

Collaborative Testing Services, Inc FORENSIC TESTING PROGRAM

Latent Print Processing Test No. 18-5190 Summary Report

Each sample pack contained three pieces of simulated crime scene evidence. Participants were asked to process each piece for latent fingerprints and report their findings. Data were returned from 325 participants and are compiled into the following tables:

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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 aluminum foil (Item 1), a piece of white containerboard (Item 2), and a piece of wrapping paper (Item 3). Participants were asked to process each item for latent fingerprints, utilizing the method(s) deemed most appropriate for the substrate being examined.

SAMPLE PREPARATION-

The nonporous foil was cleaned with water and a paper towel before the latent print was applied. New, sealed rolls of wrapping paper and a new roll of containerboard sheeting were used for the samples that could not be cleaned. Each item was divided into sections and labeled A, B, C, and D using a chemical-safe marker. For each item, either an acid or lipid enhancer was applied to the individual's finger prior to deposition to assist in the longevity of the print. A randomly selected group of samples were processed in-house to confirm the location and viability of the deposited prints before shipping to participants.

SAMPLE PACK ASSEMBLY-

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

VERIFICATION-

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

<u>Item No.</u>	<u>Test Material</u>	<u>Enhancer</u>	Print Location	<u>Pattern</u>
1	aluminum foil	oil	D	whorl
2	white containerboard	acid	А	loop
3	wrapping paper	oil + acid	В	whorl

Summary Comments

Each sample pack contained three items of evidence to be processed for latent prints: a piece of aluminum foil (Item 1), a piece of white containerboard (Item 2), and a piece of foil-dotted wrapping paper (Item 3). Each item was divided into four sections, which were labeled with the letters A-D. Participants were asked to determine in which of the four sections of each evidence item a latent print was contained. (Refer to the Manufacturer's Information for preparation details).

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

Of the 325 participants, 260 (80%) were able to successfully recover a print in the expected section for all three items. For Item 1, all but two participants located the print in section "D" (99%). These two outlier participants gave responses not conforming to the test structure. For Item 2, 285 participants (88%) were successful in locating the print in section "A". Thirty-eight participants were unable to recover a print, one individual identified a print in section "B," and one participant gave a response not conforming to the test structure. For Item 3, 292 participants (90%) located the print in section "B". Thirty-one participants did not recover the print and reported "None", one individual left a blank response, and one participant gave a response not conforming to the test structure.

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

A majority of participants reported performing some type of nondestructive visual examination with varied lighting sources prior to conducting additional development techniques on each item. Photography was the predominantly utilized preservation method across all three items, but was often used in conjunction with lifting and/or scanning.

For print development on the aluminum foil (Item 1), participants primarily utilized cyanoacrylate fuming to develop the latent print (reported 310 times). Subsequently processing the fumed item with a dye stain was a common follow-up method (190), along with powder dusting (130). While a variety of dye stains were named by participants, only those explicitly identified as "Dye Stain" in the method column were tabulated. For print development on the white containerboard (Item 2), a majority of participants used Ninhydrin at some point in their processing sequence (reported 293 times). Some participants elected to use Ninhydrin in conjunction with other porous processing methods, such as DFO (108), 1,2-Indanedione (86), and Physical Developer (48). An alternate light source (95) was used as part of the interpretation of some chemical processes and also as a standalone method. For development of prints on the piece of wrapping paper (Item 3), participants used a variety of methods due to the glossy surface of the paper and the foil dot pattern therein. Both porous and nonporous development methods were used, as the most reported processes were cyanoacrylate fuming (reported 265 times), powder dusting (226), and Ninhydrin (174). It is of note that of those who did not recover a print on Item 3, more than half of these participants did not use both porous and nonporous methods.

For participants who reported observing first level detail in the prints on all three items, there was general consistency in the patterns reported. Some participants do not perform print pattern analysis in their routine casework and, as such, reported "N/A" to the pattern type question; therefore, no consensus is established for any of the items. For those who identified pattern types, the most common responses for each item were: Item 1 - Whorl; Item 2 - Loop; Item 3 - Whorl. The most frequent response for each item corresponds to the expected results for pattern reporting. Many participants found it difficult to determine a single pattern based on the limited development of ridge detail in some items. Therefore, the wording of these questions will be updated in future iterations of this test to allow for more accurate reporting of ridge patterns.

Print Location

WebCode	Location	WebCode	Location	WebCode	Location
227TJB	D	4J27YF	D	7ZEBHK	D
2BX6YX	D	4ND2VC	D	83YRXB	D
2ECYDA	D	4TQRCZ	D	8EDRRH	D
2KGPR9	D	4XF728	D	8EVW8V	D
2M72PT	D	6DMW7J	D	8EZ6MB	D
2RZ4K7	D	6GAG4Z	D	8JPQ6X	D
2YHAJX	D	6JFY4G	D	8KJEQD	D
2YZFNP	D	6JV2BP	D	8LGPLG	D
366BNH	D	6R6M88	D	8V3Q4C	D
3AWME8	D	6VHJC9	Pos	8VWRCM	D
3DBHNP	D	6WKZ3T	D	8VY927	D
3DGKJP	D	7F9ZEG	D	92L7E2	D
3KDFJ9	D	7FD9RB	D	978JFM	D
42GCFD	D	7HA2ED	D	9894WW	D
43U479	D	7MQAWC	D	9AWTQA	D
4E3VP9	D	7NPHZP	D	9B9ERW	D
4GAX3T	D	7UTJ44	D	9FYXJT	D

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location	
9HNAFD	D	BH2FUU	D	CVKM6Z	D	
9KBQWD	D	BM8BDU	D	CW2MEG	D	
9NHY8H	D	BPJY3Z	D	CWW96M	D	
9T9FE3	D	BPMG66	D	CXRNJ6	D	
9WPYFK	D	BZ44D7	D	CZX6LG	D	
9XHVKK	D	BZZLB2	D	D2ZMXH	D	
9XQF74	D	C2A3VR	D	D3MXAW	D	
9Z79MW	D	C8GJB8	D	D99VVY	D	
A6HBAR	D	C97WTQ	D	DAE997	D	
A7CACX	D	САК8ХВ	D	DECTCQ	D	
AA8VBM	D	CBJF3N	D	DJKDY3	D	
AK8LUA	D	CD7Y2Z	D	DKMRWW	D	
APKEVZ	D	CFQX93	D	DQP7C7	D	
ARAN3F	D	CJ4ZVY	D	DVERXY	D	
AVUKMZ	D	CLGH6W	D	DZRAFF	D	
AW4RN8	D	CNNK9F	D	E7DT62	D	
BA6KWV	D	CPRHBV	D	E86WPV	D	
BGTEYM	D			l E8PJ2Y	D	

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TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
EBBAHV	D	G3QRGT	D	JLXVX2	D
EH77BZ	D	G4ZPLA	D	JTUQVY	D
EKECUF	D	GB6FCU	D	JUZEXH	D
ERGE68	D	GCFLAG	D	JWNPU3	D
EX2TE7	D	GKLFCW	D	JX7KRW	D
F44YUA	D	GP2WWL	D	JZD3QR	D
F4QAZX	D	GP76C2	D	JZFTUP	D
F637BU	D	GXHB4X	D	K2YZMW	D
F6YLGY	D	GZMQL3	D	K7YF3Z	Yes
FAEWV3	D	H4GGW7	D	KBAFD6	D
FHZC6Y	D	H8HFDQ	D	KDBJ38	D
FJFNQB	D	HBD6KW	D	KGRTAJ	D
FJH6GU	D	HCU7WY	D	KQ3ZZK	D
FPNZZU	D	НСКМЗХ	D	KUNK8A	D
FRBFF4	D	HGZV68	D	KWLFEQ	D
FULK3T	D	HZWCFV	D	KYBQBB	D
FYXAL3	D	JFQ8FT	D	KYV9MW	D
		JLTH7Y	D		

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location	
KYW3C4	D	MFQR64	D	NXP9LL	D	
KZC8ZU	D	MG9E8R	D	NZEKJ7	D	
L7TGCW	D	MHL7XN	D	P6MANK	D	
LCF6AM	D	MPFFZ7	D	P9NBTN	D	
LCVNRY	D	MWW23H	D	PCMDW4	D	
LE86LP	D	МХЕҮКА	D	PDGBZ6	D	
LG9AWP	D	N2R837	D	PPVCQW	D	
LH4PD3	D	N822KW	D	PQJ3H3	D	
LHLX4H	D	N8BFG6	D	PRKJ8M	D	
LP2JB2	D	И8ЈҮЗМ	D	PX94E9	D	
LV7FU2	D	N8WT83	D	PYHD6K	D	
LW9WJK	D	NGJP94	D	PZ9MM2	D	
LWMHTM	D	NHX8DU	D	Q3EELT	D	
M2W398	D	NKMLVD	D	Q4BWLA	D	
M7KUEE	D	NN2H2E	D	Q4CPHW	D	
M997CY	D	NPEWXN	D	Q4LTY2	D	
MCRCUU	D	nqrbnj	D	Q4RVV2	D	
менмкм	D			 QFZNGL	D	

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TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location	
QGE3UM	D	RHML8P	D	THHRVM	D	
QHPZ7J	D	RJGGYR	D	TMUUNJ	D	
QKZ3WN	D	RPLCJR	D	TMVBD4	D	
QNCRDC	D	RQHUH8	D	TMVHDB	D	
QQ92RN	D	RT6EHK	D	TN8A8D	D	
QRFLBG	D	RVPCPM	D	TQH8MF	D	
QXLGVG	D	rydqnj	D	TRTUF3	D	
QYFWF2	D	RZMKGC	D	txrn6n	D	
R37QRT	D	Т2ТН9К	D	TZX2U3	D	
R3FLCT	D	T3AGN3	D	U8UCBQ	D	
R87TZ3	D	T9R47L	D	U9U7FQ	D	
RATKV6	D	TBYARM	D	UEZRCZ	D	
RBN9CF	D	TCWH6D	D	UJ9AFU	D	
RFH3C3	D	TEGHVT	D	UKGGL9	D	
RFN8ZR	D	TEGLEV	D	UM6THT	D	
rg99nl	D	TGNX4J	D	UR9NGN	D	
RGQEU4	D	TGPLUB	D	UWKJDK	D	
		TH64TA	D			

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location	
UYLFRU	D	WTBYGW	D	XYT3MP	D	Ī
V677J8	D	WYDDW7	D	Y2HLB9	D	
V7GV3J	D	X2H6LX	D	Y6VFYT	D	
VF6TKC	D	X3QDRC	D	Y77F4Z	D	
VLD8BN	D	X6FPNW	D	Y786FJ	D	
VMAGMD	D	X6GPHV	D	Y789YM	D	
VNGYLA	D	X6V6JP	D	Y7AX4J	D	
VPX6TC	D	X9YU9D	D	<u>Ү</u> 9ТҮЗС	D	
VU7DBG	D	XA7AFJ	D	ΥΑ9ϹQΑ	D	
VYLTYM	D	XD8ZZD	D	YJTE4B	D	
W2JP48	D	XGBYAB	D	YMEE4Q	D	
W932R9	D	XJEQ4J	D	YNP83Y	D	
W9PC4N	D	XLNTXU	D	YPXBNB	D	
WAWK2M	D	XNC3AG	D	YT4KAE	D	
WDQNKT	D	XPQPPA	D	YT7ADB	D	
WFWBXX	D	XRV77E	D	YY8QKB	D	
WJJN2A	D	ХХН8ҮС	D	YYM4XL	D	
WQFLNC	D			l Z3Z269	D	

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WebCode	Location	WebCode	Location	WebCode	Location
Z4VPLJ	D				
ZCRKJG	D				
ZFD9BA	D				
ZG3RM8	D				
ZMNQDF	D				
ZRMX3J	D				
ZUCBK2	D				
ZXML9P	D				
ZY2WEA	D				
ZY6DMF	D				
ΖΥ9ΥΒΑ	D				
Response	Summary	Total Participants	: 325		
Loco	ation Total				
	A 0				
	ВО				
	C 0				
	D 323				
Nor	ne O				

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location	
227TJB	А	4ND2VC	А	83YRXB	А	
2BX6YX	A	4TQRCZ	A	8EDRRH	A	
2ECYDA	A	4XF728	А	8EVW8V	А	
2KGPR9	A	6DMW7J	A	8EZ6MB	А	
2M72PT	А	6GAG4Z	None	8JPQ6X	А	
2RZ4K7	А	6JFY4G	A	8KJEQD	А	
2YHAJX	А	6JV2BP	А	8LGPLG	А	
2YZFNP	A	6R6M88	A	8V3Q4C	А	
366BNH	А	6VHJC9	None	8VWRCM	А	
3AWME8	None	6WKZ3T	А	8VY927	А	
3DBHNP	A	7F9ZEG	A	92L7E2	А	
3DGKJP	A	7FD9RB	A	978JFM	А	
3KDFJ9	А	7HA2ED	A	9894WW	None	
42GCFD	A	7MQAWC	A	9AWTQA	А	
43U479	A	7NPHZP	A	9B9ERW	None	
4E3VP9	A	7UTJ44	A	9FYXJT	А	
4GAX3T	A	7ZEBHK	A	9HNAFD	А	
4J27YF	А			9KBQWD	А	

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TABLE 1 - Item 2

		INDEL				
WebCode	Location	WebCode	Location	WebCode	Location	
9NHY8H	А	BM8BDU	None	CWW96M	А	
9T9FE3	A	BPJY3Z	А	CXRNJ6	А	
9WPYFK	A	BPMG66	А	CZX6LG	А	
9XHVKK	A	BZ44D7	A	D2ZMXH	A	
9XQF74	A	BZZLB2	А	D3MXAW	A	
9Z79MW	None	C2A3VR	None	D99VVY	А	
A6HBAR	A	C8GJB8	A	DAE997	А	
A7CACX	A	C97WTQ	А	DECTCQ	A	
AA8VBM	A	САК8ХВ	А	DJKDY3	A	
AK8LUA	A	CBJF3N	А	DKMRWW	A	
APKEVZ	A	CD7Y2Z	A	DQP7C7	A	
ARAN3F	A	CFQX93	А	DVERXY	None	
AVUKMZ	A	CJ4ZVY	А	DZRAFF	A	
AW4RN8	A	CLGH6W	А	E7DT62	A	
BA6KWV	В	CNNK9F	A	E86WPV	A	
BGTEYM	A	CPRHBV	A	E8PJ2Y	А	
BH2FUU	None	CVKM6Z	А	EBBAHV	None	
		CW2MEG	None			

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location	
EH77BZ	А	GB6FCU	А	JTUQVY	А	Π
EKECUF	А	GCFLAG	А	JUZEXH	А	
ERGE68	А	GKLFCW	А	JWNPU3	А	
EX2TE7	А	GP2WWL	А	JX7KRW	А	
F44YUA	A	GP76C2	А	JZD3QR	А	
F4QAZX	A	GXHB4X	A	JZFTUP	А	
F637BU	A	GZMQL3	А	K2YZMW	А	
F6YLGY	А	H4GGW7	A	K7YF3Z	Yes	
FAEWV3	А	H8HFDQ	А	KBAFD6	А	
FHZC6Y	A	HBD6KW	A	KDBJ38	А	
FJFNQB	A	HCU7WY	А	KGRTAJ	None	
FJH6GU	A	НGКМЗХ	А	KQ3ZZK	А	
FPNZZU	A	HGZV68	None	KUNK8A	А	
FRBFF4	None	HZWCFV	А	KWLFEQ	А	
FULK3T	A	JFQ8FT	None	KYBQBB	А	
FYXAL3	A	JLTH7Y	А	KYV9MW	А	
G3QRGT	А	JLXVX2	А	KYW3C4	None	
G4ZPLA	А			I KZC8ZU	None	

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WebCode	Location	WebCode	Location	WebCode	Location			
L7TGCW	А	MG9E8R	А	P6MANK	А			
LCF6AM	А	MHL7XN	А	P9NBTN	А			
LCVNRY	А	MPFFZ7	А	PCMDW4	A			
LE86LP	None	MWW23H	А	PDGBZ6	A			
LG9AWP	None	MXEYKA	А	PPVCQW	A			
LH4PD3	А	N2R837	А	PQJ3H3	A			
LHLX4H	A	N822KW	А	PRKJ8M	None			
LP2JB2	A	N8BFG6	А	PX94E9	А			
LV7FU2	A	N8JY3N	А	PYHD6K	А			
LW9WJK	А	N8WT83	None	PZ9MM2	A			
LWMHTM	A	NGJP94	А	Q3EELT	A			
M2W398	A	NHX8DU	А	Q4BWLA	None			
M7KUEE	А	NKMLVD	А	Q4CPHW	A			
M997CY	А	NN2H2E	А	Q4LTY2	А			
MCRCUU	А	NPEWXN	A	Q4RVV2	А			
МЕНМКМ	А	nqrbnj	None	QFZNGL	А			
MFQR64	A	NXP9LL	A	QGE3UM	A			
		NZEKJ7	A					

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location	
QHPZ7J	А	RPLCJR	А	TMUUNJ	А	
QKZ3WN	А	RQHUH8	А	TMVBD4	А	
QNCRDC	А	RT6EHK	None	TMVHDB	А	
QQ92RN	А	RVPCPM	А	TN8A8D	А	
QRFLBG	None	rydqnj	А	TQH8MF	А	
QXLGVG	А	RZMKGC	А	TRTUF3	А	
QYFWF2	А	Т2ТН9К	A	TXRN6N	А	
R37QRT	А	T3AGN3	A	TZX2U3	None	
R3FLCT	А	T9R47L	None	U8UCBQ	А	
R87TZ3	А	TBYARM	A	U9U7FQ	А	
RATKV6	А	TCWH6D	A	UEZRCZ	А	
RBN9CF	None	TEGHVT	A	UJ9AFU	А	
RFH3C3	А	TEGLEV	A	UKGGL9	А	
RFN8ZR	А	TGNX4J	A	UM6THT	А	
rg99nl	А	TGPLUB	A	UR9NGN	А	
RGQEU4	A	TH64TA	A	UWKJDK	А	
RHML8P	A	THHRVM	None	UYLFRU	А	
RJGGYR	А			I V677J8	A	

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WebCode	Location	WebCode	Location	WebCode	Location
V7GV3J	А	WYDDW7	А	Y6VFYT	A
VF6TKC	А	X2H6LX	А	Y77F4Z	A
VLD8BN	А	X3QDRC	None	Y786FJ	A
VMAGMD	А	X6FPNW	А	Y789YM	A
VNGYLA	None	X6GPHV	None	Y7AX4J	None
VPX6TC	А	X6V6JP	A	Ү9ТҮЗС	A
VU7DBG	А	X9YU9D	A	ΥΑ9ϹQΑ	A
VYLTYM	А	XA7AFJ	A	YJTE4B	A
W2JP48	None	XD8ZZD	A	YMEE4Q	None
W932R9	А	XGBYAB	А	YNP83Y	А
W9PC4N	А	XJEQ4J	А	YPXBNB	А
WAWK2M	А	XLNTXU	None	YT4KAE	А
WDQNKT	А	XNC3AG	А	YT7ADB	А
WFWBXX	А	XPQPPA	A	YY8QKB	А
WJJN2A	None	XRV77E	A	YYM4XL	A
WQFLNC	А	ХХН8ҮС	A	Z3Z269	A
WTBYGW	A	ХҮТЗМР	А	Z4VPLJ	А
		Y2HLB9	A		

WebCode	Location	WebCode	Location	WebCode	Location
ZCRKJG	A				
ZFD9BA	A				
ZG3RM8	A				
ZMNQDF	А				
ZRNAX31	Δ				
ZUCBK2	А				
ZXML9P	A				
ZY2WEA	A				
ZY6DMF	A				
ZVOVRA	٨				
	~				
Response	Summary	Total Participants:	325		
Loco	ition Total				
	A 285				
	B 1				
Nor	ne 38				

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location	
227TJB	В	4ND2VC	В	83YRXB	В	
2BX6YX	В	4TQRCZ	В	8EDRRH	В	
2ECYDA	В	4XF728	В	8EVW8V	В	
2KGPR9	В	6DMW7J	None	8EZ6MB	В	
2M72PT	В	6GAG4Z	В	8JPQ6X	В	
2RZ4K7	В	6JFY4G	None	8KJEQD	В	
2YHAJX	В	6JV2BP	В	8LGPLG	В	
2YZFNP	В	6R6M88	В	8V3Q4C	В	
366BNH	В	6VHJC9	None	8VWRCM	В	
3AWME8	В	6WKZ3T	В	8VY927	В	
3DBHNP	В	7F9ZEG	В	92L7E2	В	
3DGKJP	В	7FD9RB	В	978JFM	В	
3KDFJ9	В	7HA2ED	В	9894WW	В	
42GCFD	В	7MQAWC	В	9AWTQA	В	
43U479	В	7NPHZP	В	9B9ERW	В	
4E3VP9	В	7UTJ44	None	9FYXJT	В	
4GAX3T	В	7ZEBHK	В	9HNAFD	В	
4J27YF	В			I 9KBQWD	В	

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TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
9NHY8H	В	BM8BDU	В	CWW96M	В
9T9FE3	В	BPJY3Z	В	CXRNJ6	В
9WPYFK	В	BPMG66	В	CZX6LG	В
9XHVKK	В	BZ44D7	В	D2ZMXH	В
9XQF74	В	BZZLB2	В	D3MXAW	В
9Z79MW	В	C2A3VR	В	D99VVY	В
A6HBAR	В	C8GJB8	В	DAE997	В
A7CACX	В	C97WTQ	В	DECTCQ	В
AA8VBM	В	САК8ХВ	None	DJKDY3	В
AK8LUA	В	CBJF3N	В	DKMRWW	В
APKEVZ	В	CD7Y2Z	В	DQP7C7	В
ARAN3F	В	CFQX93	В	DVERXY	None
AVUKMZ	В	CJ4ZVY	В	DZRAFF	В
AW4RN8	В	CLGH6W	В	E7DT62	В
BA6KWV	None	CNNK9F	В	E86WPV	В
BGTEYM	В	CPRHBV	В	E8PJ2Y	В
BH2FUU	В	CVKM6Z	В	EBBAHV	В
		CW2MEG	В		

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location	
EH77BZ	В	GB6FCU	None	JTUQVY	В	
EKECUF	В	GCFLAG	В	JUZEXH	В	
ERGE68	В	GKLFCW	В	JWNPU3	В	
EX2TE7	В	GP2WWL	None	JX7KRW	В	
F44YUA	В	GP76C2	В	JZD3QR	В	
F4QAZX	В	GXHB4X	В	JZFTUP	В	
F637BU	В	GZMQL3	None	K2YZMW	В	
F6YLGY	В	H4GGW7	В	K7YF3Z	Yes	
FAEWV3	В	H8HFDQ	None	KBAFD6	В	
FHZC6Y	В	HBD6KW	В	KDBJ38	В	
FJFNQB	None	HCU7WY	В	KGRTAJ	В	
FJH6GU	В	НСКМЗХ	В	KQ3ZZK	В	
FPNZZU	В	HGZV68	В	KUNK8A	В	
FRBFF4	В	HZWCFV	В	KWLFEQ	None	
FULK3T	В	JFQ8FT	В	KYBQBB	В	
FYXAL3	В	JLTH7Y	В	KYV9MW	В	
G3QRGT	В	JLXVX2	В	KYW3C4	В	
G4ZPLA	В			 KZC8ZU	В	

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
L7TGCW	В	MG9E8R	В	P6MANK	None
LCF6AM	В	MHL7XN	В	P9NBTN	В
LCVNRY	В	MPFFZ7	В	PCMDW4	None
LE86LP	None	MWW23H	В	PDGBZ6	В
LG9AWP	В	MXEYKA	В	PPVCQW	В
LH4PD3	В	N2R837	В	PQJ3H3	В
LHLX4H	None	N822KW	В	PRKJ8M	В
LP2JB2	В	N8BFG6	В	PX94E9	В
LV7FU2	В	N8JY3N	В	PYHD6K	В
LW9WJK	В	N8WT83	В	PZ9MM2	В
LWMHTM	В	NGJP94	В	Q3EELT	В
M2W398	В	NHX8DU	В	Q4BWLA	В
M7KUEE	В	NKMLVD	None	Q4CPHW	В
M997CY	В	NN2H2E	В	Q4LTY2	В
MCRCUU	В	NPEWXN	В	Q4RVV2	В
МЕНМКМ	В	nqrbnj	В	QFZNGL	В
MFQR64	None	NXP9LL	В	QGE3UM	В
		NZEKJ7	В		

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location	
QHPZ7J	В	RPLCJR	В	TMUUNJ	В	
QKZ3WN	В	RQHUH8	В	TMVBD4	В	
QNCRDC	None	RT6EHK	None	TMVHDB	В	
QQ92RN	В	RVPCPM	В	TN8A8D	В	
QRFLBG	В	rydqnj	В	TQH8MF	В	
QXLGVG	В	RZMKGC	В	TRTUF3	В	
QYFWF2	В	Т2ТН9К	В	TXRN6N	В	
R37QRT	В	T3AGN3	В	TZX2U3	В	
R3FLCT	В	T9R47L	В	U8UCBQ	В	
R87TZ3	В	TBYARM	В	U9U7FQ	В	
RATKV6	В	TCWH6D	В	UEZRCZ	В	
RBN9CF	None	TEGHVT	В	UJ9AFU	В	
RFH3C3	В	TEGLEV	В	UKGGL9	В	
RFN8ZR	В	TGNX4J	В	UM6THT	None	
rg99nl	В	TGPLUB	None	UR9NGN	В	
RGQEU4	В	TH64TA	В	UWKJDK	В	
RHML8P	None	THHRVM	В	UYLFRU	В	
RJGGYR	В			l V677J8	В	

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WebCode	Location	WebCode	Location	WebCode	Location	
V7GV3J	В	WYDDW7	В	Y6VFYT	В	
VF6TKC	В	X2H6LX	В	Y77F4Z	В	
VLD8BN	В	X3QDRC	В	Y786FJ	В	
VMAGMD	В	X6FPNW	В	Y789YM	В	
VNGYLA	В	X6GPHV	В	Y7AX4J	В	
VPX6TC	В	X6V6JP	None	Y9TY3C	В	
VU7DBG	В	X9YU9D	В	ΥΑ9ϹQΑ	В	
VYLTYM	В	XA7AFJ	None	YJTE4B	В	
W2JP48	В	XD8ZZD	В	YMEE4Q	В	
W932R9	В	XGBYAB	В	YNP83Y	В	
W9PC4N	В	XJEQ4J	В	YPXBNB	В	
WAWK2M	В	XLNTXU	None	YT4KAE	В	
WDQNKT	В	XNC3AG	В	YT7ADB	В	
WFWBXX		XPQPPA	В	YY8QKB	В	
WJJN2A	В	XRV77E	В	YYM4XL	В	
WQFLNC	В	ХХН8ҮС	В	Z3Z269	В	
WTBYGW	В	ХҮТЗМР	В	Z4VPLJ	В	
		I Y2HLB9	В			

WebCode	Location	WebCode	Location	WebCode	Location
ZCRKJG	В				
ZFD9BA	В				
ZG3RM8	В				
ZMNQDF	В				
ZRMX3J	В				
ZUCBK2	None				
ZXML9P	None				
ZY2WEA	None				
ZY6DMF	В				
ZY9YBA	В				
Pospons	Summary	Total Participants	. 225		
Loc	ation Total		. 525		
	A 0				
	B 292				
	C 0				
	D 0				

None 31

Development Methods

WebCode	Development Methods	Method Details
227TJB	Visual Examination	Used a department issued flashlight for side lighting technique (oblique lighting) to examine the evidence before processing.
	Cyanoacrylate Fuming	Lot # 210801034, test print: positive. Used a SAFE FUME chamber. The chamber was set at 70% humidity and 23 degrees C. It fumed for 15 minutes and then the chamber purged for 5 minutes.
	Visual Examination	Used a department issued flashlight for side lighting technique (oblique lighting) to examine the evidence after superglue fuming.
2BX6YX	Visual Examination	white light, oblique lighting, ALS
	Cyanoacrylate Fuming	80% humidity, 250 degrees Farenheit, 18 minute fume time, white light, oblique lighting
	Powder Dusting	Black powder, white light, oblique lighting
	Dye Stain	RAY dye stain, ALS 415-555 nm with yellow, orange and red filter goggles
2ECYDA	Cyanoacrylate Fuming	Fuming Chamber: 65 percent relative humidity; 30 minute exposure
	Powder Dusting	Black Fingerprint Powder: brush application
2KGPR9	Visual Examination	White light.
	Alternate Light Source	Green light(490-560nm).
	Cyanoacrylate Fuming	Glue-time 10 minutes, 1 gram of glue, 120 degrees C, 80 RH%.
	Dye Stain	Basic Yellow. Examination in blue light (430-470nm).
2M72PT	Visual Examination	A fingerprint appeared in section D (trail light).
	Cyanoacrylate Fuming	Heat 120 C, humidity 80%, time 10 min. Same fingerprint appeared in section D.
	BY40	Inhansing the kontrast
2RZ4K7	Visual Examination	
	Alternate Light Source	Inherent luminescence-Foster & Freeman Crime Lite ML2 420nm-470nm with orange filter
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber-20 minutes
	Powder Dusting	Black magnetic
	Dye Stain	RAY with Foster & Freeman Crime Lite ML2, 420nm-470nm with orange filter

WebCode	Development Methods	Method Details
2YZFNP	Visual Exam	Patent print observed then photographed
	Cyanoacrylate Fuming	Further enhanced & photographed
	Rhodamine 6G Dye	No improvement
	LASER	Further enhanced & photographed
366BNH	Visual Examination	
	Cyanoacrylate Fuming	Superglue chamber MVC 5000, fumed for 20 minutes
	Powder Dusting	Magnetic powder
	Powder Dusting	Black powder
3AWME8	Visual Examination	Visible print in section D
	Cyanoacrylate Fuming	cyanoacrylate fuming - 10 minutes in the counter top glue chamber; test print positive; Visible print in section D; Illuminated with flashlight; Whorl pattern type visible
	Dye Stain	Rhodamine-6G dye stain; test print positive; Visible print in section D; Whorl pattern type visible
	Alternate Light Source	test print positive; Visualized with 530nm & 505nm and orange goggles; Visible print in section D; Whorl pattern type visible
3DBHNP	Cyanoacrylate Fuming	Mason Vactrum fuming cabinet, 80% humidity, 3.61g glue batch ref:62519, by40 dye batch ref:16AL610
3DGKJP	Visual Examination	Examined with naked eye.
	Alternate Light Source	450 nm with orange filter.
	Cyanoacrylate Fuming	Item was fumed in a sealed tank for approximately ten minutes with high humidity.
	Powder Dusting	Dusting item with black powder.
3KDFJ9	Visual Examination	White Light
	Alternate Light Source	529nm W/Orange Filter; Long Wave U/V
	Cyanoacrylate Fuming	25 minutes @ 75% humidity
	Dye Stain	Rhodamine 6G
	Alternate Light Source	529nm W/Orange Filter
42GCFD	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	

WebCode	Development Methods	Method Details
43U479	Visual Examination	Visual with white light.
	Alternate Light Source	Polilight 425-530nm, UV
	Cyanoacrylate Fuming	\sim 77.7 degrees Farenheit, \sim 80% humidity, 20 minutes
4E3VP9	Visual Examination	pl500 viewed at white light and uv lightwith colourless goggles.
	Cyanoacrylate Fuming	fumed in a cyanoacrylate fuming chamber at 120 degree Celsius, 80% humidity for 30 minutes.
	Dye Stain	dyed with rhodamine 6G
4GAX3T	Visual Examination	With various lighting, ambient, flashlight, incandescent
	Cyanoacrylate Fuming	Lumicyano (fluorescent) cyanoacrylate, 35 minute fume, 80% humidity examined results without ALS and with ALS (350nm-515nm) using yellow and orange filters
	Powder Dusting	black fingerprint powder
4J27YF	Visual Examination	
	Photography	Pen lights were used to photograph a visible print using the Nikon D810.
	Cyanoacrylate Fuming	MVC 5000/D - Fumed for 15 minutes.
	Powder Dusting	Magnetic powder was applied first, followed by black powder.
4ND2VC	Visual Examination	white fluorescent light; white LED light
	Alternate Light Source	445-510nm; 350-380nm
	Cyanoacrylate Fuming	approx. 15 minutes; white LED light
	Dye Stain	MBD; 445-510nm
4TQRCZ	Cyanoacrylate Fuming	Cyanobloom at 120 degrees 80% humidity time 15 mins (test strip with known prints used)
	Dye Stain	Rhodamine 6G applied with water bottle. Used Coherent TracER laser (532nm) with orange filter on camera.
4XF728	СА	Tank (Mystaire), 80% humidity - 15 min fume time
	Magnetic Powder	
	RAM	Pre mixed solution - Arrowhead
	Alternate Light Source	450 & 505nm w/ orange & red goggles
6DMW7J	Visual Examination	Light source
	Cyanoacrylate Fuming	1,0 gram, 9 minutes, 120 degree celcius 80% Rh
	Basic Yellow 40	Blue light source 420 - 470 nm

WebCode	Development Methods	Method Details
6GAG4Z	Visual Examination	Under white light and magnification
	Cyanoacrylate Fuming	CyanoSafe Recirculation Chamber, test print positive, distilled water was added to the cup heater, 5 drops were placed into each of the three foil cups and placed on the heating element, door secured, time was set to 12 minutes and 10 minutes to purge. The chamber and evidence left for 60 minutes to set.
	Dye Stain	RAY batch #668. The dye stain was applied with a spray bottle, entire surface was covered for approximately one minute. The item was then rinsed with running tap water. Item was pat dry and examined under the ML Crime Lite UV light source.
	Powder Dusting	Latent print powder brush was sanitized using the croslinker for 420 seconds. Black powder was applied using a fiberglass brush using circular strokes.
6JFY4G	Visual Examination	white light
	Cyanoacrylate Fuming	10 min fuming time
6JV2BP	Visual Examination	
	Cyanoacrylate Fuming Chamber	+ control - [Lot Number], exp: 03/2019; 70% humidity - 20 min cycle (w/ purge)
	Magnetic Powder	
6R6M88	Visual Examination	11:37 2018/06/21 - exhibit was visualized with PL500 light source at 0 nm, 350 nm, and 450 nm using clear and orange filters. a fingerprint was recovered in section D and was captured at 0 nm.
	Cyanoacrylate Fuming	2018/06/21 13:07 - MVC3000D was used. one scoop of polycyano was put in the aluminium foil dish and placed on heating plate. the water dispenser was toped up with distilled water. the exhibit was fumed by placing it in the MVC3000D, processed by using one scoop of polycyano for 20 minutes at a temperatures of 230 degree Celsiuss and humidity of 80% and was purged for 20 minutes. 14:40 - the exhibit was removed from the MVC and visualized using PL500 light source at 0 nm, 350 nm, and 450 nm using clear and orange goggles. 15:10 the same print (in section D) was again captured at 350 nm, uv light.
6VHJC9	Polycyano	MVC3000
	Cyanoacrylate Fuming	MVC3000
	Dye Stain	Basic Yellow Dye: Evidence dryer

WebCode	Development Methods	Method Details
6WKZ3T	Visual Examination	RD noted in Quadrant D.
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Black magnetic powder utilized.
	Fluorescent Dye	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
7F9ZEG	Visual Examination	
	Photography	
	Cyanoacrylate Fuming	Hotplate temp: 120 degrees celcius. Humidity in cabinet: 80 % rh. Cabinet: Foster freeman mvc 3000.
	Dye Stain	Basic Yellow 40.
	Photography	
7FD9RB	Visual Examination	no mark
	Cyanoacrylate Fuming	mark in section D
	Basic Yellow-40	mark in section D
7HA2ED	Visual Examination	PL500, 000nm, 350nm, 450nm, 470nm, 490nm, 505nm
	Polycyano UV	Polycyano UV, MVC3000, 20 minutes at 230 degree Celsius, 80% humidity, 20 minutes purge cycle.
7MQAWC	Visual	UV, Laser, ALS
	Superglue Fuming	
	Ardrox and Rhodamine	Ardrox - UV; Rhodamine - LASER
	Powder	
7NPHZP	Visual Examination	5 minutes
	Alternate Light Source	Crime-lite - Blue light 420-470nm - 10 minutes
	Cyanoacrylate Fuming	Cyanobloom in Foster and Freeman MVC1000-D - 30 minutes
	Powder Dusting	Conventional white powder - 15 minutes
7UTJ44	Visual Examination	N/A
	Cyanoacrylate Fuming	73deg F, 64%RH
	Dye Stain	R6G (MeOH) viewed with Laser 532nm/Orange

WebCode	Development Methods	Method Details	
7ZEBHK	Visual Examination		
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%	
	Powder Dusting	White powder	
83YRXB	Visual Examination	(+) Result, however, needed to be enhanced.	
	Powder Dusting	(+) Result, black magnetic powder.	
8EDRRH	Cyanoacrylate Fuming	In MVC-1000, RH 80%, glue temp. 120C, 12 minutes. Test print on plastic was positive. Latent photographed.	
	Black Powder	Dusted with black powder and latent print lifted.	
8EVW8V	Visual Examination		
	Cyanoacrylate Fuming	Under vacuum, 25 PSI, 20 minutes.	
	Dye Stain	Used R.A.M.	
	Alternate Light Source	Viewed after using R.A.M. dye stain at 490, 505 and 530 nm with orange goggles.	
	Water Rinse	Rinsed item with water after print was imaged with dye stain application in attempt to remove excess dye stain background.	
	Wet Powder Suspension	Used black wet powder suspension (precipitated iron oxide).	
8EZ6MB	Cyanoacrylate Fuming		
	Dye Stain	Ardrox	
8JPQ6X	Visual Examination	Visualized using white light and magnification	
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber; test print positive; 12 minutes; visualized using white light and magnification	
	Dye Stain	Fluorescent dye RAY; visualized using Foster & Freeman Crime Lite ML (460-510nm bandwidth filter and orange barrier)	
	Powder Dusting	Black magnetic powder; visualized using white light and magnification	
8KJEQD	Visual Examination	Visual print noted in quadrant D	
	Alternate Light Source	Labkam (UV) visual print exam and photograph	
	Cyanoacrylate Fuming	Model: MVC 5000 set at 80% humidity, 1 hour processing plus purge times. Control test: positive, comparison value print	
	Dye Stain	Basic Yellow 40. Photo and viewing at 505nm with orange barrier filter. Control test: positive, comparison value print	
8LGPLG	white light, Polihight, short UV, suoer glue fuming	Fingermark number 1 in the area D detected using short UV (RUVIS) and photorhaphed	

WebCode	Development Methods	Method Details
8V3Q4C	Super Glue Fuming	
	Ardrox	
	Rhodamine	
	Powder	
8VWRCM	Visual Examination	
	Cyanoacrylate Fuming	Gluetime 5 min, RH80%
8VY927	Visual Examination	White light and magnification. One print of value was observed on Item 1 in section D.
	Cyanoacrylate Fuming	Fish tank, control print developed. One print of value was observed on Item 1 in section D.
	Dye Stain	RAY dye stain, batch #671, control print developed. One print of value was observed on Item 1 in section D.
	Powder Dusting	Bi-chromatic powder. One print of value was observed on Item 1 in section D. No enhancement.
92L7E2	Visual Exam	
	Cyanoacrylate Ester	13 minutes fuming
	RAY	
	SPEX	CSS - wave length
978JFM	Visual Examination	White light.
	Alternate Light Source	Blue and green light.
	Cyanoacrylate Fuming	120°C, 80% RH, glue time 7 minutes.
	Dye Stain	BY40. Fluorescence examination with blue light.
9894WW	Visual Examination	White light with magnification
	Cyanoacrylate Fuming	12 min. processing time. Control print +. After CA, allowed to dry for 45 min.
	Powder Dusting	Black magnetic powder
	Dye Stain	Processing with RAY fluorescent dye - 30 seconds. Batch #668
9AWTQA	Cyanoacrylate Fuming	The exhibit was placed on Cyanoacrylate machine and super glue was used to develop the print in the machine for 30 minutes at150 degree Celsius and 85% humidity.
	Dye Stain	Rhodamine 6G was used as a dye and washed under running water, then dried under evidence dryer.

WebCode	Development Methods	Method Details
9B9ERW	Visual Examination	The item was viewed under white light and magnification using the Crime Lite ML
	Cyanoacrylate Fuming	The item was processed in the CyanoSafe for 12 minutes, with a positive test print, allowed to set for 1 hour and viewed under white light and magnification using the CrimeLite ML
	Powder Dusting	The item was processed using black powder and viewed under white light and magnification using the CrimeLite ML
	Dye Stain	The item was processed using RAY fluorescent dye (batch #668) and viewed under a 460-510nm bandwidth filter and orange barrier on the CrimeLite ML
9FYXJT	Cyanoacrylate Fuming	Exposure 4 minutes in the cyanoacrylate manual fuming chamber with cyanowand.
	Powder Dusting	To visualize the latent print it was applied black latent print powder.
9HNAFD	Visual Examination	White light. Fingermark visible in section D.
	Alternate Light Source	Blue and green fluorescent light source. Fingermark visible in section D with both.
	Cyanoacrylate Fuming	120°C, 80% RH, glue time 10 minutes. Fingermark visible in section D.
	Dye Stain	Basic Yellow 40. Fingermark visible in section D.
	Dye Stain	Basic Red 14. Fingermark visible in section D.
9KBQWD	Visual Examination	PL500 (UV-350nm)
	Polycyano acrylate	1 scoop (polycyanoacrylate) 230 degree celsius 80% RH 20 minutes run rate
9NHY8H	Visual Examination	print recovered
	Alternate Light Source	The same print visible. Polylight 500 with emission from 350 to 600 with viewing filters
	Cyanoacrylate Fuming	The same print visible. Processing time 1 hour, RH 80%, heated to 120 Celsius.
9T9FE3	Visual Examination	The fingerprint was watched.
	Alternate Light Source	It was used the DCS5 software that enhance the fingerprint image.
9WPYFK	Visual Examination	Item 1 was examined visually with a flashlight.
9XHVKK	Visual Examination	
	Alternate Light Source	We used a flashligt with white light.
	Cyanoacrylate Fuming	We used 2,0 g glue and the glue-cycle was 10 min
	Dye Stain	We used Basic Yellow 40 for staining

WebCode	Development Methods	Method Details
9XQF74	Visual Exam	oblique lighting w/ flashlight
	Alternate Light Source	(wavelength) = 455-515nm w/ orange goggles
	Cyanoacrylate Ester Fuming	Processing time 21 minutes, natural latent print control
	Dusting	Black Powder
9Z79MW	Visual Examination	Rofin PL500
A6HBAR	Cyanoacrylate Fuming	Exposure process 2 minutes in the cyanocrylate manual fuming chamber with cyanowand.
	Powder Dusting	In order to visualize the fingerprint it was applied black latent print powder. Environment [city].
A7CACX	Visual Examination	White light and magnification, print(s) observed in Quadrant D.
	Cyanoacrylate Fuming	Cyanosafe recirculation chamber. Test print positive. Print(s) observed in Quadrant D.
	Powder Dusting	Bi-chromatic powder was applied. Print(s) observed in Quadrant D.
	Dye Stain	Treated with RAY batch #663. Examination under magnification using Foster & Freeman Crime Lite ML2. Print(s) observed in Quadrant D.
AA8VBM	Visual Examination	White light.
	Alternate Light Source	Blue and green light.
	Cyanoacrylate Fuming	120°C, 80% RH, glue time 6 minutes.
	Dye Stain	BY40.
AK8LUA	Cyanoacrylate Fuming	2.4 g polycyano UV with exhibits into MVC3000 at 230 degree Celsius, 80% humidity for 20 minutes and 20 minutes purge.
APKEVZ	Cyanoacrylate Fuming	10min humidity, 6 min glue cycle, 20 min purge
	Dye Stain	Sprayed with Ardrox
	Alternate Light Source	Viewed with ALS @ 415nm. Put in ADAMS and put on CD.
ARAN3F	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Dye Stain	Ardrox

WebCode	Development Methods	Method Details
AVUKMZ	Visual Examination	clear led light, detected fingerprint photographed.
	Cyanoacrylate Fuming	Using LabRum Klimat fuming cabinet: 12 drops of glue, distilled water. First allowing about 9 minutes for the water to vaporise. After that letting glue warm up 2 minutes and after that print was clearly visible. Stopping the process.
AW4RN8	Visual Examination	1st visualization examination: 000 nm, wavelength light source 450 nm, 505 nm light source wavelength.
	Cyanoacrylate Fuming	Superglue: fuming tent 06 grams of superglue for 20 minutes at 30 degree Celsius, 80% humidity and 20 minutes purge cycle.
	Dye Stain	dye stain with rhodamine 6G/methanol
BA6KWV	Visual Examination	Visual with different light sources.
	Cyanoacrylate Fuming	Fuming chamber, temperature for 80 degree Celsius, 120 relative humidity, super glue.
BGTEYM	Visual Examination	Visual with White Light- Visible ridge detail present inside of box D.
	Visual Examination	Visual with ALS- Battlelite 455nm with Orange Filter- Visible ridge detail present inside of box D. Orange in color fluorescence observed.
	Cyanoacrylate Fuming	Cyanoacrylate Fuming- Humidity 70%,Processing time 11 min 30sec, purge time 13 min. Followed by visual with white light. Visible ridge detail present inside of box D.
	Powder Dusting	Dual- Use Powder- Visible ridge detail present inside of box D.
	Dye Stain	MBD Dye Stain- spray method. Visual with ALS 415-505nm with yellow and orange filters. Visible ridge detail present inside of box D.
BH2FUU	MVC3000	230 degree Celsius, 20 minutes.
BM8BDU	Visual Examination	White light, clear goggles, 2 scoops of polycyano UV for 19 minutes at 230 degree Celsius, 80% humidity and 20 minutes purge cycle. Dye stained with R6G / Methanol (base), Placed exhibit in evidence dryer.
BPJY3Z	Visual Examination	1 Minute
	Cyanoacrylate Fuming	Placed E-Z Bond instant glue in tin cup and separate tin cup of water placed on hot plate and processed in chamber in hood for 8 minutes. Positive and negative controls.
	Powder Dusting	Applied Magnetic powder to all sections, section "D" positive for suspected print.

WebCode	Development Methods	Method Details
BPMG66	Visual Examination	
	Alternate Light Source	CS @ 515nm & UV
	Cyanoacrylate Fuming	Chamber, Microburst Method
	Dye Stain	RAM, viewed w/ UV & CS
	Powder Dusting	Black Powder
BZ44D7	Visual Examination (White Light)	
	Superglue/ Basic Yellow	Temperature: 130°C; Humidity: 80.7%
BZZLB2	Cyanoacrylate Fuming	Chemicals used: cyanoacrylate and polymerization standard. Run time in the superglue chamber: 30 minutes
	Powder Dusting	Black powder processing to enhance developed print
C2A3VR	Visual Examination	Onm white light, 2 minutes
	Fuming	120 degree celcius, 80% relative humidity, 20 minutes.
	Powder Dusting	None
	Dye Stain	24 hours
C8GJB8	Visual Examination	white light, UV - 555 nm - Polilight PL 500, suitable googles,
	Cyanoacrylate Fuming	processing time - 15 minutes, humidity - 80%
	Visual Examination	white light
C97WTQ	Visual Examination	The fingerprint was watched.
	Alternate Light Source	DCS5 software that enhance latent print. White light - Grey scale.
САК8ХВ	Visual Examination	white light
	Cyanoacrylate Fuming	10 min fuming
CBJF3N	Cyanoacrylate Fuming	Glue heated at 120 degrees fahrenheit. Humidity set 79%. One (1) hour in the fuming tank.
	Powder Dusting	Black magnetic powder used. One (1) minute of processing time.

WebCode	Development Methods	Method Details
CD7Y2Z	Visual Examination	Oblique lighting
	Cyanoacrylate Fuming	CyVac 3A-vacuum fumed for 45 min, Vapor release temp 82 deg C.
	[No Methods Reported.]	Rhodamine in Petroleum Ether, Sprayed evidence with Rhodamine solution.
	Alternate Light Source	Green Laser, Coherent, Tracer at 532 nm with orange filter approx 0.30 watt.
CFQX93	Cyanoacrylate Fuming	Using MVC3000, 3g cyanobloom, 80% humidity, 120 degree Celsius, 20 minutes glue time and 20 minutes purge time.
	Dye Stain	Dipped Item 1 in Rhodamine 6g solution for 5 seconds then rinsed with running tap water. Air dried item in evidence drier.
CJ4ZVY	Visual Examination	2018/06/21, Time:10:55, 505nm; 505 filter (positive results) orange goggles. Poliview was used (PL500)
	Cyanoacrylate Fuming	2018/06/21, Time: 11:43; 3g Cyanobloom, 20 minutes at 120 degree Celsius; 80% humidity and 20 minutes purge cycle with W116774 batch number.
	Visual Examination	(After fuming with Cyanobloom) 2018/06/21, Time: 14:45; 505nm; orange googles; 505 filter: Results were positive after: Dye stain with R6G/ Methanol
	Dye Stain	2018/06/21, RG6 (Methanol) - Dye Time: 15:20. 2018/06/22, Time: 08:20, 505nm; 505 filter; orange goggles - positive results
CLGH6W	Visual Examination	used ambient/ white lighting
	Cyanoacrylate Fuming	used CApture-BT Fuming Chamber with 9 minute fuming time
	Dye Stain	basic yellow was used and viewed with blue light
CNNK9F	Visual Examination	The print was visible with natural light. I did not use anything other than the lighting in the lab.
	Alternate Light Source	The print was visible with UV (yellow goggles), 450 (orange goggles), and laser (red/orange goggles).
	Cyanoacrylate Fuming	The print was processed in a cyanoacrylate tank with 80% humidity for 12 minutes. The print was visible with natural light, UV (yellow goggles), 450 (orange goggles), and laser (red/orange goggles).
	Dye Stain	l processed the item with Ardrox. The print was visible with yellow goggles and UV light.
	Powder Dusting	The print was visible after being processed with black fingerprint powder.
WebCode	Development Methods	Method Details
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CPRHBV	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic powder
	Dye Stain	
CVKM6Z	Visual Examination	Time light filter goggles 15 minutes UV none white.
	Fuming MVC3000 (Polycyano)	Time: 1 hour temperature : 230 degree Celsius , RH: 85%. Light: 555/590 goggles: White. R.PL500 Time:30min light: 555/590
	Visual Examination	Goggles: White; Evidence dryer time: 4hours, Temperature 300 degree Celsius.
	Dye Stain	(Basic Yellow) Velocity: 12
CW2MEG	Cyanoacrylate Fuming	Fuming chamber with raised temperature, aprrox. 15 minutes.
CWW96M	Visual Examination	white light
	Alternate Light Source	polilght Rofin
	Cyanoacrylate Fuming	7 min fuming
	RUVIS	
	Dye Stain	Crystal violet
CXRNJ6	Cyanoacrylate Fuming	+ Ardrox; We used the fumming cabin with 76% humidity + 250 Celsius
CZX6LG	Visual Examination	EXAMINED WITH WHITE LIGHT SOURCE.
	Cyanoacrylate Fuming	4.85G SUPERGLUE, BATCH 12519, CABINET #4 ITEM 1, ALONGSIDE A CONTROL SAMPLE PLACED IN SUPERGLUE CABINET AND HUMIDITY RAISED TO 80% AND THEN SUPERGLUE HEATED TO 120C FOR 15MINS. CABINET WAS PURGED FOR 45 MINS BEFORE CABINET OPENED.
	Dye Stain	ITEM 1 AND CONTROL PLACED IN ETHANOL BASED BASIC YELLOW DYE SOLUTION BATCH 15AT090 AND THEN RINSED WITH TAP WATER. THEN ALLOWED TO DRY BEFORE EXAMINATION.
D2ZMXH	Cyanoacrylate Fuming	120 degrees (celsius), relative humidity 80 %
	Dye Stain	Basic Yellow, ethanol based

WebCode	Development Methods	Method Details
D3MXAW	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Powder Dusting	
D99VVY	Visual Observation	LED white light, DCS-3
	Cyanoacrylate	Foster & Freeman MVC-3000 C.A. fuming cabinet 120°C, 80% RH
DAE997	Visual Examination	PL500, using white light
	Cyanoacrylate Fuming	Using 3 grams of cyanoacrylate for 20 minutes at 25 degree Celsius and 80% humidity. using PL500 & white light. dipping method and aeris evidence dryer for 30 minutes.
	Dye Stain	Rhodamine 6G: PL500 light source & orange filter.
DECTCQ	Visual	w/o light scourse
	Cyanoak	F&F MVC-1000 cabin; 80% humid., 120°C, 10 min
DJKDY3	Visual Examination	visible print in section D. Could be photographed directly.
	Cyanoacrylate Fuming	Temperature:120 celsius, humidity: 80%, Cabinet: Foster+Freeman MVC 3000. After fuming the print was more visible and could be photographed.
	Basic Yellow 40	
	Alternate Light Source	Crime lite (450-560nm)
DKMRWW	Visual Examination	
	Cyanoacrylate Fuming	humidity level at \sim 66%, test positive
	Dye Stain	Rhodamine 6G, Laser #1 at 532 nm with orange barrier, test positive
DQP7C7	Visual Examination	Visual examination using oblique lighting. Ridge detail observed in section D.
	Cyanoacrylate Fuming	Placed item in Cyanoacrylate fuming chamber for 21 minutes. Allowed Cyanoacrylate to harden for 20 minutes.
	Dye Stain	Treated item with Ardrox/Methanol dye stain mixture, rinsed with water and allowed to air dry.
	Alternate Light Source	Examined item with ALS using UV setting.

WebCode	Development Methods	Method Details
DVERXY	Visual Examination	11:10, 000-650nm light, orangeand white goggles and 550 filter captured results.
	Cyanoacrylate Fuming	11:45, 3g of cyanobloom for 30 minutes at 120 degree celsius and 80% humidity.
	Dye Stain	13:40, Dyed with Rhodamide 6g/methanol base ref number 01/05/2018W.
	Drying	Exhibits were dried using an exhibits dryer.
DZRAFF	Visual Examination	Disclosing of a fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white.The fingerprint is visible the best in the white light source.
	Cyanoacrylate Fuming	No improvement in fingerprint quality after use Cyanokcrylate Fuming.The fingerprint is visible the best in the white light source.
	Dye Stain	No improvement in fingerprint quality after use Basic Yellow 40. Basic Yellow 40.The fingerprint is visible the best in the light source 415 nm with yellow goggles.
E7DT62	Visual Examination	
	Alternate Light Source	Used Crime Scope at 495 nm
	Cyanoacrylate Fuming	Fuming cycle was 20 minutes, 5 minute purge time.
	Dye Stain	R.A.M., Used Crime scope to visualize stain at 495 and 515nm.
	Powder Dusting	Black Powder
E86WPV	Cyanoacrylate Fuming	CA Chamber set @ 65% humidity for 15 minutes processing time.
	Powder Dusting	Black powder & lift tape
	Dye Stain	Spray bottle application of MBD
	Alternate Light Source	Crimescope ALS w/orange filter set on CSS (SP short pass)
E8PJ2Y	Visual Examination	2018/06/27: the item 1 was visualized using 10:35 rofin PL500, set on 000 nm wavelength with clear goggles. visible fingerprint on D section.
	Cyanoacrylate Fuming	2018/06/27: item 1 was treated with cyanoacrylate. was placed in the MVC3000 chamber using 10 drops of cyanobloom for 20 minutes at 120 degree Celsius, 80% humidity and 20 minutes purge cycle.
	Visual Examination	2018/06/27: item 1 was visualized using PL500 polilight set on 000 nm wavelength and clear goggles, visible fingerprint on D-section.
	Dye Stain	2018/06/27: item 1 was treated/dye-stained using R6G water base and put in the evidence dryer for 1 hour.
	Visual Examination	2018/06/28: item 1 was visualized using PL500 polilight set on 505 nm wavelength and orange goggles. visible print on D-section.

WebCode	Development Methods	Method Details
EBBAHV	Visual Examination	5 minutes - area of interest in 'D'; looked at it under different lighting
	Cyanoacrylate Fuming	15 minutes - fuming in chamber; allowed to sit overnight (no glue)
	Powder Dusting	5 minutes - print developed in Section D
EH77BZ	Visual Examination	Used Poliflair - white light (polilight flare +2)
	Cyanoacrylate Fuming	Temperature 120 degree Celsius, 68% relative humidity, Cyanobloom 3.06g and the processing time, 20 minutes.
	Visual Examination	Second visual examination white light, used poliflair - white light.
	Dye Stain	Used 450nm blue light with orange filter.
EKECUF	Visual Examination	ambient lighting, room temperature, time <one d.<="" in="" minute.="" noted="" quadrant="" rd="" td=""></one>
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	Cyanoacrylate Fuming	Safefume Chamber, run time 15 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Black magnetic powder utilized.
	Fluorescent Dye	Rhodamine 6G- sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
ERGE68	Visual Examination	white light -> Polylight -> Reflected UV (after cyanoacrylate fuming).
	Cyanoacrylate Fuming	10 minutes of fuming.
	Powder Dusting	Magnetic powder.
	Dye Stain	BY40 -> C.V
EX2TE7	Visual Examination	Viewing of exhibit with white light Onm. No chemical was applied.
	Cyanoacrylate Fuming	the exhibit was fumed with polycyano at 230 degree Celsius, using 2 scoops of polycyano, for 20 minutes and 80% humidity. the purge cycle was 20 minutes and batch number of polycyano 15702 (no expiring date available).

WebCode	Development Methods	Method Details
F44YUA	Visual Examination	
	Alternate Light Source	Light Amplification by Stimulated Emission of Radiation (LASER)
	Alternate Light Source	RUVIS
	Cyanoacrylate Fuming	glue time: 11 min
	Visual Examination	
	Alternate Light Source	RUVIS
	Dye Stain	RAM
	Alternate Light Source	LASER
F4QAZX	lumicyano powder	solution 4%, hygrometry>75%, 15 minuts
F637BU	Visual Examination	Using ambient lighting, white lighting, and LASER 535nm lighting, the Item was examined for any visible prints prior to processing
	Cyanoacrylate Fuming	Fumed for a 70 min cycle in a fuming chamber then visualized with white light
	Dye Stain	Rhodamine 6G dye stain applied the Item and visualized with LASER 535nm
	Powder Dusting	Black powder was used on the Item and visualized w/ ambient lighting
F6YLGY	Visual Examination	Visualization under fluorescent light and incandescent light
	Alternate Light Source	Visualization under wavelengths 365nm, 490nm and 505nm
	Cyanoacrylate Fuming	Fume time: 15 min; Relative Humidity: 80%
	Dye Stain	MBD; visualized under wavelength of 490nm
FAEWV3	Visual Exam	Using light sources. Flashlight, UV, ALS, laser
	Cyanoacrylate Ester Fuming	Placed in chamber, fumed for approximately 5-10 minutes
	Dye Stains - Ardrox & Rhodamine Black Powder	Sprayed with Ardrox, viewed under UV. Then sprayed with Rhodamine and viewed under laser.
	Black Formaci	
FHZC6Y	Visual Examination	Using white poliflare on 2018/06/20 at 10:20
	Cyanoacrylate Fuming	2.5 grams of cyanobloom on MVC3000 cabinet at 120 degree Celsius, 80% humidity for 20 minutes on 201820 at 11:30.
	Dye Stain	dipping rhodamine 6G/methanol base in chemical fume extraction cabinet and placed in a drier on 2018-06-21 at10:25

WebCode	Development Methods	Method Details
FJFNQB	Visual Examination	different lights sources and filters
	Cyanoacrylate Fuming	tem. 25 C, humidity 80%, time 20 min, (Chamber Safefume CA30S) natural and white light,
	Ardrox	spray, UV-light, UV filter,
	Basic Red 14	spray, 505-530 light, orange filter,
FJH6GU	Visual Examination	Crimelite White
	Alternate Light Source	PL 500 and TracER Laser
	Cyanoacrylate Fuming	~70 minutes
	Dye Stain	Rhodamine 6G
	Powder Dusting	Black powder
FPNZZU	Visual Examination	
	Alternate Light Source	Coherent TracER Laser
	Cyanoacrylate Fuming	60 minute cycle, Foster & Freeman MVC 5000
	Dye Stain	Rhodamine 6G
	Powder Dusting	Black
FRBFF4	Visual Examination	Rofin PL500: 000, 450-530nm: Yellow, Orangeand Red goggles.
	Polycyano	MVC3000; 230 degree Celsius, 80% 20 minutes 2-scoops.
	Cyanoacrylate Fuming	MVC3000; 120 degree Celsius. 80% 20 minutes 0.3 grams.
	Dye Stain	Rhodamine 6G
FULK3T	Visual Examination	Oblique lighting
	CA	13 min @ 72% humidity
FYXAL3	Visual Examination	Item 1 was examined prior to applying any chemicals. A flashlight was used to look for any latent impressions.
	Cyanoacrylate Ester Fuming	Item 1 was superglued inside a superglue chamber for about 10 min along with a test print.
	Ardrox/UV (ultraviolet light)	Item 1 was dye-stained with Ardrox. I let it dry for 2-3 min. It was looked under UV to see any fluorescing superglued latent impression.
	Rhodamine 6G/ Laser	Item 1 was dye-stained with Rhodamine. I let it dry for 2-3 min. It was looked under the laser.
	Powder	Item 1 was powdered with carbon black powder.

WebCode	Development Methods	Method Details
G3QRGT	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G
	Alternate Light Source	TracER Laser / curved orange filter
	Powder Dusting	black - no improvement w/print
G4ZPLA	Visual Examination	In daylight and flashlight fingerprint has been disclosed in section - D. In a whole spectrum of Polilight PL 500 (UV, 415, 450, 470, 490, 505, 530, 555, 620, 650) none fingerprint
	Cyanoacrylate Fuming	Improved fingerprint quality has been achieved
	Basic Yellow 40	Improved fingerprint quality has been achieved
GB6FCU	Visual Examination	Looked at item with flashlight and ambient room light
	Cyanoacrylate Fuming	Temp: 73 degrees F; Relative Humidity: 51%; Dwell Time: 20 minutes before venting chamber; Control: +
	Dye Stain	Coated item with Rhodamine 6G (methanol) dye stain and viewed results using laser (532nm) and orange goggles; Control: +
GCFLAG	Visual Examination	With White Light and UV (350nm). Visible ridge detail with both.
	Cyanoacrylate Fuming	70% humidity. 11 min 30 sec fuming. 13 min purge. Visual with White Light: visible ridge detail.
	Powder Dusting	Dual-Use Powder. Visual with White Light: visible ridge detail.
	Dye Stain	MBD. Visual with ALS: 450nm with orange filter, visible ridge detail
GKLFCW	Visual Examination	white light, polilight flare +2
	Cyanoacrylate Fuming	120 degree celsius, relative humidity 68%, 3 grams processing time 20 minutes.
	Visual Examination	white light, poliflare +2 light
	Dye Stain	spraying method, visual with 450nm blue light, orange filter orange goggles.
GP2WWL	Visual Examination	Oblique lightning used
	Cyanoacrylate Fuming	72% humidity, 60 minute cycle
	Visual Examination	Oblique lightning used
	Dye Stain	Rhodamine 6G Dye Stain
	Alternate Light Source	Setting 530 Nanometers (NM)

WebCode	Development Methods	Method Details
GP76C2	Visual Examination	White light examination
	Cyanoacrylate Fuming	Cyanoacrylate fuming chamber 8 minutes
	Powder Dusting	Black powder dusting, print developed but lacking detail
	Powder Dusting	Fluorescent red and black powder dusting, viewed with UV light, still lacking desired detail
	Dye Stain	Ardrox dye stain used, viewed under a Forensic Light Source in the 435 nm to 480 nm range, yellow colored goggles,
GXHB4X	Visual Examination	Incandescent and fluorescent
	Alternate Light Source	350-380nm and 445-510nm
	Cyanoacrylate Fuming	Cyanoacrylate chamber; 15 minutes fuming in chamber; White light
	Dye Stain	MBD; 445-510nm
GZMQL3	Visual Examination	No visible patent prints.
	Cyanoacrylate Fuming	I placed the item in the superglue chamber for approximately 10 min with hot water in a beaker to create humidity.
	Powder Dusting	l used a brush to dust the item. The powder enhanced the print.
H4GGW7	Cyanoacrylate Fuming	Vacuum Chamber and gel pack
	Powder Dusting	Black
H8HFDQ	Cyanoacrylate Fuming	Ridge detail in the from of a patent print observed in section D of Item 1, prior to processing. Cyanoacrylate fuming, followed by application of black magnetic powder with a magnetic wand.
HBD6KW	ASV Process	Apply anti strokes powder with magnetic brush and place in an anti strokes laser, laser viewing enclosed
	Cyanobloom Fuming Process	3g cyanobloom placed in MVC3000, set at 120 degree Celsius, 80% humidity for 20 minutes
	Dye Stain	Enhanced or stained with Rhodamine 6g / Ethanol base and dried
HCU7WY	Visual	Oblique light (alternate light source @ 570nm/ yellow filter, two digital photographs) U.V., LASER
	Cyanoacrylate Esther Fuming	Cyanoacrylate, fuming, hot plate, enclosed chamber 15 minutes. Two digital photographs
	Ardrox UV, Rhodamine	Spray, dry, UV, ALS, LASER
	Powder	Dust with black FP powder
НСКМЗХ	Cyanoacrylate Fuming	

WebCode	Development Methods	Method Details		
HGZV68	Visual Examination	print visible		
	Powder Dusting	magnetic powder		
HZWCFV	Cyanoacrylate Fuming	80% Humidity @ 15 min		
	Powder Dusting	black powder		
	Dye Stain	R6G dye enhancement viewed with an ALS		
JFQ8FT	Visual Examination	room light examination		
	Cyanoacrylate Fuming	fuming chamber		
	Powder Dusting	black powder dusting		
	Dye Stain	Ardrox		
	Alternate Light Source			
JLTH7Y	Visual Exam	Examined item with oblique lighting, UV, Laser, and Alternate Light Source (ALS)		
	Cyanoacrylate Ester (CAE) Fuming	Fumed item in CAE chamber, approx 15 min		
	Dye Stains: Ardrox and Rhodamine	Ardrox = Dye stained and visualized with UV lamp. Rhodamine = Dye stained and visualized with LASER and orange (21) filter		
	Black Powder	Applied black powder to item with brush		
JLXVX2	Visual Examination	White light, Crime Lite 80S 430-470nm		
	Cyanoacrylate Fuming	BVDA Glue, Foster Freeman MVC3000, 80% RH, 10 minutes		
	Dye Stain	Basic Yellow 40, dipping, rinsing in water, drying cabinet, 30 degrees Celsius, 1 hour		
JTUQVY	Visual Examination	used white light with magnifier		
	Cyanoacrylate Fuming	used control at time of processing, super glue, hot water, wait approximately 10 minutes, watch for control to change (develop		
	Powder Dusting	applied black powder with fiberglass brush		
JUZEXH	Cyanoacrylate Fuming	Cyanoacrylate manual fuming chamber with cyanowand.		
	Powder Dusting	Black oxide latent print powder in order to visualize the fingerprint.		

WebCode	Development Methods	Method Details			
JWNPU3	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: We have detected and photographed a lofoscopic fragment in quadrant D			
	Cyanoacrylate Fuming	We used cyanoacrylate to object using "TECNIHISPANIA model PC". VALUES Fuming chamber: Cyanocrylate plate temperature: 65°C, Chamber humidity: 75%			
	Visual Examination	We visualized the object with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: We have detected and photographed the same lofoscopic fragment in quadrantD			
	Dye Stain	We used ARDROX in whole object with spray method into gas extractor chamber "ASEM model FUME CABINETS"			
	Visual Examination	We visualized the object with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: We have detected and photographed the same lofoscopic fragment in quadrant D			
JX7KRW	Visual Examination	White light/fluorescent light			
	Alternate Light Source	365nm/495nm			
	Cyanoacrylate Fuming	~15 minutes in chamber; White light			
	Dye Stain	MBD (495nm)			
JZD3QR	Visual Examination	The foil was examined for patent prints. Patent prints were observed.			
	Cyanoacrylate Fuming	The foil was then processed using cyanoacrylate fuming in a fuming cabinet for about 20 to 30 minutes. Latent prints were developed.			
	Powder Dusting	The foil was then processed with gray powder using a fiberglass brush. Latent prints were developed.			
JZFTUP	Visual Examination	VIS, UV, fingerprint - section D			
	Cyanoacrylate Fuming	about 2 min., 120 degree C, fingerprint - section D			
	Dye Stain	Basic Yellow 40, fingerprint - section D			
K2YZMW	Visual Examination	First visualization, equipment: Rofin PL500, White light, clear goggles.			
	Cyanoacrylate Fuming	Equipment: MVC300, glue: Cyanobloom at 120 degree Celsius, 72% humidity for 60 minutes.			
	Dye Stain	Dye stained wit Rhodanine 6G/water base and placed in dryer for 2 hours.			

WebCode	Development Methods	Method Details		
K7YF3Z	Visual Examination	Ridge structure - collection value		
	Alternate Light Source	LabKam. Ridge structure - collection value		
	Cyanoacrylate Fuming	Control positive. Ridge structure - collection value		
	Alternate Light Source	LabKam. Ridge structure - collection value		
	Dye Stain	Rhodamine 6G. Control positive		
	Alternate Light Source	Crimescope. Ridge structure-collection value		
KBAFD6	Visual Examination	Natural light, white light (angle light), optical instruments.		
	Alternate Light Source	Polilight PL 500, barrier filters, optical instruments.		
	Cyanoacrylate Fuming	Processing time: 10 min, humidity: 80%.		
	Visual Examination	White light (angle light), optical instruments.		
	Dye Stain	Ardrox.		
	Alternate Light Source	UV (Polilight PL 500).		
KDBJ38	Cyanoacrylate Fuming	We have used Lumicyano (a direct fluorescent cyanoacrylate)		
KGRTAJ	Visual Examination	Before the chemical processing Item 1 was visualised with Rofin PL500 white light at 10:35		
	Fuming	Two scoops of polycyanowere used at 230 degree celsius at 80% humidity for 60 minutes at 10:45		
	Fuming Visual	Item 1 was visualised with Rofin PL500 white light at 11:48		
	Dye Stain	Item 1 was dye stained using Rhodamine - 6 G/ Methanol at 13:00. Item 1 was visualized at 10:00 with Rofin PL500 at 505nm usingorange filter and orange goggles.		
KQ3ZZK	Visual Examination	White light and magnification		
	Cyanoacrylate Fuming	CyanoSafe, test print positive, allowed to sit for 1 hour after processing.		
	Dye Stain	RAY batch #668, prints checked with Foster and Freeman Crime Lite ML with 460-510nm filter and orange barrier.		
	Powder Dusting	Black powder.		
KUNK8A	Cyanoacrylate Fuming Chamber (CFC) processing	Cyanoacrylate - [Lot Number], Exp: 3/19, positive control, aluminum dish, target humidity value - 70%, purge time - 10:00 minutes, maximum fume cycle time - 10:00 minutes, CFC processing start time - 0721 hours, target humidity value reached/ fuming cycle started - 0727 hours, fuming cycle ended/ purge cycle started - 0737 hours, purge cycle ended/ CFC processing completed - 0747 hours		
	Black Powder Processing	Black fingerprint powder, fingerprint brush; black powder processing start time - 0750 hours, black powder processing end time - 0755 hours		

WebCode	Development Methods	Method Details
KWLFEQ	Cyanoacrylate Fuming	Exposure process 4 minutes in the cyanoacrylate manual fuming chamber with cyanowand.
	Powder Dusting	Black oxide latent print powder.
KYBQBB	Visual Examination	White, blue, green light.
	Cyanoacrylate Fuming	80% RH
	Dye Stain	Basic Yellow 40
KYV9MW	Visual	light sources -> LASER, ALS, UV, flashlight
	Cyanoacrylate Fuming	
	Ardrox	light source - UV
	Rhodamine 6G	light source - LASER
	Powder	
KYW3C4	Visual Examination	print visible with oblique lighting
	Cyanoacrylate Fuming	Cyanoacrylate fuming chamber for 30 minutes
	Dye Stain	Basic yellow sprayed, rinsed with water, viewed with mini crime scope at 445 NM with yellow filter
KZC8ZU	Visual Examination	Viewed by using white light an magnification - 1 photograph taken
	Cyanoacrylate Fuming	CyanoSafe, 4-5 drops (totaling 12-15 drops) of cyanoacrylate in each of 3 cyvac cups, run for 12 minutes, allow evidence to rest for at least an hour. 1-photograph taken.
	Dye Stain	Item was evenly sprayed with RAY solution for about a minute. Rinsed with tap water, pat dry. Viewed with Crime Light ML 460-510nm with an orange barrier; 1-photograph taken
	Powder Dusting	Lightly powdered entire surface using fiberglass brush, viewed using white light and magnification. 1 - photograph taken.
L7TGCW	Visual Examination	The exhibit was first visualised with white light (000 nm), (350 nm UV, 415 nm, 450 nm, 470 nm and 505 nm with white goggles, yellow goggles and orange goggles.
	Cyanoacrylate Fuming	Exhibit was placed in MVC3000 using 0.2g/2g of Cyanobloom for 20 minutes at 120 degree Celsius and 80% humidity then 20 minutes purge cycle.
	Dye Stain	Exhibit was dye stained with Rhodamine 6G / Ethanol in an fuming extraction cabinet by spraying method and rinsed with running water then placed in an evidence dryer to dry before continuing with processing.

WebCode	Development Methods	Method Details
LCF6AM	Visual Examination	
	Alternate Light Source	ALS used: LASER, Crimescope (450nm) and UV
	Cyanoacrylate Fuming	
	Dye Stain	Type of dye stain: RAM
LCVNRY	Visual Examination	000nm, 450nm light source with clear goggles; Print observed in section D
	Powder Dusting	fluorescent examination: yellow fluorescent powder, feather brush, 450 nm light + yellow goggles. print observed in section D
	Cyanoacrylate Fuming	3g cyanoacrylate, 120 degree Celsius, 65% humidity, 35 minutes process. print observed in section D.
	Dye Stain	basic yellow/methanol dye stain. 450 nm light, yellow goggles. print observed in section D
LE86LP	Alternate Light Source (ALS)	455-515nm
	Cyanoacrylate Fuming	Vacuum chamber ~30 mins.
	Black Powder Dusting	
LG9AWP	Visual Examination	visual examination-print visualized
	Cyanoacrylate Fuming	processed in cyanoacrylate chamber for 11 minutes. Print visualized
	Powder Dusting	dual use powder used. Print visualized
LH4PD3	Visual Examination	No latent print
	Cyanoacrylate Fuming	1,6 gram in 80% RH and 120 degree celcius
	Powder Dusting	Latent print, lifted with mikrosil
	Basic Yellow 40	Latent print with light source 420 - 440 nm
LHLX4H	Cyanoacrylate Fuming	Exhibits A and C were placed in the MCV3000 equipment using 3 drops of cyanobloom glue, for 20 minutes at 120 degree Celsius and 80% humidity and 4 minutes. Purge cycle with W116776 batch number.
	Fuming	Exhibits A and C were placed in the MCV3000 equipment using 3 drops of cyanobloom glue, for 20 minutes at 120 degree Celsius and 80% humidity and 4 minutes. Purge cycle with W116776 batch number.

WebCode	Development Methods	Method Details		
LP2JB2	Alternate Light Source	Preliminary visual examination by two analysts with natural, white and forensic light and photography.		
	Cyanoacrylate Fuming	Treatment with cyanocrylate steam in cyanocrylate fuming chamber TECNIHISPANIA model PC with 75% relative humidity in the air and plate temperature 60 degrees Celsius during 14 minutes. Visualization by two analysts with natural, white and forensic light and photography.		
	Dye Stain	Tinction with Ardrox. Visualization with natural, white and forensic light by two analysts and photography.		
LV7FU2	Visual Examination	A clear fingerprint could be seen		
	Photography			
	Cyanoacrylate Fuming	Heat on glueplate: 120 degrees celcius; Humidity in cabinet: 80% rh; Processtime: 10 minutes		
	Photography			
	Dye Stain	Basic Yellow 40		
	Photography			
LW9WJK	Visual Examination	White light and magnification		
	Cyanoacrylate Fuming	CSU CyanoSafe Recirculation Chamber. Test print positive, 15 drops CA, 20 min. processing, 1 hour dry/set. White light and magnification.		
	Powder Dusting	Black powder, white light and magnification. Spectroliner XL-1500 UV sterilization of brush prior to use.		
	Dye Stain	RAY batch 668, Rofin Polilight Flare Plus 2 with a 450nm orange filter.		
lwmhtm	Visual Examination	Ambient lighting and green/tracer laser		
	Cyanoacrylate Fuming	6:10 fuming time		
	Dye Stain	water-based R6G solution		
M2W398	Visual Examination	Normal room light. RD noted in Quadrant D.		
	Alternate Light Source	Mini-Crimescope, all available wavelengths.		
	Cyanoacrylate Fuming	Safefume Chamber, run time 15 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.		
	Powder Dusting	Magnetic powder utilized. lift obtained.		
	Fluorescent Dye	Rhodamine 6G- sprayed, allowed to dry, viewed with mini-crimescope at 515nm.		
M7KUEE	Cyanoacrylate Fuming	Cyanoacrylate manual fuming chamber with cyanowand.		
	Powder Dusting	Using black latent print powder.		

TABLE 2	- Item 1
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WebCode	Development Methods	Method Details			
M997CY	Visual Examination	Natural light and then white light applying Polilight PL-500 Forensic Light (all wavelenghts).			
	Cyanoacrylate Fuming	Processing the object in Sirchie CAS48 Cyanoacrylate. Fuming Chamber Values: 40 minutes running time, 80% humidity.			
	Dye Stain	ARDROX used to stain entire item with spray method.			
MCRCUU	Visual Examination	RD noted in Quadrant D.			
	Alternate Light Source	Mini-Crimescope, all available wavelengths of light.			
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.			
	Powder Dusting	Black powder utilized, processed at room temperature.			
	Fluorescent Dye	Rhodamine 6G- Sprayed, allowed to dry, processed at room temp.			
МЕНМКМ	Cyanoacrylate Fuming	Exposure process 2 minutes in the cyanoacrylate manual fuming chamber with cyanowand.			
	Powder Dusting	Black oxide latent print powder.			
MFQR64	Visual Examination	White light.			
	Cyanoacrylate Fuming	RH 80%, Gluecycle 8min, 0,5g of glue.			
	Dye Stain	Basic Yellow 40.			
MG9E8R	Visual Examination	Examined under white light and magnification. Prints observed in Quadrant D. LP photographed (2 images).			
	Cyanoacrylate Fuming	Processed in the CyanoSafe recirculation chamber. Control print positive. Processed for 12 minutes and let to sit for 60 minutes. Print observed in Quadrant D. LP photographed (2 images).			
	Dye Stain	Item treated with RAY (batch #668) and examined with Polilight FLARE Plus 2 with 450nm filter and ProMaster Orange YA2 filter. Print observed in Quadrant D. LP photographed (2 images).			
	Powder Dusting	Black print powder was applied to item. Examined under white light and magnification. Print observed in Quadrant D. LP photography (3 images). Prior to LP powder processing, brush placed in Spectrolinker for 420 seconds.			
MHL7XN	Cyanoacrylate Fuming	Processing Time = 20 Minutes			
MPFFZ7	Visual Examination	10:00 am using light item was examined.			
	Superglue (fuming)	10:30 am item was inserted to the chamber to recover the latent print bye glue			
	BY 40 & CV & Sudan Black	After locating the latent print, different chemicals used and examined by different light BY 40, Crystal violet, Sudan black repressentivly by 12:30 pm			
	Black Powder	Item was examined by black powder and lifting for storing			

TABLE 2 -	- Item 1
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WebCode	Development Methods	Method Details
MWW23H	Visual Examination	(No chemical processing) During first examination a print was discovered (000nm wavelength)
	Cyanoacrylate Fuming	Exhibit placed in MVC3000, with 1.2g of Cyanobloom, 120 degree Celsius, 70% humidity for 20 minutes.
	Dye Stain	Exhibit dipped into Rhodamine solution, rinsed off excess and placed in evidence dryer.
	Powdering	Black-finger-print powder using animal brush.
MXEYKA	Visual Examination	RD noted in Quadrant D.
	Alternate Light Source	Mini-Crimescope, all available wavelengths. No add'l RD noted.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight. No add'l RD noted.
	Powder Dusting	Bichromtaic powder utilized. No add'l RD noted.
	Fluorescent Dye	Rhodamine 6G- sprayed, allowed to dry, viewed with the Tracer Laser at 532nm. No add'l RD noted.
N2R837	Visual Examination	
	Cyanoacrylate Fuming	69 degrees Fahrenheit, 80% humidity, 15 minute fume time
	Dye Stain	Rhodamine 6G dyestain, methanol based, Bright Beam laser, 532nm
N822KW	Cyanoacrylate Fuming	
	Powder Dusting	
N8BFG6	Visual Examination	should have made photo but we can see the print directly
	Cyanoacrylate Fuming	should have made photo but we can see the print directly 6 min, 120 C, cyanobloom
	Dye Stain	Basic Yellow 40
N8JY3N	Visual Examination	Oblique lighting to examine for latent prints and indented writing.
	Alternate Light Source	Crimescope 455-515nm
	Cyanoacrylate Fuming	Cyanosafe 20 minutes
	Powder Dusting	Black powder and black powder brush
N8WT83	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Dye Stain	R.A.M.

WebCode	Development Methods	Method Details			
NGJP94	Visual Examination				
	Cyanoacrylate Fuming	3 min. 180' F (water)			
	Alternate Light Source	ALS/FLS 495 nano			
	Powder Dusting	Black magnetic powder			
NHX8DU	Visual Examination	Visually identified a latent			
	Powder Dusting	Black magnetic powder - enhanced the detail of the latent			
NKMLVD	Cyanoacrylate Fuming	Exposure process 4 minutes in the cyanoacrylate manual fuming chamber with cyanowand.			
	Powder Dusting	Black latent print powder.			
NN2H2E	1st visual examination	ltem 1 was visualized using PL 500, wavelength 00nm - 590nm using white/clear and orange goggles.			
	Cyanoacrylate Fuming	Item 1 was placed in the MVC 3000 using 1.2 grams of cyanobloom for 10 minutes at 120 degree celsius, 80% humidity and 20 purge cycle with W116776 batch number. The item was visualized with PL500 set at 00nm with white/clear goggles			
	Dye Stain	Item 1 was dye-stained with R6GH20 WITH 02/06/2018W and dried in air volution. The item was visualized using PL500 with 530nm using orange goggles.			
NPEWXN	Visual Examination	Under different types of light			
	Cyanoacrylate Fuming	fuming with Lumicyano, observation under white light and UV light			
NQRBNJ	Visual Examination	White LED with magnification			
	Cyanoacrylate Fuming	CyanoSafe fuming chamber			
	Powder Dusting	Bi-chromatic			
	Dye Stain	RAY, batch 667-450nm Rofin Polilight 2			
NXP9LL	Visual Examination	White-, blue- and UV-light Source			
	Cyanoacrylate Fuming	10 min processingtime. Glue 1,7 g. Heat 120 C and 80% moisture.			
	Dye Stain	Basic Yellow 40, solution based on 99,5% ethanol.			
NZEKJ7	Visual Examination	White ambient light. Positive for latent print in section D.			
	Cyanoacrylate Fuming	Processing time: 2 minutes. Improvement of the latent print.			
	Dye Stain	Basic Yellow 40. Improvement of the latent print.			

TABLE	2	_	ltem	1
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WebCode	Development Methods	Method Details
P6MANK	Visual Examination	Oblique lighting. Partial visibility.
	Cyanoacrylate Fuming	Ten (10) minutes in humid chamber.
	Powder Dusting	Standard black powder and fiberglass brush.
P9NBTN	Visual Examination	White light
	Alternate Light Source	365nm, 455-510nm
	Cyanoacrylate Fuming	80% Relative Humidity
	Dye Stain	MBD
PCMDW4	White light	9:00 am, the item was examined using white light
	CNA	9:15 am, the item was placed to the MCV 3000 (superglue chamber) for 45 mins at 120 c and RH = 80, finally item was examined using white light
	BY 40	10:25 am , the item was applied in BY 40 solution, item rinsed with distilled water followed by drying, finally it was examined using blue light.
	Crystal Violet	11:15 am , the item was pigmented with CV for (2 mins max), followed by rinsing using distilled water and drying, finally examined by white light
	Sudan Black	11:40 am, same procedure was repeated for SB
	Black powder	12:30 pm, the black powder was applied for the item and the recovered latent was under powder lifting
PDGBZ6	Visual Examination	Initial visual examination with white light. During the visual examination a perfect fingerprint was clearly visible in section D. The development was in that moment stopped. Note! If I did not stop the development I would continoued withe: CNA, visual examination, BY40, visual examination, light source, photo.

WebCode	Development Methods	Method Details
PPVCQW	Visual Examination	I performed a visual exam on the aluminum foil. I observed ridge structure of collection value and photographed the print in quadrant D.
	Alternate Light Source	l used LabKam to visualize the evidence and no ridge structure was observed.
	Cyanoacrylate Fuming	The aluminum foil was placed in the cyanoacrylate chamber for 10 minutes at approximately 120 degrees Celsius. Ridge structure of collection value was observed after fuming and the print was photographed in quadrant D.
	Alternate Light Source	I used LabKam to visualize the evidence and ridge structure of collection value was observed. The LabKam produced no greater results than previously seen, so no photos were taken at this stage.
	Dye Stain	Rhodamine 6G was applied to the evidence and allowed to dry.
	Alternate Light Source	A Polilight was used to visualize the evidence after treatment with the dye stain. Orange goggles were worn and the evidence was viewed at a wavelength of approximately 450 nanometers. Ridge structure of collection value was observed and photographed in quadrant D.
	Powder Dusting	Black powder was applied to the evidence with ridge structure of collection value being observed, but no photos taken at this stage. The previous photos were of greater quality.
PQJ3H3	Visual Examination	Viewed sample under natural and forensics lights.
	Cyanoacrylate Fuming	The fuming was initiated in fuming chamber at lasts 15 minutes with 65% humidity. The sample is viewed with natural and forensics lights.
	Staining with Basic Yellow	It is applied with a spray application, washed in water and air dried.
	Alternate Light Source	Viewed with forensic ligth at 415nm using yellow goggles.
PRKJ8M	Cyanoacrylate Fuming	Used 24 drops of chemical in tin cup with smaller tin cup containing distilled water on a hot plate. processed for 13 min in glass aquarium lined with aluminum foil.
	Powder Dusting	Used non-single use black powder and brush. Dusted section D only
PX94E9	Visual Examination	RD noted in Quadrant D.
	Alternate Light Source	Min-Crimescope viewed all available wavelengths.
	Cyanoacrylate Fuming	Safefume Chamber utilized. Run time 20 minutes, 5 minute purge cycle, 80% humidity, allowed to set overnight.
	Powder Dusting	Black powder used.
	Fluorescent dye	Rhodamine 6G applied, let dry, and viewed with mini-crimescope at 515nm.

WebCode	Development Methods	Method Details
PYHD6K	Visual Examination	White light used to examine item. Latent located in section D
	Cyanoacrylate Fuming	Fumed for 9 minutes.
	Powder Dusting	Dusted with black powder
PZ9MM2	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Dye Stain	Ardrox
Q3EELT	Visual Examination	Latent Detected in quadrant "D".
	Alternate Light Source	Inherent Luminescence exam with Polilight PL500 @ multiple wavelengths.
	Cyanoacrylate Fuming	Vacuum Chamber-30 mins. / Atmosphere exposure 30 mins.
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Exam with Polilight PL500 @ 505nm. Latent in quadrant "D" developed and enhanced.
	Powder Dusting	Standard black powder.
Q4BWLA	Visual Examination	Negative
	532nm Laser	Positive
	Alternate Light Source	Negative ridge detail
	Cyanoacrylate Fuming	Negative enhancement
	Dye Stain	R6G, positive enhancement
Q4CPHW	Visual Examination	white light
	Alternate Light Source	poly-light
	Cyanoacrylate Fuming	
	Dye Stain	by-40
	Dye Stain	CV
Q4LTY2	Cyanoacrylate Fuming	Chamber dimension 22"X12"x30", 190' water on a bowl, small
	RAM	Applied with wash/swirl plastic bottle

WebCode	Development Methods	Method Details
Q4RVV2	Visual Examination	Side lighting - flashlight
	Cyanoacrylate Fuming	15 minutes
	Full Spectrum Imaging System	
	Dye Stain	Rhodamine 6G. Sprayed, rinsed.
	Alternate Light Source	Trace Laser - 532nm
QFZNGL	Visual Examination	PL500 viewed from white light captured at UV light with clear google /filter
	Cyanoacrylate Fuming	Fumed in an MVC3000fuming Cyanobloom at 120 degree Celsius, 80% for 15 minutes.
	Dye Stain	Dyed with Rhodomine-6 and dyed. Viewed using PL500 505 wavelength using orange goggles / filter.
QGE3UM	Visual Examination	side lighting with white light
	Alternate Light Source	Wavelengths 415nm, 450nm, 505nm, & 530nm
	Cyanoacrylate Fuming	SafeFume Chamber (20 minutes at ~80% humidity, ~70.2degrees F.)
QHPZ7J	Visual Examination	Natural light.
	Cyanoacrylate Fuming	
	Dye Stain	R6G: Methanol carrier
QKZ3WN	Visual Examination	Fluorescent light and Crimescope white light
	Alternate Light Source	490nm and 365nm
	Cyanoacrylate Fuming	15 minutes, 80% relative humidity
	Dye Stain	Ardrox
QNCRDC	Forensic lights	The evidence is checked using "LUMATEC 400" forensic light with all spectrum. 24°C room temperature.
	Cyanoacrylate Fuming	Vaporization of cyanoacrylate in fuming chamber for about 8 minutes. 134°C temperature - 75% humidity.
	Forensic linghts	The evidence is checked again using forensic light with all spectrum.
QQ92RN	Visual Examination	Before enhancement : Incident and field lightning with visible light. Blue-green lightning (with crimescope/crimelite 2). Fluorescence (green light + orange filter). UV (labino)
	Cyanoacrylate Fuming	Lumicyano; 0.84g 117°C 78% 20 minutes - MVC 1000 cab (F&F) . Visualisation UV (labino) + visible light
	Dye Stain	Rhodamine 6G - Visualisation inder green light + orange filter

WebCode	Development Methods	Method Details
QRFLBG	Visual Examination	White light, magnification
	Cyanoacrylate Fuming	Cyvac - 40 minutes
	Powder Dusting	Black powder
	Dye Stain	Ray, Batch #667
QXLGVG	Visual Examination	Ambient light & Tracer (green light).
	Cyanoacrylate Fuming	Misonix- fumed for 6 minutes.
	Basic Yellow	viewed with yellow filter & blue light (ROFIN)
QYFWF2	Visual Examination	
	Cyanoacrylate Fuming	3 min chamber, water @ 160'
	Visual Examination	
	RAM	Fluorescent dye
	Alternate Light Source	Fluorescent light
R37QRT	Visual Examination	(First visual) 000nm
	Cyanoacrylate Fuming	Cyanobloom, 000nm no filter 120 degree Celsius, 80% relative humidity, 20 minutes.
	Dye Stain	Rhodamine 6G dye - H2O base.
R3FLCT	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	MRM-10
R87TZ3	White light and CNA.	8:45 am 20/06/2018 the item was examined by white light, 9:00 am 20/06/2018 item was inserted in superglue cabinet MVC 3000 for 45 mins followed by white light examination RH=79.
	Basic yellow 40.	11:00 am 20/06/2018 item was immersed in Black yellow 40, washed with dionized water, dries and examined using blue light.
	Crystal violet Sudan Black.	1:30 pm 20/06/2018 item was immersed in crystal violet and Sudan black respective, washed with Di water, dried and examined using white light.
	Black powder.	3:00 pm 20/06/2018, black powder was applied to the item and lift was preserved.

TABLE	2	-	ltem	1
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WebCode	Development Methods	Method Details
RATKV6	Visual Examination	RD noted Quadrant D.
	Alternate Light Source	Mini-Crimescope, all available wavelenths viewed.
	Cyanoacrylate Fuming	Safefume Chamber, 20 min. run time, 5 minute purge cycle, 80% humidity. Let set overnight.
	Powder Dusting	Bichromatic powder utilized
	Fluorescent Dye	Rhodamine 6G sprayed, let dry, viewed with mini-crimescope 515nm.
RBN9CF	Visual Examination	Prints observed in quad D; photography camera 9/lens 2, direct reflection with LED; One (1) image saved
	Cyanoacrylate Fuming	Sirchie CyanoSafe (30 mins), control print developed, improved print with CA
	Powder Dusting	Black, improved print
	Dye Stain	RAY, batch #671, Exam Rofin Polylight FLARE Plus 2 450 nm with orange goggles
RFH3C3	Cyanoacrylate Fuming Chamber	64% humidity, 23 minute processing time
	Black Powder	
RFN8ZR	Visual Examination	l visually examined the aluminum foil and saw no prints
	Cyanoacrylate Fuming	l placed the foil in the superglue chamber with superglue and hot water for about 10 minutes
	Powder Dusting	I placed a clean fingerprint brush in black powder and carefully dusted the aluminum foil and let the powder adhere to the superglue
RG99NL	Visual Examination	
	Cyanoacrylate Fuming	Performance check conducted on CAF; 06/26/18 - passed. Humidity at approximately 60%. Purge time approximately 10 minutes. Max fume cycle approximately 15 minutes.
	Dye Stain	Performance check conducted on R6G (rhodamine); 06/27/18 - passed.
	Alternate Light Source	ALS blue light - 455 nm; ALS orange filter - 550 nm
RGQEU4	Visual Examination	Using ambient light and flash light at an oblique angle
	Cyanoacrylate Fuming	Lumicyano fluorescent fume: fumed for 35 minutes in fuming chamber at 80% humidity. Viewed using ALS (390-520nm) with an orange filter
	Powder Dusting	Black

WebCode	Development Methods	Method Details
RHML8P	Visual Examination	
	Cyanoacrylate Fuming	Polycyano method. Humidity 80%, Temperature: 230 celsius; Cabinet: Labrum Klimat
	Alternate Light Source	Crime Lite UV 365nm
RJGGYR	Visual Examination	I visually examined Item 1 prior to the Cyanoacrylate Fuming.
	Cyanoacrylate Fuming	I processed Item 1 with Cyanoacrylate Fuming for 16 minutes.
	Visual Examination	l visually examined Item 1 after the Cyanoacrylate Fuming and prior to the dye staining.
	Dye Stain	I applied Rhodamine 6G as my dye stain as it provided good contrast. I applied the dye stain and allowed the item to air dry before viewing.
	Alternate Light Source	I was able to visualize the processing by using the Alternate Light Source.
RPLCJR	Visual Examination	forensic light source
	Cyanoacrylate Fuming	120°C, 80% rel. humidity, 10min
	Dye Stain	Basic Yellow
RQHUH8	Visual Examination	Viewed under white light, laser (TracER Laser 532nm), and ALS (CrimeScope CS-16-500 at various wavelengths).
	Cyanoacrylate Fuming	Item fumed in a Misonix CA-6000 superglue chamber for approximately 12 minutes and viewed under white light.
	Dye Stain	Item sprayed with methanol based Rhodamine 6G and viewed under the TracER laser.
RT6EHK	Visual Examination	
	Cyanoacrylate Fuming	Atmosphere pressure
	Visual Examination	
	Powder Dusting	Magnetic powder
RVPCPM	Visual Examination	Processing time: 11:49, room temperature 18 degree celsius
	Cyanoacrylate Fuming	glue time: 35 minutes, glue temperature: 120 degree Celsius, humidity 70%, processing time: 12:40
	Dye Stain	sprayed the exhibit in the chemical fume cabinet, processing time: 07:06 (2018/06/20); room temperature (18 degree Celsius)
RYDQNJ	Visual Examination	White light
	Cyanoacrylate Fuming	White light
	Dye Stain	Rhodamine 6-G, Alternate light source
	Powder Dusting	Black powder, White light

WebCode	Development Methods	Method Details
RZMKGC	Visual Examination	un-aided visual exam; print visible
	Cyanoacrylate Fuming	F/F MVC5000 chamber (120 degrees with humidity; 15 min glue cycle); C+B- print visible
	Dye Stain	Rhodamine 6G with TracER laser; C+B- Print visible
T2TH9K	Visual Examination	Crimescope, white light
	LUMICYANO TM	Fumigation chamber : CA30S SafeFume Air Science 0.064g of powder and 1,64 g of solution Glue cycle 30 min- Visualization with Crimelite 2 + Labino UV
T3AGN3	Visual Examination	Flashlight
	Cyanoacrylate Fuming	Foster + Freeman MVC 3000 chamber - auto cycle (humidify, hold, glue, and purge cycles); visualize with flashlight
	Dye Stain	Rhodamine 6G (R6G); Visualized with Coherent TracER laser
T9R47L	Visual Examination	PL500 000 nm, 450 nm and orange goggles time: 10:20
	Cyanoacrylate Fuming	MVC3000, cyanobloom, visual examination.
TBYARM	Powder Dusting	Visual exam - area photographed with 1:1 techniques. CA - Item fumed in CA chamber for approx. 25 minutes, examined, photographed. MBD - item dye stained, dried (air dry), examined w/fls & photographed. BP (black powder) - black powder applied, 2 lifts of same area collected.
TCWH6D	Visual Examination	Examined under white light and magnification
	Cyanoacrylate Fuming	CyanoSafe reciruclation chamber. "Purge" for 12 minutes. Allowed evidence to sit undisturbed for 60 minutes.
	Dye Stain	Fluorescent Dye Staining (RAY) batch #668. Examined using Foster & Freeman Crime Lite ML with a 460-510nm bandwidth filter and orange barrier.
	Powder Dusting	Black print powder applied.
TEGHVT	Visual Examination	13:00 Visual examine using Rofin light, wavelength 000nm using white goggles.
	Cyanoacrylate Fuming	at 13:30 using 10 drops of cyanobloom for 15 minutes at 120 degree Celsius, 80% humidity, purged cycle 5 minutes.
	Dye Stain	Enhancing with Rhodamine 6G: at 15:30 it was dye stained with methanol based Rhadomine 6G under fuming hood.
TEGLEV	Powder Dusting	

WebCode	Development Methods	Method Details
TGNX4J	Visual Examination	utilization of poli-light PL500 to check for visibility of any marks, fingerprint.
	Cyanoacrylate Fuming	utilization of MVC3000, using cyanobloom (W116776) (superglue) at 120 degree celsius, 80% humidity for 10 minutes and 20 minutes purge.
	Dye Stain	utilizing rhodamine 6G base distilled water to spray exhibit and place in a dryer.
TGPLUB	Cyanoacrylate Fuming	Humidified fuming chamber followed by cyanoacrylate fuming for about 5 minutes. Cyanoacrylate heated at 340 degrees F.
	Powder Dusting	Dusted with black latent print dusting powder.
TH64TA	Visual	Visual examination (photographed)
	Laser - 532nm	Inherent luminescence exam
	Cyanoacrylate Fuming (Vac. Chamber)	CAE fumed/ vac chamber/ 40 min. (photographed)
	Magnetic Pwdr	dusted/ photographed
THHRVM	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
	Alternate Light Source	
	Powder Dusting	
TMUUNJ	Visual Examination	Polilight flare +2, 000nm (white) in a dark room, clear goggles.
	Cyanoacrylate Fuming	2 scoops of polycyano, 230 degree Celsius for 30 minutes humidity 80%, purge cycle 10 minutes.
	Visual Examination	PL500, 505 nm, clear goggles
TMVBD4	Visual Examination	Oblique and direct lighting
	Cyanoacrylate Fuming	Air Science fuming chamber 15 minutes processing time at ~75% humidity
TMVHDB	Visual Examination	Lighting
	Cyanoacrylate Fuming	Foster Freeman MVC 5000 chamber (atmospheric) - (120 degrees for Cyanobloom and 80% relative humidity)
	Dye Stain	Rhodamine 6G pre-made dye stain. Visualization using the Coherent TracER laser with filter.

TABLE 2 -	- Item 1
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WebCode	Development Methods	Method Details
TN8A8D	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	12 mins., 4-5 drops of glue in each tin, sit for one hour, examine with white light and magnification. Control print in chamber.
	Powder Dusting	Black powder. Clean brush in Spectrolinker. White light and magnification.
	Dye Stain	RAY batch #668. Polilight and orange filter. Let set for 60 seconds before washing off. Pat dry, let air dry.
TQH8MF	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G
	Powder Dusting	
TRTUF3	Visual Examination	Oblique Lighting
	Cyanoacrylate Fuming	Foster Freeman MVC5000 for 51 Mins
	Alternate Light Source	Foster Freeman CrimeLite 82S, Blue-Green with orange barrier filter/UV
	Powder Dusting	
TXRN6N	Visual Examination	ITEM 1 WAS SEARCHED VISUALLY WITH NO AID. NO FRICTION RIDGE DETAIL WAS SEEN.
	Powder Dusting	ITEM 1 WAS PROCESSED USING BLACK POWDER & BRUSH. SMUDGED AREAS WERE DEVELOPED IN QUADRANTS A & B. ONLY QUADRANT D DEVELOPED A LATENT PRINT WITH READABLE FRICTION RIDGE DETAIL.
TZX2U3	Visual Examination	ridge detail observed on section D
	Powder Dusting	Silk powder - further enhancement of ridge detail
U8UCBQ	Polycyano	(Non Porous method used) Used MVC3000 using Polycyano UV 230 degree Celsius, relative humidity 80%, processing time 30 minutes.
U9U7FQ	Visual Examination	Used oblique lighting and magnifier
	Cyanoacrylate Fuming	15 minute fume time, 80 percent humidity at 69 degrees F
	Dye Stain	Laser Exam (Bright Beam laser), 532 nm, used orange goggles
UEZRCZ	Visual Examination	Oblique Lighting - photography
	Alternate Light Source	Foster Freeman Blue-Green + UV CrimeLite Model 82S Sirchie Krimsite Imager (RUVIS)
	Cyanoacrylate Fuming	Foster Freeman SuperGlue Fuming Cabinet Model MVC5000
	Powder Dusting	Dusted with black powder

WebCode	Development Methods	Method Details
UJ9AFU	Visual Examination	RUVIS and White Light
	Lumicyano	250 degrees F, 17 minutes, 75% humidity, Laser 532 nm
UKGGL9	Visual Examination	Visualised using 000nm - 580 nm wavelength and viewing with clear and orange goggles.
	Cyanoacrylate Fuming	Fume using MVC3000 with 10 drops of eyano blool for 10 minutes at 120 degree Celsius, 80% humidity and 20 minutes purge.
	Dye Stain	Dye stained with R68/H20 base and visualise using 000nm to 500nm wavelength with clear and orange goggles.
UM6THT	Visual Examination	Item1 was examined using oblique lighting and UV lighting. A print was observed in quadrant D under oblique lighting. UV lighting did not reveal any additional prints.
	Cyanoacrylate Fuming	Item1 was subjected to cyanoacrylate fuming using a Lynn Peavey Hotshot, in a fuming chamber for ~7 minutes.
	Powder Dusting	White fingerprint dusting power was used to enhance the print on Item 1.
UR9NGN	Visual Examination	No visible ridge detail/patent prints were found.
	Cyanoacrylate Fuming	I placed a small amount of superglue in an aluminum dish on a heating pad along with a beaker of hot water in the superglue chamber. I waited approximately 5-10 minutes.
	Powder Dusting	I used a new fingerprint brush to dust black powder on the aluminum foil.
UWKJDK	Visual Examination	White light/Fluorescent light
	Alternate Light Source	365nm/490nm
	Cyanoacrylate Fuming	~15 minutes in chamber; White light
	Dye Stain	RAM (365nm)
UYLFRU	Visual Examination	With white light.
	Cyanoacrylate Fuming	1,5 gram, 120 degree celcius and 80% Rh in approximately 3,5 minutes
	Basic Yellow 40	Examinated with light source 445 nm.
V677J8	Visual Examination	Visual examination - 30 seconds - Fingerprint Observed in Quadrant D
	Cyanoacrylate Fuming	Fume and Purge time 30 minutes
	Visual Examination	Visual examination - 30 seconds - Fingerprint Observed in Quadrant D
	Dye Stain	MBD - spray method-15 seconds
	Alternate Light Source	Visual - 450nm orange shades - 15 seconds - Fingerprint Observed in Quadrant D

WebCode	Development Methods	Method Details
V7GV3J	Visual Examination	Under magnification with additional lighting.
	Cyanoacrylate Fuming	Max fume cycle of 15 min with max humidity of 60% and an auto-purge time of 10 min.
	Dye Stain	Rhodamine 6G (Approximate 1% working solution)
	Alternate Light Source	Visualized using 455 nm (blue) light source with 550 nm (orange) filter goggles.
VF6TKC	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
VLD8BN	Cyanoacrylate Fuming	Visual Exam, Cyanoacrylate Fuming 21 minutes, Visual Exam, Ardrox Dye Stain application, visual exam
VMAGMD	Visual Examination	Ambient lighting and green/Tracer laser
	Cyanoacrylate Fuming	7 minute fume time
	Dye Stain	R6G water based solution
VNGYLA	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	20 minute processing/1 hour dry. Test print positive.
	Dye Stain	RAY batch #668, orange filter used.
	Powder Dusting	Black powder, white light and magnification.
VPX6TC	Visual Examination	USED UV LIGHT TO VISUALIZE PRINT
	Cyanoacrylate Fuming	CApture-BT CHAMBER, 9 MINS
	Dye Stain	RHODAMINE 6G, WATER-BASED SOLUTION VISUALIZED WITH GREEN LIGHT/ ORANGE FILTER
VU7DBG	Cyanoacrylate Fuming	10 gallon fish tank. 10 drops of glue in tin on a warmer and a cup of steaming water. Process time apx. 30 mins. and 5 mins for purging.
	Powder Dusting	Applied Black Powder with a fingerprint brush and lifted with tape.

WebCode	Development Methods	Method Details
VYLTYM	Visual Examination	RD noted in Quadrant D.
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Bichromatic powder utilized.
	Fluorescent Dye	Rhodamine 6G- sprayed, allowed to dry, viewed with Tracer Laser at 532nm.
W2JP48	Visual Examination	Examination under white light and magnification
	Cyanoacrylate Fuming	4 drops of CA in each of 3 foil cups, distilled water in cup heater element, process 12 minutes, let sit 1 hour, test print positive
	Powder Dusting	Black, applied with fiberglass brush that has been decontaminated/ sanitized in UV Spectrolinker Crosslinker for 420 seconds.
	Dye Stain	RAY (Fluorescent Dye Staining). Applied with spray bottle to completely coat surface, rinsed, patted dry with paper towel, allowed to dry, Batch #668
W932R9	Visual Examination	PL500 for waiting
	ASV	Develop print using anti stokes magnetic powder
	Cyanoacrylate Fuming	(Fuming exhibits MVC3000) using chemical Policyano in the humid environment
	Dye Stain	Put exhibit in the dye for further enhancement.
W9PC4N	Cyanoacrylate Fuming	Mason Vactron - MVC 500, 30 minutes to one hour cycle
	Powder Dusting	Magnetic powder
	Powder Dusting	Black powder
WAWK2M	Visual Examination	Visually examined item with naked eye.
	Black Magneic Powder	Processed entire item with black magnetic powder.
WDQNKT	Visual Examination	Polilight PL500
	Cyanoacrylate Fuming	temp. 24C, RH 80%, fuming chamber 20min
	Dye Stain	Basic Yellow 40
WFWBXX	Visual Examination	White light
	Cyanoacrylate Fuming	Processing time 10 minutes gluetime.
	Dye Stain	Basic Yellow 40.

WebCode	Development Methods	Method Details
WJJN2A	Visual Examination	(Preprocessing) Rofin PL500 with white light and clear goggles.
	Cyanoacrylate Fuming	Cyanoacrylate fuming chamber with 3g of Cyanoacrylate fuming chamber with 3g cyanoacrylate, for 20 minutes at 140 degree Celsius, 85% relative humidity.
	Dye Stain	Rhodamine 6G Methanol base, followed by drying.
	Post process, visual examination	Done after fuming and dye staining
WQFLNC	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Alternate Light Source	
	Dye Stain	
	Alternate Light Source	
WTBYGW	Cyanoacrylate Fuming	40 min run time
	Dye Stain	Rhodamine 6G; Treatment with water rinse
	Alternate Light Source	Crimescope 495 nm lighting with an orange filter
WYDDW7	Visualisation	
	Greenlight (480-560nm)	
X2H6LX	Visual Examination	White light, UV-light, blue light, green light
	Cyanoacrylate Fuming	80% RH in the cabinet. 120 degrees Celsius on hotplate. 10 minutes processing time.
	Dye Stain	Basic Yellow 40 with 95% ethanol.
X3QDRC	Visual Examination	oblique light (White); Fingerprint visible; photographed
	Cyanoacrylate Fuming	fluorescent cyanoacrylate; 230 °C (446°F); 80% rh; 90 min processing time
X6FPNW	Visual Examination	White light. Visible fingerprint in section D.
	Cyanoacrylate Fuming	Humidity: 80%, glue time: 10 minutes, amount of glue: 2,0 g. Visible fingerprint in section D.
	Dye Stain	Visible fingerprint in section D.
X6GPHV	Visual Examination	Observed document for presence of potential latent prints
	Foster and Freeman VSC 6000 H/S	Utilized filters, alternate light sources, UV light, and oblique lighting sources
	Cyanoacrylate Fuming	~15 minute processing time with Sirchie Omega-Print CNA102 #332, Lot #201803168, Best By: 04-2019; Positive Control

WebCode	Development Methods	Method Details
X6V6JP	Wet Powder Suspension	No latent print
	Cyanoacrylate Fuming	Placed in CNA-cabinet with 1,5 gram CNA in 95 degree celsius in 3 minutes
	Powder Dusting	Latent print with magnetic powder
	Basic Yellow 40	Light suorce with Blue light 445 nm
X9YU9D	Visual Examination	UV Light- Digital Capture System- 5 (DCS-5)
	Cyanoacrylate Fuming	70% humidity for 20 min fume time
	Dye Stain	Rhodamine 6G- Pet Ether
XA7AFJ	Visual Examination	The latent print was visible after examination. I was using white light. An impression of good quality in quadrant D was detected.
	Cyanoacrylate Fuming	Humidity /5%, Fuming time: 10 minutes.
	Basic Yellow (BY-40)	The aluminium foil was dipped in the solution, rinsed with water, and then placed in to a drying cabinet for approx 1 hour.
	Alternate Light Source	With use of BY-40, the latent print fluoresed with light source (445 nm)
XD8ZZD	Visual Examination	Fingerprint could be seen in section D.
	Cyanoacrylate Fuming	The fingerprint developed with great result.
	Powder Dusting	Magnetic powder. Did not develop any further.
	Dye Stain	BY40. The fingerprint were enhanced.
XGBYAB	Visual Examination	6/12/2018 Visual examination of Item 1 performed using various light sources (415-530) and filters with ambient light giving the best result which was a positive result of one latent print in quadrant D. 6/13/2018 Photograph taken on the DCS-5 (room W1-13E)
	Cyanoacrylate Fuming	6/13/2018 CApture BT chamber used for fuming Item 1 (Temperature 177C w/80%RH - 6 minutes fume time with a 5 minute purge time) Again, various light sources (415-530) and filters used with improvement noted of the same latent print in quadrant D but no additional latent prints visualized. 6/14/2018 Photograph taken on the DCS-5 (room W1-13E)
	Dye Stain	6/14/2018 Basic Yellow (lot #053118) applied to Item 1, rinsed and allowed to dry. Upon visual examination using blue light (450) with an orange filter shows improvement of the same latent print in quadrant D but no additional latent prints developed. 6/18/2018 Photograph taken on the DCS-5 (room W1-13E)

WebCode	Development Methods	Method Details
XJEQ4J	Visual Examination	(Rofin) poliflare plus 1 at 450 nm and 000 nm wavelengths with clear goggles.
	Cyanoacrylate Fuming	fuming tent: 30 degree Celsius at 80% RH for 20 minutes with 20 minutes purge cycle. visual exam with rofin poliflare plus 1 at 000 nm and 450 nm wavelength, with clear goggles.
	Dye Stain	rhodamine 6 G/methanol: exhibit sprayed with rhodamine 6G and rinsed under gently running water and allowed to air dry - rofin poliflare plus 1 at 505 nm wavelength with orange filter/goggles.
	Powder Dusting	exhibit powdered with black magnetic fingerprint powder using magnetic brush: negative exhibit powdered with black inland fingerprint powder using squirrel hair brush. rofin poliflare plus 1 @ 000 nm with clear goggles.
XLNTXU	Cyanoacrylate Fuming	Fumed using CYVAC M
	Dye Stain	Rhodamine 6G, sprayed foil with solution and let dry
	Alternate Light Source	Forensic Laser 490-575 nm
	Photographed	Nikon D700
XNC3AG	Visual Examination	Item 1 was visually inspected under a magnifying glass with light.
	Cyanoacrylate Fuming	Item 1 was then processed using a Cyanoacrylate fuming chamber set at 60% humidity with a max fume time of 15 minutes, and an auto purge time of 10 minutes.
	Dye Stain	Rhodamine (R6G) pink dye stain was applied and allowed to dry for approximately 5 minutes.
	Alternate Light Source	Item 1 was then viewed using an Alternate Light Source (455 nm blue light).
XPQPPA	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Cyanosafe
	Powder Dusting	Bi-chromatic and magnetic powders; applied with brush and magnetic wand
	Dye Stain	RAY; soaked for 60 seconds; rinsed for 30 seconds; patted dry
XRV77E	Alternate Light Source	455-515nm
	CyanoSafe (fuming)	20 minutes
	Dusted	Black powder
XXH8YC	Visual Examination	White light/oblique lighting - visible ridge detail, quadrant "D"
	Cyanoacrylate Fuming	(test strip: positive) - visible ridge detail - for preservation purposes

WebCode **Development Methods Method Details** XYT3MP Visual Examination White light - positive result - Fingerprint 1.0 (D) Polilight - 365nm-520nm, 440nm with no filter and 460 nm Alternate Light Source with yellow filter - improved result - Fingerprint 1.1 (D) **Reflected UV** 254 nm - no improvement (D) Cyanoacrylate Fuming 10 minutes fume-time - no improvement (D) **Reflected UV** 254 nm - improved result - Fingerprint 1.2 (D) Dye Stain BY40 - observe under 460 nm with orange filter - no improvement (D) Crystal Violet - improved result - Fingerprint 1.3 (D) Dye Stain Y2HLB9 Cyanoacrylate Fuming Item was fumed in the CApture-BT. IT was fumed at 80% RH. It took 6 minutes for the chamber to get up to humidity. the item was fumed for 5 minutes and 53 seconds. 2.5 grams of glue Cyanoacrylate was used. The chamber took 5 minutes to purge. Rhodamine 6 G dye stain was used. Item was sprayed with Dye Stain Rhodamine 6 G then rinsed with water. Y6VFYT Visual Examination 1) Observation with the naked eye of the surface of the aluminum foil under different inclinations. The fingerprint is slightly visible in case "D". Alternate Light Source 2) Light grazing with Crimescope MCS-400. The fingerprint is a little more visible in case "D" with white light, 535nm and 555nm. 3) Autocycle for 1g of solution of Lumicyano 5% during 40 Cyanoacrylate Fuming minutes. A control trace is placed in the tank. The ridges of the fingerprint are visibles with the naked eye. Alternate Light Source 4) The fingerprint is even more visibly illuminated with white light or in CSS or 535 nm of the Crimescope. Y77F4Z Visual Examination Print 1 Alternate Light Source Cyanoacrylate Fuming Dye Stain BY-40 CV Dye Stain Used PL500 light source, all wavelength viewing with clear, Y786FJ Visual Examination yellow and orange goggles. used 3 grams loctite at 149 degree Celsius, 85% relative Cyanoacrylate Fuming humidity for 25 minutes. Dye Stain used rhodamine 6G in a chemical fume cabinet. used evidence dryer to dry the exhibit. Drying

WebCode	Development Methods	Method Details
Y789YM	Visual Examination	Ridge structure of collection value was observed in section D. Photographs were obtained using oblique lighting.
	Alternate Light Source	LabKam was utilized; no ridge structure was observed.
	Cyanoacrylate Fuming	positive control; chamber set to run for 10 minutes at 120 degrees Celsius; ridge structure of collection value was observed in section D. Photographs were obtained.
	Alternate Light Source	LabKam was utilized; ridge structure no collection value was observed.
	Dye Stain	positive control; Rhodamine 6G was utilized.
	Alternate Light Source	Polilight was utilized at 450nm; ridge structure of collection value was observed in section D. Photographs were obtained.
	Powder Dusting	black powder was utilized; ridge structure no collection value was observed.
Y7AX4J	Visual Examination	A Visual Examination Was Performed By Using Oblique Lighting.
	Cyanoacrylate Fuming	Item 1 Was Processed With Cyanoacrylate Fuming For Approximately 15mins.
	Powder Dusting	Item 1 Was Powder Dusted By Using Silk Black Fingerprint Powder & A Fingerprint Brush.
Y9TY3C	Visual Examination	
	Alternate Light Source	ALS - using CrimeLite; Ultraviolet light (UV) - using Digital Capture System 5
	Cyanoacrylate Fuming	Fuming chamber set to 70% humidity for 20 min
	Dye Stain	Rhodamine 6G (R6G) sprayed on evidence, viewed with CrimeLite
YA9CQA	Cyanoacrylate Fuming	Lot#201706068; 120 Degrees Celsius / RH 80%; 12 Minutes
	Dye Stain	MBD Dye Stain, Lot#051018-01
	Powder Dusting	Black Magnetic Powder, Lot# 201504053-04
	Powder Dusting	Standard Black Powder, Lot#201506013
YJTE4B	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	followed by RUVIS
	Dye Stain	followed by ALS
YMEE4Q	Visual Examination	Oblique light
	Cyanoacrylate Fuming	Foster+Freeman MVC 1000, glue 10 drops, Glue time 15 minutes, Auto cycle mode

WebCode	Development Methods	Method Details
YNP83Y	Visual	white light & ALS at 450nm/ orange filter
	Cyanoacrylate Fuming	15 minute humidity build; 15 minute fuming cycle
	Dual Contrast Powder	
	RAY Dye Stain	ALS at 450nm/ orange filter
YPXBNB	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 490nm-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. Magnifying eyeglass used where required. QA adhered to and control test piece passed.
	Cyanoacrylate Fuming	Carried out as per CAST validated/internally verified procedure (Foster & Freeman MVC5000 Cabinet, Relative Humidity 80%, Glue time 13 minutes & 6g of superglue used). Following treatment, 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.
	Dye Stain	Ethanol-Based BY40 dye used, carried out as per [organization] validated/internally verified procedure. BY40 dye applied to foil with brush and left for ~15 seconds. Rinsed with water and left to dry. Examined when dry using blue Crime Lite 420-470nm with 476nm viewing filter, following dark adaptation, and magnifying eyeglass used where required. QA adhered to and control test piece passed.
	Wet Powder Suspension	Carbon-based (black) Powder Suspension used, carried out as per [organization] validated/internally verified procedure. Foil pre-rinsed, Powder Suspension applied to foil with soft squirrel hair brush and left for ~10-20 seconds. Powder Suspension rinsed off using gently running water until maximum contrast obtained 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.
YT4KAE	Visual Examination	Visible reflection + fluorescence. Room temperature = 20°C. Relative humidity = 56%
	Cyanoacrylate Fuming	Lumicyano Powder. Glue temperature = 118°C. Relative humidity = 78 %. Processing time = 40 mn
	Visual Examination	Visible reflection + fluorescence. Room temperature = 20° C. Relative humidity = 56%
	Dye Stain	Basic Yellow. Pipetting on section D
	Visual Examination	Visible reflection + fluorescence. Room temperature = 20° C. Relative humidity = 56%
TABLE 2 -	ltem	1
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WebCode	Development Methods	Method Details
YT7ADB	Visual Examination	Magnification with oblique lighting.
	Cyanoacrylate Fuming	Heated cyanoacrylate to approximately 200 degrees C for approximately 5 minutes.
YY8QKB	Visual Examination	white light
	Cyanoacrylate Fuming	Fumed for approximately 10 minutes
	Dye Stain	R6G; Laser exam @ 532nm with orange barrier
YYM4XL	Visual Examination	530nm crimelight
Z3Z269	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	RAM
Z4VPLJ	Visual Examination	Use white light (000nm) power 2 at a lower angle.
	Cyanoacrylate Fuming	Use Cyanobloom, 10 drops at 120 degree Celsius, 80% humidity for 20 minutes in MVC3000 machine.
	Dye Stain	Spray method with R6G/Ethanol base solution, rinse with water and dry in 610 evidence drier.
ZCRKJG	Visual Examination	Exhibit was visualised with white light, uv light and 415nm light using red clear and yellow goggles with rofin pl500 light source.
	Cyanoacrylate Fuming	Cyanobloom: exhibit was placed in the MVC3000 using 02 grams of Cyanobloom for 20 minutes at 120 degree Celsius, 80% humidity 20 minutes purge cycle.
	Dye Stain	Exhibit was dye stained with rhodamine 6 G/ethanol and dried.
ZFD9BA	Visual Examination	UV light and white light observation
	lumicyano	luminescent cyanoacrylate fuming; UV light observation
	Basic yellow 40	observation at 415nm with yellow filter
ZG3RM8	Visual Examination	
	Cyanoacrylate Fuming	15 Minutes 80% Relative Humidiity
	Dye Stain	Rhodamine 6G
	Alternate Light Source	TracER Laser 532nm
ZMNQDF	Cyanoacrylate Fuming	80% rel. humidity, 126°C

WebCode	Development Methods	Method Details
ZRMX3J	Visual Examination	Friction ridge present but faint in section D.
	Cyanoacrylate Fuming	Aluminum foil processed in Cyanosafe for 21 minutes.
	Visual Examination	Friction ridge impression slightly enhanced in section D but still faint.
	Dye Stain	Entire item dye stained using Ardrox and left to air dry.
	Alternate Light Source	Item examined under 350nm UV lighting. Friction ridge impression visible in section D. No additional friction ridge detail was present on the aluminum foil.
ZUCBK2	Cyanoacrylate Fuming	Exposure process 4 minutes in the cyanoacrylate manual fuming chamber with cyanowand.
	Powder Dusting	Black latent print powder.
ZXML9P	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Dye Stain	R.A.M.
ZY2WEA	Visual Examination	oblique lighting
	Cyanoacrylate Fuming	manually operated chamber, approximately 10-13 minutes, humidity added from steaming water, fumed until control developed.
	Visual Examination	oblique lighting
	Dye Stain	Basic Yellow
	Alternate Light Source	best excitation wavelength: 445 nm, visualized with a yellow barrier filter
ZY6DMF	Visual Examination	The fingerprint was visible but needed enhancement
	Cyanoacrylate Fuming	Temperature 120 celsius, Humidity: 77%, Time: 15 minutes, Cabinet: Foster&Freeman MVC3000
ZY9YBA	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G and MeOH rinse
	Powder Dusting	Black Powder

WebCode Dev	velopment	Methods	Method Details	5	
Response Su	nmary				Participants: 325
			Methods Utilized		
Alternate Light Sourc	e 111		Physical Developer	0	**Note : Methods listed are
Cyanoacrylate Fumin	g 310		Powder Dusting	130	the preloaded options for selection via the CTS Portal
DFC	0		Visual Examination	288	and do not reflect all answers
Dye Stai	n 190	We	et Powder Suspension	3	provided by participants.
Ninhydri	n 0		1,2-Indanedione	0	

WebCode	Development Methods	Method Details
227TJB	Visual Examination	Used a department issued flashlight for side lighting technique (oblique lighting) to examine the evidence before processing.
	Ninhydrin	Lot number: 1, test print: positive; Applied Ninhydrin through an aerosol sprayer. The item was allowed to air dry. The item was placed in the Ninhydrin chamber which was set for 80 degrees Celsius at 65% relative humidity. The item was in the chamber for approximately 60 minutes.
	Visual Examination	Used a department issued flashlight to assist in examining the evidence after the Ninhydrin process.
2BX6YX	Visual Examination	white light, oblique lighting, ALS
	1,2-Indanedione	100 degrees Celsius, 60% humidity, 20 minutes, ALS 450-555 nm with orange and red filter goggles
	Ninhydrin	77 degrees Celcius, 77% humidity, 5 minutes, white light
	Physical Developer (PD)	White light
2ECYDA	Ninhydrin	Ninhydrin (Petroleum Ether Working Solution): Tray immersion for approximately 10 seconds. Environmental Chamber: 80 degrees Celsius and 65 percent relative humidity; 40 minute exposure
2KGPR9	Visual Examination	White light.
	Alternate Light Source	Green light (490-560nm).
	Alternate Light Source	Blue light (430-470nm).
	DFO	100 degrees C, 20 minutes. Examination in green light (490-560nm).
	Ninhydrin	80 degrees C, 62 RH%, 5 minutes. Examination in white light.
2M72PT	Visual Examination	Trail-, white-, blue-, green-, UV-light, nothing visuable.
	Ninhydrin	Heat 80 C, humidity 62%, time 2 min. A fingerprint appeared in section A.
2RZ4K7	Visual Examination	
	Alternate Light Source	Inherent luminescence, Foster & Freeman Crime Lite ML2, 420nm-470nm with orange filter.
	Ninhydrin	Batch #286, 45 min. in caron chamber.
	Physical Developer (PD)	Batch #455, 10 min-maleic acid; 10 min-PD; and 10 min. in water rinse.
2YHAJX	[No Methods Reported.]	white light, polilite, indanedione , ninhydrine

WebCode	Development Methods	Method Details
2YZFNP	Visual	No latent print impressions observed
	Ninhydrin/ Petroleum Ether	Enhancement observed & photographed
	Heat/ Humidify	Enhancement observed & photographed
	Silver Nitrate/ Ethanol Solution	No enhancement observed
366BNH	Visual Examination	
	Ninhydrin	Heptane Ninhydrin for 5 days
3AWME8	Visual Examination	No print visible
	Alternate Light Source	No print visible with red, orange, yellow goggles at each setting of the ALS (UV, 415, 450, 470, 490, 505, 530, 555, 590, 620, 650nm)
	Ninhydrin	Sprayed with ninhyrdin and allowed to dry for 15 minutes; positive test print results (mock evidence cardboard, butcher paper brown/white, cardboard brown, paper); Once dry, iron used to add heat and steam/ humidity to accelerate results; No print visible
	Ninhydrin	Sprayed with ninhyrdin and allowed to dry overnight; positive test print results on multiple items (mock evidence cardboard, butcher paper brown/white, cardboard brown, paper); No prints visible; Iron used to add heat and steam/ humidity to accelerate results; No print visible
	Alternate Light Source	After ninhydrin processing, used the ALS; No print visible with red, orange, yellow goggles at each setting of the ALS (UV, 415, 450, 470, 490, 505, 530, 555, 590, 620, 650nm)
	Powder Dusting	Magnetic powder and wand used as last effort.; positive test print; No print visible on item
3DBHNP	DFO	DFO batch ref: 16AL610, oven ref: 1 100degrees centigrade, 0% humidity, 20 mins.
	Ninhydrin	ninhydrin batch ref: 129724, oven ref: 3, 80degrees centigrade, 63% humidity, 6 mins.
3DGKJP	Visual Examination	Examined with naked eye
	Alternate Light Source	450 nm with orange filter
	Ninhydrin	Item soaked in Ninhydrin and allowed to develop for approximately one hour. I also heated the item of evidence with an iron to further develop any possible friction ridge detail

WebCode	Development Methods	Method Details
3KDFJ9	Visual Examination	White Light
	Alternate Light Source	529nm W/Orange Filter
	Cyanoacrylate Fuming	25 minutes @ 75% humidity
	Powder Dusting	Magnetic
	Ninhydrin	70 degrees @ 70% humidity for 1.5 hours.
42GCFD	Visual Examination	
	Alternate Light Source	
	DFO	
	Ninhydrin	
43U479	Visual Examination	Visual with white light.
	Alternate Light Source	425-530nm, UV
	Ninhydrin	dipped, dried, ~10 minutes heat.
4E3VP9	Visual Examination	PL500 viewed at white light and UV light with colourless goggles.
	DFO	put in the oven at 100 degree Celsius for 20 minutes.
	Ninhydrin	put in the oven at 70 degree Celsius for 30 minutes.
4GAX3T	Visual Examination	With various lighting
	Ninhydrin	In humidity chamber set at 80 degrees C, 65% humidity for ~20 mins
	Physical Developer (PD)	~ 5 minutes in DI water, ~ 5 mins in maleic acid, ~ 20 mins in PD working solution
4J27YF	Visual Examination	
	Ninhydrin	Applied heptane ninhydrin on 6/11/2018, waited 7 days and checked the item on 6/18/2018.
4ND2VC	Visual Examination	white fluorescent light; white LED light
	Alternate Light Source	445-510nm; 350-380nm
	DFO	100 degrees Celsius; 445-510nm
	Ninhydrin	70 degrees Celsius, 65% relative humidity, approx. 20 minutes; white fluorescent light
4TQRCZ	Ninhydrin	Apply by submersion in glass tray; Placed in Caron Chamber at 85 degrees and 65% relative Humidity for 3 minutes. (Test strip with amino acid pad and stamp used).
4XF728	Ninhydrin	Acetone based - Steam iron used for heat & steam application

WebCode	Development Methods	Method Details
6DMW7J	Visual Examination	
	Light Source	519 - 548 nm
	Ninhydrin	Dipped in ninhydrin and then waited for 10 minutes. Owen in 5 minutes in 80 degree celcius and 70% Rh
	Visual Examination	
6GAG4Z	Visual Examination	Under white light and magnification
	Cyanoacrylate Fuming	CyanoSafe Recirculation Chamber, test print positive, distilled water in the cup heater, 5 drops of CA were placed in each of the 3 foil cups and placed on the heating element, door secured, time set to 12 minutes and 10 minute purge cycle, evidence left for 60 minutes to set.
	Powder Dusting	Magnetic black powder applied using circular strokes with a magnetic wand.
	Ninhydrin	Batch #286, item was immersed in ninhydrin solution for approximately 5 seconds and allowed to dry in a fume hood, caron chamber was used at 60% humidity at 60 degrees Celsius for approximately 45 minutes.
	Physical Developer (PD)	PD batch #455 completed by LPT. Maleic acide prewash (10 mins), physical developer and running water bath (5-10 minutes).
6JFY4G	Visual Examination	white light
	Alternate Light Source	polylight
	1,2-Indanedione	10 sec press at 160C
6JV2BP	Visual Examination	
	Ninhydrin	+ control - [Lot Number], exp: 04/12/2019
	Humidity Chamber	32°C at 90% humidity for 20 minutes.
	Curing Phase	Secured in evidence vault for 48 hours.

WebCode	Development Methods	Method Details
6R6M88	Visual Examination	2018/06/21 11:40 - the exhibit was visualized using the PL500 light source at 0 nm, 350 nm, 450 nm and 530 nm with clear, orange and red filters. no print was recovered.
	ASV - Anti-stroke Laser viewing closer	12:52 - Anti-strokes powder was applied on the exhibit using a magnetic brush, on the down flow bench. the exhibit was placed in the viewing encloser. it was switched on and the exhibit was viewed. no fingerprints were visible.
	DFO	2018/06/21 13:43 - in the chemical fume extraction cabinet, DFO was poured in a dry dish. the exhibit was drawned through the solution using tweezers for four minutes. the oven was pre-heat at 100 degree Celsius. the exhibit was dried in the evidence drier on a tissue for 10 minutes. the dry exhibit was heat in the oven for 20 minutes at 100 degree Celsius with no humidity.
	Fluorescent Examination	PL500 light source was used to view and determine any development of fingerprints. a fingerprint was recovered at 530 nm using red filters in the B section. 2018/06/22 08:32 the DFO developed fingerprint was captured and printed.
	Ninhydrin	2018/06/22 09:00 - ninhydrin was poured into a dry dish in the chemical fume extraction cabinet. the exhibit was drawn through the solution for 5 minutes using tweezers. the exhibit was placed in the evidence drier for 10 minutes to dry. the humidity cabinet (nincha) was pre-heat to reach required temperature of 65 degree Celsius and humidity of 75%. the exhibit was placed in the chamber for 10 minutes. a light pink/ purple colour print could be seen with the naked eye and was photographed/ captured using PL500 at 0 nm. the exhibit was further left at room temperature for two days.2018/06/25 08:00 - no further developments of fingerprint were detected nor did the light pink/ prple print get darker. no capturing.
6VHJC9	DFO	Nincha S31
	Ninhydrin	Nincha S31
6WKZ3T	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm. RD noted in Quadrant A.
	Ninhydrin	Sprayed, humidity added, set overnight.
7F9ZEG	Visual Examination	
	Ninhydrin	Temperature in cabinet: 80 degrees celcius. Humidity in cabinet: 65 % rh. Processtime 5 minutes.
7FD9RB	Visual Examination	no mark
	Ninhydrin	mark in section A

WebCode	Development Methods	Method Details
7HA2ED	Visual Examination	PL500, 000nm, 350nm, 450nm, 470nm, 490nm.
	DFO	Dipping method inside chemical fuming extraction cabinet for 5 minutes.
	Ninhydrin	Spraying method inside chemical fuming extraction cabinet.
7MQAWC	Visual	UV, LASER, ALS
	DFO	LASER, placed in oven @100°C ~20 mins
	Ninhydrin	Humidity chamber @70°C & 70% humidity for ~10 mins
	Zinc Chloride	Humidity chamber @70°C @ 70% humidity for ~10 mins
	Physical Developer (PD)	
7NPHZP	Visual Examination	5 minutes
	Alternate Light Source	Crime-lite - Blue light 420-470nm - 10 minutes
	Ninhydrin	Lynn Peavy Ninhydrin Spray. Applied with pipet, allowed to dry ~2 hours. Processed with steam iron - 20 minutes
7UTJ44	Visual Examination	N/A
	1,2-Indanedione	Dry heat iron. Viewed with Laser 532nm/orange
	Ninhydrin	steam iron.
7ZEBHK	Visual Examination	
	Ninhydrin	Steam iron
83YRXB	Visual Examination	(-)Results
	Ninhydrin	Spray allowing to dry for 5 minutes. (+) Result (very minimal).
	Humified Heat	65% humidity in the heat chamber for 3 minutes. (+) Result
8EDRRH	Nin Hydrin Acetone Base	Sprayed, allowed to dry, placed in Science Development chamber (heat 80C, RH 65%) for 9 minutes. Test print on paper was positive. Weak print developed.
	No Run Nin Hydrin	Sprayed, allows to dry and placed in development chamber (heat 80C, RH 65%) for 6 minutes.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
8EVW8V	Visual Examination	
	Cyanoacrylate Fuming	Under vacuum, 25 PSI, 20 minutes.
	Powder Dusting	Traditional black powder.
	DFO	Item was immersed in DFO for 10 seconds and then dried for 3 minutes (these two steps were then repeated). The item was then placed in an oven for 20 minutes at approximately 90-100 degrees Celsius.
	Alternate Light Source	Examined DFO processed item at 505nm and 530nm with orange goggles.
	Ninhydrin	Added heat and humidity immediately after spraying ninhydrin by using a steam iron, let item sit in a dark location for 24 hours prior to examination.
	Dye Stain	Used R.A.M.
	Alternate Light Source	Examined R.A.M. processed item at 490, 505, and 530nm with orange goggles.
8EZ6MB	Ninhydrin	
8JPQ6X	Visual Examination	Visualized using white light and magnification
	Ninhydrin	Batch #286; processing in Caron chamber (60 degrees Celsius, 60% relative humidity, 30 minutes)
	Physical Developer (PD)	Batch #455; completed by LPT
8KJEQD	Visual Examination	No ridge structure observed
	Alternate Light Source	LabKam no ridge structure observed
	1,2-Indanedione	Control test: positive. Heat press at 320 degrees F for 10 seconds. Ridge structure observed in quadrant A and photographed.
	Alternate Light Source	Crimescope. 505nm with orange barrier filter
	Ninhydrin	Hexane formula. Control test: positive. Caron Humidity chamber set at 80 degrees F and 65% humidity. 24 hour wait time for final evidence exam. Not photographed/no value for collection, better quality at the 1,2 Indanedione stage.
8LGPLG	white light, Polighght, Indanedione, Nynhidrin	Fingermark number 2 in the area A detected using Indanedione and photographed using DCS-5
8V3Q4C	Visual	
	DFO	
	Ninhydrin	
	Zinc Chloride	
	Physical Developer (PD)	

WebCode	Development Methods	Method Details
8VWRCM	Visual Examination	
	DFO	100 degrees Celcius. 20 min
	Ninhydrin	80 degrees Celcius. 62%, 5 min
8VY927	Visual Examination	White light and magnification. No prints were observed on Item 2.
	Ninhydrin	Batch #287, processed in CARON chamber. One print was observed on Item 2 in section A. A control print was developed.
	Physical Developer (PD)	Batch #456. A control print was developed. No prints observed.
92L7E2	Visual Exam	
	Indanedione	
	Heat	10 minutes, 100°C
	SPEX	CCS wave length
978JFM	Visual Examination	White light.
	Alternate Light Source	Blue and green light.
	Ninhydrin	80°C, 65% RH, 5 minutes processing time.
9894WW	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	12 minute processing time. Control print +. After CA allowed to dry for 45 min.
	Powder Dusting	Magnetic Black Powder
	Ninhydrin	Soaked in Ninhydrin approx. 5 seconds then dried and Caron Chamber for 60 minutes
	Physical Developer (PD)	Batch #455
9AWTQA	DFO	Item 2 was deeped into DFO solution, dried under evidence drier, then put in Nincha equipment for 20 minutes at 100 degree celsius.
	Ninhydrin	Item 2 deeped into Ninhydrin, Methanol base dried under evidence drier, then put on Nincha equipment for 25 minutes at 80 degree Celsius and 80% humidity.
9B9ERW	Visual Examination	The item was viewed under white light and magnification using the CrimeLite ML
	Ninhydrin	The item was processed using Ninhydrin (batch #286), allowed to dry for 15 minutes, placed in the Caron chamber at 60 degrees Celsius, 60% humidity for 45 minutes, and viewed under white light and magnification using the CrimeLite ML
	Physical Developer (PD)	The item was processed using Physical Developer (batch #455) by LPT and viewed under white light and magnification using the Crimel ite MI

WebCode	Development Methods	Method Details
9FYXJT	Ninhydrin	Spray presentation. Let dry 72 hours.
9HNAFD	Visual Examination	White light. No fingermarks visible.
	Alternate Light Source	Blue and green fluorescent light source. No fingermarks visible.
	1,2-Indanedione	100°C, 10 minutes processing time. Fingermark visible in section A.
	Ninhydrin	80°C, 62% RH, 5 minutes processing time. Fingermark visible in section A.
	Physical Developer (PD)	Approximately 60 minutes processing time. No fingermark visible.
9KBQWD	ASV Process	Magnetic Powder
	DFO	DFO. HFE oven 100 degree celsius
	Ninhydrin	Nincha, 70 degree celsius 80% humidity
	Powder Dusting	Chrimetech black inland powder
9NHY8H	Visual Examination	no print recovered
	Alternate Light Source	no print recovered. Polylight 500 with emission from 350 to 600 with viewing filters
	DFO	print recovered. Working solution is applied on surface. Once dry surface is heated in a non-humidified oven at 100 Celsius for 15 minutes, followed by examination in white light and subsequent fluorescence examination (green region of the spectrum with proper filter)
	Ninhydrin	The same print visible. Working solution is applied on surface. Once dry surface is placed into a humidity controlled oven at 80 Celsius and 65% RH
9T9FE3	Ninhydrin	It was applied Ninhydrin spray and it was allowed to dry by 72 hours.
9WPYFK	1,2-Indanedione	1,2-Indanedione solution was prepared as follows: 0.125g of 1,2-Indanedione was dissolved in solution of 5 mL glacial acetic acid and 45 mL ethyl acetate followed by 450 mL petroleum ether at room temperature. Item 2 was treated with 1,2-Indanedione solution for 15 seconds. The sample was left to air-dry for a few minutes and was then put in an oven at 100°C for 20 minutes.
	Alternate Light Source	Item 2 was observed with light source of 515 nm. An orange filter was used for visual observation.

WebCode	Development Methods	Method Details
9XHVKK	Visual Examination	
	Alternate Light Source	We used a flashligt with white light. We used two kinds of diffrent forensic light, blue/green 460-510 nm and blue 420-470 nm
	Ninhydrin	Ninhydrin based on HFE 7100; Developing: 80 degrees Celcius and 62% humidity in 6 min. The latent print was in need of improvement so we did the process 3 times.
9XQF74	Visual Exam	oblique lighting w/ flashlight
	Alternate Light Source	(wavelength) = 455-515nm w/ orange goggles
	Ninhydrin	Items dipped in ninhydrin; treated with steam and developed over one week. Amino acid based reference control
9Z79MW	Visual Examination	PL500
A6HBAR	Ninhydrin	Spray presentation.
	Powder Dusting	To visualize the fingerprint but it did not watch.
A7CACX	Visual Examination	White light and magnification on 4/16/18. No prints observed.
	Ninhydrin	Treated with Ninhydrin Batch #286 on 04/16/18. Processed in Caron Chamber. Print(s) observed in Quadrant A.
	Physical Developer (PD)	Treated with Physical Developer Batch #453 on 4/18/18. No prints were observed.
AA8VBM	Visual Examination	White light.
	Alternate Light Source	Blue and green light.
	Ninhydrin	80°C, 65% RH, 5 minutes processing time.
AK8LUA	DFO	0.25g DFO powder/ 30methanol/ 20 ml Acetic acid/ 1L pretrolium ether sprayed on exhibit which was put into Nincha S31 at 100 degree Celsius 0% humidity for 20 minutes.
	Ninhydrin	6g Ninhydrin crystals/ 1L methanol sprayed on exhibit which was put into Nincha S31 at 60 degree Celsius, 80% humidity for 20 minutes.
APKEVZ	Ninhydrin	Sprayed with aerosol Ninhydrin.
ARAN3F	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron

WebCode	Development Methods	Method Details
AVUKMZ	Visual Examination	No findings.
	Ninhydrin	Using the NINcha M31 climatic cabinet. Humidity 65% temperature 65°C.Processing time in the climatic cabinet 7 minutes.
	Ninhydrin	Humidity 65% temperature 65 °C processing time 10 minutes.
AW4RN8	Visual Examination	1st visual: 000nm, 450nm & 505nm light sources.
	DFO	exhibit dipped in DFO/HFE working solution & dried then placed in the nincha, set at 100 degree Celsius for 20 minutes.
	Ninhydrin	exhibit dipped in ninhydrin/ methanol working solution and dried then placed in nincha set at 70 degree Celsius and 70% humidity for 20 minutes.
BA6KWV	Visual Examination	Visual with different light sources.
	DFO	0% relative humidity, 100 degree Celsius
	Ninhydrin	65 degree Celsius, 60-80% relative humidity DFO print and Nin after
BGTEYM	Visual Examination	Visual with white light- no visible ridge detail.
	Visual Examination	Visual with ALS- Battlelite 455nm with Orange Filter- no visible ridge detail.
	lodine Fuming	lodine crystals were placed in a Ziploc style bag, item 1.2 was placed in the bag and allowed to fume for approximately 3-5 minutes. Under white light no visible ridge detail was present. Visual examination with ALS- UV (350nm) with UV filter no visible ridge detail present.
	1,2-Indanedione	Applied using the dip method, allowed to dry, placed in humidity/heat chamber. Heat- 100°C, Humidity- 60%, time 10 minutes. Visual examination with ALS- 505-590nm with orange and red filters. Visible ridge detail present inside of box A.
	Ninhydrin	Applied using the dip method, allowed to dry, re-dipped, and allowed to air dry, placed in humidity/heat chamber. Heat- 75°C, Humidity- 77%, time 5 minutes. Visual examination with white light- no visible ridge detail.
BH2FUU	DFO	90 degree Celsius and 10 minutes
	Ninhydrin	90 degree Celsius and 10 minutes
BM8BDU	Visual Examination	White light, clear goggles, placed in oven set at 90 degree Celsius for 20 minutes.
BPJY3Z	Ninhydrin	Ninhydrin control processed with positive and negative controls.
	Ninhydrin	Ninhydrin spray applied to evidence in hood. Once dry, evidence placed under iron for humidity. Iron used for approximately 12 minutes. Section "A" positive for suspected print.

WebCode	Development Methods	Method Details
BPMG66	Visual Examination	
	Alternate Light Source	CS @ 515nm & UV
	DFO	allowed to develop in chamber @ 212F for 20 minutes
	Ninhydrin	steam iron then placed in bag for further development
BZ44D7	Visual Examination (White Light) DFO	
BZZLB2	Ninhydrin	Chemicals used: ninhydrin spray and latent print reference pad. Ninhydrin spray was used to develop latent print.
C2A3VR	Visual Examination	Onm, white light, 2 minutes
	Fuming	120 degree Celsius, 80% humidity, 20 minutes, 20 purge
	DFO	100 degree Celsius, 20 minutes
	Ninhydrin	65 degree Celsius, 80% humidity, 60 minutes
C8GJB8	Visual Examination	white light, UV - 555 nm - Polilight PL 500, suitable googles,
	DFO	processing time - 20 minutes, temperature - 95 degree Celsius
	Visual Examination	495 nm, orange coloured google
	Ninhydrin	processing time - 3 hours, temperature - 25 - 30 degree Celsius, humidity - 70%
	Visual Examination	white light
C97WTQ	Ninhydrin	Spray presentation. Let dry by 72 hours.
САК8ХВ	Visual Examination	white light
	1,2-Indanedione	10 sec press, 160C
CBJF3N	Ninhydrin	Heptane carrier. Room temperature at 70 degrees fahrenheit. Twenty-four (24) hours of time under the hood after submersion.
CD7Y2Z	Visual Examination	Oblique lighting
	1,2-Indanedione	1,2-Indanedione with zinc chloride in petroleum ether. Saturated evidence, let sit overnight.
	Ninhydrin	Ninhydrin in petroleum ether. Saturated evidence. Let sit overnight.
	Alternate Light Source	Green Laser, Coherent, Tracer at 532 nm with orange filter approx 0.30 watt.

WebCode	Development Methods	Method Details
CFQX93	DFO	Item 2 treated with DFO/HFE placed in Nincha chamber set at 100 degree Celsius for 20 minutes.
	Ninhydrin	Item 2 treated with Nin / HFE placed in the Nincha chamber set at 80 degree Celsius and 65% humidity for 20 minutes
CJ4ZVY	Visual Examination	2018/06/21, Time: 10:55; 000nm-630nm, orange / white goggle - negative results.
	DFO	2018/06/21, Time: 11:43 - In forced circulation oven at 100 degree Celsius for 20 minutes.
	Visual Examination	2018/06/21(2nd visual), Time: 14:52 - 505nm, 505 filter, orange goggle, results positive.
	Ninhydrin	2018/06/21, Time: 15:15 - Ninhydrin methanol in extraction cabinet 2018/06/22, Time: 08:40 - 3rd visual - negative results.
CLGH6W	Visual Examination	used green lighting (Tracer)
	Cyanoacrylate Fuming	used CApture-BT Fuming Chamber with 9 minute fuming time
	DFO	used the Caron Environmental Chamber at 100 degrees Celsius and 0% relative humidity for 20 minutes
	Ninhydrin	used the Caron Environmental Chamber at 80 degrees Celsius and 65% relative humidity for 2 minutes
	Physical Developer (PD)	used Sirchie Solutions for 13 minutes
CNNK9F	Visual Examination	I did not observe any ridge detail under the lights in the lab.
	Alternate Light Source	l examined the item with UV, 450 and laser light sources with corresponding goggles. No ridge detail was observed.
	1,2-Indanedione	The item was processed with Indanedione, placed in an oven for 20 minutes and viewed with a laser. Ridge detail was visible with the laser and red/ orange goggles.
CPRHBV	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	
CVKM6Z	Visual Examination	Time lights filter goggles 15mins UV-590 none white
	DFO	Time: 20min; chemical extraction: dipping; Light filter shutter exposure F-stop; Temp: 100 degrees Celsius; 505; 610; 1/6; -1.67; 9
	Ninhydrin	Temp: 20 minutes; chemical extraction: dipping light filter shutter exp F-Stop. Temperature: 80 degree Celsius; Relative Humidity 65%; None None 1/13 -1.33 9 Time: 15 minutes light: white/ 450/ 505
	Verifying	Goggle: White

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
CW2MEG	Ninhydrin	Ninhydrin acetone was use for the development of latent prints. A Positive control is noted.
CWW96M	Visual Examination	white light
	Alternate Light Source	polilight Rofin
	Cyanoacrylate Fuming	7 min Fuming time
	1,2-Indanedione	
	Ninhydrin	
CXRNJ6	1,2-Indanedione	We used the DFO cabin with 70% humidity and 100 Celsius for 15 minutes
CZX6LG	DFO	ITEM 2 AND CONTROL SAMPLE PLACED IN DFO WORKING SOLUTION, BATCH 16AL617 AND THEN AFTER DRYING IN FUME CABINET, PLACED IN OVEN#1 SET AT 100C FOR 20 MINS.
	Ninhydrin	ITEM 2 AND CONTROL SAMPLE PLACED IN NINHYDRIN WORKING SOLUTION , BATCH 129724 AND THEN AFTER DRYING IN FUME CABINET, PLACED IN OVEN #3 SET AT 80C/62% HUMIDITY FOR 5 MINS.
D2ZMXH	DFO	100 degrees celsius, 20 minutes
	Ninhydrin	80 degrees celsius, Relative humidity 65 %, 5 minutes
D3MXAW	Visual Examination	
	DFO	
	Ninhydrin	
D99VVY	Visual Observation	LED white light DCS-3
	DFO (HFE7100 solution)	Heated in 212°F -> 10 min. Observation in blue/ blue-green light, orange filter
DAE997	Visual Examination	PL500 & white light
	DFO	Oven at 100 degree Celsius for 10 minutes. Using PL500: 490 & 505 light source & orange filter.
	Ninhydrin	Oven at 100 degree Celsius & 80% humidity for 10 minutes & PL500 white light.
DECTCQ	Visual	
	1,2-Indaandioni	NinCha 531 - cabin; 65%, 65°C, 30 min
DJKDY3	Visual Examination	Print was not visible and needed enhancement.
	Ninhydrin	Humidity: 65%, temperature: 72 celsius, time: 7 minutes. Cabinet: Labrum Klimat, Forensic climate FKC-MV4KC

WebCode	Development Methods	Method Details
DKMRWW	Visual Examination	
	1,2-Indanedione	Heat press at ~163 degrees C for ~ 10 sec; laser #1 @ 532 nm with orange barrier, test positive
	Ninhydrin	Steam iron, test positive
DQP7C7	Visual Examination	Visual examination using RUVIS Krimesite Imager. No ridge detail observed.
	Ninhydrin	Treated item with Ninhydrin/Acetone premix formula. Allowed to air dry for 5 minutes. Placed item in fingerprint chamber at 80 degrees Centigrade and 65% relative humidity for 3 minutes.
	Visual Examination	Visual examination under normal room lighting. Latent print ridge detail observed in section A.
DVERXY	Visual Examination	11:15,000nm - 650nm lights, orange and white goggles and 550 filter
	DFO	11:20 oven set at 100 degree Celsius for 20 minutes reference number 01/06/2018W.
	Ninhydrin	12:15, Sprayed with Nin/ Methanol and placed in a dryer for 60 minutes reference number 02/06/2018W.
	Drying	Exhibits were placed in a dryer.
DZRAFF	Visual Examination	No fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white.
	DFO	Disclosing a fingerprint. The fingerprint is visible in the light source 505 nm with orange goggles.
	Ninhydrin	No improvement in fingerprint quality after use Ninhydrin. The fingerprint is not visible.
E7DT62	Visual Examination	
	Alternate Light Source	Used 495 to 515nm to visualize
	DFO	Sprayed DFO and allowed to dry. Placed evidence in heating chamber at 200+ degrees for 15 minutes
	Ninhydrin	Used steam iron
E86WPV	lodine	Placed item in plastic bag and added lodine crystals. Sealed bag and let it fume overnight.
	Ninhydrin	Saturated the container board with Ninhydrin under a fuming hood, allowed it to air dry. Used a steam iron to develop latent prints. Placed item in a sealed plastic bag and allowed it to develop any further latents overnight.

WebCode	Development Methods	Method Details
E8PJ2Y	Visual Examination	2018/06/27: item 2 was visualized using PL500 10:35 polilight set on 000 nm wavelength and clear goggles.
	DFO	2018/06/27: item 2 was immensed in DFO/ petrolium/ 01/06/2018 ether solution for 3 minutes, left to air dry. it was the put in the nincha chamber set 100 degree celsius for 20 minutes.
	Visual Examination	2018/06/27: item 2 was visualized using PL500 polilight set on 505 nm wavelength with orange geggles. there was a fingerprint development on A-section.
	Ninhydrin	2018/06/27: item 2 was immersed in ninhydrin/ methanol 1/2018 for 3 minutes, left to airdry. it was then put in the nincha chamber set on 80% humidity for 20 minutes.
	Visual Examination	2018/06/28: item 2 was visualzed using PL500 polilight set 07:15 on 000 nm wavelength and clear goggles. no print.
EBBAHV	Visual Examination	5 minutes - looked at it under different lighting; no areas of interest seen
	Ninhydrin	48 hours - ninhydrin was used and the item sat for 48 hours. A slight discoloration was observed in Section A. Ninhydrin was reapplied and the item sat for another 24 hours but no further development was observed
EH77BZ	Visual Examination	White light using polilight flare $+2$.
	Dye Stain	Sprayed with DFO/Petro ether, Nincha with RH, 66%; Processing time20 minutes.
	Ninhydrin	Sprayed with NIN/ Acetone, Nincha machine with RH 65%, temperature 65 degree Celsius, processing time 20 minutes.
EKECUF	Visual Examination	Ambient lighting, room temperature, < one minute. No RD noted.
	Alternate Light Source	Mini-Crimescope, all wavelengths.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm. RD noted in Quadrant A-only core visible, either loop or whorl, not discernible.
	Ninhydrin	Sprayed, allowed to dry.
ERGE68	Visual Examination	white light -> Polylight -> Reflected UV
	V.M.D	
	1,2-Indanedione	After development I used a "heating press" for 10 seconds at 160 celsius degrees.
	Ninhydrin	Kept in a box for 24 hours after developmnet.

TABLE 2 -	Item 2
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WebCode	Development Methods	Method Details
EX2TE7	DFO	The exhibit was treated with DFO/HFE base by means of dipping. It was allowed to dry and then placed in the NINCHA set at 100 degree celsius for 15 minutes with humidity switched off. Batch number of DFO: BCBQ2596V; Batch number of HFE: BCBS4887V
	Ninhydrin	treated with ninhydrin/methanol base by means of dipping. it was allowed to dry and then placed in nincha set at 70 degree Celsius, 80% humidity for 20 minutes; batch number of ninhydrin: BCBV8117, batch number of methanol: STBG0915V.
F44YUA	Visual Examination	
	Alternate Light Source	LASER
	1,2-Indanedione	10 minutes in humidity chamber
	Alternate Light Source	LASER
	Ninhydrin	10 minutes in humidity chamber
	Visual Examination	
F4QAZX	Lumicyano Powder	solution 4 %, hygrometry > 75 %, 15 minuts
	1,2-Indanedione	1-2, indanedione/ zinc chloride, room temperature - 48 hours development
	Ninhydrin	room temperature - 48 hours development
F637BU	Visual Examination	Using ambient lighting, white lighting, and LASER 535nm lighting, the Item was examined for any visible prints prior to processing
	DFO	DFO dye staining was applied to the Item and visualized w/ LASER 535nm
	Ninhydrin	Ninhydrin was applied to the Item and visualized w/ ambient and tungsten lighting
F6YLGY	Visual Examination	Visualization under Fluorescent light
	Alternate Light Source	Visualization under wavelengths 365nm, 490nm and 505nm
	1,2-Indanedione - Zinc Chloride	Visualization under 505nm
FAEWV3	Visual - then DFO	Start with visual using light sources. Dip in DFO, dry, place in oven, view under laser light source.
	Ninhydrin	Dip in Ninhydrin, dry, place in humidity chamber.
	Zinc Chloride	Spray with ZnCl, dry, place in humidity chamber, view under ALS.
	Physical Developer (PD)	Rinse in Maleic Acid, agitate in Redox solution, rinse, dry.

WebCode	Development Methods	Method Details
FHZC6Y	Visual Examination	Using white poliflare and Rofin PL500 on 2018/06/20 10:20
	DFO	DFO/Petroleum ether process dipping method in chemical fume extraction cabinet and placed in a drier and in nincha S31 cabinet at 100 degree Celsius, 0% humidity for 20 minutes on 20186-20 at 11:35.
	Ninhydrin	dipping method in chemical fume extraction cabinet and placed in a drier and in nincha s31 cabinet at 65 degree Celsius, 75% humidity for 20 minutes on 2018-06-21 at 15:20
FJFNQB	Visual Examination	different lights sources and filters
	DFO	spray, tem. 90-95 C, time 10 min, 505-530 light, orange filter
	Ninhydrin	spray, tem. 30 C, humidity 65%, time 120 min, natural and white light, (Chamber Nincha S31)
FJH6GU	Visual Examination	Crimelite white
	Alternate Light Source	PL 500 and TracER Laser
	Cyanoacrylate Fuming	~70 minutes
	Powder Dusting	Magnetic black
	DFO	~20 minutes
	Ninhydrin	~6 minutes
FPNZZU	Visual Examination	
	Alternate Light Source	Coherent TracER Laser
	DFO	20 minutes
	Ninhydrin	6 minutes
FRBFF4	Visual Examination	Rofin PL500: 000, 450-530nm: Yello, Red and Orange goggles.
	DFO	nincha: 100 degree Celsius 0% RH (Humidity) 20 minutes: 000 nm, 450 nm - 530 nm: Y, O, R
	Ninhydrin	Ninch: 80 degree Celsius, 65% RH (Humidity) 25 minutes 000 nm, 450 - 530 nm: Y, O, R
FULK3T	Visual Examination	
	Indanedione	Oven @ 100C
	Laser	532nm w/orange filter

TABLE 2 -	Item 2
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WebCode	Development Methods	Method Details
FYXAL3	Visual Examination	Item 2 was examined prior to applying any chemicals. Used natural lighting, oblique lighting & other light sources to look for any latent impressions.
	1,8-Diazafluoren-9-one (DFO)/ LASER	Item 2 was dipped twice in DFO. I let it dry for about 5 min. Next, it was put in the oven (100°C) for 20 min. Then, it was examined under laser.
	Nynhydrin	Item 2 was dipped once in Nynhydrin. I let it dry for about 5 min. Next, it was put in the humidity chamber (70°C) for about 10 min. The Ruhemann's purple started to appear in the latent impression.
	Zinc Chloride/ ALS (Alternate Light Source)	Item 2 was sprayed with Zinc Chloride. I let it dry for about 5 min. The latent impression turned red/ orange. It was also examined under ALS.
	Physical Developer (PD)	Item 2 was submerged in Maleic Acid first for 5 min & then in PD for about 20 min.
G3QRGT	Visual Examination	no print observed
	DFO	20 min incubation
	Alternate Light Source	TracER Laser, curved orange filter
	Ninhydrin	6 min incubation
G4ZPLA	Visual Examination	In daylight and flashlight and in whole spectrum of Polilight PL500 (UV, 415, 450, 470, 490, 505, 530, 555, 620, 650) none fingerprint
	DFO	A fingerprint has been disclosed; section - A
	Ninhydrin	No improvement in a fingerprint quality
GB6FCU	Visual Examination	Looked at item with flashlight and ambient room light
	1,2-Indanedione	Zinc Chloride wash included in IND processing. Applied heat using a heat press set at ~329 degrees F for ~15 seconds and viewed with laser (532nm) and orange goggles; Control: +
	Ninhydrin	Applied heat and humidity using steam iron for ~ 1 to 1.5 minutes; Control: +
GCFLAG	Visual Examination	Visual with white Light and Visual with ALS (BattleLite 455nm) with orange filter: no visible ridge detail.
	1,2-Indanedione	100°C and 60% humidity for 10 minutes. Visual with ALS (530nm) with red filter: ridge detail visible.
	Ninhydrin	75°C and 77% humidity for 5 minutes. Visual with White Light: faint visible ridge detail

WebCode	Development Methods	Method Details
GKLFCW	Visual Examination	white light (polilight flare 2+)
	DFO	spraying method, Nincha001GAUKMP 15 munites 0% humidity, 65 degree celsius.
	Visual Examination	450 nm polilight flare 2+, orange filter orange.
	Ninhydrin	white light clear goggles NINCHA001GAUKMP 15 minutes spraying method.
GP2WWL	Visual Examination	Oblique lighting used
	Ninhydrin	Hexane Based
	Steam	Iron with steam function
GP76C2	Visual Examination	White light examination, Alternate light source examination UV Light, photocopied the container board
	Ninhydrin	Dipped the container board in pre-mixed Ninhydrin solution, air dried, Steamed, 10 days time allowed for development, visually examined 3 more times for further development
	Visual Examination	Alternate light source used to visualize print, very poor quality, no ridge detail but the outline of the print could be seen
GXHB4X	Visual Examination	Fluorescent
	Alternate Light Source	350-380nm and 445-510nm
	1,2-Indanedionone Zinc Chloride	Humidity chamber; For ~20 minutes with the conditions at ~70C and ~65 relative humidity; 445nm-510nm
GZMQL3	Visual Examination	No visible ridge detail.
	Ninhydrin	I used a spray bottle to coat the entire surface of the containerboard and placed it in the fume hood to dry. I waited 7 days to document any ridge detail.
H4GGW7	Ninhydrin	Steam Iron
H8HFDQ	Ninhydrin	Item 2 processed for latents using Ninhydrin spray and allowed to air dry. Item 2 visually examined for developed latents. Latents of possible value observed in section A. Heat, from an iron, was applied to Item 2 to enhance latent development. Latent results remained the same.
HBD6KW	ASV Process	Apply anti-strokes powder with magnetic brush and place in cin anti strokes laser viewing enclosure
	DFO / Petroleum Ether	Dipping method into DFO/Petroleum Ether base placed in the Nincha set at 70 degree Celsius to 20 minutes
	Ninhydrin / Acetone	Dipping method into Ninhydrin / Acetone base placed in the Nincha set at 65 degree Celsius and 75% humidity for 20 minutes.

TABLE 2 -	· Item 2
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WebCode	Development Methods	Method Details
HCU7WY	Visual	Oblique light, U.V., ALS, LASER
	DFO	Dip (twice), dry, heat chamber for 20 min. Two digital photographs (green LASER)
	Ninhydrin/ Zinc Chloride	Nin: dip, dry, humidity chamber, 10 min. Zc: spray, dry, humidity chamber, 10 min
	Physical Developer (PD)	Rinse (maleic acid), dip, dry
НСКМЗХ	Ninhydrin	Steam Iron
	1,2-Indanedione	Iron (Only Heat)
HGZV68	Powder Dusting	magnetic powder
HZWCFV	Ninhydrin	dipped 2x, allowed to develop for 72 hours
JFQ8FT	Visual Examination	Room light examination
	Dye Stain	Silver nitrate
	Dye Stain	ninhydrin
	Time	Processing time: 3 days
	Visual Examination	Room light examination
	Steam	
	Time	Processing time: 7 days
	Visual Examination	
	DFO	
JLTH7Y	Visual Exam	Examined with oblique lighting, UV, ALS, and LASER
	DFO	Dipped in DFO, placed in oven at 100°C for approx 15 min. Visualized latent w/LASER and orange goggles (filter, waited 24 hour
	Ninhydrin	Dipped in Nin, placed in humidity chamber at 70°C and 70% relative humidity approx. 15 min, visualized, waited 24 hours
	Zinc Chloride	Sprayed with zinc chloride, placed in humidity chamber at 70°C and 70% RH approx 15 min, visualized with ALS & orange filter, waited 24 hours
	Physical Developer (PD)	Maleic acid pre-wash, allowed to sit in PD solution while agitating ~approx 5 min, rinsed with water
JLXVX2	DFO	Cyclohexane. climate chamber, 100 degrees Celsius, 10 minutes
	Ninhydrin	HFE 7100. Climate chamber, 80 degrees Celsius, 65% RH, 2 minutes
	Physical Developer (PD)	Synperonic NP8, water based. Pretreatment: maleic acid, PD working solution, rinsing in water bath 3 times, RT, 5-10 minutes

WebCode	Development Methods	Method Details
JTUQVY	Visual Examination	used white light with magnifier
	1,2-Indanedione	saturated paper with chemical, dried completely, placed in oven for one hour
JUZEXH	Ninhydrin	Spray presentation. Ninhydrin fixative.
JWNPU3	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: Negative
	1,2-Indanedione	We used 1,2 INDANEDIONE ZINC solutions in whole object with submersion method into gas extractor chamber "ASEM model FUME CABINETS". Time of submersions: 8 seconds. Drying Time: 3 minutes. Then we put the object inside the oven "TECNIHISPANIA model PN" with these valeues: Temperature: 100°C, Humidity: 0%, Time: 20 minutes
	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: We have detected and photographed a lofoscopic fragment in quadrant A
	Ninhydrin	We used NINHYDRIN PETROLEUM ETER solution in whole object with submersion method into gas extractor chamber "ASEM model FUME CABINETS". Time of submersions: 8 seconds. Drying Time: 3 minutes. Then we put the object inside the oven "TECNIHISPANIA model PN" with these valeues: Temperature: 80°C, Humidity: 62%, Time: 20 minutes
	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: We have detected and photographed the same lofoscopic fragment in quadrant A
JX7KRW	Visual Examination	White light/fluorescent
	Alternate Light Source	365nm/495nm
	1,2 Indandione - Zinc Chloride	Humidity Chamber (Temperature 70C, 65% Relative Humidity) ~20minutes, 495nm
JZD3QR	Visual Examination	The containerboard was examined for patent prints. No patent prints were observed.
	Ninhydrin	The containerboard was then processed using ninhydrin. The process that we use for ninhydrin is a three day process. Day 1 the item was dipped and hung in a fume hood for 24 hours. Day 2 the item was dipped and hung in a fume hood for 24 hours. Day 3 the item was steamed using a clothing iron. Latent prints were developed.
JZFTUP	Visual Examination	VIS, UV, none fingerprint
	DFO	CAST recepture, 100 degree C, 20 min., fingerprint - section A
	Ninhydrin	CAST recepture, 80 degree C, 62 %RH, fingerprint - section A

TABLE 2	- Item 2
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WebCode	Development Methods	Method Details
K2YZMW	Visual Examination	First visualization, equipment: Rofin PL500, white light, clear goggles.
	DFO	Placed in Nincha at 80 degree Celsius for 15 minutes.
	Ninhydrin	Placed in Nincha at 70 degree Celsius, 60% humidity for 20 minutes.
K7YF3Z	Visual Examination	No ridge structure
	Alternate Light Source	LabKam. No ridge structure
	1,2-Indanedione	Control positive
	Alternate Light Source	Crimescope. Ridge structure-collection value
	Ninhydrin	Control positive. Ridge structure-no collection value
KBAFD6	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.
KDBJ38	DFO	
KGRTAJ	Visual Examination	Before the chemical processing Item 2 was visualized with Rofin PL500 white light at 10:35.
	DFO	DFO / HFE was used at 100 degree Celsius with no humidity for 15 minutes at 11:00
	DFO / HFE Visual	Item 2 was visualized wit Rhofin PL500 at 450nm at 11:30
	Ninhydrin	Used Ninhydrin / Methanol at 70 degree Celsius; 75% humidity for 20 minutes at 12:00.
	Ninhydrin / Methanol visual	Item 2 was visualized with Rofin PL500 white light at 12:40.
KQ3ZZK	Visual Examination	White light and magnification
	Ninhydrin	Batch #286, left in Caron Chamber for 1 hour.
	Physical Developer (PD)	Batch #455, processed by LPT.
KUNK8A	Ninhydrin Processing	Ninhydrin - [Lot Number], Exp: 4/12/19, positive control, time Ninhydrin applied to item - 0830 hours, Humidity chamber - humidity control set to 40%, temperature control set to 32.2 degrees Celsius, item placed into humidity chamber at 0835 hours with humidity control at 51.3%, humidity control back to 51.3% of 0850 hours, item removed from humidity chamber at 0950 hours with humidity control at 56.9%

WebCode	Development Methods	Method Details
KWLFEQ	Ninhydrin	Spray presentation.
KYBQBB	Visual Examination	White, blue, green light
	1,2-Indanedione	165 Celcius degrees, 15 sec
	Ninhydrin	80 Celcius degrees, 65% RH, 5 min
KYV9MW	Visual	light sources - LASER, UV, ALS, flashlight
	DFO	light source - LASER - waited >24 hours; placed in oven @ 100°C
	Ninhydrin	waited 24 hours; placed in humidity chamber @ 70°C & 70% humidity
	Zinc Chloride	light source - ALS - waited 24 hours; placed in humidity chamber @ 70°C & 70% humidity
	Physical Developer (PD)	
KYW3C4	Ninhydrin	sprayed Ninhydrin, dried, used wet heat with steam from iron, repeated after 3 hours
KZC8ZU	Visual Examination	Using white light and magnification - no prints were observed
	Ninhydrin	Item was immersed in a tray of solution completely wetting the surface. Hung to dry in fume hood. Dried item placed into CARON chamber set at 60 degrees Celsius and 60% humidity. Item checked at 30 minutes then allowed to develop for 45 minutes to 1 hour and viewed using white light and magnification. No prints observed.
	Physical Developer (PD)	Completed by LPT. Viewed using white light and magnification. No prints observed.
L7TGCW	Visual Examination	Exhibit was first visualised with white light (000nm), 350nm (UV) and 415nm with white goggles, yellow goggles and orange goggles.
	DFO	Exhibit was treated with DFO/ HFE by spraying method and air dried then placed in an oven at 100 degree Celsius for 20 minutes.
	Ninhydrin	Exhibit was treated with Ninhydrin / HFE by spraying method and air dried then placed in an oven at 80 degree Celsius with 80% humidity for 20 minutes.
LCF6AM	Visual Examination	
	Alternate Light Source	ALS used: LASER, Crimescope (450nm), and UV
	1,2-Indanedione	
	Physical Developer (PD)	

WebCode	Development Methods	Method Details
LCVNRY	Visual Examination	UV Light source, clear goggles Negative results
	DFO	DFO-HFE base, nincha cabinet, 100 degree Celsius, 0% humidity, 15 minutes processing time. print observed in Section A, 530 nm light, red goggles.
	Ninhydrin	Ninhydrin-methanol base. faint print observed in section A.
LE86LP	Alternate Light Source	455-515nm
	Cyanoacrylate Fuming	Vacuum chamber \sim 30 mins.
	Black Powder Dusting	
	Ninhydrin Processing	Results checked after 1 hr, 4 hr, 24 hr
LG9AWP	Visual Examination	no ridges identified
	Ninhydrin	ninhydrin applied via pipette, dried and treated with a steam iron for several minutes. no ridges identified
	1,2-Indanedione	1,2-indanedione applied via pipette, dried and treated with a steam iron for several minutes. no ridges identified
	Alternate Light Source	orange filter, 515 nm wavelength, no ridges identified
LH4PD3	Visual Examination	No latent print
	Ninhydrin	80% Rh and 70 degree celcius, Latent print
LHLX4H	Ninhydrin	Exhibit B was treated with Ninhydrin / Acetone base
	Nincha S31	Put into the Nincha S31 equipment set at 65 degree Celsius and 60% humidity for 20 minutes using 33269/ 17D274027 unique number.
LP2JB2	Alternate Light Source	Preliminary visual examination by two analysts with natural, white and forensic light and photography.
	1,2-Indanedione	Treatment with indandione zinc ducking during 10 seconds, drying at room temperature for 3 minutes, drying in oven TECNIHISPANIA PN for 20 minutes at 100 degrees Celsius without adding moisture. Visualization by two analysts with natural, white and forensic light and photography.
	Ninhydrin	Treatment with ninhydrin oil ether ducking for 10 seconds, drying at room temperature for 3 minutes, drying in oven TECNIHISPANIA model PC for 20 minutes at 80 degrees Celsius and 60% moisture in the air. Visualization by two analysts with natural, white and forensic light and photography.
LV7FU2	Visual Examination	
	Alternate Light Source	Negative results. Fluorescent light.
	Ninhydrin	A weak fingerprint could be seen in section A.
	Photography	

TABLE 2	- Item 2
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WebCode	Development Methods	Method Details
LW9WJK	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	CSU CyanoSafe, Test print positive, 15 drops of CA, 20 min process, 1 hour dry/set. White light and magnification.
	Powder Dusting	Black magnetic, white light and magnification.
	Ninhydrin	Batch 286, white light and magnification; dry time: 40 minutes; caron processing: 1 hour.
	Physical Developer (PD)	Batch 455; processed by LPT.
LWMHTM	Visual Examination	Ambient lighting and green/tracer laser
	DFO	100 degrees Celsius, 20:00 minute processing time
	Ninhydrin	80 degrees Celsius, 65% relative humidity, 2:00 minute processing time
	Physical Developer (PD)	15:00 minute processing time in PD solution
M2W398	Visual Examination	Normal room light.
	Alternate Light Source	Mini-Crimescope, all wavelengths available.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
	Ninhydrin	Sprayed, let set overnight, applied humidity to enhance. RD noted in Quadrant A.
M7KUEE	Ninhydrin	Spray presentation.
М997СҮ	Visual Examination	Natural light and then white light applying Polilight PL-500 Forensic Light (all wavelenghts).
	1,2-Indanedione	Dipped 1,2-Indandione-Zinc Chloride working solution. After in Tecnihispania PC drying chamber with these valeues: Temperature 100°C, Humidity 0% and Time 20 minutes.
	Ninhydrin	Dipped in Ninhydrin petroleum ether based working solution. After in Tecnihispania drying chamber with these valeues: Temperature 80°C, Humidity 62% and Time 20 minutes.
	Physical Developer (PD)	Dipped in PD working solution during 30 minutes and after dry at room temperature 24 hours.
MCRCUU	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all wavelengths.
	1,2-Indanedione	Sprayed, set time-next business day, processed at room temperature. RD noted in Quadrant A. Could not discern pattern type between loop and whorl.
	Ninhydrin	Sprayed, set time-next business day, processed at room temperature.
МЕНМКМ	Ninhydrin	Spray presentation. 2.5% ethyl acetate.

WebCode	Development Methods	Method Details
MFQR64	Visual Examination	White, UV, blue light.
	DFO	+100 celcius, 20 minutes.
	Ninhydrin	+80 celcius, RH 65%, 5 minutes.
MG9E8R	Visual Examination	Examined under white light and magnification. No prints observed.
	Ninhydrin	Item treated with Ninhydrin (batch #286) and processed in the CARON chamber (approx. 60 degrees Celsius/approx. 60% humidity) for approx. 30 mins. Print observed in Quadrant A. LP photography (Scanner 13=1 image)
	Physical Developer (PD)	Batch #455, PD processing completed by LP Tech. Item examined with no prints observed.
MHL7XN	ChemPrint Spray	Sprayed and used heat device (iron) to develop print. Processing Time = 15 minutes.
MPFFZ7	Visual Examination	11:00 am item was examined by white light
	DFO	11:10 am, Item was inserted to DFO plate solution, then to the chamber with fixed temperature and humidity
	Ninhydrin	Ninhydrin solution was applied to the item, the item inserted in the chamber for 25 mins with fixed temperature
MWW23H	DFO	Exhibit was dipped into DFO solution and placed in NINCHA for 120 minutes at 100 degree Celsius with 0% humidity.
	Ninhydrin	Exhibit was dipped into Ninhydrin working solution, placed in Nincha, set at 65 degree Celsius and 65% humidity for 120 minutes to dry.
МХЕҮКА	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope , all wavelengths. No RD noted.
	1,2-Indanedione	Sprayed, allowed to dry. Viewed with Tracer Laser at 532nm. RD noted in Quadrant A. Could not see bottom of core to distinguish pattern type from a whorl or loop.
	Ninhydrin	Sprayed, aided development with humidity (steam), allowed to dry. No add'l RD noted.
N2R837	Visual Examination	
	1,2-Indanedione	Heat Press, Bright Beam laser 532nm
	Ninhydrin	Steam Iron
N822KW	Ninhydrin	Ninhydrin, used iron with steam for two minutes
N8BFG6	Visual Examination	nothing
	Ninhydrin	5 min, 80 C, 65%rh; part of print seen

WebCode	Development Methods	Method Details
N8JY3N	Visual Examination	Oblique lighting to examine for latent prints and indented writing.
	Alternate Light Source	Crimescope 455-515nm
	Ninhydrin	Stock solution made 5/9/17 [Initials], Working solution made 6/6/18 [Initials]. Applied by spray.
N8WT83	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron
NGJP94	1,2-Indanedione	2 hours, applied heat with iron
	Ninhydrin	24 hours, 1.5 hours inside humidifier 40'c/ 80% R.H. (relative humidity)
	Physical Developer (PD)	10 min
NHX8DU	Visual Examination	Visual examination did not result in identifying a latent
	Powder Dusting	Black magnetic powder did not result in identifying a latent
	Ninhydrin	Hang to dry 10 min; Placed in heat chamber - 3 min = revealed minimal detail of latent
	Ninhydrin	Hang to dry; Placed in heat chamber 3 min = revealed additional detail of latent
NKMLVD	Ninhydrin	Spray presentation. Let dry by 72 hours.
NN2H2E	Visual Examination	Item 2 was visualised using PL500, wavelength 00nm-590nm using white and orange goggles.
	DFO	Item 2 was dipped into DFO/ HFE for 3-4 minutes, then placed into nincha S31 for/ set at 100 degree celsius for 20 min 01/06/2018W unique number. The Item was visualised with PL500, wavelength 450nm using orange goggles.
	Ninhydrin	Item 2 was dipped into Nin/ methanol for 3-4 minutes, then placed into Nincha 531 set at 80 degree celsius and 65% humidity for 20 minutes 02/06/2018W unique number. The item was visualised with PL500 set at 00nm using orange goggles.
NPEWXN	Visual Examination	Under different types of light
	1,2-Indanedione	observation under cyan light 500nm and orange filter
	Ninhydrin	observation under white light (no results after ninhydrin process)
NQRBNJ	Visual Examination	White LED with magnification
	Ninhydrin	Batch #286, Caron chamber - 30 minutes
	Physical Developer (PD)	Batch 455

WebCode	Development Methods	Method Details
NXP9LL	Visual Examination	White-, blue, and greenlight Source.
	DFO	25 min processing time. Heat 100C. Solution based on HFE.
	Ninhydrin	5 min processing time. Heat 80C and 65% moisture. Solution based on HFE.
NZEKJ7	Visual Examination	White ambient light. No latent print was detected.
	DFO	Positive (poor quality) for latent print in section A.
	Ninhydrin	Weak enhancement, still poor quality.
P6MANK	Visual Examination	No visible ridge detail observed.
	Ninhydrin	Saturated cardboard with Ninhydrin spray. Allowed to air dry for fifty (50) minutes.
	Clothing Iron	After allowing cardboard to air dry, medium heat and steam was indirectly applied to further develop any ridge detail. Two (2) sheets of printer paper were placed between iron and cardboard. Partial ridge detail developed, no detail of value.
P9NBTN	Visual Examination	White light
	Alternate Light Source	365nm, 455-510nm
	1,2-Indanedione Zinc Chloride	Relative Humidity 65%, Temperature 70°C
PCMDW4	DFO	12:13 pm, the item was immersed in DFO solution and kept drying, after that it was placed in humidity chamber. Finally the item was examined using the green light (T=100 c)
	Ninhydrin	12:20 pm, the item was immersed in the Ninhydrin solution and kept drying, after that it was placed in the humidity chamber (T=75 c, Rh=65), finally the item was examined using white light
PDGBZ6	Visual Examination	Trail-, white-, blue light. Nothing visible.
	Ninhydrin	Heat 80°C, humidity 62%, time 2 min. A fingerprint appeared in section A.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
PPVCQW	Visual Examination	l performed a visual exam on the container board. I observed no ridge structure.
	Alternate Light Source	I used LabKam to visualize the evidence and no ridge structure was observed.
	Ninhydrin	The container board was sprayed with Ninhydrin and allowed to dry. It was then placed in a humidity chamber at seventy percent humidity for approximately three to five minutes. Ridge structure of no collection value was observed and photographed in quadrant A.
	1,2-Indanedione	The container board was then sprayed with 1,2-Indanedione and allowed to dry. It was placed between two clean sheets of paper and placed in a heat press for approximately ten seconds.
	Alternate Light Source	The 1,2-indandedione that was applied to the container board was visualized with a Polilight. Orange goggles were worn and the evidence was viewed at various wavelengths between 415-505 nanometers. No ridge structure was observed.
PQJ3H3	Visual Examination	Viewed sample under natural and forensics lights.
	DFO	Utilized a combine technique. First one the sample was sprayed with DFO solution and placed into the oven at 100°C for 2 minutes. After that sample was viewed with forensic light at 515nm using orange goggles.
	Ninhydrin	The second treatment, in order to improve the quality of the sample. It was sprayed with ninhydrin and place into the oven for 5 minutes with 80°C temperature and 65% humidity. The sample is placed into a plastic bag for 24-48 hours in order to minimize the exposure to light. The final step was viewing sample with natural light.
PRKJ8M	Ninhydrin	coated cardboard and let air dry for 30 min. steamed for 5-10 min.
	Powder Dusting	Used magnetic powder and magnetic wand
PX94E9	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm. RD noted in Quadrant A. Pattern type whorl or right slant loop, could not see bottom of core, therefore the pattern type could not distinguished between the two.
	Ninhydrin	Sprayed, allowed to dry, aided development with heat (used steam). Allowed to set up overnight.
PYHD6K	Visual Examination	Visual exam, no latents observed prior to processing.
	Ninhydrin	Ninhydrin applied by spraying then applying steam heat. A second application was done.

WebCode	Development Methods	Method Details
PZ9MM2	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron
Q3EELT	Visual Examination	No latents detected.
	Alternate Light Source	Inherent Luminescence exam with Polilight PL500 @ multiple wavelengths. No latents detected.
	Iodine Fuming	No latents detected.
	1,2-Indanedione	Application method: Dipping.
	Alternate Light Source	Examine with Polilight PL500. Latent print detected in quadrant "A" at 490nm and 505nm.
Q4BWLA	White light, 532nm Laser, ALS	Negative ridge detail
	1,2-Indanedione	Negative ridge detail
	Ninhydrin	Negative ridge detail
Q4CPHW	Visual Examination	white light
	Alternate Light Source	poly light
	1,2-Indanedione	
	Ninhydrin	
Q4LTY2	1,2-Indanedione	Squirt item with working solution and let it dry. Applied heat to the item to accelerate development, used "iron".
	Ninhydrin	Squirt item with working solution and let it dry and set overnight. Next day, placed it on humidity chamber.
Q4RVV2	Visual Examination	
	DFO	Sprayed, let dry, heated with iron (dry)
	Alternate Light Source	Laser 532nm
	Ninhydrin	Sprayed, let dry, heated with steam iron
QFZNGL	Visual Examination	PL500 viewed from white light to 650 with different goggles.
	DFO	Sprayed exhibit with DFO after drying placed in Ninch531 at 100 degree Celsius for 20 minutes. Captured print with 450 with orange filter.
	Ninhydrin	Sprayed with Nin placed in Micha531at 75 degree Celsius and 80% humidity.

Development Methods	Method Details
Visual Examination	side lighting with white light
Alternate Light Source	Wavelengths 415nm, 450nm, 505nm, & 530nm
Ninhydrin	Petroleum Ether carrier, sprayed, Oven (~62 degrees C. for 30 minutes)
Visual Examination	
1,2-Indanedione	Zinc-Chloride.
Ninhydrin	
Visual Examination	Fluorescent light and Crimescope white light
Alternate Light Source	490nm and 365nm
DFO	100 degrees Celsius for 20 minutes
Ninhydrin	70 degrees Celsius, 65% relative humidity for 20 minutes
Forensic ligths	The evidence is checked using "LUMATEC 400" forensic light with all spectrum. 24°C room temperature.
DFO	Sprayed DFO. Natural drying. The OVEN is used to visualice the developed latent print. 100°C Temperature. 0% Humidity.
Forensic light	The evidence is checked again using forensic lights with all spectrum. TM "2.1" (415 nm) in A Section.
Ninhydrin	Sprayed Ninhydrin. Natural drying through the introduction on a plastic bag during more than 36 hours.
Forensic light	The evidence is checked again using forensic lights with all spectrum. TM "2.1" (400-700 nm-white light).
Visual Examination	Before enhancement: Incident and field lightning with visible light. Blue-green lightning (with crimescope/crimelite 2). Fluorescence (green light + orange filter). UV (labino)
1,2-Indanedione	With a hot press 165°C during 10 seconds + green light and orange filter
Ninhydrin	12-15h processing in a dark and humid environment
Visual Examination	White light, magnification
Ninhydrin	Batch #286, Caron-30 minutes
Physical Developer (PD)	Batch #455-10 mins-maleic acid; 10 mins-PD; rinse
	Development MethodsVisual ExaminationAlternate Light SourceNinhydrinVisual Examination1,2-IndanedioneNinhydrinVisual ExaminationAlternate Light SourceDFONinhydrinForensic ligthsDFOForensic ligthtNinhydrinForensic lightNinhydrinVisual Examination1,2-IndanedioneNinhydrinVisual ExaminationVisual Examination1,2-IndanedioneNinhydrinPorensic lightVisual Examination1,2-IndanedioneNinhydrinPhysical Developer (PD)

TABLE 2	- Item 2
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WebCode	Development Methods	Method Details
QXLGVG	Visual Examination	Tracer (green light)
	Cyanoacrylate Fuming	Misonix -fumed for 6 minutes.
	DFO	Utilized Caron environmental chamber at 100 celsius for 20 minutes.
	Ninhydrin	Utilized Caron environmental chamber at 80 celsius and 65% humidity for 2 minutes.
	Physical Developer (PD)	Used distilled water to wash NIN for 10 minutes, used maleic acid for 5 minutes, rinsed with distilled water, used PD solution for 5 minutes, rinsed once more with distilled water.
QYFWF2	Visual Examination	
	1,2-Indanedione	Fluorescent dye - leave overnight - applied heat
	Alternate Light Source	Fluorescent light
	Ninhydrin	Amino acids development - leave overnight
	Visual Examination	
R37QRT	Visual Examination	(First visual) 000nm
	DFO	100 degee celsius
	Ninhydrin	80% relative humidity, 65 degree Celsius, 30 minutes.
R3FLCT	Visual Examination	
	Ninhydrin	Steam iron
	Silver Nitrate	UV rays from sunlight
R87TZ3	DFO	1) 9:30 am 20/05/2018 the item was immersed in the DFO solution, dried, and then inserted in the chamber for 20 mins at temperature of 100c followed by green light examination.
	Ninhydrin	2) 10:00 am 21/06/2018 the item was immersed in the Ninhydrin solution, dried and the inserted in the chamber for 15 mins at temperature of 75c and 56 Rh humidity followed by white light examination.
RATKV6	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all wavelengths.
	1,2-Indanedione	Sprayed, let dry, viewed with mini-crimescope 515nm. RD noted in Quadrant A.
	Ninhydrin	Sprayed, humidity aided development-steam
WebCode	Development Methods	Method Details
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RBN9CF	Visual Examination	No prints observed
	Ninhydrin	Batch #287, caron chamber 30 mins.; no prints observed (one very faint finger "mark" in Quad A; not preserved due to it not having any ridge detail visible.)
	Physical Developer (PD)	Batch 456, no prints observed.
RFH3C3	Ninhydrin	Humidity chamber 90%. Temperature control 32.2° Celsius. 30 min processing time in chamber, 24 hour processing in evidence locker #003.
	Photograph	Original image enhanced through photoshop and completed through Digital Traq.
RFN8ZR	Visual Examination	l visually examined the containerboard and did not see any ridge detail
	Ninhydrin	I used a spray bottle of non-running ninhydrin to coat the containerboard and set it in the fume hood to dry. I waited seven days to check the results and found ridge detail in section A. I then photographed it
RG99NL	Visual Examination	
	Ninhydrin	Performance check conducted on NIN; 06/28/18 - passed. Steam used to develop latent print.
RGQEU4	Visual Examination	Using ambient light and a flash light
	Ninhydrin	Soaked in ninhydrin, placed in a development chamber set at 80 degrees C, 65% humidity, for 15 minutes
	Physical Developer (PD)	dH2O wash for ~5 min, maleic acid pre-wash for ~5 min, soaked in physical developer for ~30 min. Rinsed in H2O and dried in a drying chamber.
RHML8P	Visual Examination	
	Ninhydrin	Temperature: 72 celsius, humidity: 65%, time: 6 minutes; Cabinet: Forensic Climatic Cabinet FKC-MK4

TABLE 2 - Item 2

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WebCode	Development Methods	Method Details
RJGGYR	Visual Examination	I visually examined Item 2 prior to processing.
	1,2-Indanedione	1, 2-Indanedione was applied as the first reagent in the sequence. Once applied, it was allowed to air dry before being placed into the heat/humidity chamber for approximately 10 minutes on the DFO setting (100 degrees C).
	Alternate Light Source	I used the Alternate Light Source to view Item 2 following the 1, 2-Indanedione processing.
	DFO	DFO was applied as the second reagent in the sequence. Once applied, it was allowed to air dry before being placed into the heat/humidity chamber for approximately 20 minutes on the DFO setting (100 degrees C).
	Alternate Light Source	I used the Alternate Light Source to view Item 2 following the DFO processing.
	Ninhydrin	Ninhydrin was applied as the third/last reagent in the sequence. Once applied, it was allowed to air dry before being placed into the heat/humidity chamber for approximately 3 minutes on the Ninhydrin setting (80 degrees C/ 65% relative humidity).
	Visual Examination	I visually examined Item 2 following the Ninhydrin processing.
RPLCJR	Visual Examination	forensic light source
	1,2-Indanedione	50°C, 40% rel. humidity, 3h
	Ninhydrin	26°C, 65% rel. humidity, 24h
RQHUH8	Visual Examination	Viewed under white light, laser (TracER Laser 532nm), and ALS (CrimeScope CS-16-500 at various wavelengths).
	1,2-Indanedione	Item sprayed with Novec HFE-7100 based 1,2-Indanedione, placed in a dry mounting press for approximately 10 minutes, and viewed under the TracER laser.
	Ninhydrin	Item sprayed with Novec HFE-7100 based Ninhydrin, placed under steam iron for approximately 8 minutes, and viewed under white light.
RT6EHK	Ninhydrin	HFE formulation, steam Iron
RVPCPM	Visual Examination	Processing time: 11:50, Room temperature 18 degree celsius
	DFO	cabinet temperature: 100 degree Celsius, humidity: 0%, run time: 10 minutes, processing time: 15:10
	Ninhydrin	cabinet temperature: 65 degree Celsius, humidity: 75%, run time: 25 minutes, processing time: 07:50 (2018/06/20)
RYDQNJ	Visual Examination	White light
	DFO	Alternate light source
	Ninhydrin	White light

TABLE 2 -	- Item 2
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WebCode	Development Methods	Method Details
RZMKGC	Visual Examination	un-aided visual exam; no prints observed
	Ninhydrin	Lab made reagent with amino acid reference pad (C+B-); 72 hours waited to view; Ridge detail developed
Т2ТН9К	Visual Examination	Crimescope, white light, UV
	1,2-Indanedione	160°C during 10 sec
	Ninhydrin	72H at room temperature
T3AGN3	Visual Examination	flashlight
	DFO	Caron 6105 Environmental Chamber - 100 degrees Celsius 10 minutes; Visualized with Coherent TracER laser
T9R47L	Visual Examination	PL500, 000 nm, 450 nm, orange/clear goggles time: 10:20
	DFO	10:21 am, spraying exhibit using DFO methanol, visual examination.
	Ninhydrin	2018/07/03, spraying ninhydrin methanol capturing (negative)
TBYARM	Physical Developer (PD)	Visual - Negative; Ninhydrin - dipped in ninhydrin, waited 3 days to view, photographed area; Physical developer - treated w/PD approx. 6 to 7 minutes, dried in drier, negative results
TCWH6D	Visual Examination	Examined under white light and magnification
	Ninhydrin	Batch #286. Processing in Caron at 60 degrees Celsius and 60% relative humidity for approximately 30 minutes.
	Physical Developer (PD)	Batch #455. Completed by LPT.
TEGHVT	Visual Examination	13:00 White goggles using Rofin light at 000nm.
	DFO	Plaaced in the Nincha set at 80 degree Celsius for 20 minutes.
	Ninhydrin	At 15:00 placed in Nincha set at 65 degree Celsius and 80% relative humidity for 6 minutes.
TEGLEV	Powder Dusting	magnetic powder
	Ninhydrin	HFE preparation
TGNX4J	Visual Examination	visualization of item using the rofin PL500 light source.
	DFO	DFO/ petrolium ether spraying/ dipping item into the solution, let it dry at room temperature, place in the Nincha S31, temperature 100 degree Celsius for 20 minutes.
	Ninhydrin	Ninhydrin/ methanol spraying/ dipping item into the solution, let it dry at room temperature, place in Nincha S31, temperature 80 degree Celsius and humidity 80% for 20 minutes.

WebCode	Development Methods	Method Details
TGPLUB	1,2-Indanedione	1,2-Indanedione ZnCl was applied to item and then air dried. When dried, placed item on a heat press. Heat was applied for 10 seconds at 320 degrees F.
	Alternate Light Source	View processed item under 505 nm light.
TH64TA	Visual	Visual examination
	Laser - 532nm	Inherent luminescence exam
	DFO	Squirt bottle. DFO oven/ laser - photography
	Ninhydrin	Squirt bottle. Ninhydrin acceleration chamber
THHRVM	Visual Examination	
	Alternate Light Source	
	DFO	
	Alternate Light Source	
	Ninhydrin	
TMUUNJ	Visual Examination	Polight +2 flare, 000nm (white) in a dark room, clear goggles.
	DFO	DFO dipped, 100 degree Celsius, 30 minutes
	Visual Examination	PL500, 505 nm, orange goggle.
TMVBD4	Visual Examination	Oblique and direct lighting
	FSIS	Full Spectrum Imaging System - shortwave UV light and specialized filter
	Indanedione	Applied and let dry then applied heat and moisture with a steam iron for approximately 5 minutes
	Alternate Light Source	515nm with orange goggles
TMVHDB	Visual Examination	Lighting
	Ninhydrin	Pre-made dye stain; amino acid reference pad control; Caron chamber (85 degree Celsius/65% relative humidity/three minutes). Seventy-two hour waiting period once applied each time (two applications due to faint print).
TN8A8D	Visual Examination	White light and magnification
	Ninhydrin	Batch #286. Air dry, place in humidity chamber (60% humidity) for 15 mins., white light magnification
	Physical Developer (PD)	Processed by LPT, examined by myself with white light and magnification.

WebCode	Development Methods	Method Details
TQH8MF	Visual Examination	
	DFO	
	Ninhydrin	
TRTUF3	Visual Examination	
	Alternate Light Source	Foster Freeman CrimeLite 82S. Blue-Green with orange barrier filter/UV
	Ninhydrin	Used Caron 6105 Fingerprint Development Chamber. 80 degrees C and 65% relative humidity for 20 min
TXRN6N	Visual Examination	ITEM 2 WAS VISUALLY SEARCHED WITH NO AID. NO FRICTION RIDGE DETAIL WAS SEEN.
	Powder Dusting	ITEM 2 WAS PROCESSED USING MAGNETIC POWDER. NO FRICTION RIDGE DETAIL DEVELOPED.
	Ninhydrin	ITEM 2 WAS IMMERSED IN PETRO. ETHER NINYDRIN ALONG WITH A CONTROL. BOTH WERE ALLOWED TO DRY IN A VENT HOOD. DEVELOPMENT WAS FOUND TO BE SLOW SO ITEM 2 & CONTROL WERE "PRESSED" USING A DRY FLAT IRON. FRICTION RIDGE DETAIL DEVELOPED IN QUADRANT A.
TZX2U3	Visual Examination	no ridge detail observed
	Powder Dusting	no ridge detail observed
	Ninhydrin	no ridge detail observed
U8UCBQ	DFO	used nincha at 60 degree Celsius for 20 minutes.
	Ninhydrin	used nincha at 60 degree Celsius 70% RH for 20 minutes. the print for ninhydrin enhanced and captured at 470 nm.
U9U7FQ	Visual Examination	Used oblique lighting and magnifier
	1,2-Indanedione	Sprayed substrate, used heat press at 320 degrees F for 12 seconds, Laser (Bright Beam) exam, 532nm, orange goggles
	Ninhydrin	Sprayed substrate, used steam iron for approximately 20 seconds
UEZRCZ	Visual Examination	Oblique Lighting
	Alternate Light Source	Foster Freeman Blue-Green + UV CrimeLite Model 82S
	Ninhydrin	Submerged for 10 seconds, placed in Caron 610S Development Chamber 80 degrees C, 65% RH, 15 minutes
UJ9AFU	Visual Examination	White light, RUVIS, Laser - no latent prints observed
	1,2-Indanedione	Heat press 200 degrees F for 2 minutes; Laser
	Ninhydrin	Steam heat; White light

WebCode	Development Methods	Method Details
UKGGL9	Visual Examination	Visualised using 000nm - 590nm wavelength and viewing with clear and orange goggles.
	DFO	Treated with DFO/ HFE base place in Micha 531 set at 100 degree Celsius for 20 minutes 01/06/2018 unique number viewed with 450nm wavelength and orange goggles.
	Ninhydrin	Treated with NIN/ HFE place in Nichas 51 set at 100 degree Celsius for 20 minutes. Viewed with 000nm wavelength clear goggles.
UM6THT	Visual Examination	Item2 was examined using oblique lighting and UV lighting. No print was observed under oblique lighting and UV lighting.
	Ninhydrin	Item2 was immersed in a tray of Ninhydrin solution for ~ 10 seconds and left to air dry. A partial print was observed in quadrant A after 4 hours.
UR9NGN	Visual Examination	No visible ridge detail/patent prints were found.
	Ninhydrin	I used a spray bottle of non-running Ninhydrin to coat the item and placed it the fume-hood to dry. I waited seven days to document any ridge detail.
UWKJDK	Visual Examination	White light/ Fluorescent light
	Alternate Light Source	365nm/490nm
	1,2-Indanedione - Zinc Chloride	Humidity chamber (Temperature 70C, 65% Relative Humidity) ~20 minutes, 490nm
UYLFRU	Visual Examination	With light source
	Ninhydrin	Evaporated in fume-cupboards then waited for 10 minutes. Placed in climate cabinet at temperature 70 degree celcius and 70% Rh for approximatley 5 minutues.
V677J8	Visual Examination	Visual examination - 30 seconds- No fingerprint observed
	Ninhydrin	Heat and humidity chamber-40 minutes
	Visual Examination	Visual examination- 30 seconds- fingerprint observed in quadrant A
V7GV3J	Visual Examination	Under magnification with additional lighting.
	Ninhydrin	Sprayed with aerosol ninhydrin and allowed to air dry (approximately 10 minutes).
	Heat/Humidity	Applied using steam from iron for approximately 2 minutes.
VF6TKC	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	

WebCode	Development Methods	Method Details
VLD8BN	1,2-Indanedione	Visual Exam; Application of Indanedione; 10 minutes in 100 c oven; Visual examination; Application of Zinc Chloride; Examination under 505 nm light with Orange glasses
VMAGMD	Visual Examination	Ambient lighting and green/Tracer laser
	DFO	100 degrees C, 20 minute processing time
	Ninhydrin	80 degrees C, 65% humidity, 2 minute processing time
	Physical Developer (PD)	15 minute processing time in PD solution
VNGYLA	Visual Examination	White light and magnification
	Ninhydrin	Batch #286, caron chamber used (60 degrees Celsius and 60% relative humidity)
	Physical Developer (PD)	Batch #455, completed by LPT.
VPX6TC	Visual Examination	USED LASER, UV LIGHT, IR LIGHT, & AMBIENT LIGHTING
	Cyanoacrylate Fuming	CApture-BT CHAMBER, 9 MINS
	DFO	CARON ENVIRONMENTAL CHAMBER, 20 MINS
	Ninhydrin	NINcha CLIMATE CHAMBER, 2 MINS
	Physical Developer (PD)	SIRCHIE PRE-MIXED SOLUTIONS
VU7DBG	Ninhydrin	Chemprint sprayed onto Item 2. Then allowed to dry and treated with a heat source.
VYLTYM	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all wavelengths.
	1,2-Indanedione	Sprayed, allowed to dry until next business day, viewed with Tracer Laser at 532nm. RD noted in Quadrant A.
	Ninhydrin	Sprayed, allowed to dry until next business day.
W2JP48	Visual Examination	Examination under white light and magnification
	Ninhydrin	Immersed in solution to completely wet surface, allowed to completely dry in fume hood, put in Caron Chamber at 60 degrees Celsius and 60% relative humidity for 60 minutes, Batch #286
	Physical Developer (PD)	Completed by LPT, Batch #455
W932R9	DFO	(Humidity Cabinet) Exhibit dipped in solution of DFO/HFE and allowed
	Ninhydrin	(Humidity Cabinet) Exhibit in the solution Ninhydrin HFE and left to dry.
W9PC4N	Ninhydrin	Heptane - wait time: 3 days

WebCode	Development Methods	Method Details
WAWK2M	Visual Examination	Visually examined card for latent prints.
	1,2-Indanedione	Treated entire card with 1,2 Indanedione and placed in fingerprint chamber at 100 degrees centigrade for 10 minutes. Removed from chamber and allowed to cool for 3 minutes. Sprayed with Zinc Chloride and allowed to dry. Inspected using alternate light source at 505nm using orange goggles.
WDQNKT	Visual Examination	Polilight PL500
	1,2-Indanedione	heating 10min temp.100C
	Ninhydrin	RH 60% temp. 55C 1hour in chamber
WFWBXX	Visual Examination	White light.
	DFO	Processing time 30 min. Temperature 100 C.
	Ninhydrin	Processing time 6 min. Temperature 80 C. Humidity 62 %.
WJJN2A	Visual Examination	Rofin PL 500 with white clear goggle.
	DFO	Placed in Nincha set at 80 degree Celsius for 20 minutes. Dipping method utilised.
	Ninhydrin	Exhibit dipped in Ninhydrin Placed in Nincha set at 80 degree Celsius and 75% relative humidity for 20 minutes.
	Visual Examination	(Post Processing) Visual examination done after each process no later print was developed.
WQFLNC	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	VIS and LAS
	Physical Developer (PD)	
WTBYGW	DFO	Treated - then oven @ 212F / 10 min; ALS 495 nm/orange filter
	Ninhydrin	Treated - then steam iron
WYDDW7	Visualisation	
	Ninhydrin	humidity 65%, temperature 65°C, time 30 min
	Greenlight (480-560nm)	
X2H6LX	Visual Examination	White light, UV-light, blue light, green light.
	DFO	100 degrees Celsius in the cabinet. 20 minutes processing time.
	Ninhydrin	65% RH and 80 degrees Celsius in the cabinet. 5 minutes processing time.

WebCode	Development Methods	Method Details
X3QDRC	1,2-Indanedione	dipping twice, after 30 min placed in hot Transfer press for 10 sec. / 160 °C
	Visual Examination	green light and bright red filter; no result; test Strip positiv
	Ninhydrin	dipping once, after 30 min placed in climatic cabinet for 24 hours / rh 65%
	Visual Examination	with White light; no result; test Strip positiv (on the backside of the containerboard in section A a part of Fingerprint visible)
X6FPNW	Visual Examination	White light. No visible fingerprints.
	DFO	Temperature: 100 C, processing time: 30 minutes. No visible fingerprints.
	Ninhydrin	Temperature: 80 C, humidity: 62%, processing time: 2 minutes. Visible fingerprint in section A.
X6GPHV	Visual Examination	Observed document for presence of potential latent prints
	Foster and Freeman VSC 6000 H/S	Utilized filters, alternate light sources, UV light, and oblique lighting sources
	Ninhydrin	Lot #A0379174-6, Exp. Date: 2/20/19; Developed overnight after warming with steam (iron)
X6V6JP	Visual Examination	with light source 519 - 548 nm
	Ninhydrin	Dipped in ninhydrin and then waited for 10 minutes. Owen in 5 minutes in 80 degree celcius and 70% Rh.
	Visual Examination	Finaly examinated after 4 hours
X9YU9D	Visual Examination	LASER @ 532nm
	1,2-Indanedione	Zinc Chloride- 100 Degrees Celsius, 20 minutes
	Ninhydrin	70 Degrees Celsius, 70% humidity, 20 minutes
XA7AFJ	Visual Examination	Visual examination did not detect any impression on the item.
	1,2-Indanedione	Then processed with Indanedione (with Zinc). The containerboard was dipped in the solution, and left to dry for a few minutes. Then placed in a humidity cabinet for 15 minutes. Temperature: approx 80 degrees celsius, Humidity: 75 %. An impression of good quality in quadrant A was detected.
	Alternate Light Source	After using Indanedione the item was examined with 495 nm light and orange filter glasses.
	Ninhydrin	Same cabinet, same conditions, but only 4-5 minutes. The latent print was not enhanced.
XD8ZZD	Visual Examination	
	DFO	A weak fingerprint could be seen in section A.
	Ninhydrin	The fingerprint in section A developed further when treated with ninhydrin.

WebCode	Development Methods	Method Details
XGBYAB	Visual Examination	6/12/2018 Visual examination of Item 2 performed using various light sources (415-530)and filters including Coherent Tracer was negative for latent prints.
	DFO	6/14/2018 Item 2 was processed with DFO (lot #053118) using the NINCHA Chamber (Temperature 100C for 20 minutes) Visual examination using "Coherent Tracer" with an orange filter was positive for one latent print in Quadrant A. 6/18/2018 Photograph taken on the DCS-5 (room W1-13E)
	Ninhydrin	6/18/2018 Item 2 was processed with Ninhydrin (lot #053018)using the Caron 6105 Fingerprint Chamber (Temperature 80C w/65% RH for 2 minutes)Visualization with ambient lighting resulted in no additional latent prints being developed or improvement of latent print in Quadrant A.
	Physical Developer (PD)	6/21/2018 Item 2 was processed with Physical Developer (Maleic Acid lot #062118, Physical Developer parts A & B lot #201711089) without additional latent prints being developed or improvement of latent print in Quadrant A.
XJEQ4J	Visual Examination	(Rofin) poliflare plus 1 at 000 nm, uv and 450 nm wavelengths with clear goggles.
	DFO	exhibit dipped in DFO/ HFE for +/- 30 sec. air dried. placed in nincha s31 at 100 degree Celsius, 0% RH for 20 minutes. rofin poliflare plus 1 @ 450 nm and 505 nm wavelength with orange goggles.
	Ninhydrin	ninhydrin/ HFE: exhibit dipped on ninhydrin HFE for +/- sec. air dried. placed in nincha s31 at 80 degree Celsius, 65% RH for 07 minutes. rofin poliflare plus 1 @ 000 nm, 450 nm,505 nm and 530 nm wavelength with clear goggles and orange and red goggles.
	Ninhydrin	ninhydrin/ methanol: exhibits sprayed with ninhydrin methanol - air dried. placed in nincha s31 at 80 degree Celsius, 65% RH for 07 minutes - rofin poliflare plus 1 @ 000 nm, 450 nm, 530 nm, 505 nm wavelength with clear, orange, red goggles.
XLNTXU	Ninhydrin	Paper sprayed with Ninhydrin solution then developed using a steam iron.
XNC3AG	Visual Examination	Item 2 was visually inspected under a magnifying glass with light.
	Ninhydrin	Ninhydrin spray was applied to Item 2 then allowed to dry for approximately 10 minutes. Heat was applied in the form of steam from an iron until the print developed (approximately 2 minutes).
	RUVIS	The Reflective Ultraviolet Imaging System (RUVIS) was used with no filter both with and without an ultraviolet (UV) light to search then photograph Item 2.

WebCode	Development Methods	Method Details
XPQPPA	Visual Examination	White light and magnification
	Ninhydrin	Soaked, air dried, caron chamber
	Physical Developer (PD)	Soaked in maleic 10 mins; soaked in PD for 10 mins; water rinsed for 10 mins.
XRV77E	Alternate Light Source	455-515nm
	Ninhydrin	Sprayed on, allowed 5 days for processing time
XXH8YC	Visual Examination	White light/oblique lighting - no visible ridge detail; Laser (532 nm), inherent - no visible ridge detail; Ultraviolet light, inherent - no visible ridge detail
	Cyanoacrylate Fuming	(test strip: positive); no visible ridge detail; did not appear glossy but just in case of semi-porous properties
	Ninhydrin	Ninhydrin/humidity chamber (60 degrees Celsius, 60% RH); (test strip: positive); visible ridge detail, quadrant "A"
XYT3MP	Visual Examination	White light - negative result
	Alternate Light Source	Polilight - 365-520 nm - negative result
	reflected UV	254 nm - negative result
	1,2-Indanedione	observed under 520 nm with orange filter - positive result - Fingerprint 3.0 (A)
	Ninhydrin	partial fingermark developed (A)
Y2HLB9	DFO	ltem was put into a environmental chamber (Caron 6105) at 100 degrees Celsius for 20 minutes after being treated with DFO.
	Ninhydrin	ltem was put into a environmental chamber (Caron 6105) at 80 degrees Celsius and 65% RH for 2 minutes after being treated with Ninhydrin.
	Physical Developer (PD)	Item was soaked in distilled water for 10 minutes then maleic acid for 5 minutes, then a quick dip into distilled water. The item was then put into PD for 17 minutes then rinsed in distilled water.

TABLE 2	- Item	2
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WebCode	Development Methods	Method Details
Y6VFYT	Visual Examination	1) Inclination of the objet ith the naked eye. No trace detected.
	Alternate Light Source	 Ligth grazing with Crimescope MCS-400 under different wavelengths and wearing glasses of appropriate colors. No trace detected.
	1,2-Indanedione	3) In view of the porous support, vaporisation of a solution 1,2-Indanedione/Cl2 on the white containerboard, waiting 2 minutes for evaporation of the solution. Then the object is placed under a heating press at 165°C during 10 seconde. The solution is tested on a control beforehand. No trace detected.
	Alternate Light Source	4) Crimescope MCS-400 at CSS filter and orange filter glasses for observation. The trace is clearly observed in case A.
	Ninhydrin	5) Vaporization ninhydrine on the white containerboard, waiting 2 minutes for evaporation of the solution. Then the object is placed in a tank in the dark at room temperature with a beaker of water for 24 to 48 hours for a slow reaction. The object is checked regularly with the naked eye to verify that a fingerprint with purple crests is revealed.Peaks slightly visible but not enough to determine the first level.
Y77F4Z	Visual Examination	
	Alternate Light Source	
	Indandione-ZnCl	Print 3
	Ninhydrin	
Y786FJ	Visual Examination	PL500 light source, all the wavelengths viewing with clear, yellow, orange and red goggles.
	DFO	Sprayed DFO, and put exhibit in an oven for 20 minutes @ 100 degree Celsius & no humidity.
	Ninhydrin	sprayed with ninhyrin and placed in nincha \$31, for 6 minutes at 80 degree Celsius and a relative humidity of 40%.
Y789YM	Visual Examination	no ridge structure was observed
	Alternate Light Source	LabKam was utilized, no ridge structure was observed
	1,2-Indanedione	positive control; heat press was utilized for approximately 20 seconds with item #2
	Alternate Light Source	Polilight at 530nm was utilized; ridge structure of collection value was observed in section A. Photographs were obtained
	Ninhydrin	positive control; humidity chamber was at 70%, item #2 was placed in chamber for approximately 5 minutes. Ridge structure of no collection value was observed.

TABLE	2	-	ltem	2

WebCode	Development Methods	Method Details
Y7AX4J	Visual Examination	A Visual Examination Was Performed By Using Oblique Lighting.
	Cyanoacrylate Fuming	Item 2 Was Processed With Cyanoacrylate Fuming For Approximately 15mins.
	Powder Dusting	Item 2 Was Magna Powder Dusted By Using Magnetic Black Fingerprint Powder & A Fingerprint Magnetic Wand.
	Ninhydrin	Item 2 Was Treated With Ninhydrin And Let Dry For 24hrs.
Y9TY3C	Visual Examination	
	Alternate Light Source	ALS using Crimelite
	Ninhydrin	Sprayed on evidence, placed evidence in humidity cabinet set at 70% humidity and 70c for 20 min
YA9CQA	Ninhydrin	Lot#031518-01; 75 Degrees Celsius / RH 80%; Time 5 Minutes
YJTE4B	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	followed by ALS
	Physical Developer (PD)	
YMEE4Q	Visual Examination	Oblique light
	Ninhydrin	Ninhydrin (Acetone base), Ninhydrin development oven (CARON) T=80 c, H=62% RH
	1,2-Indanedione	CARON T=100 c
YNP83Y	Visual	white light & ALS at 450nm/ orange filter
	1,2-Indanedione	ALS at 505nm-530nm/ orange filter/ 530-555nm/ red filter; 5 minute dry time; 30 minute processing time at 200°F w/ humidity
	Ninhydrin	5 minute dry time; 30 minute processing time at 200°F w/ humidity
	Silver Nitrate	processed in dark room w/ a 30 minute dry time in dark room before expossure to UV

WebCode	Development Methods	Method Details
YPXBNB	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 490nm-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. Magnifying eyeglass used where required. QA adhered to and control test piece passed.
	DFO	Carried out as per [Organization] validated/ internally verified procedure. Treated with DFO, allowed to dry, and then placed in oven for 20 minutes at 100°C. Following dark adaptation, examined using Green Crime Lite 82S 490-560nm with 571nm viewing filter and magnifying eyeglass where required. QA adhered to throughout and control test piece passed.
	Ninhydrin	Carried out as per [Organization] validated/ internally verified procedure. Treated with Ninhydrin and allowed to dry. Due to relatively high thermal mass of cardboard, exhibit was "pre-heated" at 80°C with no humidity for 1 hour prior to usual Ninhydrin treatment (62%RH & 80°C for 5 mins). Examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass where required. QA adhered to and control test piece passed.
	Physical Developer (PD)	Carried out as per [Organization] validated/ internally verified procedure. Ensured all solutions and room temperature were >17°C. Pre-treated with Maleic Acid for 10 minutes, treated with Physical Developer Working Solution for 20 minutes followed by 4 x water rinses as per procedure. All treatment stages carried out on rockers so exhibit was constantly agitated throughout. Allowed to dry and covered to prevent background development from excess light. When dry, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass where required. QA adhered to and control test piece passed.
YT4KAE	Visual Examination	Visible reflection + fluorescence, Room temperature = 20° C, Relative humidity = 56 %
	1,2-Indanedione	+ Zinc chloride, Pipetting the whole item, Dry heat press at 165°C for 10 seconds
	Visual Examination	Visible reflection + fluorescence, Room temperature = 20°C, Relative humidity = 56 %
	Ninhydrin	Pipetting on section A. 48 h development: in the dark, at room temperature (19°C), with a relative humidity of 65 %
	Visual Examination	Visible reflection + fluorescence, Room temperature = 20° C, Relative humidity = 56 %
YT7ADB	Visual Examination	Magnification and oblique lighting.
	Ninhydrin	Heptane based ninhydrin. Approximately 70 degrees C and 65% humidity for 10 minutes in a Caron Fingerprint Chamber.

TABLE 2 -	Item 2
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WebCode	Development Methods	Method Details
YY8QKB	Visual Examination	white light
	1,2-Indanedione	Heat press @ 160 degrees C for 10 seconds. Laser exam @ 532nm with orange barrier
	Ninhydrin	Steam heat from iron
YYM4XL	Visual Examination	White crimelite
Z3Z269	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	Oven acceleration
	Physical Developer (PD)	
Z4VPLJ	Visual Examination	Use-000nm, white UV, 415, 450, 470, 505, 620nm orange goggles (negative results)
	DFO	Spray DFO Petroleum ether, let dry for few seconds and placed Nincha 531 (100 degree Celsius) for 10 minutes.
	Ninhydrin	Spray Nin/ Acetone, dry for few seconds, placed in 55degree Celsius, 65% humidity Nincha 531 for 10 minutes.
ZCRKJG	Visual Examination	First visual examination: exhibit was visualised with 000nm, 350nm, 415nm, 450nm and 470nm viewing with yellow, red, orange and clear goggles with Rofin PL500 light source.
	DFO	Exhibit was treated with DFO/ HFE by spraying method and placed in the oven set at 100 degree Celsius for 20 minutes.
	Ninhydrin	Exhibit was treated with Ninhydrin/ HFE by spraying method and place in the oven set at 80 degree Celsius and 80% humidity for 20 minutes.
ZFD9BA	Visual Examination	
	1,2-Indanedione	heated press at 165 degrees Celsius for 10 seconds; observation with laser at 532nm
	Ninhydrin	2 days in the shelter or air and light; Observation with white light
ZG3RM8	Visual Examination	
	Ninhydrin	with a steam iron
ZMNQDF	1,2-Indanedione	developing Parameters: 50°C, 40% rel. Humudity, 2-3h, done in climate cabinet
	Ninhydrin	developing Parameters: 25°C, 65% re. Humidity 48h, done in climate cabinet

WebCode	Development Methods	Method Details
ZRMX3J	Visual Examination	Friction ridge detail not present upon visual examination.
	1,2-Indanedione	Item sprayed with 1,2 Indanedione under fuming hood and left to dry. Item placed in forensic oven for 10 minutes set at 100 degrees celcius, 0% relative humidity.
	Zinc Chloride	Item sprayed with Zinc Chloride under fuming hood and left to dry.
	Alternate Light Source	Item examined under alternate light source at 505nm while wearing orange goggles. Friction ridge impression present in section A.
ZUCBK2	Ninhydrin	Spray presentation 2.5% ethyl acetate. Let dry 72 hours.
ZXML9P	Visual Examination	
	Alternate Light Source	
	DFO	Temperature: 200°F +/- 5°
	Ninhydrin	Steam iron
ZY2WEA	Visual Examination	
	Ninhydrin	
	Steam/heat	
ZY6DMF	Ninhydrin	Temperature: 72 celsius, Humidity: 65%, Time: 7 minutes, Cabinet:
ZY9YBA	Visual Examination	
	DFO	
	Ninhydrin	

Response Summary Participants: 32				Participants: 325
		Methods Utilized		
Alternate Light Source	95	Physical Developer	48	**Note : Methods listed are
Cyanoacrylate Fuming	15	Powder Dusting	17	the preloaded options for selection via the CTS Portal
DFO	108	Visual Examination	277	and do not reflect all answers
Dye Stain	4	Wet Powder Suspension	0	provided by participants.
Ninhydrin	293	1,2-Indanedione	86	

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
227TJB	Visual Examination	Used a department issued flashlight for side lighting technique (oblique lighting) to examine the evidence before processing.
	Cyanoacrylate Fuming	Lot # 210801034, test print: positive; Used a SAFE FUME chamber. The chamber was set at 70% humidity and 23 degrees C. It fumed for 15 minutes and then the chamber purged for 5 minutes.
	Visual Examination	Used a department issued flashlight for side lighting technique (oblique lighting) to examine the evidence after superglue fuming.
	Powder Dusting	Applied Ultra Blue It magnetic powder to the item via a magnetic fingerprint brush. The item was examined visually while conducting this processing method.
	Ninhydrin	Lot number: 1, test print: positive; Applied Ninhydrin through an aerosol sprayer. The item was allowed to air dry. The item was placed in the Ninhydrin chamber which was set for 80 degrees Celsius at 65% relative humidity. The item was in the chamber for approximately 60 minutes.
	Visual Examination	Used a department issued flashlight for additional lighting to examine the evidence after the Ninhydrin process.
2BX6YX	Visual Examination	white light, oblique lighting, ALS
	1,2-Indanedione	100 degrees Celsius, 60% humidity, 20 minutes, ALS 450-555 nm with orange and red filter goggles
	Ninhydrin	77 degrees Celcius, 77% humidity, 5 minutes, white light
	Physical Developer (PD)	White light
2ECYDA	Powder Dusting	Black Magnetic Powder: brush application
2KGPR9	Visual Examination	White light.
	Alternate Light Source	Green light (490-560nm).
	Cyanoacrylate Fuming	Glue-time 10 minutes, 1 gram of glue, 120 degrees C, 80 RH%.
	Powder Dusting	Magnetic powder, black.
	DFO	100 degrees C, 20 minutes. Examination in green light (490-560nm).
	Ninhydrin	80 degrees C, 62 RH%, 5 minutes. Examination in white light.
2M72PT	Visual Examination	Trail-, white-, blue-, green-, UV-light, nothing visuable.
	Cyanoacrylate Fuming	Heat 120 C, humidity 80 %, time 10 min. Powder dusting with magnetic powder, nothing visuable.
	Ninhydrin	Heat 80 C, humidity 62 %, time 2 min. A fingerprint appeared in section B.

WebCode	Development Methods	Method Details
2RZ4K7	Visual Examination	
	Alternate Light Source	Inherent Luminescence, Foster & Freeman Crime Lite ML2, 420nm-470nm with orange filter.
	Cyanoacrylate Fuming	Cyanosafe recirculation chamber-20 min.
	Powder Dusting	Black magnetic
	Ninhydrin	Batch #286, 45 min. in Caron chamber
	Physical Developer (PD)	Batch #455, 10 min. in maleic acid; 10 min. in PD; 10 min. in water rinse
2YZFNP	Visual	No latent print impressions observed
	Magna-Powder	Enhancement observed & photographed
366BNH	Visual Examination	
	Cyanoacrylate Fuming	Superglue chamber MVC 5000, fumed for 20 minutes
	Powder Dusting	Magnetic powder
	Powder Dusting	Black powder
	Ninhydrin	Heptane Ninhydrin for 5 days
3AWME8	Visual Examination	No print visible
	Powder Dusting	Magnetic powder and wand; Positive test print; Visible print in Section B; Whorl pattern type
3DBHNP	Cyanoacrylate Fuming	Mason Vactrum glue cabinet, 3.61g glue batch ref: 62519,
	Powder Dusting	magnetic black powder
	Ninhydrin	ninhydrin batch ref: 129724, oven no: 3 80degrees centigrade, 63% humidity, 6 mins
3DGKJP	Visual Examination	Examined with naked eye.
	Alternate Light Source	450 nm with orange filter.
	Cyanoacrylate Fuming	ltem was fumed in sealed tank for approximately ten minutes with high humidity.
	Powder Dusting	Item was dusted utilizing black powder and magnetic powder.
3KDFJ9	Visual Examination	White Light
	Alternate Light Source	529nm W/Orange Filter
	Cyanoacrylate Fuming	25 minutes @ 75% humidity
	Powder Dusting	Magnetic
	Ninhydrin	70 degrees @ 70% humidity for 1.5 hours

WebCode	Development Methods	Method Details
42GCFD	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	DMAC	
43U479	Visual Examination	Visual with white light.
	Alternate Light Source	425-530nm, UV
	Ninhydrin	dipped, dried, ~10 min heat
4E3VP9	Visual Examination	PL500 viewed at white light and UV light with colourless goggles.
	Cyanoacrylate Fuming	fumed in a cyanoacrylate fuming chamber at 120 degree Celsius, 80% humidity for 30 minutes
	Dye Stain	dyed with rhodamine 6G
4GAX3T	Visual Examination	with various lighting
	Cyanoacrylate Fuming	Lumicyano (fluorescent) cyanoacrylate, 35 minute fume, 80% humidity examined results without ALS and with ALS (350nm-515nm) using yellow and orange filters
	Powder Dusting	Dusted with black magnetic powder
	Ninhydrin	In humidity chamber set at 80 degrees C, 65% humidity for ~20 mins
	Physical Developer (PD)	\sim 10 minutes in DI water, \sim 5 mins in maleic acid, \sim 20 mins in PD working solution
4J27YF	Visual Examination	
	Cyanoacrylate Fuming	MVC 5000/D - Fumed for 15 minutes.
	Powder Dusting	Magnetic powder was applied first, followed by black powder.
	Ninhydrin	Applied heptane ninhydrin on 6/11/2018, waited 7 days and checked the item on 6/18/2018.
4ND2VC	Visual Examination	white fluorescent light; white LED light
	Alternate Light Source	445-510nm; 350-380nm
	Cyanoacrylate Fuming	approx. 15 minutes; white LED light
	Powder Dusting	Black magnetic powder; white fluorescent light
	1,2-Indanedione - ZnCl2	70 degrees Celsius, 65% relative humidity, approx. 20 minutes; 445-510nm

TABLE	2	-	ltem	3

WebCode	Development Methods	Method Details
4TQRCZ	Cyanoacrylate Fuming	Cyanbloom at 120 degrees with 80% humidity for 15 minutes (test strip with known prints).
	Powder Dusting	Magnetic powder
	Ninhydrin	Apply by submersion in glass tray. Placed in caron chamber at 85 degrees at 65% humidity for 3 minutes. (test strip with amino acid pad and stamp).
4XF728	СА	Mystaire fume tank. 80% humidity, 15 min fuming time
	Magnetic Powder	
	Ninhydrin	Acetone based - steam iron used for head & steam application
6DMW7J	Visual Examination	
	Light Source	400 - 548 nm
	Cyanoacrylate Fuming	1,0 gram, 120 degree celcius and 80% Rh in 9 minutes
	Ninhydrin	Diped in ninhydrin and then waited for 10 minutes. Owen in 5 minutes in 80 degree celcius and 780% Rh
6GAG4Z	Visual Examination	Under white light and magnification
	Cyanoacrylate Fuming	CyanoSafe Recirculation Chamber, test print positive, distilled water was added to the cup heater, 5 drops of CA were placed into each of the three foil cups and placed on the heating element, door secured, time was set to 12 minutes and 10 minute purge cycle, left for 60 minutes for CA to set
	Powder Dusting	Magnetic black powder applied using circular strokes with a magnetic wand.
	Ninhydrin	Item was immersed in ninhydrin solution (batch #286) for approximately 5 seconds and allowed to dry in a fume hood, caron chamber used at 60% humidity at 60 degrees Celsius for approximately 45 minutes.
	Physical Developer (PD)	Batch #455, completed by LPT: maleic acid prewash (10 minutes), physical developer solution, running water bath (5-10 minutes).
6JFY4G	Alternate Light Source	white light
	Alternate Light Source	polylight
	Cyanoacrylate Fuming	10 min fuming
	VMD	
	1,2-Indanedione	10 sec pree at 160C

TABLE 2	2 -	ltem	3

WebCode	Development Methods	Method Details
6JV2BP	Visual Examination	
	Ninhydrin	+ control - [Lot Number], exp. 04/12/2019
	Humidity Chamber	32°C @ 90% humidity for 20 minutes
	Curing Phase	Secured in evidence vault for 48 hours.
6R6M88	Visual Examination	2018/06/21 11:45 - exhibit was visualized with the PL500 light source at 0 nm, 350 nm, and 450 nm. a light print was slightly visible in section B under 0 nm and 450 nm but could not be captured.
	Powder Dusting	Fluorescent Examination (black magnetic powder): 2018/06/21 12:42 - the fingerprint was made more visible/ enhanced by applying black magnetic powder, using a magnetic brush on the down flow bench. the recovered print was captured at 0 nm, validated, named and saved using verdata on the nikon interface.
	MVC - Polycyano	One scoop of polycyano was added in the aluminium foil dish and placed on the heating place. 2018/06/21 13:00 - the water level was topped up with distilled water. 13:07 - the exhibit was fumed by placing it in the MVC3000D, processed by using 1 scoop of polycyano for 20 minutes at a temperature of 230 degree Celsius and humidity of 80% and was purged for 20 minutes. 14:30 - exhibit was removed from the MVC, visualized using PL500 light source at 0 nm, 350 nm and 450 nm with clear and orange filters. the same print (in section B) was visible and was captured.
	Visual Examination	Fluorescent examination: 2018/06/22 10:05 - black inland powder was used lightly to further enhances the print and further develop potential fingerprints. no fingerprints were developed. and no prints have been enhanced. this powder was applied using fibreglass fingerprint brush.
6VHJC9	Polycyano	MVC3000
	Cyanoacrylate Fuming	MVC3000
	Dye Stain	Basic Yellow Dye: Evidence dryer
	Powder Dusting	Fluorescent Powder: feather brush

WebCode	Development Methods	Method Details
6WKZ3T	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
	Ninhydrin	Sprayed, humidity added, set overnight. RD noted in Quadrant B.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Black magnetic powder utilized.
	Fluorescent Dye	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
7F9ZEG	Visual Examination	The fingerprint was visible with yellow and green light.
	Photography	
	Powder Dusting	Magna black
7FD9RB	Alternate Light Source	Forencis light source wavelenght 420-470nm and yellow filter we found mark in section B
	Cyanoacrylate Fuming	no mark has seen
	basic yellow-40	no mark has seen
7HA2ED	Visual Examination	PL500, 000nm, 350nm, 450nm, 470nm, 490nm
	ASV	Anti-stokes laser viewing enclosure, anti-stokes magnetic powder, 2 minutes.
	DFO	Spraying method inside chemical fuming extraction cabinet.
	Ninhydrin	Spraying method inside chemical fuming extraction cabinet.
7MQAWC	Visual	UV, LASER, ALS
	Superglue Fuming	
	MEK Ardrox & Aqueous Rhodamine Powdor	Tested, excess fluorescence, did not apply
		$14SEP$ over @ $100^{\circ}C \sim 20$ mins
		Lock, over $(0, 100 \text{ C} \sim 200)$ in the first second sec
	ININNYARIN, ZINC Chloride	number / U C & / U% humidity for \sim I U mins
	Physical Developer (PD)	

WebCode	Development Methods	Method Details
7NPHZP	Visual Examination	5 minutes
	Alternate Light Source	Crime-Lite - Blue light 420-470nm - 10 minutes
	Cyanoacrylate Fuming	Cyanobloom - Foster and Freeman MVC1000-D - 30 minutes
	Powder Dusting	Black magnetic powder - 10 minutes
	Ninhydrin	Lynn Peavy Ninhydrin spray. Applied with pipet. Allowed to dry overnight. Processed with steam iron 07/24/2018 - 20 minutes
7UTJ44	Visual Examination	N/A
	Cyanoacrylate Fuming	73deg F, 64%RH
	Powder Dusting	Black magnetic fingerprint powder
7ZEBHK	Visual Examination	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Powder Dusting	Black powder
	Ninhydrin	Steam iron, print visible nine days later
83YRXB	Visual Examination	(-)Result
	1,2-Indanedione	Spray allowing to dry for 5 minutes. (-)Results
	Heat	In the heat chamber for 5 minutes. (+)Result (very minimal)
	Zinc Chloride	Spray allowing to dry for 10 minutes. (+)Result (very minimal)
	Alternate Light Source	505. (+)Result (very light)
8EDRRH	Cyanoacrylate Fuming	In MVC-1000, RH 80%, glue temp 120C, 12 minutes. Test print on plastic was positive
	Magna Brush	Brush with Magna brush to enhance latent print. Photograph latent.
	No Run Nin Hydrin	Sprayed with No Run Nin Hydrin, allowed to dry and placed in Science Development chamber (heat 80C, RH 65%) for 6 minutes then scanned onto computer

WebCode	Development Methods	Method Details
8EVW8V	Visual Examination	
	Cyanoacrylate Fuming	Under vacuum, 25 PSI, 20 minutes.
	Powder Dusting	Traditional black powder.
	DFO	Item was immersed in DFO for 10 seconds and then dried for 3 minutes (these two steps were then repeated). The item was then placed in an oven for 20 minutes at approximately 90-100 degrees Celsius.
	Alternate Light Source	Examined DFO processed item at 505nm and 530nm with orange goggles.
	Ninhydrin	Added heat and humidity immediately after spraying ninhydrin by using a steam iron, let item sit in a dark location for 24 hours prior to examination.
	Dye Stain	Used R.A.M.
	Alternate Light Source	Examined R.A.M. processed item at 490, 505, and 530nm with orange goggles.
	Wet Powder Suspension	Used black wet powder suspension (precipitated iron oxide).
8EZ6MB	Cyanoacrylate Fuming	
	Magnetic powder	
	Dye Stain	Ardrox
8JPQ6X	Visual Examination	Visualized using white light and magnification
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber; test print positive; 12 minutes, visualized using white light and magnification
	Powder Dusting	Black magnetic powder, visualized using white light and magnification
	Ninhydrin	Batch #286; processing in caron chamber (60 degrees Celsius, 60% relative humidity, 30 minutes)
	Physical Developer (PD)	Batch #455; completed by LPT
8KJEQD	Visual Examination	Ridge structure quadrant B, no value
	Alternate Light Source	LabKam (UV) photo of visual print/ comparison value
	Cyanoacrylate Fuming	Model: MVC 5000 set at 80% humidity, relative temperature 120 degrees F, 1 hour processing plus purge times. Control test: positive. Comparison value, not better than visual photo
	Powder Dusting	Black magnetic powder, comparison value and photograph
8LGPLG	white light, Polilight, Indanedione, Nynhidrin	Fingermark number 3 in the B area detected using Indanedione, photographed using DCS-5

WebCode	Development Methods	Method Details
8V3Q4C	Visual	
	Super Glue Fuming	
	Ardrox	
	Rhodamine	
	Powder	
	DFO	
	Ninhydrin	
	Zinc Chloride	
	Physical Developer (PD)	
8VWRCM	Visual Examination	
	Cyanoacrylate Fuming	Gluetime 5 min, RH80%
	Powder Dusting	
	Ninhydrin	80 degrees celcius, RH62%, 5 min
8VY927	Visual Examination	White light and magnification. No prints were observed on Item 3.
	Cyanoacrylate Fuming	Fish tank, control print developed. No prints were observed on Item 3.
	Powder Dusting	Magnetic powder. No prints were observed on Item 3.
	Ninhydrin	Batch #287. Processed in CARON chamber. Control print was developed. One print was observed on Item 3 in section B.
	Physical Developer (PD)	Batch #456. A control print was developed. No prints were observed.
92L7E2	Visual Exam	
	Indanedione	
	Heat	10 minutes - 100°C
	SPEX	All wave lengths
	Ninhydrin	
	Magna Powder	
978JFM	Visual Examination	White light
	Alternate Light Source	Blue and green light.
	Cyanoacrylate Fuming	120°C, 80% RH, glue time 7 minutes.
	Powder Dusting	Black magnetic powder.
	Ninhydrin	80°C, 65% RH, 5 minutes processing time.

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
9894WW	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	12 minute processing time. Control print +. After CA allowed to dry for 45 min.
	Powder Dusting	Magnetic Black Powder
	Ninhydrin	Soaked in Ninhydrin approx. 5 seconds then dried and Caron Chamber for 60 minutes.
	Physical Developer (PD)	Batch #455
9AWTQA	Cyanoacrylate Fuming	Superglue on Cyanocrylate was used for 30 minutes at 150 degree Celsius and 85% humidity.
	Dye Stain	After superglue, the item was dyed with Rhodamine 6G, rinsed with running water and dried under evidence drier.
9B9ERW	Visual Examination	The item was viewed under white light and magnification using the CrimeLite ML
	Cyanoacrylate Fuming	The item was processed in the CyanoSafe for 12 minutes, with a positive test print, allowed to set for 1 hour, and viewed under white light and magnification using teh CrimeLite ML
	Powder Dusting	The item was processed using black magnetic powder and viewed under white light and magnification using the CrimeLite ML with no results; so, the item was then processed using black powder and viewed under white light and magnification using the CrimeLite ML
	Ninhydrin	The item was processed using Ninhydrin (Batch #286), allowed to dry for 15 minutes, placed in the Caron chamber for 45 minutes, and viewed under white light and magnification using the CrimeLite ML
	Physical Developer (PD)	The item was processed using Physical Developer (Batch #455) by LPT and viewed under white light and magnification using the CrimeLite ML
9FYXJT	Powder Dusting	Black latent print powder and fiberglass brush.
9HNAFD	Visual Examination	White light. No fingermark visible.
	Alternate Light Source	Blue and green fluorescent light source. Fragments of a fingermark visible in section B with both.
	Cyanoacrylate Fuming	120°C, 80% RH, glue time 10 minutes. Fragments visible in section B.
	Powder Dusting	Carbon-based powder. Fingermark visible in section B.
	1,2-Indanedione	100°C, 10 minutes processing time. Fingermark visible in section B.
	Ninhydrin	80°C, 62% RH, 5 minutes processing time. No fingermark visible.
	Physical Developer (PD)	Approximately 30 minutes processing time. Fingermark visible in section B.

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
9KBQWD	ASV Process	Anti strokes magnetic powder 1 scoop polycyenoacrylate, 230 degree Celsius, 80% relative humidity, 20 minutes.
	DFO	DFO.HFE oven 100 degree celsius 20 minutes
	Ninhydrin	Nincha 70 degree celsius 80% humidity 20 minutes
	Powder Dusting	Chrimetech black powder
9NHY8H	Visual Examination	no print recovered
	Alternate Light Source	print recovered
	Cyanoacrylate Fuming	The same print visible. Processing time 1 hour, RH 80%, heated to 120 Celsius.
	Powder Dusting	The same print visible.
9T9FE3	Cyanoacrylate Fuming	It was used Cyanocrylate manual fuming chamber and cyanowand.
	Powder Dusting	It was applied black latent powder with latent print brush.
9WPYFK	Visual Examination	Item 3 was examined visually with a flashlight.
	Powder Dusting	Megnetic powder was held by a magnetic applicator, then be gently moved across Item 3.
9XHVKK	Visual Examination	
	Alternate Light Source	We used a flashligt with white light. We used two kinds of diffrent forensic light, blue/ green 460-510 nm and blue 420-470 nm
	Cyanoacrylate Fuming	We used 2,0 g glue and the glue-cycle was 10 min.
	Powder Dusting	First we used carbon powder then we used magna jet black.
9XQF74	Visual Exam	oblique lighting w/ flashlight
	Alternate Light Source	(wavelength) = 455-515 nm w/ orange goggles
	Cyanoacrylate Ester Fuming	Processing time 21 minutes, natural latent print control
	Dusting	Black Powder
9Z79MW	Visual Examination	Rofin PL500
A6HBAR	Ninhydrin	Spray presentation.
	Powder Dusting	To visualize the fingerprint. Environment [City].

TABLE	2	-	ltem	3

WebCode	Development Methods	Method Details
A7CACX	Visual Examination	White light and magnification on 4/16/18. No prints observed.
	Cyanoacrylate Fuming	CyanoSafe Recirculation Chamber on 4/16/18. Test print positive. No prints observed.
	Powder Dusting	Bi-chromatic powder applied on 4/16/18. Print(s) observed in Quadrant B.
	Ninhydrin	Treated with Ninhydrin Batch #286 on 4/16/18. Processed in Caron Chamber. No prints observed.
	Physical Developer (PD)	Treated with Physical Developer Batch #453 on 4/18/18. No prints observed.
AA8VBM	Visual Examination	White light.
	Alternate Light Source	Blue and green light. Fingermark visible with blue light.
	Cyanoacrylate Fuming	120°C, 80% RH, glue time 10 minutes.
	Powder Dusting	Black magnetic powder.
	Ninhydrin	80°C, 62% RH, 5 minutes processing time. Fragments of the fingermark visible.
AK8LUA	Cyanoacrylate Fuming	2.4 g polycyano UV with exhibits into MVC3000 at 230 degree Celsius, 80% humidity for 20 minutes and 20 minutes purge.
APKEVZ	Ninhydrin	Sprayed with aerosol Ninhydrin.
ARAN3F	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Ninhydrin	Steam iron
	Dye Stain	Ardrox
AVUKMZ	Visual Examination	No findings with Obelux light source, finding with Crime Scope light source. Photographed with Crime Scope and camera lence filter.
	1,2-Indanedione	Using the NINcha M31 climatic cabinet humidity 65% temperature 65°C. Processing time in the climatic cabinet 4 minutes. After that print was clearly visible By using Crime Scope.
AW4RN8	Visual Examination	1st visual examination: 000nm, 450nm & 505nm light sources.
	Cyanoacrylate Fuming	fuming tent 06 grams of superglue for 20 minutes at 30 degree Celsius, 80% humidity and 20 minutes purge cycle.
	Dye Stain	dye stained with rhodamine 6G/ methanol

WebCode	Development Methods	Method Details
BA6KWV	Visual Examination	Visual with different light sources.
	DFO	0% relative humidity, 100 degree Celsius
	Ninhydrin	65 degree Celsius, 60-80% relative humidity; DFO print and Nin after
BGTEYM	Visual Examination	Visual with White Light- No visible ridge detail.
	Visual Examination	Visual with ALS- Battlelite 455nm with Orange Filter. Visible ridge detail present in box B. Yellow in color fluorescence observed.
	Cyanoacrylate Fuming	Cyanoacrylate Fuming- Humidity 70%,Processing time 11 min 30sec, purge time 13 min. Followed by visual with white light. No visible ridge detail present.
	lodine Fuming	lodine crystals were placed in a Ziploc style bag, item 1.2 was placed in the bag and allowed to fume for approximately 3-5 minutes. Under white light no visible ridge detail was present. Visual examination with ALS- UV (350nm) with UV filter visible ridge detail present inside of box B.
	1,2-Indanedione	Applied using the dip method, allowed to dry, placed in humidity/heat chamber. Heat- 100°C, Humidity- 60%, time 10 minutes. Visual examination with ALS- 505-590nm with orange and red filters. Visible ridge detail present inside of box B.
	Ninhydrin	Applied using the dip method, allowed to dry, re-dipped, and allowed to air dry, placed in humidity/heat chamber. Heat- 75°C, Humidity- 77%, time 5 minutes. Visual examination with white light- no visible ridge detail.
	Silver Nitrate	Applied using the dip method, allowed to air dry in dark area for approximately 20 minutes. Developed with ALS- 350nm (UV) with UV filter.
BH2FUU	Powder Dusting	Powdering (black powder) None
BM8BDU	Visual Examination	450nm light source, orange goggles. 2 scoops of polycyano UV for 19 minutes at 230 degree Celsius, 80 % humidity and 20 minutes purge cycle, unique number BIIFP0316019 using animal hair brush.
BPJY3Z	Visual Examination	1 minute
	Powder Dusting	magnetic black powder applied to all sections. Section "B" positive for suspected print.

WebCode	Development Methods	Method Details
BPMG66	Visual Examination	
	Alternate Light Source	CS @ 515nm & UV
	Cyanoacrylate Fuming	Microburst Method
	Powder Dusting	Black Mag. Powder
	DFO	Allowed to develop in chamber at 212F for 20 mins
	Ninhydrin	steam iron used for development, then placed in plastic bag for further development
	Dye Stain	RAM, visualized using UV & CS
BZ44D7	Visual Examination (White Light)	
	Superglue	Temperature: 130°C; Humidity: 80.7%
	DFO	
BZZLB2	Powder Dusting	Black powder was used to process for latent prints.
C2A3VR	Visual Examination	Onm, white light, 2 minutes
	Fuming	120 degree Celsius, 80% relative humidity, 20minutes
	Powder Dusting	None
	DFO	100 degree Celsius, 20 minutes
	Ninhydrin	65 degree Celsius, 80% relative humidity, 60 minutes.
C8GJB8	Visual Examination	white light, UV - 555 nm - Polilight PL 500, suitable googles,
	Cyanoacrylate Fuming	processing time - 15 minutes, humidity - 80%
	Visual Examination	white light
	Powder Dusting	Mag. Black Ruby
	Visual Examination	white light, UV
	Ninhydrin	processing time - 3 hours, temperature - 25 - 30 degree Celsius, humidity - 70%
	Visual Examination	white light
C97WTQ	Alternate Light Source	DCS5 equipment using white light with polarizer filter. Grey scale. Scale 1:1.

WebCode	Development Methods	Method Details
CAK8XB	Visual Examination	white light
	Alternate Light Source	polylight 400-650 nm , glass filter
	Cyanoacrylate Fuming	10 min fuming.
	VMD	
	1,2-Indanedione	10 sec press 160C
	Powder Dusting	magnetic powder
	Dye Stain	crystal violet
CBJF3N	Cyanoacrylate Fuming	Glue heated at 120 degrees fahrenheit. Humidity set at 79%. One (1) hour of time in the fuming tank.
	Powder Dusting	Black magnetic powder and black latent fingerprint powder. One (1) minute each.
	Ninhydrin	Heptane carrier. Room temperature set at 70 degrees fahrenheit. Twenty-four (24) hours of time under the hood after submersion.
CD7Y2Z	Visual Examination	Oblique lighting
	1,2-Indanedione	1,2-Indanedione with zinc chloride in petroleum ether. Saturated evidence, let sit overnight.
	Ninhydrin	Ninhydrin in petroleum ether. Saturated evidence. Let sit overnight.
	Alternate Light Source	Green Laser, Coherent, Tracer at 532 nm with orange filter approx 0.30 watt.
CFQX93	Cyanoacrylate Fuming	Using MVC3000, 3g cyanobloom, 80% humidity, 120 degree Celsius, 20minutes glue time, 20 minutes purge time.
	Dye Stain	Dipped Item 1 in R6g solution for 5 seconds, rinse with water the nair dried in evidence drier.
	Powder Dusting	Used pink florescent powder and a further brush on Item 2 on powder down flow bench.
CJ4ZVY	Visual Examination	2018/06/21, Time: 10:55, 490nm; 505 filter (positive results); Orange goggles - poliview was used (PL500)
	Cyanoacrylate Fuming	2018/06/21, Time: 11:43; 3g cyanobloom, 20 minutes at 120 degree Celsius; 20% humidity and 20 minutes purge cycle with W116774 batch no.
	Visual Examination	2018/06/21, (Second Visual), Time: 14:50; 505nm; 505filter orange goggles; Positive Results: After - Dye stain with R6G/ Methanol
	Dye Stain	2018/06/21, (Third Visusl), Time 15:20 - Dye with R6G/ Methanol. 3rd visual 2018/06/22, Time: 08:25 - 505 filter; 350nm; orange googles (Positive)

WebCode	Development Methods	Method Details
CLGH6W	Visual Examination	used green lighting (Tracer)
	Cyanoacrylate Fuming	used CApture-BT Fuming Chamber with 9 minute fuming time
	DFO	used the Caron Environmental Chamber at 100 degrees Celsius and 0% relative humidity for 20 minutes
	Ninhydrin	used the Caron Environmental Chamber at 80 degrees Celsius and 65% relative humidity for 2 minutes
	Physical Developer (PD)	used Sirchie Solutions for 5 minutes
CNNK9F	Visual Examination	I did not observe any ridge detail under the lights in the lab.
	Alternate Light Source	l examined the item with UV, 450 and laser light sources with corresponding goggles. No ridge detail was observed.
	Cyanoacrylate Fuming	The print was processed in a cyanoacrylate tank with 80% humidity for 12 minutes. I examined the item with natural light, UV, 450 and laser light sources with corresponding goggles. No ridge detail was observed.
	1,2-Indanedione	The item was processed with Indanedione, placed in an oven for 20 minutes and viewed with a laser. Ridge detail was visible with the laser and red/ orange apagles.
	Powder Dusting	The print was visible after being processed with black fingerprint powder.
CPRHBV	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic powder
	1,2-Indanedione	
	Dye Stain	
	Physical Developer (PD)	
CVKM6Z	Visual Examination	Time light filter goggles; 10 minutes UV/ 555 none white
	MVC3000 Fuming Polycyno	Time: 1 hour; Temperature:230 degree Celsius, Relative Humidity: 85%. Goggles: White
	DFO/ Nin/ HFE	Time: 20 minutes, Chemical extraction : Dipping and Drying: DFO RH: 0%; NIN Relative Humidity: 65%
	Dye Stain	Time: 2 hours Temperature: 300 degree Celsius velocity of the evidence dryer: 12. (Basic Yellow)
	ASV (Antistokes)	magnetic brush, animal brush time: 5 minutes
	Powder Dusting	Black Powder: Time: 5 minutes goggles: White; flow bench; extraction; further brush.
CW2MEG	Powder Dusting	Magna Brush, Sirchie Black.

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WebCode	Development Methods	Method Details
CWW96M	Visual Examination	white light
	Alternate Light Source	polilight Rofin
	RUVIS	
	Cyanoacrylate Fuming	
	VMD	Vacuum Metal deposition
	1,2-Indanedione	
	Ninhydrin	
CXRNJ6	Cyanoacrylate Fuming	+ powder; We used the fuming cabin with 76% humidity and 250 Celsius
CZX6LG	Visual Examination	EXAMINED WITH WHITE LIGHT SOURCE.
	Cyanoacrylate Fuming	4.85G SUPERGLUE, BATCH 12519, CABINET #4 ITEM 3, ALONGSIDE A CONTROL SAMPLE PLACED IN SUPERGLUE CABINET AND HUMIDITY RAISED TO 80% AND THEN SUPERGLUE HEATED TO 120C FOR 15MINS. CABINET WAS PURGED FOR 45 MINS BEFORE CABINET OPENED.
	DFO	ITEM 3 AND CONTROL SAMPLE PLACED IN DFO WORKING SOLUTION, BATCH 16AL617 AND THEN AFTER DRYING IN FUME CABINET, PLACED IN OVEN#1 SET AT 100C FOR 20 MINS.
	Ninhydrin	ITEM 3 AND CONTROL SAMPLE PLACED IN NINHYDRIN WORKING SOLUTION , BATCH 129724 AND THEN AFTER DRYING IN FUME CABINET, PLACED IN OVEN #3 SET AT 80C/ 62% HUMIDITY FOR 5 MINS.
D2ZMXH	Cyanoacrylate Fuming	120 degrees celsius, Relative humidity 80 %
	Powder Dusting	
	DFO	100 degrees celsius, 20 minutes
	Ninhydrin	80 degrees celsius, Relative humidity 65 %, 5 minutes
D3MXAW	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	
	DFO	
	Ninhydrin	

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
D99VVY	Visual Observation	LED white light, DCS-3
	Cyanoacrylate	Foster & Freeman MVC-3000 C.A. fuming cabinet 120°C, 80% RH
	DFO (HFE 7100 solution)	Heated in 212°F -> 10 min. Observation in blue/ blue-green light, orange filter
	Magnetic Powder	
DAE997	Visual Examination	PL500: uv, 350 nm, Light source.
	Cyanoacrylate Fuming	Using 3 grams of cyanoacrylate for 20 minutes at 25 degree Celsius & 80% humidity & PL500 white light.
	DFO	using oven at 100 degree Celsius for 10 minutes PL500: 450 & 505 light source.
	Ninhydrin	oven at 100 degree Celsius for 10 minutes & 80% humidity.
DECTCQ	Visual	
	Lights	white, green, UV
	Polycyano	F&F MVC-1000 - cabin: 80%/ 12 min & 230°C/ 25 min
	Magnetic Powder	
DJKDY3	Visual Examination	Print was not visible and needed enhancement.
	Powder Dusting	Magnetic jet black fingerprint powder.
DKMRWW	Visual Examination	
	Cyanoacrylate Fuming	humidity at \sim 66%, test positive
	Powder Dusting	Black magnetic
DQP7C7	Visual Examination	Visual examination using RUVIS Krimesite Imager. No ridge detail observed.
	1,2-Indanedione	Treated item with 1,2-Indanedione. Allowed to air dry for 5 minutes. Placed item in fingerprint chamber at 100 degrees Centigrade for 10 minutes. Allowed to cool for 3 minutes.
	Zinc Chloride	Treated item with Zinc Chloride. Allowed to air dry for 5 minutes.
	Alternate Light Source	Examined with ALS at 505nm with orange goggles. Latent print ridge detail observed in section B.
DVERXY	Visual Examination	11:25, 000-650nm lights, orange and white goggles and 550 filter.
	Cyanoacrylate Fuming	11:45, 3g of Cyanobloom for 30 minutes, 120 degree celcius and 80% humidity.
	Dye Stain	13:45, Dyed with Rhodamine6g/ Methanol base reference number 01/05/2018W.
	Drying	Exhibit was placed in dryer

WebCode	Development Methods	Method Details
DZRAFF	Visual Examination	Disclosing of a fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white.The fingerprint is visible in the UV light source 350 nm.
	Powder Dusting	Improvement in fingerprint quality after use dark magnetic fluorescence dusting powder Dazzle Yellow made by Sirchie .The fingerprint is visible the best in the white light source.
E7DT62	Visual Examination	
	Alternate Light Source	Captured image with Crime Scope at 475nm
	Cyanoacrylate Fuming	Fuming cycle was 20 minutes, 5 minute purge time.
	Powder Dusting	Black Magnetic Powder
	DFO	Sprayed DFO and allowed to dry. Placed evidence in heating chamber at 200+ degrees for 15 minutes
	Ninhydrin	Sprayed Ninhydrin and used steam iron to enhance development
	Dye Stain	R.A.M.
E86WPV	Cyanoacrylate Fuming	Placed item in CA Chamber set @ 65% humidity for 15 minutes.
	Powder Dusting	Magnetic black powder
E8PJ2Y	Visual Examination	2018/06/27: item 3 was visualized using PL500 polilight 10:38 set on 000 nm wavelength with clear goggles. no visibility of prints.
	DFO	2018/06/27: item 3 was immersed in DFO/petrolium ether for 3 minutes, left to air dry. it was then out in the nincha chamber for 20 minutes at 100 degree celsius.
	Visual Examination	2018/06/27: item 3 was visualized using PL500 polilight set on 505 nm wavelength and orange goggles there was a visibility of fingerprint on B-section.
	Cyanoacrylate Fuming	2018/06/27: item 3 was treated with cyanobloom 10 drops for 20 minutes at 120 degree Celsius, 80% humidity and and 20 minutes purge cycle.
EBBAHV	Visual Examination	5 minutes - item looked at under different lighting
	Cyanoacrylate Fuming	15 minutes - fuming in chamber; allowed to sit overnight (no glue)
	Powder Dusting	5 minutes - black powder used; no areas of development observed
	Ninhydrin	48 hours - ninhydrin developed over a period of 48 hours and a print was developed in Section B

TABLE 2 -	ltem 3
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WebCode	Development Methods	Method Details
EH77BZ	Visual Examination	Used white light poliflair (light source)
	Cyanoacrylate Fuming	1.2g (2 scoops) of Polycyano, MVC3000 with RH 68%, temperature of 230 degree Celsius and processing time 20 minutes.
	Powder Dusting	Used grey magnetic powder with magnetic brush . Used 415nm, 450nm, 505nm light source (vision / examination)
	DFO	Dipping in the DF/ Petro ether, Nincha with RH 65%; Processing time 20 minutes.
	Ninhydrin	Dipping in the Nin/ Acetone, Nincha with RH 65%, temperature 65 degree Celsius and processing time 20 minutes.
	Visual Examination	Used white light poliflair (light source).
EKECUF	Visual Examination	Ambient lighting, room temp., < 1 minute. No RD noted.
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	Cyanoacrylate Fuming	Safefume Chamber, run time 15 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Black magnetic powder utilized. RD noted in Quadrant B.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
	Ninhydrin	Sprayed, allowed to dry.
	Fluorescent Dye	Rhodamine 6G- sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
ERGE68	Visual Examination	white light -> Polylight -> Reflected UV (after cyanoacrylate fuming).
	V.M.D	
	1,2-Indanedione	After development I used a "heating press" for 10 seconds at 160 celsius degrees.
	Ninhydrin	Kept in a box for 24 hours after developmnet.
EX2TE7	Cyanoacrylate Fuming	(Fuming in MVC3000) The exhibit was fumed using 2 scoopes of Polycyano at 230 degree celsius and 80% humidity for 20 minutes.
	DFO	Deeped in DFO/ HFE base. allowed to dry and then placed in the NINCHA set at 100 degree celsius for 15 minutes with no humidity set. Batch number of DFO: BCBQ2596V, Batch number of HFE: BCBS4887V
	Ninhydrin	Deeped in ninhydrin/ methanol base, allowed to dry and then placed in nincha set at 70 degree Celsius, 80% humidity for 20 minutes, batch number of ninhydrin: BCBV8117, batch number of methanol: STBG0915V.
WebCode	Development Methods	Method Details
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F44YUA	Visual Examination	
	Alternate Light Source	LASER
	Alternate Light Source	RUVIS
	Cyanoacrylate Fuming	glue time 11 minutes
	Visual Examination	
	Alternate Light Source	RUVIS
	Powder Dusting	black magnetic powder
	Visual Examination	
	1,2-Indanedione	10 minutes in humidity chamber
	Alternate Light Source	LASER
	Ninhydrin	10 minutes in humidity chamber
	Visual Examination	
	Dye Stain	RAM
	Alternate Light Source	LASER
F4QAZX	Lumicyano Powder	solution 4 %; hygrometry > 75 %; 15 minuts
	1,2-Indanedione	1-2, indanedione/ zinc chloride; room temperature - 48 hours development
	Ninhydrin	room temperature - 48 hours development
F637BU	Visual Examination	Using ambient lighting, white lighting, and LASER 535nm lighting, the Item was examined for any visible prints prior to processing
	Cyanoacrylate Fuming	Fumed for a 70 min cycle in a fuming chamber then visualized with white light
	Powder Dusting	Black powder was used on the Item and visualized w/ ambient lighting
	DFO	DFO dye staining was applied to the Item and visualized w/ LASER 535nm
	Ninhydrin	Ninhydrin was applied to the Item and visualized w/ ambient and tungsten lighting
F6YLGY	Visual Examination	Visualization under Fluorescent light
	Alternate Light Source	Visualization under wavelengths 365nm, 490nm and 505nm
	Cyanoacrylate Fuming	Fume time: 15 min; Relative Humidity: 80%
	Powder Dusting	Black magnetic/ non-fluorescent powder
	1,2-Indanedione - Zinc Chloride	Visualization under 505nm

WebCode	Development Methods	Method Details
FAEWV3	Visual - Cyanoacrylate - Powder	Visual using light sources. Fume, then black powder.
	DFO - Ninhydrin	Dip, dry, view using laser - DFO - (oven). Dip, dry - Ninhydrin (humidity chamber)
	Zinc Chloride	Spray, dry, view using ALS
	Physical Developer (PD)	Maleic, Redox, rinse
FHZC6Y	Visual Examination	Using white Poflare and Rofin PL500 on 2018/06/20 at 10:20.
	Cyanoacrylate Fuming	2.5 grams of cyanobloom on MVC3000 cabinet at 120 degree Celsius, 80% humidity for 20 minutes on 2018-06-20 at 11:30
	Powder Dusting	powdering with black Inland Powder using animal brush on 2018-06-21 at 09:50
	Dye Stain	dipping in rhodamine 6G/methanol base in chemical fume extraction cabinet and placed in a drier on 2018-06-22 at 15:10
FJFNQB	Visual Examination	different lights sources and filters
	Cyanoacrylate Fuming	tem. 25 C, humidity 80%, time 20 min, (Chamber Safefume CA30S) natural and white light,
	Powder Dusting	Blitz Green, magnetic applicator, natural and UV light with suitable filters,
	DFO	spray, tem. 90-95 C, time 10 min, 505-530 light, orange filter
	Ninhydrin	spray, tem. 30 C, humidity 65%, time 120 min, natural and white light, (Chamber Nincha S31)
FJH6GU	Visual Examination	Crimelite white
	Alternate Light Source	PL 500 and TracER Laser
	Cyanoacrylate Fuming	~70 minutes
	Powder Dusting	Magnetic black
	DFO	~20 minutes
	Ninhydrin	~6 minutes
FPNZZU	Visual Examination	
	Alternate Light Source	Coherent TracER Laser
	Cyanoacrylate Fuming	60 minute cycle, Foster & Freeman MVC 5000
	Powder Dusting	
	DFO	20 minutes

Ninhydrin

6 minutes

WebCode	Development Methods	Method Details
FRBFF4	Visual Examination	Rofin PL500:000, 415-530nm: Y.R.O
	DFO	nincha: 100 degree Celsius, 0% RH (Humidity) 20 minutes: 000 nm, 450 - 530 nm: Y, O, R
FULK3T	Visual Exam	
	Iodine Fuming	
	CA	13 min @ 72% humidity
	Mag Powder	Black
	Indanedione	100C w/ orange filter
	Oil Red O	30 min
FYXAL3	Visual Examination	Item 3 was visually examined using natural lighting, oblique lighting, and various light sources.
	Cyanoacrylate Ester Fuming (CAE)	Item 3 was superglued in the superglue chamber for ~10 min along w/ a test print.
	MEK Ardrox/ UV	The gold dots in Item 3 were dye-stained w/ MEK Ardrox. Let it dry for 2-3 min then was examined under UV.
	Rhodamine 6G/ Laser	The gold dots in Item 3 were dye-stained w/ R6G. Let it dry for 2-3 min then was examined under Laser.
	DFO/ Laser	Item 3 was dipped twice in DFO. Let it dry for 5 min. Put in the oven (100°C) for 20 min. Then examined under Laser.
	Nynhydrin	Item 3 was dipped once in Nynhydrin. Let it dry for 5 min. Put it in the humidity chamber (70°) for 10 min. Then the latent impression turned Ruhemann's purple.
	Zinc Chloride/ ALS	Item 3 was sprayed with Zinc Chloride. Let it dry for 5 min. The latent impression turned red/orange. It was also examined under ALS.
	Physical Developer (PD)	Item 3 was submerged in Maleic Acid for 5 min first and then in PD for about 20 min.
G3QRGT	Visual Examination	no print observed
	Cyanoacrylate Fuming	
	Alternate Light Source	TracER Laser, curved orange lens
	Powder Dusting	black powder, no improvement of print
	DFO	20 min, examined with Laser, no improvement
	Ninhydrin	6 min, no improvement
G4ZPLA	Visual Examination	In flashlight fingerprint has been disclosed in section - B. In a whole spectrum of Polilight PL 500 (UV, 415, 450, 470, 490, 505, 530, 555, 620, 650) none fingerprint
	Cyanoacrylate Fuming	No improved fingerprint quality has been achieved
	Wet Powder Black	Improved fingerprint quality has been achieved

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
GB6FCU	Visual Examination	Looked at item with flashlight and ambient room light
	Cyanoacrylate Fuming	Temp: 73 degrees F; Relative Humidity: 51%; Dwell Time: 20 minutes before venting chamber; Control: +
	Powder Dusting	Black Magnetic Powder: applied over the entire surface of the item twice
GCFLAG	Visual Examination	Visual with White Light and Visual with ALS (BattleLite 455nm) with orange filter: no visible ridge detail.
	Cyanoacrylate Fuming	70% humidity. 11 min 30 sec fuming. 13 min purge. Visual with White Light: no visible ridge detail.
	Powder Dusting	Dual-Use Magnetic Powder. Visual with White Light: no visible ridge detail.
	1,2-Indanedione	100°C and 60% humidity for 10 minutes. Visual with ALS (530nm) with red filter: no ridge detail visible.
	Ninhydrin	75°C and 77% humidity for 5 minutes. Visual with White Light: very faint visible ridge detail
	Silver Nitrate	Air dried in dark for 1 hour. Developed with UV (350nm). Visual With white Light: ridge detail visible.
GKLFCW	Visual Examination	polilight flare 2+ white light, clear goggles.
	Polycyano Superglue	1.2 grams, MVC 001 GAUKMP, 20 minutes 110 degree Celsius, 68% humidity.
	Visual Examination	white light (polilight flare 2+) 450 nm.
	Powder Dusting	grey manetic powder: magnetic brush, 450 nm polilight flare 2+ orange goggles.
	Visual Examination	450nm, polilight flare 2+, orange goggles, orange filter, poliview.
	DFO	spraying method, NINCHA001GAUKMP, 65 degree Celsius, 0% humidity, 150 minutes.
	Visual Examination	450nm, 415 nm, 505 nm, 530 nm polilight flare 2+, orange filter & goggles.
	Ninhydrin	spraying method, NINCHA001GAUKMP 15 minutes, 65%, 65 degree Celsius.
GP2WWL	Visual Examination	Oblique lighting used
	lodine Fuming	Sirchie Catalog # DF2016 fuming gun (wand)
	Powder Dusting	Black Magnetic Powder
	Cyanoacrylate Fuming	72% Humidity, 60 minute cycle
	Visual Examination	Oblique lighting used
	Alternate Light Source	Setting 530 Nanometers (NM)
	Ninhydrin	Hexane Based

WebCode	Development Methods	Method Details
GP76C2	Visual Examination	White light, UV light
	Cyanoacrylate Fuming	Cyanoacrylate fuming chamber for 8 minutes
	Powder Dusting	Fluorescent Magna brush powder used, viewed with UV light, print could be visualized but it was very faint
	Dye Stain	Ardrox used, air dried and viewed with Alternate light source UV light in the 280 nm to 365 nm range
GXHB4X	Visual Examination	Fluorescent
	Alternate Light Source	350-380nm and 445-510nm
	Cyanoacrylate Fuming	Cyanoacrylate chamber; 5 minutes fuming in chamber; White light
	Powder Dusting	Black magnetic powder; Fluorescent
	1,2-Indanedionone Zinc Chloride	Humidity chamber; For ~20 minutes with the conditions at ~70C and ~65 relative humidity; 445nm-510nm
GZMQL3	Visual Examination	No visible ridge detail.
	Cyanoacrylate Fuming	I placed the item in the superglue chamber for approximately 10 min with hot water in a beaker to create humidity.
	Powder Dusting	No visible ridge detail after using black powder.
H4GGW7	Cyanoacrylate Fuming	Vacuum Chamber and gel pack
	Powder Dusting	Black
H8HFDQ	Cyanoacrylate Fuming	Item 3 first processed using Cyanoacrylate fuming, followed by an application of black magnetic powder with a magnetic wand. No ridge detail was observed. Item 3 was additionally processed for latents using Ninhydrin HT spray, and allowed to air dry. Item 3 was visually examined for developed latents. No ridge detail was observed.
HBD6KW	ASV Process	Apply anti-strokes powder with magnetic brush and place in an anti-strokes laser viewing enclosure.
	Cyanobloom fuming process	3g Cyanobloom in the MVC3000, set at 120 degree Celsius, 80% humidity for 20 minutes.
	Dye Stain with Rhodamine 6g	Enhanced or stained with Rhodamine 6g / Ethanol base and dried
HCU7WY	Visual	Obique light, U.V., LASER, ALS
	Cyanoacrylate Ester Fuming	Cyanoacrylate, fuming, hot plate, enclosed chamber, 15 minutes.
	DFO	DFO: dip, dry, dip dry, heat chamber, 20 min
	Ninhydrin/ Zin Chloride	Nin: dip, dry, humidity chamber, 10 min. Zc: spray, dry, humidity chamber, 10 min
	Physical Developer (PD)	Rinse (maleic acid) dip, dry

WebCode	Development Methods	Method Details
НСКМЗХ	Cyanoacrylate Fuming	
	Ninhydrin	Steam Iron
	1,2-Indanedione	Iron (Only Heat)
HGZV68	Powder Dusting	magnetic powder
HZWCFV	Cyanoacrylate Fuming	80% Humidity @ 15 min
	Powder Dusting	black powder
	Cyanoacrylate Fuming	80% Humidity @ 15 min
	Powder Dusting	Magnetic powder
	Ninhydrin	dipped, allowed to develop 24 hours
	Ninhydrin	dipped again, allowed to develop 72 hours
JFQ8FT	Visual Examination	Room light examination
	Cyanoacrylate Fuming	Fuming chamber
	Powder Dusting	Magnetic powder
	Powder Dusting	Fluorescent magnetic powder
	Dye Stain	Ardrox
JLTH7Y	Visual Exam	Examined w/ oblique lighting, UV, LASER, and ALS
	Cyanoacrylate Ester (CAE) Fuming	Fumed in CAE chamber, approx 15 min
	Black Powder	Applied black powder with a brush
	Dye Stains: Ardrox & Rhodamine	Sprayed Ardrox, visualized with UV, sprayed Rhod., visualized w/ LASER and orange filter
	DFO	Dipped, oven @ 100°C (approx 15 min), visualized with LASER & orange filter, wait 24 hours
	Ninhydrin	Dipped, humidity chamber 70°C & 70% RH approx 15 min, visualized, wait 24 hours
	Zinc Chloride	Sprayed, humidity chamber 70°C & 70% RH approx 15 min, visualized with ALS and orange filter, wait 24 hours
	Physical Developer (PD)	Maleic prewash bath, PD solution approx 5 min, wash with water

WebCode	Development Methods	Method Details
JLXVX2	Cyanoacrylate Fuming	BVDA Glue, Foster Freeman MVC3000, 80% RH, 10 minutes
	Powder Dusting	Blacko powder followed by magnetic powder
	DFO	Cyclohexane. climate chamber, 100 degrees Celsius, 10 minutes
	Ninhydrin	HFE 7100. Climate chamber, 80 degrees Celsius, 65% RH, 2 minutes
	Physical Developer (PD)	Synperonic NP8, water based. Pre treatment: maleic acid, PD working solution, rinsing in water bath 3 times, RT, 5-10 minutes
	Dye Stain	BY40
JTUQVY	Visual Examination	used white light with magnifier
	Cyanoacrylate Fuming	used control at time of processing, super glue, hot water, wait approx. 10 minutes, watch for control to change
	Powder Dusting	applied black powder with fiberglass brush
JUZEXH	Powder Dusting	Black latent print powder.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JWNPU3	Visual Examination	We visualize the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: Negative
	Cyanoacrylate Fuming	We used cyanoacrylate to object using "TECNIHISPANIA model PC". VALUES Fuming chamber: Cyanocrylate plate temperature: 65°C. Chamber humidity: 75%
	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: Negative
	Powder Dusting	We used mechanical reagent "DAZZLE RED" was applied with a brush on the surface of the object
	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: Negative
	1,2-Indanedione	We used 1,2 INDANEDIONE ZINC solutions in whole object with submersion method into gas extractor chamber "ASEM model FUME CABINETS". Time of submersions: 8 seconds. Drying Time: 3 minutes. Then we put the object inside the oven "TECNIHISPANIA model PN" with these valeues: Temperature: 100°C, Humidity: 0%, Time: 20 minutes
	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: Negative
	Ninhydrin	We used NINHYDRIN PETROLEUM ETER solution in whole object with submersion method into gas extractor chamber "ASEM model FUME CABINETS". Time of submersions: 8 seconds. Drying Time: 3 minutes. Then we put the object inside the oven "TECNIHISPANIA model PN" with these valeues: Temperature: 80°C, Humidity: 62%, Time: 20 minutes
	Visual Examination	We visualized the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT: Negative
	Visual Examination	We visualized once per week the object with natural light and later with white light and all wavelenghts applying "Polylight model PL-500 Forensic Light". RESULT DAY 02/07/2018: Negative. RESULT DAY 09/07/2018: Negative. RESULT DAY 16/07/2018: Negative. RESULT DAY 25/07/2018: We have detected and photographed a lofoscopic fragment in quadrant B
JX7KRW	Visual Examination	White light/ fluorescent light
	Alternate Light Source	365nm/ 495nm
	Cyanoacrylate Fuming	~15 minutes in chamber; White light
	Powder Dusting	Black Magnetic Powder; White light
	1,2 Indandione - Zinc Chloride	Humidity Chamber (Temperature 70C, 65% Relative Humidity) ~20minutes, 495nm

WebCode	Development Methods	Method Details
JZD3QR	Visual Examination	The wrapping paper was examined for patent prints. No patent prints were observed.
	Cyanoacrylate Fuming	The wrapping paper was then processed using cyanoacrylate fuming in a fuming cabinet for about 20-30 minutes. No latent prints were developed.
	Powder Dusting	The wrapping paper was then processed with black powder using a fiberglass brush. Latent prints were developed.
	Powder Dusting	The wrapping paper was then processed with fluorescent green powder using a fiberglass brush. The wrapping paper was viewed under an alternate light source at 455 nm using orange goggles. No latent prints were developed, except for a few ridges/smudges without enough identifiable features.
	Ninhydrin	The wrapping paper was then processed using ninhydrin. The process that we use for ninhydrin is a three day process. Day 1 the item was dipped and hung in a fume hood for 24 hours. Day 2 the item was dipped and hung in a fume hood for 24 hours. Day 3 the item was steamed using a clothing iron. No latent prints were developed, except for a few ridges/smudges without enough identifiable features.
JZFTUP	Visual Examination	VIS, UV, fingerprint - section B
	Cyanoacrylate Fuming	about 2 min, 120 degree C, fingerprint - section B
	Powder suspension	Iron oxide, fingerprint - section B
K2YZMW	Visual Examination	First visualization, equipment: Rofin PL500, white light, clear goggles.
	Cyanoacrylate Fuming	Equipment: MVC3000, superglue: Cyanabloom at 120 degree Celsius, 72% humidity for 60 minutes.
	Dye Stain	Dye stained with Rhodamine 6G / water base and placed in dryer for 2 hours.
K7YF3Z	Visual Examination	No ridge structure
	Alternate Light Source	LabKam. Ridge structure-collection value
	Cyanoacrylate Fuming	Control positive. No ridge structure
	Alternate Light Source	LabKam. Ridge structure-collection value
	1,2-Indanedione	Control positive
	Alternate Light Source	Crimescope. Ridge structure-collection value
	Ninhydrin	Control positive. Ridge structure-no collection value
	Powder Dusting	Black Powder. Ridge structure-collection value

TABLE	2	-	ltem	3

WebCode	Development Methods	Method Details
KBAFD6	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500, barrier filters, optical instruments.
	Cyanoacrylate Fuming	Processing time: 10 min, humidity: 80%.
	Visual Examination	White light (angle light), optical instruments.
	Powder Dusting	Magnetic Black (BVDA)
	Visual Examination	White light (angle light), optical instruments.
KDBJ38	Cyanoacrylate Fuming	Lumicyano
	Powder Dusting	
	DFO	
KGRTAJ	Visual Examination	Before chemical processing Item 3 was visualised with Rofin PL500 white light at 10:35.
	Fuming	Two scoops of Polycyano were used at 230 degree celcius with 80% humidity for 60 minutes at 10:40.
	Fuming Visual	Item 3 was visualised with Rofin PL500 white light at 11:48
	Dye Stain	Item 3 was Dye stained using Rhodamine-6-G/ Methanol at 13:00.
	Dye Stain Visual	Item 3 was visualized at10:00 with Rofin PL500 at 505nm and using orange filter and orange goggles.
KQ3ZZK	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	CyanoSafe, test print positive, allowed to sit for 1 hour
	Powder Dusting	Black powder
	Ninhydrin	Batch #286, left in Caron Chamber for 30 minutes
	Physical Developer (PD)	Batch #455, processed by LPT.

WebCode	Development Methods	Method Details
KUNK8A	Cyanoacrylate Fuming Chamber (CFC) processing	Cyanoacrylate - [Lot Number], Exp: 3/19, positive control, aluminum dish, target humidity value - 70%, purge time - 10:00 minutes, maximum fume cycle time - 10:00 minutes, CFC processing start time - 0721 hours, target humidity value reached/ fuming cycle started - 0727 hours, fuming cycle ended/ purge cycle started - 0737 hours, purge cycle ended/ CFC processing completed - 0747 hours.
	Magnetic Powder Processing	Magnetic fingerprint powder, magnetic powder applicator, magnetic powder processing start time - 0755 hours, magnetic powder processing end time - 0800 hours.
	Black Powder Processing	Black fingerprint powder, fingerprint brush, black powder processing start time - 0755 hours, black powder processing end time - 0800 hours.
	Ninhydrin Processing	Ninhydrin - [Lot Number], Exp: 4/12/19, positive control, time ninhydrin applied to item - 0830 hours, humidity chamber - humidity control set to 40%, temperature control set to 32.2 degrees Celsius, item placed into humidity chamber at 0835 hours with humidity control at 51.3%, humidity control back to 51.3% at 0850 hours, item removed from humidity chamber at 0950 hours with humidity control at 56.9%.
KWLFEQ	Cyanoacrylate Fuming	Cyanocrylate manual fuming chamber with cyanowand.
	Powder Dusting	Black latent print powder.
KYBQBB	Visual Examination	White, blue, green light
	Cyanoacrylate Fuming	80% RH
	Powder Dusting	Black magnetic powder
	1,2-Indanedione	165 Celcius degrees, 15 sec
	Ninhydrin	80 Celcius degrees, 65% RH, 5 min
KYV9MW	Visual	light sources - UV, LASER, ALS, flashlight
	Cyanoacrylate Ester Fuming	
	Powder	
	DFO	light source - LASER; waited 24 hours; oven @ 100°C
	Ninhydrin	waited 24 hours; humidity chamber 70°C & 70% humidity
	Zinc Chloride	waited 24 hours; humidity chamber 70°C & 70% humidity
	Physical Developer (PD)	
KYW3C4	Visual Examination	
	Cyanoacrylate Fuming	cyanoacrylate fuming chamber for 30 minutes
	Powder Dusting	magnetic powder

WebCode	Development Methods	Method Details
KZC8ZU	Visual Examination	Using white light and magnification - no prints observed.
	Cyanoacrylate Fuming	CyanoSafe, 4-5 drops of cyanoacrylate in each of 3 cyvac cups, run for 12 minutes allow evidence to rest for at least an hour. Viewed with white light and magnification. No prints observed.
	Powder Dusting	Lightly powdered entire surface using black magnetic powder with magnetic powder wand. Viewed using white light and magnification. No prints observed.
	Ninhydrin	Item immersed in a tray of solution, completely wetting the surface. Hung to dry in fume hood. Dried item placed in CARON chamber for 45 minutes-1 hour. Set at 60 degrees Celsius and 60% humidity. 1-photograph taken. Viewed with white lighting and magnification.
	Physical Developer (PD)	Completed by LPT. Viewed using white light and magnification. No further enhancement.
L7TGCW	Visual Examination	Exhibit was visualised with white light (000nm), 350nm (UV), 415nm and 450nm with white goggles, yellow goggles and orange goggles.
	Cyanoacrylate Fuming	Exhibit was placed in MVC3000 using 02g / 2g of Cyanobloom for 20 minutes at 120 degree Celsius, 80% humidity and 20 minutes purge cycle.
	Dye Stain	Exhibit was dye stained with Rhodamine 6G/ Ethanol in a fuming extraction cabinet by spraying method and rinsed with running water then placed in an evidence drier to dry off.
LCF6AM	Visual Examination	
	Alternate Light Source	ALS used: LASER, Crimescope (450nm), and UV
	Cyanoacrylate Fuming	
	Powder Dusting	Magnetic powder
	1,2-Indanedione	
	Dye Stain	Dye stain used: RAM
	Physical Developer (PD)	
LCVNRY	Visual Examination	UV light, clear goggles Faint print observed in section B
	Crime lite ASV	antistokes powder (magnetic), magnetic brush, ASV laser-box. negative result,
	DFO	DFO-HFE based. 530nm light, red goggles - negative result.
	Ninhydrin	Ninhydring-methanol based. 530 nm filter/light - observe faint print section B.
	Powder Dusting	Black Magnetic Powder: black powder magnetic powder, magnetic brush. clear print observed in section B.

WebCode	Development Methods	Method Details
LE86LP	Alternate Light Source	455-515nm
	Cyanoacrylate Fuming	Vacuum chamber ~ 30 mins.
	Black Powder Dusting	
LG9AWP	Visual Examination	no friction ridges identified
	Cyanoacrylate Fuming	item processed in a cyanoacrylate chamber for 11 minutes. some ridge detail identified
	Powder Dusting	magnetic black powder used first, then dual use powder used. After the dual use powder, a partial print is identified
	Ninhydrin	ninhydrin applied via pipette, dried and treated with a steam iron for several minutes. no additional prints were identified.
LH4PD3	Visual Examination	No latent print
	Cyanoacrylate Fuming	1,6 gram, 80% Rh and 120 degree celcius
	Powder Dusting	No visuell latent print
	Basic Yellow 40	Latent print with light source
LHLX4H	Cyanoacrylate Fuming	Exhibit C placed in MVC3000 equipment using3 drops of Cyanobloom glue for 20 minutes at 120 degree Celsius and 80% humidity and 4 minutes purge cycle with W116776 batch number.
	Fuming	Exhibit C placed in MVC3000 equipment using3 drops of Cyanobloom glue for 20 minutes at 120 degree Celsius and 80% humidity and 4 minutes purge cycle with W116776 batch number.
	Ninhydrin	Exhibit C was treated with Ninhydrin / Acetone
	Nincha S31	Put into the Nincha S31 equipment set at 60 degree Celsius and 60% humidity for 20 minutes using 33269/17D274027 unique number.

WebCode	Development Methods	Method Details
LP2JB2	Alternate Light Source	Preliminary visual examination by two analysts with natural, white and forensic light and photography.
	Cyanoacrylate Fuming	Treatment with cyanocrylate steam in cyanocrylate booth TECNIHISPANIA model PC with 75% relative humidity in the air and plate temperature 60 degrees Celsius during 14 minutes. Visualization by two analysts with natural, white and forensic light and photography.
	Powder Dusting	Dying with magnetic dazzle red with a magnetic brush. Visualization by two analysts with natural, white and forensic light and photography.
	1,2-Indanedione	Treatment with indandione zinc ducking for 10 seconds, drying at room temperature for 3 minutes, drying in a kiln TECNIHISPANIA model PN for 20 minutes at 100 degrees Celsius without adding moisture. Visualization by two analysts with natural, white and forensic light and photography.
	Ninhydrin	Treatment with ninhydrin oil ether ducking for 10 seconds, drying at room temperature for 3 minutes, drying in a furnace TECNIHISPANIA model PC for 20 minutes at 80 degrees Celsius and 60% humidity. Visualization by two analysts with natural, white and forensic light and photography.
LV7FU2	Visual Examination	
	Alternate Light Source	Blue light (350-469 nm) with yellow filters.
	Photography	
	Powder Dusting	
	Photography	
	Cyanoacrylate Fuming	
	Photography	
	Powder Dusting	Magna jet
	Photography	
	Ninhydrin	The fingerprint was reinforced
	Photography	
LW9WJK	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	CSU CyanoSafe Recirculating Chamber, test print positive, 15 drops CA, 20 min processing, 1 hour dry/set. White light and magnification.
	Powder Dusting	Black magnetic powder, white light and magnification.
	Ninhydrin	Batch 286, white light and magnification; dry time: 40 minutes, caron processing: 1 hour.
	Physical Developer (PD)	Batch 455, processed by LPT.

TABLE 2	- Item	3
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WebCode	Development Methods	Method Details
LWMHTM	Visual Examination	Ambient lighting and green/tracer laser
	Cyanoacrylate Fuming	6:10 fuming time
	DFO	100 degrees Celsius, 20:00 minute processing time
	Ninhydrin	80 degrees Celsius, 65% relative humidity, 2:00 minute processing time
	Physical Developer (PD)	15:00 minute processing time in PD solution
M2W398	Visual Examination	Normal Room Light.
	Alternate Light Source	Mini-Crimescope, all available wavelengths.
	Cyanoacrylate Fuming	Safefume Chamber, run time 15 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Magnetic powder utilized, lift obtained. RD noted in Quadrant B.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
	Ninhydrin	Sprayed, allowed to set overnight.
	Fluorescent Dye	Rhodamine 6G- sprayed, allowed to dry, viewed with mini-crimescope at 515nm.
M7KUEE	Cyanoacrylate Fuming	Cyanoacrylate manual fuming chamber with cyanowand.
	Powder Dusting	Black latent print powder.
M997CY	Visual Examination	Natural light and then white light applying Polilight PL-500 Forensic Light (all wavelenghts).
	Cyanoacrylate Fuming	Processing the object in Sirchie CAS48 Cyanoacrylate. Fuming Chamber Values: 40 minutes running time, 80% humidity.
	1,2-Indanedione	Dipped 1,2-Indandione-Zinc Chloride working solution. After in Tecnihispania PC drying chamber with these valeues: Temperature 100°C, Humidity 0% and Time 20 minutes.
	Ninhydrin	Dipped in Ninhydrin petroleum ether based working solution. After in Tecnihispania drying chamber with these valeues: Temperature 80°C, Humidity 62% and Time 20 minutes.
	Physical Developer (PD)	Dipped in PD working solution during 30 minutes and after dry at room temperature 24 hours.
MCRCUU	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all available wavelengths of light. RD noted in Quadrant B.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Black powder was utilized, processed at room temp.
	1,2-Indanedione	Sprayed, set time-next business day, processed at room temp.
	Ninhydrin	Sprayed, set time-next business day, processed at room temp.

WebCode	Development Methods	Method Details
МЕНМКМ	Powder Dusting	It was used black latent print powder.
MFQR64	Visual Examination	White, UV, blue light.
	Cyanoacrylate Fuming	RH 80%, Gluecycle 8 min, 0,5g of glue.
	Powder Dusting	Magna Jet Black, Black Onyx.
	DFO	+100 celcius, 20 min.
	Ninhydrin	+80 celcius, RH 65%, 5 min.
MG9E8R	Visual Examination	Visual examination under white light and magnification. No prints observed.
	Cyanoacrylate Fuming	Processed in the CyanoSafe recirculation chamber. Control print positive. Processed for 12 minutes and let to sit for 60 minutes. No prints observed.
	Powder Dusting	Black magnetic print powder applied to item. Examined under white light and magnification. Print observed in Quadrant B. LP photographed/scanned (3 images).
	Ninhydrin	Item treated with Ninhydrin (batch #286) and processed in the CARON chamber (approx. 60 degrees Celsius/approx. 60% humidity) for approx. 30 mins. Print observed in Quadrant B. LP photography (Scanner 13) = 1 image.
	Physical Developer (PD)	Batch #455 - PD processing completed by LP Tech. Item examined with no prints observed.
MHL7XN	Powder Dusting	Magnetic powder (due to glossy surface) did not develop any prints.
	ChemPrint Spray	Sprayed and used heat device (iron) to develop print. Processing Time = 15 minutes.
MPFFZ7	Visual Examination	11:30 am using white light item examined
	Superglue (fuming)	Item was inserted to the chamber for (Autoglue) for more than 30 mins
	Black powder	Black powder is applied to the recovered print and lifted
MWW23H	Visual Examination	During first visual examination at 000nm with clear goggles under room temperature.
	Cyanoacrylate Fuming	Exhibit placed inMVC3000, using 1.2g Cyanobloom for 20 minutes, at 120 degree Celsius, 70% humidity.
	Dye Stain	Exhibit stained with Rhodmine 6G / Methanol base, rinsed off excess and placed in evidence dryer
	Powder Dusting	Exhibit powdered with black finger print powder using animal brush

WebCode	Development Methods	Method Details
MXEYKA	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all wavelengths. No RD noted.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight. No RD noted.
	Powder Dusting	Bichromatic powder utilized. No RD noted.
	1,2-Indanedione	Sprayed, allowed to dry, viewed with Tracer Laser at 532nm. RD noted in Quadrant B. Fragmentary RD noted, no pattern type discernible.
	Ninhydrin	Sprayed, aided development with humidity (steam), allowed to dry. No add'l RD noted.
	Fluorescent Dye	Rhodamine 6G- sprayed, let dry, viewed with Tracer Laser at 532nm. No add'l RD noted.
N2R837	Visual Examination	
	1,2-Indanedione	Heat Press, Bright Beam laser 532nm
	Ninhydrin	Steam Iron
N822KW	Cyanoacrylate Fuming	
	Powder Dusting	
	Ninhydrin	Iron used with steam for two minutes
	Dye Stain	MBD2
N8BFG6	Visual Examination	nothing
	Cyanoacrylate Fuming	6 min, nothing
	Powder Dusting	Magna black + Jet black, nothing
	Ninhydrin	5 min, 80 C, 65%RH, weak print
N8JY3N	Visual Examination	Oblique lighting to examine for latent prints and indented writing.
	Alternate Light Source	Crimescope 455-515nm
	Cyanoacrylate Fuming	Cyanosafe 20 minutes
	Powder Dusting	Black powder and black powder brush
	Ninhydrin	Stock solution made 5/9/17 [initials], Working solution made 6/6/18 [initials]. Applied by spray.

WebCode	Development Methods	Method Details
N8WT83	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Ninhydrin	Steam iron
	Dye Stain	R.A.M.
NGJP94	Cyanoacrylate Fuming	3 min, 180'F (water)
	Powder Dusting	Black magnetic powder
	Ninhydrin	24 hours, 1.5 hours inside the humidifier 40'C/ 80% R.H.
	Physical Developer (PD)	10 min
NHX8DU	Visual Examination	Visual examination did not result in identifying a latent
	Indanedione 1,2	Hang to dry 5 min; Placed in heat chamber 10 min
	Zinc Chloride	Hang to dry
	Alternate Light Source	ROFIN PL500 Set at 505 setting Identified latent
NKMLVD	Powder Dusting	Black latent print powder.
NN2H2E	Visual Examination	Item 3 was visualised using PL500, wavelength 00nm -590nm using white and orange goggles.
	Fuming (Polycyano)	Item 3 was placed in the MVC 3000 using 2 scoops of polycyano for 10 minutes at 230 degrees, 80% humidity and 20 purge cycle with 15702 batch number. The item was visualised with PL500 set at 00nm with white or clear goggles.
	Dye Stain	Item 3 was dye-stained with R65/ H2O with unique number 02/06/2018W and then dried. The item was visualised using PL500 with 530nm using orange goggles.
NPEWXN	Visual Examination	Under different types of light
	Cyanoacrylate Fuming	fuming with Lumicyano observation under white light and UV light
	1,2-Indanedione	observation under cyan light 500nm and orange filter (no results after 1,2-Indanedione process)
	Ninhydrin	observation under white light (no results after ninhydrin process)
NQRBNJ	Visual Examination	LED-white with magnification
	Cyanoacrylate Fuming	Cyanosafe
	Powder Dusting	Black
	Ninhydrin	Batch 286, Caron chamber - 30 minutes
	Physical Developer (PD)	Batch 455

TABLE	2	-	ltem	3

WebCode	Development Methods	Method Details
NXP9LL	Visual Examination	White-, blue-, greenlight Source.
	Cyanoacrylate Fuming	10 min processingtime. Heat 120C and 80% moisture. Glue 1,7 g.
	Powder Dusting	Charchoal and Magna Jet Black.
	DFO	25 min processing time. Heat 100 C. Solution based on HFE.
	Ninhydrin	5 min processing time. Heat 80 C and 65% moisture. Solution based on HFE.
	Dye Stain	Basic Yellow 40, solution based on 99,5% ethanol.
NZEKJ7	Visual Examination	White ambient light. No latent print was detected.
	Cyanoacrylate Fuming	Processing time: 2 minutes. No latent print was detected.
	Powder Dusting	Magnetic Jet Black powder. Positive for latent print in section B.
	DFO	No improvement of the latent print.
	Ninhydrin	Improvement of the latent print (weak but good clarity).
P6MANK	Visual Examination	Oblique lighting. No ridge detail was observed.
	Cyanoacrylate Fuming	Ten (10) minutes of processing in humid chamber.
	Powder Dusting	Magnetic powder and magnetic wand were used to develop any possible ridge detail. None observed.
P9NBTN	Visual Examination	White light
	Alternate Light Source	365nm, 455-510nm, 505nm
	Cyanoacrylate Fuming	80% Relative Humidity
	Powder Dusting	Black non-magnetic
	1,2-Indanedione Zinc Chloride	Relative Humidity 65%, Temperature 70°C
PCMDW4	White light	9:02 am, item was examined using the white light
	CNA (superglue)	The item was placed in MVC 3000 (superglue chamber) for 25 mins at 120 c and Rh = 80 followed by white light examination
	Black Powder	The black powder was applied for the item then it was examined using white light
PDGBZ6	Visual Examination	Visual examination white light. Visual exam. blue light = a fingerprint was visilbe in section B.
	Cyanoacrylate Fuming	CNA - 2 g glue, humidity 80%, heat 120°C, 6 min processing time. Teststrip positive. Fingerprint in section B not clearer.
	Powder Dusting	Fingerprint powder magnetic jet black. Fingerprint not clearer in B.
	Ninhydrin	Heat 80°C, humidity 62%, 2 min time. Teststrip positive. Fingerprint in section B not clearer.

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WebCode	Development Methods	Method Details
PPVCQW	Visual Examination	l performed a visual exam on the wrapping paper and did not observe any ridge structure.
	Alternate Light Source	I used LabKam to visualize the evidence and ridge structure of collection value was observed and photographed in quadrant B.
	Cyanoacrylate Fuming	The wrapping paper was placed in the cyanoacrylate chamber for 10 minutes at approximately 120 degrees Celsius. No ridge structure was observed.
	Alternate Light Source	The LabKam was used to visualize the evidence with ridge structure of collection value being observed. The LabKam produced no greater results than previously seen, so no photos were taken at this stage.
	Powder Dusting	Black powder was applied to the evidence with no ridge structure being observed.
PQJ3H3	Visual Examination	Viewed sample under natural and forensics lights
	Cyanoacrylate Fuming	The fuming was initiated in the fuming chamber at last 15 minutes with 65% humidity. After that sample is viewed with natural and white light.
	Staining with Rhodamine	Rhodamine was applied with spray application, it was no necessary to wash.
	Alternate Light Source	Viewed with forensic light at 515nm using orange goggles.
PRKJ8M	Powder Dusting	Dusted all front of paper with non-single use powder and brush
PX94E9	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all wavelengths.
	1,2-Indanedione	Sprayed, let dry, viewed with min-crimescope 515nm.
	Ninhydrin	Sprayed, let dry, aided development with humidity (steam), let set overnight. RD noted in Quadrant B, faint, whorl pattern.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Black, magnetic powder utilized.
	Fluorescent Dye	Rhodamine 6G, sprayed, let dry, viewed with mini-crimescope at 515nm. Print viewed darker, did not fluoresce, but was much more visible.
PYHD6K	Visual Examination	Visually examined prior to processing. No latents observed.
	Cyanoacrylate Fuming	Fumed for 9 minutes.
	Powder Dusting	Dusted with regular and magnetic black powder.

WebCode	Development Methods	Method Details
PZ9MM2	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Ninhydrin	Steam iron
	Dye Stain	Ardrox
Q3EELT	Visual Examination	No latents detected.
	Alternate Light Source	Inherent Luminescence exam with Polilight PL500 @ multiple wavelengths. Latent detected in quadrant "B" @ 490nm.
	Powder Dusting	Black Magnetic Powder. Latent faintly developed. Photographed
	Cyanoacrylate Fuming	Vacuum Chamber-30 mins. / Atmosphere exposure 30 mins.
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Exam with Polilight PL500 @ 505nm. No enhancement to latent.
Q4BWLA	Visual Examination	Negative ridge detail
	532 nm Laser	Positive ridge detail
	Alternate Light Source	Positive ridge detail at 475 nm
	Cyanoacrylate Fuming	Negative ridge detail
	Dye Stain	Negative ridge detail
	1,2-Indanedione	Negative ridge detail
	Ninhydrin	Negative ridge detail
Q4CPHW	Visual Examination	White light
	Alternate Light Source	poly light
	Cyanoacrylate Fuming	
	VMD	
	1,2-Indanedione	
	Ninhydrin	
Q4LTY2	Cyanoacrylate Fuming	Chamber dimension 22"x14"x30", 190' water on bowl, small pan, for 3 min, approx. 20 drops SG
	Powder Dusting	Brush black powder over the item

WebCode	Development Methods	Method Details
Q4RVV2	Visual Examination	
	Cyanoacrylate Fuming	
	Full Spectrum Imaging System	
	DFO	Sprayed, let dry, heated with dry iron
	Alternate Light Source	Laser
	Ninhydrin	Sprayed, let dry, heated with steam iron
	Powder Dusting	Black Magnetic powder
	Dye Stain	Rhodamin 6G w/ water. Sprayed, rinsed.
	Alternate Light Source	Laser
QFZNGL	Visual Examination	PL500 viewed from white light captured at 505 using orange filter.
	Cyanoacrylate Fuming	Fumed in an MVC3000 fuming Cyanobloom at 120 degree Celsius, 80% humidity for 15 minutes.
	Dye Stain	Dyed with Rhodomine-6 (R6G) and dried, viewed using PL500 530 wavelength using orange filter.
QGE3UM	Visual Examination	side lighting with white light
	Alternate Light Source	Wavelengths 415nm, 450nm, 505nm, & 530nm
	Ninhydrin	Petroleum Ether carrier, dipped, Oven (~62 degrees C. for 30 minutes)
QHPZ7J	Visual Examination	
	Cyanoacrylate Fuming	light application of CAE.
	1,2-Indanedione	Zinc-Chloride
	Ninhydrin	
QKZ3WN	Visual Examination	Fluorescent light and Crimescope white light
	Alternate Light Source	490nm and 365nm
	Cyanoacrylate Fuming	15 minutes and 80% relative humidity
	Powder Dusting	black, non-magnetic
	1,2 Indanedione Zinc Chloride	70 degrees Celsius, 65% relative humidity for 20 minutes

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
QNCRDC	Forensic lights	The evidence is checked using "LUMATEC 400" forensic light with all spectrum. 24°C room temperature.
	Cyanoacrylate Fuming	Vaporization of cyanoacrylate in fuming chamber for about 10 minutes. 133°C temperature-75% humidity.
	Forensic lights	The evidence is checked again using forensic lights with all spectrum.
	DFO	Sprayed DFO. Natural drying. The OVEN is used to visualice the developed latent print. 100°C Temperature. 0% Humidity.
	Forensic lights	The evidence is checked again using forensic lights with all spectrum.
	Ninhydrin	Sprayed Ninhydrin. The OVEN is used to develope the latent print. 80°C Temperature. 69% Humidity.
	Forensic lights	The evidence is checked again using "LUMATEC 400" forensic light with all spectrum.
QQ92RN	Visual Examination	Before enhancement: Incident and field lightning with visible light. Blue-green lightning (with crimescope/crimelite 2). Fluorescence (green light + orange filter). UV (labino)
	Cyanoacrylate Fuming	Lumicyano: 0.84g 117°C 78%HR 20 minutes - MVC 1000 cab (F&F). Visualisation UV (labino) + visible light
	1,2-Indanedione	With a hot press 165°C during 10 seconds + green light and orange filter
	Ninhydrin	12-15h processing in a dark and humid environment
QRFLBG	Visual Examination	White light, magnification
	Cyanoacrylate Fuming	Cyvac 40 minutes
	Powder Dusting	Black powder
	Ninhydrin	Batch #267-30 minutes Caron Chamber
	Physical Developer (PD)	Batch 455-Maleic Acid-10 mins; PD-10 mins; rinse
QXLGVG	Visual Examination	Tracer (green light) and ambient light.
	Cyanoacrylate Fuming	Misonix-fumed for 6 minutes.
	DFO	Used Caron environmental chamber at 100 celsius for 20 minutes.
	Ninhydrin	Used Caron environmental chamber at 80 celsius and humidity at 65% for 2 minutes.
	Physical Developer (PD)	Used distilled water to wash NIN for 10 minutes, used maleic acid for 5 minutes, rinsed with distilled water, used PD solution for 5 minutes, rinsed once more with distilled water.

WebCode	Development Methods	Method Details
QYFWF2	Visual Examination	
	Cyanoacrylate Fuming	3 min in chamber @ 160'
	Powder Dusting	non-magnetic
	Ninhydrin	left overnight applied heat
	Visual Examination	
R37QRT	Visual Examination	(First visual) 000nm
	Cyanoacrylate Fuming	80% relative humidity, Cyanobloom, 120 degree Celsius, 20 minutes.
	DFO	450nm, OG 550, 60 degree celsius
	Ninhydrin	80% relative humidity, 60 degree celsius
R3FLCT	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Black magna powder
	Dye Stain	MRM-10
	Dye Stain	Red-Drox
R87TZ3	White light and CNA	 8:45 am 20/06/2018 the item was examined by white light. 9:00 am, the item was inserted in superglue cabinet MVC 3000 for 45 mins followed by white light examination RH=79.
	Black powder	2) 12:30 pm 12/06n/2018, Black powder was applied to the time and lifting was obtained.
RATKV6	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope all wavelengths. No RD noted.
	1,2-Indanedione	Sprayed, let dry, viewed with mini-crimescope=515nm. RD noted in Quadrant B.
	Ninhydrin	Sprayed, humidity aided development-steam. No add'l RD noted.
	Cyanoacrylate Fuming	Safefume Chamber, 20 minute run time, 5 minute purge cycle, 80% humidity. Set overnight. No add'l RD noted.
	Powder Dusting	Bichromatic powder utilized- No add'l RD noted.
	Fluorescent Dye	Rhodamine 6G- sprayed, let dry, viewed with mini-crimescope at 515nm. No add'l RD noted.

WebCode	Development Methods	Method Details
RBN9CF	Visual Examination	no prints observed
	Cyanoacrylate Fuming	Sirchie CyanoSafe (30 mins), control print developed; no prints observed
	Powder Dusting	Black powder, no prints developed
	Ninhydrin	Batch #287, caron chamber 30 mins., no prints observed.
	Physical Developer (PD)	Batch #456, no prints observed
RFH3C3	Ninhydrin	Humidity chamber 90%. Temperature control 32.2° Celsius. 30 min processing time in chamber. 24 hours in evidence locker #003.
	Photograph	Original image enhanced through photoshop and completed through Digital Traq.
	Black Powder	
RFN8ZR	Visual Examination	I visually examined the wrapping paper and saw no ridge detail
	Cyanoacrylate Fuming	I placed the wrapping paper in the superglue chamber and added and let the superglue adhere to the fingerprint residue
	Powder Dusting	I placed a fingerprint brush into the black powder and dusted over the entire surface of the item
rg99nl	Visual Examination	
	Cyanoacrylate Fuming	Performance check conducted on CAF; 06/26/18 - passed. Humidity at approximately 60%. Purge time approximately 10 minutes. Max fume cycle approximately 15 minutes.
	Powder Dusting	Black magnetic fingerprint powder.
	RUVIS	UV filter on RUVIS - 254 nm
RGQEU4	Visual Examination	ambient light and oblique flashlight
	Cyanoacrylate Fuming	Lumicyano fluorescent fume in a fuming chamber set at 80% humidity for 35 min. Viewed using an ALS (390-520nm) and an orange filter
	Powder Dusting	Black
	Ninhydrin	Soaked in ninhydrin, placed in a development chamber set at 80 degrees C, 65% humidity for ~10 min.
	Physical Developer (PD)	dH2O pre-wash for ~5 min, maleic acid pre-wash for ~5 min, physical developer for ~5 min, rinsed in H2O and dried in a drying chamber.
RHML8P	Visual Examination	
	Cyanoacrylate Fuming	Polycyano method. Humidity 80%, Temperature: 230 celsius; Cabinet: Labrum Klimat.
	Alternate Light Source	Crime Lite UV 365nm
	Powder Dusting	Magnetic jet black fingerprint powder; No fingerprints found.

WebCode	Development Methods	Method Details
RJGGYR	Visual Examination	l visually examined Item 3 prior to processing.
	Cyanoacrylate Fuming	Due to the "shiny" or "glossy" appearance I treated Item 3 as semi-porous. I first processed with Cyanoacrylate Fuming in the fuming chamber for 16 minutes.
	Visual Examination	I visually examined Item 3 following the Cyanoacrylate Fuming.
	1,2-Indanedione	Once 1,2-Indanedione was applied to Item 3, it was allowed to air dry before being placed into the heat/humidity chamber for approximately 10 minutes on the DFO setting (100 degrees C).
	Alternate Light Source	I used the Alternate Light Source to view Item 3 following the 1,2-Indanedione processing.
	DFO	Once DFO was applied to Item 3, it was allowed to air dry before being placed into the heat/ humidity chamber for approximately 20 minutes on the DFO setting (100 degrees C).
	Alternate Light Source	I used the Alternate Light Source to view Item 3 following the DFO processing.
	Ninhydrin	Once Ninhydrin was applied to Item 3, it was allowed to air dry before being placed into the heat/ humidity chamber for approximately 3 minutes on the Ninhydrin setting (80 degrees C/ 65% relative humidity).
	Visual Examination	l visually examined Item 3 following the Ninhydrin processing.
	Dye Stain	I applied Rhodamine 6G as the dye stain for Item 3. It was allowed to air dry prior to viewing under the Alternate Light Source.
	Alternate Light Source	I used the Alternate Light Source to view Item 3 following the Rhodamine 6G processing.
RPLCJR	Visual Examination	forensic light source
	Cyanoacrylate Fuming	120°C, 80% rel. humidity, 10min
	1,2-Indanedione	50°C, 40% rel. humidity, 3h
	Ninhydrin	26°C, 65% rel. humidity, 24h
	Powder Dusting	Carbon black

WebCode	Development Methods	Method Details
RQHUH8	Visual Examination	Viewed under white light, laser (TracER Laser 532nm), and ALS (CrimeScope CS-16-500 at various wavelengths).
	Cyanoacrylate Fuming	Item fumed in a Misonix CA-6000 superglue chamber for approximately 12 minutes and viewed under white light.
	1,2-Indanedione	Item sprayed with Novec HFE-7100 based 1,2-Indanedione, placed in a dry mounting press for approximately 10 minutes, and viewed under the TracER laser.
	Ninhydrin	Item sprayed with Novec HFE-7100 based Ninhydrin, placed under steam iron for approximately 8 minutes, and viewed under white light.
	Dye Stain	Item sprayed with methanol based Rhodamine 6G and viewed under the TracER laser.
	Powder Dusting	Item powdered with magnetic powder and viewed under white light.
RT6EHK	Visual Examination	
	Cyanoacrylate Fuming	Atmosphere pressure
	Visual Examination	
	Ninhydrin	HFE formulation, steam iron
RVPCPM	Visual Examination	Processing time: 11:55, room temperature 18 degree Celsius.
	Cyanoacrylate Fuming	glue time: 35 minutes, glue temperature: 120 degree Celsius, humidity: 70% processing: 12:40
	Powder Dusting	Black powder: processing time: 09:00 (2018/06/20)
	Dye Stain	sprayed the exhibit in the chemical fume cabinet, processing time: (2018/06/21) 13:30
RYDQNJ	Visual Examination	White light
	Cyanoacrylate Fuming	White light
	DFO	Alternate light source
	Ninhydrin	White light
RZMKGC	Visual Examination	un-aided visual exam; no clear ridge detail present
	Cyanoacrylate Fuming	F/F MVC5000 chamber (120 degrees with humidity - 15 min glue cycle); test print: C+B-
	Powder Dusting	mag powder (black)
	Ninhydrin	lab made reagent with amino acid reference pad (C+B-); 72 hour time waited to develop; Ridge detail developed

WebCode	Development Methods	Method Details
Т2ТН9К	Visual Examination	Crimescope, white light, UV
	LUMICYANO TM	Fumigation chamber : CA30S SafeFume Air Science 0.064g of powder and 1,64 g of solution Glue cycle 30 min- Visualization with Crimelite 2 + Labino UV
	1,2-Indanedione	160°C during 10 sec
	Ninhydrin	72H at room temperature
T3AGN3	Visual Examination	flashlight
	Cyanoacrylate Fuming	Foster + Freeman MVC 3000 chamber - auto cycle (humidify, hold, glue, and purge cycles); visualized with flashlight
	DFO	Caron 6105 Environmental Chamber - 100 degrees Celsius 10 minutes; Visualized with Coherent TracER laser
	Ninhydrin	Caron 6105 Environmental Chamber - 80 degree Celsius 65% humidity 15 minutes; visualized with flashlight
T9R47L	Visual Examination	PL500, 000 nm, 450 nm, orange/clear goggles time: 10:20
	Cyanoacrylate Fuming	MVC3000, cyanobloom visual examination
	Dye Stain	2018/06/26 dye stain north rhodamine 6G and dry using evidence drier.
TBYARM	Physical Developer (PD)	Visual exam - negative; CA - fumed in CA chamber approx. 25 minutes, examined, negative results Magnetic Powder - black magnetic powder, photographed lifted w/ gel lift (photographed); Ninhydrin - dipped in Nin, waited 3 days, viewed, photographed; PD - treated approximately 5 minutes, dried, photographed
TCWH6D	Visual Examination	Examined under white light and magnification
	Cyanoacrylate Fuming	CyanoSafe recirculation chamber. "Purge" for 12 minutes. Allowed evidence to sit undisturbed for 60 minutes.
	Powder Dusting	Black magnetic print powder applied.
	Ninhydrin	Batch #286. Processing in CARON at 60 degrees Celsius and 60% relative humidity for approximately 30 minutes.
	Physical Developer (PD)	Batch #455. Completed by LPT.
TEGHVT	Visual Examination	White goggles, 000nm wavelength, Rofin light at 13:00 in a dark room.
	Cyanoacrylate Fuming	13:30 MVC3000 using 10 drops of Cyanobloom 15minutes at 120 degree Celsius, 80% relative humidity for 5 minutes purge cycle.
	Dye Stain	At 15:30 dye stain with Rhodamine 6G, methanol based under extraction hood.
TEGLEV	Powder Dusting	magnetic powder

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
TGNX4J	Visual Examination	visualization of item using rofin PL500 light source
	DFO	DFO/ petrolium ether spraying/ dipping item into the solution, let it dry at room temperature, place in the Nincha S31, temperature 100 degree Celsius for 20 minutes.
	Cyanoacrylate Fuming	placed item in MVC3000 for processing with cyanobloom (W116776) superglue at 120 degree Celsius, 80% humidity, for 10 minutes.
	Ninhydrin	Ninhydrin/ methanol: spraying/ dipping item into the solution, let it dry at room temperature, place in Nincha S31, temperature 80 degree Celsius and humidity 80% for 20 minutes.
	Powder Dusting	Using pink fluorescent with poli-light 505 nm, orange goggles.
TGPLUB	Cyanoacrylate Fuming	Humidified fuming chamber followed by cyanoacrylate fuming about 5 minutes. Cyanoacrylate heated at 340 degrees F. Note: positive control showed fuming worked.
	Powder Dusting	Dusted with black magnetic powder.
	1,2-Indanedione	1,2-Indanedione ZnCl was applied to item and then air dried. When dried, item was placed on a heat press. Heat was applied for 10 seconds at 320 degrees F. Note: positive control showed dye stain worked.
	Alternate Light Source	View processed item under 505 nm light.
TH64TA	Visual	Visual exam - glossy coated paper
	Laser - 532nm	Inherent luminescence exam. Latent observed - photographed.
	Cyanoacrylate Fuming (Vac. Chamber)	CAE/ VAC/ 40 min
	Magnetic Powder	Dusted - not suitable for comp.
	DFO	Squirt bottle/ DFO oven. Not suitable for comparison
	Ninhydrin	Squirt bottle. Ninhydrin acceleration oven. Latent developed - not superior to inherent luminescence latent
THHRVM	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	DFO	
	Alternate Light Source	
	Ninhydrin	
	Dye Stain	
	Alternate Light Source	

WebCode	Development Methods	Method Details
TMUUNJ	Visual Examination	Polilight flare +2, 000nm (white) in dark room, clear goggles.
	Cyanoacrylate Fuming	2 scoops of polycyano, 230 degree Celsius for 30 minutes, humidity 80%, purge cycle 10 minutes.
	Dye Stain	PL500, 505nm, Rhodamine 6G (R6G)
	Capturing	Poliview, orange filter, 505nm polight flare 2+.
TMVBD4	Visual Examination	Oblique and direct lighting
	FSIS	Full Spectrum Imaging System - shortwave UV light and specialized filter
	Cyanoacrylate Fuming	Air Science fuming chamber 15 minutes processing time at ~75% humidity
	Powder Dusting	Fluorescent Magnetic Powder "Dazzle Orange"
	Alternate Light Source	515nm with orange goggles
TMVHDB	Visual Examination	Lighting
	Cyanoacrylate Fuming	Foster Freeman MVC 5000 atmospheric chamber (120 degree for Cyanobloom and 80% relative humidity)
	Powder Dusting	Magnetic powder and brush
	Ninhydrin	Pre-made dye stain; amino acid reference pad control; Caron chamber (85 degree Celsius/65% relative humidity/ three minutes). Seventy-two hour waiting period after application.
TN8A8D	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	12 mins., 4-5 drops of glue in each tin, control print in chamber, sit for one hour, examine with white light and magnification
	Powder Dusting	Black magnetic powder. White light and magnification
	Ninhydrin	Batch #286, air dry, place in humidity chamber (60% humidity) for 15 mins., white light and magnification.
	Physical Developer (PD)	Processed by LPT, examined by myself with white light and magnification.
TQH8MF	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	
	DFO	

WebCode	Development Methods	Method Details
TRTUF3	Visual Examination	
	Alternate Light Source	Foster Freeman CrimeLite 82S. Blue-Green with orange barrier filter/UV
	Magnetic Powder	
	Ninhydrin	Used steam from iron for manually adding humidity
TXRN6N	Visual Examination	ITEM 3 WAS SEARCHED VISUALLY WITH NO AID. NO FRICTION RIDGE DETAIL WAS SEEN.
	Powder Dusting	ITEM 3 WAS PROCESSED USING MAGNETIC POWDER. FRICTION RIDGE DETAIL WAS DEVELOPED IN QUADRANT B.
TZX2U3	Visual Examination	no ridge detail observed
	Powder Dusting	magnetic powder used - ridge detail observed
U8UCBQ	Non Porous	Yellow florescent powder used.
	DFO	DFO used to analyse at 100 degree Celsius for 20 minutes using nincha. the print for DFO was captured at 450 nm.
U9U7FQ	Visual Examination	Used oblique lighting and magnifier
	Powder Dusting	black magnetic powder with magnetic wand applicator
	1,2-Indanedione	Sprayed substrate, used heat press at 320 degrees F for 12 seconds, Laser (Bright Beam) exam, 532nm, orange goggles
	Ninhydrin	Sprayed substrate, used steam iron for approximately 20 seconds
UEZRCZ	Visual Examination	Oblique Lighting
	Alternate Light Source	Foster Freeman Blue-Green + UV CrimeLite Model 82S Sirchie Krimsite Imager (RUVIS)
	Ninhydrin	Submerged for 10 seconds Manual heat and humidity applied
UJ9AFU	Visual Examination	White light, RUVIS and Laser 532 nm
	Lumicyano	250 degrees F, 17 minutes, 75% humidity Laser 532 nm
UKGGL9	Visual Examination	Visualised using 000nm-590nm wavelength and viewing with clear and orange goggles.
	Polycyano	Fume using MVC3000 with 02 scoops polycyano for 10 minutes at 120 degree Celsius, 80% humidity for 10 minutes viewed 000nm - 500nm using orange and clear goggles.
	Dye Stain	Dye stained with RG6/ H2O base viewed using 000nm - 500nm wavelength and clear orange goggles.

WebCode	Development Methods	Method Details
UM6THT	Visual Examination	ltem3 was examined using oblique lighting and UV lighting. No print was observed under oblique lighting and UV lighting.
	Cyanoacrylate Fuming	Item3 was subjected to cyanoacrylate fuming using a Lynn Peavey Hotshot, in a fuming chamber for ~7 minutes.
	Powder Dusting	Black fingerprint dusting power was used to dust for prints.
UR9NGN	Visual Examination	No visible ridge detail/patent prints were found.
	Cyanoacrylate Fuming	I placed a small amount of superglue in an aluminum dish on a heating pad along with a beaker of hot water in the superglue chamber. I waited approximately 5-10 minutes.
	Powder Dusting	I used a new fingerprint brush to dust black powder on the dotted wrapping paper.
UWKJDK	Visual Examination	White light / Fluorescent light
	Alternate Light Source	365nm/ 490nm
	Cyanoacrylate Fuming	\sim 15 minutes in chamber; White light
	Powder Dusting	Black Magnetic Powder; White light
	1,2-Indanedione - Zinc Chloride	Humidity chamber (Temperature 70C, 65% Relative Humidity) \sim 20 minutes, 490nm
UYLFRU	Visual Examination	with white light source
	Cyanoacrylate Fuming	Placed in CNA-cabinet, 1,5 gram CNA, 120 degree celcius in approximatley 5 minutes.
	Powder Dusting	Magnetic powder
V677J8	Visual Examination	Visual examination- 30 seconds- No fingerprint observed
	Cyanoacrylate Fuming	Fume and Purge - 30 minutes
	Visual Examination	Visual examination- 30 seconds- No fingerprint observed
	Dye Stain	MBD- spray method- 30 seconds
	Alternate Light Source	Visual examination - 505nm orange shades 30 seconds - Fingerprint observed quadrant B
V7GV3J	Visual Examination	Under magnification with additional lighting.
	Cyanoacrylate Fuming	Maximum fume cycle time of 15 min with maximum humidity of 60% and an auto-purge time frame of 10 min.
	Reflected Ultraviolet Imaging System (RUVIS)	Visualized using 254 nm (UV) filter and UV light source.

WebCode	Development Methods	Method Details
VF6TKC	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	1,2-Indanedione	
	Dye Stain	
	Physical Developer (PD)	
VLD8BN	1,2-Indanedione	Visual Exam; Sprayed application of Indanedione; Drying oven at 100c for 10 minutes; Visual exam; Application of Zinc Chloride; Examination under 505 nm light with Oragne filter
VMAGMD	Visual Examination	Ambient lighting and green/Tracer laser
	Cyanoacrylate Fuming	7 minute fume time
	DFO	100 degrees C, 20 minute processing time
	Ninhydrin	80 degrees C, 2 minute processing time
	Physical Developer (PD)	15 minute processing time in PD solution
VNGYLA	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Test print positive.
	Powder Dusting	Black magnetic powder, white light examination.
	Ninhydrin	Batch #286, caron chamber used (60 degress Celsius and 60% relative humidity)
	Physical Developer (PD)	Batch #455, completed by LPT.
VPX6TC	Visual Examination	USED A LASER TO VISUALIZE PRINT
	Cyanoacrylate Fuming	CApture-BT CHAMBER, 9 MINS
	DFO	CARON ENVIRONMENTAL CHAMBER, 20 MINS
	Ninhydrin	NINcha CLIMATE CHAMBER, 2 MINS
	Wet Powder Suspension	(BLACK IN COLOR) SMALL PARTICLE REAGENT
VU7DBG	Powder Dusting	Black Magnetic Powder was applied to the Item.

WebCode	Development Methods	Method Details
VYLTYM	Visual Examination	No RD noted.
	Alternate Light Source	Mini-Crimescope, all wavelengths.
	Cyanoacrylate Fuming	Safefume Chamber, run time 20 minutes, purge cycle 5 minutes, 80% humidity. Set overnight.
	Powder Dusting	Bichromatic powder utilized.
	1,2-Indanedione	Sprayed, allowed to dry until next business day, viewed with Tracer Laser at 532nmm.
	Ninhydrin	Sprayed, allowed to dry until next business day.
W2JP48	Visual Examination	Examination under white light and magnification
	Cyanoacrylate Fuming	4 drops of CA in each of 3 foil cups, distilled water in cup heater element, process 12 minutes, let sit 1 hour, test print positive.
	Powder Dusting	Black, applied with fiberglass brush that has been decontaminated/sanitized in UV Spectrolinker Crosslinker for 420 seconds
	Ninhydrin	Immersed in solution to completely wet surface, allowed to completely dry in fume hood, put in CARON chamber at 60 degrees Celsius and 60% relative humidity for 60 minutes, Batch #286
	Physical Developer (PD)	Completed by LPT, Batch #455
W932R9	Cyanoacrylate Fuming	Placing the exhibit in humidit cabinet.
	Dye Stain	The exhibit was stained with Rhodoamine / Ethanol for development of prints.
W9PC4N	Cyanoacrylate Fuming	Mason Vactron - MVC 5000: 30 minute to 1 hour cycle
	Powder Dusting	Magnetic powder
	Powder Dusting	Black powder
	Ninhydrin	Heptane - wait time 3 days
WAWK2M	Visual Examination	Visually examined wrapping paper for latent prints.
	Krimesite Imager	Examined wrapping paper using Krimesite Imager.
	1,2-Indanedione	Treated Wrapping Paper with 1,2 Indanedione and placed in fingerprint chamber at 100 degrees centigrade for 10 minutes. Item was removed from chamber and allowed to cool for 3 minutes. Item was sprayed with zinc chloride and allowed to dry. Item was inspected using an alternate light source set at 505 NM using orange goggles.

WebCode	Development Methods	Method Details
WDQNKT	Visual Examination	Polilight PL500
	Cyanoacrylate Fuming	RH 80% temp. 24C, fuming chamber 20 min
	Powder Dusting	black magnetic
	1,2-Indanedione	heating 10min temp.100C
	Ninhydrin	RH 60% temp. 55C 1 hour in chamber
WFWBXX	Visual Examination	White light.
	Cyanoacrylate Fuming	Processing time 10 min.
	Powder Dusting	
WJJN2A	Visual Examination	(Preprocessing) Rofin PL500 with white light clear goggles.
	Cyanoacrylate Fuming	Cyanoacrylate fuming chamber with 3g of cyanoacrylate , for 20 minutes at 140 degree Celsius and 85% relative humidity.
	Dye Stain	Inland black powder, using animal hair (squarrel) brush.
	Visual Examination	(Post process) visual examination done after each process.
WQFLNC	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Alternate Light Source	
	Powder Dusting	Mag Powder
	1,2-Indanedione	
	Dye Stain	
	Alternate Light Source	
	Physical Developer (PD)	
WTBYGW	Powder Dusting	Ultra blue magnetic powder on glossy dots only
	DFO	Treated - then oven @ 212F / 10 min; ALS 515 nm / orange filter
	Ninhydrin	Treated - then steam iron
	Powder Dusting	Ultra blue magnetic powder on entire paper
WYDDW7	Visualisation	
	Cyanoacrylate	Temperature 120°C, Humidity 80%, Glue time 15 min
	Magnetic Powder	
	UV-Light (350-380nm)	

WebCode	Development Methods	Method Details		
X2H6LX	Visual Examination	White light, UV-light, blue light, green light.		
	Cyanoacrylate Fuming	80% RH in the cabinet. 120 degrees Celsius on the hotplate. 10 minutes processing time.		
	Powder Dusting	Soot powder		
	DFO	100 degrees Celsius in the cabinet. 20 minutes processing time.		
	Ninhydrin	65% RH and 80 degrees Celsius in the cabinet. 5 minutes processing time.		
X3QDRC	Visual Examination	with White oblique light; no result		
	Cyanoacrylate Fuming	fluorescent cyanoacrylate; 230 °C (446 °F); 80% rh; 90 min processing time		
	Visual Examination	UV light; no result; blue/ green light (490nm) with orange filter		
X6FPNW	Visual Examination	White light. No visible fingerprints.		
	Cyanoacrylate Fuming	Humidity: 80%, glue time: 10 minutes, amount of glue: 2 g. No visible fingerprints.		
	Powder Dusting	Magnetic powder. No visible fingerprints.		
	Ninhydrin	Temperature: 80 C, humidity: 62%, processing time: 2 minutes. Visible fingerprint in section B.		
X6GPHV	Visual Examination	Observed document for presence of potential latent prints		
	Foster and Freeman VSC 6000 H/S	Utilized filters, alternate light sources, UV light, and oblique lighting sources		
	Cyanoacrylate Fuming	~15 minute processing time with Sirchie Omega-Print CNA102 #332, Lot #201803168, Best By: 04-2019; Positive Control		
	Ninhydrin	Lot #A0379174-6, Exp. Date: 2/20/19; Developed overnight after warming with steam (iron)		
	Powder Dusting	Dusted lightly with black fingerprint powder to improve contrast before photocopying		
X6V6JP	Visual Examination			
	Alternate Light Source	519 - 548 nm.		
	Cyanoacrylate Fuming	Placed in CNA-cabinet with 1,5 gram CNA in 95 degree celcius and 80% RH in 3 minutes		
	Basic Yellow 40	Blue Light source 420 - 470 nm.		
X9YU9D	Visual Examination	LASER @ 532nm		
	Cyanoacrylate Fuming	70% humidity for 20 minute fume time		
	Powder Dusting	Magnetic, Black		
	1,2-Indanedione	Zinc Chloride- 100 Degrees Celsius, 20 minutes		
	Ninhydrin	70 Degrees Celsius, 70% humidity, 20 minutes		
WebCode	Development Methods	Method Details		
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XA7AFJ	Visual Examination	A visual examination did not detect any impression on the item.		
	Cyanoacrylate Fuming	The dotted wrapping paper was placed in the cyanoacrylate cabinet. Humidity: 75 %; Fuming time: 10 minutes.		
	Visual Examination	Visual examination after fuming with different kind of light did not detect any item.		
	Powder Dusting	The wrapping paper was brushed with powder. I was using blitz red. This is a powder that fluoresces with light source (450-570 nm, orange filter glasses). This examination did not detect any impression on the item.		
	Ninhydrin	Afterwards dipped in ninhydrin solution and left to dry for a few minutes. Then placed in a humidity- cabinet for about 4-5 minutes. 80 celsius and approx 75 humidity. I did not find any impressions on the wrapping paper.		
XD8ZZD	Visual Examination	No fingerprint could be seen.		
	Cyanoacrylate Fuming	Parts of a fingerprint could be seen in section B.		
	Powder Dusting	Fingerprint could be partly seen.		
	DFO			
	Ninhydrin	The fingerprint developed further and more details in the print could be seen after treatment with ninhydrin.		
XGBYAB	Visual Examination	6/12/2018 Visual examination of Item 3 performed using various light sources (415-530)and filters including the Coherent Tracer with the Coherent Tracer with an orange filter giving the best visual result which was a positive result of one latent print in Quadrant B. 6/13/2018 Photograph taken on the DCS-5 (room W1-13E)		
	Cyanoacrylate Fuming	6/14/2018 CApture BT chamber used for fuming of Item 3 (Temperature 177C w/80%RH - 7 minutes fume time with a 5 minute purge time) Again, various light sources (415-530) and filters used without additional latent prints developed or improvement noted of the same latent print in Quadrant B.		
	DFO	6/14/2018 Item 3 was processed with DFO (lot #053118) using the NINCHA Chamber (Temperature 100C for 20 minutes) Visual examination using "Coherent Tracer" with an orange filter showing improvement of the one latent print in Quadrant B but no additional latent prints were visualized. 6/18/2018 Photograph taken on the DCS-5 (room W1-13E)		
	Ninhydrin	6/18/2018 Item 3 was processed with Ninhydrin (lot #053018) using the Caron 6105 Fingerprint Chamber (Temperature 80C w/65% RH for 2 minutes) Visualization with ambient lighting resulted in no additional latent prints being developed or improvement of latent print in Quadrant B.		

WebCode	Development Methods	Method Details		
XJEQ4J	Visual Examination	rofin poliflare plus 1 @ 450 nm, uv with clear and/ or yellow goggles.		
	Cyanoacrylate Fuming	Superglue 601: fuming tent: 30 degree Celsius, 80% RH for 20 minutes with 20 minutes purge cycle. visual exam with rofin poliflare plus 2 @ 000 nm and 450 nm with clear goggles: no print visible		
	Dye Stain	Rhodamine 6G: exhibit sprayed with rhodamine 6G and rinsed under gentle running water and allowed to air dry. rofin poliflare plus 1 @ 450 nm, 505 nm and 530 nm wavelength with orange and/ or red goggles.		
	Powder Dusting	exhibit powdered with fluorescent yellow magnetic powder using magnetic brush: negative (450 nm with orange goggles) exhibit powdered with black magnetic fingerprint powder using magnetic brush: negative (000 nm clear filter)		
XLNTXU	Ninhydrin	Paper sprayed with Ninhydrin solution then developed using a team iron.		
XNC3AG	Visual Examination	Item 3 was visually inspected under a magnifying glass with light.		
	Cyanoacrylate Fuming	Item 3 was then processed using a Cyanoacrylate fuming chamber set at 60% humidity with a max fume time of 15 minutes, and an auto purge time of 10 minutes.		
	RUVIS	The Reflective Ultraviolet Imaging System (RUVIS) was used with an orange filter (254 nm) and ultraviolet (UV) light to search then photograph Item 3.		
XPQPPA	Visual Examination	White light and magnification		
	Cyanoacrylate Fuming	Cyanosafe		
	Powder Dusting	Bi-chromatic powder; applied with brush		
	Ninhydrin	Soaked; air dried; caron chamber		
	Physical Developer (PD)	Soaked in maleic 10 mins; soaked in PD for 10 mins; water rinsed for 10 mins.		
XRV77E	Alternate Light Source	455-515nm		
	CyanoSafe (fuming)	20 minutes		
	Dusted	black powder		
	Ninhydrin	Sprayed on		
XXH8YC	Visual Examination	white light/oblique lighting - no visible ridge detail; Laser (532 nm), inherent - visible ridge detail, quadrant "B"		
	Cyanoacrylate Fuming	(test strip: positive) - no visible ridge detail; glossy surface, semi-porous properties; for preservation purposes		

WebCode	Development Methods	Method Details		
XYT3MP	Visual Examination	White light - negative result		
	Alternate Light Source	Polilight - 365nm-520nm, partial fingermarks in 440 nm with orange filter (B)		
	reflected UV	254 nm - positive result - Fingerprint 2.0 (B)		
	Cyanoacrylate Fuming	10 minutes Fume time - partial fingermark (B)		
	reflected UV	254 nm - no improvement (B)		
	Vacuum Metal Deposition	Gold/Zinc fuming - partial fingermark (B)		
	1,2-Indanedione	observe under 520 nm with orange filter - partial fingermark (B)		
	Ninhydrin	negative result		
	Powder Dusting	Magnetic powder - no improvement (B)		
Y2HLB9	Cyanoacrylate Fuming	Item was fumed in the CApture-BT. IT was fumed at 80% RH. It took 6 minutes and 41 seconds for the chamber to get up to humidity. the item was fumed for 8 minutes and 9 seconds. 2.5 grams of glue Cyanoacrylate was used. The chamber took 5 minutes to purge.		
	DFO	ltem was put into a environmental chamber (Caron 6105) at 100 degrees Celsius for 20 minutes after being treated with DFO.		
	Ninhydrin	Item was put into a environmental chamber (Caron 6105) at 80 degrees Celsius and 65% RH for 2 minutes after being treated with Ninhydrin.		
Y6VFYT	Visual Examination	Inclination of the objet ith the naked eye. No trace detected.		
	Alternate Light Source	Ligth grazing with Crimescope MCS-400 under different wavelengths and wearing glasses of appropriate colors. No trace detected.		
	Cyanoacrylate Fuming	In view of the glossy paper backing, autocycle for 1g of solution of Lumicyano 5% during 40 minutes. A control trace is placed in the tank. The fingerprint is slightly visible.		
	Alternate Light Source	Ligth grazing with Crimescope MCS-400 under different wavelengths and wearing glasses of appropriate colors. The fingerprint is visible in white light and CSS with orange filter and glasses appropriated.		
	Powder Dusting	Graphic black powder deposited with a brush, revelation a few seconds by rotating movement. The powder is tested on a control beforehand.		
	Alternate Light Source	Ligth grazing with Crimescope MCS-400 under different wavelengths and wearing glasses of appropriate colors in order to obtain a good cotraste between the trace and the support.		

WebCode	Development Methods	Method Details		
Y77F4Z	Visual Examination			
	Alternate Light Source			
	Cyanoacrylate Fuming			
	Reflected UV	Print 2		
	VMD	gold-zn process		
	Indandione-ZnCl	Print 2 improvement		
	Ninhydrin			
Y786FJ	Visual Examination	Used PL500 light source, all the wavelengths viewing with clear, yellow, orange and red goggles.		
	Polycyano UV	2 scoops of polycyano UV at 230 degree Celsius, 80% for 15 minutes.		
	Dye Stain	used rhodamine 6G in a chemical fume cabinet.		
	Drying	used evidence dryer to dry the exhibit.		
Y789YM	Visual Examination	No ridge structure was observed		
	Alternate Light Source	LabKam was utilized. ridge structure of no collection value was observed in section B		
	Cyanoacrylate Fuming	positive control; chamber was set to run for 10 minutes at 120 degrees Celsius; no ridge structure was observed.		
	Alternate Light Source	LabKam was utilized; ridge structure of collection value was observed in section B. Photographs were obtained.		
	Powder Dusting	Black magnetic powder was utilized; ridge structure no collection value was observed.		
Y7AX4J	Visual Examination	A Visual Examination Was Performed By Using Oblique Lighting.		
	Cyanoacrylate Fuming	Item 3 Was Processed With Cyanoacrylate Fuming For Approximately 15mins.		
	Powder Dusting	ltem 3 Was Magna Powder Dusted By Using Magnetic Black Fingerprint Powder & A Fingerprint Magnetic Wand.		
	Ninhydrin	Item 3 Was Treated With Ninhydrin And Let Dry For 24hrs.		
	Powder Dusting	Item 3 Was Powder Dusted By Using Silk Black Fingerprint Powder & A Fingerprint Brush.		
Y9TY3C	Visual Examination			
	Alternate Light Source	ALS using CrimLite		
	Cyanoacrylate Fuming	Fuming chamber set to 70% humidity for 20 min		
	Powder Dusting	Applied Magnetic Powder using a magna brush		
	Ninhydrin	Sprayed on evidence, placed in humidity cabinet set at 70% humidity and 70c for 20 min		

WebCode	Development Methods	Method Details		
YA9CQA	Powder Dusting	Black Magnetic Powder, Lot# 201504053-04		
YJTE4B	Visual Examination			
	Alternate Light Source			
	Cyanoacrylate Fuming	followed by RUVIS		
	Powder Dusting	Magnetic Powder		
	1,2-Indanedione	followed by ALS		
	Dye Stain	followed by ALS		
	Physical Developer (PD)			
YMEE4Q	Visual Examination	Oblique light		
	Cyanoacrylate Fuming	Foster+Freeman MVC 1000, glue 10 drops, Glue time 15 minutes, Auto cycle mode		
	Powder Dusting	Magnetic powder		
	1,2-Indanedione			
	Alternate Light Source	Foster+Freeman DCS4, light source 475 nm., Filter OG 530 nm.		
YNP83Y	Visual	white light & ALS at 450nm/ orange filter		
	Cyanoacrylate Fuming	15 minute humidity build; 15 minute fuming cycle		
	Dual-Use Magnetic Powder			
	1,2-Indanedione	ALS at 505-530nm/ orange filter/ 530-555nm/ red filter; 5 minute dry time; 30 minute processing time at 200°F w/ humidity		
	Ninhydrin	5 minute dry time; 30 minute processing time at 200°F w/ humidity		
	Silver Nitrate	processed in dark room w/ a 30 minute dry time in dark room before expossure to UV		

WebCode	Development Methods	Method Details
YPXBNB	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 490nm-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. Magnifying eyeglass used where required. QA adhered to and control test piece passed.
	Cyanoacrylate Fuming	Carried out as per [Organization] validated/ internally verified procedure (Foster & Freeman MVC5000 Cabinet, Relative Humidity 80%, Glue time 13 minutes & 6g of superglue used). Following treatment, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass where required. QA adhered to and control test piece passed.
	Powder Dusting	Carried out as per [Organization] validated/ internally verified procedure, Jet Black Magnetic Powder used with Magnetic wand 'brush'. Following treatment, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass where required. QA adhered to and control test piece passed.
	DFO	Carried out as per [Organization] validated/ internally verified procedure. Treated with DFO, allowed to dry, and then placed in oven for 20 minutes at 100°C. Following dark adaptation, examined using Green Crime Lite 82S 490-560nm with 571nm viewing filter and magnifying eyeglass where required. QA adhered to throughout and control test piece passed.
	Ninhydrin	Carried out as per [Organization] validated/ internally verified procedure. Treated with Ninhydrin and allowed to dry. Treated in oven set at 62%RH & 80°C for 5 mins. Examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass where required. QA adhered to and control test piece passed.
	Physical Developer (PD)	Carried out as per [Organization] validated/ internally verified procedure. Ensured all solutions and room temperature >17°C. Pre-treated with Maleic Acid for 10 minutes, treated with Physical Developer Working Solution for 3 minutes due to high background staining followed by 4 x water rinses as per procedure. All treatment stages carried out on rockers so exhibit was constantly agitated throughout. Allowed to dry and covered to prevent background development from excess light. When dry, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass where required. QA adhered to and control test piece passed.

WebCode	Development Methods	Method Details		
YT4KAE	Visual Examination	Visible reflection + fluorescence; Room temperature = 20°C; Relative humidity = 56 %		
	Cyanoacrylate Fuming	Lumicyano powder; Glue temperature = 118°C; Relative humidity = 78 %; Processing time = 40 mn		
	Visual Examination	Visible reflection + fluorescence; Room temperature = 20°C; Relative humidity = 56 %		
	1,2-Indanedione	+ Zinc chloride; Pipetting on section B; Dry heat press at 165°C for 10 seconds		
	Visual Examination	Visible reflection + fluorescence; Room temperature = 20°C; Relative humidity = 56 %		
	Ninhydrin	Pipetting on section B; 48 h development : in the dark, at room temperature (19°C), with a relative humidity of 65 %		
	Visual Examination	Visible reflection + fluorescence; Room temperature = 20°C; Relative humidity = 56 %		
YT7ADB	Visual Examination	Magnification and oblique lighting.		
	Cyanoacrylate Fuming	Heated cyanoacrylate to approximately 200 degrees C for approximately 5 minutes.		
YY8QKB	Visual Examination	white light		
	Cyanoacrylate Fuming	Fumed for approximately 10 minutes		
	Powder Dusting	Black magnetic powder on glossy gold circles only		
	1,2-Indanedione	Heat press @ 160 degrees C for 10 seconds; Laser exam @ 532nm with orange barrier		
	Ninhydrin	Steam heat from iron		
YYM4XL	Visual Examination	White crimelight		
Z3Z269	Visual Examination			
	Alternate Light Source			
	Cyanoacrylate Fuming			
	Powder Dusting	Black Magnetic Powder		
	1,2-Indanedione	Oven acceleration		
	Dye Stain	RAM		
Z4VPLJ	Visual Examination	UV from PL500 light source 505nm with orange goggles		
	Cyanoacrylate Fuming	(Fuming method) Use Polycyano powder, MVC300, 230 degree Celsius, 80 degree Celsius, 15 minutes (negative results)		
	Dye Stain	Spray DFO/ Petroleum ether, dry for 5 seconds place in NINCHA531 for 10 minutes.		

WebCode	Development Methods	Method Details		
ZCRKJG	Visual Examination	Exhibit was visualised with 000 nm, 350nm, 45nm, 450nm and 470nm viewing with clear yellow, orange and red goggles with Rofin PL500 light source.		
	Cyanoacrylate Fuming	Cyanobloom: Exhibit was placed in the MVC3000 using 02 grams of Cyanobloom for 20 minutes at 120 degree Celsius, 80% humidity and 20 minutes purge cycle.		
	Dye Stain	Exhibit was dye stained with Rhodamine 6G/ Ethanol by spraying method and dried.		
ZFD9BA	Visual Examination	observation with laser 532nm and laser 577nm		
	lumicyano	luminescent cyanoacrylate fuming; observation with UV light		
	1,2-Indanedione	heated press at 165 degrees Celsius for 10 seconds; Observation with laser 532nm		
	Ninhydrin	2 days in the shelter of air and light; Observation with white light		
ZG3RM8	Visual Examination			
	1,2-Indanedione	using a steam iron		
	Alternate Light Source	TracER Laser 532nm		
ZMNQDF	Cyanoacrylate Fuming	80% rel. humidity, 126°C		
	Ninhydrin	developing Parameters: 25°C, 65% re. Humidity 48h, done in climate cabinet		
ZRMX3J	Visual Examination	Friction ridge detail not present upon visual examination.		
	1,2-Indanedione	Item sprayed with 1,2 Indanedione under fuming hood and left to dry. Item placed in forensic oven for 10 minutes set at 100 degrees celcius, 0% relative humidity.		
	Zinc Chloride	Item sprayed with Zinc Chloride under fuming hood and left to dry.		
	Alternate Light Source	Item examined under alternate light source at 505nm while wearing orange goggles. Friction ridge impression present in section B.		
ZUCBK2	Powder Dusting	Black latent print powder.		
ZXML9P	Visual Examination			
	Alternate Light Source			
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%		
	Ninhydrin	Steam iron		
	Dye Stain	R.A.M.		

WebCode	Development Methods Method Details				
ZY2WEA	Visual Examination				
	Cyanoacrylate Fuming	manually operated chamber, unquantified time (fumed until control developed) humidity added from steaming water			
	Powder Dusting	fluorescent, regular and magnetic			
	Alternate Light Source	various excitation wavelengths and barrier filters			
	Powder Dusting	black, magnetic			
ZY6DMF	Visual Examination	The fingerprint was slightly visible but needed enhancement			
	Powder Dusting	Magnetic jet black fingerprint powder			
ΖΥ9ΥΒΑ	Visual Examination				
	DFO				
	Ninhydrin				

Response Summ	nary			Participants: 325
		Methods Utilized		
Alternate Light Source	111	Physical Developer	44	**Note : Methods listed are
Cyanoacrylate Fuming	265	Powder Dusting	226	the preloaded options for selection via the CTS Portal
DFO	61	Visual Examination	292	and do not reflect all answers
Dye Stain	66	Wet Powder Suspension	4	provided by participants.
Ninhydrin	174	1,2-Indanedione	71	

Preservation Methods

WebCode	Preservation Methods	Method Details
227TJB	Photography	For the first visual examination, ridge detail was observed. This detail was captured before any processing started. A digital camera equipped with a 1:1 lens was used. The developed print was photographed without and with a scale. Different side lighting angles were used to help enhance the capture of the latent print.
	Photography	For the second visual examination, a latent print was developed via the superglue fuming process. A digital camera equipped with a 1:1 lens was used. The developed print was photographed without and with a scale. Different side lighting angles were used to help enhance the capture of the latent print.
2BX6YX	Photography	Visual examination: f/11, t=1/7s, oblique lighting; Cyanoacrylate: f/11, t=1/32s, oblique lighting; Powder: f/11, t=1/15s, oblique lighting; RAY: f/11, t=1s, ALS 450 nm with orange filter
2ECYDA	Photography	Nikon D810 camera; Camera Control Pro 2; Polilight 400 at 550nm with orange filter; Adobe Photoshop CC; saved as TIFF and greater than or equal to 1000 ppi
2KGPR9	Photography	After each step in the process.
2M72PT	Photography	Raw- and tiff. files. After inhansing the fingerprint with BY40 it was photografed in blue light (445 nm) with yellow filter.
2RZ4K7	Photography	Camera 9/ Lens 2 used on: Visual (oblique lighting), CA Fuming (oblique lighting), Inherent Luminescence (Rofin Polylight FLARE Plus 2 with orange filter), Powder (oblique lighting), RAY (Rofin Polylight FLARE Plus 2 with orange camera filter).
2YZFNP	Photography	Images saved in JPG & RAW @ 1000 dpi & transferred to DVD
366BNH	Photography	One photograph taken (of a visible print) at or greater than 1000 DPI
	Tape lifts	4 inch and 2 inch lifting tape
3AWME8	Photography	Canon EOS Rebel 6G used to photograph evidence and resulting print
3DBHNP	Photography	DCS4 capture system
3DGKJP	Photography	Item was photographed after processing was completed and photographs were transferred to a DVD.
	Lifting	Lifted friction ridge detail from item.

WebCode	Preservation Methods	Method Details
3KDFJ9	Photography	Reflected long wave U/V
42GCFD	Photography	
43U479	Scanning	Adobe photoshop
4E3VP9	Photography	light wavelength - 505nm; Filters - orange filter
4GAX3T	Photography	With visual exam using LED flashlight
	Photography	Post lumicyano, without ALS, using incandescent copy stand lights
	Photography	Post lumicyano, with ALS at 475nm with orange filter
	Photography	Post black fingerprint powder using LED flashlight
	Scanning	Scan of lift of black fingerprint development of ridge detail
4J27YF	Photography	Two photographs were taken of a visible print. Pen lights were used with the Nikon D810 (at least 1000 ppi).
	Lifting	Two tape lifts were collected. (1) was collected after the application of magnetic powder and (1) was collected after the application of black powder.
4ND2VC	Photography	
4TQRCZ	Photography	After dye stain application with orange barrier filter and Coherent TracER Laser.
4XF728	Photograph	After application of powder & RAM using the 450nm ALS
6DMW7J	Photography	With filter, Between Methods
6GAG4Z	Photography	Nikon D300 camera, TIFF setting, visual, CA and powder prints were taken with oblique LED lighting, RAY print was taken using the Rofin Polilight 2 UV light and an orange camera filter. An identifying tag with measurements was used in each image.
6JFY4G	Photography	
6JV2BP	Tape Lift	Fingerprint tape lift transferred to a fingerprint card - entered as evidence into Traq system.

WebCode	Preservation Methods	Method Details
6R6M88	Photography	2018/06/21 12:10 and 15:10 - it was logged onto the Nikon interface. the exhibit was placed on the stand underneath the camera. light source at 0 nm/ 350 nm was applied. the image was captured using the digital capturing system, authenticated/ validated with veridate and then saved. two copies of the images were printed in black and white using $V++$. one copy was used to create a giant arch and the other was filed in the A section of the case file.
6VHJC9	Photography	captured fingerprint image
6WKZ3T	Photography	Photographs taken after processing steps.
7F9ZEG	Photography	
7FD9RB	Photography	
7HA2ED	Photography	Photography with Nikon D700 macro lens, PL500. (Mark exhibit label with ruler sticker, name image number)
	Photography	Capture images using Poliview digital capturing system, Nikon D700. (Digital Capture Image).
7MQAWC	Digital Photography	Documented at visual, superglue, Ardrox, and Rhodamine
7NPHZP	Photography	Utilizing the DCS4 workstation
	Lifting	Using black background card with white powder
7UTJ44	Photography	Photographs taken at visual exam and after CAE with Fiber optic lights. Photograph taken after R6G with Laser 532nm/ Orange
7ZEBHK	Photography	
83YRXB	Photography	Photo included calibrated scale.
	Packaged/ Evidence	Preservation of actual item; properly packaged and stored in secure evidence facility.
8EDRRH	Latent in cyanoacrylate photographed Print in dust	Imported in Foray, sized, photoshoped, blue filter, gray scale, invert, adjust levels saved and printed. Lifted with fingerprint lift tape and place on fingerprint card.
8EVW8V	Photography	Photographed print with white light after visual exam and cyanoacrylate fuming. The print was also photographed after R.A.M. dye stain and after the subsequent rinse, both at 505nm with a Tiffen red 23A filter.
8EZ6MB	Photography	

WebCode	Preservation Methods	Method Details
8JPQ6X	Photography	Camera/ lens 3, visual photo = oblique white light; RAY photo = Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster orange YA2 camera filter
8KJEQD	Photography	LabKam capture, tif file. Nikon camera, RAW photograph captured in Foray ADAMS system. overall item photographed as jpeg.
8V3Q4C	Digital Photographs	
8VWRCM	Photography	
8VY927	Photography	Camera 9/ Lens 1: Visual, using ambient lighting; CA, using white polilight 2; RAY, using Rofin Polilight at 450, filter = ProMaster Orange YA2.
92L7E2	Photographed	
978JFM	Photography	
9894WW	Photography	Visual: Camera 3, Lens 3. Direct diffused with a tent lighting CA: Camera 3, Lens 3. Direct reflection lighting Black Magnetic Powder: Camera 3, Lens 3. Direct reflection lighting RAY: Camera 3, Lens 3: Rofin POlilight Flare 2 lighting
9AWTQA	Photography	2.52g of superglue was used for 30 minutes, at 150 degree Celsius, 85% humidity in the Cyanoacrylate equipment and developed using white light 000nm, no filter and white goggles.
	Photography	Rhodamine 6G was used to dye the item and dried under the evidence drier sfter rinsed with running water. The print was lifted using 450nm light, filter-505nm and orange goggles.
9B9ERW	Photography	The item was photographed using Camera/ lens three: using oblique and direct white lighting for the Visual stage; oblique white lighting for the CA stage; oblique and bounce white lighting for the powder stage; and 450nm filter light from a Rofin Polilight Flare Plus 2 with orange camera filter for RAY stage.
9FYXJT	Photography	With photo evidence ruler.
9HNAFD	Photography	
9KBQWD	Poliview Capturing System	UV (350nm) no filter; 450 nm no filter
9NHY8H	Photography	

WebCode	Preservation Methods	Method Details
9T9FE3	Photography	The fingerprint was photographed with DCS5 camera, white light and used photo evidence ruler scale 1:1.
9WPYFK	Photography	Photographed with scale.
9XHVKK	Photography	
9XQF74	Photography	ISO = 1600; Aperture = 13.0; Shutter speed = 2
	Lifting	Clear tape on index card
9Z79MW	Poliview and PL500	1/50 sec, 34cm, 505nm
A6HBAR	Photography	Scale 1:1 using photo evidence ruler.
A7CACX	Photography	Nikon D810. Direct diffused lighting for Visual, CA and Powder Prints. Nikon D810. Used Promaster YA2 filter with Rofin Polilight 450nm for RAY prints.
AA8VBM	Photography	
APKEVZ	Photography	Photographed with ALS @ 415nm and one orange YA2 Promaster filter on camera.
ARAN3F	Photography	415nm; yellow filter
AVUKMZ	Photography	Photographed fingerprint.
AW4RN8	Photography	poliview - 000 nm no filter; poliview - 505 nm orange filter; poliview - 450 nm yellow filter
BGTEYM	Photography	Photography after visual with white light, after cyanoacrylate fuming, after powder, and after MBD. Photography after MBD was at 450nm with Orange Filter.
BM8BDU	Rofin	505nmlight wavelength, used orange filter.
BPJY3Z	Lifting	Lifting tape was used in section "D" to lift suspected print and placed on [Laboratory] #74 latent lift card. Suspected print placed on [Laboratory] #74 latent lift card with time, date, initials, case number, victim and location. Evidence placed back into original packaging.
BPMG66	Photography	
BZ44D7	Photography	

WebCode	Preservation Methods	Method Details
BZZLB2	Lifting	Lifted with latent print tape then placed on a latent lift card and sealed in white latent print envelope.
C8GJB8	Photography	
C97WTQ	Photography	The fingerprint was photographed using DCS5 with constrast. Grey scale.
CAK8XB	Photography	
CBJF3N	Scanning	Photoshop, scanned in at 1200 ppi.
CD7Y2Z	Photography	Nikon D4 camera with View NX software
CFQX93	Photography	Rafin PL 500 (000nm, 500nm, 450nm, PS white and and orange filters).
	Digital Capturing System	Nikon D700 - f-stop: F/18, exposure time - 1/640 seconds, ISO-2000
CJ4ZVY	Photography	Use of poliview digital capture system, master and archive, DVD.
CLGH6W	Photography	Foster & Freeman DCS-4 system used to record positive and improved development
CNNK9F	Photography	I photographed the print as is with natural lighting. The print was then photographed with UV (yellow filter), 450 (orange filter) and laser light (red/ orange filter) sources. The print was then photographed after processing with superglue fumes with each of the light sources and filters. The print was photographed again after processing with Ardrox with UV light and a yellow filter.
	Lifting	The developed fingerprint was lifted with clear tape and placed on a white fingerprint card.
СVКМ6Z	Capturing (Nikon & Poliview Sytem)	Time light shutter exposure F-Stop, 15 minutes 555/590 1/400; 1/80 -1.00 9.
	Packaging	Refer to additional comments page.
CW2MEG	Scanning	
CWW96M	Photography	DCS-5 system by Foster Freeman
CXRNJ6	Photography	

WebCode	Preservation Methods	Method Details
CZX6LG	Photography	DCS4 CAMERA SYSTEM AFTER CYANOACRYLATE FUMING THE ITEM WAS EXAMINED WITH A WHITE LIGHT AND RIDGE DETAIL WAS FOUND. THIS WOULD THEN HAVE BEEN CAPTURED WITH THE CAMERA SYSTEM USING A WHITE LIGHT SOURCE, BUT DECIDED TO STAIN WITH BY40 DYE FOR FURTHER ENHANCEMENT OF MARK. THIS WAS THEN EXAMINED WITH A BLUE LIGHT SOURCE (430nm - 470nm) and 495nm FILTER GOGGLES. THIS WOULD THEN HAVE BEEN CAPTURED WITH THE CAMERA SYSTEM USING THIS WAVELENGTH OF LIGHT SOURCE.
D2ZMXH	Photography	
D3MXAW	Photography	
D99VVY	Photo	DCS-3, manual
DECTCQ	Fotography	Canon 5D Mark III & 100mm L2.8
	Light Scourse	
DJKDY3	Photography	The fingerprint was checked and photographed after every method.
DKMRWW	Photography	in TIFF
	Saved images to secure drive	
DQP7C7	Photography	Photographed developed ridge detail with a metric scale.
DVERXY	Photography	Poliwiew, 505nm light ND 550 filter. Veridata of image and archive and master discs
	Packaging	Exhibits sealed in a new seal bag and photos taken and CD burned, veridata and master.
DZRAFF	Photography	The fingerprint was photographed at every stage of research after disclosure.
E7DT62	Photography	Photographed latent after visual examination and after Cyanoacrylate fuming method. Used Canon digital camera.
E86WPV	Photography	Nikon DSLR camera w/ 60mm microlens on tripod in TIFF mode w/ scale using orange filter under Crimescope ALS w/ orange filter on CSS
	Lifting	Latent lift obtained using latent lift tape placed onto white lift card

WebCode	Preservation Methods	Method Details
E8PJ2Y	Photography	Digital Capturing System: poliview system: light set on 000 nm wavelength and clear filter to capture. image 1 on D-section, for visual with white light examination results, cyanoacrylate fuming examination results. poliview system light set on 505 nm wavelength with orange filter to capture image on D-section for dye-stain examination results.
EBBAHV	Lifting	polyvinylsiloxane/ accutrans was used to lift the print
EKECUF	Photography	Photographs taken after processing steps. R6G with min-crimescope at 515nm.
ERGE68	Photography	ISO 200 , f16
EX2TE7	Photography	(Capturing on the DCS-3, Theprint was captured on the digital capturing system (DCS-3) using white light, no filter after first visualisation. Following treatment with Polycyano, the print was captured again on DCS-3 using UV-light, no filter. The print was labelled Print 1(P1) and archived.
F44YUA	Photography	
F4QAZX	Photography	DCS4 (Foster & Freeman), white light before development, blue-green light and orange filter, UV light and yellow filter
F637BU	Photography	All visualized prints were photographed using a digital SLR camera
F6YLGY	Photography	Nikon D810
	FORAY-ADAMS/ Photoshop	
FAEWV3	Digital Photography	
FHZC6Y	Photography	Using polyview digital capture system: For first visual examination Rofin PL500 ON 000nm with no filter. For fuming - Rofin PL500 000nm with no filter. For dye stain - Rofin PL500 on 505nm with oa 550 orange filter
FJFNQB	Photography	Photo Evidence Scale
FJH6GU	Photography	
FPNZZU	Photography	
FULK3T	Photography	Nikon D300 & copy stand

WebCode	Preservation Methods	Method Details
FYXAL3	Digital Photography	I digitally photographed the latent impression four times at different processing steps using the QImaging System. All four digital photographs of the latent impression were
		stored onto a CD.
G3QRGT	Photography	
G4ZPLA	Photography	The fingerprint was photographed at every step of a research
GB6FCU	Photography	Photographed Visual and CAE developed latent of 1D-LP1 with fiber optic lighting
	Photography	Photographed R6G (MeOH) dye stain developed latent of 1D-LP1 with laser (532nm) and orange filter
GCFLAG	Photography	Photography with Visual with UV and after MBD with 450nm and orange filter.
GP2WWL	Scanning	Saved TIFF Image 1000 DPI
GP76C2	Photography	Photographed using DCS4 camera with yellow filter
GXHB4X	Photography	Nikon D810
	Foray Adams/ Photoshop	
GZMQL3	Photography	l used a camera to photograph the ridge detail after CAE Fuming.
	Lifting	I used tape to collect any ridge detail after using black powder and placed it on a latent print card.
H4GGW7	Lifting	Hinge Lifter
	Photography	
H8HFDQ	Lifting	No additional ridge detail was observed other than the previously described patent print of possible value. Patent print of possible value lifted and affixed to one latent card.
HBD6KW	Photography	Image ID - white light, no filter, transparent goggle
	Scanning	lmage 1A - 505NM wavelength, P7 610nm filter, orange goggles
HCU7WY	Digital Photographs	
НСКМЗХ	Photography	

WebCode	Preservation Methods	Method Details
HGZV68	Photography	with one to one lens
	Lifting	hinge lifter
HZWCFV	Photography	1:1 photo
JFQ8FT	Photography	
JLTH7Y	Visual Exam & after CAE fuming (Photography) Rhodamine 6G Dye & LASER (Photography)	Photographed latent in visual exam with oblique lighting. Photographed latent after CAE fuming with oblique lighting. Photographed using Wratten 21 filter
JLXVX2	Photography	visual and after BY40
JTUQVY	Photography	after both visual examination and CAE fuming
	Lifting	with lift tape and card after black powder application
JUZEXH	Photography	Full size.
JWNPU3	Photography	We marked and numbered the fragment with a metric testimony. The revealed fragment was photographed after each process and saved into the case file folder. We made and saved one photo by process: The First with white light, the second after applying CYANOCRYLATE, and the third after applying ARDROX. We compared the best quality fragment on photos of each of the processes and choose the best. The photo of this fragment was treated with adobe photoshop CS6 and saved into the case file folder. Finally the analyzed object was stored inside an envelope.
JX7KRW	Photography	Nikon D810
	Foray Adams/ Photoshop	
JZD3QR	Photography	For each of the methods used in processing the foil either patent prints were observed or latent prints were developed. These prints were preserved using digital photography. The photographs were uploaded into the LIMS system at our laboratory.
JZFTUP	Photography	Digital camera; white light after visual examination and cyanoacrylate fuming, than 415 nm and yellow filter after Basic Yellow 40; RAW/ TIFF format.

WebCode	Preservation Methods	Method Details
K2YZMW	Poliview Capturing System	Captured on poliview, after first visualization: used 000nm light source, no filter.
	Poliview Capturing System	On Poliview, after fuming: used 000nm light source, no filter.
	Poliview Capturing System	Captured on Poliview, after dye: used 505nm light, 550nm filter.
	Repackaging	Repackaged Item 1 in a new evidence bag.
K7YF3Z	Photography	Photos taken of the visible print, under LabKam, after superglue under LabKam, and under Crimescope.
KBAFD6	Photography	Canon EOS 60D, 100 mm lens.
KDBJ38	Photography	We have used a super Xenon light (Labino) to have the best quality of the friction ridge impression
KGRTAJ	Photography	After fuming visual 01 x finger print image was captured on section D. Item 1 was dye stained then dried on the evidence drier.
	Photography	After Dye stain visual, 01 x FP image was captured on section D, then sealed in the evidence bag PW4000877317 and booked nack to the exhibit clerk.
	Downloading	Images were downloaded onto the veridata software for validation. Working and master discs were created for preservation.
KQ3ZZK	Photography	Camera 3/ lens 3, direct white lighting (visual and CA), Polilight Flare Plus 2 (450nm filter) with orange camera filter (RAY).
KUNK8A	Lifting Tape	Frosted lifting tape, white backing card
KWLFEQ	Photography	Scale 1:1 close-up.
KYBQBB	Photography	
KYV9MW	Digital Photography	saved on CD
KYW3C4	Photography	photographed with and without scale with mini crime scope @ 445 NM and yellow filter
KZC8ZU	Photography	Camera 3/ Lens 3: Visual and CA, direct white lighting Camera 3/ Lens 3: RAY, using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter Camera 3/ Lens 3: Black powder, using tented white lighting
	Packaging	Properly packaging allows for longer preservation time.

WebCode	Preservation Methods	Method Details
L7TGCW	Poliview Capturing System	The visible print on the exhibit was captured using Poliview, 450nm light source from Rofin PL500 and the use of an orange filter on the camera.
	Cyanobloom	The visible print on the exhibit was captured using Poliview, 470nm light source from Rofin PL500 and an orange filter was used on the camera.
	Dye Stain	the visible print on the exhibit was captured using poliview, 410 nm light source from rofin pl500 with orange filler filling on the camera then the exhibit was then repackaged to further preserve the prints developed.
LCVNRY	Photography	First visual - 450nm, no filter; Flourescent powder - 450nm, OP nm filter; Basic yellow dye stain -nm
LG9AWP	Photography	Nikon D80 camera. RAW+JPEG Fine setting, f/32, 1/10 sec shutter speed, ISO 640. Oblique lighting used to highlight ridges.
	labeling	Labeled Item 1 on bottom corner
LH4PD3	Lifting	Mikrosil
	Photography	With filter and Between methods
LHLX4H	Photography	Photograped the developed latent print using Nikon D600 505 / 509 wavelength and orange goggles.
LP2JB2	Photography	Photography with a photographic scale.
LV7FU2	Photography	
LW9WJK	Photography	Camera/ Lens 3: Direct LED lighting (Visual); Direct LED (CA); Direct Fluorescent (BP), Rofin Polilight Flare Plus 2 with a 450nm orange Filer (RAY).
LWMHTM	Photography	DCS-5 system
M2W398	Lifting	taken after powder step.
	Photography	Photographs taken after processing steps. Mini-Crimescope at 515nm.
M7KUEE	Photography	Full size using photo evidence ruler.
	Lifting	Lifting tape.
M997CY	Photography	Ridge detail observed in quadrant D. Three photographs are taken satisfactorily: the first with white light, the second after applying Cyanoacrylate and the third after applying Ardrox (using ultraviolet light). Use Adobe Photoshop CS6 enhance the image.

WebCode	Preservation Methods	Method Details
MCRCUU	Photography	Mini-Crimescope- with white light and Tracer Laser-532nm. Photographs taken after processing steps.
МЕНМКМ	Photography	It was photographed full size.
MG9E8R	Photography	Camera 3/ Lens 3 used for: Visual print with oblique lighting (2 images); CA print with oblique lighting (2 images); RAY photography with Polilight FLARE Plus 2 with 450nm filter and ProMaster Orange YA2 filter (2 images); Black Powder print with bounce and oblique lighting (3 images).
MHL7XN	Lifting	Dusted with black powder, lifted and placed onto a latent lift card.
MPFFZ7	Photography	After recovering any print, even same print photography is applied all times
	black powder lifting	Lifting black powder for recover latent print
MXEYKA	Photography	Photographs taken after processing steps.
N2R837	Photography	Nikon D7000, visible lighting and Bright Beam laser 532nm
N822KW	Photography	
N8BFG6	Photography	no real photo because of caseload foto efter alla steg.
N8JY3N	Lifting	One latent lift card was prepared.
N8WT83	Photography	455nm; orange filter
NGJP94	Photography	
	Lifting	
NHX8DU	Photography	Digital photographs
NKMLVD	Photography	Full size close-up.
NN2H2E	Photography	Poliview used, wavelength = 530nm with orange filter (610nm).
	Photography	Poliview used, wavelength = 00nm
NPEWXN	Photography	Photography under white light before fuming cyanoacrylate, Photography under UV light after fuming cyanoacrylate
NQRBNJ	Photography	Visual-LED side light CA-LED diffused side light Powder-LED diffused side light RAY-Polylight 450nm with orange filter

WebCode	Preservation Methods	Method Details
NXP9LL	Photography	After applied Visual Examination and after applied Basic Yellow 40.
NZEKJ7	Photography	
P6MANK	Lifting	Print developed using black powder, carefully lifted and placed on [Laboratory] Form #74 for further examination.
P9NBTN	Photography	
PCMDW4	Photography	All developed fingermarks were preserved through photography using (DCS5)
	Black powder lifting	The finger marks were preserved using powder lifting
PDGBZ6	Photography	The fingerprint in section D was photographed.
PPVCQW	Photography	Digital photography
PQJ3H3	Photography	A photo of the print was taken in digital format and saved it, then the photo was treated in order to clearly identify the print.
PRKJ8M	Lifting	Lifted print with lift tape. placed lift tape on [Laboratory] Form #74 latent lift card.
PX94E9	Photography	Photographs taken of RD after processing steps.
PYHD6K	Photography	Photographed latent after visual examination.
	Lifting	Tape lifted after dusting.
	Scanning	Scanned tape lift and backer.
PZ9MM2	Photography	415nm; yellow filter
Q3EELT	Photography	Digital format - RAW.
	Lifting	One (1) tape lift created.
Q4BWLA	Photography	Photographed at all stages of positive ridge detail observed with Nikon D700 camera and orange barrier filter.
Q4CPHW	Photography	
Q4LTY2	Photography	Captured latent print with the use of ALS 495nm
Q4RVV2	Photography	At visual stage. At FSIS stage. At R6G with laser stage.
QGE3UM	Photography	With side lighting before and after fuming (Adobe Photoshop)

WebCode	Preservation Methods	Method Details
QHPZ7J	Photography	
QKZ3WN	Photography	Digital photography and Photoshop processing
QNCRDC	Photography	TM "1.1" in D section. White light is used (400-700nm) to photograph the developed latent print (partial as well as detail).
QQ92RN	Photography	Photography of the mark after every step of examination
QRFLBG	Photography	D810, Camera 9, lens 2; Visual-LED Direct; CA-LED Direct; Powder-LED, Direct; RAY-450 nm light, orange filter; see metadata
QXLGVG	Photography	DCS-5 from Foster & Freeman
QYFWF2	Photography	
R37QRT	Digital Capturing	000nm
	Digital Capturing	505NM OG 550 filter
R3FLCT	Photography	Oblique lighting for visual, FLS-450nm for MRM-10
R87TZ3	Photography	Photography is taken in every step that result in fingermark development
	Black powder lifting	Black powder lifting was preserved for the developed mark
RATKV6	Photography	Photographed after processing steps.
RBN9CF	Photography	Visible: Camera 2/ lens 9, direct reflective LED light, 2 images saved. CA: Camera 2/ lens 9, direct reflective LED light, 1 image saved. Black Powder: Camera 2/ lens 9, direct reflective, 2 images. RAY: Camera 2/ lens 9, Rofin Polylight FLARE 450 nm, orange YA2 filter, 1 image
RFH3C3	Latent print lift using tape	Delicately brush print with powder and fiberglass brush, not to damage the print. The lifting tape is placed on a latent lift card to preserve the print.
RFN8ZR	Photography	l used a micro lens to photograph all ridge detail and included a ruler
	Lifting	l used clear tape and placed it over all ridge detail and lifted the tape, then placed it on a fingerprint card
RG99NL	Photography	Ridge detail observed in Section D; photographed with orange filter on macro lens using a 455 nm blue light.

WebCode	Preservation Methods	Method Details
RGQEU4	Photography	First photo: visual with oblique flashlight; Second photo: Post lumicyano fume, with ALS set at 495nm, and an orange filter; Third photo: post powdering using incandescent light
RHML8P	Photography	
RJGGYR	Photography	I photographed the latent print observed in Box D of Item 1.
RPLCJR	Photography	blue light (430nm), yellow filter (495nm)
RQHUH8	Photography	Photos were taken with a Nikon D700 camera, photos were taken during initial examination under the TracER laser, after cyanoacrylate fuming, and after the Rhodamine 6G dye stain. Print labeled L-001.
RT6EHK	Photography	Dark field Illumination
RVPCPM	Photography	Using poliview system for 1st visual: 000nm with no filter, fuming: 000nm, no filter, Dye: 505nm orange filter, orange goggles.
RYDQNJ	Photography	
RZMKGC	Photography	RAW image collected with barrier filter
Т2ТН9К	Photography	DCS5 Foster & Freeman
T3AGN3	Photography	Fuji IS Pro camera; photographed after Visual, CA, and R6G
T9R47L	Photography	000 nm, clear filter, clear goggles.
TBYARM	Lifting	Photography - 1:1 photography (copy stand, scale); Lifts - tape and lift cards
TCWH6D	Photography	Camera/ lens three. Direct white lighting on Visual, CA and BP print. Camera/ lens three on RAY print using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster orange YA2 filter.
TEGHVT	Box	The foil was kept in a closed box to prevent the print from dust and messing the print before capturing.
TEGLEV	Scanning	
TGNX4J	Photography	capturing of fingerprint images using nikon interface protected by veridata.
TGPLUB	Lifting	Used latent print lifting tape. Lifted print placed onto a latent print card.

WebCode **Preservation Methods Method Details** TH64TA Photography Nikon D810, 60mm lens. Oblique light/ darkfield ring light THHRVM Photography TMUUNJ (Fixation) Fuming MVC, Polycyano for 30 minutes Photography Poliview, orange filter, white light TMVBD4 Photography Nikon D200 (RAW) Adobe Photoshop CS6 Digital image processing to remove any color and create a grayscale composite for the case file TMVHDB Photography Fluorescent photography with Coherent TracER laser using Canon EOS camera; and white light photography (before dye stain applied) TN8A8D Photography 1:1 ratio, 1,000 pixels, scale, after visual before superglue using oblique white lighting. After superglue before powder using oblique white lighting. RAY after powder using polilight/ orange filter. TQH8MF Photography Lifting TRTUF3 Photography Retained on DVD (Blue-Green ALS Photo - Best Quality) TXRN6N THIS LATENT WAS LIFTED USING LIFTING TAPE AND LATENT Lifting CARD. TZX2U3 placed tape over detail clear tape placed over ridge detail Scanning scanned foil to capture detail **U8UCBQ** Visual examination using PL500 and print was captured on Poliview Capturing System Poliview and exhibit was processed further U9U7FQ Photography Used visible oblique lighting during visual examination and after cyanoacrylate fuming. After dye stain, used Laser (Bright Beam) at 532nm with orange filter and orange plus FF1 filters on camera NIKON D80 Digital SLR Camera with Oblique Lighting + ALS/ UEZRCZ Photography **Orange Filter** RUVIS - 2 PHOTOS; WHITE LIGHT - 2 PHOTOS; Laser 532 UJ9AFU Photography nm - 1 Photo **UKGGL9** Photography Poliview used 530nm wavelength with orange filter (610nm)

WebCode

UM6THT Photography Photographs were taken using macro lens **UR9NGN** Photography I used a Micro lens to photograph all ridge detail, after superglue. Lifting I used clear lifting tape to lift any ridge detail and placed that on a latent print lift card. UWKJDK Nikon D810 Photography Foray Adams / Photoshop **UYLFRU** Photography With filter and between sesions. V677J8 The method for preservation would be to add a scale bearing Photography lab number, item number, and initials and send the evidence to photography. V7GV3J Photographed with scale and oblique lighting using a 550 nm Photography (orange) lens filter and a 455 nm (blue) light source. VLD8BN Photography of processed latent Photography VMAGMD DCS-4 and DCS-5 systems Photography VNGYLA Camera/ lens 3, oblique white lighting on Visual and CA Photography prints. Camera/ lens 3, direct white lighting on BP print. Camera/ lens 3, using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. VPX6TC Photography FOSTER & FREEMAN DCS SYSTEM VU7DBG Lifting tape. VYLTYM Photography Photographs taken after processing steps, mini-crimescope white light and Tracer Laser at 532nm. W2JP48 Photography Visual, CA, BP: Camera/Lens 3, oblique white lighting RAY: Camera/ Lens 3, using Rofin Polilight FLARE Plus 2 (450nm filter) with ProMaster Orange YA2 camera filter. W932R9 Photography Poliview digital camera 490nm wavelength on 610 filter. W9PC4N Resolution - 1000 or higher PPI Photography Lifting Clear tape

TABLE 3 - Item 1

Method Details

Preservation Methods

WebCode	Preservation Methods	Method Details
WAWK2M	Photography	Photographed Latent Print using digital photography.
	Lifting	Lifted developed Latent Print using clear fingerprint tape and placed on latent fingerprint card.
WDQNKT	Photography	Nikon D750
WFWBXX	Photography	
WJJN2A	Photography	Utilized Poliview digital capturing system, with white light no filter, (Image capturing before processing).
	Photography	Utilized Poliview digital capturing system, with 505nm light 555nm filter.
WTBYGW	Photography	Digital/ macro - TIF (Nikon D100); Overall prior to fume, After fume, After R6G w/ ALS @ 495 nm/ orange filter
WYDDW7	Photographing	
X2H6LX	Photography	
X3QDRC	Photography	oblique light White, UV light inverted
	Lifting	with gellifters photographed inverted, mirrored
X6FPNW	Photography	
X6GPHV	Photography	Photographed document before and after processing with cyanoacrylate fuming
	Photocopying	Xeroxed document for preservation purposes
X6V6JP	Lifting	With mikrosil
	Photography	With filter, Between sesions
X9YU9D	Photography	DCS-5-VIS/UV
	Photography	DCS-5-SG/UV
	Photography	DCS-5-R6G
XA7AFJ	Photography	After visual examination.
	Photography	After BY-40. Photography with yellow filters and light Source (445 nm)
	[No Methods Reported.]	Photo or photocopys of the item are taken to show where the impression is located on the item. If possible we cut out the impression from the item, and store it within the case papers. The original item is always retained until the case is closed by us.

Latent Print Processing

WebCode **Preservation Methods Method Details** XD8ZZD Photography A photo was taken after each step of the method sequence. XGBYAB Photography All control samples and photos of the latent print on Item 1 where taken on a digital capturing system - DCS 5 (room W1-13E) XJEQ4J Photography poliview system: rofin poliflare plus 2 @ 000 nm, 450 nm without filter (1st visual + fuming); poliview system: rofin poliflare plus 2 @ 505 nm with orange (ku550) filter (dye stain) Lifting print was lifted with ecotech tape. Nikon D700 **XLNTXU** Photography XNC3AG Photography The latent print was photographed with a scale using a macro lens at two phases of the processing: 1) after Cyanoacrylate fuming with oblique lighting, and 2) after Rhodamine application with an ALS held at an oblique angle. **XPQPPA** Camera-Nikon D-810; 1000 PPI; photographed visual print, Photography CA print, powder print, and RAY print. XRV77E Tape Lift frosted tape onto latent print card XXH8YC Photography Used oblique lighting to capture ridge detail in quadrant "D" XYT3MP [No Methods Reported.] Would use photography Y2HLB9 Photography A Digital Capturing System was used (DSC5). Visual images were taken with the Tracer. The Cyanoacrylate images were taken with blue/ green light and reflective UV. Rodamine 6 G images were taken with green light and an orange filter. Y6VFYT Photography Applying a centimeter test near the fingerprint and photographies are realise during step 2) and 4). Orange filter is fixed on the camera when the trace is illuminated with the Crimescope in CSS or at 515nm and 535. Y786FJ Photography Used Poliview capturing system to photograph the developed prints. Veridata & Downloading photographs were passed through veridata system and download into 3 DVD copies. Y789YM Photography Digital photographs of ridge structure collection value were obtained after the initial visual examination, cyanoacrylate fuming, and dye staining (with use of the polilight at 450nm). The digital images were uploaded and saved into FORAY and processed using Photoshop.

WebCode	Preservation Methods	Method Details
Y7AX4J	Scanning	Item 1 Was Scanned After The Cyanoacrylate Fuming Process.
Y9TY3C	Photography	Digital Capture System -5 for UV
	Photography	Digital Capture System -4 for R6G
YA9CQA	Photography	DCS4 System; Yellow Filter for MBD Dye Stain; Fluorescent Light Source
	Lifting	2" Lift Tape onto White Card
YMEE4Q	Photography	DCS4, goose neck
YNP83Y	Photography	
YPXBNB	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.
YT4KAE	Photography	A photograph of the fingermark was conducted (DCS 4 system) before Lumicyano Powder treatment
	Safe packaging and storage	
YT7ADB	Photography	Images captured by Labkam with UV lighting.
YY8QKB	Photography	Digital; a) white light and b) laser @ 532nm with orange filter
Z4VPLJ	Photography	PL500 light source (505nm) orange goggles, Nikon D700 camera.
ZCRKJG	first visual examination	The print that was visible was captured using white light, white filter on the poliview.
	cyanobloom	The print that was visible was captured using 470nm light, orange filter on the poliview.
	Dye stain	The print that was visible was captured using 470nm, orange filter on the poliview and repackaged.
ZFD9BA	Photography	photography shooting at each stage trace conservation on photography

WebCode	Preservation Methods	Method Details
ZG3RM8	Photography	Photographed CA print under white light with a scale using RAW format ISO 100 and F16
	Photography	Photographed R6G print using TracER Laser 532nm with a barrier filter using RAW format a scale ISO 100 and F16
ZMNQDF	Photography	
ZRMX3J	Photography	Photographs taken at time of visual examination and under 350nm UV lighting after cyanoacrylate fuming and dye staining.
ZUCBK2	Photography	Using photo evidence ruler.
ZXML9P	Photography	
ZY2WEA	Photography	best excitation wavelength: 445 nm, captured as RAW/JPEG, with a yellow 2 (8) barrier filter
ZY6DMF	Photography	
ΖΥ9ΥΒΑ	Photography	

Response Summary		Participants: 304
Methoc	ls Utilized	
Lifting Photography Scanning	46 281 10	**Note : Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

WebCode	Preservation Methods	Method Details
227TJB	Photography	For the second visual examination, a latent print was developed via the Ninhydrin process. A digital camera equipped with a 1:1 lens was used. The developed print was photographed without and with a scale.
2BX6YX	Photography	1,2-Indanedione: f/11, t=1/16s, ALS 530 nm with red filter
2ECYDA	Scanning	Epson Perfection V800; Epson Scan at 1200 dpi; Adobe Photoshop CC; saved as TIFF
2KGPR9	Photography	After development with DFO.
2M72PT	Photography	Raw- and tiff. files.
2RZ4K7	Scanning	Ninhydrin-Scanner 7, direct lighting
2YZFNP	Photography	Images saved in JPG & RAW @ 1000 dpi & transferred to DVD.
366BNH	Scanning	EPSON Perfection Scanner. One scan taken at or greater then 1000 DPI
3AWME8	Photography	Canon EOS Rebel 6G used to photograph evidence and test prints; No prints visible
	Scanning	Scanned evidence; Adobe photoshop used to enhance visibility of print- no print visible
3DBHNP	Photography	DCS4 capture system
3DGKJP	Photography	Item was photographed prior to and after processing. Photographs were transferred onto a singe DVD
42GCFD	Photography	
43U479	Scanning	Adobe Photoshop
4E3VP9	Photography	Light wavelength - 505nm; Filter - orange filter
4GAX3T	Photography	After ninhydrin with incandescent copy stand lighting
4J27YF	Scanning	One scan was taken of the item with the Epson V700 scanner at 1000 dpi.
4ND2VC	Photography	
4TQRCZ	Photography	After ninhydrin and caron chamber use

WebCode	Preservation Methods	Method Details
4XF728	Photography	
6DMW7J	Photography	
6GAG4Z	None	No prints observed.
6JFY4G	Photography	
6JV2BP	Photographed	photographed on copy stand - image entered into Digital Traq system.
	Photoshop	Original image enhanced through Photoshop - enhanced images entered as evidence into Traq system.
6R6M88	Photography	2018/06/22 08:32 - it was logged onto the nikon interface. the exhibit was placed on the stand underneath the camera. light source at 530 nm was applied. the DFO developed image was captured using the digital capturing system, validated by veridata and then named and saved. two copies of the image was printed in black and white using V++. one copy was used to create a giant arch and the other was piled in the A section of the case file. 2018/06/22 - the light pink/ purplr print, treated with ninhydrin was also captured at 0 nm validated, named and save. it was printed for giant arch and section A of case file.
6VHJC9	Photography	None
6WKZ3T	Photography	Photographs taken after processing steps.
7F9ZEG	Photography	
7FD9RB	Photography	
7HA2ED	Photography	Photographs using a Nikon D700 camera, macro lens, PL500. Digital capture image
	Photography	Capture images using Poliview digital capturing system (mark exhibit label with scale sticker name image).
7MQAWC	Digital Photography	Documented at DFO & Ninhydrin
7NPHZP	Photography	Utilizing the DCS4 Workstation
7UTJ44	Photography	photographed after IND-ZnCl, with laser 532nm/orange
7ZEBHK	Photography	

WebCode	Preservation Methods	Method Details
83YRXB	Photography	Photo included calibrated scale.
	Package/ Evidence	Preservation of actual item; properly packaged and stored in secure evidence facility.
8EDRRH	Scanned (Photography)	Imported into Foray, sized, photoshop, CMYK color magenta, gray scale, levels, burn, save and print
8EVW8V	Photography	Photographed print after DFO at 505nm with a Tiffen red 23A filter.
8EZ6MB	Photography	
8JPQ6X	Scanning	Scanner 13 used on Ninhydrin print.
8KJEQD	Photography	Nikon camera, RAW photo acquired into Foray ADAMS system. Overall item photographed as jpeg.
8V3Q4C	Digital Photograph	
8VWRCM	Photography	
8VY927	Scanning	Epson Perfection V600 Photo #9 @ 1200 dpi, TIF file on Ninhydrin print.
92L7E2	Photography	
978JFM	Photography	
9AWTQA	Photography	DFO was used on Item 2, dried under evidence drier, then put under Nincha equipment for further processing. Light wavelength of 470nm and 590nm filter was used to capture.
	Photography	Nindryn was used on item 2 to deep the item, item 2 was dried under evidence drier after it was deeped, then, put in nincha equipment for 25 minutes at 80 degree Celsius and 80% humidity, no print was developed.
9FYXJT	Ninhydrin fixative	Ninhydrin fixative to preserve the latent print.
	Photography	Using photo evidence ruler.
9HNAFD	Photography	
9KBQWD	Poliview Capturing System	000nm no filter
9NHY8H	Photography	

WebCode	Preservation Methods	Method Details
9T9FE3	Ninhydrin fixative	To preserve the latent print.
	Photography	The fingerprint was photographed and was used photo evidence ruler scale 1:1.
9WPYFK	Photography	Photographed with scale.
9XHVKK	Photography	
9XQF74	Photography	ISO = 800, Aperture = 6.3, Shutter speed = $1/200$
A7CACX	Scanning	Scanner #11. 1200 PPI resolution
AA8VBM	Photography	
APKEVZ	Photography	Photographed under tungsten lights. Put in ADAMS. Put photo on CD.
ARAN3F	Photography	
AVUKMZ	Photography	Photographed.
AW4RN8	Photography	poliview 505nm orange filter; poliview 000nm no filter
BGTEYM	Photography	Photography after visual with ALS for 1,2-Indanedione. Photographs were captured at 505nm with Orange Filter.
BM8BDU	Capturing latent print	505nm light, used orange filter.
BPJY3Z	Needs to be submitted to latent print unit	I placed evidence back into original packaging and the evidence will need to be submitted to latent print unit for further analysis.
BPMG66	Photography	
BZ44D7	Photography	
BZZLB2	Evidence packaging	Item #2 was sealed in the original envelope and forwarded for further processing.
C8GJB8	Photography	
C97WTQ	Photography	Using DCS5 camera. Green light with polarizer filter. Grey scale. Scale 1:1.
САК8ХВ	Photography	

WebCode	Preservation Methods	Method Details
CBJF3N	Scanning	Photoshop, scanned in at 1200 ppi.
CD7Y2Z	Photography	Nikon D4 camera with View NX software
CFQX93	Photography	Rafin PL500 - 450nm with 550 filter at P5. Nikon D700 - F-Stop: F/16 exposure time 1/2 sec. ISO - 2000
CJ4ZVY	Photography	Use of poliview capture system; master and archive DVD.
CLGH6W	Photography	Foster & Freeman DCS-4 system used to record positive development
CNNK9F	Photography	The print was photographed with the laser and a red/ orange filter.
CVKM6Z	Capturing (Nikon Poliview System)	Time light shutter exposure F-Stop 15 minutes 505 1/6 -1.67 9.
	Packaging	Refer to additional commentspage
CW2MEG	Scanning	
CWW96M	Photography	DCS-5 System by Foster Freeman
CXRNJ6	Photography	
CZX6LG	Photography	DCS4 CAMERA SYSTEM AFTER DFO TREATMENT THE ITEM WAS EXAMINED WITH A GREEN LIGHT SOURCE (490nm - 560nm) AND 590nm GOGGLES AND RIDGE DETAIL WAS FOUND. THIS WOULD THEN HAVE BEEN CAPTURED WITH THE CAMERA SYSTEM USING THIS WAVELENGTH OF LIGHT SOURCE. I DECIDED TO TREAT ITEM WITH NINHYDRIN IN CASE THE MARK WOULD BE ENHANCED FURTHER. IT WAS THEN EXAMINED WITH A WHITE LIGHT. THIS WOULD THEN HAVE BEEN CAPTURED WITH THE CAMERA SYSTEM USING A WHITE LIGHT SOURCE.
D2ZMXH	Photography	
D3MXAW	Photography	
D99VVY	Photo	DCS-3, manual
DAE997	DFO Methanol	Oven at 100 degree Celsius for 10 minutes PL500 & 505 light source.
DECTCQ	Green Light & Red Filter	F&F Crime-Lite 82S Green (480-560nm) & red googles
	Fotography	Canon 5D Mark III & red filter & 100mm 2.8L mackro
WebCode	Preservation Methods	Method Details
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DJKDY3	Photography	
DKMRWW	Photography	in TIFF
	Saved images to secure drive	
DQP7C7	Scanning	Scanned item with a metric scale using 1200 DPI resolution.
DVERXY	Packaging	Photographed exhibits and sealed in a new bag, veridata and master and archive.
DZRAFF	Photography	The fingerprint photographed using DFO.
E7DT62	Photography	Captured DFO at 495nm
E86WPV	Photography	Nikon DSLR camera w/60mm micro lens on tripod set to TIFF w/scale.
E8PJ2Y	Photography	Digital Capturing System: poliview system, light = 505 nm wavelength and orange filter to capture image 1 on A section.
EBBAHV	[No Methods Reported.]	No prints developed
EKECUF	Photography	Photographs taken after processing steps. Photo after 1,2 Indanedione-Zinc taken with mini-crimesope at 515nm.
ERGE68	Photography	ISO 200 , f16
EX2TE7	Capturng on DCS-3	Following print development with DFO/ HFE the print was captured with 450nm light, with an orange filter. Following print development with Nin/ Meth the print was captured with white light, no filter. Both captured prints were achieved and labelled print 2 (P2).
F44YUA	Photography	
F4QAZX	Photography	blue-green light and orange filter DCS4 (Foster & Freeman)
F637BU	Photography	All visualized prints were photographed using a digital SLR camera
F6YLGY	Photography	Nikon D810
	FORAY-ADAMS/ Photoshop	
FAEWV3	Digital Photography	

WebCode	Preservation Methods	Method Details
FHZC6Y	Photography	Using Poliview Digital Capture System: For DFO / Petroleum Ether - Rofin PL500 on 505nm with OG550 orange filter. For Ninhydrin - /HFE - Epson scan on V++
FJFNQB	Photography	Photo Evidence Scale
FJH6GU	Photography	
FPNZZU	Photography	
FULK3T	Photography	Nikon D300 w/ orange filter & copy stand
FYXAL3	Digital Photography CD	I digitally photographed the latent impression three times at different processing steps using the QImaging System. All three digital photographs of the latent impression were
		stored onto a CD.
G3QRGT	Photography	
G4ZPLA	Photography	DFO
GB6FCU	Photography	Photographed 2A-LP1 after IND-ZnCl with laser (532nm) and orange filter
GCFLAG	Photography	Photography after 1,2 Indanedione with ALS with 530nm and red filter.
GP2WWL	Scanning	saved TIFF Image, 1000 DPI
GP76C2	Photography	Photographed using the DCS4 camera under white light with long exposure,re-photographed using 490 nm - 505 nm (orange filter
GXHB4X	Photography	Nikon D810
	Foray Adams/ Photoshop	
GZMQL3	Photography	l used a camera to photograph the ridge detail after using Ninhydrin.
H8HFDQ	Photography	Developed latents of possible value in section A of Item 2 were photographed on the copy stand, without and with a scale, using department issued digital photographic equipment and a digital CF card.
HBD6KW	Photography	Image 2A - White light, no filter, transparent goggles.
HCU7WY	Digital Photographs	

WebCode	Preservation Methods	Method Details
НСКМЗХ	Photography	
HZWCFV	Photography	1:1 photo
JFQ8FT	None	No print was visualized
JLTH7Y	DFO & LASER & orange filter (Photography)	Photographed latent after processing with DFO and waiting 24 hours w/ LASER & orange filter
JLXVX2	Photography	DFO
JTUQVY	Photography	photographed with DCS and ALS
JUZEXH	Ninhydrin fixative	To preserve the latent print.
	Photography	Scale 1:1.
JWNPU3	Photography	We marked and numbered the fragment with a metric testimony. The revealed fragment was photographed after each process and saved into the case file folder. We made and saved one photo by process: The First after applying INDANEDIONE and the second after applying NINHYDRIN. We compared the best quality fragment on photos of each of the processes and choose the best. The photo of this fragment was treated with adobe photoshop CS6 and saved into the case file folder. Finally the analyzed object was stored inside an envelope.
JX7KRW	Photography	Nikon D810
	Foray Adams/ Photoshop	
JZD3QR	Scanning	The developed latent prints were scanned using Adobe Photoshop. The images was scanned at 1000dpi, cropped, and saved. It was then uploaded into the LIMS system at our laboratory.
JZFTUP	Photography	Digital camera; 415 nm; yellow filter; RAW/ TIFF format
K2YZMW	Photography	Afetr DFO: Used 505nm light source, 550nm filter; After Ninhydrin: no light source was used
	Repackagung	Repackaged Item 2 in a new evidence bag.
K7YF3Z	Photography	Photo taken of 1,2-Indanedione print.
KBAFD6	Photography	Canon EOS 60D, 100 mm lens.
KDBJ38	Photography	

WebCode	Preservation Methods	Method Details
KGRTAJ	Downloading	After NIN/ Methanol visual; no finger print images were captured on Item2. Item was then sealed on the evidence bag PA4001219753 and booked to the exhibit clerk. Item 2 COCs were downloaded on to the veridata software for validation. Working master dics were created.
KQ3ZZK	Scanning	Scanner 13, Ninhydrin print.
KUNK8A	Digital Photography	Nikon D300 digital camera on copy stand, RAW format, aperture priority, 90-degree angle to item, macro setting, angled lighting, scale. Images uploaded into Digital Traq, enhanced in Photoshop, calibrated 1:1, and printed.
KWLFEQ	Ninhydrin fixative	Ninhydrin fixative to preserve the fingerprint.
	Photography	Using photo evidence ruler.
KYBQBB	Photography	
KYV9MW	Digital Photography	saved on CD
KZC8ZU	Packaging	Properly repackaging allows for longer preservation of item.
L7TGCW	DFO/ HFE	visible print on exhibit was captured using Poliview, 450nm light source from Rofin PL500 with an orange filter on the camera.
	Ninhydrin/ HFE	Visible print on exhibit was captured using poliview, 450nm light source from Rofin PL500 with an orange filter on the camera. Exhibit was then re-packaged to further preserve the print - developed.
LCVNRY	Photography	DFO - Fluorescent photography, 530nmlight, OG 590nm filter. Ninhydrin -no light, no filter
LG9AWP	labeling	edge of item 2 labeled
LH4PD3	Photography	With light, Between methods
LHLX4H	Photography	Photograhed latent print using the Nikon D600 450 / 530 wavelength and white / orange goggles
LP2JB2	Photography	Photography with a photographic scale.
LV7FU2	Photography	
LWMHTM	Photography	DCS-5 system
M2W398	Scanning	Scanned image taken after Ninhydrin processing step.

WebCode	Preservation Methods	Method Details
M7KUEE	Photography	Full size using photo evidence ruler.
М997СҮ	Photography	Ridge detail observed in quadrant A. Two photographs are done satisfactorily. The first after applying 1,2-Indandione (using forensic light with a wavelength of 525 nanometers) and the second after applying Ninhydrin. Use Adobe Photoshop CS6 enhance the image.
MCRCUU	Photography	Photographs taken after processing steps. Tracer Laser - 532nm
МЕНМКМ	Ninhydrin fixative	Ninhydrin fixative to preserve the fingerprint.
	Photography	Photography to preserve picture - full size.
MG9E8R	Scanning	Scanner 13 used for Ninhydrin print (1 image)
MPFFZ7	Photography	Photo was taken for recover latent print and saved in the case file
МХЕҮКА	Photography	Photographs taken after processing steps.
N2R837	Photography	Nikon D7000, Bright Beam laser 532nm
N822KW	Scanning	
N8BFG6	[No Methods Reported.]	quality of print considered too low to preserve. (but photo would have been used)
N8JY3N	Photography	Printed 1:1 photograph of print.
NGJP94	Photography	
NHX8DU	Photography	Digital photographs
NKMLVD	Ninhydrin fixative	Ninhydrin fixative.
	Photography	Photography Full size close-up.
NN2H2E	Photography	Poliview used, wavelength = 450nm with orange fitter (610nm.
NPEWXN	Photography	photography in the dark under cyan light 500nm and orange filter
NXP9LL	Photography	After applied DFO.
NZEKJ7	[No Methods Reported.]	No preservation method used.

WebCode	Preservation Methods	Method Details
P9NBTN	Photography	
PCMDW4	Photography	All developed fingermarks were preserved using photography through capturing the imeges using (DCS5)
PDGBZ6	Photography	Raw and tiff files.
PPVCQW	Photography	Digital photography
PQJ3H3	Photography	First, we took a photo of the print in digital format and saved it. Then the photo is treated in order to clearly identify the print.
PX94E9	Photography	Photographs taken after processing steps.
PYHD6K	Photography	Photographed to document development in section A. Additionally, close-up photography of latent was taken.
	Scanning	Scanned item after Ninhydrin development.
PZ9MM2	Photography	
Q3EELT	Photography	Digital format - RAW.
Q4CPHW	Photography	
Q4LTY2	Photography	captured latent print with the use of ALS and existing light.
Q4RVV2	DFO/ Laser	Photography
	Ninhydrin	Photography
	Photography	
QGE3UM	Scanning	Adobe Photoshop
QHPZ7J	Photography	
QKZ3WN	Photography	Digital photography and Photoshop processing
QNCRDC	Photography	By using forensic lights after DFO (415 nm) and Ninhydrin (White light) treatment.
QQ92RN	Photography	Photography of the mark after every step of examination
QXLGVG	Photography	DCS-5 from Foster & Freeman.
QYFWF2	Photography	

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WebCode	Preservation Methods	Method Details
R37QRT	Digital Capturing	450nm, OG 550
	Digital Capturing	000nm
R3FLCT	Scanning	
R87TZ3	Photography	Photography was taken for the developed fingermark
RATKV6	Photography	Photographed after processing steps.
RBN9CF	None	No prints observed.
RFH3C3	Photography was used to preserve the print.	
RFN8ZR	Photography	l used a micro lens to photograph all ridge detail and included a ruler
RG99NL	Photography	Ridge detail observed in Section A; insufficient detail for collection/ comparison. Photographed with macro lens.
RGQEU4	Photography	Photo taken post ninhydrin using incandescent light
RHML8P	Photography	
RJGGYR	Photography	I photographed the latent print seen in Box A of Item 2.
RPLCJR	Photography	green light (490nm), orange filter (550nm)
RQHUH8	Photography	Photos taken with a Nikon D700 camera, photos taken after 1,2-Indandedione under the TracER laser. Print labeled L-003.
RVPCPM	Photography	Using poliview system, for 1st visual :000nm with no filter, DFO visual: 450nm, orange filter Ninhydrin 000 nm,530 nm with no filter and orange filter respectively
rydqnj	Photography	
RZMKGC	Photography	Raw image collected without filter
Т2ТН9К	Photography	DCS5 Foster & Freeman, luminescent examination Crimelite (570-590 nm) orange filter
T3AGN3	Photography	Fuji IS Pro; photographed after DFO
T9R47L	Photography	No Images

WebCode	Preservation Methods	Method Details
TBYARM	Photography	Photography - 1:1 Photography (copy stand, scale)
TCWH6D	Scanning	Used scanner 13 on Ninhydrin print.
TEGHVT	HFE based	The board was treated HFE to prevent ink from running into the print.
	Drying	The board was dried before placing it in the Nincha.
TEGLEV	Scanning	
TGNX4J	Photography	capturing fingerprint images using nikon interface protected by veridata.
TGPLUB	Photography	Developed latent print was photographed using a orange filer while applying 505 nm light.
TH64TA	Photography	Nikon D810, 60mm lens. Coherent tracer laser @ 532nm
THHRVM	Photography	
TMUUNJ	Photography	Poliview, orange filter, 505nm Polight flare
TMVBD4	Photography	Nikon D200 (RAW)
	Adobe Photoshop CS6	Digital image processing to remove any color and create a grayscale composite for the case file
TMVHDB	Photography	White light photography with green filter and monochrome setting using Canon EOS camera.
TN8A8D	Scanning	Check scanner settings/ scale. After Ninhydrin processing using scanner lighting/ setting.
TQH8MF	Photography	
TRTUF3	Photography	Retained in DVD-R (ninhydrin photo)
TXRN6N	Photography	THE DEVELOPED FRICTION RIDGE DETAIL IN QUADRANT A WAS PHOTOGRAPHED USING SCALE AND NOTATED WITH LATENT NUMBER, CASE NUMBER, & PHOTOGRAPHER ID INFO. SEVERAL IMAGES CAPTURED AT DIFFERENT EXPOSURES.
TZX2U3	no further action	no workable prints developed; no further action ref preservation
U8UCBQ	Visual	Visual examination using PL500 no print was formal and further examination was done.

WebCode	Preservation Methods	Method Details
U9U7FQ	Photography	After 1,2-Indanedione - used Laser (Bright Beam), 532nm, orange filter and orange plus FF1 filters on camera
UEZRCZ	Photography	NIKON D80 Digital SLR Camera with Oblique Lighting
UJ9AFU	Photography	Laser - 1 photo, White light - 1 photo
UKGGL9	Photography	Photographed 450nm with orange filter (610nm)
	Photography	Photographed 000nm with clear filter (610nm)
UM6THT	Photography	Photographs were taken using macro lens
UR9NGN	Photography	l used a Micro lens to photograph all ridge detail, after using non-running Ninhydrin and waiting seven days.
UWKJDK	Photography	Nikon D810
	Foray Adams / Photoshop	
UYLFRU	Photography	
V7GV3J	Photography	Photographed with scale and oblique lighting.
VLD8BN	Photography	Photography using orange filter under 505 nm light
VMAGMD	Photography	DCS-5 system
VPX6TC	Photography	F & F, DCS SYSTEM
VU7DBG	Repackaged for submission	Repackaged for submission to lab.
VYLTYM	Photography	Photographs taken after processing steps. Tracer Laser at 532nm.
W2JP48	None	No prints observed
W932R9	Photography	Poliview digital capturing 470nm wavelength 610 filter.
W9PC4N	Scanning	Resolution - 1000 DPI
WAWK2M	Photography	Photographed latent print using digital photography.
WDQNKT	Photography	Nikon D750
WFWBXX	Photography	

WebCode	Preservation Methods	Method Details
WTBYGW	Photography	Digital/macro - TIF (Nikon D800); Overall prior to processing; After DFO w/ ALS 495 nm/orange filter; After NIN
WYDDW7	Photographing	
X2H6LX	Photography	
X6FPNW	Photography	
X6GPHV	Photocopied	Xeroxed document after processing with ninhydrin in acetone
X6V6JP	Photography	
X9YU9D	Photography	DCS-5 Indanedione ZnCl
XA7AFJ	Photography	Photography after Indanedione, light Source (495) and Orange filters.
XD8ZZD	Photography	After treatment with DFO and after treatment with ninhydrin.
XGBYAB	Photography	All control samples and photos of the latent print on Item 2 where taken on a digital capturing system - DCS 5 (room W1-13E)
XJEQ4J	Photography	poliview system: DFO = rofin poliflare plus 1 @ 505 nm with orange (KV550) filter. ninhydrin HFE = rofin poliflare plus 2 @ 000 nm without filter and 530 nm with red (06590) filter.
XNC3AG	Photography	The latent print was photographed with a scale using a macro lens. The print was also photographed with a scale using the RUVIS with no filter and no UV light.
XPQPPA	Scanning	Epson V600, scanned at 1200 dpi; scanned Ninhydrin print.
XRV77E	Photographed	Formatted print to 1:1, black & white
XXH8YC	Scanning	Digital scanner - Epson, V700, 1200 ppi scanned as .tif image in quadrant "A"
ХҮТЗМР	[No Methods Reported.]	Would use photography
Y2HLB9	Photography	A Digital Capturing System was used (DSC5). DFO images were taken with the Tracer. The Ninhydrin images were taken with white light and green light.

WebCode	Preservation Methods	Method Details
Y6VFYT	Photography	Applying a centimeter test near the fingerprint and photographies are realise during step 4). Orange filter is fixed on the camera when the trace is illuminated with the Crimescope in CSS after step 4).
Y786FJ	Photography	Used poliview capturing system to photograph the developed prints.
	Veridata & Downloading	photographs were passed through veridata system and download into 3 DVD copies.
Y789YM	Photography	Digital photography was utilized after 1,2-Indanedione (with the use of the polilight at 530nm). The digital images were uploaded and saved into FORAY and processed in Photoshop.
Y7AX4J	Scanning	Item 2 Was Scanned After Treated With Ninhydrin And The Let Dry Process.
Ү9ТҮЗС	Photography	Used DCS-4 after Ninhydrin
YA9CQA	Photography	DCS4 System; Green Filter for Ninhydrin; White Light Source
YNP83Y	Photography	
	Scans	scanned at 1200dpi
YPXBNB	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. NOTE: Fingerprint Bureau assessment of first level detail was 'Loop to the right' or 'Whorl', they could not make a definite determination of one pattern type as lowest section of pattern not developed.
YT4KAE	Photography	A photograph of the fingermark was conducted (DCS 4 system) after Indanedione + zinc chloride treatment
	Safe packaging and storage	
YT7ADB	Photography	Digital imaging of observed ridge detail.
YY8QKB	Photography	Digital; laser 532nm with orange filter
Z4VPLJ	Photography	Use PL500 light, Nikon D700, 505nm/ 000nm orange goggles.

WebCode	Preservation Methods	Method Details
ZCRKJG	DFO/ HFE	The developed print was captured using 470nm light with orange filter on the poliview.
	Ninhydrin/ HFE	The developed print was captured using 450nm light with orange filter on the poliview.
ZFD9BA	Photography	photography shooting at each stage; trace conservation on photography
ZG3RM8	Photography	Photographed the print under white light with a scale using RAW Format ISO 100 and F16
ZMNQDF	Photography	Indandione needed to be photographed by our photographer
	Scanning	Ninhydrin traces can be scanned by each fellow
ZRMX3J	Photography	Photographs taken at time of visual examination and under alternate light source at 505nm with orange filter after processing.
ZUCBK2	Ninhydrin fixative	To preserve the latent print.
	Photography	Using photo evidence ruler.
ZXML9P	Photography	
ZY2WEA	Scanning	1000 ppi/ .tif format
ZY6DMF	Photography	
ΖΥ9ΥΒΑ	Photography	

Response Summary		Participants: 304
Methods	Utilized	
Lifting	0 227	**Note : Methods listed are the preloaded options for selection via the CTS Portal
Scanning	32	and do not reflect all answers provided by participants.

WebCode	Preservation Methods	Method Details
227TJB	Photography	After the Ninhydrin process, a latent print developed. A digital camera equipped with a 1:1 lens was used. The developed print was photographed without and with a scale.
2BX6YX	Photography	1,2-Indanedione: f/11, t=1/8s, ALS 530 nm with red filter
2ECYDA	Photography	Nikon D810 camera; Camera Control Pro 2; Adobe Photoshop CC; saved as TIFF and greater than or equal to 1000 ppi
	Scanning	Epson Perfection V800; Epson Scan at 1200 dpi; Adobe Photoshop CC; saved as TIFF
2KGPR9	Photography	After DFO and Ninhydrin.
2M72PT	Photography	Raw- and tiff.files
2RZ4K7	Photography	Inherent Luminescence: Camera 9/ lens 2, Rofin Polilight FLARE Plus 2 with orange camera filter; Powder: Camera 9/ lens 2, bounced lighting.
2YZFNP	Photography	Images saved in JPG & RAW @ 1000 dpi & transferred to DVD
366BNH	Scanning	EPSON Perfection Scanner; One scan taken at or greater then 1000 DPI
3AWME8	Photography	Canon EOS Rebel 6G used to photograph evidence and resulting print
3DBHNP	Photography	DCS4 capture system
3DGKJP	Photography	Item was photographed prior to and after processing utilizing 450 nm (ALS) and an orange lens filter on camera.
3KDFJ9	Photography	Alternate light source @ 529nm W/ Orange filter
42GCFD	Photography	
43U479	Scanning	Adobe Photoshop
4E3VP9	Photography	Light waveleng - 505nm Filter - orange filter
4GAX3T	Photography	Post lumicyano, with ALS at 475nm with orange filter
	Photography	Post dusting with black magnetic powder
	Photography	Post Physical developer
4J27YF	Scanning	One scan was taken of the item with the Epson V700 scanner at 1000 dpi.

WebCode	Preservation Methods	Method Details
4ND2VC	Photography	
4TQRCZ	Photography	After ninhydrin and caron chamber use
4XF728	Photograph	
6GAG4Z	Scanning	TIFF setting, after ninhydrin solution, an identifying tag with measurements was used.
6JV2BP	Photographed	photographed on copy stand - image entered into Digital Traq system.
	Photoshop	Original image enhanced through Photoshop - enhanced images entered as evidence into Traq system.
6R6M88	Photography	2018/06/21 - it was logged onto the nikon interface. the exhibit was placed on the stand underneath the camera. light source was applied at 0 nm, 350 nm, and 450 nm. the image was captured using the digital capturing system, authenticated/ validated with veridata, named and saved. tow copies of the image was printed in black and white using V++. one copy was filed in the A section of the case file and the other was used to create a giant arch.
6VHJC9	Photography	None
6WKZ3T	Photography	Photographs taken after processing steps.
7F9ZEG	Photography	
	Lifting	Mikrosil.
7FD9RB	Photography	
7HA2ED	Photography	Photograph with Nikon D700 macro lens, PL500. (Marking exhibit label with scale sticker, name image number)
	Photography	Capture images using Poliview digital capturing system, Nikon D700.
7MQAWC	Digital Photography	Documented @ visual & DFO
7NPHZP	Scanning	Epson Scanner - 1000dpi
7ZEBHK	Photography	
83YRXB	Photography	Photo included calibrated scale.
	Package/ Evidence	Preservation of actual item; properly packaged and stored in secure evidence facility.

WebCode	Preservation Methods	Method Details
8EDRRH	Photography	Imported into Foray, sized, photoshop, green filter, gray scale, levels, save, print
	Scanned after Nin Hydrin	Imported into Foray, sized, photoshop, green filter, gray scale, levels, save, print
8EVW8V	Photography	Photographed print after DFO and R.A.M. at 505nm with a Tiffen red 23A filter. Photographed print after wet powder suspension with white light.
8EZ6MB	Photography	
8JPQ6X	Scanning	Scanner 13 used on BP and Ninhydrin prints.
8KJEQD	Photography	LabKam capture, tif file. Nikon camera, RAW photograph captured in Foray ADAMS system. overall item photographed as jpeg.
8V3Q4C	Digital Photograph	
8VWRCM	Photography	
8VY927	Scanning	Epson Perfection V600 Photo #9 @ 1200 dpi TIF file on Ninhydrin print.
92L7E2	Photography	
978JFM	Photography	
9894WW	Photography	Ninhydrin: Camera 3, Lens 3. Direct reflection lighting.
9AWTQA	Superglue	2.52g of superglue for 30 minutes at 150 degree Celsius, 85%, no print was developed.
	Rhodamine 6G	Rhodamine 6G was used to dye after superglue and rinsed with running water. Dried under evidence drier, 350nm light, 505nm filter and yellow goggles for capturing.
9B9ERW	Photography	The item was photographed using Camera/ lens three using oblique lighting for the Black Powder stage.
	Scanning	The item was scanned using Scanner 13 for the Black Powder and Ninhydrin stages.
9FYXJT	Photography	Using photo evidence ruler
	Lifting	Lifting tape.
9HNAFD	Photography	
9KBQWD	Poliview Digital System	NA

WebCode	Preservation Methods	Method Details
9NHY8H	Photography	
9WPYFK	Photography	Photographed with scale.
9XHVKK	Photography	
9XQF74	Photography	ISO = 1000; Aperture = 13.0; Shutter speed = 1/60
	Lifting	Clear tape on index card
9Z79MW	Poliview and PL500	1/50 sec; 34cm, PL500-505nm; OG 550
A6HBAR	Photography	Scale 1:1 with photo evidence ruler.
A7CACX	Photography	Nikon D810 on Powder print. Direct diffused lighting.
AA8VBM	Photography	
APKEVZ	Photography	Photographed under tungsten lights. Put in ADAMS, put on CD.
ARAN3F	Photography	495nm and 515nm; orange filter
AVUKMZ	Photography	Photographed like before.
AW4RN8	Photography	poliview 450nm orange filter
BGTEYM	Photography	Photography after visual with ALS- 455nm with Orange Filter. Photography after lodine with ALS- 350nm with UV filter. Photography after visual, 1,2-Indanedione- 505nm with Orange Filter. Photography after Silver Nitrate with white light.
BM8BDU	Polyview Capturing System	White light clear filter
BPJY3Z	Lifting	Lifting tape was used in section "B" to lift suspected print and placed on [Laboratory] #74 latent lift card with time, date, initials, case number, victim and location on front of card. Evidence placed back into original packaging.
BPMG66	Photography	
BZZLB2	Lifting	Lifted with latent print tape then placed on a latent lift card and sealed in white latent print envelope.
C8GJB8	Photography	

WebCode	Preservation Methods	Method Details
C97WTQ	Photography	DCS5 equipment using white light with polarizer filter. Grey scale. Scale 1:1.
САК8ХВ	Photography	
CBJF3N	Scanning	Photoshop, scanned in at 1200 ppi.
CD7Y2Z	Photography	Nikon D4 camera with View NX software.
CFQX93	Photography	Rofin PL500 - on 505nm at PS with 550 filter.
	Digital Capturing Syatem	Nikon D700 - F-Stop: f/16, exposure time:1.6 seconds, ISO-2000.
CJ4ZVY	Photography	Use of poliview digital capture system, master and archive DVD.
CLGH6W	Photography	Foster & Freeman DCS-4 system used to record positive development
CNNK9F	Photography	The print (indanedione) was photographed with the laser and a red/ orange filter.
	Photography	The print (black powder) was photographed with natural light due to the wrapping paper possible tearing during lifting.
CVKM6Z	Capturing	Time light shutter exposure F-Stop 10 minutes none 1/8 -1,67 9.
	Packaging	Refer to additional comments page.
CW2MEG	Scanning	
CWW96M	Photography	DCS-5
CXRNJ6	Photography	
CZX6LG	Photography	DCS4 CAMERA SYSTEM AFTER CYANOACRYLATE FUMING, THE ITEM WAS EXAMINED WITH A WHITE LIGHT SOURCE WITH A NEGATIVE RESULT. AFTER DFO TREATMENT THE ITEM WAS EXAMINED WITH A GREEN LIGHT SOURCE (490nm - 560nm) AND 590nm GOGGLES AND RIDGE DETAIL WAS FOUND. THIS WOULD THEN HAVE BEEN CAPTURED WITH THE CAMERA SYSTEM USING THIS WAVELENGTH OF LIGHT SOURCE. I DECIDED TO TREAT ITEM WITH NINHYDRIN IN CASE THE MARK WOULD BE ENHANCED FURTHER. IT WAS THEN EXAMINED WITH A WHITE LIGHT. THIS WOULD THEN HAVE BEEN CAPTURED WITH THE CAMERA SYSTEM USING A WHITE LIGHT SOURCE.

WebCode	Preservation Methods	Method Details
D3MXAW	Photography	
D99VVY	Photo	DCS-3, manual
DECTCQ	Lights	F&F Crime-Lite 82S violet & clear filter and red filter
	Photography	Canon 5D Mark III & 100mm 2.8L macro
DJKDY3	Photography	
DKMRWW	Photography	in TIFF
	saved images to secure drive	
DQP7C7	Photography	Photographed developed ridge detail with a metric scale.
DVERXY	Packaging	Photographed exhibit and seal in a new bag, burn CD, Veridata and archive.
DZRAFF	Photography	The fingerprint was photographed at every stage of research after disclosure.
E7DT62	Photography	ALS examination - Captured image with Crime Scope at 475nm. DFO captured image at 515nm
E86WPV	Photography	Nikon DSLR camera w/ 60mm micro lens on tripod set to TIFF w/ scale.
E8PJ2Y	Photography	Digital Capturing System: poliview system: light - 505 nm wavelength and orange filter, the print was visible after DFO examination on B-section was captured.
EBBAHV	Photography	The print was photographed with a scale
EKECUF	Lifting	Print lifted after powdering step. Lift tape used on white backing card.
ERGE68	Photography	ISO 200 , f16
EX2TE7	Capturing on DCS-3	Following print development with DFO / HFE the print was captured on digital capturing system with 450nm light with orange filter. 4Following print development with Nin/ Meth the print was captured with white light and no filter. Both prints were labelled print 3 (P3) and archived.
F44YUA	Photography	
F4QAZX	Photography	white light before development; blue-green light and orange filter. DCS4 (Foster & Freeman)

WebCode	Preservation Methods	Method Details
F637BU	Photography	All visualized prints were photographed using a digital SLR camera
F6YLGY	Photography	Nikon D810
	FORAY/ ADAMS, Photoshop	
FAEWV3	Digital Photography	Visualized latent with visual/ laser, powder, and PD only.
FHZC6Y	Photography	Using Poliview Digital Capture Syatem: For first visual examination - Rofin PL5000 on 505nm with oa 550 orange filter; For Fuming - Rofin PL500 on 505nm with OG 550 orange filter; For Powdering - Rofin PL500 on 000nm with no filter; For Dye Stain - Rofin PL500 on 505nm with OG 550 orange filter
FJH6GU	Photography	
FPNZZU	Photography	
FULK3T	Scanner	1200 ppi, 48 bit color
FYXAL3	Digital Photography	I digitally photographed the latent impression four times at different processing steps using the QImaging System.
	CD	All four digital photographs of the latent impression were stored onto a CD.
G3QRGT	Photography	
G4ZPLA	Photography	The fingerprint was photographed at every step of a research
GCFLAG	Photography	Photography with after Ninhydrin in white Light and after Silver Nitrate with White Light.
GP2WWL	Scanning	Saved TIFF Image 1000 DPI
GP76C2	Photography	DCS4 camera used with Alternate Light source 435 nm to 480 nm range using a yellow filter
GXHB4X	Photography	Nikon D810
	Foray Adams/ Photoshop	
H4GGW7	Photography	
H8HFDQ	[No Methods Reported.]	No ridge detail was observed.

WebCode

HBD6KW Polyview Capturing System Image 3A - 505nm wavelength, P7, 610nm filter, orange goggles. HGKM3X Photography HGZV68 Photography with one to one lens hinge lifter Lifting **HZWCFV** Photography 1:1 photo JFQ8FT Photography JLTH7Y Visual exam with Laser and orange filter and after powdering Photography and after Rhodamine dye stain with LASER & orange filter JLXVX2 Photography Powder, ninhydrin and after PD JTUQVY Photography photographed with DCS after black powder application, before lifting Lifting After photography, with lift tape and card JUZEXH Photography Using photo evidence ruler. Lifting Lifting tape to preserve the latent print. JWNPU3 Photography We marked and numbered the fragment with a metric testimony. The revealed fragment was treated with adobe photoshop CS6 and saved into the case file folder. Finally the analyzed object was stored inside an envelope. JX7KRW Nikon D810 Photography Foray Adams/ Photoshop JZD3QR Photography For the black powder used in processing the wrapping paper latent prints were developed. These prints were preserved using digital photography. The photograph was uploaded into the LIMS system at our laboratory. JZFTUP Photography Digital camera; 505 nm the length of light and 555 nm filter after visual examination, than white light after Iron oxide; RAW/TIFF format. K2YZMW Photography After dye: used 505nm light source, 550nm filter. Repackaging Repackaged Item 3 in a new evidence bag.

TABLE 3 - Item 3

Method Details

Preservation Methods

Photography

K7YF3Z

Photos taken after 1,2 Indanedione and black powder.

WebCode **Preservation Methods Method Details** KBAFD6 Photography Canon EOS 60D, 100 mm lens. KDBJ38 Photography **KGRTAJ** After dye stain visual, 01 x FP Image was captured on section Photography D. Item 3 was then sealed on the evidence bag PA4001219753 and booked back to the exhibit clerk. Downloading Images were downloaded on to the veridata software for validation. Working master discs were created for preservation. KQ3ZZK Scanner 13 for Powder and Ninhydrin prints. Scanning KUNK8A **Digital Photography** Nikon D300 digital camera on copy stand, RAW format, aperture priority, 90-degree angle to item, macro setting, angled lighting, ambient lighting, scale. Images uploaded into Digital Traq, enhanced in Photoshop, calibrated 1:1, and printed. **KYBQBB** Photography KYV9MW **Digital Photography** saved on CD KYW3C4 photographed with and without scale Photography Lifting Lifted with hinge lifter KZC8ZU Scanning Ninhydrin: scanner 13 L7TGCW Dye Stain Visible print on exhibit was captured using Poliview, 470nm light source from Rofin PL500 with orange filter fitting on camera. Exhibit was then packaged for further preservation of the developed print. LCVNRY Photography Ninhydrin - 530nm light, no filter; Black magnetic powder - no light, o filter, normal photography LG9AWP Nikon D80 camera. RAW+JPEG Fine setting, f/32, 1/100 sec Photography shutter speed, ISO 640. Oblique lighting used to highlight ridges. labeling labeled item on edge LH4PD3 With filter and between methods Photography LP2JB2 Photography Photography with a photographic scale. LV7FU2 Photography

WebCode	Preservation Methods	Method Details
LW9WJK	Scanning	Scanner 13, Ninhydrin Tiff image.
LWMHTM	Photography	DCS-5 system
M2W398	Lifting	Taken after magnetic powder.
	Photography	Photographs taken after processing steps. Mini-Crimescope at 515nm.
	Scanning	Scanned image after Ninhydrin step.
M7KUEE	Photography	Full size using photo evidence ruler.
М997СҮ	Photography	Ridge detail observed in quadrant B . A photograph is taken satisfactorily after applying 1,2-indandione (using forensic light with a wavelength of 505 nanometers). Use Adobe Photoshop CS6 enhance the image.
MCRCUU	Photography	Photographs were taken after processing steps. Mini-crimescope 455nm and white light. Tracer Laser at 532nm.
МЕНМКМ	Photography	Full size using photo evidence ruler.
MG9E8R	Photography	Camera 3/ Lens 3 with oblique lighting for Magnetic Powder print (2 images)
	Scanning	Scanner 13 used for: Magnetic Powder print (1 image) and Ninhydrin print (1 image)
MPFFZ7	Photography	Photographs is taken during all process
	Black powder lifting	Lifting black powder for recovered latent print
МХЕҮКА	Photography	Photographs taken after processing steps.
N2R837	Photography	Nikon D7000, Bright Beam laser 532nm
N822KW	Photography	
N8BFG6	[No Methods Reported.]	quality of print considered too low to preserve. (but photo would have been used)
N8JY3N	Photography	Printed 1:1 photograph of print.
N8WT83	Photography	455nm; orange filter
NGJP94	Photography	

WebCode	Preservation Methods	Method Details
NHX8DU	Photography	Digital photograph
NN2H2E	Photography	Poliview used wavelength = 505 nm with orange (610nm)
	Photography	Poliview used wavelength = 530 Fitter = 610nm (orange)
NPEWXN	Photography	photography with crimelite 8x4, under cyan light 500nm and orange-yellow filter
NQRBNJ	Photography	Powder - white LED diffused direct
NXP9LL	Photography	After applied Ninhydrin.
NZEKJ7	Photography	
P9NBTN	Photography	
PCMDW4	Photography	All developed fingermarks were preserved using photography using (DCS5) through capturing the images of each
PDGBZ6	Photography	The material/ fingerprint in section B was photographed after the first visual examination with blue light. Unclear fingerprint.
PPVCQW	Photography	Digital photography
PQJ3H3	Photography	One more time. A photo of the print was taken in digital format and saved it. Then the photo is treated in order to clearly identify the print.
PRKJ8M	Lifting	Lifted print with lift tape and placed on [Laboratory] #74 latent lift card
PX94E9	Photography	Photographs taken after processing steps.
PYHD6K	Photography	Photographed developed latent in section B.
PZ9MM2	Photography	415nm; yellow filter
Q3EELT	Photography	Digital format - RAW.
Q4BWLA	Photography	All stages of positive ridge development were captured with Nikon D700 with orange barrier filter
Q4CPHW	Photography	
Q4LTY2	Photography	captures latent print with the aid of white light.

WebCode	Preservation Methods	Method Details
Q4RVV2	Photography	FSIS, DFO, after all processing.
QGE3UM	Scanning	Adobe Photoshop
QHPZ7J	Photography	
QKZ3WN	Photography	Digital photography and Photoshop processing
QQ92RN	Photography	Photography of the mark after every step of examination
QRFLBG	Scanning	PD-scanner 6, see metadata
QXLGVG	Photography	DCS-5 from Foster & Freeman.
QYFWF2	Photography	
R37QRT	Digital Capturing	Natural light (Ninhydrin processing developed a finger print?)
R3FLCT	Photography	FLS-450nm
R87TZ3	Photography	Photography is taken for the developed fingermark
	Lifting	Black powder was preserved for the developed fingermark
RATKV6	Photography	Photographs taken after processing steps.
RBN9CF	None	No prints observed.
RFH3C3	Photography was used to preserve the prints.	
RFN8ZR	Lifting	I used clear tape and placed it over any ridge detail. I then lifted the tape and placed it on a fingerprint card
RG99NL	Photography	Ridge detail observed in Section B; photographed with RUVIS using a 254 nm filter and UV light.
RGQEU4	Photography	First Photo: post lumicyano with ALS set at 495 nm and an orange filter; Second Photo: post black FP powder, incandescent light; Third Photo: post ninhydrin, incandescent light
RJGGYR	Photography	I photographed the latent print seen in Box B of Item 3.
RPLCJR	Photography	green light (490nm), orange filter (550nm)

WebCode	Preservation Methods	Method Details
RQHUH8	Photography	Photos taken with a Nikon D700 camera, photos taken during initial examination under TracER laser, after 1,2-Indanedione, and after powder dusting. Print labeled L-002.
RVPCPM	Photography	Using a Poliview system, using 000nm, 000nm, 000nm and 505nm with orange filter respectively.
RYDQNJ	Photography	
RZMKGC	Photography	Raw image collected without a filter
Т2ТН9К	Photography	DCS5 Foster & Freeman, white light
T3AGN3	Photography	Fuji IS Pro; photographed after DFO and Ninhydrin;
T9R47L	Photography	capturing the fingerprint.
TBYARM	Lifting	Photography - 1:1 Photography (copy stand, scale); Lifts - gelatin lift (then photographed lift as described above)
TCWH6D	Photography	Camera/ lens three used on BP print.
	Scanning	Scanner 13 used on Ninhydrin print.
TEGHVT	Spray Method	All four sides were sprayed in different intervals to avoid ink from running all over.
TEGLEV	Scanning	
TGNX4J	Photography	capturing fingerprint images using nikon interface protected by veridata.
TH64TA	Photography	Nikon D810, 60mm lens. Inherent luminescence. Black backing used under paper to avoid background interference from printing on other side of paper
THHRVM	Photography	
TMUUNJ	Fixation Fuming	MVC3000, Polycyano for 30 minutes
	Photography	Poliview, orange filter, 505nm Poliflare 2+
TMVBD4	Photography	Image captured using the FSIS
	Adobe Photoshop CS6	Digital image processing to remove any color and create a grayscale composite for the case file
TMVHDB	Photography	White light photography using Canon EOS camera (after magnetic powder applied).

WebCode	Preservation Methods	Method Details
TN8A8D	Photography	1:1 ratio, 1,000 pixels, scale; after magnetic powder using oblique lighting.
	Scanning	check scanner settings/ scale. After attempting with digital photography (mag powder), ninhydrin after processing using scanner setting.
TQH8MF	Photography	
TRTUF3	Photography	Retained on DVD-R (ninhydrin photo - best quality)
TXRN6N	Photography	THE DEVELOPED LATENT PRINT WAS PHOTOGRAPHED USING SCALE AND NOTATED WITH LATENT NUMBER, CASE NUMBER, & PHOTOGRAPHER ID INFORMATION. SEVERAL IMAGES WERE CAPTURED AT DIFFERENT EXPOSURES.
TZX2U3	tape placed over detail	clear tape placed over ridge detail
	Scanning	scanned wrapping paper to capture ridge detail
U8UCBQ	Polyview Capturing System	Visual examination using PL500 and print was captured on Poliview and exhibit was processed further.
U9U7FQ	Photography	After 1,2-Indanedione - used Laser (Bright Beam), 532nm, orange filter and orange plus FF1 filters on camera
UEZRCZ	Photography	NIKON D80 Digital SLR camera with Oblique Lighting
UJ9AFU	Photography	White Light; RUVIS; Vis Laser; Laser
UKGGL9	Photography	Poliview using 505nm to 530nm wavelength with orange filter (610nm)
UR9NGN	Photography	I used clear lifting tape to lift any ridge detail and placed that on a latent print lift card.
UWKJDK	Photography	Nikon D810
	Foray Adams / Photoshop	
UYLFRU	Lifting	
	Photography	
V677J8	Photography	The method for preservation would be to add a scale bearing lab number, item number, and initials and send the evidence to photography.
V7GV3J	Photography	Photographed using RUVIS.

WebCode	Preservation Methods	Method Details
VLD8BN	Photography	Photographed using 505 nm light with Orange Filter
VMAGMD	Photography	DCS-4 and DCS-5 systems
VNGYLA	Scanning	Scanner 13 used, white light direct lighting on Ninhydrin print.
VPX6TC	Photography	F & F, DCS SYSTEM
VU7DBG	Lifting	Lifted with fingerprint tape.
VYLTYM	Photography	Photographs taken after processing steps. Tracer Laser at 532nm.
W2JP48	Photography	Black powder: Camera/ Lens 3, using oblique white lighting
	Scanning	Black powder: Scanner 13
W932R9	Photography	Poliview digital camera 450nm wavelength and 610 filter.
W9PC4N	Photography	Resolution - 1000 or higher PPI; Crime lite - Blue 430-470nm, yellow filter
	Scanning	Resolution - 1000 DPI
WAWK2M	Photography	Latent print was photographed using digital photography.
WDQNKT	Photography	Nikon D750
WJJN2A	Poliview Digital System	Utilized Poliview digital capturing system, with white light and no filter.
WTBYGW	Photography	Digital / macro - TIF (Nikon D800); Overall prior to processing; After DFO; After NIN; After magnetic powder
WYDDW7	Photographing	
X2H6LX	Photography	
X3QDRC	Photography	blue/ green light (490nm) with orange filter
X6FPNW	Photography	
X6GPHV	Photocopied	Xeroxed document after processing with ninhydrin in acetone and fingerprint powder

WebCode	Preservation Methods	Method Details
X9YU9D	Photography	DCS-5 LASER
	Photography	DCS-5, IND ZnCl
	Photography	DCS-5 NIN
XD8ZZD	Photography	
XGBYAB	Photography	All control samples and photos of the latent print on Item 3 where taken on a digital capturing system - DCS 5 (room W1-13E)
XJEQ4J	Photography	poliview system: 1st visual = poliflare plus 1 @ 450 nm with yellow 06 515) filter, UV with yellow (66475) filter, 450 nm with yellow (66475) filter). poliview system: dye stain = poliflare plus 1 @ 505 nm with orange (KV550) filter, 530 nm with red (06590) filter, 450 nm with orange (KV550) filter.
XNC3AG	Photography	The latent print was photographed with a scale using the RUVIS with an orange filter (254 nm) and UV light.
XPQPPA	Photography	Camera: Nikon D-810; 1000 PPI; photographed powder print.
	Scanning	Epson V600; scanned at 1200 dpi; scanned Ninhydrin print.
XRV77E	Tape Lift	frosted tape on latent print card
	Photograph	1:1, inverted, black & white
ХХН8ҮС	Photography	Used laser (532 nm) to capture inherent luminescence of ridge detail in quadrant "B"
ХҮТЗМР	[No Methods Reported.]	Would use photography
Y2HLB9	Photography	A Digital Capturing System was used (DSC5). Visual images were taken with the Tracer. Visual images were taken with the Tracer.
Y6VFYT	Photography	Applying a centimeter test near the fingerprint and photographies are realise during step 4) and 6). Orange filter is fixed on the camera when the trace is illuminated with the Crimescope in CSS after step 4).
Y786FJ	Photography	Used Poliview capturing system to photograph the developed prints.
	Veridata and downloading	Photographs were passed through veridata system and downloaded into 3 DVD copies.
Y789YM	Photography	Digital photography was utilized with use of the LabKam after cyanoacrylate fuming. The digital images were uploaded and saved into FORAY and processed using Photoshop.

WebCode	Preservation Methods	Method Details
Y7AX4J	Scanning	Item 3 Was Scanned After The Final Powder Dusting Process.
Y9TY3C	Photography	Used DCS-4 after Ninhydrin
YA9CQA	Photography	DCS4 System; Daylight Filter for Black Magnetic Powder; White Light Source
	Lifting	2" Lift Tape onto White Card
YMEE4Q	Photography	DCS4 Capture
YNP83Y	Scans	scanned at 1200dpi
	Photography	
YPXBNB	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.
YT4KAE	Photography	A photograph of the fingermark was conducted (DCS 4 system) after Lumicyano Powder treatment
	Safe packaging and storage	
YT7ADB	Photography	Images captured by Labkam with UV lighting.
YY8QKB	Photography	Digital; laser @ 532nm with orange filter + A-FF-1 forensic filter
Z4VPLJ	Photography	PL500 light source, Nikon D700, orange goggles 505nm.
ZCRKJG	Dye Stain	The developed print was captured using 470nm light and orange filter on the poliview.
ZFD9BA	Photography	photography shooting at each stage; trace conservation on photography
ZG3RM8	Photography	Photographed using the TracER Laser 532nm and barrier filter with a scale using RAW Format, ISO 100, and F16
ZMNQDF	Photography	
	Scanning	

Participants: 304

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
ZRMX3J	Photography	Photographs taken at time of visual examination and under alternate light source at 505nm with orange filter after processing.
ZY6DMF	Photography	
ZY9YBA	Photography	

Response Summary

Method	s Utilized	
Lifting Photography Scanning	21 237 32	**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

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
227TJB	Yes	Whorl	6GAG4Z	N/A	N/A
2BX6YX	Yes	Whorl	6JFY4G	N/A	N/A
2ECYDA	N/A	N/A	6JV2BP	N/A	N/A
2KGPR9	Yes	Whorl	6R6M88	Yes	Whorl
2M72PT	Yes	Whorl	6VHJC9	Yes	Whorl
2RZ4K7	N/A	N/A	6WKZ3T	Yes	Whorl
2YHAJX	Yes	Whorl	7F9ZEG	Yes	Loop
2YZFNP	Yes	Whorl	7FD9RB	Yes	Whorl
366BNH	N/A	N/A	7HA2ED	Yes	Whorl
3AWME8	Yes	Whorl	7MQAWC	Yes	Whorl
3DBHNP	N/A	Not suitable for determination	7NPHZP	N/A	N/A
3DGKJP	Yes	Whorl	7UTJ44	Yes	Whorl
3KDFJ9	Yes	Whorl	7ZEBHK	Yes	Whorl
42GCFD	Yes	Whorl	83YRXB	Yes	Whorl
43U479	Yes	Whorl	8EDRRH	Yes	Whorl
4E3VP9	Yes	Whorl	8EVW8V	Yes	Whorl
4GAX3T	Yes	Whorl	8EZ6MB	N/A	N/A
4J27YF	N/A	N/A	8JPQ6X	N/A	N/A
4ND2VC	N/A	N/A	8KJEQD	Yes	Whorl
4TQRCZ	N/A	N/A	8LGPLG	Yes	Whorl
4XF728	Yes	Whorl	8V3Q4C	Yes	Whorl
6DMW7J	Yes	N/A	8VWRCM	N/A	N/A

TABLE 4 - Item 1

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
8VY927	Yes	Whorl	BA6KWV	Yes	Whorl
92L7E2	Yes	Whorl	BGTEYM	Yes	Whorl
978JFM	Yes	Whorl	BH2FUU	N/A	N/A
9894WW	N/A	N/A	BM8BDU	N/A	N/A
9AWTQA	Yes	Whorl	BPJY3Z	Yes	Whorl
9B9ERW	N/A	N/A	BPMG66	Yes	Whorl
9FYXJT	Yes	Whorl	BZ44D7	Yes	Whorl
9HNAFD	N/A	N/A	BZZLB2	N/A	N/A
9KBQWD	Yes	Whorl	C2A3VR	Yes	Whorl
9NHY8H	Yes	Whorl	C8GJB8	Yes	Whorl
9T9FE3	Yes	Whorl	C97WTQ	Yes	Whorl
9WPYFK	Yes	Whorl	САК8ХВ	N/A	N/A
9XHVKK	Yes	Whorl	CBJF3N	Yes	Whorl
9XQF74	N/A	N/A	CD7Y2Z	Yes	Whorl
9Z79MW	Yes	Whorl	CFQX93	Yes	Whorl
A6HBAR	Yes	Whorl	CJ4ZVY	Yes	Whorl
A7CACX	Yes	Whorl	CLGH6W	Yes	Whorl
AA8VBM	N/A	N/A	CNNK9F	N/A	N/A
AK8LUA	N/A	N/A	CPRHBV	Yes	Whorl
APKEVZ	N/A	N/A	CVKM6Z	Yes	Whorl
ARAN3F	Yes	Whorl	CW2MEG	N/A	N/A
AVUKMZ	N/A	N/A	CWW96M	N/A	N/A
AW4RN8	Yes	Whorl	CXRNJ6	Yes	Whorl
			1		

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
CZX6LG	Yes	N/A	FAEWV3	Yes	Whorl
D2ZMXH	N/A	N/A	FHZC6Y	Yes	Whorl
D3MXAW	N/A	N/A	FJFNQB	Yes	Whorl
D99VVY	Yes	Whorl	FJH6GU	N/A	N/A
DAE997	Yes	Whorl	FPNZZU	N/A	N/A
DECTCQ	N/A	N/A	FRBFF4	Yes	Whorl
DJKDY3	N/A	N/A	FULK3T	Yes	Whorl
DKMRWW	Yes	Whorl	FYXAL3	Yes	Whorl
DQP7C7	Yes	Whorl	G3QRGT	N/A	N/A
DVERXY	N/A	N/A	G4ZPLA	Yes	Whorl
DZRAFF	Yes	Whorl	GB6FCU	Yes	Whorl
E7DT62	Yes	Whorl	GCFLAG	Yes	Whorl
E86WPV	Yes	Whorl	GKLFCW	Yes	Whorl
E8PJ2Y	Yes	Whorl	GP2WWL	Yes	Whorl
EBBAHV	N/A	N/A	GP76C2	N/A	N/A
EH77BZ	Yes	Whorl	GXHB4X	N/A	N/A
EKECUF	Yes	Whorl	GZMQL3	N/A	N/A
ERGE68	N/A	N/A	H4GGW7	Yes	Whorl
EX2TE7	N/A	N/A	H8HFDQ	N/A	N/A
F44YUA	Yes	Whorl	HBD6KW	Yes	Whorl
F4QAZX	Yes	Whorl	HCU7WY	Yes	Whorl
F637BU	N/A	N/A	НСКМЗХ	Yes	Whorl
F6YLGY	N/A	N/A	HGZV68	N/A	N/A
			1		

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
HZWCFV	Yes	Whorl	LCF6AM	Yes	Whorl
JFQ8FT	N/A	N/A	LCVNRY	Yes	Whorl
JLTH7Y	Yes	Whorl	LE86LP	N/A	N/A
JLXVX2	Yes	Whorl	LG9AWP	N/A	N/A
JTUQVY	N/A	N/A	LH4PD3	Yes	N/A
JUZEXH	Yes	Whorl	LHLX4H	Yes	Whorl
JWNPU3	Yes	Whorl	LP2JB2	Yes	Whorl
JX7KRW	N/A	N/A	LV7FU2	N/A	N/A
JZD3QR	N/A	N/A	LW9WJK	N/A	N/A
JZFTUP	Yes	Whorl	LWMHTM	Yes	Whorl
K2YZMW	Yes	Whorl	M2W398	Yes	Whorl
K7YF3Z	Yes	Whorl	M7KUEE	Yes	Whorl
KBAFD6	Yes	Whorl	M997CY	Yes	Whorl
KDBJ38	Yes	Whorl	MCRCUU	Yes	Whorl
KGRTAJ	Yes	Whorl	МЕНМКМ	Yes	Whorl
KQ3ZZK	N/A	N/A	MFQR64	Yes	Whorl
KUNK8A	N/A	N/A	MG9E8R	N/A	N/A
KWLFEQ	Yes	Whorl	MHL7XN	N/A	N/A
KYBQBB	Yes	Whorl	MPFFZ7	Yes	Whorl
KYV9MW	Yes	Whorl	MWW23H	Yes	Whorl
KYW3C4	Yes	Whorl	МХЕҮКА	Yes	Whorl
KZC8ZU	N/A	N/A	N2R837	Yes	Whorl
L7TGCW	Yes	Whorl	N822KW	N/A	N/A
			1		

N8BFG6 Yes Whorl Q4CPHW	, ,,,, ,,,,	
	/ N/A N/A	
N8JY3N N/A N/A Q4LTY2	Yes Whorl	
N8WT83 Yes Whorl Q4RW2	Yes Whorl	
NGJP94 Yes Whorl QFZNGL	N/A N/A	
NHX8DU N/A N/A QGE3UM	1 Yes Whorl	
NKMLVD Yes Whorl QHPZ7J	Yes Whorl	
NN2H2E Yes Whorl QKZ3WN	I N/A N/A	
NPEWXN Yes Whorl QNCRDC	Yes Whorl	
NQRBNJ Yes Whorl QQ92RN	Yes Whorl	
NXP9LL Yes Whorl QRFLBG	N/A N/A	
NZEKJ7 Yes Whorl QXLGVG	Yes Whorl	
P6MANK N/A N/A QYFWF2	Yes Whorl	
P9NBTN N/A N/A R37QRT	Yes Whorl	
PCMDW4 Yes Whorl R3FLCT	N/A N/A	
PDGBZ6 Yes Whorl R87TZ3	Yes Whorl	
PPVCQW Yes Whorl RATKV6	Yes Whorl	
PQJ3H3 Yes Whorl RBN9CF	Yes Whorl	
PRKJ8M N/A N/A RFH3C3	N/A N/A	
PX94E9 Yes Whorl RFN8ZR	N/A N/A	
PYHD6K Yes Whorl RG99NL	N/A N/A	
PZ9MM2 Yes Whorl RGQEU4	Yes Whorl	
Q3EELT Yes Whorl RHML8P	N/A N/A	
Q4BWLA Yes Whorl RJGGYR	Yes Whorl	

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
RPLCJR	Yes	Whorl	txrn6n	Yes	Whorl
RQHUH8	Yes	Whorl	TZX2U3	Yes	Whorl
RT6EHK	N/A	N/A	U8UCBQ	Yes	Whorl
RVPCPM	Yes	Whorl	U9U7FQ	Yes	Whorl
RYDQNJ	N/A	N/A	UEZRCZ	Yes	Whorl
RZMKGC	Yes	Whorl	UJ9AFU	Yes	Whorl
Т2ТН9К	Yes	Whorl	UKGGL9	Yes	Whorl
T3AGN3	Yes	Whorl	UM6THT	Yes	Whorl
T9R47L	N/A	Not suitable for determination	ur9ngn	N/A	N/A
TBYARM	N/A	N/A	UWKJDK	N/A	N/A
TCWH6D	N/A	N/A	UYLFRU	Yes	N/A
TEGHVT	Yes	Whorl	V677J8	Yes	Whorl
TEGLEV	Yes	Whorl	V7GV3J	N/A	N/A
TGNX4J	Yes	Whorl	VF6TKC	Yes	Whorl
TGPLUB	N/A	N/A	VLD8BN	Yes	Whorl
TH64TA	Yes	Whorl	VMAGMD	Yes	Whorl
THHRVM	Yes	Whorl	VNGYLA	N/A	N/A
TMUUNJ	Yes	Whorl	VPX6TC	Yes	Whorl
TMVBD4	Yes	Whorl	VU7DBG	N/A	N/A
TMVHDB	Yes	Whorl	VYLTYM	Yes	Whorl
TN8A8D	N/A	N/A	W2JP48	N/A	N/A
TQH8MF	N/A	N/A	W932R9	Yes	Whorl
TRTUF3	Yes	Whorl	W9PC4N	N/A	N/A
WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
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WAWK2M	Yes	Whorl	Y2HLB9	N/A	N/A
WDQNKT	Yes	Whorl	Y6VFYT	Yes	Whorl
WFWBXX	N/A	N/A	Y77F4Z	N/A	N/A
WJJN2A	Yes	Whorl	Y786FJ	Yes	Whorl
WQFLNC	Yes	Whorl	Y789YM	Yes	Whorl
WTBYGW	Yes	Whorl	Y7AX4J	Yes	Whorl
WYDDW7	N/A	N/A	Y9ТҮЗС	Yes	Whorl
X2H6LX	N/A	N/A	YA9CQA	N/A	N/A
X3QDRC	Yes	Whorl	YJTE4B	Yes	Whorl
X6FPNW	N/A	N/A	YMEE4Q	Yes	Whorl
X6GPHV	N/A	N/A	YNP83Y	Yes	Whorl
X6V6JP	Yes	N/A	YPXBNB	Yes	Whorl
X9YU9D	Yes	Whorl	YT4KAE	Yes	Whorl
XA7AFJ	Yes	Whorl	YT7ADB	N/A	N/A
XD8ZZD	Yes	Whorl	YY8QKB	Yes	Whorl
XGBYAB	Yes	Whorl	YYM4XL	Yes	Whorl
XJEQ4J	Yes	Whorl	Z3Z269	Yes	Whorl
XLNTXU	N/A	N/A	Z4VPLJ	Yes	Whorl
XNC3AG	N/A	N/A	ZCRKJG	Yes	Whorl
XPQPPA	N/A	N/A	ZFD9BA	Yes	Whorl
XRV77E	N/A	N/A	ZG3RM8	N/A	N/A
XXH8YC	Yes	Whorl	ZMNQDF	N/A	N/A
ХҮТЗМР	N/A	N/A	ZRMX3J	Yes	Whorl

TABLE	4 -	ltem	1
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WebCode	Firs	st Level?	Pattern?	WebCode		
ZUCBK2		Yes	Whorl			
		V				
ZXML9P		Yes	vv hori			
ZY2WEA		Yes	Whorl			
ZY6DMF		N/A	N/A			
ZY9YBA		N/A	N/A			
Findings St	umn	narv	Total	Participants: 325		
1st L	evel	Total				
A	rch	0	*NOTE: These numb	ers may not add		
Lo	ор	1	up to the total # of p	articipants, as not		
Wh	norl	211	all who found first level detail could determine one specific pattern type			
	No	0	I.	delemme one specific puttern type.		
Not suitable determinati	for ion	2				

N/A

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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
227TJB	Yes	Not suitable for determination	6GAG4Z	N/A	N/A
2BX6YX	Yes	Not suitable for determination	6JFY4G	N/A	N/A
2ECYDA	N/A	N/A	6JV2BP	N/A	N/A
2KGPR9	Yes	Arch	6R6M88	Yes	Loop
2M72PT	Yes	Not suitable for determination	6VHJC9	No	
2RZ4K7	N/A	N/A	6WKZ3T	Yes	Not suitable for determination
2YHAJX	Yes	Loop	7F9ZEG	Yes	Loop
2YZFNP	Yes	Loop	7FD9RB	Yes	Loop
366BNH	N/A	N/A	7HA2ED	Yes	Loop
3AWME8	No		7MQAWC	Yes	Loop
3DBHNP	N/A	N/A	7NPHZP	N/A	N/A
3DGKJP	Yes	Not suitable for determination	7UTJ44	Yes	Loop
3KDFJ9	Yes	Not suitable for	7ZEBHK	Yes	Not suitable for determination
42GCFD	Yes	Loop	83YRXB	Yes	Loop
43U479	Yes	Not suitable for	8EDRRH	Yes	Loop
4E3VP9	Yes	Not suitable for	8EVW8V	Yes	Loop
4GAX3T	Yes	determination Not suitable for	8EZ6MB	N/A	N/A
		determination	8JPQ6X	N/A	N/A
4J2/YF	N/A	N/A	8KJEQD	Yes	Loop
4ND2VC	N/A	N/A	8LGPLG	Yes	Loop
4TQRCZ	N/A	N/A	8V3Q4C		Loop
4XF728	Yes	Not suitable for determination	8VWRCM	N/A	N/A
6DMW7J	Yes	N/A	8VY927	Yes	Whorl

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
92L7E2	Yes	Loop	BA6KWV	Yes	Whorl
978JFM	No	Not suitable for	BGTEYM	Yes	Loop
9894WW	N/A	N/A	BH2FUU	N/A	N/A
9AWTQA	Yes	Loop	BM8BDU	N/A	N/A
9B9ERW	N/A	N/A	BPJY3Z	No	Not suitable for determination
9FYXJT	No	Not suitable for determination	BPMG66	Yes	Not suitable for determination
9HNAFD	N/A	N/A	BZ44D7	Yes	Not suitable for determination
9KBQWD	Yes	Loop	BZZLB2	N/A	N/A
9NHY8H	Yes	Loop	C2A3VR	No	N/A
9T9FE3	No	Not suitable for determination	C8GJB8	Yes	Loop
9WPYFK	Yes	Loop	C97WTQ	Yes	Loop
9XHVKK	No	Not suitable for	САК8ХВ	N/A	N/A
9XQF74	N/A	N/A	CBJF3N	Yes	Not suitable for determination
9Z79MW	No	N/A	CD7Y2Z	Yes	Loop
A6HBAR	No	Not suitable for	CFQX93	Yes	Loop
A7CACX	Yes	Not suitable for	CJ4ZVY	Yes	Whorl
AA8VBM	N/A	determination N/A	CLGH6W	Yes	Loop
AK8LUA	N/A	N/A	CNNK9F	N/A	N/A
APKFV7	N/A	N/A	CPRHBV	Yes	Whorl
	Yes	Not suitable for	CVKM6Z	Yes	Loop
	103	determination	CW2MEG	N/A	N/A
AVUKMZ	N/A	N/A	CWW96M	N/A	N/A
AW4RN8	Yes	Not suitable for determination		·	

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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
CXRNJ6	Yes	Loop	F637BU	N/A	N/A
CZX6LG	Yes	N/A	F6YLGY	N/A	Not suitable for determination
D2ZMXH	N/A	N/A	FAEWV3	Yes	Loop
D3MXAW	N/A	N/A	FHZC6Y	Yes	Loop
D99VVY	Yes	Whorl	FJFNQB	Yes	Loop
DAE997		Not suitable for determination	FJH6GU	N/A	N/A
DECTCQ	N/A	N/A	FPNZZU	N/A	N/A
DJKDY3	N/A	N/A	FRBFF4	No	N/A
DKMRWW	Yes	Loop	FULK3T	Yes	Loop
DQP7C7	Yes	Loop	FYXAL3	Yes	Loop
DVERXY	N/A	N/A	G3QRGT	N/A	N/A
DZRAFF	Yes	Loop	G4ZPLA	Yes	Loop
E7DT62	Yes	Not suitable for determination	GB6FCU	Yes	Loop
E86WPV	Yes	Not suitable for determination	GCFLAG	Yes	Loop
E8PJ2Y	Yes	Loop	GKLFCW	Yes	Loop
EBBAHV	N/A	N/A	GP2WWL	Yes	Loop
EH77BZ	Yes	Loop	GP76C2	N/A	N/A
EKECUF	Yes	Not suitable for determination	GXHB4X	N/A	N/A
ERGE68	N/A	N/A	GZMQL3	N/A	N/A
EX2TE7	N/A	N/A	H4GGW7	No	Not suitable for determination
F44YUA	Yes	Loop	H8HFDQ	N/A	N/A
F4QAZX	Yes	Loop	HBD6KW	Yes	Loop
			HCU7WY	Yes	Loop

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
НСКМЗХ	No	N/A	KYW3C4	No	
HGZV68	N/A	N/A	KZC8ZU	N/A	N/A
HZWCFV	No	Not suitable for	L7TGCW	Yes	Loop
JFQ8FT	N/A	determination N/A	LCF6AM	Yes	Whorl
JLTH7Y	Yes	Loop	LCVNRY	Yes	Not suitable for determination
JLXVX2	Yes	Loop	LE86LP	N/A	N/A
JTUQVY	N/A	N/A	LG9AWP	N/A	N/A
JUZEXH	Yes	Whorl	LH4PD3	Yes	N/A
JWNPU3	Yes	Loop	LHLX4H	Yes	Not suitable for determination
JX7KRW	N/A	N/A	LP2JB2	Yes	Loop
JZD3QR	N/A	N/A	LV7FU2	N/A	N/A
JZFTUP	Yes	Loop	LW9WJK	N/A	N/A
K2YZMW	Yes	Loop	LWMHTM	Yes	Not suitable for determination
K7YF3Z	Yes	Not suitable for determination	M2W398	Yes	Not suitable for determination
KBAFD6	Yes	Loop	M7KUEE	No	Not suitable for determination
KDBJ38	Yes	Loop	M997CY	Yes	Loop
KGRTAJ	No	Not suitable for determination	MCRCUU	Yes	Not suitable for determination
KQ3ZZK	N/A	N/A	МЕНМКМ	Yes	Whorl
KUNK8A	N/A	N/A	MFQR64	Yes	Arch
KWLFEQ	Yes	Not suitable for determination	MG9E8R	N/A	N/A
KYBQBB	Yes	Loop	MHL7XN	N/A	N/A
KYV9MW	Yes	Not suitable for determination	MPFFZ7	Yes	Not suitable for determination

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
MWW23H	Yes	Loop	PX94E9		Not suitable for determination
МХЕҮКА	Yes	Not suitable for determination	PYHD6K	Yes	Loop
N2R837	Yes	Loop	PZ9MM2	No	
N822KW	N/A	N/A	Q3EELT	Yes	Not suitable for determination
N8BFG6	Yes	Not suitable for determination	Q4BWLA	N/A	N/A
N8JY3N	N/A	N/A	Q4CPHW	N/A	N/A
N8WT83	No		Q4LTY2	Yes	Loop
NGJP94	Yes	Loop	Q4RVV2	Yes	Loop
NHX8DU	N/A	N/A	QFZNGL	N/A	N/A
NKMLVD	No	Not suitable for determination	QGE3UM	No	Not suitable for determination
NN2H2E	Yes	Loop	QHPZ7J	Yes	Not suitable for determination
NPEWXN	Yes	Loop	QKZ3WN	N/A	N/A
NQRBNJ	No	Not suitable for determination	QNCRDC	No	Not suitable for determination
NXP9LL	Yes	Not suitable for determination	QQ92RN	Yes	Loop
NZEKJ7	No	Not suitable for determination	QRFLBG	N/A	N/A
P6MANK	N/A	N/A	QXLGVG	Yes	Loop
P9NBTN	N/A	N/A	QYFWF2	No	Not suitable for determination
PCMDW4	Yes	Whorl	R37QRT	Yes	Loop
PDGBZ6	Yes	Not suitable for determination	R3FLCT	N/A	N/A
PPVCQW	Yes	Not suitable for determination	R87TZ3	Yes	Loop
PQJ3H3	Yes	Loop	RATKV6	Yes	Whorl
PRKJ8M	N/A	N/A	RBN9CF	No	Not suitable for determination

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
RFH3C3	N/A	N/A	THHRVM	No	Not suitable for determination
RFN8ZR	N/A	N/A	TMUUNJ	Yes	Loop
rg99nl	N/A	N/A	TMVBD4	Yes	Loop
RGQEU4	Yes	Not suitable for determination	TMVHDB	No	Not suitable for determination
RHML8P	N/A	N/A	TN8A8D	N/A	N/A
RJGGYR	Yes	Loop	TQH8MF	N/A	N/A
RPLCJR	Yes	Loop	TRTUF3	Yes	Loop
RQHUH8	Yes	Loop	txrn6n	No	Not suitable for determination
RT6EHK	N/A	N/A	TZX2U3	No	Not suitable for determination
RVPCPM	Yes	Loop	U8UCBQ	Yes	Loop
rydqnj	N/A	N/A	U9U7FQ	No	Not suitable for
RZMKGC	Yes	Not suitable for determination	UEZRCZ	Yes	Loop
Т2ТН9К	Yes	Loop	UJ9AFU	Yes	Not suitable for
T3AGN3	Yes	Not suitable for determination	UKGGL9	Yes	determination Loop
T9R47L	N/A	Not suitable for determination	UM6THT	No	Not suitable for
TBYARM	N/A	N/A	UR9NGN	N/A	N/A
TCWH6D	N/A	N/A	UWKJDK	N/A	N/A
TEGHVT	Yes	Not suitable for determination	UYLFRU	Yes	N/A
TEGLEV	No	Not suitable for determination	V677J8	Yes	Whorl
TGNX4J	Yes	Loop	V7GV3J	N/A	N/A
TGPLUB	N/A	N/A	VF6TKC	Yes	Loop
TH64TA	Yes	Not suitable for determination	VLD8BN	Yes	Loop

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
VMAGMD	Yes	Not suitable for determination	XD8ZZD	Yes	Loop
VNGYLA	N/A	N/A	XGBYAB	Yes	Loop
VPX6TC	Yes	Not suitable for determination	XJEQ4J	Yes	Not suitable for determination
VU7DBG	N/A	N/A	XLNTXU	N/A	N/A
VYLTYM	Yes	Loop	XNC3AG	N/A	N/A
W2JP48	N/A	N/A	XPQPPA	N/A	N/A
W932R9	Yes	Not suitable for determination	XRV77E	N/A	N/A
W9PC4N	N/A	N/A	ХХН8ҮС	Yes	Not suitable for determination
WAWK2M	Yes	Not suitable for determination	XYT3MP	N/A	N/A
WDQNKT	Yes	Loop	Y2HLB9	N/A	N/A
WFWBXX	N/A	N/A	Y6VFYT	Yes	Loop
WJJN2A	No		Y77F4Z	N/A	N/A
WQFLNC	Yes	Loop	Y786FJ	Yes	Loop
WTBYGW	Yes	Loop	Y789YM	Yes	Loop
WYDDW7	N/A	N/A	Y7AX4J	No	N/A
X2H6LX	N/A	N/A	Ү9ТҮЗС	Yes	Not suitable for determination
X3QDRC	No		YA9CQA	N/A	N/A
X6FPNW	N/A	N/A	YJTE4B	Yes	Loop
X6GPHV	N/A	N/A	YMEE4Q	No	
X6V6JP	Yes	N/A	YNP83Y	Yes	Loop
X9YU9D	Yes	Not suitable for determination	YPXBNB	Yes	Loop
XA7AFJ	Yes	Loop	YT4KAE	Yes	Loop

TABLE	4 -	ltem 2
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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
YT7ADB	N/A	N/A			
YY8QKB	Yes	Loop			
YYM4XL	Yes	Loop			
Z3Z269	Yes	Whorl			
Z4VPLJ	No	Not suitable for determination			
ZCRKJG	Yes	Loop			
ZFD9BA	Yes	Not suitable for determination			
ZG3RM8	N/A	N/A			
ZMNQDF	N/A	N/A			
ZRMX3J	Yes	Loop			
ZUCBK2	No	Not suitable for determination			
ZXML9P	No				
ZY2WEA	Yes	Loop			
ZY6DMF	N/A	N/A			
ZY9YBA	N/A	N/A			
Findings Su	ummary	Total F	articipants: 325		
1st L	evel Total				

2

104

12

14

81

112

Not suitable for

determination

Arch

Loop

Whorl

No

N/A

*NOTE: These numbers may not add

all who found first level detail could

determine one specific pattern type.

up to the total # of participants, as not

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
227TJB	Yes	Whorl	6JFY4G	N/A	N/A
2BX6YX	Yes	Whorl	6JV2BP	N/A	N/A
2ECYDA	N/A	N/A	6R6M88	Yes	Whorl
2KGPR9	Yes	Whorl	6VHJC9	No	
2M72PT	Yes	Whorl	6WKZ3T	Yes	Whorl
2RZ4K7	N/A	N/A	7F9ZEG	Yes	Loop
2YHAJX	Yes	Loop	7FD9RB	Yes	Whorl
2YZFNP	Yes	Whorl	7HA2ED	Yes	Whorl
366BNH	N/A	N/A	7MQAWC	Yes	Whorl
3AWME8	Yes	Whorl	7NPHZP	N/A	N/A
3DBHNP	N/A	N/A	7UTJ44	No	
3DGKJP	Yes	Whorl	7ZEBHK	Yes	Whorl
3KDFJ9	Yes	Whorl	83YRXB	Yes	Whorl
42GCFD	Yes	Whorl	8EDRRH	Yes	Whorl
43U479	Yes	Whorl	8EVW8V	Yes	Whorl
4E3VP9	Yes	Whorl	8EZ6MB	N/A	N/A
4GAX3T	Yes	Whorl	8JPQ6X	N/A	N/A
4J27YF	N/A	N/A	8KJEQD	Yes	Whorl
4ND2VC	N/A	N/A	8LGPLG	Yes	Whorl
4TQRCZ	N/A	N/A	8V3Q4C	Yes	Whorl
4XF728	Yes	Whorl	8VWRCM	N/A	N/A
6DMW7J	No	N/A	8VY927	Yes	Whorl
6GAG4Z	N/A	N/A	92L7E2	Yes	Whorl

TABLE 4 - Ite	em 3
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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
978JFM	No	Not suitable for determination	BGTEYM	Yes	Whorl
9894WW	N/A	N/A	BH2FUU	N/A	N/A
9AWTQA	Yes	Whorl	BM8BDU	N/A	N/A
9B9ERW	N/A	N/A	BPJY3Z	Yes	Whorl
9FYXJT	Yes	Whorl	BPMG66	Yes	Whorl
9HNAFD	N/A	N/A	BZ44D7	Yes	Whorl
9KBQWD	Yes	Whorl	BZZLB2	N/A	N/A
9NHY8H	Yes	Whorl	C2A3VR	Yes	Whorl
9T9FE3	No	Not suitable for determination	C8GJB8	Yes	Whorl
9WPYFK	Yes	Whorl	C97WTQ	Yes	Whorl
9XHVKK	Yes	Whorl	САК8ХВ	N/A	N/A
9XQF74	N/A	N/A	CBJF3N	Yes	Not suitable for determination
9Z79MW	Yes	Whorl	CD7Y2Z	Yes	Whorl
A6HBAR	Yes	Whorl	CFQX93	Yes	Whorl
A7CACX	Yes	Not suitable for determination	CJ4ZVY	Yes	Whorl
AA8VBM	N/A	N/A	CLGH6W	Yes	Whorl
AK8LUA	N/A	N/A	CNNK9F	N/A	N/A
APKEVZ	N/A	N/A	CPRHBV	Yes	Whorl
ARAN3F	Yes	Whorl	CVKM6Z	Yes	Whorl
AVUKMZ	N/A	N/A	CW2MEG	N/A	N/A
AW4RN8	Yes	Whorl	CWW96M	N/A	N/A
BA6KWV	N/A	N/A	CXRNJ6	Yes	Not suitable for determination
			CZX6LG	Yes	N/A

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
D2ZMXH	N/A	N/A	FHZC6Y	Yes	Whorl
D3MXAW	N/A	N/A	FJFNQB	No	
D99VVY	Yes	Whorl	FJH6GU	N/A	N/A
DAE997		Whorl	FPNZZU	N/A	N/A
DECTCQ	N/A	N/A	FRBFF4	Yes	Whorl
DJKDY3	N/A	N/A	FULK3T	Yes	Whorl
DKMRWW	Yes	Whorl	FYXAL3	Yes	Not suitable for determination
DQP7C7	Yes	Whorl	G3QRGT	N/A	N/A
DVERXY	N/A	N/A	G4ZPLA	Yes	Whorl
DZRAFF	Yes	Whorl	GB6FCU	No	Not suitable for determination
E7DT62	Yes	Whorl	GCFLAG	Yes	Whorl
E86WPV	Yes	Whorl	GKLFCW	Yes	Whorl
E8PJ2Y	Yes	Whorl	GP2WWL	No	
EBBAHV	N/A	N/A	GP76C2	N/A	N/A
EH77BZ	Yes	Whorl	GXHB4X	N/A	N/A
EKECUF	Yes	Whorl	GZMQL3	No	N/A
ERGE68	N/A	N/A	H4GGW7	No	Not suitable for
EX2TE7	N/A	N/A	H8HFDQ	N/A	determination N/A
F44YUA	Yes	Whorl	HBD6KW	Yes	Not suitable for
F4QAZX	Yes	Whorl	HCU7WY	Yes	determination Whorl
F637BU	N/A	N/A	НСКМЗХ	No	N/A
F6YLGY	N/A	N/A	HG7V68	N/A	N/A
FAEWV3	Yes	Whorl		1 1/7 1	1 1/7 1

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
HZWCFV	Yes	Whorl	LCF6AM	Yes	Whorl
JFQ8FT	N/A	N/A	LCVNRY	Yes	Whorl
JLTH7Y	Yes	Whorl	LE86LP	N/A	N/A
JLXVX2	Yes	Whorl	LG9AWP	N/A	N/A
JTUQVY	N/A	N/A	LH4PD3	Yes	N/A
JUZEXH	Yes	Whorl	LHLX4H	Yes	N/A
JWNPU3	Yes	Whorl	LP2JB2	Yes	Whorl
JX7KRW	N/A	N/A	LV7FU2	N/A	N/A
JZD3QR	N/A	N/A	LW9WJK	N/A	N/A
JZFTUP	Yes	Whorl	LWMHTM	Yes	Whorl
K2YZMW	Yes	Whorl	M2W398	Yes	Whorl
K7YF3Z	Yes	Whorl	M7KUEE	No	Not suitable for
KBAFD6	Yes	Whorl	M997CY	Yes	determination Whorl
KDBJ38	Yes	Whorl	MCRCUU	Yes	Whorl
KGRTAJ	Yes	Whorl	МЕНМКМ	Yes	Whorl
KQ3ZZK	N/A	N/A	MFQR64	No	
KUNK8A	N/A	N/A	MG9E8R	N/A	N/A
KWLFEQ	No	Not suitable for determination	MHL7XN	N/A	N/A
KYBQBB	No	Not suitable for determination	MPFFZ7	Yes	Whorl
KYV9MW	Yes	Whorl	MWW23H	Yes	Whorl
KYW3C4	Yes	Whorl	MXEYKA	Yes	Not suitable for determination
KZC8ZU	N/A	N/A	N2R837	Yes	Whorl
L7TGCW	Yes	Whorl			

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
N822KW	N/A	N/A	Q3EELT	Yes	Whorl
N8BFG6	Yes	Not suitable for determination	Q4BWLA	Yes	Whorl
N8JY3N	N/A	N/A	Q4CPHW	N/A	N/A
N8WT83	Yes	Whorl	Q4LTY2	Yes	Whorl
NGJP94	Yes	Whorl	Q4RVV2	Yes	Whorl
NHX8DU	N/A	N/A	QFZNGL	N/A	N/A
NKMLVD	No	Not suitable for determination	QGE3UM	Yes	Whorl
NN2H2E	Yes	Whorl	QHPZ7J	Yes	Whorl
NPEWXN	Yes	Whorl	QKZ3WN	N/A	N/A
NQRBNJ	Yes	Whorl	QNCRDC	No	Not suitable for determination
NXP9LL	Yes	Whorl	QQ92RN	Yes	Whorl
NZEKJ7	Yes	Whorl	QRFLBG	N/A	N/A
P6MANK	N/A	N/A	QXLGVG	Yes	Whorl
P9NBTN	N/A	N/A	QYFWF2	Yes	Whorl
PCMDW4	No		R37QRT	Yes	Whorl
PDGBZ6	Yes	Not suitable for determination	R3FLCT	N/A	N/A
PPVCQW	Yes	Whorl	R87TZ3	Yes	Whorl
PQJ3H3	Yes	Whorl	RATKV6	Yes	Whorl
PRKJ8M	N/A	N/A	RBN9CF	No	Not suitable for determination
PX94E9	Yes	Whorl	RFH3C3	N/A	N/A
PYHD6K	Yes	Whorl	RFN8ZR	N/A	N/A
PZ9MM2	No		RG99NL	N/A	N/A
			RGQEU4	Yes	Whorl

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
RHML8P	N/A	N/A	TN8A8D	N/A	N/A
RJGGYR	Yes	Whorl	TQH8MF	N/A	N/A
RPLCJR	Yes	Whorl	TRTUF3	Yes	Whorl
RQHUH8	Yes	Whorl	TXRN6N	Yes	Whorl
RT6EHK	N/A	N/A	TZX2U3	Yes	Whorl
RVPCPM	Yes	Whorl	U8UCBQ	Yes	Whorl
rydqnj	N/A	N/A	U9U7FQ	Yes	Whorl
RZMKGC	Yes	Whorl	UEZRCZ	Yes	Whorl
Т2ТН9К	Yes	Whorl	UJ9AFU	Yes	Whorl
T3AGN3	Yes	Whorl	UKGGL9	Yes	Whorl
T9R47L	N/A	Not suitable for determination	UM6THT	No	Not suitable for determination
TBYARM	N/A	N/A	UR9NGN	N/A	N/A
TCWH6D	N/A	N/A	UWKJDK	N/A	N/A
TEGHVT	Yes	Whorl	UYLFRU	Yes	N/A
TEGLEV	Yes	Whorl	V677J8	Yes	Whorl
TGNX4J	Yes	Whorl	V7GV3J	N/A	N/A
TGPLUB	N/A	N/A	VF6TKC	Yes	Whorl
TH64TA	Yes	Whorl	VLD8BN	Yes	Whorl
THHRVM	Yes	Whorl	VMAGMD	Yes	Whorl
TMUUNJ	Yes	Not suitable for determination	VNGYLA	N/A	N/A
TMVBD4	Yes	Whorl	VPX6TC	Yes	Whorl
TMVHDB	Yes	Whorl	VU7DBG	N/A	N/A
			VYLTYM	Yes	Whorl

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
W2JP48	N/A	N/A	XPQPPA	N/A	N/A
W932R9	Yes	Not suitable for determination	XRV77E	N/A	N/A
W9PC4N	N/A	N/A	XXH8YC	Yes	Whorl
WAWK2M	Yes	Not suitable for determination	ХҮТЗМР	N/A	N/A
WDQNKT	Yes	Whorl	Y2HLB9	N/A	N/A
WFWBXX	N/A	N/A	Y6VFYT	Yes	Whorl
WJJN2A	No		Y77F4Z	N/A	N/A
WQFLNC	Yes	Whorl	Y786FJ	Yes	Whorl
WTBYGW	Yes	Whorl	Y789YM	Yes	Whorl
WYDDW7	N/A	N/A	Y7AX4J	Yes	Whorl
X2H6LX	N/A	N/A	Y9TY3C	Yes	Whorl
X3QDRC	Yes	Whorl	YA9CQA	N/A	N/A
X6FPNW	N/A	N/A	YJTE4B	Yes	Whorl
X6GPHV	N/A	N/A	YMEE4Q	Yes	Whorl
X6V6JP	No	N/A	YNP83Y	Yes	Whorl
X9YU9D	Yes	Whorl	YPXBNB	Yes	Loop
XA7AFJ	No	Not suitable for	YT4KAE	Yes	Whorl
	Vac	determination	YT7ADB	N/A	N/A
XD8ZZD	Yes	determination	YY8QKB	Yes	Whorl
XGBYAB	Yes	Whorl	YYM4XL	Yes	Whorl
XJEQ4J	Yes	Whorl	Z3Z269	Yes	Whorl
XLNTXU	N/A	N/A	Z4VPLJ	Yes	Whorl
XNC3AG	N/A	N/A	ZCRKJG	Yes	Whorl

TABLE	4 -	Item 3
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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
ZFD9BA	Yes	Whorl			
ZG3RM8	N/A	N/A			
ZMNQDF	N/A	N/A			
ZRMX3J	Yes	Whorl			
ZUCBK2	No	Not suitable for determination			
ZXML9P	No				
ZY2WEA	No				
ZY6DMF	N/A	N/A			
ΖΥ9ΥΒΑ	N/A	N/A			
Findings S	Summary Level Total	Total	Participants: 325		

Arch	0	*NOTE: These numbers may not add
Loop	3	up to the total # of participants, as not
Whorl	171	all who found first level detail could determine one specific pattern type
No	14	
Not suitable for determination	26	
N/A	111	

Additional Comments

WebCode	Additional Comments
2YZFNP	Question 2-6: The friction ridge detail developed was fragmentary - upon initial analyses, the pattern appears to be a r/slant loop. However, due to the lack of quality & quantity of unique friction ridge detail & the latent print is not fully recorded (edge-to-edge) & there is some distortion & overall below the core there is a possibility that the latent could be a whorl. Regardless: the latent can only be utilized for exclusion only purposes.
3AWME8	Item 1 had a very visible print without any processing compared to the other items. Item 3 mag powder/ and resulted in faint print that was less visible but easily worked up and enhanced using photography documentation and Adobe Photoshop enhancement methods. Item 2 had no evidence of a touch on the item in any of the sections. Visual examination, including all available settings of the ALS, before chemical processing and after, did not result in a visible print, let alone any ridge detail. The mock evidence created in lab to mimic the item did not have level one detail present but the resulting print was visible in mock section B. Other items used for test print developed ridge detail. The evidence was processed with ninhydrin multiple times and allowed to develop over-night, along with test prints. No evidence of a touch, let alone ridge detail was developed. Evidence was photographed and scanned before magnetic powder processing. Photoshop enhancements did not show evidence of a print. The original image of the evidence (preprocessing) was enhanced using Photoshop and no print was visible.
3DBHNP	At all times relevant PPE was worn in accordance with [Organization]/ health and safety requirements. All equipment used is serviced on a yearly basis. During each chemical treatment carried out on all 3 items a control sample was also treated. The controls are of similar substrate and have a planted mark. If the control sample does not give a positive result then the test maybe redone or the a different batch of chemical used. At all stages throughout this test the controls were positive. Items were deemed not to have been wet prior to submission. I have treated theses items in accordance with our lab policies. I have not carried out full sequential treatments as no crime type has been submitted, so I have made an assumption that the items were from a "volume" crime type. If full sequential treatment was required I would follow recommendations from the CAST manual. Relevant paperwork has been detailed with batch references, oven references, control outcomes etc as in accordance with our labs [Accreditation Body].
4GAX3T	Although the RD in quadrant B of Item 3 was photographed after Physical Developer, the observed development appears to be from the dusting processing technique.
6R6M88	2018/06/21 13:30 - item 2 was treated with acetone to prevent the ink from running off. the ink still ran off but was minimum, therefore faded the black lines on the exhibit. 2018/06/26 the prints used on the giant arch are randomly selected as the same prints were captured more than once at different wavelengths. all printed black and white fingerprint are however filed under section A of the case file docket.
7MQAWC	[From Table 4 - First-Level Detail Findings: Item 2 "would also reference a whorl"]
7NPHZP	Superglue control - Cyanobloom W138055 - Positive; Ninhydron control - Lynn Peavy Ninhydrin Spray - Positive
8EDRRH	Item #3 is actually a double loop whorl!!
8LGPLG	Fingermarks number 1 and 3 could be detected using the VMD as well.
8VY927	For Item 2, an additional loop detail/ pattern was determined, but was unable to choose more than one detail/ pattern on result form.
9KBQWD	The latent print recovered from Item 2 is very faint therefore cannot be used for identification or comparison purposes.

WebCode	Additional Comments
A7CACX	Item 3 processed as semi-porous due to glossy finish. Dates are from April because I participated in pre-distribution test.
BGTEYM	For Item 2- Cardboard/ containerboard. Pattern type- I would prefer to reference it to both a Loop and Whorl. Only one option choice was allowed during submission.
BM8BDU	For Item 2, upon doing the first visual, no prints were observed and the exhibit was treated with DFO and allowed to oven dry and a very faint print was observed on the section marked A, but the print did not have any ridge detail and could not be picked up by the camera as it was very faint, after treating the exhibit with Ninhydrin no print was observed on section A or any other place on the exhibit, and the exhibit was deemed as negative.
CBJF3N	Items 2: One (1) fingerprint was chemically developed on the container board but it was not suitable for identification. Only the top half of the pattern was visible. If I were to classify the pattern I would have to call it a whorl with a reference to a right slope loop or vice versa. There is not an option to reference a latent print on your test form so therefore I did not list a pattern type. Item 3: One (1) fingerprint was chemically developed on the wrapping paper but it was not suitable for identification. Not enough of the pattern was present to determine or reference a pattern type.
CFQX93	my observation on this test is that items were collected during the month of march and forwarded for crime scene lab processing during June (three months ageing period) and prints might easily fade away due to some handling processes and leads to developed prints of poor Quality: hence item 3.
CPRHBV	ltem 2 pattern type could also have been a loop, likely right-slope.
CVKM6Z	Packaging Item1-3: Place and Position of the finger prints were photographed. All the exhibits (Items) were re-sealed in new exhibit bag, all the photographs were downloaded, validated and printed. The working copy disc was burned.
DAE997	item 2 is difficult to determine which pattern between a whorl and a loop because I cannot see the core or delta but the appearance of a loop is predominant.
DVERXY	Exhibit / Item 2 and Item 3 were regarded as negative because the prints found on the items had insufficient number of ridges to be regarded as positive, hence they were not photographed as well.
DZRAFF	During the tests we use the following equipment: POLILIGHT PL 500 SC made by Roofin - it's a high intensity light source that emit light in a controlled spectrum centered at the labeled wavelenght 350-650 nm, white and IR. MVC 3000 made by Foster+Freeman - it's cyanokarylate fuming chamber. NINcha S31 made by Attestor Forensics - it's forensic climate chamber for Ninhydrin and DFO treated fingerprint evidence.
E8PJ2Y	Results for Item 3: visual examination after cyanoacrylate examination. the item was visualized using PL500 polilight set on 000 nm wavelength and clear goggles, no visible prints found. item 3 was treated using ninhydrin/ methanol 01/06/2018 was immersed for 3 minutes. left to air dry then put in the nincha cabinet set 80 degree Celsius, 80% humidity for 20 minutes. visual examination for ninhydrin: item 3 was visualized using PL500 polilight set on 000 nm wavelength with clear goggles, no visible prints found.
EBBAHV	A slight discoloration/ purple was observed in Section A of the containerboard, but no detail was observed.
EH77BZ	Small piece of semi-porous was used for quality control sample for Item 3. Polycyano method and powdering, results - positive for control and negative Item 3. DFO / Petro ether dipping method, results - negative control and negative Item 3 Nin / Acetone dipping method, results - negative control and positive Item 3.
EKECUF	ltem 2- pattern type was not discernible. Only core was visible, pattern is either a loop (most likely a right slant loop) or a whorl.

WebCode	Additional Comments
EX2TE7	Polycyano with batch no. 15702 has no expiry date available. The DFO/ HFE base was prepared with the following batch numbers DFO: BCBQ2596V; Methanol: STBG0915V; Acetic Acid: SZBF2020V and HFE7100: BCBS4887V. The only expiring date available is that of Methanol which is January 2021. Then Nin/ Meth base was prepared with the following batch numbers; Ninhydrin crystals: BCBV8117; Methanol: STBG0915V. The only expiry date available is that of Methanol which is January 2021. The expiry date of both DFO/ HFE and Nin/ Meth working solutions are 2018/09/15.
F637BU	The ink used to divide the quadrants on the containerboard and wrapping paper ran when the porous processing chemicals were applied. Some florescence of the ink was observed when using the LASER for visualization of the print. Suggestion is to use indelible ink to prevent interference of the ink w/ potential developed prints.
FAEWV3	[From Table 4 - First-Level Detail Findings: Item 2 "reference whorl"]
FJFNQB	All chemicals used during Latent Print Processing on items 1, 2, 3 were tested on similar types of surfaces with positive results.
FRBFF4	Item 2: One piece of white container board: There was no print developed. Refer: working copy (CO) image9613 to 9615 of what was in the exhibit.
FYXAL3	*Item 3: I used MEK Ardrox (usually used for semi-porous items) on the gold dots of the wrapping paper as I also tried to dye stain a small corner of the wrapping paper to see if it would work on the entire item. However, it fluoresced too much under UV, so I then focused the non-porous techniques solely on the gold dots.
GB6FCU	2A-LP1 ridges were extremely faint in most areas of the latent print once developed with Ninhydrin (did not photograph due to the extremely poor quality of the latent). Took overall photos of Items 1 and 2 with tungsten lights. 3-6) No ridge detail was developed. Was not able to clear selection for that answer.
GP76C2	The print developed for Item 2 lacked any sufficient detail and normally I would have not submitted it for review or comparison
HBD6KW	Item 1 - one print found on section D and two images where captured (1A and 1D) image 1D was found after processing with cyanobloom and captured. image 1A and 1Dis the same print, 1D but it was captured after dye stained with rhodamine 6g. Item 2 - one print found on section A and it was only found after processing with ninhydrin and it was of poor quality. Item 3 - a print/ mark was found on section B, only lines of the print were visible after processing with cyanobloom and dye stained with rhodamine 6g. in conclusion - prints which were found in both item 2 and item 3 were not of good quality but the quality differs with the surface of the item, the prints were very fade or not clearly visible. this maybe due to the period taken before evidence forwarded to the crime scene laboratory, storage of evidence and handling of evidence. hence evidence were recovered from the crime scene on the week of 11 march 2018 and forwarded to the crime scene laboratory on the 18 June 2018 which is almost 3 months. control samples treated with the same chemicals that were used to treat the evidence or exhibits received reacted positively and with good quality print were produced. print found on item 1 was visible and clear, a pattern could be clearly determined.
HCU7WY	Item 3 was extremly faint.
НСКМЗХ	Overall, I am disappointed in the quality of this processing test. The non-porous item (aluminum foil)

HGKM3X Overall, I am disappointed in the quality of this processing test. The non-porous item (aluminum foil) had an obvious latent print that did not even require processing to be seen. The wrapping paper, after processing with ninhydrin and heat with steam, resulted in only a few ridges being developed. By no means did it contain enough friction ridge detail information to be able to call the print "of value" for comparison purposes. After processing the cardboard with ninhydrin and heat with steam, there was absolutely no ridge detail developed, only a faint boarder where a print may have been deposited. Since this is a required part of our lab's ISO 17025 accreditation process, I decided to also use 1,2-Indanedione on both of my porous items. This is an expensive and highly sensitive process that can develop prints that are decades old and yet, even this process failed to yield any better results than

WebCode	Additional Comments		
	what was previously developed. I find myself questioning the mandated stability and degradation tests performed on these products prior to their sale to the forensic community. For any of us who work in accredited laboratories and do not develop latent prints on the items which were designed to have latent prints on them, we must face our Quality Manager with a valid reason why we did not achieve the expected results.		
JLTH7Y	[From Table 4 - First-Level Detail Findings: Item 2 "reference a whorl pattern"]		
JLXVX2	This sort of materials are not examined after cyanoacrylate fuming according to our standards today.		
JWNPU3	Our laboratory is acredited in discipline of fingerprint detection about [Accreditation Body].		
JZD3QR	Item 3 was extremely light and a poor print that was difficult to develop and preserve with digital photography.		
KYV9MW	Item 2 pattern type is either a loop or whorl.		
L7TGCW	All the prints that were developed on all the items were not so good but they are visible, with the help of the chemicals and the lights I med to get a better print out of the processes.		
LCF6AM	Item 2 was either a pattern type of loop or whorl.		
LCVNRY	After photography of latent prints, they were enhanced with Poliview V++ capturing software. 2-6). The finger print developed on Item 2, can either be a loop or whorl, hence I could not determine the exact pattern. There might be more than one core and the delta or deltas are also not visible. 2-3). Due to the fact that the ASV process / powder did not produce a result, I went over to the chemical reagent. After they (chemicals) produced weak results, I again went back to powders (black magnetic powder) to see if better results could be obtained Usually I would do powders before chemicals on glossy paper.		
LW9WJK	Following ninhydrin processing, it appeared as if the "print" may have been in Quadrant A on Item 002. However, the "print" was not of good quality and was not preserved. "Print" in this context was a slight purple stain and a few spots-no ridge detail present.		
M2W398	Item 2- the area of ridge detail was mostly of a tip area with some of the core present. The pattern type could not conclusively be determined but could a right slant loop or a whorl.		
M997CY	Our laboratory is accredited ([Certificate Number]) in detection fingerprint discipline under the [Accreditation Body].		
MCRCUU	The fingerprint developed on Item 2 did not have enough detail present to limit the pattern to only one choice.		
MPFFZ7	Item (2) was the possibility to be loop or whorl		
MWW23H	Some of the most commonly used filters could not produce desired results during image capturing, hence viewing goggles had to be used at instances to capture proper latent prints.		
nqrbnj	For Item 2 - after ninhydrin there were some purple smudges in A quadrant where the print probably was, but no ridge detail, so no photos were taken.		
NXP9LL	The fingerprint on item 2 (containerboard) were poorly deposited. The lower part of the print were missing which led to that we were unable to determine the print pattern.		
P6MANK	One latent lift was recovered from item 1, in section D. The latent lift was preserved using standard fingerprint lifting tape and placed on an [Laboratory] Form #74 for further examination. Item 2 only developed a partial print after all processing. No ridge detail of value was observed. No further action taken. Item 3 developed no visible ridge detail after processing. No further action taken.		

WebCode	Additional Comments
PCMDW4	For item 3 there were no fingermarks developed
PQJ3H3	A control sample was taken with each sample to check the capability of the treatments, in order our visualitation procedure. Consequence our technical problems with website to enter our results, we have to send our information by hand.
PX94E9	The print in Item 2 was either a whorl pattern or a right slant loop pattern, but due to the bottom of the core not being visible, it was not possible to say which one definitely. There might need to be a pattern option with a reference, because it could be discerned that it was not an arch pattern.
PZ9MM2	Very faint detail was observed for items 2 and 3.
Q4RVV2	For Item 2, question #2-6: Loop or could be a double loop whorl that I can't see the other half of. Wrapping paper was a lot harder in deciding how to process being that it's a semi glossy porous surface. FSIS definitely yielded the best results with DFO coming in second.
QHPZ7J	Ridge detail for Items 2 and 3 was only visualized during 1,2-indanedione.
R37QRT	No indication of fingerprint was seen after SGFM of exhibit 3, therefore no Dye stain was used, DFO showed no result on this exhibit, Ninhydrin developed a finger print on exhibit 3.
R87TZ3	Foe item (2), the developed fingermark cannot be definitely determined as loop of whorl, it has possibility to be either loop or whorl.
RBN9CF	A small piece of the wrapping tore off during processing in PD. The piece is contained with the rest of the item in the packaging.
RGQEU4	Section 2-6) pattern was not suitable for determination, but could be narrowed down to either a right slope loop or a right slanting whorl. Bottom of core not fully recorded/ developed.
RJGGYR	Some fading of the friction ridge detail occurred (especially for Items 2 and 3) however, all reagents passed the quality check prior to processing.
RT6EHK	Test print results for all processing steps were positive.
RVPCPM	during the processing few mark without ridges were developed. the developed ridge marks were photographed but not printed. all the developed marks were labelled each time they were developed and captured.
RYDQNJ	Item 2 had what looked like a shape of a print in quadrant A, but there was poor ridge detail. Also, at the bottom edge of quadrant D, there was a small smudge with no ridge detail. Both of these would not have been photographed if these were found in casework. The print in Item 3's quadrant B was of poor detail.
RZMKGC	question 2-6: the pattern appeared to be Whorl/ Loop. The answer did not allow for a reference pattern determination.
Т2ТН9К	The sheet of aluminum foil (item 1) seems to have been cleaned / smoothed (traces of wiping revealed by lumicyano)
T3AGN3	Item 2 latent print recovered from section A was top of core into the tip area of the distal phalanx; unable to determine pattern type.
TEGHVT	All the exhibit are positive exhibit one finger print is captured 3 times and exhibit 2 is captured two time. Exhibits 3 is captured once this makes the total amount of printed finger print tobe6.
TH64TA	Item #1, the aluminum foil, had a visible print. The location and pattern were recognizable without processing. Item #3, the wrapping paper, had a print that was visible w/ inherent luminescence. That latent would be difficult to see without processing for agencies who do not have access to a laser. I started w/ non-porous methods due to the coating on the wrapping paper. That approach did not

WebCode	Additional Comments
	develop a quality print. Porous processing methods did result in a visible latent print. (Coated paper may be non-porous and then become semiporous, so both methods were used. [From Table 2 - Development Methods: Item 1 "Lifting was possible, but unnecessary due to quality of photographs". From Table 4 - First-Level Detail Findings: Item 2 "Mostly tip and only partial pattern area. Most likely loop w/ a whorl reference"].
TMUUNJ	Exhibit 2 (Item) was further processed with Ninhydrin Item 2 was dipped in Ninhydrin, Put in Nincha 531 for 25 minutes, temperature 80 degree Celsius with relative humidity of 80%. After the cycle the exhibit was examined by PL500, white light no filter. Finger mark appeared not clear enough to be captured positive.
TMVBD4	Traditionally the FSIS is used for glossy, non-porous surfaces; however, it has been noted that, in some instances, it is successful in visualizing friction ridge detail on porous surfaces as well. Due to this finding, it was also used to examine items 2 and 3. Upon visual examination of item 1, it was determined the impression contained sufficient quality and quantity of friction ridge detail for comparison purposes; however, it was processed with surperglue fuming to "fix" the impression on the item.
TMVHDB	Item 2 was photographed both with green filter/ monochrome setting, and without green filter/ monochrome setting.
U8UCBQ	Control samples were performed before the examination and results were positive. The chemical were working properly positive results were found on the exhibits.
U9U7FQ	Item 2 (white cardboard) - the ridge detail developed with 1,2-Indanedione was mostly smudged through the core area with ridges only visible above the core. The pattern type could not be determined definitively - possible right slant loop or whorl? Probably not an arch pattern. Items 2 and 3 (white cardboard and dotted wrapping paper) - there was no subsequent development of the ridge detail with Ninhydrin that was previously developed with 1,2-Indanedione.
UM6THT	The fingerprint recovered in Item2 has indications of being a loop. However, the core area is not visible and hence the type of pattern cannot be categorically determined.
W932R9	Item 1 was positive with first visual and captured with all other processing of ASV and fuming the exhibit was positive but not captured as the print was the same. Item 2 was positive with DFO/ HFE and also with Ninhydrin but only captured with DFO/ HFE.
WJJN2A	According to the instruction given on page 1 of 6, a latent print has been deposited on each of the items provided, however no finger print or finger mark was found after item 2 is processed by both DFO and Ninhydrin respectively. This is despite the control sample, which was processed in the same manner time as the item of investigation, gave positive results.
WQFLNC	Item 2 pattern type can also be a whorl
X3QDRC	For Evaluation of first Level Detail a Fingerprint expert was consulted.
XJEQ4J	batch numbers and/ or unique numbers of chemicals/ powders used: superglue tentile (6.25g), rhodamine 6G: nitregmethws - 003/2018, fluorescent yellow magnetic powder: FYFMPP0818001, black magnetic fingerprint powder: BHEEE0815002, black inland fingerprint powder: BIF0P0815005, DFO HFE: WITDFHKEWS - 006/2018, Ninhydrin HFE: WITNINHFEWS - 007/2018, Ninhydrin Methanol: WITNINMETHWS -006/2018
Y7AX4J	All Items Were Processed With Methods That Are Available And Listed In My Unit's Latent Print Processing/ Development Procedures.
YPXBNB	NOTE for ITEM 2: Fingerprint Bureau assessment of first level detail was 'Loop to the right' or 'Whorl', they could not make a definite determination of one pattern type as lowest section of pattern not developed. All internal examination notes/ QA documents/ photographs available if required.

WebCode	Additional Comments
YT4KAE	Item 1 : the fingermark was visible during visual examination, before Lumicyano Powder treatment. no improvement was observed after Lumicyano Powder treatment and Basic Yellow treatment; Item 2 : the fingermark was not visible during visual examination before Indanedione / Zinc chloride treatment. the fingermark was observed after Indanedione / Zinc chloride treatment. no improvement was observed after Ninhydrin treatment; Item 3 : the fingermark was slightly visible during visual examination, before Lumicyano Powder treatment. improvement was observed after Lumicyano Powder treatment. the fingermark was not visible yet after Indanedione / Zinc chloride treatment. the fingermark was not visible yet after Indanedione / Zinc chloride treatment. the fingermark was not visible yet after Indanedione / Zinc chloride treatment. the fingermark was observed after final Ninhydrin treatment

Z3Z269 Item 2: Level 1: Likely a whorl, but could also be a loop.

ZFD9BA ITEM2: partial pattern, beginning of delta on the left, flow of ridges: loop on the right very probable but insifficient information on the right to conclude, an elongated whorl can not be excluded. ITEM3: The pattern is a whorl and more precisely a double loop

> -End of Report-(Appendix may follow)

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 18-5190: Latent Print Processing

DATA MUST BE RECEIVED BY July 30, 2018 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

Accreditation Release Statement CTS submits external proficiency test data directly to ASCLD/LAB, ANAB and A2LA. Please select one of the following statements to ensure your data is handled appropriately. This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section on the last page must be completed and submitted.) This participant's data is **NOT** intended for submission to ASCLD/LAB, ANAB or A2LA.

Scenario:

During the week of 11 March 2018, three items of evidence were recovered from a crime scene. Police have requested that you process each item of evidence for latent prints. These items will not undergo additional testing in other departments, so you may use destructive testing if necessary.

Instructions:

All item packaging has been labeled with a CTS item number and each item divided into four sections, which have been indicated as A-D. A single latent print has been deposited in one of these areas for each item. Only those areas within the A-D labeled sections need to be processed. Packaging material is not intended to be processed.

Items Submitted (Sample Pack LAP1):

Item 1: One piece of aluminum foil, divided into sections A-D.

Item 2: One piece of white containerboard, divided into sections A-D.

Item 3: One piece of dotted wrapping paper, divided into sections A-D.

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

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

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

Item 1

Item 2

Item 3

Please return all pages of this data sheet.

Results for Item 1:

One piece of aluminum foil, divided into sections A-D.

1-1.) I	Date Received:		1-2.) Date(s) Analyzed:	
1-3.)	What method(s)	of developm	nent were used during your examination?	
<u>Metho</u>	d (please list in orde	<u>er)</u>	Method-specific information (ex. temperature, proc	<u>cessing time)</u>
1				
<u>Metho</u>	d (please list in orde	<u>ər)</u>	<u>Method-specific information</u>	
	(If additional space is	s needed, copy t	this page and attach in the appropriate place within the data she	et.)
1-5.)	Was first level d If you are not traine	etail recove d to make detc	red? ail/pattern determinations, please select "N/A".	
	Yes	No	N/A N/A	
1-6.)	If first level deta If you are not trained	il was recov e d to make deta	ered, what pattern was identified? il/pattern determinations, please select "N/A".	
	Arch	Loop	Whorl N/A Not suitable for d	letermination
		Please r	return all pages of this data sheet.	Page 2 of

6

Results for Item 2:

One piece of white containerboard, divided into sections A-D.

2-1.) I	Date Received:	2-2.) Date(s) Analyzed:	
2-3.)	What method(s) of develop	oment were used during your examination?	
<u>Metho</u>	<u>d (please list in order)</u>	Method-specific information (ex. temperature, processi	<u>ng time)</u>
<u>Metho</u>	<u>d (please list in order)</u>	Method-specific information	
	(It additional space is needed, cop	y this page and attach in the appropriate place within the data sheet.)	
2-5.)	Was first level detail recover If you are not trained to make d	rered? etail/pattern determinations, please select "N/A".	
	Yes No	N/A N/A	
2-6.)	If first level detail was reco If you are not trained to make de	overed, what pattern was identified? etail/pattern determinations, please select "N/A".	
	Arch Loop	Whorl N/A Not suitable for determ	nination
	Please	e return all pages of this data sheet.	Page 3 of 6

Results for Item 3:

One piece of dotted wrapping paper, divided into sections A-D.

3-1.) I	Date Received	l:	3-2.) Date(s) Analyzed:
3-3.)	What metho	d(s) of develop	oment were used during your examination?
<u>Metho</u>	<u>d (please list in</u>	<u>order)</u>	Method-specific information (ex. temperature, processing time)
<u>Metho</u>	<u>d (please list in</u>	order)	<u>Method-specific information</u>
3-5.)	(If additional sp Was first lev	pace is needed, cop vel detail recov	by this page and attach in the appropriate place within the data sheet.)
			erall/pattern determinations, please select IN/A .
	Yes	INO	
3-6.)	If first level of the second	detail was reco rained to make de	overed, what pattern was identified? etail/pattern determinations, please select "N/A".
	Arch	Loop	Whorl N/A Not suitable for determination
		Pleas	e return all pages of this data sheet. Page 4 of

6

Additional Comments

<u>Return Instructions:</u> Data must be received via online data entry, fax (please include a cover sheet), or mail by <i>July 30, 2018</i> to be included in the	Participant Code:
report. Emailed data sheets are not accepted.	ONLINE DATA ENTRY: www.cts-portal.com
QUESTIONS?	FAX: +1-571-434-1937
TEL: +1-571-434-1925 (8 am - 4:30 pm EST) EMAIL: forensics@cts-interlab.com www.ctsforensics.com	MAIL: Collaborative Testing Services, Inc. P.O. Box 650820 Sterling, VA 20165-0820 USA

Please return all pages of this data sheet.

Collaborative Testing Services ~ Forensic Testing Program

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. 18-5190: Latent Print Processing

This release page must be completed and received by <u>July 30, 2018</u> to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

Have the laboratory's designated individual complete the following steps <u>only if your laboratory is accredited in this testing/calibration discipline</u> 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	
Signature and Title		
Laboratory Name		
Location (City/State)		

Return Instructions

Accreditation Release

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

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

Please return all pages of this data sheet.