with ninhydrin reacting to the amino acids in the fingerprint forming a purple print (HFENIN220901)
8ZM72Z	Ninhydrin	4 days in chamber
8ZQN46	Visual Examination	Photographs taken of items as is. Visual examination done of the item with and without oblique lighting. No impressions were observed.
	1,2-Indanedione	Test impression performed with positive results. Saturated item 1 with chemical. Allowed item to dry fully. Heat press item & visualized impressions using laser. (1) Impression developed and was marked with a scale, marked B.
	Ninhydrin	Test impression performed with positive results. Saturated item 1 with chemical. Allowed item to dry fully. Heat chamber per SOPs and no impressions were further developed. The previous impression was not developed either.
9JDLWG	Ninhydrin	Ninhydrin with humidity and heat. Ran with standard in oven for 20 minutes to see if print would get better detailed.
9KRXQF	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	
9MCZHK	Ninhydrin	the sample was sprayed by ninhydrin, the sample were kept for 2 days to see the result, no fingerprints were observed>
9ZLMMC	Visual Examination	3 minutes visual examination using natural lighting.
	1,2-Indanedione	2 minutes - Applied Indanedione-Zinc using squirt bottle method, dried overnight (16 hours).
	Dry Iron	5 minutes - Used dry iron heat over Newsprint Paper for development.
	Ninhydrin	2 minutes - applied Ninhydrin using squirt bottle method. 30 minutes dry time.
	Humidity Chamber	30 minutes (development time) - Espec brand Humidity Chamber 120 hours total development time.
	Visual Examination	3 minutes - Visual Examination using natural light for results.
ABWJ3Y	Visual Examination	
	Alternate Light Source	
	Ninhydrin	40°C +/- 5°, relative humidity 65% +/- 5%

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
AHL3EF	Visual Examination	white light, different angles
	Alternate Light Source	blue light 420-470 nm, filter 495nm green light 490-560 nm, filter 570nm
	1,2-Indanedione	100 degrees celsius 0% RH 10 minutes
	Ninhydrin	80 degrees celsius 62% RH 2 minutes
	Physical Developer (PD)	6 minutes
AQBTX2	Visual Examination	The item was visually examined using a white light and ambient light in room. Fingerprint no visible.
	Iodine Crystal Ampoules	The item was placed in a plastic bag with Iodine Crystal Ampoules, the ampoules broken and the bag was sealed.
	Alternate Light Source	The item was examined with white light and ambient light in room. A detail (apparent fragment of fingerprint) was observed.
	Ninhydrin	Then ninhydrin reagent was applied to the item and a steam iron was used to apply humid heat. Fingerprint no visible.
	Alternate Light Source	The item was re-examined with an alternate white and UV light. Fingerprint no visible and no detail was recovered at this time.
AV99QH	Visual Examination	CrimeLite and LASER
	DFO	20 min. dry oven. LASER
	Ninhydrin	3 min. heated humidity chamber
B2M8MG	1,2-Indanedione	After visual examination, item was processed using IND allow to air dry for2-3 minutes Oven for 15 minutes at 100 cel degrees
	Alternate Light Source	Under FLS : 515 nm with orange filter Fingerprint residue was not clear
	Ninhydrin	Then, Visual examination Oven: 80 cel degrees for 10 minutes
B3LHDH	Ninhydrin	Submerged paper in Ninhydrin, let it dry, placed in heat/humidity chamber for 20 minutes.
B4F7VD	Visual Examination	High intensity white light.
	1,2-Indanedione	Chemical lot: 22-0721AC. Humidity Chamber (90 minutes, 50 degrees Celsius, 60% relative humidity). TracER Laser. Light and limited ridge detail noted; however, ridge detail faded quickly upon observation.
	Ninhydrin	Chemical lot: 22-1129AC. Humidity chamber (90 minutes, 26.6 degrees Celsius, 80% relative humidity). High intensity white light.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
BEAG82	Visual Examination	I completed the initial visual examination to determine best processing methods for the item. I considered this item to be porous. I also photographed the item prior to any processing. I used oblique white light on this item and could see faint ridge detail in section c.
	Alternate Light Source	I used the Alternate Light Source to determine if any fluorescing can be seen on the object, prior to processing. During this step for this item, I could see partial ridge detail in section C.
	Ninhydrin	I used Ninhydrin (PeET). I placed the item in a glass dish, and used a pipette to saturated the item with Ninhydrin for approximately 5-10 seconds. I let the item dry for 5 mins. I then introduce heat and humidity by waving a hot steam iron back and forth over the paper, without touching it, for approx. 20 secs. I looked for any developing ridge detail. I repeated this process 24 and 48 hours later.
BFAKUP	Visual Examination	under white light
	Alternate Light Source	Laser
	FSIS	Full Spectrum Imaging System/ long and short UV
	DFO	100 C for 20 minutes, viewed with blue laser
	Ninhydrin	
BJ8ZAY	Ninhydrin	Item placed in ninhydrin for 5 seconds. Item hung to dry for 5 minutes. LOT# 082522-01
	Humidity Chamber	Item placed in chamber with test print. Test print positive 80 degrees Celsius. 65% humidity. 3 minutes
	Visual Examination	Faint print observed in area labeled "C"
BLX76H	Visual Examination	crimelight, UV light, and 530nm
	DFO	20 min in fingerprint development chamber
	Ninhydrin	1 week sitting out (humidity chamber out of service)
BX2UFY	Visual Examination	Green lazer, UV and Blue crime lite exams along with white light Crime Lite exam carried out. negative result.
	1,2-Indanedione	Indandione treatment of item (INDWS/16) positive result - section 'C'
	Ninhydrin	Ninhydrin treatment of item (NINWS/375) positive result section 'C' but no improvement in development of mark.
C2K2LD	Ninhydrin	Evidencia N°1: el tiempo de procesamiento con el reactivo químico Ninhidrina fue de setenta y dos (72) horas. [English translation of comments was not obtained by the time of report publication.]
C3FLLJ	Visual Examination	No indented writing or trace evidence noted.
	Alternate Light Source	No prints visible.
	Ninhydrin	Dipped in Ninhydrin working solution twice until fully saturated and air dried. Waited over 72 hours for further development. No further development was observed, the item was then steamed with an iron on and off for 30 minutes. Faint latent print appeared, not suitable for determination.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
C3HBQG	Visual Examination	Used oblique lighting from a Crimelite flashlight (white light), then used a Coherent TracER LASER with a KV550 lens filter to image any potential latent print. Also, incandescent lighting was used. These methods were applied to the newsprint paper, the piece of cardboard, and the two pieces of clear tape (only the non-adhesive side).
	Cyanoacrylate Fuming	For the two pieces of clear tape (non-adhesive side) the entire item was placed inside a Foster & Freeman MVC-5000 superglue chamber, used 3 grams of cyanobloom (superglue) in heating element, and set an autocycle program for 70 minutes. Using a crimelite flashlight (white light), oblique lighting was applied to the two pieces of clear tape to image any potential latent Prints.
	Dye Stain	Only on the two pieces of clear tape (non-adhesive side only) - Rhodamine 6G was applied on the non-adhesive side of the two pieces of clear tape of Item 1. A Coherent TracER LASER and KV550 lens filter was used to image any potential latent prints.
	Powder Dusting	Only on the two pieces of clear tape (non-adhesive side only) - Black powder was applied on the two pieces of clear tape. Oblique lighting from a Crimelite flashlight and incandescent lighting was used to image any potential latent prints.
	DFO	On the newsprint paper and on the cardboard - A 3 second soaking of 1,8-Diazafluoren-9-one (DF0) was applied. After the item dried, the soaking step was repeated and placed into the Sanyo Gallankamp oven and set at 100 degrees Celsius for 20 minutes. A Coherent TracER LASER and a KV550 lens filter was used to image the latent print. The item was re-examined with the LASER after a 24 hour of sit-time to allow complete development of DFO.
	Ninhydrin	On the newsprint paper and on the cardboard - A 3 second soaking of Ninhydrin was applied. After the item dried, the soaking step was repeated and placed into an oven for 6 minutes set at 80 degrees Celsius and having 65 percent relative humidity. Incandescent lighting, Oblique lighting from a Crimelite flashlight, and fluorescent lighting was used to image any potential latent prints. The item was re-examined after 24 hours of sit-time to allow complete development of Ninhydrin.
C7YNMX	Visual Examination	A visual inspection was performed, no fingerprint was identified.
	Alternate Light Source	A visual inspection was performed using alternating white and violet light, no fingerprint was identified.
	Powder Dusting	Black magnetic powder was used for fingerprint development, resulting negative for fingerprint.
C8VXHZ	Ninhydrin	Evidence object 1 was treated by spraying ninhydrin (# A-2643) and allowed to dry at room temperature for an hour, but did not develop the purple color, indicative of the presence of amino acids.
C949CH	Visual Examination	
	Alternate Light Source	FSIS
	Ninhydrin	HFE Ninhydrin applied with a spray bottle. Put item in the humidity chamber for 3 minutes to develop at 65% humidity and 80 degrees C

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
CDY6VH	Visual Examination	visually observed
	Ninhydrin	Ninhydrin special formula used. Heat and humidity applied with steamer. Re-treated and dried overnight. Treated with ninhydrin special formula and heat and humidity applied the following day
CHR4CY	Visual Examination	First I did a visual examination of the piece of evidence to locate the possible fingerprint.
	Alternate Light Source	Then I used an alternate light source to have a better visibility of the possible fingerprint.
	Powder Dusting	To develop the possible fingerprint I used powder dusting. The fingerprint was weak but it was located in the letter D of the piece of evidence.
CL7XXX	Ninhydrin	15 days after application silver nitrate was used.
CQZTY6	Visual Examination	Natural light, white light.
	Ninhydrin	Ninhydrin spray was used to find latent print on a newsprint paper. The newsprint paper was left in a dark room (about 22 degrees Celsius) for 8 days. The latent print was recovered in section "C".
CRVFC9	Visual Examination	Forensic light (white, green, blue)
	1,2-Indanedione	100 celcius degrees at 10 minutes
	Ninhydrin	80 celsiums degrees at 62% RH at 2 minutes
	Physical Developer (PD)	
CUY4V6	Visual Examination	White light.
	Ninhydrin	Ninhydrin spray "NIN-PRINT" B-78500, BVDA. Room temperature 19,4 degrees, room humidity 44%.
CV2M7M	Visual Examination	Ambient lighting
	1,2-Indanedione	Heat press. Exam post-IND with green laser at approx 532nm with orange goggles
	Ninhydrin	Steam iron. Exam post-NIN with ambient lighting. 2nd application -> steam iron. Exam post-NIN with ambient lighting
CVG46L	FSIS	Viewed with FSIS under UV light
	Cyanoacrylate Fuming	Fumed with superglue for about 1 hour (and allowed to cure), viewed with laser at 532 nm and filter
	1,2-Indanedione	Saturated with IND (heat and humidity added)
	Ninhydrin	Saturated with ninhydrin (heat and humidity added)
	Vacuum metal deposition	processed with VMD and gold and zinc metals

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
CY3TMD	Visual Examination	Relative temperature of the processing room was 72.2 degrees Fahrenheit. No friction ridge detail was observed.
	Ninhydrin	I then processed this item with Ninhydrin (Heptane base) via the dip method. I let this item dry under the vent hood for 30 minutes. I then applied heat/humidity via a steam iron. A fingerprint of value was developed in quadrant C. The friction ridge detail was faint.
	Visual Examination	Conducted another visual examination of this item after 7 days. No additional friction ridge detail was observed. The friction ridge detail still was faint on this item.
D62PRV	Powder Dusting	mag powder- one minute
D9FE6D	Visual Examination	White light
	Alternate Light Source	Polilight, Foster+Freeman Crime-lite ML2 - all available wavelengths ESDA® 2/B; Foster+Freeman ESDA Electrostatic Detection Apparatus
	DFO	100°C, Processing time 10 min, 0% RH
	Ninhydrin	80°C, Processing time 5 min, 65% RH
	Physical Developer (PD)	Processing time approximately 60 min, shaker GFL 3018
DRCRUE	Ninhydrin	24 hours into heated camara then 7 days into ambient conditions camara.
E4MP4Z	Visual Examination	No prints observed
	DFO	Submerged item in the solution for 60 seconds. Allowed to dry. Heated the item for 30 seconds.
	Ninhydrin	Submerged item in the solution for 60 seconds. Allowed to dry. Heated the item for 30 seconds.
EAC3AU	Visual Examination	No friction ridge detail observed.
	DFO	Sprayed the item with DFO. Allowed the DFO (Petroleum Ether base) to dry. Then placed into a heat/humidity chamber for 20 minutes at 100 degrees Celsius with ambient humidity.
	Alternate Light Source	Visualized the item at 475nm and observed friction ridge detail in quadrant C. I then photographed the developed friction ridge detail.
	Ninhydrin	Sprayed the item with Ninhydrin. Allowed the Ninhydrin (Petroleum Ether base) to dry. Then placed into a heat/humidity chamber for 5 minutes at 75 degrees Celsius with added humidity. No improvement in the friction ridge detail was observed nor was any additional development observed.
EAWQMH	Visual Examination	Item examined for any patent prints
	Ninhydrin	Ninhydrin processing conducted - observed possible area of a latent print. Area C
	Photoshop	Item enhanced with photoshop examination print observed

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ECUDR7	Visual Examination	Visually examined evidence using oblique lighting
	Alternate Light Source	Examined evidence using 520nm laser, 445nm laser, and 365nm UV
	1,2-Indanedione	Applied IND to evidence let dry in fume hood before placing in oven for 20 minutes, followed by a visual and 520nm laser examination.
	Ninhydrin	Applied NIN to evidence and let dry in fume hood before placing in humidity chamber for 15 minutes, followed by a visual examination of evidence.
	Physical Developer (PD)	Placed evidence in Tray 1 (maleic acid solution) for 10-15min, Tray 2 (PD working solution) for 10-15min, and Tray 3 (de-ionized water) for an initial rinse of the evidence, followed by a second rinse with running tap water and drying with heat press. Visually examined evidence after drying
ER64P6	Visual Examination	White light, blue light with yellow glasses, green light with red glasses. No print visible.
	1,2-Indanedione	Processing time 10 minutes at 100 C. No print visible in green light with red glasses. Print somewhat visible in green light with bandpass filter and orange glasses.
	Ninhydrin	Processing time 2 minutes at 80 C and 62%RH. Print somewhat visible after processing.
EV9LFL	Visual Examination	
	Alternate Light Source	ALS: 365nm, 350-380nm, 445-510nm
	Laser	Laser: 532 nm
	1,2-Ind-ZnCL	1,2-IndZnCL: Humidity chamber for 20 mins at 80 C, 65%RH
EW7WBP	Visual Examination	A visual examination was completed of this item in its entirety and a general description was notated on the Forensic Processing Worksheet.
	Ninhydrin	Ninhydrin (special formula) was utilized to process this item. This type of ninhydrin was used specifically due to the substrate being inked. The item was saturated via the ninhydrin spray bottle and left to dry. Once dry the item was steamed with a steamer and visualized. A second application of ninhydrin was applied and the item was steamed a second time. The item was then left to dry overnight. The next day ridge detail was observed. A third application of ninhydrin was applied and the item was steamed in attempt to enhance the ridge detail observed. This item was processed with a QC and it showed the process worked correctly.
FD2ZZ6	Visual Examination	
	Alternate Light Source	various wavelengths with appropriate filters
	Ninhydrin	used steam after - let set for three days
FEHXM3	Visual Examination	No latent printed detailed observed through visual examination.
	Iodine Crystal Ampoules	The sheet of paper was placed in a plastic bags with Iodine Crystal Ampoules, the ampoules broken and the bag was sealed.
	Ninhydrin	We wait approximately 20 minutes, it is removed and we proceed to apply Nynhydrin and no result.
	Alternate Light Source	Light UV and no visible.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
FJDRMP	Visual Examination	A visual inspection was performed, no fingerprint was identified.
	Alternate Light Source	A visual inspection was performed using alternating white and violet light, no fingerprint was identified.
	Powder Dusting	Black magnetic powder was used for fingerprint development, negative result for fingerprint
FMGJVP	Ninhydrin	Used liquid Ninhydrin. Allowed to dry / heat & moisture used. No Prints
FPZJQC	Ninhydrin	processing time: 48 hrs. dye stain: Ninhydrin. the reaction needs humidity and dark place
FQWBLH	Ninhydrin	
FRNCLE	Visual Examination	
	Photocopy	After photocopy, I removed the paper from the cardboard
	Powder Dusting	CMB
	DFO	Chemical: DFO ID #: 22-0035
	Ninhydrin	Chemical: Ninhydrin ID #: 22-0036
	Steam	Steam was applied to paper Item 1 after Ninhydrin
	Time	After negative results from the steam, Item 1 was given time to develop a potential print
FT2LWZ	Visual Examination	It begins with a visual inspection of the piece of evidence to locate papillary ridges.
	Alternate Light Source	Subsequently, the search is carried out with alternating white and ultraviolet, but no papillary ridges are located.
	Iodine Crystals	Iodine crystals are used, about five (5) minutes, but not developed. Let the white paper rest divided into sections for ten (10) minutes.
	Ninhydrin	Ninhydrin is used, heat is applied and allowed to dry for about 15 minutes, but not developed.
FY8D8J	Visual Examination	
	Alternate Light Source	Examined at 350nm and 515nm
	Ninhydrin	Immersed in Ninhydrin. Left at room temperature inside fume hood, ridge detail visible the following day
G32X4E	Ninhydrin	Ninhydrin Lot# 071422-01 Caron Chamber: 75 Degrees Celsius, 80 Percent Humidity Test Print Positive

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
G4Y9YG	Visual Examination	daylight, white light (halogen), then CrimeLite 4x4 white lite, and the blue, cyan and green light observed through orange filter
	DFO	working solution based on HFE7100, with metanol, ethyl acetate and acetic acid; after applying the solution and letting the item to dry it was incubated in the temperature 200F for fifteen minutes. then observed in green light through orange filter
	Ninhydrin	working solution based on HFE7100, with methanol, ethyl acetate and acetic acid; after applying the solution and letting the item to dry it was incubated in the temperature 200F for fifteen minutes. Then observed in white light both halogen and daylight.
GA332P	Visual Examination	Visually inspected the surface of the gray colored paper for any visible friction ridge detail
	Ninhydrin	Sprayed the gray colored paper with Ninhydrin and subjected it to vapors from an iron with distilled water.
GEFTLY	Visual Examination	At 8:30am, the evaluation of the piece begins and it does not show visible ridges.
	Alternate Light Source	After having no result with visual evaluation, the inspection was carried out by means of alternate light, giving negative result.
	Iodine crystal Ampoules	Using the iodine crystal ampoules, paper withe is placed in transparent plastic bag and iodine crystals are placed, leaving them to act for about 9 minutes, but there was no development. Let the paper withe rest for about ten 20 minutes. Try another method.
	Ninhydrin	Spraying all over the paper and to speed up the process, heat it with a hair dryer for approximately 10 minutes. I don't develop.
GKHWDH	DFO	Item submerged in DFO solution, air dried, heated in oven at 100 degrees C for 20 minutes.
	Ninhydrin	After treatment with Ninhydrin, used steam from iron to process paper.
GNMMHD	Visual Examination	Nothing was visible with the naked eye.
	DFO	Used DFO, followed procedure by letting it dry and applying heat. Then looked under ALS and did not find a positive reaction in any quadrant.
	Ninhydrin	Applied Ninhydrin, followed procedure by letting it dry and applied a little steam to see if a reaction would occur. No immediate reaction occurred. Waiting at least 5 days to check again for a reaction. During visual examination, I could see an extremely light pink reaction in Quadrant C. I was able to see a very light circular outline of where the print was located and could see approximately 3 lines of ridges on the top right section of the print. Tried to capture the print in a photograph and wasn't able. Continued to wait until the 10th day per procedure, to see if any further development would occur.
GPDKYR	DFO	DFO (SV2022-DFO-4) dyed stained and then placed in the caron chamber at 100C for 20 min.
GUTYYJ	DFO	Heat for 20 minutes at 100 degree C.
	Ninhydrin	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
HBRRNP	Dye Stain	Stained with DFO; developed in the caron chamber (100C, 0% humidity, 20 min)
	Alternate Light Source	Forensic Laser - Green light
	Ninhydrin	Stained with ninhydrin; developed in the caron chamber (80C, 70% humidity, 15 min)
	Visual Examination	Viewed in natural light
HFFG6T	Visual Examination	White light, UV
	1,2-Indanedione	160°C, 10 sec
	Ninhydrin	RT, 72h
HHCVN6	Visual Examination	Item viewed under white light, flashlight, CrimeScope ALS, and TracER laser
	1,2-Indanedione	1,2-Indanedione was applied to the item and developed in an oven at 90 degrees C for 20 minutes. Item was viewed under the TracER laser. When very faint ridge detail was observed, the print was left overnight to see if further development would occur.
	Ninhydrin	Ninhydrin was applied to the item and developed in a humidity over at 90 degrees C and 80% humidity for 20 minutes.
HVW8C9	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Ninhydrin	
	Physical Developer (PD)	
HXMJUE	Visual Examination	Visual Exam with high intensity white light. No visible ridge detail observed.
	1,2-Indanedione	1,2-IND with Laser (90 min at 50c/60% Humidity, Orange Filter, control positive) Light/Limited ridge detail observed; Insufficient for preservation. (observed on quadrant C)
	Ninhydrin	Ninhydrin (90 min, 26.6c/Humidity 80%, control positive) No visible ridge detail observed.
J22CTK	1,2-Indanedione	IND-ZnCl - HUMIDIFIED WITH STEAM IRON
J6UPYG	1,2-Indanedione	
	Ninhydrin	
J6YXCA	Ninhydrin	the item was sprayed with ninhydrin and kept in the oven with humidity for 10 minutes.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
J92T36	Visual Examination	The item was visually examined with the naked eye and then oblique lighting. Nothing was observed at this point.
	Alternate Light Source	The item was then viewed under the forensic light source (FLS) to look for any inherent fluorescence. Nothing was observed.
	Iodine Fuming	I used an Iodine fuming wand next. No prints were observed with this method.
	DFO	DFO and Forensic Light Source (FLS). The paper was saturated with DFO, dried, and then processed in a humidity chamber for approximately 15 minutes. One print was observed with the FLS in section C. Ninhydrin (Petroleum Ether) was then applied.
	Ninhydrin	Ninhydrin (Petroleum Ether) was then applied to the item. Once dry, the item was placed in the humidity chamber for approximately 5 minutes. One print was observed in section C.
J9G6RW	Visual Examination	First we did visual check with light sources (UV, Blue, Blue/Green, Green, Violet). No results.
	1,2-Indanedione	We processed sample with 1,2 Indanedione and we put item to Nincha cabin. Temp. 65, hum. 65%. 30 min.
JDTCT2	Visual Examination	Performed VIS utilizing oblique lighting.
	Alternate Light Source	Utilized 520nm LASER, 445nm blue light and 365nm UV.
	1,2-Indanedione	Placed in the oven for 20 minutes then utilized 520nm LASER.
	Ninhydrin	Placed in humidity chamber for 15 minutes then performed visual. Visualized print.
	Physical Developer (PD)	Placed item in Maleic Acid for 10-15 minutes. Placed item in redox working solution for 10-15 minutes. Rinsed item with DI water then rinsed item with tap water.
JDVV4J	Visual Examination	White Light
	Alternate Light Source	365nm, 445-510nm
	1,2-Indanedione	532nm (laser)
JJ3JJ7	Visual Examination	
	Ninhydrin	Test print was confirmed prior to processing evidence with Ninhydrin. I submerged the sheet of paper in a Pyrex dish containing Ninhydrin. I hung the paper in a vent hood overnight. The next day, no latent print detail was present so I submerged the sheet a second time. Three days later I re-examined the paper to find ridge detail present in section C. I utilized a steam iron on the paper to darken the detail.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
JKXUQ3	Visual Examination	Performed visual examination with white light, alternate light source, laser.
	1,2-Indanedione	Sprayed Indanedione on the paper. Waited 20-30 minutes. Applied heat by ironing the paper.
	Visual Examination	Performed visual examination of the developed latent print using LASER.
	Ninhydrin	Sprayed Thermal Ninhydrin and placed it in the humidifier chamber for 40 minutes.
	Visual Examination	Performed visual examination with white light and alternate light source.
JL69VM	Ninhydrin	Ninhydrin at 70% Humidity and 80C in CARON Chamber
JLN22Q	Ninhydrin	Item was treated with ninhydrin spray and left to dry at room temperature for aproximately 7 minutes until fully developed.
JNFXR7	Visual Examination	Item was examined under a magnifier with a light. No ridge detail was observed.
	Iodine	I placed a small amount of Iodine crystals into a plastic bag along with the item. I shook up the crystals in the bag with the item. I observed the purple gas from the crystals fill the bag. After a few seconds I released the gas from the bag and removed and examined the item under a magnifier. No ridge detail was observed.
	DFO	I applied DFO to the item, after drying, I then used an iron to apply heat to the item for approximately 5-10 minutes. I examined the item using a FLS and a magnifier. No ridge detail was observed.
	Ninhydrin	I applied Ninhydrin to the item, after drying, I then used an iron to apply heat and humidity to the item for approximately 5 minutes. I examined the item using a magnifier and light. No ridge detail was observed.
	Silver Nitrate	I applied Silver Nitrate to the item, after drying, I then exposed the item to natural sun light. I examined the item using a magnifier and light. No ridge detail was observed.
JRUQAY	Ninhydrin	Ninhydrin with Acetone: A positive and negative quality control test was conducted and results were positive; the solution worked as expected. The newsprint paper was dipped in the ninhydrin with acetone solution and then allowed to dry in a fume hood. Once dry, the newsprint paper was moved to a heating cabinet for 3 hours. After 3 hours, the item was placed in a sealed plastic bag and placed in an evidence locker.
	Visual Examination	The following morning (18 hours after initial processing) the item was rechecked and a latent print had developed in Quadrant C.
JTR49C	Alternate Light Source	455-515nm
	Ninhydrin	processing time ~24 hours, steam heat used for enhancement

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
JW8F6T	Alternate Light Source	White Light: The sample was inspected using a white light spectrum, it was illuminated obliquely in order to be able to appreciate any presence of a papillary ridge; I do not reflect presence. UV light: The sample was inspected using a 395nm UV light spectrum, it was illuminated obliquely using safety glasses, in order to appreciate any presence of a papillary ridge; I do not reflect presence.
	1,2-Indanedione	A polyethylene bag was used, where the vial containing the iodine is broken to expose the document to its vapors. After 5 minutes, the presence of papillary ridges ware not reflected. Live the document resting in a ventilated place for 10 minutes to continue with the development process.
	Ninhydrin	Work is proceeded on the HUD to avoid exposure to the Ninhydrin gases. The document is treated with the chemical, it is impregnated with it. It is left to rest for 5 minutes and heat is applied to the document, after 5 minutes, the presence of papillary ridges were not reflected in this document.
JW8HN7	Visual Examination	
	Ninhydrin	
JYRL8W	Visual Examination	White light
	1,2-Indanedione	Dipped and utilized humidity chamber for 10 minutes. Used with LASER
	Ninhydrin	Dipped and utilized humidity chamber for 10 minutes. Used with LASER
K22RLB	Ninhydrin	Ninhydrin with the addition of a steam iron (~ 3-4 minutes) to accelerate development
K2WDXP	1,2-Indanedione	Climate chamber, Humidity: 80%, Temperature: 60 degrees Celsius, Duration: 20min
K3BYHC	Visual Examination	Looked over the paper to see if there was any ridge detail visible before chemical processing. Used a flashlight and fluorescent lights.
	Alternate Light Source	Used several wavelengths with the alternate light source (ALS) to see if any part of the item fluoresced and it did not. The ALS was tested and performed as expected before using it on the item.
	Ninhydrin	Applied ninhydrin to the paper and stored it in order to allow it to cure. Ninhydrin was tested and performed as expected before using it on the item. Steam was applied after the curing time of 72 hours in order to try and further develop ridge detail.
K7B64A	Visual Examination	Visual examination with Crimelite and TracER Laser
	DFO	Item incubated in oven @ ~100°C for 20 minutes. Item examined and latent print area photographed with TracER Laser and curved filter
	Ninhydrin	Item incubated in humidity chamber @ ~65% relative humidity and 80°C for 3 minutes. Item examined using Crimelite and Incandescent lighting.
KAU4DX	Ninhydrin	evidence objet 1 was treated by spraying ninhydrin (# A-2643) and allowed to dry at room temperature for an hour ,but did not develop the purple color , indicative of the presence of aminoacids.
KDUF9X	Ninhydrin	item # 1 was treated by spraying ninhydrin (#A-2643) and allowed to dry at room temperature for an hour aproximality, but did not develop the purple color to indicate of the presence of aminoacids.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
KHLR29	Visual Examination	Visual Examination with a light source held at an oblique angle. Step 4) Processed with DFO and an ALS set at 450nm (Negative Results). Step 5) Processed with Ninhydrin(Negative Results)
	Alternate Light Source	Alternate light source (ALS) Examination. ALS set at 450nm
	Ruthenium Tetroxide	After passing a quality control check, the item was processed with Ruthenium Tetroxide (RTX). The chemical was applied using the fuming method. (Negative Results)
	DFO	After passing a quality control check, the DFO working solution was sprayed on the item. The item was allowed a sufficient amount of time to dry. The item was placed in a Gallenkamp Oven set at 100 Celsius for 20 minutes. The item was removed from the oven and examined with an ALS set at 450nm (Negative Results)
	Ninhydrin	After passing a quality control check, the Ninhydrin Working solution was sprayed on the item. The item was allowed a sufficient amount of time to dry. The item was placed in a Gallenkamp Oven with humidity. (Negative Results)
KHP6TB	Visual Examination	Viewed under magnifier and white light
	Ninhydrin	Applied running ninhydrin, avoiding black lines as much as possible. When dried placed into Caron oven when settings were at appropriate levels. Also used second control in Caron oven (first control tested prior to the application of the ninhydrin on the evidence).
KJEFQV	Visual Examination	visual examination of porous paper, no ridge detail observed
	Ninhydrin	Applied Ninhydrin to paper, let dry, applied second application, let dry
KMGDXH	Visual Examination	11/30/2022: visual examination under ambient light
	Ninhydrin	11/30/2022: spray/saturate with Ninhydrin Special Formula (1st round), air dry, steam, no ridge detail observed, sat overnight. 12/1/2022: no ridge detail observed, spray/saturate with Ninhydrin Special Formula (2nd round), air dry, steam, no ridge detail observed, sat overnight. 12/2/2022: no ridge detail observed. 12/6/2022: Very faint fingermark observed in section C, spray/saturate with Ninhydrin Special Formula (3rd round), air dry, steam, no ridge detail observed and faint fingermark was no longer visible, sat overnight. 12/7/2022: no ridge detail observed, spray/saturate with Ninhydrin Special Formula (4th round), air dry, steam, no ridge detail observed. Daily QC checks were positive within 10 minutes.
	Vacuum Metal Deposition	12/7/2022: no ridge detail observed prior to VMD. Applied VMD with gold, then zinc, then silver. QC was run with item. QC positive and showed development. No fingermark/ridge detail observed after VMD. 12/9/2022: Additional layer of zinc applied in VMD (with QC from 12/7/2022). QC was positive and showed development. Item examined with ambient and oblique lighting. No fingermark or ridge detail was observed.
L8JLTT	Visual Examination	Different light
	1,2-Indanedione	Solution with zinc. Climate chamber NINcha (temperature100oC, humidity 60%, processing time 10min). DCS 5 (Crime light 4x8, wave length 490nm, filter 550nm)
	Ninhydrin	Climate chamber NINcha (temperature 60oC, humidity 70%, processing time 10min)

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
LBKPLF	DFO	Exhibit was processed by 1, 8-Diazafluoren-9-one (DFO) and placed in an oven at 100-degree C for 20 minutes
	Alternate Light Source	Exhibit was viewed using a 530nm/green forensic laser.
LCRZGJ	Ninhydrin	Ninhydrin was used for Newsprint paper for latent print processing. Lot#01212022KAD. EXP:01/21/2023. Submerged Newsprint paper in Ninhydrin for 10 seconds, put in humidity chamber for 45 mins. No prints developed.
LCTWUA	Visual Examination	visually examined utilizing flashlight
	Ninhydrin	developed with ninhydrin and heat activation utilizing hot iron
LGZGH7	Ninhydrin	Photographs of the sealed evidence were taken, later, when it was opened, a photograph of the evidence was taken. Once with the photographic fixation, the type of surface is checked to carry out the application of the correct reagent. The application of ninhydrin was carried out, which is the reagent established by the laboratory for porous surfaces, the processing from the moment the evidence is opened until it is resealed is approximately 10 to 15 days for the development of fingerprints on this type of surface.
LH32WV	Ninhydrin	Ninhydrin aerosol spray, heat source used to help with development
LP48F4	1,2-Indanedione	Optical Examination using white light IND-ZN treatment used, preheated the dry press, soaked the item in the working solution till soaked through, item then dried in the fume hood and then heated for 10 seconds, using the Polilight excitation 505 wearing orange goggles. Due to a chemical issue nil development - paper was damaged.
	Ninhydrin	Even after the degradation of the paper I attempted to use Ninhydrin treatment by soaking the paper with the working solution, dried and allowed it to develop overnight in an exhibit cabinet. One looking at the paper the next day there were nil development.
LTY4Y4	Visual Examination	white light
	Visual Examination	polylight 440 - 520 nm . orange filter
	1,2-Indanedione	520nm. orange filter
LUNPE8	Visual Examination	Visual examination with lights (390 - 535 nm) and photography+ photoshop. No prints was found.
	Ninhydrin	62 % moisture and 80C degrees, 6 min.operate time. Print was found in section C.
	1,2-Indanedione	65% moisture and 90C degrees, 15 min. operate time. Print didn't get any better.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
M2ALEG	Ninhydrin	Saturated paper with ninhydrin
	Air Dried	3 minutes
	Steamed	Using a clothing iron with paper between two pieces of paper
	Visual Examination	No prints observed to have developed
	Ninhydrin	Resaturated paper
	Air Dry	15 days
	Visual Examination	No prints observed to have developed
	Alternate Light Source	No prints observed to have developed
MC9KJ8	Visual Examination	White light, Laser 532 nm, Laser 577 nm, FLS
	1,2-Indanedione	1,2,Indanedione/ZnCl2 (Ramotowski, 2009), Heating press 165°C – 10 seconds
	Alternate Light Source	Laser 532 nm – Orange filter
	Ninhydrin	- 4 g ninhydrin - 20 ml ethanol - 10 ml acetic acid - 70 ml ethyl acetate - 900 ml petroleum ether 30 min : Temperature = 80°C, RH = 62%
	Alternate Light Source	White light and green light
MDEZZL	LPPM R7	DFO/Caron chamber 20 min, NIN/Caron chamber 15min
METJL6	1,2-Indanedione	NINcha S31 Climate Chamber, temp. 65 celsius, RH 65%. Processing time 30 min. After processing, examination with green Light Source 480 - 560 nm.
	Alternate Light Source	
MJQU84	Visual Examination	
	Cyanoacrylate Fuming	
	DFO	555nm/red
	Ninhydrin	3 days development time
MK2PVG	Ninhydrin	Saturated paper, allowed to dry, applied heat and steam.
MK6B9P	Visual Examination	No ridge detail.
	1,2-Indanedione	Zn-Cl formulation. Activated with dry heat press at 160 C for 10 seconds. Laser viewing at 532nm with orange barrier filter.
	Ninhydrin	Developed with steam iron. No improvement to ridge detail.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
MMPC3B	Visual Examination	1) Observation with the nake eye of the surface of the newsprint paper, under different inclinations. We observe a slight trace in the "B" box, but we do not observe any papillary ridges. We don't see any other traces elsewhere.
	Alternate Light Source	2) We illuminate the support with the Crimescope MCS-400 at different frequencies with the appropriate colored glasses and at different inclinations. The slight trace is observed in box "B" with wavelenght 530. We don't see other traces elsewhere.
	1,2-Indanedione	3) In view of porous support, we vaporise the solution 1,2-Indanedione, under a hood, on the newsprint paper, then we wait 2 minutes for evaporation of the solution. Then the object is placed under a heating press at 165°C during 10 seconds. The solution 1,2-Indanedione is tested in parallel on a control.
	Visual Examination	4) We observe a fingerprint, with the naked eye, in the box "C", colored in pink. We can determine the type of trace pattern. We don't observe other traces elsewhere on the object.
	Alternate Light Source	5) We observed the newsprint paper with crimescope MCS-400 at CSS filter and orange filter glasses for observation. The fingerprint in box "C" is luminescent. We can clearly determine the pattern type of the trace. We don't observe other traces elsewhere on the object. We observe the trace with other wavelengths but it does not give better results than with the CCS wavelength.
	Ninhydrin	6) We spray the ninhydrin under a hood on the newsprint paper, then we wait 2 minutes for the solution to evaporate. Then the object is placed in a cuvette in the dark at room temperature with a beaker of water for 24-48 hours for a slow reaction. The object is checked regularly with the naked eye to verify the revelation of the purple fingerprint. The ninhydrin solution is tested in parallel on a control.
	Visual Examination	7) We observe somes rigdes. in the box "C" and colored in purple with nake eye. We don't observe other traces elsewhere on the object.
	Alternate Light Source	8) The fingerprint in case "C" is illuminated under different wavelengths of the Crimescope, whith glasses of appropriate colors, to get the best contrast. We don't observe others rigdes.
MQNJQU	Visual Examination	At 8:39 am, the visual evaluation of the piece of evidence began, showing no results of detail ridges.
	Alternate Light Source	After having no result with the visual evaluation, the inspection was carried out by means of alternate light, giving negative results.
	Iodine crystals	Using the iodine crystal chemist, newspaper is placed in a transparent plastic bag and the iodine crystals are placed, leaving them to act for about five (5) minutes, but there was no development. Let the newsprint rest for about ten (10) minutes to proceed to use another method.
	Ninhydrin	Continue with Ninhydrin, spraying all over the paper and to speed up the process, heat it with a hair dryer for approximately fifteen (15) minutes. Giving a negative result, since there was no development.
MTFDUP	Visual Examination	flashlight; natural light
	1,2-Indanedione	heat press @ ~160 degrees Celsius for ~ 10 seconds - laser light source @ 532 nm with Orange and A-FF1 barrier filters

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
MWZENC	Visual Examination	After visual exam, the item was processed with DFO, in oven for 20 min, viewed under LASER and photographed.
	DFO	in oven for 20 min.
	Ninhydrin	No further development
N7D3UU	Visual Examination	No visible prints.
	1,2-Indanedione	Applied indanedione, allowed it to dry. Applied heat.
	Ninhydrin	Applied ninhydrin, allowed it to dry. Applied heat and humidity.
N9MW2F	Visual Examination	Examination of the photograph using different lights and observation filters. No fingerprint detectable.
	1,2-Indanedione	Fingerprint-fragment in section C detected. No first-level pattern recognisable.
	Ninhydrin	The quality of the fingerprint did not enhance after the application of Ninhydrin.
NDFA9X	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	
NPC3DF	Visual Examination	Ambient lighting and magnifier lamp.
	Alternate Light Source	CRIMESCOPE CS-16-500: 350 nm with clear goggles – 415, 445 nm with yellow goggles – 445, 455, 475, CSS, 495, 515 nm with orange goggles – 515, 535, 555, 575 nm with red goggles.
	Ninhydrin	The paper is immersed in ninhydrin (petroleum ether) in a tray for five seconds, then air dried for a few minutes in a fume hood. Heat and humidity is applied to the paper with a steam iron for a few minutes. This process of ninhydrin and applying heat/humidity is repeated three times (proper control development achieved every time).
	Visual Examination	Ambient lighting and magnifier lamp. Visual examination performed three times (once after each application of ninhydrin/heat and humidity). First time, no FRD observed. Second time, weak FRD observed. Third time, no improvement in FRD, but background noise appearing.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
NQAD9J	Ninhydrin	Control was performed before processing sample. Control includes drawing two circles on a clean piece of paper, one circle labeled "positive" and the other labeled "negative". While wearing gloves one drop of an artificial perspiration reagent (PLAP) was added to the "positive" circle. The "negative" circle was left empty. The control test paper was then submerged into Ninhydrin. Indirect heat was applied to the control test paper using an iron for about 1 minute. The "positive" circle changed to a violet color indicating the Ninhydrin works properly. The sample was removed from the packaging material and submerged in Ninhydrin. Indirect heat was then applied to the item using an iron for about 1 minute. No results observed. Heat applied for another 2-3 minutes, no result observed. The item was then placed in temporary storage to see if the Ninhydrin would process further at room temperature. The sample was revisited a week later on 11/11/22. No results were observed, no color change or latent print was observed.
NQMZB6	1,2-Indanedione	
	Alternate Light Source	
	Ninhydrin	
	Visual Examination	
NVHXQN	Visual Examination	I photographed item before processing for documentation purposes.
	Iodine Crystal Ampoules	Iodine Crystal Ampoules was placed in a plastic bag with the item 3, i broke the ampoules and seal the bag. no latent print developed.
	Ninhydrin	i expose the item 1 to Nyhidrine spray and inspect letting to dry, no print were observed.
NWMGLB	Visual Examination	White, Blue and Green light
	Cyanoacrylate Fuming	
	1,2-Indanedione	
	Ninhydrin	
NYRC3T	Visual Examination	Visually examined with magnify glass, with negative results.
	Ninhydrin	Dipped in Ninhydrin with methanol, air dried, and placed in humidity chamber on Ninhydrin setting for 30 minutes, with negative results. Placed in plastic and stored overnight. Visually inspected after 24 hours, no results. Redipped in Ninhydrin with Methanol, air dried, and placed in in humidity chamber on Ninhydrin setting for 30 minutes, with negative results. Dipped in Novec Ninhydrin, air dried, placed in plastic and let sit for 3 days before reviewing results. No reaction noted.
	Physical Developer (PD)	Physical developer process and allowed to air dry before reviewing results. No reaction noted.
P94RLE	Ninhydrin	Soaked paper in ninhydrin allowed to dry. Processed with steam iron to develop possible prints. Completed controls for chemicals. Chemicals working properly. No prints developed.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
PAFAYT	Visual Examination	At 9:15 am, the visual evaluation of the piece of evidence began, showing no results of detail ridges.
	Alternate Light Source	After having no result with the visual evaluation, the inspection was carried out by means of alternate light, giving negative results.
	Ninhydrin	Continue with Ninhydrin, spraying all over the paper and to speed up the process, heat if with a hair dryer for approximately twenty (20) minutes. Giving a negative result, since there was no development.
PFJB28	Visual Examination	
	Alternate Light Source	
	DFO	20 MINUTES IN A 100 DEGREE CELSIUS TEMPERATURE CONTROLLED CHAMBER, NO HUMIDITY
	SILVER NITRATE	
PJLAF8	Ninhydrin	Paper was submerged in a glass jar with Ninhydrin Lot 22.3, the placed in the heat/humidity chamber for about 20 min. The ridge detail was labeled N1 in Section C on the paper and was digitally captured.
PKE4U3	Visual Examination	
	1,2-Indanedione	20 mins at 100C, ALS 505nm
	Ninhydrin	approx. 5 mins at 80C, 65% humidity
PUXH2L	Visual Examination	
	1,2-Indanedione	20 min w/ heat
	Ninhydrin	30 sec w/ heat and humidity on a heat press and left over night
PXHKTR	Visual Examination	
	DFO	
	Ninhydrin	Two applications
Q8KAXY	Visual Examination	
	1,2-Indanedione	Applied 11/15/22
	Alternate Light Source	Viewed using laser light source-green (viewed on 11/15/22-negative, viewed on 11/22/22-negative)
	Ninhydrin	Ninhydrin Pet Ether (Applied and viewed on 11/22/22-Negative; Viewed on 11/29/22-Detail observed)
QGXXEF	Ninhydrin	post ninhydrin treated with humidity

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
QQWR96	Visual Examination	I performed a visual examination with natural and oblique lighting.
	Ninhydrin	After performing a quality control, I applied non-running ninhydrin to the item using a squirt bottle. After soaking the item, I hung the item up in the fume hood to dry. I then placed the item into the Caron chamber at a set temperature of 80 degrees Celsius and 65% humidity. After approximately 10 minutes, I began to see ridge detail develop. I left the item in the chamber for approximately 15 minutes after noticing the ridge detail was not developing any further.
QR8NLW	Visual Examination	Used bright white light and oblique lighting.
	Alternate Light Source	Used three light sources; Dual 77 (445nm and 520nm) and 365nm (UV light).
	1,2-Indanedione	Processed item with 1,2-Indanedione and let the item completely dry. Item was placed in the 100 degree Celsius oven for approximately 20 minutes. Used bright white light and 520nm (laser) to examine the item.
	Ninhydrin	Processed item with Ninhydrin and let the item completely dry. Item was placed in the 76% relative humidity chamber for approximately 15 minutes. Used bright white light to examine the item.
	Physical Developer (PD)	Processed item with physical developer. Step 1; Item was placed in a maleic acid bath for 15 minutes and then Step 2;item was placed in a Redox Working solution for 15 minutes. Step 3;The item was placed in a distilled water rinse and then Step 4; rinsed with a second water rinse. Examined the item once it was completely dry using a bright white light and oblique lighting.
QVMB48	Visual Examination	WHITE LIGHT UV AND LASER
	1,2-Indanedione	
	Ninhydrin	
QYRRTY	Visual Examination	Visual exam using oblique lighting.
	Alternate Light Source	Exam using 520nm (Dual 77), 445nm (Dual 77), and 365nm UV.
	1,2-Indanedione	Placed in oven for 20 minutes, then performed visual exam and exam using 520nm (Dual 77).
	Ninhydrin	Placed in humidity chamber for 15 minutes, then performed visual exam. Visualized print.
	Physical Developer (PD)	Placed in maleic acid solution for 15 minutes. Placed in Physical Developer working solution for 15 minutes. Rinsed with water. Performed visual exam.
QZ73YJ	iodine crystals	Inside a sealed enveloped it was worked with its vaporew until it developed.
	Ninhydrin	Spray on the until it dries.
QZLKEA	Visual Examination	
	Alternate Light Source	ALS- 365nm 495nm CSS 445-510nm
	Laser	532nm
	Ind-ZnCl	20min at 70 C, 65%RH Observed at 445-510 nm
	Ninhydrin	20 min at 70C, 65% RH

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
R6WWBB	DFO	Dry heat 100 C for 15 minutes.
	Ninhydrin	Steam iron
RA788B	Ninhydrin	Solution applied onto item until coated. Allowed to air dry then humidity was applied using an iron.
RAAUKH	Visual Examination	No ridge detail observed
	1,2-Indanedione	Heat and moisture applied via steam iron; no visible development - requires further use of ALS to visualize any development
	Alternate Light Source	Single impression observed in section C: very faint and partial ridge detail - requires further use of LASER to better visualize ridge development
	LASER	Single impression observed in section C was visualized with more detail
RN2PLN	Visual Examination	White Light
	1,2-Indanedione	Humidity/LASER
RQAWQ2	Visual Examination	
	Alternate Light Source	
	DFO	temperature - 100 Celsius degrees. time - 10 minutes
	Ninhydrin	temperature - 80 Celsius degrees. humidity - 62 %. time - 10 minutes
RYGJXG	[No Methods Reported.]	Visual examination Ninhydrin spray
T8B6KU	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	
T8UQDK	Ninhydrin	Ninhydring was applied on evidence item and kept in dark for seven days
T9RA8Y	Visual Examination	
	DFO	20 minutes in chamber at 100C with no humidity. viewed with laser and ALS at 475 with orange goggles
	Ninhydrin	10 minutes in chamber at 80C with 70% humidity
TBT8PE	Cyanoacrylate Fuming	Vacuum fumed with cyanoacrylate ester in cyvac for 45 minutes
	Ninhydrin	Sprayed with Ninhydrin, placed in caron chamber T=80C, Humidity=70% for 15 minutes
	Visual Examination	Test print positive
TEUDYH	Ninhydrin	Object #1 (item 1) was treated spraying Ninhydrin (#A-2643), and later allowed to dry at room temperature, already for an hour; it did not developed the purple color, that indicates the presence of Amino Acids (Fingerprint)

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
TFZYDH	Visual Examination	Polychromatic light source (White, UV, Blue, Blue-Green, Green)
	1,2-Indanedione	(1,2-IND / ZnCl2) Processing time within climatic chamber (80°C ; 65% RH): Recovery time + 10 minutes.
	Ninhydrin	Processing time within climatic chamber (80°C ; 65% RH): Recovery time + 2.5 minutes.
TGL83E	Ninhydrin	treated exhibit with ninhydrin and let sit in exhaust hood fro 24 hours. followed with a heat treatment and thorough visual examination.
TJPYX8	1,2-Indanedione	Hot press treatment for 10 seconds, Temperature=165°C
TPQF8T	Visual Examination	Examined with white, blue and green light. No visable fingermark.
	1,2-Indanedione	Processing time 10 min, temperature 100 degrees. No visable fingermark.
	Ninhydrin	Processing time 2 min, 62% humidity, temperature 80 degrees. No visable fingermark.
	Physical Developer (PD)	Processing time 12 min. No visable fingermark.
TPVTUN	1,2-Indanedione	We dip Item1 (paper) in indanedione and then we put Item1 in Nincha M31 cabin - processing time was 15 min. Temperature was 75c and humidity was 65%.
TURD6Z	Visual Examination	used side lighting / oblique lighting
	1,2-Indanedione	Used IND followed by heat / humidity chamber NINcha S31 (100 degrees C for 5 minutes)
	Alternate Light Source	Laser (Bright Beam) exam at 532nm / used orange goggles
	Ninhydrin	Used NIN followed by heat / humidity chamber NINcha S31 (60 degrees C and 80% humidity for 20 minutes)
U9YZHM	Ninhydrin	The examination took place in the climacteric room: "NINcha" , whit the following conditions: temperature - 60 degree, humidity - 30%, time: 30 min, ninhidryne solution in acetone (5%).
UAWBEP	Visual Examination	Green light (500-550nm), filter 549nm. Blue light (430-470nm), filter 476nm. Visual examination
	1,2-Indanedione	10min in 100degrees.
	Ninhydrin	2min in 80degrees
UAYXXN	Visual Examination	Visual examination with white light
	1,2-Indanedione	Applied 1,2-Indanedione and allowed to dry. Exposed to heat for 45 second to 1 minute.
	Ninhydrin	Applied Ninhydrin and allowed to dry. 30 minutes in the humidifier and left over the weekend.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ULPQ3Q	Visual Examination	No friction ridge detail noted
	Alternate Light Source	No friction ridge detail noted
	DFO	25 minutes processing time. No visible friction ridge detail noted
	Visual Examination	No visible friction ridge detail noted
	Alternate Light Source	No visible friction ridge detail noted
	Ninhydrin	20 minutes processing and development time
	Visual Examination	Visible friction ridge detail noted
	Alternate Light Source	Visible friction ridge detail enhanced
UM2GG2	Visual Examination	A latent print was observed in box B, examined with green Crime lite and red filter. . Not suitable for determenation.
	Cyanoacrylate Fuming	No latent print observed.
	Powder Dusting	No latent print observed.
	1,2-Indanedione	A latent print was observed in box B, examined with green Crime lite and red filter. Not suitable for determenation.
	Ninhydrin	No latent print observed.
UNC7V8	Visual Examination	
	1,2-Indanedione	temp. 90 C, humidity 5%, time 15 min
	Ninhydrin	temp. 21 C, humidity 80%, time 30 min
UPU4FJ	Ninhydrin	The reagent was applied according to specifications, the sample was kept in a fume extractor for a period of 24 hours, and no fingerprint developed.
UW8BP9	Visual Examination	in natural light and light from forensic iluminator - no prints
	DFO	time 20 min., temp. 100°C - no prints
	Ninhydrin	time 20 min., temp. 70°C, Rh - 60% - a latent print was observed in section C
V2FULF	Ninhydrin	Lot #: 082522-01. Humidity: <65%. Temperature: 80 degrees C. Control Print: Positive. Processing Time: 3:00 minutes. Equipment Used: CARON
	Visual Examination	Slight purple coloration observed in section C, no ridge detail observed

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
V9EHYD	Visual Examination	Visual examination with white light source and with different light source examination: oblique light technique, spectroscopic technology, grazing light... No fingerprints detected
	Alternate Light Source	Examination with multi-spectrum forensic light: Poly-light ROFIN PL500R between the different light ranges from ultraviolet light to infrared light No fingerprints detected
	1,2-Indanedione	Application 1,2 Indanedione- Zinc Clhoride reagent procedure with oven (100°C) during 20 minutes.
	Alternate Light Source	Examination with multi-spectrum forensic light: Poly-light ROFIN PL500R between 490Nm- 550Nm Develop one latent fingerprint in section C.
	Ninhydrin	Application Ninhrydin- Petroleum ether reagent procedure with oven (80°C 65% humidity) during 20 minutes.
	Visual Examination	Visual examination with white light source: No fingerprints detected
	Physical Developer (PD)	Apllication Physical Developer reagent procedure: step 1, 15 minutes inside Maleic Acid solution + (step 2) 30 minutes Physical Developer solution + (step 3) rinse with tape water + (step 4) on 2 hours oven 40°C
	Visual Examination	Visual examination with white light source: No fingerprints detected
VF2FV2	Visual Examination	ambient and fluorescent; no ridge detail observed
	Alternate Light Source	Crime scope, full range with and without orange filter; no ridge detail observed
	1,2-Indanedione	Nincha chamber, 100 degrees C, no humidity, approximately 15 minutes
	Ninhydrin	Heat press, approximately 150 degrees C, approximately 4 10 second cycles
VF34A7	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500, barrier filters, optical instruments.
	1,2-Indanedione	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.
VVU2AF	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters). Wavelengths ranging from 350 nm to 650 nm is a standard procedure applicable in our laboratory.
	DFO	baked in the chamber DFO at approximately 100°C for 10 minutes; fluorescence examination in alternate light source (505 nm - 530 nm under orange barrier filter)
	Ninhydrin	in the chamber with a humidity 65% and temperature 50°C for 10 minutes; visual examination under white light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
WLNFVE	Visual Examination	Natural light used for visual examination. No friction ridge detail observed.
	Alternate Light Source	CrimeScope ALS utilized. No fluorescent friction detail observed.
	1,2-Indanedione	Newspaper processed with IND. Processing time was approximately 20mins in the heat/humidity chamber. No friction ridge detail was observed.
	Ninhydrin	Newspaper processed with NIN. Processing time was approximately 20mins in the heat/humidity chamber. Some friction ridge detail was observed in the "C" quadrant.
	VMD - Gold/Zinc	Newspaper processed with VMD using the Gold/Zinc two-metal process. No friction ridge detail was observed.
WMELC6	DFO	The newsprint paper was processed by 1, 8-Diazafluoren-9-one (DFO) and placed in an oven at 100 degree C for 20 minutes.
WPJC6D	1,2-Indanedione	Photografic fixation were made with and without metric rule; after that the item was exposed to iodine vapor.
	Ninhydrin	The item was exposed to ninhydrin spray.
WT9H3G	Visual Examination	
	FSIS UV Light	
	Ninhydrin	Petroleum Ether based followed by heat and steam.
WV9TQ4	Visual Examination	
	Alternate Light Source	365 m,. CSS, 495 nm, 535 nm, 555 nm, 575 nm, 532 nm green laser
	1,2 Indanedione- Zinc Chloride	visual, 532 nm green laser, 70 C, 65% relative humidity (RH) for a minimum of 20 minutes
	Ninhydrin	visual, 70 C, 65% RH for 20 minutes minimum
X38TPW	Visual Examination	Crimelite, LASER
	DFO	100 degrees Celsius for 20 minutes
	Ninhydrin	allowed 2 weeks for development
X4LZBD	Powder Dusting	Black magnetic powder
	DFO	Spray applied: 20 minutes @ 100 degrees Celsius, 0% humidity
	Ninhydrin	Spray applied: 3 minutes @ 80 degrees Celsius, 65% humidity
X82ERT	Visual Examination	Visual examination, Item was processed with DFO (20min in oven), viewed w/laser, photographed
	DFO	20 min in oven
	Visual Examination	viewed w/laser
X8KB7D	Powder Dusting	black magnetic powder with negative results
	DFO	double dipped and dried in drying hood and processed in DFO chamber @ 100'C for 20 min with negative results.
	Ninhydrin	dipped and dried in ninhydrin solution and processed in chamber @ 80'C for 3 min with 65% humidity with negative results.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
XA6C2Z	Visual Examination	Equipment: High intensity white light. No ridge detail observed.
	1,2-Indanedione	90 minutes/ 50 degrees C/ 60% Humidity. Control positive. Equipment: Humidity chamber and TracER laser. Faint ridge detail was initially observed but quickly faded upon observation.
	Ninhydrin	90 minutes/ 26.6 degrees C/ 80% Humidity. Equipment: Humidity Chamber. Control Positive. No ridge detail observed.
XEVXJL	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	temperature: 100 degrees Celsius, time: 10 minutes
	Ninhydrin	temperature: 80 degrees Celsius, humidity: 62%, time: 10 minutes
XFRC7E	Visual Examination	Examination in daylight and with forensic light sources with appropriate filters (light sources – POLILIGHT PL 500, PAGLAB MSA-810, VSC 400 Foster Freeman)
	DFO	Spraying item with DFO working solution, after drying – heating the item for 10 min in 95° C, viewing with forensic light sources in ~450-530 nm range + appropriate filters
	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 forensic light sources in white light and in ~350-530 nm range + appropriate filters, viewing again after few days
XG9AVX	Visual Examination	I performed a visual examination by looking at the item using natural lighting and oblique lighting at different angles to see if any ridge detail is present.
	Ninhydrin	Once I performed a quality control to ensure my chemical is working properly, I applied non-running Ninhydrin to the entire item using a squirt bottle and let the item completely dry. I turned on the Caron oven chamber and set the temperature to 80 degrees Fahrenheit and the humidity to 65% and waited till the proper temperature and humidity was met. I placed the item into the oven along with a control and waited approximately six minutes until purple ridge(s) developed and waited a few more minutes after that to ensure the developing process was completed. I turned the oven off and removed the item.
XMBJY6	Amino acid reagent	1,2-indanedione ZnCl w/humidity viewed w/ ALS Ninhydrin w/ humidity, viewed visually and w/ALS (365nm)
XWEMXM	Visual Examination	
	Forensic Light Sources	
	1,2-Indanedione	
	Physical Developer (PD)	
Y28ZKW	Ninhydrin	5 minutes Lot #071422-01
Y7MM39	Visual Examination	
	Ninhydrin	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
YBC4BT	Visual Examination	
	DFO	ALS at 535nm with red goggles
	Ninhydrin	ambient temp. development
YF7226	Iodine Crystals	
	Ninhydrin	
YKDNJM	Visual Examination	White, blue and green forensic lightsources. No fingermark was observed.
	1,2-Indanedione	Fragments in box C.
	Ninhydrin	Fragments in box C.
YLCQLX	Visual Examination	Item 1 was visually examined using direct and indirect light. No friction ridge detail was found.
	Ninhydrin	Item 1 was sprayed with Ninhydrin, placed into the controlled Caron Forensics fingerprint chamber for 20 minutes at 70% humidity and 70-degrees Celsius. No friction ridge detail was developed on item 1. The control for item 1 was positive for friction ridge detail. Item 1 was then sprayed with Ninhydrin a second time, placed into the controlled Caron Forensics fingerprint chamber for another 20 minutes at 70% humidity and 70-degrees Celsius. No friction ridge detail was developed on item 1. The original control for item 1 was also resprayed and showed positive results for friction ridge detail. A second new control was also used which also showed positive results for friction ridge detail.
	1,2-Indanedione	Item 1 was then sprayed with Indanedione and placed into the controlled Caron Forensics fingerprint chamber for 20 minutes at 70-degrees Celsius with no humidity. Item 1 was then examined using a laser light with orange filter. No friction ridge detail was developed on item 1. The original and second control for item 1 were sprayed with Indanedione and showed positive results for friction ridge detail. A new third control was used which was only sprayed with Indanedione and developed positive results for friction ridge detail.
YNZ3B3	Ninhydrin	3 min @ 80 degrees C, 65 % relative humidity
YQT3HE	Alternate Light Source	2.Iodine cristal Ampoules Ref. No. A211C. 3.Ninhyrin spray Ref. A2643. 4. Silver Nitrate Spray Ref. A2674. 5. Powder Magnetic Black 50 minutes processing time
YTCBC8	DFO	DFO Staining; image taken under laser
YUNYYT	Alternate Light Source	Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm)
	1,2-Indanedione	Sprayed with 1,2 Indanedione, kept in Oven for 20 mins to dry at 100C temperature, with 0% humidity. After 20 mins, Mark search was done by using 532nm light (green) with goggle (550nm), Mark found on Section C
	Ninhydrin	Sprayed with Ninhydrin, kept in Oven for 20 mins to dry at 80C temperature, with 65% humidity. After 20 mins, Mark search was done by using Naked eye and White light, no addtional mark found

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
YWGMMF	Visual Examination	Crime - lite MLD and ALS. No mark.
	Ninhydrin	Mark in sector C is visible. Mark is of poor quality. Pattern is probably whorl.
YY6YN7	Ninhydrin	The sample was immersed in a tray of solution and processed in a humidity chamber for 5min at 80 degrees Celsius and 65%RH.
	Physical Developer (PD)	The sample was submerged in maleic acid bath for 15min before transferring to PD working solution bath for 15min. Finally, it was rinsed off with water and allowed to dry.
Z28CLX	Visual Examination	w/ white light
	FSIS w/UV light	
	1,2-Indanedione	HFE with green laser to visualize
	Ninhydrin	HFE with white light to visualize
	Powder Dusting	black powder - with visual exam under white light.
Z9RFT2	DFO	heat in 100°C oven for 20 minutes
	Ninhydrin	
ZGB6XZ	Ninhydrin	
	Powder Dusting	
ZGVRKN	Visual Examination	
	1,2-Indanedione	applied 10/30/22
	Alternate Light Source	viewed green laser (532 nm) 10/30/22; 11/7/22
	Ninhydrin	applied 11/7/22, viewed 11/14/22
ZJ29Q7	Ninhydrin	A control test and test item were processed with ninhydrin at a distance of 8 inches away from the items. It was left for 24-hours at room temperature and humidity room conditions.
	Visual Examination	The items were visually examined.
ZKXJMA	LPPM R7	
	Cyanoacrylate Fuming	CA fumed for 45 minutes, 20 minute curing
	Ninhydrin	Ninhydrin spray; placed in humidity chamber at 80C for 15mins. Print viewed via visible light. Teset prints were positive.
ZLFFNA	Visual Examination	
	Alternate Light Source	
ZXMAUT	Visual Examination	No visible detail
	1,2-Indanedione	TracER Laser. 2 days. No visible detail
	Ninhydrin	3 days processing time (x2). CARON Humidity Chamber. Reapplication of Nin. Ridge detail developed

TABLE 2 - Item 1

WebCode	Development Methods	Method Details

Item 1 - Development Response Summary

Participants: 244

Methods Utilized

Alternate Light Source	85	Physical Developer	22
Cyanoacrylate Fuming	7	Powder Dusting	12
DFO	45	Visual Examination	182
Dye Stain	4	Wet Powder Suspension	0
Ninhydrin	207	1,2-Indanedione	82

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

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
27AWUM	Visual Examination	Visually looked at the item for any prints
	Alternate Light Source	Used 520nm Laser, 445nm Blue light, and 365nm UV
	Cyanoacrylate Fuming	Performed a visual examination and then used the RUVIS (254nm)
	Dye Stain	Used RMO on the item and used the 520nm Laser and 445nm blue light to visualize
2F243T	Visual Examination	11/1- ambient light
	Lumicyano fuming	11/1- Fluorescent CA fuming using F&F 3000 fuming chamber auto settings
	Alternate Light Source	11/1-Laser green wavelength- fluorescence diminished rapidly
	Rhodamine 6G	11/2- Methanol + R6G powder
	Alternate Light Source	11/2-Laser green wavelength
2J6WZX	Visual Examination	Visual examination with and without oblique lighting revealed a friction ridge impression in section B.
	Powder Dusting	Black magnetic powder was applied which enhanced the friction ridge impression in section B.
2JZKC2	Cyanoacrylate Fuming	Visual examination (000-495); photography; basic yellow; humidity 80,6%; temperature 130°c
2KE2F8	Visual Examination	11/04/2022 - Friction ridge detail was observed to be present in quadrant B.
	Cyanoacrylate Fuming	11/04/2022 - Fumed in a CA-6000 chamber for 7 minutes. Friction ridge detail was observed to be present in quadrant B.
	Dye Stain	11/04/2022 - Rhodamine 6G was applied to item 2.
	Alternate Light Source	11/07/2022 - Item 2 was examined using an ALS set to 495nm and an orange barrier filter. One (1) area of friction ridge detail was developed in quadrant B.
2M69WX	Powder Dusting	a visual examine was first initiated by applying black magnetic powder in which a latent print was developed in Section "B".
2PRQTP	Visual Examination	
	Cyanoacrylate Fuming	Cyanoacrylate Fuming- 20 minutes, atmospheric
	Visual Examination	
	Dye Stain	Dye Stain-Basic Yellow 40
	Laser	Laser
2U2Z6R	Visual Examination	
	Powder Dusting	Black poweder
2VVNMM	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
2YAG6F	Cyanoacrylate Fuming	Superglue fumed the plastic switch plate; latent observed in square B
	Powder Dusting	Magnetic powder used on the plastic switch plate; latent observed in square B
	Dye Stain	Ardrox used on plastic switch plate; latent observed in square B
34YEBH	Visual Examination	Visual inspection - Natural light and laser.
	Cyanoacrylate Fuming	Fumed for three minutes, with hot water, 70 percent humidity.
	Dye Stain	Applied RAM dye stain and viewed with ALS at 475nm and with laser at 445nm.
39C6NP	Visual Examination	Item 2 was visually examined with white light and magnification on 11/15/22. Ridge detail was observed in quadrant B.
	Cyanoacrylate Fuming	Item 2 was processed in the Misonix CA-3000 superglue fuming chamber on 11/15/22 with Lumicyano. Post processing visual exam with white light and magnification on 11/15/22. Ridge detail was observed in quadrant B. Post processing visual exam with the Foster+Freeman CrimeLite 82s blue/green (450-510nm) and orange glasses on 11/15/22. Suitable FRD was observed in quadrant B, but could not be photographed due to weak fluorescence.
	Powder Dusting	Black magnetic powder was applied to item 2 on 11/15/22. Ridge detail was observed in quadrant B.
	Dye Stain	Item 2 was treated with Rhodamine 6G aqueous base on 11/15/22. Post treatment visual exam with the Foster+Freeman CrimeLite 82s blue/green (450-510nm) and orange glasses on 11/15/22. Ridge detail was observed in quadrant B.
3DRRAG	Visual Examination	Did visual examination with white light.
	Cyanoacrylate Fuming	CAE in fuming chamber. Placed in chamber for 3 minutes
	Visual Examination	Did visual examination after CAE with white light.
	Dye Stain	Applied RAM Dye Stain to item, allowed to dry.
	Alternate Light Source	Viewed item with Fluorescent dye under ALS.
4KA74E	Visual Examination	First I did an visual examination of the piece of evidence to identify the possible fingerprint.
	Alternate Light Source	I used an alternate light source to have a better visibility of the piece of evidence and the possible fingerprint.
	Powder Dusting	I proceeded to use powder dusting in the evidence to identify the possible fingerprint. The fingerprint was located in the letter B.
4L3C47	Visual Examination	oblique lighting used
	Alternate Light Source	420-470 nm
	Cyanoacrylate Fuming	control: positive
	Powder Dusting	black powder used

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
4PKCMR	Visual Examination	Oblique light.
	Alternate Light Source	At 455-515 nm wavelengths.
	Cyanoacrylate Fuming	for 20 minutes.
	Powder Dusting	Black powder.
4PYYL9	Cyanoacrylate Fuming	visual examination under white light, in the evaporating humidity 70 % and temperature 20C for 3 hours
	Wet Powder Suspension	wet powder black under white light
4VKUMC	Cyanoacrylate Fuming	A control test of cyanoacrylate fuming compound was performed prior to process the sample with positive results. The item was processed for 20 minutes in a cyanoacrylate fuming chamber and then visualized using a 254nm UV lamp and filter.
	Visual Examination	The items were visually examined.
4WY6RW	Visual Examination	
	Cyanoacrylate Fuming	CA atmospheric chamber
	Ardox	Ardox dye stain
4ZK34T	Powder Dusting	Used black magnetic powder
4ZZ9L4	Visual Examination	Item photographed and documented as received. Item examined with oblique lighting. Area of touch observed in Section B.
	Powder Dusting	Item processed using mag powder. Latent print developed.
68C2XL	Cyanoacrylate Fuming	The visual inspection is carried out with the support of white light and a magnifying glass, element 2 is placed in a portable chamber applying cyanoacrylate vapors with a cyanoacrylate gun until the positive control is visible for 3 minutes, element 2 is applied black reagent of powdered latent print silk on surface of element revealing friction ridges in quadrant B

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
6FPZHP	Visual Examination	11/15/2022-visually examined switch plate divided into four sections
	Lumicyano	11/15/2022-placed switch plated and glass slide with known print (QC) into MVC 3000 chamber, mixed with fluorophore (5.5 heaping scoops) with liquid super glue (90 drops) into a foil pan and placed on heating port, added molecular grade water into water port to start the auto cycle (humidity cycle-15 mins, glue cycle 25 mins, purge cycle 20 mins) once the fuming processed ended, I visually examined the glass slide and switch plate under a green laser and observed ridge detail in section B. Upon setting up the camera, I observed that ridge detail was diminishing. Will move forward with further processing.
	Rhodamine 6G	11/15/2022-Under the fume hood, add 0.1g of Rhodamine 6G powder concentrate in a clean, dark vessel capable of holding 1000ml of liquid. Added 1000ml of methanol into a second vessel and slowly pour into the vessel holding the Rhodamine 6G powder while stirring the solution using a stir bar until powder is dissolved. Using the immersion method, the glass slide with known print QC that was used during the Lumicyano processing method was placed into the working solution for one minute then rinsed with methanol and allowed to air dry. Viewed QC under green wavelength laser to ensure positive result. Using the same immersion method, the switch plate was submerged into working solution, rinsed with methanol and allowed to air dry. Ridge detail improved.
6GJNZK	Visual Examination	white light
	Alternate Light Source	polylight. 440 - 520 nm. orange filter
	Visual Examination	RUVIS
6GPULN	Visual Examination	with TracER Laser & white CrimeLite
	Cyanoacrylate Fuming	Foster + Freeman MVC5000 auto process (~70 minutes)
	Dye Stain	Rhodamine 6G
	Powder Dusting	black powder
6UAFKN	Visual Examination	Examined the item in natural light
	Alternate Light Source	Examined the item under different lights (Alternative Light Sources including white light and observed for any inherent fluorescence)
	Cyanoacrylate Fuming	MVC 3000 Chamber- Chamber #1 (test print positive). Cyanoacrylate Lot # 202202520. Glue Time 11 minutes. RH 80%. Hot Plate Temperature 120 degrees C (248 F)
	Visual Examination	Examined the item in natural light
	Alternate Light Source	Examined the item under different lights (Alternative Light Sources including white light and observed for any inherent fluorescence)
	Dye Stain	Cyanoacrylate Dye Stain: MBD(7-(P-Methoxybenzlamino-4Notrobenz-2-Oxa-1,3-Diazile) (test print positive). Lot # 072722-01
	Alternate Light Source	Fluorescent light source used : blue in the wavelength of 420-470 nm (specifically labeled 445 nm). Along with a Yellow filter (labeled 476 nm)
	Powder Dusting	Use of Magnetic Powder Lot # 201504053-04 (test print positive)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
6WRNJN	Visual Examination	Visualized item with oblique lighting, detail was seen in Section B.
	Alternate Light Source	Visualized item using Coherent Tracer Laser. No detail was seen.
	Cyanoacrylate Fuming	Utilized a CA fuming chamber by placing the evidence in the ventilated fuming chamber and placed the appropriate amount of liquid CA in an aluminum dish (about a dime size). Also placed a control print inside. After processing, a latent print was located in section B.
	Dye Stain	Rhodamine 6G was then applied to the surface of the item and test print. The item was again viewed under the Coherent Tracer Laser, and the detail was visualized in section B and on the control print.
6YF49X	Visual Examination	white light
	Alternate Light Source	range of light sources used: UV, BLUE and GREEN
	Cyanoacrylate Fuming	120 C and 80% humidity, 15 minute glue cycle
	Dye Stain	Basic yellow, ethanol based
7648GR	Cyanoacrylate Fuming	Cyanocryloate vapor in a smokin chamber for 10 minutes, then black magnetic power was applied.
77GJR4	Visual Examination	*Please note that gloves were worn at all times throughout this processing. Item 2 was first removed from its packaging and visually examined. Slight ridge detail was observed in quadrant "B" at this time.
	Cyanoacrylate Fuming	*Please note that gloves were worn at all times throughout this processing. Because Item 2 was observed to be plastic during visual examination, cyanoacrylate fuming was selected to use. A Cyanoacrylate fuming chamber was cleaned prior to use with isopropyl alcohol. A clean sheet of butcher paper was placed at the bottom of the chamber. A positive control was created utilizing black, non-porous cardstock and was hung from a clip inside the chamber. Several drops of liquid superglue (Lot#XT28419, Exp: 5/2023) were placed into a small metallic container, which was placed on top of a small heating plate inside the chamber. Sufficient water levels were observed in the machine. Item 2 was placed into the fuming chamber. The chamber was then closed and a fuming cycle was started. The control and item 2 were fumed for ten minutes at a 70% humidity level. Once complete, the chamber then purged the fumes for an additional ten minutes. Positive results were observed on the control. Item 2 was visually examined and ridge detail was clearly observed in the "B" quadrant.
	Powder Dusting	*Please note that gloves were worn at all times throughout this processing. In order to attempt lifting the observed ridge detail, black powder was selected to apply to item 2. The item was placed on a clean sheet of butcher paper and black powder was applied to the surface using a fingerprint brush. Ridge detail became clearly visible in the "B" quadrant.
7ALAWX	Visual Examination	Cursory search of item using oblique lighting prior to processing.
	Cyanoacrylate Fuming	Item placed in superglue fuming chamber for approximately 20 minutes. Checked after 10 minute mark, then every few minutes until control standard (polymerization standard) developed.
	Powder Dusting	Item dusted with black latent print powder to further develop ridge detail.
7BRJ2N	Powder Dusting	Black powder and brush were used.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
7C6BRK	Visual Examination	I observed the plastic switch plate (item 2) under ambient light. No latent ridge detail was observed.
	Full Spectrum Imaging System	The plastic switch plate (item 2) was examined using the Full Spectrum Imaging System (FSIS) at 254 nanometers. I observed a latent of possible value in Quadrant "B". I photographed the latent using the FSIS camera.
	Cyanoacrylate Fuming	The plastic switch plate (item 2) was placed into a fuming chamber and fumed with heated cyanoacrylate (Superglue). I observed latent ridge detail in Quadrant "B".
	Full Spectrum Imaging System	The plastic switch plate (item 2) was examined using the Full Spectrum Imaging System (FSIS) at 365 nanometers. I observed a latent of possible value in Quadrant "B".
	Powder Dusting	I dusted the plastic switch plate (item 2) with black powder. I observed latent ridge detail in Quadrant "B".
7KTBYG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	RMO
7NFU6L	Cyanoacrylate Fuming	
7UPY88	Powder Dusting	Object #2 (Item 2) was treated with Black Graphite Powder (#BPPO9128), already for one minute; developing later, a fingerprint.
7W882Z	Cyanoacrylate Fuming	Cyvac w/ cyanoacrylate (#3027) for 1 hour with 20 minute purge.
	Dye Stain	Dye stained and viewed with forensic laser. Test print positive.
7ZWFMM	Visual Examination	Magnification and oblique lighting used.
	Cyanoacrylate Fuming	Fuming chamber used - 72% relative humidity with run time of 13 minutes and 7 minute purge time.
	Dye Stain	Control and item processed with RAY. Control processed first and found to be acceptable. Item sprayed with RAY, rinsed off and dried. Viewed using ALS - see ALS.
	Alternate Light Source	Control and item viewed using blue (445) and green (532) laser with orange filter.
82D9W3	Cyanoacrylate Fuming	photografic fixations were made with a metric rule, it is introduced into the cyanoacrilate chamber for a proximately 40 minutes
8CH9DG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
8ETYVX	Cyanoacrylate Fuming	Viewed item 2, the plastic switch plate, using oblique lighting-could see partial print in “B” under overhead light-less so with flashlight-processed item in fuming chamber using cyanoacrylate fumes on a seven minute cycle at 80% humidity-control included (positive results on control)-processed item using magnetic fingerprint powder-print developed on “B”
8JEBD8	Visual Examination	White light, RUVIS
	Lumicyano	17 minutes at 75% humidity, hot plate at 250 degrees Fahrenheit. White light, RUVIS, LASER
8TMFTH	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and ‘Tiablo’ High Power LED Flashlight at varying angles. Ridge detail was seen in section 'B'. This was exhibited and photographed.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 480nm-560nm with 571nm viewing filter followed by Blue Crime Lite 420nm-470nm with 476nm viewing filter and UV Crime Lite 350nm- 380nm with 408nm viewing filter. QA adhered to and control test pieces passed. No useful marks were developed and there were no further enhancements of previously developed marks.
	Cyanoacrylate Fuming	Item was treated with Cyanoacrylate Fuming. Foster & Freeman MVC5000 Cabinet, Relative Humidity 80%, Glue time 13 minutes & 3g of superglue used). Following treatment, examined using ‘Tiablo’ High Power LED Flashlight (white light) at varying angles. QA adhered to and control test piece passed. A further enhancement of the previously developed mark was exhibited and photographed.
	Dye Stain	Item was treated with ethanol-based BY40 dye used. BY40 dye applied and left for ~20 seconds. Rinsed with water and left to dry. Examined when dry using blue Crime Lite 420-470nm with 476nm viewing filter, following dark adaptation. QA adhered to and control test piece passed. A further enhancement of the previously developed mark was exhibited and photographed.
	Wet Powder Suspension	Item was treated with carbon-based powder suspension used. Pre-rinsed with water. Powder Suspension applied with soft squirrel hair brush and left for ~20 seconds. Powder Suspension rinsed off gently using running water and then allowed to dry. When dry, examined using ‘Tiablo’ High Power LED Flashlight (white light) at varying angles and magnifying eyeglass used where required. QA adhered to and control test piece passed. No useful marks were developed and there were no further enhancements of previously developed marks.
8WMV8L	Visual Examination	Visually examined the evidence, using natural light source
	Cyanoacrylate Fuming	Used cyanoacrylate fuming tanking, getting the tank up to 80% relative humidity, fuming for 30 minutes with cyanoacrylate and purging the tank for 30 minutes (CA220720)
	Dye Stain	used dye stain M-star on the latent print after cyanoacrylate fuming (MS221029), then used a crime scope to visually see the fluorescent latent print
	Powder Dusting	Dusted the latent print with latent fingerprint powder

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
8ZM72Z	Cyanoacrylate Fuming	Cyano at 70% humidity for 15mins
	Powder Dusting	Black powder
8ZQN46	Visual Examination	Photographs taken of item as is. Visual examination done of the item with and without oblique lighting. An impression was observed in Section B.
	Powder Dusting	Black fingerprint powder was used and the impression previously observed in Section B was developed further.
9JDLWG	Cyanoacrylate Fuming	20 minutes
	Dye Stain	BY40
9KRXQF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
9MCZHK	Powder Dusting	the item was brushed with black powder.
9ZLMMC	Visual Examination	5 minutes - Visual Examination with natural lighting
	Cyanoacrylate Fuming	20 minutes process in fuming chamber.
	Alternate Light Source	30 minutes utilizing white light on Foster Freeman DCS-5.
	Dye Stain	3 minutes application of R.A.M., 10 minutes dry time.
	Alternate Light Source	3 minutes - Foster Freeman Crime Lite 82S
	Powder Dusting	2 minutes - Used Single Use brush to apply black powder.
	Visual Examination	3 minutes - Visual Examination for results.
ABWJ3Y	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C +/- 5°, relative humidity 75% +/- 15%
	Dye Stain	R.A.M., 365 nm, yellow filter
AHL3EF	Visual Examination	white light, different angles
	Alternate Light Source	blue light 420-470 nm, filter 495nm green light 490-560 nm, filter 570nm
	Cyanoacrylate Fuming	119 degrees celsius 80% RH 5 minutes
	Dye Stain	BY40
AQBTX2	Visual Examination	The item was visually examined using a white light and ambient light in room. Fingerprint no visible.
	Powder Dusting	The item was processed with magnetic black powder technique. Fingerprint observed in section B.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
AV99QH	Visual Examination	CrimeLite and LASER
	Cyanoacrylate Fuming	70 min. cycle in Foster and Freeman MVC 5000 chamber
	Dye Stain	Rhodamine & LASER
	Powder Dusting	Black powder
B2M8MG	Visual Examination	Fingerprint was observed
	Cyanoacrylate Fuming	Humidity: 80%. Time: 15 minutes
	Powder Dusting	Non-mag Black powder
B3LHDH	Powder Dusting	Black powder applied with brush.
B4F7VD	Visual Examination	High intensity white light.
	Cyanoacrylate Fuming	Cyanoacrylate fuming chamber (12 minutes, 80% relative humidity).
	Alternate Light Source	Reflected Ultraviolet Imaging System (RUVIS).
	Dye Stain	Rhodamine 6G. Chemical lot: 22-1117AC.
	Alternate Light Source	TracER Laser.
BEAG82	Visual Examination	I completed the initial visual examination to determine best processing methods for the item. I considered this item to be non-porous. I photographed the item prior to any processing. I used white light at an oblique angle and saw faint ridge detail in section B
	Alternate Light Source	I used the Alternate Light Source to determine if any fluorescing can be seen on the object, prior to processing. I saw faint fluorescing in section B, and photographed it.
	Cyanoacrylate Fuming	I use a chemical called Lumicyano in our fuming chamber. It is a combination of Cyanoacrylate Esters and Rhodamine 6G (a dye stain). This combines two separate processing steps into one, to minimize processing time. Like Cyanoacrylate esters, Lumicyano does requires the standard 80% humidity and the Lumicyano crystal/solution to be warmed. The item was fumed for 10 minutes in our mid-size chamber.
	Alternate Light Source	The Rhodamine 6G is a dye stain the fluoresces. After fuming with the Lumicyano, I examined the item with an ALS to see if the dye stain has adhered to any ridge detail. I photographed the fluorescing ridge detail.
	Powder Dusting	I used regular black powder with a fiber optic fingerprint brush. The powder adhered to the ridge detail developed during fuming.
BFAKUP	Visual Examination	With white light, and alternative light source
	Dark field	Dark Field - Transmitted light through 2 way mirror
	Cyanoacrylate Fuming	fuming chamber
	Dye Stain	basic yellow 40

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
BJ8ZAY	Cyanoacrylate Fuming	120 degrees Celsius. 80% relative humidity. 10 minute humidity time. 12 minute glue time. LOT# 042621-05. Positive test print with latent print standard pad, LOT# LPSP200
	Powder Dusting	Magnetic powder LOT# 112719-01
	Visual Examination	Print observed in area labeled "B"
BLX76H	Visual Examination	crimelight, UV light, and 530nm
	Cyanoacrylate Fuming	70 minutes in superglue chamber
	Dye Stain	Rhodamine 6G
	Powder Dusting	Black powder
BX2UFY	Visual Examination	Use of Foster and Freeman white Crime Lite to examine treatment area. Faint ridge detail visualised within area 'B' of switch plate. Unable to photograph with white light due to lighting and camera unable to increase detail to a level where it could be captured. UV-R photography used with JENOPTIC 60mm Quartz Lens, Kenko 12mm extension tube on Nikon D800 camera connected to Foster and Freeman DCS5 imaging system. Mark visualised within area 'B' of switch plate. Further examinations taken place using UV, Blue Crime-Lite and Green Lazer, gave no further enhancement.
	Cyanoacrylate Fuming	Cna treatment of item using CNA cabinet 2 and (CNA/26). Item further photographed using DCS5 as above with UV-R, mark at section 'B' enhanced.
	Dye Stain	Item treated with Ethanol based BY40 stain. Consequently photographed using DCS5 set up for BY40 photography, mark at section 'B' enhanced further.
C2K2LD	Cyanoacrylate Fuming	Evidencia N°2: el tiempo de procesamiento en la cámara de ahumado de cianoacrilato fue de dos (2) horas, se utilizo tinte Amarillo Básico como complemento, el cual tuvo una duración de secado de tres (3) horas. [English translation of comments was not obtained by the time of report publication.]
C3FLLJ	Visual Examination	Visible print noted.
	Alternate Light Source	No further development of print.
	Cyanoacrylate Fuming	20 minutes in the Cyanosafe and the print further developed.
	Powder Dusting	Black powder was used to dust and the print further developed.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
C3HBQG	Visual Examination	Used oblique lighting from a Crimelite flashlight (white light), then used a Coherent TracER LASER with a KV550 lens filter to image any potential latent print. Also, incandescent lighting was used to avoid any hotspots when imaging. These methods were applied to the front and back of the plastic switch plate.
	Cyanoacrylate Fuming	The item was placed inside a Foster & Freeman MVC-5000 superglue chamber, used 3 grams of cyanobloom (superglue) in heating element, and set an autocycle program for 70 minutes. Using a Crimelite flashlight (white light), oblique lighting was applied to the front and back of the plastic switch plate.
	Dye Stain	Rhodamine 6G was applied on the front and back of the plastic switch plate. A Coherent TracER LASER and KV550 lens filter was used to image any potential latent prints. After staining with Rhodamine 6G, the entire plastic switch plate was rinsed with methanol for better clarity.
	Powder Dusting	Black powder was applied on the front and back of the plastic switch plate. Oblique lighting from a Crimelite flashlight and incandescent lighting was used to image any potential latent prints. One tape-lift was obtained from quadrant "B" and placed on a tape-lift card labeled "L1".
C7YNMX	Visual Examination	A visual inspection was performed, no fingerprint was identified.
	Alternate Light Source	A visual inspection was performed using alternating white and violet light, no fingerprint was identified.
	Powder Dusting	Black magnetic powder was used for fingerprint development, positive result for fingerprint.
C8VXHZ	Powder Dusting	Evidence object 2 was treated for one minute with Black Magnetic Powder, Ref.No. A-2412W, developing a fingerprint.
C949CH	Visual Examination	
	Alternate Light Source	FSIS
	Cyanoacrylate Fuming	Fumed in Air Science Chamber for 30 minutes with 30 min purge at 80% humidity
	Dye Stain	Mstar dye stain applied with squirt bottle. Not rinsed
	Powder Dusting	Traditional black powder applied with a fingerprint brush
CDY6VH	Visual Examination	visually observed
	Lumicyano fuming	8% solution of lumicyano solution and lumicyano powder used. Humidity cycle 80% RH 15 mins, Glue cycle-80% RH 120 degreed C 25 mins, Purge cycle-< 80% RH 20 mins
	Rhodamine 6G	Rhodamine 6G powder and methanol sprayed on item. Methanol used to wash excess stain, air dried
	Alternate Light Source	Bright beam laser green light 525nm wavelength

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
CHR4CY	Visual Examination	First I did a visual examination of the piece of evidence to locate the possible fingerprint.
	Alternate Light Source	Then I used an alternate light source to have a better visibility of the possible fingerprint.
	Powder Dusting	To develop the possible fingerprint I used powder dusting. The fingerprint was located in the letter B.
CL7XXX	Powder Dusting	(Fluorescent magnetic latent print powder) - Red Charge
CQZTY6	Visual Examination	Natural light, white light.
	Cyanoacrylate Fuming	The latent print was developed 25 minutes (80 % - humidity) on a plastic switch plate. The latent print was recovered in section "B".
	Powder Dusting	Later black magnetic powder was used to enhance contrast of the latent print. The latent print was recovered in section "B".
CRVFC9	Visual Examination	Forensic light (white, green, blue)
	Cyanoacrylate Fuming	
	Dye Stain	Basic yellow 40
CUY4V6	Visual Examination	White light.
	Cyanoacrylate Fuming	Cyanoacrylate fumming chamber "Air science safefume 48S". Cyano acrylate B-83000. Humidyti 80%, target temperature 85 degrees. Processing time 2 min. Room temperature 21,3 degrees
	Small particle reagent	SPR Black B-86000, BVDA. Item was spryed for 5-6 seconds.
CV2M7M	Visual Examination	Ambient lighting. Flashlight/oblique lighting
	Cyanoacrylate Fuming	71.5 degrees F / 68% relative humidity / run time approx 5 minutes. Exam post-CAE with ambient lighting and flashlight/oblique lighting
	Dye Stain	R6G dye stain. Exam post-R6G with green laser at approx 532nm with orange goggles
CVG46L	FSIS	viewed with FSIS under UV light
	Cyanoacrylate Fuming	fumed with superglue for about 1 hour (allowed to cure)
	Dye Stain	Saturated with RHO
CY3TMD	Visual Examination	Relative temperature of the processing room was 72.2 degrees Fahrenheit. Friction ridge detail was observed on the front of the white light switch cover in quadrant B.
	Cyanoacrylate Fuming	I superglue fumed (CA) this item in a Foster and Freeman MVC 3000 fuming chamber.
	Black Latent Fingerprint Powder	I conducted another visual examination and then further processed this item with the application of Black Latent Fingerprint Powder via a fiberglass brush. A developed latent fingerprint of value was seen in quadrant B. I then took photographs first before lifting. I then lifted the latent fingerprint of value and placed the lift onto a latent lift card.
D62PRV	Powder Dusting	black powder- one minute

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
D9FE6D	Visual Examination	White light
	Powder Dusting	Magnetic Jet Black
DRCRUE	Powder Dusting	Black Volcano latent print powder then black Magnetic powder.
E4MP4Z	Visual Examination	No Prints were observed.
	Cyanoacrylate Fuming	Left the item in a humid environment for 7 minutes. Fumed item for 7 minutes. Vented the environment.
	Powder Dusting	Dusted with magnetic powder.
EAC3AU	Visual Examination	Friction ridge detail observed in quadrant "B."
	Cyanoacrylate Fuming	Fumed for 6 minutes at 80% relative humidity. Friction ridge detail was still observed in quadrant "B."
	Powder Dusting	Used black magnetic powder and friction ridge detail was developed in quadrant "B." The friction ridge detail was photographed and then lifted.
	Dye Stain	Sprayed the item with Rhodamine 6G dye stain (Petroleum Ether base) and allowed it dry.
	Alternate Light Source	Visualized the item under 495nm of light. The same friction ridge detail in quadrant "B"was observed and was photographed.
EAWQMH	Visual Examination	Visual examination with non-destructive light examinations (UV, side lighting)
	Cyanoacrylate Fuming	Non-porous item followed by visual examination
	Dye Stain	Rhodamine 6G staining followed by visual examination - Print observed section B
	Alternate Light Source	Print observed section B
ECUDR7	Visual Examination	Visually examined evidence using oblique lighting
	Alternate Light Source	Examined evidence using 520nm laser, 445nm laser, and 365nm UV
	Cyanoacrylate Fuming	CA fumed evidence then examined both visually and with 254nm RUVIS
	Dye Stain	Applied RMO to evidence then examined utilized 520nm laser and 445nm laser
ER64P6	Visual Examination	Print visible in white light, somewhat visible in blue light with yellow glasses, not visible in green light with red glasses.
	Cyanoacrylate Fuming	Print visible after processing.
	Dye Stain	Basic Yellow 40. Print visible after processing.
EV9LFL	Visual Examination	
	Alternate Light Source	ALS: 365nm, 350-380nm, 445-510nm
	Laser	Laser: 532nm
	Cyanoacrylate Fuming	CA: 15 mins at 75-80%RH
	Ardrox	Ardrox ALS: 350-380nm

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
EW7WBP	Visual Examination	A visual examination was completed of this item in its entirety and a general description was notated on the Forensic Processing Worksheet.
	Lumicyano Fuming	This item was placed into a fuming chamber. A Lumicyano solution was utilized in the fuming chamber together with molecular grade water in order to move through the fuming processes of evaporation, saturation, absorption and polymerization. To go through the steps the fuming chamber entered three different cycles. The humidity cycle occurs first and is roughly 15 minutes long where the chamber attempts to reach roughly 80% humidity. The second cycle is the glue cycle which occurs for about 25 minutes at roughly 120 degrees Celsius. The third cycle is the purge cycle which occurs for about 20 minutes. This item was processed together with a QC. The QC showed the process worked correctly and ridge detail was observed on the item. However, with minimal time elapsed the ridge detail observed faded.
	Rhodamine 6G (R6G)	A solution of Rhodamine 6G was made with Rhodamine 6G powder and methanol. The Rhodamine 6G solution was applied to each quadrant the item was divided into with a brushing technique. Each quadrant was then brushed with a brush dipped into methanol to rinse the item off excess Rhodamine 6G without disturbing the ink on the item. The item was then observed with a laser utilizing a green wavelength and orange filters. This item was processed together with a QC and ridge detail was observed on the item.
FD2ZZ6	Visual Examination	
	Alternate Light Source	various wavelengths with appropriate filters
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G with ALS
FEHXM3	Visual Examination	No latent printed detailed observed through visual examination.
	Powder Dusting	Black magnetic powder was used. A fingerprint was visible in section B.
FJDRMP	Visual Examination	A visual inspection was performed to identify dactyl print impression.
	Alternate Light Source	An inspection with alternating white and vivid light was performed to identify a fingerprint impression.
	Powder Dusting	Fingerprint impression was developed using black magnetic powder, resulting positive for fingerprint impression.
FMGJVP	Powder Dusting	Magnetic powder used. One print developed / lifted. Placed on [Laboratory] #74 lift card
FPZJQC	Cyanoacrylate Fuming	processing time: 30 min dye stain: super glue, MBD reaction needs 75-80 percent humidity
FQWBLH	Cyanoacrylate Fuming	
	Powder Dusting	
FRNCLE	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Clean powder

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
FT2LWZ	Visual Examination	It begins with a visual inspection of the piece of evidence to locate papillary ridges.
	Alternate Light Source	Subsequently, a search is carried out with alternating light, locating a fingerprint fragment in quadrant B.
	Powder Dusting	Black graphite powder is used for the development of the fingerprint fragment, in quadrant B.
FY8D8J	Visual Examination	
	Alternate Light Source	Examined at 350nm and 515nm
	Cyanoacrylate Fuming	
G32X4E	Cyanoacrylate Fuming	Foster Freeman MVC 3000 Glue time 12 minutes Heat Plate 120 Degrees Celsius Humidity 80 Percent Cyanoacrylate Lot #202202520 Test Print Positive
	Powder Dusting	Black Magnetic Powder Lot #201504053-04 - Lift L02 Test Print Positive
	Powder Dusting	Standard Black Powder Lot #201804187 - Lift L03 Test Print Positive
G4Y9YG	Visual Examination	the same as in the case of Item 1.
	Cyanoacrylate Fuming	Incubation in the MVC3000 fuming cabinet, set to 120C and 80%RH. two passes, the first one five minutes of fuming (enough to develop control fingerprints on the plastic surface), but it resulted with only barely legible trace visible. Another pass was full cycle with 10 min. fuming, developed well visible fingerprint.
	Dye Stain	Ardrox (commercially available ready solution) after applying by spraying the excess rinsed with tap water. Observed afterwards in blue and cyan light, through orange filter
GA332P	Visual Examination	Visually examined the plastic tray for presence of friction ridge detail
	Cyanoacrylate Fuming	Tray was placed in the superglue chamber (set up: aluminum tray with superglue and distilled water). Visually examined the plastic tray for any white residue indicative of friction ridge detail
	Dye Stain	Plastic tray was subjected to the dye stain Rhodamine 6G and dye any possible friction ridge detail a yellow/pink color.
	Alternate Light Source	Using a laser at 532nm and orange filter goggles, visually examined the plastic tray for friction ridge detail
GEFTLY	Visual Examination	At 9:15am, begin a visual inspection of the piece of evidence by locating in section B a possible fingerprint fragment.
	Alternate Light Source	The corroborate the same result that the visual inspection, used an alternate light giving me location of a fingerprint fragment in section B.
	Powder Dusting	Use black graphite powder (Dual latent power), to develop fragment in section B of the evidence.
GKHWDH	Cyanoacrylate Fuming	Fumed in chamber.
	Dye Stain	Basic Yellow dye Stained.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
GNMMHD	Visual Examination	
	Cyanoacrylate Fuming	
	Magna brush with magnetic powder	
GPDKYR	R6G	Cyvac with cyanoacrylate (3027) and dyed stained with R6G (SV2022-R6GW-14)
GUTYYJ	Cyanoacrylate Fuming	
	Dye Stain	Basic Yellow 40
HBRRNP	CYVAC	Fumed in CYVAC; viewed with RUVIS & Obtained
	Dye Stain	Stained with Basic Yellow; viewed and obtained with forensic laser - blue light
HFFG6T	Visual Examination	White light, UV
	Cyanoacrylate Fuming	Lumicyano (CTS) Fuming cabinet MVC1000 (Foster+freeman)
HHCVN6	Visual Examination	Item viewed under white light, flashlight, CrimeScope ALS, and TracER laser
	Cyanoacrylate Fuming	Item was fumed in a Mystaire chamber for approximately 11 minutes at 80% humidity.
	Dye Stain	Item was stained with Rhodamine 6G and viewed under the TracER laser
HVW8C9	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
HXMJUE	Visual Examination	Visual Exam with high intensity white light. Light/Limited ridge detail observed; Insufficient for preservation.
	Cyanoacrylate Fuming	Cyanoacrylate Fuming (11 min, 80% Humidity, Control Positive). Ridge detail was observed and designated as 2.01 from quadrant B, the area was preserved through digital imaging.
	RUVIS	Visual Exam with RUVIS Imager, Control Positive. No additional visible ridge detail observed. Area 2.01 was re-photographed.
	Dye Stain	Rhodamine (R6G) with Laser (532nm, Control Positive, Orange Filter) No additional visible ridge detail observed. Area 2.01 was re-photographed.
J22CTK	Cyanoacrylate Fuming	1 HOUR
	RAM	VIEWED UNDER 520NM WITH ORANGE FILTER
J6UPYG	Cyanoacrylate Fuming	
	Powder Dusting	
J6YXCA	Powder Dusting	the item was brushed with commercial black powder and a print was developed in section B

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
J92T36	Visual Examination	The first step in processing is examine the item visually with the naked eye, then with oblique lighting.
	Alternate Light Source	The second step in processing is to examine the item with the forensic light source (FLS) to look for any inherent fluorescence.
	Cyanoacrylate Fuming	The item is the fumed in a chamber with superglue, for less than 5 minutes.
	Dye Stain	I chose to use Rhodamine 6G as my dye stain, and the item was visualized under the FLS. One print was observed in section B.
	Powder Dusting	Black powder was then applied to the item, and one latent lift was obtained from section B.
J9G6RW	Visual Examination	First we did visual check with light sources (UV, Blue, Blue/Green, Green, Violet). With UV-light we saw fingerprint in section B.
	Cyanoacrylate Fuming	We put sample to Foster&Freeman MVC 3000 cabin. 15 drop cyanoacrylate. 120 celsius, hum 80%, 15 min.
	Powder Dusting	We used magnetic powder.
JDTCT2	Visual Examination	Performed VIS utilizing oblique lighting.
	Alternate Light Source	Utilized 520nm LASER, 445nm blue light , 365nm UV, and 254nm.
	Cyanoacrylate Fuming	Performed VIS then utilized FSIS II and 254nm.
	Dye Stain	Applied RMO then utilized 520nm LASER and 445nm blue light.
JDVV4J	Visual Examination	White light
	Alternate Light Source	365nm, 445-510nm
	Cyanoacrylate Fuming	Fume time: 15 min. Humidity set point: 80%
	Dye Stain	Ardrox, 365nm
JJ3JJ7	Visual Examination	I was able to see ridge detail in Section B.
	Cyanoacrylate Fuming	A test print was placed in the Foster Freeman MVC 3000.
	Powder Dusting	I used black magnetic fingerprint powder to process the plate. One latent fingerprint of value, L-02, was found in section B.
JKXUQ3	Visual Examination	Performed visual examination with white light, alternate light source, laser.
	Cyanoacrylate Fuming	Placed the item in an airtight superglue chamber with a humidity of about 70-78 for 3 minutes.
	Visual Examination	Examined for superglued prints using alternate light source and UV.
	Dye Stain	Sprayed fluorescent dye stain (RAM - Rhodamine G6, Ardrox, MBD) and let it sit for about 10 minutes.
	Visual Examination	Performed visual examination of the developed latent print using alternate light source & laser.
JL69VM	Cyanoacrylate Fuming	
	Alternate Light Source	UV Light
	Dye Stain	UV Light with Laser, no improvement

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
JLN22Q	Powder Dusting	Item was processed in about five minutes using magnetic powder and a feather duster.
JNFXR7	Visual Examination	Item was examined under a magnifier with a light. No ridge detail was observed.
	Cyanoacrylate Fuming	I placed the item into a CA chamber along with a tin of CA on a warming plate and a container of hot water for humidity for approximately 10 minutes. No ridge detail was observed.
	Dye Stain	I applied MRM-10 dye stain on to the item. After drying, I examined the item using a FLS at 450nm with an orange filter. Ridge detail was observed and photographed.
	Dye Stain	I applied Basic Yellow dye stain on to the item. After drying, I examined the item using a FLS at 450nm with an orange filter. Ridge detail was observed and photographed.
JRUQAY	Cyanoacrylate Fuming	The plastic switch plate was placed in a cyanoacrylate vacuum chamber for two hours.
	Powder Dusting	Black Powder - the item was processed with black powder and a powder brush.
	Visual Examination	One latent print developed in quadrant B.
JTR49C	Alternate Light Source	455-515nm
	Cyanoacrylate Fuming	vacuum fumed ~1 hour
	Powder Dusting	black powder
JW8F6T	Alternate Light Source	White Light: The sample was inspected using a white light spectrum; it was illuminated obliquely in order to be able to appreciate any presence of a papillary ridge; there is a presence of papillary ridges in area b. UV light: The sample was inspected using a 395nm UV light spectrum; it was illuminated obliquely using safety glasses, in order to appreciate any presence of a papillary ridge; there is a presence of papillary ridges in area b.
	Powder Dusting	I proceeded to work on the plastic plate using the Black Magnetic Graphite Powder, it is deposited in area B of the sample, making the papillary ridges visible in this area. The rest of the plastic plate was worked on and there was no more presence of papillary ridges in the sample.
JW8HN7	Visual Examination	White light and FSIS
	Cyanoacrylate Fuming	
	Visual Examination	With FSIS
JYRL8W	Visual Examination	White light
	Cyanoacrylate Fuming	Used fuming chamber for approx. 20 minutes. White light.
	Powder Dusting	Bi-chromatic powder. White light.
	Dye Stain	Rhodamine 6G with LASER
K22RLB	Powder Dusting	Black powder

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WebCode	Development Methods	Method Details
K2WDXP	Cyanoacrylate Fuming	climate chamber: 80% humidity, 130 degree Celsius
	Powder Dusting	
K3BYHC	Visual Examination	Did a visual examination of the switch plate and ridge detail was observed in quadrant B.
	Alternate Light Source	Viewed the item with an alternate light source using several wavelengths but the ridge detail did not fluoresce.
	Cyanoacrylate Fuming	Fumed the item with cyanoacrylate. The chamber was set at 75% humidity and was run for 15 minutes. No further development of the ridge detail was observed. The latent print standard in the chamber performed as expected.
	Powder Dusting	Magnetic powder was applied to the switch plate since cyanoacrylate fuming did not further develop the ridge detail. The magnetic powder was tested before applying it to the evidence and it performed as expected.
K7B64A	Visual Examination	Visual examination with Crimelite and TracER Laser. Two photographs of latent print area using Crimelite.
	Cyanoacrylate Fuming	Item incubated in F+F MVC-5000 autocycle for ~70 minutes. Item examined using Crimelite. One photograph of latent print area using Crimelite.
	Dye Stain	Rhodamine 6G dye stain. One photograph of latent print area using TracER Laser and curved filter.
	Powder Dusting	Black power dust used. Examined with Crimelite and Incandescent lighting. One photograph of latent print area using Crimelite.
KAU4DX	Powder Dusting	Evidence objet 2 was treated for one minute with black magnetic powder, ref. No A2412W. developing a fingerprint.
KDUF9X	Powder Dusting	Item #2 was treated for one minute with black powder, developing a fingerprint.
KHLR29	Visual Examination	The item was examined with a white light source held at an oblique angle
	Alternate Light Source	The item was examined with a Alternate Light Source set at 450nm
	Powder Dusting	The plastic Switch Plate was processed with a black fingerprint powder.
KHP6TB	Visual Examination	Viewed under magnifier and white light
	Cyanoacrylate Fuming	Placed into superglue chamber with boiling water, glue in tin tray on heat plate, and a control on plastic. Allowed item to fume for approximately 15 minutes.
	Powder Dusting	After viewing item, used regular black powder to dust item after superglue fuming
KJEFQV	Visual Examination	visual examination of plastic switch plate
	Powder Dusting	applied magnetic powder

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WebCode	Development Methods	Method Details
KMGDXH	Visual Examination	11/30/2022: visual examination under ambient light
	Lumicyano fuming	11/30/2022: Fumed in a Foster + Freeman MVC 3000 with reagent of 5.5 scoops of the Lumicyano powder mixed with 90 drops of the Lumicyano solution. Humidity cycle of 15 minutes with relative humidity increasing to 80%, followed by fuming cycle of 25 minutes with a relative humidity of 80%, followed by 20 minutes of a purge cycle. QC run with item, positive.
	Alternate Light Source	11/30/2022: Ridge detail observed in section B under a laser light source (green/532nm), however ridge detail quickly faded away (5-10 seconds). QC positive under laser.
	Rhodamine 6G	12/1/2022: Prepared a solution of 0.01g of Rhodamine 6G powder with 100 mL of methanol. QC positive under laser light source (green/532nm). Applied (painted) prepared solution onto section B of item.
	Alternate Light Source	12/1/2022: Ridge detail observed in section B of item under laser light source (green beam/532nm).
L8JLTT	Visual Examination	Coaxial light (DCS 5, VSC 8000)
	Cyanoacrylate Fuming	MVC 1000 (RH 80%, superglue evaporation temp. 120oC, evaporation time 10min).
	Dye Stain	Basic yellow 40. The object was sprayed with yellow basic then rinsed with water). DCS 5 (Crime light 4x8, wave length 440nm, filter 490nm).
LBKPLF	Cyanoacrylate Fuming	Exhibit was processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour, allowed to cure.
	Dye Stain	Exhibit was dye stained with Rhodamine 6G (R6G)
	Alternate Light Source	Exhibit was viewed using a 530nm/green forensic laser.
LCRZGJ	Powder Dusting	Standard Black Powder was used w/ Fiber Glass Brush for Latent Print Processing on Plastic Switch Plate. One latent lift card collected for section B.
LCTWUA	Visual Examination	visually examined utilizing flashlight
	Cyanoacrylate Fuming	CA fuming utilizing superglue chamber
	Dye Stain	fluorescent-stained with R6G
	Alternate Light Source	visualized utilizing TRACER LASER
LGZGH7	Powder Dusting	The photographic fixation of the sealed evidence was carried out and at the moment of opening it. First it was observed to see according to the type of surface and to establish the type of reagent that would be used. Once this was determined, a physical black reagent was used that contrasts with the color of the surface, revealing a lofoscopic fragment. Processing was done in approx. an hour, an hour and a half.
LH32WV	Powder Dusting	Cyanoacrylate Ester fuming - 15min Black powder with feather brush
LP48F4	Cyanoacrylate Fuming	Optical examination was conducted. Then item was placed in the tank for Cyanoacrylate Fuming

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WebCode	Development Methods	Method Details
LTY4Y4	Visual Examination	white light
	Alternate Light Source	polylight. 440 - 520nm. orange filter
	Cyanoacrylate Fuming	80RH%. 10 min process
	Visual Examination	RUVIS
LUNPE8	Visual Examination	Visual examination with lights (390 - 535 nm) and photography+ photoshop. Light fingerprint was found in section B.
	Cyanoacrylate Fuming	Foster+Freeman MVC 3000, moisture 80%, 120C degrees and gluetime 15 min. Print got much better and could be seen specially with Crime-lite 82S BLUE 420-470nm. Photography+ photoshop.
	Powder Dusting	Magnetic powder for improving fingerprint. Photography+ photoshop.
M2ALEG	Cyanoacrylate Fuming	Approximately 15 minutes
	Powder Dusting	Black magnetic powder
MC9KJ8	Visual Examination	White light, Laser 532 nm, Laser 577 nm, FLS
	Cyanoacrylate Fuming	Luminescent cyanoacrylate CST (Fumigation chamber MVC 3000 FOSTER+FREEMAN - Automatic Mode)
	Alternate Light Source	LABINO Superxenon 325 nm + Yellow filter
	Dye Stain	Basic Yellow 40
	Alternate Light Source	Crimelite 8x4 - FOSTER + FREEMAN (445nm) and Yellow Filter
MDEZZL	LPPM R7	Visual inspection, imaged with RUVIS, fumed 15 min in safe fume then photod again.
METJL6	Powder Dusting	At first Visual Examination and after that Carbon Powder.
	Visual Examination	
MJQU84	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G, ALS515nm/orange
MK2PVG	Powder Dusting	Processed item with magnetic black powder and magnetic wand.
MK6B9P	Visual Examination	
	Lumicyano	Visual examination of glue development. Laser examination of fluorescent glue development with a laser at 532nm with orange barrier.

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WebCode	Development Methods	Method Details
MMPC3B	Visual Examination	1) Observation with the nake eye on the switch interrupteur surface, under different inclinations.We observe somes rigdes in case "B".
	Visual Examination	2) We illuminate the support with the Crimescope MCS-400 at different frequencies with the appropriate colored glasses and at different inclinations. We dont observe trace.
	Cyanoacrylate Fuming	3) In view of non porous support, we place the switch interrupteur in the fumigation tank. Autocyle for 2g of solution of Lumicyano 8% during 1 hour. A contrôle trace is placed in the tank.
	Visual Examination	4) We observe with naked eye a white deposit of Lumicyano on the switch interrupteurl in case "B". We don't observe other traces elsewhere on the object.
	Alternate Light Source	5) We illuminate the object using the Crimescope MCS-400 at different wavelengths and wearing glasses of appropriate colors. The fingerprint in the "B" box is even more visibly illuminated in CSS luminescent manner. We do not observe other papillary traces elsewhere on the object.
MQNJQU	Visual Examination	The piece of evidence is photographed as it was received and after removing it from the evidence envelope. I begin a visual inspection of the piece of evidence by locating in section B a possible fingerprint fragment. I started the process at 8:22 a.m.
	Alternate Light Source	To corroborate the same result that the visual inspection gave me, I used an alternate light giving me the location of a fingerprint fragment in section B.
	Powder Dusting	I use black graphite powder to develop the fingerprint fragment in section B of the evidence.
MTFDUP	Visual Examination	natural light; flashlight
	Cyanoacrylate Fuming	60 % humidity. ~120 degrees Celsius. 15 minutes fuming
	Dye Stain	R6G diH2O based laser examination: 532 nm w/ orange barrier filter
MWZENC	Visual Examination	Visual (White and LASER), Atmospheric CA chamber for 20 minutes, then dye stained with R6G, viewed under LASER and photographed
	Cyanoacrylate Fuming	in chamber for 20 minutes
	Dye Stain	R6G
	Visual Examination	viewed under LASER
N7D3UU	Visual Examination	One photograph of a visible latent print on item no. 2, box B.
	Cyanoacrylate Fuming	Superglue fumed for 3 minutes.
	Dye Stain	Applied dye stain (RAM), allowed to dry.
N9MW2F	Visual Examination	Examination of the photograph using different lights and observation filters. Coaxial front illumination: Fingerprint was detected in section B
	Cyanoacrylate Fuming	15 min of cyanoacrylaste fuming / humidity 80% The quality of the fingerprint did not encance after cyanoacrylate fuming.

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WebCode	Development Methods	Method Details
NDFA9X	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	RhoMeOH
NPC3DF	Visual Examination	Ambient lighting and magnifier lamp.
	Alternate Light Source	CRIMESCOPE CS-16-500: 350 nm with clear goggles – 415, 445 nm with yellow goggles – 445, 455, 475, CSS, 495, 515 nm with orange goggles – 515, 535, 555, 575 nm with red goggles.
	Cyanoacrylate Fuming	Cyanoacrylate fuming was performed in a CA-6000 at 65% relative humidity for 10 minutes. Removed to prevent overprocessing.
	Visual Examination	Ambient lighting and magnifier lamp.
	Dye Stain	RAM was applied using the squeeze bottle method; allowed to dry for a few minutes in the fume hood.
	Alternate Light Source	CRIMESCOPE CS-16-500: CSS with orange goggles.
NQAD9J	Powder Dusting	The item was first visually looked at. One latent print was visually observed in section "B". The sample was processed with black powder using a fiberglass brush. The latent print developed immediately after application.
NQMZB6	Alternate Light Source	
	Visual Examination	
	Powder Dusting	
NVHXQN	Magnetic powder	I use magnetic powder with a magnetic brush, the fingerprint was visible clearly in section B.
NWMGLB	Cyanoacrylate Fuming	
	Dye Stain	BY40
NYRC3T	Visual Examination	Latent print visible in section B.
	Cyanoacrylate Fuming	Fumed in CY-AT chamber for 15 minutes and allowed to rest for 30 minutes before processing.
	Powder Dusting	Black magnetic powder
P94RLE	Powder Dusting	Dusted plastic switch plate with black powder. Latent print developed in section B
PAFAYT	Visual Examination	The piece of evidence is photographed as it was received and after removing it from the evidence envelope. I begin a visual inspection of the piece of evidence by locating in section B a possible fingerprint fragment. I started the process at 9:50 am.
	Alternate Light Source	To corroborate the same result that the visual inspection gave me, I used an alternate light giving me the location of fingerprint fragment section B.
	Powder Dusting	I use black graphite powder to develop the fingerprint fragment in section B of the evidence.

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WebCode	Development Methods	Method Details
PFJB28	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	BLACK MAGNETIC FINGERPRINT POWDER
	Dye Stain	MRM10
	Dye Stain	RED DROX
PJLAF8	Powder Dusting	I used black mag powder Valid to the white plastic switch plate. One area of ridge detail labeled MP1 was lifted from Section B on the front of the switch plate. I then used BP Valid to the switch plate with no enhancement.
PKE4U3	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Basic Yellow, ALS 415nm
PUXH2L	Visual Examination	
	Powder Dusting	
PXHKTR	Visual Examination	
	Cyanoacrylate Fuming	Visual exam with white light and Reflected UV Light
	Powder Dusting	Black Magnetic Powder
Q8KAXY	Visual Examination	
	Cyanoacrylate Fuming	approx 12 mins
	Dye Stain	Rhoadmine 6G Aqueous
	Alternate Light Source	Laser Light Source - Green-Detail observed
QGXXEF	Powder Dusting	Black powder
QQWR96	Visual Examination	I performed a visual examination with natural and oblique lighting.
	Cyanoacrylate Fuming	I placed the item in a chamber. I added cyanoacrylate glue into an aluminum dish, which I then placed on the hot plate in the chamber. I also added a beaker of boiling water to the chamber to provide humidity. I turned the chamber on to heat the cyanoacrylate glue into a vapor. I left the item in the chamber for approximately 15 minutes. Once I saw my positive control turn white from the cyanoacrylate fumes, I turned off the hot plate and opened the vent to the chamber. I waited another 5 minutes, then I removed my item from the chamber.
	Powder Dusting	I applied black magnetic powder to the item using a magnetic wand. After taking a few passes over the item, ridge detail began to develop.

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WebCode	Development Methods	Method Details
QR8NLW	Visual Examination	Used bright white light and oblique lighting.
	Alternate Light Source	Used four light sources; Dual 77 (445nm and 520nm), FSIS (254nm) and 365nm (UV light).
	Cyanoacrylate Fuming	Placed item in a superglue chamber and then examined the item using oblique lighting, bright white light and FSIS (254nm)
	Dye Stain	Processed item with RMO, let the item completely dry and used two light sources; Dual 77 (445nm and 520nm)
QVMB48	Visual Examination	WHITE LIGHT,UV LASER
QYRRTY	Visual Examination	Visual exam using oblique lighting. Visualized print.
	Alternate Light Source	Exam using 520nm (Dual 77), 445nm (Dual 77), and 365nm UV.
	Cyanoacrylate Fuming	Visual exam, then exam with RUVIS and 254nm UV.
	Dye Stain	Applied RMO, then performed exam with 520nm (Dual 77) and 445nm (Dual 77).
QZ73YJ	Powder Dusting	work for approximately one minute until the print is seen. I work with Black Magnetic Powder.
QZLKEA	Visual Examination	
	Alternate Light Source	ALS:365nm 495nm CSS 445-510nm
	Cyanoacrylate Fuming	CA: 20 minute fume time at 80% humidity
	Dye Stain	Dye: MBD observed at 445-510 nm
R6WWBB	FSIS	none required
RA788B	Cyanoacrylate Fuming	Placed item into an enclosed chamber. Added humidity source to the cyanoacrylate and fumes at least 10 minutes.
	Powder Dusting	Magnetic powder was applied in a light, twisting motion until print developed
RAAUKH	Visual Examination	Single faint impression was observed in section B; requires further processing to visualize any other development
	RUVIS	Single impression observed in section B; due to the slight texture of the item, continued with CA processing to enhance ridge detail
	Cyanoacrylate Fuming	Single impression developed in section B; due to the slight texture of the item and the white CA developed impression on the white background, continued with RUVIS examination
	RUVIS	Single impression observed in section B; due to the slight texture of the item, continued with dye stain processing
	Dye Stain	Rhodamine 6G applied on the item; requires further use of ALS to visualize any development
	Alternate Light Source	Single impression observed in section B was visualized with more detail

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
RN2PLN	Visual Examination	White Light
	Cyanoacrylate Fuming	White Light/RUVIS
	Dye Stain	RAM/Laser
RQAWQ2	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Humidity - 80%. Temperature of the heating plate - 100 Celsius degree. Time - 45 minutes
	Ardrox	
RYGJXG	[No Methods Reported.]	Visual examination Magnetic black powder
T8B6KU	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
T8UQDK	Cyanoacrylate Fuming	Cyanoacrylate was heated for 15 minutes in fish tank and evidence item was placed for furhter 2 hours in fish tank.
	Dye Stain	Rhodamine 6G solution was used after cyanoacrylate fuming for enhancement.
T9RA8Y	Visual Examination	
	Powder Dusting	black magnetic powder
TBT8PE	Cyanoacrylate Fuming	vacuum fumed with cyanoacrylate ester in cyvac for 45 min. cured for 30 min.
	Dye Stain	Sprayed with Rhodamine fluorescent dye
	Alternate Light Source	Viewed with Laser
TEUDYH	Powder Dusting	Object #2 (item 2) was treated with Black Graphite Powder (#BPPO9128) already for one minute, developing later a fingerprint.
TFZYDH	Visual Examination	Polychromatic light source (White, UV, Blue, Blue-Green, Green)
	Cyanoacrylate Fuming	Fuming time: 10 minutes. Superglue: 1g Lumicyano Solution + 4% Lumicyano Powder
	Dye Stain	Rhodamine 6G
TGL83E	Cyanoacrylate Fuming	entered exhibit into superglue tank for 20 minutes at 78 percent humidity.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
TJPYX8	Visual Examination	Direct and oblique white light
	Cyanoacrylate Fuming	Relative humidity:80% ; Temperature: 118-123 °C ; Cyano glue quantity : 0.82 g; Exposure time : 15 min
	Dye Stain	Basic Yellow 40 and Basic Red 28: Both dyes were absorbed by the substrate and the de-staining with water did not work. The dyes were not applied to the surface containing the fingermark
	Powder Dusting	Black powder
TPQF8T	Visual Examination	Examined with white, blue and green light. Fingermark visable with white light.
	Cyanoacrylate Fuming	Processing time 6.5 min, 2.0 gram cyanoacrylate. 80% humidity. Fingermark visable.
	Dye Stain	Basic yellow 40. Fingermark recovered.
TPVTUN	Visual Examination	We watch with Crime-Light 82S Uv nm365. Little of fingerprint was seen in square B..
	Polycyano	We put Item2 in Foster-Freeman MVC3000 and used Polycyano glue. Processing time was 20 min and temperature 230.
TURD6Z	Visual Examination	used side lighting / oblique lighting
	Cyanoacrylate Fuming	Air science cyanoacrylate fuming chamber #1, 15 minutes at 73 degrees F and 80% humidity
	Dye Stain	Sprayed with Rhodamine 6G (methanol base)
	Alternate Light Source	Laser (Bright Beam) exam at 532nm / used orange goggles
U9YZHM	Alternate Light Source	Examination took place at the FSIS facility, conditions: UV Lens 78 mm F/3.8, aperture ISO 16, UV light
	Physical Developer (PD)	A magnetic dactyloscopic powder were applied: "CRP, magnetic silver/black"
UAWBEP	Cyanoacrylate Fuming	10 min
	Dye Stain	Basic Yellow 40
UAYXXN	Visual Examination	Visual examination with white light.
	Cyanoacrylate Fuming	Placed in fuming chamber with super glue for 3 minutes at 60% humidity.
	Dye Stain	Applied RAM dye stain and allowed to dry.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
ULPQ3Q	Visual Examination	No visible friction ridge detail noted
	Alternate Light Source	No visible friction ridge detail noted
	Cyanoacrylate Fuming	20 minutes processing time (test strip used) to include extraction of fumes
	Visual Examination	Visible friction ridge detail noted
	Alternate Light Source	Visible friction ridge detail noted
	Dye Stain	Rhodamine 6G, 10 minutes processing time
	Visual Examination	Friction Ridge detail enhanced
	Alternate Light Source	Friction Ridge detail enhanced
	Powder Dusting	Black dusting powder used to further enhance friction ridge detail
	Visual Examination	Friction ridge detail further enhanced
UM2GG2	Visual Examination	No latent print observed.
	Cyanoacrylate Fuming	Latent print observed i box B.
	Powder Dusting	Latent print observed i box B.
	Dye Stain	Basic Yellow 40. Same print as previous (box B).
UNC7V8	Visual Examination	light white
	Cyanoacrylate Fuming	temp. 21 C, humidity 80%, time 15 min
	Dye Stain	light 350-505nm
UPU4FJ	Powder Dusting	Graphite powder was applied to detect the latent print, the same was worked to clean and then to be able to photograph.
UW8BP9	Visual Examination	in natural light and light from forensic iluminator - a latent print was observed in section B
	Cyanoacrylate Fuming	time 15 min, RH - 80% - discovered fingerprint was improved
	Dye Stain	Basic Yellow 40 - to achive even better contrast - positive result (450 nm with the filter OG550)
V2FULF	Cyanoacrylate Fuming	Lot #: 042621-05. Humidity: 80%. Temperature: 120 degrees C. Control Print: Positive. Processing Time: Auto. Humidify 17:00 minutes, Auto Glue 13:minutes. Equipment Used: MVC 3000
	Visual Examination	Ridge detail observed in section B.
	Powder Dusting	Bichromatic powder lot #: 111219

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
V9EHYD	Visual Examination	Visual examination with white light source and with different light source examination: oblique light technique, spectroscopic technology, grazing light... One fingerprint detected in sector B
	Alternate Light Source	Examination with multi-spectrum forensic light: Poly-light ROFIN PL500R between the different light ranges from ultraviolet light to infrared light. One fingerprint detected in sector B (the same).
	Cyanoacrylate Fuming	Application of cyanoacrylate reagent with cyanoacrylate fuming cabinet. The values of the hood have been: 70%-80% humidity and plate temperature up to 140°C.
	Visual Examination	Visual examination with white light source and with different light source examination: oblique light technique, spectroscopic technology, grazing light... One fingerprint detected in sector B (the same)
	Dye Stain	Application ARDROX Dye with spray and after rinse with tap water.
	Visual Examination	Visual examination with UV light (350Nm). Visualization one latent fingerprint in section B (the same). One fingerprint detected in sector B (the same)
VF2FV2	Visual Examination	ambient and fluorescent; no ridge detail observed
	Alternate Light Source	Crime scope, full range with and without orange filter; no ridge detail observed
	Cyanoacrylate Fuming	Mystaire fuming chamber, 80% humidity, 11 minutes; no ridge detail observed
	Powder Dusting	Magnetic powder, ridge detail observed
	Dye Stain	Rhodamine 6G, Crime scope, 515 nm, orange filter; no additional detail observed
VF34A7	Visual Examination	Natural light, white light, optical instruments.
	Cyanoacrylate Fuming	Processing time: 10 min, humidity: 80%
	Visual Examination	White light /angle light, optical instruments.
	Wet Powder Suspension	Wet-powder white suspension.
	Visual Examination	White light /angle light, optical instruments.
VVU2AF	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters). Wavelengths ranging from 350 nm to 650 nm is a standard procedure applicable in our laboratory.
	Cyanoacrylate Fuming	in the fuming chamber with a humidity 80% for 10 minutes; visual examination under white light and fluorescence examination in alternate light source (350 nm - 650 nm under appropriate color barrier filters)
	Basic Yellow 40	fluorescence examination in alternate light source (350 nm - 505 nm under yellow or orange color barrier filters)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
WLNFVE	Visual Examination	Natural light used for visual examination. Some ridge detail observed in the "B" quadrant.
	Alternate Light Source	CrimeScope ALS utilized. No fluorescent friction detail observed.
	Cyanoacrylate Fuming	Light switch plate was processed with CA for approximately 15mins with 12min purge time. Friction ridge detail was observed in the "B" quadrant.
	Dye Stain	Rhodamine 6G was applied. Friction ridge detail was observed in the "B" quadrant under 515nm light.
	Powder Dusting	Black magnetic powder utilized. No additional detail developed.
WMELC6	Cyanoacrylate Fuming	Processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour, allowed to cure then dye stained with R6G
WPJC6D	Cyanoacrylate Fuming	Photografic fixation were made with and without metric rule; after this the item was introduced into the cyanoacrylate chamber for aproximately 30min.
	Powder Dusting	We applied black fingerprint powder.
WT9H3G	Visual Examination	
	FSIS UV Light	
	Cyanoacrylate Fuming	3g CA 70% humidity
	FSIS UV Light	
WV9TQ4	Visual Examination	
	Alternate Light Source	365nm, CSS, 495 nm, 535nm, 555nm, 575nm, 532nm green laser
	Cyanoacrylate Fuming	75-80 relative humidity, 15 minute fume time, white light
	Dye Stain	Ardrox, 365nm
X38TPW	Visual Examination	Crimelite, LASER
	Cyanoacrylate Fuming	70 minutes in F+F MVC 5000 chamber
	Dye Stain	Rhodamine 6G
	Powder Dusting	Black powder
X4LZBD	Powder Dusting	used black fingerprint powder on a fiberglass fingerprint brush
X82ERT	Visual Examination	Visual examination, Item was placed in the Cyvac cyanoacrylate fuming chamber for 1 hr. Item was visually examined then dye stained with R6G, viewed w/laser.
	Cyanoacrylate Fuming	superglue in the Cyvac cyanoacrylate fuming chamber for 1 hr.
	Visual Examination	
	Dye Stain	R6G
	Visual Examination	viewed w/laser
X8KB7D	Powder Dusting	Latent print processing utilizing black powder

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
XA6C2Z	Visual Examination	Equipment: High intensity white light. No ridge detail observed.
	Ruvis	Equipment: Ruvis. Control Positive. Area of ridge detail 2.01 from the light cover was preserved.
	Cyanoacrylate Fuming	11 minutes/ 80% humidity. Equipment: Cyanoacrylate fuming chamber. Control positive. Area 2.01 was not rephotographed.
	Ruvis	Equipment: Ruvis. Control Positive. Area 2.01 was rephotographed.
	Dye Stain	R6G. Equipment: TracER laser. Control positive. Area 2.01 was rephotographed.
XEVXJL	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	humidity: 80%, temperature of the heating plate - 100 degrees Celsius, time - 35 minutes
	Basic Yellow 40	
XFRC7E	Visual Examination	Examination in daylight and with forensic light sources with appropriate filters (light sources – POLILIGHT PL 500, PAGLAB MSA-810, VSC 400 Foster Freeman)
	Cyanoacrylate Fuming	20 min exposure, 120° C, 80% humidity, viewing in white light and in ~505-530 nm range with forensic light sources + appropriate filters
	Dye Stain	Spraying item with Basic Yellow 40 working solution, viewing in ~350-505 nm range with forensic light sources + appropriate filters
XG9AVX	Visual Examination	I performed a visual examination by looking at the item using natural lighting and oblique lighting at different angles to see if any ridge detail is present.
	Cyanoacrylate Fuming	I placed the item into the superglue chamber. I added superglue into an aluminum dish and placed that onto a hot plate inside the chamber. I also added a glass beaker with hot water into the chamber to provide humidity. I placed a control print onto the interior of the glass of the chamber to ensure the superglue was fuming properly. I turned the chamber on and let the hot water rehydrate any ridge detail that is present, and the superglue fumes adhered to any ridge detail. I left the item inside the chamber for approximately 15 minutes. Once I observed the control turn white from the superglue fumes, I turned the chamber off and vented the chamber.
	Powder Dusting	Using black powder and a fingerprint brush I powdered the item and ridge detail developed.
XMBJY6	Cyanoacrylate Fuming	~1hr
	Dye Stain	Ardox, viewed under 365nm
XWEMXM	Visual Examination	
	Forensic Light Sources	
	Cyanoacrylate Fuming	
	Dye Stain	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
Y28ZKW	Cyanoacrylate Fuming	Chamber #1 Auto Cycle Lot #202202520
	Powder Dusting	Black powder Lot #201804187
Y7MM39	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	LASER for visualization of dye stain (R6G)
YBC4BT	Visual Examination	
	Lumicyano	5% solution with 14minutes fuming time
YF7226	Cyanoacrylate Fuming	Processed 30 minutes in chamber.
	Powder Dusting	
YKDNJM	Visual Examination	White, blue and green forensic lightsources. Fingermark was observed in box B with white light.
	Cyanoacrylate Fuming	Fingermark was observed in box B.
	Dye Stain	Fingermark was observed in box B after dye stain with BY40.
YLCQLX	Visual Examination	Item 2 was visually examined using direct and indirect light. No friction ridge detail was found.
	Cyanoacrylate Fuming	Item 2 was placed into the controlled Mystaire Cyanoacrylate fuming chamber for 20 minutes at 70% humidity level. Friction ridge detail of possible value was developed on item 2. The control for item 2 was positive for friction ridge detail.
	Powder Dusting	Item 2 was then processed with bichromatic powder. Friction ridge detail of possible value was developed on item 2. The control for item 2 was positive for friction ridge detail.
YNZ3B3	Cyanoacrylate Fuming	12 min
	Powder Dusting	magnetic fingerprint powder
YQT3HE	Visual Examination	2. Alternate Light source white 3. Powder Dusting Black A-2312 4Powder Magnetic Black A-2412 black 10 minutes processing time
YTCBC8	Visual Examination	No processing needed image in white light
YUNYYT	Visual Examination	Mark search was done by following ways: 1. White Light/Naked eye. No Mark Found
	Alternate Light Source	Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm)
	Cyanoacrylate Fuming	Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins, Mark search was done using White Light. Mark Found on Section B.
	Dye Stain	After Dying with BY40, kept to dry for 20 mins in fumehood. After 20 mins, Mark search was done using 445nm light (blue light) with goggle (495nm). Mark enhanced on Section B.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
YWGMMF	Visual Examination	Crime - lite MLD; mark in sector B is visible, pattern is left loop.
	Cyanoacrylate Fuming	Mark in sector B is visible, pattern is left loop. The mark is better visible.
YY6YN7	Powder Dusting	Black magnetic powder was applied.
Z28CLX	Visual Examination	with white light
	Cyanoacrylate Fuming	CA fuming for 30 min with purge 30 minutes then viewed under white light
	FSIS	with UV light
	Dye Stain	R6G with laser light
	Powder Dusting	black powder with white light
Z9RFT2	Cyanoacrylate Fuming	Fumed at 80% relative humidity for 14 minutes.
	Dye Stain	Basic Yellow 40
ZGB6XZ	Cyanoacrylate Fuming	
	Powder Dusting	
ZGVRKN	Visual Examination	
	Cyanoacrylate Fuming	fumed 8 minutes
	Dye Stain	R6G aqueous
	Alternate Light Source	Green laser (532nm)
	Powder Dusting	Black
ZJ29Q7	Cyanoacrylate Fuming	A control test and item were processed simultaneously at the same conditions, for 20 minutes in a cyanoacrylate fuming chamber.
	Visual Examination	The items were visually examined.
ZKXJMA	LPPM R7	
	Cyanoacrylate Fuming	Fumed for 45 min, 20 min curing
	Dye Stain	Dye stained with R6G and viewed under green laser light. Test print was positive.
ZLFFNA	Visual Examination	
	Powder Dusting	
ZXMAUT	Visual Examination	No visible detail
	Cyanoacrylate Fuming	MVC5000 ridge detail present
	Dye Stain	R6G TracER Laser ridge detail present

TABLE 2 - Item 2

WebCode	Development Methods	Method Details

Item 2 - Development Response Summary

Participants: 245

Methods Utilized

Alternate Light Source	89	Physical Developer	1
Cyanoacrylate Fuming	172	Powder Dusting	114
DFO	0	Visual Examination	188
Dye Stain	105	Wet Powder Suspension	3
Ninhydrin	0	1,2-Indanedione	0

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

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
27AWUM	Visual Examination	Visually looked at the item for any prints
	Alternate Light Source	Used 520nm Laser, 445nm Blue light, and 365nm UV
	Cyanoacrylate Fuming	Performed a visual examination and then used the RUVIS (254nm)
	Powder Dusting	Magnetic powder was applied and item was visually looked at for any prints
	1,2-Indanedione	Used Indanedione and placed the item in the oven for 20 minutes, afterwards used the 520nm Laser
	Ninhydrin	Used Ninhydrin and then placed the item in the humidity cabinet for 15 minutes and then performed a visual examination
	Dye Stain	Used RMO on the item and used the 520nm Laser and 445nm blue light to visualize
	Physical Developer (PD)	Used physical developer on the item and then performed a visual examination
2F243T	Visual Examination	11/1- ambient lighting
	Lumicyano fuming	11/1- fluorescent CA fuming using F&F 3000 fuming chamber with auto settings; no glue observed.
	Alternate Light Source	11/1- Laser green wavelength; no ridge detail observed.
	Vacuum Metal Deposition	11/14- VMD 360 West Technologies Gold followed by zinc; no ridge detail observed
2J6WZX	Visual Examination	No friction ridge impressions were observed upon visual examination with and without oblique lighting. Item also examined under Krime Scope using UV lighting with negative results.
	Powder Dusting	Magnetic powder applied with negative results.
	Cyanoacrylate Fuming	Item placed in cyanoacrylate fuming chamber for 21 minutes and again examined with negative results.
	Dye Stain	Ardrox applied to glossy surface.
	Alternate Light Source	Item examined under UV lighting with negative results.
2JZKC2	Cyanoacrylate Fuming	Visual examination (000-800NM); photography; basic yellow; humidity 80,6%; temperature 130°c
	DFO	Visual examination (000-590nm); photography; 100 °c
2KE2F8	Visual Examination	11/04/2022 - No friction ridge detail was observed.
	Cyanoacrylate Fuming	11/04/2022 - Fumed in a CA-6000 chamber for 7 minutes. No friction ridge detail was observed.
	Powder Dusting	11/07/2022 - Grey magnetic powder was applied to item 3. No friction ridge detail was observed.
	Dye Stain	11/07/2022 - Rhodamine 6G was applied to item 3.
	Alternate Light Source	11/07/2022 - Item 3 was examined using an ALS set to 495nm and an orange barrier filter. No friction ridge detail was observed. No additional processing was performed.
2M69WX	Iodine Crystal ampoule	Iodine crystal ampoule was used on the photograph.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
2PRQTP	Visual Examination	
	FSIS	FSIS
2U2Z6R	Visual Examination	
	Powder Dusting	Magnetic powder followed by black powder
2VVNMM	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	1,2-Indanedione	
2YAG6F	Powder Dusting	Magnetic powdered the glossy photograph; no latent prints were observed
	Ninhydrin	Utilized Ninhydrin on the glossy photograph ; no latent prints were observed
34YEBH	Visual Examination	Visual inspection - Natural light and laser.
	Cyanoacrylate Fuming	Fumed for three minutes, with hot water, 70 percent humidity.
	Powder Dusting	1. Powdered with Foster Freeman "FP natural 2" powder and viewed with infrared light at 445nm-780nm. 2. Powdered with white powder.
	Dye Stain	Applied RAM dye stain and viewed with ALS at 475nm and with laser at 445nm.
39C6NP	Visual Examination	Item 3 was visually examined with white light and magnification on 11/15/22. No ridge detail was observed.
	Cyanoacrylate Fuming	Item 3 was processed in the Misonix CA-3000 superglue fuming chamber on 11/15/22 with Lumicyano. Post processing visual exam with white light and magnification on 11/15/22. No ridge detail was observed. Post processing visual exam with the Foster+Freeman CrimeLite 82s blue/green (450-510nm) and orange glasses on 11/15/22. No ridge detail was observed.
	Powder Dusting	Black magnetic powder was applied to item 3 on 11/15/22. No ridge detail was observed.
	Dye Stain	Item 3 was treated with Rhodamine 6G aqueous base on 11/15/22. Post treatment visual exam with the Foster+Freeman CrimeLite 82s blue/green (450-510nm) and orange glasses on 11/15/22. No ridge detail was observed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
3DRRAG	Visual Examination	Did visual examination with white light.
	Cyanoacrylate Fuming	CAE in fuming chamber. Placed in chamber for 3 minutes
	Visual Examination	Did visual examination after CAE with white light.
	Powder Dusting	Dusted item with black magnetic powder.
	Visual Examination	Did visual examination after applying black magnetic powder with white light.
	Dye Stain	Applied RAM Dye Stain to item, allowed to dry.
	Alternate Light Source	Viewed item with Fluorescent dye under ALS.
	Powder Dusting	Dusted item with white and black powder.
	Visual Examination	Did visual examination after each application of both white and black powder with white light.
4KA74E	Visual Examination	First I did an visual examination of the piece of evidence to identify the possible fingerprint.
	Alternate Light Source	I used an alternate light source to have a better visibility of the piece of evidence and the possible fingerprint.
	Powder Dusting	I proceeded to use powder dusting in the evidence to identify the possible fingerprint. The fingerprint was located in the letter C.
4L3C47	Visual Examination	oblique lighting used
	Alternate Light Source	420-470 nm
	Cyanoacrylate Fuming	control: positive
	Powder Dusting	black powder
	Powder Dusting	fluorescent powder
	DFO	control: positive
	Dye Stain	basic yellow control: positive
4PKCMR	Visual Examination	Oblique light.
	Alternate Light Source	At 455-515 nm wavelengths.
	Cyanoacrylate Fuming	for 20 minutes.
	Powder Dusting	Black powder.
	Dye Stain	Rhodamine, subsequently looked at with ALS at 455-515 nm wavelengths.
	DFO	Subsequently looked at with ALS 455-515 nm wavelengths.
	Ninhydrin	
4PYYL9	Cyanoacrylate Fuming	Visual examination under white light, in the evaporatinghumidity 70% and temperature 20C for 3 hours
	amido black	Amido black under white light

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
4VKUMC	Cyanoacrylate Fuming	A control test of cyanoacrylate fuming compound was performed prior to process the sample with positive results. The item was processed for 20 minutes in a cyanoacrylate fuming chamber and then visualized using a 254nm UV lamp and filter.
	Visual Examination	The items were visually examined.
4WY6RW	Alternate Light Source	
	Cyanoacrylate Fuming	CA Chamber
	1,2-Indanedione	1,2-Indanedione Zine Chloride (steam iron)
4ZK34T	Powder Dusting	Used black magnetic powder
4ZZ9L4	Visual Examination	Item was photographed and documented as received. Item was examined using oblique lighting with negative results. Item was examined using the KrimeSite with negative results.
	Powder Dusting	Item was processed with Mag powder with negative results.
	Cyanoacrylate Fuming	Item was fumed in the Cyanosafe and dye stained with basic yellow. Item examined under ALS with negative results.
6FPZHP	Visual Examination	11/15/2022-visually examined a photographed divided into four sections
	Lumicyano	11/15/2022-placed the photograph and glass slide with known print (QC) into MVC 3000 chamber, mixed with fluorophore (5.5 heaping scoops) with liquid super glue (90 drops) into a foil pan and placed on heating port, added molecular grade water into water port to start the auto cycle (humidity cycle-15 mins, glue cycle 25 mins, purge cycle 20 mins) once the fuming processed ended, I visually examined the glass slide and photograph under a green laser and observed that the glue did not adhere/deposit unto any section of the photograph. Will move forward with further processing.
	Vacuum Metal Deposition	12/6/2022-the photograph was placed in the Vacuum Metal Deposition (VMD) chamber along with a QC (known print on paper). The metals used were silver followed by zinc followed by gold followed by zinc. Under the vacuum state, silver is deposited onto the evidence then zinc is deposited onto the silver then gold follows to provide better contrast. QC was positive, however ridge detail did not develop onto evidence.
6GJNZK	Visual Examination	white light
	Alternate Light Source	polylight. 440 - 520nm. orange filter
	Cyanoacrylate Fuming	80RH%. 10 min process
	Visual Examination	RUVIS
	Dye Stain	BY40
	Dye Stain	CV

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
6GPULN	Visual Examination	with TracER Laser & white CrimeLite
	Cyanoacrylate Fuming	Foster + Freeman MVC5000 auto process (~70 minutes)
	Powder Dusting	white magnetic powder
	DFO	20 minutes in 100C oven -- viewed with Polilight500 505nm & orange goggles
	Ninhydrin	3 minutes in 80C oven with 65 relative humidity -- redipped & reran a second time -- viewed with incandescent light
6UAFKN	Visual Examination	Examined the item in natural light
	Alternate Light Source	Examined the item under different lights (Alternative Light Sources including white light and observed for any inherent fluorescence)
	Cyanoacrylate Fuming	MVC 3000 Chamber- Chamber #1 (test print positive). Cyanoacrylate Lot # 202202520. Glue Time 11 minutes. RH 80%. Hot Plate Temperature 120 degrees C (248 F)
	Visual Examination	Examined the item in natural light
	Alternate Light Source	Examined the item under different lights (Alternative Light Sources including white light and observed for any inherent fluorescence)
	Dye Stain	Cyanoacrylate Dye Stain: MBD(7-(P-Methoxybenzlamino-4Notrobenz-2-Oxa-1,3-Diazile) (test print positive). Lot # 072722-01
	Alternate Light Source	Examined the item under different lights (Alternative Light Sources including white light and observed for any inherent fluorescence)
	Powder Dusting	Use of Magnetic Powder Lot # 201504053-04 (test print positive)
6WRNJN	Visual Examination	Visualized item in regular light, no detail seen
	Alternate Light Source	Used Coherent tracer laser, no detail seen.
	Cyanoacrylate Fuming	Utilized a CA fuming chamber by placing the evidence in the ventilated fuming chamber and placed the appropriate amount of liquid CA in an aluminum dish (about a dime size). Also placed a control print inside. After processing, a latent print was located in section A.
	Dye Stain	Rhodamine 6G was then applied to the surface of the item and test print. The item was again viewed under the Coherent Tracer Laser, and the detail was not visualized in section A and was visualized on the control print.
	1,2-Indanedione	Applied IND to the surface of the item. I let the item dry, then placed it in between two pieces of paper towel. I then utilized the steam setting on an iron and applied it on top of the paper towels with the item inside.
	Alternate Light Source	I attempted to visualize detail with the Coherent Tracer Laser with negative results.
6YF49X	Visual Examination	white light
	Alternate Light Source	range of light sources used: UV, BLUE and GREEN
	Cyanoacrylate Fuming	120 C and 80% humidity, 15 minute glue cycle
	Wet Powder Suspension	white powder suspension

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
7648GR	Powder Dusting	Magnetic powder was applied.
77GJR4	Visual Examination	*Please note that gloves were worn at all times throughout this processing. Item 3 was first removed from its packaging and visually examined. No possible ridge detail was observed at this time.
	Cyanoacrylate Fuming	*Please note that gloves were worn at all times throughout this processing. Because item 3 was observed to be glossy and non-porous during visual examination, cyanoacrylate fuming was selected to use. A Cyanoacrylate fuming chamber was cleaned prior to use with isopropyl alcohol. A clean sheet of butcher paper was placed at the bottom of the chamber. A control was created utilizing black, non-porous cardstock and was hung from a clip inside the chamber. Several drops of liquid superglue (Lot#XT28419, Exp: 05/2023) were placed into a small metallic container, which was placed on top of a small heating plate inside the chamber. Sufficient water levels were observed in the machine. Item 3 was then placed into the chamber. The chamber was then closed and a fuming cycle was started. The control and Item 3 were fumed for ten minutes at a 70% humidity level. Once complete, the chamber then purged the fumes for an additional ten minutes. Positive results were observed on the control. Item 3 was visually examined and ridge detail was clearly observed in the "A" quadrant.
	Powder Dusting	*Please note that gloves were worn at all times throughout this processing. In order to attempt lifting the observed ridge detail, bichromatic powder was selected to apply to Item 3. The item was placed on a clean sheet of butcher paper and bichromatic powder was applied using a fingerprint brush. Ridge detail became clearly visible in the "A" quadrant.
7ALAWX	Visual Examination	Examined glossy paper using oblique lighting.
	Cyanoacrylate Fuming	Item placed in superglue fuming chamber for approximately 20 minutes. Item checked after 10 minutes of processing, then every few minutes after until control standard (polymerization standard) was fully developed.
	Powder Dusting	Item dusted with black powder to reveal any possible ridge detail.
7BRJ2N	Cyanoacrylate Fuming	the fuming took 20 minutes.
7C6BRK	Visual Examination	I observed the Glossy Photograph (Item 3) under ambient light. No latent ridge detail was observed.
	Full Spectrum Imaging System	I viewed the glossy photograph (item 3) using the Full Spectrum Imaging System (FSIS) at 254 nanometers. No latent ridge detail was observed
	Cyanoacrylate Fuming	The glossy photograph (item 3) was placed into a fuming chamber and fumed with heated cyanoacrylate (Superglue). No latent ridge detail was observed.
	Full Spectrum Imaging system	I viewed the glossy photograph (item 3) using the Full Spectrum Imaging System (FSIS) at 365 nanometers. No latent ridge detail was observed
	Powder Dusting	I dusted the glossy photograph (item 3) with black powder. No latent ridge detail was observed

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
7KTBYG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic powder
	1,2-Indanedione	
	Dye Stain	RMO
	Physical Developer (PD)	
7NFU6L	Cyanoacrylate Fuming	
	Ninhydrin	
7UPY88	Powder Dusting	Object #3 (Item 3) was treated with Black Magnetic Powder (#A-2412-W), already, also for one minute; it did not developed a fingerprint fragments.
7W882Z	Cyanoacrylate Fuming	Cyvac with cyanoacrylate (3027) for 1 hour with 20 minute purge. Viewed with UV light
	Dye Stain	Dye stained with R6GW (SV2022-R6GW-14) and viewed with forensic laser. Test print positive.
7ZWFMM	Visual Examination	Magnification and oblique lighting used.
	Cyanoacrylate Fuming	Fuming chamber used - 72% relative humidity with run time of 13 minutes and purge time of 7 minutes.
	Powder Dusting	Fluorescent powder applied.
	Alternate Light Source	Item viewed using blue laser (445) with orange filter.
	Powder Dusting	Gray powder applied.
	Powder Dusting	Bi chromatic powder applied.
	Dye Stain	RAY applied using a RAY soaked kim wipe and blotting the item. Control done first in same manner to show blotting would be acceptable. NOTE: RAY would not be normally applied to this kind of matrix but since no friction ridge detail was seen during the earlier processing, it was decided to be attempted.
	Alternate Light Source	Viewed using blue (445) and green (532) laser with orange filter.
	Cyanoacrylate Fuming	Since no obvious friction ridge detail had developed, it was decided to fume the item again for a longer time. Fuming chamber used - 72% relative humidity with a run time of 48 minutes and a purge time of 7 minutes.
82D9W3	Cyanoacrylate Fuming	photografic fixations were made with a metric rule it is introduced into the cyanoacrilate chamber for a proximately 40 minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
8CH9DG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	1,2-Indanedione	
	Dye Stain	
	Physical Developer (PD)	
8ETYVX	Cyanoacrylate Fuming	Viewed item 3 using oblique lighting with overhead light and a flashlight—no prints seen prior to processing—surface of photograph was glossy so opted to process using cyanoacrylate fuming-fumed in fuming chamber for seven minutes at 80% humidity and included a control (positive results on control)-applied both magnetic fingerprint powder and then black fingerprint powder-no prints seen after processing-used fingerprint tape to make lifts-no prints recovered
8JEBD8	Visual Examination	White light, RUVIS
	Lumicyano	17 minutes at 75% humidity, hot plate at 250 degrees Fahrenheit. White light, RUVIS, LASER

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
8TMFTH	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. No useful marks were developed.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 480nm-560nm with 571nm viewing filter followed by Blue Crime Lite 420nm-470nm with 476nm viewing filter and UV Crime Lite 350nm- 380nm with 408nm viewing filter. QA adhered to and control test pieces passed. Ridge detail was seen in section 'A'. This was exhibited and photographed.
	Cyanoacrylate Fuming	Item was treated with Cyanoacrylate Fuming. Foster & Freeman MVC5000 Cabinet, Relative Humidity 80%, Glue time 13 minutes & 3g of superglue used). Following treatment, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles. QA adhered to and control test piece passed. No useful marks were developed and there were no further enhancements of previously developed marks.
	Powder Dusting	Item was treated with Powder Dusting. Black Magnetic Powder and Aluminium powder used with a Magnetic Applicator and Zephyr brush. Following treatment, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles. QA adhered to and control test piece passed. No further marks were developed and there were no further enhancements of previously developed marks.
	1,2-Indanedione	Item was treated with 1,2-Indandione and item was placed in the Thermo Fisher oven for 12 minutes (10 minutes plus 2 minutes as the current recovery time). Following dark adaptation, examined using the Green Crime Lite 82S 490-560nm with 571nm viewing filter. QA adhered to throughout and control test piece passed. No further marks were developed and there were no further enhancements of previously developed marks.
	Ninhydrin	Item was treated with Ninhydrin and allowed to dry. Treated in oven set at 62% RH & 80°C for 4 minutes (2 minutes recovery time included in time). Examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles on same day. QA adhered to and control test piece passed. No further marks were developed and there were no further enhancements of previously developed marks.
	Physical Developer (PD)	Item was treated with Physical Developer. Ensured all solutions and room temperature >17°C. Pre-treated with Maleic Acid for 10 minutes, treated with Physical Developer Working Solution for 20 minutes followed by 3 x water rinses as per procedure. All treatment stages carried out on rockers so exhibit was constantly agitated throughout. When dry, item was examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles. QA adhered to and control test piece passed. No further marks were developed and there were no further enhancements of previously developed marks.
8WMV8L	Visual Examination	Visually examined the evidence, using natural light source
	Cyanoacrylate Fuming	Used cyanoacrylate fuming tanking, getting the tank up to 80% relative humidity, fuming for 30 minutes with cyanoacrylate and purging the tank for 30 minutes (CA220720)
	Powder Dusting	Dusted the latent print with latent fingerprint powder
	Dye Stain	used dye stain M-star on the latent print after cyanoacrylate fuming (MS221029), then used a crime scope to visually see the fluorescent latent print

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
8ZM72Z	Cyanoacrylate Fuming	Cyano at 70% humidity for 15 mins
	Powder Dusting	Black powder
	Alternate Light Source	455nm with yellow filter 505nm with red and orange filters *Done before and after Fluorescent powder*
	Powder Dusting	Fluorescent powder (Redwop)
8ZQN46	Visual Examination	Visual examination done with and without oblique lighting. No impressions observed.
	Powder Dusting	Powder processing using magnetic powder. No impressions observed.
9JDLWG	Alternate Light Source	FSIS
	Cyanoacrylate Fuming	20 minutes
	Dye Stain	BY40
	Alternate Light Source	FSIS
9KRXQF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	1,2-Indanedione	
	Dye Stain	
	Physical Developer (PD)	
9MCZHK	Cyanoacrylate Fuming	cyanoacrylate processing time was 1 hour , then the item were brushed with black magnetic powder.
9ZLMMC	Visual Examination	5 minutes - Visual Exam with natural lighting
	Cyanoacrylate Fuming	20 minutes - Fuming Chamber
	Alternate Light Source	10 minutes - White Light using DCS - 5
	Dye Stain	10 minutes - Application of R.A.M. using squirt method (including dry time)
	Visual Examination	3 minutes - Bright Beam Laser
	Powder Dusting	5 minutes - White Powder glossy colored front, Black Powder on white semi-textured backing.
	Visual Examination	3 minutes - Visual Examination with natural light for results.
ABWJ3Y	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C +/- 5°, relative humidity 75% +/- 15%
	Powder Dusting	white powder

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
AHL3EF	Visual Examination	white light, different angles
	Alternate Light Source	blue light 420-470 nm, filter 495nm green light 490-560 nm, filter 570nm
	Cyanoacrylate Fuming	119 degrees celsius 80% RH 5 minutes
	Powder Dusting	Instant white and magnetic powder
	Dye Stain	Natural Yellow 3
AQBTX2	Visual Examination	The item was visually examined using a white light and ambient light in room. Fingerprint no visible.
	Cyanoacrylate Fuming	The item was placed in the fish tank to be worked with cyanoacrylate for approximately 20 minutes.
	Powder Dusting	The item was processed with gray/ black powder technique.
	Alternate Light Source	The item was visually examined using UV lighting under magnification revealing fingerprint in section D.
AV99QH	Visual Examination	CrimeLite & LASER
	Cyanoacrylate Fuming	70 min. cycle in Foster and Freeman MVC 5000 chamber
	Powder Dusting	Bichromatic magnetic powder
	DFO	20 min. dry oven. LASER
	Ninhydrin	3 min. heated humidity chamber
B2M8MG	Visual Examination	Fingerprint residue was observed in section A , but the ridge details was not clear.
	Cyanoacrylate Fuming	Humidity: 80%. Time: 15 minutes. No improvement
	Alternate Light Source	UV Reflection as a non-destructive technique: Using DCS5 camera with Quartz lens (60mm 1:4 UV-VIS-IR Apo Marko), Baader U Filter2''(CWL 350 nm) and 330-385 nm band pass filter No improvement
	Powder Dusting	White powder improvement
	Gel lifter	No improvement
	Powder Dusting	No improvement
	Silicon lifiting	No improvement
B3LHDH	Powder Dusting	Magnetic powder followed by black powder.
B4F7VD	Visual Examination	High intensity white light.
	Cyanoacrylate Fuming	Cyanoacrylate fuming chamber (12 minutes, 80% relative humidity).
	Alternate Light Source	Reflected Ultraviolet Imaging System (RUVIS).
	Dye Stain	Rhodamine 6G. Chemical lot: 22-1117AC.
	Alternate Light Source	TracER Laser.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
BEAG82	Visual Examination	I completed the initial visual examination to determine best processing methods for the item. I considered this item to have non-porous glossy side. I also photographed the item prior to any processing. I did not see any ridge detail while using white light at an oblique angle.
	Alternate Light Source	I used the Alternate Light Source to determine if any fluorescing can be seen on the object, prior to processing. I did not see anything fluoresce at this time.
	Cyanoacrylate Fuming	I use a chemical called Lumicyano in our fuming chamber. It is a combination of Cyanoacrylate Esters and Rhodamine 6G (a dye stain). This combines two separate processing steps into one, to minimize processing time. Like Cyanoacrylate esters, Lumicyano does requires the standard 80% humidity and the Lumicyano crystal/solution to be warmed. The item was fumed for 10 minutes in our mid-size chamber.
	Alternate Light Source	The Rhodamine 6G is a dye stain that fluoresces. After fuming with the Lumicyano, I examined the item with an ALS to see if the dye stain has adhered to any ridge detail. I saw what I thought to be very small partial ridge detail fluoresce, and photographed it.
	Powder Dusting	I did not see a sufficient amount of fluorescing ridge detail with the ALS, so I moved to powders. I used standard black magnetic powder and applied with a magnetic brush. I saw some sparse ridge detail and attempted to lift it with lifting tape.
BFAKUP	Visual Examination	white light and alternative light
	Cyanoacrylate Fuming	fuming Chamber
	Dye Stain	Basic yellow 40
BJ8ZAY	Cyanoacrylate Fuming	120 degrees Celsius 80% relative humidity 10 minute humidity time 12 minute glue time LOT# 042621-05 Positive test print with latent print standard pad, LOT# LPSP200
	Alternate Light Source	DCS5 Cyanoacrylate filter settings
	Powder Dusting	Magnetic powder LOT# 112719-01
	Visual Examination	Oblique lighting with flashlight No latent prints observed
BLX76H	Visual Examination	crimelight, UV light, and 530nm
	Cyanoacrylate Fuming	70 minutes in superglue chamber
	Powder Dusting	red magnetic bi-chromatic
	DFO	20 min in fingerprint development chamber
	Ninhydrin	1 week sitting out (humidity chamber out of service)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
BX2UFY	Visual Examination	Visual examination using white Crime Lite, Blue Crime Lite, UV Crime Lite and Green Lazer all negative for ridge detail
	Cyanoacrylate Fuming	Cna fuming undertaken - CNA cabinet 2 (CNA/26). No ridge detail visualised using white light examination
	1,2-Indanedione	Indandione treatment carried out as item partially semi porous. Examined on 30/11/22. Low quality mark visualised and photographed at section 'A'.
	Ninhydrin	Further treatment of mark carried out using Ninhydrin, Oven 1 (NINWS/376). Some reaction but no improvement of mark already visualised.
C2K2LD	Cyanoacrylate Fuming	Evidencia N°3: el tiempo de procesamiento en la cámara de ahumado de cianoacrilato fue de dos (2) horas, se utilizo polvos fluorescente de color naranja como complemento. [English translation of comments was not obtained by the time of report publication.]
C3FLLJ	Visual Examination	No indented writing, trace, or prints observed.
	Alternate Light Source	No prints observed.
	Cyanoacrylate Fuming	20 minutes in the Cyanosafe, no prints observed.
	Powder Dusting	Black powder, no prints observed.
	Dye Stain	Rhodamine was used, no prints observed.
	Alternate Light Source	Viewed Rhodamine under ALS, no prints observed.
	DFO	Dipped in D.F.O. working solution twice until fully saturated and air dried. Placed in 100 degree Celsius dry oven for 20 minutes. Waited 24+ hours for further development.
	Alternate Light Source	Viewed D.F.O. under ALS, no prints observed.
	Ninhydrin	Dipped in Ninhydrin solution twice until fully saturated and air dried. Waited 72+ hours for further development, no prints observed.
	Dye Stain	Used Rhodamine a second time.
	Alternate Light Source	Viewed Rhodamine under ALS, no prints observed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
C3HBQG	Visual Examination	Used oblique lighting from a Crimelite flashlight (white light), then used a Coherent TracER LASER with a KV550 lens filter to image any potential latent print. Also, incandescent lighting was used to avoid any hotspots when imaging potential latent prints. These methods were applied to the front and back of the glossy photograph.
	Cyanoacrylate Fuming	The item was placed inside a Foster & Freeman MVC-5000 superglue chamber, used 3 grams of cyanobloom (superglue) in heating element, and set an autocycle program for 70 minutes. Using a Crimelite flashlight (white light), oblique lighting was applied to the front and back of the glossy photograph.
	Powder Dusting	For contrast purposes, white powder was applied on the front of the glossy photograph and black powder was applied on the back of the photograph. Oblique lighting from a Crimelite flashlight and incandescent lighting was used to image any potential latent prints.
	DFO	On the front and back of the photograph, a 3 second soaking of 1,8-Diazafluoren-9-one (DF0) was applied. After the item dried, the soaking step was repeated and placed into the Sanyo Gallankamp oven and set at 100 degrees Celsius for 20 minutes. A Coherent TracER LASER and a KV550 lens filter was used to image any potential latent prints. The item was re-examined with the LASER after a 24 hour sit-time to allow complete development of DFO.
	Ninhydrin	On the front and back of the photograph, a 3 second soaking of Ninhydrin was applied. After the item dried, the soaking step was repeated and placed into an oven for 6 minutes set at 80 degrees Celsius and having 65 percent relative humidity. Incandescent lighting, Oblique lighting from a Crimelite flashlight, and fluorescent lighting was used to image any potential latent prints. The item was re-examined after 24 hours of sit-time to allow complete development of Ninhydrin.
C7YNMX	Visual Examination	A visual inspection was performed, no fingerprint was identified.
	Alternate Light Source	A visual inspection was performed using alternating white and violet light, no fingerprint was identified.
	Powder Dusting	Black magnetic powder was used for fingerprint development, negative result for fingerprint.
C8VXHZ	Powder Dusting	Evidence object 3 was treated for one minute by Black Magnetic Powder, Ref.No. A-2412W, but I dont develop fingerprint fragments.
C949CH	Visual Examination	
	Alternate Light Source	FSIS
	Cyanoacrylate Fuming	Fumed in Air Science Chamber for 30 minutes with 30 min purge at 80% humidity
	Powder Dusting	Bichromatic powder applied with a fingerprint brush
	Dye Stain	Mstar dye stain applied with squirt bottle. Not rinsed

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
CDY6VH	Visual Examination	visually observed
	Lumicyano fuming	8% solution of lumicyano solution and lumicyano powder used. Humidity cycle 80% RH 15 mins, Glue cycle-80% RH 120 degreed C 25 mins, Purge cycle-< 80% RH 20 mins
	Alternate Light Source	Bright beam laser green light 525nm wavelength
	Vacuum Metal Deposition	Multi-metal setting using gold followed by Zinc. No ridge detail developed. Control developed as expected.
CHR4CY	Visual Examination	First I did a visual examination of the piece of evidence to locate the possible fingerprint.
	Alternate Light Source	Then I used an alternate light source to have a better visibility of the possible fingerprint.
	Powder Dusting	To develop the possible fingerprint I used powder dusting. The fingerprint was weak but it was located in the letter C of the piece of evidence.
CL7XXX	Powder Dusting	Red Charge / UV light
CQZTY6	Visual Examination	Natural light, white light.
	Cyanoacrylate Fuming	The latent print was developed 25 minutes (80 % - humidity) on a glossy photograph. The latent print was recovered in section "A".
	Powder Dusting	Later black magnetic powder was used to enhance contrast of the latent print. The latent print was recovered in section "A".
CRVFC9	Visual Examination	Forensic light (white, green, blue)
	Cyanoacrylate Fuming	
	Powder Dusting	Black powder
	1,2-Indanedione	100 celcius degrees at 10 minutes
	Ninhydrin	80 celcius degrees 62 % RH at 2 minutes
	Dye Stain	Basic yellow 40
	Dye Stain	Basic red 14
	Physical Developer (PD)	
CUY4V6	Visual Examination	White light.
	Cyanoacrylate Fuming	Cyanoacrylate fumming chamber "Air science safe fume 48S". Cyanoacrylate B-83000, BVDA. Humidyti 80%, target temperature 85 degrees, processing time 25 min. Roome temperature 21,3 degrees.
	Powder Dusting	Fingerprint powder magnetic black, B-47000, BVDA.
CV2M7M	Visual Examination	Ambient lighting and flashlight/oblique lighting
	Cyanoacrylate Fuming	71.5 degrees F / 68% relative humidity / run time approx 5 minutes. Exam post-CAE with ambient lighting and flashlight/oblique lighting
	Powder Dusting	Black magnetic powder
	Alternate Light Source	Blue/green laser exam with orange goggles

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
CVG46L	FSIS	Viewed with FSIS under UV light
	Cyanoacrylate Fuming	Fumed with superglue for about 1 hour (allowed to cure), viewed with laser at 532 nm and orange filter
	Vacuum metal deposition	processed w/VMD and gold and zinc metals
CY3TMD	Visual Examination	Relative temperature of the processing room was 72.2 degrees Fahrenheit. No friction ridge detail was observed.
	Cyanoacrylate Fuming	I superglue fumed (CA) this item in a Foster and Freeman MVC 3000 fuming chamber. Conducted a visual examination and no friction ridge detail was observed.
	Dye Stain	I applied Basic Yellow dye stain to this item via the spray method and let it dry under the vent hood for 30 minutes to an hour.
	Alternate Light Source	I conducted a visual examination with a Rofin polilight PL500 using varying wavelengths of: UV, 415nm, 450nm, and 590nm. Orange and Red goggles were used. No friction ridge detail was observed.
	Black magnetic Powder	I then used Black Magnetic Powder with a magnetic wand to see if I could develop any friction ridge detail. No friction ridge detail was found or developed.
D62PRV	Powder Dusting	black powder, mag powder,
	Cyanoacrylate Fuming	rhodamine 66 dye stain
	Alternate Light Source	half hour
D9FE6D	Visual Examination	White light
	Alternate Light Source	Polilight, Foster+Freeman Crime-lite ML2 - all available wavelengths
	Cyanoacrylate Fuming	Processing time 15 min 120°C
	Powder Dusting	Magnetic Blitz Green
	DFO	100°C Processing time 10 min, 0% RH
	Ninhydrin	80°C Processing time 5 min, 65% RH
DRCRUE	Cyanoacrylate Fuming	40 min, white stain.
	Powder Dusting	Black Magnetic powder on the white side and white Magnetic powder on the black side.
E4MP4Z	Visual Examination	No Prints were observed.
	Cyanoacrylate Fuming	Left the item in a humid environment for 7 minutes. Fumed item for 7 minutes. Vented the environment.
	Powder Dusting	Dusted with magnetic powder.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
EAC3AU	Visual Examination	No friction ridge detail observed.
	Cyanoacrylate Fuming	Fumed the item for 6 minutes with 80% relative humidity. No friction ridge detail was observed.
	Powder Dusting	Used black/grey magnetic powder (black on the lighter areas, grey on the darker areas). Friction ridge detail was observed in quadrant "A" but was not suitable for recovery (contrast could not be obtained). However, I could visualize it enough to be confident it was a whorl-type pattern.
	Dye Stain	Sprayed the item with Rhodamine 6G dye stain (Petroleum Ether base) and allowed it dry.
	Alternate Light Source	Visualized the item under 495nm of light. No friction ridge detail was observed.
EAWQMH	Visual Examination	Visual examination with non-destructive light examinations (UV, side lighting)
	Cyanoacrylate Fuming	semi-porous Item followed by visual examination
	Dye Stain	Rhodamine 6G stain followed by visual examination
	Alternate Light Source	No observable print viewed
	Powder Dusting	Orange Fluorescent powder - No observable print viewed
ECUDR7	Visual Examination	Visually examined evidence using oblique lighting
	Alternate Light Source	Examined evidence using 520nm laser, 445nm laser, and 365nm UV
	Cyanoacrylate Fuming	CA fumed evidence then examined both visually and with 254nm RUVIS
	Powder Dusting	Applied Black Magnetic Powder to lighter areas of evidence and Gray Magnetic Powder to darker areas of photograph then examined visually
	1,2-Indanedione	Applied IND to evidence let dry in fume hood before placing in oven for 20 minutes, followed by a visual and 520nm laser examination.
	Ninhydrin	Applied NIN to evidence and let dry in fume hood before placing in humidity chamber for 15 minutes, followed by a visual examination of evidence.
	Dye Stain	Applied RMO to evidence then examined utilized 520nm laser and 445nm laser
	Physical Developer (PD)	Placed evidence in Tray 1 (maleic acid solution) for 10-15min, Tray 2 (PD working solution) for 10-15min, and Tray 3 (de-ionized water) for an initial rinse of the evidence, followed by a second rinse with running tap water and drying with heat press. Visually examined evidence after drying

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
ER64P6	Visual Examination	White light, blue light with yellow glasses, green light with red glasses. No visible print.
	Cyanoacrylate Fuming	No print visible after processing.
	Powder Dusting	Black magnetic, gray magnetic, carbon powder. No print visible after processing.
	1,2-Indanedione	Processing time 10 minutes at 100 C. No print visible after processing.
	Ninhydrin	Processing time 2 minutes at 80 C and 62%RH. No print visible after processing.
	Dye Stain	Basic Yellow 40. No print visible after processing.
EV9LFL	Visual Examination	
	Alternate Light Source	365nm, 350-380nm, 445-510nm
	Laser	Laser: 532nm
	Cyanoacrylate Fuming	CA: 15 mins at 75-80% RH
	Powder Dusting	Powder ALS: 350-380nm
	1,2-IndZnCL	1,2-IndZnCl: Humidity chamber for 20 mins at 80 C, 65%RH
EW7WBP	Visual Examination	A visual examination was completed of this item in its entirety and a general description was notated on the Forensic Processing Worksheet.
	Lumicyano Fuming	This item was placed into a fuming chamber. A Lumicyano solution was utilized in the fuming chamber together with molecular grade water in order to move through the fuming processes of evaporation, saturation, absorption and polymerization. To go through the steps the fuming chamber entered three different cycles. The humidity cycle occurs first and is roughly 15 minutes long where the chamber attempts to reach roughly 80% humidity. The second cycle is the glue cycle which occurs for about 25 minutes at roughly 120 degrees Celsius. The third cycle is the purge cycle which occurs for about 20 minutes. This item was processed together with a QC. The QC showed the process worked correctly, however ridge detail was not observed on this item.
	Vacuum Metal Deposition (VMD)	The VMD was utilized in order to potentially develop ridge detail since the first attempted method did not. This item was placed into the VMD where it was exposed to silver and zinc deposited metals. This item was processed together with a QC. The QC showed the process worked correctly, however ridge detail was not observed on this item.
FD2ZZ6	Visual Examination	
	Alternate Light Source	various wavelengths with appropriate filters
	Cyanoacrylate Fuming	
	Powder Dusting	standard powder

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
FEHXM3	Visual Examination	No latent printed detailed observed through visual examination.
	Cyanoacrylate Fuming	The glossy photograph was inserted in a sealed glass tank with Cyanoacrylate. After making this procedure with a period of 15 minutes the sample not develop the fingerprint.
	Powder Dusting	Black Magnetic Fingerprint Powder
	Alternate Light Source	Light UV in combination with orange glasses. The sample develop fingerprint fragment.
FJDRMP	Visual Examination	A visual inspection was performed to identify dactyl print impression.
	Alternate Light Source	An inspection with alternating white and vivid light was performed to identify a fingerprint impression.
	Powder Dusting	Fingerprint impression was developed using black magnetic powder, resulting in a negative for fingerprint impression.
FMGJVP	Powder Dusting	Magnetic Powder used. No prints developed
FPZJQC	Cyanoacrylate Fuming	processing time: 30 min dye stain: super glue, MBD reaction needs 75-80 percent humidity
FQWBLH	Cyanoacrylate Fuming	
	Powder Dusting	
	Alternate Light Source	
FRNCLE	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Clean powder
	Powder Dusting	Clean magnetic powder
	Dye Stain	Chemical: Adrox ID #: 22-0046
FT2LWZ	Visual Examination	It begins with a visual inspection of the piece of evidence to locate papillary ridges.
	Alternate Light Source	Subsequently, the search is carried out with alternating white and ultraviolet light, but no papillary ridges are located.
	Cyanoacrylate Fuming	The piece of evidence is placed inside a gas box, to use the "cyanoacrylate". Heat is applied to the cyanoacrylate transforming it from liquid to gas. The gas encapsulates the papillary ridges, developing a fingerprint fragment in the D quadrant.
FY8D8J	Visual Examination	
	Alternate Light Source	Examined at 350nm and 515nm
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic powder used
	Dye Stain	Aqueous Rhodamine- examined at 515nm. Aqueous Ardrox- examined at 350nm
	Ninhydrin	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
G32X4E	Visual Examination	Oblique White Light Crime Lite ML2 White Light Bright Beam Dual Laser, Green and Blue with Yellow and Orange Goggles
	Cyanoacrylate Fuming	Foster Freeman MVC 3000 Glue time 12 minutes Heat Plate 120 Degrees Celsius Humidity 80 Percent Cyanoacrylate Lot #202202520 Test Print Positive
	Dye Stain	MBD Lot #072722-01 Viewed Crime Lite ML2 420-470 GG495 Yellow Filter Bright Beam Dual Laser, Green and Blue with Yellow and Orange Goggles Test Print Positive
	Powder Dusting	Black Magnetic Powder Lot #201504053-04 Test Print Positive
	Powder Dusting	Standard Black Powder Lot #201804187 Test Print Positive
	Powder Dusting	Red Fluorescent Powder Lot #121119-01 Test Print Positive
G4Y9YG	Visual Examination	white light (halogen), daylight, white lite CrimeLite 4x4
	Alternate Light Source	blue, cyan, green light observed through orange filter
	Cyanoacrylate Fuming	MVC3000, full incubation cycle in temperature 120C and relative humidity 80%, three times
	Powder Dusting	Bichromatic magnetic powder
	DFO	Solution based on HFE7100, (like in the case of Item 1), observed then in blue, cyan and green light through orange filter.
GA332P	Visual Examination	Visually examined the glossy photo paper for the presence of friction ridge detail
	Cyanoacrylate Fuming	Glossy photo paper was placed in the superglue chamber (set up: aluminum tray with superglue and distilled water). Visually examined the glossy photo paper for any white residue indicative of friction ridge detail
	Dye Stain	Glossy photo paper was subjected to the dye stain Rhodamine 6G and dye any possible friction ridge detail a yellow/pink color
	Alternate Light Source	Using a laser at 532nm and orange filter goggles, visually examined the glossy photo paper for friction ridge detail
	Powder Dusting	Dusted the glossy photo paper with bi chromatic magnetic powder which will turn any residue of friction ridge detail gray color
GEFTLY	Visual Examination	At 10:02am, the evaluation of the piece begins and it does not show visible ridges.
	Alternate Light Source	After having no result with visual evaluation, the inspection was carried out by means of alternate light, ultraviolet light giving negative result.
	Cyanoacrylate Fuming	Using cyanoacrylate, which when converted from a liquid to a gas causes the papillary ridge to encapsulate, placed in an aluminum tray inside a Pandora Box, the piece of evidence is placed inside the box and covered, waiting for 10 to 20 minutes. I don't develop any fingerprints.
GKHWDH	Cyanoacrylate Fuming	fumed in Chamber.
	Dye Stain	Basic yellow dye stained.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
GNMMHD	Visual Examination	
	Cyanoacrylate Fuming	
	Fluorescent Powder dusting	
GPDKYR	Cyanoacrylate Fuming	Fumed using Cyvac with cyanoacrylate (3027)
	Dye Stain	dyed stained with R6G (SV2022-R6GW-14)
	Visual Examination	Inspected with visible light and uv light
GUTYYJ	Cyanoacrylate Fuming	
HBRRNP	CYVAC	Fumed in Cyvac; viewed with RUVIS
	Dye Stain	Stained with basic yellow; viewed with forensic laser blue light
HFFG6T	Visual Examination	White light, UV, co-axial light
	Cyanoacrylate Fuming	Lumicyano (CTS) Fuming cabinet MVC1000 (Foster+freeman)
	1,2-Indanedione	160°C, 10 sec
	Ninhydrin	RT, 72h
HHCVN6	Visual Examination	Item viewed under white light, flashlight, CrimeScope ALS, and TracER laser
	Cyanoacrylate Fuming	Item was fumed in a Mystaire chamber for approximately 11 minutes at 80% humidity.
	1,2-Indanedione	1,2-Indanedione was applied to the item and developed in an oven at 90 degrees C for 20 minutes. Item was viewed under the TracER laser.
	Ninhydrin	Ninhydrin was applied to the item and developed in a humidity over at 90 degrees C and 80% humidity for 20 minutes.
	Powder Dusting	Item was dusted using green florescent powder with a feather brush to mitigate the color variation on the background. Item was viewed under the ALS at 495nm.
HVW8C9	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic Powder
	1,2-Indanedione	
	Ninhydrin	
	Dye Stain	
	Physical Developer (PD)	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
HXMJUE	Visual Examination	Visual Exam with high intensity white light. No visible ridge detail observed.
	Cyanoacrylate Fuming	Cyanoacrylate Fuming (11 min, 80% Humidity, Control Positive). No visible ridge detail observed.
	RUVIS	Visual Exam with RUVIS Imager, Control Positive. No visible ridge detail observed.
	Dye Stain	Rhodamine (R6G) with Laser (532nm, Control Positive, Orange Filter) No visible ridge detail observed.
J22CTK	Cyanoacrylate Fuming	1 hour
	Powder Dusting	GREEN WOP VIEWED UNDER CSS/520NM WITH ORANGE FILTER
	DFO	20MIN IN 100C OVEN
	Ninhydrin	HUMIDIFED WITH STEAM IRON
J6UPYG	Cyanoacrylate Fuming	
	Powder Dusting	
J6YXCA	Cyanoacrylate Fuming	the item was placed in super glu fuming for 30 minutes
J92T36	Visual Examination	The item was visually examined with the naked eye and then with oblique lighting, and nothing was observed.
	Alternate Light Source	The item was then viewed under the forensic light source (FLS) and nothing was observed.
	Cyanoacrylate Fuming	The item was then processed with CA in a fuming chamber, for less than 5 minutes. No prints were observed.
	Powder Dusting	I then used magnetic powder to search the item for latent prints. No prints were observed.
	DFO	The item was then saturated in DFO and dried thoroughly. The item was then placed in a humidity chamber for approximately 15 minutes. The item was viewed under the FLS, and no prints were observed.
	Ninhydrin	The item was again saturated, this time with Ninhydrin (Petroleum Ether). Once dry, the item was placed in the humidity chamber for approximately 10 minutes. No prints were developed.
	Dye Stain	I then applied Rhodamine 6G to the item, and viewed it under the FLS. Again, no prints were observed.
J9G6RW	Visual Examination	First we did visual check with light sources (bright light, UV, Blue, Blue/Green, Green, Violet). No results
	Cyanoacrylate Fuming	We put sample to Foster&Freeman MVC 3000 cabin. 15 drop cyanoacrylate. 120 celsius, hum 80%, 15 min.
	Powder Dusting	We tried first magnetic powder, no results. We changed to "Swedish black"-carbon powder, no results. We tried all light sources we have. (bright light, UV, Blue, Blue/Green, Green, Violet). No results

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JDTCT2	Visual Examination	Performed VIS utilizing oblique lighting.
	Alternate Light Source	Utilized 520nm LASER, 445nm blue light , 365nm UV, and 254nm.
	Cyanoacrylate Fuming	Performed VIS then utilized FSIS II and 254nm.
	Powder Dusting	Applied black magnetic powder and Gray magnetic powder.
	1,2-Indanedione	Placed in the oven for 20 minutes then utilized 520nm LASER.
	Ninhydrin	Placed in humidity chamber for 15 minutes then performed visual. Visualized print.
	Dye Stain	Applied RMO then utilized 520nm LASER and 445nm blue light.
	Physical Developer (PD)	Placed item in Maleic Acid for 10-15 minutes. Placed item in redox working solution for 10-15 minutes. Rinsed item with DI water then rinsed item with tap water.
JDVV4J	Visual Examination	White light
	Alternate Light Source	365 nm, 445-510 nm
	Cyanoacrylate Fuming	Fume time: 15 minutes. Humidity set point: 80%
	Powder Dusting	black magnetic powder
	1,2-Indanedione	532 nm (-laser)
JJ3JJ7	Visual Examination	
	Cyanoacrylate Fuming	A test print was placed in the Foster Freeman MVC 3000.
	Powder Dusting	I used black magnetic fingerprint powder to process the photograph. No ridge detail was found or developed on the photograph.
JKXUQ3	Visual Examination	Performed visual examination with white light, alternate light source, laser.
	Cyanoacrylate Fuming	Placed the item in an airtight superglue chamber with a humidity of about 70-78 for 3 minutes.
	Visual Examination	Performed visual examination with white light, alternate light source, laser.
	Powder Dusting	Applied black magnetic powder.
	Visual Examination	Performed visual examination with white light, alternate light source, laser.
	Dye Stain	Sprayed fluorescent dye stain (RAM - Rhodamine G6, Ardrox, MBD) and let it sit for about 10 minutes.
	Visual Examination	Performed visual examination with white light, alternate light source, laser.
JL69VM	Cyanoacrylate Fuming	in Environmental Chamber
	Alternate Light Source	UV Light
	Dye Stain	basic yellow with forensic laser; no improvement over UV light
JLN22Q	Powder Dusting	Item was processed in about five minutes using magnetic powder and a feather duster.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JNFXR7	Visual Examination	Item was examined under a magnifier with a light. No ridge detail was observed.
	Cyanoacrylate Fuming	I placed the item into a CA chamber along with a tin of CA on a warming plate and a container of hot water for humidity. Item was examined using a magnifier with a light. No ridge detail was observed.
	Dye Stain	I applied MRM-10 dye stain on to the item. After drying, I examined the item using a FLS at 450nm with an orange filter. No ridge detail was observed.
	Dye Stain	I applied Basic Yellow dye stain on to the item. After drying, I examined the item using a FLS at 450nm with an orange filter. No ridge detail was observed.
	Methanol rinse	I completed a rinse of the item using Methanol. I examined the item using a FLS at 450nm with an orange filter. No ridge detail was observed.
	Magna powder	I brushed the item with a black magna powder. I examined the item using a magnifier with a light. No ridge detail was observed.
JRUQAY	Cyanoacrylate Fuming	The glossy photograph was placed in a cyanoacrylate vacuum chamber for two hours.
	Black Powder	the item was processed with black powder and a powder brush.
	Visual Examination	No ridge detail was observed.
	Magnetic Powder	the item was processed with magnetic powder
	Visual Examination	No ridge detail was observed.
	Dye Stain	The item was sprayed with RAM dye stain and allowed to soak for approximately 1 minute. The item was then rinsed with DI water and hung to dry.
	Alternate Light Source	The photograph was visually examined using an alternate light source and filtered lenses. No ridge detail was observed.
JTR49C	Alternate Light Source	455-515nm
	Cyanoacrylate Fuming	atmospheric fuming 20 minutes
	Powder Dusting	black powder, black magnetic powder, bi-chromatic powder,
	Dye Stain	Rhodamine 6G
	Ninhydrin	processing time ~24 hours
	DFO	ALS 455-515nm
JW8F6T	Alternate Light Source	White Light: The sample was inspected using a white light spectrum, it was illuminated obliquely in order to be able to appreciate any presence of a papillary ridges; It did not reflect any presence. UV light: The sample was inspected using a 395nm UV light spectrum, it was illuminated obliquely using safety glasses, in order to appreciate any presence of a papillary ridges; It did not reflect any presence.
	Powder Dusting	I proceed to work on the Glossy Photography with the Black Magnetic Graphite Powder, it is deposited in the sample Photograph, and no presence of papillary ridges was detected. All the Glossy Photography was worked on and there was no presence of papillary ridges in the sample.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JW8HN7	Visual Examination	White light and FSIS
	Cyanoacrylate Fuming	
	Visual Examination	with FSIS
	Powder Dusting	Fluor Green under laser
	Dye Stain	
	Alternate Light Source	DCS5 and laser
JYRL8W	Visual Examination	White light.
	Cyanoacrylate Fuming	Fuming chamber for approx. 20 minutes. White light.
	Powder Dusting	Bi-chromatic powder. White light.
	1,2-Indanedione	Dipped and utilized humidity chamber for 10 minutes. Used with LASER.
	Alternate Light Source	RUVIS
	Ninhydrin	Dipped and utilized humidity chamber for 10 minutes. White light.
	Dye Stain	Rhodamine 6G with LASER
K22RLB	Cyanoacrylate Fuming	Powder dusting with contrasting powders before and after cyanoacrylate fuming
K2WDXP	Cyanoacrylate Fuming	climate chamber: 80% humidity, 130 degree Celsius
	Cyanoacrylate Fuming	climate chamber: 80% humidity, 130 degree Celsius
	Powder Dusting	no development
K3BYHC	Visual Examination	Looked over the photograph to see if there was any ridge detail visible before chemical processing. Used a flashlight and fluorescent lights.
	Alternate Light Source	Used several wavelengths with the alternate light source (ALS) to see if any part of the item fluoresced and it did not. The ALS was tested and performed as expected before using it on the item.
	Cyanoacrylate Fuming	Fumed the item with cyanoacrylate. The chamber was set at 75% humidity and was run for 15 minutes. No development of ridge detail was observed. The latent print standard in the chamber performed as expected.
	Powder Dusting	Fluorescent powder was applied to the photograph since cyanoacrylate fuming did not develop any ridge detail. No ridge detail was observed after the application of powder. The fluorescent powder was tested and performed as expected before using it on the item.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
K7B64A	Visual Examination	Examined using Crimelite and TracER Laser.
	Cyanoacrylate Fuming	Item incubated in F+F MVC-5000 autocycle for ~70 minutes. Item examined using Crimelite.
	Powder Dusting	Black powder was used. Item examined with Crimelite and Incandescent lighting.
	DFO	Item incubated in oven @ ~100°C for 20 minutes. Item examined using TracER Laser.
	Ninhydrin	Item incubated in humidity chamber @~65% relative humidity and 80°C for 3 minutes. Item examined using Crimelite and Incandescent lighting.
KAU4DX	Powder Dusting	evidence objet 3 was treated for one minute by black magneticpowder, ref. no. A2412w, but don't developep fingerprint fragments
KDUF9X	Powder Dusting	Item #3 was treated for one minute by Black magnetic powder, ref. No. A-2412W, but I dont develop fingerprint fragments.
KHLR29	Visual Examination	The item was examined with a white light source held at an oblique angle.
KHP6TB	Visual Examination	Viewed under magnifier and white light
	Cyanoacrylate Fuming	Placed into superglue chamber with boiling water, glue in tin tray on heat plate, and a control on plastic. Allowed item to fume for approximately 15 minutes.
	Powder Dusting	After viewing item, used regular black powder to dust item after superglue fuming
KJEFQV	Visual Examination	Visual examination of glossy photograph
	Powder Dusting	applied magnetic powder with negative results
	Cyanoacrylate Fuming	applied cyanoacrylate, negative results
	Powder Dusting	applied magnetic powder, negative results
KMGDXH	Visual Examination	11/30/2022: visual examination under ambient light
	Lumicyano fuming	11/30/2022: Fumed in a Foster + Freeman MVC 3000 with reagent of 5.5 scoops of the Lumicyano powder mixed with 90 drops of the Lumicyano solution. Humidity cycle of 15 minutes with relative humidity increasing to 80%, followed by fuming cycle of 25 minutes with a relative humidity of 80%, followed by 20 minutes of a purge cycle. QC positive.
	Alternate Light Source	11/30/2022: QC positive under laser light source (green light/532nm). No ridge detail observed on item with laser (green light/532nm).
	Rhodamine 6G	12/1/2022: Prepared a solution of 0.01g of Rhodamine 6G powder with 100 mL of methanol. QC positive under laser light source (green/532nm). Carefully applied (painted) prepared solution on the glossy side of item.
	Alternate Light Source	12/1/2022: Examined item under laser light source (green/532nm). No ridge detail observed.
	Vacuum Metal Deposition	12/7/2022: Item run in VMD (gold, then zinc, then silver) with a QC. QC was positive and showed development. Item examined with ambient and oblique lighting. No fingermark or ridge detail was observed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
L8JLTT	Visual Examination	Coaxial light (DCS 5, VSC 8000)
	Cyanoacrylate Fuming	MVC 1000 (RH 80%, superglue evaporation temp. 120oC, evaporation time 10min).
	Vacuum metal deposition	VMD 560 (gold+zinc)
LBKPLF	Visual Examination	Exhibit was visually examined for prints.
	Cyanoacrylate Fuming	Exhibit was processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour, allowed to cure.
	DFO	Exhibit was processed by 1, 8-Diazafluoren-9-one (DFO) and dried overnight (24 hours)
	Dye Stain	Exhibit was dye stained with Rhodamine 6G (R6G)
	Alternate Light Source	Exhibit was viewed using a 530nm/green forensic laser.
LCRZGJ	Cyanoacrylate Fuming	Cyanoacrylate chamber was used for Glossy Photograph. Put in chamber for 40 minutes. Purged for 5mins. No prints developed. Lot#05032021MI. EXP:05/03/23
LCTWUA	Visual Examination	visually examined utilizing flashlight
	Cyanoacrylate Fuming	utilized CA in superglue chamber
	Dye Stain	R6G
	Alternate Light Source	TRACER LASER
	Powder Dusting	mag powder
	Cyanoacrylate Fuming	CA fumed for 2nd time following negative results
	Dye Stain	R6G
	Alternate Light Source	TRACER LASER
	Powder Dusting	mag powder
LGZGH7	Physical Developer (PD)	The photographic fixation of the sealed evidence was conducted and once it was opened the same procedure was carried out, it was observed to determine the type of reagent to be used, a silver reagent was used to perform the contrast with the background of the evidence. All 4 quadrants were observed but not I did not locate lofoscopic fragment. Processing lasted about 1 hour.
LH32WV	Dye Stain	Cyanoacrylate Ester fuming - 15mins. Magnetic Powder. Rhodamine 6G. Fluorescent Powder. Viewed with FSIS between each method used

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
LP48F4	Visual Examination	Optical Examination was conducted using the Polilight (000) white light.
	Cyanoacrylate Fuming	The item was then placed in the tank for Cyanocrylate Fuming along with a test glass piece. The item was then screen using the Polilight (000) white light where no development was observed, I used several different nm. The item was then left overnight for any glue deposits to harden.
	1,2-Indanedione	After another optical examination i used the IND-ZN, the item was placed in the working solution and then dried in the fume hood. Once dried i heated the item for 10 seconds using the heat press. I then screened the item using the Polilight (505nm) wearing orange goggles with no development observed. I also screen the item using different nm such as (530nm) and no developments observed.
	Cyanoacrylate Fuming	I then placed the item back into the tank for Cyanocrylate Fuming as outlined above and left overnight.
	Dye Stain	After another examination I used Ardrox method, I tested a corner of the item prior to application. I then treated the item using a pipette, it was then rinsed in deoxidised water and allowed to dry in the fume hood. I then viewed the item using the Polilight 350UV wearing clear goggles, and nil development was observed.
	Cyanoacrylate Fuming	I then placed the item back into the tank for Cyanocrylate Fuming out outlined above and left overnight.
	Ninhydrin	After another examination using the Polilight with different light, I then used the Ninhydrin method, I used the working solution to treat the item, long enough to soak through and it was then dried and placed overnight in an exhibit cabinet. The next day the item was screened and nil development was observed.
LTY4Y4	Visual Examination	white light
	Alternate Light Source	polylight. 440 - 520nm. orange filter.
	Cyanoacrylate Fuming	80RH%. 10 min process
	Visual Examination	RUVIS
	1,2-Indanedione	520nm. orange filter
	Ninhydrin	
	Physical Developer (PD)	
LUNPE8	Visual Examination	Visual examination with lights (390 - 535 nm) and photography+ photoshop. No fingerprints was found.
	Cyanoacrylate Fuming	Foster+Freeman MVC 3000, moisture 80%, 120C degrees and gluetime 15 min. Very light print was found in section D with Crime-lite 82S BLUE 420-470nm. Photography+ photoshop.
	Powder Dusting	Magnetic powder. Print got a little bit better. Photography+ photoshop.
	BY 40 -method	Item was covered BY 40 liquid. Fingerprint didn't get any better.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
M2ALEG	Powder Dusting	Black magnetic fingerprint powder
	Visual Examination	No prints observed to have developed
	Cyanoacrylate Fuming	Approximately 10 minutes
	Visual Examination	No prints observed to have developed
	Alternate Light Source	No prints observed to have developed
MC9KJ8	Visual Examination	White light, Laser 532 nm, Laser 577 nm, FLS
	Cyanoacrylate Fuming	Luminescent cyanoacrylate CST (Fumigation chamber MVC 3000 FOSTER+FREEMAN - Automatic Mode)
	Alternate Light Source	LABINO Superxenon 325 nm + Yellow filter
	Powder Dusting	WHITE HIFI VOLCANO POWDER
	Alternate Light Source	White light
	1,2-Indanedione	1,2,Indanedione/ZnCl2 (Ramotowski, 2009), Heating press 165°C – 10 seconds
	Alternate Light Source	Laser 532 nm – Orange filter
	Ninhydrin	- 4 g ninhydrin - 20 ml ethanol - 10 ml acetic acid - 70 ml ethyl acetate - 900 ml petroleum ether 30 min : Temperature = 80°C, RH = 62%
	Alternate Light Source	White light and green light
MDEZZL	LPPM R7	Visual examination, RUVIS, fumed in safefume, visual examination, RUVIS, magnetic latent print powder
METJL6	Cyanoacrylate Fuming	RH 80%. Gluing time 15 min. At first Visual Examination and after that Magnetic Powder.
	Magnetic Powder	
MJQU84	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	
	DFO	ALS 555nm, red filter
	Ninhydrin	Natural development 3 days
MK2PVG	Powder Dusting	Processed with magnetic black powder and magnetic wand

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
MK6B9P	Visual Examination	No ridge detail.
	Lumicyano	Visual examination of glue development. No ridge detail developed. Laser examination of fluorescent glue development with a laser at 532nm and 445nm with orange barrier and AFF-1. No ridge detail. Alternate Light Source: 450nm, 505nm, 555nm with orange, yellow and red barrier 315nm with and yellow barrier. No ridge detail. Second round of Lumicyano processing. Visual examination of glue development. No ridge detail developed. Laser examination of fluorescent glue development with a laser at 532nm and 445nm with orange barrier. No ridge detail.
	Powder Dusting	Magnetic grey powder. No ridge detail.
	Dye Stain	Water based R6G dye stain. Laser examination with a laser at 532nm and 445nm with orange barrier. No ridge detail.
MMPC3B	Visual Examination	1) Observation with the nake eye of the surface of the glossy photography, under different inclinations. We don't observe trace. The support is determined as half porous support.
	Visual Examination	2) We illuminate the support with the Crimescope MCS-400 at different frequencies with the appropriate colored glasses and at different inclinations. We don't observe trace.
	Cyanoacrylate Fuming	3) In view of half porous support, we place the photography in the fumigation tank. Autocyle for 2g of solution of Lumicyano 8% during 1 hour. A contrôle trace is placed in the tank.
	Visual Examination	4) We observe photography from different angles. We dont observe trace.
	Visual Examination	5) We illuminate the object using the Crimescope MCS-400 at different wavelengths and wearing glasses of appropriate colors. We don't observe trace.
	1,2-Indanedione	6) In view of half-porous support, we vaporise the solution 1,2-Indanedione, under a hood, on the photography, then we wait 2 minutes for evaporation of the solution. Then the object is placed under a heating press at 165°C during 10 seconds, protecting it with several layers of parchment paper.. The solution 1,2-Indanedione is tested in parallel on a control.
	Visual Examination	7) We observe photography from different angles. We dont observe trace. The surface of the photograph has a few cracks in places, following use in the heated press.
	Alternate Light Source	8) We illuminate the support with the Crimescope MCS-400 at different frequencies with the appropriate colored glasses and at different inclinations. We don't observe trace.
	Ninhydrin	9) We spray the ninhydrin under a hood on the photography, then we wait 2 minutes for the solution to evaporate. Then the object is placed in a cuvette in the dark at room temperature with a beaker of water for 24-48 hours for a slow reaction. The object is checked regularly with the naked eye to verify the revelation of the purple fingerprint. The ninhydrin solution is tested in parallel on a control.
	Visual Examination	10) We observe photography from different angles. We don't observe trace.
	Alternate Light Source	11) We illuminate the support with the Crimescope MCS-400 at different frequencies with the appropriate colored glasses and at different inclinations. We dont observe trace.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
MQNJQU	Visual Examination	The piece of evidence is photographed as it was received and after removing it from the evidence envelope. And then begins to be evaluated visually, giving a negative result. The process began at 9:07 a.m.
	Alternate Light Source	A search was carried out with ultraviolet light giving a negative result, continued with blue light and no trace of papillary ridges was found.
	Cyanoacrylate Fuming	Using cyanoacrylate, (which when converted from a liquid to a gas causes the papillary ridges to encapsulate, placed in an aluminum tray inside a Pandora's box), the piece of evidence is placed inside the box and covered, waiting for a few ten (10) approximately, not having resulted, it is left another ten (10) minutes, giving a negative result.
	Powder Dusting	Gray graphite powder was used to highlight the footprint fragment that could have been encapsulated with the cyanoacrylate, developing after approximately one minute (1) and to have a better color, red/silver magnetic powder was used, thus giving a better highlight to the footprint fragment. fingerprint, which was located in section C.
MTFDUP	Visual Examination	natural light; flashlight
	Cyanoacrylate Fuming	60 % humidity. ~120 degrees Celsius. 15 minutes fuming
	Powder Dusting	Black powder, black magnetic powder, bi-chromatic powder, white powder
	Alternate Light Source	350/415/445/455/475/CSS*/495/515/535/555/575/600/630/670 - Clear, yellow, orange, red, AFF1- *CSS setting: 'Crime Scene Search' = Short pass filter; blocks wavelengths over 520 nm
	Dye Stain	R6G diH2O based - laser examination @ 532nm with orange barrier filter
MWZENC	[No Methods Reported.]	Visual exam, (white light and LASER) **FSIS is inoperable**, CA fumed in atmospheric chamber, Visual, black power, Visual, the processed with DFO (20 min in oven) and viewed under LASER
	Cyanoacrylate Fuming	in Atmospheric chamber
	Visual Examination	
	Powder Dusting	black powder
	Visual Examination	
	DFO	20 min. in oven
	Visual Examination	View under LASER
N7D3UU	Visual Examination	No visible prints.
	Cyanoacrylate Fuming	Superglue fumed for 3 minutes.
	Powder Dusting	Applied black magnetic powder.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
N9MW2F	Visual Examination	Examination of the photograph using different lights and observation filters. No fingerprint was detected.
	Cyanoacrylate Fuming	15 min of cyanoacrylaste fuming / humidity 80%. No fingerprint was detected. On a similar surface the fingerprints were detectable after the cyanoacrylate fuming.
	Dye Stain	Dye Stain using Ardrox. No fingerprint was detected. On a similar surface the fingerprints were detectable after the cyanoacrylate fuming and dye staining
	Ninhydrin	Spray on the back of the photograph. No fingerprint was detected.
NDFA9X	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic powder
	1,2-Indanedione	
	Dye Stain	RhoMeOH
	Physical Developer (PD)	
NPC3DF	Visual Examination	Ambient lighting and magnifier lamp.
	Alternate Light Source	CRIMESCOPE CS-16-500: 350 nm with clear goggles – 415, 445 nm with yellow goggles – 445, 455, 475, CSS, 495, 515 nm with orange goggles – 515, 535, 555, 575 nm with red goggles.
	Cyanoacrylate Fuming	Cyanoacrylate fuming was performed in a CA-6000 at 65% relative humidity for 11 minutes. Removed to prevent overprocessing.
	Visual Examination	Ambient lighting and magnifier lamp.
	Dye Stain	RAM was applied using the squeeze bottle method; allowed to dry for a few minutes in the fume hood.
	Alternate Light Source	CRIMESCOPE CS-16-500: CSS with orange goggles.
	Ninhydrin	Sprayed with ninhydrin (petroleum ether), then air dried for a few minutes in a fume hood. Heat and humidity is applied with a steam iron for a few minutes
	Visual Examination	Ambient lighting and magnifier lamp.
	Powder Dusting	Dusted with white fingerprint powder, but not lifted.
	Visual Examination	Ambient lighting and magnifier lamp.
NQAD9J	Powder Dusting	The item was visually looked at with oblique lighting. No latent print observed. The item was processed with magnetic powder using a magnetic wand.
NQMZB6	Cyanoacrylate Fuming	
	Powder Dusting	
	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
NVHXQN	Cyanoacrylate Fuming	I hang the paper in the fuming tank, add few drops of cyanocrilate to the aluminium tray, exposed the item 40 minutes to the fuming, inspecting the item regulary. the item doesn't develop any fingerprint.
NWMGLB	Visual Examination	White, Blue and Green light
	Cyanoacrylate Fuming	
	Powder Dusting	
	Dye Stain	BY40
NYRC3T	Visual Examination	Visual examination with magnify glass and oblique lighting, with negative results.
	Cyanoacrylate Fuming	Fumed in CY-AT chamber for 15 minutes and allowed to rest for 30 minutes before processing.
	Powder Dusting	Fluorescent powder (busy background) and magnetic powder. Visually inspected with magnify glass and oblique lighting with negative results.
P94RLE	Cyanoacrylate Fuming	Placed glossy photo in Cyanoacrylate chamber with 40 drops of cyanoacrylate and water. Control sample on black acetate with polymerization standard was also placed in chamber. Processed in chamber for 40 minutes then allowed to purge for 10 minutes.
PAFAYT	Visual Examination	the piece of evidence is photographed as it was received and after removing from the evidence envelope. Begins to be evaluated visually, giving a negative result.
	Alternate Light Source	A search was carried out with light giving a negative result.
	Cyanoacrylate Fuming	Using cyanoacrylate, (which when converted from a liquid to gas causes the papillary ridges to encapsulate, placed in an aluminum tray inside a pandora's box), the piece of evidence is placed inside the box and covered, waiting for a few ten (10) minutes approximately, not having resulted, it is left another ten (10) minutes, giving a negative result.
	Powder Dusting	Red and black magnetic graphite powder is used in the photograph. A fingerprint impression was developed on the letter D.
PFJB28	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	BLITZ RED MAGNETIC FLUORESCENT FINGERPRINT POWDER
	Dye Stain	BASIC YELLOW
	Dye Stain	MRM10
PJLAF8	Powder Dusting	I used black mag powder and black powder both Valid to the glossy photograph with negative results.
PKE4U3	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Fluorescent powder

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
PUXH2L	Visual Examination	
	Cyanoacrylate Fuming	in chamber
	1,2-Indanedione	heat in oven 20 mins dry heat
	Ninhydrin	left over night
PXHKTR	Visual Examination	Visual exam with white light, Reflected UV Light, and ALS
	Cyanoacrylate Fuming	Visual exam with white light and Reflected UV Light
	Powder Dusting	Black Magnetic Powder followed by Bi-chromatic powder
Q8KAXY	Visual Examination	
	Cyanoacrylate Fuming	approx 12 mins
	Powder Dusting	Magnetic Powder-negative
	Powder Dusting	Dual Tone Powder-negative
QGXXEF	Powder Dusting	Black magnetic powder
QQWR96	Visual Examination	I performed a visual examination with natural and oblique lighting.
	Cyanoacrylate Fuming	I placed the item in a chamber. I added cyanoacrylate glue into an aluminum dish, which I then placed on the hot plate in the chamber. I also added a beaker of boiling water to the chamber to provide humidity. I turned the chamber on to heat the cyanoacrylate glue into a vapor. I left the item in the chamber for approximately 15 minutes. Once I saw my positive control turn white from the cyanoacrylate fumes, I turned off the hot plate and opened the vent to the chamber. I waited another 5 minutes, then I removed my item from the chamber.
	Powder Dusting	I applied black magnetic powder to the item using a magnetic wand. After taking multiple passes over the item, I observed no ridge detail was developing. I viewed the photograph under a lighted magnifying class and could not find any ridge detail on the item.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
QR8NLW	Visual Examination	Used bright white light and oblique lighting.
	Alternate Light Source	Used four light sources; Dual 77 (445nm and 520nm), FSIS (254nm) and 365nm (UV light).
	Cyanoacrylate Fuming	Placed item in a superglue chamber and then examined the item using oblique lighting, bright white light and FSIS (254nm)
	Powder Dusting	Processed item with black and gray magnetic powder and then examined item using oblique lighting and a bright white light.
	1,2-Indanedione	Processed item with 1,2-Indanedione and let the item completely dry. Item was placed in the 100 degree Celsius oven for approximately 20 minutes. Used bright white light and 520nm (laser) to examine the item.
	Ninhydrin	Processed item with Ninhydrin and let the item completely dry. Item was placed in the 76% relative humidity chamber for approximately 15 minutes. Used bright white light to examine the item.
	Dye Stain	Processed item with RMO, let the item completely dry and used two light sources; Dual 77 (445nm and 520nm)
	Physical Developer (PD)	Processed item with physical developer. Step 1; Item was placed in a maleic acid bath for 15 minutes and then Step 2;item was placed in a Redox Working solution for 15 minutes. Step 3;The item was placed in a distilled water rinse and then Step 4; rinsed with a second water rinse. Examined the item once it was completely dry using a bright white light and oblique lighting.
QVMB48	Visual Examination	WHITE LIGHT UV LASER
	Cyanoacrylate Fuming	
	METAL DEPOSITION	
QYRRTY	Visual Examination	Visual exam using oblique lighting.
	Alternate Light Source	Exam using 520nm (Dual 77), 445nm (Dual 77), and 365nm UV.
	Cyanoacrylate Fuming	Visual exam, then exam with RUVIS and 254nm UV. Visualized print.
	Powder Dusting	Applied gray magnetic powder, then performed visual exam.
	1,2-Indanedione	Placed in oven for 20 minutes, then performed visual exam and exam with 520nm (Dual 77).
	Ninhydrin	Placed in humidity chamber for 15 minutes, then performed visual exam.
	Dye Stain	Applied RMO, then performed exam with 520nm (Dual 77) and 445nm (Dual 77).
	Physical Developer (PD)	Placed in maleic acid solution for 15 minutes. Placed in Physical Developer working solution for 15 minutes. Rinsed with water. Performed visual exam.
QZ73YJ	Powder Dusting	work for approximately one minute until the print is seen. I work with Black Magnetic Powder, but i dont develop fingerprint fragments.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
QZLKEA	Visual Examination	
	Alternate Light Source	ALS: 365nm 495nm CSS 445-510nm
	Cyanoacrylate Fuming	CA: 20 minute fume time at 80% humidity
	Fluorescent Powder	Fluorescent red powder observed at 365nm
	Ind-ZnCl	Ind-ZnCl 20 min at 70 C, 65% RH observed at 445-570 nm
R6WWBB	FSIS	Short and Long ultraviolet illumination
	Alternate Light Source	Fluorescence Examination - Blue Laser, Green Laser
	Cyanoacrylate Fuming	70 % Relative Humidity, 14 minutes
	FSIS	Short and long ultraviolet illumination
	DFO	Dry Heat at 100°C for 15 minutes
	Ninhydrin	Steam iron
RA788B	Cyanoacrylate Fuming	Placed item into an enclosed chamber. Added humidity source to the cyanoacrylate and fumes at least 10 minutes.
	Powder Dusting	Magnetic powder was applied in a light, twisting motion until print developed
RAAUKH	Visual Examination	No ridge detail observed
	RUVIS	Due to the glossy surface, utilized RUVIS to visualize impression(s); no ridge detail observed
	Cyanoacrylate Fuming	Due to the glossy surface, processed with CA to visualize impression(s); no ridge detail developed
	RUVIS	Due to the glossy surface, utilized RUVIS to visualize impression(s); no ridge detail observed
	Powder Dusting	Fluorescent magnetic powder "dazzle orange" was applied on all sections; no ridge detail developed
	Alternate Light Source	No ridge detail observed
	LASER	No ridge detail observed
RN2PLN	Visual Examination	White Light
	Cyanoacrylate Fuming	White Light/RUVIS
	Powder Dusting	White Magnetic Powder/White Light (Processed the glossy side of the photograph).
	1,2-Indanedione	Humidity/LASER
	Ninhydrin	Humidity/White Light
	Dye Stain	RAM/LASER

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
RQAWQ2	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Humidity - 80%. Temperature of the heating plate - 100 Celsius degree. Time - 45 minutes
	Powder Dusting	
RYGJXG	[No Methods Reported.]	Visual examination / Cyanoacrylate Give lite 400-700mm white and 350-380 UV Magnetic powder
T8B6KU	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	1,2-Indanedione	
	Dye Stain	
	Physical Developer (PD)	
T8UQDK	Powder Dusting	Red fluorescent magnetic powder was applied using magnetic wand.
T9RA8Y	Visual Examination	
	Powder Dusting	red fluorescent magnetic powder with laser examination
	DFO	with laser and als examination
	Ninhydrin	
	Cyanoacrylate Fuming	fluorescent ca processing with visual and laser examination
TBT8PE	Cyanoacrylate Fuming	vacuum fumed with cyanoacrylate ester in cyvac for 45 min cured for 30 min
	Alternate Light Source	viewed with UV light
TEUDYH	Powder Dusting	Object #3 (ithem 3) was treated with Black Magnetic Powder (3A-2412-w) already also for one minute, it did not developed a fingerprint fragments
TFZYDH	Visual Examination	Polychromatic light source (White, UV, Blue, Blue-Green, Green)
	Cyanoacrylate Fuming	Fuming time: 10 minutes Superglue: 1g Lumicyano Solution + 4% Lumicyano Powder
	1,2-Indanedione	(1,2-IND / ZnCl2) Processing time within climatic chamber (80°C ; 65% RH): Recovery time + 10 minutes
	Ninhydrin	Processing time within climatic chamber (80°C ; 65% RH): Recovery time + 2.5 minutes
TGL83E	Cyanoacrylate Fuming	introduced to superglue tank for 20 minutes at 78 percent humidity.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
TJPYX8	Visual Examination	Direct and oblique white light, fluorescence verification at wave lengths 345, 470, 490, 505 and 530 nm
	Cyanoacrylate Fuming	Relative humidity:80% ; Temperature: 118-123 °C ; Cyano glue quantity : 0.83 g; Exposure time : 15 min
	Powder Dusting	Red fluorescent powder
	VMD	Au/Zn followed by Ag
TPQF8T	Visual Examination	Examined with white, blue and green light. No fingermark visable.
	Cyanoacrylate Fuming	Processing time 6.5 min, 2.0 gram cyanoacrylate. 80% humidity. No fingermark visable.
	Powder Dusting	Instant white powder and Swedish black powder. No fingermark visable.
	1,2-Indanedione	Processing time 10 min, temperature 100 degrees. No fingermark visable.
	Ninhydrin	Processing time 2 min, temperature 80 degrees, 62% humidity. No fingermark visable.
	Dye Stain	Basic yellow 40. No fingermark visable.
TPVTUN	Visual Examination	We watch Item3 with Crime-Light 82S Uv nm365 and white light, nothing ..
	Polycyano	We put Item2 in Foster-Freeman MVC3000 and used Polycyano glue. Processing time was 20 min and temperature 230.
	Powder Dusting	We used also Supranano red fluorescent powder.
TURD6Z	Visual Examination	used side lighting / oblique lighting
	Cyanoacrylate Fuming	Air science cyanoacrylate fuming chamber #1, 15 minutes at 73 degrees F and 80% humidity
	Dye Stain	Sprayed with Rhodamine 6G (water base)
	Alternate Light Source	Laser (Bright Beam) exam at 532nm / used orange goggles
	Powder Dusting	processed with white magnetic powder
U9YZHM	Alternate Light Source	Examination took place at the FSIS facility, conditions: UV Lens 78 mm F/3.8, aperture ISO 11, UV light
	Cyanoacrylate Fuming	The examination took place in the climacteric room: "Woigtlander" 3315-01, whit the following conditions: temperature - 120 degree, humidity - 80%, time: 25 min, cyanoacrilate solution "SomaFix siperglue".
	Iodine	Iodines Cristales were used in dexicator, 60 min, temperature 30%
	Physical Developer (PD)	A magnetic dactyloscopic powder were applied: "CRP, magnetic silver/black"
UAWBEP	Visual Examination	Green light (500-550nm), filter 549nm. Blue light (430-470nm), filter 476nm. Visual examination
	Cyanoacrylate Fuming	10 min
	Powder Dusting	Magnetic-black
	Dye Stain	Basic Yellow 40

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
UAYXXN	Visual Examination	Visual examination with white light.
	Cyanoacrylate Fuming	Placed in fuming chamber for 3 minutes at 60% humidity.
	Powder Dusting	Applied magnetic powder followed by black powder.
ULPQ3Q	Visual Examination	No visible friction ridge detail noted
	Alternate Light Source	No visible friction ridge detail noted
	Cyanoacrylate Fuming	20 minutes processing time (test strip used) to include extraction of fumes
	Visual Examination	No visible friction ridge detail noted
	Alternate Light Source	No visible friction ridge detail noted
	Powder Dusting	Fluorescent powder, 5 minutes processing time
	Visual Examination	No visible friction ridge detail noted
	Alternate Light Source	No visible friction ridge detail noted
	Ninhydrin	20 minutes processing time
	Visual Examination	No visible friction ridge detail noted
	Alternate Light Source	No visible friction ridge detail noted
UM2GG2	Visual Examination	No latent print observed.
	1,2-Indanedione	No latent print observed.
	Ninhydrin	No latent print observed.
	Physical Developer (PD)	No latent print observed.
UNC7V8	Visual Examination	light 312 nm
	Cyanoacrylate Fuming	temp. 21 C, humidity 80%, time 15 min
	Dye Stain	light 350-505nm
UPU4FJ	Powder Dusting	Graphite powder was applied to detect the latent print, the same was worked to clean and then to be able to photograph.
UW8BP9	Visual Examination	in natural light and light from forensic iluminator - a latent print was observed in section A (254 nm - 312 nm)
	Cyanoacrylate Fuming	time 15 min, RH - 80% - discovered fingerprint marks did not improved
	Powder Dusting	fingerprint powder REDCHARGE applied with brush - the observed fingerprint marks did not improved
V2FULF	Cyanoacrylate Fuming	Lot #: 042621-05 Humidity: 80% Temperature: 120 degrees C Control Print: Positive Processing Time: Auto Humidify 17:00 minutes, Auto Glue 13:minutes Equipment Used: MVC 3000
	Visual Examination	No ridge detail observed.
	Powder Dusting	Bichromatic powder lot #: 111219

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
V9EHYD	Visual Examination	Visual examination with white light source and with different light source examination: oblique light technique, spectroscopic technology, grazing light... No fingerprint detected
	Alternate Light Source	Examination with multi-spectrum forensic light: Poly-light ROFIN PL500R between the different light ranges from ultraviolet light to infrared light. No fingerprint detected
	Cyanoacrylate Fuming	Application of cyanoacrylate reagent with cyanoacrylate fuming cabinet. The values of the hood have been: 70%-80% humidity and plate temperature up to 140°C.
	Visual Examination	Visual examination with white light source and with different light source examination: oblique light technique, spectroscopic technology, grazing light... No fingerprint detected
	Powder Dusting	Apllication DAZZLE RED FLUORESCENT mechanic reagent
	Visual Examination	Visual examination with UV light (350Nm). Visualization one latent fingerprint in section B (the same). No fingerprint detected
	1,2-Indanedione	Application 1,2 Indanedione- Zinc Clhoride reagent procedure with oven (100°C) during 20 minutes.
	Alternate Light Source	Examination with multi-spectrum forensic light: Poly-light ROFIN PL500R between 490Nm- 550Nm No fingerprint detected
	Ninhydrin	Application Ninhrydin- Petroleum ether reagent procedure with oven (80°C 65% humidity) during 20 minutes.
	Visual Examination	Visual examination with white light source: No fingerprints detected
	Physical Developer (PD)	Apllication Physical Developer reagent procedure: step 1, 15 minutes inside Maleic Acid solution + (step 2) 30 minutes Physical Developer solution + (step 3) rinse with tape water + (step 4) on 2 hours oven 40°C
	Visual Examination	Visual examination with white light source: No fingerprints detected
VF2FV2	Visual Examination	ambient and fluorescent
	Alternate Light Source	Crime scope, 515 nm, orange filter; possible ridge detail/swipe mark
	Cyanoacrylate Fuming	Mystaire fuming chamber, 80% humidity, 11 minutes; nothing additional observed
	Alternate Light Source	Crime scope, full range with and without orange filter; same possible ridge detail/swipe mark Bright Beam Laser, orange filter; same possible ridge detail/swipe mark
	Powder Dusting	Magnetic black and regular black powder; no detail developed
	Dye Stain	Rhodamine 6G, Crime scope, 515 nm, orange filter; same possible ridge detail/swipe mark
VF34A7	Visual Examination	Natural light, white light, optical instruments.
	Cyanoacrylate Fuming	Processing time: 10 min, humidity: 80%
	Visual Examination	White light /angle light, optical instruments.
	Powder Dusting	Ferro-magnetic powder.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
VVU2AF	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters). Wavelengths ranging from 350 nm to 650 nm is a standard procedure applicable in our laboratory.
	Cyanoacrylate Fuming	in the fuming chamber with a humidity 80% for 10 minutes; visual examination under white light and fluorescence examination in alternate light source (350 nm - 650 nm under appropriate color barrier filters)
	Powder Dusting	Fluorescent Powder BLITZ-PINK ; fluorescence examination (350 nm under yellow barier filter)
WLNFVE	Visual Examination	Natural light used for visual examination. No friction ridge detail observed.
	Alternate Light Source	CrimeScope ALS utilized. No fluorescent friction detail observed.
	Cyanoacrylate Fuming	Glossy photograph was processed with CA for approximately 15mins with 12min purge time. No friction ridge detail observed.
	VMD - Gold/Zinc	Glossy photograph processed with VMD using the Gold/Zinc two-metal process. No friction ridge detail was observed.
	1,2-Indanedione	Glossy photograph processed with IND. Processing time was approximately 20mins in the heat/humidity chamber. No friction ridge detail was observed.
	Powder Dusting	Black, white, and black magnetic powder utilized. No friction ridge detail was observed.
WMELC6	Cyanoacrylate Fuming	Processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour, allowed to cure. Viewed with a 530nm/green forensic laser.
	DFO	Processed by 1, 8-Diazafluoren-9-one (DFO) and placed in an oven at 100 degree C for 20 minutes. Viewed with a 530nm/green forensic laser.
	Dye Stain	Processed by R6G and viewed with a 530nm/green forensic laser.
WPJC6D	Cyanoacrylate Fuming	Photografic fixation were made with an without metric rule; after this tha item was introduced into the cyanoacrylate chamber for aproximately 30 min.
	Powder Dusting	We applited black fingerprint powder.
WT9H3G	Visual Examination	
	FSIS UV Light	
	Cyanoacrylate Fuming	
	FSIS - UV Light	
	Dye Stain	R6G
	Alternate Light Source	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
WV9TQ4	Visual Examination	
	Alternate Light Source	365nm, CSS, 495nm, 535nm, 555nm, 575nm, 532nm green laser
	Cyanoacrylate Fuming	75-80% relative humidity, 15 minute fume time, white light
	Powder Dusting	Fluorescent magnetic powder (with yellow x), 365nm, 495nm
	1,2 Indanedione- Zinc Chloride	visual, 532nm green laser, 70 C, 65% relative humidity for a minimum of 20 minutes
X38TPW	Visual Examination	Crimelite, LASER
	Cyanoacrylate Fuming	70 minutes in F+F MVC 5000 chamber
	Powder Dusting	Magnetic red
	DFO	100 degrees Celsius for 20 minutes
	Ninhydrin	Allowed 2 weeks for development
X4LZBD	Powder Dusting	black fingerprint powder on a fiberglass fingerprint brush
X82ERT	Visual Examination	Visual examination, Item was placed in the Cyvac cyanoacrylate fuming chamber for 1 hr. Item was visually examined then pwdered with fluorescent powder, and viewed with laser, then processed with DFO (20min), viewed w/laser, Nin (20min w/humidity) viewed natural light.
	Cyanoacrylate Fuming	superglue placed in the Cyvac cyanoacrylate fuming chamber for 1 hr.
	Visual Examination	
	Powder Dusting	with fluorescent powder
	Visual Examination	viewed with laser
	DFO	20 min.
	Visual Examination	viewed w/laser
	Ninhydrin	20min w/humidity
	Visual Examination	viewed natural light
X8KB7D	Powder Dusting	Processed with black powder with negative results.
	Cyanoacrylate Fuming	Processed in fuming chamber and then R6G and alternate light source with negative results.
XA6C2Z	Visual Examination	Equipment: High intensity white light. No ridge detail observed.
	Ruvis	Equipment: Ruvis. Control positive. No ridge detail observed.
	Cyanoacrylate Fuming	11 minutes/ 80% humidity. Equipment: Cyanoacrylate Fuming Chamber. Control Positive. No ridge detail observed.
	Ruvis	Equipment: Ruvis. Control positive. No ridge detail observed.
	Dye Stain	R6G. Equipment: TracER laser. Control positive. No ridge detail observed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
XEVXJL	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	humidity: 80%, temperature of the heating plate - 100 degrees Celsius, time - 35 minutes
	Powder Dusting	
XFRC7E	Visual Examination	Examination in a daylight and with forensic light sources with appropriate filters (light sources – POLILIGHT PL 500, PAGLAB MSA-810, VSC 400 Foster Freeman).
	Cyanoacrylate Fuming	20 min exposure, 120° C, 80% humidity, viewing in white light and inin ~505-530 nm range with forensic light sources + appropriate filters.
	Powder Dusting	Dusting surface with aluminium latent print powder (colour – grey/silver), viewing in a daylight and white light with forensic light sources.
XG9AVX	Visual Examination	I performed a visual examination by looking at the item using natural lighting and oblique lighting at different angles to see if any ridge detail is present.
	Cyanoacrylate Fuming	I placed the item into the superglue chamber. I added superglue into an aluminum dish and placed that onto a hot plate inside the chamber. I also added a glass beaker with hot water into the chamber to provide humidity. I placed a control print onto the interior of the glass of the chamber to ensure the superglue was fuming properly. I turned the chamber on and let the hot water rehydrate any ridge detail that is present, and the superglue fumes adhered to any ridge detail. I left the item inside the chamber for approximately 15 minutes. Once I observed the control turn white from the superglue fumes, I turned the chamber off and vented the chamber.
	Powder Dusting	Using black powder and a fingerprint brush I powdered the item.
XMBJY6	Cyanoacrylate Fuming	~1hr
	Powder Dusting	Biochromatic
	Amino acid reagent	1,2-indanedione ZnCl, viewed w/ 520nm
XWEMXM	Visual Examination	
	Forensic Light Sources	
	Cyanoacrylate Fuming	
	Magnetic Powder	
	1,2-Indanedione	
	Dye Stain	
	Physical Developer (PD)	
Y28ZKW	Cyanoacrylate Fuming	Chamber #1 Auto Cycle Lot #202202520
	Dye Stain	MBD Dye Stain Lot #072722-01
	Powder Dusting	Black Magnetic Powder Lot #201504033-04

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
Y7MM39	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic Powder-White
	Dye Stain	Rhodamine 6G
	Alternate Light Source	LASER for visualization of dye stain (R6G)
YBC4BT	Visual Examination	
	Lumicyano	5% solution with 14 minute fuming time
	DFO	Examined with ALS at 535nm and red filter
	Ninhydrin	ambient temp. development
YF7226	Alternate Light Source	Krimesite imager
	Cyanoacrylate Fuming	
	Alternate Light Source	Krimesite imager
YKDNJM	Visual Examination	White, blue and green forensic lightsources. No fingermark was observed.
	Cyanoacrylate Fuming	Fuming routine x 3. During photography with long exposure-time and with strong light a fingermark was observed in box A.
	Dye Stain	No fingermark was observed after dye stain with BY40.
YLCQLX	Visual Examination	Item 3 was visually examined using direct and indirect light. No friction ridge detail was found.
	Powder Dusting	Item 3 was processed with magnetic fluorescent powder and examined under laser light using an orange filter. No friction ridge detail was found.
	Cyanoacrylate Fuming	A new sterile fingerprint brush was used to carefully remove all of the visible fluorescent powder from item 3. Item 3 was then placed into the controlled Mystaire Cyanoacrylate fuming chamber for 20 minutes at 70% humidity level. No friction ridge detail was found. on item 3.
	Dye Stain	Item 3 was then sprayed with Rhodamine 6G methanol solution and rinsed with methanol. Item 3 was then examined using a laser light with orange filter. No friction ridge detail was developed on item 3.
YNZ3B3	Cyanoacrylate Fuming	12 min
	Powder Dusting	florescent fingerprint powder with ALS visual examination
	Ninhydrin	3 min @ 80 degrees C, 65 % relative humidity
YQT3HE	Visual Examination	2. Alternate Light source white 3.Cyanoacrylate ref. A-2626 4. Alternate Light source white and violet 5. Powder Dusting Green 6. Ultraviolet light. 7. Powder Magnetic Black A-2412 black 40 minutes processing time.
YTCBC8	DFO	DFO Staining image under laser

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
YUNYYT	Alternate Light Source	Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm). No Marks Found.
	Cyanoacrylate Fuming	Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins, Mark search was done using White Light. No mark found.
	Powder Dusting	Item was dusted by using Yellow Florescent Powder. No mark found
	Dye Stain	After Dying with BY40, kept to dry for 20 mins in fumehood. After 20 mins, Mark search was done using 445nm light (blue light) with goggle (495nm). No marks found.
	Powder Dusting	Dusted with Metallic Powder. No Marks
YWGMMF	Visual Examination	Crime - lite MLD and ALS. No mark.
	Powder Dusting	Magnetic powder with black lifter. No mark.
YY6YN7	Cyanoacrylate Fuming	The sample was fumed with cyanoacrylate for 15min.
	Dye Stain	After fuming, the sample was dyed with Basic Yellow 40.
Z28CLX	Visual Examination	with white light
	Cyanoacrylate Fuming	fuming for 30 minutes then purge for 30 minutes then viewed under white light
	Powder Dusting	powder with white light
	FSIS	with UV light
	1,2-Indanedione	HFE with laser light
	Ninhydrin	with white light
	Dye Stain	R6G with laser light
	Powder Dusting	powder with white light
Z9RFT2	Cyanoacrylate Fuming	Fumed at 80% relative Humidity for 14 minutes
	DFO	Heated in 100°C oven for 20 minutes.
	Ninhydrin	
ZGB6XZ	Cyanoacrylate Fuming	
	Lumicyano Fuming	
	Ninhydrin	
	Powder Dusting	
ZGVRKN	Visual Examination	
	Cyanoacrylate Fuming	fumed 8 minutes
	Powder Dusting	magnetic
	Powder Dusting	black

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
ZJ29Q7	Cyanoacrylate Fuming	A control test and item were processed simultaneously at the same conditions, for 20 minutes in a cyanoacrylate fuming chamber.
	Visual Examination	The items were visually examined.
ZKXJMA	LPPM R7	
	Cyanoacrylate Fuming	CA fumed for 45 min; 20 min curing
	Dye Stain	Dye stained with R6G
	Alternate Light Source	Viewed using UV light/RUVIS. Test print was positive.
ZLFFNA	Visual Examination	
	Powder Dusting	black powder, mag powder, fluorescent powder
	Cyanoacrylate Fuming	rhoadamine dye stain
ZXMAUT	Visual Examination	No visible detail
	Cyanoacrylate Fuming	MVC5000 No visible detail
	Powder Dusting	Black Mag Powder No visible detail
	Alternate Light Source	TracER Laser inherent luminescence present

Item 3 - Development Response Summary

Participants: 244

Methods Utilized

Alternate Light Source	121	Physical Developer	19
Cyanoacrylate Fuming	201	Powder Dusting	179
DFO	25	Visual Examination	205
Dye Stain	86	Wet Powder Suspension	1
Ninhydrin	50	1,2-Indanedione	37

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

Preservation Methods

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
27AWUM	None	
2F243T	Photography	11/14- overall, midrange, 1:1 close up Nikon 7500
2J6WZX	Photography	Scaled photographs taken before and after processing.
2JZKC2	Photography	
2KE2F8	Photography	11/07/2022 - Close range photograph was taken to preserve the development observed as a result of the DFO treatment. An ALS set to 475nm and an orange barrier filter were used to facilitate preservation.
2M69WX	Photography	Latent prints would have been photographed 1:1.
2PRQTP	Photography	Digital Imaging
2U2Z6R	Scanning	
2VVNMM	Photography	
2YAG6F	Photography	Photographed 1:1 image of the developed latent print with a scale.
34YEBH	Photography	Photographed using an ALS at 475nm with a 529nm filter.
39C6NP	Photography	One (1) image was taken with the Nikon D610 camera and OG550 orange filter.
3DRRAG	No Print Developed	No print developed throughout sequential processing of item.
4KA74E	Photography	I used photography as a method of preservation of the fingerprint.
4L3C47	Photography	
4PKCMR	Photography	
4PYYL9	Photography	after ninhydrin - under white light
4VKUMC	Photography	Photography: Nikon Camera D850 / Image quality: Tiff
4WY6RW	Photography	DFO - CSS w/orange filter
4ZK34T	Scanning	Labeled N1 and scanned
4ZZ9L4	Scanning	Item sprayed with fixative, then scanned for evidence storage.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
6FPZHP	Photography	At the photography station, I ensured the camera had the proper settings (set to jpeg & raw format, ISO at 200, Fstop f/8 or higher, camera leveled above evidence at 90 degrees) took a series of overall photographs of the newsprints paper to document insufficient/no ridge detail using white light
6GJNZK	Photography	
6UAFKN	Photography	Filter- green with white light (365nm). Photographed using the DCS4 system. Print Developed L03- item 1 newsprint paper, section C (Green Filter)
	Photography	white light (365nm). Photographed using the DCS4 system. Print Developed L04- Duplicate of L03, item 1 newsprint paper, section C (No Filter)
6YF49X	[No Methods Reported.]	No mark recovered
7648GR	Photography	Photography with macro lens and metric witness, it was later protectet with adhesive tape.
77GJR4	Photography	*Please note that gloves were worn at all times throughout this processing. Overall and close-up digital photographs were taken with and without a scale of the front of item 1 at a 90 degree angle, utilizing a camera copy stand. A macro lens was used and the images were taken with RAW formatting. All photographs were uploaded as evidence into a digital evidence tracking system. The scaled close-up photograph of the ridge detail in quadrant "C" was then opened in Adobe Photoshop. The image was enhanced and calibrated to a 1:1 ratio. All image history is documented in the evidence tracking system and the original image remains unaltered and preserved.
7BRJ2N	Scanning	The fingerprint was scanned using Epson scanner and printed for comparison
7C6BRK	Photography	I used the photographic functions of the FSIS to capture the latent ridge detail in Quadrant "C". I printed out a scaled photograph of the latent for analysis.
7KTBYG	None	
7NFU6L	Photography	
7UPY88	[No Methods Reported.]	N/A
7W882Z	Photography	Photographed with Nion Camera
7ZWFMM	Photography	Digital images were taken of developed friction ridge detail. Filters used on camera were appropriate.
	Scanning	Item was scanned the day of development as well as the next day.
82D9W3	Photography	photografic fixing were made with a canon EOS 5 Rebel T6i camera, General, Medium closeup and closeup
8CH9DG	None	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
8ETYVX	Scanning	Would either collect scans of the item with the print or collect photographs of the item with the print—would collect scans or photographs both without and with a scale included
8JEBD8	Photography	DFO-LASER 2 photos, NIN-LASER 3 photos
8TMFTH	Photography	Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D810 Nikon digital camera with an AF-5 micro nikkor 105mm lens, 8x4 Crime Lite light source(s) and appropriate camera filter(s). The camera is linked to DCS5 (Digital Capture System 5) software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference where applicable. Exhibited images then submitted to the Fingerprint Bureau for further analysis and comparison.
8WMV8L	Photography	used a digital camera to capture the image of the latent print and adobe photoshop to visually see details in the latent print
	Scanning	scanned Ninhydrin print to capture the image of the latent print and adobe photoshop to visually see details in the latent print
8ZM72Z	Photography	digital photographs with and without scale
8ZQN46	Photography	Examination Quality photographs taken after 1,2-Indanedione step of impression in section C, marked with a scale and marked B.
9JDLWG	Photography	
9KRXQF	None	
9ZLMMC	Photography	Foster Freeman DCS - 5.
ABWJ3Y	Photography	
AHL3EF	Photography	One latent print was photographed after 1,2-Indanedione
AQBTX2	Photography	Documented and photographed with metric scale, use a Nikon D7000.
AV99QH	None	No latent prints developed
B2M8MG	Photography	DCS5
B3LHDH	Scanning	Labeled ridge detail N1 and scanned.
BEAG82	Photography	I photographed the item prior to processing with a scale. I photographed the item after processing, 24 and 48 hours later, with a scale. I photograph any ridge detail that has been developed in a RAW format, with a scale.
BJ8ZAY	Photography	DCS5 Green filter used during examination of area. Ninhydrin enhancement settings used. Image printed in grayscale

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
BLX76H	Photography	overall
BX2UFY	Photography	Photographed using Foster and Freeman DCS5 photographic system at Indandione examination point - photographs available on request. Focal length 0.45, F8
C2K2LD	Photography	se tomaron vistas fotográficas del rastro papilar que se ubico en el cuadrante C, de la evidencia. [English translation of comments was not obtained by the time of report publication.]
C3FLLJ	Photography	Three photographs were taken, one of my generated control, and two of the developed print.
C3HBQG	Photography	All images were uploaded into the Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS).
C7YNMX	Photography	The results were preserved by photography.
C8VXHZ	[No Methods Reported.]	N/A
C949CH	Scanning	1200ppi Images enhanced with photoshop.
CDY6VH	Photography	1:1 photography. Overall, midrange and close-up photos taken.
CHR4CY	Photography	The method of preservation that I used was the photography.
CQZTY6	Photography	The latent print was photographed. Camera: Canon Power Shot SX20IS.
CUY4V6	Scanning	Scanner Epson Perfection V700 photo.
CV2M7M	Photography	RD photographed with green laser (532nm/orange filter) after IND-ZnCl2. LP photographed with LED lighting after NIN (with and without green filter)
CVG46L	Photography	visible light
CY3TMD	Scanning	I scanned quadrant C of the off-white piece of paper at 1200 ppi with an Epson Expression 10000XL and placed the electronically captured images onto a composite sheet. Enhancement techniques were used in Photoshop (CS4) due to how faint the ridge detail was. I used the techniques: Black and White, Shadows and Highlights, Grayscale, and finished with Levels.
D9FE6D	Photography	White light for Ninhydrin
DRCRUE	N/A	N/A
EAC3AU	Photography	Photographed the developed friction ridge detail post-DFO application and ALS examination at 475nm of light with a Nikon D810, 60mm fixed focal length lens.
EAWQMH	Scanning	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
ECUDR7	None	
ER64P6	Photography	Since the camera can not be equipped with a bandpass filter, the print is not visible in the picture.
EV9LFL	Photography	Digital capturing/processing
EW7WBP	Photography	Documentary, overall, mid-range and close up 1:1 photos were taken. Photos were saved in JPEG and NEF format and burned to a DVD.
FEHXM3	Photography	Documentation with Photograph.
FJDRMP	Photography	The results were preserved by photography.
FPZJQC	Photography	the latent prints recovered are photographed using a DCS4 imaging device (white light, 495 nm filter) a paper copy is sent to information branch for comparison on the data base, and the soft copy of latent prints recovered are kept on the hard disk.
FRNCLE	Visual Examination	None. On 11/21/22, I visually examined Item 1 and no visible print was located. On 11/28/22, I conducted an additional visual examination of Item 1 and no visible print/ridge detail was located
FT2LWZ	Photography	The piece of evidence is photo documented before the process begins and after the fingerprint development process is finished.
FY8D8J	Scanning	Resolution: 1200 dpi
G32X4E	Photography	Foster Freeman DCS 4 Nikon D700 White Light Green Filter L01, Item 1, newsprint paper, section C
GA332P	Photography	Took a photo of the friction ridge detail developed on the section "C" on the gray colored paper. The photo was captured using the DCS5 system.
GEFTLY	Photography	Was used as preservation method since it did not develop detail ridges and was the only alternative to have the evidence on record.
GKHWDH	NA	No prints sufficient for further review found.
GNMMHD	Photography	
GPDKYR	Photography	Nikon 850
GUTYYJ	NA	
HBRRNP	Photography	Obtained with DCS5
HFFG6T	Photography	Crime-lite 8x4, blue-green light (470-533 nm), OG570 DCS5

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
HHCVN6	Photography	The latent print developed was photographed following Ninhydrin development under halogen lights using a Nikon D800
HVW8C9	Photography	
J22CTK	Photography	
J6UPYG	Photography	
J92T36	Photography	The developed print was photographed during both stages of processing.
J9G6RW	Photography	We used Foster&Freeman Green light and red filter in a camera when we photogaphed the fingerprint from the sample, section C.
JDTCT2	None	
JDVV4J	Photography	Nikon D800 DSLR camera, 60 mm lens
JJ3JJ7	Scanning	An Epson V800 scanner was utilized at 1200dpi to capture the latent fingerprint of value, L-01. The image was opened in Adobe Photoshop and saved to a photographic reproduction sheet as an original and processed image.
JKXUQ3	Photography	Photographed the developed latent print using Foster Freeman DCS 5
JL69VM	Photography	
JLN22Q	N/A	No latent ridge detail recovered
JRUQAY	Scanning	The item was scanned and the scans were sent to a latent print examiner for analysis.
JTR49C	Photography	
JW8F6T	Photography	The sample was photograph for preservation purposes.
JW8HN7	Photography	Photography after Ninhydrin
JYRL8W	Photography	Photographed with LASER and orange filter.
K22RLB	Photography	
K2WDXP	Photography	Light of 505 nm and in combination with an orange filter

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
K3BYHC	Scanning	Scanned an overall view of the paper and a close up of the ridge detail (photo lift #2) after the 72 hour curing time. The ridge detail was purple and observed in quadrant C. Steam was applied and the ridge detail (photo lift #2) was scanned again.
	Photography	The ridge detail (photo lift #2) was also photographed after the scanning and steaming process. Some photos were taken with the alternate light source. Some photos taken with an orange barrier filter and others taken with a red barrier filter.
K7B64A	Photography	Photograph of latent print at DFO
KAU4DX	[No Methods Reported.]	N/A
KHLR29	[No Methods Reported.]	NA
KHP6TB	Photography	Photographed developed ridge detail using the DCS-5 using regular white light. Took one close-up photo and one overall photo.
KJEFQV	Scanning	When ridge detail is observed we scan the ride detail area
KMGDXH	Photography	12/6/2022: Documentary photographs of item and very faint fingermark in section C prior to 3rd round of Ninhydrin Special Formula. 12/7/2022:Documentary photograph of item after 4th round of ninhydrin. 12/7/2022: Documentary photographs of item and section C after VMD (gold/zinc/silver). 12/9/2022:Documentary photographs of item, section C, and positive QC after VMD (additional layer of zinc). No ridge detail observed. If ridge detail was observed, 1:1 photographs would have been captured of ridge detail.
LBKPLF	Photography	Photo taken of latent print in section C
LCTWUA	Photography	photographed utilizing comparative photography
LGZGH7	Photography	Once the fragment has been revealed, the photographic fixation of the fragment is carried out, since the reagent cannot be lifted due to the type of surface, it is protected with an acetate to maintain the fragment's preservation.
LH32WV	Photography	Photographed
LP48F4	[No Methods Reported.]	Due to chemical issue the paper was damaged.
LTY4Y4	Photography	
LUNPE8	Photography	Canon 5D + 90 macro-lens 1:1 and white light. Finally photoshop.
MC9KJ8	Photography	NIKON D800 + Lens 105 mm
MDEZZL	Photography	After DFO/caron chamber after NIN/caron chamber
MJQU84	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
MK2PVG	Submitted to Latent Print Unit	Submitted the paper to Latent Print Unit for analysis.
MK6B9P	Photography	Laser at 532nm with orange barrier filter.
MMPC3B	Photography	During step 5), orange filter is fixed on the camera when the trace in "C" box is illuminated with the Crimescope in CSS. We place a centimeter test being near the fingerprint and photographies are taken.
	Photography	During step 8), no filter is fixed on the camera when the trace in "C" box is illuminated with the Crimescope in white light. Photographies are realised of the fingerprint with the centimeter test.
MQNJQU	Photography	Photography was used as a preservation method since it did not develop detail ridges and was the only alternative to have the evidence on record.
MTFDUP	Photography	Aperture priority; white balance @ fluorescent
MWZENC	Photography	Canon 850
N7D3UU	Photography	One photograph of a developed latent print on processed item no. 1 after 1,2-Indanedione, box C, using 445 nm ALS and an orange filter.
N9MW2F	Photography	1,2-Indandione photography: Excitation light: 530nm, Observation filter: orange
NDFA9X	None	
NPC3DF	Scanning	Scanning performed two times with the Epson Expression 11000XL at 1200 dpi. First time, to capture FRD after second ninhydrin application. Second time, to capture FRD with background noise after third ninhydrin application.
NQAD9J	[No Methods Reported.]	N/A
NQMZB6	Photography	
NVHXQN	Photography	
NWMGLB	[No Methods Reported.]	No photo as only fragments were observed
NYRC3T	[No Methods Reported.]	N/A
P94RLE	[No Methods Reported.]	No Prints developed on paper.
PAFAYT	Photography	Photography was used as a preservation method since it did not develop detail ridges and was the only alternative to have the evidence on record.
PKE4U3	Photography	
PXHKTR	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
Q8KAXY	Photography	
QQWR96	Photography	Using the Digital Capturing System, I took one close-up and one overall photograph of the ridge detail using a scale.
QR8NLW	None	
QVMB48	Photography	
QYRRTY	None	
QZ73YJ	[No Methods Reported.]	N/A
QZLKEA	Digital Photography	
RAAUKH	Photography	Digital photography with orange barrier filter. The image was further processed through Adobe Photoshop CC (image was calibrated and processed for best detail; created composite, saved impression as L1 on a CD upon completion of the case
RN2PLN	Photography	LASER/Orange Filter
RQAWQ2	Photography	
RYGJXG	Photography	
T8B6KU	None	
T9RA8Y	Photography	
TEUDYH	[No Methods Reported.]	N/A
TFZYDH	Photography	After 1,2-Indanedione Light Source: 470 nm / Camera Filter: OG530 (Yellow/Orange)
TJPYX8	Photography	Polilight wave length= 505 nm & emission filter Red 23A (Tiffen)
TPVTUN	Photography	We used Crime-Lite 82S Green light and we had red filter in camera. Fingerprint was in square C. In camera we had red filters on.
TURD6Z	[No Methods Reported.]	None used since the only RD developed was not suitable for documentation
UAYXXN	Photography	Photographed latent using ALS at 475 nm with orange filter.
ULPQ3Q	Photography	1. Photos of evidence prior to analysis. 2. Photos of evidence in original state received. 3. Photos after each process where visible friction ridge detail was noted (with and without scale)
UNC7V8	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
UPU4FJ	Photography	A photograph was taken of the sample before the piece of evidence was treated, the piece of evidence treated with the reagent was kept in a fume extractor for up to 24 hours. Photographs were taken after each piece of evidence was treated, whether it developed a fingerprint or not.
UW8BP9	Photography	fingerprint was photographed with a macro camera lens and linear scale (white light)
V9EHYD	Photography	Firstly, the overall photograph was taken with the NIKON D850 camera and then the macro photograph was taken with the macro lens. The photo is saved in "JPG" and "TIFF" format.
VF2FV2	Photography	Indanedione, CrimeScope, 515nm, double stacked orange filter
	Scanning	Ninhydrin, Epson scanner, 1000 dpi
VF34A7	Photography	Digital photos - Canon EOS 60D, 100 mm lens, scale ruler.
	CD-R	Recording digital photos of latent print to CD-R.
VVU2AF	Photography	after Ninhydrin - under white light
WLNFVE	Scanning	Epson scanner utilized.
WMELC6	Photography	Viewed with a 530nm/green forensic laser and digitally captured in section C.
WPJC6D	[No Methods Reported.]	No lifting was made.
WT9H3G	Photography	
WV9TQ4	Photography	photograph and upload into ADAMS, enhancement with photoshop
X38TPW	Photography	raw images using fx camera
X4LZBD	[No Methods Reported.]	No print developed
X82ERT	Photography	Canon 850
X8KB7D	[No Methods Reported.]	N/A
XEVXJL	Photography	
XFRC7E	[No Methods Reported.]	No prints have been developed.
XG9AVX	Photography	Using the digital capturing system 5, I took a closeup photograph (TIFF image) using a scale and an overall photograph of the ridge detail that developed.
XMBJY6	Photography	
XWEMXM	None	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
Y28ZKW	Photography	DCS-4 system White light Green Filter
Y7MM39	Photography	
	Scanning	Made photocopies of the front and back of the evidence before and after processing
YBC4BT	Photography	side lighting
YF7226	Photography	
YKDNJM	Photography	
YLCQLX	Photography	Photographs were taken on a copy stand camera during all steps of processing of item 1.
YNZ3B3	Scanning	Scanned @1000 ppi
YQT3HE	Photography	
YTCBC8	Photography	Nikon D810 camera with bright beam laser illumination
YUNYYT	Photography	Mark found on section C after 1,2-Indanedione. Photographed using 532nm light (green light) and camera filter 550nm.
YWGMMF	Photography	Photography.
YY6YN7	Photography	digital capture
Z28CLX	None	
ZGB6XZ	Photography	
ZGVRKN	Photography	
ZJ29Q7	Photography	The method used to preserve the evidence/prints is photography. Camera: Nikon D850 Image quality: TIFF
ZKXJMA	LPPM R7	Visual of developed print captured/preserved via photograph, single lens flex camera. Digitally captured in NEF.
ZLFFNA	Photography	Item photographed in color and grey scale and print out 1 to 1 photo with scale in photo
ZXMAUT	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details

Item 1 - Preservation Response Summary

Participants: 206

Methods Utilized

Lifting	0
Photography	153
Scanning	22

***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
27AWUM	None	
2F243T	Photography	11/2- overall, midrange, 1:1 closeup Nikon 7500
2J6WZX	Photography	Scaled photographs taken before and after processing. Impression preserved in place by covering with lift tape.
2JZKC2	Photography	
2KE2F8	Photography	11/07/2022 - Close range photograph was taken to preserve the development observed as a result of the Rhodamine 6G treatment. An ALS set to 495nm and an orange barrier filter were used to facilitate preservation.
2M69WX	Lifting	Apply lifting tape over the developed latent print that is then placed onto a lift card.
2PRQTP	Photography	Digital Imaging
2U2Z6R	Lifting	
2VVNMM	Photography	
2YAG6F	Photography	Photographed 1:1 photograph of the latent print on square B of the plastic switch plate with a scale after Adrox development
	Lifting	Utilized 2' finger print tape to lift the latent in square B developed with superglue fuming and magnetic powder; placed on a latent lift card.
34YEBH	Photography	Photographed using an ALS at 475nm with a 529nm filter.
39C6NP	Photography	Two (2) images were taken with the Nikon D610 on 11/15/22.
	Photography	One (1) image was taken with the Nikon D610 camera on 11/15/22.
	Photography	One (1) image was taken with the Nikon D610 camera on 11/15/22.
	Photography	One (1) image was taken with the Nikon D610 camera and OG550 orange filter.
3DRRAG	Photography	Enhanced with ALS for post-RAM photo.
4KA74E	Photography	I used photography as a method of preservation of the fingerprint.
	Lifting	Then I used a lifting sheet to lift the fingerprint as a method of preservation.
4L3C47	Photography	
4PKCMR	Photography	
4PYYL9	Photography	after cyanoacrylate evaporation - under white light after wet powder black - under white light

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
4VKUMC	Photography	The method used to preserve the evidence/prints is photography. Equipment used: Camera Nikon D850 with and TIFF as the image quality and Full Spectrum Imaging System Arrowhead (FSIS II) Wavelength UV light: 365 nm with filter 365nm UV.
4WY6RW	Photography	Visual print; CA print; Ardox (365nm)
4ZK34T	Lifting	Tape lift place on lift card
4ZZ9L4	Lifting	Latent was lifted with tape for preservation.
68C2XL	Photography	After the friction ridges in quadrant B have been revealed, photographs are taken with a metric control, continuing to be lifted with Sirchie brand translucent tape, placed on a backing card for Sirchie brand raised impressions, being packed with a transplant card in a plastic bag , label and chain of custody record.
6FPZHP	Photography	At the photography station, I ensured the camera had the proper settings (set to jpeg & raw format, ISO at 200, Fstop f/8 or higher, camera leveled above evidence at 90 degrees) took a series of overall, midrandge, close up photographs to document ridge detail in section B using the laser and white light
6GJNZK	Photography	
6GPULN	Photography Lifting	
6UAFKN	Photography Lifting	Filter- Yellow z(476 nm) with Blue Fluorescent light source 420-470 nm (specifically labeled 445 nm). Photographed using the DCS4 system. Print Developed L01- exterior of item 2, plastic switch plate Section B 2 inch clear tape on a white card. Print developed with magnetic powder. L02-exterior of item 2, plastic switch plate Section B (Duplicate of L01)
6WRNJN	Photography	Utilized a scale label to include event information and processes utilized. Completed digital imaging of detail with camera at 90 degrees on a digital workstation with a life size converter lens, RAW format, ISO 100, F16. The image after CA fuming was taken with regular light while the image taken with R6G was taken with a camera filter and the ALS on. Lighting was metered off of the light meter on the digital camera for both to select shutter speed.
6YF49X	Photography	Raw, unedited image taken, followed by an edited TIFF image
7648GR	Lifting	First, photography with macro lens and metric witness, later lifted with adhesive lifter.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
77GJR4	Lifting	*Please note that gloves were worn at all times throughout this processing. Clear tape was placed across the area of observed ridge detail and lifted from the item. The tape lift was then placed onto a white backing card for contrast and preservation. A directionality arrow was drawn onto the front of the card for orientation. All case information was added to the back of the card. The latent lift card was then placed into an evidence envelope and sealed with evidence tape.
7ALAWX	Lifting	Latent print lifted using standard 2" latent lift tape and placed on latent lift card ([Agency] Form #74).
7BRJ2N	Lifting	The fingerprint was lifted using fingerprint lifter
7C6BRK	Photography	I captured the latent print found in Quadrant "B" using the photographic capability of the FSIS (254 nm). I then printed out a scaled photograph of the latent for analysis.
	Lifting	I tape lifted the latent ridge detail and placed it onto a white latent print card. This card was prepared for analysis.
7KTBYG	None	
7NFU6L	Photography	
7UPY88	Lifting	That one, was transferred to a plastic patch for preservation and subsequent analysis in the Forensic Laboratory (Latent Fingerprints).
7W882Z	Photography	Photographed with Nikon camera
7ZWFMM	Photography	Digital photography taken of control and friction ridge detail on item after fuming and after RAY processing. Filter used on camera were appropriate.
82D9W3	Lifting	transplant tape is placed, later on the indicator, photografic fixations are made on the tape is carefully lifted, later on it is placed on a white card where the lifting data are written
8CH9DG	None	
8ETYVX	Lifting	Used fingerprint tape to lift print and place on a fingerprint card
8JEBD8	Photography	VIS-RUVIS 1 photo, LUMI-LASER 1 photo, LUMI-RUVIS 1 photo

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
8TMFTH	Photography	Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D810 Nikon digital camera with an AF-5 micro nikkor 105mm lens, 8x4 Crime Lite light source(s) and appropriate camera filter(s). The camera is linked to DCS5 (Digital Capture System 5)software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference where applicable. Exhibited images then submitted to the Fingerprint Bureau for further analysis and comparison.
	Lifting	Once all treatments had been completed, a white gel lift was taken on the side of the mark and exhibited. Item 2 was Gel Lifted as per current SOP; to see if any suitable marks would develop after being scanned by the Photography Department.
8WMV8L	Photography	used a digital camera to capture the image of the latent print and adobe photoshop to visually see details in the latent print
8ZM72Z	Photography	Digital photography with and without scale
	Lifting	LPC collected
8ZQN46	Photography	Examination Quality photograph of the impression was taken using oblique lighting techniques, with a scale (Impression marked A).
	Lifting	Sirchie lifting tape was used on the impression for preservation. The tape was marked with orientation, initials, as well as A (same as previous).
9JDLWG	Photography	
9KRXQF	None	
9MCZHK	Lifting	the fingerprint was recovered using lifter from B section
9ZLMMC	Photography	40 minutes - Foster Freeman DCS - 5
ABWJ3Y	Photography	
AHL3EF	Photography	One latent print was photographed after visual examination. The same print was seen after Cyanoacrylate fuming but was not photographed. The same print was photographed after BY40.
AQBTX2	Photography	After developing the latent print with magnetic powder, it was documented and photographed with metric scale, use a Nikon D7000.
	Lifting	Use a white plastic patch.
AV99QH	Photography	Nikon
B2M8MG	Photography	DCS5
B3LHDH	Lifting	Tape lift placed on lift card.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
B4F7VD	Photography	Latent print 2.01 digitally preserved using RUVIS.
	Photography	2.01 rephotographed using the TracER Laser and a digital camera.
BEAG82	Photography	The item was photographed with a scale: Prior to processing. Potential ridge detail was photographed: After fuming. After dusting
	Lifting	Lifting the latent was the last step in the process. It was done using standard 2" clear lifting tape and placed on a latent lift card. The necessary latent lift card information was then filled out.
	Photography	Per our Lab Policy, latent lift cards have to be photographed and attached to the case file whether or not they are of value. I photographed the latent print on the latent lift card.
BFAKUP	Photography	digital photo then scan to disk and case file
BJ8ZAY	Lifting	Tape lift on to a latent print card
BLX76H	Photography	overall and latent print A01 in Quad. B
BX2UFY	Photography	Final best mark photographed using Foster and Freeman DCS5 system at BY40 photography. Photographs available on request. Focal length 0.45, F8.
C2K2LD	Photography	se tomaron vistas fotográficas del rastro papilar que se ubico en el cuadrante B, de la evidencia. [English translation of comments was not obtained by the time of report publication.]
C3FLLJ	Lifting	One latent lift card was generated.
C3HBQG	Photography	All images were uploaded into the Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS).
	Lifting	One tape-lift was obtained from quadrant "B" of Item 2 and placed on a tape-lift card labeled "L1". The tape-lift card labeled "L1" was photocopied onto a sheet and added to notes.
C7YNMX	Photography	The results were preserved by photography.
	Lifting	It was lifted using a patch of white palstic.
C8VXHZ	Lifting	The fingerprint was transferred to a plastic patch for preservation and subsequent analysis in the laboratory.
C949CH	FSIS photography	The image of the latent print developed with CA was taken with FSIS camera.
	Photography	The images of the latent print taken after Mstar and Powder were taken with a Nikon DSLR camera and enhanced using photoshop.
CDY6VH	Photography	1:1 photography. Overall, midrange and close-up photos taken.
CHR4CY	Photography	First method of preservation that I used was photography.
	Lifting	Then I used an lifting sheet to preserve the fingerprint.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
CL7XXX	Lifting	Gellifter black
	Photography	
CQZTY6	Photography	The latent print was photographed. Camera: Canon Power Shot SX20IS.
CRVFC9	Photography	
CUY4V6	Scanning	Scanner Epson Perfection V-700 photo.
CV2M7M	Photography	LP photographed with fiber optic lighting after CAE. LP photographed with green laser (532nm/orange filter) after R6G dye stain
CVG46L	Photography	W/FSIS under UV light W/ laser at 532 nm w/orange filter
CY3TMD	Photography	I used a Nikon D800, Lens 60mm, ISO 400 camera in manual mode with F-stop 29 and varying shutter speeds of 10/250 a second and 10/200 a second. I then calibrated my photographs, enhanced them in Photoshop (CS4), saved them, and created a composite sheet that was printed out. A clear ruler was placed in my photographs to bring them to scale (1:1). Enhancement techniques were used in Photoshop (CS4) and they were: Grayscale, Shadows and Highlights, and Levels.
	Lifting	I lifted the latent fingerprint of value and placed the lift onto a white latent lift card.
	Scanning	I scanned the latent lift at 1200 ppi with an Epson Expression 10000XL scanner and placed the electronically captured images onto a composite sheet. Enhancement techniques were used in Photoshop (CS4) and they were: Grayscale, Shadows and Highlights, and Levels.
D9FE6D	Photography	White light
DRCRUE	Photography	Camara
	Lifting	Lifting the tape and then supporting it on the paper
E4MP4Z	Lifting	Applied tape over sections B and D. removed the tape and placed it onto a lifting card.
EAC3AU	Photography	Photographed the developed friction ridge detail post-mag powder application under white light with a Nikon D810, 60mm fixed focal length lens.
	Lifting	Lifted the developed friction ridge detail after it was photographed post-mag powder application.
	Photography	Photographed the developed friction ridge detail post-Rhodamine 6G application and ALS examination at 495nm of light with a Nikon D810, 60mm fixed focal length lens.
EAWQMH	Photography	
ECUDR7	None	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
ER64P6	Photography	
EV9LFL	Photography	Digital capturing/processing
EW7WBP	Photography	Overall, mid-range and close up 1:1 photos were taken, saved in JPEG and NEF format and burned to a DVD.
FD2ZZ6	Photography	
FEHXM3	Photography	Documentation with Photograph with metric scale.
	Lifting	Stick a plastic patch over the fingerprint firmly, and then lift it up. The information of number of exam, date, hour and the letter was develop in the back of plastic patch.
FJDRMP	Photography	the fingerprint impression was preserved by photography.
	Lifting	the fingerprint was lifted using a white plastic patch.
FPZJQC	Photography	the latent prints recovered are photographed using a DCS4 imaging device (blue light, yellow filter 530 nm) a paper copy is sent to information branch for comparison on the data base, and the soft copy of latent prints recovered are kept on the hard disk.
FQWBLH	Photography	
FRNCLE	Lifting	A visible latent print was recovered with tape from Item A-2. from Segment/Quadrant B
FT2LWZ	Photography	The piece of evidence is photo documented before the process begins and after the fingerprint development process is finished.
	Lifting	The fingerprint hinge lifter is identified with the information corresponding to the case and the fingerprint fragment is lifted for future analysis
FY8D8J	Photography	
G32X4E	Lifting	Clear Tape on White Card L02, Item 2, plastic switch plate, section B
	Lifting	Clear Tape on White Card L03, Item 2, duplicate of L02
GA332P	Photography	Took a photo of the friction ridge detail developed on section "B" on the DCS5 system.
GEFTLY	Photography	Piece of evidence was photo-documented with the developed fingerprint fragment for later preservation.
	Lifting	With a hinge lifter, already identified with the case information, the fingerprint fragment is lifted for its corresponding analysis.
GKHWDH	Photography	Before staining - white light, after staining Blue laser with 515 nm filter used to photograph.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
GNMMHD	Photography	
GPDKYR	Photography	Nikon 850
GUTYYJ	FSIS	Blue-Laser
HBRRNP	Photography	Viewed and obtained with forensic laser blue light
HFFG6T	Photography	White light DCS5
HHCVN6	Photography	The latent print was photographed following cyanoacrylate fuming under white oblique lighting and following Rhodamine 6G dye staining under the TracER laser with an orange barrier filter. The photos were taken with a Nikon D800.
HVW8C9	Photography	
HXMJUE	Photography	Area 2.01 from quadrant B of switch plate was photographed.
J22CTK	Photography	
J6UPYG	Photography	
J6YXCA	Lifting	
J92T36	Photography	The print observed with Rhodamine and the FLS was captured with digital photography.
	Lifting	The latent lift was retained utilizing clear tape and a white latent lift card.
J9G6RW	Photography	We photographed the fingerprint directly from the sample, section B.
JDTCT2	None	
JDVV4J	Photography	Nikon D800 DSLR Camera, 60 mm lens
JJ3JJ7	Scanning	An Epson V800 scanner was utilized at 1200dpi to capture the latent fingerprint of value, L-02. The image was opened in Adobe Photoshop and saved to a photographic reproduction sheet as an original and processed image.
JKXUQ3	Photography	Photographed the developed latent print using Foster Freeman DCS 5
JL69VM	Photography	
JLN22Q	Lifting	The latent print was photographed and then preserved using a hinged print lifter.
JNFXR7	Photography	I photographed the ridge detail using a FLS set at 450nm and a camera with an orange filter.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
JRUQAY	Lifting	One latent lift card was collected from the plastic switch plate and the latent lift card was submitted to a latent print examiner for analysis.
JTR49C	Lifting	
JW8F6T	Photography	The developed print is photograph with a ruler to be preserved.
	Lifting	The latent print was protected using a transparent plastic patch, initiating with the date and ware it was worked.
JW8HN7	Photography	With first FSIS
JYRL8W	Photography	Photographed with white light.
K22RLB	Photography	
K2WDXP	Photography	
K3BYHC	Photography	The ridge detail (photo lift #1) on the switch plate was photographed. The first photo of the ridge detail (photo lift #1) was taken before chemical processing and was done using axial illumination. The second photo of the ridge detail (photo lift #1) was taken after the application of magnetic powder.
K7B64A	Photography	Total of five photographs taken of latent print area.
KAU4DX	Lifting	The fingerprint was transferred to a plastic path to preservation and subsequent analysis in the laboratory
KDUF9X	Lifting	The fingerprinte was transferred to a plastic patch for preservation and subsequent analusis in the laboratory.
KHLR29	Lifting	The developed latent print in section B was lifted using a clear lifting tape and placed on a white latent print card.
KHP6TB	Lifting	Used clear tape to lift developed ridge detail from the item and placed the tape onto a white lift card.
KJEFQV	Lifting	Lifted ridge detail from Area B
KMGDXH	Photography	12/1/2022: photographs (1:1; midrange and close-ups) of ridge detail in section B with laser light source (green beam/532nm). Overall photograph of item with ambient light.
L8JLTT	Photography	DCS 5
LBKPLF	Photography	photo taken of latent print in section B
LCRZGJ	Lifting	Used Lifting tape to lift print and placed onto latent lift card.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
LCTWUA	Photography	photographed utilizing comparative photography after CA fuming; photographed utilizing comparative photography, TRACER LASER, and appropriate lens filter after R6G
LGZGH7	Lifting	Once the fragment was revealed, it was fixed by means of photographs and the lifting of the same was continued with tape, once completed that part is placed in an acetate to preserve it, it is identified with the nomenclature according to the item and the quadrant where was located.
LH32WV	Lifting	Lifted with tape, placed on backing card
LTY4Y4	Photography	
LUNPE8	Lifting	White silicon (casting-material for forensic use)
	Photography	Canon 5D + 90 macro-lens 1:1 and white+Crime-lite 82S. Finally photoshop. This was the best method for this fingerprint.
M2ALEG	Lifting	Lifting tape used to lift print and secured to lift card.
MC9KJ8	Photography	NIKON D800 + Lens 105mm
MDEZZL	Photography	
MJQU84	Photography	
MK2PVG	Lifting	Lifted with 2" tape and secured to latent lift card.
MK6B9P	Photography	Visual light photography and with a laser at 532nm with an orange barrier filter.
MMPC3B	Photography	During step 5), orange filter is fixed on the camera when the trace in the box "B" is illuminated with the Crimescope in white lignht without filter and in CSS with an orange filter, by searching the best contrast. Photographies are realised of the fingerprint with the centimeter test.
MQNJQU	Photography	The piece of evidence was photo-documented with the developed fingerprint fragment for later preservation.
	Lifting	With a hinge lifter, already identified with the case information, the fingerprint fragment is lifted for its corresponding analysis.
MTFDUP	Photography	CAE photos: no filter. Laser photos: orange barrier filter. Aperture priority
MWZENC	Photography	Canon 850
N7D3UU	Photography	One photograph of a visible latent print on item no. 2, box B, using white light. One photograph of a developed latent print on processed item no. 2, box B (same impression), using ALS 445nm after RAM and an orange filter.
N9MW2F	Photography	Photography using coaxial front illumination and white light.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
NDFA9X	None	
NPC3DF	Photography	Captured with the Nikon D810 with orange filter and CSS wavelength.
NQAD9J	Lifting	The latent print was lifted using clear lift tape and placed on a white index card.
NQMZB6	Photography	
NVHXQN	Photography	I photographed item before processing for documentation purposes. After the fingerprint develope i documented and preserved with photography and metric witness.
	Lifting	
NWMGLB	Photography	
NYRC3T	Lifting	Frosted lift tape and white latent card.
P94RLE	Lifting	Lifted print with tape and placed tape on [Laboratory] latent lift card.
PAFAYT	Photography	The piece of evidence was photo-documented with the developed fingerprint fragment for later preservation.
	Lifting	With a hinge lifter, already identified with the case information, the fingerprint fragment is lifted for its corresponding analysis.
PFJB28	Photography	3 Images taken after the application of black magnetic fingerprint powder.
PKE4U3	Photography	
PUXH2L	Lifting	black powder
PXHKTR	Photography	- CAE: Reflected UV Light. Mag. Powder: White Light
	Lifting	
Q8KAXY	Photography	
QGXXEF	Lifting	Tape and lifted to a card.
QQWR96	Lifting	I applied a piece of tape to the item where I observed ridge detail had developed and smoothed out any creases or air bubbles. I then lifted the piece of tape and adhered it to a lift card. Lastly, I filled out the case information on the reverse side of the lift card.
QR8NLW	None	
QVMB48	Photography	
QYRRTY	None	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
QZ73YJ	Lifting	The fingerprint was transferred to a plastic patch for preservation, to later analyze in the laboratory
QZLKEA	Digital Photography	
R6WWBB	Digital Capture	FSIS
RA788B	Lifting	latent lift tape was applied to the area developed. The tape was then lifted and applied to a latent lift card.
RAAUKH	Photography	Digital photography with orange barrier filter The image was further processed through Adobe Photoshop CC (image was calibrated and processed for best detail; created composite, saved impression as L2 on a CD upon completion of the case
RN2PLN	Photography	White Light
RQAWQ2	Photography	
RYGJXG	Photography	Photography
T8B6KU	None	
T8UQDK	Photography	Developed latent print was photographed at 505 nm using Tiffen orange 21 filter.
T9RA8Y	Photography	
TBT8PE	Photography	Digital Photo Nikon 850
TEUDYH	Lifting	That one, was transferred to a plastic patch for preservation and subsequent analysis in the Forensic Laboratory (latent Fingerprints)
TFZYDH	Photography	After visual examination: lightsource: White. After Lumicyano fuming: lightsource: Blue-Green / filter: Orange. After Rhodamine 6G: light source: Blue/Green / filter: Orange
TGL83E	apply black powdder	followed step one with a black powder treatment and closed with thorough visual exam.
	Photography	marked up the latent. labeled by analyst as L2.A, and photographed using scales for size.
TJPYX8	Photography	White light
TPQF8T	Photography	Blue light 445 nm, yellow filter 495 nm.
TPVTUN	Photography	We used Crime-Light 82S Uv nm365 to watch fingerprint in Item2. We take photo and didnt use any filter in camera. Fingerprint was in square B.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
TURD6Z	Photography	Photographed ridge detail in quadrant B after cyanoacrylate fuming - used coaxial light box and rephotographed ridge detail after Rhodamine 6G processing - used Laser (Bright Beam) at 532nm with orange and FF1 filters
U9YZHM	Photography	Foto camera: Nikon D3100, Lens AF-S Micro Nikkor 40 mm
UAYXXN	Photography	Photographed latent using ALS at 475 nm with orange filter.
ULPQ3Q	Photography	1. Photos of evidence prior to analysis 2. Photos of evidence in original state received 3. Photos after each process where visible friction ridge detail was noted (with and without scale)
	Lifting	Lifting tape used to preserve developed friction ridge impression
UM2GG2	Photography	
UNC7V8	Photography	
UPU4FJ	Photography	A photograph is taken of the piece before the piece is treated, the piece of evidence is treated with the applicable reagent. After the print is treated and developed, general and close-up photographs are taken to reveal the details of the print. A ruler is used for each photograph.
UW8BP9	Photography	fingerprint was photographed with a macro camera lens and linear scale (450 nm with the filter OG550)
V2FULF	Lifting	Tape lift placed onto a lift card
V9EHYD	Photography	Firstly, the overall photograph was taken with the NIKON D850 camera and then the macro photograph was taken with the macro lens. The photo is saved in "JPG" and "TIFF" format.
VF2FV2	Photography	Powder print, ambient light
VF34A7	Photography	Digital photos - Canon EOS 60D, 100 mm lens, scale ruler.
	CD-R	Recording digital photos of latent print to CD-R.
VVU2AF	Photography	after Visual Examination - under white light
	Photography	after Cyanoacrylate Fuming - under white light
	Photography	after Basic Yellow 40 - in alternate light source at 450 nm using a orange colored bandpass filter
WLNFVE	Photography	Nikon camera utlilized.
WMELC6	Photography	Viewed with a 530nm/green forensic laser and digitally captured in section B.
WPJC6D	Lifting	Fingerprint lifting tape.
WT9H3G	Photography	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
WV9TQ4	Photography	photograph and upload into ADAMS, enhancement with photoshop
X38TPW	Photography	raw images using fx camera
	Lifting	
X4LZBD	Lifting	Used 2" clear/transparent fingerprint tape to lift print and secured the print to a white latent print backing card
X82ERT	Photography	Canon 850
X8KB7D	Lifting	clear lift tape was used to collect and preserve print. Print was then transferred to a white lift card.
XA6C2Z	Photography	
XEVXJL	Photography	
XFRC7E	Photography	Nikon D7100
XG9AVX	Lifting	Using clear lift tape, I adhered the tape to the ridge detail and smoothed out any bubbles or creases that were present. I lifted the tape from the item and adhered it to a latent print lift card and filled out all the proper information.
XMBJY6	Photography	
XWEMXM	None	
Y28ZKW	Lifting	Tape lift
Y7MM39	Photography	
YBC4BT	Photography	Imaged with side lighting
	Photography	Illuminated with flashlight
	Photography	illuminated with laser and used orange filter
YF7226	Photography	
	Lifting	
YKDNJM	Photography	
YLCQLX	Photography	Photographs were taken on a copy stand camera during all steps of processing of item 2.
YNZ3B3	Lifting	
YQT3HE	Photography	Preservation Hinged Print Lifters LFT-W-2XS

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
YTCBC8	Photography	Nikon D850 in room lighting
YUNYYT	Photography	1. After Dye Stain, Mark photographed using 445nm light with 495nm Filter.
YWGMMF	Photography	Photography + Crime light MLD.
YY6YN7	Photography	digital capture
Z28CLX	Photography	digitally captured
Z9RFT2	Photography	
ZGB6XZ	Photography	
ZGVRKN	Photography	photographed at visual, after R6G, and powder
ZJ29Q7	Photography	The method used to preserve the evidence/prints is photography. Equipment used: Camera Nikon D850 with and TIFF as the image quality and Full Spectrum Imaging System Arrowhead (FSIS II) Wavelength UV light: 365 nm with filter 365nm UV.
ZKXJMA	LPPM R7	Visual of developed print captured/preserved via photograph, single lens flex camera. Digitally captured in TIF.
ZLFFNA	Lifting	
ZXMAUT	Photography	

Item 2 - Preservation Response Summary

Participants: 238

Methods Utilized

Lifting	82
Photography	183
Scanning	3

***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
27AWUM	None	
2F243T	None	N/A
2J6WZX	N/A	Scaled photographs taken prior to processing. No friction ridge impressions were present, so no additional preservation methods were necessary. Item returned to original packaging.
2JZKC2	Photography	
2M69WX	Photography	Latent prints would have been photographed 1:1.
2PRQTP	Photography	Digital Imaging
2YAG6F	Lifting	The glossy photograph was dark in several areas and I could successfully observe any latent prints; so I lifted all 4 squares utilizing latent print tape and placed onto a latent lift card. No latent prints were observed.
34YEBH	[No Methods Reported.]	No preservation was used.
39C6NP	[No Methods Reported.]	None, no ridge detail was developed.
3DRRAG	No Print Developed	No print developed throughout sequential processing of item.
4KA74E	Photography	I used photography as method of preservation of the evidence.
4L3C47	Photography	
4PYYL9	Photography	after amido black - in halogen light
4VKUMC	Photography	The method used to preserve the evidence/prints is photography. Equipment used: Full Spectrum Imaging System Arrowhead (FSIS II) Wavelength UV light: 254 nm with filter 254 nm UV.
4WY6RW	Photography	ALS (520nm w/orange filter); 1,2-Indane ZnCl2 (CSS w/orange filter)
4ZK34T	[No Methods Reported.]	No ridge detail was observed on grids A-D
4ZZ9L4	N/A	No latent lifts were recovered. Item resealed in packaging for storage.
6FPZHP	Scanning	I placed a photograph inside a clear plastic sleeve and made a color copy of the photograph to show that ridge detail was not present.
6GJNZK	Photography	
6UAFKN	[No Methods Reported.]	None were used because no prints were visual

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
6WRNJN	Photography	Utilized a scale label to include event information and process utilized. Completed digital imaging of detail with camera at 90 degrees on a digital workstation utilizing a life size converter lens, RAW format, ISO 100, F16. The image after CA fuming was taken with regular light, and the lighting was metered off of the light meter on the digital camera to select shutter speed.
6YF49X	[No Methods Reported.]	No mark recovered
7648GR	Photography	General photography
77GJR4	Lifting	*Please note that gloves were worn at all times throughout this processing. Clear tape was placed across the area of observed ridge detail and lifted from the item. The tape lift was then placed onto a white backing card for contrast and preservation. A directionality arrow was drawn onto the front of the card for orientation. All case information was added to the back of the card. The latent lift card was then placed into an evidence envelope and sealed with evidence tape.
7C6BRK	N/A	No latents observed
7KTBYG	None	
7UPY88	[No Methods Reported.]	N/A
7W882Z	NA	No prints found to photograph.
7ZWFMM	Photography	Digital images of the item were taken after application of fluorescent powder, after blotting with RAY and after fuming for 48 minutes. Appropriate filter used on camera.
82D9W3	[No Methods Reported.]	no, lifting were made
8CH9DG	None	
8ETYVX	Lifting	No prints were visible after processing—used fingerprint tape for lifting possible prints—no prints recovered
8JEBD8	Photography	VIS-RUVIS 1 photo, LUMI-RUVIS 1 photo
8TMFTH	Photography	Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D810 Nikon digital camera with an AF-5 micro nikkor 105mm lens, 8x4 Crime Lite light source(s) and appropriate camera filter(s). The camera is linked to DCS5 (Digital Capture System 5)software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference where applicable. Exhibited images then submitted to the Fingerprint Bureau for further analysis and comparison.
8ZM72Z	Photography	Digital photography with and without scale to show no positive reaction
8ZQN46	[No Methods Reported.]	N/A

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
9JDLWG	Photography	
AHL3EF	[No Methods Reported.]	No prints
AQBTX2	Photography	After developing the latent print with gray/ black powder, it was documented and photographed with metric scale, use a Nikon D7000.
AV99QH	None	No latent prints developed
B2M8MG	Photography	DCS5 Ridge details are not clear
B3LHDH	none	No ridge detail developed/recovered.
BEAG82	Photography	The item was photographed with a scale: Prior to processing. Potential ridge detail was photographed: After fuming, After dusting - prior to lifting
	Lifting	Lifting the latent: It was done using standard 2" clear lifting tape and placed on a latent lift card. The necessary latent lift card information was then filled out.
	Photography	Per our Lab Policy, latent lift cards have to be photographed and attached to the case file whether or not they are of value. I photographed this latent lift card.
BFAKUP	Photography	Digital photo then scanned to disk and case file.
BLX76H	Photography	overall
BX2UFY	Photography	Photography of mark visualised in section 'A' carried out using Indandione set up on Foster and Freeman DCS5, with Green Lazer.
C2K2LD	Photography	se tomaron vistas fotográficas de la evidencia, la cual mostro cambio de coloración sobre su superficie , luego de haber sido procesada. [English translation of comments was not obtained by the time of report publication.]
C3HBQG	Photography	Only overall images were uploaded into the Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS). No latent prints were observed of developed.
C7YNMX	Photography	The results were preserved by photography.
C8VXHZ	[No Methods Reported.]	N/A
C949CH	[No Methods Reported.]	None
CDY6VH	Photography	1:1 photography. Overall taken only as a documentary photo
CHR4CY	Photography	The method of preservation that I used was the photography.
CL7XXX	Photography	UV light and orange barrier filter
CQZTY6	Photography	The latent print was photographed. Camera: Canon Power Shot SX20IS.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
CUY4V6	Photography	Camera Canon EOS 50D, lens "EF100 mm, 1:2.8 USM".
CV2M7M	Photography	LP photographed with green laser (532nm/orange filter) during laser exam (after black mag powder)
CVG46L	Photography	W/FSIS under UV light w/laser at 532 nm and orange filter
DRCRUE	N/A	N/A
EAWQMH	Photography	
ECUDR7	None	
EV9LFL	Photography	Digital capturing/processing
EW7WBP	Photography	Documentary photos were taken. Photos were saved in JPEG and NEF format and burned to a DVD.
FEHXM3	Photography	Documentation with Photograph, metric scale and UV Ligth.
FJDRMP	Photography	the fingerprint impression was preserved by photography
FPZJQC	Photography	the latent prints recovered are photographed using a DCS4 imaging device (blue light, yellow filter 530 nm) a paper copy is sent to information branch for comparison on the data base, and the soft copy of latent prints recovered are kept on the hard disk.
FRNCLE	[No Methods Reported.]	None. Item 3 was negative for latent prints.
FT2LWZ	Photography	The piece of evidence is photo documented before the process begins and after the fingerprint development process is finished, for preservation and subsequent analysis.
G32X4E	None	No latent(s)/ ridge detail recovered Blind Tape Lifts Attempted After Powders - negative results
GA332P	[No Methods Reported.]	No friction ridge detail was developed, therefore no preservation method was used
GEFTLY	Photography	Was used as preservation method since it did not develop detail ridges and was the only alternative to have the evidence on record.
GKHWDH	FSIS Photography	Before Fuming captured using FSIS. After Cyanoacrylate Fuming re-photographed.
GNMMHD	N/A	No latent print was found/developed.
GPDKYR	NA	No print
GUTYYJ	FSIS	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
HBRRNP	Photography	
HHCVN6	[No Methods Reported.]	No latent prints were developed
HVW8C9	Photography	
J22CTK	Photography	
J92T36	None	No prints were developed, so no method of preservation was utilized.
J9G6RW	Lifting	Image of the photograph was very challenging. We saw no fingerprint and after powdering we decided to lift possible fingerprint up with white silicone. No results.
JDTCT2	None	
JDVV4J	None	
JL69VM	Photography	
JLN22Q	N/A	No latent ridge detail recovered.
JW8F6T	Photography	The sample was photograph for preservation purposes.
JW8HN7	[No Methods Reported.]	N/A
JYRL8W	Photography	Photographed with LASER and orange filter.
K22RLB	Photography	
K2WDXP	[No Methods Reported.]	No method could be used, as there were no fingerprints visible. Therefore a second time of cyanoacrylate fuming was used, but also with no result.
K3BYHC	N/A	No ridge detail developed so no method of preservation was used. Photographs of the item were only taken to document the evidence as received and chemical processing labels on packaging after the item was re-sealed.
K7B64A	[No Methods Reported.]	No images were taken.
KAU4DX	[No Methods Reported.]	N/A
KHLR29	Photography	The ridge detail observed in section D was labeled with a scale. The item was placed on ESPON V550 flat bed scanner. The front and the back of the item were scanned with a resolution of 300dpi and 24bit color. The ridge detail in section D was scanned with a resolution of 1000 dpi and 24bit color.
KHP6TB	[No Methods Reported.]	No preservation technique as ridge detail was not developed. Did not use additional techniques due to no visible ridge detail to enhance with dye stain and VMD being out of service.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
KJEFQV	Photography	photography of smudge on section A no ridge detail observed, validation prints were visible at second magnetic application
KMGDXH	Photography	12/1/2022: Documentary photographs of item with green laser (532nm) after applying R6G. 12/7/2022: Overall photo taken prior to vacuum metal deposition. 12/9/2022: Documentary photos of item and VMD control. If ridge detail was observed, 1:1 photographs of ridge detail would have been captured.
L8JLTT	Photography	DCS 5, VSC 8000
LBKPLF	Photography	After prolong examination no prints were found
LCTWUA	[No Methods Reported.]	nothing observed
LGZGH7	[No Methods Reported.]	Fragment not found
LH32WV	[No Methods Reported.]	No ridge detail observed
LP48F4	[No Methods Reported.]	As outlined above there were no development observed.
LTY4Y4	Photography	
LUNPE8	Photography	Canon 5D + 90 macro-lens 1:1 and white+Crime-lite 82S. Finally photoshop. This was the best method for this fingerprint.
MDEZZL	LPPM R7	No prints developed
MQNJQU	Photography	The fingerprint fragment developed for its preservation was documented by photograph.
	Lifting	A fingerprint hinge lifter, previously identified with the case information, was used and the fingerprint fragment was lifted.
MTFDUP	Photography	Aperture priority
MWZENC	[No Methods Reported.]	None
N7D3UU	[No Methods Reported.]	No photographs were taken.
N9MW2F	[No Methods Reported.]	No preservation, because no fingerprint was detected.
NDFA9X	None	
NPC3DF	Photography	Photography performed twice. First to capture the small amount of FRD at the far right perimeter of the photograph (thought to be "post-incident" in nature). Captured post CAE/RAM with the Nikon D810 with orange filter and CSS wavelength. Second to capture the FRD thought to be placed purposely for test purposes. Captured post powder dusting with the Nikon D810 and oblique lighting.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
NQAD9J	Lifting	Clear lifting tape was applied to each section and lifted and placed on white index cards. Section "D" was observed to have smudged print with little to no detail.
NQMZB6	Photography	
NVHXQN	Photography	I photographed item before processing for documentation purposes.
NYRC3T	[No Methods Reported.]	N/A
P94RLE	Lifting	Used black powder to develop print in Section A. Lifted using lifting tape and placed on MSP 74 latnt lift card.
PAFAYT	Photography	The fingerprint fragment developed for its preservation was documented by photograph.
PKE4U3	[No Methods Reported.]	no print found, no documentation
Q8KAXY	[No Methods Reported.]	none
QR8NLW	None	
QYRRTY	None	
QZ73YJ	[No Methods Reported.]	N/A
QZLKEA	N/A	
RAAUKH	[No Methods Reported.]	No ridge detail developed, therefore there was nothing to preserve
RN2PLN	No Ridge Detail Detected	
RQAWQ2	Photography	
TBT8PE	UIS	Horiba universal imaging system (UIS)
TEUDYH	[No Methods Reported.]	N/A
TGL83E	black powder, fluorescent powder	treated with black powder and given thorough visual inspection. followed with processing with fluorescent powder and finished with thorough visual examination
TJPYX8	Photography	No fingermark was developed, see section additional comments for details.
TPVTUN	Photography	We used Crime-Light 82S Uv nm365 to watch fingerprint in Item3. We get nothing. Mayby the glue was wrong..
TURD6Z	[No Methods Reported.]	No documentation since not a single ridge or fragment was developed on glossy photograph

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
U9YZHM	Photography	Foto camera: Nikon D3100, Lens AF-S Micro Nikkor 40 mm
UAYXXN	[No Methods Reported.]	No latent developed and no preservation needed.
ULPQ3Q	[No Methods Reported.]	No latent prints developed
UNC7V8	Photography	
UPU4FJ	Photography	A photograph is taken of the piece before the piece is treated, the piece of evidence is treated with the applicable reagent. After the print is treated and developed, general and close-up photographs are taken to reveal the details of the print. A ruler is used for each photograph.
UW8BP9	Photography	fingerprint was photographed with a macro camera lens and linear scale (312 nm)
V9EHYD	Photography	Normally, Firstly, the overall photograph was taken with the NIKON D850 camera and then the macro photograph was taken with the macro lens. The photo is saved in "JPG" and "TIFF" format. But in this case, no fingerprints developed
VF2FV2	Photography	Crime scope, 515 nm, double stacked orange filter
	Photography	Bright Beam Laser, double stacked orange filter
WLNFVE	Scanning	Epson scanner utilized
WMELC6	none	Did not find a print.
WPJC6D	[No Methods Reported.]	No lifting was made.
WT9H3G	Photography	
WV9TQ4	Photography	photograph and upload into ADAMS, enhancement with photoshop
X4LZBD	[No Methods Reported.]	None
X82ERT	[No Methods Reported.]	None
X8KB7D	[No Methods Reported.]	N/A
XEVXJL	Photography	
XFRC7E	Photography	Nikon D7100
XG9AVX	[No Methods Reported.]	No ridge detail developed. Since no ridge detail developed on the glossy photograph, dye stains technique will not be used and the VMD is out of order at this time.
XMBJY6	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
XWEMXM	None	
Y28ZKW	[No Methods Reported.]	No prints recovered
YF7226	Photography	
YKDNJM	Photography	
YLCQLX	Photography	Photographs were taken on a copy stand camera during all steps of processing of item 3.
YNZ3B3	[No Methods Reported.]	N/A No friction ridge development.
YQT3HE	Photography	
YTCBC8	Photography	Nikon D810 camera with bright beam laser illumination
YWGMMF	[No Methods Reported.]	No mark.
YY6YN7	Photography	fluorescence examination with 440nm
Z28CLX	None	
ZGVRKN	Lifting	took gel lift to see if any detail had been camouflaged by background
ZJ29Q7	Photography	The method used to preserve the evidence/prints is photography. Equipment used: Full Spectrum Imaging System Arrowhead (FSIS II) Wavelength UV light: 254 nm with filter 254 nm UV.
ZKXJMA	LPPM R7	Visual of developed print captured/preserved via photograph, single lens reflex camera. Digitally captured in raw/TIF.
ZXMAUT	Photography	

Item 3 - Preservation Response Summary

Participants: 169

Methods Utilized

Lifting	9
Photography	85
Scanning	2

***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 Pattern(s)?		
	Arch	Loop	Whorl
27AWUM	Not Suitable		
2F243T	N/A		
2J6WZX		✓	
2JZKC2		✓	
2KE2F8	Not Suitable		
2M69WX	Not Suitable		
2PRQTP		✓	
2U2Z6R	N/A		
2VVNMM		✓	
2YAG6F		✓	
34YEBH		✓	
39C6NP	Not Suitable		
3DRRAG	Not Suitable		
4KA74E	N/A		
4L3C47	N/A		
4PKCMR	N/A		
4PYYL9		✓	
4VKUMC	N/A		
4WY6RW	Not Suitable		
4ZK34T		✓	✓
4ZZ9L4		✓	
6FPZHP	N/A		
6GJNZK	N/A		
6GPULN	N/A		
6UAFKN	N/A		
6WRNJN	N/A		
6YF49X	Not Suitable		
7648GR	Not Suitable		
77GJR4	N/A		
7ALAWX	N/A		
7BRJ2N	Not Suitable		
7C6BRK	N/A		
7KTBYG		✓	
7NFU6L	Not Suitable		
7UPY88	N/A		
7W882Z	N/A		
7ZWFMM	Not Suitable		
82D9W3	Not Suitable		
8CH9DG		✓	
8ETYVX	N/A		
8JEBD8	Not Suitable		
8TMFTH		✓	
8WMV8L	N/A		
8ZM72Z	Not Suitable		
8ZQN46		✓	✓
9JDLWG	Not Suitable		
9KRXQF		✓	

TABLE 4 - Item 1

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
9MCZHK	N/A			
9ZLMMC	N/A			
ABWJ3Y	Not Suitable			
AHL3EF				✓
AQBTX2	N/A			
AV99QH	N/A			
B2M8MG			✓	
B3LHDH	N/A			
B4F7VD	N/A			
BEAG82	Not Suitable			
BFAKUP	N/A			
BJ8ZAY	N/A			
BLX76H	N/A			
BX2UFY	N/A			
C2K2LD	N/A			
C3FLLJ	N/A			
C3HBQG	N/A			
C7YNMX	N/A			
C8VXHZ	N/A			
C949CH			✓	✓
CDY6VH	N/A			
CHR4CY	N/A			
CQZTY6	Not Suitable			
CRVFC9	N/A			
CUY4V6	Not Suitable			
CV2M7M	N/A			
CVG46L	N/A			
CY3TMD			✓	✓
D62PRV	Not Suitable			
D9FE6D			✓	✓
DRCRUE	N/A			
E4MP4Z	N/A			
EAC3AU	Not Suitable			
EAWQMH	Not Suitable			
ECUDR7		✓	✓	✓
ER64P6	Not Suitable			
EV9LFL	N/A			
EW7WBP	N/A			
FD2ZZ6	N/A			
FEHXM3	N/A			
FJDRMP	N/A			
FMGJVP	N/A			
FPZJQC			✓	
FQWBLH	Not Suitable			
FRNCLE	N/A			
FT2LWZ	Not Suitable			
FY8D8J			✓	
G32X4E	N/A			
G4Y9YG			✓	

TABLE 4 - Item 1

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
GA332P	N/A			
GEFTLY	N/A			
GKHWDH	N/A			
GNMMHD	N/A			
GPDKYR	N/A			
GUTYYJ	N/A			
HBRRNP	Not Suitable			
HFFG6T			✓	✓
HHCVN6	Not Suitable			
HVW8C9		✓	✓	✓
HXMJUE	Not Suitable			
J22CTK	Not Suitable			
J6UPYG			✓	
J6YXCA	N/A			
J92T36	N/A			
J9G6RW	N/A			
JDTCT2	Not Suitable			
JDVV4J	N/A			
JJ3JJ7			✓	✓
JKXUQ3			✓	
JL69VM			✓	
JLN22Q	Not Suitable			
JNFXR7	Not Suitable			
JRUQAY	N/A			
JTR49C	N/A			
JW8HN7	Not Suitable			
JYRL8W			✓	
K22RLB	N/A			
K2WDXP	N/A			
K3BYHC	N/A			
K7B64A	N/A			
KAU4DX	N/A			
KDUF9X	N/A			
KHLR29	N/A			
KHP6TB	N/A			
KJEFQV	Not Suitable			
KMGDXH	N/A			
LBKPLF	N/A			
LCRZGJ	N/A			
LCTWUA	N/A			
LGZGH7			✓	
LH32WV	Not Suitable			
LP48F4	N/A			
LTY4Y4	N/A			
M2ALEG	N/A			
MC9KJ8			✓	
MDEZZL	N/A			
METJL6	N/A			
MJQU84	Not Suitable			

TABLE 4 - Item 1

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
MK2PVG	N/A			
MK6B9P	Not Suitable			
MMPC3B			✓	
MQNJQU	Not Suitable			
MTFDUP			✓	✓
MWZENC			✓	✓
N7D3UU			✓	
N9MW2F	Not Suitable			
NDFA9X			✓	✓
NPC3DF	Not Suitable			
NQAD9J	N/A			
NQMZB6	N/A			
NVHXQN	N/A			
NWMGLB	N/A			
NYRC3T	N/A			
P94RLE	N/A			
PAFAYT	N/A			
PFJB28	N/A			
PJLAF8	N/A			
PKE4U3			✓	
PUXH2L	Not Suitable			
PXHKTR			✓	
Q8KAXY	Not Suitable			
QGXXEF	N/A			
QQWR96	N/A			
QR8NLW	Not Suitable			
QVMB48	Not Suitable			
QYRRTY	Not Suitable			
QZ73YJ	N/A			
QZLKEA	N/A			
R6WWBB	N/A			
RA788B	Not Suitable			
RAAUKH	Not Suitable			
RN2PLN			✓	✓
RQAWQ2			✓	
T8B6KU			✓	
T8UQDK	N/A			
T9RA8Y	Not Suitable			
TBT8PE	Not Suitable			
TEUDYH	N/A			
TFZYDH			✓	
TGL83E	Not Suitable			
TJPYX8	N/A			
TPVTUN	N/A			
TURD6Z	Not Suitable			
UAWBEP	Not Suitable			
UAYXXN			✓	✓
ULPQ3Q	Not Suitable			
UM2GG2	Not Suitable			

TABLE 4 - Item 1

WebCode	First Level Pattern(s)?		
	Arch	Loop	Whorl
UNC7V8		✓	
UPU4FJ	N/A		
UW8BP9	Not Suitable		
V2FULF	N/A		
V9EHYD	Not Suitable		
VF2FV2		✓	✓
VF34A7		✓	
VVU2AF		✓	
WLNFVE	Not Suitable		
WMELC6	N/A		
WPJC6D	Not Suitable		
WT9H3G		✓	✓
WV9TQ4	N/A		
X38TPW	N/A		
X4LZBD	N/A		
X82ERT		✓	✓
X8KB7D	Not Suitable		
XA6C2Z	Not Suitable		
XEVXJL		✓	
XG9AVX	N/A		
XMBJY6	Not Suitable		
XWEMXM		✓	
Y28ZKW	N/A		
Y7MM39	N/A		
YBC4BT	Not Suitable		
YF7226	N/A		
YKDNJM	N/A		
YLCQLX	Not Suitable		
YNZ3B3	Not Suitable		
YQT3HE	N/A		
YTCBC8	N/A		
YUNYYT		✓	✓
Z28CLX	Not Suitable		
Z9RFT2	N/A		
ZGB6XZ	Not Suitable		
ZGVRKN	Not Suitable		
ZJ29Q7	N/A		
ZKXJMA			✓
ZLFFNA	N/A		
ZXMAUT	Not Suitable		

TABLE 4 - Item 1

WebCode	First Level Pattern(s)? Arch	Loop	Whorl	WebCode	First Level Pattern(s)? Arch	Loop	Whorl

Item 1 - Pattern Response Summary

Total Participants: 245

1st Level	Arch	Loop	Whorl	Not Suitable	N/A
Total	2	52	20	68	112

**NOTE: These numbers may not add up to the total # of participants, as a participant may have selected more than one pattern option.*

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
27AWUM			✓	
2F243T	N/A			
2J6WZX			✓	
2JZKC2			✓	
2KE2F8			✓	✓
2M69WX			✓	
2PRQTP			✓	
2U2Z6R	N/A			
2VVNMM			✓	
2YAG6F			✓	
34YEBH			✓	
39C6NP			✓	
3DRRAG			✓	✓
4KA74E	N/A			
4L3C47	N/A			
4PKCMR	N/A			
4PYYL9			✓	
4VKUMC	N/A			
4WY6RW			✓	✓
4ZK34T			✓	✓
4ZZ9L4			✓	
68C2XL				✓
6FPZHP	N/A			
6GJNZK	N/A			
6GPULN	N/A			
6UAFKN	N/A			
6WRNJN			✓	
6YF49X			✓	
7648GR			✓	
77GJR4	N/A			
7ALAWX	N/A			
7BRJ2N			✓	
7C6BRK	N/A			
7KTBYG			✓	
7NFU6L			✓	
7UPY88			✓	
7W882Z	N/A			
7ZWFMM			✓	✓
82D9W3			✓	
8CH9DG			✓	
8ETYVX	N/A			
8JEBD8			✓	✓
8TMFTH			✓	
8WMV8L	N/A			
8ZM72Z			✓	
8ZQN46			✓	
9JDLWG			✓	
9KRXQF			✓	
9MCZHK	N/A			

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
9ZLMMC	N/A			
ABWJ3Y			✓	
AHL3EF			✓	
AQBTX2	N/A			
AV99QH	N/A			
B2M8MG			✓	
B3LHDH	N/A			
B4F7VD			✓	
BEAG82			✓	
BFAKUP			✓	✓
BJ8ZAY	N/A			
BLX76H	N/A			
BX2UFY	N/A			
C2K2LD	N/A			
C3FLLJ	N/A			
C3HBQG	N/A			
C7YNMX	N/A			
C8VXHZ			✓	
C949CH			✓	✓
CDY6VH	N/A			
CHR4CY	N/A			
CL7XXX			✓	✓
CQZTY6			✓	
CRVFC9			✓	
CUY4V6			✓	
CV2M7M	N/A			
CVG46L	N/A			
CY3TMD			✓	
D62PRV			✓	
D9FE6D			✓	
DRCRUE	N/A			
E4MP4Z			✓	
EAC3AU			✓	✓
EAWQMH			✓	
ECUDR7			✓	
ER64P6			✓	
EV9LFL	N/A			
EW7WBP	N/A			
FD2ZZ6			✓	
FEHXM3	N/A			
FJDRMP	N/A			
FMGJVP	N/A			
FPZJQC			✓	
FQWBLH			✓	
FRNCLE		✓		
FT2LWZ			✓	
FY8D8J			✓	✓
G32X4E	N/A			
G4Y9YG			✓	

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
GA332P	N/A			
GEFTLY	N/A			
GKHWDH	N/A			
GNMMHD	N/A			
GPDKYR	N/A			
GUTYYJ	N/A			
HBRRNP			✓	
HFFG6T			✓	
HHCVN6			✓	
HVW8C9			✓	
HXMJUE			✓	
J22CTK			✓	
J6UPYG			✓	
J6YXCA	N/A			
J92T36	N/A			
J9G6RW	N/A			
JDTCT2			✓	
JDVV4J	N/A			
JJ3JJ7			✓	
JKXUQ3			✓	
JL69VM			✓	
JLN22Q	Not Suitable			
JNFXR7			✓	
JRUQAY	N/A			
JTR49C	N/A			
JW8F6T			✓	
JW8HN7			✓	
JYRL8W			✓	
K22RLB	N/A			
K2WDXP	N/A			
K3BYHC	N/A			
K7B64A	N/A			
KAU4DX	N/A			
KDUF9X			✓	
KHLR29			✓	
KHP6TB	N/A			
KJEFQV			✓	
KMGDXH	N/A			
L8JLTT			✓	
LBKPLF	N/A			
LCRZGJ	N/A			
LCTWUA	N/A			
LGZGH7			✓	
LH32WV			✓	
LTY4Y4	N/A			
M2ALEG	N/A			
MC9KJ8			✓	
MDEZZL	N/A			
METJL6	N/A			

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
MJQU84			✓	✓
MK2PVG	N/A			
MK6B9P			✓	
MMPC3B			✓	
MQNJQU		✓	✓	
MTFDUP			✓	
MWZENC			✓	✓
N7D3UU			✓	
N9MW2F			✓	
NDFA9X			✓	✓
NPC3DF			✓	
NQAD9J	N/A			
NQMZB6	N/A			
NVHXQN	N/A			
NWMGLB			✓	
NYRC3T	N/A			
P94RLE	N/A			
PAFAYT	N/A			
PFJB28			✓	
PJLAF8	N/A			
PKE4U3			✓	
PUXH2L			✓	
PXHKTR			✓	
Q8KAXY			✓	
QGXXEF	N/A			
QQWR96	N/A			
QR8NLW			✓	
QVMB48			✓	
QYRRTY			✓	
QZ73YJ			✓	
QZLKEA	N/A			
R6WWBB	N/A			
RA788B			✓	
RAAUKH			✓	
RN2PLN			✓	
RQAWQ2			✓	
RYGJXG			✓	
T8B6KU		✓	✓	✓
T8UQDK			✓	
T9RA8Y			✓	
TBT8PE			✓	
TEUDYH			✓	
TFZYDH			✓	
TGL83E			✓	
TJPYX8	N/A			
TPQF8T			✓	
TPVTUN	N/A			
TURD6Z			✓	
U9YZHM			✓	

TABLE 4 - Item 2

WebCode	First Level Pattern(s)? Arch	Loop	Whorl
UAWBEP		✓	
UAYXXN		✓	✓
ULPQ3Q		✓	✓
UNC7V8		✓	
UPU4FJ	N/A		
UW8BP9		✓	
V2FULF	N/A		
V9EHYD		✓	
VF2FV2		✓	✓
VF34A7		✓	
VVU2AF		✓	
WLNFVE		✓	
WMELC6	N/A		
WPJC6D		✓	
WT9H3G		✓	
WV9TQ4	N/A		
X38TPW	N/A		
X4LZBD	N/A		
X82ERT		✓	✓
X8KB7D		✓	
XA6C2Z		✓	
XEVXJL		✓	
XFRC7E		✓	
XG9AVX	N/A		
XMBJY6		✓	✓
XWEMXM		✓	
Y28ZKW	N/A		
Y7MM39	N/A		
YBC4BT		✓	
YF7226	N/A		
YKDNJM	N/A		
YLCQLX		✓	
YNZ3B3		✓	
YQT3HE	N/A		
YTCBC8	N/A		
YUNYYT		✓	
YWGMMF		✓	
YY6YN7		✓	
Z28CLX		✓	
Z9RFT2	N/A		
ZGB6XZ		✓	
ZGVRKN		✓	
ZJ29Q7	N/A		
ZKXJMA		✓	
ZLFFNA		✓	
ZXMAUT		✓	✓

TABLE 4 - Item 2

WebCode	First Level Pattern(s)? Arch	Loop	Whorl	WebCode	First Level Pattern(s)? Arch	Loop	Whorl

Item 2 - Pattern Response Summary

Total Participants: 245

1st Level	Arch	Loop	Whorl	Not Suitable	N/A
Total	3	145	22	1	94

**NOTE: These numbers may not add up to the total # of participants, as a participant may have selected more than one pattern option.*

TABLE 4 - Item 3

WebCode	First Level Pattern(s)?		
	Arch	Loop	Whorl
27AWUM		✓	✓
2F243T	N/A		
2J6WZX	Not Suitable		
2JZKC2			✓
2KE2F8	N/A		
2M69WX	Not Suitable		
2PRQTP	Not Suitable		
2U2Z6R	N/A		
2VVNMM	N/A		
2YAG6F	N/A		
34YEBH	N/A		
39C6NP	Not Suitable		
3DRRAG	Not Suitable		
4KA74E	N/A		
4L3C47	N/A		
4PKCMR	N/A		
4PYYL9			✓
4VKUMC	N/A		
4WY6RW		✓	✓
4ZZ9L4	Not Suitable		
6FPZHP	N/A		
6GJNZK	N/A		
6GPULN	N/A		
6UAFKN	N/A		
6WRNJN			✓
6YF49X	Not Suitable		
77GJR4	N/A		
7ALAWX	N/A		
7C6BRK	N/A		
7KTBYG	Not Suitable		
7NFU6L	Not Suitable		
7UPY88	N/A		
7W882Z	N/A		
7ZWFMM	Not Suitable		
82D9W3	Not Suitable		
8CH9DG			✓
8ETYVX	Not Suitable		
8JEBD8	Not Suitable		
8TMFTH			✓
8WMV8L	N/A		
8ZM72Z	Not Suitable		
8ZQN46	Not Suitable		
9JDLWG	Not Suitable		
9KRXQF	Not Suitable		
9MCZHK	N/A		
9ZLMMC	N/A		
ABWJ3Y	Not Suitable		
AHL3EF	Not Suitable		
AQBTX2	N/A		

TABLE 4 - Item 3

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
AV99QH	N/A			
B2M8MG	Not Suitable			
B3LHDH	N/A			
B4F7VD	N/A			
BEAG82	Not Suitable			
BFAKUP			✓	✓
BJ8ZAY	N/A			
BLX76H	N/A			
BX2UFY	N/A			
C2K2LD	N/A			
C3FLLJ	N/A			
C3HBQG	N/A			
C7YNMX	N/A			
C8VXHZ	N/A			
C949CH	Not Suitable			
CDY6VH	N/A			
CHR4CY	N/A			
CL7XXX	Not Suitable			
CQZTY6				✓
CRVFC9	N/A			
CUY4V6				✓
CV2M7M	N/A			
CVG46L	N/A			
CY3TMD	Not Suitable			
D62PRV	N/A			
DRCRUE	N/A			
E4MP4Z	N/A			
EAC3AU				✓
EAWQMH	N/A			
ECUDR7				✓
ER64P6	Not Suitable			
EV9LFL	N/A			
EW7WBP	N/A			
FD2ZZ6	N/A			
FEHXM3	N/A			
FJDRMP	N/A			
FMGJVP	N/A			
FPZJQC			✓	
FQWBLH	Not Suitable			
FRNCLE	N/A			
FY8D8J	Not Suitable			
G32X4E	N/A			
GA332P	Not Suitable			
GEFTLY	N/A			
GKHWDH	N/A			
GNMMHD	N/A			
GPDKYR	N/A			
GUTYYJ	N/A			
HBRRNP	N/A			

TABLE 4 - Item 3

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
HHCVN6	Not Suitable			
HVW8C9			✓	✓
J22CTK	Not Suitable			
J6YXCA	N/A			
J92T36	N/A			
J9G6RW	N/A			
JDTCT2	Not Suitable			
JDVV4J	N/A			
JJ3JJ7	Not Suitable			
JKXUQ3	Not Suitable			
JL69VM				✓
JLN22Q	Not Suitable			
JNFXR7	Not Suitable			
JRUQAY	N/A			
JTR49C	N/A			
JYRL8W				✓
K22RLB	N/A			
K2WDXP	Not Suitable			
K3BYHC	N/A			
K7B64A	N/A			
KAU4DX	N/A			
KDUF9X	N/A			
KHLR29	Not Suitable			
KHP6TB	N/A			
KJEFQV	N/A			
KMGDXH	N/A			
L8JLTT			✓	✓
LBKPLF	Not Suitable			
LCRZGJ	N/A			
LCTWUA	N/A			
LGZGH7	Not Suitable			
LH32WV	N/A			
LP48F4	N/A			
LTY4Y4	N/A			
M2ALEG	N/A			
MDEZZL	N/A			
METJL6	N/A			
MJQU84	N/A			
MK2PVG	N/A			
MK6B9P	Not Suitable			
MMPC3B	Not Suitable			
MQNJQU	Not Suitable			
MTFDUP	Not Suitable			
MWZENC	Not Suitable			
N7D3UU	N/A			
N9MW2F	N/A			
NDFA9X	Not Suitable			
NPC3DF	Not Suitable			
NQAD9J	N/A			

TABLE 4 - Item 3

WebCode	First Level Pattern(s)?		
	Arch	Loop	Whorl
NQMZB6	N/A		
NVHXQN	N/A		
NWMGLB	N/A		
NYRC3T	N/A		
P94RLE	N/A		
PAFAYT	N/A		
PFJB28	N/A		
PJLAF8	N/A		
PKE4U3	N/A		
PUXH2L	Not Suitable		
PXHKTR	N/A		
Q8KAXY	N/A		
QGXXEF	N/A		
QQWR96	N/A		
QR8NLW	Not Suitable		
QVMB48	N/A		
QYRRTY	Not Suitable		
QZ73YJ	N/A		
QZLKEA	N/A		
R6WWBB	N/A		
RA788B	N/A		
RAAUKH	Not Suitable		
RN2PLN	Not Suitable		
RQAWQ2			✓
T8B6KU	Not Suitable		
T8UQDK	N/A		
TBT8PE		✓	
TEUDYH	N/A		
TGL83E	Not Suitable		
TJPYX8	N/A		
TPVTUN	N/A		
TURD6Z	N/A		
U9YZHM			✓
UAWBEP	N/A		
UAYXXN	N/A		
ULPQ3Q	N/A		
UNC7V8			✓
UPU4FJ	N/A		
UW8BP9			✓
V2FULF	N/A		
V9EHYD	N/A		
VF2FV2	Not Suitable		
VVU2AF	Not Suitable		
WLNFVE	Not Suitable		
WMELC6	N/A		
WPJC6D	Not Suitable		
WT9H3G		✓	✓
WV9TQ4	N/A		
X38TPW	N/A		

TABLE 4 - Item 3

WebCode	First Level Pattern(s)?			WebCode	First Level Pattern(s)?		
	Arch	Loop	Whorl		Arch	Loop	Whorl
X4LZBD	N/A						
X82ERT	Not Suitable						
X8KB7D	N/A						
XA6C2Z	Not Suitable						
XEVXJL			✓				
XFRC7E			✓				
XG9AVX	N/A						
XMBJY6	Not Suitable						
XWEMXM			✓				
Y28ZKW	N/A						
Y7MM39	Not Suitable						
YF7226	N/A						
YKDNJM	N/A						
YLCQLX	Not Suitable						
YNZ3B3	N/A						
YQT3HE	N/A						
YTCBC8	N/A						
YUNYYT	N/A						
YY6YN7	Not Suitable						
Z28CLX	N/A						
Z9RFT2	N/A						
ZJ29Q7	N/A						
ZKXJMA			✓				
ZLFFNA	Not Suitable						
ZXMAUT		✓	✓				

TABLE 4 - Item 3

WebCode	First Level Pattern(s)? Arch	Loop	Whorl	WebCode	First Level Pattern(s)? Arch	Loop	Whorl

Item 3 - Pattern Response Summary

Total Participants: 245

1st Level	Arch	Loop	Whorl	Not Suitable	N/A
Total	1	8	26	64	129

**NOTE: These numbers may not add up to the total # of participants, as a participant may have selected more than one pattern option.*

Additional Comments

TABLE 5

WebCode	Additional Comments
2F243T	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Agency Name] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below-signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation for forensic testing, issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation
2KE2F8	Item 3 was received in a sealed envelope labeled with a sticker giving instructions to cut above said sticker. This was done according to directions; however, a small slice was made on the outer corner of quadrant B as the photo was not packaged low enough in the envelope to avoid damage per the test directions.
3DRRAG	For item 3 a positive control test consisting of a tin with a sebaceous print was placed in the fuming chambers along with the glossy photograph. The positive control test print reacted positively to the CAE, to the magnetic powder post CAE and reacted positively with RAM and fluoresced after CAE and magnetic powder. Print on positive control test continued to developed through all processes.
6FPZHP	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Agency Name] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation for forensic testing, issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation [Cert Number].
6GPULN	The glossy photograph (Item 3) seemed to be tightly inserted in the packaging material. I tried my best to avoid touching the packaging when removing, but due to the tightness, I don't know if I succeeded.
6UAFKN	Item 1: the print was visualized but was very light
7C6BRK	I initialed the evidence items and sealed them back in their original packaging. I included the photographed and lifted latent prints in the file, along with a copy of the testing data.
82D9W3	Friction ridges were not revealed, so their preservation was not necessary
AQBTX2	In a real case, after working on the piece for the development of a fingerprint and not observing a fingerprint (no ridge detail was recovered), it is concluded that it did not develop a fingerprint.
AV99QH	There was not a print anywhere on Item 1 and there was barely a smudge (not even a fragment) on Item 3. Photograph paper also is not a great surface for fingerprints as most photograph paper is manufactured to not have prints adhere to it. I also do not believe photograph paper to be a great representative for semi-porous processing. I did a test on my own piece of photograph paper and it performed better using non-porous processing with rhodamine.
B2M8MG	In item 3 Fingerprint residue was observed in section A , but the ridge details was not clear.
BEAG82	I found Item 1 to be interesting because I could see ridge detail with oblique light before I did any processing. I ran controls for each processing method like normal case work. My control for this item, using Ninhydrin, processed beautifully but I only developed a few faint ridges on the test paper. I felt like I could see more ridge detail with the oblique light before I did any processing. I think perhaps another chemical would have developed the ridge detail on the test item better, based on whatever the matrix is. My lab is slowly expanding to included more chemicals for porous processing. Item 3 had me boggled as I thought I developed very partial ridge detail in two sections. On further examination it was very sparse. It didn't fluoresce every well nor did I have any success lifting it. I am interested to see the official results for Item 3.
BFAKUP	Item 1- Very light pink signal, visible in Quad A. After DFO and viewed with blue laser. No fraction ridge skin impression discernable, though so nothing captured.
BX2UFY	Foster and Freeman DCS5 system incorporates a Nikon D800 camera with a Nikon 85mm PC-E lens for all but UV-R photography. White Crime-Lite 2 used alongside Crime-Lite 82S UV and Blue lights. Green Lazer is COHERENT Tracer Compact Lazer 532nm. Weiss ovens used for IND and NIN treatment. Foster and Freeman MCV5000 CNA cabinet used.

TABLE 5

WebCode	Additional Comments
C3HBQG	Notes for Item 1: Prior to the visual exam, removal of the two pieces of clear tape on Item 1 was attempted. However, the two pieces of clear tape was left in place to prevent any damage to the item. For this reason, the adhesive side of the clear tape was not processed for latent prints. The two pieces of clear tape (non-adhesive side) was processed for latent prints sequentially. A medicine dropper was used to apply Rhodamine on the non-adhesive side of the pieces of clear tape. No other areas of the attached newsprint paper and cardboard were stained with Rhodamine.
CDY6VH	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Agency Name] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation for forensic testing, issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation [Cert Number].
CL7XXX	In letter A of Item 3 Lofoscopic prints were revealed, however they are not useful for identification value
CUY4V6	Test was quite difficult. special on a newsprint paper. Lot of problems with glossy photograph, surface very smooth.
CV2M7M	Chose N/A for pattern type because we do not assess L1 until the analysis stage; therefore, we would not be asked to determine pattern types during a latent print processing request. Although I developed ridge detail in Section C of Item 1 after both indanedione and ninhydrin, it was extremely faint and of low quality. I would not have documented this print in casework. The expectation with this PT is that a print be developed in one of the quadrants on each Item; therefore, I documented this ridge detail. I was surprised by the inherent fluorescent print in Section A of Item 3. I processed Item 3 with our typical workflow (visual exam, CAE, powder) with no development. My next step was going to be indanedione as it is a semi-porous item; however, I was concerned how the reagent and heat might affect the item. Thinking outside the box, as this is not in our normal workflow, I checked the item for inherent fluorescence, which produced a nice print. Therefore, I stopped my processing at this stage.
EAC3AU	As outlined in the Item 3 comments. I was able to visualize a whorl-type pattern in quadrant A after mag powder application. The powder did not seem to adhere to the impression; however, in oblique light, the print was observed. I tried several lighting combinations but could not find one suitable to preserve the friction ridge detail I observed. I proceeded with processing and the friction ridge detail was not observed post-R6G application and ALS examination.
ER64P6	When the test materials arrivered to the lab, the surface of Item 3 was stuck to the inside of the package material and was difficult to get out.
EW7WBP	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Agency Name] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation for forensic testing, issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation [Cert Number].
FT2LWZ	After using crystals of iodine, ninhydrin, graphite powder and cyanoacrylate, fingerprint fragments were developed in evidence pieces 2 and 3. In part two fingerprint fragment is developed in quadrant B and in evidence piece 3 fingerprint fragment is developed in quadrant D.
FY8D8J	Prior to processing Item 3, test prints were deposited on a similar substrate to create multiple test strips. The test strips were processed using cyanoacrylate fuming (CF), black powder, magnetic black powder, Ardrox (A), aqueous Ardrox (Aq-A), Rhodamine (R), and aqueous Rhodamine (Aq-R). The test prints developed as expected, and the best results were obtained using CF, magnetic black powder, Aq-R, and Aq-A. Those techniques were therefore used to process Item 3. Because of the potential dual nature of the substrate, Item 3 was also processed with Ninhydrin (N) at the end of the processing sequence. This case work was conducted while I was under 100% review, so all processing, examinations, and conclusions were observed and/or confirmed by another competent analyst.
G4Y9YG	The fingerprints on the Items 1 and 2 were very weak and required repeated application of development methods (DFO and Cyanoacrylate fuming respectively) while the control fingerprints on the analogous surfaces were being developed much quicker and with more clarity. The reason for failing to develop any fingerprints on the Item 3 unknown. The chemicals were tested prior to the

TABLE 5

WebCode	Additional Comments
	application on the surface of the Item 3.
GA332P	No friction ridge detail was developed on Item 3 after all suitable processing techniques were applied.
GEFTLY	All processes were carried out using security equipment to avoid altering, contaminating or destroying the pieces of evidence. Iodine crystals, Ninhydrin reagent, black graphite powder, cyanoacrylate fast-drying adhesive were used. Development was observed in piece of evidence number 2 in quadrant B. In pieces of evidence 1 and 3 these did not develop papillary ridges in quadrants that read A, B, C, D.
GNMMHD	The latent prints on the newsprint paper was very poorly applied. It was super light and barely reacted to any chemical development.
J92T36	I conducted three controls, two prior to and one concurrently, with the glossy photograph (item 3). All three controls were positive for prints. No prints were developed on the item.
JRUQAY	No ridge detail was recovered/item not suitable for determination.
JW8HN7	The latent from item 1, section C, was a tip impression with insufficient detail in the core to determine pattern type. It also had very weak development, although my control test had very strong development. There was not even a smudge on item 3.
K2WDXP	The development of Item 3 was not successful. Cyanoacrylat fuming was made two times and after that powder dusting, but both with no result.
KHP6TB	Item 3 was in a kraft manila envelope with metallic lining. I feel that this packaging was very tight and may have inadvertently destroyed any prints that may have been left.
KMGDXH	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Agency Name] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation for forensic testing, issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation [Cert Number].
LGZGH7	In item 3, no lofoscopic fragment was found.
LP48F4	Item 1 - nil development due to a chemical issue. Item 2 - print found in box B. Item 3 - nil development was observed after using the sequences.
MQNJQU	After having used the reagents and chemicals such as: iodine crystals, ninhydrin, cyanoacrylate, graphite powder and magnetic graphic powder, it was possible to develop fragments of fingerprints in pieces of evidence number 2 and number 3, plastic switch plate and photograph on glossy paper, respectively. In piece of evidence number 2, he developed a fingerprint fragment in section B and in piece of evidence number 3, he developed a fingerprint fragment in section C.
MTFDUP	Fragments of ridge detail on Item 3; wouldn't be of value for case work.
N9MW2F	On item 3 absolutely no ridge details were visible after the application of the different methods. Although on similar surfaces fingerprints were easily deteced. I doubt that there has been a fingerprint applied on this item.
NYRC3T	Positive and negative controls were used on all reagents prior to testing evidence samples. All reagents functioned as expected.
PAFAYT	After having worked on the evidence described above and the tests were carried out where only in the piece of evidence number 2 letter B, it was possible to lift a fragment of the fingerprint and in the piece of evidence number 3 letter D, an impression was developed fingerprint, but it could not be lifted.
QQWR96	No ridge detail was observed on item 3. Further sequential steps were not used. Dye stains are used for enhancement and there was no ridge detail observed to enhance. The VMD was not used because our VMD is currently not operational.
RAAUKH	Item 1: Friction ridge detail that was developed in section C is faint and appears to be the area above the pattern (towards the tip of a finger) No discernible pattern has been observed. Item 2: Even though the impression and the pattern type were discernible at each step of processing, due to the slight texture of the item, the item was processed with dye stain (R6G) and was photographed under ALS

TABLE 5

WebCode	Additional Comments
	@515nm + orange barrier filter, in order to obtain the best possible ridge detail for comparison purposes. Item 3: Since no friction ridge detail was initially observed or developed on Item 3 (sub-itemized by an examiner as item 1C) on 10/26/2022, the item was left in the CA fume hood for an extended period of time. The item was re-evaluated and was further processed on 12/06/2022, resulting in no ridge detail being developed.
T9RA8Y	the ridge detail developed on the paper (item 1) is outside the pattern area so a pattern type could not be determined.
TJPYX8	Item 3: No fingermark was developed even after performing various methods, including VMD. We asked ourselves if there was a problem with the deposited fingermark (due to deposition or potential deterioration due to shipping ?). We would like to try another item if this would be possible, and we would appreciate if you could give us more details on this matter.
TURD6Z	Item 1 - Newsprint Paper only had ridge detail visible (faintly) after the Ninhydrin processing step and no RD was found during the Indandione step which is uncharacteristic. The ridge detail developed during the Ninhydrin step was very faint and mostly consisted of an apparent tip area of a finger - the core area did not develop if it was present. Item 3 - not a single ridge could be found on the photograph at any point during the processing.
U9YZHM	In each examination process, "Control" samples were used, which gave positive results
V9EHYD	Is very strange no developed fingerpints in item 3
VF2FV2	Item 3 detail looks like a swipe mark that may or may not be ridge detail
VVU2AF	On Item 3: Glossy photograph We haven't seen any latent fingerprints. To visualize latent fingerprints We use a standard procedure applicable in our laboratory.
WLNFVE	Newspaper - Insufficient ridge detail observed in the "C" quadrant. Unable to determine pattern classification of impression due to low quality and quantity of detail present. Glossy Photograph - No friction ridge detail was observed during the entire process of the item. Item was scanned and image was opened in photoshop after VMD processing. After some contrast/brightness levels utilized, there appears to be something similar to friction ridge detail in the "C" quadrant; however, examiner is not confident in calling it insufficient ridge detail in the "C" quadrant. Maybe artifacts or substrate background that were observed.
WPJC6D	There were no fingerprints revealed in item 1, nither item 3.
WV9TQ4	Item #3 was originally improperly packaged and stuck in envelope seal
X82ERT	FSIS was not used in this processing, due to the equipment being inoperable at this time.
XA6C2Z	Ridge detail was initially observed on item 1 the piece of paper, but quickly faded upon observation. The control used during this test was positive. I am unsure if there was something wrong with that item.
XG9AVX	Item #3 (glossy photograph) was packaged inside a sealed envelope with a smooth metallic interior. The envelope appeared to be too small for the item and the smooth surface against the glossy photograph could possibly create friction and destroy any possible ridge detail that was present. I would recommend packing all items in a basic manila envelope like item #2 (outlet cover).
XMBJY6	On item 3, ridge detail was recovered from a second print that crossed over Quadrant B and Quadrant A
Y7MM39	For CTS exhibit 3, there was no friction ridge detail observed.
YQT3HE	After having worked on the pieces of evidence described above with the purpose of identifying the development of fingerprinting. This process was executed through the use of different methods and products previously selected based on the piece of evidence to be work on. As a result of my intervention, item 2 was the only one that returned a positive latent fingerprint.
Z28CLX	Item 1 did not yield any friction ridge detail. Proper sequential processing was done, and control test administered in accordance with our policies and procedures. Item 3 did not yield any friction ridge detail. However, there was a small smudge at the left edge of quadrant C and a large smudge at the

TABLE 5

WebCode	Additional Comments
	bottom right edge of quadrant D. Proper processing was done, and control tests administered in accordance with our policies and procedures.

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 22-5191: Latent Print Processing - Varied Surfaces

DATA MUST BE SUBMITTED BY **Dec. 12, 2022, 11:59 p.m. EST** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: JM7HAJ

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

Scenario:

During the week of September 12, 2022, several 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.

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.

Packaging and protective material is not intended to be processed.

Items Submitted (Sample Pack LAP2):

Item 1: Newsprint Paper, divided into sections A-D.
Item 2: Plastic switch plate, divided into sections A-D.
Item 3: Glossy photograph, divided into sections A-D.

Please inspect your sample sets upon receipt. If the packaging of any of your individual items appears to be compromised, please contact CTS for replacement samples.

1.) For each item, in which section (A, B, C, D) was the latent ridge detail recovered?

Please indicate only the single letter of your determined location from the dropdown menu. Further explanation may be provided in the Additional Comments. If no ridge detail was recovered, please select "None." If you do not process the type of evidence offered, please select "Not Tested". ***A selection of "Not Tested" for an item will lock the corresponding methodology tab for that item. No methodology data will be captured in the report for that item.***

Item 1
Item 2
Item 3

Results for Item 1:

Newsprint Paper, divided into sections A-D.

1-1.) Date Samples Received:

1-2.) Date(s) Samples Analyzed:

1-3.) What method(s) of development were used during your examination?
Please list in order used.

Method Used	Methodology-specific information (ex. processing time, type of dye stain)

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

Method Used	Methodology-specific information

1-5.) What first-level pattern(s) are referenced in the recovered latent print?
If ridge detail was recovered, choose up to 2 pattern types. If ridge detail was not sufficiently recovered, please select "Not suitable for determination." If you are not trained to make pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ○ Not suitable for determination ○ N/A

Results for Item 2:

Plastic switch plate, divided into sections A-D.

2-1.) Date Samples Received:

2-2.) Date(s) Samples Analyzed:

2-3.) What method(s) of development were used during your examination?
Please list in order used.

Method Used	Methodology-specific information (ex. processing time, type of dye stain)

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

Method Used	Methodology-specific information

2-5.) What first-level pattern(s) are referenced in the recovered latent print?
If ridge detail was recovered, choose up to 2 pattern types. If ridge detail was not sufficiently recovered, please select "Not suitable for determination." If you are not trained to make pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ○ Not suitable for determination ○ N/A

Results for Item 3:

Glossy photograph, divided into sections A-D.

3-1.) Date Samples Received:

3-2.) Date(s) Samples Analyzed:

3-3.) What method(s) of development were used during your examination?
Please list in order used.

Method Used	Methodology-specific information (ex. processing time, type of dye stain)

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

Method Used	Methodology-specific information

3-5.) What first-level pattern(s) are referenced in the recovered latent print?
If ridge detail was recovered, choose up to 2 pattern types. If ridge detail was not sufficiently recovered, please select "Not suitable for determination." If you are not trained to make pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ○ Not suitable for determination ○ N/A

4.) Additional Comments

Please note: *Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

Participant Code: U1234A
WebCode: JM7HAJ

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or 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 below must be completed.)
○ This participant's data is **not** intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

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

ANAB Certificate No.
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety

Authorized Contact Person and Title

Laboratory Name

Location (City/State)