

Collaborative Testing Services, Inc FORENSIC TESTING PROGRAM

# Latent Print Processing Test No. 18-5191 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 250 participants and are compiled into the following tables:

	Page
Manufacturer's Information	<u>2</u>
Summary Comments	<u>3</u>
Table 1: Print Location	<u>4</u>
Table 2: Development Methods	<u>19</u>
Table 3: Preservation Methods	<u>138</u>
Table 4: First-Level Detail Findings	<u>186</u>
Table 5: Additional Comments	<u>207</u>

Appendix: Data Sheet

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 an adhesive envelope (Item 1), a plastic CD case (Item 2), and a piece of newsprint 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 CD case was cleaned with water and a paper towel before the latent print was applied. New, sealed packs of newsprint paper and envelopes 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 (envelope, CD case) or printed via a laser printer (newsprint). 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.

#### 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-

A random selection of prepared test items were processed in-house for latent prints to verify their durability. Ridge detail was successfully developed on all samples of all three items, with the print being found in the expected section of each item. Predistribution examiners were able to recover ridge detail in the expected section of items 1 and 2, and two of three predistribution labs developed ridge detail on item 3.

<u>Item No.</u>	Test Material	<u>Enhancer</u>	Print Location	<u>Pattern</u>
1	adhesive envelope tab	oil + acid	А	whorl
2	CD case lid	oil	В	whorl
3	newsprint paper	acid	С	whorl

## Summary Comments

Each sample pack contained three items of evidence to be processed for latent prints: an adhesive closure tab of an envelope (Item 1), a plastic CD case (Item 2), and a newsprint yard sale notice (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 250 participants, 168 (67.2%) were able to successfully recover a print in the expected section for all three items. For Item 1, all but ten participants located the print in section "A" (96.0%). The outlier participants were as follows: six participants did not recover a print and reported "None", two participants gave no response, one participant reported section "B", and one participant reported section "C". For Item 2, all but one participant (99.6%) were successful in locating the print in section "B". The one outlier participant reported section "A" as the location of the latent print. For Item 3, 169 participants (67.6%) located the print in section "C". Eighty participants did not recover the print and reported "None", and one participant gave a response not conforming to the test structure. Since Item 3 did not reach the threshold for consensus, no outlier responses were boxed for this item.

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 necessarily reflect every answer provided by participants.

A majority of participants began their analysis with some type of nondestructive visual examination using a variety of lighting sources prior to conducting 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, dependent upon the surface.

For print development on the envelope tab (Item 1), participants primarily utilized porous development methods to recover the latent print; this included Ninhydrin (reported 194 times) and DFO (111). Because of the activated adhesive on the closure tab, some participants also reported using a wet powder suspension (62) to develop ridge detail within the adhesive (NOTE: While a variety of wet powders were named by participants, only those explicitly identified as "Wet Powder Suspension" in the method column were tabulated.). For print development on the plastic CD case (Item 2), a majority of participants used cyanoacrylate fuming in their processing sequence (reported 227 times). This method was commonly followed up by some type of dye stain (136) or powder dusting (74) to enhance the developed ridge detail (NOTE: While a variety of dye stains were named by participants, only those explicitly identified as "Dye Stain" in the method column were tabulated.). For development of prints on the yard sale notice (Item 3), participants mainly used Ninhydrin (reported 239 times) and DFO (124) for development. Both of these methods were reported as standalone methods or in conjunction with each other, as Ninhydrin can be used to improve ridge detail that is underdeveloped with DFO. There does not appear to be a correlation between methodologies used and lack of development in this item, as many participants who reported "None" used methodologies in a manner and sequence comparable with those who were able to develop the print.

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 - Whorl; Item 3 - Whorl. The most frequent response for each item corresponds to the expected results for pattern reporting. The wording of test questions regarding first level pattern recognition will be updated in 2019 to allow for more flexible reporting of pattern findings.

# **Print Location**

WebCode	Location	WebCode	Location	WebCode	Location
28YDQQ	А	48PDJL	А	7ME4RD	А
2DQGVF	None	4A2RN9	А	7R78MD	А
2JNATN	А	4BCQTP	А	7VR3FX	А
2QFFLJ	А	4CGK4F	А	7XYBQ3	А
2UPXKL	А	4ECW8V	А	83P62A	A
2WK3RZ	А	4NVFKZ	А	8B33PT	A
2WXW92	А	4NX8DG	А	8HE7PZ	А
2Y84BU	А	4RDUT8	А	8N7DBU	None
368RGZ	А	64NMW8	А	8PZ2TP	А
38DC8L	А	68R9WQ	А	8RR4P6	A
3AJG2A	А	6BLARD	С	8U8W4C	A
3F9YQ7	А	6DAQ7R	А	928KNP	A
3NHJLM	А	6EAJAR	А	9A3EUA	A
3PE2HW	А	6MXL22	А	A4TGX2	A
3Q8Q6Y	А	6PNNBV	А	A6JYKU	A
3X8A3N	А	6W9PK7	А	AKGQNJ	A
42KGYL	А	746XEC	None	AQMKKZ	A
43DBQN	А	7ARVW8	А	AUNEPX	A
43FWM6	А	7L3BT6	А	AVDY62	A

WebCode	Location	WebCode	Location	WebCode	Location		
AX2ELN	А	DEJCL7	A	FLCB6R	A		
AYD32U	A	DMVFNY	A	FXZGUF	А		
B2MFBA	A	DPFC6C	A	GFM7U3	A		
B39D8E	A	DUPUWD	A	GMJZRZ	A		
B6VX9C	A	E3LTMR	A	GNQGRR	A		
BDPZGE	A	E4XGV6	В	GNT9J8	A		
BHV8FY	A	E7A6LW	A	GVQTRU	A		
BJG829	A	EEQAX2	A	GVUJWR	A		
BNDPPZ	A	EGWMLU	A	GVV6WE	A		
BZQWDN	A	EGYFGG	A	GVXPRU	A		
C3PUYZ	A	ERHRVE	A	GWM8EM	A		
C7TBNG	A	EVLDTD	A	GZBREP	A		
CBN2D2	A	F7F44J	A	H3NWFR	A		
CFAEG9	A	F7HYE3	A	H9ULT7	A		
CKAATH	A	F8NEET	A	HEGAPW	A		
CYBYUP	A	FECVCD	A	HR79HK	A		
D7KXAK	A	FG2BTZ	A	HR9XHB	A		
D8XFMX	A	FGEZKR	А	HTPWBZ	А		
D9VRHQ	А	FHDWKM	А	HUG7UG	А		
DCEQRE	A	FKZFGE	A	HY6THU	А		

WebCode	Location	WebCode	Location	WebCode	Location
J4WD7B	A	KNZKXE	А	MZ3X2J	A
J728K8	А	KRJFYL	А	N3QQBT	А
J8GCFY	А	KTGW4V	А	N9VHMB	A
JEXZX8	А	KVGZJW	А	NMV7U6	A
JG4B9P	А	KXRZMJ	А	NV8F76	A
JJW8MB	А	KY84NP	А	P2Q4FZ	A
JLXD2G	A	LNX4JG	А	РЗЗМНН	A
JVNQDA	А	LRZWLR	А	P7LULC	None
JXDYUQ	А	LVEVHT	А	PD6373	A
JZYYGZ	А	LVU866	А	PGBA6M	A
K4YDXN	А	M2Y4N6	А	PKMDFW	A
KA2FPG	А	M7EQ7G	А	PKZ8VW	A
KBFTHK	А	MDW3JG	А	PRL3W2	А
KBVC3H	А	MF4HQM	А	PY62T2	А
KCRLGU	A	MFDFV6	А	QA2MD6	А
KD3NUR	A	MGRZNE	А	QEZU39	A
KEUTCQ	A	MK9842	А	QFPCT9	A
KF8C9G	А	MKUYY8	А	QHFEVF	A
KHVLMP	А	MNWL3W	А	QUP9XR	A
KKZDBW		MYDL7K	А	QWY23T	A

WebCode	Location	WebCode	Location	WebCode	Location
R2JKMU	A	UB6APZ	A	WAHWNR	A
R6HWKE	А	UBM8W7	А	WNMYHM	А
RDFT8H	A	LIE28OC	Δ	WRKCCD	Δ
PEAGRY	^		^		^
			A		~
RGD64H	None	UEG9UE	A	VVVF3F4	A
RNVFGH	А	UEYEVP	А	WXRZQZ	А
RPBNVD	А	V8FGXP	A	WZZ4MX	None
RPTWJ8	А	V9PNYW	А	X2L8VU	А
RQPA7Z	А	VB27BF	А	X88DYV	A
RRZ8JH	A	VEZKX6	А	X9GD43	A
RVC8NV	А	VFE32B	A	XF8F29	
T2G39V	А	VNPBKX	A	XGFUY2	A
T8RCGD	A	VPENYA	А	XKEZTL	A
TE73WD	А	VPNA47	A	XQLN99	A
TJKNZH	A	VXAR37	А	XTA4HG	A
TMU38V	A	VZYXKG	А	XWB8A4	A
TNT8NP	A	W4U774	А	Y22NN3	A
TRV2NF	А	W7JDNE	А	Y7FNKU	A
U38TM9	A	W8D28A	A	Y7RCU8	A
U7C3CJ	A	WAE8KV	A	Y8NPGZ	A

TABLE	1	- Item	1
		110111	

WebCode	Location	WebCode	Location	WebCode	Location
28YDQQ	В	4A2RN9	В	7VR3FX	В
2DQGVF	В	4BCQTP	В	7XYBQ3	В
2JNATN	В	4CGK4F	В	83P62A	В
2QFFLJ	В	4ECW8V	В	8B33PT	В
2UPXKL	В	4NVFKZ	В	8HE7PZ	В
2WK3RZ	В	4NX8DG	В	8N7DBU	В
2WXW92	В	4RDUT8	В	8PZ2TP	В
2Y84BU	В	64NMW8	В	8RR4P6	В
368RGZ	В	68R9WQ	В	8U8W4C	В
38DC8L	В	6BLARD	В	928KNP	В
3AJG2A	В	6DAQ7R	В	9A3EUA	В
3F9YQ7	В	6EAJAR	В	A4TGX2	В
3NHJLM	В	6MXL22	В	A6JYKU	В
3PE2HW	В	6PNNBV	В	AKGQNJ	В
3Q8Q6Y	В	6W9PK7	В	AQMKKZ	В
3X8A3N	В	746XEC	В	AUNEPX	В
42KGYL	В	7ARVW8	В	AVDY62	В
43DBQN	В	7L3BT6	В	AX2ELN	В
43FWM6	В	7ME4RD	В	AYD32U	В
48PDJL	В	7R78MD	В	B2MFBA	В

WebCode	Location	WebCode	Location	WebCode	Location
B39D8E	В	DUPUWD	В	GMJZRZ	В
B6VX9C	В	E3LTMR	В	GNQGRR	В
BDPZGE	В	E4XGV6	A	GNT9J8	В
BHV8FY	В	E7A6LW	В	GVQTRU	В
BJG829	В	EEQAX2	В	GVUJWR	В
BNDPPZ	В	EGWMLU	В	GVV6WE	В
BZQWDN	В	EGYFGG	В	GVXPRU	В
C3PUYZ	В	ERHRVE	В	GWM8EM	В
C7TBNG	В	EVLDTD	В	GZBREP	В
CBN2D2	В	F7F44J	В	H3NWFR	В
CFAEG9	В	F7HYE3	В	H9ULT7	В
CKAATH	В	F8NEET	В	HEGAPW	В
CYBYUP	В	FECVCD	В	HR79HK	В
D7KXAK	В	FG2BTZ	В	HR9XHB	В
D8XFMX	В	FGEZKR	В	HTPWBZ	В
D9VRHQ	В	FHDWKM	В	HUG7UG	В
DCEQRE	В	FKZFGE	В	HY6THU	В
DEJCL7	В	FLCB6R	В	J4WD7B	В
DMVFNY	В	FXZGUF	В	J728K8	В
DPFC6C	В	GFM7U3	В	J8GCFY	В

WebCode	Location	WebCode	Location	WebCode	Location
JEXZX8	В	KVGZJW	В	NMV7U6	В
JG4B9P	В	KXRZMJ	В	NV8F76	В
JJW8MB	В	KY84NP	В	P2Q4FZ	В
JLXD2G	В	LNX4JG	В	РЗЗМНН	В
JVNQDA	В	LRZWLR	В	P7LULC	В
JXDYUQ	В	LVEVHT	В	PD6373	В
JZYYGZ	В	LVU866	В	PGBA6M	В
K4YDXN	В	M2Y4N6	В	PKMDFW	В
KA2FPG	В	M7EQ7G	В	PKZ8VW	В
KBFTHK	В	MDW3JG	В	PRL3W2	В
KBVC3H	В	MF4HQM	В	PY62T2	В
KCRLGU	В	MFDFV6	В	QA2MD6	В
KD3NUR	В	MGRZNE	В	QEZU39	В
KEUTCQ	В	MK9842	В	QFPCT9	В
KF8C9G	В	MKUYY8	В	QHFEVF	В
KHVLMP	В	MNWL3W	В	QUP9XR	В
KKZDBW	В	MYDL7K	В	QWY23T	В
KNZKXE	В	MZ3X2J	В	R2JKMU	В
KRJFYL	В	N3QQBT	В	R6HWKE	В
KTGW4V	В	N9VHMB	В	RDET8H	В

WebCode	Location	WebCode	Location	WebCode	Location
REA6BX	В	UE4WVA	В	WV73PP	В
RGD64H	В	UEG9UE	В	WVF3F4	В
RNVFGH	В	UEYEVP	В	WXRZQZ	В
RPBNVD	В	V8FGXP	В	WZZ4MX	В
RPTWJ8	В	V9PNYW	В	X2L8VU	В
RQPA7Z	В	VB27BF	В	X88DYV	В
RRZ8JH	В	VEZKX6	В	X9GD43	В
RVC8NV	В	VFE32B	В	XF8F29	В
T2G39V	В	VNPBKX	В	XGFUY2	В
T8RCGD	В	VPENYA	В	XKEZTL	В
TE73WD	В	VPNA47	В	XQLN99	В
TJKNZH	В	VXAR37	В	XTA4HG	В
TMU38V	В	VZYXKG	В	XWB8A4	В
TNT8NP	В	W4U774	В	Y22NN3	В
trv2nf	В	W7JDNE	В	Y7FNKU	В
U38TM9	В	W8D28A	В	Y7RCU8	В
U7C3CJ	В	WAE8KV	В	Y8NPGZ	В
UB6APZ	В	WAHWNR	В	YMLMUX	В
UBM8W7	В	WNMYHM	В	YUHM76	В
UE28QC	В	WRKCCD	В	YYRUGG	В

TABLE	1	- Item	2

WebCode	Location	WebCode	Location	WebCode	Location
Z642T8	В				
ZDA3RD	В				
ZDCHG8	В				
ZH3YNQ	В				
ZL3AFK	В				
ZMBKB3	В				
ZMDAEZ	В				
ZQE9X6	В				
ZTZ4AC	В				
ZXGABR	В				
Response S	ummary	Total Participants:	250		
Locatio	on Total				
А	1				
В	249				
С	0				
D	0				
None	0				

WebCode	Location	WebCode	Location	WebCode	Location
28YDQQ	С	4A2RN9	С	7VR3FX	С
2DQGVF	None	4BCQTP	None	7XYBQ3	None
2JNATN	С	4CGK4F	С	83P62A	С
2QFFLJ	None	4ECW8V	С	8B33PT	С
2UPXKL	С	4NVFKZ	С	8HE7PZ	С
2WK3RZ	С	4NX8DG	С	8N7DBU	None
2WXW92	С	4RDUT8	С	8PZ2TP	С
2Y84BU	None	64NMW8	С	8RR4P6	С
368RGZ	None	68R9WQ	С	8U8W4C	С
38DC8L	None	6BLARD	None	928KNP	С
3AJG2A	None	6DAQ7R	С	9A3EUA	None
3F9YQ7	None	6EAJAR	С	A4TGX2	С
3NHJLM	None	6MXL22	None	A6JYKU	С
3PE2HW	С	6PNNBV	None	AKGQNJ	С
3Q8Q6Y	None	6W9PK7	С	AQMKKZ	С
3X8A3N	С	746XEC	None	AUNEPX	None
42KGYL	С	7ARVW8	None	AVDY62	С
43DBQN	С	7L3BT6	С	AX2ELN	С
43FWM6	None	7ME4RD	None	AYD32U	С
48PDJL	С	7R78MD	None	B2MFBA	None

WebCode	Location	WebCode	Location	WebCode	Location	
B39D8E	С	DUPUWD	С	GMJZRZ	С	
B6VX9C	С	E3LTMR	None	GNQGRR	None	
BDPZGE	С	E4XGV6	None	GNT9J8	С	
BHV8FY	С	E7A6LW	С	GVQTRU	С	
BJG829	С	EEQAX2	None	GVUJWR	None	
BNDPPZ	С	EGWMLU	С	GVV6WE	С	
BZQWDN	С	EGYFGG	С	GVXPRU	С	
C3PUYZ	С	ERHRVE	None	GWM8EM	С	
C7TBNG	С	EVLDTD	С	GZBREP	С	
CBN2D2	None	F7F44J	С	H3NWFR	С	
CFAEG9	С	F7HYE3	С	H9ULT7	С	
CKAATH	С	F8NEET	None	HEGAPW	None	
CYBYUP	С	FECVCD	None	HR79HK	С	
D7KXAK	С	FG2BTZ	С	HR9XHB	С	
D8XFMX	None	FGEZKR	С	HTPWBZ	С	
D9VRHQ	С	FHDWKM	None	HUG7UG	С	
DCEQRE	С	FKZFGE	None	HY6THU	None	
DEJCL7	С	FLCB6R	None	J4WD7B	С	
DMVFNY	None	FXZGUF	С	J728K8	С	
DPFC6C	С	GFM7U3	С	J8GCFY	С	

WebCode	Location	WebCode	Location	WebCode	Location
JEXZX8	None	KVGZJW	None	NMV7U6	С
JG4B9P	С	KXRZMJ	С	NV8F76	С
JJW8MB	С	KY84NP	С	P2Q4FZ	С
JLXD2G	None	lnx4JG	С	РЗЗМНН	С
JVNQDA	С	LRZWLR	С	P7LULC	None
JXDYUQ	С	LVEVHT	С	PD6373	С
JZYYGZ	С	LVU866	С	PGBA6M	С
K4YDXN	С	M2Y4N6	None	PKMDFW	С
KA2FPG	None	M7EQ7G	С	PKZ8VW	С
KBFTHK	None	MDW3JG	С	PRL3W2	С
KBVC3H	С	MF4HQM	С	PY62T2	С
KCRLGU	С	MFDFV6	С	QA2MD6	С
KD3NUR	None	MGRZNE	None	QEZU39	С
KEUTCQ	None	MK9842	С	QFPCT9	С
KF8C9G	С	MKUYY8	С	QHFEVF	С
KHVLMP	С	MNWL3W	С	QUP9XR	С
KKZDBW	None	MYDL7K	С	QWY23T	С
KNZKXE	С	MZ3X2J	С	R2JKMU	С
KRJFYL	С	N3QQBT	None	R6HWKE	С
KTGW4V	С	N9VHMB	None	RDET8H	None

WebCode	Location	WebCode	Location	WebCode	Location
REA6BX	None	UE4WVA	С	WV73PP	С
RGD64H	None	UEG9UE	None	WVF3F4	С
RNVFGH	None	UEYEVP	С	WXRZQZ	С
RPBNVD	С	V8FGXP	None	WZZ4MX	None
RPTWJ8	С	V9PNYW	С	X2L8VU	С
RQPA7Z	С	VB27BF	None	X88DYV	С
RRZ8JH	С	VEZKX6	С	X9GD43	None
rvc8nv	None	VFE32B	С	XF8F29	С
T2G39V	С	VNPBKX	С	XGFUY2	С
T8RCGD	None	VPENYA	С	XKEZTL	С
TE73WD	None	VPNA47	None	XQLN99	С
TJKNZH	С	VXAR37	С	XTA4HG	None
TMU38V	С	VZYXKG	None	XWB8A4	None
TNT8NP	С	W4U774	None	Y22NN3	None
TRV2NF	None	W7JDNE	С	Y7FNKU	None
U38TM9	С	W8D28A	С	Y7RCU8	С
U7C3CJ	None	WAE8KV	С	Y8NPGZ	None
UB6APZ	С	WAHWNR	С	YMLMUX	С
UBM8W7	С	WNMYHM	С	YUHM76	С
UE28QC	С	WRKCCD	С	YYRUGG	None

WebCode	Location	WebCode	Location	WebCode	Location
Z642T8	С				
ZDA3RD	None				
ZDCHG8	N/A				
ZH3YNQ	None				
ZL3AFK	С				
ZMBKB3	None				
ZMDAEZ	None				
ZQE9X6	С				
ZTZ4AC	None				
ZXGABR	С				
Response	Summary	Total Participants:	250		
Locat	ion Total				
A	0				
В	0				
C	169				
D	0				
None	80				

# **Development Methods**

WebCode	Development Methods	Method Details
28YDQQ	Visual Examination	FIRST VISUAL: PL500 @ 000nm TIME: 12:30, ROOM TEMPERATURE (18°C)
	DFO	DFO/HFE: ROOM TEMPERATURE 18°C FOR 30 MINUTES. NINCHA @ 100°C
	Ninhydrin	NINHYDRIN/HFE: ROOM TEMPERATURE 18°C FOR OVERNIGHT (24 HOURS)
2DQGVF	Visual Examination	Only visual inspection done in room and oblique lighting. Did not process. The laboratory currently does not have a method to process for latent prints on paper items.
2JNATN	DFO	NINCHA S31 SET AT 100°C FOR 20 MINUTES
	Ninhydrin	NINCHA \$31 SET AT 65°C AND 70% HUMIDITY FOR 20 MINUTES
2QFFLJ	Visual Examination	Using a white light
	Powder Dusting	Black powder was applied to the exterior of the adhesive strip cover on the envelope after the visual examination. The powder developed visible ridge detail on the paper portion of the envelope, along the edges of the adhesive strip. Because of that I continued with black powder processing in the area under the adhesive strip where the ridge detail could be seen.
	1,2-Indanedione	Was applied using a squirt bottle trying to prevent contact with the adhesive strip. Then the envelope was placed in the oven for approximately one hour. The item was then examined using an ALS.
	Wet Powder Suspension	Was applied to the adhesive strip as a last step
2UPXKL	DFO	NINCHA, 100°C
	DFO	NINCHA 60°C, HUMIDITY 60%
2WK3RZ	Visual Examination	inspection - visible light 532 nm laser/orange filter
	1,2-Indanedione	saturation 532 nm laser/orange filter
	Ninhydrin	saturation 532 nm laser/orange filter
	Physical Developer (PD)	black Wetwop adhesive developer inspection - visible light
2WXW92	Visual Examination	lighted magnification
	Wet Powder Suspension	brushed on black wet wop / rinsed / dried
	Visual Examination	lighted magnification

WebCode

#### 2Y84BU Visual Examination ambient lighting (Sticky Side Powder) Wet Powder Suspension 1,2-Indanedione + zinc chloride. dry iron heat for approximately 10 seconds, laser at 532nm, orange filter Ninhydrin Caron heat/humidity chamber at 80 degrees C and 70% humidity for approximately 15 minutes 368RGZ DFO DFO HFE PROCESS: AFTER THE CHAIN OF CUSTODY PHOTOS WERE TAKEN AND THE FIRST VISUAL INSPECTION WAS DONE ON ITEM 1, A CONTROL SAMPLE WAS SPRAYED WITH DFO HFE PREMIX, BATCH NO. CJS-DF0002. IT WAS PLACED IN AN OVEN AT 80°C FOR 20 MINUTES FOR THE DEPOSITED PRINT TO DEVELOP 450nm POLIFLARE LIGHT AND ORANGE GOGGLE WERE USED TO CHECK FOR RESULT. IT WAS POSITIVE. THE ITEM 1 WAS TAKEN THROUGH THE SAME PROCESS AS THE CONTROL SAMPLE. THE CONTROL SAMPLE WAS FURTHER PROCESSED WITH Ninhydrin IN-HOUSE PREPARED NINHYDRIN METHANOL SOLUTION DATED 2018/10/26, LOT NO. 17H214110. 38DC8L Visual Examination TIME 09:26, LIGHT SOURCE USED: ROFIN PL500 WITH 000, 350, 590nm WAVELENGTH. VIEWING GOGGLES USED: CLEAR, ORANGE,. UNTILL ENTIRE SURFACE IS VIEWED +/- 7 MINUTES. DFO TREATING ITEM 1 WITH DFO: TIME 09:45, USING DIPPING METHOD TO TREAT ITEM 1 AND PLACED IN NINCHA AT 100°C FOT 15 MINUTES. TREATING ITEM 1 WITH NINHYDRIN: TIME 11:00, USING Ninhydrin DIPPING METHOD TO TREAT ITEM 1 AND PLACE INTO NINCHA AT 65°C AND 75% RELATIVE HUMIDITY FOR 20 MINUTES. 3AJG2A Visual Examination Visualise the item with Rofin PL500 using white light before applying chemicals to see if there are any visible prints. Wet Powder Suspension Added wet powder with fingerprint brush on the tab of the envelope, let it set for 15 seconds, then rinse it with cold running tap water, dried in the evidence drier. DFO Item was dipped into DFO Ethyl ether solution for 8 minutes, dried in extraction cabinet then placed in Nincha for 20 minutes at 100°C. Ninhydrin Item was placed into Ninhydrin / Acetone solution for 3 minutes , dried in extraction cabinet, placed in Nincha for 20 minutes at 70°C, 80% RH. 3F9YQ7 Ninhydrin Item dipped in ninhydrin then moist heat applied using iron Wet Powder Suspension Wet powder applied to adheasive strip and rinsed with water

#### TABLE 2 - Item 1

**Method Details** 

**Development** Methods

WebCode	Development Methods	Method Details
3NHJLM	Visual Examination	VIEWING OF EXHIBIT WITH WHITE LIGHT, UV & 505nm. NO CHEMICALS USED.
	DFO	TREATED WITH DFO/HFE: DIPPED IN DFO/HFE BASE, ALLOWED TO DRY & PLACED IN NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	TREATED WITH NINHYDRIN/METHANOL: DIPPED IN METHANOL/NINHYDRIN BASE, ALLOWED TO DRY & PLACED IN NINCHA SET AT 70°C, 80% HUMIDITY FOR 20 MINUTES.
3PE2HW	Visual Examination	White light
	Ninhydrin	Ninhydrin spray "Nin-print", B-78500, BVDA. Room temperature 20,4oC, room humidity 46%. Spraying time 5-6 sec. Procesing time 8 days.
3Q8Q6Y	Visual Examination	FIRST VISUAL EXAMINATION OF RESULTS: POLIFLARE (PL500), LIGHTS 450 - 590nm WITH ORANGE GOGGLES.
	CHEMICAL EXTRACTION CABINET	FOR SPRAYING OF NINHYDRIN SOLUTION TO THE EXHIBITS OR ITEM AND DRIED IT FOR 2 HOURS TO DEVELOP.
	Visual Examination	SECOND VISUAL EXAMINATION OF RESULTS: POLIFLARE (PL500), LIGHTS 450 - 590nm WITH ORANGE GOGGLES.
	Ninhydrin	NINCHA \$31 MACHINE: FOR DEVELOPENT OF LATENT PRINT WITH TEMPERATURE OF 60°C, HUMIDITY OF 65% FOR 20 MINUTES TIME PERIOD.
	Visual Examination	THIRD VISUAL EXAMINATION OF RESULTS: POLIFLARE (PL500); LIGHTS 450 - 590nm WITH ORANGE GOGGLES.
3X8A3N	Development of latent prints on porous surfaces	Application of chemical reagent Ninhydrina spray
42KGYL	Visual Examination	Rofin PL500, White light, clear goggles
	Powder Dusting	Applied with fingerprint brush on the tab and let it set for 15 seconds and rinse with cold water.
	DFO	Spraying method, air dried in the extraction cabinet and placed in Nincha 531 for 15 minutes at 100°C with no humidity.
	Ninhydrin	Spraying method, air dried in the extraction cabinet and placedin Nicha 531 for 20 minutes at 70°C with 75% humidity.
43DBQN	Visual Examination	No visible staining
	Ninhydrin	With Acetone drying time 20 mins
	Steam Iron	10-15 mins to developed
43FWM6	Ninhydrin	Saturate envelope with spray ninhydrin.
	Visual Examination	Allowed envelope to air dry until 11/9/18. Suspected print observed in quadrant A.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
48PDJL	DFO	DFO/PETROLEUM ETHER (NINCHA S31): 100°C AND 0% HUMIDITY AT 20 MINUTES.
	Ninhydrin	NIN/ACETONE (NINCHA \$31): 65°C AND 65% HUMIDITY AT 20 MINUTES.
4A2RN9	Visual Examination	natural light, no visible prints
	lodine	no visible prints
	DFO	Heat / no humidity / alternate light source - no visible prints
	Ninhydrin	Heat with humidity - one visible print in section A
	tape glo - adhesive strip	alternate light source - no visible prints
4BCQTP	Visual Examination	FIRST VISUAL EXAMINATION: ROFIN PL500 USED. 000nm (WHITE LIGHT) 10:55
	DFO	DFO/HFE (DIPPING METHOD): EXHIBIT DIPPED IN THE DFO/HFE, PLACED IN THE NINCHA 100°C FOR 20 MINUTES, 11:50
	Visual Examination	ROFIN PL500, 450nm, ORANGE GOGGLES 12:20 AND CAPTURED
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT SPRAYED WITH NINHYDRIN/METHANOL, PLACED IN THE NINCHA S31, 60°C AT 65%, 20 MINUTES, 12:40
4CGK4F	DFO	ITEM 1 WAS TREATED WITH DFO/HFE PLACED IN NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	ITEM 1 WAS TREATED WITH NINHYDRIN/HFE PLACED IN NINCHA AET AT TEMPERATURE 80°C AND HUMIDITY OF 65% FOR 20 MINUTES.
4ECW8V	DFO	DIPPED IN DFO HFE SOLUTION: DRIED IN NINCHA MACHINE AT 100°C, 0% HUMIDITY FOR 20 MINUTES
	Ninhydrin	DIPPED IN NINHYDRIN-METHANOL SOLUTION: DRIED IN NINCHA MACHINE AT 65°C, 65% HUMIDITY FOR 20 MINUTES
4NVFKZ	Cyanoacrylate Fuming	Temperature - 230°C, humidity 80%, RH processing time - 20 minutes, 15 minutes purging cycle.
4NX8DG	Visual Examination	FIRST VISUAL: USING ROFIN PL500 POLYVIEW SYSTEM, 00nm LIGHT, NO FILTER
	DFO	DFO/HFE AND VISUAL: IN NINCHA S31 SET AT 100°C, 0% HUMIDITY FOR 40 MINUTES WITH DFO FILTER FITTED. EXAMINATION USING ROFIN PL500 AT 450nm LIGHT AND ORANGE GOGGLES.
	Ninhydrin	NINHYDRIN/METHANOL: IN NINCHA S31 SET AT 45°C, 65% HUMIDITY FOR 40 MINUTES WITH NINHYDRIN FILTER FITTED. FOLLOWED BY VISUAL EXAMINATION AT 00nm LIGHT WITH CLEAR GOGGLES. VISUAL POSTPONED BY ROFIN PL500 POLIVIEW SYSTEM.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
4RDUT8	Visual Examination	white light - negative results.
	Cyanoacrylate Fuming	1,5 gram glue, 80% RH in cabinet, 120 degrees on hotplate, processtime 10 minutes.
	Visual Examination	white light - negative results.
	Ninhydrin	65% RH in cabinet, 80 degrees in cabinet, processtime 5 minutes.
	Powder Dusting	
	Wet Powder Suspension	
64NMW8	Visual Examination	
	Wet Wop	Applied wet wop to adhesive strip on envelope. Rinsed off strip and print appeared in quadrant A.
	Ninhydrin	Sprayed Ninhydrin on the remainder of the inside flap of the envelope but did not recover anymore ridge detail in quadrant A.
68R9WQ	Visual Examination	Crimescope, Superlite 400, Laser 532 and 577 nm.
	1,2-Indanedione	2 days waiting
	Ninhydrin	5 days waiting
6BLARD	Visual Examination	FIRST VISUALIZATION: PL500 VIEWED AT WHITE LIGHT AND UV LIGHT WITH COLOURLESS GOGGLES.
	DFO	PUT IN THE OVEN AT 100°C FOR 20 MINUTES.
	Ninhydrin	PUT IN THE CHEMICAL FUME EXTRACTION CABINET FOR OVERNIGHT.
6DAQ7R	Wet Powder Suspension	POWDER SUSPENSION CARBON BATCH #23 - POSITIVE CONTROL (USING ADHESIVE TAPE)
6EAJAR	Visual Examination	No latent prints visible
	Ninhydrin	Steam iron used in addition. Latent print developed in Quadrant "A".
6MXL22	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Wet Powder Suspension	
	Physical Developer (PD)	

TABLE 2	- Item 1
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WebCode	Development Methods	Method Details
6PNNBV	Visual Examination	FIRST VISUAL: CHECKING ANY POSSIBLE VISIBLE PRINTS USING PL500
	DFO	CHEMICAL INVESTIGATION USING DFO/PETROLEUM, NINCHA S31 AT 100°C 20 MINUTES.
	Ninhydrin	CHEMICAL INVESTIGATION USING NIN/METHANOL, NINCHA S31 AT 80°C RH80 20 MINUTES.
6W9PK7	Visual Examination	0725hrs - 0825hrs; 68 degrees F
	Wet Powder Suspension	Ridge detail developed
746XEC	DFO	2018/11/02 TIME 12:10 TEMP 100 DEGREE CELSIUS 20 MINUTES. ITEM 1 DIPPED IN DFO SOLUTION THEREAFTER PLACED IN THE NINCHA CONTAINING DFO FILTER.
	Visual Examination	2018/11/02 TIME 13:00 450nm, 555 RED AND ORANGE GOGGLES USED. RESULT NEGATIVE
	Ninhydrin	2018/11/02 TIME 13:35 TEMP 70 DEGREE CELSIUS 70% RELATIVE HUMIDITY 20 MINUTES ITEM 1 DIPPED IN NINHYDRIN SOLUTION THEREAFTER PLACED IN NINCHA CONTAINING NINHDRIN FILTER.
	Visual Examination	2018/11/05 TIME 12:00. 000nm NO FILTER AND CLEAR GOGGLES USED. RESULT NEGATIVE
7ARVW8	Visual Examination	PL500 White light - clear goggles
7L3BT6	Visual Examination	
	DFO	ALS 555 nm/Red filter
	Ninhydrin	
7ME4RD	Visual Examination	Photographed overall appearance prior to processing.
	Ninhydrin	Applied Ninhydrin to flap of envelope, let stand 12 days.
	Wet Powder Suspension	Applied to adhesive strip rinsed with water after approximately 10 seconds.
7R78MD	DFO	DFO/METHANOL: EXHIBIT WAS PUT IN NINCHA AT 100°C FOR 15 MINUTES, AT 15:45
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT WAS PROCESSED IN NINCHA AT 65°C AND 65% HUMIDITY FOR 20 MINUTES, AT 09:30 ON THE 14TH NOVEMBER 2018.
7VR3FX	CFC & magnetic powder for strip coverage adhesive	(+) ctrl, humidity: 70%, Lot: UK13419, Exp: 4/19, fuming time: 10 min
	Ninhydrin for paper part of 1AB	(+) ctrl, humidity: 90%, temperature: 32°C, time in humidity chamber: 30 min. Chamber set to 90%, reached 57%. Let evidence sit overnight in secure locker. Nin lot: 9/10/2018OAK, exp: 4/10/2019

WebCode	Development Methods	Method Details
7XYBQ3	Ninhydrin	control standard on blank paper using amino acid pad. processed for 3 hours.
	Wet Wop	painted black wet powder onto sticky side of envelope, left on for 15 seconds, rinsed with cold water.
83P62A	Visual Examination	ALS
	DFO	Two applications of DFO, into oven for 20 mins
	Ninhydrin	Two applications of NIN, into oven for 6 minutes
8B33PT	Wet Powder Suspension	Painted on wet powder-black for approximately 10 seconds. Drying time = approximately 10 seconds. Rinse time - approximately 20 seconds, ran envelope undre cold water.
8HE7PZ	DFO	Temperature 100 degrees celsius, zero humidity in climate chamber. Processing time 25 minutes. No detectable fingerprints (green light, red filter). Reference prints were ok.
	Ninhydrin	Temperature 80 degrees celsius, humidity 65% in climate chamber. Processing time 7 minutes. VERY weak prints, reference prints were ok.
	Ninhydrin	Ninhydrin ready to use spray after processing time in climate chamber due to VERY weak print (before item had cooled down). Still very weak print.
8N7DBU	Cyanoacrylate Fuming	MVC3000: ITEM 1 EXHIBIT WAS PLACED IN THE MVC3000 FOR PROCESSING USING A POLYCYANO UV TEMPERATURE 230°C FOR 20 MINUTES.
	Dye Stain	DYE STAINED WITH GENTIAN VIOLET FOR ENHANCEMENT OF THE PRINTS.
8PZ2TP	Visual Examination	White light, blue light, UV light
	DFO	Humidity set to 0 (actual 7), Temperature 100 degrees C, Processing time 20 minutes
	Ninhydrin	Humidity set to 65, Temperature 80 degrees C, Processing time 10 minutes
8RR4P6	Visual Examination	Available light & magnifying glass examination
	lodine	let fumes air out, then examine
	[No Methods Reported.]	Spray. Hot iron & steam.
	WetWop	
8U8W4C	Visual Examination	1ST VISUAL: ROFIN PL500 AT 0.00nm
	DFO	DFO/PETROLEUM ETHER (BY DIPPING METHOD): OVEN AT READINGS 100°C FOR 20 MINUTES
	Ninhydrin	NINHYDRIN/ACETONE (BY DIPPING METHOD: OVEN AT 80% AND 70°C HUMIDITY FOR 20 MINUTES.

WebCode	Development Methods	Method Details
928KNP	Visual Examination	Lighting
	Ninhydrin	Pre-made dye stain; amino acid reference pad control; Caron chamber (85 degrees celsius and 65% relative humidity for 3 minutes); 72 hour waiting period
9A3EUA	DFO	DFO/METHANOL: EXHIBIT PROCESSED IN NINCHA S31 AT 100°C FOR 15 MINUTES AT 15:45
	Ninhydrin	BIBHYDRIN/METHANOL: EXHIBIT PROCESSED IN NINCHA S31 AT 65°C AND 65% HUMIDITY FOR 15 MINUTES AT 09:30
A4TGX2	Visual Examination	Ambient/ Blue/ UV lighting, Tracer Laser (505nm with orange goggles)
	DFO	100 degrees Celsius for 20 minutes in Caron chamber; Rofin (505nm with orange goggles)
	Ninhydrin	80 degrees Celsius and 65% RH for 2 minutes in Caron chamber; Rofin (505nm)
	Physical Developer (PD)	Sirchie pre-mixed solutions A and B for 15 minutes
A6JYKU	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron
AKGQNJ	Visual Examination	First we took photo from object. After this we checked it with eyes and white light. On the glued area, we didn't see any fingerprints.
	1,2-Indanedione	65% moisture and 90 degrees, 15 minutes
	Wet Powder Suspension	On the glued area, but it didn't bring any fingerprints.
AQMKKZ	Visual Examination	White light and blue light 420-470 nm (yellow filter)
	Powder Dusting	magnetic powder
	Ninhydrin	65% RH in cabinet, 80 degrees in cabinet, processtime 5 minutes.
	Wet Powder Suspension	Black wet powder
AUNEPX	Visual Examination	Results were negative.
	Alternate Light Source	Results were negative.
	Powder Dusting	Processed the tape strip on the envelope. Partial print on the envelope. Took strip off the envelope.
	DFO	Dipped in DFO, air dried. Placed in a 200 degree DFO oven for 30 mins. ALS 455mm with orange goggles. Partial print seen.
	Ninhydrin	Dipped in Ninhydrin. Air dried. Allowed 36 hrs for development time. Partial print was seen.

WebCode	Development Methods	Method Details
AVDY62	Visual Examination	Rofin polylight - orange goggle Rofin poly light - white light - obligue
AX2ELN	Visual Examination	3 minutes
	Inherent fluorescence by laser or alternate source	10 minutes
	DFO	30 minutes temprature at 100 C without humidity
	Alternate Light Source	10 minutes
	Ninhydrin	30 minutes temperature 80 C with humidity
AYD32U	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron
B2MFBA	Visual Examination	Used a lighted magnifying glass
	Powder Dusting	Powdered non-adhesive side of acetate strip while still attached to the envelope
	1,2-Indanedione	IND the porus paper portion of the envelope. Placed in over for approximately 1 hour at approximately 200 degrees.
	Wet Powder Suspension	Wetwoped adhesive strip of envelope
B39D8E	Visual Examination	We could not find any fingerprints by visual examination.
	Wet Powder Suspension	We took off the tape strip from the closure tab of the white envelope. We used black Wet Powder on the tape strip.
B6VX9C	DFO	100°C - TEMPERATURE, HUMIDITY - 0% 20 MINUTES - TIME
	Ninhydrin	TEMPERATURE - 70°C, HUMIDITY - 80%, TIME - 20 MINUTES
BDPZGE	Visual Examination	Daylight, Halogen lamp 150W, Magnifier 4,5X.
	Ninhydrin	2% ninhydrin solution (in ethyl alcohol).
BHV8FY	Ninhydrin	Chemical sprayed on evidence 10-15 seconds until damp; Hung in a fume hood to air dry 15 minutes; steam iron used for humidity approx. 3" from evidence
	Wet Powder Suspension	Chemical brushed on adhesive strip with camel hair brush; left on for approx. 10 seconds; chemical rinsed off with clean water
BJG829	Ninhydrin	Treated with the chemical and placed in fuming hood to dry. Treated with steam to develop latents.

WebCode	Development Methods	Method Details
BNDPPZ	Powder Dusting	Print developed
	1,2-Indanedione	Used humidity chamber - set to no humidity (DFO setting).
	Alternate Light Source	Nothing further developed
	Ninhydrin	Used humidity chamber - nothing further developed.
BZQWDN	Ninhydrin	10 minutes in climate chamber 70 degrees Celsius and RH 65%.
C3PUYZ	Visual Examination	clear light, wavelength 000 and 505nm with orange filter
C7TBNG	Visual Examination	ambient light
	Ninhydrin	Ninhydrin special formula Iron with steam and heat
CBN2D2	Visual Examination	Flashlight
	1,2-Indanedione	1,2-IND with Laser, 40 min at 50c/60% Humidity, 532nm, Orange Filter, control positive. An area of ridge detail was observed and digitally preserved in the section labeled A. The acetate strip was removed prior to processing the envelope and processed separately.
	Cyanoacrylate Fuming	Cyanoacrylate fuming for the acetate strip removed from the envelope, (10 minutes, 80% humidity). Areas of ridge detail not observed.
	Dye Stain	Rhodamine 6G (R6G) with Laser, 532nm, Control Positive, Orange Filter was used on the acetate strip that was removed from the envelope. Areas of ridge detail not observed.
CFAEG9	Visual Examination	LIGHT (0nm & 450nm), GOGGLES: CLEAR & ORANGE
	DFO	TEMP: 80°C, HUMIDITY: 0%, PROCESSING TIME: 20 MINUTES (450, 470, & 505nm ORANGE FILTER)
	Ninhydrin	TEMP: 70°C, HUMIDITY: 60% (LIGHT = 0nm, FILTER = 0nm), PROCESSING TIME: 20 MINUTES
	Wet Powder Suspension	BLACK ADHESIVE POWDER: SQUREL HAIR BRUSH
CKAATH	Visual Examination	
	Ninhydrin	Special Formula Ninhydrin, Iron
CYBYUP	Visual Examination	Viewed using white/ambient light and 532nm Tracer Laser with orange goggles.
	DFO	Applied, let dry, heat @ 100deg C for 20 minutes, view with 532 nm Tracer laser/ green light with orange goggles.
	Ninhydrin	Applied, let dry, heat @ 80deg C and 65% humidity for 2 minutes, view with white/ambient light.
	Physical Developer (PD)	Distilled water rinse, Maleic acid rinse, Distilled water rinse, Physical Developer bath ~20 minutes, Distilled water rinse, let dry. View with white/ambient light.

WebCode	Development Methods	Method Details
D7KXAK	Visual Examination	visually inspected this item and removed the acetate strip from the lip of this item
	Ninhydrin	sprayed the closure flap of the envelope with ninhydrin and let the item process for 24 hours and then visually examined this item again with a whorl pattern developing
D8XFMX	CAPTURING	COC CAPTURING: D600 CANON CAMERA - TAKING PHOTOGRAPHS OF EXHIBIT BAG & CONTENTS AS RECEIVED.
	Visual Examination	PL500, D700 NIKON CAMERA, CLEAR FILTER, CLEAR GOGGLES, WHITE LIGHT
	DFO	DFO/PETROLEUM ETHER USING NINCHA \$31
	Ninhydrin	NINHYDRIN/HFE USING NINCHA \$31
	Visual Examination	PL500, D700 NIKON CAMERA, 450nm, ORANGE FILTER, ORANGE GOGGLES.
D9VRHQ	Vis/ALS	No FRD visible. Viewed under available light & laser blue 445, green 532
	Ninhydrin	Applied ninhydrin, placed in a humidity chamber 80° & 60% for 10 min.
	Oil Red O	Submerged item 001-1 in Oil Red O stain for 20 min. Placed in buffer bath for 5 min.
DCEQRE	Visual Examination (white light)	
	DFO	
DEJCL7	Visual Examination	A visual exam with oblique lighting was done prior to any processing.
	Ninhydrin	Applied Non-Running Ninhydrin to the porous paper. Let sit for 11 days, then viewed results.
	Wet Powder Suspension	Applied Wetwop to the adhesive strip. Let sit for approximately 20-30 seconds and rinsed off.
DMVFNY	Visual Examination	
	DFO	Heat at 100 degrees C for 20 minutes.
	Ninhydrin	Heat and humidity at 80 degrees C for 25 minutes. Reexamined about 70 hours later.
	Wet Powder Suspension	Black Wetwop
DPFC6C	Wet Powder Suspension	Wet Powder black 15sek. and then clean under running water.
DUPUWD	DFO	DFO (NINCHA \$31): 100°C, 20 MINUTES, 0 HUMIDITY
	Ninhydrin	NINHYDRIN (NINCHA \$31): 65°C, 65% HUMIDITY

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
E3LTMR	Visual Examination	White, low angle light results were negative.
	Alternate Light Source	Multiple filters applied (400nm - 555nm) results were negative.
	DFO	Item was dipped in DFO and allowed to air dry. Item was placed in a 200F DFO oven for 25 minutes. One print developed and was visible in quadrant "A" utilizing an ALS set at 455nm and viewed through an orange barrier filter (goggles).
	Ninhydrin	Item was dipped in ninhydrin and allowed to air dry. Item was then placed in a chamber along with a beaker of distilled water and allowed to develop over the course of 36 hours. Print visible in quadrant "A".
E4XGV6	Visual Examination	FIRST VISUAL: PL500 - 1823; 2018/11/05 17:30
	DFO	DFO/PETROLLEUM ETHER: SPRAYING METHOD; PLACED INTO NINCHA EQUIPMENT SET AT 100 DEGREE CELSIUS NO HUMIDITY 20 MINUTES 2018/11/06 07:10
	Ninhydrin	NINHYDRIN/METHANOL: SPRAYING METHOD, NINCHA SET AT 72 DEGREE CELSIUS, 71% HUMIDITY 2018/11/06 09:30
E7A6LW	Visual Examination	Notepage photography
	black sticky-side powder	black sticky-side and photo flo and rinse
EEQAX2	Visual Examination	1 ST VISUALIZATION: EXHIBITS WAS VISUALIZE WITH PL500 WITH ALL THE WAVELENGTH, PRINT WAS IDENTITY AT 490nm WITH ORANGE GOGGLES PHOTOGRAPHED, RIDGES WERE IDENTIFY AND CAPTURED ON POLIVIEW (NIKON D700), WITH ORANGE FILTER.
	Wet Powder Suspension	WET-WET POWDER BLACK WAS APPLIED ON THE CLOSURE TAB OF THE ENVELOPE, WAIT FOR IT TO REACT, WAIT FOR FEW SECONDS, THEN RUN IT UNDER RUNNING WATER, DRY IT IN THE EVIDENCE DRYER.
EGWMLU	Visual Examination	white light
	Ninhydrin	80 C, rh 65%, 5 min processing time
EGYFGG	Visual Examination	
	Alternate Light Source	
	Ninhydrin	
ERHRVE	Visual Examination	1ST VISUAL: WHITE LIGHT, CLEAR GOGGLES.
	DFO	DFO SPRAYING METHOD: PUT IN NINCHA FOR 20 MINUTES AT 100°C
	Ninhydrin	NINHYDRING SPRAYING METHOD: PUT IN NINCHA FOR 20 MINUTES AT 65°C

TABLE 2 - Item 1

#### WebCode **Development Methods Method Details EVLDTD Visual Examination** lights and magnification Powder Dusting Black magnetic powder Ninhydrin Ninhydrin in Acetone (Spray); heated in oven at $\sim$ 55 degrees C for 10 minutes F7F44J **Visual Examination** FIRST VISUAL: WHITE POLIFLARE, 000nm, CLEAR GOGGLES, DARK ROOM, 25°C TEMPERATURE 15:10 DFO DFO AND VISUAL: 450nm - 505nm, ORANGE GOGGLE AND FILTER, 25°C IN A DARK ROOM. Ninhydrin NINHYDRIN AND VISUAL: WHITE POLIFLARE, 000nm, CLEAR GOGGLE, DARK ROOM, 25°C ROOM TEMPERATURE F7HYE3 Visual Examination Light source Ninhydrin used HFENinhydrin, HFENIN181017 Wet Wop Black WW180129, used on adhesive strip Physical Developer (PD) MAP180706, PD181119 F8NEET FUMING 11:30, 0.7545G OF CYANOBLOOM FUMED FOR 20 MINUTES AT 120°C AND 70% HUMIDITY DFO DFO/HFE: 14:30; PLACED IN THE NINCHA FOR 30 MINUTES AT 100°C Ninhydrin 14:30 2018/11/12: PLACED IN THE NINCHA SET FOR 30 MINUES AT A TEMPERATURE OF 65°C AND HUMIDITY OF 65% FECVCD DFO DFO/PETROLEUM PRE-HEATED THE OVEN AT 100°C FOR 5 MINUTES. LOADED EXHIBITS (2) THAT WERE DIPPED IN THE DFO WORKING SOLUTION INTO THE OVEN FOR 20 MINUTES. NIN/METHANOL. PRE-HEATED THE OVEN AT 80°C FOR 5 Ninhydrin MINUTES. PLACED AN OVEN SAFE GLASS BEAKER WITH BOILING WATER IN THE OVEN FOR HUMIDITY AND EXHIBITS FOR 20 MINUTES (DIPPING METHOD) FG2BTZ **Visual Examination** Includes both visual and alternate light sources DFO after DFO treatment, 20 minutes in a dry oven at 100 degrees C Ninhydrin After Ninhydrin treatment, 6 minutes in a humidified oven at 70/80 degrees C

WebCode	Development Methods	Method Details
FGEZKR	Visual Examination	
	Alternate Light Source	Used 365nm UV, 450nm Blue Light, and 532nm Laser.
	Cyanoacrylate Fuming	Followed by visual exam and RUVIS.
	Powder Dusting	Used magnetic powder on strip over adhesive only.
	1,2-Indanedione	20 minutes in 100 degree oven then viewed under 532nm Laser.
	Ninhydrin	Placed in humidity cabinet at 76% humidity and 76 degrees for 15 minutes. Visual exam done after cooling off.
	Wet Powder Suspension	Used Alternate Black Powder in 50/50 Liquinox and water to process adhesive, then visually examined.
	Dye Stain	Used RAM (Rhodamine, Ardrox, and MBD) dye stain followed by 365nm UV light, 450nm Blue light, and 532nm Laser.
FHDWKM	Alternate Light Source	A crimescope light source and a 535 nm laser was used to visually examine the envelope for any latent prints.
	Cyanoacrylate Fuming	The adhesive strip was placed in the CA chamber for 9 minutes at 80% humidity
	Dye Stain	Rhodamine 6G was used on the adhesive strip. It was viewed with 535nm Laser with orange goggles
	1,2-Indanedione	The envelope was sprayed with 1,2-Indanedione and placed in a 100 degree C oven for approximately 20 minutes. It was then viewed with the 535 nm laser.
	Ninhydrin	The envelope was sprayed with ninhydrin and after drying a steam iron was used to expedite development
FKZFGE	Visual Examination	1ST VISUAL: WHITE LIGHT, NO TEMPERATURE RECORDED.
	DFO	DFO/METHANOL: NINCHA, ORH, 100°C
	Ninhydrin	NINHYDRIN METHANOL: WHITE LIGHT, NINCHA - 60°C, 67 RH
FLCB6R	DFO	100c for 20 minutes, 1 latent print was located in section "A"
	Ninhydrin	room temperature in a drying hood for 10 minutes.
FXZGUF	Visual Examination	VISUALIZATION USING ROFIN PL500 AT 000nm
	DFO	TREATED EXHIBIT WITH DFO/HFE, AIR DRY AND PLACED EXHIBIT IN THE NINCHAS31 OVEN AT 100 DEGREE CELSIUS FOR 20 MINUTES.
	Visual Examination	VISUALIZATION USING ROFIN PL500 AT 450nm AND ORANGE GOOGLES.
	Ninhydrin	TREATED EXHIBIT WITH NINHYDRIN/HFE, LET IT AIR DRY AND PLACED EXHIBIT IN THE NINCHAS31 AT 80 DEGREE CELSIUS, 65% HUMIDITY FOR 20 MINUTES.
	Visual Examination	VISUAL EXAMINATION USING ROFIN PL500 AT 00nm.

#### **Development** Methods **Method Details** WebCode GFM7U3 Visual Examination White light Ninhydrin HFE Ninhydrin applied with spray bottle. Steamed with steam iron to develop. Wetwop (Black) Applied on Adhesive strip with brush, rinsed with water after 10 seconds Physical Developer (PD) 1. Maleic Acid Pre-Wash 2. PD solution 3. Water rinse GMJZRZ Visual Examination Oblique lighting, ambient lighting, ALS DFO Treated with DFO twice alongside a control strip, dry oven for 20 minutes, examined item using ALS Ninhydrin Treated with Ninhydrin twice alongside a control strip, humid oven for 6 minutes, examined item using incandescent light GNQGRR **Visual Examination** White light & LASER DFO 100 Degrees C for 20 mins Ninhydrin 80 Degrees C for 3 mins in 65% humidity Wet Powder Suspension Sticky-side powder on adhesive strip GNT9J8 Visual Examination Used obligue lighting, wavelength 000nm withclear filter. Ninhydrin Painted Ninhydrin on carefully not to go on sticky part, placed in Nincha 531 at 50°C so as not to melt the sticky part, 60% humidity for 20 minutes. used wavelength 000nm and clear filter. Powder Dusting Black wet powder, after sealing the paper with cellotape on both sides, black wet powder was pipetted onto sticky surface for 15 seconds and washed offthen dried in bio dryer. **GVQTRU Visual Examination** Examination with an alternate forensic light source with appropriate filters (light source - POLILIGHT PL 500) DFO Spraying item with DFO working solution, after drying – heating the item for 10 min in 95° C, viewing with POLILIGHT PL 500 alternate forensic light source in $\sim$ 515 nm range + appropriate filters Ninhydrin Spraying item with ninhydrin aerosol spray, after drying – heating the item for 90 min in 40 °C, 80% humidity, viewing in a daylight and with POLILIGHT PL 500 alternate forensic light source in white light and in $\sim$ 515 nm range + appropriate filters, viewing again after few days Wet Powder Suspension Applying with a brush to the adhesive part of envelope and then rinsing the excess off with tap water after leaving it on the tape for 10 to 15 seconds. Examination with a white light.

WebCode	Development Methods	Method Details
GVUJWR	1,2-Indanedione	Once the acetate protection is removed, 1,2 Indandione is applied (After processing, the item are heated in a dry oven for 10 minutes at 100 °C. The fluorescence is excited with 505 nm)
	Ninhydrin	The Ninhydrin development oven is pre-conditioned to 80°C and 62% relative humidity.
GVV6WE	Visual Examination	no visible friction ridge detail
	Ninhydrin	Item 1. Positive control used. Item submerged into ninhyrin (Freon) based solution; allowed to dry. Iron set on steam setting to further enhance impression.
GVXPRU	Alternate Light Source	Tracer laser; 505nm with orange viewing filter
	DFO	100*C; 20:00 processing time
	Ninhydrin	80*C, 65% RH; 2:00 processing time
	Physical Developer (PD)	Sirchie pre-mixed solutions; 13:00 processing time
GWM8EM	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron, 24 hour development time
GZBREP	Wet Powder Suspension	black WetWop
H3NWFR	Visual	Photographed
	Ninhydrin	Dipped 20 seconds, steam iron above envelope, allowed to dry, repeat steam iron (both sides)
	Magnetic Powder	Dusted area
H9ULT7	DFO	ITEM 1 WAS DEEPED INTO DFO SOLUTION FOR 5 MINUTES, DRIED UNDER EVIDENCE DRIER, THEN PUT ON NINCHA S31 EQUIPMENT FOR 20 MINUTES AT 100°C.
	Ninhydrin	ITEM 1 WAS DEEPED INTO NINHYDRIN METHANOL FOR 5 MINUTES DRIED UNDER EVIDENCE DRIER THEN PUT ON NINCHA S31 EQUIPMENT FOR 25 MINUTES AT 80°C AND 80% HUMIDITY.
HEGAPW	Visual Examination	Checking for visible finger prints using light source wavelength = 000/350nm/450nm and clear/orange goggles.
	DFO	Dipping the exhibit in DFO/Petroleum Ether, dry it in an oven for 15 minutes at 90°C.
	Ninhydrin	Dipping the exhibit in Ninhydrin / Methanol, dry it in the Ninhydrin chamber for 20 minutes at 70°C and 65% RH.
	Visual Examination	Checking for finger prints with different light wavelength and clear / orange goggles.

WebCode	Development Methods	Method Details
HR79HK	Cyanoacrylate Fuming	Polycyano (sticky strip) MVC3000, 230°C, 80% HUMIDITY, 5 minutes purging, 2 scoops polycyano.
HR9XHB	DFO	DFO/HFE PROCESSING: ITEM 1 TREATED WITH DFO/HFE PLACED IN A NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN/METHANOL: ITEM TREATED WITH NINHYDRIN/METHANOL PLACED IN A NINCHA SET AT 80°C, 65% HUMIDITY FOR 20 MINUTES.
HTPWBZ	Ninhydrin (Hexane base)	Sprayed item, placed in humidity chamber 70° Celcius 70% humidity at 20 minuets.
	Stick Side Powder	Brused on. Rinsed with water after 30 seconds.
HUG7UG	Visual Examination	FIRST VISUAL: WHITE LIGHT POLIFLARE, 000nm, CLEAR GOGGLES DARK ROOM 25°C
	DFO	DFO AND VISUALIZATION: 450nm - 505nm, ORANGE GOGGLES, ORANGE FILTER DARK ROOM 25°C
	Ninhydrin	NINHYDRING AND VISUALIZATION: WHITE POLIFLARE, 000nm, CLEAR GOGGLES DARK ROOM 25°C
HY6THU	DFO	Reagents and batch numbers: DFO (211807102), methanol (34682); Acetic acid (33589), Petroleum ether (9043), Equipment: Nincha; Temparature = 100°C; humidity = 0%; time= 20 minutes
	Ninhydrin	Reagents and batch numbers: Ninhydrin (3508-26616); Methanol (34682), Temperature = 65°C; humidity = 60%; time = 20 minutes
J4WD7B	Visual Examination	WHITE LIGHT TO CHECK FOR ANY VISIBLE PRINTS.
	DFO	DFO (METHANOL) - SPRAYED ONTO EXHIBIT AAFTER DRYING PLACED IN OVEN 100°C, 0% RELATIVE HUMIDITY 20 MINUTES.
	Ninhydrin	NIN (METHANOL) - SPRAYED ONTO EXHIBIT, AFTER DRYING PLACED IN OVEN 65°C, 65% RELATIVE HUMIDITY 20 MINUTES.
J728K8	1,2-Indanedione	Threament in Attestor NinCha 31 cabinet and testing in temperature 25C, humidity 65% at very long lasting 24 hours time. Quite visible print.

WebCode	Development Methods	Method Details
J8GCFY	Visual Examination	PRE-PROCESSING: GENERAL SEARCHING FOR FINGER, PALM PRINTS AT 19:22 WITH LIGHTS: WHITE 415, 450, 470 AND 490 AND CLEAR, ORANGE, YELLOW AND RED GOGGLES (NEGATIVE)
	Cyanoacrylate Fuming	FUME WITH 2 SCOOPS OF POLYCYANO UV FOR 15 MINUTES AT 230°C, 70% HUMIDITY AND 20 MINUTES PURGE AT 14:20 ON 2018/11/03 BATCH NO. 15702 (NEGATIVE)
	DFO	DFO HFE: DFO WITH HFE BASE PLACED IN THE OVEN FOR 30 MINUTES AT 75°C, AT 16:20 UNIQUE NO. DFO-HFE 01/11/2018W (POSITIVE)
	Ninhydrin	NINHYDRIN-HFE: NINHYDRIN WITH HFE BASE PLACED IN THE OVEN FOR 20 MINUTES AT 80°C AND 65% HUMIDITY AT 19:15 (POSITIVE)
JEXZX8	Visual Examination	FIRST VISUAL EXAMINATION: THE EXHIBIT WAS EXAMINED USING PL500 LIGHT SOURCES, EXHIBIT TURNED AND LIGHT SOURCE MOVED TO ENSURE THAT ALL THE SURFACES OF THE EXHIBIT ARE ILLUMINATED. THE ANGLES OF ILLUMINATION WAS CHANGED AT DIFFERENT WAVELENGTH.
	DFO	DFO/PETROLEUM ETHER: EXHIBIT WAS DIPPED AND PROCESSED IN NINCHA. PROCESSED IN NINCHA AT 10 DEGREE CELSIUS FOR 20 MINUTES (EXHIBIT DIPPED IN DFO FOR 5 MINUTES, DRIED IN THE BIO-FORENSIC DRYER BEFORE PUTTING IN NINCHA).
	Ninhydrin	EXHIBIT DIPPED IN NINHYDRIN UNDER CHEMICAL EXTRACTION CABINET IN A TRAY. THEN DRIED IN BIO-EVIDENCE DRYER. THE PROCESSED IN NINCHA AT 55 DEGREE CELSIUS AND 65 HUMIDITY FOR 20 MINUTES. EXHIBIT WAS DIPPED IN NINHYDRIN FOR 5 MINUTES.
JG4B9P	Wet Powder Suspension	
	Ninhydrin	80° / 65% 10 min
JJW8MB	Visual Examination	No visible latents - examined with white light
	Ninhydrin	(Lot #110818-01) Dip in chemical approximately 10 sec, hang to dry in ambient condition; Fingerprint chamber (75 deg C, 80% humidity, 5 minutes)
	Visual Examination	Latent visible with white light after development
JLXD2G	Visual Examination	
	Cyanoacrylate Fuming	Air Science Safe Fume Chamber, 30 min, 70% Humidity @ 23 degrees C. latent developed in Section A
	Ninhydrin	soaked with solution, dried, placed in humidifying chamber for 1 hr 20 min. latent was further developed
	zip-lock bag	envelope permitted to further develop overnight

TABLE 2 - Item 1
WebCode	Development Methods	Method Details
JVNQDA	Visual Examination	Visual examination with lights (range 390 -850nm) and photography+photoshop.Glued area were no visiable fingerprints.
	1,2-Indanedione	65% moisture + 90C degrees, 15 min. operate time. With 505 nm light and orange filter one fingerprint was seen at section A.
	Wet Powder Suspension	More fingerprints was look at glued area, but not found.
JXDYUQ	Ninhydrin	Completely saturated sample and waited approximately 6 hrs for possible result. Nothing developed
	Wet Powder Suspension	Applied wet powder - black. Waited approximately 15 seconds; rinsed with water. Print developed.
JZYYGZ	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	
	DFO	
	Ninhydrin	
K4YDXN	Visual Examination	Visual examination of white envelope (8 3/4" long and 5 3/4" tall) with flap closure. Inside of flap closure contains drawing, in what appears to be black marker and is divided into four (4) equal quadrants labeled "A" "B" "C" and "D". Green and white protective acetate strip covers adhesive strip of envelope (will be removed per CTS instruction). No FRD observed with white/ambient light. No FRD observed using Crimescope at 415-495 nm wavelength with an orange filter. Fibers of the envelope are naturally fluorescing.
	Ninhydrin	Ninhydrin applied to closure tab of white envelope with a pipette directly below adhesive strip. Item dried and placed in a Weiss Gallenkamp Chamber at 80 degrees with 65 percent humidity for 20 minutes.
	Visual Examination	Observed FRD in quadrant "A" using white/ambient light. FRD observed was captured via photography at this time.
	Wet Powder Suspension	Applied Wet Powder-Black to adhesive side of envelope seal and washed with water after 15 seconds.
	Visual Examination	Wet Powder did not wash away from adhesive seal and removed Ninhydrin treated print below adhesive seal. Negligible FRD was observed on and above adhesive.

WebCode	Development Methods	Method Details
KA2FPG	Visual Examination	FIRST VISUALIZATION: EXHIBIT 1 WAS VISUALIZED WITH PL500 ON ALL WAVELENGTH USING DIFFERENT GOGGLES (000nm TO 650nm AND WHITE, YELLOW, ORANGE, AND RED GOGGLES AND PRINT WAS OBSERVED AND CAPTURED AT 490nm USING ORANGE GOGGLES AND ORANGE FILTER.
	Wet Powder Suspension	APPLICATION OF A WET-WET POWDER BLACK ON A STICKY SIDE TAPE OF THE ENVELOPE CLOSURE. WET-WET POWDER BLACK WAS APPLIED ON A CLOSURE TAB OF THE WHITE ENVELOPE BY USING AN ANIMAL BRUSH AND WAITED FOR FEW SECONDS AND RUN THE EXHIBIT UNDER RUNNING WATER AND LEFT IN THE EVIDENCE DRIER TO DRY. AND PRINTS DEVELOPED WAS VISIBLE.
KBFTHK	Visual Examination	Oblique lighting was used.
	Powder Dusting	Magnetic powder was lightly dusted over the surface of Item 1 with a magnetic applicator.
КВVСЗН	Ninhydrin	Lot # 9/10/2018JAK, Exp 9/0/2019; + control chemical spray on item
	Humidity chamber	Item placed in chamber with control for further processing. Settings of chamber 90% humidity and temperature control 32.2 degrees celsius.
	Photoshop	Original photograph of print enhanced in Photoshop with 100% exposure and 319 pixel brush size.
KCRLGU	Alternate Light Source	Examined in absorption/reflection mode by use of oblique white light (clear goggles), 350nm (clear goggles), 415nm (yellow/orange goggles), 450nm (orange goggles), 505nm (orange goggles), 530nm (red goggles), and 555nm (red goggles)
	1,2-Indanedione	Tested for background luminescence using a forensic light source at 505nm with orange goggles in a darkened room. No excessive background luminescence detected. Examined using a forensic light source at 350nm in a darkened room, no fluorescent latent fingerprints detected. Treated in fume cabinet with Indanedione Zinc working solution and allowed to air dry. Heated using the elna press for 10 sec at approx. 165 degrees (cotton setting). Examined using forensic light source at 505nm with orange goggles in a darkened room.

WebCode	Development Methods	Method Details
KD3NUR	Visual Examination	Rofin PL500, White light, clear goggles.
	DFO	Spraying, air dried, put in Nincha 531, 100°C for 15 minutes, 0% humidity
	Visual Examination	Rofin PL500, 450nm orange goggles, orange filter
	Ninhydrin	Spraying, air dried, put in Nincha 531, 70°C and 75% humidity for 20 minutes.
	Visual Examination	Rofin PL500, White light, clear goggles.
	Wet Powder Suspension	Brushing, rinsed, air dried
	Visual Examination	Rofin PL500, White light, clear goggles.
KEUTCQ	Visual Examination	A visual overall inspection was conducted using ambient and Luxo Magnifier/Loupe Lamp. Nothing observed.
	Alternate Light Source	An alternate light source at 455nm was conducted using a Crimescope, followed by a 532nm alternate light source using a TracER. The adhesive liner was removed, inspected again. Nothing observed.
	1,2-Indanedione	1,2 - Indanedione with a HFE-7100 base. Applied and left to dry/process for about 2 hours. Item was not accelerated by heat due to the adhesive on the flap. Nothing observed.
	Alternate Light Source	An alternate light source at 532nm was conducted using a TracER. Potential latent print observed, circled, labeled as P-002, recorded, and captured in Section A.
	Ninhydrin	Ninhydrin with a HFE-7100 base. Applied and left to dry overnight, roughly 20 hours to process. No heat or humidity used due to adhesive on the flap. Next day, potential latent print observed, but deemed not suitable for capture. Light ridge detail observed, but deemed not suitable for capture.
	Alternate Light Source	An alternate light source at 455nm was conducted using a Crimescope, followed by a 532nm alternate light source using a TracER. A potential latent print observed, but deemed not suitable for capture.
	Powder Dusting	A Sirchie Black Magnetic Powder was gently used on the item. Potential latent print from previous observation recorded, and re-captured.
KF8C9G	Visual Examination	The item was visual examined using the PL500 (000nm to 650nm) with orange and red goggles.
KHVLMP	Visual Examination	
	Fluorescence Examination	
	DFO	Used only on paper parts of closure tab of a white envelope; whitout heating
	Ninhydrin	Used only on paper parts of closure tab of a white envelope; whitout heating and vapor deposition
	Wet Powder Black	Used only on glue part of closure tab of a white envelope.

WebCode	Development Methods	Method Details
KKZDBW	Visual Examination	After removal of the exhibit from sealed box it was marked, photographed (Canon D500) and visualised PL500 – 00nm
	Cyanoacrylate Fuming	Polycyano UV (batch 15702) used on MVC 3000 AT 230°C, 80% Humidity for 20 minutes and purging
	Powder Dusting	Visualised at 505nm, white goggles, apawned the exhibit to 1 a for enhancement with florescent green powder feather brush then visualised at 450nm. Orange googles and captured using Nikon D700.
	Ninhydrin	Exhibit 1 fuether prosessed with Ninhydrin / Methanol (batch 2/2018) using Nincha 531 at 40°C, 80% humidity for 20 minutes.
KNZKXE	DFO	100°C TEMPERATURE, 0% HUMIDITY - SPRAYING METHOD - NINCHA REF: NIN 001
	Ninhydrin	NINHYDRIN - ACETONE: 65°C TEMPERATURE, 65% HUMIDITY - SPRAYING METHOD - NINCHA REF: 001
KRJFYL	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	DFO	on the envelope closure tab, bypassing the adhesive strip; fluorescence examination after 8 hours in alternate light source (505 nm - 530 nm under orange or red barrier filters)
	Ninhydrin	on the envelope closure tab, bypassing the adhesive strip; visual examination after 48 hours under white light and fluorescence examination in alternate light source (470 nm - 570 nm)
	Wet Powder Suspension	Wet Powder Black; on the adhesive strip on the envelope closure tab; visual examination under white light
KTGW4V	Visual Examination	CrimeLite LASER
	DFO	DFO + Pet. Ether sol., Soak twice, L-alanine control, 20 min. in oven at 100 degrees LASER
	Ninhydrin	Ninhydrin + Pet. Ether sol., Soak twice, L-alanine control, 6 min in oven (wet bulb 70 degrees, dry bulb 80 degrees), CrimeLite/Incandescent
KVGZJW	Visual Examination	At room temperature with PL500
	DFO	At 100°C (oven) for 10 minutes
	Ninhydrin	Oven at 80°C, humidity 65% for 10 minutes
KXRZMJ	Ninhydrin	Before the application of ninhydrin, a visual examination was done to determine the existence of visible lofoscopic traces. The ninhydrin reagent was applied to the item. The item was set in the convection oven for one minute at 110°F. Preserved in plastic bag for 15 days. Identified and documented the latent print

WebCode	Development Methods	Method Details
KY84NP	Ninhydrin	Neg/Pos controls confirmed. Sprayed with Chemprint Spray until soaked. Hung to dry 15 minutes. Heated with steam iron 15 minutes until print was visible in Section A
	Wet Powder Suspension	Neg/Pos Controls confirmed. Black wet powder brushed on adhesive area crossing the print developed in above process. Waited 15 seconds then rinsed with cold water.
LNX4JG	Visual Examination	Oblique lighting.
	Ninhydrin	Hexane base (expires 1/24/2019).
	Steam	Iron on steam setting.
LRZWLR	1,2-Indanedione	
LVEVHT	Visual Examination	White light 000nm used, P2.
	DFO	Spray DFO, dried for few seconds, Process in NINCHA 531 (Temp 100°C, humidity 0% RH) for 10 minutes, visualise 505nm, orange goggles.
	Ninhydrin	Spray Ninhydrin, dried, Nincha 531 used Temperature 55°C, humidity 65% RH for 10 minutes.
LVU866	Visual Examination	1ST VISUAL EXAMINATION: PL500 SOURCE 0 - 650nm
	DFO	DFO/PETROLEUM ETHER, PLACED INSIDE NINCHAS31 AT 100°C; RH 0% FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN -METHANOL, PLACED INSIDE NINCHAS31 AT 80°C; 80% RH FOR 20 MINUTES.
M2Y4N6	Visual Examination	FIRST VISUAL: ROFIN PL500: LIGHT SOURCE NO FILTER, 1000 ISO, WHITE LIGHT, 000nm - 650nm
	DFO	DFO/HFE: NINCHAS31, TEMP 80 DEGREE CELSIUS, TIME 20 MINUTES, RH: 0 VISUALIZED WITH PL500
	Ninhydrin	NINHYDRIN/HFE: NINCHAS31, TEMP: 85 DEGREE CELSIUS, TIME: 20 MINUTES, RH 65%. VISUALIZED WITH PL500
M7EQ7G	Ninhydrin	Positive control checked, Lot # 9/10/2018, Exp. 9/10/2019. Misonix humidity chamber set to 32.2°C and 90% humidity. In chamber 47 minutes. 30.1% humidity and 31.9°C at start. 51.8% humidity and 32.2°C at end. Secured in locker to continue to develop for approx. 24 hours.
MDW3JG	Visual Examination	visual/oblique lighting
	Alternate Light Source	RUVIS, Crime-scope 82s (Foster Freeman) blue/green w/orange filter & UV/clear filter
	Powder Dusting	magnetic powder - development -friction ridge impression, powder w/wand

TABLE	2	-	ltem	1

WebCode	Development Methods	Method Details
MF4HQM	1,2-Indanedione	Treated envelope with 1,2 Indanedione, air-dried, placed in humidity chamber for approximately 20 minutes on the DFO setting (100 degrees, 0% humidity)
	Alternate Light Source	Latent impression in section A of the inside flap of the envelope fluoresced with the the Tracer Laser and the Crimescope at 515 nm
	Ninhydrin	Treated envelope with Ninhydrin, air-dried, placed in humidity chamber for approximately 3 minutes on the Ninhydrin setting (80 degrees, 65% humidity). No additional ridge detail developed, but the Ninhydrin did react with the existing impression in section A
MFDFV6	Visual Examination	1ST VISUAL: PL500 AT 000nm, ROOM TEMPERATURE (25°C) TIME: 12:30
	DFO	DFO/METHANOL: NINCHA SET AT 100°C FOR 20 MINUTES.
	DFO	NIN/HFE: NINCHA SET AT 645°C AND 75% HUMIDITY FOR 20 MINUTES.
MGRZNE	Visual Examination	ROFIN POLILIGHT FLARE $+2 = WHITE$
	DFO	SPRAY METHOD, NINCHA S31 CLIMATE CHAMBER, 96°C (1%RH)
MK9842	Visual Examination	POLIFLARE LIGHT SOURCES USED WITH WAVELENGTHS: 000nm, 415nm, 450nm, 505nm, 530nm & YELLOW, ORANGE, RED GOGGLES.
	DFO	DEVELOPED IN NINCHA \$31; 0% HUMIDITY, 100°C, 20 MINUTES DEVELOPMENT (PROCESSING) TIME.
	Ninhydrin	DEVELOPED IN NINCHA \$31; 70% HUMIDITY, 70°C, 20 MINUTES DEVELOPMENT (PROCESSING) TIME.
	Wet Powder Suspension	BLACK ADHESIVE-SIDE POWDER: BRUSHED ON ADHESIVE STRIP ON ENVELOPE WITH A SQUIRREL HAIR BRUSH, RINSED WITH WATER AFTER 15 SCEONDS & AIR DRIED.
MKUYY8	Visual Examination	1ST VISUAL: USING PL500 POLILIGHT SOURCE RANGE 00nm TO 650nm WAVELENGTH, USING VARIOUS VEIWING GOGGLES.
	DFO	TREATED EXHIBIT WITH DFO/HFE PLACED IN THE NINCHAS31 SET AT 100 DEGREE CELSIUS FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN/METHANOL: TREATED EXHIBIT WITH NIN/METHANOL PLACED IN THE NINCHAS31 SET AT 80 DEGREE CELSIUS AND 65% RELATIVE HUMIDITY FOR 20 MINUTES.
	Wet Powder Suspension	BLACK ADHESIVE POWDER: TREATED EXHIBIT WITH BLACK ADHESIVE POWDER USING ANIMAL BRUSH THEN INSIDE THE AIRVOLUTION TO DRY.

TABLE 2 -	Item 1
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WebCode	Development Methods	Method Details
MNWL3W	Visual Examination	Visual examination of the item was performed. no prints were collected at this time.
	Powder Dusting	Magnetic powder was applied to the non adhesive side of the acetate sheet prior to removal.
	Ninhydrin	I applied non running ninhydrin solution to the closure tab of the envelope and allowed the solution to dry hanging for 3 minutes. I then placed the enevelope in my secure locker to allow the solution to develop for at least 7 days. Checked on 11/26/18.
	Wet Powder Suspension	I applied black Wetwop to the adhesive strip on the envelope closure tab with a paint brush. I then washed any excess off with water and examined it for additional prints.
MYDL7K	Visual Examination	No prints noted
	Alternate Light Source	No prints noted
	Wet Powder Suspension	Black wet wop, Lot # WWB170123, Control Good, Brushed on and rinsed off
MZ3X2J	Visual Examination	
	Alternate Light Source	Utilized 532nm Laser, 450nm blue light and 365nm UV.
	Cyanoacrylate Fuming	Performed VIS then utilized RUVIS and 254nm.
	Powder Dusting	Applied Black Magnetic Powder (MGP) to protective acetate strip.
	1,2-Indanedione	Placed in oven for 20 minutes then utilized 532nm Laser.
	Ninhydrin	Placed in humidity chamber for 15 minutes then performed visual exam.
	Wet Powder Suspension	Applied Alternate Black Powder (ABP) to adhesive.
	Dye Stain	Applied RAM then utilized 532nm Laser, 450nm blue light and 365nm UV.
N3QQBT	DFO	DFO/PETROLEUM ETHER: PLACED IN NINCHA AT 100°C TEMPERATURE FOR 10 MINUTES
	Ninhydrin	NINHYDRIN/METHANOL: PLACED IN NINCHA AT 80°C TEMPERATURE AND 70% HUMIDITY FOR 10 MINUTES
	Wet Powder Suspension	APPLIED WET POWDER WITH ANIMAL HAIR BRUSH REACTION TIME OF 16 SECONDS AND RINSED AND AIR DRIED
N9VHMB	Visual Examination	FIRST VISUALIZATION: CHECKING FOR PRESENCE OF FINGER-PRINS BEFORE CHEMICALS ARE UTILIZED. PL500 WITH VARIOUS LIGHTS AND GOGGLES USED. PROCESSING TIME = 11:03
	DFO	EXHIBIT DIPPED IN DFO/PETROLEUM ETHER, PLACED IN NINCHA AT 100°C FOR 20 MINUTES AT 12:50 (2018/11/07)
	Ninhydrin	EXHIBIT SPRAYED WITH NINHYDRIN/METHANOL, PLACED IN NINCHA SET AT 80°C, 80% HUMIDITY FOR 20 MINUTES AT 11:22 (2018/11/08).

TABLE 2 - Item
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WebCode	Development Methods	Method Details	
NMV7U6	DFO	DFO/PETROLEUM ETHER PROCESSING: ITEM 1 WAS TREATED WITH DFO PETROLEUM ETHER, DRIED AND PLACED IN THE OVEN SET AT 100°C FOR 20 MINUTES.	
	Ninhydrin	NIN/ACETONE PROCESSING: ITEM 1 WAS FURTHER TREATED WITH NINHYDRIN ACETONE BASE, DRIED AND PLACED IN AN OVEN SET AT 80°C AND 70% HUMIDITY FOR 20 MINUTES.	
NV8F76	GENTIAN VIOLET	ITEM WAS DIPPED IN THE CHEMICAL AND PLACED IN EVIDENCE DRYER FOR 30 MINUTES.	
P2Q4FZ	Visual Examination	LIGHT SOURCE: FIRST VISUALIZATION EQUIPMENT: ROFIN PL500 WHITE LIGHT CLEAR GOGGLES.	
	DFO	DFO/HFE: PLACED IN NINCHA \$31 AET AT 80°C FOR 20 MINUTES.	
	Ninhydrin	PLACED IN NINCHA S31 SET AT 70°C, 60% HUMIDITY FOR 20 MINUTES.	
РЗЗМНН	Visual Examination	Visually looked at the item	
	Alternate Light Source	Used 532nm Laser, 450nm Blue light, and 365nm UV	
	Cyanoacrylate Fuming	performed a visual examination and then used the RUVIS (254nm)	
	Powder Dusting	used the black magnetic powder on the acetate strip	
	1,2-Indanedione	used Indanedione and placed the item in the oven for 20 minutes, afterwards used the 532nm Laser	
	Ninhydrin	used Ninhydrin and then placed the item in the humidity cabinet for 15 minutes and then performed a visual examination	
	Wet Powder Suspension	Used alternate black powder on the adhesive portion of the envelope	
	Dye Stain	Used RAM on the protective acetate strip item and used the 532nm Laser, 450nm blue light, and 365nm UV to visualize	
	Physical Developer (PD)	used physical developer on the item (both envelope and acetate strip) and then performed a visual examination	
P7LULC	Visual Examination	FIRST VISUAL: VISUALIZED USING DIFFERENT POLIFLARES AND GOGGLES.	
	Ninhydrin	SPRAYING NINHYDRIN LOT NUMBER 17H214110 IN A CHEMICAL FUMING CHAMBER EQUIPMENT AND BAKED IN AN OVEN AT 50°C FOR 1 HOUR 30 MINUTES. RESULTS NEGATIVE	
PD6373	1,2-Indanedione	Threatment in Attestor NinCha 31 cabinet at temperature 65C, humdity 65% at 30 min. Very visible print.	

WebCode	Development Methods	Method Details
PGBA6M	Visual Examination	White light - direct reflect, oblique, bounce techniques. Also viewed under 450, 505 and 530 nm with orange barrier.
	Ninhydrin	Applied with a dropper. Allowed to dry. Reapplied. Placed in a dark locker to cure for 72 hrs.
	Visual Examination	And steam. Examine under white light. Apply steam, reexamine under white light.
	Wet Powder Suspension	Applied to the adhesive strip and rinsed away from ninhydrin detail.
PKMDFW	Visual Examination	FIRST VISUAL: VISUALIZED WITH ROFIN PL500 LIGHT SOURCE, WAVELENGTH CARYING FROM 0nm - 490nm, WITH CLEAR, YELLOW AND ORANGE GOGGLES.
	DFO	DFO/HFE (NEL/01/10/2018W): TREATED WITH DFO/HFE BY DIPPING METHOD, PLACED IN NINCHA S31 SET AT 90°C FOR 20 MUNITES.
	Ninhydrin	TREATED WITH NIN/METHANOL BY DIPPING METHOD, PLACED IN NINCHA S31 SET AT 70°C, 80% HUMIDITY FOR 20 MINUTES.
PKZ8VW	Visual Examination	FIRST VISUAL EXAMINATION: EXHIBIT WAS VISUALIZED WITH WHITE LIGHT, 450nm, 530nm, LIGHT USING ORANGE AND CLEAR GOGGLES.
	DFO	EXHIBITS WERE SPRAYED WITH DFO, DRIED AND PLACED IN NINCHA AT 100°C FOR 30 MINUTES.
	Ninhydrin	EXHIBITS WERE SPRAYED WITH NINHYDRIN, DRIED AND PLACED IN NINCHA AT 80°C, 80% RH THEN PLACED VISUALIZED.
PRL3W2	DFO	DFO/HFE: ITEM 1 TREATED WITH DFO/HFE, AIR DRIED, AND THEN PLACED AT THE NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	ITEM 1 TREATED WITH NIN/HFE, AIR DRIED, AND THEN PLACED AT THE NINCHA SET AT 80°C AND 65% HUMIDITY FOR 20 MINUYES.
PY62T2	Visual Examination	
	Fluorescence Examination	
	DFO	Applied only on paper parts of the white envelope closure tab, but without heating
	Ninhydrin	Applied only on paper parts of the white envelope closure tab, but without heating and humidifying
	Wet Powder Black	Applied only on the adhesive (glue) part of the white envelope closure

TABLE 2	- Item	1
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WebCode	Development Methods	Method Details
QA2MD6	Visual Examination	FLOURESCENCE VISUAL EXAMINATION: PL500
	DFO	TREATED WITH DFO/HFE PUT IN THE NINCHA S31 FOR 20 MINUTES AT 100 DEGREE CELSIUS.
	Visual Examination	PL500
	Ninhydrin	TREATED WITH NIN/METHANOL PUT IN THE NINCHA S31 FOR 20 MINUTES AT 80 DEGREE CELSIUS AND 65% RELATIVE HUMIDIT.
	Visual Examination	PL500
	GENTIAN VIOLET	THE STICKY PART TREATED WITH GENTIAN VIOLET, RINSED WITH WATER THEN DRIED
	Visual Examination	PL500
QEZU39	Visual Examination	Examined in the white light and the daylight.
	Alternate Light Source	Examined at 320-405 nm, 450 nm, 470 nm, 490 nm, 505 nm and 530 nm wavelengh light.
	Cyanoacrylate Fuming	Processed in the Cyanoacrylate Chamber for 15 min., t - 120°C, RH - 80%.
	Ninhydrin	Solution was HFE 7100 based. The item was processed in the DFO/Ninhydrin Chamber for 15 min., t - 80°C, RH - 65% and examined in the white light.
QFPCT9	Ninhydrin	Labrum Klimat Cabinet, ninhydrin working solution. Climat cabinet humidity setting: 65%. Climat cabinet temperature setting: 72°C. Processing time in the climat cabinet: 6 minutes
QHFEVF	Ninhydrin	Item was sprayed with Ninprint until saturated and left overnight to dry
	[No Methods Reported.]	Item was exposed to steam heat
	[No Methods Reported.]	A RAW image of the impression was examined in Photoshop CS6 and contrast was adjusted to provide contrast
QUP9XR	Visual Examination	FIRST VISUAL: ROFIN PL500: LIGHT SOURCE
	DFO	NINCHA S31 TEMP: 80 DEGREE CELSIUS: 20 MINUTES, RELATIVE HUMIDITY: 0% VISUALIZED WITH PL500
	Ninhydrin	NINCHA S31 TEMP: 85 DEGREE CELSIUS TIME: 20 MINUTES, RELATIVE HUMIDITY: 65% VISUALIZED WITH PL500
QWY23T	Visual Examination	Visually examined under light source.
	Ninhydrin	Sprayed the Ninhydrin over entire envelope and let it air dry in hood (item processed for 7 days before visually examining it again).
	Wet Powder Suspension	Applied Wetwop to the entire adhesive surface of the envelope flap, let the Wetwop process for about one minute, then rinsed thoroughly with tap water, and let air dry.

WebCode	Development Methods	Method Details
R2JKMU	Visual Examination	FIRST VISUALIZATION: PL500 (000nm, 450nm, UV LIGHT) GOGGLES (CLEAR, YELLOW, ORANGE)
	DFO	DFO-HFE: TEMPERATURE: 80°C, HUMIDITY: 0%, TIME: 20 MINUTES PL500, GOGGLES (450nm, 505nm,ORANGE GOGGLES)
	Ninhydrin	NINHYDRIN (ACETONE): TEMPERATURE: 70°C, HUMIDITY: 60%, TIME: 20 MINUTES PL500, GOGGLES (000nm,CLEAR GOGGLES)
	Wet Powder Suspension	BLACK ADHESIVE SIDE POWDER: TEMPERATURE: ROOM TEMPERATURE, TIME: IMMEDIATELY
R6HWKE	Visual Examination	
	Alternate Light Source	532nm LASER, 450nm, 365nm UV
	Cyanoacrylate Fuming	Examined visually and under RUVIS (254nm); protective strip removed and items reprocessed
	Visual Examination	
	Alternate Light Source	532nm LASER, 450nm, 365nm UV
	Cyanoacrylate Fuming	Examined visually and under RUVIS (254nm)
	Powder Dusting	Magnetic powder (protective strip only)
	1,2-Indanedione	Development accelerated with humidity chamber (20 min); examined visually and under 532nm LASER
	Ninhydrin	Development accelerated with humidity chamber (15 min)
	Wet Powder Suspension	Alternate Black Powder (adhesive strip of envelope only)
	Dye Stain	RAM (protective strip only); visualized under 532nm LASER, 450nm, 365nm UV
	Physical Developer (PD)	
RDET8H	Visual Examination	000nm, 505nm
	DFO	DFO PETROLEUM ETHER: NINCHA S31, 100°C, 0% HUMIDITY, 150 MINUTES
	Ninhydrin	NINHYDRIN METHANOL: NINCHA S31, 65°C, 65% HUMIDITY, 7 MINUTES
REA6BX	Visual Examination	VIEWING OF EXHIBIT WITH WHITE LIGHT 0nm, NO CHEMICAL USED.
	DFO	TREATED WITH DFO/HFE: DIPPED IN DFO/HFE BASE, ALLOWED TO DRY AND PLACE IN NINCHA SET AT 100°C FOR 15 MINUTES. BATCH NUMBER OF DFO: BCBQ25961, BATCH NUMBER OF HFE: BCB54887
	Ninhydrin	TREATED WITH NINHYDRIN/METHANOL: DIPPED IN NINHYDRIN/METHANOL BASE ALLOWED TO DRY AND THEN PLACED IN NINCHA. SET AT 70°C, 80% HUMIDITY; FOR 20 MINUTES. BATCH NUMBER OF NINHYDRIN NCNV8117, BATCH NUMBER OF METHANOL STBG0915V.

Latent Print Processing

WebCode	Development Methods	Method Details
RGD64H	DFO	AT ROOM TEMPERATURE IN THE EXTRACTION FUMING CHAMBER AND 100°C IN NINCHA
	Ninhydrin	AT ROOM TEMPERATURE IN THE EXTRACTION FUMING CHAMBER AND AT 65°C AND 65% HUMIDITY. ROOM TEMPERATURE WAS APPROXIMATELY
RNVFGH	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT SPRAYED WITH NINHYDRIN METHANOL AND PLACED IN THE OVEN FOR 20 MINUTES WITH TEMPERATURE OF 150°C AND HUMIDITY AT 50%.
RPBNVD	Visual Examination	with and without oblique lighting
	Alternate Light Source	RUVIS system - Sirchie Krimesite Imager, Foster + Freeman 82s' - UV and Blue-green with orange barrier filter
	Powder Dusting	black magnetic powder
RPTWJ8	Wet Powder Suspension	Black, light brushing, let sit for 15 seconds, light cool water wash off.
RQPA7Z	Ninhydrin	HFE base. Tray immersion for ~5 sec. Air dried. Steam iron for 10-20 sec. Develop in locker.
RRZ8JH	Visual Examination	white light
	Alternate Light Source	350nm
	Alternate Light Source	515nm
	Ninhydrin	HFE carrier. Heat and humidity chamber for approximately 20 minutes
RVC8NV	Ninhydrin	NINHYDRIN/METHANOL: RELATIVE HUMIDITY: 70%, TEMEPRATURE: 65°C, PROCESSING TIME: 10 MINUTES
T2G39V	Visual Examination	LIGHT SOURCE: FIRST VISUALIZATION, EQUIPMENT: ROFIN PL500, 450nm, UVNM, 415nm LIGHT, GOGGLES.
	DFO	DFO/HFE: PLACED IN NINCHA AT 80°C FOR 20 MINUTES
	Visual Examination	LIGHT SOURCE: SECOND VISUALIZATION, EQUIPMENT: ROFIN PL500, 450nm LIGHT, ORANGE GOGGLES.
	Ninhydrin	NINHYDRIN (METHANOL): PLACED IN NINCHA AT 70°C, 60% HUMIDITY FOR 20 MINUTES.
	Visual Examination	LIGHT SOURCE: THIRD VISUALIZATION, EQUIPMENT: ROFIN PL500, 000nm LIGHT, CLEAR GOGGLES.
T8RCGD	Cyanoacrylate Fuming	
	wet wop	positive indication in A

WebCode	Development Methods	Method Details
TE73WD	DFO	20 minutes, 100 C
	Ninhydrin	30 minutes, 80 C, RH 65%
	Wet Powder Suspension	
TJKNZH	Visual Examination	Visually examined for prints and took note page photos.
	Black Sticky Side Powder	Applied powder and rinsed
TMU38V	Visual Examination	FIRST VISUAL: NAKED EYE UNDER ROOM TEMPERATURE 000nm AND 450nm WITH CLEAR AND ORANGE
	DFO	DIPPING METHOD: 100% 20 MINUTES (NINCHA)
	Ninhydrin	DIPPING METHOD: 70% 70°C 20 MINUTES (NINCHA)
TNT8NP	Visual Examination	FIRST VISUAL (PRE-PROCESSING VISUAL): GENERAL SEARCHING WITH LIGHTS (nm). 400 - 680 (WHITE LIGHT) 350, 450, 470, 490 WITH ORANGE, CLEAR YELLOW AND RED GOGGLES AT 19:28 ON 2018/11/02. NO POSITIVE RESULT OBTAINED ON VISUAL: 19:28 2018/11/02
	Cyanoacrylate Fuming	FUMING (POLYCYANO UV): POLYCYANO UV, 2G IN MVC3000 FOR 25 MINUTES AT TEMPERATURE 230°C, 70% HUMIDITY; 20 MINUTES PURGE POLYCYANO BATCHED# 15702 TIME 14:20 ON 2018/11/03
	Visual Examination	PODT FUME VISUAL: LIGHT (nm) 450nm, 470, 490, 505, 530, 55, 590 GOGGLWS: ORANGE & RED AT 15:40 ON 2018/11/03, NO POSITIVE RESULT OBTAINED FOR CAPTURING.
	DFO	DFO/HFE: DFO HFE & PLACED IN OVEN AT 100°C FOR 20 MINUTES. DFO HFE UNIQUE #DFOHFE BASIS ON 2018/11/03 AT 16:20
	Visual Examination	POST DFO: LIGHT (NM): LIGHT (nm) 450, 470, 490, 505, 530, 555, 590: CAPTURED IMAGE A (1) TWICE AT LIGHT 450nm, FILTER 555nm, 505nm FILTER 555nm FILTER 555nm VISUAL AT 16:50 2018/11/03
	Ninhydrin	NIN/HFE: NINHFE AND PLACED INOVEN AT 80°C, RH 65% FOR 20 MINUTES. NIN BATCHED #NINHFE01/10/2018W TIME 19:15 ON 2018/11/03 NIN ACETONE: NIN-ACETONE AT 20:05, 2018/11/03 AND PLACED IN OVEN AT 80°C WITH 65% HUMIDITY FOR 20 MINUTES. NIN-ACETONE BATCH# NINACET 01/10/2018W
	Visual Examination	VISUAL (NIN HFE): VISUALIZED AT 19:44 ON 2018/11/03 WITH NEGATIVE RESULTS OBTAINED: LIGHTS (nm) WHITE, 415nm, 470nm, 490nm, 505nm VISUAL (NIN ACETONE): VISUALIZED AT 14:25 ON 2018/11/04 AND CAPTURED IMAGE A(1) TWICE WITH WHITE LIGHT, NO FILTER.

WebCode	Development Methods	Method Details
TRV2NF	Alternate Light Source	white light, blue/green, green, uv.
	VC (the adhesive part)	immersion in gentian violet: 1 min, rincing with water
	Alternate Light Source	white light
	DFO (non adhesive part)	100 degrees celsius for 20 min
	Alternate Light Source	fluorescence examination with polylight: 550 nm
	Ninhydrin	3,5 min in humidity chamber, 50 degrees celsius and 70% relative humidity.
	Alternate Light Source	white light
U38TM9	Visual Examination	After exhibit were removed out from the box were visualized using white light.
	Cyanoacrylate Fuming	Polycyno was used to process exhibit at 230°C, 80% humidity for 20 minutes, 20 purge.
	Ninhydrin	DFO/Petro was used into Nincha 531 at 100°C, 0% humidity for 20 minutes.
	Ninhydrin	NIN/Ethanol was used at 65°C, 80% humidity for 20 minutes.
U7C3CJ	Visual Examination	flashlight. No visible ridge detail observed. The acetate cover from the adhesive portion of the envelope was removed for separate processing.
	1,2-Indanedione	60 min, 50c/60% Humidity, 532nm, Orange Filter, control positive, the envelope. Area 1A (quadrant A from the envelope) was preserved through digital imaging.
	Cyanoacrylate Fuming	12 min, control positive, the removed acetate cover from the adhesive portion of the envelope. No areas of ridge detail were observed or developed.
	Dye Stain	R6G, 532nm, Control Positive, Orange Filter, the removed acetate cover from the adhesive portion of the envelope. No areas of ridge detail were observed or developed.
UB6APZ	Visual Examination	
	Ninhydrin	11/29/18: Ninhydrin-Special Formula used at room temperature to saturate surface. Item was allowed to air-dry over night. 11/30/18: No detail was observed. Surface was saturated with ninhydrin-special formula at room temperature a second time, and a steam iron was used to develop detail. The item was again air-dried overnight.
UBM8W7	DFO	DDFO/HFE: 100°C TEMPERATURE, 0% HUMIDITY SPRAYING METHOD IN NINCHA REF: 001
	Ninhydrin	NINHYDRIN/ACETONE: 65% HUMIDITY, 65°C TEMPERATURE SPRAYING METHOD NINCHA REF: 001

WebCode	Development Methods	Method Details
UE28QC	Visual Examination	White Light examination followed by high intensity light source exam (Green (~540nm)- Blue (~469nm) & UV (~360nm))
	DFO	DFO Batch DFO013/18 @ 100 degrees celcius ambient humidity for 20 mins
	Ninhydrin	NINWSC02/18 $\sim$ 80 degrees celcius 65% humidity - 4 mins
UE4WVA	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron, 24 hour development time, repeated

WebCode	Development Methods	Method Details
UEG9UE	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.
	Powder Dusting	Carried out as per CAST 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 CAST 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. Mark developed in section A and photographed.
	Ninhydrin	Carried out as per CAST 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 CAST 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 6 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
UEYEVP	Visual Examination	White light
	Alternate Light Source	Polilight - all available wavelengths
	DFO	100° C, 0% RH Processing time 10 min
	Ninhydrin	80° C, 65% RH Processing time 5 min
	Physical Developer (PD)	Processing time 10 min
V8FGXP	Visual Examination	FIRST VISUAL EXAMINATION: 450nm WITH 550 FILTER
	DFO	DFO/HFE: ITEM 1 TREATED WITH DFO/HFE, AND WAS PUT IN NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	BUBHYDRIN/HFE: ITEM 1 TREATED WITH NIN/HFE, PLACED IN NINCHA AT 80°C AND 60% HUMIDITY FOR 20 MINUTES.
V9PNYW	DFO	100°C; 20 MINUTES AND 0 HUMIDITY
	Ninhydrin	70°C, 20 MINUTES AND 65°C
VB27BF	Visual Examination	
	1,2-Indanedione	
	Alternate Light Source	Laser
	Ninhydrin	
VEZKX6	Wet Powder Suspension	Rinsed with water
VFE32B	Visual Examination	Visual examination conducted first with no ridge detail being observed.
	Wet Powder Suspension	Proceeded on to process adhesive area of Item one with reagent Wetwop. Selected black in color to provide sufficient contrast against the white surface of the envelope. One area of ridge detail was observed (designated as LP1-1).
VNPBKX	Visual Examination	Processing Time: 1 minute
	Ninhydrin	Processing Time: 20 minutes total time. (item was sprayed twice due to faint development). (Ninhydrin Special Formula then Ninhydrin Acetone)
	Humidity Development Chamber	Processing time: 1 hour total time. Processing temperature: 200 degrees Fahrenheit. (item was processed twice due to faint development, end result still very faint)
VPENYA	DFO	1st. Visual Examination: Visible light, 415-650 nm, UV, 2nd. DFO: temp. 90 degrees Celsius, time 10 minutes, 3rd. Ninhydrin: 80 degrees Celsius, humidity 60%, time 10 minutes, 4th. Wet Powder Suspension (surface beneath acetate strip)

WebCode	Development Methods	Method Details
VPNA47	Visual Examination	VIEWED WITH AMBIENT/WHITE, UV, GREEN (TRACER), BLUE
	DFO	CARON CHAMBER 100 C, FOR 20 MINUTES, VIEWED WITH TRACER
	Ninhydrin	CARON CHAMBER 80 C, $@$ 65% RH FOR 2 MINUTES
	Physical Developer (PD)	IN SOLUTION FOR 10 MINUTES
VXAR37	DFO	DFO/HFE PROCESSING: EXHIBIT WAS DIPPED INTO DFO/HFE AND PLACED IN NINCHA SET AT 100°C FOR 25 MINUTES.
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT WAS DIPPED INTO NIN/METHANOL AND PLACED IN A NINCHA AT 70°C AND 70% HUMIDITY FOR 25 MINUTES.
VZYXKG	Visual Examination	at room temperature, 1 minute
	Powder Dusting	on the adhesive side of the envelope, 1 minute
	Ninhydrin	1 minute, done for the whole item, 95°C, Humidity at 80% for 5 minutes
W4U774	Visual Examination	FLOURESCENT EXAMINATION: LIGHT SOURCE: ROFIN PL500 WAVELENGTH: 350nm, 505nm, FILTER 555nm WITH ORANGE GOGGLES.
	GENTIAN VIOLET	ITEM A1 WAS PROCESSED BY DIPPING METHOD IN GENTIAN VIOLET WORKING SOLUTION AND RINSED UNDER SLOW RUNNING COLD TAP WATER. ITEM WAS DRIED AT ROOM TEMPERATURE FOR 20 HOURS.
W7JDNE	Visual Examination	white light and fluorescence examination 350nm - 650nm
	DFO	Item soaked by the liquid except glue on the closure tab, left for two days and examine with 505nm.
	Ninhydrin	Soaked by the liquid except glue on the closure tab, left for four days and examine with white light
	Crystal Violet	A crystal violet solution was applied to the adhesive
W8D28A	Visual Examination	in natural light and light from forensic illuminator, no prints
	DFO	time - 20 min., temp 100 C, print was observed in section A
	Ninhydrin	time - 20 min., temp 70 C, RH - 62 %, developed fingerprint didn't became any better
	Wet Powder Suspension	applied with brush, waited 20 sec., rinsed with cold running tap water, no prints
WAE8KV	1,2-Indanedione	Threatment in Attestor NinCha cabinet at temperature 65C Humidity 65% time 30min. Excellent print.

TABLE 2	- Item 1
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WebCode	Development Methods	Method Details
WAHWNR	Visual Examination	By visual examination we couldn`t find any fingerprints.
	Wet Powder Suspension	We separated the tape strip from the closure tab of the white envelope. We used black Wet Powder on the tape strip.
	Ninhydrin	We used Ninhydrin on the rest of the closure tab. Humidity settings: 65 %, Temperature settings: 72 Celsius, Prosessing time: 6 minutes.
WNMYHM	Visual Examination	Fluorescent lighting
	Ninhydrin	Lot #HFENIN181017; Humidity chamber at temperature 38.7 and humidity at 69.2; steam iron used also.
	Physical Developer (PD)	Lot #PD181106; MAP180706; placed in maleic acid then PD solution for approx. 3-4 minutes.
	Wet Wop Black	Lot #WW180129; Brushed on closure tab then rinsed.
WRKCCD	Visual Examination	White ambient light. No print detected.
	DFO	ALS, alternate light source, (Green light 500-550 nm). Print detected. Great visual details.
	Ninhydrin	No improvement of the already developed print.
WV73PP	Visual Examination	Note page photographs taken.
	Black sticky-side powder	Applied the sticky-side powder and rinsed. Waited for the envelope to dry before photography.
	Ninhydrin	Heptane ninhydrin applied to envelope to see if the print continued. I waited six days to view the development (unit policy 10 days).
WVF3F4	Visual Examination	White light
	Ninhydrin	Ninhidrin spray "NIN-PRINT" B-78500 BVDA. Room temperature 21 C, room humidity 46%, procesing time 7 days, spraing time 5-6 s.
	Wet Powder Suspension	Wet Powder Black CS-0092, procesing time 15 seconds, room temperature 21 C
WXRZQZ	Wet Powder Suspension	USING READY- MADE WET POWDER SUSPENSION BLACK CARBON-BATCH NUMBER #23 ACETATE SHEET REMOVED AND TREATED ADHESIVE UNDERNEATH. POWDER SUSPENSION WAS LEFT ON EXHIBIT FOR 10 SECONDS AND WASHED OFF WITH COLD RUNNING WATER AFTER. CONTROL SAMPLE USED (CONSISTED OF ADHESIVE TAPE).
WZZ4MX	Visual Examination	
	Sticky Side Powder	paint method, sterile water used to rinse
	Ninhydrin	acetone formula, dry for 10-15 minutes, hot iron steam for 10-15 minutes to develop, air-dry overnight

WebCode	Development Methods	Method Details
X2L8VU	Ninhydrin	The item was sprayed with ninhydrin, and allowed to dry for approximately two hours. Heat was applied for approximately 1-2 minutes. Ninhydrin Special Formula was used.
	Visual Examination	Visual examination performed before and after ninhydrin spraying.
X88DYV	Visual Examination	1ST VISUAL: PL500 AT 000nm
	DFO	DFO/METHANOL: NINCHA ET AT 100°C FOR 20 MINUTES
	Ninhydrin	NINHYDRIN/HFE: NINCHA SET AT 65°C AND 75% HUMIDITY FOR 20 MINUTES.
X9GD43	GENTIAN VIOLET	I PUT DROPS OF GENTIAN VIOLET ON THE STICKY PART OF THE ENVELOPE, THEN RINSED WITH TAP WATER TO REMOVE EXCESS GENTIAN VIOLET, THEN PUT IN AN AIR DRYING CABINET AND ALLOWED TO AIR DRY FOR 450 MINUTES.
XF8F29	Visual Examination	not trained for sticky-side processing so did not further process
XGFUY2	Visual Examination	white light
	Cyanoacrylate Fuming	room temperature, humidity added with hot water bucket in chamber, vacuum fuming, test print used, observed results with white light
	Dye Stain	Basic Yellow 40 dye stain, test print used
	Alternate Light Source	observed results with forensic light source 475 nm and yellow goggles
XKEZTL	Visual Examination	
	Cyanoacrylate Fuming	processed for approximately 1.5 hours in a fuming tank.
	iodine fuming	processed for approximately 30 seconds.
	Ninhydrin	Processed for approximately 5 hours.
	Wet Powder Suspension	sticky side solution.
XQLN99	1,2-Indanedione	temp. 90oC, humidity 5%, time 15 min.
	Ninhydrin	temp. 21oC, humidity 80%, time 30 min
	Wet Powder Suspension	plotted on the tab temp 21oC, time 30 sec
XTA4HG	Visual Examination	PL500, white light, clear goggles
	DFO	Brushing method, Nincha 531, 30°C - 40%RH, 20 minutes
	Visual Examination	PL500, 450nm, orange goggles,
	Ninhydrin	Brushing method, Nincha 531, 30°C - 40%RH, 20 minutes
	Visual Examination	PL500, white light, clear goggles

TABLE	2 -	ltem	1

WebCode	Development Methods	Method Details
XWB8A4	DFO	Used spray method to treat exhibit with DFO in the chemical cabinet. There after allowed it to dry in dryer and placed in oven set at 100°C for 20 minutes.
	Ninhydrin	Afterwards used the following process of processing. Treated the exhibit by spraying with Ninhydrin/ Meth base oven at 80°C, 65% RH for 7 minutes.
Y22NN3	Visual Examination	Visualized with white light source (flashlight) at oblique and direct angles.
	Alternate Light Source	Visualized with an ALS between 495nm-515nm and an orange barrier filter.
	Ninhydrin	Item was developed with ninhydrin and then re-developed with ninhydrin for faint areas. Visualized in ambient room lighting and with white light source (flashlight) at oblique and direct angles.
	Wet Powder Suspension	Wet Wop black was utilized on the adhesive strip. Visualized in ambient room lighting and with white light source (flashlight) at oblique and direct angles.
Y7FNKU	Visual Examination	Naked eye
	Ninhydrin	Ninhydrin Special Formula. Saturated by spraying, air dried, placed in humidity chamber for 20 mins at 200 degrees.

WebCode	Development Methods	Method Details
Y7RCU8	Visual Examination	Using a bright white light, I visually examined item 1 for latent fingerprints. No latent prints were discovered during visual examination.
	Alternate Light Source	Three light sources were used to examine items 1 through 3 for latent fingerprints. I used a 365nm UV light, a 450nm blue light and a 532nm laser within the alternate light source room. While examining these items under different alternate light sources, I was wearing the appropriate goggles per light source. No latent prints were discovered under the alternate light source processing step.
	Cyanoacrylate Fuming	Item 1 was then super-glued. Using a superglue chamber and weighed out glue, I placed item 1 within the chamber (item 2 was also in the chamber). The items were not touching and had ample space in between as to ensure all areas of each item could be glued. Once the cycle was complete, I visually examined each item using a bright white light. Next, I used the RUVIS (254nm) to analyze the items for latent fingerprints. No latent fingerprints were discovered during cyanoacrylate fuming. The adhesive covering for item 1 was then removed after SGF.
	Magnetic Powder	The adhesive covering for item 1 (envelope) was a semi-porous item. I lightly brushed magnetic powder on the semi-porous side of the adhesive covering strip. I visually examined the adhesive covering using a magnifier and white light. No latent fingerprints were discovered during the magnetic powder processing.
	1,2-Indanedione	Item 1 was then processed with 1,2-indanedione. The envelope and adhesive covering (item 1) were painted with 1,2-indanedione within the fume hood. I let the items dry for approximately 10 minutes. After the items were dry, I placed them in the 100 degree Celsius oven for 20 minutes. After 20 minutes, I visually examined the items using white light. Nothing was visible. I then went into the alternate light source room and using the appropriate safety goggles, I examined the items using a 532nm laser. At this point, I found a latent fingerprint on item 1 (closure tab of white envelope - Quadrant A - whorl). A suprevisor reviewed the latent print found before I continued my exams.
	Ninhydrin	Item 1 was then processed with Ninhydrin. The envelope and adhesive covering (item 1) were painted with Ninhydrin within the fume hood. I let the items dry for approximately 10 minutes. After the items were dry, I placed them in the 76% humidity chamber for approximately 15 minutes. After 15 minutes, I visually examined the items using white light and magnifier. No additional latent fingerprints were discovered during Ninhydrin processing.
	Wet Powder Suspension	The adhesive on item 1 (closure tab of white envelope) was then processed with Alternate Black Powder (ABP). I mixed Lightning black Powder and a 50% liquinox solution together to make ABP working stock. I made a test strip with a print and tested the ABP. I logged the passing result in the adhesive log book. I then painted ABP onto the adhesive on item 1 and let it sit for 30 seconds. After 30 seconds, running water was used to wash off the ABP solution. Once the item dried, I visually examined the items under white light and a magnifier. No latent fingerprints

WebCode	Development Methods	Method Details
		were discovered during the adhesive processing.
	Dye Stain	The adhesive covering (item 1) was then sprayed with RAM (forensic dye stain) using a squirt bottle. Latent fingerprints on items that have been processed with RAM will excite at different wavelengths, therefore three light sources were used. To examine items 1 for latent fingerprints, I used a 365nm UV light, a 450nm blue light and a 532nm laser within the alternate light source room. While examining these items under different alternate light sources, I was wearing the appropriate goggles per light source. No latent prints were discovered under the dye stain processing step.
Y8NPGZ	Visual Examination	Natural light, white light.
	Ninhydrin	Ninhidrin spray was used to find latent print on a white envelope. A white envelope was left in a dark room (about 22 degrees Celsius) for 7 days. The latent print was recovered in section "A".
YMLMUX	Visual Examination	used ambient lighting and flashlight
	1,2-Indanedione	IND-ZnCI: used Caron at 80 degrees Celsius for 15 minutes
	Alternate Light Source	laser examination using the green laser at 532 nm with orange goggles
	Ninhydrin	used Caron at 80 degrees Celsius and 70% humidity for 15 minutes
	Visual Examination	visual examination using ambient lighting
	Wet Powder Suspension	Sticky Side Powder on adhesive strip
	Visual Examination	visual examination using ambient lighting
YUHM76	Visual Exam	Room light
	Ninhydrin	+ control; sprayed entire closure tab; air dry; humidity chamber 2.5 hours
	Print Development	Placed in secure locker for 5 days to allow print to develop
YYRUGG	Powder Dusting	Wet-wet black powder was applied on the closure tab of the envelope and waited for 2 minutes before rinsing it. It was rinsed under running water and left to dry.
Z642T8	Ninhydrin	air dried

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WebCode	Development Methods	Method Details
ZDA3RD	Visual Examination	White light, Crimelite 80S 430-470nm and 500-550nm
	DFO	Cyklohexane, climate chamber, 100 degrees Celsius, 10 minutes. Examination: Crimelite 80S 500-550nm
	Ninhydrin	HFE 7100, climate chamber, 80 degrees Celsius, 65% RH, 2 minutes. Examination: White light
	Wet Powder Suspension	Black Examination: White light
	Physical Developer (PD)	Synperonic NP8, water based. Pretreatment maleic acid, PD working solutions, rinsing in water bath tree times, RT, 5-10 minutes. Examination: White light
ZDCHG8	Visual Examination	White light. Results were negative.
	Alternate Light Source	Multiple filters applied. Results were negative.
	DFO	Dipped in DFO and allowed to air dry. Placed in DFO oven for 25 minutes. Prints visible in Section A under alternate light source.
	Ninhydrin	Dipped in Ninhydrin and allowed to air dry. Allowed 36 hours to develop. Print visible in Section A.
ZH3YNQ	DFO	DFO/PETROLEUM ETHER PRE-HEATED THE OVEN AT 100°C FOR 5 MINUTES. LOADED TWO EXHIBITS THAT WERE DIPPED IN DFO WORKING SOLUTION INTO THE OVEN FOR 20 MINUTES.
	Ninhydrin	NIN/METHANOL - PRE-HEATED THE OVEN AT 80°C FOR 5 MINUTES. PLACED ON OVEN SAFE GLASS BEAKER WITH BOILING WATER IN THE OVEN FOR HUMIDITY AND EXHIBITS FOR 20 MINUTES.
ZL3AFK	Visual Examination	Visual examination; no ridge detail observed.
	Powder Dusting	Black magnetic powder on the non-adhesive surfaces, taking care to not contaminate the adhesive surface. Ridge detail was observed in box A
	Wet Powder Suspension	Used Wet Wop; attempted to contain it to the adhesive surfaces. Ridge detail was observed in box A
ZMBKB3	Visual Examination	ROFIN PL500 USED, WHITE LIGHT TIME: 10:50
	DFO	DFO/HFE (DIPPING METHOD): EXHIBIT DIPPED IN THE DFO/HFE, PLACED IN NINCHA 100°C FOR 20 MINUTES 11:25
	Visual Examination	ROFIN PL500, 450nm, ORANGE GOGGLES 14:27 VISUALIZED AT 15:36 CAPTURED
	Visual Examination	NINHYDRIN/METHANOL: SPRAYED WITH NINHYDRIN/METHANOL IN THE NINCHA S31, 60°C AT 65% HUMIDITY FOR 20 MINUTES AT 15:00

WebCode	Development Methods	Method Details
ZMDAEZ	Visual Examination	FLOURESCENT EXAMINATION: WHITE LIGHT AND WAVELENGTH 350nm - 650nm
	GENTIAN VIOLET	DIPPING METHOD WAS USED. EXHIBIT WAS RINSED UNDER SLOW RUNNING COLD WATER UNTIL EXCESS DYE WAS REMOVED FROM THE BACKGROUND AND WAS LEFT TO DRY AT ROOM TEMPERATURE FOR 24 HOURS.
	Visual Examination	WAVELENGTH USED = 490nm WITH A 555nm FILTER
ZQE9X6	mag powder	mag powder was used before protective strip was removed
	wet wop	used on adhesive strip then rinsed after approximately 15-30 seconds
ZTZ4AC	Visual Examination	PL500 - White light - clear goggles
ZXGABR	Visual Examination	
	Alternate Light Source	Fluorescence examination
	DFO	Used only on Paper parts of closure tab of a white envelope, without heating
	Ninhydrin	Used only on Paper parts of closure tab of a white envelope, without heating, vapor deposition
	Wet Powder Suspension	Used only on glue part of closure tab of a white envelope.

Response Summary				Participants: 250
		Methods Utilized		
Alternate Light Source	44	Physical Developer	14	<b>**Note</b> : Methods listed are
Cyanoacrylate Fuming	26	Powder Dusting	27	the preloaded options for selection via the CTS Portal
DFO	111	Visual Examination	207	and do not reflect all answers
Dye Stain	11	Wet Powder Suspension	62	provided by participants.
Ninhydrin	194	1,2-Indanedione	28	

TABLE 2	- Item	2
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WebCode	Development Methods	Method Details
28YDQQ	Visual Examination	FIRST VISUAL: PL500 @ 000nm TIME: 12:30
	Cyanoacrylate Fuming	CYANOBLOOM: MVC3000 FOR 30 MINUTES @ 120°C 70% HUMIDITY AND 20 MINUTES PURE CYCLE.
	Dye Stain	RHODAMINE 6G: CHEMICAL FUME CABINET, ROOM TEMPERATURE @ 18°C EVEDENCE DRIER FOR OVERNIGHT (24 HOURS)
2DQGVF	Visual Examination	Room light and oblique lighting with flashlight
	Powder Dusting	Black powder
2JNATN	Cyanoacrylate Fuming	CYANOBLOOM: MVC3000 USING 10 DROPS OF CYANOBLOOM FOR 20 MINUTES, AT 120°C, 70% HUMMIDITY AND 20 MINUTES PURGE CYCLE.
	Dye Stain	DYE STAINING (SPRAYING) IN THE CHEMICAL FUME EXTRACTION CHAMBER FOR 30 SECONDS
2QFFLJ	Visual Examination	Using a white light
	Cyanoacrylate Fuming	The item was fumed inside a chamber using a control for development time.
	Powder Dusting	Black magnetic powder was applied to the item after Cyanoacrylate fuming.
2UPXKL	Cyanoacrylate Fuming	CYANOBLOOM: MVC INSTRUMENT: TEMP 120°C HUMIDITY: 80% TIME: 20 MINUTES
	Dye Stain	BASIC YELLOW/ETHANOL: EVIDENCE DRYER: 3 HOURS
2WK3RZ	Visual Examination	inspection with visible light 532 nm laser/orange filter
	Cyanoacrylate Fuming	vacuum fuming, 37 deg C for 1 hour
	Dye Stain	rhodamine, saturation
2WXW92	Visual Examination	lighted magnification
	Cyanoacrylate Fuming	15 minute fuming / 15 minute purging
	Dye Stain	MBD
	Alternate Light Source	magnification
2Y84BU	Visual Examination	ambient and bounced lighting
	Cyanoacrylate Fuming	73 degrees F chamber temperature, 61% relative humidity
	Dye Stain	rhodamine 6G, methanol carrier

WebCode	Development Methods	Method Details
368RGZ	Cyanoacrylate Fuming	AFTER CHAIN OF CUSTODY PHOTOS AND FIRST VISUAL INSPECTION WER DONE ON ITEM 2, A PRINT WAS DISCOVERED ON IT. IT WAS CAPTURED ON DCS AND THEN THE ITEMS WAS PROCESSED IN MVC3000 FUMING OVEN. 2.08G CYANOBLOOM WAS USED AT 120°C TEMPERATURE, 75% HUMIDITY AND FOR 45 MINUTES CONTROL SAMPLE WAS PROCESSED CYANOBLOOM BATCH #W116773
	Dye Stain	BASIC YELLOW PROCESS: THE ITEM 2 AND CONTROL SAMPLE WERE FURTHER PROCESSED WITH BASIC YELLOW IN-HOUSE PREPARED SOLUTION DATED 2018/10/26, BATCH NO. BY401504. THERE WERE ALLOWED TO IN A DRYER.
38DC8L	Visual Examination	TIME 09:32, LIGHT SOURCE USED: ROFIN PL500 WITH 000, 350, 590nm, VIEWING GOGGLES USED: C;LEAR, ORANGE UNTIL ENTIRE SURFACE IS VIEWED FOR +/- 7 MINUTES.
	Cyanoacrylate Fuming	TIME 09:40, ITEM 2 WAS PLACED IN THE MVC3000 USING 1.2 GRAMS OF POLYCYANO UV (GLUE) FOR 20 MINUTES AT 230°C, 70% HUMIDITY AND 20 MINUTES PURGE CYCLE.
	Powder Dusting	APPLICATION OF BLACK POWDER: TIME 10:34, USING BLACK INLAND POWDER ON POWDER DOWNFLOW BENCH USING ANIMAL HAIR APPLICATION BRUSH TO ENHANCE PRINT.
3AJG2A	Visual Examination	Visualised the item with Rofin PL500 using white light before applying chemicals to see if there are visible prints.
	Cyanoacrylate Fuming	The item was fumed in the chemical fuming cabinet with 3g of superglue for 20 minutes at 120°C.
	Dye Stain	The item was dye stained with Rhodamine 6G prepared distilled water solution. It was then dried in the evidence drier until dry.
3F9YQ7	Cyanoacrylate Fuming	Fuming chamber used; processed for 40 minutes
	Powder Dusting	Magnetic powder used and applied with magnetic brush
3NHJLM	Visual Examination	VIEWING OF EXHIBIT WITH WHITE LIGHT, UV & 505nm, NO CHEMICAL USED.
	Cyanoacrylate Fuming	THE EXHIBIT WAS FUMED WITH POLYCYANO AT 230°C, USING 2 SCOOPS OF POLYCYANO FOR 20 MINUTES WITH RELATIVE HUMIDITY OF 80%. WITH A PURGE CYCLE OF 20 MINUTES.
3PE2HW	Visual Examination	White light
	Cyanoacrylate Fuming	Cyano acrylate fuming chamber "Air Science Safefume 48S" cyanoacrylate B-83050, BVDA. Humidity 80%. Target temperature 85oC. Procesing time 25 min. Room temperature 21oC.
	Small particle reagent	SPR Black, B-86000, BVDA. Item was sprayed for 5-6 sec.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
3Q8Q6Y	Visual Examination	FIRST VISUAL EXAMINATION OF RESULT: PL500 (POLIFLARE) 530nm LIGHT - 590Nm LIGHT - ORANGE GOGGLES.
	Cyanoacrylate Fuming	FUMING METHOD CYANOBLOOM PROCESS WITH MVC3000D: GLUE TIME 30 MINUTES, TEMPERATURE OF 120°C, HUMIDITY 75%, PURGE CYCLE 20 MINUTES.
	Visual Examination	SECOND VISUAL EXAMINATION OF RESULT: POLIFLARE (PL500), LIGHTS 530 - 590nm WITH ORANGE GOGGLES.
	CHEMICAL EXTRACTION CABINET	DYE STAINING OF EXHIBIT OR ITEM WITH BASIC YELLOW DYE-STAIN
	EVIDENCE DRIER	DRYING OF DYE-STAINED EXHIBIT OR ITEM DOR TWO (2) HOURS.
	Visual Examination	THIRD VISUAL EXAMINATION OF RESULTS: POLIFLARE (PL500); LIGHT 530 - 610nm WITH ORANGE GOGGLES.
3X8A3N	Development of latent prints on nonporous surfaces	Application of chemical reagent in Cyanoacrylate chamber, the process lasts approximately one hour, after the development is applied reactive physical powder aluminum color to highlight the latent.
42KGYL	Visual Examination	Rofin PL500, White light, clear goggles
	Cyanoacrylate Fuming	MVC3000 with 1.2 grams of Cyanobloom for 60 minutes at 120°C with 80% humidity and 20 minutes purge.
	Visual Examination	Rofin PL500, White light, clear goggles
	Dye Stain	Rhodamine 6g-dye stain spraying method and rinse with cold water and dried in the evidence dryer.
	Visual Examination	Rofin PL500, 505nm, orange goggles.
43DBQN	Visual Examination	No visible staining
	Cyanoacrylate Fuming	Humidity 80%, 15 Min. Glue Cycle 80%, 16 Min, 120 Temp 120 C. Purge Cycle 80%, 20 Min
	Powder Dusting	Bichromatic
43FWM6	Cyanoacrylate Fuming	Fume item in fish tank for approximately 15 minutes. Possible suspected print observed following fuming.
48PDJL	Cyanoacrylate Fuming	MVC3000 USING CYANOBLOOM: 120°C TEMPERATURE AT MVC3000 AT 20 MINUTES AND 80% HUMIDITY.
	Dye Stain	RHODAMINE 6G: FUME EXTRACTION CABINET.
	EVIDENCE DRIER	AIR AT 08 VELOCITY (m/s)

IADLE Z - ITEM Z	TABLE	2	-	ltem	2
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WebCode	Development Methods	Method Details
4A2RN9	Visual Examination	latent print visible with natural lighting - section B
	Cyanoacrylate Fuming	Latent print enhanced with fuming and use of natural lighting - section B
	Dye Stain	MRM-10 - Alternate Light Source - latent print enhanced - section B
	Dye Stain	Red Drox - Alternate Light Source - no further enhancement of print - section B
4BCQTP	Visual Examination	FIRST VISUAL EXAMINATION: ROFIN PL500, 000nm (WHITE LIGHT) IN THE DARK ROOM, 10:55
	Cyanoacrylate Fuming	MVC300: 2 SCOOPS OF POLYCYANO UV, 230°C, 80%, 20 MINUTES 11:40
	Visual Examination	ROFIN PL500, 450nm, ORANGE GOGGLES, 550 FILTER, 12:55
	Dye Stain	RHODAMINE6G: EXHIBIT SPRAYED WITH RHODAMINE6G.
4CGK4F	Cyanoacrylate Fuming	CYANOBLOOM: 3 DROPS OF CYANOBLOOM WAS USED AT TEMPERATURE 120°C, 80% HUMIDITY FOR 20 MINUTES ON THE MVC.
	Dye Stain	SPARAYING METHOD WAS USED TO ENHANCE PRINTS AND RINSED OFF BY DISTILLED WATER ALLOWED TO DRY IN THE EVIDENCE DRIER.
4ECW8V	Cyanoacrylate Fuming	FUMING OF EXHIBITS: PLACED IN MVC3000, USING 2.5G OF CYANOBLOOM FOR 20 MINUTES AT 120°C, 76% HUMIDITY AND 20 MINUTES PURGE CYCLE.
	Dye Stain	DYE STAIN OF EXHIBIT: EXHIBIT WAS DYE STAINED WITH BASIC YELLOW - METHANOL SOLUTION AND DRIED.
4NVFKZ	Cyanoacrylate Fuming	Temperatur - 230°C Humidity - 80% RH; Processing time 20 minutes, 15 minutes purge cycle
4NX8DG	Visual Examination	FIRST VISUAL: ROFIN PL500 POLIVIEW SET AT 00nm LIGHT USING CLEAR GOGGLES.
	Cyanoacrylate Fuming	CYANOBLOOM METHOD: USING MVC3000 SET AT 120°C, 80% HUMIDITY, 20 MINUTES PURGE CYCLE, 30 MINUTES GLUE TIME AND 10 MINUTE HOLD TIME. FOLLOWED BY VISUALIZATION 0.5 DEVELOPED PRINTS WITH ROFIN PL500 POLIVIEW SYSTEM SET AT 00nm LIGHT, CLEAR GOGGLES, NO FILTER.
	Dye Stain	BASIC YELLOW METHOD: USING CHEMICAL EXTRACTION CHAMBER AND BIOFORENSIC EVIDENCE DRIER FOLLOWED BY VISUAL EXAMINATION AT 450nm LIGHT, ORANGE GOGGLES AND NO FILTER.

TABLE 2 -	- Item 2
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WebCode	Development Methods	Method Details
4RDUT8	Visual Examination	white light - positive results.
	Cyanoacrylate Fuming	1,5 gram glue, 80% RH in cabinet, 120 degrees on hotplate, processtime 10 minutes.
	Visual Examination	white light - positive results.
	Dye Stain	Basic yellow 40, visualized with blue light 445 nm and yellow filters.
64NMW8	Visual Examination	Faint print in quadrant B.
	Powder Dusting	Dusted with powder and print appeared in quadrant B.
68R9WQ	Visual Examination	Coaxial incident white light; Crimescope, Superlite 400, Laser 532 and 577 nm.
	Cyanoacrylate Fuming	Luminescent Cyanoacrylate CST 120°C, 30 min fumigation
	Dye Stain	Basic Yellow 40
6BLARD	Visual Examination	FIRST VISUALIZATION: PL500 VIEWED AT WHITE WHITE LIGHT AND UV LIGHT WITH COLOURLESS GOGGLES.
	Cyanoacrylate Fuming	FUMED IN CYANOACRYLATE FUMING CHAMBER AT 120°C; 80% HUMIDITY FOR 30 MINUTES; VIEWED IN PL500 AT WHITE LIGHT AND UV LIGHT.
	Dye Stain	DYE-STAINED WITH RHODAMINE-6-G, VIEWED IN PL500 AT ORANGE LIGHT.
6DAQ7R	Visual Examination	USED TO CAPTURE VISIBLE RIDGE DETAIL
	Cyanoacrylate Fuming	SUPERGLUE CABINET #3 SUPERGLUE BATCH #82714 - POSITIVE CONTROL (FOIL)
	Dye Stain	ETHANOL BASED BY40 STAIN BATCH #15AS891 DIP TANK #1 - EXAMINED USING CRIME LITE ML 430-470NM
6EAJAR	Visual Examination	Latent print observed in Quadrant "B" - needs further enhancement.
	Cyanoacrylate Fuming	Latent print observed in Quadrant "B" - needs further enhancement.
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Latent print recovered from Quadrant "B".
6MXL22	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	

WebCode	Development Methods	Method Details
6PNNBV	Visual Examination	FIRST VISUAL: CHECKING ANY POSSIBLE VISIBLE PRINTS USING PL500.
	Cyanoacrylate Fuming	FUMING METHOD: FUMING OF EXHIBITS USING MVC3000 AT 25 MINUTES, 230°C, RH 80.
	Powder Dusting	POWDERING USING BLACK POWDER AND ANIMAL HAIR BRUSH.
6W9PK7	Visual Examination	0930 hrs-1230 hrs; 68 degrees F. Ridge detail found prior to chemical processing and photographed.
	Cyanoacrylate Fuming	Additional images taken after the C.A. process.
	MRM-10	Additional images taken after the application of MRM-10.
746XEC	Cyanoacrylate Fuming	2 X SCOOPS OF POLYCYANO UV FOR 20 MINUTES AT 230 DEGREE CELSIUS, 80% HUMIDITY 20 MINUTES PURGE CYCLE BATCH NUMBER, #15702 (2018/12/30 TIME 12:30)
	Visual Examination	EXHIBITS FOR CAPTURING ITEM 2 CAPTURED ON THE DCS3 IMAGE 1 & 2 000nm, NO FILTER AND CLEAR GOGGLES WERE USED 2018/11/02 11:22 AND 11:24
7ARVW8	Visual Examination	PL500 - White light, clean goggles
	Cyanoacrylate Fuming	MVC 300 - 2 Scoops of polycyano powder 20 minutes, 230°C, 80%RH, 15 minutes purge cycle.
	Visual Examination	Onm light source, lear goggles
	Dye Stain	Dipping method - evidence dryer
	Visual Examination	505nm light source, yellow goggles
7L3BT6	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G-ALS 515 nm/Orange filter
	Powder Dusting	
7ME4RD	Visual Examination	Photographed overall item. Observed print in quadrant B.
	Cyanoacrylate Fuming	Item in fuming chamber approximately 10 minutes.
	Powder Dusting	Applied powder with brush. Black powder adhered to the print.
7R78MD	Cyanoacrylate Fuming	CYANOBLOOM: EXHIBIT PROCESSED IN MVC3000 AT 230°C FOR 20 MINUTES AT 70% HUMIDITY.
	Dye Stain	EXHIBIT WAS THEN DYE STAINED AND DRIED IN EVIDENCE DRYER.
7VR3FX	CFC & magnetic powder	(+) ctrl, humidity: 70%, lot: UK13419, exp: 4/19, fuming time: 10 min

TABLE 2 - Item 2

TABLE	2	-	ltem	2

WebCode	Development Methods	Method Details
7XYBQ3	Cyanoacrylate Fuming	control standard using Polymerization standard. processed for 45 minutes (1100hrs-1145hrs).
	Powder Dusting	brushed black powder over section B.
83P62A	Visual Examination	Visual examination with crime light
	Cyanoacrylate Fuming	F+F MVC 5000 super glue chamber- Approximately 70 mins cycle
	Dye Stain	Rhodamine 6G
	Powder Dusting	Black Powder
8B33PT	Powder Dusting	Black powder - 3 seconds of a twirl method using a fingerprint brush.
8HE7PZ	Alternate Light Source	White light
	Cyanoacrylate Fuming	0,5 grams of superglue in fuming chamber, processing time 7 minutes
	Dye Stain	Basic yellow 40 (100% ethanol)
	Alternate Light Source	Blue light, yellow filter
8N7DBU	Visual Examination	FIRST VISUAL: VISUAL EXAMINATION WAS DONE ON AN EXHIBIT USING ROFIN PL500 LIGHT 000nm BEFORE PROCESS.
	Cyanoacrylate Fuming	MVC3000: EXHIBIT WAS THEN PLACED IN THE MVC3000 ON TEMPERATURE 230°C, RH 75 GLUE TIME: 20 MINUTES.
	Visual Examination	SECOND VISUAL: AFTER PROCESSING, SECOND VISUAL WAS DONE TO CHECK FOR FINGER PRINTS
8PZ2TP	Visual Examination	White light, blue light, UV light
	Cyanoacrylate Fuming	Humidity set to 80, Humidify set to 15 minutes, Processing time 8 minutes, Amount of glue 1,5 g (Foster Freeman MVC 3000). Test label with my own print to ensure the method is working
	Basic Yellow 40	50% solution (ethanol/water)
8RR4P6	Visual Examination	Available light & magnifying glass examination
	Magna Powder	
	Cyanoacrylate Fuming	$\sim$ 10 minutes
	MRM-10	

TABLE 2	-	ltem	2
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WebCode	Development Methods	Method Details
8U8W4C	Visual Examination	FIRST VISUAL: ROFIN PL500 AT 0.00nm
	Cyanoacrylate Fuming	CYANOBLOOM: MVC3000 FOR 50 MINUTES AT 120°C, 80% HUMIDITY AND 40 MINUTES, PURGE CYCLE USING 3 GRAMS OF CYANOBLOOM.
	Dye Stain	CHEMICAL FUMING CABINET, ROOM TEMPERATURE AT (250°C), EVIDENCE DRIER FOR 15 HOURS.
928KNP	Visual Examination	Lighting
	Cyanoacrylate Fuming	Foster freeman MVC 3000 chamber (120 degrees celsius and 80% relative humidity for Cyanobloom)
	Dye Stain	Pre-made dye stain using Coherent TracER laser with filter
9A3EUA	Cyanoacrylate Fuming	CYANOBLOOM: EXHIBIT PROCESSED IN MVC3000 FOR 20 MINUTES AT °C AND 70% HUMIDITY.
	Dye Stain	RHODAMINE6G/METHANOL: EXHIBIT WAS DYE-STAINED AND ALLOWED TO DRY.
A4TGX2	Visual Examination	Ambient lighting
	Cyanoacrylate Fuming	Misonix chamber, 1.25g for 10 minutes fume time; Ambient lighting
	Dye Stain	Basic Yellow; Rofin (450nm with yellow goggles)
A6JYKU	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Dye Stain	Rhodamine 6G
AKGQNJ	Visual Examination	First we took photo from object. After this we checked it with eyes and white light. Found a fingerbrint.
AQMKKZ	Visual Examination	white light
	Cyanoacrylate Fuming	2 gram glue, 80% RH in cabinet, 120 degrees on hotplate, processtime 10 minutes.
	Powder Dusting	carbon powder.
	Dye Stain	Basic Yellow 40
	Alternate Light Source	Blue light 420-470 nm (yellow filters)
AUNEPX	Visual Examination	Results were negative.
	Alternate Light Source	Results were negative.
	Cyanoacrylate Fuming	Super glued for 30 mins at 80% humidity. Visible print in "B".
	Dye Stain	MBD applied after fuming. Visible print in "B" with ALS at 455mm.

#### WebCode **Development Methods Method Details** AVDY62 Visual Examination Rofin Polylight used - oblique lighting with clear goggles AX2ELN Visual Examination 3 minutes Light source (white light -LED) 5 minutes Cyanoacrylate Fuming liquid superglue for 50 minutes Light source (white light -LED) 5 minutes Ardrox cyanoacrylate dye 30 minutes laser - UV 10 minutes Black powder 5 minutes AYD32U Visual Examination Alternate Light Source Cyanoacrylate Fuming Temperature: 120°C +/- 5°, Humidity: 75% +/- 15% Dye Stain Ardrox, 415nm, yellow filter B2MFBA **Visual Examination** Used a lighted magnifying glass and saw a patent print Cyanoacrylate Fuming Added hot water for humidity and put item in CAE fuming chamber approximately 20 minutes to fume Black powdered the CD/DVD case Powder Dusting B39D8E Visual Examination By visual examination we could see pretty good fingerprint in the B-section. Alternate Light Source By white light we found very good fingerprint in the B-section. At this point we photographed the fingerprint. In the end we used cyanoacrylate fuming to improve more the Cyanoacrylate Fuming fingerprint. After that we photographed the fingerprint again. B6VX9C Cyanoacrylate Fuming TEMPERATURE - 120°C, HUMIDITY **EVIDENCE DRIER VELOCITY 300 PASCALS TIME - 2 HOURS** BDPZGE **Visual Examination** Daylight, halogen lamp 150W, Magnifier 4,5X Cyanoacrylate Fuming Cyanoacrylate fuming chamber "MVC3000/D", 1g of cyanoacrylate "Cyanobloom, humidity level 80%, fuming time 20 min. BHV8FY Powder Dusting Evidence dusted with magnetic powder using a magnetic wand **BJG829** Cyanoacrylate Fuming Placed in a fuming chamber there the chemical is heated and item coated Black Powder dusting With brush, item dusted with black fingerprint powder

WebCode	Development Methods	Method Details	
BNDPPZ	Cyanoacrylate Fuming	In fuming chamber - 30 minutes	
	Dye Stain	Rhodamine	
	Alternate Light Source	Laser	
BZQWDN	Cyanoacrylate Fuming	1,5 grams of CNA, fuming cabinet 120 degrees Celsius RH80% for 8 minutes.	
	Dye Stain	Basic Yellow 40	
C3PUYZ	Visual Examination	Clear filter was used at wavelength 000nm	
C7TBNG	Visual Examination	ambient light	
	Cyanoacrylate Fuming	Foster & Freeman MVC 5000 1.Relative humidity 75-80% 2.Glue time 25 mins. 3.Purge for 40 mins	
	Powder Dusting	Brush and Bichromatic Powder	
CBN2D2	Visual Examination	Flashlight, an area of ridge detail was observed on the cover of the CD case in the section marked as B and was digitally preserved.	
	Cyanoacrylate Fuming	Cyanoacrylate Fuming , 80% humidity, 10 min fuming time, Control Positive. The area within section B was rephotographed.	
	Dye Stain	Rhodamine 6G (R6G) with Laser, 532nm, Control Positive, Orange Filter. The area within section B was rephotographed.	
CFAEG9	Visual Examination	LIGHT WHITE; UV. GOGGLES: CLEAR & ORANGE (450nm: CAPTURING LIGHT 0nm, FILTER 0nm)	
	Cyanoacrylate Fuming	TEMP: 120°C, HUMIDITY: 80%, GLUE TIME: 20 MINUTES, PURGE CYCLE TIME: 20 MINUTES	
	Dye Stain	FLOURESCENT DYE (R6G): DRYING TIME: 60 MIN, SPRAYING METHOD, VIEWING (LIGHT 505nm, FILTER OG 505nm)	
CKAATH	Visual Examination		
	Cyanoacrylate Fuming		
	Powder Dusting		
CYBYUP	Visual Examination	White/ambient light and 532nm Tracer laser/green light with orange goggles.	
	Cyanoacrylate Fuming	MVC 5000 Superglue Fuming Cabinet, room temperature, 75% humidity for $\sim$ 10 minutes. Viewed with white/ambient, UV, green light.	
	Dye Stain	Applied Basic Yellow 40, rinsed off excess dye stain. Viewed with blue light and yellow goggles.	

TABLE	2	-	ltem	2

WebCode	Development Methods	Method Details	
D7KXAK	Visual Examination	this item was visually examined prior to processing with a faint pattern found on the item in the area B on this item	
	Powder Dusting	this item was processed with black powder and a whorl pattern was noted on the B area on this item	
D8XFMX	CAPTURING	COC CAPTURING: D600 CANON CAMERA - PHOTOGRAPH EXHIBIT BAG & CONTENTS AS RECEIVED.	
	Visual Examination	PL500, D700 NIKON CAMERA, CLEAR GOGGLES, CLEAR FILTER, WHITE LIGHT	
	Cyanoacrylate Fuming	MVC3000, CYANOBLOOM	
	Dye Stain	DYE-STAIN RHODAMINE 6G	
	Visual Examination	PL500, D700 NIKON CAMERA, 450nm, ORANGE FILTER,ORANGE GOGGLES	
D9VRHQ	Vis	Vis examination using available light	
	Superglue fuming	Place item 001-2 in an Air Science superglue chamber for 9 min (Automated Chamber)	
	Powder Dusting	Applied grey fingerprint powder to item 001-2	
DCEQRE	Visual Examination (white light)		
	Superglue/ Basic Yellow	Temperature 127°C, humidety: 82.6%	
DEJCL7	Visual Examination	A visual exam with oblique lighting was done prior to any processing.	
	Cyanoacrylate Fuming	I placed the item in a fume hood with a hot water beaker for 20 minutes until the control turned white. The beaker of hot water was used to provide humidity.	
	Powder Dusting	Applied black magnetic powder to the CD case after CAE fuming.	
DMVFNY	Visual Examination		
	Powder Dusting	Black magnetic powder	
DPFC6C	Cyanoacrylate Fuming	Labrum FHC-1000, Loctite 495, 8min.	
DUPUWD	Cyanoacrylate Fuming	CYANOBLOOM (MVC3000): USING 3 GRAMS OF CYANOBLOOM FOR 20 MINUTES, 120°C, 80% HUMIDITY	
	Dye Stain	PLACED IN CHEMICAL FUME CABINET AT ROOM TEMPERATURE 250°C, EVIDENCE FOR 15 HOURS.	
WebCode	Development Methods	Method Details	
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E3LTMR	Visual Examination	White, low angle light print visible in quadrant "B".	
	Alternate Light Source	Multiple filters used print visible in quadrant "B".	
	Cyanoacrylate Fuming	30 minute fume time at 75% humidity. Print visible in quadrant "B".	
	Dye Stain	MBD dye stain applied after fuming. Print visible in quadrant "B" with ALS set at 455nm and orange barrier filter (goggles).	
	Powder Dusting	Powder applied. Print visible in quadrant "B".	
E4XGV6	Visual Examination	FIRST VISUAL: PL500 - 1823; 17:30	
	Cyanoacrylate Fuming	MVC3000; 1.9 GRAMS CYANOBLOOM, 20 MINUTES 120 DEGREE CELSIUS; 65% HUMIDITY 2018/11/05 17:50	
	Dye Stain	BIOFORENSIC EVIDENCE DRIER FOR 60 MINUTES 300 PASCALS 2018/11/06 13:40	
	Powder Dusting	RED FLOURESCENT MAGNETIC POWDER MAGNETIC BRUSH 2018/11/06 15:50	
E7A6LW	Visual Examination	notepage photography	
	Cyanoacrylate Fuming	MVC 5000/D - Fumed for 15 mins	
	Powder Dusting	Magnetic powder	
	Powder Dusting	Black powder	
EEQAX2	Visual Examination	THE EXHIBITS WAS VISUALIZE USING DIFFERENT LIGHTS, 00nm, 350nm, 415nm, 450nm, 470nm, 505nm UP TO 650nm. THE PRINT WAS IDENTIFY UNDER 00nm CLEAR LIGHT. THE PRINT WAS ALSO DEVELOPED WHEN THE EXHIBIT WAS RUN ON MVC3000.	
	Cyanoacrylate Fuming	POLYCYANO/RHODAMINE: WITH 2 SCOOPS OF POLYCYANO FOR 20 MINUTES AT 230°C, 75% HUMIDITY AND 20 MINUTES PURGE CYCLE.	
	Visual Examination	THE PRINT DEVELOPED AND PHOTOGRAPHED ON POLIVIEW USING 350nm CLEAR GOGGLES. RHODAMINE WAS APPLIED ON THE DEVELOPED PRINT, SPRAY AND RINSED UNDER RUNNING WATER, SOME RIDGES HAVE PINK COLOUR/PHOTOGRAPHED 350nm WITH ORANGE GOGGLES.	
EGWMLU	Visual Examination	white light, saw print directly in light	
	Cyanoacrylate Fuming	rh 80%, heat source 120 C, 7 min processing time	
	Dye Stain	BY 40	

WebCode	Development Methods	Method Details
EGYFGG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G with ALS
ERHRVE	Cyanoacrylate Fuming	CYANOBLOOM FUMING: MVC3000 SET AT 120°C, 80% HUMIDITY FOR 20 MINUTES.
	Dye Stain	PUT IN EVIDENCE DRYER OVERNIGHT.
EVLDTD	Visual Examination	lights and magnification
	Cyanoacrylate Fuming	~80% humidity for 20 minutes in Safefume chamber
	Powder Dusting	Black magnetic powder
F7F44J	Visual Examination	FIRST VISUAL: WHITE POLIFLARE, 000nm, CLEAR GOGGLE, DARK ROO, 25°C TEMPERATURE
	Cyanoacrylate Fuming	2 SCOOPS OF POLYCYANO , 230°C FOR 30 MINUTES HUMIDITY 80%, PURGE CYCLE 10 MINUTES.
	Visual Examination	VISUAL AFTER FUMING: WHITE POLIFLARE, CLEAR GOGGLES 000nm, IN A DARK ROOM, 25°C ROOM TEMPERATURE.
F7HYE3	Visual Examination	Light source
	Cyanoacrylate Fuming	CA180717, 80% Relative humidity, 30 minute fume and 30 minute purge cycle
	Dye Stain	M-star-MS181105, allowed dye stain to dry on evidence and examined under light source (Crime Scope CS-16-500)
	Powder Dusting	Black Powder
F8NEET	Visual Examination	POLIVIEW WAS USED TO CAPTURE THE PRINT DURING PRE-PROCESSING VISUAL EXAMINATION 11:30
	Cyanoacrylate Fuming	EXHIBIT WAS PLACED IN THE MVC3000 USING 0.7545G OF CYANOBLOOM FOR 20 MINUTES AT 120°C AND HUMIDITY OF 70%
	Dye Stain	EXHIBIT WAS DYE-STAINED USING RHODAMINE 6G/METHANOL. A SPRAYING METHOD WAS USED.
FECVCD	Cyanoacrylate Fuming	MEASURED 2 LEVEL SCOOPS OF POLYCYANO INTO A FOIL CUP, FILLED DISTILLED WATER TO MAXIMUM LEVEL AND LOAD EXHIBITS. SET GLUE TIME TO 20 MINUTES, TEMPERATURE TO 230°C, UV TIME 15 MINUTES, HOLD TIME 15 MINUTES AND RH AT 80%.
	Dye Stain	SPRAYED THE EXHIBITS WITH R6G, AND IMMEDIATELY RINSED WITH TOP WATER LOAD INTO THE DRIER.

WebCode	Development Methods	Method Details
FG2BTZ	Visual Examination	Includes both visual and alternate light sources
	Cyanoacrylate Fuming	$\sim$ 70 minutes auto cycle in Foster+Freeman fuming chamber
	Dye Stain	Rhodamine 6G used
	Powder Dusting	Black powder
FGEZKR	Visual Examination	
	Alternate Light Source	Used 365nm UV, 450nm Blue Light, and 532nm Laser.
	Cyanoacrylate Fuming	Followed by visual exam and RUVIS.
	Dye Stain	Used RAM (Rhodamine, Ardrox, and MBD) dye stain followed by 365nm UV light, 450nm Blue light, and 532nm Laser.
FHDWKM	Visual Examination	The CD case was looked at using white light.
	Cyanoacrylate Fuming	The case was placed in the CA chamber for 9 minutes at 80% humidity.
	Dye Stain	The case was sprayed with Rhodamine 6G Dye Stain and looked at with a 535nm laser and orange goggles
FKZFGE	Cyanoacrylate Fuming	CYANOBLOOM FUMING: MVC3000 SET AT 120°C, 80% HUMIDITY FOR 20 MINUTES
	Dye Stain	RHODAMINE 6G/DYE. EHODAMINE6G/METHANOL: ORANGE GOGGLES 505nm
FLCB6R	Powder Dusting	A latent fingerprint was observed on section B of the CD case. The fingerprint was darkened utilizing black powder. The interior and exterior of the CD case was processed for latent fingerprints with 1 positive result on the interior portion of section B.
FXZGUF	Visual Examination	VISUALIZATION USING ROFIN PL500 AT 00nm
	Cyanoacrylate Fuming	FUMING OF EXHIBIT USING FUMING CHAMBER MVC3000 WITH 1.2 GRAMS OF CYANOBLOOM FOR 10 M INUTES, AT 120 DEGREE CELSIUS, 80% HUMIDITY AND 20 MINUTES PURGE CYCLE.
	Visual Examination	VISUALIZATION USING ROFIN PL500 AT 00nm
	Dye Stain	FLOURESCENT DYE STAINED THE EXHIBIT WITH R6G WATER BASE, RINSED WITH DISTILLED WATER AND LET IT DRY IN THE EVIDENCE DRYER.
	Visual Examination	VISUALIZATION OF EXHIBIT USING ROFIN PL500 AT 450 - 505nm AND ORANGE GOOGLES.
GFM7U3	Visual Examination	White light
	Cyanoacrylate Fuming	Fumed at 80% humidity for 30 minutes
	M-Star	Fluorescent Dye stain applied with squirt bottle. Viewed under Alternate Light Source - Crimescope
	Powder Dusting	Black powder

TABLE	2	-	ltem	2

WebCode	Development Methods	Method Details
GMJZRZ	Visual Examination	Oblique lighting, ambient lighting, ALS
	Cyanoacrylate Fuming	Foster & Freeman chamber with 3g Cyanoacrylate (auto cycle for 70 minutes). Ran with a plastic control. Visualized using oblique white lighting
	Dye Stain	Treated with Rhodamine 6G alongside control. Visualized with ALS
	Powder Dusting	Dusted with black powder
GNQGRR	Visual Examination	White light & LASER
	Cyanoacrylate Fuming	12 mins
	Powder Dusting	Black powder & Mag powder applied to clear plastic only
	Dye Stain	Rhodamine 6G applied to black plastic only.
GNT9J8	Visual Examination	Used obligue lighting, wavelength 000nm, clear filter.
	Cyanoacrylate Fuming	Placed in MVC 3000 using 2 scoops of Polycyano UV for 18 minutes at 230°C, 80% RH and 20 minutes purge cycle.
	Dye Stain	Sprayed R6G solution onto exhibit and rinsed off, placed into bio drier when dried, used wavelength 505nm, orange filter to see.
GVQTRU	Visual Examination	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500)
	Cyanoacrylate Fuming	20 min exposure, 120° C, 80% humidity, viewing in white light and with POLILIGHT PL 500 alternate forensic light source in 505-530 nm range + appropriate filters
	Dye Stain	Spraying item with "Basic Yellow 40" working solution, after 1 min exposure the excess of reagent was rinsed under running tap water, viewing with POLILIGHT PL 500 alternate forensic light source in 415-495 nm range + appropriate Filters
GVUJWR	Visual Examination	Specular lighting
	Cyanoacrylate Fuming	The relative humidity in the cabinet was maintained within the range 75-90% whilst the item was exposed to superglue fumes.
	Superglue Fluorescent Dye Staining	Basic Yellow 40
GVV6WE	Visual Examination	potential friction ridge detail in quadrant "B"
	Cyanoacrylate Fuming	positive control used. Item 2 was fumed in fuming chamber for 10 minutes with humidity set to 80% and purge cycle for 5 minutes.
	Powder Dusting	black magnetic powder applied with white backing card with scale

WebCode	Development Methods	Method Details
GVXPRU	Visual Examination	
	Cyanoacrylate Fuming	Misonix Chamber; 15:00 processing time
	Powder Dusting	black magnetic powder; not lifted
	Dye Stain	Basic Yellow (methanol based solution); blue light with yellow viewing filter
GWM8EM	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Dye Stain	Ardrox
GZBREP	Visual Examination	
	Cyanoacrylate Fuming	humidity $\sim$ 60%, fuming time $\sim$ 6 minutes
	Dye Stain	R6G (MeOH based) with MeOH rinse
H3NWFR	Visual	Photographed
	Cyanoacrylate Ester	Fumed for 15 minutes in chamber.
	Fingerprint Powder	Dusted over interior side of CD case lid
H9ULT7	Cyanoacrylate Fuming	THE EXHIBIT ITEM 2 WAS PLACED INSIDE MVC3000, PUT WATER IN ITS PLACE, MEASURE 2.72G OF CYANOBLOOM IN FOIL CUP AND PUT INSIDE MVC3000 IN ITS PLACE, PUT CONTROL AND SET MACHINE FOR 20 MINUTES AT 120°C AND 80% HUMIDITY. START MACHINE.
	Dye Stain	RHODAMINE-6G WAS USED AS DYE AND WASHED UNDER RUNNING WATER IN FUME EXTRACTION CABINET THEM DRIED UNDER EVIDENCE DRIER.
HEGAPW	Visual Examination	checking for visible finger prints using different wavelength and goggles: 000/350/450nm and clear / orange goggles.
	Cyanoacrylate Fuming	Fume the exhibit using Cyanobloom in the MVC3000 for 20minutes at 120°C temperature and 80% humidity.
	R6G / Ethanol	Processing the exhibit with Rhodamine 6G/Ethanol, rinse and place dry in the evidence dryer.
	Visual Examination	Flourescent examination with different light wavelength: 450nm and 505nm and clear / orange goggles.
HR79HK	Cyanoacrylate Fuming	MCV3000 at 230°C, 80% humidity, 5 minutes purging cycle, 2 scoops polycyano.

TABLE 2 - I	tem 2
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WebCode	Development Methods	Method Details
HR9XHB	Cyanoacrylate Fuming	CYANOBLOOM FUMING: ITEM 2 PLACED AN MVC SET AT 120°C, 80% HUMIDITY. ITEM HUMIDIFIED FOR 20 MINUTES, FUMED WITH CYANOBLOOM FOR 20 MINUTES AND VISUALIZED AFTER A 20 MINUTES PURGE CYCLE.
	Dye Stain	DYE STAINED WITH RHODAMINE 6G.
HTPWBZ	Superglue fuming	Mystaire fuming chamber, 10 minutes at 70% humidity
	Methanol Rhodamine 6G	Sprayed and rinsed with Methonal. Examined using alternate light source
HUG7UG	Visual Examination	FIRST VISUAL: WHITE POLIFLARE, 000nm, CLEAR GOGGLES DARK ROOM 25°C
	Cyanoacrylate Fuming	MVC: WHITE POLIFLARE, 000nm, CLEAR GOGGLES 2 (TWO) SCOOPS OF POLYCYANO AT 230°C FOR 30 MINUTES AND 10 MINUTES PURGE.
	Visual Examination	VISUAL AFTER INVESTIGATION: WHITE POLIVIEW, 000nm, CLEAR GOOGLES AT ROOM TEMPERATURE.
HY6THU	Cyanoacrylate Fuming	Reagents and batch numbers: Cyanobloom (W116776)= 1G, Equipment: MCV3000' Glue time = 15 minutes, Temperature = 120°C; humidity = 80%, purge cycle =4 minutes
	Dye Stain	Reagents: Rhodamine (3132-26616), Ethanol (34661) Equipment: evidence dryer
J4WD7B	Visual Examination	WHITE LIGHT TO CHECK FOR ANY VISIBLE PRINTS
	Cyanoacrylate Fuming	SUPERGLUE FUMMING - 1.15G GLUE, 15 MINUTES AT 120°C, IN 80% RELATIVE HUMIDITY, 45 MINUTES PURGE
	Powder Dusting	BLACK POWDER TO SITE OF FINGERPRINT APPLIED WITH SQUIRREL HAIR BRUSH.
J728K8	Cyanoacrylate Fuming	Visual examination + fuming in FoterFreeman fuming cabinet.
J8GCFY	Visual Examination	GENERAL SEARCHING FOR FINGER-, PAL PRINTS AT 18:20 WITH LIGHS: WHITE, 415, 450, 470, AND 490 AND CLEAR, ORANGE, YELLOW AND RED GOGGLES (POSITIVE)
	Cyanoacrylate Fuming	FUME WITH 0.999G OF CYANOBLOOM FOR 15 MINUTES AT 120°C, 70% HUMIDITY AND 20 MINUTES PURGE AT 19:36. BATCH NO. W116145 OF CYANOBLOOM (POSITIVE)
	Dye Stain	DYE STAIN WITH RHODAMINE 6G METHANOL BASE AT 14:45 UNIQUE NO. R6GMETH 02/10/2018W (POSITIVE)

WebCode	Development Methods	Method Details
JEXZX8	Visual Examination	FIRST VISUAL EXAMINATION: EXHIBIT WAS EXAMINED BEFORE ANY OTHER PROCESS USING CLEAR GOGGLES. FINGERPRINT WAS FOUND AND CAPTURED USING PL500 AT 0100nm AND NO FILTER. ANOTHER VISUAL WAS DONE UNDER LIGHT SOURCES USING DIFFERENT LIGHTS WAVELENGTHS, AND THE LIGHT SOURCE WAS MOVED AT DIFFERENT ANGLES OF ILLUMINATION.
	Cyanoacrylate Fuming	EXHIBIT FUMED IN MVC3000 USING 02 SCOOPS OF POLYCYANO AT 230 DEGREE CELSIUS, 80% RELATIVE HUMIDITY AND 20 MINUTES PURGE CYCLE. POLYCYANO WITH BATCH NO. 15702 PLACED ON A THIN PLACE & DISTILLED WATER IN A WATER COMPARTMENT.
JG4B9P	Cyanoacrylate Fuming	120° / 80% 8 min 1,5 g glue
JJW8MB	Visual Examination	Visible latent print in Quadrant "B"
	Cyanoacrylate Fuming	(Lot #201806011) Fuming Chamber (RH 80% for 15 min; Glue Time 12 min @ 120 deg C; Purge Cycle for 20 min). Latent visible
	Dye Stain	(MBD Lot #110818-01) Applied with a pipette in area of latent
	Alternate Light Source	Examined with ALS (blue light 420-470 nm with yellow filter GG495 AG). Latent visible
	Powder Dusting	Standard Black Powder (Lot #201506013) Applied with standard powder brush until latent is developed. Latent visible
JLXD2G	Visual Examination	possible latent observed in section B
	Powder Dusting	Single use brush used to apply Bichromatic Powder to all sections of the CD case
JVNQDA	Visual Examination	Visual examination with lights (range 390 -850nm) and photography+photoshop. Fingerprint was found at section B.
	Powder Dusting	Magnetic powder for improving fingerprint and finding possible more prints. No more fingerprints weren't found.
JXDYUQ	Powder Dusting	Used magnetic powder. Applied sufficiently. Print developed.
JZYYGZ	Visual Examination	
	Cyanoacrylate Fuming	

WebCode	Development Methods	Method Details
K4YDXN	Visual Examination	Visual examination of plastic CD case with clear front cover and black back shows drawing on inside of front cover in what appears to be white marker. Front cover is divided into four (4) equal quadrants labeled "A" "B" "C" and "D". FRD is observed on the inside of the front cover with white/ambient light. No additional FRD observed using Crimescrope at 415-495 nm wavelength with an orange filter.
	Cyanoacrylate Fuming	Plastic CD case placed in CA6000 fuming chamber for 30 minutes at 65 percent humidity.
	Visual Examination	FRD observed in both white/ambient light and with Crimescope between 475 and 495 nm wavelength with an orange filter. FRD observed in quadrant labeled "B" on inside of front cover. FRD also observed in quadrant "C" on outside of front cover. No FRD observed on either side of black CD back.
	Dye Stain	Plastic CD case sprayed with Ardrox and set to dry.
	Visual Examination	FRD observed with both white/ambient light and using Crimescope between 475 and 495 nm wavelength with an orange filter. Item photographed at this time.
KA2FPG	Visual Examination	FIRST VISUALIZATION: THE EXHIBIT WAS FIRST VISUALIZED ON PL500 ON ALL WAVELENGTHS USING DIFFERENT GOGGLES.
	Cyanoacrylate Fuming	POLYCYANO (MVC3000): (000nm TO 650nm AND WHITE , ORANGE, YELLOW AND RED GOGGLES) THE PRINT WAS OBSERVED AT 350nm, WHITE/CLEAR GOGGLES, NO FILTER THE IDENTIFIED PRINT WAS CAPTURED ON NIKON D700 POLIVIEW AND SAVED ON A COMPACT DISC.
	Dye Stain	EXHIBIT 2 WAS THEN PLACED IN MVC3000 WITH 2 SCOOPS OF POLYCYANO FOR 20 MINUTES AT 230°C WITH 75% HUMIDITY AND PURGED FOR 20 MINUTES. THE PRINT WAS VISUALIZED AND PHOTOGRAPHED AT 350nm, WHITE, NO FILTER. ITEM 2 WAS THEN DYE STAINED USING RHODAMINE 6G AND RINSED WITH WATER AND DRIED WITH EVIDENCE DRIER. THE MORE PROMINANT PRINT WAS OBSERVED AND CAPTURED AND CAPTURED AT 505nm, ORANGE GOGGLES ORANGE FILTER.
KBFTHK	Visual Examination	Oblique lighting was used.
	Cyanoacrylate Fuming	0.5g CA was used. Item 2 was processed until CA was completely vaporized (~2 minutes).
	Visual Examination	Oblique lighting was used.
	Dye Stain	Rhodamine 6G was lightly sprayed over Item 2 until covered, then hung in a fume hood until dry.
	Alternate Light Source	515nm wavelength with orange filter used to visualize and photograph latent.
KBVC3H	Cyanoacrylate Fuming	Lot #UN18479, Exp 8/19; + control
	Black Powder	Black powder utilized to lift print

WebCode	Development Methods	Method Details
KCRLGU	Alternate Light Source Cyanoacrylate Fuming	Examined in absorption/reflection mode by use of oblique white light (clear goggles), 350nm (clear goggles), 415nm (yellow/orange goggles), 450nm (orange goggles), 505nm (orange goggles), 530nm (red goggles), and 555nm (red goggles) MVC1000. Cabinet self checks completed and working correctly. Placed in fume cabinet with test strip. 0.7a of
		cyanoacrylate placed in heating ring. Water level filled to correct level. Commenced 10min fume cycle at 80% relative humidity, 120 degrees Celcius. Examined using forensic light source at 450nm with clear goggles.
KD3NUR	Visual Examination	Rofin PL500, White light, clear goggles
	Cyanoacrylate Fuming	Cyanobloom, MVC3000, 60 minutes, 120°C, 80% humidity
	Visual Examination	Rofin PL500, clear goggles
	Dye Stain	Rhodamine 6-G, Spraying, rinsing, air dried in evidence drier
	Visual Examination	Rofin PL500, 505nm, orange goggles
KEUTCQ	Visual Examination	A visual overall inspection was conducted using ambient and Luxo Magnifier/Loupe Lamp. Potential latent print observed, circled, labeled as P-001, recorded, and captured in Section B.
	Cyanoacrylate Fuming	Applied using a Mystaire CA-6000 chamber using 1.5g of cyanoacrylate on a hot plate for a total of 20 minutes at a humidity of 75%. Potential latent print from previous observation recorded, and re-captured.
	Dye Stain	Using a Rhodamine 6G dye stain with a methanol-base, was left to dry for about 30 minutes. No observations made at this time.
	Alternate Light Source	An alternate light source at 532nm was conducted using a TracER. Potential latent print from previous observation recorded, and re-captured.
KF8C9G	Visual Examination	The item was visually examined using the PL500 (000nm to 650nm) with clear and orange goggles.
	Cyanoacrylate Fuming	Item was exposed to Cyanobloom fumes in the MVC3000 FOR 50 MINUTES AT 120°C, 80%RH
	Visual Examination	Item examined using light source (PL500) AND (000nm)
KHVLMP	Visual Examination	
	Fluorescence Examination	
	Cyanoacrylate Polimeryzation (Superglue Fuming) Basic Yellow 40	Temerature of the heating plate: 100°C, humidity: 80%, time: 35 minute

WebCode	Development Methods	Method Details
KKZDBW	Visual Examination	After removal of the exhibit from sealed box it was marked, photographed (Canon D500) and visualised PL500 – 00nm
	Cyanoacrylate Fuming	Polycyano UV (batch 15702) used on MVC 3000 AT 230°C, 80% Humidity for 20 minutes and purging
	Visual Examination	Visualised using PL500 at 505nm, white goggles and captured using Nikon D700, Poliview.
	Dye Stain	Further processed with Rhodamine 6G/Ethanol (bathc 3/2018) then visualised PL500 at 450nm, orange goggles and captured using Nikon D700, Poliview.
KNZKXE	Cyanoacrylate Fuming	CYANOBLOOM: 3.5G CYANOBLOOM, 120°C, 75% HUMIDITY, 20 MINUTES PROCESSING AND 20 MINUTES PURGE
	Dye Stain	BASIC YELLOW: SPRAY AND RINSE WITH RUNNING WATER - EXHIBIT DRYER - 30 MINUTES.
KRJFYL	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	Cyanoacrylate Fuming	in the fuming chamber with a humidity 80% for 10 minutes; visual examination under white light and fluorescence examination in alternate light source (350 nm - 650 nm)
	Basic Yellow 40	fluorescence examination in alternate light source (350 nm - 505 nm under yellow or orange color barrier filters)
KTGW4V	Visual Examination	CrimeLite, LASER
	Cyanoacrylate Fuming	Foster & Freeman MVC5000, Plastic control
	Dye Stain	Rhodamine 6G + methanol sol., Plastic control, LASER
	Powder Dusting	Black and white powder
KVGZJW	Visual Examination	Rofin PL500 at room temperature.
	Powder Dusting	Used feather brush.
	Cyanoacrylate Fuming	Optimus 1500XL 3grams of Cyanoacrylate for 20 minutes at 25°C at 80% humidity.
	Dye Stain	Methanol based, used at room temperature.
KXRZMJ	Powder Dusting	Before the application of powder dusting, a visual examination was done to determine the existence of visible lofoscopic traces. The reactive dual-toned magnetic powder (blanck and silver) was applied.
KY84NP	Cyanoacrylate Fuming	Placed in chamber with control sample of polymerization standard.Neg/Pos control confirmed. Cyanoacrylate and water placed on heating pad in separate pans. chamber closed and processed for 10 minutes. Print visible in section B of plastic case.

WebCode	Development Methods	Method Details
LNX4JG	Visual Examination	Oblique lighting.
	Cyanoacrylate Fuming	Air Science fuming chamber, 70% humidity for sixty (60) minutes.
	Visual Examination	Direct and oblique lighting.
	Dye Stain	Rhodamine 6G dye stain (expires 11/18).
	Alternate Light Source	530 nanometers.
LRZWLR	Naked eye	
LVEVHT	Visual Examination	White light 000nm, P2 with clear goggles PL500 light source.
	Cyanoacrylate Fuming	10 drops of Cyanobloom, MVC300, Temperature 120°C, humidity 80% RH, time 10 minutes.
	Dye Stain	R6G Methanol base, dried one hour. Spray method used.
	Visual Examination	Use PL500 light source, 505nm, orange goggles, orange filter, Nikon D700 Camera.
LVU866	Visual Examination	1ST VISUAL EXAMINATION: PL500 LIGHT SOURCE 0 - 650nm
	Cyanoacrylate Fuming	POLYCYANO: MVC3000;TEMPERATURE 230°C; 80% RH FOR 15 MINUTES.
	Powder Dusting	USED BLACK INLAND POWDER.
M2Y4N6	Visual Examination	FIRST VISUAL: ROFIN PL500: LIGHT SOURCE WHITE LIGHT, NO FILTER, ISO 800,
	Cyanoacrylate Fuming	POLYCYANO: MVC3000, TEMP: 230 DEGREE CELSIUS; TIME: 45 MINUTES RH: 80%, VISUALIZED WITH PL500.
	Dye Stain	DRIED IN BIOLOGICAL EVIDENCE DRIER TIME: 3 HOURS, TEMP: 280 Pa, VISUALIZED WITH PL500
M7EQ7G	Cyanoacrylate Fuming	Arrowhead Forensic cyanoacrylate positive control checked, Lot #UK13419, Exp. 4/19. Mystaire fuming chamber with target humidity 70%, 10 minute fume cycle, 10 minute purge cycle. Case propped open during fuming.
	Bichromatic & Black Powders	Bichromatic powder applied to dark back of case, black powder applied to clear cover - interior & exterior.
MDW3JG	Visual Examination	visual/oblique lighting
	Alternate Light Source	RUVIS, Crime-scope 82s (Foster Freeman) blue/green w/orange filter & UV/clear filter
	Powder Dusting	Bichromatic powder - powder with brush

WebCode	Development Methods	Method Details
MF4HQM	Cyanoacrylate Fuming	CD case was placed, open, into Cyanoacrylate Fuming Chamber for approximately 20 minutes. Latent developed in section B on the inside of the CD Cover
	Dye Stain	CD case treated with Rhodamine 6G, rinsed with water, air-dried
	Alternate Light Source	No additional latents observed, but the latent in section B fluoresced with the Tracer Laser.
MFDFV6	Visual Examination	1ST VISUAL: PL500, PROCESSING TIME 09:45, ROOM TEMPERATURE (25°C)
	Cyanoacrylate Fuming	FUMING (MVC3000 AND CYANOBLOOM): GLUE TIME: 120°C, TIME: 35 MINUTES, HUMIDITY 70% AND PURGE CYCLE 15 MINUTES.
	Dye Stain	BASIC YELLOW: CHEMICAL FUME CABINET, PROCESSING TIME: 10:00 (2018/11/05) ROOM TEMPERATURE 25°C
MGRZNE	Visual Examination	ROFIN POLILIGHT FLARE+2 = WHITE LATENT PRINT VISIBLE
	Cyanoacrylate Fuming	MVC5000 FUMING CABINET, 2018/11/12 (0.72G GLUE) 12:00, 80% HUMIDITY, 150 MINUTES GLUE CYCLE, 40 MINUTES PURGE CYCLE
	Dye Stain	SPRAY METHOD (13:35)
MK9842	Visual Examination	POLIFLARE LIGHT SOURCES USED WITH WAVELENGTHS: 000nm, 415nm, 450nm, 505nm, 530nm & YELLOW, ORANGE, RED GOGGLES.
	FLOURESCENT EXAM	FLOURESCENT YELLOW POWDER USED WITH A FEATHER BRUSH.
	Cyanoacrylate Fuming	SUPERGLUE 601 USED WITH THE FUMING TENT: 80% HUMIDITY, 30°C, 20 MINUTES GLUE TIME (PROCESSING), 20 MINUTES PURGE, 5.627G GLUE.
	Dye Stain	BASIC YELLOW DYE STAIN USED BY DIPPING METHOD. DIPPED FOR 01 MINUTES AND AIR DRIED.
MKUYY8	Visual Examination	1ST VISUAL: USING PL500 POLILIGHT SOURCE RANGE 00nm TO 650nm WAVELENGTH, USING VARIOUS VIEWING GOGGLES.
	Cyanoacrylate Fuming	FUMING OF EXHIBIT USING MVC3000 CHAMBER WITH 10 DROPS OF CYANOBLOOM FOR 10 MINUTES AT 120 DEGREE CELSIUS, 80% HUMIDITY AND 20 MINUTES PURGE CYCLE.
	Visual Examination	VISUALIZATION USING ROFIN PL500 AT 00nm.
	Dye Stain	FLOURESCENT DYE STAINING: DYE STAINED EXHIBIT WITH R6G WATER BASE, RINSED WITH DISTILLED WATER AND DRY EXHIBIT INSIDE THE AIRVOLUTION.

WebCode	Development Methods	Method Details
MNWL3W	Visual Examination	I visually examined the jewel case for latent prints. No prints were collected at this time.
	Cyanoacrylate Fuming	I placed the item in the superglue chamber with a dime size amount of superglue placed on the hot plate and added a beaker full of hot water to raise the humidity in the chamber. I allowed the item to fume for 11 minutes.
	Powder Dusting	Black powder was applied to the jewel case using a disposable fingerprint brush.
MYDL7K	Visual Examination	Print noted/visible in section B
	Alternate Light Source	Print noted/visible in section B
	Cyanoacrylate Fuming	Lot # CA 170210, Control Good. Fumed for 5 minutes, Print developed in section B
	Powder Dusting	Dusted with black powder, Print developed in section B
MZ3X2J	Visual Examination	
	Alternate Light Source	Utilized 532nm Laser, 450nm blue light and 365nm UV.
	Cyanoacrylate Fuming	Performed VIS then utilized RUVIS and 254nm.
	Dye Stain	Applied RAM then utilized 532nm Laser, 450nm blue light and 365nm UV.
N3QQBT	Visual Examination	THE PRINT WAS VISIBLE WHEN VISUALIZED USING WHITE (000nm) LIGHT.
	Cyanoacrylate Fuming	POLYCYANO: THE PRINT WAS PROCESSED USING TWO (2) SCOOPS OF POLYCYANO IN A MVC3000 FUMING CHAMBER SET AT 230°C AND 80% HUMIDITY FOR 20 MINUTES.
N9VHMB	Visual Examination	FIRST VISUALIZATION: CHECKING FOR PRESENCE OF FINGERPRINTS IF VISIBLE ENOUGH BEFORE CHEMICAL INVESTIGATION. PL500 WITH VARIOUS LIGHTS AND GOGGLES UTILIZED. PROCESSED AT
	Cyanoacrylate Fuming	CYANOBLOOM: EXHIBIT FUMED IN MVC3000 CHAMBER AT 120°C WITH 80% HUMIDITY FOR 25 MINUTES.
	Dye Stain	EXHIBIT SPRAYED WITH BASIC YELLOW/METHANOL RINSED WITH WATER AND AIR DRIED IN EVIDENCE DRYER.
NMV7U6	Cyanoacrylate Fuming	CYANOBLOOM PROCESSING: ITEM 2 WAS PLACED IN THE MVC3000D USING 3 GRAMS OF CYANOBLOOM FOR 20 MINUTES AT 120°C, 80% HUMIDITY AND 85 MINUTES PURGE CYCLE.
	Dye Stain	DYE-STAINING PROCESSING: ITEM WAS DUE STAIN WITH RHODOMINE 6G METHANOL BASED DRIED IN THE EVIDENCE DRYER.

webCode	Development Methods	Method Defails
NV8F76	Cyanoacrylate Fuming	CYANOBLOOM: ITEM WAS PLACED IN MVC-3000 FOR 20 MINUTES WITH 120°C TEMPERATURE AND 75% HUMIDITY AND 20 MINUTES PURGE TIME.
P2Q4FZ	Visual Examination	LIGHT SOURCE: FIRST VISUALIZATION EQUIPMENT: PL500, WHITE LIGHT, CLEAR GOGGLES.
	Cyanoacrylate Fuming	FUMING OF EXHIBITS: EQUIPMENT: MVC3000, SUPERGLUE CYANOBLOOM - 1.2G AT 120°C, 72% HUMIDITY FOR 60 MINUTES.
	Dye Stain	DYE STAINED WITH RHODAMINE 6G/ETHANOL BASE AND PLACED IN DRYER FOR OVERNIGHT.
РЗЗМНН	Visual Examination	Visually looked at the item
	Alternate Light Source	used the 532nm Laser, 450 nm blue light, and 365nm UV
	Cyanoacrylate Fuming	performed a visual examination and then used the RUVIS 254nm
	Dye Stain	used RAM to dye stain and used the 532nm Laser, 450nm blue light, and 365nm UV
P7LULC	Visual Examination	FIRST VISUAL: VISUALIZED USING DIFFERENT POLIFLARES AND GOGGLES.
	Cyanoacrylate Fuming	CYANOBLOOM: FUMING THE EXHIBIT IN THE MVC3000 EQUIPMENT USING 2 GRAMS OF CYANOBLOOM FOR 30 MINUTES AT 120°C, 80% HUMIDITY AND PURGE CYCLE FOR 15 MINUTES.
	Dye Stain	BASIC YELLOW DYE STAIN: DYE STAINING EXHIBIT WITH BASIC YELLOW BATCH NO. BY401504 AND DRY IT THE EVIDENCE DRYER EQUIPMENT FOR OVER NIGHT.
PGBA6M	Visual Examination	Detail detected with white light, direct reflect technique.
	Cyanoacrylate Fuming	Atmospheric fuming, 15 minutes, 75% humidity followed up by visual exam - white light, oblique and direct reflect.
	Dye Stain	MRM-10 (tested first). Applied with a wash bottle and allowed to dry.
	Visual Examination	450 nm with an orange barrier filter.
PKMDFW	Visual Examination	FIRST VISUAL: VISUALIZED WITH ROFIN PL500 LIGHTSOURCE, WAVELENGTH VERYING FROM 0nm - 490nm, WITH CLEAR, YELLOW AND ORANGE GOGGLES.
	Cyanoacrylate Fuming	FUMING WITH POLYCYANO (NEL/02/2018 PC): PLACED IN MVC3000 USING 0.5G POLYCYANO FOR 20 MINUTES AT 230°C , 80% HUMIDITY AND 20 MINUTES PURGE CYCLE. HOLDING TIME OF 1 MINUTE.
	Powder Dusting	POWDERING WITH BLACK POWDER (BIFPP0916032): POWDERED WITH BLACK POWDER USING AN ANIMAL HAIR BRUSH.

TABLE 2 - Item 2

TABLE 2 -	- Item 2
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WebCode	Development Methods	Method Details
PKZ8VW	Visual Examination	FIRST VISUAL EXAMINATION:EXHIBIT WAS VISUALIZED WITH WHITE LIGHT, 450nm AND RESULTS WERE CAPTURED WITH WHITE LIGHT.
	Cyanoacrylate Fuming	EXHIBIT WAS PLACED IN THE MVC3000 WITH 0.6G OF POLYCYANO AT 230°C, 80% RH.
	Visual Examination	SECOND VISUAL EXAMINATION: THE EXHIBIT WAS EXAMINED AND RESULT CAPTURED WITH A 505nm LIGHT.
	Powder Dusting	THE EXHIBIT WAS POWDERED WITH BLACK POWDER AND RESULT CAPTURED WITH WHITE LIGHT.
PRL3W2	Cyanoacrylate Fuming	CYANOBLOOM: 03 DROPS OF CYANOBLOOM, MVC SET AT 120°C, 80% HUMIDITY FOR 20 MINUTES ON THE MVC.
	Dye Stain	RHODAMINE-6G: RHODAMINE-6G WAS APPLIED BY MEANS OF SPRAYING METHOD, RINSED OFF BY DISTILLED WATER AND ALLOWED TO DRY IN THE EVIDENCE DRIER.
PY62T2	Visual Examination	
	Fluorescence Examination	
	Cyanoacrylate Polymerization	Temperature on the heating plate: 100°C, humidification: 80%, time: 25 minutes
	Basic Yellow 40	
QA2MD6	Visual Examination	PL500
	Cyanoacrylate Fuming	MVC3000 USING CYANOBLOOM AT 120 DEGREE CELSIUS FOR 10 MINUTES WITH 60% RELATIVE HUMIDITY, PURGE 20 MINUTES.
	Visual Examination	PL500
	Dye Stain	DYED WITH R6G/WATER RINSED WITH WATER THEN DRIED IN THE EVIDENCE DRIER.
QEZU39	Visual Examination	Examined in the white light and the daylight.
	Cyanoacrylate Fuming	Processed in the Cyanoacrylate Chamber for 15 min., t - 120°C, RH - 80%.
QFPCT9	Visual Examination	
	Cyanoacrylate Fuming	Labroom Klimat Fuming cabinet, cabinet thermostat 70-100°C, plate thermostat 40-60 °C, 15 ml distilled water, 20 drops cyanoacrylate, 10 minutes fuming
	Basic Yellow	Basic Yellow mixture (2.0g Basic Yellow 40 + 1000 ml ethanol)
	Alternate Light Source	Light source Crime-Lite 42 S

WebCode	Development Methods	Method Details
QHFEVF	Visual Examination	Item was examined with oblique white lighting
	Cyanoacrylate Fuming	Item was fumed in a chamber for 10 minutes with a control. The chamber was vented for several minutes before the item was removed.
	[No Methods Reported.]	A RAW image of the impression was examined in Photoshop CS6 and contrast was adjusted to provide contrast
QUP9XR	Visual Examination	FIRST VISUAL: ROFIN PL500: LIGHT SOURCE
	POLYCYANO	MVC3000, TEMP: 230 DEGREE CELSIUS TIME: 45 MINUTES, RELATIVE HUMIDITY: 80% VISUALIZED WITH PL500.
	Dye Stain	RHODAMINE 6G: SPRAYED WITH R6G UNDER CHEMICAL FUME EXTRACTION AND DRIED INSIDE EVIDENCE DRYER FOR 3 HOURS AND 280 PASCAL.
QWY23T	Visual Examination	Visually examined under light source.
	Cyanoacrylate Fuming	Placed the CD case in superglue tank, along with hot water, and superglue. Let the superglue fume onto evidence item for approximately 15 minutes.
	Powder Dusting	Using a brush and black powder, I applied black powder over the entire surface area of the CD case.
R2JKMU	Visual Examination	PL500 (000nm, 450nm, UV LIGHT) GOGGLES (CLEAR, YELLOW ORANGE)
	Cyanoacrylate Fuming	1.7G CYANOBLOOM, TEMPERATURE: 120°C, HUMIDITY: 80%, GLUETIME: 20 MINUTES, PURGE: 20 MINUTES, PL500, GOGGLES (000nm, CLEAR GOGGLES)
	Dye Stain	DRYING TIME: +/- 1 HOUR PL500, GOGGLES (505nm, ORANGE GOGGLES)
R6HWKE	Visual Examination	
	Alternate Light Source	532nm LASER, 450nm, 365nm UV
	Cyanoacrylate Fuming	Examined visually and under RUVIS (254nm)
	Dye Stain	Visualized under 532nm LASER, 450nm, 365nm UV
RDET8H	Visual Examination	000nm, 350nm, 450nm, 505nm
	Cyanoacrylate Fuming	000nm, NO FILTER, MVC3000, 20 MINUTES FUMING TIME, 80% HUMIDITY
	Dye Stain	RHODAMINE 6G, 505nm, ORANGE FILTER, AIR DRIED
REA6BX	Visual Examination	VIEWING OF EXHIBIT WITH WHITE LIGHT 0nm. NO CHEMICAL USED.
	Cyanoacrylate Fuming	FUMING IN MVC3000. THE EXHIBIT WAS FUMED WITH POLYCYANO AT 230°C, USING 2 SCOOPS OF POLYCYANO FOR 20 MINUTES AND 80% HUMIDITY. PURGE CYCLE WAS 20 MINUTES.

WebCode	Development Methods	Method Details
RGD64H	Cyanoacrylate Fuming	POLYCYANO: AT 230°C IN MVC3000 FOR 20 MINUTES AT 70% HUMIDITY.
	Dye Stain	AT ROOM TEMPERATURE AND RINSED WITH WATER. EXHIBIT WAS DRIED IN THE EVIDENCE DRYER.
RNVFGH	Cyanoacrylate Fuming	EXHIBIT WAS PLACED INSIDE THE MVC3000 AND 1000 GRAMS OF CYANOBLOOM WAS MEASURED AND DISTILLED WATER POURED INTO THE MACHINE. TEMPERATURE WAS SET ON 70% AND RELATIVE HUMIDITY 70%.
	Dye Stain	RHODAMINE 6G
RPBNVD	Visual Examination	Impression visible with and without oblique lighting
	Alternate Light Source	RUVIS system - Sirchie Krimesite Imager, impression visible Foster + Freeman 82s' - UV and Blue-green with orange barrier filter - diminished quality
	Powder Dusting	black magnetic powder
RPTWJ8	Powder Dusting	Black, twirl method - covering surface 5 seconds using a fingerprint brush
RQPA7Z	Cyanoacrylate Fuming	80% humidity for 15 min. 20 min purge. 20 min rest.
	Powder Dusting	Black powder
RRZ8JH	Visual Examination	white light
	Powder Dusting	black powder
RVC8NV	Cyanoacrylate Fuming	CFC/POLYCYANO: TEMPERATURE: 230°C, RELATIVE HUMIDITY: 80°C, PROCESSING TIME: 20 MINUTES
T2G39V	Visual Examination	LIGHT SOURCE: FIRST VISUALIZATION, EQUIPMENT: ROFIN PL500, WHITE LIGHT CLEAR GOGGLES.
	Cyanoacrylate Fuming	FUMING OF EXHIBIT: EQUIPMENT: MVC3000, SUPERGLUE: CYANOBLOOM AT 120°C, 72% HUMIDITY FOR 60 MINUTES.
	Visual Examination	LIGHT SOURCE: SECOND VISUALIZATION: EQUIPMENT: CYANOBLOOM: ROFIN PL500, 000nm LIGHT, CLEAR GOGGLES.
	Dye Stain	DYE STAINED WITH RHODAMINE 6G/ETHANOL AND PLACED IN DRYER FOR OVERNIGHT.
	Visual Examination	LIGHT SOURCE: THIRD VISUALIZATION: EQUIPMENT: ROFIN PL500, 505nm LIGHT, OTWNGR.
T8RCGD	Cyanoacrylate Fuming	positive indication in B
TE73WD	Cyanoacrylate Fuming	20 minutes, RH-80%
	Basic Yellow 40	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
TJKNZH	Visual Examination	Visually examined for prints and took note page photos
	Cyanoacrylate Fuming	Used MVC5000 chamber (20 minutes)
	Powder Dusting	Applied magnetic and black powder to develop prints
TMU38V	Visual Examination	FIRST VISUAL: ROOM TEMPERATURE NAKED EYE
	Cyanoacrylate Fuming	FUMING TENT 30°C 80% 20 MINUTES
	Dye Stain	RHODEMINE-6G AND DRYED
TNT8NP	Visual Examination	FIRST VISUAL: GENERAL SEARCHING WITH LIGHTS (nm) 400 - 680nm (WHITE LIGHT) 350, 450, 470, 490 & GOGGLE ORANGE, YELLOW, CLEAR & RED AT 17:50 ON 2018/11/02
	Cyanoacrylate Fuming	FUMING (CYANOBLOOM): EXHIBIT TREATED WITH CYANOBLOOM IN MVC3000 WITH 0.991GRAMS FOR 150 MINUTES AT 120°C, RH = 70%, 20 MINUTES PURGE CYCLE AT 19:36 ON 2018/11/02
	Visual Examination	VISUALIZED WITH LIGHTS (nm) 400 -680 (WHITE LIGHT) 350, 450, WITH GOGGLES CLEAR, YELLOW AND ORANGE ON 2018/11/02 AT 20:15 AND CAPTURED IMAGE B(1) WITH WHITE LIGHT AND NO FILTER
	Dye Stain	RHODAMINE 6G METHANOL BASE WITH UNIQUE NMBER R6GMETH 02/10/2018W AND PLACED IN DRIER. DYE STAINED AT 14:55 ON 2018/11/03
	Visual Examination	POST DYE STAIN VISUAL AT 16:30 2018/11/03 WITH LIGHTS (nm) 450, 470, 490, 505, 530, & 5550 WITH GOGGLES ORANGE & RED AND CAPTURE IMAGE B(1) WITH LIGHT 505nm, FILTER 555nm AT 16:35 ON 2018/11/03
TRV2NF	Alternate Light Source	White light, blue/green, green, UV.
	Cyanoacrylate Fuming	Humidity 80%, humidity cycle: 15 min, glue cycle: 15 min, purge cycle: 40 min.
	Alternate Light Source	White light.
	Dye Stain	staining with basic yellow 40, rincing with water
	Alternate Light Source	fluorescence examination with polylight (400-548 nm)
U38TM9	Visual Examination	After exhibit was removed from the envelope it was visualised using white light.
	Cyanoacrylate Fuming	Polycyno (2.4g) was used to process exhibit into MVC 3000 at 230°C, 80% humidity for 20 minutes, 20 purge.
U7C3CJ	Visual Examination	flashlight. Area 2B (quadrant B from the CD case cover) was preserved through digital imaging.
	Cyanoacrylate Fuming	12 min, control positive. Area 2B was re-photographed
	Dye Stain	R6G, 532nm, Control Positive, Orange Filter. Area 2B was re-photographed

WebCode	Development Methods	Method Details
UB6APZ	Visual Examination	
	Cyanoacrylate Fuming	Humidity cycle: 80% 15min. Glue cycle: 80%, 16 mins., 120 degrees Celcius. Purge cycle: <80%, 20 mins.
	Powder Dusting	Bichromatic powder & brush
UBM8W7	Cyanoacrylate Fuming	CYANOBLOOM: 3.0 GRAMS CYANOBLOOM, 75% HUMIDITY, 120°C TEMPERATURE 20 MINUTES PROCESSING TIME, 20 MINUTES PURGE, MVC300 MACHINE.
	Dye Stain	BASIC YELLOW - ETHANOL DYE STAIN SPRAY AND RINSE EXHIBIT DRYER FOR 30 MINUTES.
UE28QC	Visual Examination	White Light followed by Blue light source 420-470nm, green light and UV
	Cyanoacrylate Fuming	CNA Batch #082714
	Dye Stain	Treated CNA mark with BY40 Batch BY40E009/18
UE4WVA	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Temperature: 120°C +/- 5°, Humidity: 75% +/- 15%
	Dye Stain	Ardrox, 415nm, yellow filter

WebCode	Development Methods	Method Details
UEG9UE	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. Mark identified in section B and photographed.
	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 CAST validated/ internally verified procedure. BY40 dye applied to CD case 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. Mark identified at the Visual examination was further enhanced and photographed.
	Wet Powder Suspension	Titanium Dioxide (white) powder Suspension used, carried out as per CAST validated/internally verified procedure. CD case pre-rinsed, Powder Suspension applied to CD case 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. Mark identified at the visual examination was further enhanced and photographed.
UEYEVP	Visual Examination	White light
	Cyanoacrylate Fuming	Processing time 15 min
	Dye Stain	Basic Yellow 40
V8FGXP	Visual Examination	FIRST VISUAL EXAMINATION: WHITE LIGHT (000nm) USING ROFIN PL500 WITH NO FILTER
	Cyanoacrylate Fuming	CYANOBLOOM FUMING: ITEM 2 PLACED IN MVC3000 SET AT 120°C AND 80% HUMIDITY
	Dye Stain	RHODAMINE 6G: ITEM 2 DYE STAINED WITH RHODAMINE/6G AND PLACED IN A DRIER (EVEIDENCE DRIER) FOR ONE HOUR.

WebCode	Development Methods	Method Details		
V9PNYW	Cyanoacrylate Fuming	CYANOBLOOM (MVC3000D): USING 3 DROPS OF CYANOBLOOM, TEMPERATURE SET AT 120°C FOR 20 MINUTES AND 80% HUMIDITY.		
	Dye Stain	RHODAMINE 6G: PLACED IN CHEMICAL FUMING CABINET AT ROOM TEMPERATURE THEN TO THE EXHIBIT DRIER FOR 1 HOUR.		
VB27BF	Visual Examination			
	Cyanoacrylate Fuming			
	Dye Stain	Rhodamine 6G		
	Alternate Light Source	Laser		
VEZKX6	Cyanoacrylate Fuming	20 minutes in portable chamber		
VFE32B	Visual Examination	Visual examination conducted of Item 2. One area of ridge detail observed (designated as LP2-1 and photographed).		
	Cyanoacrylate Fuming	Item 2 was processed with cyanoacrylate fuming. Item was placed in a secure chamber where humidity was allowed to reach $\sim$ 60% with the use of a hot plate and warm water. One the humidity was reached, cyanoacrylate was introduced into the chamber with the use of a hot plate. Item was allowed to fume for $\sim$ 5 minutes before superglue hot plate was unplugged from the heat source and the chamber was vented. Item remained in chamber until sufficient amount of fumes had evacuated the chamber and was removed for an additional visual exam and then followed by additional photo documentation.		
	Dye Stain	Once photographed, Item 2 was then treated with a methanol based dye stained using a spray bottle (Rhodamine 6G). Item was rinsed using a spray bottle to coat the item with the dye stain. Once item was thoroughly coated, then followed up with a methanol rinse, again, thoroughly coating entire surface of item. Followed up with applying forced air to item to assist with even drying.		
	Alternate Light Source	Item 2 was then followed up using laser visualization set at a known wavelength of 532 nm with an orange barrier filter.		
VNPBKX	Visual Examination	Processing time: 1 minute		
	Cyanoacrylate Fuming	Processing Time: 51 min, Humidity cycle: 15 min @ 80%, Glue cycle: 16 min @ 120 degrees Celsius, Purge cycle: 20 min at <80%		
	Powder Dusting	Processing Time: 3 minutes; bichromatic powder		
VPENYA	Visual Examination	1st. Visual Examination: Visible light, 415-650 nm, UV, 2nd. Cyanoacrylate Fuming: Air Science CA 30S, Cyano Powder, humidity 75%, time 40 minutes, hot plate 230 degrees Celsius, 3rd. Dye Stain: Basic Yellow 40, 415-495 nm		

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
VPNA47	Visual Examination	VIEWED WITH AMBIENT/WHITE, UV, GREEN (TRACER), BLUE
	Cyanoacrylate Fuming	CApture-BT chamber for 7 minutes
	Dye Stain	BY40, blue light
VXAR37	Visual Examination	POLIFLARE WHITE LIGHT
	Cyanoacrylate Fuming	CYANOBLOOM: 3.28G OF CYANOBLOOM, EXHIBITS WERE PLACED IN THE MVC3000 SET AT 120°C AND 80% HUMIDITY FOR 25 MINUTES.
	Dye Stain	RHODAMINE6G: EXHIBITS WERE SPRAYED WITH RHODAMINE 6G SOLUTION AND PLACED ON THE EVIDENCE DRIER OVERNIGHT (24 HOURS)
VZYXKG	Visual Examination	at room temperature
	Powder Dusting	black powder
W4U774	Visual Examination	FLOURESCENT EXAMINATION: LIGHT SOURCE: ROFIN PL500 WAVELENGTH 350nm, 505nm, WITH CLEAR AND ORANGE GOGGLES.
	anti-stokes laser Viewing enclosure (asv)	ANTI STOKES POWDER WAS APPLIED ON ITEM A2 USING MAGNETIC BRUSH.
	Cyanoacrylate Fuming	SUPERGLUE (CYANOACYLATE): IEM WAS EXPOSED TO CYANOBLOOM VAPOUR IN AN ENCLOSED MVC3000 AT 120°C TEMPERATURE AND 80% HUMIDITY FOR 10 MINUTES.
	Dye Stain	RHODAMINE 6G: SPRAYING METHOD WAS USED - EXHIBIT/ITEM WAS IMMEDIATELY RINSED UNDER COLD RUNNING TAP WATER AND PLACED IN THE EVIDENCE DRIER TO AIR DRY.
W7JDNE	Visual Examination	white light and fluorescence examination 350nm - 650nm
	Cyanoacrylate	processing in fuming cabinet for 15 minutes heat superglue to about 120°C and humidity 75% Rh, exam with white light and 450nm
	Basic Yellow 40	the solution was applied by spraying and the excess was rinsed, exam with 350-450nm
W8D28A	Visual Examination	in natural light and light from forensic illuminator, print was observed in section B
	Cyanoacrylate Fuming	time- 15 min., RH - 80%, glue - 2g, developed fingerprint didn't became any better
	Basic Yellow 40	to achive even better contrast - positive result
WAE8KV	Cyanoacrylate Fuming	Visual examination and straight photography + fuming. Very visible print.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details			
WAHWNR	Visual Examination	We could see some kind of fingerprint in the B-section.			
	Alternate Light Source	We found a very good fingerprint in the B-section by using light sources.			
	Cyanoacrylate Fuming	In a real case it wouldn´t have been necessary to use any further method, but we trained and went on with the cyanocrylate fuming method.			
	Basic Yellow 40.	We immersed the fumed plastic CD case cover in the Basic Yellow 40 mixture, then lifted it up and waited for the Basic Yellow to adhere to the glue.			
WNMYHM	Visual Examination	Fluorescent lightning			
	Cyanoacrylate Fuming	Lot #CA180717. In super glue chamber for 30 minutes fuming then 30 minutes purging.			
	Dye Stain	Ardrox. Lot #ARD180515. Dried in hood.			
	Powder Dusting	black powder.			
WRKCCD	Visual Examination	White ambient light. Print detected with great visual details.			
	Cyanoacrylate Fuming	No improvement in details of the print.			
	Dye Stain	Basic Yellow 40. No improvement of the details of the print but enhanced contrast. ALS, alternate light source, (Blue light 430-470 nm).			
WV73PP	Visual Examination	Note page photographs taken.			
	Cyanoacrylate Fuming	Fumed in chamber for 20 minutes.			
	Powder Dusting	Applied black magnetic powder.			
	Powder Dusting	Applied black powder.			
WVF3F4	Visual Examination	White light			
	Cyanoacrylate Fuming	Cyanoacrilate fuming chamber "Air Science SafeFume 48S", cyanoacrylate B-83050 BVDA, humidity 80%, procesing time 15 min, room temperature 21 C.			

WebCode	Development Methods	Method Details
WXRZQZ	Visual Examination	USING WHITE CRIME LITE, PHOTOGRAPHED AND LABELLED AS VIS1 WITH 22MM GREY STICKY LABELS. CALIBRATED LABEL AND WOULD BE SENT THROUGH TO RIB VIA REMOTE TRANSMISSION USING DCS4 SOFTWARE.
	Cyanoacrylate Fuming	USING MVC #5000 SUPERGLUE CABINET #3, SUPERGLUE BATCH # 82714, HUMIDITY OF 80% AND TEMPERATURE OF 120C. SUPERGLUE CABINET WAS PLACED ON AUTO CYCLE AND PURGED FOR 45 MINUTES. CONTROL SAMPLE WAS USED WITH SUPEGLUE BATCH (CONSISTED OF FOIL).
	Dye Stain	USING BY40 STAIN WITH ETHANOL- BATCH NUMBER # 15AS891. THE EXHBIT WAS PLACED IN THE STAIN FOR 10 SECONDS AND THEN WASHED OFF WITH COLD RUNNING WATER. ONCE DRIED, IT WAS THEN EXAMNED IN DARK PHOTOGRAPHY ROOM WITH BLUE CRIME LITE (430NM- 470NM) AND YELLOW FILTER GOGGLES.
WZZ4MX	Visual Examination	
	Cyanoacrylate Fuming	Humidity cycle 80% 15 minutes, glue cycle 80% 16 minutes 120C, Purge cycle <80%
	Powder Dusting	Bichromatic powder and brush
X2L8VU	Cyanoacrylate Fuming	Humidity cycle: 80% for 15 minutes, Glue cycle: 16 minutes at 120 C, Purge cycle: <80% for 20 minutes
	Visual Examination	Visualization examination performed before and after cyanoacrylate fuming.
	Powder Dusting	Powder dusting was performed after cyanoacrylate fuming. Bichromatic powder was used.
X88DYV	Visual Examination	1ST VISUAL: PL500 AT 000nm
	Cyanoacrylate Fuming	CYANOBLOOM: MVC3000 FOR 30 MINUTES AT 120°C, 70% HUMIDITY AND 15 MINUTES PURGE CYCLE.
	Dye Stain	CHEMICAL FUME CABINET, ROOM TEMPERATURE (25°C) AT 10:00, EVIDENCE DRIER FOR 15 HOURS.
X9GD43	Cyanoacrylate Fuming	MVC-3000: 3 GRAMS OF POLYCYANO UV WITH BATCH NO: 15702 AT 230°C, HUMIDITY OF 75, RUNNING TIME OF 20 MINUTES USING DISTILLED WATER AS HUMIDIFIER.
XF8F29	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Powder Dusting	black powder

TABLE 2 - Item 2

WebCode	Development Methods	Method Details		
XGFUY2	Visual Examination	white light		
	Cyanoacrylate Fuming	room temperature, humidity added with hot water bucket in chamber, vacuum fuming, test print used, observed results with white light		
	Ninhydrin	room temperature, test print used, steam iron, observed results with white light		
	Gentian Violet	room temperature, test print used, observed results with white light		
XKEZTL	Visual Examination	Print was visible. Photographed for documentation.		
	Cyanoacrylate Fuming	Processed for approximately 1.5 hours in a fuming tank.		
	magnetic dusting	used black magnetic dusting powder.		
XQLN99	Visual Examination			
	Cyanoacrylate Fuming	temp. 21oC, humidity 80%, time 15 min		
	Dye Stain	Basic Yellow light 350-505 nm		
XTA4HG	Visual Examination	PL500, White light, clear goggles		
	Cyanoacrylate Fuming	MVC3000, 40 drops, 30minutes, 80% humidity, 120°C, 15 minutes		
	Visual Examination	PL500, White light, clear goggles,		
	Dye Stain	Rhodamine 6G Dyestain, dipping method, evidence drier		
	Visual Examination	PL500, 450nm, orange goggles		
XWB8A4	Cyanoacrylate Fuming	Exhibit was fumed in the MVC 3000, Where 10 drops of Cyanobloom (glue) was used for 20 minutes at 120°C, 80% humidity.		
Y22NN3	Visual Examination	Visualized with white light source (flashlight) at oblique and direct angles.		
	Cyanoacrylate Fuming	Visualized with white light source (flashlight) at oblique and direct angles.		
	Dye Stain	Ardrox fluorescent dye utilized. Visualized with ALS at 415nm with a yellow barrier filter.		
Y7FNKU	Visual Examination	Naked eye, oblique lighting		
	Cyanoacrylate Fuming	Auto cycled programmed parameters: Humidity 80% RH ~15 mins. Glue 80% RH ~15 mins 120 degree C, Purge <80% RH ~20 mins		
	Powder Dusting	Fiberglass brush used to apply bichromatic powder till adequate development observed		

WebCode	<b>Development Methods</b>	Method Details			
Y7RCU8	Visual Examination	Using a bright white light, I visually examined item 2 for latent fingerprints. A latent fingerprint was visually seen on item 2 (Quadrant B, whorl). A supervisor reviewed the latent print found before I continued my exams.			
	Alternate Light Source	Three light sources were used to examine item 2 for latent fingerprints. I used a 365nm UV light, a 450nm blue light and a 532nm laser within the alternate light source room. While examining this item under different alternate light sources, I was wearing the appropriate goggles per light source. No additional latent prints were discovered under the alternate light source processing step.			
	Cyanoacrylate Fuming	Item 2 was then super-glued. Using a superglue chamber and weighed out glue, I placed item 2 within the chamber (item 1 was present in the chamber as well). The items were not touching and had ample space in between as to ensure all areas of each item could be glued. Once the cycle was complete, I visually examined each item using a bright white light. Next, I used the RUVIS (254nm) to analyze the items for latent fingerprints. No additional latent fingerprints were discovered during cyanoacrylate fuming.			
	Dye Stain	The plastic CD cover (item 2) was then sprayed with RAM (forensic dye stain) using a squirt bottle. Latent fingerprints on items that have been processed with RAM will excite at different wavelengths, therefore three light sources were used. To examine item 2 for latent fingerprints, I used a 365nm UV light, a 450nm blue light and a 532nm laser within the alternate light source room. While examining this item under different alternate light sources, I was wearing the appropriate goggles per light source. No additional latent prints were discovered under the dye stain processing step.			
Y8NPGZ	Visual Examination	Natural light, white light.			
	Cyanoacrylate Fuming	The latent print was 25 minutes (80% - humidity). The latent prin was recovered in section "B".			
YMLMUX	Visual Examination	used ambient lighting and flashlight			
	Cyanoacrylate Fuming	increased humidity and temperature to 62% relative humidity and 75 degrees Fahrenheit (took about 15 minutes), then heated the CAE for about 7 minutes before venting (additional 15 minutes)			
	Visual Examination	visual examination using ambient lighting and flashlight			
	Dye Stain	Rhodamine 6G (Methanol-based) - applied R6G (MeOH) via spray bottle			
	Alternate Light Source	laser exam with green laser at 532 nm with orange goggles			

TABLE 2 -	Item 2
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WebCode	Development Methods	Method Details		
YUHM76	Visual Exam	Room light		
	Cyanoacrylate Fuming Chamber (CFC)	Approximately 20 drops; + control; fuming chamber: humidity - 70%, fume time - 10 min, purge time - 10 min		
	Powder Dusting	Bichromatic powder		
YYRUGG	Visual Examination	The exhibit was visualised using white light and the print was identified.		
Z642T8	Cyanoacrylate Fuming			
ZDA3RD	Visual Examination	White light, Crimelite 80S 430-470nm		
	Cyanoacrylate Fuming	BVDA Glue, Foster Freeman MVC 3000, 80% RH, 4 minutes. Examination: White light		
	Dye Stain	Basic Yellow 40, dipping, rinsing in water, drying in cabinet. Examination: Crimelite 80S 430-470nm		
ZDCHG8	Visual Examination	White light. Print visible in Section B.		
	Alternate Light Source	Multiple filters applied. Print visible in Section B.		
	Cyanoacrylate Fuming	Thirty minute fume time at 80% humidity. Print visible in Section B.		
	Dye Stain	MBD dye stain applied. Print visible in Section B under alternate light source.		
	Powder Dusting	Powder dusting of positive results after photographing.		
ZH3YNQ	Cyanoacrylate Fuming	ONE SCOOP OF POLYCYANO UV INTO A CUP FOIL. FILLED DISTILLED WATER TO A MAXIMUM LEVEL AND LOAD EXHIBITS FOR 20 MINUTES TEMPERATURE 230°C UV TIME 15 MINUTES HOLD TIME 15 MINUTES AND RH AT 80%		
	Dye Stain	RHODAMINE6G: DIPPED IN R6G AND IMMEDIATELY RINSED WITH TAP WATER. LOADED INTO THE EVIDENCE DRIER.		
ZL3AFK	Visual Examination	Visual examination; a patent print (ridge detail) was observed and photographed in box B		
	Cyanoacrylate Fuming	8 minutes at 80% humidity. Ridge detail was observed in box B.		
	Dye Stain	Rhodamine 6G; viewed with a TracER Laser Light System with orange goggles. Ridge detail was still observed in box B.		
ZMBKB3	Visual Examination	FIRST VISUAL EXAMINATION: ROFIN PL500, WHITE LIGHT IN DARK ROOM TIME: 10:00		
	Cyanoacrylate Fuming	2 SCOOPS POLYCYANO UV, 230°C AND 80% HUMIDITY FOR 20 MINUTES AT 11:37		
	Visual Examination	ROFIN PL500, 450nm, ORANGE GOGGLES AND 550 FILTER AT 14:15		
	Dye Stain	RHODAMINE 6G: EXHIBIT SPRAYED USING R6G RINSED AND PLACED IN A DRIER AT 14:25		

WebCode	Development Methods	Method Details
ZMDAEZ	Visual Examination	FLOURESCENT EXAMINATION: WAVELENGTH USED = 505nm WITH NO FILTER
	ANTI-STOKES LASER VIEWING ENCLOSURE (ASV)	MINIMAL ANTI-STOKES POWDER WAS USED WITH A MAGNETIC BRUSH
	Cyanoacrylate Fuming	SUPERGLUE: CYANOBLOOM WAS USED ON EXHIBIT AND THE MVC3000 CYANOACRYLATE FUMING CHAMBER WAS USED. TEMPERATURE WAS SET AT 120°C AND HUMIDITY WAS SET AT 80%. THE PROCESSING TIMES WAS 10 MINUTES AND A PURGE TIME OF 20 MINUTES.
	Dye Stain	SPRAYING METHOD WAS USED. AFTER SPRAYING EXHIBIT WAS IMMEDIATELY RINSED UNDER COLD, GENTLEY RUNNING TAP WATER TO REMOVE EXCESS DYE. EXHIBIT WAS PLACED IN EVIDENCE DRYER TO AIR DRY.
ZQE9X6	Cyanoacrylate Fuming	ran 1 cycle of super glue fuming chamber
	Dye Stain	dye stain applied over super glue.
ZTZ4AC	Visual Examination	PL500 - White light, clear goggles
	Cyanoacrylate Fuming	MVC3000 -2 Scoops of polycyano powder 20 minutes, 230°C, 80RH, 15minutes purge cycle
	Visual Examination	Onm light source, clear goggles
	Dye Stain	Dipping method - evidence dryer
	Visual Examination	505nm light source, yellow goggles
ZXGABR	Visual Examination	
	Alternate Light Source	Fluorescence examination
	Cyanoacrylate Fuming	Temperature of the heating plate = 100 Celsius degrees, Huminity = 80%, Time= 35 minutes
	Dye Stain	Basic Yellow 40

TABLE	2	-	ltem	2

Response Summary				Participants: 249	
		Methods Utilized			
Alternate Light Source	41	Physical Developer	0	<b>**Note</b> : Methods listed are	
Cyanoacrylate Fuming	227	Powder Dusting	74	the preloaded options for selection via the CTS Portal	
DFO	0	Visual Examination	225	and do not reflect all answers	
Dye Stain	136	Wet Powder Suspension	1	provided by participants.	
Ninhydrin	1	1,2-Indanedione	0		

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
28YDQQ	Visual Examination	FIRST VISUAL: PL500 @ 000nm TIME: 12:30, ROOM TEMPERATURE (18°C)
	DFO	DFO/HFE: ROOM TEMPERATURE 18°C FOR 30 MINUTES. NINCHA @ 100°C
	Ninhydrin	NINHYDRIN/HFE: ROOM TEMPERATURE 18°C FOR OVERNIGHT (24 HOURS)
2DQGVF	Visual Examination	Only visual inspection done in room and oblique lighting. Did not process. The laboratory currently does not have a method to process for latent prints on paper items.
2JNATN	DFO	NINCHA \$31 SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	NINCHA S31 SET AT 65°C AND 70% HUMIDITY FOR 20 MINUTES.
2QFFLJ	Visual Examination	Using a white light
	1,2-Indanedione	Was applied using a squirt bottle and then the envelope was placed in the oven for approximately one hour. The item was then examined using an ALS.
2UPXKL	DFO	DFO/HFE: NINCHA, 100, 20 MINUTES
	Ninhydrin	NIN/HFE: NINCHA 60°C, HUMIDITY 60%
2WK3RZ	Visual Examination	inspection with visible light 532 nm laser/orange filter
	1,2-Indanedione	saturation 532 nm laser/orange filter
	Ninhydrin	saturation inspection with visible light
2WXW92	Visual Examination	lighted magnification
	Ninhydrin	sprayed
	Steam Iron / humidity	
2Y84BU	Visual Examination	ambient lighting
	1,2-Indanedione	heat press at 165 degrees C for approximately 10 seconds
	Ninhydrin	Caron heat/humidity chamber at 80 degrees C and 70% humidity for approximately 15 minutes
	Physical Developer (PD)	approximately 20 minutes in PD solution
368RGZ	Ninhydrin	AFTER CHAIN OF CUSTODY PHOTOS AND FIRST VISUAL INSPECTION WERE DONE ON ITEM 3, CONTROL SAMPLE WAS PROCESSED WITH NINHYDRIN METHANOL SOLUTION DATED 2018/10/26 (IN-HOUSE PREPARED LOT NO. 17H214110. RESULT POSITIVE. THEN ITEM 3 WAS TAKEN THROUGH THE SAME PROCESS AS THE CONTROL SAMPLE.

WebCode	Development Methods	Method Details
38DC8L	Visual Examination	TIME 09:35, LIGHT SOURCE USED: ROFIN PL500 WITH 000, 350, 590nm VIEWING GOGGLES USED: CLEAR, ORANGE UNTIL ENTIRE SURFACE IS VIEWED +/- 7 MINUTES.
	DFO	TREATING ITEM 3 WITH DFO: TIME 09:45, USING DIPPING METHOD TO TREAT ITEM 3 AND PLACE INTO NINCHA AT 100°C FOR 150 MINUTES.
	Ninhydrin	TREATING ITEM 3 WITH NINHYDRIN: TIME: 11:00, USING DIPPING METHOD TO TREAT ITEM 3 AND PLACE INTO NINCHA AT 65°C AND 75% RELATIVE HUMIDITY FOR 20 MINUTES.
3AJG2A	Visual Examination	Visualised the item with Rofin PL500 using white light before applying chemicals to see if there are any visit prints.
	Powder Dusting	Item was dusted with orange fluorescent powder while using orange goggles and 505, 490, 470, 450 and 415 Rofin PL 500 as a light source.
	DFO	Item was dipped into DFO/Ethyether prepared solution for 3 minutes, dried in extraction. Cabinet the placed in Nincha for 20 minutes at 100°C.
	Ninhydrin	Item was placed into Ninhydrin Acetone prepared solution for 3 minutes, dried in extraction cabinet. Placed in Nincha for 20 minutes at 70°C, 80% RH.
3F9YQ7	Ninhydrin	Item dipped in ninhyddrin then moist heat applied with iron
3NHJLM	Visual Examination	VIEWING OF EXHIBIT WITH WHITE LIGHT, UV & 505nm. NO CHEMICALS USED.
	DFO	TREATED WITH DFO/HFE: DIPPED IN DFO/HFE BASE, ALLOWED TO DRY & PLACED IN NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	TREATED WITH NINHYDRIN/METHANOL: DIPPED IN METHANOL/NINHYDRIN BASE, ALLOWED TO DRY & PLACED IN NINCHA SET AT 70°C, 80% HUMIDITY FOR 20 MINUTES.
3PE2HW	Visual Examination	White light
	Ninhydrin	Nynhidrin spray "Nin-print" B-78500, BVDA. Room temperature 20.4oC. Room humidity 46%. Spraying time 5-6 sec. Procesing time 5 days.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
3Q8Q6Y	Visual Examination	FIRST VISUAL EXAMINATION OF RESULTS: POLIFLARE (PL500), LIGHTS 450 - 590nm WITH ORANGE GOGGLES.
	CHEMICAL EXTRACTION CABINET	FOR SPRAYING OF NINHYDRIN SOLUTION TO THE EXHIBITS OR ITEM AND DRIED IT FOR 2 HOURS TO DEVELOP.
	Visual Examination	SECOND VISUAL EXAMINATION OF RESULTS: POLIFLARE (PL500), LIGHTS 450 - 590nm WITH ORANGE GOGGLES.
	Ninhydrin	NINCHA S31 MACHINE: FOR DEVELOPENT OF LATENT PRINT WITH TEMPERATURE OF 60°C, HUMIDITY OF 65% FOR 20 MINUTES TIME PERIOD.
	Visual Examination	THIRD VISUAL EXAMINATION OF RESULTS: POLIFLARE (PL500); LIGHTS 450 - 590nm WITH ORANGE GOGGLES.
3X8A3N	Development of latent prints on porous surfaces	Aplication of chemical reagent Ninhydrina spray
42KGYL	Visual Examination	Rofin PL500, White light, clear goggles
	DFO	Spraying method, air dried in the extraction cabinet and placed in Nincha 531 for 15 minutes at 100°C with no humidity.
	Ninhydrin	Spraying method, sir dried in the extraction cabinet and placed in Nincha 531 for 20 minutes at 70°C with 75% humidity.
43DBQN	Visual Examination	No visible staining
	Ninhydrin	Special Formula drying time 20 mins
	Steam iron	10-15 Min to developed
43FWM6	Ninhydrin	Saturate paper with spray ninhydrin.
	Visual Examination	Paper allowed to air dry until 11/09/18. Possible discolorization observed, but no suspected print observed.
	Ninhydrin	Resaturated paper with spray ninhydrin on 11/09/18.
	lron	Using a clothing iron, ironed paper between two pieces of paper; using the heat to dry the paper. No suspected print observed.
48PDJL	DFO	DFO/PETROLEUM ETHER USING NINCHA S31: 100°C AND 0% HUMIDITY AT 20 MINUTES.
	Ninhydrin	NIN/ACETONE USING NINCHA \$31: 65°C AND 65% HUMIDITY AT 20 MINUTES.
4A2RN9	Visual Examination	with natural lighting - no visible latent print
	lodine	with natural lighting - no visible prints
	DFO	heat / no humidity / alternate light source - no visible prints
	Ninhydrin	heat / with humidity / print enhanced in section C
	Silver Nitrate	UV light - no further enhancement of print

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
4BCQTP	Visual Examination	FIRST VISUAL EXAMINATION: ROFIN PL500USED, WHITE LIGHT (000nm) 10:55
	DFO	DFO/HFE (DIPPING METHOD): EXHIBIT DIPPED, PLACED INSIDE NINCHA S31 100°C FOR 20 MINUTES, 11:50
	Visual Examination	PL500, 470nm, ORANGE GOGGLES, 12:20
	Visual Examination	BIBHYDRIN/METHANOL: EXHIBIT SPRAYED USING NINHYDRIN/METHANOL, PLACED INSIDE NINCHA S31, 60°C AT 65%, 20 MINUTES, 12:40
4CGK4F	DFO	ITEM 3 WAS TREATED WITH DFO/HFE PLACED IN NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	ITEM 3 WAS TREATED WITH NINHYDRIN/HFE PLACED IN NINCHA SET AT TEMPERATURE 80°C AND HUMIDITY AT 65% FOR 20 MINUTES.
4ECW8V	DFO	DIPPED IN DFO HFE SOLUTION: DRIED IN NINCHA MACHINE AT 100°C, 0% HUMIDITY FOR 20 MINUTES
	Ninhydrin	DIPPED IN NINHYDRIN-METHANOL SOLUTION: DRIED IN NINCHA MACHINE AT 65°C, 65% HUMIDITY FOR 20 MINUTES
4NVFKZ	DFO	Temperature - 100°C, Processing time - 20 minutes
4NX8DG	Visual Examination	FIRST VISUAL: USING ROFIN PL500 POLIVIEW SYSTEM, 00nm LIGHT, NO FILTER
	DFO	USING NINCHA S31 SET AT 100°C, 0% HUMIDITY FOR 40 MINUTES WITH DFO FILTER FITTED.
	Ninhydrin	IN NINCHA S31 SET AT 43°C, 65% HUMIDITY FOR 40 MINUTES WITH NINHYDRIN FILTER FITTED. FOLLOWED BY VISUAL EXAMINATION AT 00nm LIGHT WITH CLEAR GOGGLES. VISUAL PERFORMED BY ROFIN PL500 POLIVIEW SYSTEM.
4RDUT8	Visual Examination	white light - negative results.
	Ninhydrin	65% RH in cabinet, 80 degrees in cabinet, processtime 5 minutes.
	Visual Examination	positive results.
64NMW8	Visual Examination	
	Ninhydrin	Sprayed with Ninhydrin and allowed to dry. Applied wet heat with an iron. Print appeared.
68R9WQ	Visual Examination	Crimescope, Superlite 400, Laser 532 and 577 nm
	1,2-Indanedione	10 sec at 165°C
	Ninhydrin	5 days waiting

TABLE	2 -	ltem	3
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WebCode	Development Methods	Method Details
6BLARD	Visual Examination	FIRST VISUALIZATION: PL500 VIEWED AT WHITE LIGHT AND UV LIGHT WITH COLOURLESS GOGGLES.
	DFO	PUT IN THE OVEN AT 100°C FOR 20 MINUTES.
	Ninhydrin	PUT IN THE CHEMICAL FUME EXTRACTION CABINET FOR OVERNIGHT AND VIEWED AT WHITE LIGHT WITH COLOURLESS GOGGLES.
6DAQ7R	DFO	DFO BATCH 15AS979 OVEN #1 POSITIVE CONTROL (WHITE PAPER) OVEN TEMP 100 DEGREES C, 20 MINS - NEGATIVE
	Ninhydrin	NIN BATCH #139752 OVEN #3 POSITIVE CONTROL (WHITE PAPER) OVEN TEMP 80 DEGREES C, 62% RH, 6 MINS
6EAJAR	Visual Examination	No latent prints visible.
	Ninhydrin	Steam iron used in addition. Latent print developed in Quadrant "C".
6MXL22	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	
	Physical Developer (PD)	
6PNNBV	Visual Examination	FIRST VISUAL: CHECKING ANY POSSIBLE VISIBLE PRINTS USING PL500.
	DFO	CHEMICAL INVESTIGATION USING DFO/PETROLEUM, NINCHA S31 AT 100°C 20 MINUTES
	Ninhydrin	CHEMICAL INVESTIGATION USING NIN/METHANOL, NINCHA S31 AT 80°C, RH 80 20 MINUTES
6W9PK7	Visual Examination	1250 hrs - 1300 hrs. 68 degrees F.
	Ninhydrin	
	Steam	The evidence which had been treated with ninhydrin on 10-16-18 was exposed to steam on 10-22-18. Ridge detail was developed.
746XEC	DFO	2018/11/02 TIME 12:10 TEMP 100 DEGREE CELSIUS 20 MINUTES. ITEM 1 DIPPED IN DFO SOLUTION THEREAFTER PLACED IN THE NINCHA CONTAINING DFO FILTER.
	Visual Examination	2018/11/02 TIME 13:00 450nm, 555 RED AND ORANGE GOGGLES USED. RESULT NEGATIVE
	Ninhydrin	2018/11/02 TIME 13:35 TEMP 70 DEGREE CELSIUS 70% RELATIVE HUMIDITY 20 MINUTES. ITEM 1 DIPPED IN NINHYDRIN SOLUTION THEREAFTER PLACED IN NINCHA CONTAINING NINHDRIN FILTER.
	Visual Examination	2018/11/05 TIME 12:00. 000nm NO FILTER AND CLEAR GOGGLES USED. RESULT NEGATIVE

WebCode	Development Methods	Method Details
7ARVW8	Visual Examination	PL500 white light, clear goggles
	DFO	Dipping method, oven 50°C, 20 minutes
	Visual Examination	PL500 white light, clear goggles
	Ninhydrin	Dipping method, oven 50°C, 80%RH, 20 minutes
	Visual Examination	PL500 White light, clear goggles
7L3BT6	Visual Examination	
	DFO	ALS 555 nm/Red filter
	Ninhydrin	
7ME4RD	Visual Examination	Photographed overall appearance prior to processing.
	Ninhydrin	Applied Ninhydrin, let stand 12 days.
7R78MD	DFO	DFO/METHANOL: EXHIBIT WAS PROCESSED IN NINCHA AT 100°C FOR 150 MINUTES, AT 15:45
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT WAS PROCESSED IN NINCHA AT 65°C AND 65% HUMIDITY FOR 20 MINUTES, AT 09:30 ON THE 14TH NOVEMBER 2018.
7VR3FX	Ninhydrin & humidity chamber	(+) ctrl, humidity: 90%, temperature: 32°C. Time in humidity chamber: 30 min. Chamber set to 90%, reached 57%. Let evidence sit overnight in secure locker. Nin lot: 9/10/2018OAK, exp: 9/10/2019
7XYBQ3	Ninhydrin	control standard on blank paper using amino acid pad. processed for 3 hours.
83P62A	Visual Examination	ALS
	DFO	Two applications of DFO, into oven for 20 mins
	Ninhydrin	Two applications of NIN, into oven for 6 mins
8B33PT	Ninhydrin	Sprayed paper with ninhydrin which took less than 5 seconds. Drying time = approximately 10 minutes. Humidity chamber = 20 minutes at 80C and 65% humidity.
8HE7PZ	DFO	Temperature 100 degrees celsius, zero humidity in climate chamber. Processing time 25 minutes. No detectable fingerprints (green light, red filter). Reference prints were ok.
	Ninhydrin	Temperature 80 degrees celsius, humidity 65% in climate chamber. Processing time 7 minutes. VERY weak prints, reference prints were ok.
	Ninhydrin	Ninhydrin ready to use spray after processing time in climate chamber due to VERY weak print (before item had cooled down). Still very weak print.

WebCode	Development Methods	Method Details
8N7DBU	Ninhydrin	ITEM 3 EXHIBIT WAS SPRAYED WITH NINHYDRIN UNDER THE FUMING CABINET.
8PZ2TP	Visual Examination	White light, blue light, UV light
	Ninhydrin	Humidity set to 65, Temperature 80 degrees C, Processing time 10 minutes
8RR4P6	Visual Examination	Available light & magnifying glass
	lodine	allow fumes to air out, then examine
	Ninhydrin	Spray. Hot iron & steam
	[No Methods Reported.]	Silver Nitrate
8U8W4C	Visual Examination	1ST VISUAL: ROFIN PL500 AT 0.00nm.
	DFO	DFO/PETROLEUM ETHER DIPPING METHOD APPLIED: OVEN SET AT 100°C AND FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN/ACETONE DIPPING METHOD APPLIED: OVEN SET AT 70°C AND 80% HUMIDITY FOR 20 MINUTES.
928KNP	Visual Examination	Lighting
	Ninhydrin	Pre-made dye stain; amino acid reference pad control; Caron chamber (85 degrees Celsius and 65% relative humidity for 3 minutes); 72 hour waiting period
9A3EUA	DFO	DFO/METHANOL: EXHIBIT PROCESSED IN NINCHA S31 100°C FOR 15 MINUTES AT 14:45
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT PROCESSED IN NINCHA S31 AT 65°C AND 65% HUMIDITY.
A4TGX2	Visual Examination	Ambient/ Blue/ UV lighting, Tracer Laser (505nm with orange goggles)
	DFO	100 degrees Celsius for 20 minutes in Caron chamber; Rofin and Tracer Laser (505nm with orange goggles)
	Ninhydrin	80 degrees Celsius and 65% RH for 2 minutes in Caron chamber; Rofin (505nm)
	Physical Developer (PD)	Sirchie pre-mixed solutions A and B for 15 minutes
A6JYKU	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron
AKGQNJ	Visual Examination	First we took photo from object. After this we checked it with eyes and white light.
	Ninhydrin	65% moisture and 72 degrees, 6 minutes. This we did twice. Fingerprint was weak, but test print was good. After 24 hours we were able to photoshoot the fingerprint.

WebCode	Development Methods	Method Details
AQMKKZ	Visual Examination	White light and blue light 420-470 nm (yellow filter)
	Powder Dusting	Magnetic powder.
	Ninhydrin	65% RH in cabinet, 80 degrees in cabinet, processtime 5 minutes.
AUNEPX	Visual Examination	Negative results.
	Alternate Light Source	Negative results.
	DFO	Dipped in DFO, air dried. Place in DFO oven at 200 degrees for 30 mins. Looked with ALS with negative results.
	Ninhydrin	Dipped in Ninhydrin, air dried. Allowed to develop for 36 hrs. Visual rendered negative results. ALS rendered negative results.
AVDY62	Visual Examination	Rofin PL500 used for oblique lighting - 505nm and white light clear goggles
AX2ELN	Visual Examination	3 minutes
	Led light	10 minutes
	Ninhydrin	30 minutes temperature 80 C with humidity
AYD32U	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron
B2MFBA	Visual Examination	Used a lighted magnifying glass
	1,2-Indanedione	IND porus paper in oven for approximately one hour at approximately 200 degrees
B39D8E	Visual Examination	By visual examination we could not find any fingerprint.
	Ninhydrin	We used Ninhydrin for the newspapre. Our forensic climate cabinet is LabRum Klimat FKC-MK4. Humidity settings: 73%, Temperature settings: 75 celsius, Prosessing time: 8 minutes.
B6VX9C	DFO	TEMPERATURE - 100°C, HUMIDITY - 0%, TIME - 20 MINUTES
	Ninhydrin	TEMPERATURE - 70°C, HUMIDITY - 80%, TIME - 20 MINUTES
BDPZGE	Visual Examination	Daylight, halogen lamp 150W, Magnifier 4,5X.
	Ninhydrin	2% ninhydrin solution (in ethyl alcohol).
BHV8FY	Ninhydrin	Chemical sprayed on evidence 10-15 seconds until damp; Hung in a fume hood to air dry 15 minutes; steam iron used for humidity held approx. 3" over evidence

TABLE 2 - Item 3
WebCode	Development Methods	Method Details
BJG829	Ninhydrin	Treated with the chemical and placed in fuming hood to dry. Treated with steam to develop latents.
BNDPPZ	1,2-Indanedione	Used humidity chamber with no humidity (DFO setting).
	Alternate Light Source	Laser - No latents were visible.
	Ninhydrin	Humidity chamber - Very faint latent developed.
BZQWDN	Ninhydrin	10 minutes in climate chamber 70 degrees Celsius and RH 65%.
C3PUYZ	Visual Examination	Light source, wavelength of clear light and clear filter
C7TBNG	Visual Examination	ambient light
	Ninhydrin	Ninhydrin special formula Iron with heat and steam
CBN2D2	Visual Examination	Flashlight
	1,2-Indanedione	1,2-IND with Laser, 40 min at 50c/60% Humidity, 532nm, Orange Filter, control positive. No areas of ridge detail were observed
CFAEG9	Visual Examination	LIGHT: (WHITE LIGHT (0nm), UV (450nm), GOGGLES: CLEAR AND ORANGE
	DFO	TEMP: 80°C, HUMIDITY: 0%, PROCESSING TIME: 20 MINUTES (VIEWING: LIGHT: 450, 490, 505nm GOGGLES:ORANGE)
	Ninhydrin	TEMP: 70°C, HUMIDITY: 60%, PROCESSING TIME: 20 MINUTES, VIEWING AND CAPTURING: LIGHT: WHITE FILTER: NO FILTER
CKAATH	Visual Examination	
	Ninhydrin	Special Formula Ninhydrin, Iron
CYBYUP	Visual Examination	Viewed with white/ambient light and 532nm Tracer laser with orange goggles.
	DFO	Applied, let dry, heat @ 100deg C for 20 minutes, viewed with 532nm Tracer laser and green light with orange goggles.
	Ninhydrin	Applied, let dry, heat @ 80deg C and 65% humidity for 2 minutes, viewed with white/ambient light.
	Physical Developer (PD)	Distilled water rinse, Maleic Acid rinse, Distilled water rinse, Physical Developer bath ~20 minutes, Distilled water rinse. Let dry and viewed with white/ambient light.
D7KXAK	Visual Examination	this item was visually examined prior to processing
	Ninhydrin	this item was sprayed with ninhydrin after spraying this item with ninhydrin it was left to process for 24 hours this item was visually examined again and a whorl pattern was located on this item

TABLE 2	- Item	3
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WebCode	Development Methods	Method Details
D8XFMX	CAPTURING	COC CAPTURING: D600 CANON CAMERA - PHOTOGRAPH EXHIBIT BAG & CONTENTS AS RECEIVED
	Visual Examination	PL500, D700 NIKON CAMERA, CLEAR FILTER, CLEAR GOGGLES, WHITE LIGHT
	DFO	DFO/PETROLEUM ETHER USING NINCHA \$31
	Ninhydrin	NINHYDRIN/HFE USING NINCHA \$31
	Ninhydrin	PL500, D700 NIKON CAMERA, 450nm, ORANGE FILTER, ORANGE GOGGLES.
D9VRHQ	Vis/ALS	No FRD visible. Viewed under available light & laser blue 445, green 532
	Ninhydrin	Applied ninhydrin, placed in a humidity chamber 80° & 60% for 10 min
	Oil Red O	Submerged item 001-3 in Oil Red O stain for 20 min. Placed in buffer bath for 5 min
DCEQRE	Visual Examination (white light)	
	DFO	
DEJCL7	Visual Examination	A visual exam with oblique lighting was done prior to any processing.
	Ninhydrin	Applied Non-Running Ninhydrin to the porous paper. Let sit for 11 days, then viewed results
DMVFNY	Visual Examination	
	DFO	Heat at 100 degrees C for 20 minutes.
	Ninhydrin	Heat and humidity at 80 degrees C for 25 minutes. Reexamined about 70 hours later.
DPFC6C	Ninhydrin	Labrum Klimat FKC-MK3, temperature 70 celsius, humidity 75%, 6min.
DUPUWD	Ninhydrin	NINHYDRIN (NINCHA S31): 65°C, 65% HUMIDITY, 20 MINUTES.
	DFO	DFO/PETROLEUM ETHER: NINCHA AT 100°C AND 20 MINUTES.

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details
E3LTMR	Visual Examination	White, low angle light results negative.
	Alternate Light Source	Multiple filters applied (400nm-555nm) results negative.
	DFO	Item was dipped in DFO and allowed to air dry. Item was placed in a 200F DFO oven for 25 minutes. Item was then viewed under an ALS (400nm-555nm) and orange barrier filter (goggles) results negative.
	Ninhydrin	Item was dipped in ninhydrin and allowed to air dry. Item was then placed in a chamber and a beaker of distilled water was added to the chamber. Item was allowed 36 hours of development time results negative.
E4XGV6	Visual Examination	FIRST VISUAL: PL500 - 1823; 2018/11/05 17:30
	DFO	SPRAYING; NINCHA SET 100 DEGREE CELSIUS NO HUMIDITY 20 MINUTES 2018/11/06 07:10
	Ninhydrin	SPRAYING; NINCHA SET 72 DEGREE CELSIUS; 71% HUMIDITY 2018/11/06 09:30
E7A6LW	Visual Examination	notepage photography
	Ninhydrin	heptane, applied 10/18
EEQAX2	Visual Examination	THE EXHIBITS WAS VISUALIZED WITH ALL THE LIGHTS 00nm, UV, 350nm, 415nm, 450nm, UP TO 650nm. NO PRINT WAS IDENTIFIED.
	DFO	THE EXHIBIT WAS PROCESSED USING DFO; DFO WAS SPRAYED ON THE EXHIBIT, DY FOR FEW SECONDS, PUT IN THE OVEN 90°C WITH NO HUMIDITY, THEN VISUALIZE UNDER 350nm/505nm NO PRINT WAS IDENTIFIED.
	Ninhydrin	AFTER DFO DID NOT REACT, NI HYDRIN METHANOL WAS USED TO PROCESS THE EXHIBIT 3, NIN WAS APPLY THROUGH OR SPRAYING METHOD. DRIED FOR FEW SECONDS, THEN PLACED IN THE OVEN AT 90°C. 75% HUMIDITY FOR 20 MINUTES. VISUALIZED NO PRINT DEVELOPED.
EGWMLU	Visual Examination	white light
	DFO	100 C, 20 min, low humidity, saw nothing
	Ninhydrin	80 C, rh 65%, 5 min processing time, saw print (weak)
EGYFGG	Visual Examination	
	Alternate Light Source	
	Ninhydrin	

TABLE 2	- Item 3

WebCode	Development Methods	Method Details
ERHRVE	DFO	DFO/METHANOL: DIPPING METHOD, AIR DRIED OVER NIGHT
	Ninhydrin	NINHYDRIN/ACETONE: DIPPING METHOD, AIR DRIED OVERNIGHT
EVLDTD	Visual Examination	lights and magnification
	Powder Dusting	Black magnetic powder
	Ninhydrin	Ninhydrin in Acetone (Spray); heated in oven at ${\sim}55$ degrees C for 10 minutes
F7F44J	Visual Examination	FIRST VISUAL: WHITE POLIFLARE, 000nm, CLEAR GOGGLES, DARK ROOM, 25°C TEMPERATURE
	DFO	DFO AND VISUAL: 450nm - 505nm, ORANGE GOGGLES AND FILTER, 25°C IN A DARK ROOM
	Ninhydrin	NINHYDRIN AND VISUAL: WHITE POLIFLARE, 000nm, CLEAR GOGGLES, DARK ROOM, 28°C ROOM TEMPERATURE.
F7HYE3	Visual Examination	Light source
	Ninhydrin	used HFENinhydrin-HFENIN181017
	Physical Developer (PD)	MAP180706, PD181119
F8NEET	DFO	DFO/HFE: EXHIBIT WAS PLACED IN THE NINCHA SET FOLLOWING THE DIPPING PROCESS AT 100°C FOR 30 MINUTES.
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT WAS DIPPED IN THE MIXTURE AND WAS THEN PLACED IN THE NINCHA FOR 30 MINUTES AT 65°C AND 65% HUMIDITY.
FECVCD	DFO	PRE-HEATED THE OVEN AT 100°C FOR 5 MINUTES. LOADED EXHIBIT (2) THAT WERE DIPPED IN THE DFO WORKING SOLUTION INTO THE OVEN FOR 20 MINUTES.
	Ninhydrin	PRE-HEATED THE OVEN AT 80°C FOR 5 MINUTES. PLACED AN OVEN SAFE GLASS BEAKER WITH BOILING WATER IN THE OVEN FOR HUMIDITY AND EXHIBITS FOR 20 MINUTES (DIPPING METHOD)
FG2BTZ	Visual Examination	Includes both visual and alternate light sources
	DFO	after DFO treatment, 20 minutes in a dry oven at 100 degrees C
	Ninhydrin	After Ninhydrin treatment, 6 minutes in a humidified oven at 70/80 degrees C

WebCode	Development Methods	Method Details
FGEZKR	Visual Examination	
	Alternate Light Source	Used 365nm UV, 450nm Blue Light, and 532nm Laser.
	1,2-Indanedione	20 minutes in 100 degree oven then viewed under 532nm Laser.
	Ninhydrin	Placed in humidity cabinet at 76% humidity and 76 degrees for 15 minutes. Visual exam done after cooling off.
FHDWKM	Alternate Light Source	A Crimescope ALS with various goggles and a 535nm Laser with orange goggles was used to examine the yard sale notice prior to processing.
	1,2-Indanedione	Item was sprayed with indanedione and left to dry. It was viewed with a 535nm laser with orange goggles
	Ninhydrin	Item was sprayed with ninhydrin. A steam iron was used to expedite development.
FKZFGE	DFO	DFO/METHANOL: DIPPING METHOD, AIR DRIED OVERNIGHT
	Ninhydrin	NINHYDRIN/METHANOL: DIPPING METHOD, AIR DRIED OVERNIGHT
FLCB6R	DFO	Soaked in DFO for about 5 seconds and hung to dry x2 heated at 100 degrees Celsius and 0% humidity for 20 minutes. used 500nm ALS with orange filter
	Visual Examination	
	Ninhydrin	soaked for about 5 second hung to dry x2 heated at 80 degreed Celsius and 65% humidity for 3 minutes 500nm ALS
	Visual Examination	
FXZGUF	Visual Examination	VISULIZATION USING ROFIN PL500 AT 00nm
	DFO	TREATED THE EXHIBIT WITH DFO/HFE, AIR DRY THEN PLACED THE EXHIBIT IN THE NINCHAS31 OVEN AT 100 DEGREE CELSIUS FOR 20 MINUTES.
	Visual Examination	VISUALIZATION OF EXHIBIT USING ROFIN PL500 AT 450nm - 505nm WITH ORANGE AND YELLOW GOOGLES.
	Ninhydrin	TREATED THE EXHIBIT WITH NINHYDRIN/HFE, LET IT AIR DRY AND PLACED IT IN THE NINCHAS31 AT 80 DEGREE CELSIUS, 65% RELATIVE HUMIDITY FOR 20 MINUTES.
	Visual Examination	VISUAL EXAMINATION OF EXHIBIT USING ROFIN PL500 AT 00nm
GFM7U3	Visual Examination	White light
	Ninhydrin	HFE Ninhydrin applied with spray bottle. Steamed with steam iron to develop
	Physical Developer (PD)	1. Maleic Acid Prewash 2. PD solution 3. Water rinse

WebCode	Development Methods	Method Details
GMJZRZ	Visual Examination	Oblique lighting, ambient lighting, ALS
	DFO	Treated with DFO twice alongside a control strip, dry oven for 20 minutes, examined item using ALS
	Ninhydrin	Treated with Ninhydrin twice alongside a control strip, humid oven for 6 minutes, examined item using incandescent light
GNQGRR	Visual Examination	White light & LASER
	DFO	100 Degrees C for 20 mins
	Ninhydrin	80 Degrees C for 3 mins in 65% humidity
GNT9J8	Visual Examination	Flourescence, used oblique lighting, wavelength 000, clear filter.
	Ninhydrin	Sprayed Ninhydrin solution onto exhibit when dried, placed the exhibit into the Ninchaa 531 at 70°C and 60% humidity for 20 minutes.
GVQTRU	Visual Examination	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500)
	DFO	Spraying item with DFO working solution, after drying – heating the item for 10 min in 95° C, viewing with POLILIGHT PL 500 alternate forensic light source in ~515 nm range + appropriate filters
	Ninhydrin	Spraying item with ninhydrin aerosol spray, after drying – heating the item for 90 min in 40 °C, 80% humidity, viewing in a daylight and with POLILIGHT PL 500 alternate forensic light source in white light and in ~515 nm range + appropriate filters, viewing again after few days
GVUJWR	1,2-Indanedione	
	Ninhydrin	
	DFO	
GVV6WE	Visual Examination	no visible friction ridge detail
	Ninhydrin	Item 3. Positive control used. Item submerged into ninhyrin (Freon) based solution; allowed to dry. Iron set on steam setting to further enhance impression.
GVXPRU	Alternate Light Source	Tracer laser; 505nm with orange viewing filter
	DFO	100*C; 20:00 processing time
	Ninhydrin	80*C, 65% RH; 2:00 processing time
	Physical Developer (PD)	Sirchie pre-mixed solutions; 13:00 processing time

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
GWM8EM	Visual Examination	
	Alternate Light Source	
	Ninhydrin	Steam iron, 24 hour development time
GZBREP	1,2-Indanedione	heat press @ 160 degrees Celsius; heated for 10 seconds
	Ninhydrin	Steam Iron; allowed to sit $\sim$ 24 hrs at room temp
H3NWFR	Visual	Photographed
	Magnetic Powder	Dusted entire front side w/writing
H9ULT7	DFO	ITEM 3 - ITEM 3 WAS DEEPED INTO DFO SOLUTION FOR 5 MINUTES, DRIED UNDER EVIDENCE DRIER, THEN PUT ON NINCHA S31 EQUIPMENT FOR 20 MINUTES AT 100°C.
	Ninhydrin	ITEM 1 WAS DEEPED INTO NINHYDRIN METHANOL FOR 5 MINUTES DRIED UNDER EVIDENCE DRIER THEN PUT ON NINCHA S31 EQUIPMENT FOR 25 MINUTES AT 80°C AND 80% HUMIDITY.
HEGAPW	Visual Examination	Visually examine the exhibit using different light wavelengths and goggles.
	DFO	Dip the exhibit in DFO/Petroleum ether working solution for 5 seconds - 5 minutes, then dry in the oven at 90°C.
	Ninhydrin	Process the exhibit with Ninhydrin / Methanol then dry in Ninhydrin chamber at 65°C relative humidity and 70°C.
	Visual Examination	Visualise with 000/350/450/505nm wavelength and clear / orange goggles.
HR79HK	DFO	Dip in DFO, dry in evidence dryer. Placed in circulation oven at 100°C and no humidity
	Ninhydrin	Dip in Ninhydrin. Dry in evidence dryer. Place in Nincha at 70°C, 70% humidity for 20 minutes
HR9XHB	DFO	DFO/HFE PROCESSING: ITEM 1 TREATED WITH DFO/HFE PLACED IN A NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN/METHANOL: ITEM TREATED WITH NINHYDRIN/METHANOL PLACED IN A NINCHA SET AT 80°C, 65% HUMIDITY FOR 20 MINUTES.
HTPWBZ	Ninhydrin (hexane base)	Sprayed item, placed in humidity chamber 70° Celcius at 70% humidity for 20 minutes.
	1,2-Indanedione	Sprayed item, placed in humidity chamber 100° Celcius humidity off for 20 minuets.

WebCode	Development Methods	Method Details
HUG7UG	Visual Examination	FIRST VISUAL: WHITE LIGHT POLIFLARE, 000nm, CLEAR GOGGLES DARK ROOM 25°C
	DFO	DFO AND VISUALIZATION: 450nm - 505nm, ORANGE GOGGLES, ORANGE FILTER DARK ROOM 25°C
	Ninhydrin	NINHYDRING AND VISUALIZATION: WHITE POLIFLARE, 000nm, CLEAR GOGGLES DARK ROOM 25°C
HY6THU	DFO	Reagents and batch numbera: DFO (211807102), Methanol (34682), Acetic Acid (33589), Petroleum Ether (9043), Equipment: Nincha - Temperature= 100°C, humidity 0%, time = 20 minutes
	Ninhydrin	Reagents and batch numbers: Ninhydrin (3508-26616), Methanol (34682)
J4WD7B	Visual Examination	WHITE LIGHT TO CHECK FOR ANY VISIBLE PRINTS
	DFO	DFO (METHANOL) - SPRAYING ONTO EXHIBIT; AFTER DRYING PLACED IN OVEN 100°C, 0% RELATIVE HUMIDITY 20 MINUTES.
	Ninhydrin	NIN (METHANOL) - SPRAYED ONTO EXHIBIT, AFTER DRYING PLACED IN OVEN 65°C, 65% RELATIVE HUMIDITY 20 MINUTES.
J728K8	Ninhydrin	Threatment in Attestor NinCha cabinet at temperature 65C, humidity 65% at 30 min. Very visible print was recovered.
J8GCFY	Visual Examination	GENERAL SEARCHING FOR FINGER-, PALM PRINTS AT 19:59 WITH LIGHTS: WHITE, 415, 450, 470, AND 490 AND CLEAR, ORANGE, YELLOW AND RED GOGGLES (NEGATIVE)
	DFO	DFO WITH HFE BASE PLACED IN THE OVEN FOR 30 MINUTES AT 90°C ON 2018/11/03 AT 18:05 UNIQUE NO. DFO-HFE 01/11/2018W (NEGATIVE)
	Ninhydrin	NINHYDRIN WITH ACETONE BASE PLACED IN THE OVEN FOR 20 MINUTES AT 80°C AND 65% HUMIDITY ON 2018/11/03 AT 19:25 AND AGAIN ON 2018/11/04 AT 14:20 (POSITIVE)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JEXZX8	Visual Examination	FIRST VISUAL EXAMINATION: EXHIBIT WAS EXAMINED USING PL500 LIGHT SOURCE. THE EXHIBIT WAS TURNED & LIGHT SOURCE MOVED TO ENSURE THAT ALL SURFACE OF EXHIBIT IS ILLUMINATED. THE ANGLE OF ILLUMINATION WAS CHANGED & DIFFERENT TYPES OF LIGHT WERE USED (ALL LIGHTS WITH DIFFERING WAVELENGTH) NATURAL LIGHT WAS ALSO USED BY ADJUSTING THE VIEWING POSITION.
	DFO	DFO/PETROLEUM ETHER: EXHIBIT WAS DIPPED IN DFO FOR 5 MINUTES IN THE CHEMICAL EXTRACTION CABINET. IN A TRAY. THEN DRIED IN BIO-FORENSIC DRYER. THEN PROCESSED IN NINCHA AT 100 DEGREE CELSIUS FOR 20 MINUTES. DFO/PET/ETHER REF: 01/10/2018 WORKING SOLUTION UFO.
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT WAS DIPPED IN NINHYDRIN FOR 5 MINUTES IN THE CHEMICAL EXTRACTION CABINET IN A TRAY. THEN DRIED IN A BIO-FORENSIC DRYER. THEN PROCESSED IN NINCHA AT 55 DGREE CELSIUS AND 65 HUMIDITY FOR 20 MINUTES. NIN/METHANOL REF: 01/10/2015 WORKING WORK SOLUTION USED.
JG4B9P	Ninhydrin	80°/65% 10 min
JJW8MB	Visual Examination	No visible latents - Examined with white light
	Ninhydrin	Dip in chemical approximately 10 sec, hang to dry in ambient condition, Fingerprint Chamber (75 deg C, 80% humidity, 5 minutes)
	Visual Examination	Latent visible with white light after development
JLXD2G	Ninhydrin	soaked with Ninhydrin solution, dried, placed in humidifying chamber for a 1 hr 40 min. No latent prints developed
	zip lock plastic bag	permitted to further develop over night. Negative results
	Ninhydrin	secondary application of Ninhydrin solution with negative results. A test print was also conducted with positive results, in order to confirm negative presence of latent prints in the newspaper.
JVNQDA	Visual Examination	Visual examination with lights (range 390 -850nm) and photography+photoshop.Very light fingerprint was found at section C.
	Ninhydrin	62% moisture and 80C degrees, 6 min. operate time.
	1,2-Indanedione	65% moisture + 90C degrees, 15 min. operate time. No more fingerprints weren't found after ninhydrin and this examination. First found fingerprint didn't get any better.
JXDYUQ	Ninhydrin	Saturated newspaper with ninhydrin spray. Allowed approximately 6 hours for possible result. Lift developed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JZYYGZ	Alternate Light Source	
	DFO	
	Ninhydrin	
K4YDXN	Visual Examination	Visual examination of newspaper (8 1/2" tall by 5 3/4" wide) with writing in black ink. "Oak Hills Cluster Yard Sale!" is written on top of front, with additional writing on the front. Back is plain with no writing. No FRD observed with white/ambient light. No FRD observed using Crimescope at 415-495 nm wavelength with an orange filter.
	Ninhydrin	Newspaper dipped in Ninhydrin, dried and placed in the Weiss Gallenkamp Chamber at 80 degrees with 65 percent humidity for 20 minutes.
	Visual Examination	FRD observed with white/ambient light in the quadrant labeled "C". No FRD observed on back of paper. FRD photographed at this time.
KA2FPG	Visual Examination	FIRST VISUALIZATION: ITEM 3 WAS FIRST VISUALIZED USING DIFFERENT WAVELENGTHS AND GOGGLES (00nm TO 650nm) ORANGE, WHITE, YELLOW, AND NO FILTER MARK WAS OBSERVED.
	DFO	THE ITEM WAS SPRAYED WITH DFO AND PLACED IN AN OVEN AT 90°C FOR 20 MINUTES - NO HUMIDITY AND NO FINGER MARK WERE OBSERVED.
	Ninhydrin	NINHYDRIN-METHANOL WAS SPRAYED ON ITEM 3 AND PLACE ON A CIRCULATION OVEN AT 90°C FOR 20 MINUTES AT 70% - HUMIDITY. NO FINGER MARK WAS OBSERVED.
KBFTHK	Ninhydrin	Item 3 was dipped into a tray of Petroleum Ether based Ninhydrin and removed once it was saturated, hung to dry under a fume hood for approximately 10 minutes. A steam iron was then used to accelerate the development process. No ridge detail was observed. Item 3 was left in a fume hood in a locked room over a weekend to see if there was any further development of ridge detail. None observed.
KBVC3H	Ninhydrin	Lot # 9/10/2018JAK, Exp 9/10/2019 -> spray chemically
	Humidity chamber	Item placed in chamber with control for further processing
	Ninhydrin	Lot # 9/10/2018JAK, Exp 9/10/2019 -> spray reapplied chemically
	Humidity chamber	Item and control placed in humidity chamber for further processing

WebCode	Development Methods	Method Details
KCRLGU	Alternate Light Source Ninhydrin	Examined in absorption/reflection mode by use of oblique white light (clear goggles), 350nm (clear goggles), 415nm (yellow/orange goggles), 450nm (orange goggles), 505nm (orange goggles), 530nm (red goggles), and 555nm (red goggles) Tested for back luminescence at 505nm with orange goggles. Displayed excessive background luminescence. Dipped in
		ninhydrin and allowed to air dry. Placed into Gallenkamp oven to speed development at 100 degrees celcius and 80% relative humidity for 30 minutes.
KD3NUR	Visual Examination	Rofin PL500, white light, clear goggles
	DFO	Spraying, air dried, Nincha 531, 100°C, 0% humidity, 15 minutes.
	Visual Examination	Rofin PL500, 450nm, orange goggles, orange filter
	Ninhydrin	Spraying, air dried, Nincha 531, 70°C, 75% humidity, 20 minutes.
	Visual Examination	Rofin PL500, white light, clear goggles
KEUTCQ	Visual Examination	A visual overall inspection was conducted using ambient and Luxo Magnifier/Loupe Lamp. Nothing observed.
	Alternate Light Source	An alternate light source at 455nm was conducted using a Crimescope, followed by a 532nm alternate light source using a TracER. Nothing observed.
	1,2-Indanedione	1,2 - Indanedione with a HFE-7100 base. Applied and left to dry/process for about 2 hours. Item was not accelerated due to Item 1 having to be left out and being processed at the same time. Nothing observed.
	Alternate Light Source	An alternate light source at 532nm was conducted using a TracER. Nothing observed.
	Ninhydrin	Ninhydrin with a HFE-7100 base. Applied and left to dry overnight, roughly 20 hours to process. Not heat or humidity applied immediately, left to exposed air. Next day, applied heat and humidity via a General Electric steam iron, with a piece of paper as a slight barrier, for about 2 minutes. Nothing observed.
	Alternate Light Source	An alternate light source at 455nm was conducted using a Crimescope, followed by a 532nm alternate light source using a TracER. Nothing observed.
KF8C9G	Visual Examination	The item was visually examined using PL500 (000nm to 650nm) with orange goggle and red goggles.
	Ninhydrin	Item was sprayed with Ninhydrin / Acetone then heated in the Nincha 531 for 15 minutes.
	Visual Examination	ltem was visually examined using PL500 (000nm and 505nm) with clear goggles and orange goggles.

WebCode	Development Methods	Method Details
KHVLMP	Visual Examination	
	Fluorescence Examination	
	DFO	Temperature: 100°C, time: 10 minute
	Ninhydrin	Temperature: 80°C, humidity: 62%, time: 10 minute
KKZDBW	Visual Examination	After removal of the exhibit from sealed box was marked, photographed (Canon D500) visualised using PL500 at 00nm.
	DFO	Treated the exhibit using dipping method with DFO/Petroleum Ether then placed in Nincha 531 at 100°C, 40 minutes
	Visual Examination	Visualised at 450nm with PL500,Orange goggles.
	Ninhydrin	Dipping inNinhydrin /Methanol (batch2/2018) placed on Nincha 531 at 40°C, 80% RH for 20 minutes then visualised by PL500 AT 00nm, white goggles.
KNZKXE	DFO	100°C TEMPERATURE, 0% HUMIDITY - SPRAYING METHOD - NINCHA REF: 001
	Ninhydrin	NINHYDRIN - ACETONE: 65°C TEMPERATURE, 65% HUMIDITY - SPARAYING METHOD - NINCHA REF: 001
KRJFYL	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	DFO	baked in the chamber DFO at approximately 100°C (212°F) for 10 minutes; fluorescence examination in alternate light source (505 nm - 530 nm under orange or red barrier filters)
	Ninhydrin	in the chamber with a humidity 65% and temperature 50°C for 10 minutes; visual examination under white light and fluorescence examination in alternate light source (470 nm - 570 nm) and after 10 days and 15 days storage at room temperature
KTGW4V	Visual Examination	CrimeLite, LASER
	DFO	DFO + Pet. Ether sol., Soak twice, L-alanine control, 20 min. in oven at 100 degrees, LASER
	Ninhydrin	Ninhydrin + Pet. Ether sol., Soak twice, L-alanine control, 6 min in oven (wet bulb 70 degrees, dry bulb 80 degrees), CrimeLite/Incandescent
KVGZJW	Visual Examination	At room temperature with PL500.
	DFO	At 100°C (oven) for 10 minutes.
	Ninhydrin	Oven at 80°C, humidity 65% for 10 minutes.

WebCode	Development Methods	Method Details
KXRZMJ	Ninhydrin	Before the application of ninhydrin, a visual examination was done to determine the existence of visible lofoscopic traces. The ninhydrin reagent was applied to the item. The item was set in the convection oven for one minute at 110°F. Preserved in plastic bag for 15 days, Identified and documented the latent print
KY84NP	Ninhydrin	Neg/pos controls confirmed. Newspaper notice was sprayed with chemprint spray until soaked. Hung to dry 15 minutes. Heated with steam iron 10 minutes until print visible in section C.
LNX4JG	Visual Examination	Oblique lighting.
	Ninhydrin	Hexane base (expires 1/24/19).
	Steam	Iron on steam setting.
LRZWLR	1,2-Indanedione	
	Ninhydrin	
LVEVHT	Visual Examination	White light 000nm used P2
	DFO	Spray DFO, dried for few seconds. Process in NINCHA 531 (temperature 100°C, humidity 0% RH) for 10 minutes
	Ninhydrin	Spray Ninhydrin, dried, NINCHA 531 used temperature 55°C, humidity 65% RH for 10 minutes.
LVU866	Visual Examination	1ST VISUAL EXAMINATION: PL500 LIGHT SOURCE 0 - 650nm
	DFO	DFO-PETROLEUM ETHER PLACED INSIDE NINCHAS31 AT 100°C; 0% FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN-METHANOL PLACED INSIDE NINCHAS31 AT 80°C; 80% RH FOR 20 MINUTES.
M2Y4N6	Visual Examination	FIRST VISUAL: ROFIN PL500 LIGHT SOURCE, 000nm - 650nm CLEAR GOGGLES, ORANGE GOGGLES, 550 FILTER
	DFO	NINCHAS31, TEMP: 80 DEGREE CELSIUS, RH: 0, TIME: 20 MINUTES VISUALIZED WITH PL500, 505nm, 550 FILTER
	Ninhydrin	NINCHAS31, TEMP: 85 DEGREE CELSIUS, TIME: 20 MINUTES, RH: 65% PL500 VISUALIZED: 000 - 650nm
M7EQ7G	Ninhydrin	Positive control checked, Lot # 9/10/2018JAK, Exp 9/10/2019. Misonix humidity chamber set to 32.2°C and 90% humidity. In chamber 47 minutes. 30.1% humidity and 31.9°C at start. 51.8% humidity and 32.2°C at end. Secured in locker to continue to develop for approx. 24 hours.

WebCode	Development Methods	Method Details
MDW3JG	Visual Examination	visual/oblique lighting
	Alternate Light Source	RUVIS, Crime-scope 82s (Foster Freeman) blue/green w/orange filter & UV/clear filter
	Ninhydrin	solution - Petroleum ether formula - Item placed in Caron fingerprint chamber 80 degrees C / 65% humidity for 20 minutes
MF4HQM	1,2-Indanedione	Newspaper Ad treated with 1,2-Indanedione, air-dried, placed in humidity chamber for approximately 20 minutes on the DFO setting (100 degrees, 0% humidity)
	Alternate Light Source	Item 3 examined with the Tracer laser and the Crimescope at varying wavelengths. No ridge detail was observed
	Ninhydrin	Item 3 treated with Ninhydrin, air-dried, placed in the humidity chamber for approximately 6 minutes on the ninhydrin setting (80 degrees, 65% humidity). A latent fingerprint was observed in section C on the front of the newspaper.
MFDFV6	Visual Examination	1ST VISUAL: PL500 AT 000nm, ROOM TEMPERATURE (25°C) TIME: 12:30
	DFO	DFO/METHANOL: NINCHA SET AT 100°C FOR 20 MINUTESS
	Ninhydrin	NIN/HFE: NINCHA SET AT 65°C AND 75% HUMIDITY FOR 20 MINUTES.
MGRZNE	Visual Examination	ROFIN POLILIGHT FLARE+2 = WHITE
	DFO	SPRAY METHOD, NINCHA S31 CLIMATE CHAMBER 96°C (1%RH)
	Ninhydrin	SPRAY METHOD, NINCHA S31 CLIMATE CHAMBER, 64°C (65%RH)
MK9842	Visual Examination	POLIFLARE LIGHT SOURCES USED WITH WAVELENGTHS: 000nm, 415nm, 450nm, 505nm, 530nm & YELLOW, ORANGE, RED GOGGLES.
	FLOURESCENT EXAM	FLOURESCENT YELLOW POWDER USED WITH A FEATHER BRUSH.
	DFO	DEVELOPED IN NINCHA \$31; 0% HUMIDITY, 100°C, 20 MINUTES DEVELOPMENT (PROCESSING) TIME.
	Ninhydrin	DEVELOPED IN NINCHA \$31; 70% HUMIDITY, 70°C, 20 MINUTES DEVELOPMENT (PROCESSING) TIME.
MKUYY8	Visual Examination	1ST VISUAL: USING PL500 POLILIGHT SOURCE RANGE 00nm TO 650nm WAVELENGTH, USING VARIOUS VIEWING GOGGLES.
	DFO	TREATED EXHIBIT WITH DFO/HFE PLACED IN THE NINCHAS31 SET AT 100 DEGREE CELSIUS FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN/METHANOL: TREATED EXHIBIT WITH NIN/METHANOL PLACED IN THE NINCHAS31 SET AT 80 DEGREE CELSIUS AND 65% RELATIVE HUMIDITY FOR 20 MINUTES.

WebCode	Development Methods	Method Details
MNWL3W	Visual Examination	I visually examined the yard sale ad for latent prints. No prints were collected at this time.
	Ninhydrin	I applied the non running ninhydrin solution to the yard sale ad. I allowed the solution to hang dry for 3 minutes, I then placed the ad in my secure locker to allow the solution to develop for at least 7 days. checked on 11/26/18.
MYDL7K	Visual Examination	No print noted
	Alternate Light Source	No print noted
	Ninhydrin	Lot # NINNOV 180614, Control Good, Dipped and put in heat chamber, Print developed in section C
MZ3X2J	Visual Examination	
	Alternate Light Source	Utilized 532nm Laser, 450nm blue light and 365nm UV.
	1,2-Indanedione	Placed in oven for 20 minutes then utilized 532nm Laser.
	Ninhydrin	Placed in humidity chamber for 15 minutes then performed visual exam.
N3QQBT	DFO	THE EXHIBIT WAS SPRAYED WITH DFO AND LET TO AIR DRY. IT WAS THEN PLACE IN A HUMIDITY CABINET SET AT 100°C, NO HUMIDITY.
	Ninhydrin	THE EXHIBIT WAS SPRAYED WITH NINHYDRIN/METHANOL AND LET TOO AIRDRY. IT WAS PUT IN HUMIDITY CABINET (NINCHA) ET AT 80°C TEMPERATURE AND 70% HUMIDITY.
N9VHMB	Visual Examination	FIRST VISUAL: CHECKED FOR PRESENCE OF FINGERPRINTS BEFORE CHEMICAL INVESTIGATION. PL500 WITH VARIOUS LIGHTS AND GOGGLES USED.
	DFO	EXHIBIT DIPPED IN DFO/PETROLEUM ETHER, PLACED IN NINCHA AT 100°C FOR 20 MINUTES AT 12:52 (2018/11/07)
	Ninhydrin	EXHIBIT SPRAYED WITH NINHYDRIN/METHANOL PLACED IN NINCHA AT 80°C, 80% HUMIDITY FOR 20 MINUTES AT 14:35 (2018/11/07)
NMV7U6	DFO	DFO/PETROLEUM ETHER PROCESSING: ITEM 3 WAS TREATED WITH DFO PETROLEUM ETHER, DRIED AND PLACED IN THE OVEN SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	NIN/ACETONE PROCESSING: ITEM 3 WAS FURTHER TREATED WITH NINHYDRIN ACETONE BASE, DRIED AND PLACED IN AN OVEN SET AT 80°C AND 70% HUMIDITY FOR 20 MINUTES.
NV8F76	DFO	ITEM WAS SPRAYED WITH DFO AND PLACED IN THE OVEN AT 100°C FOR 5 MINUTES
	Ninhydrin	ITEM WAS SPRAYED WITH NINHYDRIN AND PLACED IN THE OVEN AT 100°C FOR 50 MINUTES.

WebCode	Development Methods	Method Details
P2Q4FZ	Visual Examination	LIGHT SOURCE: FIRST VISUALIZATION EQUIPMENT: ROFIN PL500 WHITE LIGHT CLEAR GOGGLES.
	DFO	DFO/HFE: PLACED IN NINCHA \$31 AET AT 80°C FOR 20 MINUTES.
	DFO	PLACED IN NINCHA S31 SET AT 70°C, 60% HUMIDITY FOR 20 MINUTES.
РЗЗМНН	Visual Examination	Visually looked at the item
	Alternate Light Source	used 532nm Laser, 450nm blue light, 365nm UV
	1,2-Indanedione	used Indanedione and placed item in the oven for 20 minutes and then used the 532nm Laser
	Ninhydrin	used Ninhydrin and placed item in humidity cabinet for 15 minutes and then performed a visual examination
	Physical Developer (PD)	used physical developer and then performed a visual examination
P7LULC	Visual Examination	FIRST VISUAL: VISUALIZING USING DIFFERENT POLIFLARES AND GOGGLES.
	Ninhydrin	SPRAYING NINHYDRIN LOT NUMBER 17H214110 IN A CHEMICAL FUMING CHAMBER EQUIPMENT AND BAKED IN AN OVEN AT 50°C FOR 1 HOUR 30 MINUTES. RESULTS NEGATIVE
PD6373	Ninhydrin	Threatment in Attestor NinCha 31 cabinet in temperature 65C, humidite 65% at 30min. Good visible print was recovered.
PGBA6M	Visual Examination	10-18-18 White light, 450 nm, 505 nm, 530 nm
	Ninhydrin	10-18-18 Applied with a dropper, Document was allowed to dry. Ninhydrin reapplied. Cure 72+ hours.
	Visual Examination	10/22/18 White light.
	Steam	10/22/18 Steam applied to the document.
PKMDFW	Visual Examination	FIRST VISUAL: VISUALIZED WITH ROFIN PL500 LIGHT SOURCE, WAVELENGTH CARYING FROM 0nm - 490nm, WITH CLEAR, YELLOW AND ORANGE GOGGLES.
	DFO	DFO/HFE (NEL/01/10/2018W): TREATED WITH DFO/HFE BY DIPPING METHOD, PLACED IN NINCHA S31 SET AT 90°C FOR 20 MUNITES.
	Ninhydrin	TREATED WITH NIN/METHANOL BY DIPPING METHOD, PLACED IN NINCHA S31 SET AT 70°C, 80% HUMIDITY FOR 20 MINUTES.

TABLE 2 - Item 3

TABLE 2 - Item 3	)
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WebCode	Development Methods	Method Details
PKZ8VW	Visual Examination	FIRST VISUAL EXAMINATION: THE EXHIBIT WAS EXAMINED WITH DIFFERENT LIGHTS, 450nm, 505nm, 530nm, 650nm BUT NO DETAILS WERE FOUND.
	DFO	THE EXHIBIT WAS DIPPED IN DFO AND DRIED. THEN PLACED INTO NINCHA AT 100°C, NO DETAILS WERE VISUALIZED.
	Ninhydrin	THE EXHIBIT WAS DIPPED NINHYDRIN, DRIED AND PLACED INTO NINCHA AT 80°C, 80% RH AND DETAILS WERE SEEN.
PRL3W2	DFO	ITEM 3 TREATED WITH DFO/HFE, AIR DRIED AND THEN PLACED AT THE NINCHA SET AT 100°C FOR 20 MINUTES.
	Ninhydrin	ITEM 3 TREATED WITH NIN/HFE, AIR DRIED, AND THEN PLACED AT THE NINCHA SET AT 80°C AND 65% HUMIDITY FOR 20 MINUTES.
PY62T2	Visual Examination	
	Fluorescence Examination	
	DFO	Temperature 90°C, humidification 10%, time: 10 minutes
	Ninhydrin	Temperature 60°C, humidification 65%, time: 30 minutes
QA2MD6	Visual Examination	PL500
	DFO	TREATED WITH DFO/HFE PUT IN THE NINCHA \$31 FOR 20 MINUTES AT 100 DEGREE CELSIUS.
	Visual Examination	PL500
	Ninhydrin	TREATED WITH NIN/METHANOL PUT IN THE NINCHA S31 AT 80 DEGREE CELSIUS WITH 65% RELATIVE HUMIDITY FOR 20 MINUTES.
QEZU39	Visual Examination	Examined in the white light and the daylight.
	Alternate Light Source	Examined at 320-405 nm, 450 nm, 470 nm, 490 nm, 505 nm and 530 nm wavelengh light.
	Ninhydrin	Solution was HFE 7100 based. The item was processed in the DFO/Ninhydrin Chamber for 15 min., t - 80°C, RH - 65% and examined in the white light.
QFPCT9	Ninhydrin	Labrum Klimat Cabinet, ninhydrin working solution. Climat cabinet humidity setting: 65%. Climat cabinet temperature setting: 72°C. Processing time in the climat cabinet: 6 minutes
QHFEVF	Ninhydrin	Item was sprayed with Ninprint until saturated and left overnight to dry
	[No Methods Reported.]	Item was exposed to steam heat
	[No Methods Reported.]	A RAW image of the impression was examined in Photoshop CS6 and contrast was adjusted to provide contrast

WebCode	Development Methods	Method Details
QUP9XR	Visual Examination	FIRST VISUAL: ROFIN PL500: LIGHT SOURCE
	DFO	NINCHA S31 TEMP: 80 DEGREE CELSIUS TIME: 20 MINUTES, RELATIVE HUMIDITY: 0% VISUALIZED WITH PL500
	Ninhydrin	NINCHA S31 TEMP: 85 DEGREE CELSIUS TEMP: 85 DEGREE CELSIUS TIME: 20 MINUTES, RELATIVE HUMIDITY: 65% VISUALIZED WITH PL500
QWY23T	Visual Examination	Visually examined under light source.
	Ninhydrin	Sprayed the Ninhydrin over entire newspaper notice and let air dry in hood (item processed for 7 days before visually examining it again).
R2JKMU	Visual Examination	PL500 (000nm, 450nm, UV LIGHT) GOGGLES (CLEAR, YELLOW, ORANGE)
	DFO	DFO-HFE: TEMPERATURE: 80°C, HUMIDITY: 0%, TIME: 20 MINUTES PL500, GOGGLES (450nm, 505nm,ORANGE GOGGLES)
	Ninhydrin	NINHYDRIN (ACETONE): TEMPERATURE: 70°C, HUMIDITY: 60%, TIME: 20 MINUTES PL500, GOGGLES (000nm,CLEAR GOGGLES)
R6HWKE	Visual Examination	
	Alternate Light Source	532nm LASER, 450nm, 365nm UV
	1,2-Indanedione	Development accelerated using humidity chamber (20 min); examined visually and under 532nm LASER
	Ninhydrin	Development accelerated using humidity chamber (15 min)
	Physical Developer (PD)	
RDET8H	Visual Examination	350nm, 000nm, NO FILTER
	DFO	DFO PETROLEUM ETHER: 505nm, 450nm, 620nm, 490nm, 000nm, NINCHA S31, 100°C, 0% HUMIDITY, 15 MINUTES
	Ninhydrin	NINHYDRIN METHANOL: NINCHA S31, 65°C, 65% HUMIDITY, 7 MINUTES 000nm, 450nm
REA6BX	Visual Examination	VIEWING OF EXHIBIT WITH WHITE LIGHT 00nm, NO CHEMICAL WAS APPLIED.
	DFO	TREATED WITH DFO/HFE: DIPPED IN DFO/HFE BASE, ALLOWED TO DRY AND PLACED IN NINCHA SET A 100°C FOR 150 MINUTES. WITH NO HUMIDITY SET. BATCH NUMBER OF DFO: BCBQ2596V. BATCH NUMBER OF HFE: BCB54887.
	Ninhydrin	TREATED WITH NINHYDRIN/METHANOL: DIPPED IN NINHYDRIN/METHANOL BASE, ALLOWED TO DRY AND THEN PLACED IN NINCHA ET AT 70°C, 80% HUMIDITY FOR 20 MINUTES. BATCH NUMBER OF NINHYDRIN: BCBV8117 BATCH NUMBER OF METHANOL: STBG0915V.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details	
RGD64H	DFO	AT ROOM TEMPERATURE IN THE EXTRACTION FUMING CHAMBER AND AT 100°C IN NINCHA	
	Ninhydrin	AT ROOM TEMPERATURE IN THE EXTRACTION FUMING CHAMBER AND SET AT 65°C IN NINCHA AT 65% HUMIDITY.	
RNVFGH	Ninhydrin	EXHIBIT WAS PLACED INSIDE THE OVEN WITH TEMPERATURE OF 150°C AND HUMIDITY 50% AFTER IT WAS SPRAYED WITH NINHYDRIN METHANOL.	
RPBNVD	Visual Examination	with and without oblique lighting	
	Alternate Light Source	RUVIS system - Sirchie Krimesite Imager, Foster + Freeman 82s' - UV and Blue-green with orange barrier filter	
	Ninhydrin	Caron chamber @ 65% relative humidity and 80 degrees C for twenty minutes	
RPTWJ8	Ninhydrin	spray method, heat and humidity chamber 20 minutes 80C, 65% humidity	
RQPA7Z	Ninhydrin	HFE base. Tray immersion for ~5 sec. Air dried. Steam iron for 10-20 sec. Develop in locker.	
RRZ8JH	Visual Examination	white light	
	Alternate Light Source	350nm	
	Alternate Light Source	515nm	
	Ninhydrin	HFE carrier. Heat and humidity chamber for approximately 1 hour.	
RVC8NV	Ninhydrin	NINHYDRIN/METHANOL: RELATIVE HUMIDITY: 70%, TEMPERATURE: 65°C, PROCESSING TIME: 10 MINUTES	
T2G39V	Visual Examination	LIGHT SOURCE: FIRST VISUALIZATION, EQUIPMENT: ROFIN PL500, 450nm, UVNM, 415nm, GOGGLES.	
	DFO	DFO/HFE: PLACED IN NINCHA AT 80°C FOR 20 MINUTES	
	Visual Examination	LIGHT SOURCE: SECOND VISUALIZATION, EQUIPMENT: ROFIN PL500, 450nm LIGHT, ORANGE GOGGLES.	
	Ninhydrin	NINHYDRIN (METHANOL): PLACED IN NINCHA AT 70°C, 60% HUMIDITY FOR 20 MINUTES.	
	Visual Examination	LIGHT SOURCE: THIRD VISUALIZATION, EQUIPMENT: ROFIN PL500, 000nm LIGHT, CLEAR GOGGLES.	
T8RCGD	Mag powder	no results	
	DFO	100 degrees Celsius for 20 minutes	
	Ninhydrin	80 degrees Celsius at 65% humidity for 3 minutes	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details		
TE73WD	DFO	20 minutes, 100 C		
	Ninhydrin	30 minutes, 80 C, RH 65%		
TJKNZH	Visual Examination	Visually examined for prints and took note page photos		
	Ninhydrin	Applied Heptane Ninhydrin, waited nine days for print to develop. Print was very weak and hard to see. Applied heat and steam and print did not develop further.		
TMU38V	Visual Examination	NAKED EYE		
	DFO	100% 20 MINUTES (NINCHA)		
	Ninhydrin	70% 70°C 20 MINUTES (NINCHA)		
TNT8NP	Visual Examination	FIRST VISUAL: GENERAL SEARCHING WITH LIGHTS (nm) 400 - 680 (WHITE LIGHT) 350, 450, 470, 490 WITH GOGGLES, ORANGE, CLEAR, YELLOE AND RED AT 20:08 ON 2018/11/02, NO POSITVE RESULT VISUAL 18:35 2018/11/03		
	DFO	PROCESS WITH DFO HFE AT 18:05 ON 2018/11/03. PLACED IN OVEN AT 100°C FOR 20 MINUTES. DFO BATCH DFO HFE 01/10/2018W		
	Visual Examination	POST DFO VISUAL LIGHTS USED 450nm, 470nm, 490nm, 505nm, 530nm, 555nm, 590nm, WITH ORANGE & RED GOGGLES AT 18:35 ON 2018/11/03 WITH NO PISOTVE RESULT		
	Ninhydrin	NINHYDRIN ACETONE: PROCESSED WITH NINHYDRIN ACETONE AT 19:25 ON 2018/11/03. PLACED IN OVEN AT 80°C AND 65% HUMIDITY. UNIQUE NUMBER = NIN-ACET 01/10/2018W. ON 2018/11/04 AT 14:20 EXHIBIT WAS PROCESSED WITH NIN ACETONE AGAIN AS ABOVE AFTER CAPTURING PRINT RECEIVED DURING 2018/11/03 PROCESSING, NO FILTER CAPTURING.		
	Visual Examination	VISUALIZED AT 13:35 ON 2018/11/04 WITH LIGHT 415nm, 470nm, 490nm, 505nm, (400nm - 680nm) AND CAPTURED IMAGE C (1) TWICE WITH LIGHT 505nm, FILTER 555nm AND WITH WHITE LIGHT AND NO FILTER AT 14:02 AND 14:06 ON 2018/11/04 RESPECTIVELY.		
TRV2NF	Alternate Light Source	White light, blue/green, green, UV.		
	DFO	100 degrees celsius for 20 min		
	Alternate Light Source	fluorescence examination with polylight: 550 nm		
	Ninhydrin	3,5 min in humidity chamber, 50 degrees celsius and 70% relative humidity.		
	Alternate Light Source	White light.		

TABLE 2	- Item 3
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WebCode	Development Methods	Method Details		
U38TM9	Visual Examination	After exhibit was removed from the envelope it was visualised using white light. DFO		
	DFO	DFO/Petro was used into Nincha 531 at 100°C, 0% humidity for 20 minutes.		
	Ninhydrin	Nin/Ethanol was used at 65°C, 80% humidity for 20 minutes into Nincha 531.		
U7C3CJ	Visual Examination	flashlight. No visible ridge detail observed.		
	1,2-Indanedione	60 min, 50c/60% Humidity, 532nm, Orange Filter, control positive. No areas of ridge detail were observed or developed.		
UB6APZ	Visual Examination			
	Ninhydrin	11/29/18: Ninhydrin-Special Formula used at room temperature to saturate surface. Item was allowed to air-dry over night. 11/30/18: No detail was observed. Surface was saturated with ninhydrin-special formula at room temperature a second time, and a steam iron was used to develop detail. The item was again air-dried overnight.		
UBM8W7	DFO	DFO-HFE: 0% HUMIDITY, 100°C, NINCHA TEMPERATURE, SPRAYING METHOD		
	Ninhydrin	65% HUMIDITY, 65°C TEMPERATURE SPRAYING METHOD, NINCHA REF: 001		
UE28QC	Visual Examination	Item examined using white light followed by high intensity light source exam (Green (~540nm), Blue (~469nm) and UV (~360nm))		
	DFO	DFO Batch DFO013/18 @100 degrees celcius ambient humidity for 20 mins		
	Ninhydrin	NINWS002/18 ~80 degrees celcius and 65% humidity for 4 mins		
UE4WVA	Visual Examination			
	Alternate Light Source			
	Ninhydrin	Steam iron, 24 hour development time, repeated		

WebCode	Development Methods	Method Details		
UEG9UE	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 CAST 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 CAST 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 CAST 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		
UEYEVP	Visual Examination	White light		
	Alternate Light Source	Polilight - all available wavelengths		
	DFO	100° C, 0% RH, Processing time 10 min		
	Ninhydrin	80° C, 65% RH, Processing time 5 min		
	Physical Developer (PD)	Processing time 15 min		
V8FGXP	Visual Examination	FIRST VISUAL EXAMINATION: WHITE LIGHT NO FILTER		
	DFO	DFO/HFE: ITEM 3 TREATED WITH DFO/HFE, AND PLACED IN NINCHA SET AT 80°C AND FOR 20 MINUTES.		
	Ninhydrin	NIN/HFE: ITEM 3 TREATED WITH NIN/HFE, PLACED IN NINCHA AT 80% AND 65% HUMIDITY FOR 16 MINUTES.		

WebCode	Development Methods	Method Details		
V9PNYW	DFO	DFO/PETROLEUM ETHER (OVEN): 100°C, 20 MINUTES		
	Ninhydrin	NINHYDRIN (OVEN): 70°C, 20 MINUTES		
VB27BF	Visual Examination			
	1,2-Indanedione			
	Alternate Light Source	Laser		
	Ninhydrin			
VEZKX6	Ninhydrin	20 minutes at 80C and 65% humidity		
VFE32B	1,2-Indanedione	Treated item with Indanedione and then put in heat press at ~160 degrees Celsius for about 10 seconds.		
	Alternate Light Source	Item 3 viewed with laser set at 532 nm and orange barrier filter used. No ridge detail observed at this point.		
	Ninhydrin	Item processed/coated thoroughly with Ninhydrin. Once dry, heat/humidity was applied using a steam iron for 2-5 minutes until sufficient development occurred. Item was left to develop over 48 hours with no improvements; no additional photos taken.		
VNPBKX	Visual Examination	Processing Time: 1 minute		
	Ninhydrin	Processing Time: 20 minutes total time. ( item was sprayed twice due to faint development). Ninhydrin Special Formula used		
	Humidity Development Chamber	Processing time: 1 hour total time. Processing Temperature: 200 degrees Fahrenheit. (item was processed twice due to faint development, end result still very faint)		
VPENYA	Ninhydrin	1st. Visual Examination: Visible light, 415-650 nm, UV, 2nd. DFO: temp. 90 degrees Celsius, time 10 minutes, 450-530 nm, 3rd. Ninhydrin: 80 degrees Celsius, humidity 60%, time 10 minutes		
VPNA47	Visual Examination	VIEWED WITH AMBIENT/WHITE, UV, GREEN (TRACER), BLUE		
	DFO	CARON CHAMBER 100 C, FOR 20 MINUTES, VIEWED WITH TRACER		
	Ninhydrin	CARON CHAMBER 80 C, @ 65% RH FOR 2 MINUTES		
	Physical Developer (PD)	IN SOLUTION FOR 15 MINUTES		
VXAR37	DFO	DFO/HFE PROCESSING: EXHIBIT WAS DIPPED INTO DFO/HFE AND PLACED IN NINCHA SET AT 100°C FOR 25 MINUTES.		
	Ninhydrin	NINHYDRIN/METHANOL: EXHIBIT WAS DIPPED INTO NIN/METHANOL AND PLACED IN A NINCHA AT 70°C AND 70% HUMIDITY FOR 25 MINUTES.		

#### **Development** Methods WebCode **Method Details** VZYXKG Visual Examination at room temperature the whole item at 95°C, Humidity at 80% for 5 minutes Ninhydrin W4U774 **Visual Examination** FLOURESCENT EXAMINATION: WHITE LIGHT, UV LIGHT WAS USED WITH ANTI-STOKES LASER ITEM WAS TREATED WITH ANTI-STOKE POWDER USING VIEWING ENCLOSES (ASV) MAGNETIC BRUSH Powder Dusting BLACK MAGNETIC POWDER: MAGNETIC BRUSH WAS USED TO APPLY BLACK MAGNETIC POWDER ON ITEM 3. DFO DFO (HFE) WAS USED BYNDIPPING METHOD AND IT WAS PUT IN NINCHA FOR 20 MINUTES AT 100°C MI/METHANOL WAS USED WITH DIPPING METHOD ALLOW Ninhydrin IT TO DRY AND PLACE IT IN NINCHA FOR 20 MINUTES AT 80°C AND 85% Visual Exam W7JDNE white light and fluorescence exam. 350nm - 650nm with appropriate edge filters DFO Item dipped in the liquid, heated in oven for 20 min. at 95°C, examine with 505 nm and orange filter Ninhydrin Item dipped in the liquid, heated in oven for 10 min. at 70°C, 60% Rh, examine with white light W8D28A **Visual Examination** in natural light and light from forensic illuminator, no prints DFO time - 20 min., temp. - 100 C, no prints time - 20 min., temp. - 70 C, RH - 62 %, print was observed in Ninhydrin section C WAE8KV 1,2-Indanedione First in Indanedione 1,2 and then Ninhydrin at temperature 65C and humidity 65% 30min. Visual Examination WAHWNR By visual examination we couldn't find any fingerprints. Ninhydrin We used Ninhydrin on the rest of the closure tab. Humidity settings: 65 %, Temperature settings: 72 Celsius, Prosessing time: 6 minutes. WNMYHM **Visual Examination** Fluorescent lighting Lot#HFENIN181017. Humidity chamber at temperature 38.7 Ninhydrin and 69.2 humidity; Steam iron also used. Lot#PD181113; Lot#MAP180706. Placed in maleic acid then Physical Developer (PD) in PD solution for approx. 3 minutes. WRKCCD Visual Examination White ambient light. No print detected. DFO ALS, alternate light source, (Green light 500-550 nm). No print detected. Ninhydrin Print detected with great visual details.

WebCode	Development Methods	Method Details		
WV73PP	Visual Examination	Note page photographs taken.		
	Ninhydrin	Heptane ninhydrin applied to yard sale notice. I waited six days to view the development (unit policy 10 days).		
WVF3F4	Visual Examination	White light		
	Ninhydrin	Ninhidrin spray "NIN-PRINT" B-78500 BVDA. Room temperature 21 C, room humidity 46%, procesing time 5 days, spraing time 5-6 s.		
WXRZQZ	DFO	USING DFO BATCH # 15AS979, DFO OVEN #1 AT TEMPERATURE OF 100C FOR 20 MINUTES. A CONTROL SAMPLE WAS USED WITH THE EXHIBIT (WHITE PAPER). ONCE EXHIBIT COOLED IN FUME CUPBAORD, WAS EXAMINED IN A DARK ROOM USING GREEN CRIME LITE (490NM- 560NM) AND ORANGE FILTER GOGGLES. THIS WAS NEGATIVE FOR RIDGE DETAIL.		
	Ninhydrin	USING NINHYDRIN BATCH # 139752, NIN OVEN #3 AT TEMPERATURE OF 80C, 62.5% HUMIDITY FOR 6 MINUTES. A CONTROL SAMPLE WAS USED WITH THE EXHIBIT (WHITE PAPER). ONCE EXHIBIT COOLED IN FUME CUPBOARD, WAS EXAMINED USING WHITE CRIME LITE. RIDGE DETAIL WAS FOUND.		
WZZ4MX	Visual Examination			
	Ninhydrin	Special formula solution, dry for 10-15 minutes, hot iron steam 10-15 minutes to develop, air-dry overnight, solution again, hot iron steam 10-15 minutes to develop, air-dry overnight		
X2L8VU	Ninhydrin	This item was sprayed with ninhydrin, and allowed to dry for two hours. Heat was applied for approximately 1-2 minutes. No ridge detail was initially observed. Ninhydrin was applied, and allowed to dry for five minutes. Heat was reapplied for 1-2 minutes. Ninhydrin Special Formula was used.		
	Visual Examination	Visual examination performed before and after ninhydrin spraying.		
X88DYV	Visual Examination	1ST VISUAL: PL500AT 000nm		
	DFO	DFO/METHANOL: NINCHA SET AT 100°C FOR 20 MINUTES		
	Ninhydrin	NINHYDRIN/HFE: NINCHA SET 65°C AND 75% HUMIDITY FOR 20 MINUTES.		
X9GD43	Ninhydrin	NINHYDRIN SPRAYING DEVELOPMENT: ITEM WAS SPRAYED WITH MIMHYDRIN THEN ALLOWED TO DRY. THE ITEM WAS PUT IN NINCHA S31 FOR 20 MINUTES AT A TEMPERATURE OF 80°C AND HUMIDITY OF 80.		

TABLE 2 - Item 3

WebCode	Development Methods	Method Details		
XF8F29	Alternate Light Source	viewed with Laser		
	DFO			
	Ninhydrin			
XGFUY2	Visual Examination	white light		
	Ninhydrin	room temperature, test print used, steam iron, observed results with white light		
	Zinc chloride	heat press, test print used		
	Alternate Light Source	forensic light source used 475 nm with red and orange goggles		
XKEZTL	Visual Examination			
	Ninhydrin	Processed for approximately 15 hours.		
XQLN99	1,2-Indanedione	temp 90oC, humidity 5%, time 15 min		
	Ninhydrin	temp 21oC, humidity 80%, time 30 min		
XTA4HG	Visual Examination	PL500, White light, clear goggles		
	DFO	Dipping method, Nincha 531, 30°C, 20minutes		
	Visual Examination	PL500, 45nm, orange goggles		
	Ninhydrin	Brushing method, nincha 531, 30°C, 20 minutes		
	Visual Examination	PL500, white light, clear goggles		
XWB8A4	DFO	Porous exhibit treated chemically by spraying with DFO (Meth base). Allowed to dry and placed in oven for minutes at 100°C.		
	Ninhydrin	There after examination retreated by spraying with Ninhydrin (Meth base), placed in oven at 80°C and 65%RH for between 4-7 minutes.		
Y22NN3	Visual Examination	Visualized in ambient light and with a white light source (flashlight) at oblique and direct angles.		
	Alternate Light Source	Visualized with an ALS between 495nm-515nm and an orange barrier filter.		
	1,2-Indanedione	Visualized with an ALS between 495nm-515nm and an orange barrier filter.		
Y7FNKU	Visual Examination	Naked eye		
	Ninhydrin	Ninhydrin Special Formula. Saturated by spraying, air dried, placed in humidity chamber for 20 mins at 200 degrees. Repeated spraying, allowed to sit over night.		

WebCode	Development Methods	Method Details		
Y7RCU8	Visual Examination	Using a bright white light, I visually examined item 3 (newspaper yard sale article) for latent fingerprints. No latent prints were discovered during visual examination.		
	Alternate Light Source	Three light sources were used to examine item 3 for latent fingerprints. I used a 365nm UV light, a 450nm blue light and a 532nm laser within the alternate light source room. While examining these items under different alternate light sources, I was wearing the appropriate goggles per light source. No latent prints were discovered under the alternate light source processing step.		
	1,2-Indanedione	Item 3 was processed with 1,2-indanedione. The newspaper article (item 3) was painted with 1,2-indanedione within the fume hood. I let the item dry for approximately 10 minutes. After the item was dry, I placed it in the 100 degree Celsius oven for 20 minutes. After 20 minutes, I visually examined the item using white light. Nothing was visible. I then went into the alternate light source room and using the appropriate safety goggles, I examined the item using a 532nm laser. No latent prints were discovered during 1,2-Indanedione processing.		
	Ninhydrin	Item 3 was processed with Ninhydrin. The newspaper article (item 3) was painted with Ninhydrin within the fume hood. I let the item dry for approximately 10 minutes. After the item was dry, I placed it in the 76% humidity chamber for approximately 15 minutes. After 15 minutes, I visually examined the item using a white light and magnifier. At this point, I found a latent fingerprint on item 3 (newspaper yard sale notice - Quadrant C - whorl). A supervisor reviewed the latent print found before I continued my exams.		
Y8NPGZ	Visual Examination	Natural light, white light.		
	Ninhydrin	Ninhidrin spray was used to find latent print on a white envelope. A white envelope was left in a dark room (about 22 degrees Celsius) for 7 days. The method was repeated seven days later. The latent print was not recovered.		
YMLMUX	Visual Examination	used ambient lighting and flashlight		
	1,2-Indanedione	used Caron at 80 degrees Celsius for 15 minutes		
	Alternate Light Source	laser exam with the green laser at 532 nm with orange goggles		
	Ninhydrin	used Caron at 80 degrees Celsius and 70% humidity for 15 minutes		
	Visual Examination	visual examination using ambient lighting		
YUHM76	Visual Exam	Room light		
	Ninhydrin	+ control; sprayed entire newspaper; air dry; humidity chamer 2.5 hours		
	Print Development	Placed in secure locker for 5 days to allow print to develop		

WebCode	Development Methods	Method Details		
YYRUGG	Ninhydrin	Ninhydrin Methanol was sprayed in the exhibit and let to air dry. It was then put in the humidity cabinet with 80°C and 70% humidity for 5 minutes. No finger print developed.		
Z642T8	Alternate Light Source			
	Ninhydrin	Air dried, then steam heat 1 day later		
	Ninhydrin	Air dried, then steam heat 4 days later		
ZDA3RD	Visual Examination	White light, Crimelite 80S 430-470nm and 500-550nm		
	DFO	Cyklohexane, climate chamber, 100 degrees Celsius, 10 minutes. Examination: Crimelite 80S 500-550nm		
	Ninhydrin	HFE 7100, climate chamber, 80 degrees Celsius, 65% RH, 2 minutes. Examination: White light		
	Physical Developer (PD)	Synperonic NP8, water based. Pretreatment maleic acid, PD working solutions, rinsing in water bath tree times, RT, 5-10 minutes. Examination: White light		
ZDCHG8	Visual Examination	White light only. Results were negative.		
	Alternate Light Source	Multiple filters applied. Results were negative.		
	DFO	Dipped in DFO and allowed to air dry. Placed in DFO oven for 25 minutes. Results were negative.		
	Ninhydrin	Dipped in Ninhydrin and allowed to air dry. Allowed 36 hours to develop. Results were negative.		
ZH3YNQ	DFO	DFO/PETROLEUM ETHER PRE-HEATED THE OVEN AT 100°C FOR 5 MINUTES. LOADED TWO EXHIBITS THAT WERE DIPPED IN DFO WORKING SOLUTION INTO THE OVEN FOR 20 MINUTES.		
	Ninhydrin	NIN/METHANOL - PRE-HEATED THE OVEN AT 80°C FOR 5 MINUTES. PLACED ON OVEN SAFE GLASS BEAKER WITH BOILING WATER IN THE OVEN FOR HUMIDITY AND EXHIBITS FOR 20 MINUTES.		
ZL3AFK	Ninhydrin	Petroleum Ether formulation; applied with a squeeze bottle. Developed in Arrowhead humidity chamber at 70% humidity for about 10 minutes. Ridge detail was observed in box C.		
ZMBKB3	Visual Examination	ROFIN PL500 USED, WHITE LIGHT TIME: 10:50		
	DFO	DFO/HFE (DIPPING METHOD): EXHIBIT DIPPED IN THE DFO/HFE, PLACED IN NINCHA 100°C FOR 20 MINUTES 11:25		
	Visual Examination	PL500, WITH 470nm AND ORANGE GOGGLES AT 14:27		
	Ninhydrin	NINHYDRIN/METHANOL: SPRAYED WITH NINHYDRIN/METHANOL IN THE NINCHA S31, 60°C AT 65% HUMIDITY FOR 20 MINUTES AT 15:00		

WebCode	Development Methods	Method Details
ZMDAEZ	Visual Examination	FLOURESCENT EXAMINATION: WHITE LIGHT WAS USED AS WELL AS WAVELENGTHS 350nm - 650nm
	Anti-stokes laser Viewing encloses (ASV)	MINIMAL ANTI-STOKES POWDER WAS USED WITH A MAGNETIC BRUSH
	Powder Dusting	BLACK MAGNETIC POWDER WAS USED WITH A MAGNETIC BRUSH
	DFO	HFE BASED DFO WAS USED. SPRAYING METHOD WAS USED. EXHIBIT WAS LEFT TO AIR DRY COMPLETELY BEFORE PLACING IN THE NINE EXHIBITS WAS PLACED IN NINCHA AT 100°C FOR 20 MINUTES.
	Ninhydrin	NINHYDRIN-METHANOL WAS USED. DIPPING METHOD WAS USED. EXHIBIT WAS LEFT TO AIR DRY COMPLETELY BEFORE PLACING IN THE NINE EXHIBIT WAS PLACED IN THE NINCHA AT 80°C AND 80% HUMIDITY FOR 20 MINUTES.
ZQE9X6	mag powder	processed with black mag powder with negative results
	DFO	dipped in DFO for approximately 5 seconds then hung to air dry. repeated process then put in chamber at 100degrees Celsius for 20 minutes.
ZTZ4AC	Visual Examination	PL500 - White light, clear goggles
	DFO	Dipping method, oven 50°C, 80RH, 20minutes
	Visual Examination	PL500 white light, clear goggles
	Ninhydrin	Dipping method, oven 50°C, 80% RH, 20 minutes
	Visual Examination	PL500 White light, clear goggles
ZXGABR	Visual Examination	
	Alternate Light Source	Fluorescence examination
	DFO	Temperature = 100 Celsius degrees, Time = 10 minutes
	Ninhydrin	Temperature = 80 Celsius degrees. Huminity = 60%, Time= 10 minutes

Response Summ	nary			Participants: 250
		Methods Utilized		
Alternate Light Source	44	Physical Developer	14	<b>**Note</b> : Methods listed are
Cyanoacrylate Fuming	0	Powder Dusting	8	the preloaded options tor selection via the CTS Portal
DFO	124	Visual Examination	197	and do not reflect all answers
Dye Stain	0	Wet Powder Suspension	0	provided by participants.
Ninhydrin	239	1,2-Indanedione	28	

# **Preservation Methods**

WebCode	Preservation Methods	Method Details
28YDQQ	Photography	POLIVIEW: NIKON D700, F/STOP = F/16, EXPOSURE = 1 TIME: 20 SECONDS, ISO - 1600. PL500 @ 530nm WITH GREEN (555) FILTER
2JNATN	Photography	CAPTURING: USING POLIVIEW CAPTURING SYSTEM (DIKON CAMERA) AND PL500 SET AT 505nm WITH 610nm FLITER (DFO) AND 505nm LIGHT WITH 555nm FILTER (NINHYDRIN).
2QFFLJ	Photography	Photography was used to document the item after black powder processing, 1,2-Indanedione processing, and Wetwop processing. Photography was used to document negative results after 1,2-Indanedione and Wetwop.
2UPXKL	Photography	CAPTURED NIN/DFO: POLIFLARE +2 AND CAPTURED POSITIVE PRINT
2WK3RZ	Photography	532 nm laser/orange filter, inspection - visible light, ninhydrin
2WXW92	Photography	
2Y84BU	Photography	post-Sticky Side Powder - tungsten light, post-ninhydrin - tungsten light
368RGZ	Photography	DIGITAL CAPTURING: ORANGE GOGGLE 550 FILTER, NIKON D800 CAMERA, SETTINGS ISO 400, APERTURE 3-5, SHUTTER SPEED 1/640. NINHYDRIN PRINT WAS CAPTURED ON DCS WITHOUT LIGHT OR FILTER. IMAGES WERE PRINTED AND SENT 08 PLACED IN AN ENVELOPE, TWO DVDS WERE BURNED AND MARKED 'MASTER' AND 'ARCHIVE'. THEY WERE STORED SEPARATELY.
38DC8L	Photography	CAPTURING OF DEVELOPED LATENT PRINTS: USING NIKON INTERFACE CAPTURING SYSTEM, CAPTURING LATENT PRINTS WITH AID OF ROFIN PL500 470nm FOR DFO AND 000nm FOR NINHYDRIN.
	PRINTING OF LATENT PRINTS	PRINTING OF LATENT PRINTS IN BLACK AND WHITE USING V++ PROGRAM AND CREATING A GIANT ARCH.
3AJG2A	Photography	The latent print developed was photographed with camera and enhanced using V++ system and printed as a hard copy.
	CD	The latent print developed was validated using very data and written on the CD as a working copy and also created a master and archive copies.
3F9YQ7	Photography	Technical photographs taken of developed latent print

WebCode	Preservation Methods	Method Details
3NHJLM	Photography	CAPTURING ON DC-3: AFTER THE PRINT WAS DEVELOPED WITH DFO/HFE, THE PRINT WAS CAPTURED USING THE DIGITAL CAPTURING SYSTEM WITH 450nm LIGHT SOURCE WITH AN ORANGE FILTER, PRINT 1 FOLLOWING THE PRINT WAS DEVELOPED WITH NIN/METHANOL. THE PRINT WAS CAPTURED USING WHITE LIGHT, NO FILTER PRINT 1
3PE2HW	Scanning	Scanner Epson perfection V700 photo
3Q8Q6Y	Photography	POLIGLSRE (PL500) POLIVIEW CAPTURING: UV-LIGHT, 415nm FILTER, POLIVIEW CAPTURING IMAGE.
	Scanning	DIGITAL LIGHT SCANNER: V++, VERIDATA CAPTURING AND PRINTING OF IMAGES.
3X8A3N	Photography	Photographic fixation was used for preservation, since over time it can disappear.
42KGYL	Photography	Captured with canon EOS 500D 450nm light, orange filter, white light, no filter and V++ soft ware to enhance.
	Giant Arch Card and CD	DNP printer to print, create working CD, master CD and archive CD
43DBQN	Copier	Photo Copied
43FWM6	Package	Returned envelope to original packaging.
48PDJL	Photography	POLIVIEW (DFO): PL500, 0.00nm, WHITE LIGHT, P2 WHITE GOGGLES
	Photography	POLIVIEW (NIN): PL500, 0.00nm, WHITE FILTER, P2 WHITE GOGGLES.
4A2RN9	Photography	
4BCQTP	Photography	CAPTURING: FOR DFO/HFE, 450nm, 550 FILTER, ORANGE GOGGLES, 12:30 FOR NINHYDRIN/METHANOL, 000nm, CLEAR GOGGLES, NO FILTER
	REPACKAGING	EXHIBITS PHOTOGRAPHED, PLACE AND POSITION PHOTOGRAPHED AND EXHIBIT PLACED INTO NEW EXHIBIT BAG
4CGK4F	Photography	POLIVIEW: PL500 WAS USED AT 450nm WITH 550nm ORANGE FILTER AT P6 NIKON D700 CAMERA WAS USED F/STOP = 7/16 EXPOSURE 1/2 SECONDS, ISO - 2000

WebCode	Preservation Methods	Method Details
4ECW8V	Photography	DIGITAL CAPTURING - POLIVIEW: FINGERPRINT IMAGES CAPTURED ON POLIVIEW SYSTEM, USING 450nm LIGHT AND ORANGE FILTER FOR DFO PRINT AND NORMAL WHITE LIGHT USED FOR CAPTURING PRINT MADE WITH NINHYDRIN.
	BURNED TO DISC	IMAGES BURNED TO DISC FOR SAFE KEEPING AND STORAGE.
4NVFKZ	Poliview Capturing System	415nm, yelloe filter, F-Stop - F18; Exposure time - 1/20seconds, ISO Speed - ISO-200; Focal length - 60mm, Max aputure 3.5
4NX8DG	Photography	NIKON MOUNTED TO A POLIVIEW SYSTEM: 1. NIKON D700 AET AT 0.37 LIGHT METER, F-STOP/14 AND ISO 2000. POLIVIEW SET AT 450nm LIGHT WITH 610nm FILTER FITTED ON THE CAMERA. EXPOSURE TIME 1/2 SECOND.
	DISC BURNING	2. DATA BURNED ON CD-R, MASTER, WORKING AND ARCHIVE DISCS KEPT SAFE WITH WORKING DISC ATTACHED TO THE CASE FILE.
4RDUT8	Photography	After each method.
64NMW8	Photography	Photographed print.
68R9WQ	Photography	Nikon 105mm lens on Nikon D800 camera with Laser 532 nm and filter laser coherent; Nikon 105mm lens on Nikon DCS5 camera with a combination of 410nm, 445 nmand 520 nm light.
6BLARD	Photography	CAPTURING: LIGHT WAVELENGTH - 505nm FILTER - ORANGE FILTER
6DAQ7R	Photography	PHOTORGAPHED ON DCS4 IMAGE CAPTURING SYSTEM, USING POLYTEC RINGLIGHT WITH WHITE FILTER, POLARISING FILTER ON CAMERA. IMAGE (LABELLED PSC1) SENT TO REGIONAL IDENTIFICATION BUREAU VIA REMOTE TRANSFER
6EAJAR	Scanning	
6PNNBV	VISUAL	CHECKING VISIBLE PRINTS
	Photography	CAPTURING OF VISIBLE PRINTS.
6W9PK7	Photography	RAW format; surface to sensor distance no greater than 0.49 meters
7ARVW8	Photography	White light, Canon 550D, macrolense

WebCode	<b>Preservation Methods</b>	Method Details
7L3BT6	Photography	
7ME4RD	Photography	Using DCS-4 with white light from ALS- photographed visible ridge detail after Ninhydrin in quadrant A.
	Photography	Using DCS-4 with white light from ALS- photographed visible ridge detail after WetWop in quadrant A.
7R78MD	Photography	POLIVIEW CAPTURING SYSTEM: EXHIBIT WAS CAPTURED USING PL500 AT WAVELENGTH 000nm WITH NO FILTER.
7VR3FX	Digital Photography	Digital photography, enhance in Photoshop, print 1:1
83P62A	Photography	DFO- Images taken using an ALS. NIN- Images taken using crime lite and incandescent light
8B33PT	Photography	Used digital camera to capture impression.
8HE7PZ	Photography	
8PZ2TP	Photography	Photo taken in RAW-format, ruler included with a label including case- and item number.
8RR4P6	Photography	Wetwop on adhesive part of interior envelope flap.
8U8W4C	Photography	NIKON D800, F/STOP = F/16, EXPOSURE = 1 TIME 20 SECONDS, ISO 2000.
	POLIVIEW	PL500 AT 505nm WITH 550nm FILTER AT P8
928KNP	Photography	white light using EOS Canon camera
9A3EUA	Photography	POLIVIEW CAPTURING SYSTEM: PRINT DEVELOPED WAS CAPTURED USING PL500 AT WAVELENGTH 00nm AND NO FILTER.
A4TGX2	Photography	Foster + Freeman DCS-5
A6JYKU	Photography	
AKGQNJ	Photography	Using light 530 nm, red filter, Canon Eos 760 D, macro objective 100 mm. Cropped with Adobe Photoshop Elements 10
AQMKKZ	Photography	After each method.
AVDY62	Photography	COC with Canon camera, images with poliview - white light slow shutter.

WebCode	Preservation Methods	Method Details
AX2ELN	Photography	The fingerprint was not suitable for determination due to lack of sweat secretion
	Scanning	The fingerprint was not suitable for determination due to lack of sweat secretion
AYD32U	Photography	
B2MFBA	Photography	Photographed black powder developed print of the ridge detail that developed just above and just below the acetate strip. Did not remove the strip.
	Photography	Photographed IND developed ridges
B39D8E	Photography	Canon EOS-1 Ds Mark-II + Macro lens EF 100 mm. 1:2,8.
BDPZGE	Photography	"Nikon D750"
BHV8FY	Acetate Strip	Protective acetate strip placed back over adhesive strip and repackaged
BJG829	Photographs	DSLR
BNDPPZ	Photography	
BZQWDN	Scanning	
C3PUYZ	Photography	The images were captured for first visual were positive and after processing were captured as well.
C7TBNG	Photography	Photography Unit request generated
CBN2D2	Photography	Digital photographs of the ridge detail within the area labeled as A were taken and preserved in Foray
CFAEG9	Photography	POLIVIEW SYSTEM (Onm, FILTER Onm)
	SEALING IN EVIDENCE BAG	BAG #PA3000272636
СКААТН	[No Methods Reported.]	Print would be photographed for actual casework.
CYBYUP	Photography	Nikon D-5 with Foster and Freeman Digital Capture System 5 software using white/ambient light and 532nm Tracer laser/green light with orange filter.
D7KXAK	Photography	this item was photographed and after peer verification review this item was destroyed

WebCode	Preservation Methods	Method Details
D8XFMX	Photography	CAPTURING FINGER MARKS: PL500, D700 NIKON CAMERA, 450nm, ORANGE FILTER, ORANGE GOGGLES.
	PRINTING	COMPUTER, PRINTER, PAPER
D9VRHQ	Photography	Photographed overall item & developed FRD w/scale
DCEQRE	Photography	
DEJCL7	Photography	Took overall and close-up photos of ridge detail in a TIFF format.
DMVFNY	Photography	
DPFC6C	Photography	Canon 5D MarkII, Canon utility software.
DUPUWD	Photography	CAPTURING (DFO): 450nm, ORANGE FILTER, ORANGE GOGGLES USING POLIVIEW CAPTURING SYSTEM
	Photography	CAPTURING (NINHYDRIN): 00nm, WHITE FILTER, WHITE GOGGLES USING POLIVIEW CAPTURING SYSTEM.
E3LTMR	Photography	Filled frame with a ruler to set scale. An orange camera filter and ALS set at 455nm was used to photograph the print after DFO processing. Photos were obtained after each process in which the print was visible.
E4XGV6	POST DFO TREATMENT	CAPTURED PRINT USING PL500 - 2153; 50nm ORANGE FILTER 2018/11/06 09:10
	POST NINHYDRIN TREATMENT	CAPTURED PRINT USING PL500 - 2153; 000nm; CLEAR FILTER (NONE) 2018/11/06 14:25
E7A6LW	Photography	F13 ISO 200 .20 sec shutter TIFF 1788ppi
EEQAX2	Photography	THE PRINT WAS PHOTOGRAPHED AT 490nm WITH ORANGE GOGGLES CAPTURED ON POLIVIEW. PHOTOGRAPHY POSITIVE DEVELOPED PRINT: THE DEVELOPED PRINT WAS PHOTOGRAPHED USING NIKON D700 POLIVIEW, USING CLEAR 000nm.
EGWMLU	Photography	would have taken picture, but due to heavy workload of photo-department we skipped this.
EGYFGG	Photography	
EVLDTD	Scanning	Photoshop At 1000dpi

WebCode	Preservation Methods	Method Details
F7F44J	FOLLOW LEVEL OF INVESTIGATION	START WITH FIRST VISUAL, DFO, NIN, TO PRESERVE THE FINGERPRINT, STORE IN A COOL TEMPERATURE, STORE IN DUST FEE AREA IN A STORE ROOM.
F7HYE3	Scanning	used Epson V370, scanned to AdobePhotoshop and copied onto a compact disc
F8NEET	Photography	ROFIN PL500 VANON 600D: CAPTURED THE DEVELOPED PRINT WITH POLIVIEW OF LIGHT 505nm AND 555nm FILTER. THE EXHIBIT AND PRINT WERE FURTHER CAPTURED AS PART OF THE POST-PROCESSING COC PHOTOS.
FECVCD	Photography	NIKON CAMERA: PL500 DFO (505nm ORANGE FILTER) AT AN OBLIQUE ANGLE PL500 NIN (000nm NO FILTER)
FG2BTZ	Photography	
FHDWKM	Photography	Using a Nikon D700 camera. F stop of F/16 and a shutter speed at 1.6 seconds
FLCB6R	Photography	latent print was photographed 1:1
FXZGUF	DIGITAL CAPTURING	THE LATENT PRINT WAS CAPTURED/PHOTOGRAPHED USING THE DIGITAL CAPTURING SYSTEM THAT CONSIST OF A NIKON D700, V++ SOFTWARE, PL500 LIGHT SOURCE. CAPTURED WITH 450nm LIGHT AND 610nm FILTER.
GFM7U3	Photography	DSLR Camera Images, enhanced in Photoshop CS6, Photos printed on Mitsubishi Photo Printer
GMJZRZ	Photography	Raw .nef photos taken with Nikon camera and uploaded into secure database (ADAMS)
GNQGRR	Photography	
GNT9J8	Photography	Using the rofin poliview, the images were captured as soon as possible sfter development.
	sealed with cellotape	Both sides of Tab was sealed so that it didn't get wet when applying wet powder.
GVQTRU	Photography	Nikon D7100
GVUJWR	Photography	
GVV6WE	Scanning	scanned at 1200 dpi with scale
GVXPRU	Photography	Foster+Freeman DCS-4 system
#### WebCode **Preservation Methods Method Details** GWM8EM Photography GZBREP Digital image with white light. Photography **H3NWFR** Photographed **Plastic Sleeve** Placed envelope in plastic sleeve H9ULT7 Photography DFO/PETROLEUM ETHER POLIVIEW: DFO WAS USED ON ITEM 1 UNDER FUME EXTRACTION CABINET, DRIED UNDER EVIDENCE DRIER THEN PUT UNDER NINCHA \$31, PL500 LIGHT WAVELENGTH OF 505nm AND 590nm FILTER WERE USED TO CAPTURE THE PRINT NIKON CAMERA AND V++ POLIVIEW ORANGE GOGGLES. NINHYDRIN WAS USED ON ITEM 1 BY DEEPING METHOD 5 Photography MINUTES, DA FUME EXTRACTION CABINET DRIED IN EVIDENCE DRIER PUT ON NINCHA \$312 FOR 25 MINUTES AT 80°C AND 80% HUMIDITY. PRINT DEVELOPED BUT NOT CAPTURED BECAUSE OF POOR QUALITY. HEGAPW Capturing the fingerprint as soon as reasonably possible. Photography HR79HK Photography Captured on poliview - light wave length at 415 (polilight PL500) and yellow filter F-stop of 8 and shutter speed of 1/13 seconds. HR9XHB PL500 - 450nm WITH 550 FILTER WITH NIKON D700 Photography CAMERA I took photographs of developed latent print. With and without **HTPWBZ** Photographs a scale. HUG7UG STORAGE STORAGE IN COOL DRY PLACE, DUSR PROOF CONTAINERS. HY6THU Photography Digital image capturing on Poliview. Image verification and authentication on V++ Packaging Packaging of item 1 in tamper proof evidence seal bag no.PA40011223083. J4WD7B Photography PHOTO OF EXHIBIT; POTION ON EXHIBIT, AND CLOSE UP OF PRINT. DURING EACH PROCESS DFO 505nm ORANGE GOGGLES 550 FILTER NIN: WHITE LIGHT NO FILTER RESEALING SEALING EXHIBIT IN FORENSIC BAG TO KEEP SAFE AND AWAY FROM TAMPERING. J728K8 [No Methods Reported.] Visual examination in FosterFreeman 365nm lightsource using orange goggles (normal prosedure is photographing these prints using above mentioned lightsource and orange filter in front if the camera lens).

TABLE 3 - Ite	m 1

WebCode	Preservation Methods	Method Details
J8GCFY	Photography	POST PROCESSING WITH DFO HFE APTURING AT 17:14 ON 2018/11/04 FOR IMAGE: A(1) OF ITEM 1, 505nm LIGHT, 555nm FILTER. POST-PROCESSING WITH NINHYDRIN HFE CAPTURING AT 14:40 AND 14:46 ON 2018/11/04 FOR IMAGE: A(1) OF ITEM 1, WHITE LIGHT, NO FILTER.
JEXZX8	CAPTURING	FINGERPRINT CAPTURED AT 490nm USING PL500 CAPTURING UNIT. PLACE AND POSITION PHOTOGRAPHED.
	DVD BURNING GIANT ARCH	FINGERPRINT AND COC WERE BURNT IN A WORKING DVD. GIANT ARCH WAS MADE.
JG4B9P	Photography	RAW, enhancement in Photoshop
JJW8MB	Photography	Nikon D800 camera, 105mm lens, white light with green filter, with scale, digital enhancement, printed 1:1
JLXD2G	Photography	close up photographs of latent on a copy stand using a 1:1 lens with ruler and adequate side lighting
JVNQDA	Photography	Canon 5D + 90mm macro-lens 1:1 and 505nm light+orange filter. Finally photoshop.
JXDYUQ	Latent Print tape	Applied latent lifting tape to protect still stick surface from packaging. Replaced in envelope
K4YDXN	Photography	Image containing FRD, of value, captured using a Nikon D810, processed with Photoshop Creative Cloud and saved as TIFF.
KA2FPG	Photography	THE DEVELOPED PRINT WAS PRESERVED BY MEANS OF PHOTOGRAPHY USING NIKON D700 POLIVIEW, AND LATER PRINTED AND HENCED ON V++ AND LATER SAVED ON A COMPACT DISC.
КВҒТНК	Таре	Latent lifting tape was placed over the developed print to preserve and to facilitate scanning.
	Scanning	Epson V700, 1200 dpi, JPEG format
КВVСЗН	Stored in locker	After humidity chamber item stored in locker for continued processing.
	Envelope	Item was packaged and sealed in envelope on 11/26/18.
KCRLGU	Photography	Photography of developed latent fingerprints with the use of an OG550 camera filter and 505nm forensic light source.

WebCode	Preservation Methods	Method Details	
KD3NUR	Photography	450nm, orange filter white light, V++ software	
	Giant Arch Card and CD	DNP Printer	
KEUTCQ	Photography	Captured under 1,2-Indanedione using a orange filter and a TracER at 532nm on a Nikon D700 camera using an ISO-200, F/20 at a 6 second exposure. Image then was loaded into Mideo. Captured again for Powder with no filter, using ambient light on same camera, ISO-200, F/20 at a 2.5 second exposure. Image then was loaded into Mideo.	
KF8C9G	Nincha 531	Item was kept in the Nincha 531 when not being examined.	
KHVLMP	Photography		
KNZKXE	Photography	CAPTURED ON POLIVIEW SYSTEM: DFO - BLUE LIGHT 505nm ORANGE FILTER BP 610nm. NINHYDRIN - WHITE LIGHT - VISUALIZED - (NEGATIVE)	
	PRINTING & BURN TO DISC	PRINTING AND BURN TO DISC	
KRJFYL	Photography	after DFO - in alternate light source at 505 nm using a orange colored bandpass filter	
	Photography	after Ninhydrin - under white light	
	Photography	after Wet Powder Black - under white light	
KTGW4V	Photography	Nikon D810	
KXRZMJ	Photography	It was used as method of preservation.	
KY84NP	repackaged	Envelope was repackaged in original packaging for submission to latent print unit.	
LNX4JG	Scanning	Flatbed scanner	
LVEVHT	Photography	COC Photos and prints werephotographed	
	Capturing	Prints photographed and captured in the computer	
M2Y4N6	CAPTURED	LATENT PRINT PHOTOGRAPHED DFO/HFE: POLIVIEW SYSTEM, FILTER 550, LIGHT: 505nm ORANGE GOGGLES.	
	Photography	NIN/HFE: NONE	
M7EQ7G	Photography	Overalls of front and back of item. Closeup of ninhydrin development. RAW/NEF with scale. Photoshop enhancement.	
MDW3JG	Photography	Nikon D80 with/without scale	

WebCode	<b>Preservation Methods</b>	Method Details	
MF4HQM	Photography	Latent was photographed with the laser after treatment with Indanedione. Latent was photographed with normal lighting after treatment with Ninhydrin.	
MFDFV6	Photography	POLIVIEW: NIKON D700, F/STOP = F/16, EXPOSURE TIME 1/2 SECONDS ISO 1600. PL500 - 505nm WITH 610 FILTER AT P7	
MGRZNE	COVER STRIP	PROTECTIVE VOCER STRIP PLACED BACK ON STICKY STRIP OF ENVELOPE	
	Photography	LATENT PRINT PHOTOGRAPHED ON DIGITAL CAPTURING SYSTEM. POLIFLARE LIGHT = 450nm ORANGE GOGGLES (ORANGE FILTER)	
MK9842	Photography	FINGERPRINTS PHOTOGRAPHED; USING POLIVIEW SYSTEM; AFTER EACH METHOD OF PROCESSING.	
MKUYY8	CAPTURED	USING POLIVIEW ON ITEM 1, 450nm WAVELENGTH 610nm FILTER (DFO/HFE). USING POLIVIEW ON ITEM 1, 00nm WAVELENGTH 00nm FILTER (NIN/METHANOL). USING POLIVIEW ON ITEM 1, 00nm WAVELENGTH 00nm FILTER (BLACK ADHESIVE POWDER)	
MNWL3W	Photography	I photographically preserved the ridge detail that was visible above and below the acetate sheet after magnetic powder was applied.	
	Photography	I photographically preserved the prints that were visible after I applied ninhydrin to the closure tab.	
MYDL7K	Photography	Item photographed before and after processing	
	Scanning	Print developed in section A, scanned	
N3QQBT	Photography	THE PRINT WAS PHOTOGRAPHED AFTER EACH PROCESS	
N9VHMB	Photography	DFO PROCESS: FINGERPRINT IMAGE CAPTURED WITH POLIVIEW USING, 450nm & ORANGE FILTER, PLACE & POSITION OF PRINT ON EXHIBIT PHOTOGRAPHED.	
	Photography	NINHYDRIN PROCESS: FINGERPRINT IMAGE CAPTURED WITH PROCESS WHITE LIGHT WITH NO FILTER USED.	
NMV7U6	Photography	PL500 LIGHT SOURCE AT 530nm WITH 530nm FILTER AT P4 AND ISO 2000 AND CAPTURED POLIVIEW CAPTURING SYSTEM, IMAGE A THEN AGAIN PHOTOGRAPHED USING WHITE LIGHT WITH NO FILTER.	
P2Q4FZ	Photography	AFTER DFO: USED 505nm LIGHT SOURCE, 550 FILTER AFTER NINHYDRIN: USED NO LIGHT SOURCE OR FILTER	
	REPACKAGING	REPACKAGED ITEM 1 IN A NEW EVIDENCE BAG NUMBER PAD001889733	

WebCode	Preservation Methods	Method Details
РЗЗМНН	None	Print was marked with photo tag
PD6373	[No Methods Reported.]	Visual examination with orange goggles (in real cases phtoraphy in 365nm lightsource + photoraphy with orange filter in front of camera lens)
PGBA6M	Photography	Copy stand. RAW file format. Aperature F8. Shutter speed 1/4 second. Both NIN and WP.
PKMDFW	Photography	FIRST VISUAL: FP WAS CAPTURED ON THE POLIVIEW USING 490nm LIGHT AND AN ORANGE FILTER.
	Photography	DFO/HFE: FP WAS CAPTURED ON THE POLIVIEW USING 450nm LIGHT AND AN ORANGE FILTER.
	Photography	NIN/METH: FP WAS CAPTURED ON THE POLIVIEW USING Onm LIGHT AND A CLEAR FILTER.
PKZ8VW	FIRST VISUALIZATION	THE PRINT THAT WERE VISIBLE WERE CAPTURED USING WHITE LIGHT, ON THE POLIVIEW.
PRL3W2	Photography	POLIVIEW: 450nm PL500 WAVELENGTH, WITH 550nm FILTER AT P6. NIKON D700 CAMERA - F/STOP = F/16, EXPOSURE 1/2 SECONDS AND ISO - 2000.
PY62T2	Photography	
QA2MD6	CAPTURING	POLIVIEW. WAVELENGTH 450nm WITH ORANGE FILTER 610BP.
QEZU39	Photography	Digital capture (Nikon D300): in alternate light (at 470 nm), after cyanoacrylate (in the white light) and after ninhydrin (in the white light).
QFPCT9	Photography	Canon EOS 6 D
QHFEVF	Photography	Images of the impression were taken with a macro lens and saved as RAW files
QUP9XR	CAPTURING	NIKON + POLIVIEW (DFO/HFE): LIGHT (505) FILTER (550) SHUTTER (1/5) EXPOSURE (-1.67) F-STOP (11) GOGGLE: ORANGE
	CAPTURING	NIKON + POLIVIEW (DFO/HFE): NONE
QWY23T	Photography	Took photographs using DCS camera (overalls and close-ups using scale). Photographs were first taken after Ninhydrin processing and again after Wetwop processing using Tiff Format.

WebCode	Preservation Methods	Method Details
R2JKMU	Photography	POLIVIEW SYSTEM PL500, GOOGLES
	SEALING OF NEW EVIDENCE BAG	EVIDENCE BAG NR: PW3000304084
REA6BX	Photography	CAPTURING ON DCS-3: AFTER THE PRINT WAS DEVELOPED WITH DFO/HFE THE PRINT WAS CAPTURED ON DIGITAL CAPTURING SYSTEM WITH 450nm LIGHT, WITH ON ORANGE FILTER. FOLLOWING PRINT DEVELOPMENT WITH NIN-METHANOL. PRINT WAS CAPTURED WITH WHITE LIGHT. NO FILTER. PRINT LABELLED 2 (BOTH OF THEM).
RPBNVD	Photography	Nikon D7000 (jpg and nef)
RPTWJ8	Photography	digital image taken by digital camera and computer
RQPA7Z	Photography	1:1 examination quality photograph on DCS-4 software.
RRZ8JH	Scanning	
T2G39V	Photography	CAPTURED ON POLIVIEW AFTER SECOND VISUALIZATION: USED 450nm LIGHT, 550 FILTER.
	REPACKAGING	REPACKAGED ITEM 1 IN A NEW EVIDENCE BAG (PAD001889520)
TE73WD	Photography	
TJKNZH	Photography	Took photograph with a resolution of greater than 1000 dpi
TMU38V	Photography	CAPTURE: DFO: POLIVIEW: POLIFLARE PLUS 2 @ 450nm WITH ORANGE + NINHYDRIN: POLIVIEW: POLIFLARE PLUS 2 @ 000nm WITHOUT FILTER
TNT8NP	Photography	CAPTURED
TRV2NF	Photography	digital capturing system (DCS4). VC: white light. DFO: green light /orange filter (550 nm). Ninhydrine: white light.
U7C3CJ	Photography	Area 1A (quadrant A from the envelope) was preserved through digital imaging. No areas of ridge detail were observed or developed on the removed acetate cover from the adhesive portion of the envelope.
UB6APZ	Photography	
UBM8W7	Photography	CAPTURING ON POLIVIEW PRINTED & BURN TO DISC: DFO - BLUE LIGHT 450 - 505nm ORANGE FILTER 610 nm POSITIVE. NINHYDRIN - VISUAL VIEWING - NEGATIVE

WebCode

UE28QC	Photography	Technical mark photography using Nikon D600, DSLR & 60mm Prime/Macro lens. Appropriate lighting (White for NIN and Green HILS for DFO). Resized and saved as TIFF(500dpi). printed 1:1
UE4WVA	Photography	
UEG9UE	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. Please note in relation to Item 1 the Fingerprint Expert who assessed the mark stated that due to the strip splitting the mark into two it can not be ruled out that this mark could have deposited at two separate times by possibly a different person. However, they were still confident that the mark recovered was a whorl pattern.
UEYEVP	Scanning	
V8FGXP	Photography	POLIVIEW: PL500 - 450nm WITH 550 FILTER AT P7 NIKON D700
V9PNYW	Photography	CAPTURING (NINGHYDRIN): 0.00nm, EHITE FILTER, CLEAR GOGGLES USING POLIVIEW CAPTURING SYSTEM
VB27BF	Photography	photographed after Indanedione with the laser
VEZKX6	Photography	Using Foray software
VFE32B	Photography	Latent print(s) developed were captured using photography. Additional lighting was produced using a flashlight to better enhance the contrast. Photos were then saved to a secure image drive.
VNPBKX	Photography	In normal casework photography would be requested for preservation; not requested for proficiency purposes due to necessity to transfer to other unit (photography unit)
VPENYA	Photography	
VPNA47	Photography	DCS5 SYSTEM

## TABLE 3 - Item 1

**Method Details** 

**Preservation Methods** 

WebCode	Preservation Methods	Method Details
VXAR37	Photography	POLIVIEW: POLIFLARE (450nm) WITH ORANGE FILTER, NIKON D700 - F/STOP = F/16 EXPOSURE TIME 1/2 SECONDS ISO = 2000
VZYXKG	Lifting	Lift
W4U774	GENTIAN VIOLET	LATENT PRINT DEVELOPED WAS PRESERVED BY KEEPING IT AWAY FROM DIRECT SUNLIGHT.
W7JDNE	Photography	Nikon D610, lens Nikon AF Micro Nikkor 60mm. After DFO method was use orange filter and light 505 nm
W8D28A	Photography	latent print was photographed with a macro camera lens and linear scale
WAE8KV	[No Methods Reported.]	Sample 1. Visual examination with 365nm lightsource (normally we photograph these prints in 365nm lightsource with orange filter in front of the camera lens).
WAHWNR	Photography	Canon EOS 5D Mark II + Macro lens EF 100 mm 1:2,8. Crime Scope light source: white light.
WNMYHM	Scanning	EPSON Scan at 1200 dpi resolution. Photoshop CS6 used for enhancements.
WRKCCD	Photography	After DFO (ALS, alternate light source, (Green light 500-550 nm)) and Ninhydrin.
WV73PP	Photography	One digital image taken of the developed sticky-side powder print. The camera settings were: F/9, 1/160, ISO 200. Once the image was made 1-1, the image was at 2252 ppi.
	Scanning	One scan was taken of the developed ninhydrin print. Scan taken at 1000 ppi.
WVF3F4	Photography	Camera Canon EOS-1D
WXRZQZ	Photography	ALLOWED EXHIBIT TO DRY, PHOTOGRAPHED WITH GREY COLOURED STICKY LABEL (22MM) AND USING WHITE CRIME LITE. LABEL CALIBRATED AND WOULD BE SENT THROUGH TO RIB VIA REMOTE TRANSMISSION USING DCS4 SOFTWARE.
X2L8VU	photocopy	The item was placed in a protective plastic cover and a photo copy was made.
X88DYV	Photography	POLIVIEW: NIKON D700, F/STOP = F/16, EXPOSURE = 1 TIME 20 SECONDS, ISO 1600. PL500 AT 490nm WITH 610 FILTER AT P7

TABLE 3 - Item	1
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WebCode	Preservation Methods	Method Details
X9GD43	STORAGE	DUST AND HEAT FREE, FREE FROM TOUCHING OTHER OBJECTS: I PUT THE ITEM IN AN ENVIRONMENT FREE FROM DUST AND HEAT. THE STICKY PART WITH PRINT WAS NOT ALLOWED TO TOUCH OTHER OBJECTS
XGFUY2	Photography	Digital photography with Canon Rebel T6i and Mideo Systems retention
XKEZTL	Photography	include identification information and scale.
	Scanning	include identification information and scale.
XQLN99	Photography	
XTA4HG	Photography	Poliview capturing system, white light Nikon D700 V++ soft ware
	Giant Arch Card and CD	Epson Stylus photo R2880 printer. HP Photo paper (glossy paper) giant arch card
Y22NN3	Photography	Photographed with ambient lighting conditions after ninhydrin, re-ninhydrin, and Wet Wop black.
Y7FNKU	Photography	By photography unit
Y7RCU8	Supervisor Review	A supervisor visually examined/used a light source to review an item each time a new latent fingerprint was developed.
Y8NPGZ	Photography	The latent print was photagraphed. Camera: Canon Power Shot SX20 IS.
YMLMUX	Photography	1. After IND-ZnCl. 2. After Ninhydrin.
YUHM76	Photography (digital)	Photographed w/scale; enhanced in photoshop; original & enhanced calibrated photos printed
	Final Packaged	Final packaged & submitted as evidence
YYRUGG	Photography	The developed print was photographed using Nikon D700 camera and was saved in a compact disc.
Z642T8	Photography	
ZDA3RD	Photography	DFO, Ninhydrin
ZDCHG8	Photography	Photographed with ruler and set to scale. Photographs obtained after each process yielding positive results.
ZH3YNQ	Photography	PHOTOGRAPHED WITH NIKON CAMERA: PL500 (DFO) 505nm WITH ORANGE FILTER AT AN OBLIQUE ANGLE.

WebCode	Preservation Methods	Method Details
ZL3AFK	Scanning	Epson 4990 scanner; 1200ppi scan. The item was scanned after each processing step where ridge detail was observed.
ZMBKB3	Photography	CAPTURING: WHITE LIGHT, WHITE FILTER AND WHITE GOGGLES.
ZMDAEZ	GENTIAN VIOLET	DEVELOPED LATENT PRINTS WAS KEPT AWAY FROM DIRECT SUNLIGHT AND STRONG LIGHT TO PREVENT FADING OF DEVELOPED PRINTS.
ZQE9X6	Photography	latent print was photographed 1:1 with scale
	sealed	Evidence sealed and signed
ZTZ4AC	Photography	Canon Camera, white light, Canon 550, Microlense
ZXGABR	Photography	

Response Summary		Participants: 222
Methods	Utilized	
Lifting	1	<b>**Note</b> : Methods listed are the preloaded options for
Photography	193	selection via the CIS Portal
Scanning	17	provided by participants.

WebCode	Preservation Methods	Method Details
28YDQQ	Photography	POLIVIEW: NIKON D700, F/STOP = F/16, EXPOSURE = -33 TIME: -30 SECONDS, ISO - 1600 PL500 @ $505nm$ WITH GREEN (555) FILTER.
2DQGVF	Photography	Photographs taken prior to dusting, after application of dusting and after print was lifted, with a measuring device.
	Lifting	Tape lift stored in a manila envelope.
2JNATN	Photography	CAPTURING: CAPTURING USING POLIVIEW CAPTURING SYSTEM (NIKON D700) AND PL500 SET AT 450nm WITH 55nm FILTER.
2QFFLJ	Photography	The print was visible during the visual examination and photographed.
	Lifting	Clear tape was used to lift the latent print after cyanoacrylate fuming and black powder. The lift was placed onto a latent print card.
2UPXKL	Photography	CYANOBLOOM:POLIFLARE +2 AND CAPTURE THE POSITIVE PRINT USING 550 WAVELENGTH AND NO FILTER.
	Photography	BASIC YELLOW: POLIFLARE +2 AND CAPTURE USING 450 WAVELENGTH WITH ORANGE FILTER.
2WK3RZ	Photography	532 nm laser/orange filter
2WXW92	Photography	
2Y84BU	Photography	post-visual step - fiber optic lighting, post-cyanoacrylate fuming - tungsten lighting, post-rhodamine 6G - 532nm laser and orange filter
368RGZ	Photography	DIGITAL CAPTURING: BOTH THE FIRST VISUAL PRINT AND CYANOBLOOM PRINT WERE CAPTURED ON DCS UNDER POLIVIEW LIGHT 000nm. WITHOUT A FILTER. RESULTS WERE CAPTURED ON DCS WITH 450nm POLIFLARE LIGHT PRINT, AND ORANGE FILTER PRINTS PRINTED, BURNED ONTO 'MASTER'AND 'ARVHIVE" DVDS.
38DC8L	Photography	CAPTURING OF DEVELOPED LATENT PRINTS: USING NIKON INTERFACE CAPTURING SYSTEM, CAPTURING LATENT PRINT WITH AID OF ROFIN PL500, USING 000nm WAVELENGTH.
	PRINTING OF LATENT PRINTS	PRINTING OF LATENT PRINTS IN BLACK AND WHITE USING V++ PROGRAM AND CREATING A GIANT ARCH.

WebCode	Preservation Methods	Method Details
3AJG2A	Photography	The latent print developed was photographed with camera and enhanced with V++ system and then printed as a hard copy.
	CD	The latent print developed was validated using very data and written on the CD as a working copy and also created a master and archive copies.
3F9YQ7	Lifting	Fingerprint tape used to lift print and placed on fingerprint card
3NHJLM	Photography	CAPTURING ON DC-3: THE PRINT WAS CAPTURED USING THE DIGITAL CAPTURING SYSTEM, WITH LIGHT SOURCE OF 350nm. PRINT 2.
3PE2HW	Photography	Camera "Canon D3000" Lens "AF-P Nikkor 18-55mm) 1:3.5-5.6 G"
3Q8Q6Y	Photography	POLIFLARE (PL500): POLIVIEW CAPTURING OF DEVELOPED LATENT PRINT
	Scanning	CAPTURING OF IMAGES AND PRINTING: V++, VERIDATA IMAGE CAPTURING AND PRINTING.
3X8A3N	Photography	All revealed evidence is fixed photographically
	Lifting	Lifting with transparent magic tape, placed on transplant card.
42KGYL	Photography	Captured with Canon EOS using white light, no filter, 505nm light, orange filter and V++ software to enhance.
	Giant Arch Card and CD	DNP printer to print, create working CD, Master CD and archive CD.
43DBQN	Lifting	Lifted with tape from CD case to lift card
43FWM6	Lifting	Dusted suspected area with black fingerprint powder. Suspected print developed in quadrant B and lifted using lifting tape then placed on a lifting card.
	Packaging	The lift card was packaged in an evidence envelope and the source item was returned to the original packaging.
48PDJL	Photography	POLIVIEW: PL500, 0.0nm UNDER DARK ROOM, NO FILTER, P2.
	Photography	PL500, 505nm, ORANGE FILTER, P8.
4A2RN9	Photography	Photographs were only taken of the latent lift on Visual Examination, CA Fuming, and MRM-10 dye stain. Photographs were no taken of the lift after Red Drox since no further enhancement occurred.
4CGK4F	Photography	PL500 WAS USED AT 000nm, P6 TO CAPTURE FIRST VISUAL. PL500 AT 000nm WAS USED TO CAPTURE CYANOBLOOM, P6 PL500 AT 505nm WITH 550nm ORANGE FILTER.

WebCode	Preservation Methods	Method Details
4ECW8V	Photography	DIGITAL CAPTURING - POLIVIEW: FINGERPRINT IMAGES CAPTURED ON POLIVIEW SYSTEM USING WHITE LIGHT FOR PRINT MADE WITH CYANOBLOOM AND 450nm LIGHT AND ORANGE FILTER FOR PRINT DEVELEOPRF WITH BASIC YELLOW.
	BURNED TO DISC	IMAGES BURNED TO DISC FOR SAFE KEEPING, AND STORAGE.
4NVFKZ	Poliview Capturing System	000nm, clear filter, Fstop - F/8; exposure time - 1/800 sec, ISO Speed - ISO 200; Focal length 60mm, Maxapetun 3.5
4NX8DG	Photography	NIKON D700 MOUNTED TO A POLIVIEW SYSTEM: 1. CAMERA SET AT 0.37 LIGHT METRE, F-STOP F/14, ISO 2000. POLIVIEW SET AT 00nm LIGHT, USING CLEAR GOGGLES WITH NO FILTER FOR FIRST VISUAL DEVELOPED PRINT, AND CYANOBLOOM DEVELOPED PRINT, POLIVIEW SET AT 450nm LIGHT, USING ORANGE GOGGLES AND 555nm FILTER FOR BASIC YELLOW DEVELOPED PRINTS.
	DISC BURNING	2. DATA BURNED ON CD-R, MASTER, WORKING AND ARCHIVE DISCS KEPT SAFE WITH WORKING DISC ATTACHED TO THE CASE FILE.
4RDUT8	Photography	After each method.
64NMW8	Lifting	Print photographed and lifted.
68R9WQ	Photography	Nikon 105mm lens on Nikon D800 camera. White light, LABINO UV (325nm) and 445 nm light. TIFFEN 15 filter
6BLARD	Photography	CAPTURING: LIGHT WAVELENGTH - 450nm FILTER - ORANGE FILTER
6DAQ7R	Photography	PHOTORGAPHED ON DCS4 IMAGE CAPTURING SYSTEM, USING POLYTEC RINGLIGHT WITH WHITE FILTER, POLARISING FILTER ON CAMERA. IMAGE (LABELLED VIS1) SENT TO REGIONAL IDENTIFICATION BUREAU VIA REMOTE TRANSFER
	Photography	PHOTORGAPHED ON DCS4 IMAGE CAPTURING SYSTEM, USING OPEN BEAM CRIME LIGHT 82S 430-470NM, 495 FILTER ON CAMERA IMAGE (LABELLED SGQU1) SENT TO REGIONAL IDENTIFICATION BUREAU VIA REMOTE TRANSFER
6EAJAR	Photography	
6PNNBV	VISUAL	CHECKING VISIBLE PRINTS
	Photography	CAPTURING OF VISIBLE PRINTS

Latent Print Processing

WebCode	<b>Preservation Methods</b>	Method Details
6W9PK7	Photography	RAW format; Surface to sensor distance no greater than 0.49 meters. Orange 22 filter - ALS 450 nm.
746XEC	CAPTURING	ITEM 2 CAPTURED ON THE DCS3 IMAGES 350nm, ORANGE FILTER, ORANGE GOGGLES WERE USED 2018/11/05 12:10
7ARVW8	Photography	Canon camera, 505nm light source, yellow filter, macro lense canon 505D
	Giant Arch Card	Epson stylus photo R2880 printer HP Photo paper (glossy paper) giant arch card.
7L3BT6	Photography	
7ME4RD	Photography	Photographed visual print before fume and after fuming (quadrant B.)
	Lifting	Lift powdered print using lift tape and placed the tape on the lift card. Print was in quadrant B.
7R78MD	Photography	POLIVIEW CAPTURING SYSTEM: EXHIBIT WAS CAPTURED USING PL500 AT WAVELENGTH AT 490nm WITH GREEN FILTER.
7VR3FX	Magnetic Powder, tape, card	Magnetic powder, clear tape, white card
7XYBQ3	Lifting	lifted latent with lift tape and transferred onto [Form].
83P62A	Photography	Visual- crime light and incandescent. CF- Crime light. R6G- ALS. Dusting- No images taken, but used crime light to visualize
	Lifting	Black powder- no additional detail observed, lift not retained
8B33PT	Lifting	Tape lift - cover latent print with clear tape then places on a white backer.
8HE7PZ	Photography	Blue light, yellow filter
8N7DBU	Photography	CAPTURE: RECOVERED FINGERPRINT WAS CAPTURED USING PL500 WAVELENGTH: 000nm, FILTER, WHITE
8PZ2TP	Photography	Photo taken in RAW-format, ruler included with a label including case- and item number.

WebCode	Preservation Methods	Method Details
8RR4P6	Photography	Visual
	Photography	Magna Powder
	Lifting	Magna Powder
	Photography	MRM-10
8U8W4C	Photography	NIKON D800, F/STOP, F/16, EXPOSURE = 00 TIME 50 SECONDS, ISO 2000
	POLIVIEW	ROFIN PL500 AT 505nm WITH 550 FILTER AT P8
928KNP	Photography	Fluorescent photography with laser using EOS Canon camera
9A3EUA	Photography	POLIVIEW DIGITAL CAPTURING SYSTEM: PRINTS PHOTOGRAPHED USING PL500 AT WAVELENGTH 450nm AND 610nm (ORANGE)
A4TGX2	Photography	Foster + Freeman DCS-5
A6JYKU	Photography	
AKGQNJ	Photography	Using light 450 nm, no filter, Canon Eos 760 D, macro objective 100 mm. Cropped with Adobe Photoshop Elements 10
AQMKKZ	Photography	After each method.
	Lifting	Mikrosil (after carbon powder)
AVDY62	Photography	Canon camera - oblique lighting , 505nm Enhanced with V+ + - Black back ground
AX2ELN	Photography	the developed print was preserved by digital imaging (photography) at high resolution capture
AYD32U	Photography	
B2MFBA	Photography	Took photos of visual print
	Lifting	Tape lifted print on CD/DVD case and put on print card
B39D8E	Photography	Canon EOS-1 Ds Mark-II + Macro lens EF 100 mm. 1:2,8.
BDPZGE	Photography	"Nikon D750"
BHV8FY	Lifting	Latent print lifted with latent print tape and place on latent print card and packaged

WebCode	Preservation Methods	Method Details
BJG829	Lifting Tape	Tape placed on white latent card
BNDPPZ	Photography	With Laser and with white light
BZQWDN	Photography	
C3PUYZ	Photography	Images were captured on PL500 Poliview and Canon D600
C7TBNG	Lifting	Lift tape and lift card
CBN2D2	Photography	The digital images of ridge detail within area labeled as B were preserved in Foray
CFAEG9	Photography	POLIVIEW SYSTEM (LIGHT = 505nm, FILTER = OG 550nm)
	SEALING IN EVIDENCE BAG	BAG #PA3000272636
СКААТН	[No Methods Reported.]	Print would be lifted for actual casework.
CYBYUP	Photography	Nikon D-5 with Foster and Freeman Digital Capture System 5 software using white/ambient and UV light without filter and blue light with yellow filter.
D7KXAK	Photography	this item was photographed and after peer verification the item was destroyed
D8XFMX	Photography	PL500, D700 NIKON CAMERA, 450nm, ORANGE FILTER, ORANGE GOGGLES.
	PRINTING	COMPUTER, PRINTER, PAPER
D9VRHQ	Photography	Photographed overall item & developed FRD w/scale
DCEQRE	Fhotography	
DEJCL7	Lifting	Applied tape lift to a lift card and filled out the required information.
DMVFNY	Photography	
DPFC6C	Photography	Canon 5D MarkII, Canon utility software.
DUPUWD	Photography	CAPTURING (CYANOBLOOM): 00nm, WHITE FILTER, WHITE GOGGLES USING POLIVIEW CAPTURING SYSTEM.
	Photography	CAPTURING (R6G): 505nm, ORANGE FILTER, ORANGE GOGGLES USING POLIVIEW CAPTURING CAPTURING SYSTEM.

WebCode	<b>Preservation Methods</b>	Method Details
E3LTMR	Photography	Filled frame with ruler to set scale. Photos were obtained after each process in which the print was visible.
	Lifting	Lift obtained after powder processing.
E4XGV6	CAPTURING	POST VISUAL (FIRST) USED PL500 - 2153 000nm; NO FILTER 2018/11/05 17:38; POST MVC3000 000nm; NO FILTER 2018/11/06 06:42; POST DYE 505nm; ORANGE FILTER; POST POWDER 315nm; ORANGE.
E7A6LW	Photography	F13 ISO 200 .80 sec shutter TIFF 1548ppi
	Lifting	(2) - (1) after magnetic powder (1) after black powder
EEQAX2	Photography	THE PRINT WAS PHOTOGRAPHED UNDER POLIVIEW USING 350nm WITH ORANGE GOGGLES. THE PRINT DEVELOPED WITH ORANGE COLOUR.
EGWMLU	Photography	would have taken picture, but due to heavy workload of photo-department we skipped this.
EGYFGG	Photography	
EVLDTD	Scanning	Photoshop at 1000dpi
F7F44J	Photography	PHOTGRAPHY AFTER FIST VISUAL: FIRST DO VISUAL USING FLARES, AND THE FINGERPRINT IS FOUND AND PHOTOGRAPHED FINGERPRINT IMMEDIATELY BEFORE INVESTIGATION TO AVOID DAMAGE FINGERPRINTS
F7HYE3	Photography	Photographed with a Nikon D5200 camera, uploaded to AdobePhotoshop and copied on a compact disc
F8NEET	Photography	ROFIN PL500 CANON 600D: CAPTURED THE PRINT USING POLIVIEW WITH WHITE LIGHT AND NO FILTER. THE EXHIBIT AND FINGERPRINT WERE CAPTURED WITH A CANON 600D CAMERA AND WERE INCLUDED IN POST PROCESSING COC PHOTOS.
FECVCD	Photography	PL500 POLYCYANO 000nm NO FILTER AND AN OBLIQUE ANGLE
	Photography	NIKON CAMERA: R6G 505nm ORANGE FILTER AT AN OBLIQUE ANGLE
FG2BTZ	Photography	
FHDWKM	Photography	Nikon D700 Camera. Shutter speed at 1/5 second with F Stop of F/16 for the CA picture. For the R6G picture the shutter speed was set at 6 seconds

WebCode	Preservation Methods	Method Details
FLCB6R	Lifting	The latent fingerprint was collected from the case utilizing sirchie 2 inch clear fingerprint tape and placed on a white latent lift backing card.
FXZGUF	DIGITAL CAPTURING	THE LATENT PRINT WAS CAPTURED/PHOTOGRAPHED USING THE DIGITAL CAPTURING SYSTEM THAT CONSIST OF A NIKON D700, V+ + SOFTWARE, ROFIN PL500 LIGHT SOURCE. CAPTURED THE PRINT WITH 00nm, NO FILTER AND 450nm, 555NM FILTER.
GFM7U3	Photography	DSLR, Camera Images enhanced in Photoshop CS6, Photos printed on Mitsubishi Photo Printer
GMJZRZ	Photography	Raw .nef photos taken with Nikon camera and uploaded into secure database (ADAMS)
GNQGRR	Photography	at CAE stage
	Lifting	Powder developed print
GNT9J8	Photography	Using the rofin poliview, the image was captured, I was only happy with the quality of development 44hrs 12 minutes after spraying to capture.
GVQTRU	Photography	Nikon D7100
GVUJWR	Photography	
GVV6WE	Scanning	scanned with scale at 1200 dpi
GVXPRU	Photography	Foster+Freeman DCS-4 system
GWM8EM	Photography	
GZBREP	Photography	Digital images with white light; Laser at 532 nm with orange barrier filter
H3NWFR	Photographed Fingerprint Tape	Lifted and placed on latent impression card
H9ULT7	Photography	CYANOBLOOM PHOTOGGRAPHED POLIVIEW: THE MVC300 WAS SET FOR 20 MINUTES AT 120°C 2.72G OF CYANOBLOOM AND SET 80% HUMIDITY PRINT DEVELOPED CAPTURED USING PL500 WHITE LIGHT 000nm, NO FILTER AND WHITE GOGGLES.
	Photography	RHODAMINE-6G WAS USED TO DYE ITEM 2 AND DRIED UNDER EVIDENCE DRIER AFTER RUNNING WATER THE PRINT WAS PHOTOGRAPHED WITH PL500 LIGHT 620nm AND 590nm FILTER AND ORANGE.

WebCode	Preservation Methods	Method Details
HEGAPW	Photography	Capturing the fingerprint as soon as it is visible / developed.
HR79HK	Photography	Capture on Poliview, wavelength 000nm (Polilight PL500) F-stop on 8 and shutter speed 1/160 seconds.
HR9XHB	Photography	PL500 - 450nm WITH 550 FILTER WITH NIKON D700 CAMERA
HTPWBZ	Photographs	I took photographs of developed latent print with and without scale.
HUG7UG	STORAGE	STORAGE IN DRY PROOF CONTAINERS.
HY6THU	Photography	Digital image capturing on poliview. Image verification and authentication on V++ $\!\!\!$
	Packaging	Packaging of item no.2 in tamper proof evidence seal bag no. PA4001223078.
J4WD7B	Photography	PHOTO OF EXHIBIT; POSITION OF PRINT OF EXHIBIT AND CLOSE UP OF PRINT. DURING EACH PROCESS WHITE LIGHT NO FILTER
	RESEALING	SEALING EXHIBIT IN FORENSIC BAG TO KEEP SAFE AND AWAY FROM TAMPERING.
J728K8	Photography	Basic Yellow threatment after fuming and photography
J8GCFY	Photography	PRE-PROCESSING CAPTURING AT 18:38 FOR IMAGE: B(1) OF ITEM 2, WHITE LIGHT NO FILTER. POST-PROCESSING WITH CYANOBLOOM CAPTURING AT 20:41 FOR IMAGE: B(1) OF ITEM 2, WHITE LIGHT NO FILTER. POST-PROCESSING WITH R6G METH CAPTURING AT 16:34 FOR IMAGE: B (1) OF ITEM 2, WHITE LIGHT NO FILTER.
JEXZX8	CAPTURING	FINGER PRINTS PLACE AND POSITION WAS PHOTOGRAPHED, THEN CAPTURED USING PL500 FORENSIC LIGHT SOURCE AT 530nm USING ORANGE GOGGLES & ORANGE FILTER.
	NINHYDRIN/METHANOL: TREATED EXHIBIT WITH NIN/METHANOL PLACED IN THE NINCHAS31 SET AT 80 DEGREE CELSIUS AND 65% RELATIVE HUMIDITY FOR 20 MINUTES.	FINGERPRINT WAS BURNT TOGETHER WITH THE COC A GIANT OF THE PRINT WAS MADE & PASTED ON A GIANT ARCH CARD.
JG4B9P	Photography	RAW, enhancement in Photoshop

TABLE	3 -	ltem	2

WebCode	Preservation Methods	Method Details
JJW8MB	Photography	(Visible latent) Nikon D800 camera, 105 mm lens, white light with polarizer filter, with scale, digital enhancement, printed 1:1
	Photography	(MBD Dye Stain) Nikon D800 camera, 105 mm lens, ALS (blue light 445 nm with yellow GG495 AG filter) with scale, digital enhancement, printed 1:1
	Lifting	2" lifting tape on white card
JLXD2G	Lifting	latent print tape used to transfer lift to a print card
JVNQDA	Lifting	White silicon (casting-material for forensic use).
	Photography	Canon 5D + 90mm macro-lens 1:1 and white light. Finally photoshop.
JXDYUQ	Lifting	Lifted print and applied to (latent print card).
K4YDXN	Photography	Images captured using a Nikon D810 (with an orange filter) between 475 and 495 nm wavelength (CSS wavelength), processed with Photoshop Creative Cloud and saved as TIFF.
KA2FPG	Photography	THE PRINT WERE PHOTOGRAPHED ON NIKON D700 POLIVIEW SYSTEM AND PRINTED AND LATER SAVED ON A COMPACT DISC.
КВҒТНК	Photography	Nikon D7100, both JPEG and RAW formats
KBVC3H	Lift card	Print lifted using fingerprint tape and put on latent print card. The back of the card filled out with information. Lifted at 1152 hours.
	Envelope	Item was packaged and sealed in envelope on 11/20/2018.
KCRLGU	Photography	Photographed latent fingerprint with oblique white light prior to cyanoacrylate development. Additional photograph taken post development with 450nm light.
KD3NUR	Photography	505nm, orange filter, V++ Software
	Giant Arch Card and CD	DNP Printer

WebCode	Preservation Methods	Method Details
KEUTCQ	Photography	Captured during visual inspection using a Streamlight Stinger DS LED flashlight on a Nikon D700 camera using an ISO-200, F/20 at a 1/15 second exposure. Image then was loaded into Mideo. Captured after applying Cyanoacrylate using a Streamlight Stinger DS LED flashlight on a Nikon D700 camera using an ISO-200, F/20 at a 1/20 second exposure. Image then was loaded into Mideo. Captured after applying Rhodamine 6G using a orange filter and a TracER at 532nm on a Nikon D700 camera using an ISO-200, F/20 at a 6 second exposure. Image then was loaded into Mideo.
KF8C9G	MVC 3000	Item was kept in the MCV 3000 after and before examination and packaging.
KHVLMP	Photography	
KNZKXE	Photography	BLUE LIGH 450 - 505nm ORANGE FILTER BP 610nm
	PRINTING & BURNING TO DISC	PRINTING AND BURNING TO DISC
KRJFYL	Photography	after Visual Examination - under white light
	Photography	after Cyanoacrylate Fuming - under white light
	Photography	after Basic Yellow 40 - in alternate light source at 450 nm using a orange colored bandpass filter
KTGW4V	Photography	Nikon D810
KVGZJW	Photography	Used poliview system and rofin PL500light source.
KXRZMJ	Lifting	In a white card to which the fragment of latent print is tranferred.
KY84NP	Lifting	Case was dusted with black powder. Latent print was lifted using lift tape and placed on latent lift card.
LNX4JG	Scanning	Flatbed scanner.
LVEVHT	Photography	COC photos and prints were photographed
	capturing method	Prints Photographed and capture in computer.
M2Y4N6	Photography	FIRST VISUAL: POLIVIEW SYSTEM, WHITE LIGHT, 000nm, NO FILTER ORANGE GOGGLES.
	Photography	RHODAMINE 6G: POLIVIEW SYSTEM, FILTER 550, ISO 800, ORANGE GOGGLES.

WebCode	Preservation Methods	Method Details	
M7EQ7G	Tape lift applied to card	Lifting tape used to lift print from cover and apply to latent lift card.	
MDW3JG	Photography	Nikon D80	
	Lifting	lifting tape with backer - latent lift	
MF4HQM	Photography	Latent in section B photographed with the laser.	
MFDFV6	Photography	POLIVIEW SYSTEM 1ST VISUAL, 000nm, NO FILTER. CYANOBLOOM, 000nm NO FILTER. DYE STAIN, 530nm, 555 FILTER, ORANGE GOGGLES.	
MGRZNE	Photography	PRINT PHOTOGRAPHED ON DIGITAL CAPTURING SYSTEM. POLIFLARE LIGHT = 450nm ORANGE GOGGLES (ORANGE) FILTER	
MK9842	Photography	FINGERPRINTS PHOTOGRAPHED, USING POLIVIEW SYSTEM, AFTER EACH METHOD OF PROCESSING.	
MKUYY8	DIGITAL CAPTURING	USING POLIVIEW ON ITEM 2, 00nm WAVELENGTH NO FILTER. USING POLIVIEW ON ITEM 2, 00nm WAVELENGTH NO FILTER. USING POLIVIEW ON ITEM 2, 505 - 530nm WAVELENGTH, 610nm FILTER.	
MNWL3W	Lifting	I collected and preserved the latent print using lift tape and placing that tape on a latent print card and included all the relevant information on the back side of the card, after fume and powder processing.	
MYDL7K	Photography	Item photographed before and after processing	
	Scanning	Print developed in section B, scanned	
N3QQBT	Photography	THE PRINTS WERE PHOTOGRAPHED AFTER EACH PROCESS.	
N9VHMB	Photography	FIRST VISUAL: FINGERPRINT CAPTURED BY POLIVIEW USING 450nm LIGHT	
	Photography	FUMING WITH CYANOBLOOM: FINGERPRINT CAPTURED WITH POLIVIEW 450nm - NO FILTER	
	Photography	DYE-STAIN: FINGERPRINT CAPTURED BY POLIVIEW USING 450nm LIGHT AND ORANGE FILTER.	
NMV7U6	Photography	POLIVIEW CAPTURING SYSTEM: ITEM 2: IMAGE NUMBER 2A WHITE LIGHT WITH NO FILTER, TRANSPARENT GOGGLES THEN ALSO AT 505nm WAVELENGTH WITH AN ORANGE FILTER.	

WebCode	Preservation Methods	Method Details
P2Q4FZ	Photography	CAPTURED ON POLIVIEW, AFTER FIRST VISUALIZATION: USED 000nm LIGHT SOURCE, NO FILTER
	Photography	CAPTURED ON POLIVIEW, AFTER FUMING: USED 000nm LIGHT SOURCE, NO FILTER.
	Photography	CAPTURED ON POLIVIEW, AFTER DYE: USED 505nm LIGHT SOURCE, 550nm FILTER
	REPACKAGING	REPACKAGING OF ITEM 1 IN A NEW EVIDENCE BAG (NUMBER PAD001889733)
РЗЗМНН	None	Print was marked with photo tag
P7LULC	Photography	POLIVIEW, CAMERA D800: CAPTURED FINGERPRINT IMAGE USING POLIVIEW CAMERA D800, WHITE LIGHT AND NO FILTER WAS USED.
	Photography	POLIVIEW, CAMERA D800: CAPTURED FINGERPRINT IMAGE USING POLIVIEW CAMERA D800, 450nm LIGHT (BLUE LIGHT) AND 550 FILTER (ORANGE)
PGBA6M	Photography	RAW file format. Aperature F8. Shutter speed 1/4 second. Combined technique bounce and direct reflect.
	Photography	450 nm with an orange barrier filter. Aperture F8. SHutter speed 2 seconds.
PKMDFW	Photography	FIRST VISUAL: FP WAS CAPTURED ON THE POLIVIEW USING Onm LIGHT (WHITE) AND A CLEAR FILTER.
	Photography	FUMING: FP WAS CAPTURED ON THE POLIVIEW USING 505nm LIGHT AND A YELLOW FILTER.
	Photography	POWDERING: FP WAS CAPTURED ON THE POLIVIEW USING 0nm LIGHT AND NO FILTER.
PKZ8VW	FIRST VISUAL	THE PRINT THAT WAS VISIBLE WAS CAPTURED USING A 505nm LIGHT.
	POLYCYANO	THE PRINT THAT WAS VISIBLE WAS CAPTURED USING A 505nm LIGHT.
PRL3W2	Photography	POLIVIEW: 000nm (WHITE LIGHT) PL500 WAVELENGTH USED TO CAPTURE FIRST VISUAL AND CYANOBLOOM. 505nm PL500 WAVELENGTH USED TO CAPTURE RHODAMINE TREATED IMAGE WITH 550nm FILTER.
PY62T2	Photography	
QA2MD6	CAPTURING	POLIVIEW 00nm WITHOUT A FILTER FUMING, WAVELENGTH 505nm, NO FILTER. DYE, 505nm WAVELENGTH, ORANGE FILTER 610BP.
QEZU39	Photography	Digital capture (Nikon D300): in white light and after cyanoacrylate (in the white light)

Latent Print Processing

WebCode	<b>Preservation Methods</b>	Method Details
QFPCT9	Photography	Canon EOS 6 D
QHFEVF	Photography	Images of the impression were taken with a macro lens and saved as RAW files
QUP9XR	CAPTURING	NIKON + POLIVIEW (FIRST VISUAL): LIGHT (WHITE) FILTER (NONE) SHUTTER (1/10) EXPOSURE (-0.33) F-STOP (25) WHITE GOGGLES
	CAPTURING	NIKON + POLIVIEW (POLYCYANO): LIGHT (WHITE) FILTER (NONE) SHUTTER (1/10) EXPOSURE (-0.67) F-STOP (11) WHITE GOGGLES
QWY23T	Lifting	Using tape and a lift card, I carefully placed tape over the developed print and lifted the print. I then, put the tape lift onto a lift card and further documented.
R2JKMU	Photography	POLIVIEW SYSTEM PL500, GOGGLES
	SEALING OF NEW EVIDENCE BAG	BAG NR: PW3000304084
RDET8H	Photography	000nm, 450nm, 350nm, NO FILTER, 000nm, NO FILTER 505nm, ORANGE FILTER
REA6BX	Photography	CAPTURING ON THE DCS-3: THE PRINT WAS CAPTURED ON THE DIGITAL CAPTING SYSTEM (DCS-3) USING UV LIGHT (350nm), NO FILTER.
RPBNVD	Photography	Nikon D7000 @ visual/RUVIS, and following powder development (jpg and nef)
	Lifting	Lift tape with agency backer
RPTWJ8	Lifting	clear tape attach to surface, lay/spread tape over impression, lift and adhere to white backer
RQPA7Z	Photography	following CAE: 1:1 examination quality photography with DCS-4 software
	Photography	following powder: 1:1 examination quality photography with DCS-4 software
	Lifting	following photography of powder developed ridge detail, one lift obtained.
RRZ8JH	Lifting	

WebCode	Preservation Methods	Method Details
T2G39V	Photography	CAPTURED ON POLIVIEW, AFTER FIRST VISUALIZATION: USED 000nm LIGHT SOURCE, NO FILTER.
	Photography	ON POLIVIEW. AFTER FUMING OF EXHIBIT: USED 000nm LIGHT, NO FILTER USED DURING CAPTURING.
	Photography	CAPTURED ON POLIVIEW, AFTER DYE: USED 505nm LIGHT, 550nm FILTE
	REPACKAGING	REPACKAGED ITEM 2 I NA NEW EVIDANCE BAG (PAD001889520)
T8RCGD	Photography	
TE73WD	Photography	
TJKNZH	Photography	Took photographs with a resolution of greater than 1000 dpi. Took photograph of visible print.
	Lifting	Did a tape lift of print developed with powders.
TMU38V	Photography	capturing: Poliview: Poliflare +2 000nm NO Filter. Superglue: Fuming tent 30°C 80% 20 minutes. Poliview: Poliflare +2 000nm Not Filter. Poliview: Poliflare +2 450nm orange filter
TNT8NP	Photography	FIRST VISUAL CAPTURING: CAPTURED IMAGE B(1) WITH WHITE LIGHT AND NO FILTER ST 18:16 ON 2018/11/02.
TRV2NF	Photography	digital capturing system (DCS4). Cyanoacrylate: a light source for white light Dye stain (basic yellow40): blue light with yellow filter (495 nm)
U7C3CJ	Photography	Area 2B (quadrant B, from the CD case cover) was preserved through digital imaging
UB6APZ	Lifting	Lift tape & lift card
UBM8W7	Photography	CAPTURED ON POLIVIEW AND PRINTED & BURN TO DISC: BLUE LIGHT USED 450 - 505nm 610nm FILTER (ORANGE)
UE28QC	Photography	Technical Photograph - white light vis mark & CNA Mark. Blue light for BY40 Mark
UE4WVA	Photography	

WebCode	Preservation Methods	Method Details
UEG9UE	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.
UEYEVP	Photography	White light for CA, blue light and yellow filter for BY40
V8FGXP	Photography	PL500 - 450nm WITH 550 FILTER AT P8 NIKON D700.
V9PNYW	Photography	POLIVIEW: PL500 - 505nm WITH ORANGE FILTER
	Photography	505nm
VB27BF	Photography	Photographed after caf and dye with laser
VEZKX6	Photography	using Foray software
VFE32B	Photography	LP2-1 was photographed after the visual examination, after cyanoacrylate fuming, and after treatment with a dye stain (photographed using an orange barrier filter). Image of LP2-1 after each processing method were saved to a secure image drive.
VNPBKX	Lifting	Tape applied to developed print, lifted, and applied to lift card with pertinent case information on other side; prepared for Latent print examiner.
VPENYA	Photography	
VPNA47	Photography	DCS5 SYSTEM
VXAR37	Photography	POLIVIEW: POLIFLARE (450nm) WITH ORANGE FILTER, NIKON D700 - F/STOP = F/16 EXPOSURE TIME 1/2 SECONDS, ISO 2000.
VZYXKG	Lifting	Lift
W4U774	ANTI-STOKES LASER VIEWING ENCLOSED (ASV)	MINIMAL ANTI STOKES POWDER WAS USED
W7JDNE	Photography	Nikon D610, lens Nikon AF Micro Nikkor 60mm

WebCode	<b>Preservation Methods</b>	Method Details		
W8D28A	Photography	latent print was photographed with a macro camera lens and linear scale		
WAE8KV	Photography	Direct photoraphy with good results and fuming after that which made print even more visible.		
WAHWNR	Photography	Canon EOS 5D Mark II + Macro lens EF 100 mm 1:2,8. Crime Scope light source: white light		
WNMYHM	Photography	D5200 Red Nikon camera tethered to computer. Photoshop CS6 used for the enhancements. Photography was used in the same method for each method of development.		
WRKCCD	Photography	After each method. For BY40, ALS, alternate light source, (Blue light 430-470 nm).		
WV73PP	Photography	One digital images was taken of the visible print. The camera settings were: F/8, 1/80, ISO 1000. Once the image was made 1-1, the image was at 2228 ppi.		
	Lifting	One tape lift of print after the application of black magnetic powder.		
	Lifting	One tape lift of print after the application of black powder.		
WVF3F4	Photography	Camera Canon EOS-1D		
WXRZQZ	Photography	UPON VISUAL EXAMNATION, LABELLED AS VIS1 USING GREY STICKY LABEL (22MM) AND PHOTOGRAPHED USING DCS4 SYSTEM.AFTER SUPERGLUE CHEMICAL TREATMENT, WAS LABELLED AS SG1 USING GREY STICKY LABEL (22MM) AND PHOTOGRAPHED USING DCS4 SYSTEM. AFTER DYE STAIN TREATMENT, LABELLED AS SG/DYE USING GREY STICKY LABEL (22MM) AND PHOTOGRAPHED USING DCS4 SYSTEM. THIS WOULD BE SENT TO THE RIB VIA REMOTE TRANSMISSION IF A LIVE CASE.		
WZZ4MX	Lifting	lift tape and lift card		
X2L8VU	Lifting	The item was dusted with bichromatic powder. Clear lift tape was used and applied to a white lift card.		
X88DYV	Photography	POLIVIEW: NIKON D700, F/STOP= F/16, EXPOSURE = -33 TIME 50 SECONDS, ISO 1600 PL500 AT 530nm WITH 555 FILTER AT P7		
X9GD43	STORAGE	DUST AND HEAT FREE, FREE FROM TOUCHING OTHER OBJECTS: I PUT THE ITEM IN AN ENVIRONMENT FREE FROM DUST AND HEAT. I MADE SURE THE ITEM IS FREE FROM OTHER OBJECTS. SINCE PRINT IS ON THE INSIDE I CLOSED THE LID.		

WebCode	<b>Preservation Methods</b>	Method Details
XF8F29	Photography	
XGFUY2	Photography	Digital photography with Canon Rebel T6i and Mideo Systems retention
XKEZTL	Photography	include identification information and scale.
	Lifting	include identification information.
XQLN99	Photography	
XTA4HG	Photography	450nm, orange filter, Nikon D700, V++ soft ware
	Giant Arch Card and CD	Epson stylus photo R2880 Printer. HP Photo paper (glossy paper) giant arch card
Y22NN3	Photography	Photographed with direct white light after visual examination; with direct white light after cyanoacrylate fuming; and with ALS at 415nm with a yellow barrier filter.
Y7FNKU	Lifting	Tape used to lift fingerprint and then placed onto lift card
Y7RCU8	Supervisor Review	A supervisor visually examined/used a light source to review an item each time a new latent fingerprint was developed.
Y8NPGZ	Photography	The latent print was photagraphed. Camera:Canon Power Shot SX20 IS.
YMLMUX	Photography	1. At first visual exam 2. After CAE 3. After R6G (MeOH)
YUHM76	Tape Lift & Card	Latent print lifted w/transparent tape and placed on white lift card
	Final Packaged	Final packaged & submitted as evidence
YYRUGG	Photography	The prints were photographed using Nikon D700 camera and saved in a compact disc.
Z642T8	Photography	
ZDA3RD	Photography	Visual, CNA, Basic Yellow 40
ZDCHG8	Photography	Photographed with ruler to set scale. Photographs obtained after each process yielding positive results.
	Lifting	Latent lift obtained of each positive result.

WebCode	Preservation Methods	Method Details
ZH3YNQ	Photography	PHOTOGRAPHED WITH NIKON CAMERA: PL500 (POLYCYANO UV) 000nm NO FILTER PHOTOGRAPHED AT OBLIQUE ANGLE. R6G 505nm ORANGERFILTER AT AN 0BLIQUE ANGKE.
ZL3AFK	Photography	D7000 Nikon camera using an orange filter on a macro lens. The item was photographed after each processing step where ridge detail was observed.
ZMDAEZ	ANTI-STOKES LASER VIEWING ENCLOSURE (ASV)	MINIMAL ANTI-STOKES POWDER WAS USED WITH LIGHT STROKES OF DEVELOPMENT
ZQE9X6	Photography	latent print was photographed 1:1 with scale
	sealed	Evidence sealed and signed
ZTZ4AC	Photography	Canon camera 505nm light source - yellow filter, microlense - canon 550A
	Giant Arch Card	Epson stylus photo R2280 printer. HP Photo paper (glossy paper) giant arch card
ZXGABR	Photography	

TABLE 3	- Item	2
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Response Summary			Participants: 229
Λ	<b>Aethods</b>	Utilized	
Photo Sci	Lifting graphy anning	49 203 5	<b>**Note</b> : 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
28YDQQ	Photography	POLIVIEW: NIKON D700, F/STOP = F/16, EXPOSURE = 1 TIME: 20 SECONDS, ISO - 1600. PL500 @ 530nm WITH GREEN (555) FILTER
2JNATN	Photography	CAPTURING USING POLIVIEW CAPTURING SYSTEM (NIKON D700) AND PL500 SET AT 505nm WITH 555nm FILTER
2QFFLJ	Photography	No latent prints were developed. Photography was used to document negative results
2UPXKL	Photography	NIN/HFE: CAPTURED NOT VISIBLE PRINT USING 505 WAVELENGTH AND NO FILTER.
2WK3RZ	Photography	532 nm laser/orange filter, inspection with visible light for ninhydrin
2WXW92	Photography	
2Y84BU	Photography	post-PD documentation - tungsten light
368RGZ	NONE	THE RESULT WAS NEGATIVE.
38DC8L	Photography	CAPTURING OF DEVELOPED LATENT PRINTS: USING NIKON INTERFACE, BUT NONE LATENT FINGERPRINTS WERE DEVELOPED.
	PRINTING OF LATENT PRINTS	NONE WAS DEVELOPED.
3NHJLM	Photography	NO LATENT PRINT DEVELOPED.
3PE2HW	Scanning	Scanner "Epson perfection V700 photo"
3Q8Q6Y	NONE	LATENT PRINT NOT DEVELOPED OR RECOVERED ON THE ITEM.
3X8A3N	Photography	Photographic fixation was used for preservation, since over time it can disappear.
42KGYL	Photography	Captured with Canon EOS using white light, no filter, 505nm light, orange filter and V++ software to enhance.
	Giant arch card and CD	DNP printer to print, create working CD, Master CD and archive CD.
43DBQN	Copier	Photo Copied
43FWM6	Package	Returned paper to original packaging.

WebCode	Preservation Methods	Method Details
48PDJL	Photography	POLIVIEW (DFO): PL500, 0.00nm, WHITE FILTER, P2 WHITE GOGGLES.
	Photography	POLIVIEW (NINHYDRIN): PL500, 0.00nm, WHITE FILTER, P2 WHITE GOGGLES.
4A2RN9	Photography	photographs were only taken of the print after Ninhydrin process.
4CGK4F	Photography	POLIVIEW: PL500 WAS USED AT 450nm WITH 550nm ORANGE FILTER AT P6 NIKON D700 CAMERA WAS USED F/STOP = 7/16 EXPOSURE 1/2 SECONDS, ISO - 2000
4ECW8V	Photography	FINGERPRINT IMAGES CAPTURED ON POLIVIEW SYSTEM USING NORMAL WHITE LIGHT AND NO FILTER.
	BURNED TO DISC	IMAGES BURNED TO DISC FOR STORAGE AND SAFE KEEPING
4NVFKZ	Polyview Capturing System	505nm, orange filter, F-Stop - f/8; exposure time 1/40 seconds. ISO speed: ISO 500 focal length:60mm, Max aperture 3.5
4NX8DG	Photography	PHOTOGRAPHY: NIKON MOUNTED TO A POLIVIEW SYSTEM: 1. NIKON D700 SET AT 0.37 LIGHT METER, F-STOP F/14 AND ISO 2000. POLIVIEW SET AT 450nm LIGHT WITH 610nm FILTER FITTED ON THE CAMERA. 2. DATA BURNED ON CD-R, MASTER AND WORKING COPY, WHICH WAS ATTACHED TO THE CASE FILE. ARCHIVE DISC COPY WAS ALSO PREPARED.
4RDUT8	Photography	After each method.
64NMW8	Photography	Photographed print.
68R9WQ	Photography	Nikon 105mm lens on Nikon D800 camera; Nikon 105mm lens on Nikon DCS5 camera with white light and green lignt.
6DAQ7R	Photography	PHOTORGAPHED ON DCS4 IMAGE CAPTURING SYSTEM, USING POLYTEC RINGLIGHT WITH GREEN FILTER, POLARISING FILTER ON CAMERA. IMAGE (LABELLED NIN1) SENT TO REGIONAL IDENTIFICATION BUREAU VIA REMOTE TRANSFER
6EAJAR	Scanning	
6PNNBV	VISUAL	CHECKING VISIBLE PRINTS
	Photography	CAPTURING VISIBLE PRINTS
6W9PK7	Scanning	TIFF format 1200 DPI. 0715-0800 temperature in lab 68 degrees F.

WebCode	Preservation Methods	Method Details
7L3BT6	Photography	
7ME4RD	None	No prints developed.
7VR3FX	Digital Photography	Digital photography, enhance in Photoshop, print 1:1
83P62A	Photography	DFO- Images taken using an ALS. NIN- Images taken using crime lite and incandescent light
8B33PT	Photography	Used digital camera to capture impression
8HE7PZ	Photography	
8PZ2TP	Photography	Photo taken in RAW-format, ruler included with a label including case- and item number.
8RR4P6	Photography	Silver nitrate
8U8W4C	Photography	NIKON D800, F/STOP = F/16, EXPOSURE = $33 \text{ TIME} = 20$ SECONDS, ISO 1600.
	POLIVIEW	PL500 AT 490nm WITH 610 FILTER AT P7.
928KNP	Photography	white light using EOS Canon camera with green filter and monochrome setting for contrast
A4TGX2	Photography	Foster + Freeman DCS-5
A6JYKU	Photography	
AKGQNJ	Photography	Canon Eos 760 D, macro objective 100 mm. Then we used Adobe Photoshop Elements 10 to make picture better and for crop.
AQMKKZ	Photography	After each method.
AVDY62	Photography	Captured on poliview 24hrs later - natural white light slow shutter
AX2ELN	Photography	the developed latent print was preserved by digital imaging at high resolution capturing
	Scanning	the latent print was preserved by digital scanning at high resolution
AYD32U	Photography	

WebCode	Preservation Methods	Method Details
B39D8E	Photography	Canon EOS-1 Ds Mark-II + Macro lens EF 100 mm. 1:2,8.
BDPZGE	Photography	"Nikon D750"
BHV8FY	Packaged	Evidence repacked to be submitted for further testing
BJG829	Photographs	DSLR
BNDPPZ	Photography	Needed to use Adobe Photoshop to try to darken the impression
BZQWDN	Photography	
C3PUYZ	Photography	Images were captured with Canon D600 and Poliview
C7TBNG	Photography	Photography Unit request generated.
CBN2D2	[No Methods Reported.]	None, areas of ridge detail were not observed.
CFAEG9	Photography	POLIVIEW SYSTEM (LIGHT: 0nm(WHITE LIGHT)) FILTER = 0nm (NO FILTER)
	SEALING IN EVIDENCE BAG	BAG #PA3000272636
СКААТН	[No Methods Reported.]	Print would be photographed for actual casework.
CYBYUP	Photography	Nikon D-5 with Foster and Freeman Digital Capture System 5 software using white/ambient light.
D7KXAK	Photography	the pattern that developed on this item after processing was photographed
D8XFMX	NONE	NO PRINT DEVELOPED SP NO METHOD USED.
D9VRHQ	Photography	Photographed overall item & developed FRD w/scale
DCEQRE	Photography	
DEJCL7	Photography	Took overall and close-up photos of ridge detail in a TIFF format.
DMVFNY	Photography	
DPFC6C	Photography	Canon 5D MarkII, Canon utility software.

WebCode	<b>Preservation Methods</b>	Method Details
DUPUWD	Photography	CAPTURING (NINHYDRIN): 0.00nm, WHITE FILTER, WHITE GOGGLES USING POLIVIEW CAPTURING SYSTEM.
E3LTMR	[No Methods Reported.]	Not applicable due to negative results.
E4XGV6	NA	NEGATIVE RESULTS
E7A6LW	Scanning	scanned 11/7/18 - Epson perfection V700 1000dpi
EEQAX2	Photography	VISUALIZED TO CHECK DEVELOPED PRINT, NONE DEVELOPED.
EGWMLU	Photography	would have taken picture, but due to heavy workload of photo-department we skipped this.
EGYFGG	Photography	
EVLDTD	Scanning	Photoshop at 1000dpi
F7F44J	FOLLOW LEVELS OF INVESTIGATION	USE DFO FIRST AND THEN NIN LATER TO AVOID ON FOLLOW LEVEL OF INVESTIGATION, STORE IN COOL DRY PLACE OF EXHIBITS, DUST FREE AREA.
F7HYE3	Scanning	used Epson V370, scanned to AdobePhotoshop and copied onto a compact disc
FG2BTZ	Photography	
FXZGUF	DIGITAL CAPTURING	THE LATENT PRINT WAS CAPTURED/PHOTOGRAPHED USING THE DIGITAL CAPTURING SYSTEM THAT CONSIST OF A NIKON D700, V++ SOFTWARE, PL500 LIGHT SOURCE. CAPTURED WITH 450nm LIGHT AND 610nm FILTER.
GFM7U3	Photography	DSLR, Camera Images enhanced in Photoshop CS6, Photos printed on Mitsubishi Photo Printer
GMJZRZ	Photography	Raw .nef photos taken with Nikon camera and uploaded into secure database (ADAMS)
GNT9J8	Photography	Used the Rofin poliview to capture the image.
GVQTRU	Photography	Nikon D7100
GVV6WE	Scanning	scanned at 1200 dpi with scale
GVXPRU	Photography	Foster+Freeman DCS-4 system

#### WebCode **Preservation Methods Method Details** GWM8EM Photography GZBREP Photography digital images with white light and with green filter **H3NWFR** Photographed Plastic Sleeve Placed in plastic sleeve H9ULT7 DFO POLIVIEW PHOTOGRAPHY: DFO WAS USED ON ITEM Photography 3, UNDER FUME EXTRACTION CABINET DRIED UNDER NINCHA \$31 NO PRINT DEVELOPED. Photography NINHYDRIN WAS USED ON ITEM 3 BY DEEPING METHOD 5 MINUTES ON FUME EXTRACTION CABINET DRIED IN EVIDENCE DRIER PUT ON NINCHA S31 FOR 25 MINUTES AT 80°C AND 80% HUMIDITY PRINT CAPTURED PL500 LIGHT 505nm AND 555nm FILTER NIKON CAMERA POLIVIEW V++ YELLOW GOGGLOES. **HEGAPW** Photography Capture the fingerprint as soon as reasonably possible and developed. Capture on poliview, wavelength 505nm (Polilight PL500), HR79HK Photography Orange filter, f-stop 8 and shutter speed at 1/40 seconds PL500 - 450nm WITH 550 FILTER WITH NIKON D700 HR9XHB Photography CAMERA. HTPWBZ I took photographs of developed latent print with and without a **Photographs** scale. HUG7UG STORAGE IN DRY COOL PLACE STORE IN DUST PROOF STORAGE CONTAINERS HY6THU Packaging Packaging of item 3 in tamper proof evidence seal bag no. PA4001223079. J4WD7B Photography PHOTO OF EXHIBITS, POSITION OF PRINT ON EXHIBIT AND CLOSE UP OF PRINT. DURING EACH PROCESS. DFO: 505nm, ORANGE GOGGLES, 550 FILTER. NIN: WHITE LIGHT NO FILTER RESEALING SEALING EXHIBIT IN FORENSIC BAG TO KEEP SAFE AND AWAY FROM TAMPERING. J728K8 [No Methods Reported.] Visual examination (in real cases we photograph these prints under reprosystem in white/tungsten light) POST-PROCESSING WITH NINHYDRIN ACETONE **J8GCFY** Photography CAPTURING AT 14:15 AND 14:23 ON 2018/11/04 FOR IMAGES: C(1) OF ITEM 3, WHITE LIGHT, 505nm LIGHT, 555nm FILTER.

WebCode	<b>Preservation Methods</b>	Method Details
JEXZX8	NO METHOD USED, NO FINGER PRINT WAS DEVELOPED.	NO SPECIFICIAL METHOD INFORMATION.
JG4B9P	Photography	RAW, enhancement in Photoshop
JJW8MB	Photography	Nikon D800 camera, 105mm lens, white light with green filter, with scale, digital enhancement, printed 1:1
JVNQDA	Photography	Canon 5D + 90mm macro-lens 1:1 and white light. Finally photoshop.
JXDYUQ	Repackaged	Replaced in evidence envelope for submission.
K4YDXN	Photography	Images captured using a Nikon D810, processed with Photoshop Creative Cloud and saved as TIFF.
KA2FPG	Photography	NO PRINTS TO PRESERVE.
КВVС3Н	Stored in locker	After humidity chambers item stored in locker for continued processing -> each time placed in humidity chamber
	Envelope	Item was packaged and sealed in envelope on 11/29/2018
KCRLGU	Photography	Photographed latent fingerprint using white light.
KF8C9G	[No Methods Reported.]	Item was kept in the Nincha 531 when not being examined
KHVLMP	Photography	
KNZKXE	Photography	1. BLUE LIGHT 450 - 505nm - NEGATIVE - DFO 2. NINHYDRIN - WHITE LIGHT IMAGE INSUFFICIENT POINTS - NEGATIVE
	PRINTING & BURN TO DISC	PRINTING & BURN TO DISC
KRJFYL	Photography	after Ninhydrin - under white light after 15 days
KTGW4V	Photography	Nikon D810
KXRZMJ	Photography	It was used as method of preservation.
KY84NP	repackaged	Newspaper notice was repackeged in original packaging for submission to latent print unit.
LNX4JG	Scanning	Flatbed scanner.
WebCode	Preservation Methods	Method Details
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LVEVHT	Photography	COC photos and prints were photographed
	са	Spray Ninhydrin, dried, Nincha 531 used temperature 55°C, humidity 65% RH for 10 minutes.
M2Y4N6	CAPTURING	FIRST VISUAL: NONE
	CAPTURING:	DFO/HFE AND NIN/HFE: NONE
M7EQ7G	Photography	Overalls of front and back of item. Closeup on ninhydrin development. RAW/NEF with scale. Photoshop enhancement.
MDW3JG	Photography	Nikon D80
MF4HQM	Photography	Fingerprint was photographed using the linear light source for oblique lighting
MFDFV6	Photography	NIKON D700 - F/STOP = F/16, EXPOSURE TIME 1/6 SECONDS, ISO 1600. PL500 - 490nm WITH 555 FILTER AT P7
MK9842	Photography	FINGERPRINT PHOTOGRAPHED USING POLIVIEW SYSTEM.
MKUYY8	CAPTURING	USING POLIVIEW ON ITEM 3, 450nm WAVELENGTH, 610nm FILTER.
MNWL3W	Photography	I photographically preserved the prints that were visible after I applied ninhydrin to the newspaper yard sale ad.
MYDL7K	Scanning	Item scanned before and after processing, Print developed in section C, scanned
N9VHMB	[No Methods Reported.]	NO FINGERPRINT WAS DEVELOPED, THEREFORE THERE IS NOTHING TO PRESERVE.
NMV7U6	Photography	POLIVIEW CAPTURING SYSTEM: ITEM 3: IMAGE 3A 0.00nm WAVELENGTH NO FILTER.
P2Q4FZ	Photography	AFTER NINHYDRIN CAPTURED NO LIGHT SOURCE OR FILTER USED
	REPACKAGING	REPACKAGED ITEM 3 IN A NEW EVIDENCE BAG (PAD001889733)
РЗЗМНН	None	Print was marked with photo tag
PD6373	[No Methods Reported.]	Visual examination in normal white light. Normal prosedure is to photoraph these prints in our reprosystem using normal white (tungsten) light.

WebCode	<b>Preservation Methods</b>	Method Details	
PGBA6M	Photography	RAW file format. Aperature set to F8. Photographed on a copy stand.	
PKMDFW	Photography	NIN/METH: FP WAS CAPTURED ON THE POLIVIEW USING 350nm LIGHT (UV) AND AN ORANGE FILTER.	
PKZ8VW	Photography	NINHYDRIN: THE PRINT DEVELOPED WAS CAPTURED WITH A 450nm LIGHT WITH YELLOW GOGGLES.	
PRL3W2	Photography	450nm PL500 WAVELENGTH WAS USED TO CAPTURE IMAGE WITH 59+0nm FILTER AT P6. NIKON D700 CAMERA - F/STOP = F/16 EXPOSURE 1/2 SECONDS AND ISO - 2000.	
PY62T2	Photography		
QA2MD6	DIGITAL CAPTURING	POLIVIEW CAPTURING, WAVELENGTH 450nm WITH ORANGE FILTER 610BP.	
QEZU39	Photography	Digital capture (Nikon D300) after ninhydrin (in the white light).	
QFPCT9	Photography	Canon EOS 6 D	
QHFEVF	Photography	A RAW image of the impression was examined in Photoshop CS6 and contrast was adjusted to provide contrast	
QUP9XR	CAPTURING	NIKON + POLIVIEW (NIN/HFE): LIGHT (WHITE) SHUTTER (1/30) EXPOSURE (-0.67) F-STOP (11) WHITE GOGGLES	
	CAPTURING	NIKON + POLIVIEW (NIN/HFE DUPLICATE): LIGHT (WHITE) SHUTTER (1/8) EXPOSURE (-0.33) F-STOP (11) WHITE GOGGLES	
QWY23T	Photography	Took photographs using DCS camera (overall and close-up using scale). Photographs were taken after Ninhydrin processing using Tiff Format.	
R2JKMU	Photography	POLIVIEW SYSTEM PL500, GOGGLES	
	SEALING OF NEW EVIDENCE BAG	BAG NR: PW3000304084	
REA6BX	Photography	NO LATENT PRINT DEVELOPED.	
RPBNVD	Photography	Nikon D7000 (jpg and nef)	
RPTWJ8	Photography	Photograph before processing. Digital image taken by digital camera and computer.	
RQPA7Z	Photography	1:1 examination quality photograph on DCS-4 software.	

WebCode	<b>Preservation Methods</b>	Method Details
RRZ8JH	Scanning	
T2G39V	Photography	CAPTURED ON POLIVIEW AFTER THIRD VISUALIZATION: USED NO LIGHT SOURCE
	REPACKAGING	REPACKAGED ITEM IN A NEW EVIDENCE BAD (PAD001889520)
TJKNZH	Photography	Scanned document with print at 1000 dpi
TMU38V	Photography	CAPTURING: NIN: POLIVIEW 000nm WITHOUT FILTER
TNT8NP	Photography	CAPTURED
TRV2NF	Photography	digital capturing system (DCS4). DFO: green light /orange filter (550 nm). Ninhydrine: white light.
U7C3CJ	[No Methods Reported.]	No areas of ridge detail were observed or developed.
UB6APZ	Photography	
UBM8W7	Photography	CAPTURING ON POLIVIEW SYSTEM & PRINTED & BURN TO DISC: DFO - BLUE LIGHT 450 - 505nm (NEGATIVE). NINHYDRIN, WHTE LIGHT (POSITIVE)
UE28QC	Photography	Technical Mark Photography using Nikon D600 DSLR & 60mm lens - white lighting. Resized and saved as TIFF (500dpi). Printed 1:1
UE4WVA	Photography	
UEG9UE	NONE	No preservation methods were used as no marks were developed.
UEYEVP	Scanning	
V9PNYW	Photography	CAPTURING (NINHYDRIN): 0.00nm WHITE FILTER, WHITE GOGGLES USING POLIVIEW CAPTURING SYSTEM.
VB27BF	Photography	Photographed all quadrants with ambient lighting after processing was completed. Very faint ridge detail of no value observed in Quadrant C, photographed with green filter as well
VEZKX6	Photography	Photocopy before processing, photograph after processing using Foray software
VFE32B	Photography	Documented ridge detail observed (LP3-1) using photography. Images saved to a secure image drive.

WebCode	Preservation Methods	Method Details
VNPBKX	Photography	In normal casework photography would be requested for preservation; not requested for proficiency purposes due to necessity to transfer to other unit (photography unit)
VPENYA	Photography	
VXAR37	Photography	POLIVIEW: POLIFLARE (450nm) WITH ORANGE FILTER, NIKON D700 - F/STOP = F/16 EXPOSURE TIME 1/2 SECONDS ISO = 2000
W7JDNE	Photography	Nikon D610, lens Nikon AF Micro Nikkor 60 mm. After DFO method was use orange filter.
W8D28A	Photography	latent print was photographed with a macro camera lens and linear scale
WAE8KV	[No Methods Reported.]	First in Indanedione 1,2 in NinCha cabinet which didn't work very well so I used Ninhydrin at temperature 65C and humidity 65% 30min. It made the print more visible but not very good.
WAHWNR	Photography	Canon EOS 5D Mark II + Macro lens EF 100 mm 1:2,8. Crime Scope light source: white light.
WNMYHM	Scanning	EPSON scan at 1200 dpi resolution. Photoshop CS6 used for enhancements.
WRKCCD	Photography	After ninhydrin.
WV73PP	Scanning	One scan was taken of the developed ninhydrin print. Scan taken at 1000 ppi.
WVF3F4	Photography	Camera Canon EOS-1D
WXRZQZ	Photography	LABELLED AS NIN1 AND PHOTOGRAPHED WITH 22MM LABEL, CALIBRATED LABEL AND USING A GREEN LIGHT TO ENHANCE NINHYDRIN MARKS AND SENT THROUGH TO RIB VIA REMOTE TRANSMISSION USING DCS4 SOFTWARE.
WZZ4MX	photocopy	
X2L8VU	photo copy	This item was placed in a protective plastic cover and a photo copy was made.
X88DYV	Photography	NIKON D700, F/STOP= F/16, EXPOSURE = 33 TIME 20 SECONDS, ISO 1600 PL500 AT 490nm WITH 610 FILTER AT P7
X9GD43	STORAGE	ITEM WAS KEPT IN A SAFE PLACE GLOVES WERE ALWAYS USED.

WebCode	<b>Preservation Methods</b>	Method Details		
XF8F29	Photography			
XGFUY2	Photography	Digital photography with Canon Rebel T6i and Mideo Systems retention		
XKEZTL	Photography	include identification information and scale.		
	Scanning	include identification information and scale.		
XQLN99	Photography			
Y7RCU8	Supervisor Review	A supervisor visually examined/used a light source to review an item each time a new latent fingerprint was developed.		
YMLMUX	Photography	1. After NIN		
YUHM76	Photography (digital)	Photographed w/scale; enhanced in Photoshop; original & enhanced calibrated photos printed.		
	Final Packaged	Final packaged & submitted as evidence		
Z642T8	Photography			
	Scanning	1000dpi		
ZL3AFK	Scanning	Epson 4990 scanner; 1200ppi scan. The item was scanned after each processing step where ridge detail was observed.		
ZQE9X6	Photography	latent print was photographed 1:1 with scale		
	sealed	Evidence sealed and signed		
ZXGABR	Photography			

Response Summary		Participants: 188
Methods	Utilized	
Lifting	0	<b>**Note</b> : Methods listed are the preloaded options for
Photography	140	selection via the CTS Portal
Scanning	17	provided by participants.

# **First-Level Detail Findings**

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
28YDQQ	Yes	Whorl	48PDJL	Yes	Whorl
2DQGVF	N/A	N/A	4A2RN9	N/A	N/A
2JNATN	Yes	Whorl	4BCQTP	Yes	Whorl
2QFFLJ	N/A	N/A	4CGK4F	Yes	Whorl
2UPXKL	Yes	Whorl	4ECW8V	Yes	Whorl
2WK3RZ	Yes	Whorl	4NVFKZ	Yes	Whorl
2WXW92	Yes	Whorl	4NX8DG	Yes	Whorl
2Y84BU	Yes	Whorl	4RDUT8	Yes	Whorl
368RGZ	Yes	Not suitable for determination	64NMW8	Yes	Not suitable for determination
38DC8L	Yes	Whorl	68R9WQ	Yes	Whorl
3AJG2A	No	Not suitable for determination	6BLARD	Yes	Not suitable for determination
3F9YQ7	Yes	Not suitable for determination	6DAQ7R	N/A	N/A
3NHJLM	N/A	N/A	6EAJAR	Yes	Whorl
3PE2HW	Yes	Whorl	6MXL22	Yes	Whorl
3Q8Q6Y	Yes	Whorl	6PNNBV	Yes	Whorl
3X8A3N	Yes	Whorl	6W9PK7	N/A	N/A
42KGYL	Yes	Not suitable for determination	746XEC	No	N/A
43DBQN	N/A	N/A	7ARVW8	Yes	Whorl
43FWM6	N/A	N/A	7L3BT6	Yes	Whorl

Latent Print Processing

TABLE 4 - Item	า 1
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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
7ME4RD	N/A	N/A	AYD32U	Yes	Whorl
7R78MD	Yes	Whorl	B2MFBA	N/A	N/A
7VR3FX	N/A	N/A	B39D8E	N/A	N/A
7XYBQ3	N/A	N/A	B6VX9C	Yes	Whorl
83P62A	N/A	N/A	BDPZGE	Yes	Whorl
8B33PT	Yes	Whorl	BHV8FY	Yes	Not suitable for determination
8HE7PZ	Yes	N/A	BJG829	N/A	N/A
8N7DBU	N/A	N/A	BNDPPZ	Yes	Whorl
8PZ2TP	Yes	Whorl	BZQWDN	N/A	N/A
8RR4P6	N/A	N/A	C3PUYZ	Yes	
8U8W4C	Yes	Whorl	C7TBNG	N/A	N/A
928KNP	No	Not suitable for determination	CBN2D2	N/A	N/A
9A3EUA	Yes	Whorl	CFAEG9	Yes	Whorl
A4TGX2	Yes	Whorl	СКААТН	N/A	N/A
A6JYKU	Yes	Whorl	CYBYUP	Yes	Whorl
AKGQNJ	N/A	N/A	D7KXAK	Yes	Whorl
AQMKKZ	N/A	N/A	D8XFMX	Yes	Whorl
AUNEPX	Yes	Whorl	D9VRHQ	Yes	Whorl
AVDY62	Yes	Whorl	DCEQRE	Yes	Whorl
AX2ELN	Yes	Not suitable for determination	DEJCL7	N/A	N/A

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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
DMVFNY	Yes	Whorl	FXZGUF	Yes	Whorl
DPFC6C	N/A	N/A	GFM7U3	Yes	Whorl
DUPUWD	Yes	Whorl	GMJZRZ	N/A	N/A
E3LTMR	Yes	Whorl	GNQGRR	Yes	Whorl
E4XGV6	Yes	Whorl	GNT9J8	Yes	Whorl
E7A6LW	N/A	N/A	GVQTRU	No	Not suitable for determination
EEQAX2	Yes	Whorl	GVUJWR	Yes	Whorl
EGWMLU	Yes	N/A	GW6WE	Yes	Not suitable for determination
EGYFGG		Whorl	GVXPRU	Yes	Whorl
ERHRVE	Yes		GWM8EM	Yes	Whorl
EVLDTD	Yes	Whorl	GZBREP	N/A	N/A
F7F44J	Yes	Whorl	H3NWFR	N/A	N/A
F7HYE3	N/A	N/A	H9ULT7	Yes	Whorl
F8NEET	Yes	Whorl	HEGAPW	Yes	Whorl
FECVCD	Yes	Whorl	HR79HK	Yes	Whorl
FG2BTZ	N/A	N/A	HR9XHB	Yes	Whorl
FGEZKR	Yes	Not suitable for determination	HTPWBZ	N/A	N/A
FHDWKM	Yes	Whorl	HUG7UG	Yes	Whorl
FKZFGE	No		HY6THU	Yes	
FLCB6R	N/A	N/A	J4WD7B	Yes	Not suitable for determination

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
J728K8	Yes	Arch	KRJFYL	Yes	Whorl
J8GCFY	Yes	Whorl	KTGW4V	N/A	N/A
JEXZX8	Yes	Not suitable for determination	KVGZJW	Yes	Not suitable for determination
JG4B9P	Yes	N/A	KXRZMJ	Yes	Whorl
JJW8MB	N/A	N/A	KY84NP	N/A	N/A
JLXD2G	N/A	N/A	LNX4JG	Yes	Whorl
JVNQDA	N/A	N/A	LRZWLR	Yes	Whorl
JXDYUQ	N/A	N/A	LVEVHT	No	Not suitable for determination
JZYYGZ	Yes	Whorl	LVU866	N/A	N/A
K4YDXN	Yes	Not suitable for determination	M2Y4N6	Yes	Whorl
KA2FPG	Yes	Whorl	M7EQ7G	N/A	N/A
KBFTHK	Yes	Whorl	MDW3JG	Yes	Not suitable for determination
KBVC3H	N/A	N/A	MF4HQM	Yes	Whorl
KCRLGU	Yes	Whorl	MFDFV6	Yes	Loop
KD3NUR	Yes	Not suitable for determination	MGRZNE	Yes	Whorl
KEUTCQ	N/A	N/A	MK9842	Yes	Whorl
KF8C9G	Yes	Whorl	MKUYY8	Yes	Whorl
KHVLMP	Yes	Whorl	MNWL3W	N/A	N/A
KKZDBW	N/A	N/A	MYDL7K	Yes	Whorl
KNZKXE	Yes	Whorl	MZ3X2J	Yes	Whorl

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
N3QQBT	Yes	Whorl	R6HWKE	Yes	Whorl
N9VHMB	Yes	Whorl	RDET8H	Yes	Whorl
NMV7U6	Yes	Whorl	REA6BX	N/A	N/A
NV8F76	No	Not suitable for determination	RGD64H	No	N/A
P2Q4FZ	Yes	Whorl	RNVFGH	N/A	N/A
РЗЗМНН	Yes	Whorl	rpbnvd	Yes	Not suitable for determination
P7LULC	No	N/A	RPTWJ8	Yes	Whorl
PD6373	Yes	Arch	RQPA7Z	N/A	N/A
PGBA6M	Yes	Whorl	<b>RRZ8JH</b>	Yes	Whorl
PKMDFW	Yes	Whorl	RVC8NV	Yes	Whorl
PKZ8VW	Yes	Whorl	T2G39V	Yes	Whorl
PRL3W2	Yes	Whorl	T8RCGD	N/A	N/A
PY62T2	Yes	Whorl	TE73WD	Yes	Whorl
QA2MD6	Yes	Whorl	TJKNZH	N/A	N/A
QEZU39	Yes	Whorl	TMU38V	Yes	Whorl
QFPCT9	N/A	N/A	TNT8NP	Yes	Whorl
QHFEVF	Yes	Whorl	trv2nf	Yes	Whorl
QUP9XR	Yes	Whorl	U38TM9	N/A	N/A
QWY23T	Yes	Whorl	U7C3CJ	Yes	Whorl
R2JKMU	Yes	Whorl	UB6APZ	N/A	N/A

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
UBM8W7	Yes	Whorl	WNMYHM	N/A	N/A
UE28QC	Yes	N/A	WRKCCD	No	Not suitable for determination
UE4WVA	Yes	Whorl	WV73PP	N/A	N/A
UEG9UE	Yes	Whorl	WVF3F4	Yes	N/A
UEYEVP	Yes	Whorl	WXRZQZ	N/A	Not suitable for determination
V8FGXP	Yes	Whorl	WZZ4MX	N/A	N/A
V9PNYW	Yes	Whorl	X2L8VU	N/A	N/A
VB27BF	Yes	Whorl	X88DYV	Yes	Whorl
VEZKX6	Yes	Whorl	X9GD43	Yes	Not suitable for determination
VFE32B	Yes	Whorl	XF8F29	N/A	N/A
VNPBKX	N/A	N/A	XGFUY2	Yes	Whorl
VPENYA	Yes	Whorl	XKEZTL	N/A	N/A
VPNA47	Yes	Whorl	XQLN99	Yes	Whorl
VXAR37	Yes	Whorl	XTA4HG	Yes	Not suitable for determination
VZYXKG	Yes	Whorl	XWB8A4	Yes	Whorl
W4U774	Yes	Whorl	Y22NN3	Yes	Whorl
W7JDNE	Yes	Whorl	Y7FNKU	N/A	N/A
W8D28A	Yes	Whorl	Y7RCU8	Yes	Whorl
WAE8KV	Yes	Loop	Y8NPGZ	Yes	Whorl
WAHWNR	N/A	N/A	YMLMUX	Yes	Not suitable for

determination

TABLE	4 -	ltem	1
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Arch	2	*NOTE: These numbers may not add
Loop	2	up to the total # of participants, as not
Whorl	142	all who tound tirst level detail could determine one specific pattern type
No	4	
Not suitable for determination	28	
N/A	68	

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
28YDQQ	Yes	Whorl	4A2RN9	N/A	N/A
2DQGVF	N/A	N/A	4BCQTP	Yes	Whorl
2JNATN	Yes	Whorl	4CGK4F	Yes	Whorl
2QFFLJ	N/A	N/A	4ECW8V	Yes	Whorl
2UPXKL	Yes	Whorl	4NVFKZ	Yes	Whorl
2WK3RZ	Yes	Whorl	4NX8DG	Yes	Whorl
2WXW92	Yes	Whorl	4RDUT8	Yes	Whorl
2Y84BU	Yes	Whorl	64NMW8	Yes	Whorl
368RGZ	Yes	Whorl	68R9WQ	Yes	Whorl
38DC8L	Yes	Whorl	6BLARD	Yes	Whorl
3AJG2A	Yes	Whorl	6DAQ7R	N/A	N/A
3F9YQ7	Yes	Whorl	6EAJAR	Yes	Whorl
3NHJLM	N/A	N/A	6MXL22	Yes	Whorl
3PE2HW	Yes	Whorl	6PNNBV	Yes	Whorl
3Q8Q6Y	Yes	Whorl	6W9PK7	N/A	N/A
3X8A3N	Yes	Whorl	746XEC	Yes	Whorl
42KGYL	Yes	Whorl	7ARVW8	Yes	Loop
43DBQN	N/A	N/A	7L3BT6	Yes	Whorl
43FWM6	N/A	Not suitable for determination	7ME4RD	N/A	N/A
48PDJL	Yes	Whorl	7R78MD	Yes	Whorl

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
7VR3FX	N/A	N/A	B39D8E	N/A	N/A
7XYBQ3	N/A	N/A	B6VX9C	Yes	Whorl
83P62A	N/A	N/A	BDPZGE	Yes	Whorl
8B33PT	Yes	Whorl	BHV8FY	Yes	Whorl
8HE7PZ	Yes	N/A	BJG829	N/A	Not suitable for determination
8N7DBU	N/A	N/A	BNDPPZ	Yes	Whorl
8PZ2TP	Yes	Whorl	BZQWDN	N/A	N/A
8RR4P6	N/A	N/A	C3PUYZ	Yes	Whorl
8U8W4C	Yes	Whorl	C7TBNG	N/A	N/A
928KNP	Yes	Whorl	CBN2D2	N/A	N/A
9A3EUA	Yes	Whorl	CFAEG9	Yes	Whorl
A4TGX2	Yes	Whorl	СКААТН	N/A	N/A
A6JYKU	Yes	Whorl	CYBYUP	Yes	Whorl
AKGQNJ	N/A	N/A	D7KXAK	Yes	Whorl
AQMKKZ	N/A	N/A	D8XFMX	Yes	Whorl
AUNEPX	Yes	Whorl	D9VRHQ	Yes	Whorl
AVDY62	Yes	Whorl	DCEQRE	Yes	Whorl
AX2ELN	Yes	Whorl	DEJCL7	N/A	N/A
AYD32U	Yes	Whorl	DMVFNY	Yes	Whorl
B2MFBA	N/A	N/A	DPFC6C	N/A	N/A

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
DUPUWD	Yes	Whorl	GMJZRZ	N/A	N/A
E3LTMR	Yes	Whorl	GNQGRR	Yes	Whorl
E4XGV6	Yes	Whorl	GNT9J8	Yes	Whorl
E7A6LW	N/A	N/A	GVQTRU	Yes	Whorl
EEQAX2	Yes	Whorl	GVUJWR	Yes	Whorl
EGWMLU	Yes	Whorl	GVV6WE	Yes	Whorl
EGYFGG	Yes	Whorl	GVXPRU	Yes	Whorl
ERHRVE	Yes		GWM8EM	Yes	Whorl
EVLDTD	Yes	Whorl	GZBREP	N/A	N/A
F7F44J	Yes	Whorl	H3NWFR	N/A	Not suitable for determination
F7HYE3	N/A	N/A	H9ULT7	Yes	Whorl
F8NEET	Yes	Whorl	HEGAPW	Yes	Whorl
FECVCD	Yes	Whorl	HR79HK	Yes	Whorl
FG2BTZ	N/A	N/A	HR9XHB	Yes	Whorl
FGEZKR	Yes	Whorl	HTPWBZ	N/A	N/A
FHDWKM	Yes	Not suitable for determination	HUG7UG	Yes	Whorl
FKZFGE	No		HY6THU	Yes	
FLCB6R	N/A	N/A	J4WD7B	Yes	Whorl
FXZGUF	Yes	Whorl	J728K8	Yes	Arch
GFM7U3	Yes	Whorl	J8GCFY	Yes	Whorl

Latent Print Processing

TABLE 4	1 - It	tem 2
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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
JEXZX8	Yes		KVGZJW	Yes	Whorl
JG4B9P	Yes	N/A	KXRZMJ	Yes	Whorl
JJW8MB	N/A	N/A	KY84NP	N/A	N/A
JLXD2G	N/A	N/A	LNX4JG	Yes	Whorl
JVNQDA	N/A	N/A	LRZWLR	Yes	Whorl
JXDYUQ	N/A	N/A	LVEVHT	Yes	Whorl
JZYYGZ	Yes	Whorl	LVU866	N/A	N/A
K4YDXN	Yes	Whorl	M2Y4N6	Yes	Whorl
KA2FPG	Yes	Whorl	M7EQ7G	N/A	N/A
KBFTHK	Yes	Whorl	MDW3JG	Yes	Whorl
KBVC3H	N/A	N/A	MF4HQM	Yes	Whorl
KCRLGU	Yes	Whorl	MFDFV6	Yes	Whorl
KD3NUR	Yes	Whorl	MK9842	Yes	Whorl
KEUTCQ	N/A	N/A	MKUYY8	Yes	Whorl
KF8C9G	Yes	Whorl	MNWL3W	N/A	N/A
KHVLMP	Yes	Whorl	MYDL7K	Yes	Whorl
KKZDBW	N/A	N/A	MZ3X2J	Yes	Whorl
KNZKXE	Yes	Whorl	N3QQBT	Yes	Whorl
KRJFYL	Yes	Whorl	N9VHMB	Yes	Whorl
KTGW4V	N/A	N/A	NMV7U6	Yes	Whorl

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
NV8F76	Yes	Loop	RGD64H	Yes	Whorl
P2Q4FZ	Yes	Whorl	RNVFGH	No	Whorl
РЗЗМНН	Yes	Whorl	RPBNVD	Yes	Whorl
P7LULC	Yes	Whorl	RPTWJ8	Yes	Whorl
PD6373	N/A		RQPA7Z	N/A	N/A
PGBA6M	Yes	Whorl	RRZ8JH	Yes	Whorl
PKMDFW	Yes	Whorl	RVC8NV	Yes	Whorl
PKZ8VW	Yes	Whorl	T2G39V	Yes	Whorl
PRL3W2	Yes	Whorl	T8RCGD	N/A	Whorl
PY62T2	Yes	Whorl	TE73WD	Yes	Whorl
QA2MD6	Yes	Whorl	TJKNZH	N/A	N/A
QEZU39	Yes	Whorl	TMU38V	Yes	Whorl
QFPCT9	N/A	N/A	TNT8NP	Yes	Whorl
QHFEVF	Yes	Whorl	trv2nf	Yes	Whorl
QUP9XR	Yes	Whorl	U38TM9	N/A	N/A
QWY23T	Yes	Whorl	U7C3CJ	Yes	Whorl
R2JKMU	Yes	Whorl	UB6APZ	N/A	N/A
R6HWKE	Yes	Whorl	UBM8W7	Yes	Whorl
RDET8H	Yes	Whorl	UE28QC	N/A	N/A
REA6BX	N/A	N/A	UE4WVA	Yes	Whorl

# WebCode WebCode Pattern? First Level? Pattern? First Level?

UEG9UE	Yes	Whorl	WVF3F4	Yes	Whorl
UEYEVP	Yes	Whorl	WXRZQZ	N/A	N/A
V8FGXP	Yes	Whorl	WZZ4MX	N/A	N/A
V9PNYW	Yes	Whorl	X2L8VU	N/A	N/A
VB27BF	Yes	Whorl	X88DYV	Yes	Whorl
VEZKX6	Yes	Whorl	X9GD43	Yes	Whorl
VFE32B	Yes	Whorl	XF8F29	N/A	N/A
VNPBKX	N/A	N/A	XGFUY2	Yes	Whorl
VPENYA	Yes	Whorl	XKEZTL	N/A	N/A
VPNA47	Yes	Whorl	XQLN99	Yes	Whorl
VXAR37	Yes	Whorl	XTA4HG	Yes	Whorl
VZYXKG	Yes	Whorl	XWB8A4	Yes	Whorl
W4U774	Yes	Whorl	Y22NN3	Yes	Whorl
W7JDNE	Yes	Whorl	Y7FNKU	N/A	N/A
W8D28A	Yes	Whorl	Y7RCU8	Yes	Whorl
WAE8KV	Yes	Arch	Y8NPGZ	Yes	Whorl
WAHWNR	N/A	N/A	YMLMUX	Yes	Whorl
WNMYHM	N/A	N/A	YUHM76	N/A	N/A
WRKCCD	Yes	Whorl	YYRUGG	Yes	Whorl
WV73PP	N/A	N/A	Z642T8	Yes	Whorl

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
ZDA3RD	Yes	Whorl			
ZDCHG8	Yes	Whorl			
ZH3YNQ	Yes	Whorl			
ZL3AFK	Yes	Whorl			
ZMBKB3	Yes	Whorl			
ZMDAEZ	Yes	Whorl			
ZTZ4AC	Yes	Whorl			
ZXGABR	Yes	Whorl			

Findings Summary		Total Participants: 250
1st Level	Total	
Arch	2	*NOTE: These numbers may not add
Loop	2	up to the total # of participants, as not
Whorl	173	all who tound tirst level detail could determine one specific pattern type.
No	1	
Not suitable for determination	4	
N/A	62	

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
28YDQQ	Yes	Whorl	4A2RN9	N/A	N/A
2DQGVF	N/A	N/A	4BCQTP	No	
2JNATN	Yes	Whorl	4CGK4F	Yes	Not suitable for determination
2QFFLJ	N/A	N/A	4ECW8V	Yes	Not suitable for determination
2UPXKL	Yes	Whorl	4NVFKZ	Yes	Whorl
2WK3RZ	Yes	Whorl	4NX8DG	Yes	Not suitable for determination
2WXW92	Yes	Whorl	4RDUT8	Yes	Loop
2Y84BU	No		64NMW8	Yes	Whorl
368RGZ	No		68R9WQ	Yes	Whorl
38DC8L	No	N/A	6BLARD	No	N/A
3AJG2A	No	Not suitable for determination	6DAQ7R	N/A	N/A
3F9YQ7	No	N/A	6EAJAR	Yes	Whorl
3NHJLM	N/A	N/A	6MXL22	No	N/A
3PE2HW	Yes	Whorl	6PNNBV	No	Not suitable for determination
3Q8Q6Y	No		6W9PK7	N/A	N/A
3X8A3N	Yes	Not suitable for determination	746XEC	No	N/A
42KGYL	Yes		7ARVW8	No	
43DBQN	N/A	N/A	7L3BT6	Yes	Whorl
43FWM6	N/A	N/A	7ME4RD	N/A	N/A
48PDJL	Yes	Whorl	7R78MD	No	N/A

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
7VR3FX	N/A	N/A	В6VХ9С	No	
7XYBQ3	N/A	N/A	BDPZGE	Yes	Whorl
83P62A	N/A	N/A	BHV8FY	No	Not suitable for determination
8B33PT	Yes	Whorl	BJG829	N/A	N/A
8HE7PZ	Yes	N/A	BNDPPZ	Yes	Whorl
8N7DBU	N/A	N/A	BZQWDN	N/A	N/A
8PZ2TP	Yes	Whorl	C3PUYZ	Yes	Not suitable for determination
8RR4P6	N/A	N/A	C7TBNG	N/A	N/A
8U8W4C	Yes	Whorl	CBN2D2	N/A	N/A
928KNP	Yes	Whorl	CFAEG9	Yes	Whorl
A4TGX2	Yes	Whorl	СКААТН	N/A	N/A
A6JYKU	Yes	Whorl	CYBYUP	Yes	Whorl
AKGQNJ	N/A	N/A	D7KXAK	Yes	Whorl
AQMKKZ	N/A	N/A	D8XFMX	No	Not suitable for determination
AUNEPX	No		D9VRHQ	No	Not suitable for
AVDY62	Yes	Not suitable for determination	DCEQRE	Yes	Whorl
AX2ELN	Yes	Whorl	DEJCL7	N/A	N/A
AYD32U	Yes	Whorl	DMVFNY	No	N/A
B2MFBA	No	N/A	DPFC6C	N/A	N/A
B39D8E	N/A		DUPUWD	Yes	Whorl

TABLE	4 -	ltem	3
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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
E3LTMR	No	Not suitable for determination	GNT9J8	Yes	Not suitable for determination
E4XGV6	No		GVQTRU	No	Not suitable for determination
E7A6LW	N/A	N/A	GVUJWR	No	
EEQAX2	No	Not suitable for determination	GVV6WE	Yes	Whorl
EGWMLU	Yes	Not suitable for determination	GVXPRU	Yes	Whorl
EGYFGG	Yes	Whorl	GWM8EM	Yes	Whorl
ERHRVE	No		GZBREP	N/A	Not suitable for determination
EVLDTD	Yes	Whorl	H3NWFR	N/A	Not suitable for determination
F7F44J	No		H9ULT7	Yes	Whorl
F7HYE3	N/A	N/A	HEGAPW	No	Not suitable for determination
FECVCD	No		HR79HK	Yes	Whorl
FG2BTZ	N/A	N/A	HR9XHB	Yes	Whorl
FGEZKR	Yes	Whorl	HTPWBZ	N/A	N/A
FHDWKM	No	Not suitable for determination	HUG7UG	Yes	Whorl
FKZFGE	No		HY6THU	No	
FLCB6R	No	N/A	J4WD7B	Yes	Not suitable for determination
FXZGUF	Yes	Whorl	J728K8	Yes	Arch
GFM7U3	Yes	Whorl	J8GCFY	Yes	Whorl
GMJZRZ	N/A	N/A	JEXZX8	No	Not suitable for determination
GNQGRR	No	N/A	JG4B9P	Yes	N/A

Latent Print Processing

WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
JJW8MB	N/A	N/A	KY84NP	N/A	N/A
JLXD2G	No	N/A	LNX4JG	Yes	Whorl
JVNQDA	N/A	N/A	LRZWLR	Yes	Whorl
JXDYUQ	N/A	N/A	LVEVHT	Yes	Whorl
JZYYGZ	Yes	Whorl	LVU866	N/A	N/A
K4YDXN	Yes	Whorl	M7EQ7G	N/A	N/A
KA2FPG	No	Not suitable for determination	MDW3JG	Yes	Whorl
KBFTHK	No		MF4HQM	Yes	Whorl
KBVC3H	N/A	N/A	MFDFV6	Yes	Whorl
KCRLGU	Yes	Whorl	MGRZNE	Yes	N/A
KD3NUR	No		MK9842	No	Not suitable for determination
KEUTCQ	N/A	N/A	MKUYY8	Yes	Whorl
KF8C9G	Yes	Not suitable for determination	MNWL3W	N/A	N/A
KHVLMP	Yes	Whorl	MYDL7K	Yes	Whorl
KKZDBW	N/A	N/A	MZ3X2J	Yes	Whorl
KNZKXE	Yes	Not suitable for determination	N3QQBT	No	
KRJFYL	Yes	Whorl	N9VHMB	No	N/A
KTGW4V	N/A	N/A	NMV7U6	Yes	Whorl
KVGZJW	No		NV8F76	No	Not suitable for determination
KXRZMJ	Yes	Whorl	P2Q4FZ	No	Not suitable for determination

WebCode	First Level?	Pattern?	W	/ebCode	First Level?	Pattern?
РЗЗМНН	Yes	Whorl	R	PBNVD	Yes	Whorl
P7LULC	No	N/A	R	PTWJ8	Yes	Whorl
PD6373	Yes	Arch	R	QPA7Z	N/A	N/A
PGBA6M	Yes	Whorl	R	RZ8JH	Yes	Whorl
PKMDFW	Yes	Whorl	R	VC8NV	No	
PKZ8VW	Yes	Whorl	Т	2G39V	No	Not suitable for determination
PRL3W2	Yes	Whorl	Т	8RCGD	N/A	N/A
PY62T2	Yes	Whorl	Т	E73WD	No	
QA2MD6	Yes	Whorl	т	JKNZH	N/A	N/A
QEZU39	Yes	Whorl	Т	MU38V	N/A	Not suitable for determination
QFPCT9	N/A	N/A	т	NT8NP	Yes	Whorl
QHFEVF	Yes	Whorl	т	RV2NF	No	N/A
QUP9XR	Yes	Whorl	L	J38TM9	N/A	N/A
QWY23T	Yes	Whorl	L	J7C3CJ	No	N/A
R2JKMU	Yes	Whorl	U	JB6APZ	N/A	N/A
R6HWKE	Yes	Whorl	L	JBM8W7	Yes	Whorl
RDET8H	No		U	JE28QC	N/A	N/A
REA6BX	N/A	N/A	L	JE4WVA	Yes	Whorl
RGD64H	No	N/A	L	JEG9UE	No	N/A
RNVFGH	N/A	N/A	L	JEYEVP	Yes	Whorl

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WebCode	First Level?	Pattern?	WebCode	First Level?	Pattern?
V8FGXP	No	Not suitable for determination	WZZ4MX	N/A	N/A
V9PNYW	Yes	Whorl	X2L8VU	N/A	N/A
VB27BF	No		X88DYV	Yes	Whorl
VEZKX6	Yes	Whorl	XF8F29	N/A	N/A
VFE32B	Yes	Whorl	XGFUY2	Yes	Whorl
VNPBKX	N/A	N/A	XKEZTL	N/A	N/A
VPENYA	Yes	Whorl	XQLN99	Yes	Whorl
VPNA47	No		XTA4HG	No	
VXAR37	Yes	Not suitable for determination	XWB8A4	No	
VZYXKG	No	Not suitable for determination	Y22NN3	No	
W4U774	No	Not suitable for determination	Y7FNKU	N/A	N/A
W7JDNE	Yes	Whorl	Y7RCU8	Yes	Whorl
W8D28A	Yes	Whorl	Y8NPGZ	No	
WAE8KV	No		YMLMUX	Yes	Whorl
WAHWNR	N/A	N/A	YUHM76	N/A	N/A
WNMYHM	N/A	N/A	YYRUGG	No	
WRKCCD	Yes	Not suitable for determination	Z642T8	Yes	Whorl
WV73PP	N/A	N/A	ZDA3RD	No	
WVF3F4	Yes	Whorl	ZDCHG8	No	Not suitable for determination
WXRZQZ	N/A	N/A	ZH3YNQ	No	

WebCode	First Level?	Pattern?	WebCode
ZL3AFK	Yes	Not suitable for determination	
ZMBKB3	No		
ZMDAEZ	No	Not suitable for determination	
ZTZ4AC	No		
ZXGABR	Yes	Whorl	
<b>Findings S</b>	ummary	Total	Participants: 250
1 st L	evel Total		
A	Arch 2	*NOTE: These number	ers may not add
Lo	pop 1	up to the total # of pa	rticipants, as not
W	horl 90	all who found first level detail could	
	No 50	delemine one specific	pullerit type.
Not suitable determina	tion 38		

#### TABLE 4 - Item 3

N/A

62

# **Additional Comments**

WebCode	Additional Comments
2DQGVF	The laboratory currently does not have a method to process for latent prints on paper items.
2WK3RZ	nothing developed on adhesive strips in item 001 - treatment with indandione/ninhydrin may have damaged prints or adhesive
2Y84BU	Positive controls developed with each process applied to Items 1, 2, and 3. Faint, apparent ridge detail developed with PD on the back of Item 3. An area on the right side of Quadrant C of Item 3, above and partially over the word "parking," had a color change with ninhydrin and reacted with physical developer. However, the detail in this area is insufficient to determine if it is ridge detail or not.
368RGZ	THE CHAIN OF CUSTODY PHOTOS HAVE OTHERS APPEARING BLURRY. THIS IS DUE A CAMERA LENS THAT KEPT ON LOOSING FOCUS ON SHOOTING. ITEM 1 PRINT AT THE TIME OF CAPTURING WAS FADING OR NOT VISIBLE ENOUGH TO MAKE A SUITABLE DETERMINATION AND PRINT A VISIBLE PRINT.
38DC8L	DURING VISUAL EXAMINATION FOR ITEM 2, PLASTIC CD COVER CASE, A PRINT WAS VISIBLE IN SECTION B, BUT WAS UNABLE TO BE CAPTURED USING NIKON INTERFACE DUE TO POOR VISIBILITY EVEN WHEN USING WAVELENGTH 000, 350nm OR 590nm.
3AJG2A	Item 3 and Item 1 were also processed with physical developer premix solution. The items were dipped into physical developer step 1 solution for 5 minutes and transferred to Step 2 solution and physical developer, where they were also dipped for 5 minutes and rinsed 3 times with step 3 physical developer solution and air dried in room temperature.
3nhjlm	POLYCYANO WITH BATCH NO. 15702 HAS NO EXPIRING DATE AVAILABLE. THE DFO/HFE BASE WAS PREPARED WITH THE FOLLOWING BATCH NUMBER: DFO: BCBQ2596V; METHANOL: STB90915V, ACETIC ACID: SZBF2020V & HFE 7100: BCB54887V. THE ONLY EXPIRY DATE AVAILABLE IS THAT OF METHANOL: JANUARY 2021. THE NIN/METH BASE WAS PREPARED WITH THE FOLLOWING BATCH NUMBERS: NINHYDRIN CRYSTALS: BCBV8117, METHANOL: STBG0915V. THE EXPIRY DATE OF METHANOL JANUARY 2021 ONLY ONE AVAILABLE. EXPIRING DATES FOR BOTH DFO/HFE & NIN/METH WORKING SOLUTION IS 2019/02/11.
3Q8Q6Y	ITEM 1 AND ITEN 2 THERE WERE LATENT PRINT DEVELOPED OR RECOVERED. ITEM ONE (1) IS SEALED IN EVIDENCE BAG PA60002195436 AND ITEM 2 SEALED IN EVIDENCE BAG PA60002195451. BOTH ITEM 1 AND ITEM 2CARE SEALED IN EVIDENCE BAG PW4001075840. ITEM THREE (3) THERE IS NO LATENT PRINT RECOVERY AND IT IS SEALED IN EVIDENCE BAG PA6002195435. COPIES OF LATENT PRINT IMAGES ARE PLACED INSIDE THE IXHIBIT ENVELOPE ATTACHED TO THE DATA SHEET AND ALSO THE CHAIN OF CUSTODY (COC) I MAGES ARE ATTACHED TO THE DATA SHEET.
3X8A3N	The item: 3 the development was very tenuous lofoscopic ridges are visualized without being able to determine the fundametal pype.
43DBQN	All relevant samples have been retained by the [Laboratory] as required by [Legislation]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation.
48PDJL	CHALLENGES WITH CAPTURING SYSTEM ON ITEM 01 & 03 DFO TREATMENT 450nm PL500 LIGHT NOT WORKING.
4BCQTP	EXHIBIT 1A A PROTECTIVE ACETONE STRIP WAS REMOVED FROM THE WHITE ENVELOPE (ITEM 1). EXHIBIT 1A WAS PHOTOGRAPHED AND VISUAL EXAMINATION PERFORMED. IT WAS THEN DIPPED INTO GENTIAN VIOLET AND EXCESS GENTIAN VIOLET WAS RINSED USING RUNNING TAP WATER, AND THE EXHIBIT WAS PLACED INSIDE BIOFORENSIC EVIDENCE DRY AND THEN VISUAL EXAMINATION WAS PERFORMED THE RESULTS WAS

WebCode	Additional Comments
4NX8DG	ITEM 1 FINGERPRINTS WERE CLEARLY VISIBLE AND CAPTURED AFTER DFO DEVELOPMENT GIVING A CLEARLY VISIBLE FIRST LEVEL DETAIL TO ENABLE A COMPARISON, BUT AFTER NINHYDRIN TREATMENT THE PRINT WAS NO LONGER CLEARLY VISIBLE. ITEM 2 FINGERPRINT WERE CLEARLY VISIBLE AND EASY TO CAPTURE AND ENHANCE AFTER TREATMENT WITH CYANOBLOOM AND ON FIRST VISUAL EXAMINATION, BUT IT WAS MORE CLEAR AFTER TREATMENT OF THE ITEM WITH BASIC YELLOW. ITEM 3 FINGERPRINTS APPEARED FAINT AFTER TREATMENT WITH BOTH DFO AND NIHYDRIN, BUT WERE BETTER VISIBLE AFTER DFO TREATMENT EVEN THOUGH IT WAS DIFFICULT TO IDENTIFY FIRST LEVEL DETAIL.
4RDUT8	The methodology for item 1 was a bit tricky because the print was located under the plastic part of the adhesive layer of the envelope.
68R9WQ	Some tests with envelopes and latent fingerprints on closure tabs have been done, but no fingerprints have been developed on glue strip. So we focused our findings on non-porous part of the envelope. One visible latent print during optical detection, in Item 2 section B. No fingerprint revealed on item 3 with Indanedione treatment and Ninhydrine developed a very poor result on section C.
6DAQ7R	ITEM 1 - PORORS (PAPER) AREA COULD HAVE UNDERGONE FURTHER TREATMENTS - DFO - NIN -PHYSICAL DEVELOPER. ITEM 2 - COULD HAVE (FOR E.G. SERIOUS CRIME) UNDERGONE ADDITIONAL TREATMENT USING SOLVENT BLACK. ITEM 3 - COULD HAVE UNDERGONE ADDITIONAL TREATMENT USING PHYSICAL DEVELOPER
6EAJAR	Test prints were ran on all chemicals (cyanoacrylate, ninhydrin and rhodamine 6G dye stain) used in this testing prior to exam. All had positive test prints and were documented with scanning/photography.
83P62A	The print left in box C on item 3 was EXTREMELY FAINT with Ninhydrin. It did not develop at all with DFO which our lab has shown to be far more sensitive. Even the NIN development was minimal at best, I feel as though this print was not left with a proper level of amino acids for development and that the lack of development could easily be a problem for many test takers.
8U8W4C	In ITEM 3 - NEWSPAPER YARD SALE, FINGERPRINT DEVELOPED IN SECTION $^\circ\text{C}$ , IT IS VERY FAINT THAT IS WHY IS NOT WELL VISIBLE ON THE PHOTO.
AVDY62	1) Exhibit 2 - image placed on sticky surface and on white paper - we don't see much of these exhibits and is still carrying out research and experiments to get the best image. 2) I did not have HFE or Petroleum Ether to mix DFO. The application of DFO was skipped and I am sure that this process would have really enhanced the prints on exhibits 1 and 3.
B2MFBA	No prints developed on item #3 after processing.
BDPZGE	We could not do Fluorescence Examination, DFO as we do not have the equipment and materials.
C3PUYZ	Image 3 on item 3, the print was faint. There was no HFE or Petroleum Ether for the preparation of DFO mixture. The process of DFO was skipped.
C7TBNG	All relevant samples have been retained by the [Laboratory] as required by [Legislation]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation.
CFAEG9	NO CHAIN OF CUSTODY (COC) PHOTOGRAPHS WERE INCLUDED WITH THE DOCKET DUE TO LACK OF PRINTER. WORKING COPY CD OF COC PHOTOGRAPHY WAS INCLUDED INSTEAD.
D8XFMX	ON ITEM 3 - NEWSPAPER YARD SALE NOTICE NO PRINTS WERE RECOVERED.
F7F44J	ITEM NO. 3 WHICH IS NEWSPAPER YARD SALE NOTICE WAS VISUALIZED FIRST WITH POLIFLARE WHITE, 000nm, 450nm TO 505nm, WHITE AND ORANGE GOGGLES, NO FINGERPRINT WAS FOUND; DURING THE INVESTIGATION WITH DFO, VISUALIZED WITH AN ORANGE GOGGLES, RED GOGGLES, 450nm POLIFLARE TO 505nm NO FINGERPRINT WAS FOUND, BUT AFTER INVESTIGATION WITH NINHYDRIN, FINGERPRINT (MARK) WAS VISUALIZED WITH WHITE FLARE,

WebCode	Additional Comments
	000nm, SMALL FINGERPRINT MARK.
F8NEET	THE MORNING PRIOR THE PROCESSING, A CONTROL SAMPLE WAS RUN IN THE MVC3000. OTHER POROUS AND NON-POROUS CONTROL SAMPLES WERE RUN CONCURRENTLY WITH THE EXHIBITS. ALL CONTROL SAMPLES WERE POSITIVE. THREE SEAL BAGS (TWO POSITIVES, ONE NEGATIVE) WERE USED TO SEAL EXHIBITS AND WERE DIFFERENT BY THEIR RESPECTIVE RESULTS. COC PHOTOS CONTAIN ALL EXHIBITS PRIOR AND POST PROCESSING WITH THE DEVELOPED FINGERPRINTS.
FECVCD	HUMIDITY IN UNKNOWN BECAUSE OVEN WAS USED.
FG2BTZ	The latent from item 1 was first developed after DFO processing. Marginal development after Ninhydrin. The latent from item 2 was observed during the visual exam, improvement was observed after both cyanoacrylate fuming and dye staining. No improvement of detail observed after dusting, so no lift obtained. The latent from item 3 was only developed after Ninhydrin processing and was very faint.
GNT9J8	There was no HFE or Petroleum Ether to mix the DFO so this process had to be skipped. RE image 3 on Item3, there was not enough at the print to determine the pattern, one would need to see the core. After applying Ninhydrin /Methanol, I was only happy with the development plus minus 43hrs later. I captured Image 2, 43hrs, 53 minutes after applying Ninhydrin and Image 3,44hrs 12 minutes after applying Ninhydrin.
GVQTRU	First level (method) of developement we always use is visual exaination. In this test on items 1 (envelope) and 3 (newspaper) details were recovered in second level (DFO) and both patterns are whorls.
GVUJWR	Ítem 1: Ridges was not developed on the adhesive strip. Ítem 3:No ridge has been developed at all
GVV6WE	For item 1, the adhesive strip inhibited confidence in first level detail. Within the impression, partial core was visible, but all deltas were absent. Probable whorl based on ridge flow, but unable to classify for determination.
GZBREP	Item 3: no RD at all was visible after processing with Indanedione. After processing with Ninhydrin, very faint ridge detail was visible in quadrant 3. *Not authorized to perform comparisons/report on level 1/2 details.
H9ULT7	2018/11/06 10:11 ITEM 1 - AFTER THE EXHIBIT WAS TREATED WITH NINHYDRIN IT WAS SUPPOSED TO BE TREATED BY WET-WET BUT WE DONT HAVE IN OUR OFFICE. FOR THE FINE PART IN ENVELOPE.
HR9XHB	ITEM 3 - PRINT VERY FAINT AND DIFFICULT TO PHOTOGRAPH.
HUG7UG	ITEM 3 NEWSPAPER YARD NOTICE COULD NOT YIELD ANY RESULTS WITH POLIFLARES INVESTIGATION AND DFO, HOWEVER THE PRINT WAS VISIBLE AFTER INVESTIGATION WITH NINHYDRIN.
HY6THU	Three items investigated i.e. item 1, 2 and 3. finger print image details with sufficient ridge characteristics were found in item at A-section. Item 2 at 3 section and item 3 none of the fingerprint developed.
J4WD7B	ITEM 3 - SHOWED NO RESULTS AFTER DFO ONLY PRINT VISIBLE AFTER NIN. ITEM 1 - MOST LIKELY A WHORL PATTERN, BUT DETAILS HIDDEN BY STICKY STRIP.
J728K8	Item number 2 was made in [City]. Others two here in [City] because only here in [City] it is possible to make threatments for papermaterials.
J8GCFY	BAG NO. PA3000770558 WAS RECEIVED UNSEALED, INSIDE THERE WAS 2018 CTS FORENSIC TESTING PROGRAM BOX; TEST NO. 18-5191 NON-POROUS CONTROL: CD CASE COVER, NON-POROUS CONTROL. CLOSURE TAB OF ENVELOPE, POROUS CONTROL: WHITE

WebCode	Additional Comments
	ENVELOPE, AND POROUS CONTROL: SPORT NEWSPAPER. ALL CONTROLS FOLLOWED THE SAME PROCESS AS EXHIBITS AND YIELDED POSITIVE RESULTS. FINGERPRINTS SAVE IN A WORKING COPY. SEALED BAG NO. PW4001224639, PW4001224638, PW4001224644, LAB CASE FILE (DOCKET) AND A FINGERPRINT ENVELOPE, ALL INSIDE BAG NO. PW3000397920
JEXZX8	ITEM 1: DURING FIRST VISUAL EXAMINATION, A FINGERPRINT MARK WAS FOUND AND CAPTURED ON SECTION A. THE FRICTION RIDGE IMPRESSION WITH INSUFFICIENT QUANTITY AND QUALITY OF RIDGE CHARACTERISTICS TO MAKE A COMPARISON WERE FOUND ON THE EXHIBIT. ITEM 2: FINGERPRINT WAS CAPTURED DURING THE FIRST VISUAL EXAMINATION & MVC3000 CYANOACRYLATE FUMING CHAMBER METHODS.
JG4B9P	Item 1: We decided to separate the adhesive layer part from the rest of the closure tab. The adhesive part was treated with wet powder and the rest of the tab was treated with ninhydrin.
K4YDXN	Item #2 contained a second print "of value" on the exterior of the front cover located in quadrant "C". It is apparent that the wanted response for examination purposes is "B"; however, it is noted that a second print was located in quadrant "C", as well.
KBFTHK	Utilizing magnetic powder for Item 1, whorl was chosen as pattern type of the developed latent due to the scenario stating "A single latent print has been deposited in one of these areas". Without knowing that it was a single latent print, I would not have named a specific pattern type. The 1/4" sticky strip of the envelope crossed through the latent with no ridge detail observed in that area, therefore, having no continuous ridge flow, separating the latent into 2 prints. If I hadn't known how the print was deposited, I could not say with certainty that this was one continuous print and looking at each side of the print as a separate latent, pattern type could not be determined.
KBVC3H	For item 3 photoshop was last development used during examination. Original photograph of print was enhanced in photoshop with ICO°10 exposure and 319 pixel brush size.
KF8C9G	Item was kept in the Nincha 531 when not being examined.
KKZDBW	The spawned exhibit (from exhibit 1) developed a print as it was further treated with fluorescent green powder using a further brush after Polycyano UV (MVC3000) which had friction ridge impressions but not enough / sufficient ridge characteristics thus it was further treated with Rhodamine 6G/Ethanol but the results destroyed the whole captured print. Exhibit 2 which treated with Polycyano UV (MVC3000) developed a print which was captured and further was treated with Rhodamine 6G/Ethanol which the same print was captured with more ridge characteristics on zone B.
KTGW4V	Print in quadrant C of Item 3 did not develop until Ninhydrin and even then it is a very faint print.
KVGZJW	On Item 1 there is a print developed with wet-wet powder but didn't have enough ridge characteristics.
LVEVHT	Print developed in Item 1 of white envelope is possible a whorl but due to tare its difficult to determine.
M2Y4N6	EXHIBITS WERE RECEIVED IN SEAL-BAG PW4000602529 AND PHOTOGRAPHED IN THEIR ORIGINAL STATE PRIOR CHEMICAL PROCESSING. AFTER RESEALING IN NEW SEAL-BAGS AND PHOTOGRAPHED, A WORKING COPY CD WAS CREATED, IMAGES AUTHENTICATED USING VERIDATA SYSTEM AND MASTER AND ARCHIVE COPIES WERE CREATED FOR IMAGE PRESERVATION.
MF4HQM	There was a protective semi-porous glossy strip over the adhesive on the envelope flap (item 1). It was unknown if that required processing for this test. I processed it anyway using Cyanoacrylate fuming for 20 minutes and magnetic powder. No ridge detail was observed.
MGRZNE	PHOTOS OF DEVELOPED PRINTS ATTACHED. IMAGE 1 = PHOTOGRAPHED ON ITEM NO. 2 (CD COVER). IMAGE 2 = PHOTOGRAPHED ON ITEM NO. 1 (ENVELOPE). ALL CONTROL SAMPLES WERE POSITIVE

WebCode	Additional Comments
	DETAIL IS VISIBLE TO MAKE AN IDENTIFICATION.
N9VHMB	SHORTAGE OF SOME OF CHEMICAL REAGENT. IN THIS CASE IT WAS A PHYSICAL DEVELOPER WHICH LEAD TO AN INCOMPLETE DEVELOPED PRINT ON THE STICKY PART OF ITEM 1. THE SHORTAGE OF CHEMICAL WILL HAVE INFLUENCE ON FUTURE CHEMICAL INVESTIGATION OF CASES SUCH AS THIS ONE.
NMV7U6	ITEM 1 HAD A PROBLEM WHEN CAPTURING AFTER PROCESSING WITH NINHYDRIN. THE IMAGE WAS JUST TOO FAINT TO BE PRINTED. I THINK IT WAS BECAUSE DFO PETROLEUM ETHER, FOLLOWED BY NINHYDRIN ACETONE WERE USED. THE OTHER REASON MIGHT BE THAT THE FINGERPRINT WAS OLD BECAUSE ON THE CONTROL SAMPLE THE PRINTS WERE VISIBLE AND CAPTURABLE. THIS ALSO APPLIES FOR ITEM 3.
NV8F76	FIRST VISUAL WAS PERFORMED ON ALL ITEMS BEFORE PROCESSING AND ONLY ITEM 2 FINGERPRINT WAS SUITABLE FOR CAPTURING AND AFTER PROCESSING ITEM 2 THE FINGERPRINT WAS MUCH BETTER THAN THE ONE FOR FIRST VISUAL.
P2Q4FZ	ITEM 3 NOT ENOUGH RIDGE CHARACTERISTICS AND NO PATTERN IS VISBLE TO IDENTIFY.
PD6373	Item 2 was send to our center in [City] but I haven't got results from the CD so i had to leave that item without comments.
PKMDFW	NIN/METHANOL WAS USED FOR DEVELOPING PRINTS AFTER DFO/HFE TREATMENT (THIS RESULTED IN THE INK ON ITEM 1 TO RUN WHEN DIPPED). NIN/HFE WOULD HAVE BEEN PREFERRED, BUT THE LAB DOES NOT HAVE ANY STOCK. FURTHER PROCESSING ON ITEM 1 AND 3 WITH PHYSICAL DEVELOPER WAS NOT DONE AS THE LAB DOES NOT HAVE STOCK.
QA2MD6	FOR DIGITAL CAPTURING, POLIVIEW SYSTEM NIKON D700 WAS USED. THE V++ SOFTWARE AND EQUIPMENT USED WAS ROFIN PL500.
QUP9XR	1. ITEM 2 - WAS CAPTURED WITH NIKON + POLIVIEW FOR RHODAMINE 6G PROCESS: LIGHT (505) FILTER (550) SHUTTER (1/25) EXPOSURE (-0.67) ORANGE GOGGLES 2. FOR PRESERVATION METHOD: ON ALL ITEM 1 - 3 PLACE AND POSITION OF THE FINGERPRINT WERE PHOTOGRAPHED. ALL THE ITEMS 1 - 3 RE-SEALED IN A NEW EXHIBIT BAG AND PHOTOGRAPHED. ALL THE PHOTOGRAPHS WERE DOWNLOADED, VALIDATED AND PRINTED. THE WORKING COPY CD WAS BURNED.
R2JKMU	COC PHOTOGRAPHS WERE NOT PRINTED DUE TO SHORTAGE OF 2 PRINTER INSTEAD, A WORKING DISC WAS CREATED AND PLACED INTO THE DOCKET. ITEM 2: FIRST VISUAL PRINT DOES NOT HAVE A STICKER, BUT THE POLIVIEW CAMERA STAND SURFACE WAS USED AS MEASUREMENT TO PRINT THE IMAGE. THE EXHIBIT WAS ALSO MARKED PRIOR TO PHOTOGRAPHING THE PRINT.
RDET8H	ITEM 1 A LATENT PRINT WAS DEVELOPED BUT IT IS TOO FAINT TO MAKE ACCURATE DETERMINATION.
REA6BX	POLYCYANO WITH BATCH 15702 HAS NO EXPIRING DATE AVAILABLE. THE DFO/HFE BASE WAS PREPARED WITH THE FOLLOWING BATCH NUMBERS: DFO: BCBQ2596V, METHANOL: STBG0915V, ACETIC ACED: 52BF2020V AND HFE: BCB54887V. 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. METHANOL EXPIRING DATE: JANUARY 2021. EXPIRING DATE OF BOTH DFO/HFE AND NIN/METH WORKING SOLUTIONS IS 2018/09/15.
RRZ8JH	The impression observed on Item 3, Newspaper Yard Sale Notice, was extremely faint.
RVC8NV	NO DFO FOR PROCESSING OF POROUS EXHIBITS. AVAILABLE NO PRINTING FACILITIES AVAILABLE TO PRINT DEVELOPED AND CAPTURED FINGERPRINTS.
T2G39V	ITEM 3: THE PRINT DEVELOPED WS NOT VISIBLE ENOUGH TO SEE RIDGE CHARACTERISTICS.

WebCode	Additional Comments
TMU38V	ITEM NUMBER 3 SEEMED TO HAVE A PRINT (LATENT) UNDER THE WORK BLOCK BUT IT WAS NOT VISIBLE ENOUGH. INSUFFICIENT RIDGES TO BE COUNTED AS A RESULT THE PRINT COULD NOT BE PRINTED.
TNT8NP	SEALBAG PA3000770557 RECEIVED UNSEALED AS WELL WITH NO BAG INFORMATION. THE BAG WAS CUT AT THE BOTTOM AND A BOX WITH INFORMATION WRITEN 2018/ CTS FORENSIC TESTING PROGRM: TEST NO 18-5191 OLD EXHIBIT BAG, ALL THE SEALBAGS AS WELL AS DOCKET & DATA SHEET WERE PLACED IN SEALING WITH BAG NUMBER PW3000397914
TRV2NF	Tests on similar surfaces was done to make sure that wright methodes were used
UEG9UE	Please note in relation to Item 1 the Fingerprint Expert who assessed the mark developed stated that due to the glue strip on the envelope flap splitting the mark into two, it can not be ruled out that this mark could have been deposited at two separate times by possibly a different person. However, they were still confident that the mark recovered was a whorl pattern.
V8FGXP	ON ITEM 3, A PRIN WAS PLANTED ON THE FAR RIGHT CORNER OF THE NEWSPAPER AFTER IT (ITEM 3) WAS TREATED WITH DFO/HFE AND NIN/HFE. A PLANTED PRINT DEVELOPED AFTER USING THE SAME METHOD OF PROCESSING. CONTROLS WERE ALSO DONE TO ENSURE THAT CHEMICALS AUSED ARE WORKING. ON ITEM 1 AND ITEM 2, PRINTS WERE VISIBLE BEFORE TREATMENT AND WERE CAPTURED.
VEZKX6	Positive and negative controls successful for all development techniques used.
W7JDNE	Fluorescence examination was with Polilight PL500
WAE8KV	May be that the print in item 3 was very weak at the begining because other two items (3) we committed was much more visible.
WXRZQZ	ALL CHEMICAL TREATMENTS CARRIED OUT WERE COMPLETED IN AN ACCREDITED ISO 17025 FORENSIC LABORATORY. ALL EQUIPMENT USED WERE CALIBRATED AND SERVICED ANNUALLY AND WELL WITHIN EXPIRY DATES. ALL CHEMICAL REAGENTS USED WERE WITHIN EXPIRY DATES AND INVOLVED A CONTROL SAMPLE AT EVERY PROCESS. THE CONTROL SAMPLES RESULTS WERE OF SIMILAR SUBSTRATES TO THE EXHIBITS AND WERE POSITIVE AND THESE WERE RECORDED ON CHEMICAL TREATMENT CHECK LISTS FOR REFERENCE. PPE WAS WORN THROUGHOUT EACH CHEMICAL TREATMENT INCLUDING DOUBLE NITRILE GLOVES, LAB COAT AND MASK (FOR SG AND DYE STAIN TREATMENT). ALL CHEMICAL TREATMENTS WERE COMPLETED IN ACCORDANCE WITH TECHNICAL PROCEDURES AND WORKING INSTRUCTIONS USED OUR FORENSIC LABORATORY. I HAVE NOT CARRIED OUT FULL SEQUENTIAL CHEMICAL TREATMENT PROCESSES DUE TO NOT KNOWING THE FULL DETAILS OF THE CRIME THEY WERE RECOVERED FROM. DUE TO LAB POLICY, IF CRIME IS CATERGORISED AS A 'VOLUME' CRIME, THIS IS TREATED WITH A SINGLE BEST TREATMENT. IF CRIME IS CATERGORISED AS A 'SERIOUS/ MAJOR' CRIME, A FULL SEQUENTIAL PROCESS WOULD BE USED AS OUTLINED IN THE CAST FINGERMARK VISUALISATION MANUAL. THERFORE, I HAVE TREATED THESE EXHIBITS AS IF RECOVERED FROM A 'VOLUME' CRIME.
WZZ4MX	For the white envelope (WZZ4MX.1) purple development in section "A", no detail. All relevant samples have been retained by the [Laboratory] as required by [Legislation]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the

- based on the interpretation and opinions of the below signed author. This test is accredited under t laboratory's ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation.
- X2L8VU Only methods currently approved were used.
- XF8F29 did not process Item 1
- Y7FNKU Only methods currently approved by this Unit were used for processing. Nothing was actually sent to photography or lifted at this time. All relevant samples have been retained by the [Laboratory] as

WebCode	Additional Comments
	required by [Legislation]. These tests are accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation. This report contains conclusions based on the interpretation and opinions of the below signed author.
Y8NPGZ	The latent prints on the first and third items were developed using the same methods and at the same time. We have recovered the latent print only on the first item.
YMLMUX	I selected "Not suitable for determination" for the latent fingerprint developed in Section A of Item 1 because the pattern area goes right through the adhesive strip, which I was not able to fully develop. However, there is a recurve above the adhesive strip, leading me to believe the most likely pattern type is either whorl or right slant loop.
YUHM76	Ninhydrin Lot #09102018JAK Exp: 09/10/19. Cyanoacrylate Lot #UK13419 Exp: 04/2019. Calibrated enhanced image 3cm, print 1:1. Humidity chamber 50.6 humidity, temperature 32.2°C. Digital photos in RAW

ZDA3RD No latent print was recovered for item 3.

ZH3YNQ HUMIDITY IS UNKNOWN BECAUSE OVEN WAS USED NOT NINCHS31.

- **ZL3AFK** Item 1: This item was not representative of typical casework. The item appears to have been included in order to test the ability to develop prints on adhesive surfaces. Typically, the adhesive surface is affixed to something and the examiner has to remove the adhesive prior to processing. Also, the strip of adhesive on the envelope was very narrow and the print was deposited perpendicular to the strip. Without any additional context, I could have just used magnetic powder on the paper and not performed any processing on the adhesive, and still answered the scenario page question correctly. Item 2: I suggest that you consider not depositing prints on clear plastic. The patent print on this item was easily visible to the naked eye and no latent print development would have been necessary to answer the questions about this item. Item 3: The print from this item developed very, very faintly. It was nearly invisible to the naked eye. The control print, however, developed very dark as expected. Suggest that consideration be given to the substrate used to deposit the print, or some manner of evaluating whether you have deposited a good print or not. Instructions: It is unclear in the instructions which section(s) are actually required for this test to be considered fully complete.. Pages 2, 3 and 4 of the instruction packet ask for details about the methods and these must necessarily be evaluated against individual laboratory policy. I would expect you to receive different answers on these pages from different laboratories, causing the test taker to wonder what criteria these sheets are graded by. Our experience from participating on proficiency testing review committees is that answers that fall outside of the bell curve are flagged and require remediation by the laboratory (i.e. providing the PRC documentation and/or certification that the methods comply with laboratory policies). The way the answers are posed on this test creates challenges that are outside the scope of a proficiency test. Methods should be evaluated by ANAB Technical Assessors by reviewing case records of proficiency tests during surveillance visits or inspections. Also in the instructions, it is unclear why you're asking about first level detail in the context of a processing proficiency test. The presence of friction ridge detail and an evaluation (opinion) about whether that detail is suitable for further examination seem more appropriate for this type of a test. Our laboratory doesn't require classifying the pattern type of fingerprints, but I provided answers based on my prior training. This contributes to the lack of clarity around what is actually required by the examiner for this test to be considered fully complete.
- ZMBKB3 EXHIBIT 1A WAS REMOVED FROM THE WHITE ENVELOPE (ITEM 1), IT WAS PHOTOGRAPHED, VISUALIZED AND THEN PROCESSED IN MVC3000 USING POLYCYANO 5G, AIR DRIED THEN VISUALIZED. THE RESULTS WAS NONE.

## **Appendix: Data Sheet**

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Collaborative Testing Services ~ Forensic Testing Program

### Test No. 18-5191: Latent Print Processing

DATA MUST BE RECEIVED BY December 10, 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 12 August 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 and protective material is not intended to be processed.

#### Items Submitted (Sample Pack LAP2):

Item 1: Closure tab of a white envelope, divided into sections A-D (remove protective acetate strip).

- Item 2: Plastic CD case cover, divided into sections A-D.
- Item 3: Newspaper yard sale notice, 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 <u>single letter</u> 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.** 

ltem 1	
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Item 2 \_\_\_\_\_

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

Please return all pages of this data sheet.

Participant Code: WebCode:

	Closure tab of a white	e envelope, divided into sections A-D (remove protective acetate strip).	
1-1.) C	Date Received:	1-2.) Date(s) Analyzed:	
1-3.)	What method(s) of develop	pment were used during your examination?	
Method	d (please list in order)	Method-specific information (ex. temperature, processing	a time)
			,,
1 4 \		and a survey of the survey for the strength of	
I-4.)	what method(s) of preserv	Ation were used, it any, following latent print develops	nent :
Memor	<u>i (piedse lisi ili older)</u>	Memou-specific mormation	
		· · · · · · · · · · · · · · · · · · ·	
	(If additional space is needed, cop	by this page and attach in the appropriate place within the data sheet.)	
1-5.)	Was first level detail recov	vered?	
	If you are not trained to make d	letail/pattern determinations, please select "N/A".	
	Yes No	N/A	
1-6.)	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 Loon	Where N/A Not suitable for determine	nation
	Please	e return all pages of this data sheet.	Page 2 of (

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Participant Code: WebCode:

#### **Results for Item 2:**

Plastic CD case cover, divided into sections A-D.

2-1.)	Date Received:	2-2.) Date(s) Analyzed:	
2-3.)	What method(s) of develo	opment were used during your examination?	
<u>Metho</u>	<u>d (please list in order)</u>	Method-specific information (ex. temperature, processin	<u>g time)</u>
<u>Metho</u>	d (please list in order <u>)</u>	<u>Method-specific information</u>	
o = \	(It additional space is needed, co	ppy this page and attach in the appropriate place within the data sheet.)	
2-5.)	Was first level detail reco If you are not trained to make	<b>overed?</b> detail/pattern determinations, please select "N/A".	
	Yes No	N/A	
2-6.)	If first level detail was red If you are not trained to make a	covered, what pattern was identified? detail/pattern determinations, please select "N/A".	
	Arch Loop	Whorl N/A Not suitable for determ	ination
	Pleas	se return all pages of this data sheet.	Page 3 of

6
Participant Code: WebCode:

## **Results for Item 3:**

Newspaper yard sale notice, divided into sections A-D.

3-1.) I	Date Received:	3-2.) Date(s) Analyzed:		
3-3.)	What method(s) of deve	elopment were used during your examination?		
, <u>Metho</u>	<u>d (please list in order)</u>	Method-specific information (ex. temperature, processing time)		
<u>Metho</u>	<u>d (please list in order)</u>	<u>Method-specific information</u>		
	(If additional space is needed,	copy this page and attach in the appropriate place within the data sheet.)		
3-5.)	Was first level detail re If you are not trained to make	c <b>overed?</b> (e detail/pattern determinations, please select "N/A".		
	Yes No	N/A		
3-6.)	If first level detail was u If you are not trained to mak	recovered, what pattern was identified? e detail/pattern determinations, please select "N/A".		
	Arch Loop	Whorl N/A Not suitable for determination		
	Ple	ease return all pages of this data sheet. Page 4 of		

6

Participant Code: WebCode:

### **Additional Comments**

<u>Return Instructions:</u> Data must be received via online data entry, fax (please include a cover sheet), or mail by <i>December 10, 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. 18-5191: Latent Print Processing

This release page must be completed and received by **December 10, 2018** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

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

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