Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

P.O. Box 650820
Sterling, VA 20165-0820
e-mail: forensics@cts-interlab.com
Telephone: +1-571-434-1925
Web site: www.cts-forensics.com

# Latent Print Processing - Varied Surfaces
# Test No. 24-5190 Summary Report

Each sample set contained three items of simulated crime scene evidence. Participants were asked to process each item for latent prints and report their findings. Data were returned from 312 participants and are compiled into the following tables:

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

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

# Manufacturer's Information

Each sample set consisted of three items of simulated crime scene evidence. Each item was divided into labeled sections and contained one latent fingerprint. Participants were asked to process each item for latent fingerprints, utilizing the method(s) deemed most appropriate for the substrate being examined.

SAMPLE PREPARATION: The nonporous plastic card sleeves and the semi-porous wallpaper were cleaned before the latent print was applied. New, sealed manila envelopes were used for the samples that could not be cleaned. The wallpaper was cut to the desired size. Each item was divided into sections and labeled A, B, C, and D using a chemical-safe marker. For each item, either an acid and/or oil enhancer was applied to the individual's finger prior to deposition to assist in the longevity of the print.

VERIFICATION: A random selection of prepared test items was processed in-house for latent prints to verify their durability and proper latent print location. In addition, predistribution results were consistent with each other and the manufacturer's preparation information.

SAMPLE SET ASSEMBLY: Each item was individually packed into its pre-labeled item envelope or heat seal packet with necessary protective materials. Following predistribution testing, each item envelope was sealed and initialed. These were then placed into a sample set box with bubble wrap and sealed.

| Item no. | Test Material | Enhancer | Print Location | Pattern |
|---|---|---|---|---|
| 1 | Plastic Card Sleeve | Oil | A | Whorl or Loop & Whorl |
| 2 | Wallpaper | Acid + Oil | C | Whorl or Loop & Whorl |
| 3 | Manila Envelope | Acid | B | Whorl |

 

# Summary Comments

This test was designed to allow participants to assess their proficiency in the processing and/or development of latent prints on pieces of evidence. Each sample set contained three items of evidence, which were divided into four sections (A-D), to be processed for latent prints: a Plastic Card Sleeve (Item 1), Wallpaper (Item 2), and a Manila Envelope (Item 3). During the creation of this test, latent prints were purposefully deposited in section "A" for Item 1, section "C" for Item 2, and section "B" for Item 3. See Manufacturer's Information for preparation details.

Of the 312 responding participants, 255 (81.7%) were able to successfully recover a latent print in the expected location for all three items. Fifty-one participants did not recover latent ridge detail on one or more of the items and six reported ridge detail in sections that differed from the consensus. Results that indicated ridge detail in a section other than that established by the consensus were marked as outliers. Participants who did not develop a print on an item were not marked as outliers.

For Item 1, all participants recovered a latent print in section “A” of the Plastic Card Sleeve. Visual Examination (reported 242 times) was most often reported by participants as the first step during the development stage. Cyanoacrylate Fuming (251) was the prevailing method of development reported by participants, followed by Dye Stain (183), Powder Dusting (178), and Alternate Light Source (151) methods. During preservation, Photography (reported 263 times) was the prevailing method reported, followed by the Lifting (98) method.

For Item 2, 294 of 312 participants (94.2%) recovered a latent print in section “C” of the Wallpaper. Eighteen participants did not recover any ridge detail. Visual Examination (reported 250 times) was most often reported by participants as the first step during the development stage. Cyanoacrylate Fuming (224) was the prevailing method of development reported by participants, followed by Powder Dusting (218), Alternate Light Source (159), Dye Stain (105), and Ninhydrin (83) methods. During preservation, Photography (reported 240 times) was the prevailing method reported, followed by the Lifting (60) method.

For Item 3, 273 of 313 participants (87.2%) recovered a latent print in section “B” of the Manila Envelope. Thirty-three participants did not recover any ridge detail. Three participants reported ridge detail in section "D", two reported ridge detail in section "C", and the remaining participant reported ridge detail in section "A" and all were marked as outliers. Visual Examination (reported 244 times) was most often reported by participants as the first step during the development stage. Ninhydrin (231) was the prevailing method of development reported by participants, followed by Alternative Light Source (129), 1,2-Indanedione (106), DFO (68), and Physical Developer (51) methods. During preservation, Photography (reported 233 times) was the prevailing method reported.

Table 4: First-Level Detail Findings captures the pattern type(s) reported by participants for each recovered latent print. Some participants do not perform print pattern analysis in their routine casework and may report “N/A” for 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 - 51 reported Whorl and 40 reported both Loop and Whorl; Item 2 - 37 reported Whorl and 32 reported both Loop and Whorl; Item 3 - Whorl.

 

# Print Location

TABLE 1 - Item 1

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| 2322H4 | A | 3KTDHN | A | 6XUMKN | A |
| 24AZTC | A | 3RCE7D | A | 73GXPH | A |
| 28WTQZ | A | 3TPBAW | A | 73M2RA | A |
| 2BCZEY | A | 3WPJD8 | A | 76EZ69 | A |
| 2GKJDR | A | 3X3WFH | A | 7BXCVU | A |
| 2HUHLF | A | 3XHD9Q | A | 7EER88 | A |
| 2K2R2R | A | 42EALN | A | 7G7NW2 | A |
| 2NFLE4 | A | 42YQ2Q | A | 7PDFDJ | A |
| 2PU3LP | A | 47CQYH | A | 7PWHLJ | A |
| 2Q7NMD | A | 4AWHAK | A | 7QTK39 | A |
| 2REZ3T | A | 4DNWL9 | A | 7U9EFK | A |
| 2VY2WF | A | 4PNDLB | A | 7YNM4K | A |
| 2XRK9E | A | 4ZMDWU | A | 8222WJ | A |
| 2YUT6C | A | 4ZZU4F | A | 87YHAD | A |
| 33BCP7 | A | 66DUZ8 | A | 886Z89 | A |
| 3639EZ | A | 66T4ZZ | A | 88QEX8 | A |
| 36KDUD | A | 68ZLXV | A | 8C8RQ8 | A |
| 38BE2M | A | 6ARHMP | A | 8CL9V9 | A |
| 3A929W | A | 6CUJP8 | A | 8KGBXJ | A |
| 3B7EQH | A | 6DQW9U | A | 8KXDUK | A |
| 3BNEYE | A | 6G86WT | A | 8LTXGJ | A |
| 3ELMEH | A | 6HLQ8G | A | 8V4Z3K | A |
| 3F2Z7Z | A | 6JCPLE | A | 8XLGXB | A |
| 3J3Z8H | A | 6VATQ9 | A | 93EPXB | A |

# TABLE 1 - Item 1

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| 94M3FC | A | BRTEMA | A | ENRTYY | A |
| 96W8TZ | A | BVKUN3 | A | EUZ3E9 | A |
| 97V4QB | A | BZZ3C2 | A | EWRY33 | A |
| 9AGQJX | A | C4FWQD | A | EYDLVP | A |
| 9ENP89 | A | C8DBD3 | A | EZT86R | A |
| 9FENL8 | A | CCMRMR | A | F6UQV4 | A |
| 9JHJ6A | A | CGZCUD | A | F83WJP | A |
| 9RGZ3V | A | CLV43A | A | FDNXFU | A |
| A4LHDU | A | CTGAMM | A | FFFU6N | A |
| A7E8XB | A | D26KAN | A | FHLC3J | A |
| AAA8PR | A | D3KJTD | A | FJF6X3 | A |
| ACGKF7 | A | D7J3R6 | A | FKMK69 | A |
| AENVCA | A | DAC9YF | A | FMEGU3 | A |
| AHN88A | A | DE83Y3 | A | FMYXA6 | A |
| AJ2GHV | A | DEBHC3 | A | FQZEB7 | A |
| AM2REV | A | DETGME | A | FRVNH3 | A |
| ARA9NJ | A | DGX2DZ | A | FV7Y9B | A |
| ARVN4L | A | DNXN3E | A | G3PBC4 | A |
| AWQFCJ | A | DQMPBN | A | G746QF | A |
| B3MRKL | A | E3HADZ | A | GA8QRV | A |
| B8ZDR8 | A | EABXJ3 | A | GCVFZE | A |
| BCCMHF | A | EATKHK | A | GP2HCV | A |
| BCWYMF | A | EC4HV3 | A | GQ9XJ2 | A |
| BEJRAH | A | EH9EGN | A | GT2GV2 | A |
| BK6QR4 | A | EJ3324 | A | GUCJHZ | A |
| BMA7DN | A | | | GZWN7U | A |

# TABLE 1 - Item 1

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| H8E8CE | A | KL8QXV | A | MFCT6A | A |
| H9NJRV | A | KLABTB | A | MTZVN2 | A |
| HBFFFP | A | KQY3Q7 | A | MUDCUN | A |
| HKKAPW | A | KRVBYP | A | MUFWQ4 | A |
| HLUE3K | A | KTN7NJ | A | MXF4B2 | A |
| HM82LK | A | KVVLUP | A | MZDXJ3 | A |
| HPYXBE | A | KWMHJJ | A | N2ANC3 | A |
| HTUY3V | A | KZ624D | A | N2VXPD | A |
| HXT7V6 | A | L4KK8G | A | NA8CAU | A |
| J2AQFZ | A | L9Z67P | A | NCRAEC | A |
| J2Z3Q6 | A | LCEYJ2 | A | NEDW8Y | A |
| J4BYKA | A | LDTE4U | A | NJUBZZ | A |
| J72XY9 | A | LDWNCU | A | NPYABP | A |
| J8XHL8 | A | LFE2WH | A | NRKV4C | A |
| JGECQ9 | A | LFV882 | A | NWHCHR | A |
| JHBX97 | A | LHM3WV | A | NX9PTX | A |
| JHUGFY | A | LL6B7F | A | NXQCRF | A |
| JJKUP6 | A | LQFD7Q | A | PA2983 | A |
| JK2WM6 | A | LUFLBZ | A | PC9GME | A |
| JQ33D2 | A | LVNUFE | A | PDHLZ4 | A |
| JVGQZJ | A | LXXUKL | A | PFAHNW | A |
| K49N4X | A | LY8YZV | A | PHAZCQ | A |
| K6PH68 | A | M34WX2 | A | PKH7ZD | A |
| K9L9BJ | A | M3MUE8 | A | PM8BWQ | A |
| KCFCUP | A | MB2HEZ | A | PMP9ZQ | A |
| | | MEZUBZ | A | | |

TABLE 1 - Item 1

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| PVVFFQ | A | TL29BH | A | W6PJYT | A |
| QFH4MW | A | TMC2DW | A | W7TN2F | A |
| QKBEL3 | A | TNQMPK | A | WGB6TM | A |
| QLPUQ3 | A | TP4X3Q | A | WMHMD9 | A |
| QM3DYZ | A | TPJGK3 | A | WQ8RAM | A |
| QP63E3 | A | TT49W7 | A | WU2Y4V | A |
| QPBPG3 | A | TY96HQ | A | X6Z6KZ | A |
| QQNYRN | A | U29L6K | A | X7TYFJ | A |
| QU3JQW | A | U4DEWX | A | XBGNU2 | A |
| QUNBNN | A | U74G68 | A | XFDEZD | A |
| R2WBCV | A | UJPTGG | A | XPLRFV | A |
| R4MAQU | A | UJRECW | A | XT7PVY | A |
| R9JWNN | A | UL2JR7 | A | XVB4GJ | A |
| RCER63 | A | UTDJ4A | A | XW3DC7 | A |
| RGXV4K | A | UWJZKD | A | XYRHAJ | A |
| RH3L49 | A | V4EHCU | A | Y2FDAX | A |
| RKUGT3 | A | VCL73L | A | Y82F73 | A |
| RUGHAC | A | VDX6WV | A | YEFCWU | A |
| RUJ7QQ | A | VGZUN4 | A | YH3YPH | A |
| RYANJ9 | A | VHUH9K | A | YHGAJF | A |
| T6AB9M | A | VPEJPX | A | YLGHNQ | A |
| T6U37E | A | VVLAR4 | A | YMRKAP | A |
| TBG2CT | A | VVX2KK | A | YQXWGQ | A |
| TEFD8T | A | VZEA9K | A | YR8TXN | A |
| TJAAWJ | A | W3YHQK | A | YZMKEE | A |
| TK97UU | A | | | Z29LVL | A |

# TABLE 1 - Item 1

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| Z69WQL | A | | | | |
| Z9BV2E | A | | | | |
| ZAN6EL | A | | | | |
| ZDNF9Z | A | | | | |
| ZMTMPL | A | | | | |
| ZR79W8 | A | | | | |
| ZVJ9TY | A | | | | |
| ZVLVBC | A | | | | |
| ZZGGCM | A | | | | |
| ZZYGGX | A | | | | |

## Item 1 - Location Response Summary

| Location | Total | Total Participants: 312 |
|---|---|---|
| A | 312 | *NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.* |
| B | 0 | |
| C | 0 | |
| D | 0 | |
| None | 0 | |
| Not Tested | 0 | |

TABLE 1 - Item 2

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| 2322H4 | C | 3TPBAW | C | 76EZ69 | C |
| 24AZTC | C | 3WPJD8 | C | 7BXCVU | C |
| 28WTQZ | C | 3X3WFH | C | 7EER88 | C |
| 2BCZEY | C | 3XHD9Q | C | 7G7NW2 | C |
| 2GKJDR | C | 42EALN | C | 7PDFDJ | C |
| 2HUHLF | C | 42YQ2Q | C | 7PWHLJ | C |
| 2K2R2R | C | 47CQYH | C | 7QTK39 | C |
| 2NFLE4 | C | 4AWHAK | C | 7U9EFK | C |
| 2PU3LP | C | 4DNWL9 | C | 7YNM4K | C |
| 2Q7NMD | C | 4PNDLB | C | 8222WJ | C |
| 2REZ3T | C | 4ZMDWU | C | 87YHAD | C |
| 2VY2WF | C | 4ZZU4F | C | 886Z89 | C |
| 2XRK9E | C | 66DUZ8 | C | 88QEX8 | C |
| 2YUT6C | C | 66T4ZZ | C | 8C8RQ8 | C |
| 33BCP7 | C | 68ZLXV | C | 8CL9V9 | C |
| 3639EZ | C | 6ARHMP | C | 8KGBXJ | C |
| 36KDUD | C | 6CUJP8 | C | 8KXDUK | C |
| 38BE2M | C | 6DQW9U | None | 8LTXGJ | C |
| 3A929W | C | 6G86WT | C | 8V4Z3K | None |
| 3B7EQH | C | 6HLQ8G | C | 8XLGXB | C |
| 3BNEYE | C | 6JCPLE | None | 93EPXB | None |
| 3ELMEH | C | 6VATQ9 | None | 94M3FC | C |
| 3F2Z7Z | C | 6XUMKN | C | 96W8TZ | C |
| 3J3Z8H | C | 73GXPH | C | 97V4QB | C |
| 3KTDHN | C | 73M2RA | C | 9AGQJX | C |
| 3RCE7D | C | | | 9ENP89 | C |

# TABLE 1 - Item 2

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| 9FENL8 | C | C8DBD3 | C | F6UQV4 | C |
| 9JHJ6A | C | CCMRMR | C | F83WJP | C |
| 9RGZ3V | C | CGZCUD | C | FDNXFU | C |
| A4LHDU | C | CLV43A | C | FFFU6N | C |
| A7E8XB | C | CTGAMM | C | FHLC3J | C |
| AAA8PR | C | D26KAN | C | FJF6X3 | C |
| ACGKF7 | C | D3KJTD | C | FKMK69 | C |
| AENVCA | C | D7J3R6 | C | FMEGU3 | C |
| AHN88A | C | DAC9YF | C | FMYXA6 | C |
| AJ2GHV | C | DE83Y3 | C | FQZEB7 | C |
| AM2REV | C | DEBHC3 | C | FRVNH3 | C |
| ARA9NJ | C | DETGME | C | FV7Y9B | C |
| ARVN4L | C | DGX2DZ | C | G3PBC4 | C |
| AWQFCJ | C | DNXN3E | C | G746QF | C |
| B3MRKL | C | DQMPBN | C | GA8QRV | C |
| B8ZDR8 | C | E3HADZ | C | GCVFZE | C |
| BCCMHF | C | EABXJ3 | C | GP2HCV | C |
| BCWYMF | None | EATKHK | C | GQ9XJ2 | C |
| BEJRAH | C | EC4HV3 | C | GT2GV2 | C |
| BK6QR4 | C | EH9EGN | C | GUCJHZ | C |
| BMA7DN | C | EJ3324 | C | GZWN7U | C |
| BRTEMA | C | ENRTYY | None | H8E8CE | C |
| BVKUN3 | C | EUZ3E9 | C | H9NJRV | C |
| BZZ3C2 | C | EWRY33 | C | HBFFFP | C |
| C4FWQD | C | EYDLVP | C | HKKAPW | C |
| | | EZT86R | C | | |

# TABLE 1 - Item 2

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| HLUE3K | C | KVVLUP | C | MXF4B2 | C |
| HM82LK | C | KWMHJJ | C | MZDXJ3 | C |
| HPYXBE | C | KZ624D | C | N2ANC3 | C |
| HTUY3V | C | L4KK8G | C | N2VXPD | C |
| HXT7V6 | C | L9Z67P | C | NA8CAU | None |
| J2AQFZ | C | LCEYJ2 | C | NCRAEC | C |
| J2Z3Q6 | C | LDTE4U | C | NEDW8Y | C |
| J4BYKA | None | LDWNCU | C | NJUBZZ | C |
| J72XY9 | C | LFE2WH | C | NPYABP | C |
| J8XHL8 | C | LFV882 | C | NRKV4C | C |
| JGECQ9 | C | LHM3WV | C | NWHCHR | C |
| JHBX97 | C | LL6B7F | C | NX9PTX | C |
| JHUGFY | None | LQFD7Q | C | NXQCRF | C |
| JJKUP6 | C | LUFLBZ | C | PA2983 | C |
| JK2WM6 | C | LVNUFE | C | PC9GME | C |
| JQ33D2 | C | LXXUKL | C | PDHLZ4 | C |
| JVGQZJ | None | LY8YZV | C | PFAHNW | C |
| K49N4X | C | M34WX2 | C | PHAZCQ | None |
| K6PH68 | C | M3MUE8 | C | PKH7ZD | C |
| K9L9BJ | C | MB2HEZ | None | PM8BWQ | C |
| KCFCUP | C | MEZUBZ | C | PMP9ZQ | C |
| KL8QXV | C | MFCT6A | C | PVVFFQ | C |
| KLABTB | C | MTZVN2 | C | QFH4MW | C |
| KQY3Q7 | C | MUDCUN | C | QKBEL3 | C |
| KRVBYP | C | MUFWQ4 | C | QLPUQ3 | C |
| KTN7NJ | C | | | QM3DYZ | C |

# TABLE 1 - Item 2

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| QP63E3 | C | TPJGK3 | C | WU2Y4V | C |
| QPBPG3 | None | TT49W7 | C | X6Z6KZ | C |
| QQNYRN | C | TY96HQ | C | X7TYFJ | C |
| QU3JQW | C | U29L6K | C | XBGNU2 | C |
| QUNBNN | C | U4DEWX | C | XFDEZD | C |
| R2WBCV | C | U74G68 | C | XPLRFV | C |
| R4MAQU | C | UJPTGG | C | XT7PVY | C |
| R9JWNN | C | UJRECW | C | XVB4GJ | C |
| RCER63 | C | UL2JR7 | C | XW3DC7 | C |
| RGXV4K | C | UTDJ4A | C | XYRHAJ | C |
| RH3L49 | None | UWJZKD | C | Y2FDAX | C |
| RKUGT3 | C | V4EHCU | C | Y82F73 | C |
| RUGHAC | C | VCL73L | C | YEFCWU | C |
| RUJ7QQ | C | VDX6WV | C | YH3YPH | C |
| RYANJ9 | C | VGZUN4 | C | YHGAJF | C |
| T6AB9M | C | VHUH9K | C | YLGHNQ | C |
| T6U37E | None | VPEJPX | C | YMRKAP | C |
| TBG2CT | C | VVLAR4 | None | YQXWGQ | C |
| TEFD8T | C | VVX2KK | C | YR8TXN | C |
| TJAAWJ | C | VZEA9K | C | YZMKEE | C |
| TK97UU | C | W3YHQK | C | Z29LVL | C |
| TL29BH | None | W6PJYT | C | Z69WQL | C |
| TMC2DW | C | W7TN2F | C | Z9BV2E | C |
| TNQMPK | C | WGB6TM | C | ZAN6EL | C |
| TP4X3Q | C | WMHMD9 | C | ZDNF9Z | C |
| | | WQ8RAM | C | | |

# TABLE 1 - Item 2

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| ZMTMPL | C | | | | |
| ZR79W8 | C | | | | |
| ZVJ9TY | C | | | | |
| ZVLVBC | C | | | | |
| ZZGGCM | C | | | | |
| ZZYGGX | C | | | | |

## Item 2 - Location Response Summary

Total Participants: 312

| Location | Total |
|---|---|
| A | 0 |
| B | 0 |
| C | 294 |
| D | 0 |
| None | 18 |
| Not Tested | 0 |

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

# TABLE 1 - Item 3

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| 2322H4 | B | 3TPBAW | B | 76EZ69 | B |
| 24AZTC | B | 3WPJD8 | B | 7BXCVU | B |
| 28WTQZ | B | 3X3WFH | B | 7EER88 | B |
| 2BCZEY | B | 3XHD9Q | B | 7G7NW2 | None |
| 2GKJDR | B | 42EALN | B | 7PDFDJ | B |
| 2HUHLF | B | 42YQ2Q | None | 7PWHLJ | None |
| 2K2R2R | B | 47CQYH | B | 7QTK39 | B |
| 2NFLE4 | None | 4AWHAK | None | 7U9EFK | B |
| 2PU3LP | B | 4DNWL9 | B | 7YNM4K | B |
| 2Q7NMD | B | 4PNDLB | B | 8222WJ | B |
| 2REZ3T | B | 4ZMDWU | B | 87YHAD | B |
| 2VY2WF | None | 4ZZU4F | B | 886Z89 | B |
| 2XRK9E | B | 66DUZ8 | B | 88QEX8 | None |
| 2YUT6C | B | 66T4ZZ | B | 8C8RQ8 | B |
| 33BCP7 | B | 68ZLXV | B | 8CL9V9 | B |
| 3639EZ | B | 6ARHMP | B | 8KGBXJ | B |
| 36KDUD | B | 6CUJP8 | B | 8KXDUK | B |
| 38BE2M | B | 6DQW9U | B | 8LTXGJ | B |
| 3A929W | B | 6G86WT | None | 8V4Z3K | B |
| 3B7EQH | B | 6HLQ8G | B | 8XLGXB | None |
| 3BNEYE | B | 6JCPLE | B | 93EPXB | B |
| 3ELMEH | B | 6VATQ9 | B | 94M3FC | B |
| 3F2Z7Z | B | 6XUMKN | B | 96W8TZ | B |
| 3J3Z8H | None | 73GXPH | B | 97V4QB | B |
| 3KTDHN | B | 73M2RA | B | 9AGQJX | B |
| 3RCE7D | B | | | 9ENP89 | B |

# TABLE 1 - Item 3

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| 9FENL8 | B | C8DBD3 | B | F6UQV4 | B |
| 9JHJ6A | B | CCMRMR | B | F83WJP | None |
| 9RGZ3V | None | CGZCUD | B | FDNXFU | B |
| A4LHDU | B | CLV43A | B | FFFU6N | B |
| A7E8XB | B | CTGAMM | B | FHLC3J | B |
| AAA8PR | B | D26KAN | B | FJF6X3 | B |
| ACGKF7 | B | D3KJTD | B | FKMK69 | B |
| AENVCA | None | D7J3R6 | B | FMEGU3 | B |
| AHN88A | B | DAC9YF | B | FMYXA6 | None |
| AJ2GHV | B | DE83Y3 | B | FQZEB7 | B |
| AM2REV | D | DEBHC3 | B | FRVNH3 | B |
| ARA9NJ | B | DETGME | B | FV7Y9B | B |
| ARVN4L | B | DGX2DZ | B | G3PBC4 | B |
| AWQFCJ | B | DNXN3E | B | G746QF | B |
| B3MRKL | B | DQMPBN | B | GA8QRV | B |
| B8ZDR8 | B | E3HADZ | B | GCVFZE | A |
| BCCMHF | B | EABXJ3 | B | GP2HCV | B |
| BCWYMF | B | EATKHK | B | GQ9XJ2 | B |
| BEJRAH | B | EC4HV3 | B | GT2GV2 | B |
| BK6QR4 | B | EH9EGN | B | GUCJHZ | B |
| BMA7DN | None | EJ3324 | B | GZWN7U | B |
| BRTEMA | B | ENRTYY | B | H8E8CE | B |
| BVKUN3 | B | EUZ3E9 | None | H9NJRV | B |
| BZZ3C2 | B | EWRY33 | B | HBFFFP | None |
| C4FWQD | C | EYDLVP | B | HKKAPW | None |
| | | EZT86R | B | | |

# TABLE 1 - Item 3

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| HLUE3K | B | KVVLUP | B | MXF4B2 | None |
| HM82LK | B | KWMHJJ | B | MZDXJ3 | B |
| HPYXBE | B | KZ624D | B | N2ANC3 | B |
| HTUY3V | B | L4KK8G | B | N2VXPD | B |
| HXT7V6 | None | L9Z67P | None | NA8CAU | B |
| J2AQFZ | B | LCEYJ2 | B | NCRAEC | B |
| J2Z3Q6 | B | LDTE4U | B | NEDW8Y | B |
| J4BYKA | B | LDWNCU | B | NJUBZZ | B |
| J72XY9 | None | LFE2WH | None | NPYABP | B |
| J8XHL8 | B | LFV882 | B | NRKV4C | B |
| JGECQ9 | B | LHM3WV | B | NWHCHR | B |
| JHBX97 | B | LL6B7F | B | NX9PTX | B |
| JHUGFY | B | LQFD7Q | B | NXQCRF | B |
| JJKUP6 | B | LUFLBZ | C | PA2983 | B |
| JK2WM6 | B | LVNUFE | B | PC9GME | B |
| JQ33D2 | B | LXXUKL | B | PDHLZ4 | B |
| JVGQZJ | B | LY8YZV | B | PFAHNW | B |
| K49N4X | B | M34WX2 | B | PHAZCQ | B |
| K6PH68 | None | M3MUE8 | B | PKH7ZD | B |
| K9L9BJ | B | MB2HEZ | B | PM8BWQ | B |
| KCFCUP | B | MEZUBZ | B | PMP9ZQ | B |
| KL8QXV | B | MFCT6A | B | PVVFFQ | B |
| KLABTB | B | MTZVN2 | B | QFH4MW | B |
| KQY3Q7 | B | MUDCUN | B | QKBEL3 | B |
| KRVBYP | B | MUFWQ4 | B | QLPUQ3 | B |
| KTN7NJ | B | | | QM3DYZ | B |

# TABLE 1 - Item 3

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| QP63E3 | B | TPJGK3 | B | WU2Y4V | None |
| QPBPG3 | B | TT49W7 | B | X6Z6KZ | B |
| QQNYRN | B | TY96HQ | B | X7TYFJ | B |
| QU3JQW | B | U29L6K | B | XBGNU2 | None |
| QUNBNN | B | U4DEWX | B | XFDEZD | B |
| R2WBCV | B | U74G68 | B | XPLRFV | B |
| R4MAQU | B | UJPTGG | None | XT7PVY | B |
| R9JWNN | B | UJRECW | B | XVB4GJ | B |
| RCER63 | B | UL2JR7 | B | XW3DC7 | B |
| RGXV4K | B | UTDJ4A | B | XYRHAJ | B |
| RH3L49 | B | UWJZKD | None | Y2FDAX | B |
| RKUGT3 | B | V4EHCU | B | Y82F73 | B |
| RUGHAC | B | VCL73L | B | YEFCWU | None |
| RUJ7QQ | B | VDX6WV | B | YH3YPH | D |
| RYANJ9 | B | VGZUN4 | B | YHGAJF | B |
| T6AB9M | B | VHUH9K | B | YLGHNQ | B |
| T6U37E | None | VPEJPX | B | YMRKAP | B |
| TBG2CT | B | VVLAR4 | D | YQXWGQ | B |
| TEFD8T | B | VVX2KK | B | YR8TXN | B |
| TJAAWJ | B | VZEA9K | B | YZMKEE | B |
| TK97UU | B | W3YHQK | B | Z29LVL | B |
| TL29BH | None | W6PJYT | B | Z69WQL | B |
| TMC2DW | B | W7TN2F | B | Z9BV2E | B |
| TNQMPK | B | WGB6TM | B | ZAN6EL | B |
| TP4X3Q | B | WMHMD9 | None | ZDNF9Z | B |
| | | WQ8RAM | B | | |

# TABLE 1 - Item 3

| WebCode | Location | WebCode | Location | WebCode | Location |
|---|---|---|---|---|---|
| ZMTMPL | B | | | | |
| ZR79W8 | None | | | | |
| ZVJ9TY | B | | | | |
| ZVLVBC | B | | | | |
| ZZGGCM | B | | | | |
| ZZYGGX | B | | | | |

## Item 3 - Location Response Summary

| Location | Total |
|---|---|
| A | 1 |
| B | 273 |
| C | 2 |
| D | 3 |
| None | 33 |
| Not Tested | 0 |

Total Participants: 312

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

# Development Methods

TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2322H4 | Visual Examination | NDP |
| | Alternate Light Source | NDP. 300-400nm/clear; 415nm/yellow; 455nm, 475nm, 495nm, 515nm/orange; 555nm/red |
| | Cyanoacrylate Fuming | IRD. CYAN 1: 0.4g CAE, 80% relative humidity, 12 min cycle, 120 degree celsius hot plate |
| | Dye Stain | IRD. Rhodamine 6G; 515nm/orange |
| | Powder Dusting | IRD, Magnetic |
| 24AZTC | Cyanoacrylate Fuming | approx. 12 min |
| | Dye Stain | RAM |
| | Powder Dusting | Black Powder with lift card |
| 28WTQZ | Visual Examination | Using oblique lighting friction ridge detail could be seen in quadrant A prior to processing. |
| | Lumicyano | The plastic sleeve was placed in the Mystaire fuming chamber for 20 minutes at 70% humidity to be processed with Lumicyano. Friction ridge detail developed in all quadrants. |
| | Alternate Light Source | It was examined using an alternate light source (laser). |
| 2BCZEY | Visual Examination | white light |
| | Alternate Light Source | Crimelite 82S Pro |
| | Cyanoacrylate Fuming | 70 minutes |
| | Dye Stain | Rhodamine 6G/ TracER laser for visualization |
| | Powder Dusting | Magnetic black |
| 2GKJDR | Visual Examination | Oblique and direct lighting |
| | Alternate Light Source | Blue light - 420-470nm |
| | Cyanoacrylate Fuming | MVC1000 Superglue chamber. Omega-print. 20 minute processing time |
| | Powder Dusting | Traditional brush used. Dusti-ident powder |
| 2HUHLF | Visual Examination | White light and different foster freeman crime lite lights. |
| | Cyanoacrylate Fuming | 15 minutes and 120 C. |
| | Basic Yellow 40 | |
| | Alternate Light Source | White light and different foster freeman crime lite lights. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2K2R2R | Visual Examination | Visually reviewed each item. 1127hrs |
| | Laser 445nm and 520nm | Used laser at both 445nm and 520nm to visualize prints on all items. 1351hrs |
| | Cyanoacrylate Fuming | Item 1 (plastic) was processed in a cyanoacrylate vacuum chamber for 40 mins. 1428hrs |
| | Powder Dusting | Item 1 (plastic) was powdered using standard fingerprint powder. 1525hrs |
| 2NFLE4 | Visual Examination | On 6-21-2024, I examined the item under a white LED light and observed no visible ridge detail/prints. |
| | Alternate Light Source | On 6-21-2024, I examined the item under a wavelength 450nm light with an orange filter and observed no visible ridge detail/prints. |
| | Cyanoacrylate Fuming | On 6-21-2024, I placed the item in a Cyanosafe and ran cyanoacrylate fuming. I then examined the item under a white LED light and observed visible ridge detail/prints in quadrant A. |
| | Dye Stain | On 6-21-2024, I used a RAY dye stain solution on the item and examined the item under wavelength 450nm light with an orange filter and observed visible ridge detail/prints in quadrant A. |
| | Powder Dusting | On 6-21-2024, I powdered the item with black latent print powder and examined the item under a white LED light and observed no further enhancement of the ridge detail/prints. |
| 2PU3LP | Alternate Light Source | Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm) Print Found on A, but very weak |
| | Cyanoacrylate Fuming | Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins, Print Found on A, but very weak. |
| | Dye Stain | After Dying with BY40, kept to dry for 20 mins in fumehood. After 20 mins, Mark search was done using 445nm light (blue light) with goggle (495nm). Print Found on A, Photographed. |
| 2Q7NMD | Visual Examination | I used a flashlight to examine for patent prints. |
| | Cyanoacrylate Fuming | I fumed the item in a chamber for 15 minutes. |
| | Visual Examination | I used a flashlight to examine for latent prints. |
| | Powder Dusting | I dusted the item using black fingerprint powder. |
| | Visual Examination | I used a flashlight to examine for latent prints. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2REZ3T | Visual Examination | Visual examination performed on 6/24/24. Ridge structure of collection value was observed, marked as 1A1a, and Labkam was used to photograph. |
| | Alternate Light Source | LabKam used to photograph print 1A1a, observed at visual examination on 6/24/24. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming performed on 6/24/24. Print 1A1a was observed at this stage. Labkam was used on the item for further examination. |
| | Alternate Light Source | Labkam used to examine cyanoacrylate fumed item on 6/25/24. Print 1A1a was observed at photographed at this stage. |
| | Dye Stain | Basic Yellow 40 applied to item on 6/25/24. |
| | Alternate Light Source | Crimescope used at 445nm with yellow goggles to examine item processed with Basic Yellow 40 on 6/26/24. Print 1A1a was observed and photographed at this stage. |
| | Powder Dusting | Item dusted with black magnetic powder on 6/26/24. Print 1A1a was observed and photographed at this stage. |
| 2VY2WF | Powder Dusting | The item was latent print powder processed with magnetic powder. |
| 2XRK9E | Visual Examination | Used magnifying glass with white light. |
| | Cyanoacrylate Fuming | Two photos taken |
| | Dye Stain | MRM-10: two photos taken |
| | Dye Stain | Basic Yellow: two photos taken |
| | Methanol Rinse | Methanol Rinse: two photos taken |
| 2YUT6C | Visual Examination | Disclosing of a fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white. |
| | Cyanoacrylate Fuming | Improvement in fingerprint quality after use Cyanokcrylate Fuming. The fingerprint is steel visible but a little bit better than visual examination. |
| | Dye Stain | Improvement in fingerprint quality after use Basic Yellow 40. The fingerprint is visible the best in the light source 415 nm with yellow goggles. |
| 33BCP7 | Visual Examination | Visually inspected with white light at oblique angle |
| | Cyanoacrylate Fuming | Superglue fumed in the atmospheric chamber, Air Science Safefume for 25 minuites |
| | Powder Dusting | Dusted with black, magnetic powder. |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 3639EZ | Visual Examination | Visual examination with negative results. |
| | Alternate Light Source | Examined with the Full Spectrum Imaging System (FSIS). Positive results in quadrant A. Results were photographed. |
| | Cyanoacrylate Fuming | Processed Cyanoacrylate fuming and examined with FSIS. Positive results in quadrant A. Results were photographed. |
| | Dye Stain | Processed with M-Star dye stain and examined with the TracER laser with negative results. |
| | Powder Dusting | Processed with black powder. Ridge detail was developed on quadrant A of the plastic sleeve and lifted. |
| 36KDUD | Visual Examination | |
| | Cyanoacrylate Fuming | Preset fume/purge cycle on MYSTAIRE CA-3000 superglue chamber with Arrowhead Cyanoacrylate. Control test print included in cycle. |
| | Powder Dusting | Black fingerprint powder |
| 38BE2M | Powder Dusting | Using oblique lighting observed potential ridge detail on plastic card sleeve in section A. Applied black magnetic powder to item using magnetic wand and latent print developed. |
| 3A929W | Visual Examination | Examination under white light and latent print was observed on A position. However need to make it clearer shape. |
| | Cyanoacrylate Fuming | The fuming was initiated in the fuming chamber at least 15 minutes with 80 % humidity. The latent print was observed clearer on A position under natural light. Cyanoacrylate will crystallize the water that resulting from sweat secretions. |
| 3B7EQH | Visual Examination | A visual inspection was performed. |
| | Alternate Light Source | After visual inspection, oblique white alternating light was used to identify the location of the latent in quadrant (A). |
| | Powder Dusting | Gray magnetic powder was used for its development. |
| 3BNEYE | Visual Examination | Examined with LASER, ALS, UV, oblique lighting, and FSIS with shortwave UV. |
| | Cyanoacrylate Fuming | fumed for approximately 12 minutes, examined with FSIS with shortwave UV. |
| | Dye Stain | Ardrox, examined with UV. Then Rhodamine, examined with a LASER. |
| | Powder Dusting | Black Powder |
| 3ELMEH | Visual Examination | At 11:35 p.m. I began to work on the piece, using all the necessary equipment, documenting the piece of evidence with a general photograph, to capture how it was received and each of its packaging, |
| | Alternate Light Source | Using alternating white light, to verify the fingerprint identification, a simple view could be seen in section A, fragments of fingerprint. |
| | Powder Dusting | I began to work on each of the sections with black graphite powder Ref. BPP-09128 to create contrast and highlight the impression, managing to develop a fingerprint. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 3F2Z7Z | Visual Examination | Crime lite, incandescent and laser |
| | Cyanoacrylate Fuming | F&F Auto cycle-used luminocyano |
| | Dye Stain | Rhodamine 6G |
| | Powder Dusting | black powder |
| 3J3Z8H | Cyanoacrylate Fuming | Fumed for approximately 18 minutes. Ridge detail was observed in section A and photographed with scale. |
| | Dye Stain | Processed with an application of Rhodamine 6G dye stain. Then viewed under an alternate light source at wavelengths 400 to 490 nanometers and with an orange filter. The ridge detail was further developed and photographed again with scale. |
| 3KTDHN | Alternate Light Source | The evidence is checked using “Lumatec 400” forensic light with all spectrum. 23°C room temperature. |
| | Cyanoacrylate Fuming | Vaporization of cyanoacrylate in fuming chamber for about 6 minutes. 127°C temperatura, 81% humidity. |
| | Alternate Light Source | The evidence is checked again using forensic light with all spectrum. |
| | Dye Stain | The ITEM 1, is pulverised by Ardrox. Natural drying. |
| | Alternate Light Source | The evidence is checked again using “Lumatec 400” forensic light with all spectrum. |
| 3RCE7D | Cyanoacrylate Fuming | (Lumicyano) PFC 3, 20 minutes fuming, ALS (blue light/orange filter) |
| 3TPBAW | Alternate Light Source | RUVIS |
| | Cyanoacrylate Fuming | |
| | Alternate Light Source | RUVIS |
| | Powder Dusting | Black Powder |
| | Dye Stain | Ardrox |
| | Alternate Light Source | various wavelengths using orange, red, and yellow filters |
| 3WPJD8 | Visual Examination | The item was visually examined. |
| | Cyanoacrylate Fuming | Then processed for 20 minutes in a cyanoacrylate chamber. |
| 3X3WFH | Powder Dusting | Use Black Magnetic Finger print Powder |
| 3XHD9Q | Visual Examination | print observed and photographed, transferred to DVD |
| | Alternate Light Source | used UV and 455 with yellow and orange barrier filter |
| | Cyanoacrylate Fuming | ten minute fuming time. developed print photographed and transferred to DVD |
| | Dye Stain | Ardrox. Quality control (test print) conducted - good. used UV and 455 with yellow and orange barrier filter. Dipped and then rinsed with water. developed print photographed and transferred to DVD |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 42EALN | Visual Examination | Visual with white light. |
| | Alternate Light Source | Visual with ALS- CrimeScope all wavelengths with orange barrier filter. |
| | Cyanoacrylate Fuming | SafeFume chamber, processing time 20 min, purge time 10 min. |
| | Powder Dusting | Bi-chromatic powder. |
| | Dye Stain | Rhodamine 6G, ALS Dual77 at 520nm with Orange Barrier Filters. |
| 42YQ2Q | Visual Examination | The item was visually examined prior to any processing |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming. CFC - Lot: ZS30419, exp. 04/2025. Positive and negative control conducted with appropriate results. Fuming cycle - 10 minutes at 70% humidity. Purge cylce - 10 minutes |
| | Powder Dusting | Black powder applied to item to develop and visualize the latent fingerprint. (Quadrant A) |
| 47CQYH | Cyanoacrylate Fuming | ECA - 01 (Fuming chamber) |
| 4AWHAK | Cyanoacrylate Fuming | A sterile drape was placed in the chamber. The plastic card was placed on the sterile drape. Superglue was placed into the cylinder and put onto the hot plate. Polymerization standard was placed on a black slip as the control and placed inside of the chamber. A cup of hot water was placed inside the chamber as well. The hot plate was turned on and the lid was put on top the chamber. It ran for 15 minutes before i turned hot plate off and let it purge. One print observed on plastic card in section A. |
| | Powder Dusting | Sterile Black Powder was used on suspected print once taken out of the superglue chamber. |
| 4DNWL9 | Visual Examination | Visual examination with light light and forensic light equpiment. |
| | Cyanoacrylate Fuming | Fuming chamber processing time 12 minutes, with 75% humidity. |
| | Basic Yellow 40 | Item sprayed Basic Yellow 40 solution, and exam blue light. |
| 4PNDLB | Visual Examination | Prior to any processing, the item was examined visually for any visible ridge detail. No ridge detail was observed. |
| | Alternate Light Source | The Foster & Freeman Crime-Lite ML2 was used to see any ridge detail that may naturally fluoresce. No ridge detail was observed. |
| | Cyanoacrylate Fuming | The plastic card sleeve was placed inside our Air Science Safefume chamber for 12 minutes and left to rest overnight. |
| | Powder Dusting | Sirchie black magnetic powder was applied to all four sections. A print was developed in section A. No other ridge detail was observed. |
| 4ZMDWU | Visual Examination | V, C, CD |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 4ZZU4F | Visual Examination | A visual inspection was made with alternative light for the piece of evidence. |
| | Alternate Light Source | I used alternate white light source to locate the latent print. |
| | Powder Dusting | The piece of evidence was worked with black magnetic powder to develop the fingerprint. |
| 66DUZ8 | Cyanoacrylate Fuming | It is understood that the Item has a non-porous surface. Treatment is carried out with cyanoacrylate in a vaporization hood and subsequently tinted with basic yellow. Visualized with a yellow filter with 415 nm light. |
| 66T4ZZ | Visual Examination | LED light |
| | Cyanoacrylate Fuming | LED light |
| | Powder Dusting | LED light. 1 image taken in section A |
| | Dye Stain | RAY, batch #834, Crimelight ML2 450nm with orange filter |
| 68ZLXV | Visual Examination | white light and laser |
| | Cyanoacrylate Fuming | 70 minutes F+F MVC 5000 chamber |
| | Dye Stain | Rhodamine 6G, visualized with laser |
| | Powder Dusting | Black powder |
| 6ARHMP | Visual Examination | lighted magnification |
| | Cyanoacrylate Fuming | CA-3000 / 20 minute fume / 20 minute purge |
| | Visual Examination | lighted magnification |
| | Dye Stain | MBD |
| | Alternate Light Source | 450 nm / magnification |
| 6CUJP8 | Visual Examination | A visual exam was conducted on the item prior to any processing. No prints were observed. |
| | Alternate Light Source | An alternative light source was used with a wavelength approximately between 430-470 nm. An orange filter was used to look at the evidence. No prints were observed. |
| | Cyanoacrylate Fuming | The evidence was placed into the super glue fuming chamber since it was non-porous. The super glue placed onto a small foil fuming tray. The tray is placed onto the heating element inside of the chamber. The chamber when running creates a humid environment with the use of water inside of the device. This with a combination of the super fumes adheres to any potential fingerprint residue that is deposited on evidence. Once complete the evidence stays secured in the chamber for 24 hours. |
| | Powder Dusting | Once the evidence is removed from the chamber. Magnetic powder was applied to the evidence to find any latent prints that may be there. |
| 6DQW9U | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black powder |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 6G86WT | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| | Dye Stain | Ardrox |
| 6HLQ8G | Visual Examination | used magnifying lamp |
| | Cyanoacrylate Fuming | -test print developed |
| | Powder Dusting | Black powder. -test print developed |
| 6JCPLE | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | with Ardrox with UV (365nm) |
| 6VATQ9 | Visual Examination | Visually examined item. Used side lighting. |
| | Cyanoacrylate Fuming | Placed item and test print in chamber under 120C and 11 minutes. Test print positive. Ridge detail observed in Section A. |
| | Dye Stain | MBD applied to test print using squirt bottle. Blue ALS and yellow filter used to visualize. Test print positive. MBD applied to item. Blue ALS and yellow filter used to visualize. Ridge detail observed in Section A. |
| | Powder Dusting | Applied black magnetic powder to test print. Test print positive. Applied black magnetic powder to item. Some magnetic adherence to item occurred. |
| | Powder Dusting | Applied black powder to test print. Test print positive. Applied black powder to item. Ridge detail observed in Section A. |
| 6XUMKN | Visual Examination | White light at direct and oblique angles |
| | Cyanoacrylate Fuming | A control test print was deposited on a non-porous surface and placed in an Air Science fuming chamber with Item 1 for 15 minutes at approximately 75% humidity. The control print developed appropriately and ridge detail was observed on Item 1. This ridge detail was photographed for preservation. |
| | Dye Stain | MBD in a wash bottle applied to a control print. The MBD was allowed to dry and the item was examined at 475nm with an orange filter with appropriate results. The MBD was then used on Item 1 and examined at 475nm with an orange filter. The ridge detail was photographed for preservation. |

TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 73GXPH | Visual Examination | 06/06/2024 @ 1:00 pm, pre-treatment visual examination |
| | Cyanoacrylate Fuming | 07/06/2024 @ 7:20 am, placed in Superglue cabinet (MV1000) for 20 minutes @ RH=85 |
| | Alternate Light Source | after the superglue fuming, that the item was subjected to white light examination |
| | Dye Stain | 07/06/2024 @ 9:27 am, item was immersed in BY40 solution, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the BY40 step, the item was subjected to Blue light examination using yellow googles |
| | Dye Stain | 10/06/2024 @ 9:30 am, item was dye-stained by Crystal Violet solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the CV step, the item was subjected to white light examination |
| | Dye Stain | 10/06/2024 @ 10:30 am, item was dye-stained by Suban Black solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet. |
| | Alternate Light Source | After the SB step, the item was subjected to white light examination |
| | Powder Dusting | 10/06/2024 @ 12:13 pm, Black powder was applied on the item |
| | Alternate Light Source | After the powder dusting step, that the item was subjected to white light examination |
| 73M2RA | Visual Examination | 1. Took photographs of the evidence as received. 2. Looked for latent impressions via plain naked eye, flashlight, FSIS/254 nm short-wave UV, long-wave UV lamp, and 445 nm blue/532 nm green LASERs. Approximately 25 minutes of processing time. |
| | Cyanoacrylate Fuming | 1. Hung evidence in a small superglue fuming chamber along with a test print placed on a non-porous material. 2. Ran for approximately 15-20 minutes, confirmed that the superglue worked on the test print, then let the chamber air out. 3. Looked for latent impressions via plain naked eye, flashlight, normal lamps, and FSIS/254 nm short-wave UV. Approximately 25 minutes of active processing time (including photography). |
| | Dye Stain | 1. Ardrox dye stain applied via squirt bottle to the test print, which was then viewed under a long-wave UV lamp once dried. 2. After confirming that the Ardrox worked on the test print, it was applied to the evidence item and visualized the same way. Approximately 15 minutes of active processing time (including photography). |
| | Dye Stain | 1. Rhodamine dye stain applied via squirt bottle to the test print, which was then viewed with a Wratten #21 orange filter/532 nm green LASER once dried. 2. After confirming that the Rhodamine worked on the test print, it was applied to the evidence item and visualized the same way. Approximately 15 minutes of active processing time (including photography). |
| | Powder Dusting | 1. Black fingerprint powder was applied to the test print via a powder brush. 2. After confirming that the powder worked on the test print, it was applied to the evidence item using the same method. Approximately 5 minutes of active processing time. |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 76EZ69 | Visual Examination | Examined with white light. Patent print observed in Section A. Print was photographed using oblique white light. |
| | Cyanoacrylate Fuming | Fuming chamber used; examined with white light. Latent print observed in Section A. Print was photographed using oblique white light. |
| | Powder Dusting | Gray fingerprint powder used; examined with white light. Latent print observed in Section A. Print was photographed using oblique white light. |
| 7BXCVU | Visual Examination | Examination was started with visual examination, light stain was discovered in section A. After visual examination was decided to strenghten the print with lumicyano. |
| | Cyanoacrylate Fuming | Sample was processed with lumicyano. Test prints ok. After developing fingerprints with lumicyano, fingerprint was discovered in section A. With visual examination weak fingerprint was discovered with green light and red filter (Foster & Freeman). (Moisture 80%, temperature 120 Celsius, time 25 minutes, 8% solution) Photographed in 24h. |
| | Basic Yellow | Ethanol based Basic Yellow 40 solution was used after lumicyano to strenghten the developed fingerprint. Sample was sinked to Basic yellow 40 solution and let it dry. Test prints ok. |
| 7EER88 | Visual Examination | ambient room light |
| | Alternate Light Source | oblique & direct torch white light & Crime Lite-Blue, no goggles/filters |
| | Cyanoacrylate Fuming | 6 minutes, MVC1000 with control |
| | Visual Examination | ambient room light |
| | Alternate Light Source | oblique & direct torch white light & Crime Lite- Blue, no goggles/filters |
| | Rhodamine-6-G HFE | R6G = Rhodamine-6-G HFE Working Solution sprayed onto surface; air dried |
| | Alternate Light Source | Crime Lite Green, orange goggles |
| 7G7NW2 | Visual Examination | I began by conducting a visual examination under fluorescent lighting. |
| | Cyanoacrylate Fuming | After the visual examination, I placed the plastic card sleeve in the CA chamber, I let it process and purge for 22 minutes, and then I let it sit for 1 hour. I examined it again under fluorescent lighting. |
| | Dye Stain | After removing it from the CA chamber, I submerged it in RAY, then rinsed it off, pat it dry, and hung it up to dry more. I examined it under blue lighting with an orange filter. |
| | Powder Dusting | After using RAY, I dusted it with black powder. I looked at it under fluorescent lighting. |
| 7PDFDJ | Visual Examination | First i use a visual examination to locate the latent print and was visible in the letter A of plastic card. |
| | Alternate Light Source | I used alternate white light source to highlight the latent print. |
| | Powder Dusting | I used black powder, a squirrel hair brush to develop the finger print. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 7PWHLJ | Visual Examination | Visible print in quadrant A by holding plastic card up to light in room. |
| | Cyanoacrylate Fuming | Item fumed with superglue in Safe Fume Chamber @25 degree C, 75% Humidity for 15 min. with test print. |
| | Dye Stain | Dye stain R6G, test print and item sprayed with Rhodamine 6G dye stain, dried. |
| | Alternate Light Source | Laser exam, card and test print viewed with green Bright Beam Forensic laser. Test print positive, plastic card shows fluorescent print in quadrant A. |
| 7QTK39 | Visual Examination | ambient/flashlight, green laser (532nm/orange filter), blue laser (445nm/orange filter) |
| | Cyanoacrylate Fuming | 70.9 degrees F; 62.4% humidity; about 10 minutes processing time (humidity+ then CAE) |
| | Visual Examination | ambient/flashlight, green laser (532nm/orange filter), blue laser (445nm/orange filter) |
| | Dye Stain | R6G (H20 based) & green laser exam (532nm/orange filter) - had to use water-based since Sharpie was used to mark the item with dividers & section letters. |
| 7U9EFK | Visual Examination | |
| | Alternate Light Source | Mini Crime Scope at all wave lengths |
| | Cyanoacrylate Fuming | Superglue fuming chamber- allowed to dry overnight before processing. |
| | Powder Dusting | Regular black powder |
| | Dye Stain | R6G, allowed to air dry, viewed with mini crime scope at 515 wave length. Photograph taken |
| 7YNM4K | Visual Examination | Able to see latent with ambient lighting |
| | Lumicyano | Type of CAE fuming where a fluorescent powder is mixed with the superglue; ALS and ambient or oblique lighting can be used to visualize |
| | Dye Stain | Ardrox |
| | Powder Dusting | Black powder |
| 8222WJ | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| | black magnetic powder | |
| 87YHAD | Powder Dusting | La pieza fue tratada por espacio de 4 minutos con polvo magnetico negro. Item was treated for about 4 minutes using black magnetic powder. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 886Z89 | Visual Examination | White light examination of the exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. An area of ridge detail was developed. This was marked up as 'Mark 1' and photographed. |
| | Alternate Light Source | Sequential High Intensity Light Sources (HILS) examination carried out, following dark adaptation, using a UV Crime Lite 350nm-380nm with 408nm filter followed by a Blue Crime Lite 420nm-470nm with a 476nm viewing filter followed by a Green Crime Lite 480nm-560nm with 571nm viewing filter. No useful marks were developed and no previously exhibited marks were further enhanced. |
| | Powder Dusting | The item was treated with Jet Black Magnetic Powder using a magnetic applicator wand. Following treatment the item was examined with a 'Tiablo' High Power LED Flashlight at varying angles. The QA was adhered to and the control test piece passed. No useful marks were developed and no previously exhibited marks were further enhanced. |
| | Cyanoacrylate Fuming | The item was treated with Cyanoacrylate Fuming using a Foster and Freeman MVC 5000 cabinet. The relative humidity was set to 80% with a glue time of 13 minutes and 3g of superglue. Following treatment the item was examined with a 'Tiablo' High Power LED Flashlight at varying angles. The QA was adhered to and the control test piece passed. No useful marks were developed and no previously exhibited marks were further enhanced. |
| | Dye Stain | The item was treated with ethanol-based Basic Yellow 40 dye, this was applied for ~20 seconds and rinsed with water and left to dry. When dry this was examined with an Blue ML2 420nm-470nm with a 476nm viewing filter. QA was adhered to and the control test piece passed. 'Mark 1' was further enhanced, exhibited as 'Mark 1A0' and photographed. |
| | Wet Powder Suspension | The item was treated with carbon-based powder suspension after being pre-rinsed with water. The powder suspension was applied with a soft squirrel hair brush and left for ~20 seconds before being rinsed with water and allowed to dry. When dry, the item was examined with a 'Tiablo' High Power LED Flashlight at varying angles. The QA was adhered to and the control test piece passed. No useful marks were developed and no previously exhibited marks were further enhanced. |
| 88QEX8 | Powder Dusting | approx 1 min. Black powder processing |
| 8C8RQ8 | Visual Examination | Use of ambient light and flashlight |
| | Cyanoacrylate Fuming | Chamber temperature: 68.9 degrees F and Relative Humidity: 50.9%; Examined with ambient light and flashlight |
| | Dye Stain | Rhodamine 6G; Viewed under green laser (532 nm) with orange filter/goggles |
| 8CL9V9 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 8KGBXJ | Alternate Light Source | 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm). Mark found on Section A. Weak, Not Preserved. No Print found |
| | Cyanoacrylate Fuming | Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins, Mark search was done using White Light. No additional mark found. Mark on Section A. Weak, Not Preserved. |
| | Powder Dusting | Dusted with magnetic powder after glue. Mark on Section A, has black smudge but not suitable. |
| | Dye Stain | After Dying with BY40, kept to dry for 20 mins in fumehood. After 20 mins, Mark search was done using 445nm light (blue light) with goggle (495nm). No Additional marks found. But the mark on Section A , weak but preserved. |
| 8KXDUK | Visual Examination | RD noted on Item in Quadrant A |
| | Alternate Light Source | Mini-Crimescope was utilized with all available wavelengths- No additional RD noted |
| | Cyanoacrylate Fuming | Superglue Chamber utilized with 25 minute run time and allowed to dry overnight |
| | Powder Dusting | Silver/Black powder was utilized with no additional RD noted |
| | Dye Stain | Rhodamine 6G was utilized along with the Dual 77 green light at 520nm with additional RD noted to be able to see the bottom of the core area of a whorl pattern. |
| 8LTXGJ | Visual Examination | 350 - 555 nm + IR |
| | Cyanoacrylate Fuming | time: 5 min |
| | Dye Stain | Basic Yellow |
| 8V4Z3K | Visual Examination | |
| | Cyanoacrylate Fuming | Humidity: 80%. Glue Temperature: 120 C. Glue Cycle: 15 mins |
| | Powder Dusting | |
| 8XLGXB | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black magnetic powder used |
| | Dye Stain | MRM10 |
| | [No Methods Reported.] | Methanol rinse applied |
| 93EPXB | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 94M3FC | Powder Dusting | The item was processed using black magnetic powder. |
| 96W8TZ | Cyanoacrylate Fuming | Item was fumed with cyanoacrylate using safefume fuming chamber |
| | Dye Stain | Dye stained with basic yellow |
| | Alternate Light Source | Viewed with forensic laser. Test prints were positive. |
| 97V4QB | Cyanoacrylate Fuming | |
| 9AGQJX | Visual Examination | I examined all four quadrants of the item under a LED light, no prints observed. |
| | Cyanoacrylate Fuming | Cyanosafe (LP) processing for 20 mins, purging process for 10 mins, once door was unlocked & open let it set for an hour. Afterwards I observed a potential print under the fluorescent light. |
| | Dye Stain | RAY dye stain coating the entire item. Prints observed in quadrant "A". Blue poly light with a orange filter. |
| | Powder Dusting | black powder coating the entire item. no enhancement. |
| 9ENP89 | Cyanoacrylate Fuming | RH 80%. Gluing time 15 min. Temp. 120 celsius. |
| | Visual Examination | Visual Examination after gluing. |
| | Basic Yellow 40 | Basic Yellow method, spraying and rinsing. |
| | Alternate Light Source | Examined Basic Yellow results by using blue Light Source 455 nm. |
| 9FENL8 | Visual Examination | White light, daylight, 4X magnification lens. |
| | SPR (Small particle reagent) | SPR (Small particle reagent B-86000 black, BVDA). Drying 6 h, + 22 C ° . |
| 9JHJ6A | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| 9RGZ3V | Visual Examination | The item was visually examined using white light and magnification. No prints observed. |
| | Cyanoacrylate Fuming | 12- 15 drops of cyanoacrylate were added to a metal cup and placed on the heating element. A test print was added to the chamber and the distilled water well level was checked. Item was placed in the chamber to allow for the entire surface to be exposed to the CA vapors. The cycle ran for 12 minutes and then a 10 minute purge cycle. Item was allowed to sit undisturbed for 1 hour. The item was visually examined using white light and magnification. No prints were observed. |
| | Dye Stain | Item was sprayed with a layer of RAY solution and then the excess was rinsed off with tap water. The item was gently patted dry. The item was visually examined using a Crime Lite ML (460nm-510nm) with an orange filter. |
| | Powder Dusting | Black powder was applied to the item with a brush. The brush was dipped into the powder with the excess powder being shaken off. The brush is lightly run over the item in a circular motion. The item was visually examined using white light and magnification. |
| A4LHDU | Alternate Light Source | Laser Green 532nm Blue 445nm |
| | Powder Dusting | Dry Powder Processing Mag Dual Use Powder |
| A7E8XB | Cyanoacrylate Fuming | 1. Devlopment using a cyanoacrylate chamber(fume processing time is 15 minutes). 2. After 24 hours, dye using Basic Yellow 40 |
| AAA8PR | CA+FSIS | Item was processing with cyanoacrylate fuming and then examined with the Full Spectrum imaging system |
| | Powder Dusting | Black powder |
| | Dye Stain | Item sprayed with MSTAR dye stain and then examined with the an ALS. |
| ACGKF7 | Visual Examination, Forensic Light Source, Cyanoacrylate Fuming, Dye Stain | Photo lift #1: Prior to chemical processing visible ridge detail was found on the surface of the item within section A. With initial photographic documentation complete, item 1 was exposed to Cyanoacrylate fumes. Further development of ridge detail was noted after the completion of the Cyanoacrylate process and additional photographic documentation was performed. The MRM10 dye stain was applied to the item and additional photos were taken after the application of the dye stain. Cyanoacrylate and MRM10 were tested prior to being applied to case evidence and performed as expected. |
| AENVCA | Cyanoacrylate Fuming | |
| | Dye Stain | Ardrox - viewed under 365nm |
| AHN88A | Cyanoacrylate Fuming | with wand/cartridge complex |
| | Dye Stain | Ardrox viewed under UV light source |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| AJ2GHV | Visual Examination | white light and magnification |
| | Alternate Light Source | Examined first using orange filter and blue light (420nm-470nm), then examined using red filter and green light (490nm-560nm) |
| | Cyanoacrylate Fuming | 20 min exposure time, with positive control print |
| | Powder Dusting | Black dusting powder, with fiberglass brush |
| | Dye Stain | R.A.Y. batch # 836, examined using orange filter and blue light (420nm-470nm) |
| AM2REV | Visual Examination | white light |
| | Cyanoacrylate Fuming | MEGAfume CYAN I setting for standard non-porous surfaces. 80% humidity, 12 minute cycle, 120 degree Celsius hot plate temperature. |
| | Dye Stain | Rhodamine 6G (methanol) with ALS exam @515nm w/orange filter |
| | Powder Dusting | Magnetic black powder |
| ARA9NJ | Cyanoacrylate Fuming | 7/1/2024 CFC - Lot#: ZS30419, Exp: 04/2025, Controls - (+) √ and (-) √ Cyanoacrylate Fuming Chamber (CFC) Processing -Target Humidity Value - 70% -Maximum Fume Cycle Time - 10:00 minutes -Purge Time - 10:00 minutes |
| | Powder Dusting | 7/1/2024 Bi-Chromatic Powder Processing -Bi-Chromatic Powder and Fingerprint Brush |
| ARVN4L | Alternate Light Source | white/UV light, oblique illumination, reflictive UV |
| | Cyanoacrylate Fuming | 120°C, 80% rel. humidity, 10 min. fuming time, 10 drops cyanoacrylate |
| | Alternate Light Source | white light, oblique illumination, reflictive UV, coaxial light |
| AWQFCJ | Visual Examination | |
| | Cyanoacrylate Fuming | 10 minutes fuming, 15 minutes venting of fuming chamber |
| | Dye Stain | Rhodamine 6G Fluorescent Dye Stain, spraying application method utilized |
| | Alternate Light Source | Coherent TracER at 532 nm |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| B3MRKL | Visual Examination | A latent mark was visualised in section A under white light, insufficient detail for capture. See additional comments |
| | Alternate Light Source | No marks visualised. See additional comments |
| | Powder Dusting | One mark developed in section A and was labelled CTS245190-OC1. Commercially available black magnetic powder was used as purchased. The powder was applied with a magnetic brush. A natural mark was laid on a glass plate and developed as a positive control. |
| | Cyanoacrylate Fuming | Two marks with insufficient detail developed in section C and were labelled as CTS245190-OC2 and CTS245190-OC3. The exhibit was treated in an Attestor MEGAfume M61 Glue Cabinet. The treatment comprising of a 15 minute humidity cycle, 10 minute glue cycle, 20 minute purge cycle (temperature 120°C and humidity 80% RH). Commercially available ethyl cyanoacrylate stored at 2-8°C was used. A natural mark was laid on a plastic card and developed as a positive control. |
| | Dye Stain | The exhibit was enhanced with Basic Yellow 40 solution, prepared using commercially available reagents without further purification, according to the method in the CAST Fingermark visualisation manual 1st edition January 2014. The dye solution was applied using a spraying method and dried in a Voigtländer VTR forensic drying cabinet overnight. |
| B8ZDR8 | Visual Examination | Room lighting and transmitted lighting were used to visualize latent on item, ridges were present but sufficient for photography |
| | Powder Dusting | Added a little humidity to item prior to powdering. Used a magnetic brush apply magnetic powder to both sides of the item. Excess powder was tapped off/blown off. Latent was then preserved. Then repeated powdering/blowing off powder step to lifted area, and ridges were visually better, so preservation was repeated. This process was repeated 4 more times until the powdered latent was the same or looked worse than most recent lift. |
| BCCMHF | Visual Examination | We started with a visual examination. We were able to see a weak impression in area A. |
| | Cyanoacrylate Fuming | Humidity: 75%. Fuming time: 15 min. Minimal improvement of the latent print. |
| | Basic Yellow (BY-40) | With use of BY-40, the latent print fluoresed with use of light source (450 nm). |
| BCWYMF | Visual Examination | |
| | Alternate Light Source | RUVIS, 254nm light |
| | Alternate Light Source | 350-600nm, yellow, orange, and red goggles depending on wavelength range |
| | Cyanoacrylate Fuming | Lumicyano, applicable 455-515 nm ALS used for visualization, orange filter |
| | Powder Dusting | Black powder |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| BEJRAH | Alternate Light Source | FSIS II - 254nm (+) 505nm (after rhodamine -) |
| | Cyanoacrylate Fuming | CA fuming (-) |
| | Dye Stain | Rhodamine (-) |
| | Powder Dusting | black powder (+) |
| BK6QR4 | Visual Examination | Examine the item as is, using ambient lighting, flashlight, UV light, FSIS, ALS, and LASER. |
| | Cyanoacrylate Fuming | Superglued the item in the superglue cabinet along with a test print for about 10 minutes. |
| | Dye Stain | Dye stained the item with Ardrox. Let it dry for a few minutes and examined it under the UV light. |
| | Dye Stain | Dye stained the item with Rhodamine. Let it dry for a few minutes and examined it under the LASER light. |
| | Powder Dusting | Dusted the item with carbon black powder. |
| BMA7DN | Physical Developer (PD) | Grazing light is passed at the beginning, then the magnetic black reagent is applied, with a duration of 20 minutes of processing. |
| BRTEMA | Visual Examination | white light |
| | Cyanoacrylate Fuming | 2.5g Superglue, 60% humidity, 250F heat, Fume 18 minutes |
| | Dye Stain | Rhodamine 6G/viewed under laser light |
| BVKUN3 | Cyanoacrylate Fuming | Fuming cabinet for 15 min at 80% humidity - minimal development. Could see where the print was located, but ridge clarity was poor. |
| | Powder Dusting | Fluorescent magnetic print powder - Sirchie ORANGEcharge - good development of ridged detail under white light and alternate light sources. |
| BZZ3C2 | Visual Examination | Insufficient ridge detail. |
| | Alternate Light Source | No ridge detail. |
| | Cyanoacrylate Fuming | Insufficient ridge detail. |
| | Dye Stain | Rhodamine 6G. One impression developed in quadrant A. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| C4FWQD | Visual Examination | 11/07/2024 , pre-treatment examination |
| | Cyanoacrylate Fuming | 11/07/2024 , placed in Superglue cabinet (MV3000) for 50 minutes @ RH=85 |
| | Alternate Light Source | After the CNA step, the item was subjected to white light examination |
| | Dye Stain | 11/07/2024 , item was immersed in BY40 solution, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the BY step, the item was subjected to Blue light examination using Yellow googles |
| | Dye Stain | 12/07/2024 , item was dye-stained by CV solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the CV step, the item was subjected to white light examination |
| | Dye Stain | 15/07/2024 , item was dye-stained by SB solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the SB step, the item was subjected to white light examination |
| | Powder Dusting | 15/07/2024 , Black powder was applied on the item |
| | Alternate Light Source | After the powder dusting step, the item was subjected to white light examination |
| C8DBD3 | Visual Examination | Visual examination with natural/white light and with Crime Lite 42S Green 480-560nm in different angles. |
| | Cyanoacrylate Fuming | Foster+Freeman MVC 3000 Fuming Cabinet: temperature 120°C, humidity 80% and fuming time 15 minutes. Quality control print visual. |
| | Visual Examination | Visual examination with natural/white light |
| | Powder Dusting | Dusting with Supranano powder. |
| CCMRMR | FSIS prior to super glue | Visually saw a print in Quadrant A. Utilized Full Spectrum Imaging System (FSIS) with UV alternate light source. |
| | Cyanoacrylate Fuming | Processed item in super glue chamber for 18 minutes on 70% humidity. Then examined with FSIS. Located other potential latent areas in Quadrant C and Quadrant D. |
| | Powder Dusting | Utilized black powder on item. |
| | Dye Stain | Sprayed item with MSTAR dye stain and waited thirty minutes for it to dry completely. Then examined item with tracer laser alternate light source. No increased contrast visible with latent area in Quadrant C. |
| CGZCUD | Visual Examination | Visual inspection is performed but no fingerprint is detected. |
| | Alternate Light Source | An alternating light visual inspection of the piece of evidence is performed and a fingerprint is located in section A. |
| | Powder Dusting | Black graphite powder is used for the development of the fingerprint. |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| CLV43A | Powder Dusting | Item was processed in about five minutes using magnetic powder and cleaned with a feather duster. |
| CTGAMM | Visual Examination | I performed a visual examination by looking at the item using natural lighting and oblique lighting at different angles to see if any ridge detail is present. |
| | Cyanoacrylate Fuming | I placed the item into the superglue chamber. I added superglue into an aluminum dish and placed that onto a hot plate inside the chamber. I also added a glass beaker with hot water into the chamber to provide humidity. I placed a control print onto the interior of the glass of the chamber to ensure the superglue was fuming properly. I turned the chamber on and let the hot water rehydrate any ridge detail that is present, and the superglue fumes adhered to any ridge detail. I left the item inside the chamber for approximately 15 minutes. Once I observed the control turn white from the superglue fumes, I turned the chamber off and vented the chamber. |
| | Powder Dusting | Using black powder and a fingerprint brush I powdered the item and ridge detail developed. |
| D26KAN | Visual Examination | The card sleeve was examined using oblique lighting. Friction ridge detail of possible value was observed on section A of the card sleeve prior to processing. |
| | Lumicyano | The card sleeve was placed into a Mystaire cyanoacrylate fuming chamber for 20 minutes at 70% humidity to be processed with Lumicyano. |
| | Alternate Light Source | The card sleeve was examined using an alternate light source. The result of fluorescent cyanoacrylate fuming developed friction ridge detail of possible value on section A of the card sleeve. |
| D3KJTD | Visual Examination | Visual examination under white light. Ridge detail (RD) (unknown pattern type) noted in quadrant A. No RD noted in quadrants in B, C or D. |
| | Alternate Light Source | Item viewed under all wavelengths of light utilizing the CrimeScope. No additional RD noted in quadrant A, no RD noted in quadrants in B, C or D. |
| | Cyanoacrylate Fuming | Item fumed in AirScience fuming chamber for 25 minutes at 80% humidity. Sat for 24 hours. Viewed the following day under white light. No additional RD developed in quadrant A. No RD developed in quadrants in B, C or D. |
| | Powder Dusting | Item dusted with black volcanic powder. No additional RD developed in quadrant A. No RD developed in quadrants in B, C or D. |
| | Dye Stain | Item treated with Rhodamine 6G and viewed under TracER Laser at 532nm. No additional RD developed in quadrant A. No RD developed in quadrants in B, C or D. |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| D7J3R6 | Visual Examination | Item was visually examined under a magnifier and light. No photos taken. |
| | Cyanoacrylate Fuming | Item was placed into a fuming chamber along with a tin containing CA on a hot plate and hot water for humidity. Item was left in the chamber for approximately ten minutes before turning off the CA warmer and venting the chamber. Item was removed and examined under a magnifier and light. One photo taken. |
| | Dye Stain | MRM-10 dye stain was poured onto the item. Once item was dry it was examined under a magnifier with a FLS at 450nm with an orange filter. One photo taken. |
| | Dye Stain | Basic Yellow dye stain was poured onto the item. Once item was dry it was examined under a magnifier with a FLS at 450nm with an orange filter. One photo taken. |
| | Methanol | Methanol was poured onto the item as a rinse. Once item was dry it was examined under a magnifier with a FLS at 450nm with an orange filter. No photos taken. |
| DAC9YF | Alternate Light Source | |
| | Cyanoacrylate Fuming | Lumicyano |
| DE83Y3 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| DEBHC3 | Visual Examination | white light, UV - 555nm - Polilight PL 500, suitable googles |
| | Cyanoacrylate Fuming | processing time - 15 minutes, humidity - 80% |
| | Visual Examination | white light |
| | Dye Stain | Basic Yellow 40 |
| | Visual Examination | UV - 495 nm, yellow coloured google |
| DETGME | Visual Examination | Print recovered after using natural light. No new print recovered after using fluorescence examination-emission from 350-600 |
| | Cyanoacrylate Fuming | No new print recovered. Prossesing time approximately 1 hour. (RH) 80%. Heated to 120 Celsius |
| | Dye Stain | Ardrox. No new prints recovered |
| DGX2DZ | 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 in 505-530 nm range + appropriate filters |
| | Dye Stain | Spraying item with BY40 working solution, after 1 min the excess of reagent was rinsed under running tap water, viewing with POLILIGHT PL 500 in 415-495 nm range + appropriate filters |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| DNXN3E | Visual Examination | A visual exam was performed prior to processing to determine the most suitable course of action based on the surface/item characteristics. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming was utilized because the item was smooth and nonporous. Cyanoacrylate fixes the latent print onto the surface. Cyanoacrylate lot# 091923-01 was used. |
| | Powder Dusting | Black powder was utilized to enhance the contrast between the latent print and the surface. Black powder lot# 050523-01 was used. |
| DQMPBN | Visual Examination | oblique light |
| | Cyanoacrylate Fuming | |
| E3HADZ | Cyanoacrylate Fuming | Fume time: 11 minutes. Humidity: 80%. |
| | Dye Stain | R6G Pet Ether |
| EABXJ3 | Visual Examination | |
| | Alternate Light Source | Reflective UV Light Source + UV Camera. |
| EATKHK | Cyanoacrylate Fuming | 1 hour |
| EC4HV3 | Visual Examination | I did a visual examination of the plastic. |
| | Cyanoacrylate Fuming | After visual examination, I put the plastic into the superglue chamber. |
| | Powder Dusting | After the CAE fuming, I used black powder to develop any prints. |
| EH9EGN | Alternate Light Source | 455-515nm |
| | Cyanoacrylate Fuming | Vacuum fume ~60 minutes |
| | Powder Dusting | Black powder |
| EJ3324 | Cyanoacrylate Fuming | ECA-02 chamber: 80% humidity, 14 minute cycle, 20 minute purge |
| ENRTYY | Visual Examination | |
| | Cyanoacrylate Fuming | non fluorescent cyanoacrylat, 10 min. fuming time at 120°C, humidity 80% |
| | Powder Dusting | |
| EUZ3E9 | Powder Dusting | Used magnetic powder and want |
| EWRY33 | Visual Examination | Ambient lighting as well as white light with magnification |
| | Lumicyano | Fluorescent CA fuming + F&F MVC1000-D2 fuming chamber auto cycle |
| | Alternate Light Source | visual exam with Brightbeam Dual Laser System; Green wavelength; ridge detail observed |
| | Dye Stain | Rhodamine 6G, dip method |
| | Alternate Light Source | visual exam with Brightbeam Dual Laser System; Green wavelength ridge detail observed |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| EYDLVP | Visual Examination | Examined with white light and magnification on 6/25/24. |
| | Cyanoacrylate Fuming | Placed in Cyanosafe on 6/25/24. Examined with white light and magnification. |
| | Dye Stain | RAY dye stain applied via spray on 6/25/24, Batch #835, rinsed with water, then air dried. Examined with CrimeLite at 460nm - 510nm with an orange filter. |
| | Powder Dusting | Dusted with black powder on 6/26/24. Examined with white light and magnification. |
| EZT86R | Visual Examination | Item examined under LED light with magnification at multiple angles. |
| | Cyanoacrylate Fuming | Item was placed in a CyanoSafe with a test print. 18 drops of cyanoacrylate were added along with distilled water, and the CyanoSafe was set to process for 20 minutes and purge for 10 minutes. Evidence was then removed from the CyanoSafe and left to dry for 60 minutes before it was examined under an LED light with magnification. |
| | Dye Stain | RAY dye stain was used, which is a combination of Ardrox Tracer-Tech P133D, Basic Yellow 40, and Rhodamine 6G in isopropanol. RAY was applied to the item in a tray, and the item was fully coated for about one minute. The item was then rinsed, patted dry to remove excess water, and hung up to dry to completion. Item was examined using a CrimeLite set to 420-470nm with an orange filter. |
| | Powder Dusting | Black powder was applied to all surfaces of the item in a circular motion with a brush. Item was then examined under an LED light with magnification. |
| F6UQV4 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| F83WJP | Visual Examination | Visual examination was completed by examining the item with a fluorescent light under magnification at different angles. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming was completed by placing the item into the CyanoSafe. Distilled water was added to the cup heater element and 12 drops of liquid cyanoacrylate were added to a foil cup, which was placed on a heating element. A test print was created and placed in the chamber. After the chamber was closed and turned on, it ran for 12 minutes and then a purge cycle started. The item sat for one hour and then taken out to be examined with a fluorescent light under magnification at different angles. |
| | Dye Stain | Dye stain was completed with RAY on this item. After immersing it in dye stain, it was rinsed off with water. It was pat dry to remove water droplets and hung in a fume hood to dry off completely. The item was examined under a blue light with an orange filter. |
| | Powder Dusting | Powder dusting was completed with black powder on this item. Powder was applied with a fiberglass brush in a fume hood and then examined with a fluorescent light under magnification at different angles. |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| FDNXFU | Visual Examination | Visual examination conducted with negative results. |
| | Powder Dusting | Silver/Black fingerprint powder applied with a brush. |
| FFFU6N | CA plus FSIS | Item one was processed with superglue and photographed with the Full Spectrum Imaging system. |
| | Dye Stain | Item one was processed with M-Star and photographed with TracER laser (ALS). |
| | Powder Dusting | Item one was processed with black powder and lifted. |
| FHLC3J | Cyanoacrylate Fuming | |
| | Dye Stain | Ardrox |
| | Powder Dusting | black powder |
| FJF6X3 | Visual Examination | |
| | Alternate Light Source | LASER (532nm), UV, 450nm |
| | Cyanoacrylate Fuming | Chamber 10 was used. VIS/RUVIS |
| | Dye Stain | RMO dye stain. LASER (532nm), 450nm |
| FKMK69 | Cyanoacrylate Fuming | Fuming chamber for 47 minutes. |
| FMEGU3 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| FMYXA6 | Blue Latent Print | Through visual inspection and alternating light a latent impression was observed. |
| FQZEB7 | Cyanoacrylate Fuming | Cyanoacrylate fuming in CyVac for a minimum of 30 minutes, allowed to cure for an additional 15 minutes. |
| | Dye Stain | Evidence was dyed with Rhodamine 6G stain in petroleum ether, and then viewed with a 532 nm forensic laser. |
| FRVNH3 | Powder Dusting | Magnetic Powder |
| FV7Y9B | Visual Examination | used lamp light and flashlight |
| | Cyanoacrylate Fuming | processed with CAE (lot# UR18419) – chamber #1, 15 min, 69 degrees F, 80% humidity – control passed |
| | Dye Stain | processed with R6G (MeOH) working solution (lot# LP06070824) – control passed – Laser (Bright Beam) / 532nm / used orange goggles |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| G3PBC4 | Visual Examination | |
| | Cyanoacrylate Fuming | Superglue fuming. |
| | Dye Stain | Basic Yellow 40-Dye Stain. |
| | Alternate Light Source | Wavelength of 450nm. |
| G746QF | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Magna Brush w/ Black Magnetic powder | |
| GA8QRV | Cyanoacrylate Fuming | non-porous items were fumed with cyanoacrylate ester (superglue) using the CyVAC for 1 hour |
| | Dye Stain | Dyed with Basic Yellow |
| | Alternate Light Source | Viewed with a forensic laser |
| GCVFZE | Visual Examination | The plastic card was visually examined carefully under a large magnifying glass with a LED light to detect any latent fingerprints before processing it. The visual fingerprint examination was NEGATIVE for prints and processed further. |
| | Cyanoacrylate Fuming | The plastic card was next processed using Cyanoacrylate fuming in attempt to detect and develop any fingerprints. In approx. 3-7 minutes a print developed in section "A". |
| | Powder Dusting | The plastic card and print was next dusted with black magnetic fingerprint powder in attempt to recover, enhance and lift the fingerprint. The results of the latent examination was POSITIVE for a fingerprint in section "A". |
| GP2HCV | Cyanoacrylate Fuming | Processed in the atmospheric chamber |
| | Powder Dusting | Processed with black powder |
| | Dye Stain | Processed with MBD dye stain |
| GQ9XJ2 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| GT2GV2 | Cyanoacrylate Fuming | 13 min, 70% humidity |
| | Dye Stain | BY40 |
| GUCJHZ | Visual Examination | |
| | Cyanoacrylate Fuming | 18 minutes; 80% humidity |
| | Dye Stain | Basic Yellow 40 (BY40); rinse with DI water |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| GZWN7U | Cyanoacrylate Fuming | Fumed with cyanoacrylate via CyVac |
| | Dye Stain | Dyed stained with R6G |
| H8E8CE | Visual Examination | |
| | Cyanoacrylate Fuming | approx. 15 mins of glue time; positive control |
| | Alternate Light Source | LabKam |
| | Dye Stain | Basic Yellow 40, positive control |
| | Alternate Light Source | Crimescope, 445nm and yellow goggles |
| | Powder Dusting | White powder |
| H9NJRV | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Alternate Light Source | |
| | Dye Stain | Rhodamine R6G (Aqueous) |
| | Alternate Light Source | 505nm / orange filter and goggles |
| | Dye Stain | Ardrox |
| | Alternate Light Source | UV light |
| HBFFFP | Visual Examination | I began by performing a visual examination on the evidence under florescent lighting. |
| | Cyanoacrylate Fuming | After performing the visual examination, I placed the evidence (plastic card sleeve) in the Cyanosafe for cyanoacrylate fuming. Fifteen (15) drops of superglue were placed in the tin foil tray, then distilled water was added to the chamber. A test print was hung in the chamber. I allowed the chamber to process and purge for approximately twenty-two (22) minutes and then I let the evidence rest for an hour to allow the cyanoacrylate to harden on the evidence. I then proceeded to conduct another visual examination under florescent lighting. |
| | Dye Stain | After the processing of CA. I placed the evidence in a tray and soaked it with RAY/dye stain (batch #835) for a while then gently rinsed off with water, pat dried, and hung to dry in the hood ventilator. After the evidence dried, the evidence is then examined under a crime-lite (blue light and orange filter) for further development of latent prints. |
| | Powder Dusting | After processing through RAY, I dusted the evidence with black powder and conducted another visual examination under florescent lighting. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| HKKAPW | Visual Examination | Item photographed prior to processing. weak print fragment observed in section A, it was photographed. |
| | Alternate Light Source | examination with white light (Polilight flare 2"ROFIN"). Print fragment Visible, it was rephotographed with white light and macro camera lens (Nikon D3300) |
| | Cyanoacrylate Fuming | The cabinet ( Scenesafe) settings was : 85 % humidity and the hot plate was set on 120 degrees. Processing time 8-10 minutes. A visible print was seen in section A of item. Prints were deposited on a similar item, by human fingerprints (control Test), developed good quality prints. fingerprint was photographed with white light and macro camera lens (Nikon D 3300) |
| | Powder Dusting | Powder Dusting (to improve the quality of latent print): Black magnetic powder, Enhanced ridges of latent print. Fingerprint was photographed with white light and macro camera lens (Nikon D3300) |
| HLUE3K | Cyanoacrylate Fuming | Humidity: 80%, glue temp: 120 C, processing time: 10 min |
| | Dye Stain | Basic Yellow 40 detected by blue light (420-470 nm) and yellow filter(495 nm) |
| HM82LK | Visual Examination | 7/8/24. One visual print observed with magnified LED light. |
| | Cyanoacrylate Fuming | 7/9/24. CA in Cyanosafe chamber for 20 min. Test print positive. Examined with magnified LED light. Print developed. One image was taken. Light technique-direct, light type-Halogen with camera 10/lens 2. |
| | Powder Dusting | 7/9/24. Black powder applied. Examined with magnified LED light. No print observed. |
| | Dye Stain | 7/9/24. Ray dye stain applied to item for approximately 1 minute, then dried and examined using the magnified CrimeLite ML2 (420nm-470nm) with an orange filter. No print observed |
| HPYXBE | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | Processed with Rhodamine 6G Aqueous |
| | Alternate Light Source | Examined using Laser Light Source - Green |
| | Powder Dusting | Processed with Magnetic Powder |
| | Powder Dusting | Processed with Black Powder |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| HTUY3V | Cyanoacrylate Fuming | Item #1 was visually examined, chemically processed, viewed with a laser, and then digitally preserved. Friction ridge detail was developed, photographed, and sent for further examination. The evidence will be retained at the [Laboratory]. I obtained the evidence (#1-plastic card sleeve) from the CSI vault, where it was then taken into the CSI lab and processed using visual examination, cyanoacrylate fuming, basic yellow and viewed with a blue laser (445 nm) and yellow filter. The above process resulted in the discovery of latent print evidence, which was photographed with a scale and transferred to a CD. The CD was then submitted as evidence and transferred to the latent lab for further analysis. The original piece of evidence was repackaged, resealed, and secured back in the CSI vault. The cyanoacrylate process consisted of utilizing a performance check item as a standard and the following settings: 1.2 grams of cyanoacrylate at 351 degrees Fahrenheit , 70% percent humidity, fume time of 6 minutes and 30 seconds and a 5 minute fuming time. |
| HXT7V6 | Powder Dusting | Item processed with Magnetic Powder. One lift developed & collected |
| J2AQFZ | Visual Examination | Item 1 was visually examined at different angles with adequate room light. |
| | Cyanoacrylate Fuming | Item 1 was processed by cyanoacrylate ester (superglue) under a vacuum for about 2 hours and allowed to cure. |
| | Rhodamine 6G (R6G) | Item 1 was dye stained with Rhodamine 6G (R6G) (SF05242024-R6G) and viewed using a 530nm/green forensic laser. |
| J2Z3Q6 | Visual Examination | The first step I made was a visual examination to locate the latent print in the Item. |
| | Alternate Light Source | Then I made visual examination with white alternate light and the latent print it was visible in the letter A. |
| | Powder Dusting | To Develop the latent print I use Silk Black Graphite Powder with squirrel hair brush and a marabou hair brush. |
| J4BYKA | Visual Examination | Visual examination using a flashlight at an oblique angle. Ridge detail observed in section A. |
| | Cyanoacrylate Fuming | Super glue fuming performed for 9 minutes. Visual examination using a flashlight at an oblique angle post super glue fuming. Ridge detail observed in section A. |
| | Dye Stain | Rhodamine 6G used as fluorescent dye stain. Ridge detail observed in section A. |
| | Alternate Light Source | Coherent TracER utilized to view item. Ridge detail observed in section A and marked. |
| J72XY9 | Powder Dusting | Magnetic Powder |
| J8XHL8 | Visual Examination | On visual examination, I could see a latent print in area A. |
| | Powder Dusting | I used magnetic black powder and developed a latent print in area A. Only a small part of the latent print could be seen. |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| JGECQ9 | Visual Examination | Diffrent lights sources and filters, entire range of optical radiation. |
| | Cyanoacrylate Fuming | 80%-Humidity, heater temperature-130°C, Time. 10 minutes, temperature inside of the chamber 25 °C (Chamber Safefume CA30S) |
| | Basic Yellow 40 | Spray, 350 nm - 530 nm, yellow and orange filters. |
| JHBX97 | Visual Examination | Utilized ambient, direct, and side lighting |
| | Lumicyano Cyanoacrylate Fuming | Fumed for approximately 5 minutes |
| | Alternate Light Source | Utilized orange goggles with 455nm-515nm |
| | Dye Stain | Rhodamine |
| | Alternate Light Source | Utilized orange goggles 455nm-515nm |
| | Powder Dusting | Black Powder |
| JHUGFY | Cyanoacrylate Fuming | 1.25 hours in vacuum chamber with cyanoacrylate. |
| | Dye Stain | Item was treated with rhodamine 6G (R6G) and allowed to dry. |
| | 532nm forensic laser | Latent print found in section A upon examination with laser. |
| JJKUP6 | Visual Examination | A visual inspection with alternative light was made of the piece of evidence was fingerprint is detected. |
| | Alternate Light Source | An alternative light visual inspection of the piece of evidence is perfomed to confirm the a fingerprint is located in section A. |
| | Silk Black Powder | The piece of evidence was worked with Silk Black Powder for development of the fingerprint. |
| JK2WM6 | Powder Dusting | Visual, CA, R6G, Laser, Black Powder |
| JQ33D2 | Visual Examination | A visual inspection of piece of evidence number 1, which was a Plastic card sleeve, divided into sections A-D. A fingerprint was visualized in the section A. |
| | Alternate Light Source | A visual inspection was performed using white light to confirm the location of the fingerprint. It is was located in section A. |
| | Blue Latent Print | Section A was worked with Blue Latent Print to develop the fingerprint. |
| JVGQZJ | Alternate Light Source | 455-515nm |
| | Cyanoacrylate Fuming | 15 minutes |
| | Powder Dusting | black powder |
| K49N4X | Cyanoacrylate Fuming | Item #1 was processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour and allowed to cure at room temperature and atmospheric pressure. It was then dye stained with Rhodamine 6G (R6G) and viewed with a 530nm/green forensic laser and digitally captured |
| K6PH68 | Powder Dusting | Magnetic |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| K9L9BJ | Visual Examination | Visual examination under white light and magnification. |
| | Cyanoacrylate Fuming | Cyanosafe was set up with 18 drops of cyanoacrylate in the aluminum weigh boat on top of the heating element. The well was filled with distilled water and a test print was placed in the chamber. The chamber was ran for 20 minutes and allowed to purge. The items were then allowed to dry for 1 hour. The test print was positive. |
| | Powder Dusting | Black powder was applied with a brush. |
| | Dye Stain | The item was completely covered in RAY stain for approximately one minute. then item was then rinsed with cold water and patted dry. The item was then allowed to air dry. |
| KCFCUP | Cyanoacrylate Fuming | Fumed in the safefume for 15 minutes |
| | Dye Stain | stained with basic yellow |
| | Alternate Light Source | viewed under forensic laser |
| KL8QXV | Cyanoacrylate Fuming | (Lumicyano) Portable Fuming Chamber 3, 20 minute glue time, humidity, ALS (blue light/orange filter) |
| | Powder Dusting | (Black magnetic powder) |
| KLABTB | Visual Examination | Using oblique lighting and a magnifier, examine the surface of the plastic card sleeve. Visualized ridge structure on item in area A of the grid and photographed the ridge structure. |
| | Cyanoacrylate Fuming | Placed the plastic card sleeve in the Cyanoacrylate Fuming chamber, added distilled water to the fill line and added a size dime size of superglue into the appropriate container. A latent print is placed on a clear piece of acetate which is placed in the chamber during fuming to be used as a control test, the development of the latent print results as a positive control. The chamber is programed to run at 120 degrees Celsius with 80% relative humidity and it takes approximately 1 hour to run. After the chamber completes its process, the control test was visualized and tested positive. The latent print did not appear to be further developed by the Cyanoacrylate fuming. |
| | Alternate Light Source | Used a Reflective ultra-violet imaging system (RUVIS) called LabKam to assist in visualizing the latent print after Cyanoacrylate fuming. The latent print did not have ridge structure using the system. |
| | Dye Stain | A positive control test of the Basic Yellow 40 dye stain was performed prior to being used to dye stain the plastic card sleeve. The dye stain was applied using a dispenser, rinsed using water, and hung to dry in a fume hood. |
| | Alternate Light Source | Using an Alternate Light Source, CrimeScope, at 415-445 nanometers with yellow filter goggles, the latent print in section A was visualized and photographs taken of latent print after developed using a camera and a yellow lens filter. |
| | Powder Dusting | Using Black fingerprint powder and a fingerprint brush, applied black powder to the surface of the plastic card sleeve and the latent print in section A was developed with the black fingerprint powder. Photographs taken of latent print after developed. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| KQY3Q7 | Visual Examination | |
| | Cyanoacrylate Fuming | lot# W163001, MVC5000, C+B- |
| | Dye Stain | R6G, lot# JF4/26/24, C+B- (with Tracer Laser) |
| KRVBYP | Visual Examination | Visible white light, RUVIS |
| | Lumicyano | Temperature 250F, time 17:00, humidity 75% (fumed twice). LASER, RUVIS |
| KTN7NJ | Visual Examination | Visual examination using no additional lighting, then direct lighting, followed by oblique lighting. No apparent ridge detail observed. |
| | Alternate Light Source | Utilized UV lighting via RUVIS/FSIS to visualize small amount of ridge detail |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming at 80% humidity for 15 minutes in fuming chamber. Utilized RUVUS/FSIS again to visualize small amount of ridge detail. |
| | Dye Stain | Utilized M-Star brand dye stain, allowing surface of plastic card to dry thoroughly before visualizing under Coherent TracER laser alternate light source with ridge detail well developed. |
| | Powder Dusting | Processed with black powder and brush with some ridge detail observed. |
| KVVLUP | Visual Examination | The test item was visually examined. |
| | Cyanoacrylate Fuming | A control test and the test item were processed with cyanoacrylate ester fuming about 10 min at room temperature and controlled humidity condition. only one print was observed on quadrant A. |
| KWMHJJ | Visual Examination | Unable to locate any areas of possible ridge detail |
| | FSIS II | Able to observe and photograph an area of possible ridge detail in quadrant A |
| | Cyanoacrylate Fuming | Able to observe the possible ridge detail in quadrant A |
| | FSIS II (Post CA fuming) | Able to observe and photograph the area of possible ridge detail in quadrant A |
| | Dye Stain | M-Star dye stain and Coherent TracER laser. Able to observe and photograph the area of possible ridge detail in quadrant A |
| KZ624D | Visual Examination | OMNIPRINT OP1000A |
| | Cyanoacrylate Fuming | PROJECTINA FUMING CAMBER + OMEGA-PRINT Cyanoacrylate Fuming Compound |
| | Visual Examination | OMNIPRINT OP1000A |
| L4KK8G | Visual Examination | Flashlight and laser used |
| | Lumicyanoacrylate fuming | Laser and flashlight used |
| | Dye Stain | Rhodamine and laser used |
| | Powder Dusting | Black powder, flashlight used |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| L9Z67P | Visual Examination | Visual exam with oblique lighting |
| | Cyanoacrylate Fuming | Cyanoacrylate lot 091923-01, MVC FFLEX S, 80% relative humidity, 10 minutes glue time, 120C glue temp, 0.1g glue |
| | Dye Stain | MBD dye stain lot 052924-01, viewed with DCS5, blue light, 495 filter, photographed |
| | Powder Dusting | Black powder lot 050523-01, applied with fiberglass brush |
| LCEYJ2 | Visual Examination | First, I made a visual examination to locate the latent print and it was visible in the letter A of the plastic card sleeve. |
| | Alternate Light Source | Then I used an alternate white light source to highlight the latent print. |
| | Powder Dusting | I used black powder, a squirrel hairbrush and a marabou hairbrush to develop the fingerprint. |
| LDTE4U | Visual Examination | 7/1/2024-Ambient lighting. faint suspected fingermark observed in section A |
| | Lumicyano fuming | 7/1/2024-2023-Flourescent CA fuming using Foster and Freeman 1000 fuming chamber. auto cycle settings |
| | Alternate Light Source | 7/1/2024-Laser green wavelength |
| | Rhodamine 6G | 7/9/2024-Methanol + Rhodamine 6G powder |
| | Alternate Light Source | 7/9/2024-Laser green wavelength |
| LDWNCU | Cyanoacrylate Fuming | PFC1-15 minutes |
| LFE2WH | Visual Examination | Visual examination under white light and magnification. |
| | Cyanoacrylate Fuming | CSU Cyanosafe set up with fifteen drops of cyanoacrylate in one metal cup on a hot plate, distilled water well filled, and test print placed inside. Chamber ran for 12 minutes followed by the purge process. Process complete and item allowed to dry for one hour. Test print positive. |
| | Powder Dusting | Black powder applied using a brush. |
| | Dye Stain | RAY batch #835. Item completely covered in RAY fluorescent dye stain, rinsed under water until all excess solution was removed, patted dry with a paper towel, and allowed to air dry completely. |
| LFV882 | Visual Examination | To see if there were any visible prints on the surface |
| | Cyanoacrylate Fuming | In order to develop possible latent prints, CA fuming also ensures that the print is "stable" on the surface of the item- allowing further processes that rely on the polymerization that CA fuming creates. |
| | Powder Dusting | Used black powder on the latent print developed using CA fuming. |
| LHM3WV | Alternate Light Source | white light (DCS-5) SORM-14 |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| LL6B7F | Visual Examination | Oblique light |
| | Alternate Light Source | at 455, 475, CSS, 495, 515 mm |
| | Cyanoacrylate Fuming | for 20 minutes |
| | Powder Dusting | Black powder |
| LQFD7Q | Visual Examination | Polilight PL500 |
| | Cyanoacrylate Fuming | Hot plate 120'C, hum. 85%, time 20 min |
| | Dye Stain | Basic Yellow 40 |
| LUFLBZ | BLACK MAGNETIC POWDER | THROUGH VISUAL INSPECTION AND ALTERNATING LIGHT A FINGERPRINT WAS OBSSERVED. |
| LVNUFE | Visual Examination | We could find weak fingerprint in section A by visual examination. |
| | Cyanoacrylate Fuming | Foster&Freeman MVC-3000-D3, with Lumicyano 215 mg + Cyanoacrylate 2,7 grams. Humidity 80%, temperature 120 celsius, gluetime 25 min. |
| LXXUKL | Visual Examination | Visual examination under white light and magnification on 7/4/2024 using LED lighting. |
| | Cyanoacrylate Fuming | The Crime Scene Unit CyanoSafe recirculation chamber was used on 7/4/2024. The chamber had 12-15 drops of cyanoacrylate glue put into a metal cup and set to run for 12 minutes. Then after the fumes were purged for 10 minutes the item sat in the chamber for an hour to allow the glue to completely harden. The test print was positive. Then the item was examined under LED lighting and magnification. |
| | Dye Stain | RAY dye stain, batch#: 835, was used on 7/6/2024. The item was immersed in the RAY for a few minutes, rinsed with water, and then the water droplets were lightly tapped off with a kimwipe. The item was then placed into a fume hood to dry completely, approximately an hour. Then the item was examined using the Crime Lite ML (460nm-510nm filter) with an Orange Filter on it. |
| | Powder Dusting | Black powder was used on 7/7/2024 and then the item was examined using LED lighting and magnification. |
| LY8YZV | Visual Examination | Laser/UV/ALS/FSIS/Oblique lighting |
| | Cyanoacrylate Fuming | Fume/FSIS |
| | Dye Stain | Ardrox/UV and Rhodamine/Laser |
| | Powder Dusting | Black powder |
| M34WX2 | Visual Examination | I performed a visual inspection to locate the fingerprint. |
| | Alternate Light Source | I used a white alternating light to locate it. |
| | Black magnetic powder | I developed the fingerprint with black magnetic powder. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| M3MUE8 | Visual Examination | Item 1 on 06/05/2024 @ 1648 - suitable ridge detail observed - photographed and assigned Item 0123 |
| | Laser - 445 nm & 520 nm | Item 1 on 06/05/2024 @ 1720 - no suitable ridge detail observed. (All - test/control positive) |
| | Cyanoacrylate Fuming | Item 1 on 06/06/2024 @ 1622 - 8 min 33 sec fume time - no additional ridge detail observed. (All reagent ID 202305187 - Reagent test/control positive) |
| | Powder Dusting | Item 1 on 06/06/2024 @ 1708 - no additional ridge detail observed. (All magnetic powder - Reagent test/control positive) |
| MB2HEZ | Visual Examination | Visual exam under ambient/white light -> No FRD observed |
| | Alternate Light Source | Visual exam under Crimescope under 350-535 nm wavelengths using UV, yellow, orange and red filters-> No FRD observed |
| | Cyanoacrylate Fuming | Item placed in CA-6000 at 65% relative humidity for 30 minutes |
| | Visual Examination | Visual exam under ambient/white light -> FRD observed in Quadrant A, no FRD observed in any other quadrants |
| MEZUBZ | Visual Examination | Negative. No ridge detail observed. |
| | Cyanoacrylate Fuming | Processed for approximately 10 minutes. Ridge detail developed in quadrant "A". |
| | Powder Dusting | Ridge detail further developed with black powder. |
| MFCT6A | Visual Examination | Oblique white light |
| | Alternate Light Source | LabKam - shortwave UV-C lighting |
| | Cyanoacrylate Fuming | 120 degrees C, 80% relative humidity for 15 minutes |
| | Alternate Light Source | Labkam - shortwave UV-C lighting |
| | Dye Stain | RAY - Rhodamine 6G, Ardrox, Basic Yellow |
| | Alternate Light Source | Crimescope - 450-550nm using orange and red barrier filters |
| MTZVN2 | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | R6G, had to be careful due to CTS using Sharpie to draw grid. Methanol made sharpie run in small test spot used. |
| | Powder Dusting | |
| MUDCUN | Visual Examination | Polilight PL550XL |
| | Cyanoacrylate Fuming | Cyanopowder (1,2g), Air Science Safe Fume CA-30S, time 40 minutes, humidity 75% |
| | Dye Stain | Basic Yellow 40, light 415-495 nm, yellow and orange viewing filter |
| MUFWQ4 | Crime-lite AUTO camera | Used Coax Light box observed latent print on section A |
| | Magnetic Powder | Processed with magnetic Powder |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| MXF4B2 | Powder Dusting | Used Magnetic powder |
| MZDXJ3 | Visual Examination | 11/06/2024, pre-treatment examination |
| | Cyanoacrylate Fuming | 11/06/2024, placed in Superglue cabinet (MV3000) for 52 minutes @ RH=85 |
| | Alternate Light Source | After that CNA step, the item was subjected to white light examination |
| | Dye Stain | 11/06/2024, item was immersed in BY40 solution, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After that BY step, the item was subjected to Blue light examination using Yellow googles |
| | Dye Stain | 12/06/2024, item was dye-stained by CV solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After that CV step, the item was subjected to white light examination |
| | Dye Stain | 12/06/2024, item was dye-stained by SB solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After that SB step, the item was subjected to white light examination |
| | Powder Dusting | 12/06/2024, Black powder was applied on the item |
| | Alternate Light Source | After that powder dusting step, the item was subjected to white light examination |
| N2ANC3 | Visual Examination | |
| | Cyanoacrylate Fuming | 10 min processing time |
| | Powder Dusting | |
| N2VXPD | Visual Examination | |
| | Alternate Light Source | TracER Laset & PoliLight |
| | Cyanoacrylate Fuming | CST Lumicyano Solution |
| | Dye Stain | Rhodamine 6G |
| | Powder Dusting | black powder |
| NA8CAU | Cyanoacrylate Fuming | Item 1 was processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour and allowed to cure at room temperature and atmospheric pressure. It was then dye stained with Rhodamine 6G (R6G) and viewed with a 530 nm/green forensic laser. |
| NCRAEC | Cyanoacrylate Fuming | Lumicyano, Foster&Freeman MVC3000 |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| NEDW8Y | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| | Powder Dusting | |
| NJUBZZ | Visual Examination | Ambient/ring light with magnification- negligible ridge detail observed in quadrant A |
| | Alternate Light Source | Crime Lite ML-2 (blue and green lights with yellow, orange and red filters)- negligible ridge detail observed in quadrant A. no fluorescence. |
| | Cyanoacrylate Fuming | fumed in CA-6000 chamber at ~65% relative humidity for 30 minutes |
| | Visual Examination | Ambient/ring light with magnification- ridge detail developed in quadrant A |
| NPYABP | Visual Examination | White light. Patent print observed in Section A. |
| | Cyanoacrylate Fuming | Cyanoacrylate Fumed evidence. Used 11 drops of CA, and processed for 15 minutes with a 10 minute purge cycle. Latent print observed in Section A. |
| | Dye Stain | Sprayed Basic Yellow 40 with a water rinse. Viewed ridge detail with a blue (450nm) laser with orange goggles. Latent print observed in Section A. |
| NRKV4C | Visual Examination | Used oblique lighting from a Crimelite flashlight (white light), then used a Coherent TracER LASER with a curved orange KV550 lens filter to image any potential latent print. Also, incandescent lighting was used to avoid any hotspots when imaging. |
| | Lumicyano Acrylate Fuming | The entire item and a plastic nonporous control were placed inside a Foster & Freeman MVC-5000 superglue chamber. Dissolved 5 level spoons of Lumicyano powder into 4 grams of CST Cyanoacrylate glue in a tin disk. After the powder was dissolved, the tin dish was placed on the heating element of the superglue chamber and set on an autocycle program for 70 minutes. Using a Crimelite flashlight (white light), oblique lighting was applied. Then, a Coherent TracER LASER applied onto the plastic card sleeve. |
| | Dye Stain | Rhodamine 6G was applied on the plastic card sleeve and on a nonporous control. 30 minutes was allowed for the stain to airdry. A Coherent TracER LASER and a curved orange KV550 lens filter was used to image any potential latent prints. After staining with Rhodamine 6G, the entire item was rinsed with methanol for better clarity. An additional 30 minutes was allowed for the airdry time. |
| | Powder Dusting | Using an arrowhead forensics powder brush, black powder was applied on the plastic card sleeve. Oblique lighting from a Crimelite flashlight and incandescent lighting was used to image any potential latent prints. |
| NWHCHR | Visual Examination | Flashlight, SUV, UV, laser |
| | Cyanoacrylate Fuming | 15 minutes of superglue |
| | Dye Stain | Ardrox and rhodamine |
| | Powder Dusting | Used black powder |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| NX9PTX | Visual Examination | A visual inspection of piece of evidence number 1, which was a plastic card sleeve, divided into sections A-D. A fingerprint was visualized in the section A. |
| | Alternate Light Source | A visual inspection was performed using white light to confirm the location of the fingerprint. It is was located in section A. |
| | Black latent print | Section A was worked with black magnetic powder to develop the fingerprint. |
| NXQCRF | Visual Examination | White magnifier Ring Light, White Crime Lite, Green Lazer, Blue Crime Lite, UV Crime Lite. Evidence of mark visualised in Area A using white magnifier Ring Light - not enough ridge detail under CEL SOP guidance to warrant photography |
| | Cyanoacrylate Fuming | CNA fuming process carried out using CNA/29. Test piece processed alongside the item as per CEL policy with a positive result. Test piece photographed using DCS5 photography system. Item and test piece treated as per Fingerprint Visualisation Manual and CEL SOP instructions using CNA CAB2. No examination of item carried out for ridge detail as BY40 dye stain required for visualisation purposes. |
| | Dye Stain | BY40 Ethanol based dye stain carried out on item following CNA fuming process. Test piece processed with a positive result prior to treatment of item. Test piece photographed using DCS5 photography system. Item and test piece treated as per Fingerprint Visualisation Manual instructions and left to dry in CEL drying room over night. Item assessed/examined in line with CEL SOP, 1 x mark identified and marked as M3 in area A. (M1 previously identified on Item 2, M2 previously identified on Item 3). |
| PA2983 | Visual Examination | In daylight fingerprint has been disclosed - section A. In whole spectrum of Polilight PL500 no fingerprint fluorescence. |
| | Cyanoacrylate Fuming | Improved fingerprint quality has been achieved - section A. |
| | Dye Stain | Type of dye stain - Basic Yellow 40. Improved fingerprint quality has been achived - section A. |
| PC9GME | Visual Examination | Fluorescent Light, on 6/25/2024 |
| | Cyanoacrylate Fuming | Used the Cyanosafe LP (test print positive) on 6/25, viewed with LED |
| | Powder Dusting | Black powder on 6/25, viewed with LED light |
| | Dye Stain | RAY (Batch # 834), done on 6/25, viewed with the Crime Light Blue light ML2 with orange filter |
| PDHLZ4 | Visual Examination | 06-05-24 1804 |
| | Alternate Light Source | 06-05-24 1842. 445 and 520 nm |
| | Cyanoacrylate Fuming | 06-05-24 1900. atmospheric chamber / 10 minutes 30 seconds |
| | Powder Dusting | 06-05-24 1929. magnetic powder |
| PFAHNW | Cyanoacrylate Fuming | Fumed for 1hr under vacuum with cyanoacrylate ester, cured for 45 mins. |
| | Dye Stain | Rhodamine 6G. Stained with Rhodamine 6G. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| PHAZCQ | Visual Examination | Sidelight UV |
| | Cyanoacrylate Fuming | About 45 minutes |
| | Powder Dusting | Dusting with charcoal/carbon |
| PKH7ZD | Visual Examination | 06/17/2024, LED light |
| | Cyanoacrylate Fuming | 06/17/2024, cyanosafe - LP (test print positive), LED light |
| | Powder Dusting | 06/17/2024, Black powder, LED light |
| | Dye Stain | 06/17/2024, RAY #833, Crimelite ML2 blue light orange filter |
| PM8BWQ | Visual Examination | An initial visual examination was conducted using various alternate light sources: laser (various wavelengths), UV light, full spectrum imaging system, and flashlight (oblique light). Ridge detail was visualized, and a digital photograph was taken of the latent impression using full spectrum imaging system. |
| | Cyanoacrylate Fuming | Since the card sleeve is made of non-porous material, the non-porous processing technique route was followed by beginning with cyanoacrylate fuming. The card sleeve was place in the superglue chamber for 18 minutes. After examining the item after fuming, ridge detail was visualized, and a digital photograph was taken of the latent impression using full spectrum imaging system. |
| | Dye Stain | Since the superglue had adhered to the surface of the item, dye stain was used to fluoresce any ridge detail. First dye stain was ardrox and ridge detail was visualized through the use of UV light and a digital photograph was taken of the latent impression using Image Pro. Then the item was dye stained with Rhodamine 6G. Ridge detail was visualized through the use of Green Laser light and a digital photograph was taken of the latent impression using Image Pro. |
| | Powder Dusting | After dye staining, the surface of the item was dusting with black powder. The powder did not adhere to the previously visualized ridge detail, so no print was lifted. |
| PMP9ZQ | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Alternate Light Source | |
| | Dye Stain | |
| | Alternate Light Source | |
| PVVFFQ | Cyanoacrylate Fuming | SORM-1 |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| QFH4MW | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| | Powder Dusting | |
| QKBEL3 | Visual Examination | N/A |
| | Cyanoacrylate Fuming | CApture BT fuming chamber settings: 0.2g CA, 80% Humidity, RH Dwell 2min, CA Heat 250F, Fume 4min, Purge 5min. Let item sit overnight after CA fuming. |
| | Dye Stain | Basic Yellow 40 suspended in methanol. Visualization: Light source 415nm, Yellow filter. |
| | Powder Dusting | Magnetic Bi-chromatic powder. |
| QLPUQ3 | Visual Examination | A visual examination of the item was completed using a white light, coaxial light, the FSIS II (UV 254 nm, Red 695 nm, and IR 850 nm) and Alternate Light Sources (Rofin 450, Rofin 505, Rofin UV, laser) with appropriate filter goggles for each light source (clear, orange, yellow, red) prior to any additional processing. Item was positive in area "A" for possible ridge detail with the FSIS II (UV 254 nm); area was documented/photographed with and without a scale. |
| | Cyanoacrylate Fuming | I placed the item into the Cyanoacrylate chamber for fuming (approximately a 20 minute cycle for fuming/purging) using a control which exhibited expected results. I allowed the item to set inside the chamber for several minutes before removing it. After processing, I examined the item with the white light, coaxial light, and FSIS II (UV 254 nm) light. The item was positive in area "A" for possible ridge detail with the FSIS II (UV 254 nm). The area was documented/photographed without and with a scale and allowed to sit for approximately 24 hours. |
| | Dye Stain | I processed the item and Cyanoacrylate control with Rhodamine. I used a lab bottle and applied the Rhodamine to the item and dipped the Cyanoacrylate control into the Rhodamine. Both items were left in the Fume Hood for drying. Control exhibited expected results. I examined the item for possible ridge detail using the Rofin 450 nm and 505 nm light source with orange filter goggles. Area "A" was positive for possible ridge detail and was documented/photographed without and with a scale. |
| | Powder Dusting | Upon completion other processing techniques, I processed the item with bichromatic powder and examined it with white light. I collected one tape lift card with two tape lifts containing possible ridge detail from area "A" |
| QM3DYZ | Visual Examination | |
| | Alternate Light Source | Examined under mini-crimescope at all available wavelengths. |
| | Cyanoacrylate Fuming | Applied with SafeFume Superglue chamber. |
| | Rhodamine 6G | Examined under Dual-77 at 520 nm. |
| | Powder Dusting | Applied bi-chromatic fingerprint powder. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| QP63E3 | Cyanoacrylate Fuming | 120 degrees F. 80% relative humidity. 4 drops. 10 minutes |
| | Powder Dusting | black powder |
| QPBPG3 | Visual Examination | Using LED flashlight |
| | Cyanoacrylate Fuming | 4 minutes in small tank |
| | Visual Examination | Using LED flashlight |
| | Dye Stain | Rhodamine 6G (R6G) |
| | Alternate Light Source | Coherent TracER (532 nm laser) |
| QQNYRN | Visual Examination | I looked at it and saw ridge detail. |
| | Powder Dusting | I used magnetic powder to develop the latent further. |
| QU3JQW | Cyanoacrylate Fuming | Visual ALS examination and photography, cyanoacrylate in fuming chamber for 20 minutes, ALS examination, RAM dye stain, ALS and photography w/filter |
| QUNBNN | Visual Examination | Transmitted and reflected white light used - No observed detail Humid air introduced to plastic and outline observed in Quad A |
| | Cyanoacrylate Fuming | CA fuming for 12 minutes with 77% humidity. Transmitted and reflected white light used to look for ridge detail with no observed detail, fumed a second time with same results. |
| | Powder Dusting | Magnetic powder used after CA fuming. Ridge detail observed in quadrant A. Ridge detail recorded via scanning at 1200dpi and an overall scan at 600dpi to show all quadrants. |
| | Dye Stain | BY40 dye stain used after CA fuming and magna powder. Ridge detail recorded with a Canon T6i camera with yellow filter attached using a 450nm light source. |
| R2WBCV | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| | Powder Dusting | |
| R4MAQU | Visual Examination | I performed a visual inspection to located fingerprint. |
| | Alternate Light Source | I used a white alternating light to located it. |
| | Black magnetic powder | I developed the fingerprint with black magnetic powder. |
| R9JWNN | Cyanoacrylate Fuming | Portable fuming chamber 3 for 15 minutes |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| RCER63 | Visual Examination | viewed with a flash light, oblique lighting. observed ridge detail |
| | Alternate Light Source | viewed with 505nm, 450nm, and uv wavelengths. Used orange, yellow, and clear filters |
| | Cyanoacrylate Fuming | approx. 80 humidity for 6 min. observed ridge detail. Photos taken |
| | Dye Stain | Rhodamine 6G dye stain and viewed with 505nm wavelength and orange filter (ALS). Observed ridge detail. Photos taken |
| RGXV4K | Visual Examination | Visual examination using oblique lighting |
| | Cyanoacrylate Fuming | Processed in fuming chamber for approximately 8 minutes using hotplate set at approximately 200 degrees C and a glass of hot water |
| | Powder Dusting | Used black latent powder |
| RH3L49 | Visual Examination | Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| | Cyanoacrylate Fuming | Fumed in Payton CY-AT chamber. Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| | Dye Stain | Dyed with R6G. Examined with TracER laser |
| | Powder Dusting | Dusted with black powder. Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| RKUGT3 | Visual Examination | Examined item using ambient lighting and a flashlight. |
| | Cyanoacrylate Fuming | Used a vacuum chamber set to 25 PSI and fumed for twenty minutes, let cure for 15 minutes. |
| | Visual Examination | Examined item using a flashlight. |
| | Dye Stain | Used a combination dye stain (Rhodamine 6G, Ardrox P-133D, MBD) to spray item and then allowed item to dry in fume hood. |
| | Alternate Light Source | Used Crime-Lite Blue-Green (445-510nm) with orange goggles. |
| | Water rinse after dye stain | After the examination following the initial dye stain application, the item was then rinsed with water in an attempt to lesson/remove background dye staining on the substrate. |
| | Alternate Light Source | Used Crime-Lite Blue-Green (445-510nm) with orange goggles. |
| | Wet Powder Suspension | Used in-lab made Powder Suspension Solution, applied solution with a brush, allowed to sit on substrate for approximately 10-15 seconds before rinsing off with tap water. |
| | Visual Examination | Examined item using ambient lighting. |
| RUGHAC | Visual Examination | Assisted by white oblique lighting and magnification |
| | Cyanoacrylate Fuming | Using the LabConco Fuming chamber - 10 minutes fuming |
| | Dye Stain | FBI RAM Formula with Crime-lite (blue/green light paired with orange barrier filter) to view development |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| RUJ7QQ | Cyanoacrylate Fuming | First, the bottom of the vacuum chamber is lined with 1 ply paper towels. Then cyanoacrylate is put in the well cups in the fuming bar and the fuming bar is inserted into the vacuum chamber. Next, a test print and the plastic card sleeve are placed in the vacuum chamber. Next the vacuum chamber is turned on and the cyanoacrylate volatilizes and sticks the plastic card holder. The is run for at least an hour (or more than an hour). After at least an hour, the vacuum is released, and the main pump and the vapor recirculate kept running another 20 minutes. Then the chamber is opened, and the cyanoacrylate is allowed to harden for about an hour. |
| | Dye Stain | when the cyanoacrylate has hardened, the plastic sleeve was stained with Rhodamine 6G (R6G) and allowed to dry. |
| | Alternate Light Source | After the Plastic sleeve was dry. it was looked at with 530nm green forensic laser, |
| RYANJ9 | Visual Examination | |
| | Cyanoacrylate Fuming | Temperature on the heating plate 100°C, Humidification 80%, Time 25 minutes |
| | Dye Stain | |
| T6AB9M | Visual Examination | Visual examination with natural/white light in different angles. Examination with different light sources: F&F Crime-Lite 82 UV 350-380 nm, F&F Crime Lite 42S Blue 420-470 nm and Green 480-560nm. |
| | Cyanoacrylate Fuming | Foster+Freeman MVC 3000 Fuming Cabinet: temperature 120C, humidity 80% and fuming time 15 minutes. Quality control print visual. |
| | Dye Stain | Dyeing with Basic Yellow 40. Quality control print visual. |
| T6U37E | Visual Examination | I examined item 1 underneath LED light using a magnifying lens. |
| | Cyanoacrylate Fuming | I placed item 1 inside a glass aquarium. I added 12 drops of cyanoacrylate to a metal tin on a heating element. I closed the lid and plugged in the heating element and allowed it to run for 6 minutes. Once 6 minutes was done, I opened the lid and allowed the item to sit for 1 hour. I then examined the item with a magnifying lens under LED light. |
| | Dye Stain | I sprayed item 1 with RAY (Rhodamine, Ardrox, and Basic Yellow) fluorescent dye (batch #: 832) and then rinsed with water. I then allowed the item to dry completely. Using a CrimeLite ML, I visually examined the item under blue light with an orange filter. |
| | Powder Dusting | Using black magnetic powder, I used a magnetic wand to lightly apply black colored magnetic powder to the surface of item 1. I then visually examined the item with a magnifying lens under LED light. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| TBG2CT | Visual Examination | A visual inspection was carried out on a transparent plastic piece divided into four areas and identified with letters A, B, C and D. where fingerprint fragmentation was observed in the area identified with the letter A. |
| | Alternate Light Source | Alternate light was used on the transparent plastic piece divided into four areas and identified with letters A, B, C and D. Where fingerprint fragmentation was observed in the area identified with the letter A. |
| | Powder Dusting | Black magnetic graphite powder was used on the transparent plastic piece divided into four areas and identified with letters A, B, C and D. Where fingerprint fragmentation developed in the area identified with the letter A. |
| TEFD8T | Visual Examination | Frist I made a visual examination to locate the latent print, and it was visible in the letter in the letter A of plastic card sleeve. |
| | Alternate Light Source | Then I used an alternate white light source to highlight the latent print. |
| | Powder Dusting | I used black powder a squirrel hair brush and a marabou hair brush to develop the finger print. |
| TJAAWJ | Visual Examination | |
| | Alternate Light Source | Blue/green light with orange filter. |
| | Cyanoacrylate Fuming | |
| | Dye Stain | RAM dye stain |
| | Alternate Light Source | Blue/green light with orange filter. |
| | Powder Dusting | Black powder dusting |
| TK97UU | Visual Examination | Oblique lab light |
| | Cyanoacrylate Fuming | Vacuum fumed with CA for an hour |
| | Dye Stain | Rhodamine dye: Rhodamine 6G in petroleum ether viewed with a green laser at 532 nm and an orange filter |
| | Alternate Light Source | Green laser at 532 nm |
| TL29BH | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | 120°C +/- 5°, relative humidity 75% +/- 15% |
| | Dye Stain | Ardrox (415nm, yellow filter) |
| TMC2DW | Visual Examination | Two (2) minutes to do visual exam No RD noted. |
| | Alternate Light Source | Five (5) minutes to do inherent lumination with Mini-Crimescope all wavelengths. No RD noted |
| | Cyanoacrylate Fuming | Fifteen (15) minutes to fume Item 1. No RD noted. |
| | Dye Stain | Thirty (30) minute processing used Rhodamine 6G, Tracer Laser 532 nm. RD developed in section A. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| TNQMPK | Cyanoacrylate Fuming | 11 min, 120 deg |
| | Dye Stain | MBD |
| TP4X3Q | Cyanoacrylate Fuming | Visual examination humidity 79%; temperature 130°c |
| | Powder Dusting | dusting noir |
| TPJGK3 | Visual Examination | |
| | Cyanoacrylate Fuming | Fumed for approximately 10 minutes. |
| | Dye Stain | Used Rhodamine 6G - Methanol. |
| | Alternate Light Source | Viewed using green laser. |
| | Powder Dusting | Magnetic powder |
| | Powder Dusting | Black powder |
| TT49W7 | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Fluorescent powder | Fluorescent powder |
| TY96HQ | Cyanoacrylate Fuming | Sample was processed by cyanoacrylate ester under vacuum for over an hour with a chamber temperature of 37 degrees C. Allowed to cure at atmosphere temperature and pressure for one hour. |
| | Dye Stain | The sample was next dye stained using Rhodamine 6G and viewed with a 530nm green laser. |
| U29L6K | Visual Examination | Visual examination with natural/white light and with light source F&F Crime Lite 42S 420-470nm (blue) and 480-560 nm (green) in different angles. Print visible in section A. |
| | Lumicyano | Fuming with Lumicyano 5% solution: Foster+Freeman MVC 3000-D3 Fuming Cabinet: temperature 120C, humidity 80% and fuming time 25 minutes. Examination with light source F&F Crime Lite 42S 420-470nm (blue) and 480-560 nm (green). Print more visible in detail. Quality control print visual. |
| U4DEWX | Visual Examination | |
| | Cyanoacrylate Fuming | 20 minutes 80%RH |
| | Dye Stain | Basic Yellow 40 |
| U74G68 | Visual Examination | |
| | Powder Dusting | |
| UJPTGG | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | 120°C +/- 5°, relative humidity 75% +/- 15% |
| | Powder Dusting | black |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| UJRECW | Visual Examination | (-) results |
| | Powder Dusting | Magnetic black powder (+) results |
| UL2JR7 | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | Rhodamine 6G |
| | Powder Dusting | |
| UTDJ4A | Cyanoacrylate Fuming | 10 minutes cyanoacrylate fuming, 120 degrees celcius heating plate, 80% humidity. |
| | Dye Stain | Basic yellow 40 in 96% ethanol. |
| UWJZKD | Visual Examination | On 6/26/24 I visually examined item 1 under a white light with magnification using an LED light source. No prints observed. |
| | Cyanoacrylate Fuming | On 6/26/24, I placed item 1 into the cyanosafe and allowed it to run for 12 minutes. The purge cycle ran, and the item sat for one hour to dry. I then placed the item under a white light with magnification using an LED light. No prints observed. |
| | Dye Stain | On 6/26/24, I submerged item 1 into RAY dye stain (BATCH: 835). I then rinsed the item under water, patted it dry with a Kim wipe, and then allowed to air dry completely. I then examined the item under the CrimeLite ML (460nm-510nm filter) using an orange filter. Prints were observed in section labeled "A" |
| | Powder Dusting | On 6/26/24, I powered the item using a black powder. I then placed the item under a white light with magnification using an LED light. Prints were observed in section labeled "A" |
| V4EHCU | Visual Examination | Processing time = 3 min; ambient lighting. |
| | Alternate Light Source | Processing time = 4 minutes. Examined using Mini-Crimescope--all available wavelengths. |
| | Cyanoacrylate Fuming | Processing time = 20 minutes. SafeFume table top fuming chamber. |
| | Dye Stain | Processing time = 7 minutes. Dye stain used: Rhodamine 6G. Dried. Examined with Dual77 laser at 520nm. |
| | Powder Dusting | Processing time = 2 minutes. Black magnetic powder. |
| VCL73L | Visual Examination | |
| | Alternate Light Source | ~365nm, ~450nm, ~532nm |
| | Cyanoacrylate Fuming | |
| | Dye Stain | RMO, 532nm LASER |
| VDX6WV | Visual Examination | |
| | Cyanoacrylate Fuming | Air Science Safefume superglue chamber, 15 minutes, 80% humidity, 69° F |
| | Dye Stain | Rhodamine 6G dye stain, viewed with Bright Beam laser (532 nm) |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| VGZUN4 | Visual Examination | Viewed under regular white light under magnifier for visible ridge detail |
| | Cyanoacrylate Fuming | Placed item in chamber with super glue on heat plate and a beaker of hot water. Also placed QC on plastic sheet on the window of the chamber. Fumed for approximately 15 minutes. |
| | Powder Dusting | Dusted for prints using black magnetic powder |
| VHUH9K | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black magnetic powder, Photo captured |
| | Dye Stain | MRM-10 |
| VPEJPX | Visual Examination | 0737 hours, no suitable ridge detail |
| | Alternate Light Source | 0745 hours, 445 nm & 520 nm, positive reagent test result, no suitable ridge detail |
| | Cyanoacrylate Fuming | Vacuum chamber, 0758 hours, 40 minute fume time, reagent ID: 202305187, positive reagent test result, no suitable ridge detail |
| | Powder Dusting | magnetic powder, 0850 hours, positive reagent test result, suitable ridge detail |
| VVLAR4 | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| VVX2KK | Visual Examination | ambient and white light |
| | Lumicyano | 1.5 scoops of fluorescent Lumicyano powder combined with 26 dropd of cyanoacrylate (lumicyano solution) to make an 8% solution. Foster and Freeman MVC 1000 chamber used with the following settings. Humidity RH ~80% 10 mins , Glue RH >/= 80% 120 degrees C 15 minutes, Purge cycle < 80% 10 minutes |
| | Alternate Light Source | Visualized under Brightbeam green laser 525nm |
| | Rhodamine 6G | .05g of Rhodamine 6G powder combined with 500ml of methanol |
| | Alternate Light Source | Visualized under Brightbeam green laser 525nm |
| VZEA9K | Visual Examination | Flashlight, UV light, and LASER light sources |
| | Cyanoacrylate Fuming | Shortwave UV |
| | Dye Stain | Ardrox - UV. Rhodamine - LASER |
| | Powder Dusting | Black powder |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| W3YHQK | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | black powder |
| W6PJYT | Powder Dusting | item 1 was dusted with black magnetic powder and a magnetic wand |
| W7TN2F | Cyanoacrylate Fuming | vacuum chamber for approx. 1 hour |
| | Powder Dusting | black magnetic powder |
| | Dye Stain | MBD |
| WGB6TM | Visual Examination | |
| | Alternate Light Source | Laser, Blu Light, and Ultraviolet Light |
| | Cyanoacrylate Fuming | Chamber 10 |
| | Alternate Light Source | RUVIS |
| | Dye Stain | RMO |
| | Alternate Light Source | Laser and Blu Light |
| WMHMD9 | Visual Examination | I conduced a visual examination of item 1 under LED light. |
| | Cyanoacrylate Fuming | After a visual examination, I placed item 1 into the Cyanosafe with 12 drops of cyanoacrylate. After placing a test print and ensuring the chamber had sufficient water, I set the timer to 12 minutes and let the item process. After processing, the item sat for one hour prior to examining it for any prints under an LED light. |
| | Dye Stain | After cyanoacrylate fuming, I utilized a fluorescent dye stain, RAY. The batch number was 835. The item was sprayed with the stain and rinsed under water. I let the item dry and then searched for any prints utilizing the CrimeLite ML with a blue light and orange filter. |
| | Powder Dusting | After RAY, I used black powder to dust the item for any prints and examined it under an LED light. |
| WQ8RAM | breathe out | two second exhale condensing evenly across the surface |
| | Visual Examination | human water vapor developed latent observed |
| | Cyanoacrylate Fuming | chamber 82 % ambient humidity, superglue fumed from chamber hotplate with intermittent circulation fan for 14 min. |
| | Dye Stain | Saturate surface with basic yellow 40 pre-mix, and rinse with tap water. Pat dry. |
| | Alternate Light Source | Excite fluorescent dye with a 460nm laser and visualize through a laser shield optical density of 5 at 460nm. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| WU2Y4V | Visual Examination | White Light |
| | Alternate Light Source | Blue (420-470nm), Green (480-560nm), UV (350-380nm) |
| | Cyanoacrylate Fuming | 120C, relative humidity 80%, glue time 15 minutes |
| | Dye Stain | BY40, ethanol based |
| X6Z6KZ | Visual Examination | 6/11/2024 |
| | Cyanoacrylate Fuming | 6/11/2024 |
| | Powder Dusting | 6/11/2024: black powder |
| X7TYFJ | Visual Examination | flashlight. back lighting |
| | Cyanoacrylate Fuming | 15 minutes in chamber |
| | Dye Stain | RAM sprayed on |
| XBGNU2 | Powder Dusting | Se realizó la recepción del ítem, verificando que el embalaje se encontrara integro y se procedió a realizar la apertura de este, iniciando al procesamiento el día 18 de junio de 2024 a las 13:40 horas, aplicando reactivo HIFI Silck Blanck, con brocha de fibra de vidrio. Una vez aplicado el reactivo se localiza un elemento lofoscopico, se recolecta y se concluye el procesamiento a las 15:30 horas del mismo día. |
| XFDEZD | Cyanoacrylate Fuming | Placed in CYVAC with cyanoacrylate ester for 1 hour |
| | Dye Stain | Dyed with R6G |
| XPLRFV | Visual Examination | Used white light. Faint ridge detail observed in Quadrant A, not photographed. |
| | Cyanoacrylate Fuming | Used Air Science fuming chamber with Evident Microburst cyanoacrylate ester. Item was fumed for ~15 minutes at ~72 deg F and ~70.0% relative humidity. Control OK. Ridge detail was observed in Quadrant A, which was designated as latent print 1-L1 and photographed. |
| | Powder Dusting | Used black magnetic powder. Control OK. Latent print 1-L1 in Quadrant A was photographed and lifted. |
| | Dye Stain | Used Evident fluorescent dye stain RAM. Control OK. Used Mini Crimescope ALS set at 'CSS' and orange barrier filters. Latent print 1-L1 in Quadrant A was photographed. |
| XT7PVY | Visual Examination | oblique lighting |
| | Alternate Light Source | Lab Kam |
| | Cyanoacrylate Fuming | |
| | Alternate Light Source | Lab Kam |
| | Dye Stain | Rhodamine 6G |
| | Alternate Light Source | Crimescope 515 nanometers |
| | Powder Dusting | Black powder |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| XVB4GJ | Powder Dusting | The item 1 plastic card sleeve, which is noted to be a smooth and dry surface, by using a white light lamp; determining to use, due to the physical characteristics of the object, conventional white powder, using a fiberglass brush to search for and reveal the latent ridge, as well as a marabou feather brush for cleaning, identifying the fingerprint in section A. |
| XW3DC7 | Visual Examination | No patent fingerprints were observed |
| | Powder Dusting | Black magnetic fingerprint powder with applicator wand |
| XYRHAJ | Visual Examination | Laser, Oblique lighting, UV, ALS |
| | Cyanoacrylate Fuming | ~15 mins in fume hood |
| | Dye Stain | Ardrox - UV |
| | Dye Stain | Rhodamine - Laser |
| | Powder Dusting | |
| Y2FDAX | Cyanoacrylate Fuming | Visual Exam. CA Lab Lot # XL23419. Foster & Freeman MVC 3000 CA Fuming Chamber. Auto Humidity: 80%. Fume Time: 14 minutes. |
| | Powder Dusting | Visual Exam. Standard black powder |
| Y82F73 | Powder Dusting | Two toned magnetic powder application was made with magnetic brush, 10 minutes |
| YEFCWU | Visual Examination | Proper PPE was used during this step. Item was visually examined |
| | Cyanoacrylate Fuming | Processing time = approximately 20 minutes . CFC chamber at 70% humidity - 10 min. cycle followed by a 10 min. purge cycle. CFC positive/negative controls tested Lot# ZS30419 Exp: 04/25 |
| | Powder Dusting | Proper PPE continued to be used during this step. Processing time = approximately 2 minutes. Black powder was used to process the item. |
| YH3YPH | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black powder |
| YHGAJF | Powder Dusting | The item 1 plastic card sleeve, which is noted to be a smooth and dry surface, by using a white light lamp; determining to use, due to the physical characteristics of the object, conventional white powder, using a fiberglass brush to search for and reveal the latent ridge, as well as a marabou feather brush for cleaning, identifying the fingerprint in section A. |
| YLGHNQ | Visual Examination | observed ridge detail |
| | Cyanoacrylate Fuming | observed ridge detail |

 

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| YMRKAP | Visual Examination | First I made a visual examination to locate the latent print and it was visible in the letter in the letter A of the plastic card sleeve. |
| | Alternate Light Source | Then I used an alternate white light source to highlight the latent print. |
| | Powder Dusting | I used black powder, a squirrel hair brush and a marabou hair brush to develop the finger print. |
| YQXWGQ | Visual Examination | Fragmentary RD noted in Section A |
| | Alternate Light Source | Inherent Lumination Used mini-crimescope with all available wave lengths- No additional RD noted. |
| | Cyanoacrylate Fuming | Safefume superglue chamber- Fragmentary RD (NI) noted. Sat over night for processing. Section A and overlapping in partial C, and D |
| | Powder Dusting | Bi-chromatic powder- No additional RD noted. Section A and overlapping in partial C, and D |
| | Dye Stain | Rhodamine 6G- No additional RD noted. Dual77 520nm |
| YR8TXN | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| | Powder Dusting | |
| YZMKEE | Visual Examination | Visual examination using white light. |
| | Alternate Light Source | Visual examination using various wavelengths of light. |
| | Cyanoacrylate Fuming | Fuming followed by visual examination using white light. |
| | Dye Stain | Aqueous Rhodamine 6 G applied, lightsearch carried out using laser (532nm). |
| | Dye Stain | Gentian Violet applied, lightsearch carried out using white light and laser (577nm). |
| | Dye Stain | Methanolic BY40 applied, lightsearch carried out using laser (460nm). |
| | Powder Dusting | Powder applied, visualised using white light. |
| Z29LVL | Visual Examination | Used a flashlight to conduct a side lighting technique to examine the item before processing. A latent print became visible in quadrant A. |
| | Powder Dusting | Used department issued brush and black powder to process the item. Lightly brushed the item and a latent print was developed in quadrant A. |
| Z69WQL | Visual Examination | All items were then visually inspected, inspected with side lighting (white), and examined with an ALS (UV) light source. During visual and white light examination, item #1 had a visible latent print in quadrant A. |
| | Alternate Light Source | All items were then visually inspected, inspected with side lighting (white), and examined with an ALS (UV) light source. During visual and white light examination, item #1 had a visible latent print in quadrant A. |
| | Cyanoacrylate Fuming | Item #1 (plastic sleeve) was then treated with cyanoacrylate (lot #SGF101323PH) for approximately 30 minutes. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| Z9BV2E | Visual Examination | Examined using natural light, flash light, UV, ALS, LASER, and SUV. |
| | Cyanoacrylate Fuming | Development was approximately 10 minutes. Examined using natural light, flash light, UV, ALS, LASER, and SUV. |
| | Dye Stain | Ardrox with UV excitation. |
| | Dye Stain | Rhodamine 6G with LASER excitation. |
| | Powder Dusting | Black fingerprint powder. |
| ZAN6EL | Cyanoacrylate Fuming | 15 minutes of glue time in portable fuming chamber 1 |
| ZDNF9Z | Visual Examination | Performed a visual examination of item 1. Used Crimelite and TracER Laser. Eight digital photographs were taken. |
| | Cyanoacrylate Fuming | Used cyanoacrylate fuming. Used oblique lighting using a Crimelite to take four digital photographs of latent print area in quadrant A. |
| | Dye Stain | Used Rhodamine 6G on item 1. Used TracER Laser using a curved filter to take two digital photographs of latent print area in quadrant A. |
| | Powder Dusting | Used Black Powder on item 1. Used Crimelite and Incandescent lighting. No digital photographs were taken. |
| ZMTMPL | Cyanoacrylate Fuming | Fumed for an hour and allowed to cure for 30 minutes. Rhodamine 6G was then sprayed and looked under 532 nm light via Forensic LASER and orange filter goggles. |
| ZR79W8 | Visual Examination | A fluorescent light was used while looking at the item at various angles under magnification. |
| | Cyanoacrylate Fuming | The item was placed into a CyanoSafe where I added distilled water to the cup heater element and put 12 drops of liquid cyanoacrylate into a foil cup. That foil cup was then placed on a heating element. A test print was made and hung in the chamber. The chamber was closed and it was turned on to run for 12 minutes. After the 12 minutes the chamber went through its purge cycle and I let the item sit for 60 minutes. I examined the item under a fluorescent light at various angles under magnification. |
| | Powder Dusting | Black powder was used and a fiberglass brush was used to apply the powder in a fume hood. I examined the item under a fluorescent light at various angles under magnification. |
| | Dye Stain | RAY dye staining was used on this item. It was immersed in the dye stain and then rinsed off with water. I pat the item dry to remove water droplets and then hung the item up in the fume hood to completely dry. I examined the item under a blue light with an orange filter. |
| ZVJ9TY | Visual Examination | Initial visual exam was conducted of the item and again after each method used. One impression was visible in Quadrant A. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming chamber was used; a control and glue were placed in the chamber; remaining steps automatically conducted. The impression in Quadrant A was visible but no additional detail developed. |
| | Powder Dusting | Using black powder, powdered the exterior sides of item. Further detail developed in the impression in Quadrant A. |

# TABLE 2 - Item 1

| WebCode | Development Methods | Method Details |
|---|---|---|
| ZVLVBC | Visual Examination | White light with different angles. |
| | Alternate Light Source | Foster&Freeman Crime Lite ML2 (UV-VIS). |
| | Cyanoacrylate Fuming | Foster&Freeman MVC3000 - about 3 minutes of fuming (120C, 80% RH). |
| | Dye Stain | Basic Yellow 40 (ethanol based CAST recepture). |
| ZZGGCM | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | |
| | Powder Dusting | |
| ZZYGGX | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black powder |

## Item 1 - Development Response Summary

Participants: 312

### Methods Utilized

| | | | | |
|---|---|---|---|---|
| Alternate Light Source | 151 | Physical Developer | 1 | *Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.* |
| Cyanoacrylate Fuming | 251 | Powder Dusting | 178 | |
| DFO | 0 | Visual Examination | 242 | |
| Dye Stain | 183 | Wet Powder Suspension | 2 | |
| Ninhydrin | 0 | 1,2-Indanedione | 0 | |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2322H4 | Visual Examination | NDP |
| | Alternate Light Source | NDP. 300-400nm/clear; 415nm/yellow; 455nm, 475nm, 495nm, 515nm/orange; 555nm/red |
| | Cyanoacrylate Fuming | NDP. CYAN 2: 0.4g CAE, 80% relative humidity, 10 min humidity saturation time, 15 min cycle, 120 degree celsius hot plate |
| | Powder Dusting | RDP - one latent. Magnetic |
| | Ninhydrin | NDP, 80 degrees celsius 65% relative humidity |
| 24AZTC | Cyanoacrylate Fuming | approx. 12 min |
| | DFO | in DFO chamber approx. 20 min |
| | Ninhydrin | w/ heat and steam |
| 28WTQZ | Visual Examination | No friction ridge detail could be seen prior to processing. |
| | Lumicyano | The paper was placed in the Mystaire fuming chamber for 20 minutes at 70% humidity to be processed with Lumicyano. |
| | Alternate Light Source | It was examined using an alternate light source (laser). |
| | Powder Dusting | Bi-chromatic powder was used and friction ridge detail developed in quadrant C. |
| 2BCZEY | Visual Examination | white light |
| | Alternate Light Source | Crimelite 82S Pro |
| | Cyanoacrylate Fuming | 70 minutes |
| | Powder Dusting | Magnetic black |
| | DFO | 20 minutes/ TracER laser for visualization |
| | Ninhydrin | 3 minutes |
| 2GKJDR | Visual Examination | Oblique and direct lighting |
| | Alternate Light Source | Blue light - 420-470nm |
| | Cyanoacrylate Fuming | MVC1000 Superglue chamber. Omega-print. 20 minute processing time |
| | Powder Dusting | Traditional brush used. Dusti-ident powder. Magnetic brush used. Red fluorescent powder |
| 2HUHLF | Visual Examination | White light and foster freeman crime lite lights. |
| | Lumicyano | 25 minutes and 120 C. |
| | Basic yellow 40 | |
| | Powder Dusting | Magnetic. |
| | Alternate Light Source | White light and different foster freeman crime lite lights. |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2K2R2R | Visual Examination | Visually reviewed each item. 1127hrs |
| | laser 445nm and 520 nm | Used laser at both 445nm and 520nm to visualize prints on all items. 1351hrs |
| | Cyanoacrylate Fuming | Item 2 (wallpaper) was processed in a cyanoacrylate vacuum chamber for 40 mins. 1428hrs |
| | Powder Dusting | Item 2 (wallpaper) was powdered using standard fingerprint powder. 1525hrs |
| 2NFLE4 | Visual Examination | On 6-21-2024, I examined the item under a white LED light and observed no visible ridge detail/prints. |
| | Alternate Light Source | On 6-21-2024, I examined the item under a wavelength 450nm light with an orange filter and observed no visible ridge detail/prints. |
| | Cyanoacrylate Fuming | On 6-21-2024, I placed the item in a Cyanosafe and ran cyanoacrylate fuming. I then examined the item under a white LED light and observed no visible ridge detail/prints. |
| | Powder Dusting | On 6-22-2024, I powdered the item with black magnetic latent print powder and examined the item under a white LED light and observed ridge detail/prints in quadrant C. |
| | Ninhydrin | On 7-6-2024, I applied ninhydrin to the item and placed it into a humidity-controlled chamber. I then observed the item under a white LED light and observed no further enhancement of the ridge detail/prints. |
| | Physical Developer (PD) | On 7-9-2024, I submitted the item to the [Laboratory] Latent Print Unit. On 7-17-2024, [Name] applied Physical Developer to the item. I then received the item back into my custody and observed the item under a white LED light and observed no further enhancement of the ridge detail/prints. |
| 2PU3LP | Alternate Light Source | Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm) No Mark Found. |
| | Cyanoacrylate Fuming | Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins, No Mark Found. |
| | Dye Stain | After Dying with BY40, kept to dry for 20 mins in fumehood. After 20 mins, Mark search was done using 445nm light (blue light) with goggle (495nm). No Additional marks found. But the mark on Section C, enhanced |
| 2Q7NMD | Visual Examination | I used a flashlight to examine for patent prints. |
| | Cyanoacrylate Fuming | I fumed the item in a chamber for 15 minutes. |
| | Visual Examination | I used a flashlight to examine for latent prints. |
| | Dye Stain | I applied Rhodamine 6G to the item |
| | Alternate Light Source | I used a Bright Beam Laser at 532nm with orange laser goggles to visualize the processed wallpaper. |
| | DI H2O rinse | I applied H2O to the wallpaper |
| | Alternate Light Source | I used a Bright Beam Laser at 532nm with orange laser goggles to visualize the processed wallpaper. |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2REZ3T | Visual Examination | Visual examination performed on 6/24/24. No ridge structure was observed at this stage. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming performed on 6/24/24. No ridge structure was observed at this stage. Labkam was used for further examination. |
| | Alternate Light Source | Labkam used to examine cyanoacrylate fumed item on 6/25/24. Ridge structure was developed at this stage and marked as 1B1a and photographed with Labkam. |
| | Powder Dusting | Item dusted with black magnetic powder on 6/25/24. Print 1B1a was observed at this stage and photographed. |
| | 1,2-Indanedione | Indanedione applied to item and placed in dry humidity chamber for twenty minutes on 6/25/24. |
| | Alternate Light Source | Crimescope used at 505nm with orange goggles to examine item processed with indanedione on 6/25/24. No ridge structure was observed at this stage. |
| | Ninhydrin | Ninhydrin-Hexane applied to item and processed with the steam iron method on 6/25/24. No RS was observed at this stage. |
| | Ninhydrin | 48-hour hold for Ninhydrin-Hexane. No ridge structure was observed at this stage. |
| 2VY2WF | Powder Dusting | The item was latent print powder processed with magnetic powder. |
| 2XRK9E | Visual Examination | Used magnifying glass and white light. |
| | Cyanoacrylate Fuming | |
| | Dye Stain | MRM-10: two photos taken |
| | Dye Stain | Basic Yellow: two photos taken |
| | Methanol Rinse | Methanol Rinse: two photos taken |
| 2YUT6C | Visual Examination | No fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white. |
| | Powder Dusting | Disclosing of a fingerprint by the MagnetiC Two Tone dusting powder. The fingerprint is visible the best in the white light source. |
| | Cyanoacrylate Fuming | No improvement in fingerprint quality after use Cyanokcrylate Fuming. |
| | Powder Dusting | No improvement in fingerprint quality after use MagnetiC Two Tone dusting powder. |
| 33BCP7 | Visual Examination | Visually inspected with white light at oblique angle |
| | Cyanoacrylate Fuming | Superglue fumed in atmospheric chamber, Air Science Safefume for 15 minutes |
| | Powder Dusting | Dusted with black, magnetic powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 3639EZ | Visual Examination | Visual examination with negative results. |
| | Alternate Light Source | Examined with the Full Spectrum Imaging System (FSIS). Positive results in quadrant C. Results were photographed. |
| | Cyanoacrylate Fuming | Processed Cyanoacrylate fuming and examined with FSIS. Positive results in quadrant C. Results were photographed. |
| | Dye Stain | Processed with M-Star dye stain and examined with the TracER laser. Positive results in quadrant C. The results were photographed. |
| | Powder Dusting | Processed with black powder. Ridge detail was developed on quadrant C. The ridge detail was lifted. |
| 36KDUD | Visual Examination | |
| | Cyanoacrylate Fuming | Preset fume/purge cycle on MYSTAIRE CA-3000 superglue chamber with Arrowhead Cyanoacrylate. Control test print included in cycle. |
| | Powder Dusting | Black magnetic fingerprint powder. |
| 38BE2M | Powder Dusting | Using oblique lighting and did not observe any potential ridge detail. Processed item using black magnetic powder using magnetic wand and latent print developed. |
| 3A929W | Visual Examination | Examination under white light and latent print was not appeared any place. |
| | Cyanoacrylate Fuming | The fuming was initiated in the fuming chamber at least 15 minutes with 80 % humidity. The latent print was not observed under natural light. Cyanoacrylate will crystallize the water that resulting from sweat secretions. |
| | Powder Dusting | By using heavy black powder, found the latent print on C position. |
| 3B7EQH | Visual Examination | A visual inspection was performed. |
| | Alternate Light Source | After the visual inspection, alternating white, violet and blue light was used in an oblique position. The result was negative, the latent was not located with the naked eye. |
| | 1,2-Indanedione | The reagent Iodine in Crystal was used for the development of the latent print. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 3BNEYE | Visual Examination | Examined with LASER, ALS, UV, oblique lighting, and FSIS with shortwave UV. |
| | Cyanoacrylate Fuming | fumed for approximately 12 minutes, examined with FSIS with shortwave UV. |
| | Powder Dusting | Black Powder |
| | Dye Stain | MEK Ardrox, examined with UV. Then Aqueous Rhodamine, examined with a LASER. |
| | DFO | Dipped, placed in oven for approx 15 minutes, examined with Laser |
| | Ninhydrin | Dipped, placed in humidity chamber at 70 degrees and 70% humidity for approx. 15 minutes |
| | Zinc Chloride | Dipped, placed in humidity chamber at 70 degrees and 70% humidity for approx. 15 minutes, examined with ALS |
| | Physical Developer (PD) | Dipped in Maleic Acid prewash and then in solution for approximately 10 mins, rinsed with water, allowed to dry |
| 3ELMEH | Visual Examination | At 12:33 a.m. I began to work on the piece, I began using all the necessary equipment, I documented the piece of evidence with a general photograph, to capture how it was received and each of its packaging. |
| | Alternate Light Source | then perform visual inspection using alternating white light on the piece of evidence for greater visibility, obtaining no results. |
| | Iodine Crystal Amp. | Then I began to work the piece with "Iodine Crystal Ampoules" Ref. A211C placed inside a sealed gas chamber, during the process I carried out an inspection where positive results were obtained. |
| 3F2Z7Z | Visual Examination | Crime lite, incandescent |
| | Cyanoacrylate Fuming | F&F Auto cycle-used luminocyano |
| | Powder Dusting | black |
| | DFO | 20 mins |
| | Ninhydrin | 3 mins |
| 3J3Z8H | Powder Dusting | black magnetic fingerprint powder |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 3KTDHN | Alternate Light Source | The evidence is checked using “Lumatec 400” forensic light with all spectrum. 23°C room temperature. |
| | Cyanoacrylate Fuming | Vaporization of cyanoacrylate in fuming chamber for about 4 minutes. 127,2°C temperatura, 81% humidity. |
| | Alternate Light Source | The evidence is checked again using forensic light with all spectrum. |
| | 1,2-Indanedione | All ITEM 2, is immersed in a INDANEDIONE solution. Natural drying. The oven is used to visualice the developed latent print. 100°C Temeperature. 0% humidity (20 minutes) |
| | Alternate Light Source | The evidence is checked again using forensic light with all spectrum. |
| | Ninhydrin | The ITEM 2, is immersed in a Ninhydrin solution. Natural drying. The oven is used to visualice the developed latent print. 81°C Temperature. 65% Humidity. (6 minutes) |
| | Alternate Light Source | The evidence is checked again using “Lumatec 400” forensic light with all spectrum. |
| 3RCE7D | Cyanoacrylate Fuming | (Lumicyano) PFC 3, 20 minutes fuming, ALS (blue light/orange filter) |
| | Powder Dusting | Black magnetic powder |
| 3TPBAW | Alternate Light Source | RUVIS |
| | Cyanoacrylate Fuming | |
| | Alternate Light Source | RUVIS |
| | Powder Dusting | Black Powder |
| | Dye Stain | Ardrox |
| | Alternate Light Source | various wavelengths using orange, red, and yellow filters |
| 3WPJD8 | Visual Examination | The item was visually examined. |
| | Cyanoacrylate Fuming | Then processed for 20 minutes inside a cyanoacrylate fuming chamber. |
| 3X3WFH | Powder Dusting | Using Black Magnetic Finger Print Powder and Clean using a feather duster |
| 3XHD9Q | Visual Examination | |
| | Alternate Light Source | used UV and 455 with yellow and orange barrier filter |
| | Cyanoacrylate Fuming | ten minute fuming time. Quality control (test print) conducted - good |
| | Powder Dusting | black powder dusting with brush |
| | Dye Stain | Ardrox. Quality control (test print) conducted - good. used UV and 455 with yellow and orange barrier filter. Dipped and then rinsed with water. developed print photographed and transferred to DVD |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 42EALN | Visual Examination | Visual with white light. |
| | Alternate Light Source | Visual with ALS- CrimeScope all wavelengths with orange barrier filter. |
| | Cyanoacrylate Fuming | SafeFume chamber, processing time 20 min, purge time 10 min. |
| | 1,2-Indanedione | Viewed at 520nm with Dual77 and Orange Barrier Filter. |
| | Ninhydrin | Utilized Humidity Chamber. |
| | Powder Dusting | Bi-chromatic powder. |
| | Dye Stain | Rhodamine 6G, ALS Dual77 at 520nm with Orange Barrier Filters. |
| 42YQ2Q | Visual Examination | The item was visually examined prior to any processing. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming. CFC - Lot: ZS30419, exp. 04/2025. Positive and negative control conducted with appropriate results. Fuming cycle - 10 minutes at 70% humidity. Purge cylce - 10 minutes |
| | Powder Dusting | Magnetic powder was applied to the item to develop and visualize a possible latent fingerprint (Quadrant C). The latent print was extremely faint. |
| 47CQYH | Cyanoacrylate Fuming | ECA - 01 (Fuming chamber). BY 40 (EVIDENT item #3166) |
| 4AWHAK | Powder Dusting | The wallpaper was placed onto a sterile drape. Sterile Black Powder was used for processing. The powder was brushed onto the wallpaper over all four sections. One print developed in section C. |
| 4DNWL9 | Visual Examination | Visual examination with light light and forensic light equpiment. |
| | Cyanoacrylate Fuming | Fuming chamber processing time 12 minutes, with 75% humidity. |
| | Powder Dusting | Black powder dusting. |
| 4PNDLB | Visual Examination | Prior to any processing, the item was examined visually for any visible ridge detail. No ridge detail was observed. |
| | Alternate Light Source | The Foster & Freeman Crime-Lite ML2 was used to see any ridge detail that may naturally fluoresce. No ridge detail was observed. |
| | Cyanoacrylate Fuming | The wallpaper was placed inside our Air Science Safefume chamber for 12 minutes and left to rest overnight. |
| | Powder Dusting | Sirchie black magnetic powder was applied to all four sections. A print was developed in section C. No other ridge detail was observed. |
| 4ZMDWU | Visual Examination | V, C, CD, P |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| 4ZZU4F | Visual Examination | A visual inspection was made with alternative light for the piece of evidence, but it was not visible. |
| | Alternate Light Source | I used alternate white light source to locate the latent print, but it was not visible. |
| | Iodine ampoule | I put the wallpaper inside the plastic bag with an iodine ampoule to develop it. |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 66DUZ8 | [No Methods Reported.] | It is understood that the Item has a semiporous surface. 1. Treatment is carried out in a vaporization hood with cyanoacrylate and tinted with rhodamine. 2. Treatment is tinted with ninhydrin. It is visualized with an orange filter and 515 nm light. 3. Subsequently is tinted with Gentian Violet to try to give a better contrast of the revealed print. |
| 66T4ZZ | Visual Examination | LED |
| | Cyanoacrylate Fuming | cyanosafe, LED |
| | Powder Dusting | black magnetic, LED, section C |
| | Ninhydrin | batch 316, LED |
| | Physical Developer (PD) | batch 531, LED |
| 68ZLXV | Visual Examination | White light and laser |
| | Cyanoacrylate Fuming | CA fuming with fluorescent dye stain added |
| | Powder Dusting | Black magnetic powder |
| | DFO | treat item twice with DFO, 20 minutes in dry oven |
| | Ninhydrin | treat item twice with ninhydrin, 3 minutes in humidified oven |
| 6ARHMP | Visual Examination | lighted magnification |
| | Cyanoacrylate Fuming | CA-3000 / 20 minute fume / 20 minute purge |
| | Visual Examination | lighted magnification |
| | Dye Stain | MBD |
| | Alternate Light Source | 350 nm / magnification |
| 6CUJP8 | Visual Examination | A visual exam was conducted on the item prior to any processing. No prints were observed. |
| | Alternate Light Source | An alternative light source was used with a wavelength approximately between 430-470 nm. An orange filter was used to look at the evidence. No prints were observed. |
| | Cyanoacrylate Fuming | The evidence was placed into the super glue fuming chamber since it was non-porous. The super glue placed onto a small foil fuming tray. The tray is placed onto the heating element inside of the chamber. The chamber when running creates a humid environment with the use of water inside of the device. This with a combination of the super fumes adheres to any potential fingerprint residue that is deposited on evidence. Once complete the evidence stays secured in the chamber for 24 hours. |
| | Powder Dusting | Once the evidence is removed from the chamber. Magnetic powder was applied to the evidence to find any latent prints that may be there. |
| 6DQW9U | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black Powder |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 6G86WT | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| | Dye Stain | Ardrox |
| 6HLQ8G | Visual Examination | used magnifying lamp |
| | Cyanoacrylate Fuming | -test print developed |
| | Powder Dusting | Black powder. -test print developed |
| 6JCPLE | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Bichormatic Magnetic Powder |
| | Ninhydrin | with humidity |
| | DFO | approx 100 degrees C for 20 minutrs |
| | Dye Stain | Ardrox under UV 365nm |
| 6VATQ9 | Visual Examination | Visual examination and used side lighting. |
| | Iodine Fuming | Iodine used on test print. Test print positive. Iodine used on second test print and item. Second test print positive. No ridge detail observed on item. |
| | Ninhydrin | Dipped test print into Ninhydrin, dried, then placed into climate chamber at 75C and 65% relative humidity. Test print positive. Dipped second test print and item into Ninhydrin, dried, then placed into climate chamber at same parameters. Second test print positive. No ridge detail observed on item. |
| 6XUMKN | Visual Examination | White light at direct and oblique angles |
| | Cyanoacrylate Fuming | A control test print was deposited on a non-porous surface and placed in an Air Science fuming chamber with Item 2 for 15 minutes at approximately 75% humidity. The control print developed appropriately and ridge detail was not observed on Item 2. |
| | Powder Dusting | Combination of magnetic powder and black powder was used on Item 2. Ridge detail was observed on Item 2 and photographed for preservation. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 73GXPH | Visual Examination | 06/06/2024 @ 1:00 pm, pre-treatment visual examination |
| | Cyanoacrylate Fuming | 07/06/2024 @ 7:20 am, placed in Superglue cabinet (MV1000) for 20 minutes @ RH=85 |
| | Alternate Light Source | after the superglue fuming, that the item was subjected to white light examination |
| | Dye Stain | 07/06/2024 @ 9:27 am, item was immersed in BY40 solution, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the BY40 step, the item was subjected to Blue light examination using yellow googles |
| | Dye Stain | 10/06/2024 @ 9:30 am, item was dye-stained by Crystal Violet solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the CV step, the item was subjected to white light examination |
| | Dye Stain | 10/06/2024 @ 10:30 am, item was dye-stained by Suban Black solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet. |
| | Alternate Light Source | After the SB step, the item was subjected to white light examination |
| | Powder Dusting | 10/06/2024 @ 12:13 pm, Black powder was applied on the item |
| | Alternate Light Source | After the powder dusting step, that the item was subjected to white light examination |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 73M2RA | Visual Examination | 1. Took photographs of the evidence as received. 2. Looked for latent impressions via plain naked eye, flashlight, FSIS/254 nm short-wave UV, long-wave UV lamp, and 445 nm blue/532 nm green LASERs. Approximately 25 minutes of processing time. |
| | Cyanoacrylate Fuming | 1. Hung evidence in a small superglue fuming chamber along with a test print placed on a semi-porous surface. 2. Ran for approximately 15-20 minutes, confirmed that the superglue worked on the test print, then let chamber air out. 3. Looked for latent impressions via plain naked eye, flashlight, normal lamps, and FSIS/254 nm short-wave UV. Approximately 25 minutes of active processing time (including photography). |
| | Dye Stain | 1. MEK Ardrox dye stain was applied via squirt bottle to the test print, which was then viewed under a long-wave UV lamp once dried. 2. After confirming that the MEK Ardrox worked on the test print, it was applied to the evidence item and visualized the same way. Approximately 10 minutes of active processing time. |
| | Dye Stain | 1. Aqueous Rhodamine dye stain was applied via squirt bottle to the test print, which was then viewed with a Wratten #21 orange filter/532 nm green LASER once dried. 2. After confirming that the Aqueous Rhodamine worked on the test print, it was applied to the evidence item and visualized the same way. Approximately 15 minutes of active processing time (including photography). |
| | Powder Dusting | 1. Black fingerprint powder was applied to the test print via a powder brush. 2. After confirming that the powder worked on the test print, it was applied to the evidence using the same method. Approximately 5 minutes of active processing time. |
| | DFO | 1. DFO was applied to the test print via immersion. The print was immersed for 5 seconds on each side, allowed to dry, immersed for another 5 seconds on each side, and allowed to dry again. 2. The dry test print was placed in the oven for 20 minutes and was then viewed with a Wratten #21 orange filter/532 nm green LASER. 3. After confirming that the DFO worked on the test print, it was applied to the evidence item and visualized the same way. 4. Waited atleast 24 hours before moving to the next method. Approximately 25 minutes of active processing time (including photography). |
| | Ninhydrin | 1. Visualized the DFO-treated evidence item again with a Wratten #21 orange filter/532 nm green LASER for possible improvement of visible latents. 2. Ninhydrin was applied to the test print via immersion. The print was immersed for 5 seconds on each and allowed to dry. 3. The dry test print was placed in the humidity chamber for approximately 15 minutes, and was then viewed with the naked eye/basic lamps. 4. After confirming that Ninhydrin worked on the test print, it was applied to the evidence item and visualized the same way. 5. Waited atleast 24 hours before moving to the next method. Approximately 10 minutes of active processing time. |
| | Zinc Chloride | 1. Visualized the ninhydrin-treated evidence item again with the naked eye/basic lamps for possible improvement of visible latents. 2. ZC was applied to the test print via a light spray from a spray bottle and was then allowed to dry. 3. After seeing a color change in the test print, it was placed in the humidity chamber for approximately 15 minutes. The print was then visualized with the naked eye/basic lamps as well as a Wratten #21 orange filter/485 nm/510 nm ALS. 4. After confirming that ZC worked on the test |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| | | print, it was applied to the evidence item and visualized the same way. 5. Waited atleast 24 hours before moving to the next method. Approximately 15 minutes of active processing time. |
| | Physical Developer (PD) | 1. Visualized the ZC-treated evidence item again with the naked eye/basic lamps as well as a Wratten #21 orange filter/485 nm/510 nm ALS for possible improvement of visible latents. 2. The test print was immersed in a dish of maleic acid pre-wash for approximately 10 minutes, before being transferred into a dish of PD working solution for 20 minutes (on an orbital shaker). 3. The print was removed, rinsed with water, dried, and visualized with the naked eye/lamps. 4. After confirming that PD worked on the test print, it was applied to the evidence item and visualized the same way. Approximately 60 minutes of active processing time. |
| 76EZ69 | Visual Examination | Examined with white light and both blue (445nm) and green (532nm) light from BrightBeam Laser. No prints were observed. |
| | Cyanoacrylate Fuming | Fuming chamber used; Examined with white light and both blue (445nm) and green (532nm) light from BrightBeam Laser. Print observed in Section C. |
| | Dye Stain | Rhodamine 6G used; Item sprayed with reagent and rinsed with methanol. Print observed in Section C when viewed with the BrightBeam Laser. |
| | Alternate Light Source | Examined with white light and both blue (445nm) light and green (532nm) light from BrightBeam Laser. Print observed in Section C was photographed. |
| 7BXCVU | Visual Examination | No fingerprints or stains was not discovered with visual examination. |
| | Powder Dusting | Black magnetic powder was used to develop the fingerprint. After using magnetic powder, a fingerprint was discovered in section C. Test fingerprints were taken to similar material and they were ok. |
| 7EER88 | Visual Examination | ambient room light |
| | Alternate Light Source | oblique & direct torch white light & Crime Lite-Blue, no goggles/filters |
| | Cyanoacrylate Fuming | 6 minutes, MVC1000 with control |
| | Visual Examination | ambient room light |
| | Alternate Light Source | oblique & direct torch white light & Crime Lite-Blue, no goggles/filters |
| | 1,2-Indanedione | Indanedione-Zinc Working Solution sprayed onto surface; air dried |
| | Elna Press | Treated with Elna Press for heat. * Would not be used if DNA collection required |
| | Alternate Light Source | Crime Lite Green, orange goggles |
| | Ninhydrin | Ninhydrin Working Solution; air dried; then returned to original packaging to allow further development |
| | Alternate Light Source | oblique & direct torch white light & Crime Lite-Blue, no goggles/filters & then Crime Lite Green, orange goggles |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 7G7NW2 | Visual Examination | I began by conducting a visual examination under fluorescent lighting. |
| | Cyanoacrylate Fuming | After the visual examination, I placed the wallpaper in the CA chamber, I let it process and purge for 22 minutes, and then I let it sit for 1 hour. I examined it again under fluorescent lighting. |
| | Powder Dusting | After removing the item from the CA chamber, I dusted the item with magnetic black powder. I examined it again under fluorescent lighting. |
| | Ninhydrin | After dusting it with black magnetic powder, I submerged it in ninhydrin, hung it up to dry, then put it in the CARON chamber. I examined it again under fluorescent lighting. |
| | Physical Developer (PD) | After ninhydrin, the item was submerged in PD and hung to dry. I examined it again under fluorescent lighting. |
| 7PDFDJ | Visual Examination | First i use a visual examination to locate the latent print but it wasn't visible. |
| | Alternate Light Source | I used alternate white light source to highlight the latent print but it wasn't visible. |
| | Iodine ampoule | To develop the latent print I put the wallpaper and a iodine ampoule inside a plastic bag. The lantent pritnt was visible in the letter C. |
| 7PWHLJ | Visual Examination | looked at wallpaper in ambient lighting, no visible prints |
| | Cyanoacrylate Fuming | Item 2 fumed with superglue in Safe Fume Chamber @ 25 degree C, 75% humidity for 15 min. with test print. Test print positive. |
| | Powder Dusting | dusted entire surface with black powder. Visible print in quadrant C, ridges look clear. |
| 7QTK39 | Visual Examination | ambient/flashlight, green laser (532nm/orange filter), blue laser (445nm/orange filter) |
| | Cyanoacrylate Fuming | 70.9 degrees F; 62.4% humidity; about 10 minutes processing time (humidity+ then CAE) |
| | Visual Examination | ambient/flashlight, green laser (532nm/orange filter), blue laser (445nm/orange filter) |
| | Powder Dusting | black magnetic powder |
| 7U9EFK | Visual Examination | |
| | Alternate Light Source | Mini Crime Scope at all wave lengths |
| | Cyanoacrylate Fuming | Superglue fuming chamber- allowed to dry overnight before processing |
| | Powder Dusting | Regular black powder |
| | Dye Stain | R6G, allowed to air dry, viewed with mini crime scope at 515 wave length. Photograph taken |
| | 1,2-Indanedione | Allowed to air dry, viewed with mini crime scope at 515 wave length |
| | Ninhydrin | Allowed to air dry and processing overnight |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 7YNM4K | Visual Examination | |
| | Lumicyano | Impression was visible, but fluorescence faded quickly. Was still able to visualize with ambient lighting |
| | Powder Dusting | Black powder |
| | 1,2-Indanedione | |
| | Physical Developer (PD) | |
| 8222WJ | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Black magnetic powder | |
| 87YHAD | Powder Dusting | La pieza fue tratada por espacio de 4 minutos con polvo magnetico negro. Iterm was treated for about 4 minutes using black magnetic powder. |
| 886Z89 | Visual Examination | White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. No useful marks were developed. |
| | Alternate Light Source | Sequential High Intensity Light Sources (HILS) examination carried out, following dark adaptation, using a UV Crime Lite 350nm-380nm with 408nm filter followed by a Blue Crime Lite 420nm-470nm with a 476nm viewing filter followed by a Green Crime Lite 480nm-560nm with 571nm viewing filter. No useful marks were developed. |
| | Powder Dusting | The item was treated with Jet Black Magnetic Powder using a magnetic applicator wand. Following treatment the item was examined with a 'Tiablo' High Power LED Flashlight at varying angles. The QA was adhered to and the control test piece passed. No useful marks were developed. |
| | Wet Powder Suspension | The item was treated with carbon-based powder suspension after being pre-rinsed with water. The powder suspension was applied with a soft squirrel hair brush and left for ~20 seconds before being rinsed with water and allowed to dry. When dry, the item was examined with a 'Tiablo' High Power LED Flashlight at varying angles. The QA was adhered to and the control test piece passed. An area of ridge detail was marked up and exhibited as 'Mark 3' and photographed. |
| 88QEX8 | Visual Examination | Processing time approximately 1 minute. No latent prints were observed during this evaluation method. |
| | Alternate Light Source | Utilized Foster + Freeman Crime-lite Auto utilizing multiple wavelengths. No latent prints were observed during this evaluation method. |
| | Cyanoacrylate Fuming | Processing time 5 minutes after chamber reaches 75% humidity. Utilized full spectrum imaging system to evaluate for possible latent prints, no latent prints were observed during this evaluation method. |
| | Powder Dusting | Magnetic powder processing time approximately 1 minute. Latent print observed during this evaluation method. |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 8C8RQ8 | Visual Examination | Use of ambient light and flashlight |
| | Cyanoacrylate Fuming | Chamber temperature: 68.9 degrees F and Relative Humidity: 50.9%; Examined with ambient light and flashlight |
| | Powder Dusting | Black magnetic powder; Examined with ambient light and flashlight |
| | 1,2-Indanedione | Heat applied via heat press; Viewed under green laser (532 nm) with orange filter/goggles |
| 8CL9V9 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| | 1,2-Indanedione | |
| | Dye Stain | |
| | Physical Developer (PD) | |
| 8KGBXJ | Alternate Light Source | 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm). No Print found |
| | Cyanoacrylate Fuming | Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins, Mark search was done using White Light. No Mark found. |
| | Powder Dusting | Dusted with magnetic powder after glue. Mark on Section C, has black smudge but not suitable. weak but preserved. |
| | Dye Stain | After Dying with BY40, kept to dry for 20 mins in fumehood. After 20 mins, Mark search was done using 445nm light (blue light) with goggle (495nm). No Additional marks found. But the mark on Section C, weak but preserved. |
| 8KXDUK | Visual Examination | NO RD noted. |
| | Alternate Light Source | Mini-Crimescope utilized with all available wavelengths- No RD noted. |
| | Cyanoacrylate Fuming | Superglue Chamber utilized, let dry overnight- No RD noted. |
| | Powder Dusting | Silver/Black powder utilized, Fragmentary RD noted in Quadrant C, no pattern type discernable. |
| | 1,2-Indanedione | Humidity Chamber was utilized and viewed with Dual 77 green light 520nm with No additional RD noted. |
| | Ninhydrin | Humidity Chamber was utilized with No additional RD noted. |
| | Dye Stain | Rhodamine 6G viewed with Dual 77 520nm was utilized with No additional RD noted. |
| 8LTXGJ | Visual Examination | 350 - 555 nm + IR |
| | Vacuum Metal Deposition | silver |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 8V4Z3K | Visual Examination | |
| | Ninhydrin | Used pipette to transfer Ninhydrin Heptane onto item. Noticed black marker began to smear and sprayed Ninhydrin HT. Allowed item to air dry on 6/21/24. Checked results on 6/24/24. |
| 8XLGXB | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black magnetic powder |
| | Dye Stain | MRM10 |
| 93EPXB | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | magnetic powder |
| | 1,2-Indanedione | |
| | Dye Stain | |
| | Physical Developer (PD) | |
| 94M3FC | Powder Dusting | The item was processed using black magnetic powder and clean using a feather duster. |
| 96W8TZ | Cyanoacrylate Fuming | Item was fumed with cyanoacrylate using safefume fuming chamber |
| | Dye Stain | Dye stained with basic yellow |
| | Alternate Light Source | Viewed with forensic laser. Test prints were positive. |
| 97V4QB | [No Methods Reported.] | VMD |
| 9AGQJX | Visual Examination | I examined all four quadrants of the item under a LED light, no prints observed. |
| | Cyanoacrylate Fuming | Cyanosafe (LP) processing for 20 mins, purging process for 10 mins, once the door was unlocked & open item set for approx. an hour. No prints observed. |
| | Powder Dusting | Used black magnetic power to observe a potential print. --prints observed-- |
| | Ninhydrin | Placed item in the Caron for 30 mins. Observed item under LED light. No enhancement. |
| | Physical Developer (PD) | was processed by [Name] on 7/17/24. No enhancement. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| 9ENP89 | Cyanoacrylate Fuming | RH 80%. Gluing time 15 min. Temp. 120 celsius. |
| | Visual Examination | Visual Examination after gluing. |
| | Basic Yellow 40 | Basic Yellow method, spraying and rinsing. |
| | Alternate Light Source | Examined Basic Yellow results by using blue Light Source 455 nm. |
| 9FENL8 | Visual Examination | White light, daylight, 4X magnification lens. |
| | Cyanoacrylate Fuming | Safefume 48 S cyanoacrylate fuming chambres (30 min., humidity 80 % ). Reagent: cyanoacrylate B-83000 (BVDA). |
| | Powder Dusting | Fingerprint powder magnetic black (contrast). |
| 9JHJ6A | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| | 1,2-Indanedione | |
| | Dye Stain | |
| | Physical Developer (PD) | |
| 9RGZ3V | Visual Examination | The item was visually examined using white light and magnification. No prints observed. |
| | Cyanoacrylate Fuming | 12- 15 drops of cyanoacrylate were added to a metal cup and placed on the heating element. A test print was added to the chamber and the distilled water well level was checked. Item was placed in the chamber to allow for the entire surface to be exposed to the CA vapors. The cycle ran for 12 minutes and then a 10 minute purge cycle. Item was allowed to sit undisturbed for 1 hour. The item was visually examined using white light and magnification. No prints were observed. |
| | Powder Dusting | Black magnetic powder was applied to the item with a magnetic wand. The wand was dipped into the magnetic powder. The wand with attached magnetic powder is lightly run over the item in a circular motion. The item was visually examined using white light and magnification. |
| | Ninhydrin | The item was immersed in a small tray of solution until the entire surface of the item was wet. The item was allowed to completely dry in the fume hood. Once the CARON chamber reached 60 degrees Celsius and 60% humidity the item was placed inside for approximately 30 minutes. The item was visually examined using white light and magnification. No further enhancement observed. |
| | Physical Developer (PD) | Processing was completed by [Name] on 06/27/24, Batch #531. The item was visually examined using white light and magnification. No further enhancement observed. |
| A4LHDU | Alternate Light Source | Laser Green 532nm Blue 445nm |
| | Powder Dusting | Dry Power Processing Mag Dual Use Powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| A7E8XB | Cyanoacrylate Fuming | 1. Devlopment using a cyanoacrylate chamber(fume processing time is 15 minutes). 2. After 24 hours, dye using Basic Yellow 40 |
| AAA8PR | CA+FSIS | Item was processing with cyanoacrylate fuming and then examined with the Full Spectrum imaging system |
| | Powder Dusting | Black magnetic powder |
| | Dye Stain | Item sprayed with MSTAR dye stain and then examined with the an ALS |
| ACGKF7 | Visual Examination, Forensic Light Source, Cyanoacrylate Fuming, Dye Stain | 07/02/24: No ridge detail was detected during the visual examination. The item of evidence was then exposed to Cyanoacrylate fumes. 07/03/24: Photo lift #2: The item of evidence that was exposed to Cyanoacrylate fuming on 07/02/24 developed ridge detail in section C, photos were taken of photo lift #2 after the Cyanoacrylate fuming process. In an attempt to further develop ridge detail the MRM10 dye stain was applied to case evidence, additional photos were taken of photo lift #2 after the dye stain process. Cyanoacrylate and MRM10 were tested prior to being applied to case evidence and performed as expected. |
| AENVCA | Cyanoacrylate Fuming | |
| | Powder Dusting | viewed under white light |
| | 1,2-Indanedione | IND-ZnCl - humidified with a streamer and viewed under 445-510nm with orange filter |
| AHN88A | Cyanoacrylate Fuming | with wand/cartridge complex |
| | Powder Dusting | bichromatic magnetic fingerprint powder |
| | DFO | viewed under CSS with orange filter |
| | Ninhydrin | with heat and humidity |
| | Dye Stain | Ardrox viewed under 440nm with yellow filter |
| AJ2GHV | Visual Examination | white light and magnification |
| | Alternate Light Source | Examined first using orange filter and blue light (420nm-470nm), then examined using red filter and green light (490nm-560nm) |
| | Cyanoacrylate Fuming | 20 min exposure time, with positive control print |
| | Powder Dusting | Black magnetic powder, with magnetic wand |
| | Ninhydrin | processed in the Caron Chamber for 20 min. |
| | Physical Developer (PD) | processed in Maleic Acid wash for 10 min, processed in silver solution for 10 min and then rinsed in tap water for 10 min, batch #531 |
| AM2REV | Visual Examination | white light |
| | Cyanoacrylate Fuming | MEGAfume CYAN II setting for surfaces that may be semi-porous. 80% relative humidity, 10 minute humidity saturation, 15 minute cycle, 120 degree Celsius hot plate temperature |
| | Dye Stain | Rhodamine 6G (methanol based), ALS @515nm with orange filter |
| | Powder Dusting | Magnetic and standard black powder |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| ARA9NJ | Cyanoacrylate Fuming | 7/1/2024 CFC - Lot#: ZS30419, Exp: 04/2025, Controls - (+) √ and (-) √ Cyanoacrylate Fuming Chamber (CFC) Processing -Target Humidity Value - 70% -Maximum Fume Cycle Time - 10:00 minutes -Purge Time - 10:00 minutes |
| | Powder Dusting | 7/1/2024 Black Magnetic Powder Processing -Black Magnetic Powder and Magnetic Powder Applicator |
| | Powder Dusting | 7/1/2024 Bi-Chromatic Powder Processing -Bi-Chromatic Powder and Fingerprint Brush |
| | Ninhydrin | 7/1/2024 Ninhydrin - Lot#: 12042023JRL, Exp: 12/4/2024, Controls - (+) √ and (-) √ Ninhydrin Processing -Applied Ninhydrin and allowed the item to dry -Once dry, a handheld steamer was used periodically on the item during a 5 minute time frame |
| | Powder Dusting | 7/2/2024: Black Magnetic Powder Processing -Black Magnetic Powder and Magnetic Powder Applicator |
| | Ninhydrin | 7/2/2024 Ninhydrin - Lot#: 12042023JRL, Exp: 12/4/2024, Controls - (+) √ and (-) √ Ninhydrin Processing -Applied Ninhydrin and allowed the item to dry -Once dry, a handheld steamer was used periodically on the item during a 5 minute time frame |
| ARVN4L | Alternate Light Source | white/UV light, oblique illumination, reflictive UV |
| | Cyanoacrylate Fuming | 120°C, 80% rel. humidity, 10 min. fuming time, 10 drops cyanoacrylate |
| | Alternate Light Source | white light, oblique illumination, reflictive UV, coaxial light -> photographic preservation |
| | 1,2-Indanedione | 50°C, 40% rel. humidity, 3h --> no improvement |
| | Ninhydrin | 25°C, 65%rel humidity, 24h --> no improvement |
| AWQFCJ | Visual Examination | |
| | Cyanoacrylate Fuming | 10 minutes fuming, 15 minutes venting of fuming chamber |
| | 1,2-Indanedione | Brushing application method utilized, allowed to dry fully before putting in the humidity chamber, 100 degrees F, 90% relative humidity for 10 minutes in Air Science humidity development chamber |
| | Alternate Light Source | Coherent TracER at 532 nm |
| | Powder Dusting | Black magnetic powder |
| B3MRKL | Visual Examination | No marks visualised. See additional comments |
| | Alternate Light Source | No marks visualised. See additional comments |
| | DFO | One mark developed and labelled as CTS245190-OC4. Heavy background development obscured the mark. See additional comments |
| | Ninhydrin | No additional marks developed |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| B8ZDR8 | Visual Examination | Room lighting and direct lighting with flashlight were used to visualize latent on item. |
| | Powder Dusting | Added a little humidity to item prior to powdering. Used a magnetic brush apply magnetic powder to both sides of the item. Excess powder was tapped off/blown off. Latent was then preserved. Then repeated powdering/blowing off powder step to lifted area, and ridges were the same/looked worse than first lift. |
| BCCMHF | Visual Examination | Visual examination did not detect any impression on the item. |
| | Alternate Light Source | A different range of lightsources where used with negativ results. |
| | Cyanoacrylate Fuming | Humidity: 75%. Fuming time: 15 min. Still no visible impressions. |
| | Powder Dusting | With use of Magna Jet black (magnetic) powder, we were able to see a latent print in section C. |
| BCWYMF | Visual Examination | |
| | Alternate Light Source | RUVIS, 254nm light |
| | Alternate Light Source | 350-600nm light, yellow, orange and red goggles depending on wavelength range |
| | Cyanoacrylate Fuming | Lumicyano, applicable 455-515nm ALS and orange goggles for visualization |
| | Powder Dusting | Black powder |
| | 1,2-Indanedione | Applicable 455-515nm ALS and orange goggles for visualization |
| | Physical Developer (PD) | |
| BEJRAH | Alternate Light Source | FSIS II (-) 505nm (after rhodamine +) |
| | Cyanoacrylate Fuming | CA fuming (-) |
| | Dye Stain | Rhodamine (+) |
| | Powder Dusting | Black powder (-) |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| BK6QR4 | Visual Examination | Examine the item as is, using ambient lighting, flashlight, UV light, FSIS, ALS, and LASER. |
| | Cyanoacrylate Fuming | Superglued the item in the superglue cabinet along with a test print for about 10 minutes. |
| | Dye Stain | Dye stained the item with MEK Ardrox. Let it dry for a few minutes and examined it under the UV light. |
| | Dye Stain | Dye stained the item with Aqueous Rhodamine. Let it dry for a few minutes and examined it under the LASER light. |
| | DFO | Dipped the item twice in DFO, let it dry for a few seconds, then put in in the oven at 100*C for about 20 minutes. Examined under the Laser and Shortwave UV/FSIS camera. |
| | Ninhydrin | Dipped the item in Ninhydrin, let is dry for a few seconds, then put it in the humidity chamber (70*C) for about 1 minute or until the latent impressions turns Ruhemann's Purple. |
| | Zinc Chloride | Sprayed item with Zinc Chloride. Examined under ALS. |
| | Physical Developer (PD) | Dipped item in Maleic Acid first for about 5 minutes, and then dipped the item into PD for about 20 minutes. Let it dry under the lights. |
| BMA7DN | Physical Developer (PD) | Grazing light is passed at the beginning, then the magnetic black reagent is applied, with a duration of 20 minutes of processing. |
| BRTEMA | Visual Examination | white light |
| | Cyanoacrylate Fuming | 2.5g Superglue, 60% humidity, 250F heat, Fume 18 minutes |
| | Dye Stain | Rhodamine 6G/viewed under laser light |
| BVKUN3 | Cyanoacrylate Fuming | Fuming cabinet for 15 min at 80% humidity - no development of ridge detail could be seen |
| | Alternate Light Source | Crime-lite AUTO - no ridge detail could be seen |
| | Dye Stain | Rhodamine 6G in methanol - development of ridge detail when combined with Crime-lite AUTO setting at 475nm w/ 550LP filter. |
| | Powder Dusting | Black powder - no additional development |
| BZZ3C2 | Visual Examination | No ridge detail. |
| | Cyanoacrylate Fuming | No ridge detail. |
| | Powder Dusting | Magnetic powder. Lifted in quadrant C. Did not lift well...re-powdered (see next step) |
| | Powder Dusting | Magnetic powder. Photographed impression in quadrant C. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| C4FWQD | Visual Examination | 11/07/2024 , pre-treatment examination |
| | Cyanoacrylate Fuming | 11/07/2024 , placed in Superglue cabinet (MV3000) for 50 minutes @ RH=85 |
| | Alternate Light Source | After the CNA step, the item was subjected to white light examination |
| | Dye Stain | 11/07/2024 , item was immersed in BY40 solution, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the BY step, the item was subjected to Blue light examination using Yellow googles |
| | Dye Stain | 12/07/2024 , item was dye-stained by CV solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the CV step, the item was subjected to white light examination |
| | Dye Stain | 15/07/2024 , item was dye-stained by SB solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After the SB step, the item was subjected to white light examination |
| | Powder Dusting | 15/07/2024 , Black powder was applied on the item |
| | Alternate Light Source | After the powder dusting step, the item was subjected to white light examination |
| C8DBD3 | Visual Examination | Visual examination with natural/white light and with F&F light sources UV 350-380 nm, violet 380-430 nm, blue 430-500 nm, Green 520-565nm and IR 800-900 nm in different angles. |
| | Lumicyano | Fuming with Lumicyano 5% solution. Foster+Freeman MVC 3000 Fuming Cabinet: temperature 120°C, humidity 80% and fuming time 25 minutes. Quality control print visual. |
| | Powder Dusting | Dusting with black magnetic powder (Magnetic Jet Black). Print visual in section C. |
| CCMRMR | FSIS prior to super glue | Utilized FSIS prior to super glue and did not locate any potential latent areas. |
| | Cyanoacrylate Fuming | Processed item in super glue chamber for 18 minutes on 70% humidity, then examined with FSIS. Potential latent area observed in Quadrant C. |
| | Powder Dusting | Utilized black powder on item. |
| | Dye Stain | Sprayed item with MSTAR dye stain and waited thirty minutes for it to dry completely. Then examined item with tracer laser alternate light source. |
| CGZCUD | Visual Examination | Visual inspection is performed but no fingerprint is detected. |
| | Alternate Light Source | An alternating light visual inspection of the piece of evidence is performed but no fingerprint is detected. |
| | iodine crystals | Iodine crystals are used, about five (5) minutes, developing a fingerprint in the C section. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| CLV43A | Powder Dusting | Item was processed using magnetic powder and cleaned with a feather duster. |
| CTGAMM | Visual Examination | I performed a visual examination by looking at the item using natural lighting and oblique lighting at different angles to see if any ridge detail is present. |
| | Cyanoacrylate Fuming | I placed the item into the superglue chamber. I added superglue into an aluminum dish and placed that onto a hot plate inside the chamber. I also added a glass beaker with hot water into the chamber to provide humidity. I placed a control print onto the interior of the glass of the chamber to ensure the superglue was fuming properly. I turned the chamber on and let the hot water rehydrate any ridge detail that is present, and the superglue fumes adhered to any ridge detail. I left the item inside the chamber for approximately 15 minutes. Once I observed the control turn white from the superglue fumes, I turned the chamber off and vented the chamber. |
| | Powder Dusting | Using magnetic powder and a magnetic wand I powdered the item and ridge detail developed. |
| D26KAN | Visual Examination | The wallpaper was examined using oblique lighting. No friction ridge detail was observed on the wallpaper prior to processing. |
| | Lumicyano | The wallpaper was placed into a Mystaire cyanoacrylate fuming chamber for 20 minutes at 70% humidity to be processed with Lumicyano. |
| | Alternate Light Source | The wallpaper was examined using an alternate light source. |
| | Powder Dusting | The wallpaper was processed with fluorescent fingerprint powder. |
| | Alternate Light Source | The wallpaper was examined using an alternate light source. The result of fluorescent fingerprint powder did not enhance the friction ridge detail of no value on section C of the wallpaper. |
| D3KJTD | Visual Examination | Visual examination under white light. No RD noted in any quadrant. |
| | Alternate Light Source | Item viewed under all wavelengths of light utilizing the CrimeScope. No RD noted in any quadrant. |
| | Cyanoacrylate Fuming | Item fumed in AirScience fuming chamber for 25 minutes at 80% humidity. Sat for 24 hours. Viewed the following day under white light. No RD developed in any quadrant. |
| | Powder Dusting | Item dusted with black volcanic powder. No RD developed in any quadrant. |
| | 1,2-Indanedione | Item treated with 1,2-Indanedione and allowed to sit for 24 hours. Viewed the following day under the TracER Laser at 532nm. No RD developed in any quadrant. |
| | Ninhydrin | Item treated with Ninhydrin and allowed to sit for 24 hours. RD (whorl) developed in quadrant C. No RD developed in quadrants A, B, or D. |
| | Dye Stain | Item treated with Rhodamine 6G and viewed under TracER Laser at 532nm. No additional RD developed in quadrant C. No RD developed in quadrants in A, B or D. |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| D7J3R6 | Visual Examination | Item was visually examined under a magnifier and light. No photos taken. |
| | Cyanoacrylate Fuming | Item was placed into a fuming chamber along with a tin containing CA on a hot plate and hot water for humidity. Item was left in the chamber for approximately ten minutes before turning off the CA warmer and venting the chamber. Item was removed and examined under a magnifier and light. No photos taken. |
| | Dye Stain | MRM-10 dye stain was poured onto the item. Once item was dry it was examined under a magnifier with a FLS at 450nm with an orange filter. One photo taken. |
| | Dye Stain | Basic Yellow dye stain was poured onto the item. Once item was dry it was examined under a magnifier with a FLS at 450nm with an orange filter. One photo taken. |
| DAC9YF | Alternate Light Source | |
| | Cyanoacrylate Fuming | Lumicyano |
| | Powder Dusting | black magnetic powder |
| DE83Y3 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| | 1,2-Indanedione | |
| | Dye Stain | |
| | Physical Developer (PD) | |
| DEBHC3 | Visual Examination | white light, UV - 555nm - Polilight PL 500, suitable googles |
| | Cyanoacrylate Fuming | processing time - 15 minutes, humidity - 80% |
| | Visual Examination | white light |
| | Powder Dusting | Mag Black Ruby |
| | Visual Examination | white light, UV |
| DETGME | Visual Examination | No print recovered |
| | Alternate Light Source | Emission from 350 to 600. No print recovered |
| | Cyanoacrylate Fuming | Print recovered. Processing time approx. 1 hour RH 80%. Glue heated to 120 Celsius |
| | Powder Dusting | No new print recovered |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| DGX2DZ | 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 in 505-530 nm range + appropriate filters |
| | Powder Dusting | Dusting surface with latent print powder (magnetic black), viewing in a white light |
| DNXN3E | Visual Examination | A visual exam was performed prior to processing to determine the most suitable course of action based on the surface/item characteristics. |
| | Powder Dusting | Magnetic powder was utilized because the surface was shiny and semiporous-nonporous, but also slightly textured. Magnetic powder was deposited onto the surface, and excess powder was removed by a magnetic powder brush, only leaving powder on the latent print. Magnetic powder lot# 052423-01 was used. |
| DQMPBN | Cyanoacrylate Fuming | |
| | 1,2-Indanedione | |
| | Powder Dusting | Magnetic powder |
| E3HADZ | Cyanoacrylate Fuming | Fume Time: 11 minutes. Humidity: 80%. |
| | Dye Stain | R6G Pet Ether |
| EABXJ3 | Polycyano Fuming | RH 80%. Gluing time 20 min. Temp. 230 celsius. |
| | Visual Examination | Visual Examination after gluing. |
| | Alternate Light Source | Examined results by using blue Light Source 455 nm. |
| EATKHK | Iodine | 3 hours |
| | Alternate Light Source | VISAS fingerprint powder (IR powder) |
| EC4HV3 | Visual Examination | I did a visual examination of the wallpaper. |
| | Cyanoacrylate Fuming | After visual examination, I put the wallpaper into the superglue chamber. |
| | Powder Dusting | After the CAE fuming, I used black powder to develop any prints. |
| EH9EGN | Alternate Light Source | 455-515nm |
| | Cyanoacrylate Fuming | Vacuum fume ~60 minutes |
| | Powder Dusting | Black powder |
| | Dye Stain | Rhodamine 6G, methanol based |
| EJ3324 | Cyanoacrylate Fuming | Same as Item 1 |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| ENRTYY | Visual Examination | |
| | Cyanoacrylate Fuming | non fluorescent cyanoacrylat, 5 min. fuming time at 120°C, humidity 80% |
| | 1,2-Indanedione | 50°C, 40% humidity, 3 hours |
| | Ninhydrin | 26°C, 65% humidity, 5 hours |
| EUZ3E9 | Cyanoacrylate Fuming | Cyano fuming and magnetic powder and wand |
| EWRY33 | Visual Examination | 7/8/24: Ambient lighting as well as white light with magnification |
| | Lumicyano | 7/8/24: Fluorescent CA fuming + F&F MVC 1000-D2 fuming chamber auto cycle |
| | Alternate Light Source | 7/8/24: Brightbeam Dual Laser System; Green wavelength; no ridge detail observed |
| | 1,2-Indanedione | 7/8/24: dipping method, allowed to sit overnight |
| | Alternate Light Source | 7/8/24 & 7/9/24: visual exam with Brightbeam Dual Laser System; Green wavelength; no ridge detail observed |
| | Ninhydrin | 7/9/24: Special Formula, spay, allowed to sit overnight |
| | Visual Examination | 7/10/24: ambient light; No ridge detail observed |
| | Visual Examination | 7/18/24: ambient light |
| | [No Methods Reported.] | 7/18/24: Vacuum Metal Deposition: gold followed by zinc then silver followed by since; fingermark observed in section C not enough detail to forward to LPU |
| | Visual Examination | 7/19/24: ambient, oblique, and coaxial lighting used |
| | Powder Dusting | 7/19/24: Magnetic powder; no additional detail developed. |
| EYDLVP | Visual Examination | Examined with white light and magnification on 6/25/24. |
| | Cyanoacrylate Fuming | Placed in Cyanosafe on 6/25/24. Examined with white light and magnification. |
| | Powder Dusting | Dusted with magnetic black powder on 6/26/24. Examined with white light and magnification. |
| | Ninhydrin | Submerged in Ninhydrin, Batch #316, then air dried on 6/26/24. Placed in humidifying machine: CARON Examined with white light and magnification. |
| | Physical Developer (PD) | Processed by [Name] on 6/27/24, Batch #531. Examined with white light and magnification on 6/28/24. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| EZT86R | Visual Examination | Item examined under LED light with magnification at multiple angles. |
| | Cyanoacrylate Fuming | Item was placed in a CyanoSafe with a test print. 18 drops of cyanoacrylate were added along with distilled water, and the CyanoSafe was set to process for 20 minutes and purge for 10 minutes. Evidence was then removed from the CyanoSafe and left to dry for 60 minutes before it was examined under an LED light with magnification. |
| | Powder Dusting | Black magnetic powder was applied to all surfaces of the item in a circular motion with a brush. Item was then examined under an LED light with magnification. |
| | Ninhydrin | Ninhydrin solution was applied to all surfaces of the item in a fume hood using a paintbrush. Item was hung up to fully dry. Item was then placed in the Caron chamber for 30 minutes at 60 degrees Celsius and 60% humidity. After drying, the item was examined under an LED light with magnification. |
| | Physical Developer (PD) | Item was placed in a tray of maleic acid prewash for 10 minutes. Item was then placed in a tray of physical developer processing solution for approximately 10 minutes. Item was then placed into a tap water tray for 10 minutes to remove excess silver nitrate. Item was hung up to dry. Once dry, item was examined under an LED light with magnification. PD processing was performed by a member of the Latent Print Unit per agency policy. |
| F6UQV4 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| | 1,2-Indanedione | |
| | Dye Stain | |
| | Physical Developer (PD) | |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| F83WJP | Visual Examination | Visual examination was completed by examining the item with a fluorescent light under magnification at different angles. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming was completed by placing the item into the CyanoSafe. Distilled water was added to the cup heater element and 12 drops of liquid cyanoacrylate were added to a foil cup, which was placed on a heating element. A test print was created and placed in the chamber. After the chamber was closed and turned on, it ran for 12 minutes and then a purge cycle started. The item sat for one hour and then taken out to be examined with a fluorescent light under magnification at different angles. |
| | Powder Dusting | Powder dusting was completed with black magnetic powder on this item. Powder was applied with a magnetic wand in a fume hood and then examined with a fluorescent light under magnification at different angles. |
| | Ninhydrin | Ninhydrin was completed by immersing the item into a glass tray of ninhydrin in a fume hood. It was hung up to dry completely in a fume hood. The Caron chamber was turned on before processing began to ensure the settings were correct before placing the item in the chamber. After setting the item inside, it was left in the chamber for 45 minutes and checked on during the set time. It was then examined with a fluorescent light under magnification at different angles. |
| | Physical Developer (PD) | Physical developer was completed by [Name] and the batch number was 532. The item was then examined with a fluorescent light under magnification at different angles. |
| FDNXFU | Visual Examination | Visual examination conducted with negative results. |
| | Powder Dusting | Silver/Black magnetic fingerprint powder applied with magnetic wand. |
| FFFU6N | CA plus FSIS | Item two was processed with superglue and photographed with the Full Spectrum Imaging system. |
| | Dye Stain | Item two was processed with M-Star and photographed with TracER laser (ALS). |
| | Powder Dusting | Item two was processed with black powder and lifted. |
| FHLC3J | Cyanoacrylate Fuming | |
| | Dye Stain | Ardrox |
| | Powder Dusting | black powder |
| FJF6X3 | Visual Examination | |
| | Alternate Light Source | LASER (532nm), UV, 450nm |
| | Cyanoacrylate Fuming | Chamber 10 VIS/RUVIS |
| | Magnetic Powder | Dark magnetic powder |
| | 1,2-Indanedione | OVEN. VIS/LASER (532nm) |
| | Dye Stain | RMO. LASER (532nm), 450nm |
| | Physical Developer (PD) | |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| FKMK69 | Cyanoacrylate Fuming | Fuming chamber for 47 minutes. |
| FMEGU3 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | |
| | 1,2-Indanedione | |
| | Dye Stain | |
| | Physical Developer (PD) | |
| FMYXA6 | Black Magnetic Powder | Through visual inspection and alternating light latent impression was observed. |
| | Iodine Crystal Ampoules | Through visual inspection and alternating light latent impression observed too. |
| FQZEB7 | [No Methods Reported.] | UV-Light and FSIS used for viewing and photographing print. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming in CyVac for a minimum of 30 minutes, allowed to cure for an additional 15 minutes. |
| | Dye Stain | Evidence was dyed with Rhodamine 6G stain in petroleum ether, and then viewed with a 532 nm forensic laser. |
| FRVNH3 | Powder Dusting | Magnetic Powder |
| FV7Y9B | Visual Examination | used lamp light and flashlight |
| | Cyanoacrylate Fuming | processed with CAE (lot# UR18419) – chamber #1, 15 min, 69 degrees F, 80% humidity – control passed |
| | Dye Stain | —processed with R6G (H2O) working solution (lot# LP06100522) – control passed – Laser (Bright Beam) / 532nm / used orange goggles |
| | Powder Dusting | black powder after testing on control |
| G3PBC4 | Visual Examination | |
| | Cyanoacrylate Fuming | Superglue fuming. |
| | Powder Dusting | Fluorescent magnetic fingerprint powder. |
| | Alternate Light Source | Wavelength of 450nm. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| G746QF | Visual Examination | 6/17/2024 |
| | Cyanoacrylate Fuming | 6/17/2024 |
| | Magna Brush w/ Black magnetic powder | 6/17/2024 |
| | Visual Examination | 6/17/2024 |
| | Powder Dusting | 6/18/2024: Fluorescent powder dusting |
| | Dye Stain | 6/18/2024: Ardrox |
| GA8QRV | Cyanoacrylate Fuming | Non-porous items were fumed with cyanoacrylate ester (superglue) using the CyVAC for 1 hour |
| | Dye Stain | Dyed with Basic Yellow |
| | Alternate Light Source | Viewed with a forensic laser |
| GCVFZE | Visual Examination | The wallpaper was visually examined carefully under a large magnifying glass with a LED light to detect any latent fingerprints before processing it. The visual latent examination was NEGATIVE for prints and processed further. |
| | Black Magnetic Powder | The wallpaper was next dusted with a black magnetic fingerprint powder in attempt to recover and develop any latent fingerprints. The results of the latent examination was POSITIVE for a fingerprint in section "C". |
| GP2HCV | Powder Dusting | Processed with black magnetic powder |
| GQ9XJ2 | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | magnetic powder |
| | 1,2-Indanedione | |
| | Dye Stain | |
| | Physical Developer (PD) | |
| GT2GV2 | Powder Dusting | Magna Powder |
| GUCJHZ | Visual Examination | |
| | Cyanoacrylate Fuming | 18 minutes; 80% humidity |
| | Dye Stain | Basic Yellow 40 (BY40); rinse with DI water |
| GZWN7U | Cyanoacrylate Fuming | Fumed with cyanoacrylate via CyVac |
| | Dye Stain | Dye stained with R6G |
| | Powder Dusting | Dusted with black powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| H8E8CE | Visual Examination | |
| | Cyanoacrylate Fuming | approx. 15 min glue time; positive control |
| | Powder Dusting | Black powder |
| | Indanedione | positive control |
| | Alternate Light Source | crimescope, 515nm and orange goggles |
| | Ninhydrin | positive control, utilized humidity chamber |
| | Ninhydrin | 48 hour wait |
| H9NJRV | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | 1,2-Indanedione | |
| | Alternate Light Source | Reviewed @ 505nm / orange filter & goggles |
| | Ninhydrin | |
| | Alternate Light Source | |
| | Powder Dusting | Black magnetic |
| HBFFFP | Visual Examination | I performed a visual examination of the evidence under florescent lighting. |
| | Cyanoacrylate Fuming | After performing the visual examination, I placed the evidence (plastic card sleeve) in the Cyanosafe for cyanoacrylate fuming. Fifteen (15) drops of superglue were placed in the tin foil tray and distilled water was added. A test print was hung in the chamber. I allowed the chamber to process and purge for approximately twenty-two (22) minutes and then I let the evidence rest for an hour to allow the cyanoacrylate to harden on the evidence. I then proceeded to conduct another visual examination under florescent lighting. |
| | Powder Dusting | After the CA processing, I dusted the evidence with black magnetic powder and conducted another visual examination. |
| | Ninhydrin | After powdering the evidence, I then soaked it in ninhydrin (batch #316) and hung to dry in the hood ventilator. Once the evidence was dry, I then placed in the CARON for thirty (30) minutes until possible latent prints develop. I then took out the evidence and did a visual examination under florescent lighting. |
| | Physical Developer (PD) | After the process of ninhydrin, the evidence was then soaked in Physical developer #531 by [Name]. I then proceeded to do a visual examination under florescent lighting. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| HKKAPW | Visual Examination | item photographed prior to processing. No prints observed |
| | Alternate Light Source | Examination with white light (Polilight flare 2"ROFIN"). No prints observed. |
| | Cyanoacrylate Fuming | The cabinet ( Scenesafe) settings was : 85 % humidity and the hot plate was set on 120 degrees. Processing time 8-10 minutes. A faintly visualized latent print in section C after CA fuming. Fingerprint was photographed with white light and macro camera lens (Nikon D3300) . Prints were deposited on a similar item, by human fingerprints (control Test), developed good quality prints. |
| | Powder Dusting | Powder Dusting (to improve the quality of latent print): Black magnetic powder, Enhanced ridges of latent print . Fingerprint was photographed with white light and macro camera lens (Nikon D3300). |
| HLUE3K | Visual Examination | blue light (420-470 nm) and yellow filter(495 nm) white light |
| | Cyanoacrylate Fuming | Humidity: 80%, glue temp: 120 C, processing time: 10 min |
| | Powder Dusting | magnetic black |
| | 1,2-Indanedione | 100°C +/- 5°C processing time 10 min |
| | Ninhydrin | Temp: 80°C (± 2°C) RH: 62% (± 5%) processing time: 2 min |
| HM82LK | Visual Examination | 7/8/24 - Magnified LED light was used with no ridge detail observed. |
| | Cyanoacrylate Fuming | 7/9/24 - CA in Cyanosafe chamber for 20 minutes. Allowed to dry for 1 hour. Test print positive. Examined with magnified LED light. No ridge detail observed. |
| | Powder Dusting | 7/9/24. Black magnetic powder applied and examined with a magnified LED light. Ridge detail was observed and photographed. One image was taken. |
| | Ninhydrin | 7/9/24. Ninhydrin batch #317 applied for 1 minute. Allowed to dry then placed in the Caron chamber for approx. 30 minutes. No ridge detail observed. |
| | Physical Developer (PD) | 7/17/24. Physical Developer, Batch #532. Processing times: 10 minutes for Maleic and 10 minutes for Physical Developer then water bath for 5-10 minutes and dried in fume hood overnight. No enhancement of print was observed. |
| HPYXBE | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Processed with Magnetic Powder |
| | Powder Dusting | Processed with Black Powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| HTUY3V | Powder Dusting | Item #2 was visually examined, physically processed, and then digitally preserved. Friction ridge detail was developed, photographed, and sent for further examination. The evidence will be retained at the [Laboratory]. I obtained the evidence (#2-wallpaper) from the CSI vault, where it was then taken into the CSI lab and processed using visual examination and silver / black magnetic fingerprint powder. The above process resulted in the discovery of latent print evidence, which was photographed with a scale and transferred to a CD. The CD was then submitted as evidence and transferred to the latent lab for further analysis. |
| HXT7V6 | Powder Dusting | processed with magnetic powder. One lift developed |
| J2AQFZ | Visual Examination | Item 2 was visually examined at different angles with adequate room light. |
| | Cyanoacrylate Fuming | Item 2 was processed by cyanoacrylate ester (superglue) under a vacuum for about 2 hours and allowed to cure. |
| | Rhodamine 6G (R6G) | Item 2 was dye stained with Rhodamine 6G (R6G) (SF05242024-R6G) and viewed using a 530nm/green forensic laser. |
| | DFO | Item 2 was also processed by dye stained with 1,8-Diazafluoren-9-one (DFO) (SF08232023-DFO), dry heated for approximately 20 minutes at approximately 100° C in a dry oven and viewed using a 530nm/green forensic laser. One (1) latent print was founded after DFO staining. |
| | Powder Dusting | Item 2 was further processed by brushed with black powder (Lightning Powder Company). |
| | Reflective Ultraviolet Imaging (UV light) | Item 2 was viewed with FSIS II with a UV lamp with no enhancement observed. |
| J2Z3Q6 | Visual Examination | The first step I made was a visual examination to locate the latent print in the Item. |
| | Alternate Light Source | Then I made visual examination with white alternate light. |
| | Alternate Light Source | Then I made visual examination with violet alternate light |
| | Iodine Crystal "Yodo" | To Develop the latent print I use Iodine Crystal "Yodo" for 5 minutes and the latent print it was visible in the letter C. |
| J4BYKA | Visual Examination | Visual examination using a flashlight at an oblique angle. No ridge detail observed. |
| | Cyanoacrylate Fuming | Super glue fuming performed for 9 minutes. Visual examination using a flashlight at an oblique angle post super glue fuming. No ridge detail observed. |
| | Dye Stain | A small corner of the item was tested with Rhodamine 6G due to the semi-porous substrate. This saturated the background; therefore IND was utilized. |
| | 1,2-Indanedione | IND applied using an IND specific brush. Humidity chamber utilized at 100 degrees Celcius and 90% relative humidity for 10 minutes. |
| | Alternate Light Source | Coherent TracER utilized to view item. No ridge detail observed. |
| | Powder Dusting | Magnetic black powder utilized. No ridge detail observed. Possible outline of finger impression observed in section C; not considered ridge detail. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| J72XY9 | Powder Dusting | Magnetic Powder |
| J8XHL8 | Visual Examination | On visual examination, I didn't see any latent prints. |
| | Ninhydrin | I used a control sheet first to make sure my Ninhydrin chemical was working. I then sprayed the wallpaper with Ninhydrin and dried it in the downdraft hood. I then put it in the fingerprint chamber with a temp of 80 degrees Celsius and 65% humidity for 3 mins. I then saw a very faint latent print in area C. |
| JGECQ9 | Visual Examination | Diffrent lights sources and filters, entire range of optical radiation. |
| | Cyanoacrylate Fuming | 80%-Humidity, heater temperature-130°C, Time. 10 minutes, temperature inside of the chamber 25 °C (Chamber Safefume CA30S) |
| | Powder Dusting | Black magnetic powder, narural and white light |
| JHBX97 | Visual Examination | Utilized ambient, direct, and side lighting |
| | Lumicyano Cyanoacrylate Fuming | Lumicyano Cyanoacrylate Fuming approximately 5 minutes |
| | Alternate Light Source | Utilized orange goggles with 455nm-515nm |
| | 1,2-Indanedione | Placed item in humidity chamber approx heat @ 50 degrees C and approx humidity @ 65% for approx 15 minutes |
| | Alternate Light Source | Utilized orange goggles with 475nm-575nm |
| | Ninhydrin | Placed item in humidity chamber approx heat @ 50 degrees C and approx humidity @ 65% for approx 15 minutes |
| | Physical Developer (PD) | Developed in solution for approximately 15 minutes |
| JHUGFY | Cyanoacrylate Fuming | 1.25 hours in vacuum chamber with cyanoacrylate. |
| | DFO | Item was treated with 1,8-diazafluoren-9-one (DFO) and allowed to dry. |
| | 532nm forensic laser | No latent prints observed. |
| | Dye Stain | Item was treated with rhodamine 6G (R6G) and allowed to dry. |
| | 532nm forensic laser | No latent prints observed. |
| | Powder Dusting | No latent prints observed after dusting with black powder. |
| JJKUP6 | Visual Examination | A visual inspection with alternative light was made of the piece of evidence but not fingerprint is detected. |
| | Alternate Light Source | An alternative light visual inspection of the piece of evidence is perfomed but no fingerprint is detected. |
| | Iodine Crystal Ampolles | The piece of evidence was worked with Iodine Crystal Ampolles, about five minutes, developing fingerprint in the C section.. |
| JK2WM6 | Ninhydrin | Visual, CA, R6G, Laser, Ninhydrin |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| JQ33D2 | Visual Examination | A visual inspection of piece of evidence number 2, which was a Wallpaper, divided into sections A-D. No fingerprint was visualized. |
| | Alternate Light Source | A visual inspection was performed using different lights with different filters: white, violet, green, red, and blue. No fingerprint was visualized. |
| | Iodine Fuming Gun Disposable | Using the Iodine Fuming Gun Disposable blow on the wallpaper, divided into sections A-D. When the chemical was used a fingerprint was visualized in the section C. |
| JVGQZJ | Alternate Light Source | 455-515 nm |
| | Cyanoacrylate Fuming | 15 min |
| | Dye Stain | Rhodamine |
| K49N4X | Cyanoacrylate Fuming | Item #2 was processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour and allowed to cure at room temperature and atmospheric pressure. It was processed by 1, 8-Diazafluoren-9-one (DFO), placed in an oven at 100 degrees C for 20 minutes, and viewed with a 530nm/green forensic laser. It was then dye stained with Rhodamine 6G (R6G) and viewed with a 530nm/green forensic laser and digitally captured. |
| | DFO | It was processed by 1, 8-Diazafluoren-9-one (DFO), placed in an oven at 100 degrees C for 20 minutes, and viewed with a 530nm/green forensic laser. |
| K6PH68 | Powder Dusting | Magnetic |
| K9L9BJ | Visual Examination | Visual examination under white light and magnification. |
| | Cyanoacrylate Fuming | Cyanosafe was set up with 18 drops of cyanoacrylate in the aluminum weigh boat on top of the heating element. The well was filled with distilled water and a test print was placed in the chamber. The chamber was ran for 20 minutes and allowed to purge. The items were then allowed to dry for 1 hour. The test print was positive. |
| | Powder Dusting | Black magnetic powder was applied with a magnetic brush. |
| | Ninhydrin | Item was soaked in a tray until all surfaces were completely wet. Item was then air dried. The item was placed in the CARON at 60 F and 60% humidity for 45 minutes. |
| | Physical Developer (PD) | The item was placed in a Maleic Acid solution and agitated for 10 minutes. The item was then placed in the physical developer solution and agitated for 10 minutes. The item was then placed in a tray of water and allowed to rinse. The item was patted dry and allowed to air dry. |
| KCFCUP | Cyanoacrylate Fuming | Fumed with the safefume for 15minutes |
| | Dye Stain | Stained with Basic Yellow |
| | Alternate Light Source | Viewed under forensic laser |
| KL8QXV | Cyanoacrylate Fuming | (Lumicyano) Portable Fuming Chamber 3, 20 minute glue time, humidity, ALS (blue light/orange filter) |
| | Powder Dusting | Black magnetic powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| KLABTB | Visual Examination | Using oblique lighting and a magnifier, examine the surface of the Wallpaper. No ridge structure was observed. |
| | Cyanoacrylate Fuming | Placed the wallpaper in the Cyanoacrylate Fuming chamber, added distilled water to the fill line and added a size dime size of superglue into the appropriate container. A latent print is placed on a clear piece of acetate which is placed in the chamber during fuming to be used as a control test, the development of the latent print results as a positive control. The chamber is programed to run at 120 degrees Celsius with 80% relative humidity and it takes approximately 1 hour to run. After the chamber completes its process, the control test was visualized and tested positive. No ridge structure was observed visually after cyanoacrylate fuming. |
| | Alternate Light Source | Used a Reflective ultra-violet imaging system (RUVIS) called LabKam to assist in visualizing the latent print after Cyanoacrylate fuming. Ridge structure was visualized in section C; latent print was photographed using the LabKam system. |
| | Powder Dusting | Using Black Magnetic fingerprint powder and a magnetic fingerprint brush, applied the powder to the surface of the wallpaper and the latent print in section C was developed with the black magnetic fingerprint powder. Photographs taken of latent print after developed. |
| | 1,2-Indanedione | A positive control test of 1,2-Indanedione was performed using a standards amido acid sample pad and a piece of paper, and using a Alternate Light source to visualize the control prior to being used on the wallpaper. After a positive control was complete, the 1,2-Indanedione was poured into a tray and the wallpaper was submerged in the chemical and hung to dry. After being completely dry, the wallpaper was placed into the Caron Humidity Chamber at 100 degrees Celsius with zero humidity for 20 minutes. |
| | Alternate Light Source | Using the Alternative Light Source, CrimeScope, at 505 nanometers using orange filter goggles, the latent print in section C did not develop with 1,2-Indanedione. |
| | Ninhydrin | A positive control test of Ninhydrin - Hexane was performed using a standards amido acid sample pad and a piece of paper, after a positive control test, the chemical was applied to the wallpaper. After a positive control was complete, Ninhydrin - Hexane was poured into a tray and the wallpaper was submerged in the chemical and hung to dry. After being completely dry, the wallpaper was placed into the Caron Humidity Chamber at 80 degrees Celsius with 65% relative humidity for 20 minutes. After removing the wallpaper from the humidity chamber, no ridge structure was developed with Ninhydrin. The sample remained out and was observed again after a 48 hour period was complete and no additional development occurred within the 48 hours. |
| KQY3Q7 | Visual Examination | |
| | Cyanoacrylate Fuming | lot# W163001, MVC5000, C+B- |
| | Powder Dusting | black powder/disposable, C+B- |
| KRVBYP | Visual Examination | Visible white light, RUVIS |
| | Lumicyano | Temperature 250F, time 17:00, humidity 75% (fumed twice) LASER, visible white light |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| KTN7NJ | Visual Examination | The item, a vinyl adhesive wallpaper swatch, was inspected using ambient lighting, followed by direct and oblique lighting with no observable ridge detail seen. |
| | Alternate Light Source | The wallpaper inspected with the RUVIS/FSIS utilizing UV lighting with no apparent ridge detail observed. |
| | Cyanoacrylate Fuming | The item was fumed with cyanoacrylate for 15 minutes at 80% humidity level in fuming chamber. It was then visualized again with the RUVIS/FSIS with ridge detail observed and captured. |
| | Dye Stain | The wallpaper swatch was processed M-Star brand fluorescing dye stain and inspected under the TracER laser alternate light source with potential ridge detail developed. |
| | Powder Dusting | Lastly, this item was processed by dusting with black powder with no ridge detail lifted. |
| KVVLUP | Visual Examination | The item was visually examined. |
| | Magnetic Black Powder | The magnetic black powder was applied with circular motion to the item's surface. Only one print was observed on quadrant C. |
| KWMHJJ | Visual Examination | Unable to locate any areas of possible ridge detail |
| | FSIS II - pre CA fuming | Unable to locate any areas of possible ridge detail |
| | Cyanoacrylate Fuming | Unable to visually locate any areas of possible ridge detail |
| | FSIS II - post CA fuming | Able to observe and photograph an area of possible ridge detail in quadrant C |
| | Powder Dusting | Utilized black magnetic powder. I was able to lift the area of possible ridge detail in quadrant C |
| | Powder Dusting | Utilized black powder. I was unable to lift the area of possible ridge detail in quadrant C |
| | Dye Stain | M-Star dye stain and Coherent TracER laser - able to observe and photograph the area of possible ridge detail in quadrant C |
| KZ624D | Visual Examination | OMNIPRINT OP1000A |
| | Cyanoacrylate Fuming | PROJECTINA FUMING CAMBER + OMEGA-PRINT Cyanoacrylate Fuming Compound |
| | Powder Dusting | Magnetic Dark |
| | Visual Examination | OMNIPRINT OP1000A |
| L4KK8G | Visual Examination | Laser, flashlight used |
| | Lumicyanoacrylate fuming | Flashlight, laser used |
| | Powder Dusting | Black Powder, flashlight used |
| | DFO | Laser used |
| | Ninhydrin | Flashlight used |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| L9Z67P | Visual Examination | Visual exam with oblique lighting |
| | Powder Dusting | Magnetic powder lot 052423-01, lifted with lifted tape, not enough ridges observed |
| LCEYJ2 | Visual Examination | First, I made a visual examination to locate the latent print, but it was not visible. |
| | Alternate Light Source | Then I used an alternate white light source obliquely to highlight the latent print bit it was not visible. |
| | Iodine ampoule | To develop the latent print i put the wallpaper and an iodine ampoule inside a plastic bag. The latent print was visible in the letter C. |
| LDTE4U | Visual Examination | 7/1/2024-Ambient lighting |
| | Lumicyano fuming | 7/1/2024-2023-Flourescent CA fuming using Foster and Freeman 1000 fuming chamber. auto cycle settings |
| | Alternate Light Source | 7/1/2024-Laser green wavelength |
| LDWNCU | Cyanoacrylate Fuming | PFC1-15 minutes |
| | Powder Dusting | Black magnetic powder, brush method |
| LFE2WH | Visual Examination | Visual examination under white light and magnification. |
| | Cyanoacrylate Fuming | CSU Cyanosafe set up with fifteen drops of cyanoacrylate in one metal cup on a hot plate, distilled water well filled, and test print placed inside. Chamber ran for 12 minutes followed by the purge process. Process complete and item allowed to dry for one hour. Test print positive. |
| | Powder Dusting | Magnetic black powder applied with a wand. |
| | Ninhydrin | Ninhydrin batch #316. Item was immersed in a tray of solution until all surfaces were completely wet. Item was air dried until completely dry. Item was placed in the CARON chamber at 60 degrees C and 60% humidity for one hour, checking after 30 minutes. |
| | Physical Developer (PD) | Physical Developer batch #531. Processing completed by [Name]. |
| LFV882 | Visual Examination | To see any possible visible prints |
| | Cyanoacrylate Fuming | Though the item is semi-porous, the surface texture of the item reacts more similarly to that of a porous item. CA fuming ensures that the print is "stable" on the surface of the item- allowing further processes that rely on the polymerization that CA fuming creates. |
| | Powder Dusting | Black Powder was used |
| | Powder Dusting | Magnetic powder- the smaller particles are pulled down into the ridges of the item's surface texture leading to clearer development of the prints |
| LHM3WV | Cyanoacrylate Fuming | |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| LL6B7F | Visual Examination | Oblique light |
| | Alternate Light Source | at 455, 475, CSS, 495, 515 mm |
| | Cyanoacrylate Fuming | for 20 minutes |
| | Powder Dusting | Black powder |
| | Dye Stain | Rhodamine 6G, subsequently looked at with ALS at 455, 475, CSS, 495, 515 mm |
| LQFD7Q | Visual Examination | Polilight PL500 |
| | Cyanoacrylate Fuming | Hot plate 120'C, hum. 85%, time 20 min |
| | Powder Dusting | Bichromatic |
| LUFLBZ | IODINE AND MAGNETIC POWDER BLACK | THROUGH VISUAL INSPECTION AND ALTERNATING LIGHT A FINGERPRINT WAS OBSSERVED. |
| LVNUFE | Visual Examination | We could not find any fingerprint by visual examination. |
| | Cyanoacrylate Fuming | Foster&Freeman MVC-3000-D3, with Lumicyano 215 mg + Cyanoacrylate 2,7 grams. Humidity 80%, temperature 120 celsius, gluetime 25 min. |
| | Visual Examination | We could not find any fingerprint by visual examination. Foster&Freeman Crime-Lite Blue 82S 420-470 nm. / Schott GG495. |
| | Powder Dusting | With Magnetic powder dustingwe could find a fingerprint in section C. |
| LXXUKL | Visual Examination | Visual examination under white light and magnification on 7/4/2024 using LED lighting. |
| | Cyanoacrylate Fuming | The Crime Scene Unit CyanoSafe recirculation chamber was used on 7/4/2024. The chamber had 12-15 drops of cyanoacrylate glue put into a metal cup and set to run for 12 minutes. Then after the fumes were purged for 10 minutes the item sat in the chamber for an hour to allow the glue to completely harden. The test print was positive. Then the item was examined under LED lighting and magnification. |
| | Powder Dusting | Black magnetic powder was used on 7/6/2024 and then the item was examined using LED lighting and magnification. |
| | Ninhydrin | Ninhydrin, batch#: 316, was used on 7/6/2024. The item was immersed into the Ninhydrin for a few minutes and then placed into a fume hood to dry completely. While the item was drying the CARON chamber was prepped by letting it come to 60 degrees for both the temperature and humidity inside of the chamber. Once the item was dry and the chamber was at 60 degrees for both temperature and humidity the item was placed into the CARON chamber. The chamber was allowed to come back up to the set 60 degrees for both indicators before a timer for 30 minutes was turned on. After the 30 minutes the item was taken out and examined but I decided to put it back in and let it go for another 30 minutes. After being in the CARON chamber for an hour, the item was removed and examined under LED lighting and magnification. |
| | Physical Developer (PD) | Physical Developer, batch#: 532, was completed by [Name] on 7/17/2024. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| LY8YZV | Visual Examination | Laser/UV/ALS/FSIS/Oblique lighting |
| | Cyanoacrylate Fuming | Fume/FSIS |
| | Dye Stain | MEK Ardrox/UV. Aqueous Rhodamine/Laser |
| | Powder Dusting | Black powder |
| | DFO | Dip in DFO, dry, oven, Laser |
| | Ninhydrin | Dip in Ninhydrin, dry, humidity chamber |
| | Zinc Chloride | Spray with zinc chloride, dry, humidity chamber, ALS |
| | Physical Developer (PD) | Maleic acid, redox solution, rinse |
| M34WX2 | Visual Examination | I performed a visual inspection to locate the fingertprint. |
| | Alternate Light Source | I used a white alternating light to locate it. |
| | Black magnetic powder | I used black magnetic powder to develop the fingerprint. |
| M3MUE8 | Visual Examination | Item 2 on 06/05/2024 @ 1659 - no suitable ridge detail observed |
| | Laser - 445 nm & 520 nm | Item 2 on 06/05/2024 @ 1720 - no suitable ridge detail observed. (All - test/control positive) |
| | Cyanoacrylate Fuming | Item 2 on 06/06/2024 @ 1622 - 8 min 33 sec fume time - no suitable ridge detail observed. (All reagent ID 202305187 - Reagent test/control positive) |
| | Powder Dusting | Item 2 on 06/06/2024 @ 1708 - suitable ridge detail observed - photographed and assigned Item 0123. (All magnetic powder - Reagent test/control positive) |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| MB2HEZ | Visual Examination | 6/24/24 Visual exam under ambient/white light -> No FRD observed |
| | Alternate Light Source | 6/24/24 Visual exam under Crimescope at 350-495 nm wavelengths using UV, yellow, orange and red filters-> At 455 nm and above, an oval-shaped area in quadrant C had a slightly brighter coloration to it than the rest of the wallpaper; however, no confirmation of FRD could be seen and it was not captured |
| | Cyanoacrylate Fuming | 6/24/24 Processed CAE being placed in CA-6000 at 65% relative humidity for 30 minutes |
| | Visual Examination | 6/24/24 Post CAE visual exam under ambient/white light -> No FRD observed |
| | Ninhydrin | 6/24/24 Processed NIN via squirt bottle, hung to dry, then applied steam iron for 2-3 minutes |
| | Visual Examination | 6/24/24 Post NIN visual exam under ambient/white light -> No FRD observed |
| | Dye Stain | 6/24/24 Process RAM via squirt bottle, hung to dry |
| | Alternate Light Source | 6/24/24 Post RAM visual exam under Crimescope at 415-495 nm wavelengths using an orange filter-> No FRD observed |
| | Powder Dusting | 6/26/24 Processed with a mixture of black magnetic and regular black powder with magnetic wand |
| | Visual Examination | 6/26/24 Post powder visual exam under ambient/white light -> No FRD observed |
| MEZUBZ | Visual Examination | No visible ridge detail observed. |
| | Powder Dusting | Ridge detail developed in quadrant "C". |
| MFCT6A | Visual Examination | oblique white light |
| | Alternate Light Source | Labkam - shortwave UV-C lighting |
| | Cyanoacrylate Fuming | 120 degrees C, 80% relative humidity for 15 minutes |
| | Alternate Light Source | Labkam - shortwave UV-C lighting |
| | Dye Stain | RAY - Rhodamine 6G, Ardrox, Basic Yellow |
| | Alternate Light Source | Crimescope - 450-550nm using orange and red barrier filters |
| | Powder Dusting | Black magnetic powder |
| MTZVN2 | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Dye Stain | R6G, had to be careful due to CTS using Sharpie to draw grid. Methanol made sharpie run in small test spot used. |
| | Powder Dusting | |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| MUDCUN | Visual Examination | Polilight PL550XL |
| | Cyanoacrylate Fuming | Cyanopowder (1,2g), Air Science Safe Fume CA-30S, time 40 minutes, humidity 75% |
| | Powder Dusting | powder magnetic Blitz Red, light UV |
| MUFWQ4 | Visual Examination | |
| | Powder Dusting | Used Magnetic Powder to develop latent print on section C |
| MXF4B2 | Powder Dusting | Latent lift powder |
| MZDXJ3 | Visual Examination | 11/06/2024, pre-treatment examination |
| | Cyanoacrylate Fuming | 11/06/2024, placed in Superglue cabinet (MV3000) for 52 minutes @ RH=85 |
| | Alternate Light Source | After that CNA step, the item was subjected to white light examination |
| | Dye Stain | 11/06/2024, item was immersed in BY40 solution, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After that BY step, the item was subjected to Blue light examination using Yellow googles |
| | Dye Stain | 12/06/2024, item was dye-stained by CV solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After that CV step, the item was subjected to white light examination |
| | Dye Stain | 12/06/2024, item was dye-stained by SB solution and kept for about two minutes, after that it was washed using deionized water and left to dry in the drying cabinet |
| | Alternate Light Source | After that SB step, the item was subjected to white light examination |
| | Powder Dusting | 12/06/2024, Black powder was applied on the item |
| | Alternate Light Source | After that powder dusting step, the item was subjected to white light examination |
| N2ANC3 | Visual Examination | |
| | Ninhydrin | |
| N2VXPD | Visual Examination | |
| | Alternate Light Source | TracER Laset & PoliLight |
| | Cyanoacrylate Fuming | CST Lumicyano Solution |
| | Powder Dusting | black powder |
| | DFO | viewed with TracER Laser |
| | Ninhydrin | took photo on second day after more development |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| NA8CAU | Cyanoacrylate Fuming | Item 2 was processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour and allowed to cure at room temperature and atmospheric pressure. |
| | DFO | Sample was then dye stained with DFO and then put in the oven for 20 minutes and viewed with a 530 nm/green forensic laser. The DFO caused the ink to run on the sample, which compromised visibility results on the laser. After not seeing any notable results, the sample was then dyed with Rhodamine 6G (R6G) and viewed with a 530 nm/green forensic laser and no prints were visible. |
| NCRAEC | Powder Dusting | BVDA Magnetic Jet Black |
| NEDW8Y | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Black magnetic powder | |
| NJUBZZ | Visual Examination | Ambient/ring light with magnification- no ridge detail observed |
| | Alternate Light Source | Crime Lite ML-2 (blue and green lights with yellow, orange and red filters)- negligible ridge detail observed in quadrant C. no fluorescence observed. |
| | Cyanoacrylate Fuming | fumed in CA-6000 chamber at ~65% relative humidity for 30 minutes |
| | Visual Examination | Ambient/ring light with magnification- no ridge detail observed |
| | Powder Dusting | dusted with black magnetic powder |
| | Visual Examination | Ambient/ring light with magnification- negligible ridge detail observed in quadrant C |
| | Ninhydrin | dipped into ninhydrin for approximately 5 seconds. dried in fume hood. placed into the NINcha M31 chamber at ~80°C and ~65% relative humidity for 30 minutes |
| | Visual Examination | Ambient/ring light with magnification- no additional ridge detail observed |
| NPYABP | Visual Examination | Used white light, blue light (450nm), and green light (532nm) with orange goggles. An area of unsuitable ridge detail was observed under the blue light in Section C. |
| | Cyanoacrylate Fuming | Cyanoacrylate Fumed evidence. Used 11 drops of CA, and processed for 15 minutes with a 10 minute purge cycle. No prints observed. |
| | Powder Dusting | Black Magnetic Powder chosen because of the textured surface. Latent print observed in Section C. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| NRKV4C | Visual Examination | Used oblique lighting from a Crimelite flashlight (white light), then used a Coherent TracER LASER with a curved orange KV550 lens filter to image any potential latent print. Also, incandescent lighting was used to avoid any hotspots when imaging. |
| | Lumicyano Acrylate Fumming | The entire item and a semi-porous control were placed inside a Foster & Freeman MVC-5000 superglue chamber. Dissolved 5 level spoons of Lumicyano powder into 4 grams of CST Cyanoacrylate glue in a tin disk. After the powder was dissolved, the tin dish was placed on the heating element of the superglue chamber and set on an autocycle program for 70 minutes. Using a Crimelite flashlight (white light), oblique lighting was applied onto the item. Then, a Coherent TracER LASER applied onto the wallpaper. |
| | Powder Dusting | Using a magnetic wand, Magnetic Black powder was applied on the wallpaper. Oblique lighting from a Crimelite flashlight and incandescent lighting was used to image any potential latent prints. |
| | DFO | On the wallpaper and on a semiporous control, A 3 second soaking of 1,8-Diazafluoren-9-one (DF0) was applied. After the item and the control dried, the soaking step was repeated and placed into the Sanyo Gallankamp oven and set at 100 degrees Celsius for 20 minutes. A Coherent TracER LASER and a curved orange KV550 lens filter was used to image the latent print area. The item was re-examined with the LASER after a 24 hour sit-time to allow complete development of DFO. |
| | Ninhydrin | On the wallpaper and on a semiporous control, A 3 second soaking of Ninhydrin was applied. After the item and the control dried, the soaking step was repeated and placed into an oven for 3 minutes set at 80 degrees Celsius and having 65 percent relative humidity. Incandescent lighting, Oblique lighting from a Crimelite flashlight, and fluorescent lighting was used to image any potential latent prints. The item was re-examined after 24 hours of sit-time to allow complete development of Ninhydrin. |
| NWHCHR | Visual Examination | Flashlight, SUV, UV, laser |
| | Cyanoacrylate Fuming | 15 minutes |
| | Dye Stain | Ardrox MEK and aqueous rhodamine |
| | Powder Dusting | Black powder |
| | DFO | Oven 20 minutes |
| | Ninhydrin | Humidity chamber 5 minutes |
| | Zinc chloride | Humidity chamber 5 minutes |
| | Physical Developer (PD) | Maleic acid for 10 minutes and physical developer for 20 minutes |
| NX9PTX | Visual Examination | A visual inspection of piece of evidence number 2, which was a wallpaper, divided into sections A-D. A fingerprint was visualized in the section C. |
| | Alternate Light Source | A visual inspection was performed using white light to confirm the location of the fingerprint. It is was located in section C. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| NXQCRF | Visual Examination | White magnifier Ring Light, White Crime Lite, Green Lazer, Blue Crime Lite, UV Crime Lite. Evidence of mark visualised in Area C using Blue Crime Lite - not enough ridge detail under CEL SOP guidance to warrant photography |
| | Wet Powder Suspension | Black Powder Suspension using Tween 20/Black Iron Oxide Powder formulation. Powder Suspension formulation mixed on same date as treatment process carried out. Test piece processed with a positive result prior to treatment of item. Test piece photographed using DCS5 photography system. Item and test piece treated as per Fingerprint Visualisation Manual instructions. Item assessed/examined in line with CEL SOP, 1 x mark identified and marked as M1 in area C . |
| PA2983 | Visual Examination | In daylight and in whole spectrum of Polilight PL500 none fingerprint. |
| | Cyanoacrylate Fuming | Improved fingerprint quality has been achieved. A fingerprint has been disclosed - section C. |
| | Powder Dusting | Type of powder - Black Ruby. Improved fingerprint quality has been achived - section C. |
| PC9GME | Visual Examination | 6/25/2024, lighting used was LED |
| | Cyanoacrylate Fuming | 06/25/2024, Cyanosafe LP used (test print positive), lighting used was LED |
| | Powder Dusting | 06/25/2024; used magnetic powder: Black and viewed with LED light |
| | Ninhydrin | 06/25/2024, Batch # 316, Caron chamber for 30 minutes and viewed with LED light |
| | Physical Developer (PD) | 06/27/2024, Batch # 531, viewed with LED light |
| PDHLZ4 | Visual Examination | 06-05-24 1804 |
| | Alternate Light Source | 06-05-24 1842. 445 and 520 nm |
| | Cyanoacrylate Fuming | 06-05-24 1909. atmospheric chamber / 10 minutes 30 seconds |
| | Powder Dusting | 06-05-24 1938. magnetic powder |
| PFAHNW | Cyanoacrylate Fuming | Fumed for 1hr under vacuum with cyanoacrylate ester, cured for 45 mins. |
| | Dye Stain | Rhodamine 6G. Stained with Rhodamine 6G. |
| PHAZCQ | Visual Examination | Sidelight |
| | Cyanoacrylate Fuming | About 45 minutes |
| | Powder Dusting | Dusting with magnetic powder |
| | Wet Powder Suspension | Black wet powder |
| PKH7ZD | Visual Examination | 06/17/2024, LED light |
| | Cyanoacrylate Fuming | 06/17/2024, Cyanosafe - LP (test print positive), LED light |
| | Powder Dusting | 06/17/2024, Black magnetic, LED light |
| | Ninhydrin | 06/21/2024, Batch # 316, LED light |
| | Physical Developer (PD) | 06/27/2024, Batch # 531, LED light |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| PM8BWQ | Visual Examination | An initial visual examination was conducted using various alternate light sources: laser (various wavelengths), UV light, full spectrum imaging system, and flashlight (oblique light). No ridge detail was seen throughout the visual examination. |
| | Cyanoacrylate Fuming | Since the piece of wallpaper is made of semi-porous material, the semi-porous processing technique route was followed by beginning with cyanoacrylate fuming. The piece of wallpaper was placed into the superglue chamber for 18 minutes. After examining the item after fuming, ridge detail was visualized, and a digital photograph was taken of the latent impression using full spectrum imaging system. |
| | Dye Stain | Since the superglue had adhered to the surface of the semi-porous item, dye stain was used to fluoresce any ridge detail. First dye stain was Ardrox MEK (Methyl, Ethyl, Ketone) and ridge detail was visualized through the use of UV light and a digital photograph was taken of the latent impression using Image Pro. Then the item was dye stained with Aqueous Rhodamine. Ridge detail was visualized through the use of green laser and a digital photograph was taken of the latent impression to scale using Image Pro. |
| | Powder Dusting | After dye staining, the surface of the item was dusted with black powder. The powder did not adhere to the previously visualized ridge detail, so no print was lifted. |
| | DFO | After utilizing the semi-porous/non-porous techniques for this item, processing proceeded to porous techniques beginning with DFO. DFO working solution was poured into a tray and the item was dipped into the solution until the item absorbed the solution. After taking out the item to dry, it was dipped again and allowed to dry. Once dry, the item was placed into a 100 degrees Celsius heated oven for 20 minutes to accelerate the reaction. Ridge detail was visualized through the use of green laser and a digital photograph was taken of the latent impression to scale using Image Pro. |
| | Ninhydrin | Ninhydrin working solution was poured into a tray and the item was dipped into the solution until the item absorbed the solution. After removing the item, allowing it to dry, the item was placed into a humidity chamber at 70 degrees Celsius and 70 percent humidity for 20 minutes to accelerate the reaction. Upon viewing after removing from the humidity chamber, no ridge detail was visualized. |
| | Zinc Chloride | Zinc chloride was lightly sprayed onto the item and once the item dried, it was placed into a humidity chamber at 70 degrees Celsius and 70 percent humidity for a few minutes to accelerate the reaction. Upon viewing after removing from the humidity chamber, no ridge detail was visualized through the use of alternate light source. |
| | Physical Developer (PD) | Before placing the item in a tray of physical developer working solution, it was placed into a tray of maleic acid solution in order to neutralize the alkaline content of the item. The item was submerged in the maleic acid solution for about 10 minutes until the bubbles forming on the item dissipated. After this, the item was immersed in the physical developer working solution which was in a tray on an orbital shaker and gently agitated while the orbital shaker was on for about 15 minutes. Once agitated for about 15 minutes, the item was removed from the physical developer solution and rinsed in water until the item no longer retained any excess physical developer working solution. The item was then set to dry and |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| | | once dry, no ridge detail was visualized after this technique. |
| PMP9ZQ | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Alternate Light Source | |
| | Powder Dusting | |
| | 1,2-Indanedione | |
| | Alternate Light Source | |
| | Dye Stain | |
| | Alternate Light Source | |
| | Physical Developer (PD) | |
| PVVFFQ | Cyanoacrylate Fuming | Lumicyano SORM-1 |
| QFH4MW | Visual Examination | |
| | Cyanoacrylate Fuming | 15 min / 80% RH |
| | Black magnetic powder | |
| QKBEL3 | Visual Examination | N/A |
| | Cyanoacrylate Fuming | CApture BT fuming chamber settings: 0.2g CA, 80% Humidity, RH Dwell 2min, CA Heat 250F, Fume 4min, Purge 5min. Let item sit overnight after CA fuming. |
| | Powder Dusting | Magnetic Bi-chromatic powder. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| QLPUQ3 | Visual Examination | A visual examination of the item was completed using a white light, coaxial light, the FSIS II (UV 254 nm, Red 695 nm, and IR 850 nm) and Alternate Light Sources (Rofin 450, Rofin 505, Rofin UV, laser) with appropriate filter goggles for each light source (clear, orange, yellow, red) prior to any additional processing. Item was negative for latent print evidence after this examination. |
| | Cyanoacrylate Fuming | I placed the item into the Cyanoacrylate chamber for fuming (approximately a 20 minute cycle for fuming/purging) using a control which exhibited expected results. I allowed the item to set inside the chamber for several minutes before removing it. After processing, I examined the item with the white light, coaxial light, and FSIS II (UV 254 nm) light. The item was negative for latent print evidence after this examination. I allowed the item to set for several hours and then processed with powder. |
| | Powder Dusting | I processed the item using magnetic powder due to it being glossy/semi-porous. The item was positive for possible latent print evidence in area "C" and I photographed it without/with a scale using white light. |
| | Dye Stain | The item was left for additional setting overnight. I processed the item and Cyanoacrylate control with Rhodamine. I used a lab bottle and applied the Rhodamine to the item and dipped the Cyanoacrylate control into the Rhodamine. Both items were left in the Fume Hood for drying. Control exhibited expected results. I examined the item for possible ridge detail using the Rofin 450 nm and 505 nm light source with orange filter goggles. Area "C" was positive for possible ridge detail and was documented/photographed without and with a scale. |
| | Powder Dusting | I applied additional magnetic powder to the item, examined it with white light, and collected one tape lift card containing possible ridge detail from area "C". |
| QM3DYZ | Visual Examination | |
| | Alternate Light Source | Examined under mini-crimescope with all available wavelengths. |
| | Cyanoacrylate Fuming | Applied with SafeFume Superglue Chamber. |
| | 1,2-Indanedione | Added heat and humidity with humidity chamber. Examined under Dual-77 at 520 nm. |
| | Ninhydrin | Added heat and humidity with humidity chamber. |
| | Powder Dusting | Applied bi-chromatic powder. |
| | Rhodamine 6G | Examined under Dual-77 at 520 nm. |
| QP63E3 | Powder Dusting | Magnetic powder |
| QPBPG3 | Visual Examination | Using LED flashlight |
| | Cyanoacrylate Fuming | 4 minutes in small tank |
| | Visual Examination | Using LED flashlight |
| | Dye Stain | Rhodamine 6G (R6G) |
| | Alternate Light Source | Coherent TracER (532 nm laser) |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| QQNYRN | Visual Examination | No prints were visible on the wallpaper. |
| QU3JQW | Cyanoacrylate Fuming | Visual ALS examination and photographed, cyanoacrylate fuming in chamber for 20 minutes, ALS examination, RAM dye stain, ALS examination and photography with filter, powder |
| QUNBNN | Visual Examination | Reflected white light used - No observed detail |
| | Cyanoacrylate Fuming | CA fuming for 12 minutes with 77% humidity. Reflected white light used to look for ridge detail with no observed detail. |
| | Powder Dusting | Magnetic powder used after CA fuming. Ridge detail observed in quadrant C. Ridge detail recorded via scanning at 1200dpi and an overall scan at 600dpi to show all quadrants. |
| | Dye Stain | BY40 dye stain used after CA fuming and magna powder. Ridge detail recorded with a Canon T6i camera with yellow filter attached using a 450nm light source. |
| R2WBCV | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Black magnetic powder | |
| R4MAQU | Visual Examination | I performed a visual inspection to located fingerprint. |
| | Alternate Light Source | I used a white alternating light to located it. |
| | Black magnetic powder | I developed the fingerprint with black magnetic powder. |
| R9JWNN | Cyanoacrylate Fuming | Portable fuming chamber 3 for 15 minutes |
| RCER63 | Visual Examination | used flashlight/oblique lighting |
| | Alternate Light Source | used 505nm, 450nm and uv wavelengths with orange, yellow and clear filters |
| | Cyanoacrylate Fuming | approx 80% humidity for 6min |
| | Powder Dusting | used black fingerprint powder ridge detail observed photos taken |
| RGXV4K | Visual Examination | Visual examination using oblique lighting |
| | Cyanoacrylate Fuming | Processed in fuming chamber for approximately 8 minutes using hotplate set at approximately 200 degrees C and a glass of hot water |
| | Powder Dusting | Used magnetic powder |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| RH3L49 | Visual Examination | Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| | Cyanoacrylate Fuming | Lumicyano added to SG. Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting, TracER laser |
| | Powder Dusting | Used black powder and magnetic bichromatic. Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| | DFO | Placed in oven at 100C, 0% humidity, for 20 min. Examined with TracER laser. After 24 hours, re-examined for any additional development |
| | Ninhydrin | Placed in oven at 80C, 65% humidity, for 3 min. Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| RKUGT3 | Visual Examination | Examined item using ambient lighting, flashlight, and Crime-Lite UV (350-380nm) with clear goggles. |
| | Cyanoacrylate Fuming | Used a vacuum chamber set to 25 PSI and fumed for twenty minutes, let cure for 15 minutes. |
| | Visual Examination | Examined item using a flashlight. |
| | Powder Dusting | Used traditional/standard black powder. |
| | Visual Examination | Examined item using ambient lighting and a flashlight. |
| | Dye Stain | Used a combination dye stain (Rhodamine 6G, Ardrox P-133D, MBD) to spray item and then allowed item to dry in fume hood. |
| | Alternate Light Source | Used Crime-Lite Blue-Green (445-510nm) with orange goggles. |
| | Water rinse after dye stain | After the examination following the initial dye stain application, the item was then rinsed with water in an attempt to lesson/remove background dye staining on the substrate. |
| | Alternate Light Source | Used Crime-Lite Blue-Green (445-510nm) with orange goggles. |
| | Wet Powder Suspension | Used in-lab made Powder Suspension Solution, applied solution with a brush, allowed to sit on substrate for approximately 10-15 seconds before rinsing off with tap water. |
| | Visual Examination | Examined item using ambient lighting. |
| RUGHAC | Visual Examination | Assisted by white oblique lighting and magnification |
| | Cyanoacrylate Fuming | Using the LabConco Fuming chamber - 10 minutes fuming |
| | Powder Dusting | Pink fluorescent powder with Crime-lite (blue/green light paired with orange barrier filter) to view development |
| | 1,2-Indanedione | Crime-lite (blue/green light paired with orange barrier filter) to view development |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| RUJ7QQ | Cyanoacrylate Fuming | First, the bottom of the vacuum chamber is lined with 1 ply paper towels. Then cyanoacrylate is put in the well cups in the fuming bar and the fuming bar is inserted into the vacuum chamber. Next, a test print and the wallpaper are placed in the vacuum chamber. Next the vacuum chamber is turned on and the cyanoacrylate volatilizes and sticks the plastic card holder. The is run for at least an hour (or more than an hour). After at least an hour, the vacuum is released, and the main pump and the vapor recirculate kept running another 20 minutes. Then the chamber is opened, and the cyanoacrylate is allowed to harden for about an hour. |
| | Dye Stain | when the cyanoacrylate has hardened, the wallpaper was stained with Rhodamine 6G (R6G) and allowed to dry. |
| | Alternate Light Source | After the wallpaper was dry. it was looked at with 530nm green forensic laser, |
| | Full Spectrum Imaging system | After looking with the laser, I took the wallpaper and looked at under the Full Spectrum Imaging System's (FSIS) UV lamp. |
| RYANJ9 | Visual Examination | |
| | Cyanoacrylate Fuming | Temperature on the heating plate 100°C, Humidification 80%, Time 25 minutes |
| | Powder Magnetic Black | |
| T6AB9M | Visual Examination | Visual examination with natural/white light in different angles. Examination with diffrent light sources: F&F Crime-Lite 82 UV 350-380 nm, F&F Crime-Lite 42S Blue 420-470 nm and Green 480-560 nm. |
| | Lumicyano | Fuming with Lumicyano 5% solution: Foster+Freeman MVC 3000 Fuming Cabinet: temperature 120C, humidity 80% and fuming time 25 minutes. Quality control print visual. |
| | Powder Dusting | Dusting with black carbon powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| T6U37E | Visual Examination | I visually examined item 2 under a magnifying lens with LED light. |
| | Cyanoacrylate Fuming | I placed item 2 inside a glass aquarium. I added 12 drops of cyanoacrylate to a metal tin on a heating element. I closed the lid and plugged in the heating element and allowed it to run for 6 minutes. Once 6 minutes was done, I opened the lid and allowed the item to sit for 1 hour. I then examined the item with a magnifying lens under LED light. |
| | Powder Dusting | Using a magnetic wand, I gently applied black magnetic powder to the surface of item 2. I then visually examined the item under a magnifying lens with LED light. |
| | Ninhydrin | I added enough Ninhydrin (batch #: 316) into a glass tray to cover item 2. I moved the reagent around until ink was no longer running off the item. I then hung the item to dry completely. I then added item 2 to the Caron chamber that was set at 60% humidity and 60 degrees Celsius. I added the item into the chamber and allowed it to sit for an hour. Once an hour passed, I turned off the Caron chamber and removed the item. I then visually examined the item under a magnifying lens with LED light. |
| | Physical Developer (PD) | I submitted item 2 to the [Laboratory] Latent Print Unit to be processed using physical developer (batch #: 531) by [Name]. When I received the item back, I visually examined the item under a magnifying lens with LED light. |
| TBG2CT | Visual Examination | A visual inspection was carried out on a piece of wallpaper divided into four areas and identified with the letters A, B, C and D, where no fingerprint fragmentation was observed. |
| | Alternate Light Source | Alternating light was used on the piece of wallpaper divided into four areas and identified with the letters A, B, C and D. Where no fragmentation of the fingerprint was observed. |
| | [No Methods Reported.] | Iodine crystals were used on the piece of wallpaper divided into four areas and identified with the letters A, B, C and D. Where the fragmentation of the fingerprint in the area identified with the letter C, developed over a period of 5 minutes. |
| TEFD8T | Visual Examination | First I made a visual examination to locate the latent print but it wasn't visible. |
| | Alternate Light Source | Then I used an alternate white light source obliquely to highlight the latent print but in wasn't visible neither. |
| | Iodine ampoule | To develop the latent print I put the wallpaper and a iodine ampoule inside a plastic bag. The latent print was in the letter C. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| TJAAWJ | Visual Examination | |
| | Alternate Light Source | Blue/green light with orange filter. |
| | Cyanoacrylate Fuming | |
| | DFO | |
| | Heat | |
| | Alternate Light Source | Blue/green light with orange filter. |
| | Ninhydrin | |
| | Heat/Steam | |
| | Alternate Light Source | white light with green filter |
| TK97UU | Visual Examination | Oblique lab light |
| | Cyanoacrylate Fuming | Vacuum fumed with CA for an hour |
| | Alternate Light Source | 1. ALS at 445nm and an orange filter. 2.FSIS-Ultraviolet light with 254nm filter |
| | Ninhydrin | Ninhydrin solution in petroleum ether viewed with visible light. Heat and humidity added for ten minutes with Sirchie Fuming and heat chamber |
| TL29BH | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | 120°C +/- 5°, relative humidity 75% +/- 15% |
| | 1,2-Indanedione | |
| | Dye Stain | Ardrox |
| TMC2DW | Visual Examination | Two (2) minutes. No RD noted. |
| | Alternate Light Source | Five (5) minutes, looking for inherent lumination with Mini-CrimeScope all wavelengths. No RD noted. |
| | Cyanoacrylate Fuming | Fifteen (15) minutes, No RD noted. |
| | Powder Dusting | Magnetic Bi-Chromatic powder used. RD noted in section C. |
| | 1,2-Indanedione | Thirty (30) minute processing and also used Mini-Crimescope 515 nm. No Add RD noted. |
| | Ninhydrin | Thirty (30) minute processing also used steam iron. Additional RD noted. |
| | Dye Stain | Thirty (30) minute processing with Rhodamine 6G and also used Tracer Laser 532 nm. No add RD noted. |
| TNQMPK | Iodine Fuming | |
| | Ninhydrin | 5 min in Nincha chamber with timer. 75 degrees. 65% humidity |
| TP4X3Q | Cyanoacrylate Fuming | Visual examination (000-495); photography; basic yellow; humidity 79%; temperature 130°c |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| TPJGK3 | Visual Examination | |
| | Cyanoacrylate Fuming | Fumed for approximately 10 minutes. |
| | Powder Dusting | Magnetic powder |
| | Powder Dusting | Black powder |
| TT49W7 | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | fluorescent magnetic powder | fluorescent magnetic powder |
| TY96HQ | DFO | Sample was treated with 1, 8-Diazafluoren-9-one and placed in a 100 degree C oven for 20 minutes. Sample after cooling to room temperature was viewed with 530nm green laser. |
| | Dye Stain | Sample was dye stained with Rhodamine 6G and viewed under a 530nm green laser. |
| U29L6K | Visual Examination | Visual examination with natural/white light in different angles. |
| | Lumicyano | Fuming with Lumicyano 5% solution: Foster+Freeman MVC 3000-D3 Fuming Cabinet: temperature 120C, humidity 80% and fuming time 25 minutes. Print visible with light source F&F Crime Lite 42S 420-470nm (blue) and 480-560 nm (green). Quality control print visual. |
| | Powder Dusting | Powder dusting with black carbon powder. |
| U4DEWX | Visual Examination | |
| | Cyanoacrylate Fuming | 20 minutes 80%RH |
| | Powder Dusting | magnetic powder |
| U74G68 | Cyanoacrylate Fuming | lumicyano |
| UJPTGG | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | 120°C +/- 5°, relative humidity 75% +/- 15% |
| | Ninhydrin | Steam iron |
| | Dye Stain | Ardrox |
| UJRECW | Visual Examination | (-) results |
| | Alternate Light Source | Crime Lite (-) results |
| | Powder Dusting | Magnetic powder (+) results. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| UL2JR7 | Visual Examination | |
| | Cyanoacrylate Fuming | Lumicyano fuming 2X |
| | DFO | |
| | Ninhydrin | |
| UTDJ4A | Visual Examination | White light (380-780nm), and blue light (420-470nm) with yellow filter (GG495). |
| | Cyanoacrylate Fuming | 10 minutes cyanoacrylate fuming, 120 degrees celcius heating plate, 80% humidity. |
| | Powder Dusting | Black magnetic powder |
| | 1,2-Indanedione | 10 minutes in 100 degrees celcius |
| | Ninhydrin | 2 minutes in 80 degrees celcius and 62% humidity |
| UWJZKD | Visual Examination | On 6/26/24 I visually examined item 2 under a white light with magnification using an LED light source. No prints observed. |
| | Cyanoacrylate Fuming | On 6/26/24, I placed item 2 into the cyanosafe and allowed it to run for 12 minutes. The purge cycle ran, and the item sat for one hour to dry. I then placed the item under a white light with magnification using an LED light. No prints observed. |
| | Powder Dusting | On 6/26/24, I powered the item using a black magnetic powder. I then placed the item under a white light with magnification using an LED light. Prints were observed in section labeled "C". |
| | Ninhydrin | On 6/26/24, I submerged item 2 in Ninhydrin (BATCH: 316) and allowed to air dry. I then placed the item into the CARON humidifying chamber. I placed item 2 under a white light with magnification using an LED light source and there was no enhancement. |
| | Physical Developer (PD) | On 6/27/24, PD (BATCH: 531) was completed by [Name]. I placed item 1 under a white light with magnification using an LED light source and there was no enhancement. |
| V4EHCU | Visual Examination | Processing time = 3 min; ambient lighting. |
| | Alternate Light Source | Processing time = 4 minutes. Examined using Mini-Crimescope--all available wavelengths. |
| | Cyanoacrylate Fuming | Processing time = 20 minutes. SafeFume table top fuming chamber. |
| | Dye Stain | Processing time = 7 minutes. Dye stain used: Rhodamine 6G. Dried. Examined with Dual77 laser at 520nm. |
| | Powder Dusting | Processing time = 2 minutes. Black magnetic powder. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| VCL73L | Visual Examination | |
| | Alternate Light Source | ~365nm, ~450nm, ~532nm |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black magnetic |
| | 1,2-Indanedione | Oven for acceleration |
| | Dye Stain | RMO, 532nm LASER |
| | Physical Developer (PD) | |
| | Alternate Light Source | ~532nm - Checked fluorescence of RMO again |
| VDX6WV | Visual Examination | |
| | Cyanoacrylate Fuming | Air Science Safefume superglue chamber, 15 minutes, 80% humidity, 69° F |
| | Dye Stain | Rhodamine 6G dye stain, viewed with Bright Beam laser (532 nm) |
| VGZUN4 | Visual Examination | Viewed under regular white light under magnifier for visible ridge detail |
| | Cyanoacrylate Fuming | Placed item in chamber with super glue on heat plate and a beaker of hot water. Also placed QC on plastic sheet on the window of the chamber. Fumed for approximately 15 minutes. |
| | Powder Dusting | Dusted for prints using black magnetic powder |
| VHUH9K | Visual Examination | |
| | Alternate Light Source | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Black magnetic powder, Photo captured |
| | Dye Stain | MRM-10 |
| VPEJPX | Visual Examination | 0737 hours, no suitable ridge detail |
| | Alternate Light Source | 0745 hours, 445 nm & 520 nm, positive reagent test result, no suitable ridge detail |
| | DFO | 0758 hours, 20 minute processing time, reagent ID: DFO 04-12-24, positive reagent test result, no suitable ridge detail |
| | Ninhydrin | 0826 hours, 20 minute processing time, reagent ID: NIN 12-27-23, reagent test result, suitable ridge detail |
| VVLAR4 | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Magnetic powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| VVX2KK | Visual Examination | ambient and white light used |
| | Lumicyano | 1.5 scoops of fluorescent Lumicyano powder combined with 26 dropd of cyanoacrylate (lumicyano solution) to make an 8% solution. Foster and Freeman MVC 1000 chamber used with the following settings. Humidity RH ~80% 10 mins , Glue RH >/= 80% 120 degrees C 15 minutes, Purge cycle < 80% 10 minutes |
| | Alternate Light Source | visualized with Brightbeam green laser 525nm |
| VZEA9K | Visual Examination | Flashlight, UV light and LASER |
| | Cyanoacrylate Fuming | Shortwave UV |
| | Dye Stain | MEK Ardrox- UV. Aqueous Rhodamine- LASER |
| | Powder Dusting | Black powder |
| | DFO | LASER |
| | Ninhydrin | |
| | Zinc Chloride | Alternate Light Source |
| | Physical Developer (PD) | |
| W3YHQK | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | black powder |
| W6PJYT | Powder Dusting | item 2 was dusted with black magnetic powder and a magnetic wand |
| W7TN2F | Cyanoacrylate Fuming | vacuum chamber for approx. 1 hour |
| | Powder Dusting | black magnetic powder |
| | Dye Stain | MBD |
| WGB6TM | Visual Examination | |
| | Alternate Light Source | Laser, Blu Light, and Ultraviolet Light |
| | Cyanoacrylate Fuming | Chamber 10 |
| | Alternate Light Source | RUVIS |
| | Powder Dusting | Magnetic Black Powder |
| | 1,2-Indanedione | Oven |
| | Alternate Light Source | Laser |
| | Dye Stain | RMO |
| | Alternate Light Source | Laser and Blu Light |
| | Physical Developer (PD) | |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| WMHMD9 | Visual Examination | I conducted a visual examination of item 2 under LED light. |
| | Cyanoacrylate Fuming | After a visual examination, I placed item 1 into the Cyanosafe with 12 drops of cyanoacrylate. After placing a test print and ensuring the chamber had sufficient water, I set the timer to 12 minutes and let the item process. After processing, the item sat for one hour prior to examining it under an LED light. |
| | Powder Dusting | After cyanoacrylate fuming, I used black magnetic powder to dust the item for any prints and examined it under an LED light. |
| | Ninhydrin | After powder dusting, I used ninhydrin. The batch number was 316. I dipped the item in ninhydrin and let it dry in a fume hood. While the item was drying, I turned on the Caron chamber to let it warm up to 60 degrees Celsius and 60% humidity. Once the chamber was ready, I placed item 2 into the chamber. I checked the item after 15 minutes and did not see any development of latent prints. I let the item continue processing in the chamber for another 15 minutes. After that time, I removed item 2 from the chamber and examined the item under an LED light. |
| | Physical Developer (PD) | On 6/27/24, I submitted item 2 to the PD Box. The item was processed by [Name] with batch number 531. Once the item was returned, I examined it under LED light. |
| WQ8RAM | Cyanoacrylate Fuming | chamber 82 % ambient humidity, superglue fumed from chamber hotplate with intermittent circulation fan for 14 min. |
| | Dye Stain | Saturate surface with basic yellow 40 pre-mix, and rinse with tap water. Pat dry. |
| | Alternate Light Source | Excite fluorescent dye with a 460nm laser and visualize through a laser shield optical density of 5 at 460nm. |
| WU2Y4V | Visual Examination | White Light |
| | Alternate Light Source | Blue (420-470nm), Green (480-560nm), UV (350-380nm) |
| | Wet Powder Suspension | Black powder suspension, carbon based |
| X6Z6KZ | Visual Examination | 6/11/2024 |
| | Cyanoacrylate Fuming | 6/11/2024 |
| | Powder Dusting | 6/11/2024: fluorescent powder |
| | Dye Stain | 6/11/2024: ardrox |
| | Photograph | 6/11/2024 |
| X7TYFJ | Visual Examination | flashlight |
| | Cyanoacrylate Fuming | 15 minutes in chamber |
| | Dye Stain | RAM sprayed on |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| XBGNU2 | Powder Dusting | Se realizó la recepción del ítem, verificando que el embalaje se encontrara integro y se procedió a realizar la apertura de este, iniciando al procesamiento el día 18 de junio de 2024 a las 13:40 horas, aplicando el reactivo de polvo magnético negro con lápiz magnético. Una vez aplicado el reactivo se localiza un elemento lofoscopico, se recolecta y se concluye el procesamiento a las 15:30 horas del mismo día. |
| XFDEZD | Cyanoacrylate Fuming | Placed inPlaced in CYVAC with cyanoacrylate ester for 1 hour. |
| | Dye Stain | Dyed with R6G |
| XPLRFV | Visual Examination | Used white light. No ridge detail observed. |
| | Cyanoacrylate Fuming | Used Air Science fuming chamber with Evident Microburst cyanoacrylate ester. Item was fumed for ~15 minutes at ~72 deg F and ~70.0% relative humidity. Control OK. No ridge detail was observed. |
| | Powder Dusting | Used black magnetic powder. Control OK. |
| | Dye Stain | Used Evident fluorescent dye stain RAM. Control OK. Used Mini Crimescope ALS wavelengths ranging from UV to 515 nm with yellow and/or orange barrier filter while searching for ridge detail. Ridge detail was observed in Quadrant C, which was designated as latent print 2-L1 and photographed. |
| XT7PVY | Visual Examination | oblique lighting |
| | Alternate Light Source | Lab Kam |
| | Cyanoacrylate Fuming | |
| | Alternate Light Source | Lab Kam |
| | Powder Dusting | Magnetic black powder |
| | 1,2-Indanedione | Heat press, 10 seconds |
| | Alternate Light Source | Crimescope 515 nanometers |
| | Ninhydrin | acetone based, humidity chamber, 30 minutes |
| | Ninhydrin 48 hour hold | analyzed evidence after 48 hours passed initial treatment of ninhydrin |
| XVB4GJ | Magnetic Powder | Item 2 wallpaper was subject to observation using a white light lamp, appreciating the characteristics with a rough, dry and non-absorbent surface; Therefore, the black magnetic reagent was used, using a magnetic picnel for the search and development of the latent print and a marabou feather brush for cleaning. |
| XW3DC7 | Visual Examination | No patent fingerprints observed |
| | Powder Dusting | Black magnetic fingerprint powder and applicator wand |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| XYRHAJ | Visual Examination | Laser, Oblique lighting, UV, ALS |
| | Cyanoacrylate Fuming | ~15 mins |
| | Dye Stain | MEK Ardrox - Laser |
| | Dye Stain | Aqueous Rhodamine - Laser |
| | Powder Dusting | |
| | DFO | Laser |
| | Ninhydrin | |
| | Zinc Chloride | ALS |
| | Physical Developer (PD) | |
| Y2FDAX | Cyanoacrylate Fuming | Visual Exam. CA Lab Lot # XL23419. Foster & Freeman MVC 3000 CA Fuming Chamber. Auto Humidity: 80%. Fume Time: 14 minutes |
| | Powder Dusting | Visual Exam. Standard black powder. No latent prints of value for comparison purposes were found. Ridge detail was found in Quadrant C. |
| Y82F73 | Powder Dusting | Two toned magnetic powder application was made with magnetic brush, 10 minutes |
| YEFCWU | Visual Examination | Proper PPE was used during this step. Item was visually examined |
| | Cyanoacrylate Fuming | Processing time = approximately 20 minutes. CFC chamber at 70% humidity - 10 min. cycle followed by a 10 min. purge cycle. CFC positive/negative controls tested Lot# ZS30419 Exp: 04/25 |
| | Powder Dusting | Proper PPE continued to be used during this step. Processing time = approximately 5 minutes. Black magnetic powder was used to process the item |
| YH3YPH | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Magnetic Powder |
| YHGAJF | Magnetic Powder | Item 2 wallpaper was subject to observation using a white light lamp, appreciating the characteristics with a rough, dry and non-absorbent surface; Therefore, the black magnetic reagent was used, using a magnetic picnel for the search and development of the latent print and a marabou feather brush for cleaning. |
| YLGHNQ | Visual Examination | no visual ridge detail observed |
| | Cyanoacrylate Fuming | visible ridge detail observed |

 

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| YMRKAP | Visual Examination | First I made a visual examination to locate the latent print but it wasn't visible. |
| | Alternate Light Source | Then I used an alternate white light source obliquely to highlight the latent print but it wasn't visible neither. |
| | Iodine ampoule | To develop the latent print I put the wallpaper and a iodine ampoule inside a plastic bag. The latent print was visible in the letter C. |
| YQXWGQ | Visual Examination | No RD noted. |
| | Alternate Light Source | Inherent Lumination-No RD noted-Mini-crimescope- with all available wavelengths |
| | Cyanoacrylate Fuming | No RD noted- Safefume Superglue chamber |
| | Powder Dusting | Bi-chromatic powder- RD noted in Section C |
| | 1,2-Indanedione | No additional RD noted- used dual 77 laser 520nm |
| | Ninhydrin | No additional RD noted |
| | Dye Stain | Rhodamine 6G- No additional RD noted- Dual 77 520nm |
| YR8TXN | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Black magnetic powder | |
| | Ninhydrin | |
| YZMKEE | Visual Examination | Visual examination using white light. |
| | Alternate Light Source | Visual examination using various wavelengths of light. |
| | Cyanoacrylate Fuming | Fuming followed by visual examination using white light. |
| | 1,2-Indanedione | Indanedione applied, heat press used, visualised using laser (532nm). |
| | Dye Stain | Aqueous Rhodamine 6 G applied, lightsearch carried out using laser (532nm). |
| | Dye Stain | Gentian Violet applied, lightsearch carried out using white light and laser (577nm). |
| | Dye Stain | Methanolic BY40 applied, lightsearch carried out using laser (460nm). |
| | Powder Dusting | Powder applied, visualised using white light. |
| Z29LVL | Powder Dusting | Used department issued brush and black powder to process the item. Lightly brushed the item and a latent print was developed in quadrant C. |
| Z69WQL | Visual Examination | visually inspected, inspected with side lighting (white), |
| | Alternate Light Source | examined with an ALS (UV) light source. |
| | Ninhydrin | Item #2 (wallpaper) was treated with ninhydrin (NIN Plus Ultra, pre-mix spray- Lot# 02060252023) due to Iodine not being available at this time. A print was developed after approx. 40 min in a humidifying chamber in quadrant C. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| Z9BV2E | Visual Examination | Examined using natural light, flash light, UV, ALS, LASER, and SUV. |
| | Cyanoacrylate Fuming | Development was approximately 10 minutes. Examined using natural light, flash light, UV, ALS, LASER, and SUV. |
| | Dye Stain | Ardrox (MEK) with UV excitation. |
| | Dye Stain | Rhodamine 6G (aqueous) with LASER excitation. |
| | Powder Dusting | Black fingerprint magnetic powder. |
| | DFO | with LASER excitation. |
| | Ninhydrin | |
| | Zinc Chloride | with ALS excitation. |
| | Physical Developer (PD) | |
| ZAN6EL | Cyanoacrylate Fuming | 15 minutes of glue time in portable fuming chamber 1 |
| | Powder Dusting | Black magnetic powder, brush method with wand and powder |
| ZDNF9Z | Visual Examination | Performed a visual examination of item 2. Used Crimelite and TracER Laser. No digital photographs were taken. |
| | Cyanoacrylate Fuming | Used Lumicyano fluorescent cyanoacrylate fuming. Used Crimelite and TracER Laser. Took three digital photographs using oblique lighting with the Crimelite of latent print area in quadrant C. |
| | Powder Dusting | Used Black Powder on item 2. Used Crimelite and Incandescent lighting. No digital photographs were taken. |
| | DFO | Used DFO on item 2. Used TracER Laser. No digital photographs were taken. |
| | Ninhydrin | Used Ninhydrin on item 2. Used Crimelite and Incandescent lighting. No digital photographs were taken. |
| ZMTMPL | FSIS | Examined with FSIS before and after fuming. |
| | Cyanoacrylate Fuming | Fumed for an hour, then allowed to cure for 30 minutes. Examined with FSIS before and after fuming |
| | 1,2-Indanedione | Dyed with indanedione w/ HFE, examined with 532 nm light via Forensic LASER and orange filter goggles. Used heat and humidity. |
| | Ninhydrin | Dyed with ninhydrin. Both indanedione and ninhydrin used heat and humidity. |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|
| ZR79W8 | Visual Examination | A fluorescent light was used while looking at the item at various angles under magnification. |
| | Cyanoacrylate Fuming | The item was placed into a CyanoSafe where I added distilled water to the cup heater element and put 12 drops of liquid cyanoacrylate into a foil cup. That foil cup was then placed on a heating element. A test print was made and hung in the chamber. The chamber was closed and it was turned on to run for 12 minutes. After the 12 minutes the chamber went through its purge cycle and I let the item sit for 60 minutes. I examined the item under a fluorescent light at various angles under magnification. |
| | Powder Dusting | Black magnetic powder was used and a magnetic wand was used to apply the powder in a fume hood. I examined the item under a fluorescent light at various angles under magnification. |
| | Ninhydrin | I poured the ninhydrin into a glass tray in a fume hood. I immersed the item into the tray and hung it to dry in the fume hood. I turned on the Caron chamber before starting the process to get the settings where they need to be. When the chamber was ready I placed the item in the chamber and left the item in the chamber for 45 minutes. I examined the item under a fluorescent light at various angles under magnification. |
| | Physical Developer (PD) | This process was completed by [Name] and the batch number was 531. I examined the item under a fluorescent light at various angles under magnification. |
| ZVJ9TY | Visual Examination | Initial visual exam was conducted of the item and again after each method used. One impression (L1) was visible in Quadrant C. |
| | Cyanoacrylate Fuming | Cyanoacrylate fuming chamber was used; a control and glue were placed in the chamber; remaining steps automatically conducted. The impression (L1) in Quadrant C was visible but no additional detail developed. |
| | Powder Dusting | The exterior sides of the item were dusted with black powder. Further detail developed in the impression L1 in Quadrant C, plus a second possible partial impression (L2) developed, also in Quadrant C. |
| ZVLVBC | Visual Examination | White light with different angles. |
| | Alternate Light Source | Foster&Freeman Crime Lite ML2 (UV-VIS). |
| | Powder Dusting | Black Magnetic Powder. |
| | Powder Suspension | Iron Oxide (II/III). |
| ZZGGCM | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Black magnetic powder | |
| ZZYGGX | Visual Examination | |
| | Cyanoacrylate Fuming | |
| | Powder Dusting | Magnetic black powder |

# TABLE 2 - Item 2

| WebCode | Development Methods | Method Details |
|---|---|---|

## Item 2 - Development Response Summary

Participants: 312

### Methods Utilized

| | | | | |
|---|---|---|---|---|
| Alternate Light Source | 159 | Physical Developer | 44 | *Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.* |
| Cyanoacrylate Fuming | 224 | Powder Dusting | 218 | |
| DFO | 29 | Visual Examination | 250 | |
| Dye Stain | 105 | Wet Powder Suspension | 5 | |
| Ninhydrin | 83 | 1,2-Indanedione | 43 | |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2322H4 | Visual Examination | NDP |
| | Alternate Light Source | NDP, 300-400nm/clear; 415nm/yellow; 455nm, 475nm, 495nm, 515nm/orange; 555nm/red |
| | Ninhydrin | RDP - one latent. 80 degrees celsius 65% relative humidity |
| | 1,2-Indanedione | IRD. Dry iron used, 515nm/orange and 555nm/red |
| 24AZTC | DFO | in chamber approx. 20 min |
| | Ninhydrin | with heat/steam |
| 28WTQZ | Visual Examination | No friction ridge detail could be seen prior to processing. |
| | Ninhydrin | The envelope was sprayed with Ninhydrin and placed in the humidity chamber at 70% humidity and 70% heat for 20 minutes. The result of the Ninhydrin developed friction ridge detail of possible value on Quadrant B. |
| 2BCZEY | Visual Examination | white light |
| | Alternate Light Source | Crimelite 82S Pro |
| | DFO | 6 minutes/ TracER laser for visualization |
| | Ninhydrin | 3 minutes |
| 2GKJDR | Visual Examination | Oblique and direct lighting |
| | Alternate Light Source | Blue light - 420-470nm |
| | Ninhydrin | DFO/Ninhydrin chamber. 3 minute processing time at 65% humidity |
| 2HUHLF | Visual Examination | White light and different foster freeman crime lite lights. |
| | 1,2-Indanedione | |
| | Alternate Light Source | White light and different foster freeman crime lite lights. |
| 2K2R2R | Visual Examination | Visually reviewed each item. 1127hrs |
| | laser 445nm and 520nm | Used laser at both 445nm and 520nm to visualize prints on all items. 1351hrs |
| | DFO | Used DFO on manila envelope. Allowed to air dry after chemical application. Hung in heated chamber at 212 degrees. Used laser (445nm and 520nm) to visualize print. 1422hrs |
| | Ninhydrin | Used Ninhydrin on manila envelope. Allowed to air dry after chemical application. Hung in heated chamber at 175 degrees. 1503hrs |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2NFLE4 | Visual Examination | On 6-21-2024, I examined the item under a white LED light and observed no visible ridge detail/prints. |
| | Alternate Light Source | On 6-21-2024, I examined the item under a wavelength 450nm light with an orange filter and observed no visible ridge detail/prints. |
| | Ninhydrin | On 7-6-2024, I applied ninhydrin to the item and placed it into a humidity-controlled chamber. I then observed the item under a white LED light and observed no visible ridge detail/prints. |
| | Physical Developer (PD) | On 7-9-2024, I submitted the item to the [Laboratory] Latent Print Unit. On 7-17-2024, [Name] applied Physical Developer to the item. I then received the item back into my custody and observed the item under a white LED light and observed no visible ridge detail/prints. |
| 2PU3LP | Alternate Light Source | Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm) No Mark Found |
| | 1,2-Indanedione | Sprayed with 1,2 Indanedione, kept in Oven for 20 mins to dry at 100C temperature, with 0% humidity. After 20 mins, Mark search was done by using 532nm light (green) with goggle (550nm), Mark found on Section B |
| | Ninhydrin | Sprayed with Ninhydrin, kept in Oven for 20 mins to dry at 80C temperature, with 65% humidity. After 20 mins, Mark search was done by using Naked eye and White light, no addtional mark found |
| 2Q7NMD | Visual Examination | Examined for patent prints |
| | 1,2-Indanedione | I applied 1,2-indanedione to the note and put the note in a 100 degree Celsius oven for 20 minutes. |
| | Alternate Light Source | I used the Bright Beam Laser at 532nm with orange laser goggles to visualize the processed note. |
| 2REZ3T | Visual Examination | Visual examination performed on 6/24/24. No ridge structure was observed at this stage. |
| | 1,2-Indanedione | Indanedione applied to item and placed in dry humidity chamber for twenty minutes on 6/24/24. |
| | Alternate Light Source | Crimescope used at 505nm with orange goggles to examine item processed with indanedione on 6/25/24. Ridge structure of collection value was observed, marked as 1C1a, and photographed. |
| | Ninhydrin | Ninhydrin-Hexane applied to item and placed in humidity chamber for ten minutes on 6/25/24. Print 1C1a was observed at this stage and photographed. |
| | Ninhydrin | 48-hour hold for Ninhydrin-Hexane. Ridge structure not further developed at this stage. |
| 2VY2WF | Ninhydrin | The item was chemically processed with Ninhydrin with negative results. The item was sprayed with the chemical, dried, and then a second application of the chemical and then dried. It was then heated with an iron. |
| | Oil red O | After utilizing Ninhydrin, the item was chemically processed with Oil Red O with negative results. The item was placed in a plastic bag with the solution and agitated for five minutes. It was then put in a bag with a water post wash, agitated for five minutes, and then set out to dry. |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 2XRK9E | Visual Examination | Used magnifying glass and white light |
| | Iodine | |
| | DFO | Two photos taken |
| | Ninhydrin | |
| | Silver Nitrate | Silver Nitrate |
| 2YUT6C | Visual Examination | No fingerprint. The light sources (UV and visible) at the labeled wavelength 350-650 nm and white. |
| | DFO | Disclosing of a fingerprint. The fingerprint is visible in the light source 505 nm with orange goggles. |
| | Ninhydrin | Not improvement in fingerprint quality after use Ninhydrin. The fingerprint is steel visible the best at the white light. |
| 33BCP7 | DFO | Sprayed with DFO, then placed in Caron humidity chamber, humidity turned off, for 20 minutes. |
| | Alternate Light Source | Viewed with forensic laser. |
| 3639EZ | Visual Examination | Visual examination with negative results. |
| | Alternate Light Source | Examined with the Full Spectrum Imaging System (FSIS) with negative results. |
| | 1,2-Indanedione | Ridge detail was developed in quadrant B and the results were photographed. |
| | Ninhydrin | Processed with Ninhydrin with negative results. |
| 36KDUD | Visual Examination | |
| | Ninhydrin | Heptane ninhydrin applied with a squeeze bottle and allowed to dry. |
| | CARON Forensics Fingerprint Chamber | After ninhydrin was dry, item was placed in the CARON environmental chamber at approximately 80 degrees Celsius and a humidity level of approximately 65% for 10 minutes. |
| 38BE2M | Ninhydrin | Control was performed before processing sample. Control includes drawing two circles on a clean piece of paper, one circle labeled "positive" and the other labeled "negative". While wearing gloves one drop of an artificial perspiration reagent (PLAP) was added to the "positive" circle. The "negative" circle was left empty. The control test paper was then submerged into Ninhydrin and then allowed to air dry. Indirect heat was applied to the control test paper using a steam iron for about 1 minute. The "positive" circle changed to a violet color indicating the Ninhydrin works properly. The evidence item was submerged in Ninhydrin and then allowed to air dry. Indirect heat was then applied to the item using a steam iron for about 5 minutes. Latent print observed in section B of the sample. |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 3A929W | 1,2-Indanedione | The paper was placed in 1,2- indanedione solution, let paper around 20 minutes to dry. Using Foster + Freeman crime lite (Blue/Green 450 – 510nm @ Orange Filter (529nm)). A latent print was appeared on B position. However, it was not clearer. |
| | Ninhydrin | Putting paper on Ninhydrin solution, let paper dry around 15 minutes. The latent appeared clearer on B position. |
| 3B7EQH | Visual Examination | A visual inspection was performed. |
| | Alternate Light Source | After the visual inspection, alternating white, violet and blue light was used in an oblique position. The result was negative, the latent was not located with the naked eye. |
| | 1,2-Indanedione | The reagent Iodine in Crystal was used for the development of the latent print. |
| 3BNEYE | Visual Examination | Examined with LASER, ALS, UV, oblique lighting, and FSIS with shortwave UV. |
| | DFO | Dipped, placed in oven for approx. 15 minutes, examined with Laser |
| | Ninhydrin | Dipped, placed in humidity chamber at 70 degrees and 70% humidity for approx. 15 minutes |
| | Zinc Chloride | Dipped, placed in humidity chamber at 70 degrees and 70% humidity for approx. 15 minutes, examined with ALS |
| | Physical Developer (PD) | Dipped in Maleic Acid prewash and then in solution for approximately 10 mins, rinsed with water, allowed to dry |
| 3ELMEH | Visual Examination | At 1:06 a.m. I began to work on the piece, I began using all the necessary equipment, I documented the piece of evidence with a general photograph, to capture how it was received and each of its packaging |
| | Alternate Light Source | then perform visual inspection using alternating white light on the piece of evidence for greater visibility, obtaining no results. |
| | Iodine Crystal Amp | Then I began to work the piece with "Iodine Crystal Ampoules" Ref. A211C placed inside a sealed gas chamber, during the process I carried out an inspection where positive results were obtained. |
| 3F2Z7Z | Visual Examination | crime lite, incandscent, and laser |
| | DFO | 20 mins |
| | Ninhydrin | 3 mins |
| 3J3Z8H | Visual Examination | |
| | Iodine Fuming | |
| | Ninhydrin | |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 3KTDHN | Alternate Light Source | The evidence is checked using "Lumatec 400" forensic light with all spectrum. 23°C room temperature. |
| | 1,2-Indanedione | All ITEM 3, is immersed in a INDANEDIONE solution. Natural drying. The oven is used to visualice the developed latent print. 101°C Temeperature. 0% humidity (20 minutes) |
| | Alternate Light Source | The evidence is checked again using forensic light with all spectrum. |
| | Ninhydrin | The ITEM 3, is immersed in a Ninhydrin solution. Natural drying. The oven is used to visualice the developed latent print. 81°C Temperature. 65% Humidity. (6 minutes) |
| | Alternate Light Source | The evidence is checked again using forensic light with all spectrum. |
| 3RCE7D | Ninhydrin | (Special Formula) spray method, FDC used at 80 degrees Celsius and 60% humidity for 20 minutes |
| | Powder Dusting | Black magnetic powder |
| 3TPBAW | Alternate Light Source | RUVIS |
| | DFO | |
| | Alternate Light Source | various wavelengths using orange, red, and yellow filters |
| | Ninhydrin | |
| 3WPJD8 | Visual Examination | The item was visually examined. |
| | Ninhydrin | Then sprayed with ninhydrin (8 inches away at room temperature) and left processing for 24 hours. |
| 3X3WFH | Iodine crystal | Was exposed to Iodine crysrtal fumes, for abaut one hour. |
| 3XHD9Q | Visual Examination | |
| | Alternate Light Source | used UV and 455 with yellow and orange barrier filter |
| | Ninhydrin | Dippped and then developed with steam iron. Quality control (test print) conducted - good |
| 42EALN | Visual Examination | Visual with White Light. |
| | Alternate Light Source | Visual with ALS- CrimeScope all wavelengths with orange barrier filter. |
| | 1,2-Indanedione | Viewed at 520nm with Dual77 and Orange Barrier Filter. Utilized Humidity Chamber. |
| | Ninhydrin | Utilized Humidity Chamber. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 42YQ2Q | Visual Examination | Item was visually examined prior to any processing. |
| | Ninhydrin | Ninhydrin (NIN). Lot: 12042023JRL, exp. 12/04/2024. positive and negative controls conducted with appropriate results. Item was treated (sprayed) with NIN, and allowed to air dry. Once dry, the item was treated with steam for approximately one (1) minute. Item was transferred to a secure locker to process overnight. Item was checked on 07/03/2024, after 48-hours processing. No visible latent fingerprint or ridge detail was observed. The item was treated again with NIN (same procedure) and allowed to process until 07/15/2024. No visible latent fingerprint or ridge detail was observed. A purple discoloration (indicating a reaction) was observed in Quadrant A, B, D, along the bottom edge of the item and around the fastener hole. |
| 47CQYH | DFO | HFE7100 Formula Lot: PF300232412301. Oven DFO-01. Blue laser-01 |
| 4AWHAK | Ninhydrin | One piece of paper with two circles on it was placed into glass container. One print placed using plap in one circle. The other circle was left untouched. Ninhydrin was put on top of this piece of paper and submerged for 15 seconds. The circle where the PLAP was placed turned pink. The other circle had no reaction. The controls were successful. The manila envelope was placed into the the glass container and submerged in the Ninhydrin solution for 15 seconds. Once taken out I hung it up for one minute to let the excess drip off. The envelope was then taken and put underneath a piece of brown craft paper and a hot iron was put on top and maneuvered around on the envelope. No prints were developed. |
| 4DNWL9 | Visual Examination | Visual examination with light light and forensic light equpiment. |
| | DFO | Dipped the item in DFO solution, let it dry. Then item put into humidity chamber for 95 degrees. |
| | Ninhydrin | Dipped the item in Ninhidrin, let it dry. Then item put into humidity chamber for 65 degrees and 75% humidity. |
| 4PNDLB | Visual Examination | Prior to any processing, the item was examined visually for any visible ridge detail. No ridge detail was observed. |
| | Alternate Light Source | The Foster & Freeman Crime-Lite ML2 was used to see any ridge detail that may naturally fluoresce. No ridge detail was observed. |
| | Ninhydrin | Ninhydrin was applied using a squirt bottle. Due to our humidity chamber needing repair, the envelope was allowed to rest for 24 hours in natural temperature and humidity conditions to develop any prints. Due to a faint impression observed in section B, ninhydrin was reapplied a second time and allowed to rest an additional 24 hours. No further ridge detail developed. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 4ZMDWU | Visual Examination | 06/07/24: V, DFO |
| | DFO | 06/07/24: V, DFO |
| | Visual Examination | 06/10/24: V, N, S, T |
| | Ninhydrin | 06/10/24: V, N, S, T |
| | Steam | 06/10/24: V, N, S, T |
| | Time | 06/10/24: V, N, S, T |
| | Visual Examination | 06/12/24: V, T |
| | Time | 06/12/24: V, T |
| | Visual Examination | 6/18/24: V, T |
| | Time | 06/18/24: V, T |
| | Visual Examination | 06/20/24: V, P |
| 4ZZU4F | Visual Examination | A visual inspection was made with alternative light for the piece of evidence, but it was not visible. |
| | Alternate Light Source | I used alternate white light source to locate the latent print, but it was not visible. |
| | Iodine ampoule | I put the envelope inside the plastic bag with an iodine ampoule to develop it. The latent print was visible in the letter B (faded). |
| 66DUZ8 | 1,2-Indanedione | It is understood that the surface of the Item is porous. 1. Treatment is performed with Indandione. It is visualized with an orange filter and 515 nm light. 2. Subsequently, treatment with Ninhydrin is performed to improve contrast, visualizing it with white light. |
| 66T4ZZ | Visual Examination | LED |
| | Ninhydrin | batch 316, LED, some development in section B, however there was not enough ridge detail to take a photograph |
| | Physical Developer (PD) | batch 531, LED |
| 68ZLXV | Visual Examination | white light and laser |
| | DFO | treat item twice with DFO, 20 minutes in dry oven |
| | Ninhydrin | treat item twice with ninhydrin, 3 minutes in humidified oven |
| 6ARHMP | Visual Examination | lighted magnification |
| | Ninhydrin | heat and humidity chamber / 45 minutes |
| | Visual Examination | lighted magnification |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 6CUJP8 | Visual Examination | A visual exam was conducted on the item prior to any processing. No prints were observed. |
| | Alternate Light Source | An alternative light source was used with a wavelength approximately between 430-470 nm. An orange filter was used to look at the evidence. No prints were observed. |
| | Ninhydrin | Since this item was porous, Ninhydrin was applied to the evidence. Ninhydrin, when it comes into contact with the residues left behind from a latent print, will develop into a purple like color. The evidence was sprayed inside of a fume hood on both sides and allowed to dry. The evidence was then placed into a secured locker and allowed to develop for 24 hours. |
| 6DQW9U | Visual Examination | |
| | Ninhydrin | |
| | Caron Chamber | Placed in Caron Chamber for 10 minutes. |
| 6G86WT | Visual Examination | 6/17/24 |
| | Powder Dusting | 6/17/24 Florescent magnetic powder |
| | Photocopy | 6/17/24 |
| | Ninhydrin | 6/17/24 |
| | Steam | 6/17/24 |
| | time | 6/17/24 |
| | Visual Examination | 6/25/24 |
| | Ninhydrin | 6/25/24 |
| | steam | 6/25/24 |
| | time | 6/25/24 |
| | Visual Examination | 6/28/24 |
| | time | 6/28/24 |
| | Visual Examination | 7/1/24 |
| 6HLQ8G | Visual Examination | used magnifying lamp |
| | DFO | used NINcha chamber. -test prints developed |
| | Ninhydrin | used NINcha chamber (1st process). -test prints developed (2nd process) let hang in the fume hood overnight. -test prints developed |
| 6JCPLE | Visual Examination | |
| | Alternate Light Source | |
| | Ninhydrin | with humidity |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 6VATQ9 | Visual Examination | Visual examination and used side lighting. |
| | Iodine Fuming | Iodine used on test print. Test print positive. Iodine used on second test print and item. Second test print positive. No ridge detail observed on item. |
| | Ninhydrin | Dipped test print into Ninhydrin, dried, then placed into climate chamber at 75C and 65% relative humidity. Test print positive. Dipped second test print and item into Ninhydrin, dried, then placed into climate chamber at same parameters. Second test print positive. Very faint ridge detail observed in Section B. |
| 6XUMKN | Visual Examination | White light at direct and oblique angles |
| | Ninhydrin | Ninhydrin in a wash bottle was applied to a control test print. The ninhydrin was allowed to dry and the item was placed between layers of butcher paper and a steam iron was used. The results of the control were appropriate and the above process was repeated on Item 3. Faint ridge detail developed at this time and was photographed for preservation. A few days passed, and I re-examined the ridge detail. A scan was taken of the ridge detail for preservation. Additionally, I used an FLS at 455nm and an orange filter on the camera for possible better contrast and a photograph was taken for preservation. |
| 73GXPH | Visual Examination | 06/06/2024 @ 1:43 pm, pre-treatment examination |
| | DFO | 07/06/2024 @ 9:28 am, item was immersed in DFO solution, after that it was left to dry completely, then item was placed in the Humidity chamber (Oven) @ T=100C |
| | Alternate Light Source | After the DFO step, the item was subjected to Green light examination using orange googles |
| | Ninhydrin | 10/06/2024 @ 10:00 am, item was immersed in Ninhydin solution, after that it was left to dry completely, then item was placed in the Humidity chamber (Oven) @ T=75C, RH=65 |
| | Alternate Light Source | After the NH step, the item was subjected to White light examination |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 73M2RA | Visual Examination | 1. Took photographs of the evidence as received. 2. Looked for latent impressions via plain naked eye, flashlight, FSIS/254 nm short-wave UV, long-wave UV lamp, and 445 nm blue/532 nm green LASERs. Approximately 25 minutes of processing time. |
| | DFO | 1. DFO was applied to a porous test print via immersion. The print was immersed for 5 seconds on each side, allowed to dry, immersed for another 5 seconds on each side, and allowed to dry again. 2. The dry test print was placed in the oven for 20 minutes and was then viewed with a Wratten #21 orange filter/532 nm green LASER. 3. After confirming that the DFO worked on the test print, it was applied to the evidence item and visualized the same way. 4. Waited 24 hours before moving to the next method. Approximately 25 minutes of active processing time (including photography). |
| | Ninhydrin | 1. Visualized the DFO-treated evidence item again with a Wratten #21 orange filter/532 nm green LASER for possible improvement of visible latents. 2. Ninhydrin was applied to the test print via immersion. The print was immersed for 5 seconds on each and allowed to dry. 3. The dry test print was placed in the humidity chamber for approximately 15 minutes, and was then viewed with the naked eye/basic lamps. 4. After confirming that Ninhydrin worked on the test print, it was applied to the evidence item and visualized the same way. 5. Waited atleast 24 hours before moving to the next method. Approximately 10 minutes of active processing time. |
| | Zinc Chloride | 1. Visualized the ninhydrin-treated evidence item again with the naked eye/basic lamps for possible improvement of visible latents. 2. ZC was applied to the test print via a light spray from a spray bottle and was then allowed to dry. 3. After seeing a color change in the test print, it was placed in the humidity chamber for approximately 15 minutes. The print was then visualized with the naked eye/basic lamps as well as a Wratten #21 orange filter/485 nm/510 nm ALS. 4. After confirming that ZC worked on the test print, it was applied to the evidence item and visualized the same way. 5. Waited atleast 24 hours before moving to the next method. Approximately 25 minutes of active processing time (including photography). |
| | Physical Developer (PD) | 1. Visualized the ZC-treated evidence item again with the naked eye/basic lamps as well as a Wratten #21 orange filter/485 nm/510 nm ALS for possible improvement of visible latents. 2. The test print was immersed in a dish of maleic acid pre-wash for approximately 10 minutes, before being transferred into a dish of PD working solution for 20 minutes (on an orbital shaker). 3. The print was removed, rinsed with water, dried, and visualized with the naked eye/lamps. 4. After confirming that PD worked on the test print, it was applied to the evidence item and visualized the same way. Approximately 60 minutes of active processing time. |
| 76EZ69 | Visual Examination | Examined with white light and both blue (445nm) and green (532nm) light from BrightBeam Laser. No prints were observed. |
| | 1,2-Indanedione | Dipped item in reagent, placed in 100 degree Celsius over for 20 minutes. Viewed under alternate light. |
| | Alternate Light Source | Examined with white light and green (532nm) light from BrightBeam Laser. Print observed in Section B was photographed. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 7BXCVU | Visual Examination | No fingerprints or stains weren't discovered with visual examination. |
| | 1,2-Indanedione | 1,2-indanedione was used to develop the fingerprint. Test fingerprints were done and ok. After developing with indanedione fingerprint in section B was discovered. (Moisture 65%, temperature 90 Celsius, processing time 15 minutes) |
| 7EER88 | Visual Examination | ambient room light |
| | Alternate Light Source | oblique & direct torch white light & Crime Lite-Blue, no goggles/filters |
| | 1,2-Indanedione | Indanedione-Zinc Working Solution sprayed onto surface; air dried |
| | Elna Press | Treated with Elna Press for heat. * Would not be used if DNA collection required |
| | Alternate Light Source | Crime Lite Green, orange goggles |
| 7G7NW2 | Visual Examination | I began by conducting a visual examination under fluorescent lighting. |
| | Ninhydrin | After the visual examination, I submerged it in ninhydrin, hung it up to dry, then put it in the CARON chamber. I examined it again under fluorescent lighting. |
| | Physical Developer (PD) | After ninhydrin, the item was submerged in PD and hung to dry. I examined it again under fluorescent lighting. |
| 7PDFDJ | Visual Examination | First i use a visual examination to locate the latent print but it wasn't visible. |
| | Alternate Light Source | I used alternate white light source to highlight the latent print but it wasn't visible. |
| | Iodine ampoule | To develop the latent print I put the manila envelope and a iodine ampoule inside a plastic bag. The lantent pritnt was visible in the letter B. |
| 7PWHLJ | DFO | DFO (2 rounds), envelope sprayed with DFO, along with a test print on a piece of manila envelope to mimic evidence. Dried in Safe develop chamber at 100 degree C for 20 mins. |
| | Alternate Light Source | envelope test print viewed under green Bright Beam Forensic laser, test print positive as it fluoresced, no fluorescence or prints seen on envelope. Steps 1 and 2 repeated, same outcome. |
| | Ninhydrin | Test print and envelope sprayed with Ninhydrin, dried by hanging in fume hood, developed in Safe develop chamber @ 80 degree C, 65% humidity for 5 mins. |
| | Visual Examination | Visible/ ambient light. Test print positive, shows purple. No visible prints on manila envelope even after 24 hrs. |
| 7QTK39 | Visual Examination | ambient/flashlight, green laser (532nm/orange filter), blue laser (445nm/orange filter) |
| | 1,2-Indanedione | iron & green laser exam (532nm/orange filter) |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 7U9EFK | Visual Examination | |
| | Alternate Light Source | Mini Crime Scope at all wave lengths |
| | 1,2-Indanedione | Allowed to air dry, viewed with mini crime scope at 515 wave length. Photograph taken after Indan. |
| | Ninhydrin | Allowed to air dry and processing overnight |
| 7YNM4K | Visual Examination | |
| | Lumicyano | Fumed to target metal clasp and seal area on envelope as if real evidence |
| | 1,2-Indanedione | |
| | Physical Developer (PD) | |
| 8222WJ | Visual Examination | |
| | Ninhydrin | |
| | Physical Developer (PD) | |
| 87YHAD | 1,2-Indanedione | La pieza fue tratada por los vapores de iodo por espacio de 4 horas. Iterm was treated using Iodine vapors for about 4hours until development ocurred. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 886Z89 | Visual Examination | White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. No useful marks were developed. |
| | Alternate Light Source | Sequential High Intensity Light Sources (HILS) examination carried out, following dark adaptation, using a UV Crime Lite 350nm-380nm with 408nm filter followed by a Blue Crime Lite 420nm-470nm with a 476nm viewing filter followed by a Green Crime Lite 480nm-560nm with 571nm viewing filter. No useful marks were developed. |
| | 1,2-Indanedione | The item was treated with 1,2-Indanedione and allowed to dry. It was then placed in the Thermo Fisher oven set at 100°C for 12 minutes (10 minutes of treatment time plus the current 2 minute recovery time). Following dark adaptation, the item was examined using the Green ML2 490nm-560nm with a 571 viewing filter. The QA was adhered to and the control test piece passed. An area of ridge detail developed, was exhibited as 'Mark 2' and photographed. |
| | Ninhydrin | The item was treated with Ninhydrin and allowed to dry. It was then placed in the Crime Event oven set at 80°C and 62% RH for 5 minutes (2 minutes of treatment time plus the current 3 minute recovery time). The item was then examined using the 'Tiablo' High Power LED Flashlight at varying angles. The QA was adhered to and the control test piece passed. No useful marks were developed and no previously exhibited marks were further enhanced. |
| | Physical Developer (PD) | The item was treated with Physical Developer. Initially the item was treated with Maleic Acid Solution for 10 minutes followed by Physical Developer Working Solution for 20 minutes followed by 2 x 5 minute water rinses. All of the aforementioned treatments occurred on rockers so the exhibit was constantly agitated throughout. Lastly the item was rinsed with running water for 10 minutes in a stationary tray. The item was allowed to dry and then examined using the 'Tiablo' High Power LED Flashlight at varying angles. The QA was adhered to and the control test piece passed. No useful marks were developed and no previously exhibited marks were further enhanced. |
| 88QEX8 | Ninhydrin | Started 1100 18Jun24 no immediate development of latent prints observed at this time. Item was sealed in plastic for future evaluation or additional processing. Item was evaluated again on 19Jun24 and no latent prints had developed. Latent prints were developed and observed on a control item processed at same time as Item 3. |
| 8C8RQ8 | Visual Examination | Use of ambient light and flashlight |
| | 1,2-Indanedione | Heat applied via heat press; Viewed under green laser (532 nm) with orange filter/goggles |
| | Ninhydrin | Heat and humidity applied via steam iron; Examined with ambient light and flashlight |
| 8CL9V9 | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 8KGBXJ | Alternate Light Source | Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm) Print found on Section B |
| | 1,2-Indanedione | Sprayed with 1,2 Indanedione, kept in Oven for 20 mins to dry at 100C temperature, with 0% humidity. After 20 mins, Mark search was done by using 532nm light (green) with goggle (550nm), Mark found on Section B. |
| | Ninhydrin | Sprayed with Ninhydrin, kept in Oven for 20 mins to dry at 80C temperature, with 65% humidity. After 20 mins, Mark search was done by using Naked eye and White light, no addtional mark found |
| 8KXDUK | Visual Examination | No RD noted. |
| | Alternate Light Source | Mini-Crimescope with all available wavelengths was utilized with No RD noted. |
| | 1,2-Indanedione | Humidity Chamber was utilized and then viewed with Dual 77, green light 520nm with RD noted in Quadrant B- whorl pattern. |
| | Ninhydrin | Humidity Chamber was utilized with No additional RD noted. |
| 8LTXGJ | Visual Examination | 350 - 555 nm + IR |
| | DFO | time: 10 min |
| | Ninhydrin | time: 20 min |
| 8V4Z3K | Visual Examination | |
| | Ninhydrin | Applied Ninhydrin HT to item on 6/21/24 and checked results on 6/24/24. |
| 8XLGXB | Visual Examination | |
| | Alternate Light Source | |
| | DFO | Extremely weak development observed in quadrant B, not suitable for preservation whatsoever |
| | Ninhydrin | Applied on 6/30/2024 and set aside until 7/2/2024 |
| | Ninhydrin | Steam iron used after still extremely weak development observed in quadrant B, not suitable for preservation whatsoever. Ninhydrin was reapplied and a heat/humidity chamber also utilized set to approx. 80 degrees and 65% humidity for approx. 7 minutes. |
| | Silver nitrate | |
| 93EPXB | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |
| | Physical Developer (PD) | |
| 94M3FC | Iodine crystals | the item was exposed to Iodine crystals fumes, for about one hour. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| 96W8TZ | DFO | Item was treated with DFO and developed in caron chamber for 20 min |
| | Alternate Light Source | Viewed with forensic laser. Test prints were positive. |
| 97V4QB | Ninhydrin | + 5-MTN |
| 9AGQJX | Visual Examination | I examined all four quadrants of the item under a LED light, no prints observed. |
| | Ninhydrin | Placed item in the Caron for 30 mins. Observed item under LED light. Prints observed in quadrant "B". |
| | Physical Developer (PD) | was processed by [Name] on 7/17/24. No enhancement. |
| 9ENP89 | 1,2-Indanedione | NINcha S31 Climate Chamber. Temp. 65 celsius. RH 65%. Processing time 30 min. |
| | Alternate Light Source | Examined results by using green Light Source 480 - 560 nm. |
| 9FENL8 | Visual Examination | White light, daylight, 4X magnification lens. |
| | Ninhydrin | Reagent: ninhydrin spry „NIN-PRINT“ (B-78500, BVDA) + 22 C °, 48 h. |
| 9JHJ6A | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |
| | Physical Developer (PD) | |
| 9RGZ3V | Visual Examination | The item was visually examined using white light and magnification. No prints observed. |
| | Ninhydrin | The item was immersed in a small tray of solution until the entire surface of the item was wet. The item was allowed to completely dry in the fume hood. Once the CARON chamber reached 60 degrees Celsius and 60% humidity the item was placed inside for approximately 30 minutes. The item was visually examined using white light and magnification. |
| | Physical Developer (PD) | Processing was completed by [Name] on 06/27/24, Batch #531. The item was visually examined using white light and magnification. |
| A4LHDU | Alternate Light Source | Laser Green 532nm Blue 445nm |
| | Ninhydrin | Heptane carrier > Steam Development |
| A7E8XB | 1,2-Indanedione | 1. Devlopment using a 1,2-Indanedione-zinc. 2. Heat to 165 degrees for 10 seconds using a head press. |
| AAA8PR | 1,2-Indanedione | Item processed with 1, 2 Indanedione and then examined with ALS |
| | Ninhydrin | Item processed with Ninhydrin and then visually examined |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| ACGKF7 | Visual Examination, Forensic Light Source, Cyanoacrylate, Ninhydrin | 07/03/24: No visible ridge detail was detected during the visual examination. The item of evidence was exposed to Cyanoacrylate fumes due to some areas being non-porous; however, it was of no benefit. The item of evidence was treated with Ninhydrin, it was then left to cure for a minimum of 72 hours. 07/08/24: The evidence which was treated with Ninhydrin on 07/03/24 presented with an observable color shift within section B; however, no ridge detail of a recordable level was observed. The evidence was then exposed to steam. Photo lift #3: Ridge detail developed in section B after being exposed to steam, it was photographed as photo lift #3. Ninhydrin was tested prior to being applied to evidence and it performed as expected. |
| AENVCA | Ninhydrin | humidified with steam iron, viewed under white light |
| | 1,2-Indanedione | IND-ZnCl humidified with steam iron, viewed under 445-510nm with orange filter |
| AHN88A | 1,2-Indanedione | I,2-indanedione ZnCl with heat and humidity, viewed under 520nm with orange filter |
| AJ2GHV | Visual Examination | white light and magnification |
| | Alternate Light Source | Examined first using orange filter and blue light (420nm-470nm), then examined using red filter and green light (490nm-560nm) |
| | Ninhydrin | processed in the Caron Chamber for 20 min. |
| | Physical Developer (PD) | processed in Maleic Acid wash for 10 min, processed in silver solution for 10 min and then rinsed in tap water for 10 min, batch #531 |
| AM2REV | Visual Examination | white light |
| | Ninhydrin | Caron chamber 65% humidity, 80 degrees Celsius |
| | 1,2-Indanedione | Iron (dry) |
| ARA9NJ | Ninhydrin | 7/1/2024 Ninhydrin - Lot#: 12042023JRL, Exp: 12/4/2024, Controls - (+) √ and (-) √ Ninhydrin Processing -Applied Ninhydrin and allowed the item to dry -Once dry, a handheld steamer was used periodically on the item during a 5 minute time frame |
| ARVN4L | 1,2-Indanedione | 50°C, 40% rel. humidity, 3h |
| | Visual Examination | blue-green light, orange filter --> photographic preservation |
| | Ninhydrin | 25°C, 65%rel humidity, 24h --> no improvement |
| AWQFCJ | Visual Examination | |
| | 1,2-Indanedione | Brushing application method utilized, allowed to dry fully before putting in the humidity chamber, 100 degrees F, 90% relative humidity for 10 minutes in Air Science humidity development chamber |
| | Alternate Light Source | Coherent TracER at 532 nm |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| B3MRKL | Visual Examination | No marks visualised. See additional comments |
| | Alternate Light Source | No marks visualised. See additional comments |
| | DFO | One mark developed and labelled as CTS245190-OC5. See additional comments |
| | Ninhydrin | No additional marks developed |
| B8ZDR8 | Visual Examination | Room lighting was used to visualize the item for any latent prints |
| | Ninhydrin | Ninhydrin was applied to item with a plastic dropper until all of the envelope was saturated with the chemical. Item was left to air dry. Once completely dried, then a steam iron was applied 1 inch above the item and moved around until for approximately 3 minutes. Ridges were preserved via photography and left for 5 days to see if further development occurred. No further development occurred so further preservation was not needed. |
| BCCMHF | Visual Examination | Visual examination did not detect any impression on the item. |
| | 1,2-Indanedione | The item then was dipped in Indandione Zinc, and left to dry for a few minutes. Then the item was placed in a humidity cabinet. After the cabinet had reached 75 degrees Celsius and 62% humidity, the item was left inside for 10 min. A visible latent print was visible in section B, with use of light source (505 nm). |
| | Ninhydrin | After 1,2-Indandione (and photographing), we attempted to improve the latent print with use of Ninhydrin. It is the same procedure as with Indandione Zinc: the item was dipped in Ninhydrin solutionand left to dry for a few minutes. Then placed in the humidity cabinet again, still with 75 degrees Celsius and 62% humidity, but this time the item was processed for only 5 min. The latent print was not improved after use of Ninhydrin. |
| BCWYMF | Visual Examination | |
| | Alternate Light Source | 350-600nm, yellow, orange and red goggles depending on wavelength range |
| | 1,2-Indanedione | Applicable 455-515nm ALS and orange filter for visualization |
| | Physical Developer (PD) | |
| BEJRAH | 1,2-Indanedione | Indanedione (+) |
| | Ninhydrin | Ninhydrin (+) |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| BK6QR4 | Visual Examination | Examine the item as is, using ambient lighting, flashlight, UV light, FSIS, ALS, and LASER. |
| | DFO | Dipped the item twice in DFO, let it dry for a few seconds, then put in in the oven at 100*C for about 20 minutes. Examined under the Laser and Shortwave UV/FSIS camera. |
| | Ninhydrin | Dipped the item in Ninhydrin, let is dry for a few seconds, then put it in the humidity chamber (70*C) for about 1 minute or until the latent impressions turns Ruhemann's Purple. |
| | Zinc Chloride | Sprayed item with Zinc Chloride. Examined under ALS. |
| | Physical Developer (PD) | Dipped item in Maleic Acid first for about 5 minutes, and then dipped the item into PD for about 20 minutes. Let it dry under the lights. |
| BMA7DN | Physical Developer (PD) | Grazing light is passed at the beginning, then the magnetic black reagent is applied, with a duration of 20 minutes of processing. |
| | Ninhydrin | Ninihydrin spray is applied at a distance of 10 cm on the surface |
| BRTEMA | Visual Examination | white light |
| | Ninhydrin | Dipped item in N and allowed it to dry. Placed item in humidity chamber at 60% humidity and 60C for 30 minutes. |
| BVKUN3 | Alternate Light Source | No ridge development |
| | 1,2-Indanedione | Minimal ridge development w/ Crime-lite Auto at 445nm and 495LP filter |
| | Ninhydrin | Minimal ridge development |
| BZZ3C2 | Visual Examination | No ridge detail. |
| | Alternate Light Source | No ridge detail. |
| | Ninhydrin | One impression developed in quadrant B--scanned. |
| C4FWQD | Visual Examination | 11/07/2024 , pre-treatment examination |
| | DFO | 12/07/2024 , item was immersed in DFO solution, after that it was left to dry completely, then item was placed in the Humidity chamber (Oven) @ T=100C |
| | Alternate Light Source | After the DFO step, the item was subjected to Green light examination using Orange googles |
| | Ninhydrin | 15/07/2024 , item was immersed in NH solution, after that it was left to dry completely, then item was placed in the Humidity chamber (Oven) @ T=75C, RH=65 |
| | Alternate Light Source | After the NH step, the item was subjected to white light examination |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| C8DBD3 | Visual Examination | Visual examination with natural/white light in different angles. Print not visible. |
| | 1,2-Indanedione | Nincha M31. Temperature 65°c degrees, humidity 65%, processing time 25 minutes. Quality control print visual. |
| | Visual Examination | Visual examination with Crime Lite 42S Green 480-560nm and filter 590 nm. |
| CCMRMR | FSIS | Utilized FSIS prior to chemical processing and did not locate any potential latent areas. |
| | 1,2-Indanedione | Dipped item in chemical and utilized humidity chamber for 10 minutes. Then examined item with alternate light source tracer laser. Potential latent area observed in Quadrant B. |
| | Ninhydrin | Dipped item in chemical and utilized humidity chamber for 3 minutes. Then visually examined item and did not observe any potential latent areas. Let the item sit for four days and reexamined, yielding negative results. |
| CGZCUD | Visual Examination | Visual inspection is performed but no fingerprint is detected. |
| | Alternate Light Source | An alternating light visual inspection of the piece of evidence is performed but no fingerprint is detected. |
| | Iodine | A vial of iodine crystals is used for about five (5) minutes, without results. A vial of iodine was used for about five (5) minutes, which did not work. |
| | Ninhydrin | Ninhydrin was used, allowing it to dry, which developed a fingerprint fragment appreciated by ultraviolet light IV 395, in section B. |
| | silver nitrate | Silver nitrate was applied, but it didn't work. |
| CLV43A | Iodine crystals | Item was exposed to iodine crystals fumes from a vial, for about an hour. |
| CTGAMM | Visual Examination | I performed a visual examination by looking at the item using natural lighting and oblique lighting at different angles to see if any ridge detail is present. |
| | Ninhydrin | Once I performed a quality control to ensure my chemical is working property, I applied non-running Ninhydrin to the entire item using a squirt bottle and let the item completely dry. I turned on the Caron oven chamber and set the temperature to 80 degrees Celsius and the humidity to 65% and waited tilt the proper Ninhydrin temperature and humidity was met. I placed the item into the oven along with a control and waited approximately five minutes until purple ridge(s) developed and waited a few more minutes after that to ensure the developing process was completed. I turned the oven off and removed the item. |
| D26KAN | Visual Examination | The manilla envelope was examined using oblique lighting. No friction ridge detail was observed on the manila envelope prior to processing. |
| | 1,2-Indanedione | The manilla enveloped was placed into a Caron development chamber for 20 minutes at 100 degrees Celsius to be processed with indanedione. |
| | Alternate Light Source | The manila envelope was examined using an alternate light source. The result of indanedione processing developed friction ridge detail of possible value on section B of the manilla envelope. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| D3KJTD | Visual Examination | Visual examination under white light. No RD noted in any quadrant. |
| | Alternate Light Source | Item viewed under all wavelengths of light utilizing the CrimeScope. No RD noted in any quadrant. |
| | 1,2-Indanedione | Item treated with 1,2-Indanedione and allowed to sit for 24 hours. Viewed the following day under the TracER Laser at 532nm. No RD developed in any quadrant. |
| | Ninhydrin | Item treated with Ninhydrin and allowed to sit for 24 hours. RD (whorl or right loop) noted in quadrant B. No RD developed in quadrants A, C or D. |
| D7J3R6 | Visual Examination | Item was visually examined under a magnifier and light. No photos taken. |
| | Alternate Light Source | Item was examined using a FLS, a magnifier, and orange goggles. No photos taken. |
| | Iodine | The item was placed into a zip top plastic bag along with a small weigh boat containing Iodine crystals. The crystals were agitated and left to sit along with the item for a few minutes before venting the bag and removing the item. No photos taken. |
| | Ninhydrin | Item was sprayed with Ninhydrin, left to dry then sprayed a second time. After item was dry it was placed into a Caron chamber set at 80c degrees with 65% humidity, for three minutes. Item was then examined under a magnifier and light. One scan completed. |
| | Silver Nitrate | Item was sprayed with Silver Nitrate then left to dry. Once dry item was taken outside to expose it to UV light. I then examined item under a magnifier and light. No photos taken. |
| DAC9YF | Alternate Light Source | |
| | 1,2-Indanedione | 1h30 at 60 °C |
| DE83Y3 | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |
| DEBHC3 | Visual Examination | white light, UV - 555nm - Polilight PL 500, suitable googles |
| | DFO | processing time - 20 minutes, temperature - 100 degree Celsius |
| | Visual Examination | 495 - 555 nm, orange and red coloured google |
| | Ninhydrin | processing time - 3 minutes, humidity - 65%, temperature 80 degree Celsius |
| | Visual Examination | white light |
| DETGME | Visual Examination | No print recovered |
| | Alternate Light Source | Emission from 350 to 600 nm. No print recovered |
| | DFO | Print recovered. No humidified oven at 100 Celsius. Approx. 20 min. Fluorescence examination ( green region spectrum) |
| | Ninhydrin | No new print recovered |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| DGX2DZ | Visual Examination | Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500) |
| | 1,2-Indanedione | Spraying item with 1,2 IND 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 |
| DNXN3E | Visual Examination | A visual exam was performed prior to processing to determine the most suitable course of action based on the surface/item characteristics. |
| | Ninhydrin | Ninhydrin was utilized because the item was porous. Ninhydrin is used on porous substrates because it turns a dark purple color when it combines with amino acids in latent prints. A humidity chamber was utilized to speed up the print development time. Ninhydrin lot# 030524-01 was used. |
| DQMPBN | 1,2-Indanedione | |
| | Alternate Light Source | DCS4 520 nm, filter OG570, OG590 |
| E3HADZ | 1,2-Indanedione | Processed in NINcha heat chamber at 100 degrees Celsius for 20 minutes. |
| EABXJ3 | 1,2-Indanedione | NINcha S31 Climate Chamber. Temp. 65 celsius. RH 65%. Processing time 30 min. |
| | Alternate Light Source | Examined results by using green Light Source 480 - 560 nm. |
| EATKHK | Ninhydrin | 24 hours |
| EC4HV3 | Visual Examination | I did a visual examination of the envelope. |
| | Ninhydrin | After visual examination, I used heptane ninhydrin on the envelope. |
| | Caron Chamber | After the enveloped dried, I put the envelope into the caron chamber for ten minutes. |
| EH9EGN | Alternate Light Source | 455-515nm |
| | Ninhydrin | Heat applied |
| EJ3324 | DFO | Heat 20 minutes at 100 degrees C, view with forensic laser |
| | Ninhydrin | Steam after treatment |
| ENRTYY | Visual Examination | |
| | 1,2-Indanedione | 50°C, 40% humidity, 3 hours |
| | Ninhydrin | 26°C, 65% humidity, 5 hours |
| EUZ3E9 | Ninhydrin | Ninhydrin and light heat |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| EWRY33 | Visual Examination | 7/8/24: Ambient lighting |
| | 1,2-Indanedione | 7/8/24: dipping method. Let sit over night |
| | Alternate Light Source | 7/9/24: visual exam with Brightbeam Dual Laser System; Green wavelength; ridge detail observed |
| EYDLVP | Visual Examination | Examined with white light and magnification on 6/25/24. |
| | Ninhydrin | Submerged in Ninhydrin, Batch #316, then air dried on 6/26/24. Placed in humidifying machine: CARON Examined with white light and magnification. |
| | Physical Developer (PD) | Processed by [Name] on 6/27/24, Batch #531. Examined with white light and magnification on 6/28/24. |
| EZT86R | Visual Examination | Item examined under LED light with magnification at multiple angles. |
| | Ninhydrin | Ninhydrin solution was applied to all surfaces of the item in a fume hood using a paintbrush. Item was hung up to fully dry. Item was then placed in the Caron chamber for 30 minutes at 60 degrees Celsius and 60% humidity. After drying, the item was examined under an LED light with magnification. |
| | Physical Developer (PD) | Before processing, the metal clasp was removed from the back of the envelope. Item was placed in a tray of maleic acid prewash for 10 minutes. Item was then placed in a tray of physical developer processing solution for approximately 10 minutes. Item was then placed into a tap water tray for 10 minutes to remove excess silver nitrate. Item was hung up to dry. Once dry, item was examined under an LED light with magnification. PD processing was performed by a member of the Latent Print Unit per agency policy. |
| F6UQV4 | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |
| | Physical Developer (PD) | |
| F83WJP | Visual Examination | Visual examination was completed by examining the item with a fluorescent light under magnification at different angles. |
| | Ninhydrin | Ninhydrin was completed by immersing the item into a glass tray of ninhydrin in a fume hood. It was hung up to dry completely in a fume hood. The Caron chamber was turned on before processing began to ensure the settings were correct before placing the item in the chamber. After setting the item inside, it was left in the chamber for 45 minutes and checked on during the set time. It was then examined with a fluorescent light under magnification at different angles. |
| | Physical Developer (PD) | Physical developer was completed by [Name] and the batch number was 532. The item was then examined with a fluorescent light under magnification at different angles. |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| FDNXFU | Visual Examination | Visual examination conducted with negative results. |
| | 1,2-Indanedione | Item was saturated in an Indanedione bath and set to air dry. Dry heat was then applied to the item to speed up the drying time, using an iron. |
| | Laser | The item was then placed under an Arrowhead Forensics laser at 520NM, in a darkened room. The item was then viewed through orange goggles which provided an enhanced view of latent evidence. |
| FFFU6N | FSIS | Item two was visualized with the Full Spectrum Imaging system. |
| | 1,2-Indanedione | Item two was processed with 1.2 Indandione and photographed with TracER laser (ALS). |
| | Ninhydrin | Item two was processed with ninhydrin and photographed. |
| FHLC3J | Ninhydrin | |
| | Powder Dusting | magnetic powder |
| | Ninhydrin | heptane ninhydrin using NinCHA for 6 minutes |
| FJF6X3 | Visual Examination | |
| | Alternate Light Source | LASER (532nm), UV, 450nm |
| | Cyanoacrylate Fuming | Chamber 10. VIS/RUVIS |
| | 1,2-Indanedione | OVEN. VIS/LASER (532nm) |
| | Dye Stain | RMO. LASER (532nm), 450nm |
| FKMK69 | Ninhydrin | Item placed in dark place for 8 days. |
| FMEGU3 | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |
| | Physical Developer (PD) | |
| FMYXA6 | Iodine Crystal Ampoules | It did not develop nor could it be observed with alternating lights. |
| | Ninhydrin | It did not develop nor could it be observed with alternating lights. |
| FQZEB7 | 1,2-Indanedione | Indanedione in HFE used to stain latent print, viewed with orange filter and 532 nm forensic laser |
| FRVNH3 | 1,2-Indanedione | Item placed in an environment chamber at 65% humidity and 80 degrees Celsius after being coated with Indanedione for approximately 15 minutes. Once completed, the item is visualized with the Tracer Laser. |
| | Oil Red O | Item was placed in a plastic bag with enough Oil Red O to cover the item and was agitated using an orbital shaker for approximately 5 minutes. Then the item was rinsed with water and placed again in a plastic bag with water and agitated using an orbital shaker for approximately 5 minutes. Once completed, the item is examined visually. |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| FV7Y9B | Visual Examination | used lamp light |
| | 1,2-Indanedione | processed with IND/ZnCl working solution (lot # LP12070924)—heat press —control passed; viewed under Laser (Bright Beam) exam / 532nm / used orange goggles |
| | Ninhydrin | —processed with NIN (HFE7100) working solution (lot # LP13070924)— NinCha s31 chamber, 20 min, 60°C, 80% humidity—control failed |
| | Ninhydrin | —processed with NIN (HFE7100) working solution (lot # LP13070924)— NinCha s31 chamber, 20 min, 60°C, 80% humidity—(new) control passed |
| G3PBC4 | Visual Examination | |
| | Ninhydrin | Ninhydrin aerosol spray. |
| G746QF | Visual Examination | |
| | Photocopy | |
| | DFO | |
| GA8QRV | DFO | Porous items were treated with DFO |
| | Physical Developer (PD) | Developed in the caron chamber for 20 minutes |
| | Alternate Light Source | Viewed with a forensic laser |
| GCVFZE | Visual Examination | The manila envelop was visually examined carefully under a large magnifying glass with a LED light to detect any latent fingerprints before processing it. The visual latent examination was NEGATIVE for prints and processed further. |
| | Black Magnetic Powder | The manila envelop was next dusted with a black magnetic fingerprint powder in attempt to recover and develop any latent fingerprints. The results of the latent examination was POSITIVE for a fingerprint in section "A". |
| GP2HCV | Ninhydrin | Processed with Novec Ninhydrin |
| GQ9XJ2 | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |
| GT2GV2 | Ninhydrin | |
| GUCJHZ | Visual Examination | |
| | Ninhydrin | air dried; moist heat applied with steam iron |
| | Visual Examination | re-examined after 2 days |
| GZWN7U | Dye Stain | Dye stained with Ninhydrin |
| | Dried | Caron chamber at 80C at 70% relative humidity for 15min. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| H8E8CE | Visual Examination | |
| | Indanedione | positive control |
| | Alternate Light Source | crimescope, 515nm and orange goggles |
| | Ninhydrin | positive control; steam iron utilized |
| | Ninhydrin | 48 hour wait |
| H9NJRV | Visual Examination | |
| | 1,2-Indanedione | |
| | Alternate Light Source | Reviewed @ 505nm / orange filter and goggles |
| HBFFFP | Visual Examination | I performed a visual examination under florescent lighting. |
| | Ninhydrin | After the visual examination, the evidence (manila envelope) was soaked in ninhydrin (batch #316) and hung to dry in the hood ventilator. Once the evidence was dry, I placed it in the CARON for thirty (30) minutes until possible latent prints develop. Another visual examination was done. |
| | Physical Developer (PD) | After ninhydrin, Physical developer (batch #531) was done by [Name], i then proceeded to do a visual examination under florescent lighting. |
| HKKAPW | Visual Examination | The Item was photographed before examination. No prints observed. |
| | Alternate Light Source | Examined with white light ( Polilight flare 2"ROFIN"). No prints observed Examined with at 430nm - 550nm (Polilight flare 2"ROFIN") and goggles. No prints observed . |
| | Ninhydrin | Petroleum Ether Solution: Submerged evidence in Ninhydrin, dried and placed in chamber "NINcha S31"(temp. range 65°C, relative humidity 65 %) for aprox. 15min, examine visually, stored in dark location for 72 hours. No prints observed. Prints deposited on similar piece of paper the day before, by human fingerprints (control Test). Development of paper gave prints of good quality. |
| HLUE3K | Visual Examination | blue light (420-470 nm) and yellow filter(495 nm) white light |
| | 1,2-Indanedione | 100°C +/- 5°C processing time 10 min |
| | Ninhydrin | Temp: 80°C (± 2°C) RH: 62% (± 5%) processing time: 2 min |
| HM82LK | Visual Examination | 7/8/24 - Magnified LED light was used with no ridge detail observed. |
| | Ninhydrin | 7/8/24 - Ninhydrin batch #316 for approximately 45-60 seconds then dried in the fume hood for 20 minutes. Caron latent print development chamber for approximately 30 minutes. Magnified LED light was used with No ridge detail observed. |
| | Physical Developer (PD) | Completed on 7/17/24. No ridge detail observed. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| HPYXBE | Visual Examination | |
| | 1,2-Indanedione | Applied on 6/4/2024 |
| | Alternate Light Source | Examined using Laser Light Source - Green, examined on 6/4/2024 and 6/11/2024. The latent print appeared more faint when examined on 6/11/2024. The latent print was then no longer visible when examined on 6/28/2024. |
| | Ninhydrin | Applied on 6/11/2024. Examined on 6/18/2024 |
| HTUY3V | Indanedione | Item #3 was visually examined, chemically processed, viewed with a laser, and then digitally preserved. Friction ridge detail was developed, photographed, and sent for further examination. The evidence will be retained at the [Laboratory]. I obtained the evidence (#3-manilla envelope) from the CSI vault, where it was then taken into the CSI lab and processed using visual examination, indanedione, dry heat and viewed with a green laser (520 nm) with orange filter. The above process resulted in the discovery of latent print evidence, which was photographed with a scale and transferred to a CD. The CD was then submitted as evidence and transferred to the latent lab for further analysis. |
| HXT7V6 | Ninhydrin | Processed with liquid Ninhydrin. Heat and humidity introduced. No visible latent developed. Control developed as expected. |
| J2AQFZ | Visual Examination | Item 3 was visually examined at different angles with adequate room light. |
| | DFO | Item 3 was processed by dye stained with 1,8-Diazafluoren-9-one (DFO), dry heated for approximately 20 minutes at approximately 100° C in a dry oven and viewed using a 530nm/green forensic laser. |
| J2Z3Q6 | Visual Examination | The first step I made was a visual examination to locate the latent print in the Item. |
| | Alternate Light Source | Then I made visual examination with white alternate light. |
| | Alternate Light Source | VThen I made visual examination with violet alternate light |
| | Iodine Crystal "Yodo" | To Develop the latent print I use Iodine Crystal "Yodo" for 10 minutes and the latent print it was visible in the letter B. |
| J4BYKA | Visual Examination | Visual examination using a flashlight at an oblique angle. No ridge detail observed at this phase. |
| | 1,2-Indanedione | IND applied using an IND specific brush. Humidity chamber utilized at 100 degrees Celcius and 90% relative humidity for 10 minutes. |
| | Alternate Light Source | Coherent TracER utilized to view item. Ridge detail observed in quadrant B and marked. |
| J72XY9 | Ninhydrin | Processed with ninhydrin and let dry fully before steaming with an iron. Processed with the steam for about 10 minutes |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| J8XHL8 | Visual Examination | I visually looked at the sample and I couldn't see any latent prints. |
| | Ninhydrin | I used a control sheet first to make sure my Ninhydrin chemical was working. I then sprayed the wallpaper with Ninhydrin and dried it in the downdraft hood. I then put it in the fingerprint chamber with a temp of 80 degrees Celsius and 65% humidity for 3 mins. I then saw a latent print in area B. |
| JGECQ9 | Visual Examination | Diffrent lights sources and filters, entire range of optical radiation. |
| | DFO | spray, temp. 90 °C, Time 10 min., 505-530 nm light, orange filter |
| | Ninhydrin | spray, temp. 80 °C, Humidity 60 %, Time 10 min., natural and white light (Chamber Nincha S31) |
| JHBX97 | Visual Examination | Utilized ambient, direct, and side lighting |
| | 1,2-Indanedione | Placed item in humidity chamber approx heat @ 50 degrees C and approx humidity @ 65% for approx 15 minutes |
| | Alternate Light Source | Utilized orange goggles with 475nm-575nm |
| | Physical Developer (PD) | Developed in solution for approximately 15 minutes |
| JHUGFY | Cyanoacrylate Fuming | 1.25 hours in vacuum chamber with cyanoacrylate. |
| | DFO | Item was treated with 1,8-diazafluoren-9-one (DFO) and allowed to dry. |
| | 532nm forensic laser | Latent print found in section B upon examination with laser. |
| JJKUP6 | Visual Examination | A visual inspection is perfomed but not fingerprint is detected. |
| | Alternate Light Source | An alternating light visual inspection of the piece of evidence is perfomed but no fingerprint is detected. |
| | Ninhydrin | The piece of evidence was worked with Ninhydrin for development of the fingerprint fragment appreciated by ultraviolet light IV 395 in section A,B,C, and D. |
| JK2WM6 | Ninhydrin | Visual, Ninhydrin |
| JQ33D2 | Visual Examination | A visual inspection of piece of evidence number 3, which was a Manila envelope, divided into sections A-D. No fingerprint was visualized. |
| | Alternate Light Source | A visual inspection was performed using different lights with different filters: white, violet, green, red, and blue. No fingerprint was visualized. |
| | Iodine Fuming Gun Disposable | Using the Iodine Fuming Gun Disposable blow on the wallpaper, divided into sections A-D. When the chemical was used a fingerprint was visualized in the section B. |
| JVGQZJ | Alternate Light Source | 455-515nm |
| | Ninhydrin | sat for 24+ hours, heat added |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| K49N4X | Cyanoacrylate Fuming | Item#3 was processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour and allowed to cure at room temperature and atmospheric pressure. It was processed by 1, 8-Diazafluoren-9-one (DFO), placed in an oven at 100 degrees C for 20 minutes, and viewed with a 530nm/green forensic laser and digitally captured. |
| | DFO | It was processed by 1, 8-Diazafluoren-9-one (DFO), placed in an oven at 100 degrees C for 20 minutes, and viewed with a 530nm/green forensic laser and digitally captured. |
| K6PH68 | Ninhydrin | Ninhyrdrin and a heat source. |
| K9L9BJ | Visual Examination | Visual examination under white light and magnification. |
| | Ninhydrin | Item was soaked in a tray until all surfaces were completely wet. Item was then air dried. The item was placed in the CARON at 60 F and 60% humidity for 45 minutes. |
| | Physical Developer (PD) | The item was placed in a Maleic Acid solution and agitated for 10 minutes. The item was then placed in the physical developer solution and agitated for 10 minutes. The item was then placed in a tray of water and allowed to rinse. The item was patted dry and allowed to air dry. |
| KCFCUP | DFO | Dye stained with DFO |
| | Dried | Dried in the caron chamber for 20 minutes at 100°C and 0% relative humidity |
| | Alternate Light Source | Viewed under forensic laser |
| KL8QXV | Ninhydrin | Special formula, spray method, fingerprint development chamber at 80 Celsius and 60% humidity |
| | Powder Dusting | Black magnetic powder |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| KLABTB | Visual Examination | Using oblique lighting and a magnifier, examine the surface of the Manila Envelope. No ridge structure was observed. |
| | 1,2-Indanedione | A positive control test of 1,2-Indanedione was performed using a standards amido acid sample pad and a piece of paper and using an Alternate Light source to visualize the control prior to being used on the manila envelope. After a positive control was complete, the 1,2-Indanedione was poured into a tray and the manila envelope was submerged in the chemical and hung to dry. After being completely dry, the wallpaper was placed into the Caron Humidity Chamber at 100 degrees Celsius with zero humidity for 20 minutes. |
| | Alternate Light Source | Using the Alternative Light Source, CrimeScope, at 505 nanometers using orange filter goggles, a latent print was developed in section B and photographs were taken of latent print after developed using a camera with an orange lens filter. |
| | Ninhydrin | A positive control test of Ninhydrin - Hexane was performed using a standards amido acid sample pad and a piece of paper, after a positive control test, the chemical was applied to the manila envelope. After a positive control was complete, Ninhydrin - Hexane was poured into a tray and the manila envelope was submerged in the chemical and hung to dry. After being completely dry, the wallpaper was placed into the Caron Humidity Chamber at 80 degrees Celsius with 65% relative humidity for 20 minutes. After removing the manila envelope from the humidity chamber, no ridge structure was developed with Ninhydrin. The sample remained out and was observed again after a 48 hour period was complete and no additional development occurred within the 48 hours. |
| KQY3Q7 | Visual Examination | |
| | 1,2-Indanedione | lot# RKV3/12/24, C+B- (with Tracer Laser) |
| KRVBYP | Visual Examination | Visible white light, RUVIS |
| | 1,2-Indanedione | Dry heat press, LASER |
| KTN7NJ | Alternate Light Source | The coin enveloped was inspected under the RUVIS/FSIS system utilizing UV lighting with no ridge detail observed. |
| | 1,2-Indanedione | The envelope was processed by submerging in 1,2 Indanedione dye stain, being allowed to dry, then heating in the development chamber for 10 minutes with no humidity. It was then inspected under the TracER laser alternate light source with ridge detail observed and photographed |
| | Ninhydrin | I processed the enveloped by submerging it in Ninhydrin, allowing it to dry completely, then placing it in the heated, humidified processing chamber for 4 minutes. I removed the envelope and did not observe and ridge detail. I allowed the envelope to continue developing overnight at ambient room temperature and humidity. No ridge detail was observed the next morning. |
| KVVLUP | Visual Examination | The item was visually examined. |
| | Ninhydrin | A control test and the test item were sprayed with ninhydrin solution from 8-inch away, then air dried for 24 hours at room temperature and humidity-controlled conditions. Only one print was observed on quadrant B. |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| KWMHJJ | Visual Examination | Unable to locate any areas of possible ridge detail |
| | FSIS II | Unable to locate any areas of possible ridge detail |
| | 1,2-Indanedione | Able to observe and photograph an area of possible ridge detail in quadrant B using the Coherent TracER laser |
| | Ninhydrin | Unable to locate any areas of possible ridge detail |
| KZ624D | Visual Examination | OMNIPRINT OP1000A |
| | Ninhydrin | Sirchie |
| L4KK8G | Visual Examination | Flashlight and laser used |
| | DFO | Laser used |
| | Ninhydrin | flashlight used |
| L9Z67P | Visual Examination | Visual exam with oblique lighting |
| | Ninhydrin | Ninhydrin lot 030524-01, CARON humidity chamber, 80C, 65% relative humidity, 3 minutes, no latents observed |
| | Powder Dusting | Magnetic powder lot 052423-01, no latents observed |
| LCEYJ2 | Visual Examination | Fist I used visual examination to locate the latent print, but it was not visible. |
| | Alternate Light Source | Then I used an alternate white light source obliquely to highlight the latent print, but it was not visible. |
| | Iodine ampoule | To develop the latent print, I put the manila envelope and a iodine ampoule inside a plastic bag and sealed it. The latent print was visible giving a faint impression in the letter B. |
| LDTE4U | Visual Examination | 7/10/2024-Ambient lighting |
| | 1,2-Indanedione | 7/10/2024-1,2 Indanedione powder + Ethyl Acetate + HFE 7100. applied first application with heat and humidity, observed ridge. detail in section B, results photographed. Let sit overnight. 7/11/2024-ridge detail decreased |
| | Alternate Light Source | 7/10/2024-Laser green wavelength. 7/11/2024-Laser green wavelength |
| | Ninhydrin | 7/11/2024-Ninhydrin applied with heat and humidity in attempt to increase contrast of ridge detail. Did not observe purple color change expected with Ninhydrin application. Will allow to dry |
| | Visual Examination | 7/15/2024-Ambient lighting. Quality control showed purple color change expected with Ninhydrin, however, the same reaction didn't occur on the item as contrast of ridge detail did not increase |
| LDWNCU | Ninhydrin | (Special Formula) Spray method, 20 minutes FDC, 80 degrees Celsius at 60% humidity |
| | Powder Dusting | Black magnetic powder, brush method |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| LFE2WH | Visual Examination | Visual examination under white light and magnification. |
| | Ninhydrin | Ninhydrin batch #316. Item was immersed in a tray of solution until all surfaces were completely wet. Item was air dried until completely dry. Item was placed in the CARON chamber at 60 degrees C and 60% humidity for one hour, checking after 30 minutes. |
| | Physical Developer (PD) | Physical Developer batch #531. Processing completed by [Name]. |
| LFV882 | Visual Examination | The first step was to look to see any prints visible on the surface. |
| | DFO | DFO is used on non-porous items, and fluoresces the prints when viewed under ALS. |
| | Alternate Light Source | Used in order to see the possible latent prints that were developed in the previous step. |
| | Ninhydrin | Ninhydrin produces a visible print that you can see with the naked eye without ALS. Ninhydrin also has a chemical component in it that stops ink from running. Coupled with a possible finger mark- I chose to move to ninhydrin over reprocessing with DFO to stop the ink from the dividers from running further. A heat press was used in order to speed up the processing time. |
| LHM3WV | 1,2-Indanedione | SORM-4 |
| LL6B7F | Visual Examination | Oblique light |
| | Alternate Light Source | at 455, 475, CSS, 495, 515 mm |
| | Ninhydrin | |
| LQFD7Q | Visual Examination | Polilight PL500 |
| | DFO | Temp. 100'C, time 10min |
| | Ninhydrin | Temp. 55'C, hum. 60%, time 30min |
| LUFLBZ | IODINE AND NYHIDRINE | THROUGH VISUAL INSPECTION AND ALTERNATING LIGHT A FINGERPRINT WAS OBSSERVED. |
| LVNUFE | Visual Examination | We could not find any fingerprint by visual examination. |
| | 1,2-Indanedione | Labrum Klimat: humidity 65%, temperature 90 celsius, time 15 minutes. We could find finreprint in section B with Foster&Freeman Crime-Lite Green 480 480-560 nm. and filter Schott OG590AG |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| LXXUKL | Visual Examination | Visual examination under white light and magnification on 7/4/2024 using LED lighting. |
| | Ninhydrin | Ninhydrin, batch#: 316, was used on 7/6/2024. The item was immersed into the Ninhydrin for a few minutes and then placed into a fume hood to dry completely. While the item was drying the CARON chamber was prepped by letting it come to 60 degrees for both the temperature and humidity inside of the chamber. Once the item was dry and the chamber was at 60 degrees it was placed into the CARON chamber. The chamber was allowed to come back up to the set 60 degrees for both indicators before a timer for 30 minutes was turned on. After the 30 minutes the item was taken out and examined but I decided to put it back in and let it go for another 30 minutes. After being in the CARON chamber for an hour, the item was removed and examined under LED lighting and magnification. |
| | Physical Developer (PD) | Physical Developer, batch#: 532, was completed by [Name] on 7/17/2024. |
| LY8YZV | Visual Examination | Laser/UV/ALS/FSIS/Oblique lighting |
| | DFO | Dip in DFO, dry, oven, Laser |
| | Ninhydrin | Dip in Ninhydrin, dry, humidity chamber |
| | Zinc Chloride | Spray with zinc chloride, dry, humidity chamber, ALS |
| | Physical Developer (PD) | Maleic acid, redox solution, rinse |
| M34WX2 | Visual Examination | I performed a visual inspection to locate the fingerprint, was observed faintly. |
| | Alternate Light Source | I used a white alternating light to locate it but was observed faintly. |
| | Iodine Ampoule | I used iodine crystals inside a transparent plastic bag, with snap closure, I left it for 24 hours to develop the fingerprint. |
| M3MUE8 | Visual Examination | Item 3 on 06/05/2024 @ 1707 - no suitable ridge detail observed |
| | Laser - 445 nm & 520 nm | Item 3 on 06/05/2024 @ 1720 - no suitable ridge detail observed. (All - test/control positive) |
| | DFO | Item 3 on 06/06/2024 @ 1619 - suitable ridge detail observed - photographed and assigned Item 0123. (All reagent ID DFO 04-12-24 - Reagent test/control positive) |
| | Ninhydrin | Item 3 on 06/06/2024 @ 1654 - no suitable ridge detail observed - photographed and assigned Item 0123. (All reagent ID NIN 12-27-23 - Reagent test/control positive) |
| MB2HEZ | Visual Examination | Visual exam under ambient/white light -> no FRD observed |
| | Alternate Light Source | Visual exam under Crimescope at 350-535 nm wavelengths using UV, yellow, orange and red filters-> no FRD observed |
| | Ninhydrin | Processed NIN via squirt bottle, hung to dry, then apply steam iron for 2-3 minutes |
| | Visual Examination | Visual exam under ambient/white light -> FRD observed in quadrant B, no FRD observed in any other quadrants |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| MEZUBZ | Visual Examination | No visible ridge detail observed. |
| | Ninhydrin | Ridge detail developed with aid of a steam iron. |
| MFCT6A | Visual Examination | oblique white lighting |
| | Alternate Light Source | Labkam - shortwave UV-C lighting |
| | 1,2-Indanedione | Dry heat press - 320 degrees F for 20 seconds |
| | Alternate Light Source | Crimescope - 515nm with orange barrier filters |
| | Ninhydrin | Humidity chamber - 80 degrees C, 80% relative humidity for 4:00 min |
| | Ninhydrin 48 hour wait | 48 hour wait after Ninhydrin processing to see if any additional ridge structure develops |
| MTZVN2 | Visual Examination | |
| | 1,2-Indanedione | |
| | Ninhydrin | |
| MUDCUN | Visual Examination | Polilight PL550XL |
| | DFO | DFO, Ar Science Safedevelop SD34S, time 20 minutes, temperature 100 centigrade degrees, light 450-530 nm, orange viewing filter |
| | Ninhydrin | Ninhydrin, Attestor Forensic NINcha S31, time 3 minutes, temperature 80 centigrade degrees, humidity 65% |
| MUFWQ4 | Visual Examination | No latent print was visible. |
| | 1,2-Indanedione | Sprayed all four sections with 1,2, Indanedione, Placed in Fingerprint Chamber at 100 degrees Centigrade for 10 minutes. Sprayed with Zinc Chloride and allowed to air dry. |
| | Alternate Light Source | Examined with Alternate Light Source at 530 NM wearing orange glasses. I observed a latent print on Section B of the envelope. |
| MXF4B2 | Ninhydrin | Item soaked in ninhydrin for 10 seconds. Item left to completely dry in fume hood. Item steamed with steam iron for 5-10 minutes. Item left to develop for 6 days. |
| MZDXJ3 | Visual Examination | 12/06/2024, pre-treatment examination |
| | DFO | 12/06/2024, item was immersed in DFO solution, after that it was left to dry completely, then item was placed in the Humidity chamber (Oven) @ T=100C |
| | Alternate Light Source | After that DFO step, the item was subjected to Green light examination using Orange googles |
| | Ninhydrin | 13/06/2024, item was immersed in NH solution, after that it was left to dry completely, then item was placed in the Humidity chamber (Oven) @ T=75C, RH=65 |
| | Alternate Light Source | After that NH step, the item was subjected to white light examination |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| N2ANC3 | Visual Examination | |
| | Ninhydrin | Dipped twice |
| N2VXPD | Visual Examination | |
| | Alternate Light Source | TracER Laser & Polilight |
| | DFO | viewed with TracER Laser -- photo taken second day after better development |
| | Ninhydrin | |
| NA8CAU | DFO | Item 3 was processed by 1,8-Diazafluoren-9-one (DFO) and placed in an oven at 100oC for 20 minutes and then viewed with a 530 nm/green forensic laser. |
| NCRAEC | Ninhydrin | Labrum klimat |
| NEDW8Y | Ninhydrin | |
| | Physical Developer (PD) | |
| NJUBZZ | Visual Examination | Ambient/ring light with magnification- no ridge detail observed |
| | Alternate Light Source | Crime Lite ML-2 (blue and green lights with yellow, orange and red filters)- no ridge detail observed. no fluorescence observed. |
| | Ninhydrin | dipped into ninhydrin for approximately 5 seconds. dried in fume hood. placed into the NINcha M31 chamber at ~80°C and ~65% relative humidity for 30 minutes |
| | Visual Examination | Ambient/ring light with magnification- significant ridge detail developed in quadrant B |
| NPYABP | Visual Examination | Used white light, blue light (450nm), and green light (532nm) with orange goggles. No prints observed. |
| | 1,2-Indanedione | Doused in Indanedione. Put evidence in oven @ 100 degrees Celsius for 20 minutes. Observed under green light (532nm) with orange goggles. Latent print observed in Section B. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| NRKV4C | Visual Examination | Used oblique lighting from a Crimelite flashlight (white light), then used a Coherent TracER LASER with a curved orange KV550 lens filter to image any potential latent print. Also, incandescent lighting was used to avoid any hotspots when imaging. |
| | DFO | 3 seconds soaking of 1,8-Diazafluoren-9-one (DF0) was done on the manila envelope and on a porous control. After the item and the control dried, the soaking process was repeated and placed into a Sanyo Gallankamp oven set at 100 degrees Celsius for 20 minutes. A Coherent TracER LASER and a KV550 lens filter was used to image the latent print area. The item was re-examined with the LASER after a 24 hour sit-time to allow complete development of DFO. |
| | Ninhydrin | 3 seconds soaking of Ninhydrin was applied on the manila envelope and on a porous control. After the item and the control dried, the soaking process was repeated and placed into an oven for 3 minutes set at 80 degrees Celsius and having 65 percent relative humidity. The item was re-examined after 24 hours of sit-time to allow complete development of Ninhydrin. |
| NWHCHR | Visual Examination | Flashlight, SUV, UV, laser |
| | DFO | 20 minutes in oven, documented, then waited 24 hours to document again |
| | Ninhydrin | 5 minutes in humidifier, documented |
| | Zinc chloride | 5 minutes in humidifier, documented |
| | Physical Developer (PD) | Maleic acid for 10 minutes then physical developer for 20 minutes |
| NX9PTX | Visual Examination | A visual inspection of piece of evidence number 3, which was a manila envelope, divided into sections A-D. No fingerprint was visualized. |
| | Alternate Light Source | A visual inspection was performed using different lights with different filters: white, violet, green, red and blue. No fingerprint was visualized. |
| | Crystals iodine | Then proceeded to use the crystals iodine on the manila envelope. Once applied, we waited for it to dry until the latent print was visualized in the section B. |
| NXQCRF | Visual Examination | White magnifier Ring Light, White Crime Lite, Green Lazer, Blue Crime Lite, UV Crime Lite. Negative result for mark/ridge detail. |
| | Ninhydrin | Item and Test piece treated using Ninhydrin solution NINWS/415. Test piece processed with a positive result prior to treatment of item. Test piece photographed using DCS5 photography system Item and test piece treated as per Fingerprint Visualisation Manual instructions and CEL SOP using CEL Oven 2. Item assessed/examined in line with CEL SOP, 1 x mark identified and marked as M2 in area B (M1 previously identified on Item 2). |
| | Physical Developer (PD) | Item was cut apart and the metal fastener removed prior to PD treatment to avoid contamination of the chemical solution. The item was immersed in Maleic Acid prior to PD treatment. The PD solution was mixed same day as treatment was carried out as advised in the Fingerprint Visualisation Manual. No further enhancement of M2 was gained therefore no further photography was carried out. |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| PA2983 | Visual Examination | In daylight and in whole spectrum of Polilight PL500 none fingerprint. |
| | DFO | A fingerprint has been disclosed - section B. |
| | Ninhydrin | No improved in fingerprint visibility. |
| PC9GME | Visual Examination | 06/25/2024; viewed with LED Light |
| | Ninhydrin | 06/25/2024; batch # 316, put in Caron chamber for 30 minutes, and viewed with LED light |
| | Physical Developer (PD) | 06/27/2024; batch # 531, viewed with LED Light, Removed Metal Clasp prior to latent print processing |
| PDHLZ4 | Visual Examination | 06-05-24 1804 |
| | Alternate Light Source | 06-05-24 1842. 445 and 520 nm |
| | DFO | 06-05-24 1900 |
| | Ninhydrin | 06-05-24 1929 |
| PFAHNW | 1,2-Indanedione | douse with 1,2-IND Zn/Cl2/, air dry |
| | Ninhydrin | douse with Ninhydrin, heat 3 min at 170 degrees C/water vapor, set for 30 min/dry air |
| PHAZCQ | Visual Examination | Sidelight |
| | 1,2-Indanedione | 30 minutes, 65 degrees of celcius |
| PKH7ZD | Visual Examination | 06/17/2024. LED light |
| | Ninhydrin | 06/18/2024, batch#315, LED light |
| | Physical Developer (PD) | 06/27/2024, batch # 531, LED light |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| PM8BWQ | Visual Examination | An initial visual examination was conducted using various alternate light sources: laser (various wavelengths), UV light, full spectrum imaging system, and flashlight (oblique light). No ridge detail was seen throughout the visual examination. |
| | DFO | Since the item is a paper envelope, the processing techniques utilized were that of the porous processing flow. DFO working solution was poured into a tray and the item was dipped into the solution until the item absorbed. After taking out the item to dry, it was dipped again and allowed to dry. Once dry, the item was placed into a 100 degrees Celsius heated oven for 20 minutes to accelerate the reaction. Ridge detail was visualized through the use of green laser and a digital photograph was taken of the latent impression to scale using Image Pro. |
| | Ninhydrin | Ninhydrin working solution was poured into a tray and the item was dipped into the solution until the item absorbed the solution. After removing the item, allowing it to dry, the item was placed into a humidity chamber at 70 degrees Celsius and 70 percent humidity for 20 minutes to accelerate the reaction. Upon viewing after removing from the humidity chamber, no ridge detail was visualized. |
| | Zinc Chloride | Zinc chloride was lightly sprayed onto the item and once the item dried, it was placed into a humidity chamber at 70 degrees Celsius and 70 percent humidity for a few minutes to accelerate the reaction. Upon viewing after removing from the humidity chamber, ridge detail was visualized through the use of alternate light source and a digital photograph was taken of the latent impression to scale through Image Pro. |
| | Physical Developer (PD) | Before placing the item in a tray of physical developer working solution, it was placed into a tray of maleic acid solution in order to neutralize the alkaline content of the item. The item was submerged in the maleic acid solution for about 10 minutes until the bubbles forming on the item dissipated. After this, the item was immersed in the physical developer working solution which was in a tray on an orbital shaker and gently agitated while the orbital shaker was on for about 15 minutes. Once agitated for about 15 minutes, the item was removed from the physical developer solution and rinsed in water until the item no longer retained any excess physical developer working solution. The item was then set to dry and once dry, no ridge detail was visualized after this technique. |
| PMP9ZQ | Visual Examination | |
| | Alternate Light Source | |
| | 1,2-Indanedione | |
| | Alternate Light Source | |
| | Physical Developer (PD) | |
| PVVFFQ | 1,2-Indanedione | SORM-4 |
| QFH4MW | Visual Examination | |
| | Ninhydrin | humidity chamber 5 min / 70% RH |
| | Physical Developer (PD) | |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| QKBEL3 | Visual Examination | N/A |
| | 1,2-Indanedione | Oven Temp: 100C, 20min. Visualization: Light source 505nm, Orange filter |
| | Ninhydrin | Ninhydrin Chamber Temp: 80C. Ninhydrin Chamber RH: 65%. 2 separate applications of Ninhydrin, followed by 10 minutes, each time, in chamber |
| QLPUQ3 | Visual Examination | A visual examination of the item was completed using a white light, coaxial light, the FSIS II (UV 254 nm, Red 695 nm, and IR 850 nm) and Alternate Light Sources (Rofin 450, Rofin 505, Rofin UV, laser) with appropriate filter goggles for each light source (clear, orange, yellow, red) prior to any additional processing. Item was negative for latent print evidence after this examination. |
| | 1,2-Indanedione | I then processed the item with Indanedione (using a control which exhibited results) via dipping the item and control into the chemical dye stain. I allowed the item to dry in the Fume Hood. I then placed the item and control into the oven at 100F for approximately 10 minutes. I examined the item and control using the Rofin 450 nm and 505 nm light sources and orange filter goggles. Ridge detail was visible in area "B". Item was photographed without and with a scale. Item set for several hours and was then processed with Ninhydrin. |
| | Ninhydrin | Item and control were dipped into Ninhydrin and allowed to dry in the Fume Hood. I allowed the item and control to process at room temperature and then I then placed the item and control into the oven at 100F for approximately 10 minutes. I then examined the item and control (exhibited expected results) with white light. Item was negative for latent print evidence after this examination. |
| QM3DYZ | Visual Examination | |
| | Alternate Light Source | Examined under mini-crimescope with all available wavelengths. |
| | 1,2-Indanedione | Applied heat and humidity with humidity chamber. |
| | Ninhydrin | Examined under Dual 77 at 520 nm. |
| | 1,2-Indanedione | Applied heat and humidity with humidity chamber. Examined under Dual 77 at 520 nm. |
| | Ninhydrin | Applied heat and humidity with humidity chamber. |
| QP63E3 | Ninhydrin | 3 minutes. 65 degrees Fahrenheit. 80 relative humidity |
| QPBPG3 | Visual Examination | Using LED flashlight |
| | 1,2-Indanedione | |
| | Humidity Chamber | Humidity chamber used after application of 1,2-Indanedione (IND) to speed up processing time. Settings: 10 minutes at 100°C and 60% relative humidity. |
| | Alternate Light Source | Coherent TracER (532 nm laser) |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| QQNYRN | Visual Examination | There were no visible prints on the item. |
| | Ninhydrin | I applied NIN to the envelope. I hovered an iron with steam over the item to develop the print. |
| QU3JQW | DFO | Visual ALS examination and photography, DFO application in chamber for 20 minutes at 100 degrees Celsius, ALS examination and photography |
| QUNBNN | Visual Examination | Reflected white light used - No observed detail |
| | Ninhydrin | Envelope sprayed with Ninhydrin reagent and allowed to dry. Heat and humidity applied to envelope via steam iron. Ridge detail observed in quadrant B and recorded using a color scanner. |
| | ZnCl2 | ZnCl2 applied to ninhydrin developed print to try and get it to fluoresce. No fluorescence observed. |
| R2WBCV | Visual Examination | |
| | Ninhydrin | |
| | Physical Developer (PD) | |
| R4MAQU | Visual Examination | I performed a visual inspection to located the fingerprint, was observed faintly. |
| | Alternate Light Source | I used a white alternating light to located it but was observed faintly. |
| | Iodine ampoule | I used iodine crystals inside a transparent plastic bag, with snap closure, I left it for 24 hours to develop the finger print. |
| R9JWNN | Ninhydrin | (Special Formula) Used spray method, dried evidence, humidity chamber for 20 minutes, 80 degrees Celsius at 65% humidity |
| | Powder Dusting | Black magnetic powder, brush method for a few seconds |
| RCER63 | Visual Examination | used flashlight/oblique lighting |
| | Alternate Light Source | used 450nm, 505nm, and UV wavelengths with orange, yellow, and clear filters |
| | DFO | placed in a development chamber for 20min at 100 degrees C and no humidity some ridge detail observed using 450 and 505nm wavelengths with orange filter (ALS) photos taken using macro lens, f8, iso 200 and orange filter |
| | Ninhydrin | placed in a development chamber for 5min at 80 degrees C and 65% humidity. ridge detail was not seen anymore |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| RGXV4K | Visual Examination | Visual examination using oblique lighting |
| | DFO | Dipped sample into a premade DFO solution. Let dry. Processed in fingerprint chamber for 20 minutes at 100 Celsius. Visual observation after processing using ALS 455nm with an orange filter. Faint impression observed but no ridge detail. |
| | Ninhydrin | Dipped sample into a premade ninhydrin solution. Let dry. Processed in fingerprint chamber for 10 minutes at 70 Celsius with 65% humidity. Visual observation. Very faint ridge detail observed. I processed the sample a second time with ninhydrin using the same methods. Visual observation. Ridge detail is observed but is still faint. |
| RH3L49 | Visual Examination | Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| | DFO | Placed in oven at 100C, 0% humidity, for 20 min. Examined with TracER laser. After 24 hours, re-examined for any additional development |
| | Ninhydrin | Placed in oven at 80C, 65% humidity, for 3 min. Examined with Crimelite white, ambient lighting, tungsten lighting, fluorescent lighting |
| RKUGT3 | Visual Examination | Examined item using ambient lighting and Crime-Lite UV (350-380nm) with clear goggles. |
| | DFO | The item was saturated with DFO by use of a spray bottle, left to dry in a fume hood at room temperature, and then placed into an oven set for 100 degrees Celsius for 20 minutes. |
| | Alternate Light Source | Used Crime-Lite Green (480-560nm) with red goggles. |
| | Ninhydrin | The item was saturated with Ninhydrin by use of a spray bottle, left to dry in a fume hood at room temperature, and then placed into an oven set for 80 degrees Celsius and 65% relative humidity, for 3 minutes. The item was then stored in a dark and secure location for at least 24 hours before an examination was performed. |
| | Visual Examination | Used ambient lighting and a flashlight. |
| RUGHAC | Visual Examination | Assisted by white oblique lighting and magnification |
| | 1,2-Indanedione | Crime-lite (blue/green light paired with orange barrier filter) to view development |
| | Ninhydrin | Assisted by white lighting |
| RUJ7QQ | DFO | I covered the manila envelope with DFO (1,8-diazafluoren-9-one) and allowed the DFO to dry (less than 5 minutes). After drying, I put the envelope in an 100C oven for 20 minutes. |
| | Alternate Light Source | After, the 20 minutes, I took envelope out of the oven and looked at it under a 530 nm green forensic laser. |
| RYANJ9 | Visual Examination | |
| | 1,2-Indanedione | Temperature 90°C, Humidification 10%, time 10 minutes |
| | Ninhydrin | Temperature 60°C, Humidification 65%, time 30 minutes |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| T6AB9M | Visual Examination | Visual examination with natural/white light in different angles. Examination with diffrent light sources: F&F Crime-Lite 82 UV 350-380 nm, F&F Crime-Lite 42S Blue 420-470 nm and Green 480-560nm. |
| | 1,2-Indanedione | Nincha M31. Temprerature 65C, humidity 65%, processing time: 30 min. Quality control print visual. |
| T6U37E | Visual Examination | I visually examined item 3 under a magnifying lens with LED light. |
| | Ninhydrin | I added enough Ninhydrin (batch #: 316) into a glass tray to cover item 3. I moved the reagent around until ink was no longer running off the item. I then hung the item to dry completely. I then added item 3 to the Caron chamber that was set at 60% humidity and 60 degrees Celsius. I added the item into the chamber and allowed it to sit for an hour. Once an hour passed, I turned off the Caron chamber and removed the item. I then visually examined the item under a magnifying lens with LED light. |
| | Physical Developer (PD) | I submitted item 3 to the [Laboratory] Latent Print Unit to be processed using physical developer (batch #: 531) by [Name]. When I received the item back, I visually examined the item under a magnifying lens with LED light. |
| TBG2CT | Visual Examination | A visual inspection was carried out on the yellow envelope divided into four areas and identified with the letters A, B, C and D, where no fingerprint fragmentation was observed. |
| | Alternate Light Source | Alternating light was used, the yellow envelope divided into four areas and identified with the letters A, B, C and D. Where no fragmentation of the fingerprint was observed. |
| | Iodine crystals | Iodine crystals were used on the piece of wallpaper divided into four areas and identified with the letters A, B, C and D. Where fingerprint fragmentation developed in the area identified with the letter B. |
| | Ninhydrin | Nihadrine was used on the piece of the yellow envelope divided into four areas and identified with the letters A, B, C and D. Where fingerprint fragmentation developed in the area identified with the letter B. |
| TEFD8T | Visual Examination | First I made a visual examination to locate the latent print but it wasn't visible. |
| | Alternate Light Source | Then I used an alternate white light the latent print but it wasn't visible neither. |
| | Iodine ampoule | The develop the latent print I put the manila envelope and a iodine ampoule inside a plastic bag. The latent print was visible giving a faint impression in the letter B. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| TJAAWJ | Visual Examination | |
| | Alternate Light Source | Blue/green light with orange filter. |
| | DFO | |
| | Heat | |
| | Alternate Light Source | Blue/green light with orange filter. |
| | Ninhydrin | |
| | Heat/Steam | |
| | Alternate Light Source | white light with green filter. |
| TK97UU | Visual Examination | Oblique lab light |
| | 1,2-Indanedione | Indanedione in HFE. Heat and humidity added for ten min in a Sirchie Fuming and heat chamber. Viewed with green laser at 532nm and an orange filter. |
| | Alternate Light Source | Laser at 532 nm with an orange filter. |
| TL29BH | Visual Examination | |
| | Alternate Light Source | |
| | DFO | 200°F +/- 5° |
| | Ninhydrin | Steam iron |
| TMC2DW | Visual Examination | One (1) minute. No RD noted. |
| | Alternate Light Source | Five (5) minutes looking for inherent lumination with Mini-Crimescope all wavelengths. No RD noted. |
| | 1,2-Indanedione | Thirty (30) minute processing and also used Mini-Crimescope 515 nm. RD noted in section B. |
| | Ninhydrin | Thirty (30) minute processing and also used a steam iron. No add RD noted. |
| TNQMPK | Ninhydrin | 5 min in Nincha chamber with timer. 75 degrees. 65% humidity |
| TP4X3Q | DFO | Visual examination (000-590nm); photography; 100 °c |
| TPJGK3 | Visual Examination | |
| | 1,2-Indanedione | Applied and checked one week later. |
| | Alternate Light Source | Viewed using green laser. |
| | Ninhydrin | Applied and checked one week later. |
| TT49W7 | Visual Examination | |
| | DFO | |
| | Heat | |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| TY96HQ | DFO | Sample was processed using 1,8-Diazafluoren-9-one and placed in a 100 degree C oven for 20 minutes. Sample cooled to room temperature and viewed under a 530nm green laser. |
| U29L6K | Visual Examination | Visual examination with natural/white light and lightsources 420-470nm (blue) and 480-560 nm (green) in different angles. Print not visible. |
| | 1,2-Indanedione | Nincha M31. Temperature 65°c degrees, humidity 65%, processing time 30 minutes. Print visual with light source F&F Crime Lite 42S Green 480-560 nm and red Schott OG590 filter. Quality control print visual. |
| U4DEWX | Visual Examination | |
| | DFO | 20 minutes 100C |
| | Ninhydrin | 30 minutes 80C 65%RH |
| U74G68 | Ninhydrin | |
| UJPTGG | Visual Examination | |
| | Alternate Light Source | |
| | Ninhydrin | Steam iron |
| UJRECW | Visual Examination | (-) results |
| | 1,2-Indanedione | (+) results (100 degrees C, 0% RH, 10 minutes |
| | Alternate Light Source | (+) results; Crime Lite @520 |
| | Zinc Chloride | (+) results enhanced |
| UL2JR7 | Visual Examination | |
| | DFO | |
| | Ninhydrin | |
| UTDJ4A | Visual Examination | White light (380-780nm). |
| | 1,2-Indanedione | 10 minutes in 100 degrees celcius. |
| | Ninhydrin | 2 minutes in 80 degrees celcius and 62% humidity. |
| UWJZKD | Visual Examination | On 6/26/24 I visually examined item 3 under a white light with magnification using an LED light source. No prints observed |
| | Ninhydrin | On 6/26/24, I submerged item 3 in Ninhydrin (BATCH: 316) and allowed to air dry. I then placed the item into the CARON humidifying chamber. I placed item 3 under a white light with magnification using an LED light source. No prints observed. |
| | Physical Developer (PD) | On 6/26/24, PD (BATCH: 531) was completed by [Name]. I placed item 3 under a white light with magnification using an LED light source. No prints observed. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| V4EHCU | Visual Examination | Processing time - 3 minutes. Ambient light. |
| | Alternate Light Source | Processing time - 4 minutes. All available wavelengths used to examine with Mini CrimeScope. |
| | 1,2-Indanedione | Processing time - 6 minutes. Dual 77 laser used at 520 nm for examination. Item was placed in humidity chamber for 10 minutes at 100 degrees Celsius to aid development. |
| | Ninhydrin | Processing time - 5 minutes. Item was placed in humidity chamber for 3 minutes at 80 degrees Celsius to aid development. |
| VCL73L | Visual Examination | |
| | Alternate Light Source | ~365nm, ~450nm, ~532nm |
| | 1,2-Indanedione | Oven for acceleration |
| | Physical Developer (PD) | |
| VDX6WV | Visual Examination | |
| | 1,2-Indanedione | 1, 2-Indanedione-Zinc Chloride Working Solution, NINcha S31 chamber (100°C, 0% humidity), 5 minutes, viewed with Bright Beam laser (532 nm) |
| | Ninhydrin | Ninhydrin (HFE7100) solution, NINcha S31 chamber (60°C, 80% humidity), 20 minutes |
| VGZUN4 | Visual Examination | Viewed under regular white light under magnifier for visible ridge detail |
| | Ninhydrin | After performing QC on chemical, I applied ninhydrin to the entire item. Once dry, I placed the item into the Caron chamber. The Caron chamber had reached the applicable settings prior to me placing the item in the chamber. The item was in the chamber for approximately 15 minutes. |
| VHUH9K | Visual Examination | |
| | Alternate Light Source | |
| | Powder Dusting | Black magnetic powder |
| | DFO | Photo captured |
| | Ninhydrin | |
| | Physical Developer (PD) | |
| VPEJPX | Visual Examination | 0737 hours, no suitable ridge detail |
| | Alternate Light Source | 0745 hours, 445 nm & 520 nm, positive reagent test result, no suitable ridge detail |
| | DFO | 0758 hours, 20 minute processing time, reagent ID: DFO 04-12-24, positive reagent test result |
| | Ninhydrin | 0826 hours, 20 minute processing time, NIN 12-27-23, positive reagent test result, suitable ridge detail |
| VVLAR4 | Visual Examination | |
| | Ninhydrin | |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| VVX2KK | Visual Examination | white an ambient light used |
| | 1,2-Indanedione | 1g of 1,2 indanedione powder combined with 35ml of Ethyl Acetate, followed by 465ml of HFE 7100 Item dipped in the solution, air dried, treated with heat and humidity with steamer, then air dried overnight. |
| | Alternate Light Source | Visualized with Bright beam green laser 525nm |
| VZEA9K | Visual Examination | Flashlight, UV light, and LASER |
| | DFO | LASER |
| | Ninhydrin | |
| | Zinc Chloride | Alternate Light Source |
| | Physical Developer (PD) | |
| W3YHQK | Visual Examination | |
| | Ninhydrin | heptane ninhydrin |
| | Caron Development Chamber | 10 minutes |
| W6PJYT | Ninhydrin | item 3 dipped in liquid ninhydrin until the paper was damp; hung in a fuming hood to air dry; steam hand iron used for humidity held approx. 3 inches away from evidence. |
| W7TN2F | Ninhydrin | novec ninhydrin--checked after 48 hours, reprocessed with novec ninhydrin again and rechecked after another 48 hours. |
| WGB6TM | Visual Examination | |
| | Alternate Light Source | Laser, Blu Light, and Ultraviolet Light |
| | Cyanoacrylate Fuming | For the metal clasp on the back of the envelope, Chamber 10 |
| | Alternate Light Source | RUVIS |
| | 1,2-Indanedione | oven |
| | Alternate Light Source | Laser |
| | Dye Stain | For the metal clasp on the back of the envelope, RMO |
| | Alternate Light Source | Laser and Blu Light |
| | Physical Developer (PD) | Removed the metal clasp prior to processing |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| WMHMD9 | Visual Examination | I conducted a visual examination of item 2 under LED light. |
| | Ninhydrin | After a visual examination, I used ninhydrin. The batch number was 316. I dipped the item in ninhydrin and let it dry in a fume hood. While the item was drying, I turned on the Caron chamber to let it warm up to 60 degrees Celsius and 60% humidity. Once the chamber was ready, I placed item 3 into the chamber. I checked the item after 15 minutes and did not see any development of latent prints. I let the item continue processing in the chamber for another 15 minutes. After that time, I removed item 3 from the chamber and examined the item under an LED light. |
| | Physical Developer (PD) | On 6/27/24, I submitted item 2 to the PD Box. The item was processed by [Name] with batch number 531. Once the item was returned, I examined it under LED light. |
| WQ8RAM | Ninhydrin | Saturate paper with ninhydrin. Air dry overnight. Apply steam heat with an iron. |
| | Visual Examination | observe developed print |
| WU2Y4V | Visual Examination | White Light |
| | Alternate Light Source | Blue (420-470nm), Green (480-560nm), UV (350-380nm) |
| | 1,2-Indanedione | 100C dry bulb temperature, 10 minute processing time, |
| | Ninhydrin | 80C dry bulb, 62% humidity, treatment time 4 minutes |
| X6Z6KZ | Visual Examination | 6/11/2024 |
| | Photocopy | 6/11/2024 |
| | Ninhydrin | 6/11/2024 |
| | Time | 6/11/2024 |
| | Visual Examination | 6/17/2024 |
| | Time | 6/17/2024 |
| | Visual Examination | 6/24/2024 |
| | Steam | 6/24/2024 |
| | Photograph | 6/24/2024 |
| X7TYFJ | Visual Examination | flashlight |
| | Ninhydrin | sprayed allowed to dry developed with steam iron - initial photos taken. allowed to sit for 3 days then photographed again |
| | Silver nitrate | sprayed and developed with UV light |
| XBGNU2 | Powder Dusting | Se realizó la recepción del ítem, verificando que el embalaje se encontrara integro y se procedió a realizar la apertura de este, iniciando al procesamiento el día 18 de junio de 2024 a las 13:40 horas, aplicando el reactivo de polvo magnetico negro con lapiz magnetico. Una vez aplicado el reactivo NO se localizan elementos lofoscopicos. |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| XFDEZD | DFO | DFO - placed in caron chamber for 20min at 100°C |
| | Ninhydrin | NIN - placed in caron chamber for 15 min at 80°C with 70% humidity. |
| XPLRFV | Visual Examination | Used white light. No ridge detail observed. |
| | 1,2-Indanedione | Used 1,2-Indanedione working solution and Caron Fingerprint Chamber at ~100 deg C for ~10 min. Control OK. Used Mini Crimescope ALS set at 515 nm with orange barrier filters. Packaged Item 3 in a heat-sealed KAPAK and allowed item to further process for several days. Ridge detail was observed in Quadrant B, which was designated as latent print 3-L1 and photographed. |
| | Ninhydrin | Used Ninhydrin working solution and Caron Fingerprint Chamber at ~80 deg C and ~ 65% relative humidity for ~3 min. Control OK. Packaged Item 3 in a heat-sealed KAPAK and allowed item to further process for a couple days. Faint purple color observed where latent print 3-L1 was located but no ridge detail was observed. |
| XT7PVY | Visual Examination | oblique lighting |
| | 1,2-Indanedione | Heat press, 10 seconds |
| | Alternate Light Source | Crimescope 515 nanometers |
| | Ninhydrin | acetone based, humidity chamber, 30 minutes |
| | Ninhydrin 48 hour hold | analyzed evidence after 48 hours passed initial treatment of ninhydrin |
| XVB4GJ | iodine crystals | Item 3 Manila envelope, according to the characteristics and considering the period from the recovery in the crime scene to the time for analysis, is used to search for and reveal latent prints, iodine crystals. A pipette containing iodine capsules is used, which are broken and the mouthpiece begins to be blown, digesting the other end on the manila paper surface that receives the iodine vapors, which adhere to the manila paper, revealing the fingerprint in quadrant B. |
| XW3DC7 | Visual Examination | No patent fingerprints were observed |
| | Ninhydrin | Processed with spray ninhydrin, allowed time to dry, then applied heat via a dry iron to enhance the development of the latent print. |
| XYRHAJ | Visual Examination | Laser, Oblique lighting, UV, ALS |
| | DFO | Laser |
| | Ninhydrin | |
| | Zinc Chloride | ALS |
| | Physical Developer (PD) | |
| Y2FDAX | Ninhydrin | 1st Visual Exam - 7/12/24. Application of Ninhydrin, Lab Lot # N071124. Outside Temp 95 degrees. Inside Temp 69 degrees. Humidity 39%. 2nd Visual Exam 7/15/24. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| Y82F73 | Ninhydrin | Special formula of ninhydrin pum spray was used in an extraction hood, evidence is preserved in plastic bag for 15 days so latent finger prints can be seen |
| YEFCWU | Visual Examination | Proper PPE was used during this step. Item was visually examined |
| | Ninhydrin | Item was treated with the ninhydrin chemical using proper PPE. Once the item was completely air-dried, the item was then treated using a handheld steamer. An "up & down" and "left to right" motion was used to ensure the entire item had some form of contact with the steam. Item was treated with steam for approximately 30 - 40 seconds Item was placed into a Temporary Locker for any possible print(s) to develop Ninhydrin positive/negative controls tested Lot# 12042023 JRL Exp: 12/24 |
| YH3YPH | Visual Examination | |
| | Ninhydrin | Caron chamber used to develop ninhydrin - 10 mins |
| YHGAJF | iodine crystals | Item 3 Manila envelope, according to the characteristics and considering the period from the recovery in the crime scene to the time for analysis, is used to search for and reveal latent prints, iodine crystals. A pipette containing iodine capsules is used, which are broken and the mouthpiece begins to be blown, digesting the other end on the manila paper surface that receives the iodine vapors, which adhere to the manila paper, revealing the fingerprint in quadrant B. |
| YLGHNQ | Visual Examination | no ridge detail observed |
| | Ninhydrin | visual ridge detail observed |
| YMRKAP | Visual Examination | First I made a visual examination to locate the latent print but it wasn't visible. |
| | Alternate Light Source | Then I used an alternate white light source obliquely to highlight the latent print but it wasn't visible neither. |
| | Iodine ampoule | To develop the latent print I put the manila envelope and a iodine ampoule inside a plastic bag. The latent print was visible giving a faint impression in the letter B. |
| YQXWGQ | Visual Examination | No RD noted. |
| | Alternate Light Source | Inherent Lumination- No RD noted. Mini-crimescope all available wavelengths |
| | 1,2-Indanedione | RD noted- Humidity chamber used- Dual 77 520nm. Section B |
| | Ninhydrin | No additional RD noted. - heat chamber used. |
| YR8TXN | Visual Examination | |
| | Ninhydrin | |
| | Physical Developer (PD) | |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| YZMKEE | Visual Examination | Visual examination using white light. |
| | Alternate Light Source | Visual examination using various wavelengths of light. |
| | 1,2-Indanedione | Indanedione applied, heat press used, visualised using laser (532nm). |
| | Ninhydrin | Ninhydrin applied, Nincha humidity chamber used for humidity, visualised using white light. |
| | Physical Developer (PD) | Physical Developer applied, visualised using white light. |
| Z29LVL | Ninhydrin | Used limited ink ninhydrin (Lot #061524KA, test print positive) to process the item. The item was dipped in the ninhydrin. A latent print was developed in quadrant B. |
| Z69WQL | Visual Examination | visually inspected, inspected with side lighting (white |
| | Alternate Light Source | examined with an ALS (UV) light source. |
| | Ninhydrin | Item #3 (envelope) was also treated with ninhydrin (NIN Plus Ultra, pre-mix spray- Lot# 02060252023). Due to the pre-mix spray, the item was treated three times and a faint print was developed after approx. 60 min in a humidifying chamber in quadrant B. |
| Z9BV2E | Visual Examination | Examined using natural light, flash light, UV, ALS, LASER, and SUV. |
| | DFO | with LASER excitation. |
| | Ninhydrin | |
| | Zinc Chloride | with ALS excitation. |
| | Physical Developer (PD) | Metal material from paper envelope was removed prior to this application. |
| ZAN6EL | Ninhydrin | (Special Formula) Used dip method, dried evidence, placed in humidity chamber for 20 minutes at 80 degrees Celsius and 60% humidity |
| ZDNF9Z | Visual Examination | Performed a visual examination of item 3 using Crimelite and TracER Laser. No digital photographs were taken. |
| | DFO | Used DFO on item 3 and used TracER Laser with a curved filter to take one digital photograph of latent print area in quadrant B. |
| | Ninhydrin | Used Ninhydrin on item 3. Used Incandescent and Crimelite lighting. No digital photographs were taken. |
| ZMTMPL | 1,2-Indanedione | Indanedione w/ HFE. Dyed with indanedione w/ HFE, examined with 532 nm light via Forensic LASER and orange filter goggles. |

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|
| ZR79W8 | Visual Examination | A fluorescent light was used while looking at the item at various angles under magnification. |
| | Ninhydrin | I poured the ninhydrin into a glass tray in a fume hood. I immersed the item into the tray and hung it to dry in the fume hood. I turned on the Caron chamber before starting the process to get the settings where they need to be. When the chamber was ready I placed the item in the chamber and left the item in the chamber for 45 minutes. I examined the item under a fluorescent light at various angles under magnification. |
| | Physical Developer (PD) | This process was completed by [Name] and the batch number was 531. I examined the item under a fluorescent light at various angles under magnification. |
| ZVJ9TY | Visual Examination | Initial visual exam was conducted of the item and again after each method used. There were no visible impressions/evidence on the item. |
| | Ninhydrin | In a fuming hood, heptane nihydrin was slowly poured over the entire envelope and left to dry for 10+ minutes. The enveloped was then placed in the Caron chamber (for 10 minutes) for further processing. The ninhydrin is made in batches with the control tested per batch at the time it is prepared. |
| | Visual Examination | A visual exam was conducted once the envelope was dry (and prior to using the Caron chamber). A faint impression was beginning to develop in Quadrant B. |
| | Caron fingerprint chamber | The envelope was placed into the Caron chamber for 10 minutes for further processing. Additional detail appeared in the impression in Quadrant B. |
| ZVLVBC | Visual Examination | White light with different angles. |
| | Alternate Light Source | Foster&Freeman Crime Lite ML2 (UV-VIS). |
| | DFO | CAST recepture, 100C, 0%RH, ~20 min. |
| | Ninhydrin | CAST recepture, 80C, 62%RH |
| ZZGGCM | Visual Examination | |
| | Ninhydrin | |
| | Physical Developer (PD) | |
| ZZYGGX | Visual Examination | |
| | Ninhydrin | Ninhydrin on 6/27/24, 7/3/24, and 7/5/24 |
| | Time | 6/27/24, 7/3/24, 7/5/24 |
| | Visual Examination | 7/3/24, 7/5/24, 7/8/24 |

 

# TABLE 2 - Item 3

| WebCode | Development Methods | Method Details |
|---|---|---|

## Item 3 - Development Response Summary

Participants: 312

### Methods Utilized

| | | | | |
|---|---|---|---|---|
| Alternate Light Source | 129 | Physical Developer | 51 | *Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.* |
| Cyanoacrylate Fuming | 4 | Powder Dusting | 9 | |
| DFO | 68 | Visual Examination | 244 | |
| Dye Stain | 3 | Wet Powder Suspension | 0 | |
| Ninhydrin | 231 | 1,2-Indanedione | 106 | |

# Preservation Methods

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 24AZTC | Photography | Photography after each method |
| 28WTQZ | Photography | Photographs taken prior to processing and after processing with and without scale |
| 2BCZEY | Photography | |
| 2GKJDR | Photography | Photographed utilizing DCS5 workstation |
| | Lifting | Lifted with tape onto lift card |
| 2HUHLF | Photography | Different filters and white light and different foster freeman crime lite lights. Normal and modificated camera. |
| 2K2R2R | Photography | Each item was photographed (in the section containing ridge detail) with a scale. |
| 2NFLE4 | Photography | On 6-22-2024, I photographed the visible ridge detail/prints after cyanoacrylate fuming with a Nikon Z7 camera with oblique lighting using a white LED light. One (1) photograph was submitted. On 6-27-2024, I photographed the visible ridge detail/prints after applying the RAY dye stain I observed under a wavelength 450nm light with an orange filter. I used a Nikon Z7 camera with an orange filter and direct lighting using a 450nm wavelength light. One (1) photograph was submitted. |
| 2PU3LP | Photography | 1. After Dye Stain, Mark photographed after Dying using 445nm light with 495nm Filter |
| 2Q7NMD | Photography | A photograph of the developed latent print were captured using a Nikon D3500. |
| 2REZ3T | Photography | Photography done using Labkam to capture print 1A1a at Visual/Labkam on 6/24/24. |
| | Photography | Photography done using Labkam to capture print 1A1a at Cyanoacrylate/Labkam on 6/25/24. |
| | Photography | Digital photography with Alternate light source and yellow filter to capture print 1A1a at Basic Yellow 40 on 6/26/24. |
| | Photography | Digital photography done to capture print 1A1a at black magnetic powder on 6/26/24. |
| 2VY2WF | Lifting | The print was preserved with a tape lift. |
| 2XRK9E | Photography | |
| 2YUT6C | Photography | The fingerprint was photographed at every stage of research after disclosure. |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 33BCP7 | Photography | Photographed on copy stand with scale. |
| 3639EZ | Photography | Photographs were taken after FSIS examination, Cyanoacrylate fuming and FSIS examination, and M-Star and laser examination. |
| | Lifting | Ridge detail development was lifted after black powder application. |
| 36KDUD | Photography | DCS5 |
| | Lifting | Tape lift |
| 38BE2M | Lifting | Lifted latent print using clear lift tape and then placed on white index card for examination. |
| 3A929W | Photography | Capture and Enhancement processing completed with Foster + Freeman DCS5 imaging system. Using UV light (Foster + Freeman Crime lite (350-380nm), add Baader U-filter on Camera Nikon D5. Put System on (Live Mode) to make image good brightness and clear size. |
| 3B7EQH | Photography | A black background was placed to highlight the latent. It was documented by means of photographs. |
| | Lifting | It was lifted with a white plastic patch. |
| 3BNEYE | Photography | Three photographs captured at Cyanoacrylate fuming stage with FSIS and shortwave UV, Ardrox stage with UV, and Rhodamine stage with Laser. |
| 3ELMEH | Photography | Then it was documented with photograph and documented with a ruler. |
| | Lifting | After documenting the fingerprint, it was lifted with a hinged lifter, identified with the information of the case. |
| 3F2Z7Z | Photography | Digital images uploaded into DAMS |
| 3J3Z8H | Photography | The ridge detail observed was documented through photography after each processing method. |
| 3KTDHN | Photography | TM “1.1” in A section. The picture has been taked using 470 nm wavelength to photograph the developed latent print (partial as well as detail.) |
| 3RCE7D | Photography | Nikon digital camera, RAW format, Foray digital archive storage |
| 3TPBAW | Photography | |
| 3WPJD8 | Photography | A print was photographed and preserved using Full Spectrum Imaging System (FSIS) II with a 254 nm wavelength alternate light source and filter. |
| 3X3WFH | Lifting | Was Photographed and preserved in hinged print lifter |
| 3XHD9Q | Photography | photographed and transferred to DVD |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 42EALN | Photography | Photographed with Dual77 at 520nm with Orange Barrier Filter. Photographed after R6G application. |
| 42YQ2Q | Lifting | Developed fingerprint was lifted using fingerprint tape, the tape was then applied to a fingerprint card. All required information was included on the back of the card. Fingerprint card packaged, entered into the Evidence Traq System and transferred to the appropriate location. |
| 47CQYH | Photography | D850 Digital camera |
| 4AWHAK | Lifting | Using Lifting Tape, the print from section A was lifted and placed on a Latent Print Card. |
| 4DNWL9 | Photography | The picture was taken with a Nikkon camera Z6 with a Nikkor 60 mm lens. |
| 4PNDLB | Lifting | Sirchie tape was used to lift the impression and it was placed on a fingerprint backing card. |
| 4ZMDWU | Lifting | |
| 4ZZU4F | Photography | The latent print was photo documented to preserve it. |
| | Lifting | The latent print was preserved, lifting with adhesive tape. |
| 66DUZ8 | Photography | A photograph of the whole, semi-ensemble and detail of the revealed fingerprint is taken. |
| 66T4ZZ | Photography | 6/21/24 - Black powder, direct lighting, incandescent/flood light, section A |
| 68ZLXV | Photography | |
| 6ARHMP | Photography | |
| 6CUJP8 | Lifting | The latent print, which was located in section A was lifted with clear tape and placed onto a fingerprint lift card. The appropriate data was then filled out on the back of the card as well as a picture showing where the print was lifted on this item of evidence. |
| 6DQW9U | Photography | |
| | Lifting | |
| 6G86WT | Photography | photographed after using ardrox |
| | Lifting | lifted after dusting |
| 6HLQ8G | Photography | DISCOVER w/ Crime-lite Auto |
| 6JCPLE | Photography | digital photography |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 6VATQ9 | Photography | Photographed after cyanoacrylate processing using white light and polarizer. |
| | Photography | Photographed after MBD processing using blue ALS and yellow filter. |
| | Lifting | Tape lifted print after using black magnetic powder and black powder using 2 inch tape and lift card. |
| 6XUMKN | Photography | Canon EOS Rebel T6i camera used and saved to our Mideo program. |
| 73GXPH | Photography | 07-10/06/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| | Lifting | 10/06/2024, Black powder lifting was used to preserved the developed mark |
| 73M2RA | Photography | 1. Two photographs were taken following cyanoacrylate fuming (one with FSIS/254 nm short-wave UV, one with basic lamps). 2. One photograph was taken following the Ardrox dye stain (long-wave UV lamp). 3. One photograph was taken following the Rhodamine dye stain (Wratten #21 orange filter/532 nm green LASER). |
| 76EZ69 | Photography | Print was photographed using white light and a Nikon D3400 digital camera. |
| 7BXCVU | Photography | Developed fingerprint was examined with lights before and after lumicyano process. After lumicyano was used green light and red filter (Foster & Freeman) to photograph discovered fingerprint. After Basic Yellow 40 the fingerprint was photographed with blue light and yellow filter (Foster & Freeman). |
| 7EER88 | Photography | Nikon 850D & alternate light source (Crime Lite XL - Green and orange filter (550nm)); small piece of black card inserted into Item 1 to assist with image capture |
| 7G7NW2 | Photography | I photographed the item after CA, RAY, and black powder. |
| 7PDFDJ | Photography | I preserved the latent print by using photo documentation. |
| | Lifting | I used a plastic adhesive patch to lift the latent print. |
| 7PWHLJ | Photography | Took photo with Nikon D850 camera with orange filter and a green laser (Bright Beam) as a light source, |
| 7QTK39 | Photography | photo'd 1-LP1 in Section A of Item 1 with green laser (532nm) & orange filter |
| 7U9EFK | Photography | Photographed after Superglue and R6G |
| 7YNM4K | Photography | |
| 8222WJ | Photography | |
| | Lifting | |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 87YHAD | Photography | La huella dactilar desarrollada fue preservada mediante fotografia de calidad. The developed print was preserved using qualitly photography 90 degrees, tripod and scale. |
| 886Z89 | Photography | Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D6 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 Digital Capture System 5 (DCS5) software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference etc., where applicable. Exhibited images are then submitted to the Fingerprint Bureau for further analysis and comparison. |
| | Lifting | Once all treatments were completed, a white gel lift was taken on the side of the mark and exhibited as 'Mark 1B0'. This was passed to the Photographic Department for scanning. |
| 88QEX8 | Lifting | Latent lift on section A lifted and placed on white chrome coat paper with appropriate labeling. |
| | Scanning | Latent lift was scanned at 1200 DPI utilizing flatbed imaging scanner. |
| 8C8RQ8 | Photography | Photographed close-up images with Nikon camera; two latent prints (1-LP1 in quadrant "A" after cyanoacrylate fuming and again after dye stain using the green laser and orange filter; 1-LP2 in quadrant "D" after cyanoacrylate fuming which did not improve after dye stain) |
| 8KGBXJ | Photography | Mark Photographed on section A. but not suitable |
| 8KXDUK | Photography | Photography was utilized after every physical or chemical processing step. |
| 8LTXGJ | Photography | |
| 8V4Z3K | Lifting | Latent print card |
| 8XLGXB | Photography | Photographed after application of methanol rinse following MRM10 application |
| 94M3FC | Lifting | The latent print was photographed and preserved in hinged print lifter. |
| 96W8TZ | Photography | Digital photo - Nikon 850 |
| 9AGQJX | Photography | Print observed in quadrant "A" by using direct lighting with a polylight. |
| 9ENP89 | Photography | |
| 9FENL8 | Photography | Camera Canon 700D, oblique light. |
| 9JHJ6A | Photography | |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 9RGZ3V | Photography | Two photographs were taken on Camera11/Lens3. One photograph was taken after dye stain using direct lighting with the Polilight 2 and an orange filter. One photograph was taken after the item was dusted with powder using transmitted fluorescent lighting. |
| A4LHDU | Photography | Macro Photography |
| A7E8XB | Photography | 1. Excitation light wavelength is 450 nm. 2. Barrier filter : 515 nm long pass filter. |
| AAA8PR | Photography | 3 photos were taken of ridge detail post CA fuming with the FSIS. 1 photo was taken of ridge detail post dye stain processing |
| | Lifting | 2 lifts were taken of the same ridge detail a first and secondary lift |
| ACGKF7 | Photography | All photographic documentation performed within resolution guidelines, which included a surface to sensor distance of no greater than 0.49 meters, (Canon 100mm macro lens) and in RAW format. A Canon 5D Mark-III full frame camera was used. |
| AENVCA | Photography | Digital photography |
| AHN88A | Photography | digital photography |
| AJ2GHV | Photography | 1 RAY image taken with Camera10/Lens2, using orange filter and Polilight 2 (450nm) |
| AM2REV | Photography | White light photography, ALS photography @515nm w/orange filter |
| ARA9NJ | Lifting | Lifting Tape and White Backing Card |
| ARVN4L | Photography | coaxial light |
| AWQFCJ | [No Methods Reported.] | No preservation was performed on this proficiency test due to policy in DPS Friction Ridge Manual, section 01-01. |
| B3MRKL | Photography | CTS245190-OC1 was digitally captured after development with powder using white light with a polariser CTS245190-OC1 was recaptured after cyanoacrylate fuming using white light CTS245190-OC1 was recaptured after dye stain using blue light (445nm) with a Foster and Freeman GG495 filter CTS245190-OC2 was captured after cyanoacrylate fuming using white light CTS245190-OC2 was recaptured after dye stain using blue light (445nm) with a Foster and Freeman GG495 filter CTS245190-OC3 was captured after cyanoacrylate fuming using white light CTS245190-OC3 was recaptured after dye stain using blue light (445nm) with a Foster and Freeman GG495 filter See additional comments |
| | Lifting | CTS245190-OC1 was tape-lifted onto a white liftcard and retained with the casefile. |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| B8ZDR8 | Photography | Prior to lifting the first and 4th latent, the latent was photographed using a Canon DSLR, scale, and lighting (direct for prior to first lift and transmitted prior to fourth lift) using a flashlight. |
| | Lifting | Latent was lifted using frosted lifting tape then tape and latent was placed on a lift card with description, drawing, direction, case number, item number, initials, date, and lift number. |
| | Scanning | Latent lift cards were scanned at 1000 DPI with a scale. |
| BCCMHF | Photography | The latent print was photograped after the use of Cyanoacrylate fuming. |
| | Photography | The latent print was again photographed after use of Basic Yellow 40 (BY-40). |
| BCWYMF | Photography | Photography using RUVIS camera, after Lumicyano fume using barrier filter for ALS, and after black powder dusting and lifting. |
| | Lifting | Hinge lift |
| BEJRAH | Photography | FSIS II - UV 254nm (quadrant A) |
| | Lifting | black powder on white backing card (quadrant A) - LC1 |
| BK6QR4 | Photography | Took 3 digital photographs of latent impressions on Quadrant A of the plastic card sleeve (CAE FUMING STEP, ARDROX/UV STEP, AND R6G/LASER STEP) |
| BMA7DN | Photography | General photographic documentation and medium shots and close-ups are carried out. |
| | Lifting | Collected with lifting tape and placed on lifting paper. |
| BRTEMA | Photography | Nikon Digital Camera |
| BVKUN3 | Photography | Crime-lite AUTO |
| BZZ3C2 | Photography | Photography. |
| C4FWQD | Photography | 11-15/07/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| | Lifting | 15/07/2024, Black powder lifting was used to preserved the developed mark |
| C8DBD3 | Photography | Photographing after each visual examination and after dusting with white light and UV. |
| CCMRMR | Photography | Photographed latent area In Quadrant A with FSIS prior to super glue (total of 2 images). Photographed latent areas in Quadrant A, C, and D, with FSIS after super glue (total of 4 images). Photographed latent areas in Quadrant A and D with tracer laser after dye stain (total of 2 images) |
| | Lifting | Lifted latent areas from Quadrant A, C, and D, after utilizing black powder (total of 3 lifts) |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| CGZCUD | Photography | It is photo documented with metric witness. |
| | Lifting | The fingerprint hinge lifter is identified with the information corresponding to the case and the fingerprint is lifted for future analysis. |
| CLV43A | Lifting | The latent print was photographed and then preserved using a hinged print lifter. |
| CTGAMM | Lifting | Using clear lift tape, I adhered the tape to the ridge detail and smoothed out any bubbles or creases that were present. I lifted the tape from the item and adhered it to a latent print lift card and filled out all the proper information. |
| D26KAN | Photography | Comparison quality photographs were taken during processing. |
| D3KJTD | Photography | Documentation photos captured upon ridge detail visualization. |
| D7J3R6 | Photography | Photos were taken in RAW format after the application of Cyanoacrylate Ester, MRM-10 dye stain and Basic Yellow. A FLS set at 455nm and a camera with an orange filter were used. A total of three photos were taken. Photos were saved on a photo card then transferred to Digital EMS. |
| DAC9YF | Photography | |
| DEBHC3 | Photography | |
| DETGME | Photography | |
| DGX2DZ | Photography | |
| DNXN3E | Lifting | The latent print was lifted from the surface with clear tape and placed onto a white latent lift card. The contrast between the white lift card and black background allows the latent print to be visualized more clearly. The print was observed in section A, but did not have sufficient ridge detail for submission. |
| DQMPBN | Photography | DCS4 |
| E3HADZ | Photography | Curved orange lens filter, alternate light source 515 nm. |
| EABXJ3 | Photography | |
| EATKHK | Photography | |
| EC4HV3 | Lifting | I used tape to lift the prints off the plastic. |
| EH9EGN | Lifting | Tape lift |
| EJ3324 | Photography | Normal white light |
| ENRTYY | Photography | DCS5 Photography, crime lite 700 nm |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| EUZ3E9 | Lifting | |
| EWRY33 | Photography | O,M,C digital images captured between Lumicyano and Rhodamine 6G processing |
| EYDLVP | Photography | Photographed with a scale containing case number, date, item number, processed used, and initials. |
| EZT86R | Photography | After RAY dye stain was applied, a photo was taken of the print using the direct lighting technique. The light source was a blue light Polilight, and the camera lens had an orange filter attached. After black powder was applied, a photo was taken using the direct lighting technique with a halogen light. |
| F83WJP | Photography | The item was photographed with a Nikon Z7 camera. A direct polilight lighting was used for the dye stain photograph. A transmitted lighting was used for the powder photograph. |
| FDNXFU | Photography | Scaled photos were taken of latent with a NIKON 5200 camera fitted with a Macro lens. |
| | Lifting | Latent lifted with a clear grip lifter and placed on a white in color backer card. |
| FFFU6N | Photography | I obtained four images utilizing superglue and FSIS from quadrant A. I obtained two images utilizing M-Star and TracER laser from quadrant A. |
| | Lifting | I obtained one latent lift card utilizing black power from quadrant A. |
| FHLC3J | Photography | After Ardrox |
| | Lifting | after black powder |
| FKMK69 | Lifting | Black powder. |
| FMYXA6 | Photography | After developing the latent impression a photograph was taken and removed with a plastic patch |
| | Lifting | with a plastic patch. |
| FQZEB7 | Photography | Camera w/ orange filter used when viewing evidence with 532 nm forensic laser for capture. |
| FRVNH3 | Photography | |
| FV7Y9B | Photography | Laser (Bright Beam) / 532nm / used orange goggles – orange and green filters used for dye stain photos |
| G3PBC4 | Photography | Fluorescent photography with orange barrier filter. |
| G746QF | Lifting | |
| GA8QRV | Photography | Imaged with forensic laser and Nikon D850 |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| GCVFZE | Photography | The fingerprint was photographed 1 to 1 and can be used for future and further use in identification. |
| | Lifting | The fingerprint was next lifted with fingerprint tape and placed on a Latent Impression Card to be submitted to the Latent Print Unit, to be analyzed for identification and submitted in “AFIS” for future identification. |
| GP2HCV | [No Methods Reported.] | The latent was lifted with frosted tape after the application of black powder, and photographed after the application of dye stain. |
| GT2GV2 | Photography | |
| GUCJHZ | Photography | after visual exam: 1 photo of section A with ring light. after CA: 1 photo of section A with ring light. after BY40: 1 photo of section A with ALS at 450 nm and yellow filter |
| GZWN7U | Photography | Brightbeam dual forensic laser system Nikon D810 and Nikon 850 camera. |
| H8E8CE | Photography | LabKam and digital camera |
| H9NJRV | Photography | Item photographed at each stage of examination |
| HBFFFP | Photography | I photographed the evidence after the processes of RAY and black powder under the Nikon camera eleven (11). |
| HKKAPW | Photography | Macro camera lens (Nikon D 3300).The photo of the latent print is archived in the AFIS database of fingerprints. The photo of the latent print is archived in the AFIS database of fingerprints. |
| HLUE3K | Photography | |
| HM82LK | Photography | 7/8/24. One visual digital image was taken using camera 10, lens 2. Flood lamp with dome was used. One visual image taken using the flood lamp and dome. Light technique-Dome, light type-Flood lamp. Camera 10/lens 2. 7/9/24. One CA digital image was taken using camera 10, lens 2. Light technique-direct, light type-Halogen with camera 10/lens 2. |
| HPYXBE | Photography | Collected four digital photographs |
| | Lifting | Collected two lifts |
| HTUY3V | Photography | I utilized a Nikon D5200 digital camera with a Nikon AF-S Micro Nikkor 60mm lens. The camera settings were as follows: shutter speed=bulb, Aperture=f6.3, ISO=400, distance from item=approximately 6". |
| HXT7V6 | Lifting | lifted with latent lift tape & placed on a card |
| J2AQFZ | Photography & DVD Burn | The latent print was digitally captured and burned onto a DVD. |

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| J2Z3Q6 | Photography | The first method to preserved the latent print was a documentation by Photography. |
| | Lifting | Then I used a white plastic patch to lift the latent print. |
| J4BYKA | No preservation or analysis | Preservation and analysis not required for proficiency test per policy. Observed ridge detail not preserved. |
| J72XY9 | Lifting | Lift tape |
| J8XHL8 | Photography | I used the Copy Stand and took two photos of the latent print. |
| JGECQ9 | Photography | Photo evidence scale. |
| JHBX97 | Photography | |
| JHUGFY | Photography | An image of the latent print in Section A was photographed with a digital camera. |
| JJKUP6 | Photography | It is photo documented with metric witness. |
| | Adhesive Tape | The fingerprint was preserved with adhesive tape with the information corresponding to the case and the fingerprint is lifted for future analysis. |
| JK2WM6 | Photography | |
| JQ33D2 | Photography | I took a photo of the fingerprint with a ruler and preserved this by photo. |
| | Lifting | I was lifted using a white plastic patch to preserved the fingerprint. |
| JVGQZJ | Lifting | ridge detail seen but not able to lift |
| | Photography | photos taken with ridge detail |
| K49N4X | Photography | Photos of the latent prints revealed by irradiation with the laser were taken. |
| K6PH68 | Lifting | Lift tape onto a card. |
| K9L9BJ | Photography | Photographed using LP-Camera 10/ Lens 2 using direct incandescent/flood light for Powder photo, and the polilight 2 450 nm with an orange filter for RAY. |
| KCFCUP | Photography | digital photography with Nikon camera |
| KL8QXV | Photography | FSIS (UV light/UV filter), pre-processing, scale in photograph, TIFF Format, uploaded into Foray for digital storage |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| KLABTB | Photography | Using a MacroLens and a camera stand capture exam quality images of the latent print, by filling the frame. Photograph includes a scale, the Item number, case number, initials of examiner, processing step and date the image was captured on. Overall photograph taken of the item at each development as well. |
| KQY3Q7 | Photography | Camera A |
| KRVBYP | Photography | Visual exam: white light (2 photos), RUVIS FSIS (3 photos). Lumicyano exam: LASER (0 photos), RUVIS FSIS (1 photo) |
| KTN7NJ | Photography | Developed ridge detail images were photographed with RUVIS/FSIS camera and with Nikon DSLR equipped with an orange filter respective to development method. |
| | Lifting | Ridge detail was lifted from plastic card following development with black powder. |
| KVVLUP | Photography | After processing, the print was photographed and preserved using the Full Spectrum Imaging System (FSIS) with lamp and filter at 254 nm wavelength. |
| KWMHJJ | Lifting | Onelift on the area of possible ridge detail in quadrant A |
| | Photography | FSIS II - pre CA fuming - 2 photographs of area of possible ridge detail in quadrant A. FSIS II - post CA fuming - 6 photographs of area of possible ridge detail in quadrant A. M-Star - 2 photographs of area of possible ridge detail in quadrant A |
| KZ624D | Photography | NIKON D5600 + AF-S Micro NIKKOR 60mm 1:2.8 G ED |
| L4KK8G | Photography | All recordings were from photography |
| L9Z67P | Lifting | Lifted with lift tape, not enough ridges observed |
| | Photography | Photography with DCS5, blue light, 495 filter |
| LCEYJ2 | Photography | First, I preserved the latent print by using photo documentation. |
| | Lifting | Then I used the plastic adhesive patch to lift the latent print. |
| LDTE4U | Photography | 7/1/2024-Overall with Nikon 7500 after visual examination 7/1/2024-Overall, midrange, 1:1 closeup with Nikon 7500 taken after Lumicyano fuming 7/9/2024-Overall, midrange, 1:1 closeup with Nikon 7500 taken after Rhodamine 6G |
| LDWNCU | Photography | Nikon camera, RAW format, scale in pic, uploaded and stored in Foray |
| LFE2WH | Photography | Photographed using Camera 11/Lens 3. Powder photograph taken using transmitted fluorescent lighting. RAY photograph taken under direct light using the Polilight 2 with an orange filter. |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| LFV882 | Lifting | Used fingerprint lifting tape and placed on a white latent fingerprint card in order to preserve the developed print. |
| LHM3WV | Photography | DCS-5 |
| LL6B7F | Lifting | |
| LQFD7Q | Photography | Nikon D750+macro nikkor f2.8 60mm |
| LUFLBZ | Photography | AFTER DEVELOPING THE FINGERPRINT A PHOTOGRAPH WAS TAKEN AND REMOVED WITH A PLASTIC PATCH |
| LVNUFE | Photography | Canon Utility software. Canon EOS 77D. Canon macro lens EF 100 mm. + Foster&Freeman Crime-Lite Blue 82S 420-470 nm. / Schott GG495. |
| LXXUKL | Photography | A Nikon Z7 camera with a two orange filters on the lens was used on 7/7/2024 to photograph the item after RAY dye staining produced a print. Polilight 2 with 450nm blue light was used with the direct lighting technique to bring forth the print. |
| LY8YZV | Photography | One digital photograph of latent impressions from Cyanoacrylate. One digital photograph of latent impressions from Rhodamine |
| M34WX2 | Photography | The developed fingerprint was photo documented to preserve it. |
| | Lifting | The fingerprint was lifted with a transparent plastic patch on a white background, to preserve it. |
| M3MUE8 | Photography | Photographed latent image on Item 1 and was assigned Item 0123 |
| MB2HEZ | Photography | FRD captured using Nikon D810 under ambient/white light, saved as NEF in T Drive. Not calibrated, but verified to be >or = 2000 ppi using Adobe Photoshop Creative Cloud. |
| MEZUBZ | Lifting | One (1) latent lift collected, using lifting tape. Placed on MSP Form #74. |
| MFCT6A | Photography | Sirchie Labkam - f/3.5 Nikon D780 - Aperture priority f/11.0 |
| MTZVN2 | Photography | |
| MUDCUN | Photography | Canon EOS 800D, Canon Macro Lens EF-S 60mm, yellow and orange viewing filter (after BY40) |
| MUFWQ4 | Photography | Crime-lite AUTO Camera Source : COAX 9 degrees 7%, Greyscale. Minimal ridge detail on edge of print area, photographed. Not enough ridge detail for determination. |
| | Lifting | Lifted print with fingerprint tape, preserved on card. |

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| MZDXJ3 | Photography | 11-12/06/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| | Lifting | 12/06/2024, Black powder lifting was used to preserved the developed mark |
| N2ANC3 | Photography | One photograph |
| N2VXPD | Photography | lift was also attempted but not retained |
| NA8CAU | Photography | Photos of the latent print with the laser were taken. |
| NCRAEC | Photography | Canon Utility software, Canon EOS 5D Mark II, Canon macro lens EF 100mm, Foster&Freeman Crime-lite Green 480-560nm, OG590AG |
| NEDW8Y | Photography | |
| | Lifting | |
| NJUBZZ | Photography | captured as TIFF at greater than 1000ppi using the DCS5 with the coaxial lighting attachment. Image processed with DCS5 software. |
| NPYABP | Photography | Photographed print after each observation/stage of development. Patent: Nikon D3400 camera and white light. CA Latent: Nikon D3400 camera and white light. BY40 Latent: Nikon D3400 camera with orange curved filter, a FF 1.0 Narrow Band Pass Filter, and under blue laser light (450nm) |
| NRKV4C | Photography | All images were uploaded into the laboratory's Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS). |
| NWHCHR | Photography | Took photo with SUV for superglue, UV for ardrox, laser for rhodamine |
| NX9PTX | Photography | I took a photo of the fingerprint with a ruler and preserved this by photo. |
| | Lifting | I was lifted using a white plastic patch to preserved the fingerprint. |
| NXQCRF | Photography | Mark M3 photographed using CEL DCS5 photography system and saved to designated folder. |
| PA2983 | Photography | The fingerprint was photographed at every step of a research. |
| PC9GME | Photography | 2 images; Camera 10, Lens 2; Photo 1: CA, transmitted lighting technique using fiber optic light. Photo 2: RAY, camera 10, Lens 2, Lighting Used: Orange Filter with Blue Polilight (450nm) (2), Lighting Technique is Direct. |
| PDHLZ4 | Photography | visible latent - black card inserted behind latent for contrast, reflective lighting. processed latent - transmitted lighting |
| PFAHNW | Photography | Photography with Nikon camera. Excited with 532 nm laser, viewed with laser filter |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| PHAZCQ | Photography | Photographed with measurement |
| PKH7ZD | Photography | V - No prints. CA - Camera 10/lens2, direct incandescent, 1 image. P - No prints. RAY - Camera 10/Lens2, direct polilight 2 blue light orange filter, 1 image |
| PM8BWQ | Photography | Four digital photographs were taken of latent impressions from this item to scale. The first photograph was during the visual examination with the use of Full Spectrum Imaging System, second after the item was processed with cyanoacrylate fuming with the use of Full Spectrum Imaging System, third after the item was processed with the Ardrox dye stain with the use of UV light through Image Pro, and the fourth after the item was processed with rhodamine 6g dye stain with the use of green laser light through Image Pro (with Wratten # 21 filter). |
| PVVFFQ | Photography | White light |
| QFH4MW | Photography | |
| | Lifting | |
| QKBEL3 | Photography | |
| QLPUQ3 | Photography | Photographs were completed with the FSIS II (UV 254 nm light) after the visual examination and Cyanoacrylate fuming. Photographs were completed after Rhodamine using an orange filter and Rofin 505 nm light source. Placards were photographed prior to photographs of item. Photographs were completed without and with a scale. |
| | Lifting | Upon processing item with bichromatic powder, fingerprint tape was used to lift/collect the latent lift with possible ridge detail. The tape lift was placed on a latent lift card which contains case information and a diagram of lift location. |
| QM3DYZ | Photography | |
| QP63E3 | Lifting | |
| QQNYRN | Photography | I used a transmitted light table to preserve the latent with photography. |
| | Lifting | After applying powder, I lifted the print with tape and applied it to a lift card. |
| QU3JQW | Photography | Maco lens with orange & yellow filters and ALS blue/green 450-510 nm wavelength and ALS blue 420-470 nm wavelength |
| QUNBNN | Photography | Ridge detail recorded with a Canon T6i camera with yellow filter attached using a 450nm light source. |
| | Scanning | Scans performed at 600 and 1200 dpi using an Epson V800 scanner. |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| R2WBCV | Photography | |
| | Lifting | |
| R4MAQU | Photography | The developed fingerprint was photo documented to preserve it. |
| | Lifting | The fingerprint was lifted with a transparent plastic patch on a white background, to preserve it. |
| R9JWNN | Photography | FSIS, used UV light, used scale in photograph, uploaded to Foray |
| RCER63 | Photography | after cyanoacrylate fuming f.8 iso 200 and macro lens |
| | Photography | after dye stain. f.8 iso 200 and macro lens with orange filter |
| RGXV4K | Photography | Overall photo prior to processing using MIDEO camera, close-up of ridge detail after cyanoacrylate ester fuming using Labkam camera, close-up of ridge detail after processing with black powder using MIDEO camera. Images downloaded to DVD for comparison. |
| RH3L49 | Photography | Photographed with Nikon D810 camera |
| RKUGT3 | Photography | The print was photographed with a DSLR camera after each of the following processing steps: initial visual examination, cyanoacrylate fuming, dye stain, and water rinse after dye stain. Specific information per each development step: • Visual: used a flashlight • Cyanoacrylate: used a flashlight • Dye Stain: used Crime-Lite Blue-Green (445-510nm) with an orange filter • Water rinse after dye stain: used Crime-Lite Blue-Green (445-510nm) with an orange camera filter |
| RUGHAC | Photography | DCS5 Photography |
| RUJ7QQ | Photography | The latent print was digitally captured with a camera. |
| RYANJ9 | Photography | |
| T6AB9M | Photography | Photographying with a measure and F&F Crime-Lite 42S blue (420-470 nm) with orange filter after fuming and again after dyeing. |
| T6U37E | Photography | I placed the item onto a flat surface. I used the fiber optic light to shine light directly onto the possible latent print after the cyanoacrylate fuming and powder processing steps. After RAY processing, I used a Polilight 2 with an orange filter on the camera. I took a photo using a Nikon Z7 at 1000 pixels per inch resolution. |
| TBG2CT | Photography | The transparent plastic piece divided into four areas and identified with letters A, B, C and D. Where the fingerprint fragmentation developed in the area identified with the letter A, a photograph was taken with a metric witness. |
| | Lifting | Where the fingerprint fragmentation developed in the area identified with the letter A, it was lifted with a white transparent plastic patch. |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| TEFD8T | Photography | First I preserved the latent print by using photo documentation. |
| | Lifting | Then I used a plastic adhesive patch to lift the latent print. |
| TJAAWJ | Photography | Photographs were taken initially, after RAM/ALS and after powder dusting |
| | Lifting | Lifting to white lift card |
| TK97UU | Photography | Photographed with oblique light |
| | Photography | Photographed after Rhodamine with a green laser at 532 nm + an orange filter |
| TL29BH | Photography | |
| TMC2DW | Photography | Digital Camera |
| TNQMPK | Photography | DCS5, Yellow Filter, fluoresce |
| TP4X3Q | Photography | |
| TPJGK3 | Photography | Took photos at visual, after processing with cyanoacrylate, after processing with Rhodamine 6G - Methanol (viewed with laser to take photos), after processing with magnetic powder and after processing with black powder. |
| | Lifting | Took lifts after processing with magnetic powder and after processing with black powder. |
| TT49W7 | Photography | |
| | Lifting | |
| U29L6K | Photography | Photographying with light source F&F Crime Lite 42S 420-470nm (blue) and 480-560 nm (green) and with a measure. |
| U4DEWX | Photography | |
| U74G68 | Photography | White light |
| UJPTGG | Photography | |
| UJRECW | Photography | Print did not have sufficiant ridge detail for further examination; however, picture was taken for preservation. |
| UL2JR7 | Photography | |
| UTDJ4A | Photography | |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| UWJZKD | Photography | VIS: 0 image(s) taken on 6/26/2024 CA: 0 image(s) taken on 6/26/2024 RAY: 1 image(s) taken with CSU - Camera 11/Lens 3 on 6/26/2024 (Direct Polilight 2 (450nm filter): Orange Filter). POW: 1 image(s) taken with CSU - Camera 11/Lens 3 on 6/26/2024 (Transmitted Fluorescent). |
| V4EHCU | Photography | Photographs were taken of RD after R6G and after powder with Nikon D810 camera. An orange filter on the lens of the camera and the Dual77 laser at 520nm were used for the R6G photo. |
| VDX6WV | Photography | Nikon D7000 camera, Bright Beam laser (532nm), orange filter and FF1 filter |
| VGZUN4 | Lifting | Clear adhesive tape used, and lift placed on a white lift card. |
| VHUH9K | Photography | |
| VPEJPX | Photography | Assigned item #0123 |
| VVLAR4 | Photography | |
| | Lifting | |
| VVX2KK | Photography | 1:1 photography |
| VZEA9K | Photography | FSIS and camera |
| W3YHQK | Photography | |
| | Lifting | |
| W6PJYT | Lifting | Lifted with latent print tape and placed on latent lift card |
| WMHMD9 | Photography | After cyanoacrylate, I took a photograph of item 1 using an LED with direct lighting. |
| | Photography | After RAY, I took a photograph of item 1 using the Polilight 2 (blue light) with an orange camera filter, using direct lighting. |
| | Photography | After powder dusting, I took a photograph of item 1 using the fluorescent light table, using transmitted lighting. |
| WQ8RAM | Photography | scale in photograph |
| WU2Y4V | Photography | Nikon D5, f/16, 500dpi, RAW + TIFF image produced, TIFF processed using Adobe Photoshop |
| X6Z6KZ | Lifting | black powder |
| X7TYFJ | Photography | digital camera. orange filter with 505 light. orange filter with 450 light |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| XBGNU2 | Lifting | se realiza la preservación del elemento lofoscopico mediante trasplantador de bisagra color blanco, documentando de forma fotográfica cada paso en todo momento, posterior a la recolección se realiza embalaje del elemento y se genera el registro de cadena de custodia. |
| XFDEZD | Photography | Using the Bright Beam laser and Nikon D850 camera with a 105mm lens with filter, a photo of the print was taken |
| XPLRFV | Photography | Used a DSLR camera to photograph. Used oblique white light to photograph latent print after cyanoacrylate fuming and after powder processing. Used orange filter #21 for photographing under ALS at CSS nm after fluorescent dye stain. |
| | Lifting | Used clear 2" lift tape and white backing card. |
| XT7PVY | Photography | images acquired into our authenticated digital asset management system |
| XVB4GJ | Lifting | For the transplant, conventional transparent tape was used, which was placed on a black cardboard support. |
| XW3DC7 | Photography | Photographed latent print with a white contrast background below it, with and without a scale |
| | Lifting | Lifted latent print with clear tape and affixed to a latent print card |
| XYRHAJ | Photography | Digital photography. AFTER superglue a SECOND LATENT was developed in section D of the item |
| Y2FDAX | Lifting | Lift tape and lift card. |
| | Scanning | Scanned the latent fingerprint of value, L-1, @ 1200 dpi. |
| Y82F73 | Photography | Macro lens used |
| | Lifting | Lifted with adhesive tape |
| | Transfer | Transfered to a white contrast card |
| YEFCWU | Lifting | Latent was lifted using fingerprint tape, placed onto a latent lift card, and entered into the Traq Evidence System |
| YH3YPH | Photography | |
| | Lifting | |
| YHGAJF | Lifting | For the transplant, conventional transparent tape was used, which was placed on a black cardboard support. |
| YMRKAP | Photography | First I preserved the latent print by using photo documentation. |
| | Lifting | Then I used a plastic adhesive patch to lift the latent print. |

 

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| YQXWGQ | Photography | The methodology utilized includes: visual examination, chemical and physical processing, viewing with an alternate light source, digital retention, and ACE-V. |
| YR8TXN | Photography<br>Lifting | |
| YZMKEE | Photography | Canon mark 3 used, Digital Photo Professional 4 and Adobe photoshop used for processing images. |
| Z29LVL | Lifting | The latent print developed in quadrant A was lifted using tape and placed on a latent print lift card. The latent print lift card was submitted to the Latent Print Unit. |
| Z69WQL | Lifting | The latent was then processed with magnetic powder and lifted with tape for preservation. |
| Z9BV2E | Photography | One digital photo of latent impression from quadrant A of plastic card was stored onto a compact disc. |
| ZAN6EL | Photography | Used Nikon camera, used scale in photograph and uploaded into Foray |
| ZDNF9Z | Photography | Used a NIKON D810 to take fourteen digital photographs of latent print area in quadrant A. |
| ZMTMPL | Photography | Digital Photography. A digital photo was taken of the print |
| ZR79W8 | Photography | It was photographed with a Nikon Z7 camera. The powder photograph was taken using transmitted lighting. The dye stain photograph was taken using direct polilight lighting. |
| ZVJ9TY | Photography<br>Lifting | After the initial visual exam of item (prior to cyanoacrylate ester fuming), three digital images of a visible impression in Quadrant A were taken using the DCS-5 camera. These impressions were taken in TIFF/1000+ppi. The original images were burned onto a master disc; then made 1:1 and burned onto a working copy disc.<br>After processing the item with cyanoacrylate ester and black powder, the impression in Quadrant A was lifted with fingerprint tape and placed onto a latent print card. The required information was filled out on the card, including a drawing of the item with an "X" placed in the area of the lifted impression and orientation arrows added near both the drawing and tape lift. |
| ZVLVBC | Photography | Foster&Freeman DCS5 - episcopic mode, white light, 415 nm with yellow filter. |
| ZZGGCM | Photography<br>Lifting | |
| ZZYGGX | Lifting | |

TABLE 3 - Item 1

| WebCode | Preservation Methods | Method Details |
|---|---|---|

## Item 1 - Preservation Response Summary

Participants: 295

### Methods Utilized

| | |
|---|---|
| Lifting | 98 |
| Photography | 263 |
| Scanning | 4 |

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

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 2322H4 | Lifting | |
| | Photography | |
| 24AZTC | Photography | Slight color change in quadrant C |
| 28WTQZ | Photography | Photographs taken prior to processing and after processing with and without scale |
| 2BCZEY | Photography | |
| 2GKJDR | Photography | Photographed utilizing the DCS5 workstation |
| | Lifting | Lifted with diff-lift on lift card |
| 2HUHLF | Photography | Different filters and white light and different foster freeman crime lite lights. Normal and modificated camera. |
| 2K2R2R | Photography | Each item was photographed (in the section containing ridge detail) with a scale. |
| 2NFLE4 | Photography | On 6-22-2024, I photographed the visible ridge detail/prints after powdering the item with black magnetic powder with a Nikon Z7 camera with direct lighting using a white incandescent light. One (1) photograph was submitted. |
| 2PU3LP | Photography | 1. After Dye Stain, Mark photographed after Dying using 445nm light with 495nm Filter |
| 2Q7NMD | Photography | I used a Nikon D3400 with with a curved orange filter and a FF1.0 Narrow band pass filter in conjunction with the laser to photograph the developed print. |
| 2REZ3T | Photography | Photography done using Labkam to capture print 1B1a at cyanoacrylate/Labkam on 6/25/24. |
| | Photography | Digital photography used to capture print 1B1a developed with black magnetic powder on 6/25/24. |
| 2VY2WF | Lifting | The print was preserved with a tape lift. |
| 2XRK9E | Photography | |
| 2YUT6C | Photography | The fingerprint was photographed at every stage of research after disclosure. |
| 33BCP7 | Photography | Photographed on copy stand with scale. |
| 3639EZ | Photography | The ridge detail visualized on the FSIS was photographed. The ridge detail developed with Cyanoacrylate fuming and examined with the FSIS was photographed. The ridge detail developed with M-Star dye stain was photographed. |
| | Lifting | The ridge detail developed with black powder was lifted. |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 36KDUD | Mikrosil | Mixed white Mikrosil with hardener to create a casting putty. Spread the putty on the area of the item with ridge detail using a wooden tongue depressor and allowed 3-5 minutes to harden. Hardened Mikrosil was lifted off of the item and taped to the blank side of the latent print card. |
| 38BE2M | Lifting | Lifted latent print using clear lift tape and then placed on white index card for examination. |
| 3A929W | Photography | Capture and Enhancement processing completed with Foster + Freeman DCS5 imaging system. Fix ring light under camera Nikon D5 (add Visible filter with UV& IR cut filter on camera Nikon D5). Add daylight filter to halogen light source to become latent print clearer. |
| 3B7EQH | Photography | It was documented and preserved by photographs and alternate UV light was used to highlight the latent. |
| 3BNEYE | Photography | Four photographs captured at powder stage, Ardrox stage with UV, Rhodamine stage with Laser, and Zinc Chloride stage with ALS. |
| 3ELMEH | Photography | The piece was removed to be documented with photography with a ruler. |
| 3F2Z7Z | Photography | images uploaded into ADAMS |
| 3J3Z8H | Photography<br>Lifting | |
| 3KTDHN | Photography | TM “2.1” in C section. White light is used (400-700nm) to photograph the developed latent print (partial as well as detail.) |
| 3RCE7D | Photography | Nikon digital camera, RAW format, Foray digital archive storage |
| 3TPBAW | Photography<br>Lifting | prior to black powder processing<br>after black powder processing |
| 3WPJD8 | Photography | A print was photographed and preserved using Full Spectrum Imaging System (FSIS) II with a 254 nm wavelength alternate light source and filter. |
| 3X3WFH | Photography | Was photographed using a tripod 90 degree |
| 3XHD9Q | Photography | photographed and transferred to DVD |
| 42EALN | Photography | Photographed with Dual77 at 520nm with Orange Barrier Filter. Photographed after R6G application. |

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 42YQ2Q | Photography | Item was photographed prior to lifting to ensure documentation in the event the print was lost during powder processing. Digital photographs were captured of the item and the developed area. Overall photograph of Item 2 was captured, a comparison quality photograph was captured (close-up), 1:1 photograph w/scale (Quadrant C). |
| | Lifting | Developed possible fingerprint was lifted using fingerprint tape, the tape was then applied to a latent fingerprint card. All required information was included on the back of the card. Fingerprint card packaged, entered into the Evidence Traq system and transferred to the appropriate location. |
| 47CQYH | Photography | D850 digital camera |
| 4AWHAK | Lifting | Lifting Tape was used on the wallpaper. A print in section C was collected and placed on a Latent Print Card. |
| 4DNWL9 | Photography | The picture was taken with a Nikkon camera Z6 with a Nikkor 60 mm lens. |
| 4PNDLB | Photography | A photograph was taken of the impression developed in section C using a Nikon D5600. |
| 4ZMDWU | Photography | |
| 4ZZU4F | Photography | The latent print was photo documented to preserve it. |
| 66DUZ8 | Photography | A photograph of the whole, semi-ensemble and detail of the revealed fingerprint is taken. |
| 66T4ZZ | Photography | 1 image, black magnetic powder, section C, direct lighting, halogen lamp |
| 68ZLXV | Photography | |
| 6ARHMP | Photography | |
| 6CUJP8 | Lifting | The latent print, which was located in section C was lifted with clear tape and placed onto a fingerprint lift card. The appropriate data was then filled out on the back of the card as well as a picture showing where the print was lifted on this item of evidence. |
| 6DQW9U | [No Methods Reported.] | No prints developed. |
| 6G86WT | Photography | |
| 6HLQ8G | Photography | DISCOVER w/ Crime-lite Auto |
| 6JCPLE | Photography | Digital photography |
| 6XUMKN | Photography | Canon EOS Rebel T6i camera used and saved to our Mideo program. |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 73GXPH | Photography | 07-10/06/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| | Lifting | 10/06/2024, Black powder lifting was used to preserved the developed mark |
| 73M2RA | Photography | 1. One photograph was taken following cyanoacrylate fuming (FSIS/254 nm short-wave UV). 2. One photograph was taken following aqueous rhodamine (Wratten #21 orange filter/532 nm green LASER). 3. One photograph was taken following DFO (Wratten #21 orange filter/532 nm green LASER). |
| 76EZ69 | Photography | Print was photographed using light from BrightBeam laser and a Nikon D3400 digital camera with an orange curved filter/FF 1.0 narrow band pass filter. |
| 7BXCVU | Photography | Developed fingerprint was photographed with white light. |
| 7EER88 | Photography | Nikon 850D & alternate light source (Crime Lite XL - Green and orange filter (550nm) |
| 7G7NW2 | Photography | After magnetic powder, I photographed the item. |
| 7PDFDJ | Photography | I preserved the latent print by using photo documentation. |
| 7PWHLJ | Photography | Took photo with Nikon D850 camera using ambient light in the room (visible light). |
| 7QTK39 | Photography | photo'd 2-LP1 in Section C of Item 2 with LED lighting |
| 7U9EFK | Photography | Photographed after R6G |
| 7YNM4K | Photography | |
| 8222WJ | Photography | |
| | Lifting | |
| 87YHAD | Photography | La huella dactilar desarrollada fue preservada mediante fotografia de calidad. The developed print was preserved using qualitly photography 90 degrees, tripod and scale. |
| 886Z89 | Photography | Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D6 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 Digital Capture System 5 (DCS5) software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference etc., where applicable. Exhibited images are then submitted to the Fingerprint Bureau for further analysis and comparison. |
| | Lifting | Once all treatments were completed, a white lift was taken on the side of the mark and exhibited as 'Mark 3A0'. This was passed to the Photographic Department for scanning. |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 88QEX8 | Photography | Latent print on section C photographed in RAW and JPEG using macro lens and scale. |
| 8C8RQ8 | Photography | Photographed close-up image with Nikon camera after powder dusting (did not improve after 1,2-Indanedione). |
| | Photography | Photographed overall image with Nikon camera after 1,2-Indanedione to show quadrant location. Used LED lighting; did not use green laser with orange filter |
| 8KGBXJ | Photography | Mark Photographed on section C. but not suitable |
| 8KXDUK | Photography | A photograph was taken after physical and chemical processing steps. |
| 8LTXGJ | Photography | |
| 8V4Z3K | Scanning | |
| 8XLGXB | Lifting | Conventional lift tape and latent card |
| 94M3FC | Photography | The latent print was photographed using a tripod 90 degrees. |
| 96W8TZ | Photography | Digital photo - Nikon 850 |
| 9AGQJX | Photography | Captured a print from quadrant "C" using direct lighting technique with fluorescent lighting. |
| 9ENP89 | Photography | |
| 9FENL8 | Photography | Camera Canon 700D, oblique light. |
| 9JHJ6A | Photography | |
| 9RGZ3V | Scanning | One image was taken with Scanner 13 after the completion of magnetic powder. No enhancement was observed after the completion of Ninhydrin and Physical Developer. |
| A4LHDU | Photography | Macro Photography |
| A7E8XB | Photography | 1. Excitation light wavelength is 450 nm. 2. Barrier filter : 515 nm long pass filter. |
| AAA8PR | Photography | 1 photo was taken of ridge detail post dye stain processing |
| ACGKF7 | Photography | All photographic documentation performed within resolution guidelines, which included a surface to sensor distance of no greater than 0.49 meters, (Canon 100mm macro lens) and in RAW format. A Canon 5D Mark-III full frame camera was used. |
| AENVCA | Photography | Digital photography |

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| AHN88A | Photography | Digital photography |
| AJ2GHV | Scanning | 1 image with Scanner 11 |
| AM2REV | Photography | ALS @515nm with orange filter, white light |
| ARA9NJ | Lifting | Lifting Tape and White Backing Card |
| ARVN4L | Photography | white light, oblique illumination |
| AWQFCJ | [No Methods Reported.] | No preservation was performed on this proficiency test due to policy in DPS Friction Ridge Manual, section 01-01. |
| B3MRKL | Photography | CTS245190-OC4 was digitally captured after DFO treatment using blue light (445nm) and Foster and Freeman GG495 filter CTS245190-OC4 was recaptured after ninhydrin treatment using white light See additional comments |
| B8ZDR8 | Photography | Prior to lifting the first latent, the latent was photographed using a Canon DSLR, scale, and direct lighting using a flashlight. |
| | Lifting | Latent was lifted using frosted lifting tape then tape and latent was placed on a lift card with description, drawing, direction, case number, item number, initials, date, and lift number. |
| | Scanning | Latent lift card was scanned at 1000 DPI with a scale. |
| BCCMHF | Photography | After use of powder, the latent print was photographed. |
| | Lifting | We decided to lift the latent print, because of the background and texture in the wallpaper. Then the latent print was photographed. |
| BEJRAH | Photography | Nikon D850 w/orange filter - rhodamine - quadrant C |
| BK6QR4 | Photography | Took 2 digital photographs of latent impressions on Quadrant C of the piece of wallpaper (AQUEOUS RHODAMINE STEP and DFO STEP) |
| BMA7DN | Photography | General photographic documentation and medium shots and close-ups are carried out. |
| | Lifting | Collected with lifting tape and placed on lifting paper. |
| BRTEMA | Photography | Nikon Digital Camera |
| BVKUN3 | Photography | Crime-lite AUTO |
| BZZ3C2 | Photography | Photographed latent in quadrant C. |
| C4FWQD | Photography | 11-15/07/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| | Lifting | 15/07/2024, Black powder lifting was used to preserved the developed mark |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| C8DBD3 | Photography | Photographing with white light. Print visual in section C. Also partial print in section D. |
| CCMRMR | Photography | Photographed latent area in Quadrant C with FSIS after super glue (total of 1 image). Photographed latent area in Quadrant C with tracer laser after dye stain (total of 1 image) |
| | Lifting | Attempted to lift potential latent area in Quadrant C, yielding negative results. |
| CGZCUD | Photography | It is photo documented with a metric witness, for its preservation and subsequent analysis. |
| CLV43A | Photography | The latent print was photographed with a tripod at 90 degrees and a scale, using an alternate light source. |
| CTGAMM | Lifting | I placed accutrans casting material on to the ridge detail and smoothed out across the ridge detail. I waited for the accutrans to dry and stappled it to a lift card and filled out all the proper information. |
| D26KAN | Photography | Comparison quality photographs were taken during processing. |
| D3KJTD | Photography | Documentation photos captured upon ridge detail visualization. |
| D7J3R6 | Photography | Photos were taken in RAW format after the application of MRM-10 dye stain and Basic Yellow using a FLS set at 455mn and camera with an orange filter. A total of two photos were taken. Photos were saved on a photo card then transferred to Digital EMS. |
| DAC9YF | Photography | |
| DEBHC3 | Photography | |
| DETGME | Photography | |
| DGX2DZ | Photography | |
| DNXN3E | Lifting | The latent print was lifted using clear tape, and placed onto a white latent lift card for preservation. The back of the lift card was filled out with pertinent case information. The print was observed in section C. |
| DQMPBN | Photography | DCS4 |
| E3HADZ | Photography | Curved orange and FF-1.0 lens filters, alternate light source 515 nm. |
| EC4HV3 | Lifting | I used tape, as well as, mykrosil on the wallpaper to lift the developed print. |
| EH9EGN | Photography | |
| EJ3324 | FSIS | UV light, digitally captured |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| ENRTYY | [No Methods Reported.] | No ridge detail was recovered, therefore no preservation method was used |
| EUZ3E9 | Lifting | |
| EWRY33 | Photography | Documentary photos taken |
| EYDLVP | Photography | Photographed with a scale containing case number, date, item number, processed used, and initials. |
| EZT86R | Photography | After powder dusting, a photograph was taken using a halogen light and the direct lighting technique. |
| F83WJP | Photography | The item was photographed with a Nikon Z7 camera. A direct fluorescent lighting was used for the powder photograph. |
| FDNXFU | Photography | Scaled photos taken with a NIKON 5200 camera fitted with a Macro lens. |
| | Lifting | Latent lifted with gel tape and placed on a white in color backer card. |
| FFFU6N | Photography | I obtained two images utilizing superglue and FSIS from quadrant C. I obtained two images utilizing M-Star and TracER laser from quadrant C. |
| FHLC3J | Photography | After ardrox |
| | Lifting | after black powder |
| FKMK69 | Lifting | Black powder. |
| FMYXA6 | Photography | After developing the latent impression with a photograph was taken to preserve. |
| FQZEB7 | Photography | FSIS captured image |
| FRVNH3 | Photography | |
| FV7Y9B | Photography | Laser (Bright Beam) / 532nm / used orange goggles – orange and green filters used for dye stain photos |
| G3PBC4 | Photography | Fluorescent photography with orange barrier filter. |
| G746QF | Photography | |
| GA8QRV | Photography | Imaged with forensic laser and Nikon D850 |
| GCVFZE | Photography | The fingerprint in section "C" was photographed 1 to 1 and can be used for future and further use for identification. |
| | Submit evidence | The latent print recovered in section "C" on the piece of wallpaper was covered with fingerprint tape and the evidence was submitted to the Latent Print Unit to be analyzed for better identification and submitted in “AFIS” for future identification. |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| GP2HCV | Lifting | Lifted with frosted tape |
| GT2GV2 | Lifting<br>Photography | |
| GUCJHZ | Photography | after BY40: 2 photos of section C at 450 nm and yellow filter (1 photo of entire section C; 1 photo of ridge detail only) |
| GZWN7U | Photography | Brightbeam dual forensic laser system and Nikon 810 camera & Nikon 850 camera |
| H8E8CE | Photography | digital camera |
| H9NJRV | Photography | Photographed at each stage listed above |
| HBFFFP | Photography | Photographs were taken after black magnetic powder on the nikon camera eleven (11). |
| HKKAPW | Photography | Macro camera lens (Nikon D 3300).The photo of the latent print is archived in the AFIS database of fingerprints. The photo of the latent print is archived in the AFIS database of fingerprints. |
| HLUE3K | Photography | |
| HM82LK | Photography | 7/9/24. Ridge detail observed using black magnetic powder. One image was taken on camera 10/lens 2. Light technique-direct, light type-flood. |
| HPYXBE | Photography<br>Lifting | Collected three digital photographs<br>Collected two lifts |
| HTUY3V | Photography | I utilized a Nikon D5200 digital camera with a Nikon AF-S Micro Nikkor 60mm lens. The camera settings were as follows: shutter speed=1/200, Aperture=f4, ISO=800, distance from item=approximately 6". |
| HXT7V6 | Lifting | Developed latent print lifted & placed on card |
| J2AQFZ | Photography & DVD Burn | The latent print was digitally captured and burned onto a DVD. |
| J2Z3Q6 | Photography | I used photography as a method of preservation of the latent print. |
| J4BYKA | No preservation or analysis | Preservation and analysis not required for proficiency test per policy. |
| J72XY9 | Lifting | Lift tape |
| J8XHL8 | Scanning | I then scanned the latent print with a scale. |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| JGECQ9 | Photography | Photo evidence scale |
| JHBX97 | Photography | |
| JJKUP6 | Photography | It is photo documented with a metric witness, for its preservation and subsequent analysis. |
| JK2WM6 | Photography | |
| JQ33D2 | Photography | I took a photo of the fingerprint with a ruler and preserved this by photo. |
| K49N4X | Photography | Photos of the latent prints revealed by irradiation with the laser were taken. |
| K6PH68 | Tape | taped over print on the evidence but did not lift due to fragile evidence surface. |
| K9L9BJ | Scanning | Scanned using scanner 12. |
| KCFCUP | Photography | digitally photographed with Nikon camera |
| KL8QXV | Photography | Nikon camera, scale in photograph, RAW format, uploaded into Foray for digital storage |
| KLABTB | Photography | Using a MacroLens and a camera stand capture exam quality images of the latent print, by filling the frame. Photograph includes a scale, the Item number, case number, initials of examiner, and processing step and date the image was captured. Overall photograph taken of the item at each development as well. |
| KQY3Q7 | Photography | Camera A |
| KRVBYP | Photography | Visual exam: white light (0 photos), RUVIS FSIS (0 photos). Lumicyano exam: LASER (2 photos), white light (0 photos) |
| KTN7NJ | Photography | Developed ridge detail was preserved via photographic capture with the RUVIS/FSIS camera and with the Nikon DSLR equipped with an orange filter. |
| KVVLUP | Photography | After processing, the print was photographed and preserved using the Full Spectrum Imaging System (FSIS) system with a lamp and a filter 254 nm wavelength filter. |
| KWMHJJ | Lifting | 1 lift of area of possible ridge detail in quadrant C (black magnetic powder) |
| | Photography | FSIS II - post CA fuming - 5 photographs of area of possible ridge detail in quadrant C. M-Star - 3 photographs of area of possible ridge detail in quadrant C |
| KZ624D | Photography | NIKON D5600 + AF-S Micro NIKKOR 60mm 1:2.8 G ED |
| L4KK8G | Photography | All recordings were from photography |

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| L9Z67P | Lifting | Lifted with lift tape, not enough ridges observed |
| | Photography | Photography with DCS5 and oblique lighting |
| LCEYJ2 | Photography | I used photo documentation as a method of preservation of the latent print. |
| LDTE4U | Photography | 7/1/2024-Overall with Nikon 7500 after visual examination<br>7/1/2024-Overall, midrange, 1:1 closeup with Nikon 7500 taken after Lumicyano fuming |
| LDWNCU | Photography | Nikon camera, RAW format, scale in pic, uploaded and stored in Foray |
| LFE2WH | Scanning | Magnetic powder print scanned using Scanner 13. |
| LFV882 | Photography | Used DCS-5 with side lighting in order to see possible ridge detail. |
| | Lifting | Using poly-lifting tape to get into the ridges of the surface texture. |
| LHM3WV | Photography | DCS-5 |
| LL6B7F | Photography | |
| LQFD7Q | Photography | Nikon D750+macro nikkor f2.8 60mm |
| LUFLBZ | Photography | AFTER DEVELOPING THE FINGERPRINT A PHOTOGRAPH WAS TAKEN AND REMOVED WITH PLASTIC PATCH. |
| LVNUFE | Photography | Canon Utility software. Canon EOS 77D. Canon macro lens EF 100 mm. + White light source. |
| LXXUKL | Photography | A Nikon Z7 camera was used on 7/6/2024 to photograph the print after it was powdered with black magnetic powder using the tented/bounce lighting technique and an LED light source. The print was also photographed after Physical Developer on 7/18/2024 using the direct lighting technique and an LED light source. |
| LY8YZV | Photography | One digital photograph of latent impression with powder. One digital photograph of latent impression with DFO/Laser |
| M34WX2 | Photography | The developed fingerprint was photo documented to preserve it. |
| M3MUE8 | Photography | Photographed latent image on Item 2 and was assigned Item 0123 |
| MEZUBZ | Lifting | One (1) latent lift collected using lifting tape, placed on MSP Form # 74. |
| MFCT6A | Photography | Sirchie Labkam - f/3.5 Nikon D780 - Aperture priority f/13.0 |
| MTZVN2 | Photography | |

 

TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| MUDCUN | Photography | Canon EOS 800D, Canon Macro Lens EF-S 60mm |
| MUFWQ4 | Photography | Photographed print with scale on Section C |
| MZDXJ3 | Photography | 11-12/06/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| | Lifting | 12/06/2024, Black powder lifting was used to preserved the developed mark |
| N2ANC3 | Photography | Photograph taken |
| N2VXPD | Photography | |
| NA8CAU | Photography | Photos of the latent print with the laser were taken. |
| NCRAEC | Photography | Canon Utility software, Canon EOS 5D Mark II, Canon macro lens EF 100mm, white light |
| NEDW8Y | Photography | |
| | Lifting | |
| NPYABP | Photography | Photographed print after each observation/stage of development. Patent ridges: Nikon D3400 camera with orange curved filter, a FF 1.0 Narrow Band Pass Filter, and under blue laser light (450nm) Black Magnetic Powder Latent: Nikon D3400 camera with white light |
| NRKV4C | Photography | All images were uploaded into the laboratory's Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS). |
| NWHCHR | Photography | Photographed after powdering |
| | Lifting | Lifted after powdering |
| NX9PTX | Photography | I took a photo of the fingerprint with a ruler and preserved this by photo. |
| | Lifting | I was lifted using a white plastic patch to preserved the fingerprint. |
| NXQCRF | Photography | Mark M1 photographed using CEL DCS5 photography system and saved to designated folder. CEL does not have the accreditation for lifting of marks therefore photography is the only preservation method used. |
| PA2983 | Photography | The fingerprint was photographed at every step of a research. |
| PC9GME | Scanning | Scanner 6 used after Powder step |
| PDHLZ4 | Photography | ambient light |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| PFAHNW | FSIS | 254 nm light excitation-no photo |
| | Alternative light source/filter | 455 nm light excitation+ photo, orange filter |
| | Laser/filter | 532 nm light (with orange filter) excitation + photo with Nikon |
| PHAZCQ | [No Methods Reported.] | No fingerprint found |
| PKH7ZD | Scanning | V - No prints. CA - No prints. POW - 1 scan, scanner 7. NIN - No prints. PD - No prints |
| PM8BWQ | Photography | Four digital photographs were taken of latent impressions to scale from this item. The first photograph was after the item was processed by cyanoacrylate fuming with the use of Full Spectrum Imaging System, second after the item was processed with Ardrox (MEK) dye stain with the use of UV light through Image Pro, third after the item was processed with Aqueous Rhodamine 6G dye stain with the use of green laser through Image Pro (with Wratten #21 filter), and the fourth after the item was processed with DFO with the use of green laser through Image Pro (with Wratten #21 filter). |
| PVVFFQ | Photography | Lights SORM-1 |
| QFH4MW | Photography | |
| | Lifting | |
| QKBEL3 | Photography | |
| QLPUQ3 | Photography | Photographs were completed with a Nikon D850 camera after Cyanoacrylate/magnetic powder using white light, and after Rhodamine using an orange filter and Rofin 505 nm light source. Placards were photographed prior to photographs of item. Photographs were completed without and with a scale. |
| | Lifting | Upon processing item with magnetic powder, fingerprint tape was used to lift/collect the latent lift with possible ridge detail. The tape lift was placed on a latent lift card which contains case information and a diagram of lift location. |
| QM3DYZ | Photography | |
| QP63E3 | Lifting | |
| QQNYRN | Lifting | I used magnetic powder to develop the latent print. I took a lift using tape. |
| QU3JQW | Photography | Macro lens with blue green ALS 450-510 nm wavelength and orange filter |
| QUNBNN | Scanning | Scans performed at 600 and 1200 dpi using an Epson V800 scanner. |
| | Photography | Ridge detail recorded with a Canon T6i camera with yellow filter attached using a 450nm light source. |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| R2WBCV | Photography | |
| | Lifting | gel lift |
| R4MAQU | Photography | The developed fingerprint was photo documented to preserve it. |
| R9JWNN | Photography | FSIS, used UV light, used scale in photograph, uploaded to Foray |
| RCER63 | Photography | photos taken using macro lens, f.8 and iso 200. attempted to lift afterwards but did not work |
| RGXV4K | Photography | Overall photo prior to processing using MIDEO camera. Close-up of ridge detail after processing with magnetic powder using MIDEO camera. Downloaded images to DVD for comparison. |
| RUGHAC | Photography | DCS5 Photography |
| RUJ7QQ | FSIS Sofware | I saved the images from the software on to a SD card |
| RYANJ9 | Photography | |
| T6AB9M | Photography | Photographying with F&F Crime-Lite 42S blue (420-470 nm) with orange filter after fuming and with white light after dusting. Photographying done with measure. |
| TBG2CT | Photography | Where fingerprint fragmentation developed in the area identified with the letter C, it was photographed for preservation. |
| TEFD8T | Photography | I used photography as a method of preservation of the latent print. |
| TJAAWJ | Photography | Photographs were taken initially, after ninhydrin and with ninhydrin/ALS |
| TK97UU | Photography | 1. ALS at 445nm and an orange filter. 2. Ninhydrin: photographed with visible light |
| TMC2DW | Photography | Digital Camera |
| TNQMPK | Photography | DCS5, visual, white light no filter |
| TPJGK3 | Photography | Took photos after processing with magnetic powder and after processing with black powder. |
| | Lifting | Took lift after processing with magnetic powder. |
| TT49W7 | Photography | |
| | Lifting | |
| U29L6K | Photography | Photographying with white light and F&F Crime Lite 42S light source 420-470nm (blue) and 480-560 nm (green) and with a measure. |

 

# TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| U4DEWX | Photography | |
| U74G68 | Photography | Blue/green light source with orange filter |
| UJPTGG | Photography | |
| UJRECW | Photography | Picture was taken for preservation with a scale. |
| UL2JR7 | Photography | |
| UTDJ4A | Photography | |
| UWJZKD | Photography | VIS: 0 image(s) taken on 6/26/2024. CA: 0 image(s) taken on 6/26/2024. POW: 1 image(s) taken with CSU - Camera 11/Lens 3 on 6/26/2024 (Direct Fluorescent). NIN: 0 image(s) taken on 6/26/2024 No enhancement. PD: 0 image(s) taken on 6/27/2024 No enhancement. |
| V4EHCU | Photography | Photograph was taken of RD after powder with Nikon D810 camera. |
| VDX6WV | Photography | Nikon D7000 camera, Bright Beam laser (532nm), orange filter and FF1 filter |
| VGZUN4 | Lifting | Clear adhesive tape used, and lift placed on a white lift card. |
| VHUH9K | Photography | |
| VPEJPX | Photography | Assigned item #0123 |
| VVX2KK | Photography | 1:1 photography |
| VZEA9K | Photography | FSIS and Camera |
| W3YHQK | Lifting | |
| W6PJYT | [No Methods Reported.] | For preservation, a piece of latent print tape was placed over the latent lift. The evidence was repackaged back into its original packaging. |
| WMHMD9 | Photography | After using black magnetic powder, I took a photograph of item 2 using the CSU Scanner, which contains an LED light. |
| | Photography | After Physical Developer was completed, I took a photograph of item 2 using the CSU Scanner, which contains an LED light. |
| WQ8RAM | Photography | scale in photograph |
| WU2Y4V | Photography | Nikon D5, f/16, 500dpi, RAW + TIFF image produced, TIFF processed using Adobe Photoshop |
| X6Z6KZ | Photography | |

 

TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| X7TYFJ | Photography | digital camera. orange filter with 505 light |
| XBGNU2 | Lifting | se realiza la preservación del elemento lofoscopico mediante trasplantador de AccuTrans color blanco (trasplantador de silicón), documentando de forma fotográfica cada paso en todo momento, posterior a la recolección se realiza embalaje del elemento y se genera el registro de cadena de custodia. |
| XFDEZD | Photography | Using the Bright Beam laser and Nikon D850 camera, with a 105mm lens with filter, a photo of the print was taken. |
| XPLRFV | Photography | Used a DSLR camera to photograph. Used oblique white light to photograph latent print after cyanoacrylate fuming and after powder processing. Used orange filter #21 for photographing under ALS at 415 nm, 455 nm, and CSS after fluorescent dye stain. |
| XT7PVY | Photography | images acquired into our authenticated digital asset management system |
| XVB4GJ | Lifting | For the transplant, silicone tape (Diff-lift) was used, the fingerprint was placed on a transparent acetate as a support. |
| XW3DC7 | Photography | Photographed the developed latent print with and without scale |
| | Lifting | Lifted the latent print using clear lift tape and placed on a latent lift card |
| XYRHAJ | Photography | digital photography |
| Y82F73 | Photography | Macro lens used |
| | Lifting | Lifted with adhesive tape |
| | Transfer | Transfered to a white contrast card |
| YEFCWU | Lifting | Latent was lifted using fingerprint tape, placed onto a latent lift card, and entered into the Traq Evidence System |
| YH3YPH | Photography | |
| | Lifting | |
| YHGAJF | Lifting | For the transpalnte, the white accutrans was used with the support of the gun (Xtruder), which creates a homogeneous mixture that is applied and adheres to the revealed fingerprint, allowing it to dry so that it can be plasticized and removed, subsequently covering the fingerprint with conventional tape. transparent. |
| YMRKAP | Photography | I used photography as a method of preservation of the latent print. |
| YQXWGQ | Photography | The methodology utilized includes: visual examination, chemical and physical processing, viewing with an alternate light source, digital retention, and ACE-V. |
| YR8TXN | Lifting | |

 

TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| YZMKEE | Photography | Canon mark 3 used, Digital Photo Professional 4 and Adobe photoshop used for processing images. |
| Z29LVL | Lifting | The latent print developed in quadrant C was lifted using tape and placed on a latent print lift card. The latent print lift card was submitted to the Latent Print Unit. |
| | Photography | Based on the texture of the substrate. The latent print developed in quadrant C could also be lifted using a mini gel lift and then photographed using a macro lens with and without a scale. The photograph would then be submitted to the Photo Lab and then the Latent Print Unit. |
| Z69WQL | Photography | The print was digitally documented (LI-001) and both the images and item were submitted the latent unit for further analysis. |
| ZAN6EL | Photography | Used Nikon camera, used scale in photograph and uploaded into Foray |
| ZDNF9Z | Photography | Used a NIKON D810 to take three digital photographs of latent print area in quadrant C. |
| ZMTMPL | Photography | Digital Photography. A digital photo was taken of what was developed. |
| ZR79W8 | Photography | It was photographed with a Nikon Z7 camera. The powder photograph was taken using direct fluorescent lighting. |
| ZVJ9TY | Photography | After the initial visual exam of item (prior to cyanoacrylate ester fuming), one digital image of a visible impression (L1) in Quadrant C was taken using the DCS-5 camera. After cyanoacrylate ester fuming and dusting with powder, two additional images were taken of impressions (L1) and (L2) in Quadrant C. These three impressions were taken in TIFF/1000+ppi. The original images were burned onto a master disc; then made 1:1 and burned onto a working copy disc. |
| | Lifting | After processing the item with cyanoacrylate ester and black powder, impression (L1) in Quadrant C was lifted with Mikrosil and taped onto a latent print card. The required information was filled out on the card, including a drawing of the item with an "X" placed in the area of the lifted impression and orientation arrows were added near the drawing and the tape lift. Impression (L2) did not lift. |
| ZVLVBC | Photography | Foster&Freeman DCS5 - white light. |
| ZZGGCM | Photography | |
| | Lifting | Gel lift |
| ZZYGGX | Photography | |

 

TABLE 3 - Item 2

| WebCode | Preservation Methods | Method Details |
|---|---|---|

## Item 2 - Preservation Response Summary

Participants: 280

### Methods Utilized

| | |
|---|---|
| Lifting | 60 |
| Photography | 240 |
| Scanning | 10 |

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

TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 2322H4 | Photography | |
| 24AZTC | Photography | no reaction with DFO, very faint reaction with NIN |
| 28WTQZ | Photography | Photographs taken prior to processing and after processing with and without scale |
| 2BCZEY | Photography | |
| 2GKJDR | Photography | Photographed utilizing the DCS5 workstation |
| 2HUHLF | Photography | Different filters and white light and different foster freeman crime lite lights. Normal and modificated camera. |
| 2K2R2R | Photography | Each item was photographed (in the section containing ridge detail) with a scale. |
| 2PU3LP | Photography | Mark found on section B after 1,2-Indanedione. Photographed using 532nm light (green light) and camera filter 550nm. |
| 2Q7NMD | Photography | I used a Nikon D3400 with with a curved orange filter and a FF1.0 Narrow band pass filter to photograph the developed print. |
| 2REZ3T | Photography | Digital photography with alternate light source and orange filter used to capture print 1C1a at indanedione on 6/25/24. |
| | Photography | Digital photography used to capture print 1C1a at Ninhydrin-Hexane on 6/25/24. |
| 2XRK9E | Photography | |
| 2YUT6C | Photography | The fingerprint was photographed at every stage of research after disclosure. |
| 33BCP7 | Photography | Photographed on copy stand with orange filter and time exposure, scaled. |
| 3639EZ | Photography | Ridge detail developed was photographed after 1,2 Indanedione development. |
| 36KDUD | Scanning | Scan of item was taken utilizing EPSON scanner at 1000 pixels per inch in TIFF format. |
| 38BE2M | Preservation | Small manila envelope preserved in original packaging for examination. |
| 3A929W | Photography | Capture and Enhancement processing completed with Foster + Freeman DCS5 imaging system. - When treat evidence by 1,2- Indanedione solution, fix Foster + Freeman crime lite (8x4 mk2) with Orange/ Red filter (549nm) under camera Nikon D5 (add Visible filter with UV& IR cut filter on camera Nikon D5). - When treat evidence by Ninhydrin solution, Fix ring light under camera Nikon D5 (add Visible filter with UV& IR cut filter on camera Nikon D5). Add green filter to halogen light source to become latent print clearer. |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 3B7EQH | Photography | It was documented and preserved by means of photographs. |
| 3BNEYE | Photography | Two photographs captured at DFO stage with Laser and Zinc Chloride stage with ALS. |
| 3ELMEH | Photography | The piece was removed to be documented with photography with a ruler. |
| 3F2Z7Z | Photography | images uploaded into LIMS |
| 3KTDHN | Photography | TM "3.1" in B section. White light is used (400-700nm) to photograph the developed latent print (partial as well as detail.) |
| 3RCE7D | Photography | Nikon camera, RAW format, Foray digital archive storage |
| 3TPBAW | Photography | after second ALS 455 nm with orange filter |
| 3WPJD8 | Photography | A print was photographed and preserved using Full Spectrum Imaging System (FSIS) II with a color capture mode. |
| 3X3WFH | Photography | Was photographed and use scale. |
| 3XHD9Q | Scanning | Print scanned then transferred to DVD |
| 42EALN | Photography | Photographed at 520nm with Dual77 with Orange Barrier Filter after IND. |
| 42YQ2Q | none | |
| 47CQYH | Photography | D850 digital camera |
| 4DNWL9 | Photography | The picture was taken with a Nikkon camera Z6 with a Nikkor 60 mm lens. |
| 4PNDLB | Photography | A photograph was taken of the impression developed in section B using a Nikon D5600. |
| 4ZMDWU | Photography | 06/20/24: V, P |
| 4ZZU4F | Photography | The latent print was photo documented to preserve it. |
| 66DUZ8 | Photography | A photograph of the whole, semi-ensemble and detail of the revealed fingerprint is taken. |
| 68ZLXV | Photography | |
| 6ARHMP | Photography | |
| 6CUJP8 | Photography | Photographs of the print, which was located on section B of this items were taken with and without a scale in place. The photos were downloaded and burned to a CD. The CD was then entered as an item of evidence. |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 6DQW9U | Scanning | |
| 6HLQ8G | Photography | DISCOVER w/ Crime-lite Auto |
| 6JCPLE | Photography | Digital photography |
| 6VATQ9 | Photography | Post-ninhydrin processing, item photographed with white light and yellow filter. |
| 6XUMKN | Photography | Canon EOS Rebel T6i camera used and saved to our Mideo program. |
| | Scanning | Epson Perfection V600 photo scanner used and saved to our Mideo program. |
| 73GXPH | Photography | 07-10/06/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| 73M2RA | Photography | 1. One photograph was taken following DFO (Wratten #21 orange filter/532 nm green LASER). 2. One photograph was taken following ZC (Wratten #21 orange filter/ALS). |
| 76EZ69 | Photography | Print was photographed using green (532nm) light from BrightBeam laser and a Nikon D3400 digital camera with an orange curved filter/FF 1.0 narrow band pass filter. |
| 7BXCVU | Photography | Developed fingerprint was photographed with green light and red filter (Foster & Freeman). |
| 7EER88 | Photography | Nikon 850D & alternate light source (Crime Lite XL - Green and orange filter (550nm) |
| 7PDFDJ | Photography | I preserved the latent print by using photo documentation. |
| 7QTK39 | Photography | photo'd 3-LP1 in Section B of Item 3 with green laser (532nm) & orange filter |
| 7U9EFK | Photography | Photograph taken after 1,2-Indanedione |
| 7YNM4K | Photography | |
| 8222WJ | Photography | |
| 87YHAD | Photography | La huella desarrollada fue preservada mediante fotografia de calidad. The developed print was preserved using qualitly photography 90 degrees, tripod and scale. |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| 886Z89 | Photography | Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D6 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 Digital Capture System 5 (DCS5) software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference etc., where applicable. Exhibited images are then submitted to the Fingerprint Bureau for further analysis and comparison. |
| 88QEX8 | Scanning | Item 3 was scanned at 1200 DPI utilizing flatbed imaging scanner post processing. |
| 8C8RQ8 | Photography | Photographed close-up image with Nikon camera after 1,2-Indanedione (did not improve after Ninhydrin). |
| 8KGBXJ | Photography | Mark found on section B after 1,2-Indanedione. Photographed using 532nm light (green light) and camera filter 550nm. |
| 8KXDUK | Photography | Photographs taken after chemical processing steps. |
| 8LTXGJ | Photography | |
| 8V4Z3K | Scanning | |
| 94M3FC | Photography | The latent print was photographed and use a scale. |
| 96W8TZ | Photography | Digital photo - Nikon 850 |
| 9AGQJX | Scanning | Scanned a print from quadrant "B" using scanner 13 in CSU. |
| 9FENL8 | Photography | Camera Canon 700D, oblique light. |
| 9JHJ6A | Photography | |
| A4LHDU | Photography | Macro Photography |
| A7E8XB | Photography | 1. Excitation light wavelength is 505 nm. 2. Barrier filter : 550 nm long pass filter. |
| AAA8PR | Photography | 1 photo was taken of ridge detail post Ninhydrin processing |
| ACGKF7 | Photography | All photographic documentation performed within resolution guidelines, which included a surface to sensor distance of no greater than 0.49 meters, (Canon 100mm macro lens) and in RAW format. A Canon 5D Mark-III full frame camera was used. |
| AENVCA | Photography | Even though no latents were recovered, took photographs to show that no latents developed |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| AHN88A | Photography | digital photography |
| AJ2GHV | Scanning | 1 image with Scanner 11 |
| ARA9NJ | Photography | -Nikon D300 camera on copy stand, 90 degrees to item, RAW format, Aperture priority, Angled lighting -Photographs captured - Overall of front side (Side with sections "A", "B", "C", and "D") of manila envelope, overall of front side (Side with sections "A", "B", "C", and "D") of manila envelope, and Section "B" on front side (Side with sections "A", "B", "C", and "D") of manila envelope -Photographs captured uploaded into Digital TraQ -Photoshop used to enhance photograph of Section "B" on front side (Side with sections "A", "B", "C", and "D") of manila envelope -Enhanced photograph calibrated 1:1 in Digital TraQ |
| ARVN4L | Photography | blue-green light, orange filter |
| AWQFCJ | [No Methods Reported.] | No preservation was performed on this proficiency test due to policy in DPS Friction Ridge Manual, section 01-01. |
| B3MRKL | Photography | CTS245190-OC5 was digitally captured after DFO treatment using blue/green light (520 nm) and Foster and Freeman OG590 filter CTS245190-OC4 was recaptured after ninhydrin treatment using white light See additional comments |
| B8ZDR8 | Photography | The latent was photographed using a Canon DSLR, scale, and direct lighting using a ring light. |
| BCCMHF | Photography | After the use of Indandione Zinc the latent print was photographed. |
| BCWYMF | Photography | Photographed with barrier filter after IND processing |
| BEJRAH | Photography | Nikon D850 w/orange filter - Indanedione - quadrant B Nikon D850 - Ninhydrin - quadrant B |
| BK6QR4 | Photography | Took three digital photographs of latent impressions on Quadrant B of the manila paper envelope (2 AT DFO STEP, 1 AT NIN STEP) |
| BRTEMA | Scanning | Epson Perfection V800 Photo Scanner |
| BVKUN3 | Photography | Crime-lite AUTO |
| BZZ3C2 | Scanning | Scanned impression in quadrant B. |
| C4FWQD | Photography | 12-15/07/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| C8DBD3 | Photography | Photographing with Crime Lite 42S Green 480-560nm and filter 590 nm. Print visual in section B (also some stains in section A and C). |
| CCMRMR | Photography | Photographed latent area in Quadrant B with tracer laser after chemical processing (total of 1 image) |

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| CGZCUD | Photography | It is photo documented for preservation and subsequent analysis. |
| CLV43A | Photography | The latent print was photographed using a tripod at 90 degrees and a scale. |
| CTGAMM | Photography | Using the digital capturing system 5, I took a closeup and overall photograph with a ruler of the ridge detail (TIFF image). |
| D26KAN | Photography | Comparison quality photographs were taken during processing. |
| D3KJTD | Photography | Documentation photos captured upon ridge detail visualization. |
| D7J3R6 | Scanning | One scan completed using a flat bed scanner set at TIF and 1200 dpi. Scan was transferred to Digital EMS. |
| DAC9YF | Photography | |
| DEBHC3 | Photography | |
| DETGME | Photography | |
| DGX2DZ | Photography | |
| DNXN3E | Photography | The DCS5 was utilized to photograph the developed print on the item under normal white light. After the photo was taken, it was converted to greyscale to enhance contrast between the developed print and the background. The photo was printed out and pertinent case information was written on the back. The print was observed in section B. |
| DQMPBN | Photography | |
| E3HADZ | Photography | Curved orange lens filter, alternate light source 515 nm. |
| EATKHK | Photography | |
| EC4HV3 | Scanning | After the caron chamber was done, I scanned the enveloped. |
| EH9EGN | Photography | |
| EJ3324 | Photography | normal white light |
| ENRTYY | Photography | DCS5 Photography, Crime lite 590 nm, Filter Red (Indanedione) |
| EWRY33 | Photography | O,M,C digital images |
| EYDLVP | Scanning | Scanned with a scale containing case number, date, item number, processed used, and initials. |
| EZT86R | Scanning | After ninhydrin processing, a scan of the item was taken. |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| F83WJP | Photography | No latent prints were observed. |
| FDNXFU | Photography | Scaled photos were taken of the latent using a NIKON 5200 camera with a Macro lens fitted with an orange filter. |
| FFFU6N | Photography | I obtained negative results for FSIS, two images with 1.2 Indandione, and one image with ninhydrin in quadrant C. |
| FHLC3J | Photography<br>Scanning | |
| FKMK69 | Scanning | |
| FMYXA6 | Photography | A photodocument was provided as proof that it did not develop. |
| FQZEB7 | Photography | Viewed and photographed with orange filter and 532 nm forensic laser. |
| FRVNH3 | Photography | |
| FV7Y9B | Photography | used Laser (Bright Beam) / 532nm / orange and green filters for dye stain photos |
| G3PBC4 | Photography | Photographed under white light. |
| G746QF | Photography | |
| GA8QRV | Photography | Imaged with forensic laser and Nikon D850 |
| GCVFZE | Photography<br>Submit Evidence | The fingerprint in section "A" was photographed 1 to 1 and can be used for future and further use in identification.<br>The latent print recovered in section "A" on the manila envelop was covered with fingerprint tape and the evidence was submitted to the Latent Print Unit to be analyzed for better identification and submitted in “AFIS” for future identification. |
| GP2HCV | Photography | Photographed latent |
| GT2GV2 | Photography | |
| GUCJHZ | Photography | after ninhydrin: 3 photos of section B (2 photos with overhead lighting; 1 photo with ring light) |
| GZWN7U | Photography | Nikon D850 |
| H8E8CE | Photography | digital camera |
| H9NJRV | Photography | |

 

TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| HLUE3K | Photography | |
| HPYXBE | Photography | Collected four digital photographs |
| HTUY3V | Photography | I utilized a Nikon D5200 digital camera with a Nikon AF-S Micro Nikkor 60mm lens. The camera settings were as follows: shutter speed=bulb, Aperture=f6.3, ISO=200, distance from item=approximately 6". |
| J2AQFZ | Photography & DVD Burn | The latent print was digitally captured and burned onto a DVD. |
| J2Z3Q6 | Photography | I used photography as a method of preservation of the latent print. |
| J4BYKA | No preservation or analysis | Preservation and analysis not required for proficiency test per policy. Observed ridge detail not preserved. |
| J72XY9 | Scanning | Item was photocopied prior to processing with Ninhydrin. |
| J8XHL8 | Scanning | I then scanned the latent print with a scale. |
| JGECQ9 | Photography | Photo evidence scale. |
| JHBX97 | Photography | |
| JHUGFY | Photography | An image of the latent print in Section B was photographed with a digital camera. |
| JJKUP6 | Photography | It is photo document with metric witness for preservation and subsequent analysis. |
| JK2WM6 | Photography | |
| JQ33D2 | Photography | I took a photo of the fingerprint with a ruler and preserved this by photo. |
| JVGQZJ | Photography | light print located |
| K49N4X | Photography | Photos of the latent prints revealed by irradiation with the laser were taken. |
| KCFCUP | Photography | digitally photographed with Nikon Camera |
| KL8QXV | Photography | Nikon camera, scale in photograph, RAW format, uploaded into Foray for digital storage |
| KLABTB | Photography | Using a MacroLens and a camera stand capture exam quality images of the latent print, by filling the frame. Photograph includes a scale, the Item number, case number, initials of examiner, processing step and date the image was captured. Overall photograph taken of the item at each development as well. |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| KQY3Q7 | Photography | Camera A |
| KRVBYP | Photography | Visual exam: white light (0 photos), RUVIS FSIS (0 photos) Indanedione exam: LASER (3 photos) |
| KTN7NJ | Photography | The developed ridge detail was photographed with the Nikon DSLR equipped with an orange filter under TracER laser alternate light source. |
| KVVLUP | Photography | After processing, the print was photographed and preserved using the Full Spectrum Imaging System (FSIS) with room light. |
| KWMHJJ | Photography | 1,2 Indanedione - 2 photographs of area of possible ridge detail in quadrant B |
| KZ624D | Photography | NIKON D5600 + AF-S Micro NIKKOR 60mm 1:2.8 G ED |
| L4KK8G | Photography | All recordings were from photography |
| LCEYJ2 | Photography | I used photo documentation as a method of preservation of the latent print. |
| LDTE4U | Photography | 7/10/2024-Overall with Nikon 7500 after visual examination.<br>7/10/2024-Overall, midrange, 1:1 closeup with Nikon 7500 taken after Lumicyano fuming |
| LDWNCU | Photography | Nikon camera, RAW format, scale in pic, uploaded and stored in Foray |
| LFV882 | Photography | Used DCS-5 photography program |
| LHM3WV | Photography | DCS-5, SORM-4 |
| LL6B7F | Photography | |
| LQFD7Q | Photography | Nikon D750+macro nikkor f2.8 60mm |
| LUFLBZ | Photography | AFTER OBSERVING THE FINGERPRINT IT WAS PRESERVED WITH PHOTOGRAFHY. |
| LVNUFE | Photography | Canon Utility software. Canon EOS 77D. Canon macro lens EF 100 mm. + Foster&Freeman Crime-Lite Green 480 480-560 nm. and filter Schott OG590AG |
| LXXUKL | Scanning | An EPSON scanner was used to scan the item on 7/7/2024 after Ninhydrin produced a print. |
| LY8YZV | Photography | One digital photograph of latent impression with DFO/Laser |
| M34WX2 | Photography | The developed fingerprint was photo documented to preserve it. |
| M3MUE8 | Photography | Photographed latent image on Item 3 and was assigned Item 0123 |

 

TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| MB2HEZ | Photography | FRD captured using Nikon D810 under ambient/white light, saved as NEF in T Drive. Not calibrated, but verified to be >or = 3500 ppi using Adobe Photoshop Creative Cloud. |
| MFCT6A | Photography | Nikon D780 - Aperture priority f/11.0 |
| MTZVN2 | Photography | |
| MUDCUN | Photography | Canon EOS 800D, Canon Macro Lens EF-S 60mm, orange viewing filter (after DFO) |
| MUFWQ4 | Photography | Photographed print with camera with orange filter. |
| MZDXJ3 | Photography | 12-13/06/2024, DCS5 Photography System was used to preserve the mark after each processing step |
| N2ANC3 | Photography | Photograph taken |
| N2VXPD | Photography | |
| NA8CAU | Photography | Photos of the latent print with the laser were taken. |
| NCRAEC | Photography | Canon Utility software, Canon EOS 5D Mark II, Canon macro lens EF 100mm, white light |
| NEDW8Y | Photography | |
| NJUBZZ | Scanning | scanned as TIFF at 1200 ppi using Epson V800 photo scanner. image processed with Adobe Photoshop 2024. |
| NPYABP | Photography | Photographed print after each observation/stage of development. Indanedione Latent: Nikon D3400 camera with orange curved filter, a FF 1.0 Narrow Band Pass Filter, and under green laser light (532nm) |
| NRKV4C | Photography | All images were uploaded into the laboratory's Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS). |
| NWHCHR | Photography | 2 photos with DFO using laser, 1 photo with ninhydrin using flashlight, 1 photo with zinc chloride using ALS |
| NX9PTX | Photography | I took a photo of the fingerprint with a ruler and preserved this by photo. |
| NXQCRF | Photography | Mark M2 photographed using CEL DCS5 photography system and saved to designated folder. |
| PA2983 | Photography | The fingerprint was photographed at every step of a research. |
| PC9GME | Scanning | Scanner 6 was used after Ninhydrin step |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| PDHLZ4 | Photography | 520 nm with orange barrier filter |
| PFAHNW | Photography | (IND) laser/filter: Photography with Nikon camera, excited with 532 nm light, viewed under orange filter |
| | Photography | (N/N0: normal light- Photography with Nikon camera, |
| PHAZCQ | Photography | With 480-560nm light and OG590AG glasses, camera filter 535nm-550nm |
| PM8BWQ | Photography | Two digital photographs were taken of latent impressions to scale from this item. The first photograph was after the item was processed with DFO with the use of green laser through Image Pro (with Wratten #21 filter) and the second was after the item was processed with Zinc Chloride with the use of alternate light source at 485 nm filter through Image Pro (with Wratten #21 filter). |
| PVVFFQ | Photography | Lights SORM-4 |
| QFH4MW | Photography | |
| QKBEL3 | Photography | |
| QLPUQ3 | Photography | Photographs were completed with a Nikon D850 camera after Indanedione processing using an orange filter and Rofin 505 nm light source. Placards were photographed prior to photographs of item. Photographs were completed without and with a scale. |
| QM3DYZ | Photography | |
| | Scanning | |
| QP63E3 | Photography | DCS5 |
| QQNYRN | Photography | I used a flashlight and photography to preserve the latent. |
| QU3JQW | Photography | Macro lens with red, orange, and yellow filter using green 490-560 nm wavelength ALS, blue green 450-510 nm wavelength ALS, and blue 420-470 nm wavelength ALS |
| QUNBNN | Scanning | Scans performed at 600 and 1200 dpi using an Epson V800 scanner. |
| R2WBCV | Photography | |
| R4MAQU | Photography | The developed fingerprint was photo documented to preserved it. |
| RCER63 | Photography | photos of faint ridge detail taken using ALS with 450nm and 505m wavelengths and orange filter |
| RGXV4K | Photography | Overall photo prior to processing using MIDEO camera. Close-up of ridge detail after processing with DFO and ninhydrin (twice) using MIDEO camera. Downloaded images to DVD for comparison. |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| RH3L49 | Photography | Photographed with Nikon D810 camera |
| RKUGT3 | Photography | The print was photographed with a DSLR camera after each of the following processing steps: DFO and Ninhydrin. Specific information per each development step: -DFO: used Crime-Lite Green (480-560nm) with a red camera filter, -Ninhydrin: used a flashlight |
| RUGHAC | Photography | DCS5 photography |
| RUJ7QQ | Photography | I digitally captured the latent print with a camera. |
| RYANJ9 | Photography | |
| T6AB9M | Photography | Photographying with F&F Crime-Lite 42S green (480-560 nm) and with red filter and measure. |
| TBG2CT | Photography | I used photography as a method of preservation of the fingerprint. |
| TEFD8T | Photography | I used photography as a method of preservation of the latent print. |
| TJAAWJ | Photography | Photographs were taken initially, after ninhydrin and after ninhydrin with ALS. |
| TK97UU | Photography | Photographed Indanedione print with green laser at 532nm and an orange filter |
| TMC2DW | Photography | Digital Camera. |
| TNQMPK | Photography | DCS5, visual, white light, no filter |
| TP4X3Q | Photography | |
| TPJGK3 | Photography | Took photos after processing with 1, 2-Indanedione (viewed with laser to take photos) and after processing with Ninhydrin. |
| TT49W7 | Photography | |
| U29L6K | Photography | Photographying with measure and Crime Lite 42S Green 480-560 nm and red Schott OG590 filter. |
| U4DEWX | Photography | |
| U74G68 | Photography | |
| UJRECW | Photography | Picture was taken for preservation with a scale. |
| UL2JR7 | Photography | |
| UTDJ4A | Photography | |

 

TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| V4EHCU | Photography | Orange lens cover used for photography with 520nm Dual 77 laser at 1,2-Indanedione step with Nikon D810 camera. |
| VDX6WV | Photography | Nikon D7000 camera, Bright Beam laser (532nm), orange filter and FF1 filter |
| VGZUN4 | Photography | I took one overall and one close-up photo of the ridge detail that developed on the item. Two photos burned to one CD. |
| VHUH9K | Photography | |
| VPEJPX | Photography | assigned item #0123 |
| VVLAR4 | Scanning | |
| VVX2KK | Photography | 1:1 photography |
| VZEA9K | Photography | Camera |
| W3YHQK | Scanning | |
| W6PJYT | [No Methods Reported.] | The evidence was repackaged back into its original packaging. |
| WQ8RAM | Photography | scale in photograph |
| X6Z6KZ | Photography | |
| X7TYFJ | Photography | digital camera |
| XPLRFV | Photography | Used DSLR camera. Used orange filter #21 for photographing under ALS at 515 nm. |
| XT7PVY | Photography | images acquired into authenticated digital asset management system |
| XVB4GJ | Photography | The fingerprint is photographically fixed using a metric witness to size the evidence, using a macro objective. |
| XW3DC7 | Photography | Photographed the latent print with and without scale using a macro lens. |
| | Heat sealed | Heat sealed the item in plastic to preserve and protect it after chemical processing. |
| XYRHAJ | Photography | Digital Photography |
| Y2FDAX | Scanning | Scanned the latent fingerprint of value, L-2, at 1200 dpi. |
| Y82F73 | Photography | Since the finger print was not suitable for determination, only the evidence was photograph to document the results of the development. |

 

# TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| YEFCWU | Photography | On 07/08/2024, the item was transferred "in-analysis", visually examined, and documented with photography. Overall, midrange, and extreme close-up photographs were captured in the RAW format and uploaded into the Digital Traq system It should be noted that an area of interest was observed in quadrant "B" with only having some faint purple discoloration. No ridge detail was observed in that quadrant. |
| YH3YPH | Scanning | |
| YHGAJF | Photography | The fingerprint is photographically fixed using a metric witness to size the evidence, using a macro objective. |
| YMRKAP | Photography | I used photography as a method of preservation of the latent print. |
| YQXWGQ | [No Methods Reported.] | The methodology utilized includes: visual examination, chemical and physical processing, viewing with an alternate light source, digital retention, and ACE-V. |
| YR8TXN | Photography | |
| YZMKEE | Photography | Canon mark 3 used, Digital Photo Professional 4 and Adobe photoshop used for processing images. |
| Z29LVL | Photography | The latent print developed in quadrant B was photographed with a macro lens with and without scale. The photograph was submitted to the Photo Lab and then the Latent Print Unit. |
| Z69WQL | Photography | The print was digitally documented (LI-002) and both the images and item were submitted the latent unit for further analysis. |
| Z9BV2E | Photography | Two digital photos of latent impressions from quadrant B of paper envelope were stored on a compact disc. |
| ZAN6EL | Photography | Used Nikon camera, used scale in photograph and uploaded into Foray |
| ZDNF9Z | Photography | Used a NIKON D810 to take one digital photographs of latent print area in quadrant B. |
| ZMTMPL | Photography | Digital Photography. A digital photo was taken of the print |
| ZR79W8 | Photography | No latent prints were observed. |
| ZVJ9TY | Scanning | The front side of the envelope (the side with the visible impression) and a scale were scanned using the Epson V700 scanner at 1000dpi. One scanned impression was added to the Master and working copy discs for this case. |
| ZVLVBC | Photography | Foster&Freeman DCS5 - white light, 505 nm with orange filter. |
| ZZGGCM | Photography | |

 

TABLE 3 - Item 3

| WebCode | Preservation Methods | Method Details |
|---|---|---|
| ZZYGGX | Photography | 7/8/24 |

## Item 3 - Preservation Response Summary

Participants: 262

**Methods Utilized**

| | |
|---|---|
| Lifting | 0 |
| Photography | 233 |
| Scanning | 28 |

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

# First-Level Detail Findings

TABLE 4 - Item 1

| WebCode | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|
| 2322H4 | Not Suitable | | | 3RCE7D | | ✓ | ✓ |
| 24AZTC | N/A | | | 3TPBAW | N/A | | |
| 28WTQZ | N/A | | | 3WPJD8 | N/A | | |
| 2BCZEY | N/A | | | 3X3WFH | N/A | | |
| 2GKJDR | N/A | | | 3XHD9Q | | | ✓ |
| 2HUHLF | N/A | | | 42EALN | | ✓ | ✓ |
| 2K2R2R | N/A | | | 42YQ2Q | N/A | | |
| 2NFLE4 | N/A | | | 4AWHAK | N/A | | |
| 2PU3LP | | ✓ | ✓ | 4DNWL9 | | | ✓ |
| 2Q7NMD | N/A | | | 4PNDLB | | ✓ | ✓ |
| 2REZ3T | N/A | | | 4ZZU4F | N/A | | |
| 2VY2WF | N/A | | | 66DUZ8 | Not Suitable | | |
| 2XRK9E | N/A | | | 66T4ZZ | | | ✓ |
| 2YUT6C | | ✓ | | 68ZLXV | N/A | | |
| 33BCP7 | | | ✓ | 6ARHMP | Not Suitable | | |
| 3639EZ | N/A | | | 6CUJP8 | | ✓ | ✓ |
| 36KDUD | N/A | | | 6DQW9U | N/A | | |
| 38BE2M | Not Suitable | | | 6G86WT | N/A | | |
| 3A929W | | | ✓ | 6HLQ8G | N/A | | |
| 3B7EQH | N/A | | | 6JCPLE | Not Suitable | | |
| 3BNEYE | | ✓ | ✓ | 6VATQ9 | N/A | | |
| 3ELMEH | N/A | | | 6XUMKN | | | ✓ |
| 3F2Z7Z | N/A | | | 73GXPH | | ✓ | |
| 3J3Z8H | N/A | | | 73M2RA | N/A | | |
| 3KTDHN | | ✓ | | 76EZ69 | N/A | | |

# TABLE 4 - Item 1

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| 7BXCVU | N/A | | | 9RGZ3V | N/A | | |
| 7EER88 | N/A | | | A4LHDU | Not Suitable | | |
| 7G7NW2 | N/A | | | A7E8XB | | | ✓ |
| 7PDFDJ | N/A | | | AAA8PR | N/A | | |
| 7PWHLJ | N/A | | | ACGKF7 | N/A | | |
| 7QTK39 | N/A | | | AENVCA | Not Suitable | | |
| 7U9EFK | | | ✓ | AHN88A | Not Suitable | | |
| 7YNM4K | | | ✓ | AJ2GHV | | ✓ | ✓ |
| 8222WJ | N/A | | | AM2REV | | ✓ | ✓ |
| 886Z89 | Not Suitable | | | ARA9NJ | N/A | | |
| 88QEX8 | Not Suitable | | | ARVN4L | | | ✓ |
| 8C8RQ8 | N/A | | | AWQFCJ | N/A | | |
| 8CL9V9 | | | ✓ | B3MRKL | | | ✓ |
| 8KGBXJ | Not Suitable | | | B8ZDR8 | | | ✓ |
| 8KXDUK | | | ✓ | BCCMHF | | ✓ | ✓ |
| 8LTXGJ | | | ✓ | BCWYMF | | | ✓ |
| 8V4Z3K | Not Suitable | | | BEJRAH | N/A | | |
| 8XLGXB | N/A | | | BK6QR4 | | ✓ | ✓ |
| 93EPXB | | | ✓ | BMA7DN | N/A | | |
| 94M3FC | N/A | | | BRTEMA | | ✓ | ✓ |
| 96W8TZ | N/A | | | BVKUN3 | | ✓ | ✓ |
| 97V4QB | | | ✓ | BZZ3C2 | | | ✓ |
| 9AGQJX | N/A | | | C4FWQD | | | ✓ |
| 9ENP89 | N/A | | | C8DBD3 | N/A | | |
| 9FENL8 | | | ✓ | CCMRMR | N/A | | |
| 9JHJ6A | | ✓ | ✓ | CGZCUD | N/A | | |

# TABLE 4 - Item 1

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|---|---|
| CLV43A | N/A | | | | FFFU6N | N/A | | | |
| CTGAMM | N/A | | | | FHLC3J | N/A | | | |
| D26KAN | N/A | | | | FJF6X3 | | | ✓ | ✓ |
| D3KJTD | Not Suitable | | | | FKMK69 | N/A | | | |
| D7J3R6 | N/A | | | | FMEGU3 | | | ✓ | ✓ |
| DAC9YF | | | ✓ | ✓ | FMYXA6 | Not Suitable | | | |
| DE83Y3 | | | | ✓ | FQZEB7 | N/A | | | |
| DEBHC3 | | | | ✓ | FRVNH3 | N/A | | | |
| DETGME | | | | ✓ | FV7Y9B | | | ✓ | ✓ |
| DGX2DZ | | | | ✓ | G3PBC4 | N/A | | | |
| DNXN3E | N/A | | | | G746QF | N/A | | | |
| DQMPBN | Not Suitable | | | | GA8QRV | N/A | | | |
| E3HADZ | | | | ✓ | GCVFZE | N/A | | | |
| EABXJ3 | N/A | | | | GP2HCV | N/A | | | |
| EATKHK | | | | ✓ | GQ9XJ2 | | ✓ | ✓ | ✓ |
| EC4HV3 | N/A | | | | GT2GV2 | | | ✓ | ✓ |
| EH9EGN | N/A | | | | GUCJHZ | | | | ✓ |
| EJ3324 | Not Suitable | | | | GZWN7U | N/A | | | |
| ENRTYY | | | ✓ | ✓ | H8E8CE | | | ✓ | ✓ |
| EUZ3E9 | N/A | | | | H9NJRV | | | ✓ | ✓ |
| EWRY33 | N/A | | | | HBFFFP | N/A | | | |
| EYDLVP | N/A | | | | HKKAPW | | | | ✓ |
| EZT86R | N/A | | | | HLUE3K | N/A | | | |
| F6UQV4 | | ✓ | ✓ | ✓ | HM82LK | N/A | | | |
| F83WJP | N/A | | | | HPYXBE | | | ✓ | ✓ |
| FDNXFU | N/A | | | | HTUY3V | N/A | | | |

# TABLE 4 - Item 1

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|---|---|
| HXT7V6 | N/A | | | | LCEYJ2 | N/A | | | |
| J2AQFZ | | ✓ | ✓ | ✓ | LDTE4U | N/A | | | |
| J2Z3Q6 | N/A | | | | LDWNCU | | | ✓ | ✓ |
| J4BYKA | N/A | | | | LFE2WH | N/A | | | |
| J72XY9 | N/A | | | | LFV882 | N/A | | | |
| J8XHL8 | Not Suitable | | | | LL6B7F | N/A | | | |
| JGECQ9 | | | | ✓ | LQFD7Q | | | | ✓ |
| JHBX97 | | | ✓ | ✓ | LUFLBZ | Not Suitable | | | |
| JHUGFY | N/A | | | | LVNUFE | N/A | | | |
| JJKUP6 | N/A | | | | LXXUKL | N/A | | | |
| JK2WM6 | | | ✓ | ✓ | LY8YZV | Not Suitable | | | |
| JQ33D2 | N/A | | | | M3MUE8 | Not Suitable | | | |
| K49N4X | N/A | | | | MB2HEZ | | | ✓ | ✓ |
| K6PH68 | N/A | | | | MEZUBZ | N/A | | | |
| K9L9BJ | | | | ✓ | MFCT6A | N/A | | | |
| KCFCUP | N/A | | | | MTZVN2 | | | | ✓ |
| KL8QXV | | | ✓ | ✓ | MUDCUN | | | | ✓ |
| KLABTB | N/A | | | | MUFWQ4 | Not Suitable | | | |
| KQY3Q7 | N/A | | | | MXF4B2 | N/A | | | |
| KRVBYP | N/A | | | | MZDXJ3 | | | ✓ | ✓ |
| KTN7NJ | | | ✓ | | N2ANC3 | | | ✓ | |
| KVVLUP | N/A | | | | N2VXPD | N/A | | | |
| KWMHJJ | N/A | | | | NA8CAU | N/A | | | |
| KZ624D | Not Suitable | | | | NCRAEC | N/A | | | |
| L4KK8G | N/A | | | | NEDW8Y | N/A | | | |
| L9Z67P | N/A | | | | NJUBZZ | | | ✓ | ✓ |

# TABLE 4 - Item 1

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|---|---|
| NPYABP | N/A | | | | RUGHAC | Not Suitable | | | |
| NRKV4C | N/A | | | | RUJ7QQ | N/A | | | |
| NWHCHR | N/A | | | | RYANJ9 | | | | ✓ |
| NX9PTX | N/A | | | | T6AB9M | N/A | | | |
| PA2983 | | | | ✓ | T6U37E | N/A | | | |
| PC9GME | N/A | | | | TBG2CT | N/A | | | |
| PDHLZ4 | N/A | | | | TEFD8T | N/A | | | |
| PFAHNW | Not Suitable | | | | TJAAWJ | N/A | | | |
| PHAZCQ | Not Suitable | | | | TK97UU | Not Suitable | | | |
| PKH7ZD | N/A | | | | TL29BH | | | | ✓ |
| PM8BWQ | N/A | | | | TMC2DW | | | ✓ | ✓ |
| PMP9ZQ | | ✓ | ✓ | ✓ | TNQMPK | N/A | | | |
| QFH4MW | N/A | | | | TP4X3Q | | | | ✓ |
| QKBEL3 | | | | ✓ | TPJGK3 | | | ✓ | ✓ |
| QLPUQ3 | N/A | | | | TT49W7 | N/A | | | |
| QM3DYZ | | | | ✓ | TY96HQ | | | ✓ | |
| QP63E3 | N/A | | | | U29L6K | N/A | | | |
| QQNYRN | | | | ✓ | U4DEWX | | | | ✓ |
| QU3JQW | | | ✓ | | UJPTGG | | | | ✓ |
| QUNBNN | | | | ✓ | UJRECW | Not Suitable | | | |
| R2WBCV | N/A | | | | UL2JR7 | N/A | | | |
| R9JWNN | | | ✓ | ✓ | UTDJ4A | | | ✓ | ✓ |
| RCER63 | | | | ✓ | UWJZKD | N/A | | | |
| RGXV4K | N/A | | | | V4EHCU | Not Suitable | | | |
| RH3L49 | N/A | | | | VCL73L | | | | ✓ |
| RKUGT3 | | | ✓ | ✓ | VDX6WV | | | ✓ | ✓ |

# TABLE 4 - Item 1

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|
| VGZUN4 | N/A | | | |
| VHUH9K | N/A | | | |
| VPEJPX | Not Suitable | | | |
| VVLAR4 | N/A | | | |
| VVX2KK | N/A | | | |
| VZEA9K | N/A | | | |
| W3YHQK | N/A | | | |
| W6PJYT | N/A | | | |
| WGB6TM | | | ✓ | ✓ |
| WMHMD9 | N/A | | | |
| WQ8RAM | N/A | | | |
| WU2Y4V | N/A | | | |
| X6Z6KZ | N/A | | | |
| X7TYFJ | | | ✓ | ✓ |
| XBGNU2 | | | | ✓ |
| XFDEZD | N/A | | | |
| XPLRFV | | | | ✓ |
| XT7PVY | N/A | | | |
| XVB4GJ | N/A | | | |
| XW3DC7 | N/A | | | |
| XYRHAJ | | | ✓ | ✓ |
| Y2FDAX | | | | ✓ |
| Y82F73 | | | | ✓ |
| YEFCWU | N/A | | | |
| YH3YPH | N/A | | | |
| YHGAJF | N/A | | | |
| YLGHNQ | Not Suitable | | | |
| YMRKAP | N/A | | | |
| YQXWGQ | Not Suitable | | | |
| YR8TXN | N/A | | | |
| YZMKEE | N/A | | | |
| Z29LVL | N/A | | | |
| Z69WQL | N/A | | | |
| Z9BV2E | | | ✓ | ✓ |
| ZAN6EL | | | | ✓ |
| ZDNF9Z | N/A | | | |
| ZMTMPL | N/A | | | |
| ZR79W8 | N/A | | | |
| ZVJ9TY | | | ✓ | ✓ |
| ZVLVBC | | | ✓ | |
| ZZGGCM | N/A | | | |
| ZZYGGX | N/A | | | |

# TABLE 4 - Item 1

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

**Item 1 - Pattern Response Summary** Total Participants: 312

| 1st Level | Arch | Loop | Whorl | Not Suitable | N/A |
|---|---|---|---|---|---|
| **Total** | 4 | 52 | 95 | 31 | 166 |

*NOTE: Numbers may not add up to the total # of participants, as more than one pattern option may be selected.*

# TABLE 4 - Item 2

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| 2322H4 | | ✓ | ✓ | 3TPBAW | N/A | | |
| 24AZTC | Not Suitable | | | 3WPJD8 | N/A | | |
| 28WTQZ | N/A | | | 3X3WFH | N/A | | |
| 2BCZEY | N/A | | | 3XHD9Q | | ✓ | ✓ |
| 2GKJDR | N/A | | | 42EALN | | ✓ | ✓ |
| 2HUHLF | N/A | | | 42YQ2Q | N/A | | |
| 2K2R2R | N/A | | | 4AWHAK | N/A | | |
| 2NFLE4 | N/A | | | 4DNWL9 | | | ✓ |
| 2PU3LP | | | ✓ | 4PNDLB | | ✓ | ✓ |
| 2Q7NMD | N/A | | | 4ZZU4F | N/A | | |
| 2REZ3T | N/A | | | 66DUZ8 | Not Suitable | | |
| 2VY2WF | N/A | | | 66T4ZZ | | | ✓ |
| 2XRK9E | N/A | | | 68ZLXV | N/A | | |
| 2YUT6C | | ✓ | | 6ARHMP | | | ✓ |
| 33BCP7 | | | ✓ | 6CUJP8 | | ✓ | ✓ |
| 3639EZ | N/A | | | 6DQW9U | N/A | | |
| 36KDUD | N/A | | | 6G86WT | N/A | | |
| 38BE2M | Not Suitable | | | 6HLQ8G | N/A | | |
| 3A929W | | | ✓ | 6JCPLE | Not Suitable | | |
| 3B7EQH | N/A | | | 6VATQ9 | N/A | | |
| 3BNEYE | Not Suitable | | | 6XUMKN | Not Suitable | | |
| 3ELMEH | N/A | | | 73GXPH | | ✓ | |
| 3F2Z7Z | N/A | | | 73M2RA | N/A | | |
| 3J3Z8H | N/A | | | 76EZ69 | N/A | | |
| 3KTDHN | | ✓ | | 7BXCVU | N/A | | |
| 3RCE7D | | ✓ | ✓ | 7EER88 | N/A | | |

# TABLE 4 - Item 2

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| 7G7NW2 | N/A | | | AAA8PR | N/A | | |
| 7PDFDJ | N/A | | | ACGKF7 | N/A | | |
| 7PWHLJ | N/A | | | AENVCA | | | ✓ |
| 7QTK39 | N/A | | | AHN88A | | ✓ | |
| 7U9EFK | Not Suitable | | | AJ2GHV | | ✓ | ✓ |
| 7YNM4K | Not Suitable | | | AM2REV | | ✓ | ✓ |
| 8222WJ | N/A | | | ARA9NJ | N/A | | |
| 886Z89 | Not Suitable | | | ARVN4L | Not Suitable | | |
| 88QEX8 | | | ✓ | AWQFCJ | N/A | | |
| 8C8RQ8 | N/A | | | B3MRKL | | ✓ | ✓ |
| 8CL9V9 | | ✓ | ✓ | B8ZDR8 | | | ✓ |
| 8KGBXJ | Not Suitable | | | BCCMHF | | ✓ | |
| 8KXDUK | Not Suitable | | | BCWYMF | N/A | | |
| 8LTXGJ | | | ✓ | BEJRAH | N/A | | |
| 8V4Z3K | N/A | | | BK6QR4 | Not Suitable | | |
| 8XLGXB | N/A | | | BMA7DN | N/A | | |
| 94M3FC | N/A | | | BRTEMA | | | ✓ |
| 96W8TZ | N/A | | | BVKUN3 | | ✓ | ✓ |
| 97V4QB | Not Suitable | | | BZZ3C2 | | | ✓ |
| 9AGQJX | N/A | | | C4FWQD | | | ✓ |
| 9ENP89 | N/A | | | C8DBD3 | N/A | | |
| 9FENL8 | Not Suitable | | | CCMRMR | N/A | | |
| 9JHJ6A | | ✓ | ✓ | CGZCUD | N/A | | |
| 9RGZ3V | N/A | | | CLV43A | N/A | | |
| A4LHDU | | | ✓ | CTGAMM | N/A | | |
| A7E8XB | | | ✓ | D26KAN | N/A | | |

# TABLE 4 - Item 2

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|---|---|
| D3KJTD | | | | ✓ | FKMK69 | N/A | | | |
| D7J3R6 | N/A | | | | FMEGU3 | | ✓ | ✓ | ✓ |
| DAC9YF | | | ✓ | ✓ | FMYXA6 | Not Suitable | | | |
| DE83Y3 | | | ✓ | ✓ | FQZEB7 | N/A | | | |
| DEBHC3 | | | | ✓ | FRVNH3 | N/A | | | |
| DETGME | | | | ✓ | FV7Y9B | Not Suitable | | | |
| DGX2DZ | | | | ✓ | G3PBC4 | N/A | | | |
| DNXN3E | N/A | | | | G746QF | N/A | | | |
| DQMPBN | Not Suitable | | | | GA8QRV | N/A | | | |
| E3HADZ | | | ✓ | ✓ | GCVFZE | N/A | | | |
| EABXJ3 | N/A | | | | GP2HCV | N/A | | | |
| EATKHK | Not Suitable | | | | GQ9XJ2 | | ✓ | ✓ | ✓ |
| EC4HV3 | N/A | | | | GT2GV2 | | | ✓ | ✓ |
| EH9EGN | N/A | | | | GUCJHZ | | ✓ | ✓ | |
| EJ3324 | Not Suitable | | | | GZWN7U | N/A | | | |
| ENRTYY | Not Suitable | | | | H8E8CE | Not Suitable | | | |
| EUZ3E9 | N/A | | | | H9NJRV | | | ✓ | ✓ |
| EWRY33 | N/A | | | | HBFFFP | N/A | | | |
| EYDLVP | N/A | | | | HKKAPW | | | ✓ | ✓ |
| EZT86R | N/A | | | | HLUE3K | N/A | | | |
| F6UQV4 | | ✓ | ✓ | ✓ | HM82LK | N/A | | | |
| F83WJP | N/A | | | | HPYXBE | | | ✓ | ✓ |
| FDNXFU | N/A | | | | HTUY3V | N/A | | | |
| FFFU6N | N/A | | | | HXT7V6 | N/A | | | |
| FHLC3J | N/A | | | | J2AQFZ | Not Suitable | | | |
| FJF6X3 | | ✓ | ✓ | ✓ | J2Z3Q6 | N/A | | | |

# TABLE 4 - Item 2

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|---|---|
| J4BYKA | N/A | | | | LFE2WH | N/A | | | |
| J72XY9 | N/A | | | | LFV882 | N/A | | | |
| J8XHL8 | Not Suitable | | | | LL6B7F | N/A | | | |
| JGECQ9 | | | | ✓ | LQFD7Q | | | | ✓ |
| JHBX97 | Not Suitable | | | | LUFLBZ | Not Suitable | | | |
| JHUGFY | N/A | | | | LVNUFE | N/A | | | |
| JJKUP6 | N/A | | | | LXXUKL | N/A | | | |
| JK2WM6 | Not Suitable | | | | LY8YZV | | | ✓ | ✓ |
| JQ33D2 | N/A | | | | M3MUE8 | Not Suitable | | | |
| K49N4X | N/A | | | | MEZUBZ | N/A | | | |
| K6PH68 | N/A | | | | MFCT6A | N/A | | | |
| K9L9BJ | | | | ✓ | MTZVN2 | Not Suitable | | | |
| KCFCUP | N/A | | | | MUDCUN | Not Suitable | | | |
| KL8QXV | | | | ✓ | MUFWQ4 | | | | ✓ |
| KLABTB | N/A | | | | MXF4B2 | N/A | | | |
| KQY3Q7 | N/A | | | | MZDXJ3 | | | | ✓ |
| KRVBYP | N/A | | | | N2ANC3 | Not Suitable | | | |
| KTN7NJ | Not Suitable | | | | N2VXPD | N/A | | | |
| KVVLUP | N/A | | | | NA8CAU | N/A | | | |
| KWMHJJ | N/A | | | | NCRAEC | N/A | | | |
| KZ624D | Not Suitable | | | | NJUBZZ | Not Suitable | | | |
| L4KK8G | N/A | | | | NPYABP | N/A | | | |
| L9Z67P | N/A | | | | NRKV4C | N/A | | | |
| LCEYJ2 | N/A | | | | NWHCHR | N/A | | | |
| LDTE4U | N/A | | | | NX9PTX | N/A | | | |
| LDWNCU | | | ✓ | ✓ | PA2983 | | | | ✓ |

# TABLE 4 - Item 2

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| PC9GME | N/A | | | TBG2CT | N/A | | |
| PDHLZ4 | N/A | | | TEFD8T | N/A | | |
| PFAHNW | | ✓ | ✓ | TJAAWJ | N/A | | |
| PHAZCQ | Not Suitable | | | TK97UU | Not Suitable | | |
| PKH7ZD | N/A | | | TMC2DW | | ✓ | ✓ |
| PM8BWQ | N/A | | | TNQMPK | N/A | | |
| PMP9ZQ | | | ✓ | TP4X3Q | | | ✓ |
| QFH4MW | N/A | | | TPJGK3 | | ✓ | ✓ |
| QKBEL3 | | | ✓ | TT49W7 | N/A | | |
| QLPUQ3 | N/A | | | TY96HQ | Not Suitable | | |
| QM3DYZ | | ✓ | ✓ | U29L6K | N/A | | |
| QP63E3 | N/A | | | U4DEWX | | | ✓ |
| QQNYRN | Not Suitable | | | UJPTGG | Not Suitable | | |
| QU3JQW | Not Suitable | | | UJRECW | N/A | | |
| QUNBNN | | | ✓ | UL2JR7 | N/A | | |
| R2WBCV | N/A | | | UTDJ4A | | ✓ | |
| R9JWNN | | ✓ | ✓ | UWJZKD | N/A | | |
| RCER63 | | ✓ | ✓ | V4EHCU | | | ✓ |
| RGXV4K | N/A | | | VCL73L | | | ✓ |
| RH3L49 | N/A | | | VDX6WV | | ✓ | ✓ |
| RKUGT3 | Not Suitable | | | VGZUN4 | N/A | | |
| RUGHAC | Not Suitable | | | VHUH9K | N/A | | |
| RUJ7QQ | N/A | | | VPEJPX | Not Suitable | | |
| RYANJ9 | | | ✓ | VVLAR4 | N/A | | |
| T6AB9M | N/A | | | VVX2KK | N/A | | |
| T6U37E | N/A | | | VZEA9K | N/A | | |

# TABLE 4 - Item 2

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|---|---|
| W3YHQK | N/A | | | | Z69WQL | N/A | | | |
| W6PJYT | N/A | | | | Z9BV2E | Not Suitable | | | |
| WGB6TM | | | | ✓ | ZAN6EL | | | ✓ | ✓ |
| WMHMD9 | N/A | | | | ZDNF9Z | N/A | | | |
| WQ8RAM | N/A | | | | ZMTMPL | N/A | | | |
| WU2Y4V | Not Suitable | | | | ZR79W8 | N/A | | | |
| X6Z6KZ | N/A | | | | ZVJ9TY | Not Suitable | | | |
| X7TYFJ | | | ✓ | ✓ | ZVLVBC | | | ✓ | |
| XBGNU2 | | | | ✓ | ZZGGCM | N/A | | | |
| XFDEZD | N/A | | | | ZZYGGX | N/A | | | |
| XPLRFV | | | ✓ | ✓ | | | | | |
| XT7PVY | N/A | | | | | | | | |
| XVB4GJ | N/A | | | | | | | | |
| XW3DC7 | N/A | | | | | | | | |
| XYRHAJ | Not Suitable | | | | | | | | |
| Y2FDAX | Not Suitable | | | | | | | | |
| Y82F73 | | | | ✓ | | | | | |
| YEFCWU | N/A | | | | | | | | |
| YH3YPH | N/A | | | | | | | | |
| YHGAJF | N/A | | | | | | | | |
| YLGHNQ | | | ✓ | ✓ | | | | | |
| YMRKAP | N/A | | | | | | | | |
| YQXWGQ | Not Suitable | | | | | | | | |
| YR8TXN | N/A | | | | | | | | |
| YZMKEE | N/A | | | | | | | | |
| Z29LVL | N/A | | | | | | | | |

# TABLE 4 - Item 2

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

**Item 2 - Pattern Response Summary** Total Participants: 312

| 1st Level | Arch | Loop | Whorl | Not Suitable | N/A |
|---|---|---|---|---|---|
| **Total** | 5 | 44 | 73 | 49 | 166 |

*NOTE: Numbers may not add up to the total # of participants, as more than one pattern option may be selected.*

# TABLE 4 - Item 3

| WebCode | | First Level Pattern(s)? Arch | Loop | Whorl | WebCode | | First Level Pattern(s)? Arch | Loop | Whorl |
|---|---|---|---|---|---|---|---|---|---|
| 2322H4 | | | ✓ | ✓ | 3WPJD8 | N/A | | | |
| 24AZTC | N/A | | | | 3X3WFH | N/A | | | |
| 28WTQZ | N/A | | | | 3XHD9Q | | | ✓ | |
| 2BCZEY | N/A | | | | 42EALN | | | | ✓ |
| 2GKJDR | N/A | | | | 42YQ2Q | N/A | | | |
| 2HUHLF | N/A | | | | 4AWHAK | N/A | | | |
| 2K2R2R | N/A | | | | 4DNWL9 | | | | ✓ |
| 2NFLE4 | N/A | | | | 4PNDLB | | | ✓ | ✓ |
| 2PU3LP | | | ✓ | ✓ | 4ZZU4F | N/A | | | |
| 2Q7NMD | N/A | | | | 66DUZ8 | Not Suitable | | | |
| 2REZ3T | N/A | | | | 66T4ZZ | Not Suitable | | | |
| 2VY2WF | N/A | | | | 68ZLXV | N/A | | | |
| 2XRK9E | N/A | | | | 6ARHMP | | | | ✓ |
| 2YUT6C | | | | ✓ | 6CUJP8 | | | ✓ | ✓ |
| 33BCP7 | | | | ✓ | 6DQW9U | N/A | | | |
| 3639EZ | N/A | | | | 6G86WT | N/A | | | |
| 38BE2M | Not Suitable | | | | 6HLQ8G | N/A | | | |
| 3A929W | | | | ✓ | 6JCPLE | Not Suitable | | | |
| 3B7EQH | N/A | | | | 6VATQ9 | N/A | | | |
| 3BNEYE | | | ✓ | ✓ | 6XUMKN | Not Suitable | | | |
| 3ELMEH | N/A | | | | 73GXPH | | | ✓ | |
| 3F2Z7Z | N/A | | | | 73M2RA | N/A | | | |
| 3J3Z8H | Not Suitable | | | | 76EZ69 | N/A | | | |
| 3KTDHN | | | | ✓ | 7BXCVU | N/A | | | |
| 3RCE7D | Not Suitable | | | | 7EER88 | N/A | | | |
| 3TPBAW | N/A | | | | 7G7NW2 | N/A | | | |

# TABLE 4 - Item 3

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| 7PDFDJ | N/A | | | AAA8PR | N/A | | |
| 7PWHLJ | Not Suitable | | | ACGKF7 | N/A | | |
| 7QTK39 | N/A | | | AHN88A | | | ✓ |
| 7U9EFK | | | ✓ | AJ2GHV | Not Suitable | | |
| 7YNM4K | | | ✓ | AM2REV | Not Suitable | | |
| 8222WJ | N/A | | | ARA9NJ | N/A | | |
| 886Z89 | | | ✓ | ARVN4L | | | ✓ |
| 88QEX8 | Not Suitable | | | AWQFCJ | N/A | | |
| 8C8RQ8 | N/A | | | B3MRKL | | | ✓ |
| 8CL9V9 | | | ✓ | B8ZDR8 | | ✓ | ✓ |
| 8KGBXJ | | | ✓ | BCCMHF | | | ✓ |
| 8KXDUK | | | ✓ | BCWYMF | | | ✓ |
| 8LTXGJ | | | ✓ | BEJRAH | N/A | | |
| 8V4Z3K | | | ✓ | BK6QR4 | | | ✓ |
| 8XLGXB | N/A | | | BMA7DN | N/A | | |
| 93EPXB | | | ✓ | BRTEMA | | | ✓ |
| 94M3FC | N/A | | | BVKUN3 | | ✓ | ✓ |
| 96W8TZ | N/A | | | BZZ3C2 | | | ✓ |
| 97V4QB | Not Suitable | | | C4FWQD | | | ✓ |
| 9AGQJX | N/A | | | C8DBD3 | N/A | | |
| 9ENP89 | N/A | | | CCMRMR | N/A | | |
| 9FENL8 | Not Suitable | | | CGZCUD | N/A | | |
| 9JHJ6A | | ✓ | ✓ | CLV43A | N/A | | |
| 9RGZ3V | N/A | | | CTGAMM | N/A | | |
| A4LHDU | Not Suitable | | | D26KAN | N/A | | |
| A7E8XB | | | ✓ | D3KJTD | | ✓ | ✓ |

# TABLE 4 - Item 3

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| D7J3R6 | N/A | | | | FMEGU3 | | | ✓ |
| DAC9YF | | | | ✓ | FMYXA6 | Not Suitable | | |
| DE83Y3 | | | | ✓ | FQZEB7 | N/A | | |
| DEBHC3 | | | | ✓ | FRVNH3 | N/A | | |
| DETGME | | | | ✓ | FV7Y9B | | | ✓ |
| DGX2DZ | | | | ✓ | G3PBC4 | N/A | | |
| DNXN3E | N/A | | | | G746QF | N/A | | |
| DQMPBN | | | ✓ | ✓ | GA8QRV | N/A | | |
| E3HADZ | | | | ✓ | GCVFZE | N/A | | |
| EABXJ3 | N/A | | | | GP2HCV | N/A | | |
| EATKHK | | | | ✓ | GQ9XJ2 | | | ✓ |
| EC4HV3 | N/A | | | | GT2GV2 | Not Suitable | | |
| EH9EGN | N/A | | | | GUCJHZ | | | ✓ |
| EJ3324 | Not Suitable | | | | GZWN7U | N/A | | |
| ENRTYY | | | | ✓ | H8E8CE | | | ✓ |
| EUZ3E9 | N/A | | | | H9NJRV | | | ✓ |
| EWRY33 | N/A | | | | HBFFFP | N/A | | |
| EYDLVP | N/A | | | | HKKAPW | N/A | | |
| EZT86R | N/A | | | | HLUE3K | N/A | | |
| F6UQV4 | | | | ✓ | HM82LK | N/A | | |
| F83WJP | N/A | | | | HPYXBE | | | ✓ |
| FDNXFU | N/A | | | | HTUY3V | N/A | | |
| FFFU6N | N/A | | | | HXT7V6 | N/A | | |
| FHLC3J | N/A | | | | J2AQFZ | | ✓ | ✓ | ✓ |
| FJF6X3 | | | | ✓ | J2Z3Q6 | N/A | | |
| FKMK69 | N/A | | | | J4BYKA | N/A | | |

# TABLE 4 - Item 3

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| J72XY9 | N/A | | | LQFD7Q | | | ✓ |
| J8XHL8 | | | ✓ | LUFLBZ | Not Suitable | | |
| JGECQ9 | | | ✓ | LVNUFE | N/A | | |
| JHBX97 | | | ✓ | LXXUKL | N/A | | |
| JHUGFY | N/A | | | LY8YZV | | ✓ | ✓ |
| JJKUP6 | N/A | | | M3MUE8 | | | ✓ |
| JK2WM6 | | | ✓ | MB2HEZ | Not Suitable | | |
| JQ33D2 | N/A | | | MEZUBZ | N/A | | |
| K49N4X | N/A | | | MFCT6A | N/A | | |
| K9L9BJ | Not Suitable | | | MTZVN2 | | | ✓ |
| KCFCUP | N/A | | | MUDCUN | Not Suitable | | |
| KL8QXV | Not Suitable | | | MUFWQ4 | | | ✓ |
| KLABTB | N/A | | | MXF4B2 | N/A | | |
| KQY3Q7 | N/A | | | MZDXJ3 | | | ✓ |
| KRVBYP | N/A | | | N2ANC3 | | ✓ | |
| KTN7NJ | | | ✓ | N2VXPD | N/A | | |
| KVVLUP | N/A | | | NA8CAU | N/A | | |
| KWMHJJ | N/A | | | NCRAEC | N/A | | |
| KZ624D | Not Suitable | | | NEDW8Y | N/A | | |
| L4KK8G | N/A | | | NJUBZZ | | ✓ | ✓ |
| LCEYJ2 | N/A | | | NPYABP | N/A | | |
| LDTE4U | N/A | | | NRKV4C | N/A | | |
| LDWNCU | | ✓ | ✓ | NWHCHR | N/A | | |
| LFE2WH | N/A | | | NX9PTX | N/A | | |
| LFV882 | N/A | | | PA2983 | | | ✓ |
| LL6B7F | N/A | | | PC9GME | N/A | | |

# TABLE 4 - Item 3

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| PDHLZ4 | N/A | | | TEFD8T | N/A | | |
| PFAHNW | | | ✓ | TJAAWJ | N/A | | |
| PHAZCQ | Not Suitable | | | TK97UU | | | ✓ |
| PKH7ZD | N/A | | | TMC2DW | | ✓ | ✓ |
| PM8BWQ | N/A | | | TNQMPK | N/A | | |
| PMP9ZQ | | | ✓ | TP4X3Q | | | ✓ |
| QFH4MW | N/A | | | TPJGK3 | | | ✓ |
| QKBEL3 | | | ✓ | TT49W7 | N/A | | |
| QLPUQ3 | N/A | | | TY96HQ | | | ✓ |
| QM3DYZ | | ✓ | ✓ | U29L6K | N/A | | |
| QP63E3 | N/A | | | U4DEWX | | | ✓ |
| QQNYRN | | | ✓ | UJRECW | N/A | | |
| QU3JQW | | | ✓ | UL2JR7 | N/A | | |
| QUNBNN | | | ✓ | UTDJ4A | | | ✓ |
| R2WBCV | N/A | | | UWJZKD | N/A | | |
| R9JWNN | Not Suitable | | | V4EHCU | | | ✓ |
| RCER63 | Not Suitable | | | VCL73L | | | ✓ |
| RGXV4K | N/A | | | VDX6WV | | | ✓ |
| RH3L49 | N/A | | | VGZUN4 | N/A | | |
| RKUGT3 | | | ✓ | VHUH9K | N/A | | |
| RUGHAC | | | ✓ | VPEJPX | Not Suitable | | |
| RUJ7QQ | N/A | | | VVLAR4 | N/A | | |
| RYANJ9 | | | ✓ | VVX2KK | N/A | | |
| T6AB9M | N/A | | | VZEA9K | N/A | | |
| T6U37E | N/A | | | W3YHQK | N/A | | |
| TBG2CT | N/A | | | W6PJYT | N/A | | |

# TABLE 4 - Item 3

| WebCode | First Level Pattern(s)? | | | WebCode | First Level Pattern(s)? | | |
|---|---|---|---|---|---|---|---|
| | Arch | Loop | Whorl | | Arch | Loop | Whorl |
| WGB6TM | | | ✓ | ZAN6EL | | | ✓ |
| WMHMD9 | N/A | | | ZDNF9Z | N/A | | |
| WQ8RAM | N/A | | | ZMTMPL | N/A | | |
| WU2Y4V | N/A | | | ZR79W8 | N/A | | |
| X6Z6KZ | N/A | | | ZVJ9TY | | ✓ | ✓ |
| X7TYFJ | Not Suitable | | | ZVLVBC | | | ✓ |
| XBGNU2 | | | ✓ | ZZGGCM | N/A | | |
| XFDEZD | N/A | | | ZZYGGX | N/A | | |
| XPLRFV | | | ✓ | | | | |
| XT7PVY | N/A | | | | | | |
| XVB4GJ | N/A | | | | | | |
| XW3DC7 | N/A | | | | | | |
| XYRHAJ | Not Suitable | | | | | | |
| Y2FDAX | | | ✓ | | | | |
| Y82F73 | Not Suitable | | | | | | |
| YEFCWU | N/A | | | | | | |
| YH3YPH | N/A | | | | | | |
| YHGAJF | N/A | | | | | | |
| YLGHNQ | | ✓ | | | | | |
| YMRKAP | N/A | | | | | | |
| YQXWGQ | Not Suitable | | | | | | |
| YR8TXN | N/A | | | | | | |
| YZMKEE | N/A | | | | | | |
| Z29LVL | N/A | | | | | | |
| Z69WQL | N/A | | | | | | |
| Z9BV2E | | | ✓ | | | | |

# TABLE 4 - Item 3

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

**Item 3 - Pattern Response Summary** Total Participants: 312

| 1st Level | Arch | Loop | Whorl | Not Suitable | N/A |
|---|---|---|---|---|---|
| **Total** | 1 | 21 | 96 | 31 | 163 |

*NOTE: Numbers may not add up to the total # of participants, as more than one pattern option may be selected.*

# Additional Comments

TABLE 5

| WebCode | Additional Comments |
|---|---|
| 2322H4 | Only non-adhesive side of item 2 processed. Attempted to remove from cardboard but would not remove without cardboard sticking to adhesive side. Cardboard from item 2 not processed and treated as protective material. |
| 28WTQZ | Item 1 had friction ridge detail in Quadrant A prior to processing. After processing FRD was also present in Quadrants B, C, and D. Quadrant C had what appeared to be a simultaneous impression with 4 prints and B and D had partial spots of friction ridge detail. |
| 2BCZEY | The print on Item 1 was mostly just a smudge with no real ridge detail. It was very tight in the envelope and might have smeared during packaging. |
| 2GKJDR | On item 1, there were prints in sections C and D. It was later determined that they were on the back side of the clear plastic card sleeve and were no longer processed. |
| 2XRK9E | All of the dye stain photos and DFO photos were taken with the Poli-Light PL500. |
| 2YUT6C | During the tests we use the following equipment: - POLILIGHT PL 500 XL made by Rofin - it's a high intensity light source that emit light in a controlled spectrum centered at the labeled wavelenght 350-650 nm and white. - MVC 3000 made by Foster+Freeman - it's cyanokarylate fuming chamber. - NINcha S31 made by Attestor Forensics - it's forensic climate chamber for Ninhydrin and DFO treated fingerprint evidence. |
| 3ELMEH | After having worked on the pieces of evidence described above with the purpose of identifying the development of fingerprinting. This process was executed through the use of different methods and products previously selected based on the piece of evidence to be worked on. As a result, the Items tested positive in the following sections; Piece 1 gave results in section A, using black graphite powder. Piece 2 gave results in section C, using a vial of iodine crystals. Piece 3 gave results in section B using a vial of iodine crystals. |
| 3F2Z7Z | quality of print development on wallpaper was poor |
| 3RCE7D | The impression on Item 3 was very faint after the ninhydrin process and the follow-up magnetic powder did not develop any further ridge detail. |
| 3XHD9Q | Prints on Items 2 and 3 very faint, little detail |
| 42EALN | Other ridge detail also developed on Item 2, wallpaper during processing with semi-porous processing techniques. Additional ridge detail was developed outside of Quadrant C. |
| 42YQ2Q | Item #3 - this item was treated twice with a NIN solution that had yielded appropriate control reactions. A purple discoloration was observed in three of the quadrants as well as on other areas of the envelope. None of the areas of discoloration displayed any ridge detail or indications of a fingerprint that would have been collected, documented or enhanced during regular casework. The presence of the discoloration does indicate that the envelope had been handled prior it being sealed for the test. |
| 4ZMDWU | Item A-1: Plastic tray/card sleeve: 1 latent card from segment A. Item A-2: Wallpaper: 2 latent cards and one photograph from segment C. Item A-3: Envelope: 2 Latent photographs from Segment B |
| 66DUZ8 | In all the items received, after the corresponding treatment, traces are revealed, although the ridges observed do not present enough characteristic points for the relevant identification. |
| 66T4ZZ | Item 3 - no image was taken as there was not enough ridge detail, however you could tell that a latent print had been placed in section B after ninhydrin processing. |
| 6CUJP8 | The use of a Ninhydrin humidity chamber is normally utilized, but due to technical problems with the unit at the lab, a prolonged drying time was used. |
| 6G86WT | While no latent prints were developed on Item 3, the test print developed as expected. |

 

# TABLE 5

| WebCode | Additional Comments |
|---|---|
| 6HLQ8G | Prints on all three items were faint. Items #1 and 2 barely had any ridge detail (#1 had some at the tip of the print, and some around one edge, #2 only ridge detail seen was at the tip of the print). Not sure if that was done on purpose. Item #3 print was so extremely faint it was almost not even seen. On our end, per our standard operating procedures, none of these prints contain enough sufficient ridge detail to send forward for comparison/identification. |
| 6VATQ9 | Item 2: Observed minimal faint purple dots in Section C post-ninhydrin processing, however did not observe ridge detail on item. No latent prints were observed. |
| 76EZ69 | The plastic sleeve (Item 1) was packaged very tightly in an envelope. It was difficult to carefully remove the item without potentially damaging any fingerprint that it may have contained. I would suggest choosing evidence packaging that is just slightly larger than the item to prevent possibly damage in the future. |
| 7PDFDJ | Through visual examination and use of reagent in the diferents pieces of evidenes analyzed, the conlusion were reached: 1. That in the piece identified number one: a fingerprint was identified in sectionn A. 2. That in the piece identified number one: a fingerprint was identified in sectionn C. 3.That in the piece identified number one: a fingerprint was identified in sectionn B. |
| 7PWHLJ | Item 1 Notes: Ridge detail not easily visible in recovered print, but analyst not trained for pattern determinations, only for processing. R6G dye from squirt bottle left spots on the print, but ridge detail can still be seen. Item 2 Notes: Due to surface type, analyst opted for black powder instead of dye stain for fear that dye would absorb into item instead of run off the surface. Item 3 Notes: When item was treated with DFO twice and Ninhydrin, all test prints came out perfectly (visible light or fluorescent under green laser), but no prints were visible on the manila envelope. There are other processes that could have been used on the porous item #3. These include using RUVIS/ FSIS (the analyst is not trained on the equipment yet). Iodine fuming and physical developer are not available for use. No photograph was taken because no print was found. |
| 7QTK39 | Selected 'N/A' for pattern type determination as we do not complete a full analysis during latent print processing. I am trained in determining pattern type; however, this would be a part of the subsequent analysis request. |
| 8C8RQ8 | Selected N/A for all three pattern interpretations as this is not part of our Latent Print Processing workflow. This would normally be done during the analysis of the latent print(s). One issue encountered during processing: two latent prints were developed on Item 1. Selected quadrant "A" as my answer on this test due to that latent print improving with additional processing methods, while the other did not. The second latent print was developed in quadrant "D". |
| 8XLGXB | There was extremely weak development noted in quadrant B of the manila envelope. The only noted ridge detail observed consisted of a few arcing ridges, no discernible detail enough for even level 1 pattern type determination. The friction ridge detail developed on the plastic card sleeve and wallpaper appeared to be very very distorted (pressure/movement) as well. |
| AM2REV | It would be helpful to clarify whether or not any backing materials (e.g. cardboard on wallpaper sample) are to be processed. It would also be helpful to note in the instructions that ANY ridge detail developed should be preserved. Our methodology does not require documentation if the print in question has insufficient ridge detail (IRD). We would regularly only preserve prints that had ridge detail worthy of moving forward to analysis. For this test, we had to note ANY ridge detail, which varies from our normal practice. If we had instructions indicating that any ridge detail should be documented, that would make our processing more appropriate for filling out your answer form. |
| ARA9NJ | Item 2 - A latent print was developed and observed in section “C”. Attempts to lift/recover the latent print using different types of lifting tape were completed with unsuccessful results. Only the surface/background appeared visually on the lifting tape/backing card. After the use of lifting tape, Ninhydrin processing, additional black magnetic powder processing, and additional Ninhydrin processing were utilized, but the latent print did not develop/redevelop and was not observed anymore. |
| B3MRKL | Visual examination: Examination was carried out using Daylight white 6500K Attestor LIGHTcube. |

 

# TABLE 5

| WebCode | Additional Comments |
|---|---|
| | Alternate light source: Examination was carried out using Attestor LIGHTcube sources. The following light sources were used: UV narrow angle (365 nm), Violet narrow angle (410 nm), royal blue narrow angle (447 nm), blue-green narrow angle (470 nm), pure green narrow angle (530 nm), orange narrow angle (590 nm) and pure red narrow angle (630 nm). Examination was carried out using the corresponding filter goggles and after a brief period of darkness adaptation. DFO: DFO solution was prepared in-house using commercially available reagents without further purification, according to the method in the CAST Fingermark visualisation manual 1st edition January 2014, page 5.DFO.7. The exhibits were briefly submerged in the DFO solution, allowed to dry and developed in a Weiss Technik laboratory oven at 100°C for 20 minutes. Ninhydrin: Ninhydrin solution was prepared in-house using commercially available reagents without further purification, according to the method in the CAST Fingermark visualisation manual 1st edition January 2014 page 5.Nin.8. The exhibits were briefly submerged in the ninhydrin solution, allowed to dry and developed in a Attestor NINcha N31 (temperature 80°C and humidity 62% RH) for 4 minutes. Photography: Photography was carried out on a Foster and Freeman DCS-5 system consisting of a Nikon D5 camera. A 52mm visible imaging colour balancing filter was fitted to the lens. The scale was checked before use by capturing a image of a calibrated ruler, scaling on the DCS software, printing and manually checking the printed image against the calibrated ruler. Lighting was controlled by a Foster and Freeman 8x4 ring crime-lite. Overview shots were captured of all exhibits before and after treatment. All exhibits were tracked via a barcode system on a LIMS and all examination details were recorded on the same system. |
| CCMRMR | It should be noted that I observed potential latent areas in multiple quadrants on Item 1. The areas were located in Quadrant A, C, and D. |
| CGZCUD | After having used iodine crystals, iodine, silver nitrate, ninhydrin and graphite powder, fingerprints developed on pieces of evidence 1, 2 and 3. In piece of evidence number 1, a fingerprint developed on the section A. In piece of evidence number 2, a fingerprint is developed in section C. In evidence piece number 3, a fingerprint is developed in section B. It is photo documented with a metric witness. |
| DAC9YF | The first level pattern of Item 1 and 2 was not enough recovered because of the deposit or the surface type |
| DE83Y3 | Physical developer was not done on Item 3 due to the metal clasp present on the item. |
| E3HADZ | Substrate interference: Fine striation texture and pixelation on Item 2- Wallpaper. |
| EWRY33 | DISPOSITION All evidence has been retained by the [Laboratory] to the extent required, as defined in the policies and procedures of the Forensic Laboratory Section and Evidence Management Unit. The chain of custody record may be referenced for the disposition of the evidence at the time this analysis concluded. Evidence received but not analyzed is documented in the case record. This report contains examination results that relate only to the items tested and conclusions based on the interpretations/opinions of the below signed author. Work performed began on July 8, 2024 and concluded on the date this report was issued. |
| FV7Y9B | RD not suitable on Item 2, photographed to see if enhancements could be made in Photoshop. Photoshop tools did not enhance RD seen on Item 2. |
| J2AQFZ | For Item 2 (wallpaper), after fuming with cyanoacrylate ester and dye stained with DFO, a faint latent print was founded, but the ridge detail on this latent print was not sufficiently recovered and was not suitable for further review. For the sake of this proficiency testing, the latent print was digitally captured and burned onto a DVD. The attempts of black powder dusting and FSIS with UV lighting were done at the end trying to enhance the latent print's quality, but no further enhancement was detected. |
| J2Z3Q6 | Through inspection, evaluation and analysis of the surface(s) of the piece(s), the following result(s) were obtained: 1. That in Item 1, the fingerprint is present in the space identified with the letter A. 2. That for the development of the print present in item 1, the use of Silk Black Graphite Powder was necessary. 3. That in Item 2, the fingerprint is present in the space identified with the letter C. 4. That for the development of the fingerprint present in item 2, the use of black Iodine Crystal “Iodine” was necessary. 5. That in Item 3, the fingerprint is present in the space identified with the letter B. 6. That for the development of the fingerprint present in Item 3 it was necessary to use Iodine Crystal “Iodine”. |

 

# TABLE 5

| WebCode | Additional Comments |
|---|---|
| JHBX97 | Item 2 did not present any ridge detail during visual, lumicyano, IND, or ninhydrin. During physical developer a finger-like mark was developed with minimal ridge detail near the tip in quadrant C. |
| JJKUP6 | After having worked on the third piece of evidence under the established standards. In addition to using all personal protective equipment to work with prints, prints were developed in other places on this piece of evidence. |
| K9L9BJ | No image was taken of item 3 because of the lack of ridge detail, however it appeared a latent print had been placed in section B. |
| KL8QXV | The scale in Item 1's FSIS photograph was not visible due to the angle the UV light was at to capture the ridge detail. Impression on Item 1 was likely a whorl/loop. Impression on Item 3 was extremely faint and pattern type was unable to be determined. |
| KRVBYP | The packaging for Item 1 was very tight. A latent print was also observed in quadrant C of Item 3. |
| L4KK8G | Additional ridge detail was developed on the manila envelope (Item 3) in box marked C |
| LCEYJ2 | 1. That in the piece identified as number one, a fingerprint was identified in section A. 2. That in the piece identified as number two, a fingerprint was identified in section C. 3. That in the piece identified as number three, a fingerprint was identified in section B. |
| LDTE4U | All evidence has been retained by the [Laboratory] to the extent required, as defined in the policies and procedures of the Forensic Laboratory Section and Evidence Management Unit. The chain of custody record may be referenced for the disposition of the evidence at the time this analysis is conducted. This report contains examination results that relate only to the items tested and conclusions based on the interpretations/opinions of the below signed author. Work performed began on 10/31/2023 and was completed on the date of this report. |
| M34WX2 | 1. That in the piece identified number one, a fingerprint was identified in section A. 2. That in the piece identified number two, a fingerprint was identified in section C. 3. That in the identified piece number three, a fingerprint was identified in section B |
| MB2HEZ | Item 2 was packaged very snuggly in the Marvelsealed envelope. I'm not sure that the packaging couldn't have disturbed any non-porous prints left on the item. |
| MTZVN2 | Item 1 had distortions in the print and was difficult to make out the whorl pattern. Item 2 had torque distortion and was highly textured surface. Item 2 could have been a loop or a whorl. Please stop using Sharpie on the items. this makes it so we cannot spray Methanol on the item. |
| N2VXPD | The print on the wallpaper (Item 2) was very smudged and lacked much ridge detail. The print on the envelope was extremely faint with DFO (even after the second day when viewed with a TracER Laser) and never was visible with ninhydrin. |
| NA8CAU | During processing, the DFO caused the ink to run on item 2, which compromised visibility results on the laser. Due to that, our lab ordered a new set of samples and cyanoacrylate fuming was performed and then dye-stained with only R6G for item 2. A print was found on section C for the new item 2 of the newly ordered set. |
| NPYABP | Item 1 was packaged too tightly into the evidence envelope. It likely rubbed and destroyed the majority of the print prior to being received/opened. |
| NRKV4C | Typically, nonporous items are fumed with cyanoacrylate and semi-porous items are fumed with Lumicyano Acrylate. Since Item 1 and Item 2 were batched together, Lumicyano Acrylate was applied to both for the latent print development. |
| NXQCRF | All information, dates, treatments, examinations, photography processes recorded on the [Laboratory] CMS for future reference. The [Laboratory] do not use reference measures or identifying labels in mark photography as the DCS5 system photographs at 1:1 SCALE and is formatted and calibrated to be accurate and digitally adds the identifying information regarding the item being photographed. This information is carried over from the DCS5 to the [Laboratory] CMS. Marks found on items submitted are given an identifying exhibit reference number per case beginning at M1 and continuing |

 

# TABLE 5

| WebCode | Additional Comments |
|---|---|
| | sequentially, no item on the same case can have the same identifying number. All marks found in the [Laboratory] are photographed for preservation purposes as there is no accreditation in place for lifting marks. All chemicals were checked for expiry dates prior to use and test pieces used for each process and photographed. All equipment used is calibrated and serviced annually and was checked that all of this was valid and current prior to each process. Photography data is saved in specific daily folders within the DCS5 system for preservation purposes and exported to a hard drive weekly which is then stored in a fire proof safe in the [Laboratory]. All images are transferred to the [Laboratory] FP Hub digitally for searching purposes at the conclusion/completion of each case. |
| PDHLZ4 | The clarity of the latent prints seems to be lower than on previous tests. The tip area of each print seemed to have the best ridge detail. I was curious if this indicated new test-creators who may have used more pressure and/or had less well-defined ridge detail, or because of the types of surfaces provided. I would have enjoyed having extra pieces of the test materials for experimentation after my test was completed and submitted. I am fortunate to work in a lab with different processing techniques available. For my test I chose methods that I thought would have the best likelihood of success. I know there are labs who don't have the same tools available, such as not having access to a laser. It would be intriguing to experiment if I could get the same results with alternative methods. I look forward to reading the responses of other test-takers to see if they had success using alternate approaches. |
| PFAHNW | The print from Item 1 is not sufficient for identification due to pre-source distortion. It is included to denote location only and would not normally be preserved. ***NOTE: Refer to section 2-5: Analyst suggests: -Loop: Less likely -Whorl: more likely |
| QFH4MW | Item #3 - Nin ridge detail very faint, difficult to see and capture with photography, photographed area after PD to show negative area w/that process |
| QKBEL3 | For Item 3, the 1,2-Indanedione worked much better than Ninhydrin. The same thing happened in last year's test, although last year the Ninhydrin did not work at all. This year, the Ninhydrin developed a very faint print. Our positive controls for Ninhydrin worked very well (they are a combination of prints with Armor Forensics AA-based reference pad #1-2791, plus separate prints of our own sweat). |
| QP63E3 | Transferred answers from pre-distribution test |
| R2WBCV | Item 1- outer packaging was very snug- difficult to remove item. MBD- washed off quadrant marker lines. |
| R4MAQU | That in the piece identified number one,a fingerprint was identified in section A. That in the piece identified number two,a fingerprint was identified in section C. That in the piece identified number three,a fingerprint was identified in section B. |
| R9JWNN | Item 3: After processing with ninhydrin, a faint purple area was observed inside of quadrant B, but no ridge structure was visible. Item 3 was further processed with black magnetic powder but no ridge structure was developed. |
| RH3L49 | Fragment or smudge observed in Quadrant C of Item 2. No ridge detail observed. |
| RUGHAC | Items 1 and 3 both had suitable latent prints; however, pattern type could not be determined for Item 1. Item 2 showed clear development but limited ridge detail was observed. Wallpaper is not an item I have ever seen submitted as evidence but was processed anyways. |
| TBG2CT | After having used iodine crystal, ninhydrin and Black magnetic graphite powder, fingerprints developed on pieces of evidence 1, 2 and 3. In piece of evidence number 1, a fingerprint developed on the section A. In piece of evidence number 2, a fingerprint is developed in the section C. In piece of evidence number 3, a fingerprint is developed in the section B. it is photo documented with a metric witness. |
| TEFD8T | Through visual examination and the use of reagents in the different pieces of evidence(s) analyzed, the following conclusions were reached: 1- That in the piece identified number one; a fingerprint was identified in section A. 2- That in the piece identified number two; a fingerprint was identified in section C. 3- That in the piece identified number three; a fingerprint was identified in section B. |

 

# TABLE 5

| WebCode | Additional Comments |
|---|---|
| TNQMPK | very faint print on item 2, no ridge detail |
| UL2JR7 | Item 1 was too tightly packed and likely caused damage to the print during packaging and removal. |
| VPEJPX | Poor quality latent prints. Would be unable to use for comparison for 2 out of the 3 |
| VVX2KK | All evidence has been retained by the [Laboratory] to the extent required, as defined in the policies and procedures of the Forensic Laboratory Section and Evidence Management Unit. The chain of custody record may be referenced for the disposition of the evidence at the time this analysis concluded. Evidence received but not analyzed is documented in the case record. This report contains examination results that relate only to the items tested and conclusions based on the interpretations/opinions of the below signed author. Work performed began on July 1, 2024 and concluded on the date this report was issued |
| XBGNU2 | los elementos localizados quedan ha resguardo del departamento evaluado. |
| XPLRFV | Item 2 appeared to be 'contact paper' with a slight wood grain texture and some sheen. I was initially unsure if this item would behave as a non-porous surface or a semi-porous surface. After superglue fuming and processing with magnetic powder, I did not observe any ridge detail or 'voids' where a touch may have been present. I then tested a small corner of the contact paper with fluorescent dye stain RAM to see if the stain would be absorbed by the contact paper. The item absorbed the dye stain and I was concerned that the absorption would overpower any dye-stained latent print when viewed with the ALS. I was able to obtain contact paper from a colleague to conduct sequential processing tests, however the test contact paper had a slight texture closer to thick paper and had a matte finish. I processed the test paper with cyanoacrylate fuming, magnetic powder, and RAM, which produced visible ridge detail that was not overpowered by the ALS when viewed in the UV spectrum (300-400 nm) with yellow barrier filters. However, to be sure, I also processed additional test papers with indanedione and ninhydrin after processing with cyanoacrylate fuming and magnetic powder. No ridge detail was developed after porous processing techniques, which made me feel more confident that Item 2 would behave like a non-porous surface. I then moved forward and processed the item with fluorescent dye stain. Ridge detail was observed, however, the wood grain texture was also stained, which created background fluorescence and was not visible in the UV spectrum and yellow filters like my prior testing! I ended up photographing the ridge detail under 415, 455, and CSS and orange filters. Looking back, I should have used an Aqueous Rhodamine solution. We do not have it readily prepared since we do not use it often. Now I am considering making a batch to have on hand. |
| XT7PVY | There was a print (1C2) collected on item 1C (Agency item 3) on the back of the manila envelope - no grid location. Date received for items is date item placed in personal custody. |
| XVB4GJ | CSI only performs the search, development, collection, packaging of fingerprints. Identification is carried out by the friction ridge laboratory. |
| XYRHAJ | Item 1 - Plastic card sleeve. After superglue fuming a second latent impression developed in section D. I documented both latent impressions |
| Y82F73 | In Item 3 was found traces on B area, however they were not suitable for determination. |
| YEFCWU | After processing Item 3 (manila envelope), an area of development consistent with a "finger mark" was developed in quadrant "B". No ridge detail was observed at this time. In this lab, this item would be deemed as "not of value" (NOV), and no further analysis would be conducted |
| YHGAJF | CSI only performs the search, development, collection, packaging of fingerprints. Identification is carried out by the friction ridge laboratory. |
| YMRKAP | Through visual examination and the use of reagents in the different pieces of evidence(s) analyzed, the following conclusions were reached: 1. That in the piece identified number one; a fingerprint was identified in section A. 2. That in the piece identified number two; a fingerprint was identified in section C. 3. That in the piece identified number three; a fingerprint was identified in section B. |
| YQXWGQ | Additional Ridge detail was developed on Item 1: Sections A (pattern unknown)- documented in the |

 

TABLE 5

| WebCode | Additional Comments |
|---|---|
| | results page. Sections A/C- on the line (whorl pattern). Section D (delta). Photograph were taken for documentation. |
| Z9BV2E | Possible impression was observed on quadrant C of wallpaper (Item 2) with no friction ridge detail; thus, no photo of this impression was taken. |
| ZVJ9TY | After the processing was completed for each item, the item was initialed, dated and marked with its own unique identifying number, then resealed in its original packaging. |

-End of Report-
(Appendix may follow)

**Collaborative Testing Services ~ Forensic Testing Program**

# Test No. 24-5190: Latent Print Processing - Varied Surfaces

DATA MUST BE SUBMITTED BY **July 29, 2024, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: R7RTYM

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

**Scenario:**
During the week of April 29, 2024, several items of evidence were recovered from a crime scene. Police have requested that you process each item of evidence for latent prints. These items will not undergo additional testing in other departments, so you may use destructive testing if necessary.

*- All item packaging has been labeled with a CTS item number and each item divided into four sections, which have been indicated as A-D. A single latent print has been deposited in one of these areas for each item.*

*- Packaging and protective material are not intended to be processed.*

**Items Submitted (Sample Pack LAP1):**
Item 1: Plastic card sleeve, divided into sections A-D.
Item 2: Wallpaper, divided into sections A-D.
Item 3: Manila envelope, divided into sections A-D.

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

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

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

Item 1
Item 2
Item 3

## Results for Item 1:

Plastic card sleeve, divided into sections A-D.

**1-1.) Date Samples Received:**

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

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

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

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

☐ No preservation methods performed.

| Method Used | Methodology-specific information |
|---|---|
| | |

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

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

## Results for Item 2:

Wallpaper, divided into sections A-D.

**2-1.) Date Samples Received:**

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

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

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

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

☐ No preservation methods performed.

| Method Used | Methodology-specific information |
|---|---|
| | |

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

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

## Results for Item 3:

Manila envelope, divided into sections A-D.

**3-1.) Date Samples Received:**

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

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

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

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

☐ No preservation methods performed.

| Method Used | Methodology-specific information |
|---|---|
| | |

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

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

## 4.) Additional Comments

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

Participant Code: U1234A
WebCode: R7RTYM

# RELEASE OF DATA TO ACCREDITATION BODIES

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

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

- ○ This participant's data is intended for submission to ANAB and/or A2LA. (Accreditation Release section below must be completed.)
- ○ This participant's data is **not** intended for submission to ANAB and/or A2LA.

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

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

**ANAB** Certificate No.

**A2LA** Certificate No.

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

Authorized Contact Person and Title

Laboratory Name

Location (City/State)