



Bloodstain Pattern Analysis Test No. 15-560/561 Summary Report

This test was sent to 271 participants. Each sample pack consisted of either photos (15-560) or a DVD (15-561) containing images of bloodstains for determination of Angle of Impact and Pattern Description. Data were returned from 213 participants (127 for 15-560 and 86 for 15-561 - 79% response rate) 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 contained the following images: Angle of Impact Determination Stains A - E (Item 1), Pattern Description: Mechanism of Deposition (Items 2, 3, and 4), and Pattern Description: Recognition and Description (Item 5) provided in photographic (560) or DVD (561) form. Participants were requested to determine the angle of impact of Stains A - E (Item 1), identify the pattern for Items 2 - 4, and write a brief description of the pattern(s) for Item 5.

SAMPLE SET ASSEMBLY:

Once sample preparation was done, verification was completed, and photos produced, each photo set was placed into a pre-labeled sample pack envelope, sealed with evidence tape, and initialed with "CTS". Each DVD was checked to ensure all images were accessible.

VERIFICATION:

Laboratories that conducted the predistribution examination of the Angle of Impact stains reported consistent results for each of the Angle of Impact Stains A - E, and their findings were comparable to the Preparation Angles. The responses of predistribution laboratories were consistent with the expected pattern identifications for Items 2 - 4 and the pattern description for Item 5.

SAMPLE PREPARATION: All stains were produced using human whole blood.

ANGLE OF IMPACT DETERMINATION:

For each impact, blood was released from a pipette at a height of approximately thirty-six inches above the impact surface. Targets (white posterboard) were placed on an inclined plane at the following predetermined angles from the vertical:

<u>Stain</u>	<u>Preparation Angle</u>
A	22.1°
B	44.1°
C	16.2°
D	22.1°
E	33.2°

Please note that the Preparation Angle is the value used for the test preparation phase and may not necessarily represent the final angle of the drops. It is advised to wait for the Grand Mean statistics available in the Summary and Individual Reports before evaluating performance.

Manufacturer's Information, continued

PATTERN DESCRIPTION

- Pattern 2: Blood and saliva were mixed in a small weigh boat. A can of compressed air was held directly behind the weigh boat, which was approximately thirty-six inches away from a vertical target. A single shot of air was applied across the surface of the blood-saliva mixture in the direction of the target.
- Pattern 3: A cotton rag was dipped in blood, placed against a clean horizontal target, moved across the target surface from upper left to lower right, and then lifted away.
- Pattern 4: A small pool of blood was deposited onto a horizontal target and allowed to dry for several seconds. A clean, dry sponge was placed against the blood pool, moved across the target surface from upper left to lower right, and then lifted away.
- Pattern 5: A small section of synthetic wig hair was coated in blood. The hair was then placed on the horizontal target surface and dragged from bottom to top. Several drops of blood were released from a dropper bottle located approximately twelve inches above the target. An individual wearing a cotton sock stepped into a large pool of blood to saturate the bottom of the sock, stepped once onto an absorbent pad, and then stepped onto the target.

Summary Comments

Introduction

This test consisted of two sections: Angle of Impact Determination and Pattern Description. Participants had the option of receiving the stains and patterns for examination in the form of photographs or images on a DVD.

Angle of Impact

For angle of impact determination, participants were provided with images of five impact stains prepared at known angles from the vertical (see table below). Results marked with an "X" in Table 1 are greater than or equal to ± 3 STD from the grand mean. These results have been excluded from the statistical calculations presented at the end of each Stain table. Each exclusion was determined independently of other values (i.e. Length exclusion based only on Length GM; CalcAng exclusion based only on CalcAng GM). Exclusions were caused by either reporting measurements in units other than mm, significantly discrepant length/width measurements, or a combination of both. Those who provided measurements in units other than mm are apparent, as their Width and Length values are excluded, but their Angle and Calculated Angle are included due to the ratio of their values corresponding with the other participants. The Grand Mean and Standard Deviation are shown below, based on the Calculated Angle.

<u>Stain</u>	<u>Preparation Angle</u>	<u>Grand Mean</u>	<u>Standard Deviation</u>
A	22.1°	20.72°	1.38
B	44.1°	41.71°	1.96
C	16.2°	16.27°	1.06
D	22.1°	22.56°	1.52
E	33.2°	32.24°	1.67

Pattern Description

The pattern description was divided into two separate parts. Part one consisted of three patterns (one vertical and one horizontal target on white foamboard, one horizontal target on a vinyl tile), and participants were asked to select the single pattern type that best described the mechanism of deposition. The second part of the pattern description section consisted of one pattern (one horizontal target on white foamboard), and participants were asked to provide a detailed description of the possible bloodletting events that created that pattern. Please refer to the Manufacturer's Information for detailed explanations of how the patterns were created.

For part one, Item 2, 93% of participants reported "Expiration Pattern". The second and third most common responses were more broad classifications of "Projected Pattern" and "Impact Pattern". For Item 3, 93% of participants reported "Swipe Pattern", and the remaining participants classified the pattern as a "Transfer Stain". For Item 4, 99% of participants reported "Wipe Pattern". For Item 5, the majority of participants reported the following distinct pattern types: Drip Pattern, with many noting associated satellite stains; Transfer Stain, with the indication of a fabric-covered foot as the vehicle of deposition; and either Swipe Pattern or Transfer Stain, with indications of movement within the pattern. Many participants were unable to determine if the pattern was a Swipe or Wipe Pattern due to the lack of a complete pattern and only classified it as a Transfer Stain.

Angle of Impact Determination

TABLE 1

Table Explanation

The following table presents participants' reported Width and Length measurements for each bloodstain (A-E), along with Angle of Impact calculations. Several comparison statistics computed by CTS are presented as well. A brief explanation of each appears below:

CalcAng - Calculated Angle of Impact: This value was calculated by CTS using the width and length of the bloodstain reported by the participant and the formula: $\sin \theta = \text{width}/\text{length}$, where θ is the angle of impact. This calculation can only be performed when the reported width is less than or equal to the reported length.

Diff - Difference: The numerical difference between the participant's measurement and the Grand Mean.

GM - Grand Mean: The average of the measurements submitted by all the participants, not including any data specifically excluded (marked with X).

SD - Between Participant Standard Deviation : For each measurement, the standard deviation of the participant data about the Grand Mean, not including those participants excluded from the Grand Mean. The Between Participant Standard Deviation is an indication of the precision of measurement between participants.

CPV - Comparative Performance Value: For each value not excluded from statistical calculations, the CPV is the *Difference* divided by the *Between Participant Standard Deviation*. The *Difference* and *Between Participant Standard Deviation* values given below are rounded values, and as such, there may be a slight variation between the CPV provided in the chart and a CPV calculated by hand with the rounded values. The CPV is an indication of how well a participant's measurement agrees with the measurements submitted by other participants. The CPV is a (unitless) ratio indicating the number of standard deviations a participant's results are from the Grand Mean. The closer a participant's CPV is to zero, the more consistent their results are with the other participants' data. The CPV is a specific type of Z-score.

When a participant reports data that gives a CPV above 3.00 or below -3.00 the result is "flagged" ("X"). The use of this criterion is well accepted as a performance indicator and ensures in excess of 99% confidence that flagged results are different from the other participants'.

TABLE 1
Stain A

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
23QB3W-561	2.50	0.11	1.12	7.00	0.26	0.79	20.00	-0.74	-0.57	20.92
24EWG7-560	2.50	0.11	1.12	7.00	0.26	0.79	21.00	0.26	0.20	20.92
2FT2JV-561	3.20	0.81	8.30 X	9.00	2.26	6.91 X	21.00	0.26	0.20	20.83
2G3HRL-560	2.20	-0.19	-1.96	6.60	-0.14	-0.44	19.50	-1.24	-0.95	19.47
2HHBTW-561	2.25	-0.14	-1.44	7.00	0.26	0.79	18.66	-2.08	-1.59	18.75
2LY3XQ-560	2.40	0.01	0.10	7.20	0.46	1.40	19.47	-1.27	-0.97	19.47
2NN9F3-560	2.20	-0.19	-1.96	6.40	-0.34	-1.05	20.10	-0.64	-0.49	20.11
2PJRH4-561	2.40	0.01	0.10	7.00	0.26	0.79	20.10	-0.64	-0.49	20.05
2ZGRU9-561	2.40	0.01	0.10	6.60	-0.14	-0.44	21.30	0.56	0.43	21.32
34FXX-561	2.50	0.11	1.12	7.00	0.26	0.79	20.90	0.16	0.12	20.92
368RJM-560	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
38F84T-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.30	0.56	0.43	21.32
3A7DM6-561	2.44	0.05	0.51	6.77	0.03	0.08	21.10	0.36	0.27	21.13
3AJZ6J-561	2.50	0.11	1.12	6.50	-0.24	-0.74	22.60	1.86	1.42	22.62
3AZTNM-560	2.40	0.01	0.10	7.10	0.36	1.09	20.00	-0.74	-0.57	19.76
3C84H6-560	2.40	0.01	0.10	7.10	0.36	1.09	19.70	-1.04	-0.80	19.76
3EWCPL-560	2.50	0.11	1.12	7.20	0.46	1.40	20.00	-0.74	-0.57	20.32
3GL6W3-560	2.50	0.11	1.12	7.00	0.26	0.79	20.92	0.18	0.14	20.92
3GXFG9-560	2.40	0.01	0.10	6.80	0.06	0.17	20.70	-0.04	-0.03	20.67
3KF9E9-560	2.50	0.11	1.12	7.10	0.36	1.09	21.00	0.26	0.20	20.62
3LFDPC-560	2.40	0.01	0.10	6.80	0.06	0.17	20.67	-0.07	-0.06	20.67
466R97-560	2.40	0.01	0.10	6.80	0.06	0.17	21.00	0.26	0.20	20.67
4AHWYU-561	2.29	-0.10	-1.03	6.88	0.14	0.42	19.44	-1.30	-1.00	19.44

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
4AZ9DT-560	6.30	3.91	40.11 X	2.40	-4.34	-13.29 X	22.00	1.26	0.96	X
4BAQJW-560	2.40	0.01	0.10	6.80	0.06	0.17	21.00	0.26	0.20	20.67
4DV28N-561	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
4WT3LE-561	2.34	-0.05	-0.52	6.65	-0.09	-0.29	20.50	-0.24	-0.19	20.60
4XNHXC-561	2.50	0.11	1.12	7.00	0.26	0.79	20.90	0.16	0.12	20.92
69FQUJ-560	2.40	0.01	0.10	7.10	0.36	1.09	19.80	-0.94	-0.72	19.76
6P7UC9-560	2.00	-0.39	-4.01 X	6.00	-0.74	-2.27	19.50	-1.24	-0.95	19.47
6Q4FC8-560	2.25	-0.14	-1.44	7.00	0.26	0.79	18.75	-1.99	-1.52	18.75
6UZ27V-561	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
77UTBZ-560	2.30	-0.09	-0.93	7.10	0.36	1.09	19.00	-1.74	-1.33	18.90
79DJ3B-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.30	0.56	0.43	21.32
7HNLQX-560	2.47	0.08	0.81	7.03	0.29	0.88	20.56	-0.18	-0.14	20.57
7L2LK4-560	2.40	0.01	0.10	7.10	0.36	1.09	19.80	-0.94	-0.72	19.76
7MEGKV-560	2.44	0.05	0.51	6.92	0.18	0.54	20.65	-0.09	-0.07	20.65
7YTKKY-561	2.50	0.11	1.12	6.70	-0.04	-0.13	22.07	1.33	1.02	21.91
87NAVV-561	2.40	0.01	0.10	7.10	0.36	1.09	19.75	-0.99	-0.76	19.76
88YW2U-561	2.40	0.01	0.10	6.90	0.16	0.48	20.40	-0.34	-0.26	20.35
8HVH98-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.32	0.58	0.44	21.32
8ZKQPW-561	2.60	0.21	2.15	7.00	0.26	0.79	21.80	1.06	0.81	21.80
936ZC3-561	2.50	0.11	1.12	6.50	-0.24	-0.74	22.00	1.26	0.96	22.62
9A4RCJ-560	2.30	-0.09	-0.93	7.08	0.34	1.03	19.00	-1.74	-1.33	18.96
9FMM4U-561	2.50	0.11	1.12	6.50	-0.24	-0.74	22.60	1.86	1.42	22.62
9UN2MC-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.32	0.58	0.44	21.32

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
9XM63J-560	2.40	0.01	0.10	6.70	-0.04	-0.13	21.00	0.26	0.20	20.99
9XRYVK-560	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
A3GTAW-560	2.40	0.01	0.10	6.50	-0.24	-0.74	21.70	0.96	0.73	21.67
A4CE23-560	2.50	0.11	1.12	7.00	0.26	0.79	20.92	0.18	0.14	20.92
ABRFFW-560	2.35	-0.04	-0.42	7.20	0.46	1.40	19.00	-1.74	-1.33	19.05
AKYHE3-560	0.24	-2.15	-22.07 X	0.58	-6.16	-18.86 X	24.40	3.66	2.80	24.44
AQ27YB-561	2.60	0.21	2.15	7.00	0.26	0.79	21.80	1.06	0.81	21.80
AQPUD7-560	2.20	-0.19	-1.96	6.20	-0.54	-1.66	21.00	0.26	0.20	20.78
AVEJ7P-560	2.40	0.01	0.10	6.50	-0.24	-0.74	21.67	0.93	0.71	21.67
AWPNGT-561	2.30	-0.09	-0.93	6.40	-0.34	-1.05	21.00	0.26	0.20	21.06
AWPQ6C-561	2.40	0.01	0.10	7.00	0.26	0.79	20.05	-0.69	-0.53	20.05
AYEXP9-561	2.50	0.11	1.12	6.80	0.06	0.17	22.00	1.26	0.96	21.57
B7VQHJ-560	2.50	0.11	1.12	6.50	-0.24	-0.74	23.00	2.26	1.73	22.62
BAE9RU-560	2.50	0.11	1.12	7.00	0.26	0.79	21.00	0.26	0.20	20.92
BF2U49-560	2.35	-0.04	-0.42	7.15	0.41	1.25	19.20	-1.54	-1.18	19.19
BFJ6CU-560	2.40	0.01	0.10	6.50	-0.24	-0.74	21.70	0.96	0.73	21.67
BFJJRV-561	2.50	0.11	1.12	6.70	-0.04	-0.13	22.00	1.26	0.96	21.91
BFWD6A-561	2.40	0.01	0.10	6.70	-0.04	-0.13	21.00	0.26	0.20	20.99
CD9PF9-561	2.30	-0.09	-0.93	6.50	-0.24	-0.74	20.00	-0.74	-0.57	20.72
CFDPLU-561	2.00	-0.39	-4.01 X	6.00	-0.74	-2.27	30.00	9.26	7.09 X	19.47
CMCE3Y-560	2.40	0.01	0.10	6.70	-0.04	-0.13	21.00	0.26	0.20	20.99
CWHQ8L-561	2.50	0.11	1.12	6.70	-0.04	-0.13	21.90	1.16	0.89	21.91
CY9G7T-561	2.40	0.01	0.10	7.16	0.42	1.28	19.47	-1.27	-0.97	19.58

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
CYCBHZ-561	2.20	-0.19	-1.96	6.00	-0.74	-2.27	22.00	1.26	0.96	21.51
D3KP6C-560	2.40	0.01	0.10	6.40	-0.34	-1.05	22.00	1.26	0.96	22.02
DPJY9-561	2.20	-0.19	-1.96	6.79	0.05	0.14	19.00	-1.74	-1.33	18.91
DQVQGU-560	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
DZVHMZ-561	2.25	-0.14	-1.44	6.50	-0.24	-0.74	20.20	-0.54	-0.41	20.25
E4VJAV-560	2.10	-0.29	-2.98	6.60	-0.14	-0.44	18.60	-2.14	-1.64	18.55
EANEGV-560	23.45	21.06	216.08 X	65.20	58.46	178.93 X	21.10	0.36	0.27	21.08
EFQNNM-560	2.40	0.01	0.10	6.67	-0.07	-0.22	21.00	0.26	0.20	21.09
ENJXWX-561	2.40	0.01	0.10	6.90	0.16	0.48	20.40	-0.34	-0.26	20.35
EPVHYF-560	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
EPVKNK-561	2.50	0.11	1.12	7.00	0.26	0.79	20.90	0.16	0.12	20.92
EQQ2ZG-560	2.31	-0.08	-0.83	6.79	0.05	0.14	19.90	-0.84	-0.64	19.89
FAHJBU-561	2.40	0.01	0.10	7.00	0.26	0.79	20.50	-0.24	-0.19	20.05
FAUVWY-561	2.24	-0.15	-1.55	7.00	0.26	0.79	18.66	-2.08	-1.59	18.66
FDECZH-560	2.30	-0.09	-0.93	7.00	0.26	0.79	19.20	-1.54	-1.18	19.18
FN2NNC-560	2.40	0.01	0.10	5.80	-0.94	-2.89	24.00	3.26	2.49	24.44
G62LBK-560	2.38	-0.01	-0.11	6.56	-0.18	-0.56	21.30	0.56	0.43	21.27
G6KKCP-560	2.40	0.01	0.10	6.20	-0.54	-1.66	22.70	1.96	1.50	22.77
G6WTAB-561	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
G8L3GQ-560	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
G8L67V-561	2.40	0.01	0.10	6.00	-0.74	-2.27	23.00	2.26	1.73	23.58
GHRM39-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.00	0.26	0.20	21.32
GW3Q4T-561	2.42	0.03	0.30	7.10	0.36	1.09	19.93	-0.81	-0.62	19.93

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
H9D9H7-561	2.40	0.01	0.10	6.80	0.06	0.17	21.24	0.50	0.38	20.67
HL2KPL-561	2.00	-0.39	-4.01 X	7.00	0.26	0.79	16.60	-4.14	-3.17 X	16.60
HT38QE-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.32	0.58	0.44	21.32
HVRGZF-561	2.50	0.11	1.12	7.00	0.26	0.79	21.00	0.26	0.20	20.92
HXEPX3-561	2.10	-0.29	-2.98	5.50	-1.24	-3.81 X	22.00	1.26	0.96	22.45
HZ4WGD-561	2.30	-0.09	-0.93	6.50	-0.24	-0.74	21.00	0.26	0.20	20.72
J9UGUV-560	2.50	0.11	1.12	6.50	-0.24	-0.74	22.60	1.86	1.42	22.62
JDLLPL-561	2.16	-0.23	-2.37	6.08	-0.66	-2.03	20.80	0.06	0.04	20.81
JJP8H4-561	2.50	0.11	1.12	6.70	-0.04	-0.13	21.90	1.16	0.89	21.91
JL3GVA-560	25.00	22.61	231.99 X	65.00	58.26	178.31 X	23.00	2.26	1.73	22.62
JPE8TV-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.00	0.26	0.20	21.32
JRL68R-560	2.40	0.01	0.10	7.20	0.46	1.40	20.00	-0.74	-0.57	19.47
JTFNBD-561	2.30	-0.09	-0.93	6.20	-0.54	-1.66	21.46	0.72	0.55	21.78
JV6Y9X-560	2.10	-0.29	-2.98	6.90	0.16	0.48	18.00	-2.74	-2.10	17.72
KGL2RG-560	2.35	-0.04	-0.42	6.82	0.08	0.24	20.20	-0.54	-0.41	20.16
KJQMNU-560	2.50	0.11	1.12	7.00	0.26	0.79	20.90	0.16	0.12	20.92
KMUFKD-560	2.29	-0.10	-1.03	7.06	0.32	0.97	18.90	-1.84	-1.41	18.93
L224ZL-561	2.50	0.11	1.12	7.10	0.36	1.09	20.60	-0.14	-0.11	20.62
L68KJB-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.00	0.26	0.20	21.32
L9RA4N-560	2.40	0.01	0.10	7.10	0.36	1.09	20.00	-0.74	-0.57	19.76
LJ3N2F-561	2.43	0.04	0.40	7.09	0.35	1.06	20.00	-0.74	-0.57	20.04
LM6LC9-560	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
LP9KLF-561	2.32	-0.07	-0.73	7.10	0.36	1.09	19.00	-1.74	-1.33	19.07

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
LQ37E8-560	2.50	0.11	1.12	7.00	0.26	0.79	20.90	0.16	0.12	20.92
M9XB3R-560	2.40	0.01	0.10	6.40	-0.34	-1.05	22.00	1.26	0.96	22.02
MBPGEB-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.30	0.56	0.43	21.32
MF7FEK-561	2.40	0.01	0.10	6.80	0.06	0.17	20.70	-0.04	-0.03	20.67
MTTJMG-561	2.40	0.01	0.10	7.00	0.26	0.79	20.05	-0.69	-0.53	20.05
MUE6XY-561	2.42	0.03	0.30	14.33	7.59	23.22 X	20.00	-0.74	-0.57	9.72 X
MW7PWW-560	2.20	-0.19	-1.96	7.00	0.26	0.79	18.00	-2.74	-2.10	18.32
N43HCN-561	2.30	-0.09	-0.93	6.50	-0.24	-0.74	21.00	0.26	0.20	20.72
N8NQRW-560	2.10	-0.29	-2.98	6.00	-0.74	-2.27	20.00	-0.74	-0.57	20.49
NB3968-560	2.40	0.01	0.10	6.70	-0.04	-0.13	21.00	0.26	0.20	20.99
NDAP2H-561	2.40	0.01	0.10	5.80	-0.94	-2.89	24.00	3.26	2.49	24.44
NDNJTY-560	2.40	0.01	0.10	7.00	0.26	0.79	20.10	-0.64	-0.49	20.05
NDREMJ-561	2.00	-0.39	-4.01 X	7.00	0.26	0.79	17.00	-3.74	-2.86	16.60
NW4Q7F-560	2.00	-0.39	-4.01 X	6.00	-0.74	-2.27	30.00	9.26	7.09 X	19.47
NXW8DN-560	2.50	0.11	1.12	6.00	-0.74	-2.27	25.00	4.26	3.26 X	24.62
P39FFD-560	2.46	0.07	0.71	6.67	-0.07	-0.22	21.60	0.86	0.66	21.64
P7LUNY-561	2.50	0.11	1.12	7.20	0.46	1.40	20.00	-0.74	-0.57	20.32
PBJJ7-560	2.40	0.01	0.10	6.86	0.12	0.36	20.48	-0.26	-0.20	20.48
PF9TGP-560	2.50	0.11	1.12	6.80	0.06	0.17	21.50	0.76	0.58	21.57
PHXZZ2-561	2.39	0.00	-0.01	6.88	0.14	0.42	20.30	-0.44	-0.34	20.33
PLEWGH-561	2.50	0.11	1.12	6.70	-0.04	-0.13	22.00	1.26	0.96	21.91
PMAFK4-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.30	0.56	0.43	21.32
PXCXTL-560	2.40	0.01	0.10	6.80	0.06	0.17	20.70	-0.04	-0.03	20.67

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
PYN3KC-561	2.40	0.01	0.10	7.30	0.56	1.70	19.00	-1.74	-1.33	19.19
Q27GNC-560	2.00	-0.39	-4.01 X	7.00	0.26	0.79	17.00	-3.74	-2.86	16.60
Q4WN7N-560	2.50	0.11	1.12	6.50	-0.24	-0.74	22.60	1.86	1.42	22.62
Q9TUHP-560	2.54	0.15	1.53	6.50	-0.24	-0.74	23.00	2.26	1.73	23.00
QHXP8-561	2.40	0.01	0.10	6.70	-0.04	-0.13	21.00	0.26	0.20	20.99
QKGCDX-560	2.40	0.01	0.10	7.10	0.36	1.09	20.00	-0.74	-0.57	19.76
QLRFPZ-561	2.20	-0.19	-1.96	7.00	0.26	0.79	18.00	-2.74	-2.10	18.32
QMMYTM-561	2.50	0.11	1.12	6.50	-0.24	-0.74	22.60	1.86	1.42	22.62
QRKF83-560	2.30	-0.09	-0.93	6.40	-0.34	-1.05	21.10	0.36	0.27	21.06
QX4DK9-561	2.40	0.01	0.10	6.20	-0.54	-1.66	23.00	2.26	1.73	22.77
RP9ZAV-560	2.40	0.01	0.10	6.80	0.06	0.17	20.70	-0.04	-0.03	20.67
RRFH9Q-561	2.20	-0.19	-1.96	6.50	-0.24	-0.74	20.00	-0.74	-0.57	19.78
RVYDBH-560	2.40	0.01	0.10	7.00	0.26	0.79	20.00	-0.74	-0.57	20.05
T2XRJH-560	2.20	-0.19	-1.96	6.60	-0.14	-0.44	19.50	-1.24	-0.95	19.47
TKFTF7-560	2.30	-0.09	-0.93	6.10	-0.64	-1.97	22.00	1.26	0.96	22.15
TNC43C-561	2.38	-0.01	-0.11	6.66	-0.08	-0.25	20.93	0.19	0.14	20.94
TP7PV4-560	2.33	-0.06	-0.62	6.60	-0.14	-0.44	21.00	0.26	0.20	20.67
TTQMJU-560	2.50	0.11	1.12	6.40	-0.34	-1.05	23.00	2.26	1.73	22.99
TW9A68-561	2.40	0.01	0.10	6.70	-0.04	-0.13	21.00	0.26	0.20	20.99
TYDTBF-561	2.50	0.11	1.12	7.00	0.26	0.79	21.00	0.26	0.20	20.92
U4GVGM-560	2.20	-0.19	-1.96	6.50	-0.24	-0.74	19.80	-0.94	-0.72	19.78
U9FKA9-561	2.45	0.06	0.61	6.92	0.18	0.54	21.00	0.26	0.20	20.74
UA9NN2-560	2.42	0.03	0.30	6.98	0.24	0.72	20.30	-0.44	-0.34	20.29

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
UBQDB3-560	2.44	0.05	0.51	6.68	-0.06	-0.19	21.39	0.65	0.50	21.42
UCFTEH-560	2.40	0.01	0.10	7.10	0.36	1.09	19.80	-0.94	-0.72	19.76
UFXF44-560	2.60	0.21	2.15	6.80	0.06	0.17	22.50	1.76	1.35	22.48
UW8RQ9-561	2.50	0.11	1.12	7.00	0.26	0.79	20.10	-0.64	-0.49	20.92
V8KQ3B-560	2.36	-0.03	-0.32	6.38	-0.36	-1.11	22.00	1.26	0.96	21.71
VA7RL4-560	2.00	-0.39	-4.01 X	6.00	-0.74	-2.27	19.00	-1.74	-1.33	19.47
VG3XNX-560	2.40	0.01	0.10	6.80	0.06	0.17	20.70	-0.04	-0.03	20.67
VGM7MN-561	2.40	0.01	0.10	6.70	-0.04	-0.13	20.90	0.16	0.12	20.99
VK8GV7-561	2.60	0.21	2.15	6.50	-0.24	-0.74	23.60	2.86	2.19	23.58
VWZJ2Z-561	2.40	0.01	0.10	6.32	-0.42	-1.30	22.30	1.56	1.19	22.32
VY4CVY-561	23.80	21.41	219.67 X	70.40	63.66	194.84 X	19.80	-0.94	-0.72	19.76
W6AREZ-560	2.40	0.01	0.10	7.00	0.26	0.79	20.05	-0.69	-0.53	20.05
W8FNTW-561	2.00	-0.39	-4.01 X	7.00	0.26	0.79	17.00	-3.74	-2.86	16.60
WEG3EX-561	2.40	0.01	0.10	6.90	0.16	0.48	20.40	-0.34	-0.26	20.35
WNN467-561	2.40	0.01	0.10	7.10	0.36	1.09	20.00	-0.74	-0.57	19.76
WTVBBV-560	2.40	0.01	0.10	6.60	-0.14	-0.44	21.00	0.26	0.20	21.32
WWFLJE-561	11.00	8.61	88.34 X	27.00	20.26	62.00 X	24.00	3.26	2.49	24.04
X8WP4H-560	2.50	0.11	1.12	6.50	-0.24	-0.74	23.00	2.26	1.73	22.62
XBA87E-561	2.46	0.07	0.71	7.21	0.47	1.43	20.00	-0.74	-0.57	19.95
XEUYEW-561	2.40	0.01	0.10	6.20	-0.54	-1.66	22.70	1.96	1.50	22.77
XQNBUV-560	2.20	-0.19	-1.96	6.40	-0.34	-1.05	35.10	14.36	10.99 X	20.11
XTDEM3-561	2.30	-0.09	-0.93	6.50	-0.24	-0.74	21.00	0.26	0.20	20.72
XTPF6U-560	2.40	0.01	0.10	6.90	0.16	0.48	20.40	-0.34	-0.26	20.35

TABLE 1
Stain A, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
XXJB4G-560	2.40	0.01	0.10	6.50	-0.24	-0.74	21.70	0.96	0.73	21.67
XXNURK-561	2.35	-0.04	-0.42	7.00	0.26	0.79	20.00	-0.74	-0.57	19.62
XZRV4V-560	2.43	0.04	0.40	6.50	-0.24	-0.74	22.00	1.26	0.96	21.95
Y2ZXF2-561	2.40	0.01	0.10	6.80	0.06	0.17	21.00	0.26	0.20	20.67
YRYZMC-560	2.50	0.11	1.12	7.00	0.26	0.79	20.00	-0.74	-0.57	20.92
YT8AFA-560	2.20	-0.19	-1.96	7.00	0.26	0.79	18.30	-2.44	-1.87	18.32
Z3MQEU-560	2.35	-0.04	-0.42	6.95	0.21	0.63	19.70	-1.04	-0.80	19.76
Z9E3PD-561	2.40	0.01	0.10	6.70	-0.04	-0.13	21.00	0.26	0.20	20.99
ZD88HG-560	2.40	0.01	0.10	7.20	0.46	1.40	19.47	-1.27	-0.97	19.47
ZFDFFK-560	2.30	-0.09	-0.93	7.00	0.26	0.79	19.00	-1.74	-1.33	19.18
ZLM9F6-560	2.40	0.01	0.10	6.00	-0.74	-2.27	23.60	2.86	2.19	23.58
ZQDHNH-560	2.30	-0.09	-0.93	6.20	-0.54	-1.66	22.00	1.26	0.96	21.78
ZQVRW4-561	2.40	0.01	0.10	6.50	-0.24	-0.74	21.00	0.26	0.20	21.67
Grand Mean	2.39			6.74			20.74			20.72
Standard Deviation	0.10			0.33			1.31			1.38
Participants Included in calculations	182			188			192			195
Participants excluded from calculations (indicated by X)	15			9			5			2

Stain A Preparation Angle: 22.1°

TABLE 1
Stain B

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
23QB3W-561	2.50	0.26	2.49	3.75	0.38	2.44	41.00	-0.66	-0.35	41.81
24EWG7-560	2.50	0.26	2.49	3.50	0.13	0.83	46.00	4.34	2.29	45.58
2FT2JV-561	3.00	0.76	7.22 X	4.40	1.03	6.63 X	43.00	1.34	0.71	42.99
2G3HRL-560	2.20	-0.04	-0.34	3.20	-0.17	-1.11	43.00	1.34	0.71	43.43
2HHBTW-561	2.25	0.01	0.13	3.25	-0.12	-0.79	43.63	1.97	1.04	43.81
2LY3XQ-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.32	-1.34	-0.70	40.32
2NN9F3-560	2.40	0.16	1.55	3.20	-0.17	-1.11	48.60	6.94	3.66 X	48.59 X
2PJRH4-561	2.30	0.06	0.60	3.10	-0.27	-1.76	47.90	6.24	3.29 X	47.90 X
2ZGRU9-561	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
34FXX-561	2.25	0.01	0.13	3.50	0.13	0.83	40.00	-1.66	-0.87	40.01
368RJM-560	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
38F84T-560	2.10	-0.14	-1.29	3.40	0.03	0.18	38.10	-3.56	-1.87	38.14
3A7DM6-561	2.31	0.07	0.70	3.49	0.12	0.76	41.40	-0.26	-0.13	41.44
3AJZ6J-561	2.20	-0.04	-0.34	3.20	-0.17	-1.11	43.40	1.74	0.92	43.43
3AZTNM-560	2.30	0.06	0.60	3.40	0.03	0.18	43.00	1.34	0.71	42.57
3C84H6-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.80	0.14	0.08	41.81
3EWCPL-560	2.20	-0.04	-0.34	3.50	0.13	0.83	39.00	-2.66	-1.40	38.94
3GL6W3-560	2.20	-0.04	-0.34	3.50	0.13	0.83	38.94	-2.72	-1.43	38.94
3GXFG9-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
3KF9E9-560	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
3LFDPC-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.32	-1.34	-0.70	40.32
466R97-560	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
4AHWYU-561	2.24	0.00	0.04	4.46	1.09	7.02 X	40.34	-1.32	-0.69	30.15 X

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
4AZ9DT-560	3.50	1.26	11.94 X	2.30	-1.07	-6.92 X	41.00	-0.66	-0.35	X
4BAQJW-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
4DV28N-561	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
4WT3LE-561	2.26	0.02	0.23	3.30	-0.07	-0.46	43.00	1.34	0.71	43.22
4XNHXC-561	2.10	-0.14	-1.29	3.40	0.03	0.18	38.10	-3.56	-1.87	38.14
69FQUJ-560	2.30	0.06	0.60	3.40	0.03	0.18	42.80	1.14	0.60	42.57
6P7UC9-560	2.00	-0.24	-2.23	3.00	-0.37	-2.40	41.80	0.14	0.08	41.81
6Q4FC8-560	2.00	-0.24	-2.23	3.00	-0.37	-2.40	41.81	0.15	0.08	41.81
6UZ27V-561	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
77UTBZ-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
79DJ3B-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
7HNLQX-560	2.33	0.09	0.89	3.55	0.18	1.15	41.02	-0.64	-0.34	41.02
7L2LK4-560	2.30	0.06	0.60	3.60	0.23	1.47	39.70	-1.96	-1.03	39.71
7MEGKV-560	2.27	0.03	0.32	3.36	-0.01	-0.08	42.50	0.84	0.44	42.50
7YTKKY-561	2.30	0.06	0.60	3.50	0.13	0.83	41.07	-0.59	-0.31	41.08
87NAVV-561	2.25	0.01	0.13	3.40	0.03	0.18	41.43	-0.23	-0.12	41.43
88YW2U-561	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
8HVH98-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.32	-1.34	-0.70	40.32
8ZKQPW-561	2.40	0.16	1.55	3.90	0.53	3.41 X	38.00	-3.66	-1.93	37.98
936ZC3-561	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
9A4RCJ-560	2.24	0.00	0.04	3.42	0.05	0.31	40.90	-0.76	-0.40	40.92
9FMM4U-561	2.30	0.06	0.60	3.30	-0.07	-0.46	44.20	2.54	1.34	44.18
9UN2MC-560	2.38	0.14	1.36	3.30	-0.07	-0.46	46.15	4.49	2.37	46.15

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
9XM63J-560	2.30	0.06	0.60	3.30	-0.07	-0.46	44.20	2.54	1.34	44.18
9XRYVK-560	2.30	0.06	0.60	3.40	0.03	0.18	42.50	0.84	0.44	42.57
A3GTAW-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.80	0.14	0.08	41.81
A4CE23-560	2.50	0.26	2.49	3.50	0.13	0.83	45.60	3.94	2.08	45.58
ABRFFW-560	2.25	0.01	0.13	3.55	0.18	1.15	39.30	-2.36	-1.24	39.33
AKYHE3-560	0.20	-2.04	-19.24 X	0.30	-3.07	-19.82 X	41.80	0.14	0.08	41.81
AQ27YB-561	2.40	0.16	1.55	3.40	0.03	0.18	44.90	3.24	1.71	44.90
AQPUD7-560	2.20	-0.04	-0.34	3.10	-0.27	-1.76	45.00	3.34	1.76	45.21
AVEJ7P-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.81	0.15	0.08	41.81
AWPNGT-561	2.30	0.06	0.60	3.60	0.23	1.47	40.00	-1.66	-0.87	39.71
AWPQ6C-561	2.30	0.06	0.60	3.40	0.03	0.18	42.56	0.90	0.48	42.57
AYEXP9-561	2.40	0.16	1.55	3.50	0.13	0.83	43.00	1.34	0.71	43.29
B7VQHJ-560	2.40	0.16	1.55	3.40	0.03	0.18	45.00	3.34	1.76	44.90
BAE9RU-560	2.25	0.01	0.13	3.75	0.38	2.44	37.00	-4.66	-2.45	36.87
BF2U49-560	2.25	0.01	0.13	3.45	0.08	0.50	40.70	-0.96	-0.50	40.71
BFJ6CU-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.80	0.14	0.08	41.81
BFJJRV-561	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
BFWD6A-561	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
CD9PF9-561	2.00	-0.24	-2.23	3.30	-0.07	-0.46	38.00	-3.66	-1.93	37.31
CFDPLU-561	2.00	-0.24	-2.23	4.00	0.63	4.05 X	50.00	8.34	4.40 X	30.00 X
CMCE3Y-560	2.30	0.06	0.60	3.30	-0.07	-0.46	44.20	2.54	1.34	44.18
CWHQ8L-561	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
CY9G7T-561	2.30	0.06	0.60	3.50	0.13	0.83	40.98	-0.68	-0.36	41.08

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
CYCBHZ-561	2.00	-0.24	-2.23	2.80	-0.57	-3.69 X	46.00	4.34	2.29	45.58
D3KP6C-560	2.20	-0.04	-0.34	3.00	-0.37	-2.40	47.00	5.34	2.81	47.17
DPJVY9-561	2.04	-0.20	-1.85	3.18	-0.19	-1.24	40.00	-1.66	-0.87	39.90
DQVQGU-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
DZVHMZ-561	2.00	-0.24	-2.23	3.00	-0.37	-2.40	41.80	0.14	0.08	41.81
E4VJAV-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.80	0.14	0.08	41.81
EANEGV-560	29.43	27.19	256.93 X	42.54	39.17	252.65 X	43.80	2.14	1.13	43.77
EFQNNM-560	2.23	-0.01	-0.06	3.30	-0.07	-0.46	42.00	0.34	0.18	42.51
ENJXWX-561	2.30	0.06	0.60	3.50	0.13	0.83	41.10	-0.56	-0.29	41.08
EPVHYF-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
EPVKNK-561	2.40	0.16	1.55	3.50	0.13	0.83	43.30	1.64	0.87	43.29
EQQ2ZG-560	2.19	-0.05	-0.44	3.35	-0.02	-0.14	40.80	-0.86	-0.45	40.82
FAHJBU-561	2.40	0.16	1.55	3.60	0.23	1.47	41.80	0.14	0.08	41.81
FAUVWY-561	2.17	-0.07	-0.63	3.50	0.13	0.83	38.32	-3.34	-1.76	38.32
FDECZH-560	2.30	0.06	0.60	3.50	0.13	0.83	41.10	-0.56	-0.29	41.08
FN2NNC-560	2.20	-0.04	-0.34	3.20	-0.17	-1.11	43.00	1.34	0.71	43.43
G62LBK-560	2.22	-0.02	-0.15	3.37	0.00	-0.01	41.20	-0.46	-0.24	41.20
G6KKCP-560	2.25	0.01	0.13	3.40	0.03	0.18	41.40	-0.26	-0.13	41.43
G6WTAB-561	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
G8L3GQ-560	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
G8L67V-561	2.20	-0.04	-0.34	3.20	-0.17	-1.11	43.00	1.34	0.71	43.43
GHRM39-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
GW3Q4T-561	2.31	0.07	0.70	3.55	0.18	1.15	40.59	-1.07	-0.56	40.59

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
H9D9H7-561	2.30	0.06	0.60	3.40	0.03	0.18	40.93	-0.73	-0.38	42.57
HL2KPL-561	2.00	-0.24	-2.23	3.00	-0.37	-2.40	41.80	0.14	0.08	41.81
HT38QE-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.32	-1.34	-0.70	40.32
HVRGZF-561	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
HXEPX3-561	2.06	-0.18	-1.66	2.87	-0.50	-3.24 X	45.00	3.34	1.76	45.87
HZ4WGD-561	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.20	-0.46	-0.24	41.81
J9UGUV-560	2.25	0.01	0.13	3.25	-0.12	-0.79	43.80	2.14	1.13	43.81
JDLLPL-561	2.12	-0.12	-1.10	3.16	-0.21	-1.37	42.12	0.46	0.24	42.14
JJP8H4-561	2.30	0.06	0.60	3.30	-0.07	-0.46	44.10	2.44	1.29	44.18
JL3GVA-560	23.00	20.76	196.18 X	34.00	30.63	197.56 X	43.00	1.34	0.71	42.57
JPE8TV-560	2.30	0.06	0.60	3.30	-0.07	-0.46	44.00	2.34	1.23	44.18
JRL68R-560	2.20	-0.04	-0.34	3.60	0.23	1.47	40.00	-1.66	-0.87	37.67
JTFNBD-561	2.30	0.06	0.60	2.70	-0.67	-4.34 X	58.24	16.58	8.74 X	58.41 X
JV6Y9X-560	2.30	0.06	0.60	3.30	-0.07	-0.46	44.00	2.34	1.23	44.18
KGL2RG-560	2.23	-0.01	-0.06	3.36	-0.01	-0.08	41.60	-0.06	-0.03	41.58
KJQMNU-560	2.20	-0.04	-0.34	3.50	0.13	0.83	38.90	-2.76	-1.45	38.94
KMUFKD-560	2.25	0.01	0.13	3.48	0.11	0.70	40.30	-1.36	-0.71	40.28
L224ZL-561	2.50	0.26	2.49	3.80	0.43	2.76	41.10	-0.56	-0.29	41.14
L68KJB-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	42.00	0.34	0.18	41.81
L9RA4N-560	2.20	-0.04	-0.34	3.60	0.23	1.47	38.00	-3.66	-1.93	37.67
LJ3N2F-561	2.29	0.05	0.51	3.54	0.17	1.08	40.00	-1.66	-0.87	40.31
LM6LC9-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
LP9KLF-561	2.23	-0.01	-0.06	3.35	-0.02	-0.14	42.00	0.34	0.18	41.73

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
LQ37E8-560	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
M9XB3R-560	2.30	0.06	0.60	3.30	-0.07	-0.46	44.20	2.54	1.34	44.18
MBPGEB-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
MF7FEK-561	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.80	0.14	0.08	41.81
MTTJMG-561	2.20	-0.04	-0.34	3.50	0.13	0.83	38.94	-2.72	-1.43	38.94
MUE6XY-561	2.28	0.04	0.41	3.46	0.09	0.57	41.00	-0.66	-0.35	41.22
MW7PWW-560	2.10	-0.14	-1.29	3.40	0.03	0.18	38.00	-3.66	-1.93	38.14
N43HCN-561	2.20	-0.04	-0.34	3.20	-0.17	-1.11	43.00	1.34	0.71	43.43
N8NQRW-560	2.00	-0.24	-2.23	2.80	-0.57	-3.69 X	45.00	3.34	1.76	45.58
NB3968-560	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
NDAP2H-561	2.20	-0.04	-0.34	3.30	-0.07	-0.46	42.00	0.34	0.18	41.81
NDNJTY-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
NDREMJ-561	2.00	-0.24	-2.23	3.50	0.13	0.83	45.00	3.34	1.76	34.85 X
NW4Q7F-560	2.00	-0.24	-2.23	4.00	0.63	4.05 X	50.00	8.34	4.40 X	30.00 X
NXW8DN-560	2.00	-0.24	-2.23	3.00	-0.37	-2.40	42.00	0.34	0.18	41.81
P39FFD-560	2.30	0.06	0.60	3.23	-0.14	-0.92	45.40	3.74	1.97	45.40
P7LUNY-561	2.40	0.16	1.55	3.70	0.33	2.12	40.00	-1.66	-0.87	40.44
PBJJ7-560	2.20	-0.04	-0.34	3.52	0.15	0.95	38.68	-2.98	-1.57	38.68
PF9TGP-560	2.30	0.06	0.60	3.30	-0.07	-0.46	44.10	2.44	1.29	44.18
PHXZZ2-561	2.26	0.02	0.23	3.44	0.07	0.44	41.10	-0.56	-0.29	41.07
PLEWGH-561	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
PMAFK4-560	2.30	0.06	0.60	3.20	-0.17	-1.11	46.00	4.34	2.29	45.95
PXCXTL-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.80	0.14	0.08	41.81

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
PYN3KC-561	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
Q27GNC-560	2.00	-0.24	-2.23	3.00	-0.37	-2.40	42.00	0.34	0.18	41.81
Q4WN7N-560	2.30	0.06	0.60	3.00	-0.37	-2.40	50.10	8.44	4.45 X	50.06 X
Q9TUHP-560	2.29	0.05	0.51	3.32	-0.05	-0.34	43.60	1.94	1.02	43.61
QHXP8-561	2.30	0.06	0.60	3.20	-0.17	-1.11	41.10	-0.56	-0.29	45.95
QKGCDX-560	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
QLRFPZ-561	2.30	0.06	0.60	3.40	0.03	0.18	43.00	1.34	0.71	42.57
QMMYTM-561	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
QRKF83-560	2.20	-0.04	-0.34	3.20	-0.17	-1.11	43.40	1.74	0.92	43.43
QX4DK9-561	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
RP9ZAV-560	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
RRFH9Q-561	2.10	-0.14	-1.29	3.20	-0.17	-1.11	41.00	-0.66	-0.35	41.01
RVYDBH-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
T2XRJH-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	42.00	0.34	0.18	41.81
TKFTF7-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
TNC43C-561	2.22	-0.02	-0.15	3.35	-0.02	-0.14	41.50	-0.16	-0.08	41.51
TP7PV4-560	2.20	-0.04	-0.34	3.20	-0.17	-1.11	44.00	2.34	1.23	43.43
TTQMJU-560	2.30	0.06	0.60	3.60	0.23	1.47	40.00	-1.66	-0.87	39.71
TW9A68-561	2.28	0.04	0.41	3.47	0.10	0.63	41.10	-0.56	-0.29	41.08
TYDTBF-561	2.20	-0.04	-0.34	3.50	0.13	0.83	40.00	-1.66	-0.87	38.94
U4GVGM-560	2.10	-0.14	-1.29	3.10	-0.27	-1.76	42.60	0.94	0.50	42.64
U9FKA9-561	2.28	0.04	0.41	3.54	0.17	1.08	40.00	-1.66	-0.87	40.10
UA9NN2-560	2.24	0.00	0.04	3.48	0.11	0.70	40.02	-1.64	-0.86	40.07

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
UBQDB3-560	2.38	0.14	1.36	3.48	0.11	0.70	43.10	1.44	0.76	43.15
UCFTEH-560	2.20	-0.04	-0.34	3.50	0.13	0.83	38.90	-2.76	-1.45	38.94
UFXF44-560	2.50	0.26	2.49	3.65	0.28	1.79	43.20	1.54	0.81	43.23
UW8RQ9-561	2.30	0.06	0.60	3.30	-0.07	-0.46	42.10	0.44	0.23	44.18
V8KQ3B-560	2.03	-0.21	-1.95	3.17	-0.20	-1.30	40.00	-1.66	-0.87	39.82
VA7RL4-560	2.00	-0.24	-2.23	3.00	-0.37	-2.40	41.00	-0.66	-0.35	41.81
VG3XNX-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
VGM7MN-561	2.20	-0.04	-0.34	3.30	-0.07	-0.46	41.80	0.14	0.08	41.81
VK8GV7-561	2.50	0.26	2.49	3.20	-0.17	-1.11	51.30	9.64	5.08 X	51.38 X
VWZJ2Z-561	2.18	-0.06	-0.53	3.27	-0.10	-0.66	41.80	0.14	0.08	41.81
VY4CVY-561	22.90	20.66	195.23 X	35.50	32.13	207.24 X	39.80	-1.86	-0.98	40.17
W6AREZ-560	2.25	0.01	0.13	3.45	0.08	0.50	40.71	-0.95	-0.50	40.71
W8FNTW-561	2.00	-0.24	-2.23	3.00	-0.37	-2.40	42.00	0.34	0.18	41.81
WEG3EX-561	2.30	0.06	0.60	3.30	-0.07	-0.46	44.20	2.54	1.34	44.18
WNN467-561	2.30	0.06	0.60	3.40	0.03	0.18	42.50	0.84	0.44	42.57
WTVBBV-560	2.30	0.06	0.60	3.50	0.13	0.83	41.00	-0.66	-0.35	41.08
WWFLJE-561	11.00	8.76	82.80 X	16.50	13.13	84.68 X	42.00	0.34	0.18	41.81
X8WP4H-560	2.40	0.16	1.55	3.40	0.03	0.18	45.00	3.34	1.76	44.90
XBA87E-561	2.31	0.07	0.70	3.45	0.08	0.50	42.00	0.34	0.18	42.03
XEUYEW-561	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
XQNBUV-560	2.00	-0.24	-2.23	3.50	0.13	0.83	60.30	18.64	9.82 X	34.85 X
XTDEM3-561	2.20	-0.04	-0.34	3.30	-0.07	-0.46	42.00	0.34	0.18	41.81
XTPF6U-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32

TABLE 1
Stain B, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
XXJB4G-560	2.20	-0.04	-0.34	3.10	-0.27	-1.76	45.20	3.54	1.87	45.21
XXNURK-561	2.20	-0.04	-0.34	3.50	0.13	0.83	39.00	-2.66	-1.40	38.94
XZRV4V-560	2.25	0.01	0.13	3.38	0.01	0.05	41.70	0.04	0.02	41.73
Y2ZXF2-561	2.30	0.06	0.60	3.40	0.03	0.18	43.00	1.34	0.71	42.57
YRYZMC-560	2.25	0.01	0.13	3.50	0.13	0.83	40.00	-1.66	-0.87	40.01
YT8AFA-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.30	-1.36	-0.71	40.32
Z3MQEU-560	2.30	0.06	0.60	3.40	0.03	0.18	42.60	0.94	0.50	42.57
Z9E3PD-561	2.20	-0.04	-0.34	3.30	-0.07	-0.46	42.00	0.34	0.18	41.81
ZD88HG-560	2.10	-0.14	-1.29	3.40	0.03	0.18	38.10	-3.56	-1.87	38.14
ZFDFFK-560	2.20	-0.04	-0.34	3.40	0.03	0.18	40.00	-1.66	-0.87	40.32
ZLM9F6-560	2.20	-0.04	-0.34	3.20	-0.17	-1.11	43.40	1.74	0.92	43.43
ZQDHNH-560	2.20	-0.04	-0.34	3.30	-0.07	-0.46	42.00	0.34	0.18	41.81
ZQVRW4-561	2.20	-0.04	-0.34	3.00	-0.37	-2.40	47.00	5.34	2.81	47.17
Grand Mean	2.24			3.37			41.66			41.71
Standard Deviation	0.11			0.16			1.90			1.96
Participants Included in calculations		190			182			189		186
Participants excluded from calculations (indicated by X)		7			15			8		11

Stain B Preparation Angle: 44.1°

TABLE 1
Stain C

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
23QB3W-561	2.25	0.05	0.50	8.50	0.62	1.58	16.00	-0.24	-0.22	15.35
24EWG7-560	2.50	0.30	2.93	8.00	0.12	0.31	18.00	1.76	1.61	18.21
2FT2JV-561	2.90	0.70	6.82 X	10.60	2.72	6.91 X	16.00	-0.24	-0.22	15.88
2G3HRL-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
2HHBTW-561	2.00	-0.20	-1.92	8.00	0.12	0.31	14.48	-1.76	-1.61	14.48
2LY3XQ-560	2.00	-0.20	-1.92	8.20	0.32	0.82	14.12	-2.12	-1.94	14.12
2NN9F3-560	2.10	-0.10	-0.95	7.50	-0.38	-0.96	16.30	0.06	0.05	16.26
2PJRH4-561	2.10	-0.10	-0.95	8.00	0.12	0.31	15.20	-1.04	-0.95	15.22
2ZGRU9-561	2.20	0.00	0.02	7.80	-0.08	-0.20	16.40	0.16	0.14	16.38
34FXX-561	2.25	0.05	0.50	8.25	0.37	0.95	15.80	-0.44	-0.41	15.83
368RJM-560	2.20	0.00	0.02	8.30	0.42	1.07	15.00	-1.24	-1.14	15.37
38F84T-560	2.10	-0.10	-0.95	7.50	-0.38	-0.96	16.30	0.06	0.05	16.26
3A7DM6-561	2.25	0.05	0.50	8.11	0.23	0.59	16.10	-0.14	-0.13	16.11
3AJZ6J-561	2.20	0.00	0.02	7.80	-0.08	-0.20	16.40	0.16	0.14	16.38
3AZTNM-560	2.20	0.00	0.02	8.20	0.32	0.82	16.00	-0.24	-0.22	15.56
3C84H6-560	2.20	0.00	0.02	8.20	0.32	0.82	15.60	-0.64	-0.59	15.56
3EWCPL-560	2.30	0.10	0.99	8.60	0.72	1.83	16.00	-0.24	-0.22	15.51
3GL6W3-560	2.00	-0.20	-1.92	8.00	0.12	0.31	14.48	-1.76	-1.61	14.48
3GXFG9-560	2.00	-0.20	-1.92	7.60	-0.28	-0.71	15.30	-0.94	-0.86	15.26
3KF9E9-560	2.30	0.10	0.99	8.30	0.42	1.07	16.00	-0.24	-0.22	16.09
3LFDPC-560	2.00	-0.20	-1.92	8.40	0.52	1.33	13.77	-2.47	-2.26	13.77
466R97-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
4AHWYU-561	2.20	0.00	0.02	7.96	0.08	0.21	16.04	-0.20	-0.19	16.04

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
4AZ9DT-560	8.00	5.80	56.36 X	2.30	-5.58	-14.16 X	16.00	-0.24	-0.22	X
4BAQJW-560	2.30	0.10	0.99	8.00	0.12	0.31	17.00	0.76	0.69	16.71
4DV28N-561	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
4WT3LE-561	2.19	-0.01	-0.08	7.90	0.02	0.06	16.00	-0.24	-0.22	16.09
4XNHXC-561	2.10	-0.10	-0.95	7.60	-0.28	-0.71	16.00	-0.24	-0.22	16.04
69FQUJ-560	2.30	0.10	0.99	8.50	0.62	1.58	15.70	-0.54	-0.50	15.70
6P7UC9-560	2.00	-0.20	-1.92	7.00	-0.88	-2.23	16.60	0.36	0.33	16.60
6Q4FC8-560	2.00	-0.20	-1.92	8.00	0.12	0.31	14.48	-1.76	-1.61	14.48
6UZ27V-561	2.30	0.10	0.99	8.20	0.32	0.82	16.00	-0.24	-0.22	16.29
77UTBZ-560	2.20	0.00	0.02	8.40	0.52	1.33	15.00	-1.24	-1.14	15.18
79DJ3B-560	2.10	-0.10	-0.95	7.70	-0.18	-0.45	15.80	-0.44	-0.41	15.83
7HNLQX-560	2.33	0.13	1.28	7.99	0.11	0.29	16.95	0.71	0.65	16.95
7L2LK4-560	2.30	0.10	0.99	8.50	0.62	1.58	15.70	-0.54	-0.50	15.70
7MEGKV-560	2.22	0.02	0.21	8.10	0.22	0.56	15.91	-0.33	-0.31	15.91
7YTKKY-561	2.40	0.20	1.96	8.10	0.22	0.56	16.95	0.71	0.65	17.24
87NAVV-561	2.20	0.00	0.02	8.50	0.62	1.58	15.00	-1.24	-1.14	15.00
88YW2U-561	2.20	0.00	0.02	7.90	0.02	0.06	16.20	-0.04	-0.04	16.17
8HVH98-560	2.20	0.00	0.02	7.60	-0.28	-0.71	16.83	0.59	0.54	16.83
8ZKQPW-561	2.30	0.10	0.99	8.40	0.52	1.33	15.90	-0.34	-0.31	15.89
936ZC3-561	2.00	-0.20	-1.92	7.50	-0.38	-0.96	15.00	-1.24	-1.14	15.47
9A4RCJ-560	2.27	0.07	0.70	8.33	0.45	1.15	15.80	-0.44	-0.41	15.81
9FMM4U-561	2.30	0.10	0.99	7.30	-0.58	-1.47	18.40	2.16	1.97	18.36
9UN2MC-560	2.30	0.10	0.99	7.76	-0.12	-0.30	17.24	1.00	0.91	17.24

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
9XM63J-560	2.20	0.00	0.02	7.70	-0.18	-0.45	16.60	0.36	0.33	16.60
9XRYVK-560	2.20	0.00	0.02	8.50	0.62	1.58	15.00	-1.24	-1.14	15.00
A3GTAW-560	2.20	0.00	0.02	8.10	0.22	0.56	15.80	-0.44	-0.41	15.76
A4CE23-560	2.00	-0.20	-1.92	8.50	0.62	1.58	13.61	-2.63	-2.41	13.61
ABRFFW-560	2.25	0.05	0.50	7.65	-0.23	-0.58	17.10	0.86	0.78	17.10
AKYHE3-560	0.23	-1.97	-19.12 X	0.72	-7.16	-18.17 X	18.60	2.36	2.16	18.63
AQ27YB-561	2.40	0.20	1.96	8.00	0.12	0.31	17.50	1.26	1.15	17.46
AQPUD7-560	2.20	0.00	0.02	7.20	-0.68	-1.72	18.00	1.76	1.61	17.79
AVEJ7P-560	2.30	0.10	0.99	7.70	-0.18	-0.45	17.38	1.14	1.04	17.38
AWPNGT-561	2.30	0.10	0.99	9.20	1.32	3.36 X	15.00	-1.24	-1.14	14.48
AWPQ6C-561	2.30	0.10	0.99	8.00	0.12	0.31	16.70	0.46	0.42	16.71
AYEXP9-561	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
B7VQHJ-560	2.30	0.10	0.99	7.50	-0.38	-0.96	18.00	1.76	1.61	17.86
BAE9RU-560	2.25	0.05	0.50	8.00	0.12	0.31	16.00	-0.24	-0.22	16.33
BF2U49-560	2.30	0.10	0.99	8.55	0.67	1.71	15.60	-0.64	-0.59	15.61
BFJ6CU-560	2.10	-0.10	-0.95	7.40	-0.48	-1.21	16.50	0.26	0.23	16.49
BFJJRV-561	2.30	0.10	0.99	7.80	-0.08	-0.20	17.00	0.76	0.69	17.15
BFWD6A-561	2.20	0.00	0.02	7.60	-0.28	-0.71	17.00	0.76	0.69	16.83
CD9PF9-561	2.10	-0.10	-0.95	7.20	-0.68	-1.72	17.00	0.76	0.69	16.96
CFDPLU-561	2.00	-0.20	-1.92	7.00	-0.88	-2.23	10.00	-6.24	-5.71 X	16.60
CMCE3Y-560	2.30	0.10	0.99	7.70	-0.18	-0.45	17.40	1.16	1.06	17.38
CWHQ8L-561	2.30	0.10	0.99	8.00	0.12	0.31	16.70	0.46	0.42	16.71
CY9G7T-561	2.30	0.10	0.99	8.80	0.92	2.34	14.95	-1.29	-1.18	15.15

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
CYCBHZ-561	2.10	-0.10	-0.95	6.60	-1.28	-3.24 X	19.00	2.76	2.52	18.55
D3KP6C-560	2.00	-0.20	-1.92	7.50	-0.38	-0.96	15.00	-1.24	-1.14	15.47
DPJVY9-561	2.08	-0.12	-1.15	7.89	0.01	0.03	15.00	-1.24	-1.14	15.29
DQVQGU-560	2.20	0.00	0.02	8.50	0.62	1.58	15.00	-1.24	-1.14	15.00
DZVHMZ-561	2.00	-0.20	-1.92	7.50	-0.38	-0.96	15.50	-0.74	-0.68	15.47
E4VJAV-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
EANEGV-560	24.33	22.13	214.98 X	82.77	74.89	190.16 X	17.10	0.86	0.78	17.09
EFQNNM-560	2.27	0.07	0.70	7.73	-0.15	-0.38	17.00	0.76	0.69	17.08
ENJXWX-561	2.30	0.10	0.99	7.60	-0.28	-0.71	17.60	1.36	1.24	17.62
EPVHYF-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
EPVKNK-561	2.30	0.10	0.99	8.10	0.22	0.56	16.50	0.26	0.23	16.50
EQQ2ZG-560	2.18	-0.02	-0.18	8.05	0.17	0.44	15.70	-0.54	-0.50	15.71
FAHJBU-561	2.20	0.00	0.02	8.00	0.12	0.31	15.90	-0.34	-0.31	15.96
FAUVWY-561	2.75	0.55	5.36 X	8.28	0.40	1.02	19.40	3.16	2.89	19.40
FDECZH-560	2.00	-0.20	-1.92	8.00	0.12	0.31	14.50	-1.74	-1.59	14.48
FN2NNC-560	2.20	0.00	0.02	6.20	-1.68	-4.26 X	21.00	4.76	4.35 X	20.78 X
G62LBK-560	2.23	0.03	0.31	7.59	-0.29	-0.73	17.10	0.86	0.78	17.09
G6KKCP-560	2.20	0.00	0.02	8.00	0.12	0.31	15.90	-0.34	-0.31	15.96
G6WTAB-561	2.20	0.00	0.02	8.10	0.22	0.56	15.80	-0.44	-0.41	15.76
G8L3GQ-560	2.20	0.00	0.02	8.30	0.42	1.07	15.30	-0.94	-0.86	15.37
G8L67V-561	2.20	0.00	0.02	7.00	-0.88	-2.23	18.00	1.76	1.61	18.32
GHRM39-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
GW3Q4T-561	2.25	0.05	0.50	8.20	0.32	0.82	15.93	-0.31	-0.29	15.93

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
H9D9H7-561	2.20	0.00	0.02	7.90	0.02	0.06	16.65	0.41	0.37	16.17
HL2KPL-561	2.00	-0.20	-1.92	8.00	0.12	0.31	14.50	-1.74	-1.59	14.48
HT38QE-560	2.20	0.00	0.02	7.90	0.02	0.06	16.16	-0.08	-0.08	16.17
HVRGZF-561	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
HXEPX3-561	1.74	-0.46	-4.45 X	6.40	-1.48	-3.75 X	15.00	-1.24	-1.14	15.78
HZ4WGD-561	2.20	0.00	0.02	7.60	-0.28	-0.71	16.60	0.36	0.33	16.83
J9UGUV-560	2.00	-0.20	-1.92	7.50	-0.38	-0.96	15.50	-0.74	-0.68	15.47
JDLLPL-561	1.80	-0.40	-3.87 X	7.25	-0.63	-1.59	14.37	-1.87	-1.71	14.38
JJP8H4-561	2.20	0.00	0.02	7.70	-0.18	-0.45	16.60	0.36	0.33	16.60
JL3GVA-560	23.00	20.80	202.06 X	76.00	68.12	172.97 X	18.00	1.76	1.61	17.62
JPE8TV-560	2.30	0.10	0.99	7.80	-0.08	-0.20	17.00	0.76	0.69	17.15
JRL68R-560	2.40	0.20	1.96	7.80	-0.08	-0.20	17.00	0.76	0.69	17.92
JTFNBD-561	2.30	0.10	0.99	6.80	-1.08	-2.74	19.46	3.22	2.94	19.77 X
JV6Y9X-560	2.10	-0.10	-0.95	8.20	0.32	0.82	15.00	-1.24	-1.14	14.84
KGL2RG-560	2.20	0.00	0.02	7.87	-0.01	-0.02	16.20	-0.04	-0.04	16.23
KJQMNU-560	2.10	-0.10	-0.95	8.00	0.12	0.31	15.20	-1.04	-0.95	15.22
KMUFKD-560	2.20	0.00	0.02	8.28	0.40	1.02	15.40	-0.84	-0.77	15.41
L224ZL-561	2.40	0.20	1.96	8.90	1.02	2.60	15.60	-0.64	-0.59	15.64
L68KJB-560	2.20	0.00	0.02	7.40	-0.48	-1.21	17.00	0.76	0.69	17.30
L9RA4N-560	2.20	0.00	0.02	8.10	0.22	0.56	16.00	-0.24	-0.22	15.76
LJ3N2F-561	2.28	0.08	0.80	8.36	0.48	1.22	16.00	-0.24	-0.22	15.83
LM6LC9-560	2.20	0.00	0.02	8.20	0.32	0.82	16.00	-0.24	-0.22	15.56
LP9KLF-561	2.23	0.03	0.31	8.31	0.43	1.10	16.00	-0.24	-0.22	15.57

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
LQ37E8-560	2.30	0.10	0.99	8.00	0.12	0.31	16.70	0.46	0.42	16.71
M9XB3R-560	2.30	0.10	0.99	7.00	-0.88	-2.23	19.20	2.96	2.70	19.18
MBPGEB-560	2.20	0.00	0.02	7.80	-0.08	-0.20	16.40	0.16	0.14	16.38
MF7FEK-561	2.20	0.00	0.02	7.90	0.02	0.06	16.20	-0.04	-0.04	16.17
MTTJMG-561	2.10	-0.10	-0.95	8.10	0.22	0.56	15.03	-1.21	-1.11	15.03
MUE6XY-561	2.23	0.03	0.31	8.09	0.21	0.54	16.00	-0.24	-0.22	16.00
MW7PWW-560	2.00	-0.20	-1.92	8.20	0.32	0.82	14.00	-2.24	-2.05	14.12
N43HCN-561	2.20	0.00	0.02	7.50	-0.38	-0.96	17.00	0.76	0.69	17.06
N8NQRW-560	2.00	-0.20	-1.92	7.00	-0.88	-2.23	16.00	-0.24	-0.22	16.60
NB3968-560	2.30	0.10	0.99	8.10	0.22	0.56	16.50	0.26	0.23	16.50
NDAP2H-561	2.20	0.00	0.02	7.50	-0.38	-0.96	17.00	0.76	0.69	17.06
NDNJTY-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
NDREMJ-561	2.10	-0.10	-0.95	8.00	0.12	0.31	15.00	-1.24	-1.14	15.22
NW4Q7F-560	2.00	-0.20	-1.92	7.00	-0.88	-2.23	10.00	-6.24	-5.71 X	16.60
NXW8DN-560	2.10	-0.10	-0.95	7.50	-0.38	-0.96	16.00	-0.24	-0.22	16.26
P39FFD-560	2.31	0.11	1.09	7.63	-0.25	-0.63	17.60	1.36	1.24	17.62
P7LUNY-561	2.10	-0.10	-0.95	8.10	0.22	0.56	15.00	-1.24	-1.14	15.03
PBJJ7-560	2.24	0.04	0.41	8.20	0.32	0.82	15.85	-0.39	-0.36	15.85
PF9TGP-560	2.30	0.10	0.99	7.80	-0.08	-0.20	17.10	0.86	0.78	17.15
PHXZZ2-561	2.28	0.08	0.80	8.22	0.34	0.87	16.10	-0.14	-0.13	16.10
PLEWGH-561	2.30	0.10	0.99	8.00	0.12	0.31	17.00	0.76	0.69	16.71
PMAFK4-560	2.20	0.00	0.02	7.80	-0.08	-0.20	16.40	0.16	0.14	16.38
PXCXTL-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
PYN3KC-561	2.20	0.00	0.02	8.20	0.32	0.82	16.00	-0.24	-0.22	15.56
Q27GNC-560	2.00	-0.20	-1.92	8.00	0.12	0.31	14.00	-2.24	-2.05	14.48
Q4WN7N-560	2.25	0.05	0.50	7.50	-0.38	-0.96	17.60	1.36	1.24	17.46
Q9TUHP-560	2.30	0.10	0.99	7.47	-0.41	-1.04	17.90	1.66	1.52	17.93
QHXP8-561	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
QKGCDX-560	2.20	0.00	0.02	8.30	0.42	1.07	15.00	-1.24	-1.14	15.37
QLRFPZ-561	2.10	-0.10	-0.95	7.50	-0.38	-0.96	16.00	-0.24	-0.22	16.26
QMMYTM-561	2.20	0.00	0.02	7.00	-0.88	-2.23	18.30	2.06	1.88	18.32
QRKF83-560	2.20	0.00	0.02	7.40	-0.48	-1.21	17.30	1.06	0.97	17.30
QX4DK9-561	2.30	0.10	0.99	7.70	-0.18	-0.45	17.00	0.76	0.69	17.38
RP9ZAV-560	2.30	0.10	0.99	7.80	-0.08	-0.20	17.10	0.86	0.78	17.15
RRFH9Q-561	2.00	-0.20	-1.92	7.60	-0.28	-0.71	15.00	-1.24	-1.14	15.26
RVYDBH-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
T2XRJH-560	2.10	-0.10	-0.95	7.70	-0.18	-0.45	16.00	-0.24	-0.22	15.83
TKFTF7-560	2.20	0.00	0.02	7.20	-0.68	-1.72	18.00	1.76	1.61	17.79
TNC43C-561	2.23	0.03	0.31	8.07	0.19	0.49	14.85	-1.39	-1.27	16.04
TP7PV4-560	2.23	0.03	0.31	7.70	-0.18	-0.45	17.00	0.76	0.69	16.83
TTQMJU-560	2.30	0.10	0.99	7.60	-0.28	-0.71	18.00	1.76	1.61	17.62
TW9A68-561	2.25	0.05	0.50	8.05	0.17	0.44	16.20	-0.04	-0.04	16.23
TYDTBF-561	2.20	0.00	0.02	8.10	0.22	0.56	16.00	-0.24	-0.22	15.76
U4GVGM-560	2.00	-0.20	-1.92	7.30	-0.58	-1.47	15.90	-0.34	-0.31	15.90
U9FKA9-561	2.24	0.04	0.41	8.10	0.22	0.56	16.00	-0.24	-0.22	16.05
UA9NN2-560	2.27	0.07	0.70	7.92	0.04	0.11	16.64	0.40	0.36	16.66

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
UBQDB3-560	2.29	0.09	0.89	7.95	0.07	0.18	16.72	0.48	0.44	16.74
UCFTEH-560	2.20	0.00	0.02	8.30	0.42	1.07	15.40	-0.84	-0.77	15.37
UFXF44-560	2.52	0.32	3.13 X	8.07	0.19	0.49	18.20	1.96	1.79	18.20
UW8RQ9-561	2.30	0.10	0.99	8.10	0.22	0.56	16.10	-0.14	-0.13	16.50
V8KQ3B-560	2.19	-0.01	-0.08	7.75	-0.13	-0.32	16.00	-0.24	-0.22	16.41
VA7RL4-560	2.00	-0.20	-1.92	7.00	-0.88	-2.23	16.00	-0.24	-0.22	16.60
VG3XNX-560	2.20	0.00	0.02	7.80	-0.08	-0.20	16.40	0.16	0.14	16.38
VGM7MN-561	2.20	0.00	0.02	7.90	0.02	0.06	16.10	-0.14	-0.13	16.17
VK8GV7-561	2.50	0.30	2.93	7.60	-0.28	-0.71	19.30	3.06	2.80	19.20
VWZJ2Z-561	2.23	0.03	0.31	7.50	-0.38	-0.96	17.30	1.06	0.97	17.30
VY4CVY-561	22.30	20.10	195.26 X	81.80	73.92	187.70 X	15.90	-0.34	-0.31	15.82
W6AREZ-560	2.22	0.02	0.21	8.37	0.49	1.25	15.36	-0.88	-0.81	15.38
W8FNTW-561	2.00	-0.20	-1.92	8.00	0.12	0.31	15.00	-1.24	-1.14	14.48
WEG3EX-561	2.30	0.10	0.99	8.00	0.12	0.31	16.70	0.46	0.42	16.71
WNN467-561	2.20	0.00	0.02	8.20	0.32	0.82	15.50	-0.74	-0.68	15.56
WTVBBV-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
WWFLJE-561	11.00	8.80	85.50 X	35.00	27.12	68.87 X	18.00	1.76	1.61	18.32
X8WP4H-560	2.25	0.05	0.50	7.10	-0.78	-1.97	18.00	1.76	1.61	18.48
XBA87E-561	2.23	0.03	0.31	8.30	0.42	1.07	15.50	-0.74	-0.68	15.59
XEUYEW-561	2.20	0.00	0.02	7.10	-0.78	-1.97	18.00	1.76	1.61	18.05
XQNBUV-560	2.10	-0.10	-0.95	7.00	-0.88	-2.23	30.00	13.76	12.58 X	17.46
XTDEM3-561	2.20	0.00	0.02	7.70	-0.18	-0.45	17.00	0.76	0.69	16.60
XTPF6U-560	2.10	-0.10	-0.95	8.10	0.22	0.56	15.00	-1.24	-1.14	15.03

TABLE 1
Stain C, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
XXJB4G-560	2.20	0.00	0.02	7.50	-0.38	-0.96	17.10	0.86	0.78	17.06
XXNURK-561	2.25	0.05	0.50	8.00	0.12	0.31	16.00	-0.24	-0.22	16.33
XZRV4V-560	2.28	0.08	0.80	7.66	-0.22	-0.55	17.30	1.06	0.97	17.32
Y2ZXF2-561	2.20	0.00	0.02	7.80	-0.08	-0.20	16.00	-0.24	-0.22	16.38
YRYZMC-560	2.00	-0.20	-1.92	8.00	0.12	0.31	14.00	-2.24	-2.05	14.48
YT8AFA-560	2.20	0.00	0.02	8.40	0.52	1.33	15.20	-1.04	-0.95	15.18
Z3MQEU-560	2.30	0.10	0.99	8.10	0.22	0.56	16.50	0.26	0.23	16.50
Z9E3PD-561	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
ZD88HG-560	2.20	0.00	0.02	8.40	0.52	1.33	15.18	-1.06	-0.97	15.18
ZFDFFK-560	2.20	0.00	0.02	8.00	0.12	0.31	16.00	-0.24	-0.22	15.96
ZLM9F6-560	2.10	-0.10	-0.95	7.30	-0.58	-1.47	16.70	0.46	0.42	16.72
ZQDHNH-560	2.20	0.00	0.02	7.40	-0.48	-1.21	17.00	0.76	0.69	17.30
ZQVRW4-561	2.30	0.10	0.99	7.60	-0.28	-0.71	17.00	0.76	0.69	17.62
Grand Mean	2.20			7.88			16.24			16.27
Standard Deviation	0.10			0.39			1.09			1.06
Participants Included in calculations	186			186			193			194
Participants excluded from calculations (indicated by X)	11			11			4			3

Stain C Preparation Angle: 16.2°

TABLE 1
Stain D

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
23QB3W-561	2.75	0.21	2.10	7.00	0.38	1.08	22.00	-0.53	-0.35	23.13
24EWG7-560	2.50	-0.04	-0.43	6.50	-0.12	-0.34	23.00	0.47	0.31	22.62
2FT2JV-561	3.40	0.86	8.69 X	9.20	2.58	7.29 X	22.00	-0.53	-0.35	21.69
2G3HRL-560	2.40	-0.14	-1.44	6.40	-0.22	-0.62	22.00	-0.53	-0.35	22.02
2HHBTW-561	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.33	-0.20	-0.13	22.62
2LY3XQ-560	2.40	-0.14	-1.44	6.80	0.18	0.51	20.67	-1.86	-1.23	20.67
2NN9F3-560	2.40	-0.14	-1.44	6.10	-0.52	-1.47	23.20	0.67	0.44	23.17
2PJRH4-561	2.60	0.06	0.58	6.80	0.18	0.51	22.50	-0.03	-0.02	22.48
2ZGRU9-561	2.60	0.06	0.58	6.60	-0.02	-0.05	23.20	0.67	0.44	23.20
34FXX-561	2.75	0.21	2.10	7.00	0.38	1.08	23.10	0.57	0.37	23.13
368RJM-560	2.60	0.06	0.58	7.00	0.38	1.08	22.00	-0.53	-0.35	21.80
38F84T-560	2.40	-0.14	-1.44	6.50	-0.12	-0.34	21.70	-0.83	-0.55	21.67
3A7DM6-561	2.58	0.04	0.38	6.61	-0.01	-0.03	23.00	0.47	0.31	22.97
3AJZ6J-561	2.80	0.26	2.61	6.50	-0.12	-0.34	25.50	2.97	1.96	25.52
3AZTNM-560	2.50	-0.04	-0.43	7.20	0.58	1.64	20.00	-2.53	-1.68	20.32
3C84H6-560	2.50	-0.04	-0.43	7.10	0.48	1.36	20.60	-1.93	-1.28	20.62
3EWCPL-560	2.60	0.06	0.58	7.20	0.58	1.64	21.00	-1.53	-1.01	21.17
3GL6W3-560	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.62	0.09	0.06	22.62
3GXFG9-560	2.60	0.06	0.58	7.00	0.38	1.08	21.80	-0.73	-0.49	21.80
3KF9E9-560	2.60	0.06	0.58	6.80	0.18	0.51	23.00	0.47	0.31	22.48
3LFDPC-560	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.62	0.09	0.06	22.62
466R97-560	2.50	-0.04	-0.43	6.90	0.28	0.79	21.00	-1.53	-1.01	21.24
4AHWYU-561	2.49	-0.05	-0.53	6.57	-0.05	-0.14	22.12	-0.41	-0.27	22.27

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
4AZ9DT-560	6.50	3.96	40.08 X	2.60	-4.02	-11.35 X	23.00	0.47	0.31	X
4BAQJW-560	2.60	0.06	0.58	6.50	-0.12	-0.34	24.00	1.47	0.97	23.58
4DV28N-561	2.60	0.06	0.58	6.80	0.18	0.51	22.50	-0.03	-0.02	22.48
4WT3LE-561	2.53	-0.01	-0.12	6.10	-0.52	-1.47	24.50	1.97	1.30	24.50
4XNHXC-561	2.50	-0.04	-0.43	6.20	-0.42	-1.18	23.80	1.27	0.84	23.78
69FQUJ-560	2.60	0.06	0.58	7.00	0.38	1.08	21.70	-0.83	-0.55	21.80
6P7UC9-560	2.00	-0.54	-5.49 X	6.00	-0.62	-1.75	19.50	-3.03	-2.01	19.47
6Q4FC8-560	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.62	0.09	0.06	22.62
6UZ27V-561	2.60	0.06	0.58	6.80	0.18	0.51	22.00	-0.53	-0.35	22.48
77UTBZ-560	2.50	-0.04	-0.43	7.20	0.58	1.64	20.00	-2.53	-1.68	20.32
79DJ3B-560	2.60	0.06	0.58	6.60	-0.02	-0.05	23.20	0.67	0.44	23.20
7HNLQX-560	2.61	0.07	0.69	6.78	0.16	0.45	22.64	0.11	0.07	22.64
7L2LK4-560	2.60	0.06	0.58	7.20	0.58	1.64	21.20	-1.33	-0.88	21.17
7MEGKV-560	2.59	0.05	0.48	6.84	0.22	0.62	22.25	-0.28	-0.19	22.25
7YTKKY-561	2.70	0.16	1.60	6.50	-0.12	-0.34	24.25	1.72	1.14	24.54
87NAVV-561	2.50	-0.04	-0.43	7.25	0.63	1.78	20.17	-2.36	-1.56	20.17
88YW2U-561	2.50	-0.04	-0.43	6.60	-0.02	-0.05	22.30	-0.23	-0.15	22.26
8HVH98-560	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.62	0.09	0.06	22.62
8ZKQPW-561	2.60	0.06	0.58	6.90	0.28	0.79	22.10	-0.43	-0.29	22.14
936ZC3-561	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.00	-0.53	-0.35	22.62
9A4RCJ-560	2.55	0.01	0.08	6.91	0.29	0.82	21.70	-0.83	-0.55	21.66
9FMM4U-561	2.50	-0.04	-0.43	6.10	-0.52	-1.47	24.20	1.67	1.10	24.19
9UN2MC-560	2.57	0.03	0.28	6.50	-0.12	-0.34	23.29	0.76	0.50	23.29

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
9XM63J-560	2.60	0.06	0.58	6.50	-0.12	-0.34	23.60	1.07	0.71	23.58
9XRYVK-560	2.50	-0.04	-0.43	6.80	0.18	0.51	22.00	-0.53	-0.35	21.57
A3GTAW-560	2.60	0.06	0.58	6.60	-0.02	-0.05	23.20	0.67	0.44	23.20
A4CE23-560	3.00	0.46	4.64 X	7.00	0.38	1.08	25.38	2.85	1.88	25.38
ABRFFW-560	2.50	-0.04	-0.43	6.65	0.03	0.09	22.10	-0.43	-0.29	22.08
AKYHE3-560	0.25	-2.29	-23.22 X	0.65	-5.97	-16.86 X	22.60	0.07	0.04	22.62
AQ27YB-561	2.80	0.26	2.61	6.80	0.18	0.51	24.30	1.77	1.17	24.32
AQPUD7-560	2.50	-0.04	-0.43	5.90	-0.72	-2.03	25.00	2.47	1.63	25.07
AVEJ7P-560	2.60	0.06	0.58	6.30	-0.32	-0.90	24.37	1.84	1.22	24.37
AWPNGT-561	2.70	0.16	1.60	6.60	-0.02	-0.05	24.00	1.47	0.97	24.15
AWPQ6C-561	2.60	0.06	0.58	6.50	-0.12	-0.34	23.57	1.04	0.69	23.58
AYEXP9-561	2.70	0.16	1.60	6.70	0.08	0.23	24.00	1.47	0.97	23.76
B7VQHJ-560	2.60	0.06	0.58	6.20	-0.42	-1.18	25.00	2.47	1.63	24.79
BAE9RU-560	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.50	-0.03	-0.02	22.62
BF2U49-560	2.65	0.11	1.09	7.30	0.68	1.92	21.30	-1.23	-0.82	21.29
BFJ6CU-560	2.60	0.06	0.58	6.30	-0.32	-0.90	24.40	1.87	1.24	24.37
BFJJRV-561	2.60	0.06	0.58	6.50	-0.12	-0.34	24.00	1.47	0.97	23.58
BFWD6A-561	2.50	-0.04	-0.43	6.40	-0.22	-0.62	23.00	0.47	0.31	22.99
CD9PF9-561	2.40	-0.14	-1.44	6.30	-0.32	-0.90	22.00	-0.53	-0.35	22.39
CFDPLU-561	2.00	-0.54	-5.49 X	6.00	-0.62	-1.75	20.00	-2.53	-1.68	19.47
CMCE3Y-560	2.70	0.16	1.60	6.50	-0.12	-0.34	24.50	1.97	1.30	24.54
CWHQ8L-561	2.60	0.06	0.58	6.60	-0.02	-0.05	23.20	0.67	0.44	23.20
CY9G7T-561	2.50	-0.04	-0.43	7.10	0.48	1.36	21.10	-1.43	-0.95	20.62

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
CYCBHZ-561	2.50	-0.04	-0.43	6.00	-0.62	-1.75	25.00	2.47	1.63	24.62
D3KP6C-560	2.60	0.06	0.58	6.00	-0.62	-1.75	26.00	3.47	2.29	25.68
DPJY9-561	2.42	-0.12	-1.24	6.83	0.21	0.60	21.00	-1.53	-1.01	20.75
DQVQGU-560	2.50	-0.04	-0.43	7.10	0.48	1.36	21.00	-1.53	-1.01	20.62
DZVHMZ-561	2.50	-0.04	-0.43	6.00	-0.62	-1.75	24.60	2.07	1.37	24.62
E4VJAV-560	2.60	0.06	0.58	6.60	-0.02	-0.05	23.20	0.67	0.44	23.20
EANEGV-560	32.33	29.79	301.70 X	83.32	76.70	216.70 X	22.80	0.27	0.18	22.83
EFQNNM-560	2.56	0.02	0.18	6.51	-0.11	-0.31	23.00	0.47	0.31	23.16
ENJXWX-561	2.60	0.06	0.58	6.70	0.08	0.23	22.80	0.27	0.18	22.83
EPVHYF-560	2.60	0.06	0.58	6.90	0.28	0.79	22.00	-0.53	-0.35	22.14
EPVKNK-561	2.70	0.16	1.60	7.00	0.38	1.08	22.70	0.17	0.11	22.69
EQQ2ZG-560	2.50	-0.04	-0.43	6.72	0.10	0.29	21.80	-0.73	-0.49	21.84
FAHJBU-561	2.40	-0.14	-1.44	6.60	-0.02	-0.05	21.30	-1.23	-0.82	21.32
FAUVWY-561	2.41	-0.13	-1.34	6.89	0.27	0.77	20.47	-2.06	-1.37	20.47
FDECZH-560	2.50	-0.04	-0.43	7.00	0.38	1.08	20.90	-1.63	-1.08	20.92
FN2NNC-560	2.80	0.26	2.61	5.60	-1.02	-2.88	30.00	7.47	4.94 X	30.00 X
G62LBK-560	2.50	-0.04	-0.43	6.48	-0.14	-0.39	22.70	0.17	0.11	22.69
G6KKCP-560	2.50	-0.04	-0.43	6.60	-0.02	-0.05	22.20	-0.33	-0.22	22.26
G6WTAB-561	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.60	0.07	0.04	22.62
G8L3GQ-560	2.50	-0.04	-0.43	7.20	0.58	1.64	20.30	-2.23	-1.48	20.32
G8L67V-561	2.40	-0.14	-1.44	5.60	-1.02	-2.88	25.00	2.47	1.63	25.38
GHRM39-560	2.60	0.06	0.58	6.80	0.18	0.51	22.00	-0.53	-0.35	22.48
GW3Q4T-561	2.58	0.04	0.38	6.99	0.37	1.05	21.66	-0.87	-0.58	21.66

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
H9D9H7-561	2.60	0.06	0.58	6.20	-0.42	-1.18	24.54	2.01	1.33	24.79
HL2KPL-561	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.60	0.07	0.04	22.62
HT38QE-560	2.50	-0.04	-0.43	6.60	-0.02	-0.05	22.26	-0.27	-0.18	22.26
HVRGZF-561	2.70	0.16	1.60	6.80	0.18	0.51	23.00	0.47	0.31	23.39
HXEPX3-561	2.36	-0.18	-1.85	5.34	-1.28	-3.61 X	26.00	3.47	2.29	26.23
HZ4WGD-561	2.50	-0.04	-0.43	6.70	0.08	0.23	21.80	-0.73	-0.49	21.91
J9UGUV-560	2.25	-0.29	-2.96	6.50	-0.12	-0.34	20.30	-2.23	-1.48	20.25
JDLLPL-561	2.25	-0.29	-2.96	6.43	-0.19	-0.53	20.48	-2.05	-1.36	20.48
JJP8H4-561	2.60	0.06	0.58	6.40	-0.22	-0.62	23.90	1.37	0.90	23.97
JL3GVA-560	25.00	22.46	227.46 X	65.00	58.38	164.94 X	22.00	-0.53	-0.35	22.62
JPE8TV-560	2.60	0.06	0.58	6.70	0.08	0.23	23.00	0.47	0.31	22.83
JRL68R-560	2.80	0.26	2.61	7.00	0.38	1.08	23.00	0.47	0.31	23.58
JTFNBD-561	2.60	0.06	0.58	5.90	-0.72	-2.03	26.80	4.27	2.82	26.15
JV6Y9X-560	2.50	-0.04	-0.43	7.20	0.58	1.64	20.00	-2.53	-1.68	20.32
KGL2RG-560	2.41	-0.13	-1.34	6.49	-0.13	-0.36	21.80	-0.73	-0.49	21.80
KJQMNU-560	2.50	-0.04	-0.43	6.80	0.18	0.51	21.50	-1.03	-0.68	21.57
KMUFKD-560	2.38	-0.16	-1.64	6.96	0.34	0.96	20.00	-2.53	-1.68	20.00
L224ZL-561	2.80	0.26	2.61	7.00	0.38	1.08	23.50	0.97	0.64	23.58
L68KJB-560	2.60	0.06	0.58	6.50	-0.12	-0.34	24.00	1.47	0.97	23.58
L9RA4N-560	2.50	-0.04	-0.43	7.00	0.38	1.08	21.00	-1.53	-1.01	20.92
LJ3N2F-561	2.59	0.05	0.48	7.26	0.64	1.81	21.00	-1.53	-1.01	20.90
LM6LC9-560	2.60	0.06	0.58	7.00	0.38	1.08	22.00	-0.53	-0.35	21.80
LP9KLF-561	2.55	0.01	0.08	7.10	0.48	1.36	21.00	-1.53	-1.01	21.05

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
LQ37E8-560	2.60	0.06	0.58	6.70	0.08	0.23	22.80	0.27	0.18	22.83
M9XB3R-560	2.60	0.06	0.58	6.50	-0.12	-0.34	23.60	1.07	0.71	23.58
MBPGEB-560	2.60	0.06	0.58	6.60	-0.02	-0.05	23.20	0.67	0.44	23.20
MF7FEK-561	2.50	-0.04	-0.43	6.70	0.08	0.23	21.90	-0.63	-0.42	21.91
MTTJMG-561	2.50	-0.04	-0.43	6.80	0.18	0.51	21.57	-0.96	-0.64	21.57
MUE6XY-561	2.52	-0.02	-0.23	6.73	0.11	0.31	22.00	-0.53	-0.35	21.99
MW7PWW-560	2.40	-0.14	-1.44	7.00	0.38	1.08	20.00	-2.53	-1.68	20.05
N43HCN-561	2.50	-0.04	-0.43	6.30	-0.32	-0.90	23.00	0.47	0.31	23.38
N8NQRW-560	2.20	-0.34	-3.47 X	6.00	-0.62	-1.75	21.00	-1.53	-1.01	21.51
NB3968-560	2.60	0.06	0.58	6.80	0.18	0.51	22.50	-0.03	-0.02	22.48
NDAP2H-561	2.50	-0.04	-0.43	6.00	-0.62	-1.75	25.00	2.47	1.63	24.62
NDNJTY-560	2.40	-0.14	-1.44	6.80	0.18	0.51	20.70	-1.83	-1.21	20.67
NDREMJ-561	2.50	-0.04	-0.43	7.00	0.38	1.08	21.00	-1.53	-1.01	20.92
NW4Q7F-560	2.00	-0.54	-5.49 X	6.00	-0.62	-1.75	20.00	-2.53	-1.68	19.47
NXW8DN-560	2.70	0.16	1.60	6.80	0.18	0.51	23.00	0.47	0.31	23.39
P39FFD-560	2.60	0.06	0.58	6.38	-0.24	-0.68	24.00	1.47	0.97	24.05
P7LUNY-561	2.60	0.06	0.58	7.00	0.38	1.08	22.00	-0.53	-0.35	21.80
PBJJ7-560	2.53	-0.01	-0.12	6.66	0.04	0.12	22.33	-0.20	-0.13	22.33
PF9TGP-560	2.60	0.06	0.58	6.50	-0.12	-0.34	23.50	0.97	0.64	23.58
PHXZZ2-561	2.60	0.06	0.58	6.93	0.31	0.88	22.00	-0.53	-0.35	22.04
PLEWGH-561	2.60	0.06	0.58	6.40	-0.22	-0.62	24.00	1.47	0.97	23.97
PMAFK4-560	2.50	-0.04	-0.43	6.40	-0.22	-0.62	23.00	0.47	0.31	22.99
PXCXTL-560	2.60	0.06	0.58	6.90	0.28	0.79	22.10	-0.43	-0.29	22.14

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
PYN3KC-561	2.60	0.06	0.58	7.00	0.38	1.08	22.00	-0.53	-0.35	21.80
Q27GNC-560	2.00	-0.54	-5.49 X	7.00	0.38	1.08	17.00	-5.53	-3.66 X	16.60 X
Q4WN7N-560	2.50	-0.04	-0.43	6.00	-0.62	-1.75	24.70	2.17	1.43	24.62
Q9TUHP-560	2.42	-0.12	-1.24	6.31	-0.31	-0.87	22.60	0.07	0.04	22.55
QHXP8-561	2.60	0.06	0.58	6.60	-0.02	-0.05	23.20	0.67	0.44	23.20
QKGCDX-560	2.50	-0.04	-0.43	7.20	0.58	1.64	20.00	-2.53	-1.68	20.32
QLRFPZ-561	2.40	-0.14	-1.44	6.30	-0.32	-0.90	22.00	-0.53	-0.35	22.39
QMMYTM-561	2.60	0.06	0.58	6.50	-0.12	-0.34	23.50	0.97	0.64	23.58
QRKF83-560	2.50	-0.04	-0.43	6.00	-0.62	-1.75	24.60	2.07	1.37	24.62
QX4DK9-561	2.40	-0.14	-1.44	6.70	0.08	0.23	21.00	-1.53	-1.01	20.99
RP9ZAV-560	2.50	-0.04	-0.43	6.80	0.18	0.51	21.60	-0.93	-0.62	21.57
RRFH9Q-561	2.40	-0.14	-1.44	6.40	-0.22	-0.62	22.00	-0.53	-0.35	22.02
RVYDBH-560	2.50	-0.04	-0.43	6.80	0.18	0.51	21.60	-0.93	-0.62	21.57
T2XRJH-560	2.40	-0.14	-1.44	6.80	0.18	0.51	21.00	-1.53	-1.01	20.67
TKFTF7-560	2.50	-0.04	-0.43	5.90	-0.72	-2.03	20.00	-2.53	-1.68	25.07
TNC43C-561	2.44	-0.10	-1.04	6.61	-0.01	-0.03	21.66	-0.87	-0.58	21.66
TP7PV4-560	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.00	-0.53	-0.35	22.62
TTQMJU-560	2.60	0.06	0.58	6.40	-0.22	-0.62	24.00	1.47	0.97	23.97
TW9A68-561	2.55	0.01	0.08	6.45	-0.17	-0.48	23.30	0.77	0.51	23.29
TYDTBF-561	2.50	-0.04	-0.43	6.80	0.18	0.51	22.00	-0.53	-0.35	21.57
U4GVGM-560	2.60	0.06	0.58	6.00	-0.62	-1.75	25.70	3.17	2.10	25.68
U9FKA9-561	2.59	0.05	0.48	6.76	0.14	0.40	23.00	0.47	0.31	22.53
UA9NN2-560	2.57	0.03	0.28	6.77	0.15	0.43	22.29	-0.24	-0.16	22.31

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
UBQDB3-560	2.62	0.08	0.79	6.67	0.05	0.14	23.14	0.61	0.40	23.13
UCFTEH-560	2.50	-0.04	-0.43	6.90	0.28	0.79	21.20	-1.33	-0.88	21.24
UFXF44-560	2.75	0.21	2.10	6.77	0.15	0.43	24.00	1.47	0.97	23.97
UW8RQ9-561	2.50	-0.04	-0.43	7.00	0.38	1.08	21.40	-1.13	-0.75	20.92
V8KQ3B-560	2.41	-0.13	-1.34	6.31	-0.31	-0.87	22.00	-0.53	-0.35	22.45
VA7RL4-560	2.50	-0.04	-0.43	6.00	-0.62	-1.75	24.00	1.47	0.97	24.62
VG3XNX-560	2.60	0.06	0.58	6.40	-0.22	-0.62	24.00	1.47	0.97	23.97
VGM7MN-561	2.50	-0.04	-0.43	6.50	-0.12	-0.34	22.60	0.07	0.04	22.62
VK8GV7-561	2.80	0.26	2.61	6.40	-0.22	-0.62	25.90	3.37	2.23	25.94
VWZJ2Z-561	2.54	0.00	-0.02	6.14	-0.48	-1.35	24.40	1.87	1.24	24.44
VY4CVY-561	25.30	22.76	230.49 X	68.10	61.48	173.70 X	21.60	-0.93	-0.62	21.81
W6AREZ-560	2.53	-0.01	-0.12	6.87	0.25	0.71	21.65	-0.88	-0.58	21.61
W8FNTW-561	2.20	-0.34	-3.47 X	7.00	0.38	1.08	18.00	-4.53	-3.00	18.32
WEG3EX-561	2.50	-0.04	-0.43	6.40	-0.22	-0.62	23.00	0.47	0.31	22.99
WNN467-561	2.40	-0.14	-1.44	6.90	0.28	0.79	20.00	-2.53	-1.68	20.35
WTVBBV-560	2.60	0.06	0.58	6.40	-0.22	-0.62	24.00	1.47	0.97	23.97
WWFLJE-561	12.00	9.46	95.79 X	28.00	21.38	60.41 X	25.00	2.47	1.63	25.38
X8WP4H-560	2.75	0.21	2.10	6.20	-0.42	-1.18	26.00	3.47	2.29	26.33
XBA87E-561	2.56	0.02	0.18	6.96	0.34	0.96	22.50	-0.03	-0.02	21.58
XEUYEW-561	2.60	0.06	0.58	6.20	-0.42	-1.18	24.80	2.27	1.50	24.79
XQNBUV-560	2.50	-0.04	-0.43	7.40	0.78	2.21	34.40	11.87	7.85 X	19.75
XTDEM3-561	2.40	-0.14	-1.44	6.40	-0.22	-0.62	22.00	-0.53	-0.35	22.02
XTPF6U-560	2.50	-0.04	-0.43	7.00	0.38	1.08	20.90	-1.63	-1.08	20.92

TABLE 1
Stain D, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
XXJB4G-560	2.50	-0.04	-0.43	6.20	-0.42	-1.18	23.80	1.27	0.84	23.78
XXNURK-561	2.55	0.01	0.08	6.80	0.18	0.51	22.00	-0.53	-0.35	22.02
XZRV4V-560	2.56	0.02	0.18	6.53	-0.09	-0.25	23.10	0.57	0.37	23.08
Y2ZXF2-561	2.50	-0.04	-0.43	6.40	-0.22	-0.62	23.00	0.47	0.31	22.99
YRYZMC-560	2.50	-0.04	-0.43	7.00	0.38	1.08	20.00	-2.53	-1.68	20.92
YT8AFA-560	2.50	-0.04	-0.43	7.20	0.58	1.64	20.30	-2.23	-1.48	20.32
Z3MQEU-560	2.52	-0.02	-0.23	6.57	-0.05	-0.14	22.50	-0.03	-0.02	22.55
Z9E3PD-561	2.50	-0.04	-0.43	6.40	-0.22	-0.62	23.00	0.47	0.31	22.99
ZD88HG-560	2.40	-0.14	-1.44	7.00	0.38	1.08	20.00	-2.53	-1.68	20.05
ZFDFFK-560	2.50	-0.04	-0.43	6.80	0.18	0.51	22.00	-0.53	-0.35	21.57
ZLM9F6-560	2.50	-0.04	-0.43	6.00	-0.62	-1.75	24.60	2.07	1.37	24.62
ZQDHNH-560	2.30	-0.24	-2.45	6.40	-0.22	-0.62	21.00	-1.53	-1.01	21.06
ZQVRW4-561	2.60	0.06	0.58	6.30	-0.32	-0.90	24.00	1.47	0.97	24.37
Grand Mean	2.54			6.62			22.53			22.56
Standard Deviation	0.10			0.35			1.51			1.52
Participants Included in calculations		183			189			194		194
Participants excluded from calculations (indicated by X)		14			8			3		3

Stain D Preparation Angle: 22.1°

TABLE 1
Stain E

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
23QB3W-561	2.75	0.28	2.88	5.00	0.37	1.64	32.00	-0.28	-0.17	33.37
24EWG7-560	2.50	0.03	0.33	5.00	0.37	1.64	30.00	-2.28	-1.34	30.00
2FT2JV-561	3.30	0.83	8.49 X	6.40	1.77	7.81 X	31.00	-1.28	-0.75	31.04
2G3HRL-560	2.40	-0.07	-0.69	4.40	-0.23	-1.00	33.00	0.72	0.42	33.06
2HHBTW-561	2.25	-0.22	-2.21	4.50	-0.13	-0.56	30.00	-2.28	-1.34	30.00
2LY3XQ-560	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.45	-0.83	-0.49	31.45
2NN9F3-560	2.40	-0.07	-0.69	4.20	-0.43	-1.89	34.80	2.52	1.48	34.85
2PJRH4-561	2.40	-0.07	-0.69	4.90	0.27	1.20	29.30	-2.98	-1.76	29.33
2ZGRU9-561	2.50	0.03	0.33	4.60	-0.03	-0.12	32.90	0.62	0.37	32.92
34FXX-561	2.50	0.03	0.33	5.00	0.37	1.64	30.00	-2.28	-1.34	30.00
368RJM-560	2.50	0.03	0.33	4.80	0.17	0.76	31.00	-1.28	-0.75	31.39
38F84T-560	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.40	-0.88	-0.52	31.45
3A7DM6-561	2.52	0.05	0.54	4.68	0.05	0.23	32.60	0.32	0.19	32.58
3AJZ6J-561	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
3AZTNM-560	2.50	0.03	0.33	4.80	0.17	0.76	31.00	-1.28	-0.75	31.39
3C84H6-560	2.50	0.03	0.33	4.60	-0.03	-0.12	32.10	-0.18	-0.11	32.92
3EWCPL-560	2.50	0.03	0.33	4.90	0.27	1.20	31.00	-1.28	-0.75	30.68
3GL6W3-560	2.50	0.03	0.33	5.00	0.37	1.64	30.00	-2.28	-1.34	30.00
3GXFG9-560	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.40	-0.88	-0.52	31.45
3KF9E9-560	2.50	0.03	0.33	4.80	0.17	0.76	31.00	-1.28	-0.75	31.39
3LFDPC-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
466R97-560	2.60	0.13	1.35	4.80	0.17	0.76	33.00	0.72	0.42	32.80
4AHWYU-561	2.45	-0.02	-0.18	4.75	0.12	0.54	31.05	-1.23	-0.72	31.05

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
4AZ9DT-560	4.40	1.93	19.70 X	2.40	-2.23	-9.82 X	33.00	0.72	0.42	X
4BAQJW-560	2.50	0.03	0.33	4.80	0.17	0.76	31.00	-1.28	-0.75	31.39
4DV28N-561	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.40	-0.88	-0.52	31.45
4WT3LE-561	2.50	0.03	0.33	4.60	-0.03	-0.12	33.00	0.72	0.42	32.92
4XNHXC-561	2.50	0.03	0.33	4.80	0.17	0.76	31.40	-0.88	-0.52	31.39
69FQUJ-560	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
6P7UC9-560	2.00	-0.47	-4.76 X	4.00	-0.63	-2.77	30.00	-2.28	-1.34	30.00
6Q4FC8-560	2.25	-0.22	-2.21	4.50	-0.13	-0.56	30.00	-2.28	-1.34	30.00
6UZ27V-561	2.50	0.03	0.33	4.80	0.17	0.76	31.00	-1.28	-0.75	31.39
77UTBZ-560	2.40	-0.07	-0.69	4.70	0.07	0.32	30.00	-2.28	-1.34	30.71
79DJ3B-560	2.50	0.03	0.33	4.40	-0.23	-1.00	34.60	2.32	1.37	34.62
7HNLQX-560	2.54	0.07	0.74	4.85	0.22	0.98	31.58	-0.70	-0.41	31.58
7L2LK4-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
7MEGKV-560	2.49	0.02	0.23	4.87	0.24	1.07	30.75	-1.53	-0.90	30.75
7YTKKY-561	2.50	0.03	0.33	4.70	0.07	0.32	32.92	0.64	0.38	32.13
87NAVV-561	2.45	-0.02	-0.18	4.80	0.17	0.76	30.69	-1.59	-0.94	30.69
88YW2U-561	2.50	0.03	0.33	4.50	-0.13	-0.56	33.80	1.52	0.90	33.75
8HVH98-560	2.50	0.03	0.33	4.80	0.17	0.76	31.39	-0.89	-0.52	31.39
8ZKQPW-561	2.60	0.13	1.35	4.80	0.17	0.76	32.80	0.52	0.31	32.80
936ZC3-561	2.50	0.03	0.33	4.50	-0.13	-0.56	33.00	0.72	0.42	33.75
9A4RCJ-560	2.49	0.02	0.23	4.77	0.14	0.63	31.50	-0.78	-0.46	31.47
9FMM4U-561	2.50	0.03	0.33	4.40	-0.23	-1.00	34.60	2.32	1.37	34.62
9UN2MC-560	2.63	0.16	1.66	4.60	-0.03	-0.12	34.87	2.59	1.53	34.87

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
9XM63J-560	2.50	0.03	0.33	4.60	-0.03	-0.12	32.90	0.62	0.37	32.92
9XRYVK-560	2.50	0.03	0.33	4.90	0.27	1.20	31.00	-1.28	-0.75	30.68
A3GTAW-560	2.50	0.03	0.33	4.40	-0.23	-1.00	34.60	2.32	1.37	34.62
A4CE23-560	2.50	0.03	0.33	4.50	-0.13	-0.56	33.75	1.47	0.87	33.75
ABRFFW-560	2.60	0.13	1.35	4.70	0.07	0.32	33.60	1.32	0.78	33.59
AKYHE3-560	0.24	-2.23	-22.70 X	0.43	-4.20	-18.51 X	35.50	3.22	1.90	33.93
AQ27YB-561	2.80	0.33	3.39 X	4.80	0.17	0.76	35.70	3.42	2.01	35.69
AQPUD7-560	2.40	-0.07	-0.69	4.40	-0.23	-1.00	33.00	0.72	0.42	33.06
AVEJ7P-560	2.40	-0.07	-0.69	4.40	-0.23	-1.00	33.06	0.78	0.46	33.06
AWPNGT-561	2.60	0.13	1.35	5.20	0.57	2.52	30.00	-2.28	-1.34	30.00
AWPQ6C-561	2.50	0.03	0.33	4.60	-0.03	-0.12	32.92	0.64	0.38	32.92
AYEXP9-561	2.70	0.23	2.37	4.90	0.27	1.20	33.00	0.72	0.42	33.44
B7VQHJ-560	2.60	0.13	1.35	4.80	0.17	0.76	33.00	0.72	0.42	32.80
BAE9RU-560	2.50	0.03	0.33	4.50	-0.13	-0.56	34.00	1.72	1.01	33.75
BF2U49-560	2.60	0.13	1.35	4.85	0.22	0.98	32.40	0.12	0.07	32.42
BFJ6CU-560	2.50	0.03	0.33	4.40	-0.23	-1.00	34.60	2.32	1.37	34.62
BFJJRV-561	2.70	0.23	2.37	4.80	0.17	0.76	34.00	1.72	1.01	34.23
BFWD6A-561	2.50	0.03	0.33	4.40	-0.23	-1.00	35.00	2.72	1.60	34.62
CD9PF9-561	2.40	-0.07	-0.69	4.40	-0.23	-1.00	33.00	0.72	0.42	33.06
CFDPLU-561	2.00	-0.47	-4.76 X	4.00	-0.63	-2.77	40.00	7.72	4.55 X	30.00
CMCE3Y-560	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
CWHQ8L-561	2.60	0.13	1.35	4.60	-0.03	-0.12	34.40	2.12	1.25	34.42
CY9G7T-561	2.40	-0.07	-0.69	4.80	0.17	0.76	30.39	-1.89	-1.11	30.00

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
CYCBHZ-561	2.20	-0.27	-2.72	3.80	-0.83	-3.65 X	35.00	2.72	1.60	35.38
D3KP6C-560	2.40	-0.07	-0.69	4.00	-0.63	-2.77	37.00	4.72	2.78	36.87
DPJY9-561	2.37	-0.10	-0.99	4.55	-0.08	-0.34	31.00	-1.28	-0.75	31.39
DQVQGU-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
DZVHMZ-561	2.25	-0.22	-2.21	4.00	-0.63	-2.77	34.20	1.92	1.13	34.23
E4VJAV-560	2.50	0.03	0.33	4.60	-0.03	-0.12	32.90	0.62	0.37	32.92
EANEGV-560	25.84	23.37	238.23 X	47.52	42.89	189.12 X	32.90	0.62	0.37	32.94
EFQNNM-560	2.45	-0.02	-0.18	4.59	-0.04	-0.17	32.00	-0.28	-0.17	32.26
ENJXWX-561	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
EPVHYF-560	2.50	0.03	0.33	4.80	0.17	0.76	31.00	-1.28	-0.75	31.39
EPVKNK-561	2.60	0.13	1.35	5.00	0.37	1.64	31.30	-0.98	-0.58	31.33
EQQ2ZG-560	2.43	-0.04	-0.38	4.63	0.00	0.01	31.70	-0.58	-0.34	31.66
FAHJBU-561	2.40	-0.07	-0.69	4.40	-0.23	-1.00	33.00	0.72	0.42	33.06
FAUVWY-561	2.34	-0.13	-1.30	4.87	0.24	1.07	28.72	-3.56	-2.10	28.72
FDECZH-560	2.50	0.03	0.33	5.00	0.37	1.64	30.00	-2.28	-1.34	30.00
FN2NNC-560	2.40	-0.07	-0.69	3.80	-0.83	-3.65 X	39.00	6.72	3.96 X	39.17 X
G62LBK-560	2.48	0.01	0.13	4.57	-0.06	-0.25	32.90	0.62	0.37	32.87
G6KKCP-560	2.50	0.03	0.33	4.60	-0.03	-0.12	32.90	0.62	0.37	32.92
G6WTAB-561	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
G8L3GQ-560	2.50	0.03	0.33	4.80	0.17	0.76	31.30	-0.98	-0.58	31.39
G8L67V-561	2.60	0.13	1.35	4.40	-0.23	-1.00	36.00	3.72	2.19	36.22
GHRM39-560	2.60	0.13	1.35	4.60	-0.03	-0.12	34.00	1.72	1.01	34.42
GW3Q4T-561	2.49	0.02	0.23	4.74	0.11	0.50	31.69	-0.59	-0.35	31.69

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
H9D9H7-561	2.50	0.03	0.33	4.60	-0.03	-0.12	32.53	0.25	0.15	32.92
HL2KPL-561	2.50	0.03	0.33	4.00	-0.63	-2.77	38.70	6.42	3.78 X	38.68 X
HT38QE-560	2.50	0.03	0.33	4.70	0.07	0.32	32.13	-0.15	-0.09	32.13
HVRGZF-561	2.50	0.03	0.33	4.70	0.07	0.32	32.00	-0.28	-0.17	32.13
HXEPX3-561	2.32	-0.15	-1.50	3.79	-0.84	-3.69 X	37.00	4.72	2.78	37.74 X
HZ4WGD-561	2.40	-0.07	-0.69	4.50	-0.13	-0.56	32.80	0.52	0.31	32.23
J9UGUV-560	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
JDLLPL-561	2.21	-0.26	-2.62	4.05	-0.58	-2.55	33.06	0.78	0.46	33.07
JJP8H4-561	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
JL3GVA-560	25.00	22.53	229.67 X	47.00	42.37	186.83 X	32.00	-0.28	-0.17	32.13
JPE8TV-560	2.50	0.03	0.33	4.60	-0.03	-0.12	33.00	0.72	0.42	32.92
JRL68R-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
JTFNBD-561	2.30	-0.17	-1.71	3.70	-0.93	-4.09 X	38.26	5.98	3.52 X	38.43 X
JV6Y9X-560	2.60	0.13	1.35	5.00	0.37	1.64	31.00	-1.28	-0.75	31.33
KGL2RG-560	2.31	-0.16	-1.60	4.44	-0.19	-0.83	31.40	-0.88	-0.52	31.35
KJQMNU-560	2.50	0.03	0.33	4.90	0.27	1.20	30.60	-1.68	-0.99	30.68
KMUFKD-560	2.43	-0.04	-0.38	4.66	0.03	0.14	31.40	-0.88	-0.52	31.43
L224ZL-561	2.70	0.23	2.37	4.90	0.27	1.20	33.40	1.12	0.66	33.44
L68KJB-560	2.50	0.03	0.33	4.60	-0.03	-0.12	33.00	0.72	0.42	32.92
L9RA4N-560	2.50	0.03	0.33	4.80	0.17	0.76	31.00	-1.28	-0.75	31.39
LJ3N2F-561	12.45	9.98	101.75 X	23.04	18.41	81.19 X	33.00	0.72	0.42	32.71
LM6LC9-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
LP9KLF-561	2.37	-0.10	-0.99	4.73	0.10	0.45	30.00	-2.28	-1.34	30.07

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
LQ37E8-560	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
M9XB3R-560	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
MBPGEB-560	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
MF7FEK-561	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
MTTJMG-561	2.50	0.03	0.33	4.70	0.07	0.32	32.13	-0.15	-0.09	32.13
MUE6XY-561	2.47	0.00	0.03	4.66	0.03	0.14	32.00	-0.28	-0.17	32.01
MW7PWW-560	2.30	-0.17	-1.71	4.70	0.07	0.32	29.00	-3.28	-1.93	29.30
N43HCN-561	2.30	-0.17	-1.71	4.40	-0.23	-1.00	32.00	-0.28	-0.17	31.52
N8NQRW-560	2.20	-0.27	-2.72	3.50	-1.13	-4.97 X	38.00	5.72	3.37 X	38.94 X
NB3968-560	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.40	-0.88	-0.52	31.45
NDAP2H-561	2.40	-0.07	-0.69	4.00	-0.63	-2.77	37.00	4.72	2.78	36.87
NDNJTY-560	2.40	-0.07	-0.69	4.70	0.07	0.32	30.70	-1.58	-0.93	30.71
NDREMJ-561	2.50	0.03	0.33	5.00	0.37	1.64	30.00	-2.28	-1.34	30.00
NW4Q7F-560	2.00	-0.47	-4.76 X	4.00	-0.63	-2.77	40.00	7.72	4.55 X	30.00
NXW8DN-560	2.80	0.33	3.39 X	4.90	0.27	1.20	35.00	2.72	1.60	34.85
P39FFD-560	2.55	0.08	0.84	4.59	-0.04	-0.17	33.70	1.42	0.84	33.75
P7LUNY-561	2.50	0.03	0.33	4.90	0.27	1.20	31.00	-1.28	-0.75	30.68
PBJJ7-560	2.52	0.05	0.54	4.75	0.12	0.54	32.04	-0.24	-0.14	32.04
PF9TGP-560	2.60	0.13	1.35	4.60	-0.03	-0.12	34.40	2.12	1.25	34.42
PHXZZ2-561	2.58	0.11	1.15	4.75	0.12	0.54	32.90	0.62	0.37	32.90
PLEWGH-561	2.60	0.13	1.35	4.70	0.07	0.32	33.00	0.72	0.42	33.59
PMAFK4-560	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
PXCXTL-560	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
PYN3KC-561	2.50	0.03	0.33	4.90	0.27	1.20	31.00	-1.28	-0.75	30.68
Q27GNC-560	2.00	-0.47	-4.76 X	4.00	-0.63	-2.77	30.00	-2.28	-1.34	30.00
Q4WN7N-560	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
Q9TUHP-560	2.34	-0.13	-1.30	4.53	-0.10	-0.43	31.10	-1.18	-0.70	31.10
QHXP8-561	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
QKGCDX-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
QLRFPZ-561	2.30	-0.17	-1.71	4.70	0.07	0.32	29.00	-3.28	-1.93	29.30
QMMYTM-561	2.60	0.13	1.35	4.60	-0.03	-0.12	34.40	2.12	1.25	34.42
QRKF83-560	2.50	0.03	0.33	4.40	-0.23	-1.00	34.60	2.32	1.37	34.62
QX4DK9-561	2.50	0.03	0.33	4.60	-0.03	-0.12	33.00	0.72	0.42	32.92
RP9ZAV-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
RRFH9Q-561	2.20	-0.27	-2.72	4.50	-0.13	-0.56	29.00	-3.28	-1.93	29.27
RVYDBH-560	2.40	-0.07	-0.69	4.70	0.07	0.32	30.70	-1.58	-0.93	30.71
T2XRJH-560	2.40	-0.07	-0.69	4.70	0.07	0.32	31.00	-1.28	-0.75	30.71
TKFTF7-560	2.50	0.03	0.33	4.60	-0.03	-0.12	33.00	0.72	0.42	32.92
TNC43C-561	2.44	-0.03	-0.28	4.63	0.00	0.01	34.57	2.29	1.35	31.80
TP7PV4-560	2.30	-0.17	-1.71	4.38	-0.25	-1.09	32.00	-0.28	-0.17	31.68
TTQMJU-560	2.50	0.03	0.33	4.60	-0.03	-0.12	33.00	0.72	0.42	32.92
TW9A68-561	2.49	0.02	0.23	4.72	0.09	0.41	31.80	-0.48	-0.28	31.84
TYDTBF-561	2.40	-0.07	-0.69	4.70	0.07	0.32	31.00	-1.28	-0.75	30.71
U4GVGM-560	2.40	-0.07	-0.69	4.50	-0.13	-0.56	32.20	-0.08	-0.05	32.23
U9FKA9-561	2.53	0.06	0.64	4.64	0.01	0.05	33.00	0.72	0.42	33.04
UA9NN2-560	2.50	0.03	0.33	4.68	0.05	0.23	32.26	-0.02	-0.01	32.29

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
UBQDB3-560	2.54	0.07	0.74	4.75	0.12	0.54	32.33	0.05	0.03	32.33
UCFTEH-560	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
UFXF44-560	2.65	0.18	1.86	4.65	0.02	0.10	34.70	2.42	1.43	34.74
UW8RQ9-561	2.50	0.03	0.33	5.00	0.37	1.64	31.20	-1.08	-0.64	30.00
V8KQ3B-560	2.34	-0.13	-1.30	4.46	-0.17	-0.74	32.00	-0.28	-0.17	31.65
VA7RL4-560	2.00	-0.47	-4.76 X	4.00	-0.63	-2.77	30.00	-2.28	-1.34	30.00
VG3XNX-560	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.40	-0.88	-0.52	31.45
VGM7MN-561	2.50	0.03	0.33	4.70	0.07	0.32	32.10	-0.18	-0.11	32.13
VK8GV7-561	2.70	0.23	2.37	4.50	-0.13	-0.56	36.80	4.52	2.66	36.87
VWZJ2Z-561	2.60	0.13	1.35	4.65	0.02	0.10	34.00	1.72	1.01	34.00
VY4CVY-561	24.70	22.23	226.61 X	47.60	42.97	189.48 X	31.10	-1.18	-0.70	31.26
W6AREZ-560	2.50	0.03	0.33	4.70	0.07	0.32	32.13	-0.15	-0.09	32.13
W8FNTW-561	2.20	-0.27	-2.72	5.00	0.37	1.64	26.00	-6.28	-3.70 X	26.10 X
WEG3EX-561	2.40	-0.07	-0.69	4.40	-0.23	-1.00	33.00	0.72	0.42	33.06
WNN467-561	2.40	-0.07	-0.69	4.70	0.07	0.32	31.00	-1.28	-0.75	30.71
WTVBBV-560	2.50	0.03	0.33	4.60	-0.03	-0.12	33.00	0.72	0.42	32.92
WWFLJE-561	12.00	9.53	97.16 X	19.50	14.87	65.58 X	38.00	5.72	3.37 X	37.98 X
X8WP4H-560	2.60	0.13	1.35	4.40	-0.23	-1.00	36.00	3.72	2.19	36.22
XBA87E-561	2.52	0.05	0.54	4.84	0.21	0.94	31.00	-1.28	-0.75	31.38
XEUYEW-561	2.50	0.03	0.33	4.40	-0.23	-1.00	34.60	2.32	1.37	34.62
XQNBUV-560	2.40	-0.07	-0.69	4.60	-0.03	-0.12	54.60	22.32	13.15 X	31.45
XTDEM3-561	2.30	-0.17	-1.71	4.50	-0.13	-0.56	31.00	-1.28	-0.75	30.74
XTPF6U-560	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.50	-0.78	-0.46	31.45

TABLE 1
Stain E, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm	Diff	CPV	mm	Diff	CPV	Deg.	Diff	CPV	
XXJB4G-560	2.50	0.03	0.33	4.30	-0.33	-1.44	35.50	3.22	1.90	35.55
XXNURK-561	4.70	2.23	22.76 X	4.70	0.07	0.32	32.00	-0.28	-0.17	90.00 X
XZRV4V-560	2.52	0.05	0.54	4.63	0.00	0.01	33.00	0.72	0.42	32.98
Y2ZXF2-561	2.40	-0.07	-0.69	4.60	-0.03	-0.12	31.00	-1.28	-0.75	31.45
YRYZMC-560	2.50	0.03	0.33	4.50	-0.13	-0.56	33.00	0.72	0.42	33.75
YT8AFA-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
Z3MQEU-560	2.42	-0.05	-0.48	4.57	-0.06	-0.25	32.00	-0.28	-0.17	31.97
Z9E3PD-561	2.50	0.03	0.33	4.70	0.07	0.32	32.00	-0.28	-0.17	32.13
ZD88HG-560	2.40	-0.07	-0.69	4.80	0.17	0.76	30.00	-2.28	-1.34	30.00
ZFDFFK-560	2.40	-0.07	-0.69	4.70	0.07	0.32	31.00	-1.28	-0.75	30.71
ZLM9F6-560	2.50	0.03	0.33	4.50	-0.13	-0.56	33.70	1.42	0.84	33.75
ZQDHNH-560	2.40	-0.07	-0.69	4.40	-0.23	-1.00	33.00	0.72	0.42	33.06
ZQVRW4-561	2.40	-0.07	-0.69	4.20	-0.43	-1.89	34.00	1.72	1.01	34.85
Grand Mean	2.47			4.63			32.28			32.24
Standard Deviation	0.10			0.23			1.70			1.67
Participants Included in calculations	181			184			188			188
Participants excluded from calculations (indicated by X)	16			13			9			9

Stain E Preparation Angle: 33.2°

Pattern Description

For each of the following patterns, indicate the single pattern type that best describes the mechanism of deposition.

TABLE 2a - Part 1: Mechanism of Deposition

Item 2

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
23QB3W-561	Expiration Pattern	4AZ9DT-560	Expiration Pattern
24EWG7-560	Expiration Pattern	4BAQJW-560	Expiration Pattern
2CX3FX-560	Expiration Pattern	4DV28N-561	Expiration Pattern
2FT2JV-561	Expiration Pattern	4LUMWV-560	Expiration Pattern
2G3HRL-560	Expiration Pattern	4WT3LE-561	Expiration Pattern
2HHBTW-561	Expiration Pattern	4XNHXC-561	Expiration Pattern
2LY3XQ-560	Expiration Pattern	69FQUJ-560	Expiration Pattern
2NN9F3-560	Expiration Pattern	6P7UC9-560	Expiration Pattern
2PJRH4-561	Expiration Pattern	6Q4FC8-560	Expiration Pattern
2ZGRU9-561	Expiration Pattern	6UZ27V-561	Expiration Pattern
34FXX-561	Expiration Pattern	77UTBZ-560	Expiration Pattern
368RJM-560	Expiration Pattern	79DJ3B-560	Expiration Pattern
38F84T-560	Expiration Pattern	7DN2BX-560	Spatter then flow pattern (movement due to gravity)
3A7DM6-561	Expiration Pattern	7HNLQX-560	Expiration Pattern
3AJZ6J-561	Expiration Pattern	7L2LK4-560	Expiration Pattern
3AZTNM-560	Expiration Pattern	7MEGKV-560	Expiration Pattern
3C84H6-560	Expiration Pattern	7YTKKY-561	Expiration Pattern
3EWCPL-560	Expiration Pattern	87NAWV-561	Expiration Pattern
3GL6W3-560	Expiration Pattern	88YW2U-561	Expiration Pattern
3GXFG9-560	Expiration Pattern	8HVH98-560	Expiration Pattern
3KF9E9-560	Expiration Pattern	8ZKQPW-561	Expiration Pattern
3LFDCP-560	Expiration Pattern	936ZC3-561	Expiration Pattern
466R97-560	Expiration Pattern	9A4RCJ-560	Expiration Pattern
4AHWYU-561	Expiration Pattern		

TABLE 2a - Part 1: Mechanism of Deposition

Item 2, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
9FMM4U-561	Expiration Pattern	CY9G7T-561	Expiration Pattern
9LWDFU-560	Expiration Pattern	CYCBHZ-561	Expiration Pattern
9UN2MC-560	Expiration Pattern	D3KP6C-560	Impact Pattern
9XM63J-560	Expiration Pattern	DPJY9-561	Expiration Pattern
9XRYVK-560	Expiration Pattern	DQVQGU-560	Expiration Pattern
A3GTAW-560	Expiration Pattern	DZVHMZ-561	Expiration Pattern
A4CE23-560	Expiration Pattern	E4VJAV-560	Expiration Pattern
ABRFFW-560	Expiration Pattern	EANEGV-560	Impact Pattern
ACN3NU-560	Expiration Pattern	EFQNNM-560	Expiration Pattern
AKYHE3-560	Expiration Pattern	ENJXWX-561	Expiration Pattern
AQ27YB-561	Expiration Pattern	EPVHYF-560	Expiration Pattern
AQPUD7-560	Expiration Pattern	EPVKNK-561	Expiration Pattern
AVEJ7P-560	Expiration Pattern	EQQ2ZG-560	Expiration Pattern
AWPNGT-561	Expiration Pattern	FAHJBU-561	Expiration Pattern
AWPQ6C-561	Expiration Pattern	FAUVWY-561	Expiration Pattern
AYEXP9-561	Expiration Pattern	FDECZH-560	Expiration Pattern
B7VQHJ-560	Expiration Pattern	FN2NNC-560	Expiration Pattern
BAE9RU-560	Expiration Pattern	G62LBK-560	Expiration Pattern
BF2U49-560	Expiration Pattern	G6KKCP-560	Expiration Pattern
BFJ6CU-560	Expiration Pattern	G6WTAB-561	Projected Pattern
BFJRV-561	Expiration Pattern	G8L3GQ-560	Expiration Pattern
BFWD6A-561	Expiration Pattern	G8L67V-561	Expiration Pattern
CD9PF9-561	Expiration Pattern	GHRM39-560	Expiration Pattern
CFDPLU-561	Expiration Pattern	GUMGAG-560	Expiration Pattern
CMCE3Y-560	Expiration Pattern	GW3Q4T-561	Expiration Pattern
CWHQ8L-561	Expiration Pattern	GXK32J-560	Expiration Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 2, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
H9D9H7-561	Expiration Pattern	LRXTVG-560	Expiration Pattern
HEL6EG-560	Expiration Pattern	M9XB3R-560	Projected Pattern
HL2KPL-561	Expiration Pattern	MBPGEB-560	Expiration Pattern
HT38QE-560	Expiration Pattern	MF7FEK-561	Expiration Pattern
HVRGZF-561	Expiration Pattern	MTTJMG-561	Projected Pattern
HXEPX3-561	Expiration Pattern	MUE6XY-561	Expiration Pattern
HZ4WGD-561	Expiration Pattern	MW7PWW-560	Expiration Pattern
J9UGUV-560	Expiration Pattern	N43HCN-561	Expiration Pattern
JDLLPL-561	Projected Pattern	N8NQRW-560	Expiration Pattern
JJP8H4-561	Expiration Pattern	NB3968-560	Expiration Pattern
JL3GVA-560	Expiration Pattern	NDAP2H-561	Expiration Pattern
JLFBBB-561	Expiration Pattern	NDNJTY-560	Expiration Pattern
JPE8TV-560	Expiration Pattern	NDREMJ-561	Expiration Pattern
JRL68R-560	Expiration Pattern	NRQCVA-560	Expiration Pattern
JTFNBD-561	Expiration Pattern	NW4Q7F-560	Expiration Pattern
JV6Y9X-560	Impact Pattern	NXW8DN-560	Expiration Pattern
KGL2RG-560	Expiration Pattern	P39FFD-560	Expiration Pattern
KJQMNU-560	Expiration Pattern	P7LUNY-561	Expiration Pattern
KMUFKD-560	Expiration Pattern	PBJJJ7-560	Expiration Pattern
L224ZL-561	Expiration Pattern	PF9TGP-560	Expiration Pattern
L68KJB-560	Expiration Pattern	PHXZZ2-561	Expiration Pattern
L9RA4N-560	Expiration Pattern	PLEWGH-561	Expiration Pattern
LJ3N2F-561	Expiration Pattern	PMAFK4-560	Expiration Pattern
LM6LC9-560	Expiration Pattern	PXCXTL-560	Expiration Pattern
LP9KLF-561	Expiration Pattern	PYN3KC-561	Expiration Pattern
LQ37E8-560	Expiration Pattern	Q27GNC-560	Expiration Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 2, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
Q4WN7N-560	Impact Pattern	UFXF44-560	Expiration Pattern
Q9TUHP-560	Expiration Pattern	UW8RQ9-561	Expiration Pattern
QHXP8-561	Expiration Pattern	V8KQ3B-560	Expiration Pattern
QKGCDX-560	Expiration Pattern	VA7RL4-560	Expiration Pattern
QLRFPZ-561	Expiration Pattern	VG3XNX-560	Expiration Pattern
QMMYTM-561	Expiration Pattern, Projected Pattern	VGM7MN-561	Expiration Pattern
QRKF83-560	Expiration Pattern	VK8GV7-561	Expiration Pattern
QX4DK9-561	Expiration Pattern	VWZJ2Z-561	Expiration Pattern
RP9ZAV-560	Projected Pattern	VY4CVY-561	Expiration Pattern
RRFH9Q-561	Expiration Pattern	W6AREZ-560	Expiration Pattern
RVYDBH-560	Expiration Pattern	W8FNTW-561	Expiration Pattern
RX8X9C-560	Spatter Stain	WEG3EX-561	Expiration Pattern
T2K9K7-560	Expiration Pattern	WHW3HX-560	Expiration Pattern
T2XRJH-560	Mist Pattern	WNN467-561	Expiration Pattern
TKFTF7-560	Expiration Pattern	WTVBBV-560	Expiration Pattern
TNC43C-561	Expiration Pattern	WWFLJE-561	Expiration Pattern
TP7PV4-560	Expiration Pattern	X8WP4H-560	Expiration Pattern
TTQMJU-560	Expiration Pattern	XBA87E-561	Expiration Pattern
TVDURA-560	Spatter Stain	XEUYEW-561	Expiration Pattern
TW9A68-561	Expiration Pattern	XQNBUV-560	Expiration Pattern
TYDTBF-561	Expiration Pattern	XTDEM3-561	Expiration Pattern
U4GVGM-560	Expiration Pattern	XTPF6U-560	Expiration Pattern
U9FKA9-561	Expiration Pattern	XXJB4G-560	Expiration Pattern
UA9NN2-560	Expiration Pattern	XXNURK-561	Expiration Pattern
UBQDB3-560	Expiration Pattern	XZRV4V-560	Expiration Pattern
UCFTEH-560	Expiration Pattern	Y2ZXF2-561	Expiration Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 2, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
YGENBZ-560	Expiration Pattern		
YRYZMC-560	Expiration Pattern		
YT8AFA-560	Expiration Pattern		
Z3MQEU-560	Expiration Pattern		
Z9E3PD-561	Expiration Pattern		
ZD88HG-560	Expiration Pattern		
ZFDFFK-560	Expiration Pattern		
ZLM9F6-560	Expiration Pattern		
ZQDHNH-560	Expiration Pattern		
ZQVRW4-561	Expiration Pattern		

**Pattern Types reported for Item 2
(Total Participants Responding = 213)**

<u>Pattern Type</u>	<u>Percent Reported</u>
Expiration Pattern	199 (93.4%)
Projected Pattern	5 (2.3%)
Impact Pattern	4 (1.9%)
Spatter Stain	2 (0.9%)
Expiration Pattern, Projected Pattern	1 (0.5%)
Mist Pattern	1 (0.5%)
Spatter then flow pattern (movement due to gravity)	1 (0.5%)

TABLE 2a - Part 1: Mechanism of Deposition

Item 3

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
23QB3W-561	Swipe Pattern	4DV28N-561	Swipe Pattern
24EWG7-560	Swipe Pattern	4LUMVW-560	Swipe Pattern
2CX3FX-560	Swipe Pattern	4WT3LE-561	Swipe Pattern
2FT2JV-561	Swipe Pattern	4XNHXC-561	Swipe Pattern
2G3HRL-560	Swipe Pattern	69FQUJ-560	Swipe Pattern
2HHBTW-561	Swipe Pattern	6P7UC9-560	Swipe Pattern
2LY3XQ-560	Swipe Pattern	6Q4FC8-560	Swipe Pattern
2NN9F3-560	Swipe Pattern	6UZ27V-561	Swipe Pattern
2PJRH4-561	Swipe Pattern	77UTBZ-560	Swipe Pattern
2ZGRU9-561	Swipe Pattern	79DJ3B-560	Swipe Pattern
34FXX-561	Swipe Pattern	7DN2BX-560	Transfer Stain
368RJM-560	Swipe Pattern	7HNLQX-560	Swipe Pattern
38F84T-560	Swipe Pattern	7L2LK4-560	Swipe Pattern
3A7DM6-561	Swipe Pattern	7MEGKV-560	Swipe Pattern
3AJZ6J-561	Transfer Stain	7YTKKY-561	Swipe Pattern
3AZTNM-560	Swipe Pattern	87NAWV-561	Swipe Pattern
3C84H6-560	Swipe Pattern	88YW2U-561	Swipe Pattern
3EWCPL-560	Swipe Pattern	8HVVH98-560	Swipe Pattern
3GL6W3-560	Swipe Pattern	8ZKQPW-561	Swipe Pattern
3GXFG9-560	Swipe Pattern	936ZC3-561	Swipe Pattern
3KF9E9-560	Swipe Pattern	9A4RCJ-560	Swipe Pattern
3LFDCP-560	Swipe Pattern	9FMM4U-561	Swipe Pattern
466R97-560	Swipe Pattern	9LWDFU-560	Swipe Pattern
4AHWYU-561	Swipe Pattern	9UN2MC-560	Transfer Stain
4AZ9DT-560	Swipe Pattern	9XM63J-560	Swipe Pattern
4BAQJW-560	Swipe Pattern	9XRYVK-560	Swipe Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 3, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
A3GTAW-560	Swipe Pattern	DZVHMZ-561	Swipe Pattern
A4CE23-560	Swipe Pattern	E4VJAV-560	Swipe Pattern
ABRFFW-560	Swipe Pattern	EANEGV-560	Transfer Stain
ACN3NU-560	Swipe Pattern	EFQNNM-560	Swipe Pattern
AKYHE3-560	Swipe Pattern	ENJXWX-561	Swipe Pattern
AQ27YB-561	Swipe Pattern	EPVHYF-560	Swipe Pattern
AQPUD7-560	Swipe Pattern	EPVKNK-561	Swipe Pattern
AVEJ7P-560	Swipe Pattern	EQQ2ZG-560	Swipe Pattern
AWPNGT-561	Swipe Pattern	FAHJBU-561	Swipe Pattern
AWPQ6C-561	Swipe Pattern	FAUVWY-561	Swipe Pattern
AYEXP9-561	Swipe Pattern	FDECZH-560	Swipe Pattern
B7VQHJ-560	Swipe Pattern	FN2NNC-560	Swipe Pattern
BAE9RU-560	Swipe Pattern	G62LBK-560	Swipe Pattern
BF2U49-560	Swipe Pattern	G6KKCP-560	Swipe Pattern
BFJ6CU-560	Swipe Pattern	G6WTAB-561	Transfer Stain
BFJRV-561	Swipe Pattern	G8L3GQ-560	Swipe Pattern
BFWD6A-561	Transfer Stain	G8L67V-561	Swipe Pattern
CD9PF9-561	Swipe Pattern	GHRM39-560	Swipe Pattern
CFDPLU-561	Swipe Pattern	GUMGAG-560	Swipe Pattern
CMCE3Y-560	Swipe Pattern	GW3Q4T-561	Swipe Pattern
CWHQ8L-561	Swipe Pattern	GXK32J-560	Swipe Pattern
CY9G7T-561	Swipe Pattern	H9D9H7-561	Swipe Pattern
CYCBHZ-561	Swipe Pattern	HEL6EG-560	Swipe Pattern
D3KP6C-560	Swipe Pattern	HL2KPL-561	Swipe Pattern
DPJVY9-561	Swipe Pattern	HT38QE-560	Swipe Pattern
DQVQGU-560	Swipe Pattern	HVRGZF-561	Swipe Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 3, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
HXEPX3-561	Swipe Pattern	MUE6XY-561	Swipe Pattern
HZ4WGD-561	Swipe Pattern	MW7PWW-560	Swipe Pattern
J9UGUV-560	Swipe Pattern	N43HCN-561	Swipe Pattern
JDLLPL-561	Swipe Pattern	N8NQRW-560	Transfer Stain
JJP8H4-561	Swipe Pattern	NB3968-560	Swipe Pattern
JL3GVA-560	Swipe Pattern	NDAP2H-561	Swipe Pattern
JLFBBB-561	Swipe Pattern	NDNJTY-560	Swipe Pattern
JPE8TV-560	Swipe Pattern	NDREMJ-561	Swipe Pattern
JRL68R-560	Swipe Pattern	NRQCVA-560	Swipe Pattern
JTFNBD-561	Transfer Stain	NW4Q7F-560	Swipe Pattern
JV6Y9X-560	Swipe Pattern	NXW8DN-560	Swipe Pattern
KGL2RG-560	Swipe Pattern	P39FFD-560	Swipe Pattern
KJQMNU-560	Swipe Pattern	P7LUNY-561	Swipe Pattern
KMUFKD-560	Swipe Pattern	PBJJ7-560	Swipe Pattern
L224ZL-561	Swipe Pattern	PF9TGP-560	Swipe Pattern
L68KJB-560	Swipe Pattern	PHXZZ2-561	Swipe Pattern
L9RA4N-560	Transfer Stain	PLEWGH-561	Swipe Pattern
LJ3N2F-561	Swipe Pattern	PMAFK4-560	Swipe Pattern
LM6LC9-560	Swipe Pattern	PXCXTL-560	Swipe Pattern
LP9KLF-561	Swipe Pattern	PYN3KC-561	Swipe Pattern
LQ37E8-560	Swipe Pattern	Q27GNC-560	Swipe Pattern
LRXTVG-560	Swipe Pattern	Q4WN7N-560	Swipe Pattern
M9XB3R-560	Swipe Pattern	Q9TUHP-560	Swipe Pattern
MBPGEB-560	Swipe Pattern	QHXP8-561	Swipe Pattern
MF7FEK-561	Swipe Pattern	QKGCDX-560	Swipe Pattern
MTTJMG-561	Swipe Pattern	QLRFPZ-561	Swipe Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 3, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
QMMYTM-561	Swipe Pattern	VGM7MN-561	Swipe Pattern
QRKF83-560	Swipe Pattern	VK8GV7-561	Swipe Pattern
QX4DK9-561	Swipe Pattern	VWZJ2Z-561	Swipe Pattern
RP9ZAV-560	Swipe Pattern	VY4CVY-561	Swipe Pattern
RRFH9Q-561	Swipe Pattern	W6AREZ-560	Swipe Pattern
RVYDBH-560	Swipe Pattern	W8FNTW-561	Swipe Pattern
RX8X9C-560	Transfer Stain	WEG3EX-561	Swipe Pattern
T2K9K7-560	Swipe Pattern	WHW3HX-560	Swipe Pattern
T2XRJH-560	Swipe Pattern	WNN467-561	Swipe Pattern
TKFTF7-560	Swipe Pattern	WTVBBV-560	Swipe Pattern
TNC43C-561	Transfer Stain	WWFLJE-561	Swipe Pattern
TP7PV4-560	Swipe Pattern	X8WP4H-560	Swipe Pattern
TTQMJU-560	Swipe Pattern	XBA87E-561	Swipe Pattern
TVDURA-560	Swipe Pattern	XEUYEW-561	Swipe Pattern
TW9A68-561	Swipe Pattern	XQNBUV-560	Swipe Pattern
TYDTBF-561	Swipe Pattern	XTDEM3-561	Transfer Stain
U4GVGM-560	Swipe Pattern	XTPF6U-560	Swipe Pattern
U9FKA9-561	Swipe Pattern	XXJB4G-560	Swipe Pattern
UA9NN2-560	Swipe Pattern	XXNURK-561	Swipe Pattern
UBQDB3-560	Swipe Pattern	XZRV4V-560	Swipe Pattern
UCFTEH-560	Swipe Pattern	Y2ZXF2-561	Transfer Stain
UFXF44-560	Swipe Pattern	YGENBZ-560	Swipe Pattern
UW8RQ9-561	Swipe Pattern	YRYZMC-560	Swipe Pattern
V8KQ3B-560	Swipe Pattern	YT8AFA-560	Swipe Pattern
VA7RL4-560	Swipe Pattern	Z3MQEU-560	Swipe Pattern
VG3XNX-560	Swipe Pattern	Z9E3PD-561	Transfer Stain

TABLE 2a - Part 1: Mechanism of Deposition

Item 3, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
ZD88HG-560	Transfer Stain		
ZFDFFK-560	Swipe Pattern		
ZLM9F6-560	Swipe Pattern		
ZQDHNH-560	Swipe Pattern		
ZQVRW4-561	Swipe Pattern		

**Pattern Types reported for Item 3
(Total Participants Responding = 213)**

<u>Pattern Type</u>	<u>Percent Reported</u>
Swipe Pattern	198 (93.0%)
Transfer Stain	15 (7.0%)

TABLE 2a - Part 1: Mechanism of Deposition

Item 4

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
23QB3W-561	Wipe Pattern	4DV28N-561	Wipe Pattern
24EWG7-560	Wipe Pattern	4LUMWV-560	Wipe Pattern
2CX3FX-560	Wipe Pattern	4WT3LE-561	Wipe Pattern
2FT2JV-561	Wipe Pattern	4XNHXC-561	Wipe Pattern
2G3HRL-560	Wipe Pattern	69FQUJ-560	Wipe Pattern
2HHBTW-561	Wipe Pattern	6P7UC9-560	Wipe Pattern
2LY3XQ-560	Wipe Pattern	6Q4FC8-560	Wipe Pattern
2NN9F3-560	Wipe Pattern	6UZ27V-561	Wipe Pattern
2PJRH4-561	Wipe Pattern	77UTBZ-560	Wipe Pattern
2ZGRU9-561	Wipe Pattern	79DJ3B-560	Wipe Pattern
34FXX-561	Wipe Pattern	7DN2BX-560	Wipe Pattern
368RJM-560	Wipe Pattern	7HNLQX-560	Wipe Pattern
38F84T-560	Wipe Pattern	7L2LK4-560	Wipe Pattern
3A7DM6-561	Wipe Pattern	7MEGKV-560	Wipe Pattern
3AJZ6J-561	Wipe Pattern	7YTKKY-561	Wipe Pattern
3AZTNM-560	Wipe Pattern	87NAWV-561	Wipe Pattern
3C84H6-560	Wipe Pattern	88YW2U-561	Wipe Pattern
3EWCPL-560	Wipe Pattern	8HVVH98-560	Wipe Pattern
3GL6W3-560	Wipe Pattern	8ZKQPW-561	Wipe Pattern
3GXFG9-560	Wipe Pattern	936ZC3-561	Wipe Pattern
3KF9E9-560	Wipe Pattern	9A4RCJ-560	Wipe Pattern
3LFDCP-560	Wipe Pattern	9FMM4U-561	Wipe Pattern
466R97-560	Wipe Pattern	9LWDFU-560	Wipe Pattern
4AHWYU-561	Wipe Pattern	9UN2MC-560	Wipe Pattern
4AZ9DT-560	Wipe Pattern	9XM63J-560	Wipe Pattern
4BAQJW-560	Wipe Pattern	9XRYVK-560	Wipe Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 4, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
A3GTAW-560	Wipe Pattern	DZVHMZ-561	Wipe Pattern
A4CE23-560	Wipe Pattern	E4VJAV-560	Wipe Pattern
ABRFFW-560	Wipe Pattern	EANEGV-560	Wipe Pattern
ACN3NU-560	Wipe Pattern	EFQNNM-560	Wipe Pattern
AKYHE3-560	Wipe Pattern	ENJXWX-561	Wipe Pattern
AQ27YB-561	Wipe Pattern	EPVHYF-560	Wipe Pattern
AQPUD7-560	Wipe Pattern	EPVKNK-561	Wipe Pattern
AVEJ7P-560	Wipe Pattern	EQQ2ZG-560	Wipe Pattern
AWPNGT-561	Wipe Pattern	FAHJBU-561	Wipe Pattern
AWPQ6C-561	Wipe Pattern	FAUVWY-561	Wipe Pattern
AYEXP9-561	Wipe Pattern	FDECZH-560	Wipe Pattern
B7VQHJ-560	Wipe Pattern	FN2NNC-560	Wipe Pattern
BAE9RU-560	Wipe Pattern	G62LBK-560	Wipe Pattern
BF2U49-560	Wipe Pattern	G6KKCP-560	Wipe Pattern
BFJ6CU-560	Wipe Pattern	G6WTAB-561	Wipe Pattern
BFJRV-561	Wipe Pattern	G8L3GQ-560	Wipe Pattern
BFWD6A-561	Wipe Pattern	G8L67V-561	Wipe Pattern
CD9PF9-561	Wipe Pattern	GHRM39-560	Wipe Pattern
CFDPLU-561	Wipe Pattern	GUMGAG-560	Wipe Pattern
CMCE3Y-560	Wipe Pattern	GW3Q4T-561	Wipe Pattern
CWHQ8L-561	Wipe Pattern	GXK32J-560	Wipe Pattern
CY9G7T-561	Wipe Pattern	H9D9H7-561	Wipe Pattern
CYCBHZ-561	Wipe Pattern	HEL6EG-560	Wipe Pattern
D3KP6C-560	Wipe Pattern	HL2KPL-561	Wipe Pattern
DPJVY9-561	Wipe Pattern	HT38QE-560	Wipe Pattern
DQVQGU-560	Wipe Pattern	HVRGZF-561	Wipe Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 4, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
HXEPX3-561	Wipe Pattern	MUE6XY-561	Swipe Pattern
HZ4WGD-561	Wipe Pattern	MW7PWW-560	Wipe Pattern
J9UGUV-560	Wipe Pattern	N43HCN-561	Wipe Pattern
JDLLPL-561	Wipe Pattern	N8NQRW-560	Wipe Pattern
JJP8H4-561	Wipe Pattern	NB3968-560	Wipe Pattern
JL3GVA-560	Wipe Pattern	NDAP2H-561	Wipe Pattern
JLFBBB-561	Wipe Pattern	NDNJTY-560	Wipe Pattern
JPE8TV-560	Wipe Pattern	NDREMJ-561	Wipe Pattern
JRL68R-560	Wipe Pattern	NRQCVA-560	Wipe Pattern
JTFNBD-561	Wipe Pattern	NW4Q7F-560	Wipe Pattern
JV6Y9X-560	Wipe Pattern	NXW8DN-560	Transfer Stain
KGL2RG-560	Wipe Pattern	P39FFD-560	Wipe Pattern
KJQMNU-560	Wipe Pattern	P7LUNY-561	Wipe Pattern
KMUFKD-560	Wipe Pattern	PBJJ7-560	Wipe Pattern
L224ZL-561	Wipe Pattern	PF9TGP-560	Wipe Pattern
L68KJB-560	Wipe Pattern	PHXZZ2-561	Wipe Pattern
L9RA4N-560	Wipe Pattern	PLEWGH-561	Wipe Pattern
LJ3N2F-561	Wipe Pattern	PMAFK4-560	Wipe Pattern
LM6LC9-560	Wipe Pattern	PXCXTL-560	Wipe Pattern
LP9KLF-561	Wipe Pattern	PYN3KC-561	Wipe Pattern
LQ37E8-560	Wipe Pattern	Q27GNC-560	Wipe Pattern
LRXTVG-560	Wipe Pattern	Q4WN7N-560	Wipe Pattern
M9XB3R-560	Wipe Pattern	Q9TUHP-560	Wipe Pattern
MBPGEB-560	Wipe Pattern	QHXP8-561	Wipe Pattern
MF7FEK-561	Wipe Pattern	QKGCDX-560	Wipe Pattern
MTTJMG-561	Wipe Pattern	QLRFPZ-561	Wipe Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 4, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
QMMYTM-561	Wipe Pattern	VGM7MN-561	Wipe Pattern
QRKF83-560	Wipe Pattern	VK8GV7-561	Wipe Pattern
QX4DK9-561	Wipe Pattern	VWZJ2Z-561	Wipe Pattern
RP9ZAV-560	Wipe Pattern	VY4CVY-561	Wipe Pattern
RRFH9Q-561	Wipe Pattern	W6AREZ-560	Wipe Pattern
RVYDBH-560	Wipe Pattern	W8FNTW-561	Wipe Pattern
RX8X9C-560	Wipe Pattern	WEG3EX-561	Wipe Pattern
T2K9K7-560	Wipe Pattern	WHW3HX-560	Wipe Pattern
T2XRJH-560	Wipe Pattern	WNN467-561	Wipe Pattern
TKFTF7-560	Wipe Pattern	WTVBBV-560	Wipe Pattern
TNC43C-561	Wipe Pattern	WWFLJE-561	Wipe Pattern
TP7PV4-560	Wipe Pattern	X8WP4H-560	Wipe Pattern
TTQMJU-560	Wipe Pattern	XBA87E-561	Wipe Pattern
TVDURA-560	Wipe Pattern	XEUYEW-561	Wipe Pattern
TW9A68-561	Wipe Pattern	XQNBUE-560	Wipe Pattern
TYDTBF-561	Wipe Pattern	XTDEM3-561	Wipe Pattern
U4GVGM-560	Wipe Pattern	XTPF6U-560	Wipe Pattern
U9FKA9-561	Wipe Pattern	XXJB4G-560	Wipe Pattern
UA9NN2-560	Wipe Pattern	XXNURK-561	Wipe Pattern
UBQDB3-560	Wipe Pattern	XZRV4V-560	Wipe Pattern
UCFTEH-560	Wipe Pattern	Y2ZXF2-561	Wipe Pattern
UFXF44-560	Wipe Pattern	YGENBZ-560	Wipe Pattern
UW8RQ9-561	Wipe Pattern	YRYZMC-560	Wipe Pattern
V8KQ3B-560	Wipe Pattern	YT8AFA-560	Wipe Pattern
VA7RL4-560	Wipe Pattern	Z3MQEU-560	Wipe Pattern
VG3XNX-560	Wipe Pattern	Z9E3PD-561	Wipe Pattern

TABLE 2a - Part 1: Mechanism of Deposition

Item 4, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
ZD88HG-560	Wipe Pattern		
ZFDFFK-560	Wipe Pattern		
ZLM9F6-560	Wipe Pattern		
ZQDHNH-560	Wipe Pattern		
ZQVRW4-561	Wipe Pattern		

**Pattern Types reported for Item 4
(Total Participants Responding = 213)**

<u>Pattern Type</u>	<u>Percent Reported</u>
Wipe Pattern	211 (99.1%)
Swipe Pattern	1 (0.5%)
Transfer Stain	1 (0.5%)

Pattern Description

TABLE 2b - Part 2: Recognition and Description

Item 5

WebCode-Test	Detailed Pattern Description
23QB3W-561	Target 5 depicted three separate patterns, arbitrarily designated as patterns A, B and C. Pattern A, along the left side of target 5, is consistent with a transfer pattern with movement (from top to bottom). The ability to determine a more specific mechanism (swipe pattern or wipe pattern) is limited by the exclusion of the upper originating end of the pattern in the image provided. Pattern B, in the upper right area of the target, is consistent with a transfer pattern, with a shape and appearance consistent with a partial right foot with a sock on it. Pattern C, in the lower right area of the target, is consistent with a drip pattern.
24EWG7-560	There are 3 visible patterns however, parts of the patterns are excluded in the photo. Two of these patterns appear to continue past the boundaries of the ruler but are not visible. On the right top corner, there is a single stain/pattern that is irregular in shape (appearing as a foot type shape). There is a pattern within the stain consisting of parallel lines along the length of the stain. These lines have a textured appearance as if from a fabric. This pattern is identified as a transfer stain. On the left side of the photo, there is a long somewhat linear pattern extending from the top to the bottom. Dark and light areas in the pattern appear to be associated with the concentration of blood in those areas. There is an irregular edge at the bottom. The upper edge is not visible. Linear, parallel lines are observed with the pattern. Based on the limitations of the photograph, the pattern is best described as a transfer pattern/stain associated with motion or a swipe pattern. This description may be different if the rest of the pattern was available for evaluation. On the lower right hand corner, there is a single irregular shaped stain with some smaller round to ovoid stains (satellite stains) surrounding it. There is an absence of blood in some areas around the single stain. Some round edge characteristics are observed but, there are also linear and irregular edges. There are small areas on the edge that are lighter in color. The central part of the stain is very dark with a linear/radiating pattern within it. It is difficult to determine if this is how the stain dried on target or if this is due to a blood clot. The photograph does not allow one to clearly observe the dimensionality of the pattern. There are indications that this could be a blood clot and/or a drip pattern however, based on the limitations of the photograph and of the edge characteristics, the pattern would be identified as a bloodstain.
2CX3FX-560	A transfer stain was observed along the length of the left side of the foam board. A drip pattern was observed in the lower right hand corner of the foam board. A second transfer stain, in the shape of a partial apparent right foot with an apparent fabric pattern transfer, was observed in the upper right hand corner.
2FT2JV-561	There are three distinct bloodstain patterns present in Item #5. In the upper right hand corner of the photograph is a "Transfer Stain" (a bloodstain resulting from contact between a blood-bearing surface and another surface). The transfer stain is consistent with having been created by a person wearing a bloodstained sock and walking across the surface leaving the sock-clad foot impression. The second stain pattern is located just below the heel portion of the foot impression and is found in the bottom right hand corner of the photograph. This pattern is consistent with a "Drip Pattern" (a bloodstain pattern resulting from a liquid that dripped into another liquid, at least one of which was blood). It appears as if a few individual blood drops fell to the floor creating the roughly 4-cm diameter parent stain, which produced the smaller satellite stains radiating out and around the parent stain. The final stain pattern present in the photograph was located along the left edge of the image. The stain pattern is safely described as another "Transfer Stain". In addition, the object that created the pattern was moving in a downward direction. Because the photograph does not show where the stain pattern begins, one should not state whether the stain was technically a "Wipe Pattern" or a "Swipe Pattern".
2G3HRL-560	The photograph depicts three distinct bloodstain patterns (events). In the upper right section of the photo is a footwear impression exhibiting fabric impressions. The foot is pointing toward the top of the image with the ball of the foot and heel present. The second bloodstain pattern near the lower

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	right quadrant of the photograph is consistent with a large volume of falling blood, most consistent with a drip pattern, resulting from blood falling into blood. There are satellite spatter around the parent stain. The third pattern in the left half of the photo could either be a swipe or wipe pattern. A determination cannot be made because the start of the stain is not present in the photograph. The directionality of the stain is from the top toward the bottom of the photograph.
2HHBTW-561	Transfer pattern in the upper right portion of the foamboard with a drip pattern in the lower right portion of the foamboard. A swipe or wipe on the left side of the foamboard extending from the upper portion to the lower portion of the foamboard.
2LY3XQ-560	A swipe pattern can be seen on the left side of the target. A transfer pattern is present on the upper right side of the target. Dripped stains and a pooled stain surrounded by satellite stains can be seen on the lower right corner of the target.
2NN9F3-560	Item # 5 contains three distinct bloodstain patterns. a. On the left is a transfer stain that includes characteristics of movement. The placement of the scale in the photo makes it impossible to determine definitively whether the stain is a wipe pattern or swipe pattern. There is a smaller disconnected portion to the left that appears to be a swipe and leads me to conclude that the whole stain is likely a swipe pattern. b. At the top right is a transfer stain that has characteristics of fabric. The stain appears to be a partial footprint made by an individual wearing a sock. c. At the bottom right is a drip pattern.
2PJRH4-561	To the left of the page, extending from the top, in a downward direction, is a contact transfer pattern consistent with a hair swipe. To the right is a contact compression transfer of a material clad, right foot, most probably a sock. To the bottom right is a drip pattern with associated satellite spatter.
2ZGRU9-561	The target surface contains three main bloodpatterns[sic]. On the upper, right-hand side of photo, there is a transfer Stain resulting from a right foot with sock contaminated by blood. A wipe or swipe pattern is observed on the left hand side and had been wiped from top toward the bottom of the photo. But It's hard to tell exactly which pattern belong to this stain, because lack of the upper end information. A drip pattern is visible on the bottom right corner and resulting from several blood drops into blood. We can observe several satellite stains around the parent stain (drip pattern).
34FXX-561	On the left is either a swipe or wipe pattern. The origin of the stain is not in view to determine if there is an altered stain. In the upper right portion is a transfer stain which resulted from contact with a textured surface. In the lower right corner there is a drip pattern.
368RJM-560	There are 3 major patterns present in the image: 1 - In the lower right hand corner there is a drip pattern, with the major portion of the stain measuring approximately 54mm by 34mm. It is approximately 61mm up from the lower edge of the image, and approximately 33mm in from the right side. 2 - In the mid-to-upper right region there is a contact transfer pattern of a possible sock shod foot. It appears to be a static (non-moving) transfer; no discernible directionality observed. It is approximately 242mm in length, and approximately 95mm at its widest point. 3 - In the left side of the image is a contact transfer, indicative of a possible swipe pattern. This pattern extends the entire length of the image (top to bottom). It measures approximately 300+mm in length, and approximately 62mm at its widest point. There is also a void present in this pattern that measures approximately 14mm, extending through most of the patterns length.
38F84T-560	A swipe pattern extends along the entire left side of the target. A transfer stain consistent with a socked right foot is present in the upper right hand corner. In the lower right hand corner of the target, a drip pattern is present with associated satellite stains.
3A7DM6-561	The accumulated volume of blood in the lower right corner with its irregular margin and surrounding random satellite stains is a blood into blood drip pattern. This drip pattern exhibits a darkened cracked appearance suggesting it has dried. The other stains depicted in this item are lighter and do not appear to be dried. The blood into blood pattern occurred a significant amount

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	<p>of time before the other stains allowing it to dry. There is a pattern transfer consistent with a bloody socked foot toward the upper right corner. The toe portion of the foot is not visible as it continues off of the photograph at the upper margin. Finally, there is a long, slightly curved transfer stain or smear down the left side, which appears to continue above the photograph. The bottom of this smear exhibits feathering at the lower left corner. Direction of motion cannot be specified due to the possible presence or lack of feathering at the obscured upper extreme of the stain. A pre-existing stain may also be present. Without visualizing the entirety of the smear, there is no way to specify a wipe or a swipe.</p>
3AJZ6J-561	<p>Item 5 consists of three major stain types as follows: (1) Transfer bloodstain in upper right of screen. Linear features are indicative of fabric substrate; shape indicative of a part of a foot (heel to just behind toes). (2) Swipe pattern in left screen. Linear features indicating movement from bottom to top of screen. (3) Drip pattern in bottom right of screen. Pooled dried blood with subsequent satellite spatter surrounding dried drip pattern.</p>
3AZTNM-560	<p>The left side of the target contains a swipe measuring approximately 12 1/2 inches in length by 1 5/8 inches at its widest point. To the right of the swipe is a void and then a smaller swipe measuring approximately 9 inches in length by 1/8 inch wide. The upper right side of the target contains a transfer pattern which appears to be a fabric impression of a right foot that measures approximately 9 1/2 inches in length by 3 3/4 inches at its widest point. The lower right side of the target contains a drip pattern that resulted from a dried pool. The drip pattern measures approximately 2 inches by 1 1/2 inches at its widest point.</p>
3C84H6-560	<p>LHS of board is a swipe pattern exhibiting directionality from top left to lower left indicated by trailing edge. Upper right. Transfer pattern that is an impression of a right foot wearing a fabric sock. Lower right is a drip pattern with satellite stains.</p>
3EWCPL-560	<p>There is a transfer pattern located in the right upper side of the image. The pattern is approximately 9.5cm at its widest point and approximately 23.5cm in length. The pattern appears to be from fabric (possible sock) and it appears to be a right foot. There is a pool of blood in the lower right corner of the image which measures approximately 5.5cm x 3cm. There are drip patterns measuring 1 to 5mm in diameter surrounding the pool of blood. There is a swipe pattern on the left side of the image which extends from the top of the image to the bottom. The swipe pattern is approximately 6cm in width at its widest point. There is a 1.5cm in width void on the right side of the pattern which extends from the top portion of the pattern downward approximately 23cm towards the bottom of the image. There is a swipe pattern in the left center of the image which measures approximately 2.3cm in length x .5cm in width.</p>
3GL6W3-560	<p>A contact transfer pattern measuring approximately 200mm X 100mm overall (for image shown i.e. portions of the pattern appear covered by the scale) was observed in the upper right of target. A wipe/swipe event measuring 300mm X 60mm (again as for the image shown) was observed. The direction of the pattern appears to originate from the top of the target and is in a downward direction. A pattern measuring approximately 30mm X 60mm that is consistent with being blood into blood was observed in the lower right portion of the target with apparent satellite stains radiating from the parent stain.</p>
3GXFG9-560	<p>In my opinion, there appears to be a large area of swiped blood on left of board, likely extending from upper left to bottom left; however this cannot be assessed fully as one end of the stain is not shown in the photo. Heavy dripped blood is present on the lower right of the board resulting in associated satellite stains some of which exhibit directionality away from the parent stain. There is a transfer stain in the upper right of the board that in my opinion has been deposited as a result of a wet bloodstained socked right foot contacting the board such that fabric marks are apparent within the staining.</p>
3KF9E9-560	<p>There are three patterns on the horizontal foamboard. Pattern A, on the left, runs the length of the left side of the foamboard. Pattern B is in the upper right. Pattern C is in the lower right. Pattern A:</p>

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	<p>The pattern is approximately 11.5 inches long by 2.5 inches wide. It consists of striations within the pattern. One end of the pattern cannot be observed. No obvious feathering can be seen. There is a slight indication of the pattern being darker at the bottom and getting lighter towards the top.</p> <p>With-in the pattern there is no pre-existing stain that can be seen. Pattern A is a swipe. Pattern B: The visible pattern is approximately 8.5 inches by 4 inches at its widest. Not all of the pattern can be observed on the foamboard. There are well formed edges and the pattern appears to have a definite shape. The interior portion of the pattern consists of small marks that look like a fabric pattern. Pattern B is a Transfer stain. Pattern C: The pattern consists of a large, irregular parent stain and many satellite stains surrounding it. The parent stain is approximately 2 inches by 1.25 inches. The satellite stains are circular to elliptical in shape and range in size from 1 mm in diameter up to 2 mm by 6 mm. The satellite stains do not all show the same directionality. The parent stain shows cracking in the interior of the stain. Pattern C is Drip pattern.</p>
3LFDCP-560	<p>Based on the choices provided by CTS, this target surface possessed the following bloodstain patterns: A drip pattern with satellite stains was located at the bottom right corner of the target surface. A large transfer pattern was located at the top right of the target surface and extended through the center right portion. A large swipe pattern was located at the top left of the target surface and extended through the center left portion. A small swipe pattern was located at the center left edge of the target surface. CTS specifically stated that this was not a reconstruction and to focus on pattern recognition. No sequencing or directionality were indicated based on this direction.</p>
466R97-560	<p>Transfer Stain: Top right corner = contact between blood-bearing surface & 2nd surface, recognizable pattern (foot) w/ barrier (sock) between board & skin. Drip Pattern: Lower right corner = liquid blood dripping into another liquid, associated spatter around parent stain, altered stain (drying). Transfer Stain: Contact between blood bearing surface & 2nd surface. Because pattern runs off & starts off of the image provided, more specific identification can not be made. Left side of image.</p>
4AHWYU-561	<p>1) A transfer stain in the right top part of the target. The stain is indicative of right sock wearing foot (The sock is so saturated with blood) coming into contact with target surface. 2) A swipe pattern in the left side of the target. The stain is indicative of blood bearing surface moving across the target surface. 3) A drip pattern in the right corner of the target. The stain is indicative of blood dripping into the blood of the target.</p>
4AZ9DT-560	<p>Swipe Pattern - Left side Linear striations within pattern, with deminision[sic] staining upwards. Lateral movement visible within pattern with direction from bottom to top. The bloodstain pattern also indicate characteristics of the object which created the pattern, hair or an hair like object. Transfer stain - right side Bloodstain pattern created with charactgeristics[sic] of the source image which created the bloodstain pattern. Characteristics of fabric and construction of fabric visible within pattern. The shape of the pattern suggest a right foot covered with fabric, most propably[sic] a sock. Drip pattern - right bottom corner Drip pattern observed with satelite[sic] spatter radiating outwards from parent stain. The bloodstain was most probaly[sic] created by blood dripping from a blood source perpendicular and above drip pattern observed.</p>
4BAQJW-560	<p>Item 5 contains a swipe pattern at the left between 150 and 170mm from the top. A 45mm-wide swipe or wipe pattern is present at the left side of the target between the top and the bottom. A transfer pattern in the apparent shape of a foot and with characteristics of a fabric impression is at the top right. A drip pattern is at the center and bottom right. The parent stain is at the bottom right and corresponding satellite stains are between the center and bottom right.</p>
4DV28N-561	<p>Drip pattern on lower right corner of target. Swipe patterns along left side of target, they suggest movement from bottom of target to the top of target. Transfer stain, appearing to be the result of a blood saturated sock worn on a right foot stepping onto the upper right corner of the target.</p>
4LUMWV-560	<p>In the lower right hand corner is a drip pattern; liquid that dripped into another liquid, one of which</p>

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	is blood, it is irregular in shape surrounded by circular and elliptical satellite stains measuring ~ 1 to 4 mm. A transfer stain was noted on the upper right hand portion, irregular in shape, looks like an apparent partial footwear indicating a bloodied object came into contact with the surface. A transfer was noted on the left portion of the page. The pattern has characteristics that indicate that the pattern could be a swipe or a wipe, but due to lack of information of not seeing the entire pattern that conclusion cannot be made. The transfer is a bloodstain resulting from contact between a blood bearing surface and another surface.
4WT3LE-561	In the right bottom corner, we can see a small pool of blood with evidence of a drip pattern around this pool. Just above this pool of blood, we can see a transfer stain of 220 mm from fabric consistant[sic] with a partial right foot without the toes. On the left part, there is a partial transfer stain of 300 mm with motion from top to bottom. From this image, we can not tell if this is a swipe or a wipe. At 160 mm, at the left side, there is a small transfer stain of 20 mm.
4XNHXC-561	Left: Swipe or wipe pattern, direction: from upper to lower. Upper Right: Transfer pattern caused by the weave. Lower Right: drip pattern being clotted with accompanying drops
69FQUJ-560	A swipe/wipe pattern is present along the left side of the target. The entire pattern is not visible on the target but based on what is visible, the pattern is a swipe due to the lack of apparent pre-existing stain(s). The motion appears to be in a downward direction (toward bottom) based on what is visible (some apparent feathering at the bottom). A transfer stain is present near the top right corner of the target. The transfer stain appears to be that of a socked foot based on the shape of the stain and what appears to be a fabric impression throughout. A drip pattern (irregular margins and apparent volume accumulation) with resulting satellite spatter/stains is present near the bottom right corner of the target.
6P7UC9-560	Three distinct bloodstain patterns are apparent on target Item 5. One stain appears to be a transfer stain possibly in the shape of a socked foot. This transfer stain resulted from a material that was saturated with blood being applied to the target. The second stain is a drip pattern where blood appears to have dropped onto the target. Pooling then occurred where blood accumulated in the same area. Surrounding the pool are accompanying drops where blood was splashed off the pooling creating smaller drops in the surrounding area. These accompanying drops are of varying size depending on the amount of blood on the surface at the time of impact. The third stain is a swipe pattern where an object, such as hair, that was saturated with blood came into contact with the target and traveled in an apparent downward direction and then lifted off the target.
6Q4FC8-560	After examination of item 5, the following patterns were observed: transfer, drip pattern with satellite stains coming from the parent stain, and with no edge characteristics present, it appears to be an altered stain known as a swipe.
6UZ27V-561	A swipe pattern was observed on the left side of Item 5. An additional small swipe pattern was located on the far left edge near the middle of the target. A transfer stain was observed in the upper right corner. In my opinion, the transfer stain is consistent with being made by a right foot that had a sock on it based on the shape of the stain and the texture observed in the stain. Additionally, a drip pattern was located in the bottom right corner of Item 5.
77UTBZ-560	A transfer stain from a right foot with a fabric pattern in blood is in the upper right hand corner of the photograph. A drip pattern is in the lower right hand corner of the photograph a result of blood dripping in to blood. A swipe/wipe pattern starts in the upper left corner and travels down and to the lower left corner as indicated by the terminal feathering of the stain. It is difficult to determin[sic] the difference between a swipe and a wipe because the photograph does not show the beginning of the stain.
79DJ3B-560	A transfer pattern consistent with a blood-soaked sock worn on a right foot is in the upper right corner of the target. A swipe or wipe pattern extending from the top to the bottom of the target is located to the left of the transfer pattern. A dried drip stain with satellite stains radiating back to the parent stain pattern is located in the bottom right corner of the target below the transfer stain.

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
7DN2BX-560	There are 3 bloodstain patterns present to characterize. The long RBS is a transfer stain. In the top right corner is a transfer stain. (In this actual stain there appears to be marks similar to fabric). The third stain in the bottom right is a drip pattern.
7HNLQX-560	Left: ~35cm long by ~6cm wide linear bloodstain consistent with a swipe pattern. The right side is lighter with a ~1.4 cm gap. The lower portion of the stain has an irregular edge. The upper edge is not visible in the photograph; therefore, the direction/motion of the stain is not determinable. Right (upper): distinct shape of a right foot apparent in a stain measuring ~22cm in length with linear demarcations consistent with knit fabric; transfer pattern. Right (lower): bloodstain of ~5.5cm by 3.5cm with satellite stains (~<1mm to 3mm circular and elongated), consistent with drip pattern.
7L2LK4-560	Top right - Transfer pattern/stain which has originated from a blood bearing sock coming into contact with the surface. Left side - Swipe pattern can see indicative motion between surfaces at the bottom of the pattern. Please note, cannot see top of stain to rule out a wipe from a heavy blood stain. Bottom right - This is a drip pattern. In this stain, can identify parent stain from which satellite stains have originated.
7MEGKV-560	The photo shows three distinctly different bloodstain patterns: 1) There is a transfer stain in the upper right hand side of the photo. This stain is possibly part of a foot impression made by somebody wearing a bloodstained sock. 2) There is a drip pattern in the lower right hand side of the photo. 3) On the left hand side of the photo there is a transfer stain that has characteristics that are most consistent with a swipe pattern.
7YTKKY-561	On the left side of the foam board, there is a pattern consistent with a swipe pattern. It looks to have been caused by a dirty/blood bearing object that was dragged or pulled across the horizontal surface. Feathering was noticed in the lower left corner of the foam board. This could be the beginning or the end of the swipe pattern but due to lack of other evidence or photographs to be used in conjunction with the foam board, I am not comfortable in stating an opinion. On the upper right corner of the foam board, there appears to be a transfer pattern from material, possibly from a sock because the pattern is shaped like a right foot. On the lower right corner or[sic] the foam board, there is a drip pattern. The main stain, the parent stain, is created by a liquid dripping and pooling into one area. If the volume is sufficient and the liquid continues to drip into the parent stain, this can cause satellite stains around the parent stain. There appears to be no directionality and is a passive blood letting.
87NAW-561	On the left side is a wipe or swipe pattern, moved from the upper left hand corner down to the under left hand corner. The emergence is outside of the picture. On the right side is a transfer pattern of a textile sock, the sole of the right foot. In the under right corner is a small pool pattern, resulting from a few drops. Around the pool are some satellite stains.
88YW2U-561	Item 5 is a horizontal surface with three primary events. The lower right corner of the target has a stain characteristic of a drip pattern with associated satellite spatter. The upper right half of the target has a partial stain characteristic of a transfer pattern. The transfer pattern appears to have a weave pattern throughout the stain and is in the shape of a partial right footprint. The weave pattern in the shape of a footprint may indicate a bloody sock was used to make that stain. Another partial bloodstain pattern was present on the left half of the target. This bloodstain has striations and has some feathering. This bloodstain could be a swipe or a wipe. Since the top portion of the stain is obscured, it is not possible to see if a preexisting stain was altered. To the left of the swipe/wipe pattern, about halfway up the target, is a small stain consistent with a swipe.
8HVH98-560	There are 3 primary stains to item 5. A transfer stain, a swipe pattern, and a drip pattern. Several satellite stains surround the drip pattern as well.
8ZKQPW-561	Item 5 appears to display several apparent bloodstain patterns deposited onto a white foam board positioned in the horizontal plane. The large pattern on the left side of the image in Item 5 may have been produced by an apparent blood bearing surface making contact with the foam board

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	<p>and transferring apparent blood with relative motion occurring from the top to the bottom of the image, referred to as a swipe pattern. However, because we cannot see the entire bloodstain, it may also have been caused by a bloodstain being altered by an object moving through it, best described as a wipe pattern. The pattern in the upper right side of the image in Item 5 appears to have been caused by a blood bearing surface, possibly an apparent blood stained sock print, making contact with the white foam board, and is best described as a transfer stain. The pattern in the lower right side of the image in Item 5 appears to have been caused by apparent blood dripping into an existing pool of apparent blood causing satellite stains radiating out from the parent stain and is best described as a drip pattern. The small pattern in the middle left side of the image may have either been produced by an apparent blood bearing surface making contact with the foam board and transferring apparent blood with relative motion occurring, referred to as a swipe pattern or it may have been caused by an apparent bloodstain(s) being altered by an object moving through it, and is best described as a wipe pattern.</p>
936ZC3-561	<p>Item 5: The image is a white horizontal surface. Three distinct patterns are present. The left side of the image shows a long swipe/wipe, extending vertically. The direction of the swipe/wipe is not conclusive. The gross characteristics of the pattern taper at the bottom of the left side of the image, but several smaller feathered edges/points are visible that face toward the top of the image. Because the top end of the pattern is covered, additional available information regarding source and direction of the blood pattern is limited. A partial right footprint in blood is visible in the upper right area of the image; the toes are not visible. A fabric pattern is clear in the impression, indicating a socked foot. The fabric transfer pattern is even and detailed, and was likely "inked" in blood at a separate source prior to creating the impression. The lower right side of the image shows a blood-into-blood drip pattern, approximately 5 cm by 4 cm in size. The stain is compact and the satellite spatter are close to the parent stain and largely circular or ovoid as opposed to having sharp, elongated spines. In addition, several of the satellite spatter still have attached spines. The surface of the pattern is cracked and ready to flake, indicating its complete dryness.</p>
9A4RCJ-560	<p>Along the left side of the target, there is a swipe pattern. Toward the upper right corner area of the target, there is a transfer pattern, possibly created from a socked foot, based on the shape and texture of the stain. In the bottom right corner area of the target, there is a drip pattern present with some satellite stains around the irregular-shaped parent stain and on the center of the target.</p>
9FMM4U-561	<p>In this Item we observed at least three different bloodstain patterns. 1. A transfer stain is evident at the upper right quadrant. This transfer stain corresponds to the image of a foot covered with a sock. The front part of the foot is located upwards. 2. In the bottom right corner we can see an altered parent stain. The parent stain is dried (which is evident by the stretch marks all over it). This parent stain has in general irregular edges (left side), but also presents some contiguous demarcation on its edges. Around the dried parent stain there is few satellite stains that project around it, some of these satellite stains extend from right to left and upward. 3. In the left half of the target there is a smear that extends from the top and upwards. The direction of the smear is indicated by the feathering in the bottom part of the smear.</p>
9LWDFU-560	<p>A: Stain on the top right = transfer stain with an apparent fabric impression. B: Stain extending between the top and bottom left side - transfer stain exhibiting movement (I cannot see the entire stain so I am unable to further classify as a swipe or a wipe). C: Stain on the bottom right = drip pattern.</p>
9UN2MC-560	<p>The target contains three (3) distinct patterns: 1) Wipe Pattern, 2) Transfer Stain, and 3) Drip Pattern. The wipe pattern is present on the left side of the target image running from the top left side of the image to the bottom left side of the image spanning the entire target length. The transfer stain is at the top center of the target image and angles right to approximately the center of the image (to the right). The drip pattern is below the transfer stain to the right side of the target image.</p>
9XM63J-560	<p>A drip pattern was noted as present in the lower right corner of the target. Satellite stains were noted as present around the parent stain of the drip pattern. A transfer stain of an apparent</p>

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	stocking clad right foot was noted as present in the upper right corner of the target. A swipe pattern or a wipe pattern was noted as present on the left side of the target.
9XRYVK-560	Item 5 contains three distinct bloodstain patterns. The pattern in the upper right of the photograph is a transfer stain in the shape of the bottom of a human foot. A repeating pattern in the impression is indicative of the foot wearing a sock or fabric. The pattern in the lower right of the photo is a drip pattern with approximately 35 satellite stains around the parent stain. The surface of the parent stain has a cracked appearance indicating drying has occurred. The pattern on the left side of the photo is a swipe/wipe pattern approximately 6 cm wide and 30 cm long. Striations, a few with heavy volume, in the pattern indicate movement along the long axis of the stain. Differentiation between a swipe and a wipe could not be conclusively determined via experimentation for this stain.
A3GTAW-560	There is a transfer stain on the top right of the photo. There is a drip pattern on the bottom right of the photo. There is also a swipe along the left side of the photo.
A4CE23-560	Stains observed on Item 5 are visually consistent with transfer patterns in the form of a swipe/wipe and an impression created by what appears to be a sock wet with blood. Additionally, a small drip pattern is present in the lower right corner of the target.
ABRFFW-560	A swipe pattern from the top to the bottom was observed on the left side. A transfer stain formed by a bloodstained fabric footwear of a right foot was observed on the upper right corner. Drip pattern with satellite stains were observed on the lower right corner.
ACN3NU-560	A linear red-brown stain w/striations & movement observed, is visualized on the left hand side. However, the top of the photo is cut off, so unable to determine if stain is a swipe pattern or a wipe pattern. An apparent fabric impression, appearing in the shape of a foot, however top of photo is cut off, resulting in a transfer stain, upper right hand side. The lower right hand side exhibits circular stains w/smaller circular & elliptical satellite stains, consistent w/ a drip pattern.
AKYHE3-560	1 - Stain runs vertically on left side of item. Approximately 6 cm in width and has no distinct shape. Stain has the appearance of a transfer stain, specifically a swipe pattern. 2 - Right top corner. Stain in shape of a foot with a fabric pattern and appearance of a transfer stain. 3 - Right bottom corner. Stain has parent stain consisting of an irregular shape with rounded edges. Stain suggests that it was made from a number of drips into same stain which have caused satellite stains with directionality outwards from parent stain. Parent stain has the appearance of drip stains forming a drip pattern.
AQ27YB-561	In the lower Right corner of the target there is a "Drip Pattern" that was created by a liquid, such as blood, dripping into another liquid. The "Drip Pattern" has dried prior to photograph and shows the blood beginning to crack. Surrounding the "Drip Pattern" are several smaller stains which have the appearance of "Satellite Stains". These "Satellite Stains" appear to have originated during the formation of the "Drip Pattern". In the upper Right corner of the target is a "Transfer Stain" which appears to have been created by an unknown Right foot wearing a blood-soaked sock & coming in contact with the target and transferring the bloody impression onto it. Along the Left side of the target there is a bloodstain pattern with characteristics that indicate motion from the top of the target to the bottom. This bloodstain pattern could be either a "Swipe" or "Wipe" pattern. No further conclusions can be drawn to make a determination between "Swipe" or "Wipe" as this photo does not show the complete/top portion of the bloodstain pattern.
AQPUD7-560	A transfer stain is located on the upper right region of the foam board. The shape and fabric pattern visible within the stain indicates that the bloodstained object was a right foot with a sock on it. A drip pattern is located on the bottom right of the foam board below the transfer stain. A wipe or swipe pattern is located on the left side of the foam board with directionality from the top to the bottom of the foam board. I cannot determine whether the pattern is either a swipe or a wipe pattern because the start of the stain is beyond the top of the foam board and is not visible.
AVEJ7P-560	A transfer pattern is observed in the upper right corner. The pattern is consistent with a right foot,

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	wearing a sock containing blood. In the lower right hand corner is a drip pattern consisting of at least two parent stains, satellite stains are observed emanating[sic] from this drip pattern. A swipe pattern is observed starting in the lower left hand corner moving upwards to the upper left hand corner. Linear pattern throughout stain.
AWPNGT-561	Right Side - A patterned contact transfer consistent with the shape of a right foot with apparent fabric weave (sock) present throughout. Bottom - Overlapping blood into blood drips with satellite spatter. Left - A wipe or swipe with motion from top toward bottom (a small wipe is present at the left middle. Cannot see the start of the pattern to further classify.
AWPQ6C-561	In the target's left side there is a descending swipe pattern made by a blood-bearing object. In the target's right side we can find a transfer stain produced by a right foot that it is wearing a sock or another kind of knitting cloth. Additionally, in the target's right bottom side there is a drip stain surrounded by satellites stains resulting from falling drops due to gravity. In the expert's opinion, the action sequence was that firstly, the transfer stain made by a right foot was produced, and it was followed by the drip stain. Finally the descending swipe pattern was produced by an unknow[sic] object.
AYEXP9-561	Three bloodstain patterns were observed in the (Item 5) photographic image. A partial bloodstain pattern aligned vertically was located along the left side of the image. This partial pattern consists of an approximately linear bloodstain oriented vertically. The upper portion of this bloodstain is obscured by the ruler located along the top edge of the image. This bloodstain exhibits characteristics of the blood being moved in a vertical motion relative to the substrate surface. Since the uppermost portion of the bloodstain is out of view as depicted in the image, the exact mechanism of how this stain was formed could not be confirmed. A partial pattern bloodstain was located in the upper right portion of the image. The bloodstain pattern is a transfer pattern and is consistent with a fabric impression in blood resembling the shape of the sole of a right foot. A drip pattern bloodstain was located in the lower right portion of the image. This pattern contains a parent stain surrounded by satellite stains.
B7VQHJ-560	Swipe pattern on the left side. Transfer stain on the right half of the page & right upper corner consistent with a sock covered Rt foot. A small blood pool with a limited number of stains creating a drip pattern around the pool in the lower right corner.
BAE9RU-560	One wipe or swipe bloodstain pattern showing lateral movement, showing directionality from upper target to bottom of target measuring approx. 2 1/2" wide x 12" long. Transfer stain consistent with a bloody surface coming into contact with a non-bloody surface measure approx. 10" long x 4" wide, exhibiting a repeatable pattern. Blood drip pattern at lower right of target. The parent stain is approx. 2" x 1 1/4" with satellite stains surrounding the parent stain.
BF2U49-560	This comprised three main patterns. On the bottom right is a drip pattern with some associated satellite stains. On the upper right there is a transfer stain with fabric pattern this may be from a sock being worn. On the left side there is swipe.
BFJ6CU-560	The bloodstain patterns in this photograph are comprised of three main categories: In the left-hand side of the photograph there is a linear stain pattern that measures approximately 30 cm from top to bottom and is approximately 6 to 6.5 cm in width depending upon which section of the stain is measured. The left-hand and right-hand margins of this stain are well defined as is the right-hand margin although the right-hand margin is a single linear swipe that is approximately 1.5 cm away from the main body of this stain. The portion of the stain at the bottom left-hand side of the photograph appears to be feathered while the portion of the stain at the top left-hand side of the photograph appears to be cut off. This pattern is suggestive of a swipe pattern. A fabric impression appears on the upper right-hand side of the photograph that ends just below the midline at the right edge of the photograph. The top of the impression appears to be cut off and is not visible in the photograph. The pattern appears lighter in color or in deposition at the bottom of the impression and appears to be darker in color or in deposition in an area near the top left-hand side of the

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	impression and in the left-hand side middle of the impression. The overall measurements of this impression are approximately 9.7 cm in width (at the widest location) by approximately 23 cm in length. This pattern is suggestive of a transfer stain. On the lower right-hand side of the photograph is an elliptical centralized stain that appears to be dried and irregular in shape. This elliptical stain measures approximately 3.5 cm by 5.5 cm and is surrounded by satellite stains that are both circular and elliptical in appearance. The majority of these satellite stains are very near the parent stain(s) however, satellite stains that exhibit directionality are noted approximately 9.5 cm to 10 cm away from the parent stain(s) at their farthest point. This pattern is suggestive of a drip pattern.
BFJJRV-561	Swipe pattern from top left to bottom left on target. Transfer stain resembling the features of a right foot wearing a sock in the top right corner of target. Drip pattern in the lower right corner of target.
BFW6A-561	A swipe bloodstain pattern is observed at the left hand side of the image. The bloodstain pattern resulted from the transfer of blood from a blood-bearing object to the surface as the object moved along the surface. It is possible that this bloodstain pattern at the left hand side of the image could be a wipe pattern. However, this is unable to be verified because the origin of the stain is not visible. A transfer bloodstain is observed in the upper right hand corner of the image. The bloodstain was deposited on the surface when an individual wearing a blood soaked sock stepped onto the surface with their right foot causing blood from the sock to be transferred to the surface. A drip bloodstain pattern is observed in the lower right hand corner of the image. The drip pattern resulted from blood dripping into a large existing blood stain on the surface. Bloodstain pattern: a grouping or distribution of bloodstains that indicates through regular or repetitive form, order, or arrangement the manner in which the pattern was deposited. Swipe pattern: a bloodstain pattern resulting from the transfer of blood from a blood-bearing surface onto another surface, with characteristics that indicate relative motion between the two surfaces. Wipe pattern: an altered bloodstain pattern resulting from an object moving through a preexisting wet bloodstain. Transfer stain: a bloodstain resulting from contact between a blood-bearing surface and another surface. Drip pattern: a bloodstain pattern resulting from a liquid that dripped into another liquid, at least one of which was blood.
CD9PF9-561	Complex pattern consisting of three major pattern types. 1. A transfer stain seen in the top right corner consisting of a partial apparent right footprint in blood (measuring approximately 230 mm x 100 mm). This also exhibited fabric imprint, possibly a knit type fabric. 2. A transfer stain seen along left side of the photograph, with characteristics showing relative movement (measuring approximately 300 mm x 80 mm). Unable to determine whether wipe or swipe as it appears incomplete; also unable to determine direction of movement. A smaller separate transfer stain with movement (measuring approximately 40mm x 10mm), was seen adjacent to the ruler on the mid-left side of the photograph. 3. A drip pattern with associated satellite stains is seen in the lower right corner (parent stain measuring approximately 65mm x 40mm). Physical alteration due to drying created a cracked flaky appearance.
CFDPLU-561	Swipe pattern - It's the transfer of blood from deposited blood to other clean/non blood surface with characteristics that shows motion between two surfaces. Transfer pattern - It's a pattern resulted from contact of a foot wearing a sock from blood bearing surface on to other surface. Drip pattern - Drops of blood dripping on to blood from a vertical suspended source.
CMCE3Y-560	In the top right corner of the provided image is a transfer stain of an apparent foot impression while the foot was clad in material such as a sock. In the bottom right corner of the image is a drip pattern with multiple satellite stains deposited around the parent stain's circumference. On the left side of the image, spanning from the top of the image to the bottom, is a pattern with unknown directionality (either top to bottom or bottom to top, feathering observed in both directions) that could be a swipe or a wipe pattern. If the entire pattern was visible (cut off at the top of the photo) a more detailed conclusion may be possible.
CWHQ8L-561	Left BLS pattern A - Overall pattern size approximately 6 cm wide x 30.5 cm long yet appears that the top portion of the pattern is missing from the photo. Top and bottom orientation with

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	<p>alternating light and dark density stained streaks aligned with the long axis of the pattern. Absence of staining to right of pattern (approximately 1.5 cm wide). Feathering of staining to bottom of pattern. Directionality of staining and a differentiation between a classification of a swipe or wipe pattern cannot be determined due to the partial nature of the pattern. Conclusion - Transfer pattern with indications of motion. Right top BLS pattern B - Overall pattern size approximately 10 cm wide x 24 cm long yet appears that the top portion of the pattern in[sic] missing from the photo. Consists of mostly linear arrangements of repeating circular (approximately 1 mm in diameter) design running through the long axis of the pattern. Bottom of pattern is mostly round with concave portions to the center of the pattern and widening of the pattern to the top portion. Density of staining is slightly darker to left center, top left and right edge and slightly lighter to bottom edge of the pattern. Possible foot with sock impression however due to the partial nature of the pattern unable to determine. Conclusion - Transfer stain of apparent fabric impression. Right bottom BLS pattern C - Overall pattern size approximately 15 cm x 11 cm. Dark irregular stained area with a textured nature and scalloped edge approximately 3.5 cm x 6 cm to the bottom of the pattern – parent stain. Dark spatter stains (approximately 1 to 3 mm in width and up to 6mm long) with those touching and closest to the parent stain being circular and perpendicular in nature and those further out being elongated with directionalities orientated with or away from the parent stain – satellite stains. Conclusion - Drip pattern or splash pattern.</p>
CY9G7T-561	<p>Three distinct non-overlapping patterns: 1: Swipe pattern possibly from a linear type object, tapering off towards the end, possibly hair/hair extension 2: Transfer stain from a knitted item, most likely[sic] a sock, worn on the right foot 3: Drip pattern with satellite stain.</p>
CYCBHZ-561	<p>In the upper right of the board is a transfer stain. The transfer stain possesses the shape and characteristics of being made by a right foot in a sock. Below the right foot transfer stain is a drip pattern with surrounding satellite spatter. The left half of the board comprises of a small swipe stain adjacent to the scale, and a larger transfer stain running vertically from the top of the board to the bottom. Due to the full transfer pattern not being observed it cannot be determined if it is a swipe or wipe pattern.</p>
D3KP6C-560	<p>Item 5 appears to be a swipe pattern on the left, a transfer pattern on the right and a drip stain pattern on the lower right.</p>
DPJVY9-561	<p>There are three recognizable patterns on the foamboard: 1. A swipe pattern is oriented from top to bottom on the left side of the foamboard. No directionality could be determined of this transfer of blood from a blood bearing surface onto the foamboard, however, there are characteristics that indicate relative motion between the two surfaces. 2. A transfer pattern of an apparent blood bearing socked right foot onto the foamboard is oriented on the upper right / right side of the board. 3. There are multiple drip stains near the bottom right side of the board. The multiple drip stains result in a drip pattern due to the accumulation of dripped liquid falling into dripped liquid (blood into blood).</p>
DQVQGU-560	<p>A linear swipe pattern on the left hand side showing directionality[sic] from top to bottom. A transfer stain pattern at the top right hand side (indication of fabric impression made by a right foot, bearing knitted ribbed design e.g.. sock). A drip pattern at the bottom right hand side together with satellite stains at the periphery (blood dripping into blood).</p>
DZVHMZ-561	<p>There is an apparent reddish-brown transfer stain of a right foot with a sock in the upper right corner. There is an apparent reddish-brown drip pattern in the lower right corner with a parent stain measuring approximately 5.5 centimeters by 3.2 centimeters with some satellite circular and elliptical reddish-brown stains with directionality originating from the parent stain. There is an apparent reddish-brown transfer swipe pattern on the left side.</p>
E4VJAV-560	<p>Item 5 is a piece of foamboard oriented on the horizontal plane. A pattern exists on the left side of the photograph that is consistent with a swipe pattern. Due to the lack of a starting point in the photograph, the pattern could be a wipe pattern. The pattern shows movement in a direction from</p>

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	top to bottom. A transfer stain exists in the upper right portion of the photograph. There are indications that the object is consistent with a foot, enclosed in a sock. A drip pattern exists in the lower right portion of the photograph.
EANEGV-560	There is a transfer stain in the upper right portion of the plane. The transfer stain is consistent with having been made from a bloody sock on a right foot. The weave pattern of the sock material is visible[sic] in the transfer stain. There is a drip pattern in the lower right portion of the plane. The outside edge of the center stain is irregular in shape. There are satellite stains radiating outward in all directions from the center stain. There is a swipe pattern on the left side of the plane. The most likely direction of travel is from the top of the plane toward the bottom of the plane, however, the beginning portion of the pattern is not visible on the provided photograph. There is a possible void toward the right portion of the swipe (the swipe is approx. 48mm wide, then no blood for approx. 14mm, then another 3-4mm swipe). There is a uniform distance (within the swipe) without visible blood. There is a smaller swipe pattern to the left of the larger swipe pattern.
EFQNNM-560	The upper right side of the photograph has a transfer pattern in the general shape of a right foot. The texture of the pattern is consistent with a knitted sock being worn over the foot. There is a drip pattern on the lower right side of the photograph that consists of a dried pool of blood with satellite stains nearby. The shapes of the satellite stains range from circular to oval. The long axis of the oval stains align with the central pool of blood indicating they originated from the pool. The viewable portion of the pattern on the left side of the photograph is consistent with a swipe pattern. The pattern has linear streaks along its length, which indicates motion. Since the upper boundary of this pattern extends off the photograph and is not documented, its features cannot be compared to the lower boundary, which limits the ability to confirm the direction of motion in the pattern. The absence of an altered perimeter stain in the viewable portion of the pattern is consistent with a swipe pattern. However, since the upper boundary of this pattern is not documented, the possibility of a perimeter stain at the upper boundary with a wipe leading down and away from it cannot be eliminated.
ENJXWX-561	On the lower right corner of the image there is a small (40mm) apparently dried pooled stain, surrounded by numerous (at least 20) satellite stains, forming a drip pattern. On the right side of the image between the top and the approximate middle there is a large (approximately 195 mm x 115 mm) transfer stain with an apparent fabric pattern which appears to have been created by a right foot wearing a sock. However, another source cannot be excluded since only part of the pattern is present. On the left side of the image between the extreme top and bottom edges is a 65mm wide longitudinal transfer stain with evidence of some movement. The directionality of this movement could not be determined. A smaller 20 mm x 5mm transfer stain is adjacent to this on the left side of the image.
EPVHYF-560	A swipe pattern was identified along the left side of the target. A transfer stain was identified in the (roughly) upper right quadrant of the target. The transfer stain exhibits the shape of a right foot and indicates the presence of fabric due to the repeating pattern within the stain. A drip pattern was identified in the lower right corner.
EPVKNK-561	Transfer stains involving motion during the deposition of blood were observed on the left side of the image. The determination as to whether the stains were consistent with swipe or wipe patterns was inconclusive because it appears that the top portions of the stain may be outside the boundaries of the image. Two of the transfer stains involving motion had characteristics indicating that the direction of the motion was from the top of the image toward the bottom. A transfer stain was observed at the top right of the image that had characteristics of a fabric impression. The outline of the stain was also consistent with the shape of a right foot. A drip pattern consisting of a parent stain and associated satellite stains was observed at the bottom right of the image.
EQQ2ZG-560	Pattern on the left side of the target has regular margins and feathered edge and appears to be the same concentration of blood through pattern except thin line to the right of the pattern which ends before the rest of the pattern. This is a swipe pattern. In the upper right corner there is a regular

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	bloodstain pattern contacting a non-bloody surface, fabric ridges in pattern, foot-shaped. This is a simple direct transfer pattern of a right foot with a sock. In the lower right corner of the target there is an irregular pool of blood with satellite spatter with random size and direction around the pool which is a drip pattern.
FAHJBU-561	A transfer stain consistent with a right socked foot is located in the upper right corner. A drip pattern is located in the bottom right corner. Satellite stains surround this pattern. A swipe stain is located on the left side of the paper. The direction of swipe is from the bottom of the pattern toward the top.
FAUVWY-561	On the left portion of the target is a probable swipe pattern from top to bottom. A transfer pattern (possibly from a socked right foot) is located in the upper right of the target. A drip pattern with satellite stains is located in the lower right corener[sic] of the target.
FDECZH-560	Large pattern on the left side of the board is a swipe or a wipe pattern with a small swipe near the far left edge. There is a transfer stain on the upper right corner of the board that appears similar to an apparent foot. In the lower right corner is a drip pattern with satellite stains.
FN2NNC-560	Pattern #5 appears to have three different distinct blood stain patterns. The bloodstain pattern on the far left appears to be a swipe. At the top right is a transfer stain, and at the bottom right there appears to be a blood into blood parent stain with radiating satellite stains.
G62LBK-560	There is a transfer stain in the shape of a right foot in the upper right corner of the target. A recognizable image of a fabric (such as a sock) is observed in the transfer. There is a drip pattern in the lower right corner of the target as evidenced by the large central stain lacking spining surrounded by mostly round satellite stains that do not have a clear directionality back to a common point of origin. Finally, there is an apparent swipe pattern that occupies the length of the left side of the target. The exact number of swipes cannot be ascertained, but there is evidence that it is likely to be more than one due to the areas in the stain that lack bloodstaining as well as the appearance that the pattern exhibits repetition in the striations of the bloodstains. Some apparent feathered edges are observed on the bottom of this stain as well.
G6KKCP-560	A swipe pattern was found on the left hand side of the foam board. A transfer pattern resembling a foot print of a right foot, possibly clad in a sock according to the weave pattern of fabric found for this stain, was located on the upper right of the foam board. A drip pattern was found at the lower right corner of the foam board.
G6WTAB-561	The stain to the far left is consistent with a swipe mark that appears to start at the bottom and travel upward. The entire stain is not visible. The stain to the far right is a transfer stain consistent with a cloth covered foot shape. The stain located at the bottom right corner is a drip pattern / pool of blood with satellite stains and spines.
G8L3GQ-560	1. Transfer stain apparently caused by an impression of a bloodstained stockinged foot. 2. Blood smear; this transfer stain has insufficient information to distinguish whether it is a wipe pattern or a swipe pattern. To further interpret would require more detail at the top edge of the bloodstain. 3. Drip pattern with associated satellite stains formed by blood dripping into wet blood onto the target surface.
G8L67V-561	A linear transfer pattern with lateral motion is observed on the left half of the image. This pattern may be a swipe or a wipe pattern. Without documentation of the full pattern, unable to determine whether this bloodstain pattern is a swipe or a wipe. A transfer pattern is observed in the upper right hand corner of the image. A pool with a drip pattern is observed in the lower right hand corner of the image.
GHRM39-560	Target is on foam board and in a horizontal plane. An apparent transfer stain is on the mid to upper right hand side of the target. The stain appears to be a bloody right sock impression. The heel is on the right side of the target ~12.5 cm from the bottom and extends up and to the left at an angle. A drip pattern is located on the lower right corner of the target. The parent stain is ~5.5 cm x 3.3 cm at its widest. Satellite staining is observed around the parent stain. Some of the satellite

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	<p>staining is round and others are elongated. The elongated stains are ~2 mm to 3 mm in length. The parent stain is ~6 cm from the bottom of the target to ~10.3 cm from the bottom of the target. A possible swipe/wipe pattern is observed on the entire left hand side of the target. No altered parent stain is observed on the target. The main portion of the stain is ~5 cm at its width. Additional staining consistent with the swipe/wipe is located to the right of the main stain (~1.3 cm) and is ~3 mm in width. The edge characteristics of the bottom of the pattern indicate possible feathering.</p>
GUMGAG-560	<p>This item consists of a piece of white foam board. A portion of a light red-brown transfer stain with a linear pattern within it is on the upper right hand side. A portion of a red-brown swipe or wipe pattern is along the left side of the board. A small red-brown drip pattern is on the lower right corner.</p>
GW3Q4T-561	<p>There are several transfer stains on the foamboard; At the left side, a small transfer stain/swipe deposited from below. At the right side, a transfer stain created by a bloody right sock. The fabric weaves is clearly reproduced. At the left side, a transfer stain – further described as swipe pattern. The pattern is characterized by the indication of relative motion between the two surfaces. There are also, at the right side, a drip pattern with formation of a blood clot and satellite stains.</p>
GXK32J-560	<p>Left hand side: Red-brown transfer stain, roughly rectangular in shape and approx. 30.5cm by 7cm at its widest. Upper right hand side: Red-brown transfer stain, apparent foot print (possibly in fabric material) approx 24cm by 9.5cm at its widest. Lower right hand side: Red-brown drip pattern, parent stain is approx. 5.5cm by 3.5cm at its widest. Satellite stains range from approx. less than 1mm in diameter to approx. 3mm in diameter.</p>
H9D9H7-561	<p>1 - On the left side of picture. There is a swipe pattern orientated in a downward movement. Striation on the right side of bloodstain. No characteristic pattern identifying the object causing the trace. 2 - On the right part of the picture. There is a swipe pattern. This is a right footprint. The striation of the weaving of the sock is visible. 3 - At the bottom right of the picture. There is a blood into blood pattern.</p>
HEL6EG-560	<p>The red-brown stain on the upper right side is a transfer stain. The red-brown stain on the bottom right side is a drip pattern. The red-brown stain on the left side is a transfer stain.</p>
HL2KPL-561	<p>1. Drip pattern with associated satellite stains, dotted. 2. Transfer pattern, right, socked foot. 3. Swipe or wipe.</p>
HT38QE-560	<p>The item five photograph depicts several individual stains. The stain in the top right corner depicts a transfer stain. The stain at the bottom right corner depicts a drip pattern. There are satellite stains surrounding the parent stain. The stain located along the left side of the photograph depicts a transfer stain. The photograph does not depict the entire stain, therefore the examiner is unable to conclusively determine if it is a wipe or a swipe stain.</p>
HVRGZF-561	<p>The top left pattern appears to be a wipe/swipe pattern. The pattern starts outside of the photograph so it is unclear if there is a pre-existing stain being disrupted or if a bloody object caused the pattern. The top right pattern is consistent with a transfer stain resulting from a bloody foot (in a sock) coming into contact with the target. The bottom right stain is consistent with a drip pattern with blood dripping into blood causing satellite stains.</p>
HXEPX3-561	<p>Item #5 displays an apparent wipe or swipe pattern (cannot be discerned since the beginning of the pattern is out of view on the exhibit) that began from the upper left and moved downwards and towards the left near the bottom of the pattern, as indicated by the feathering pattern at the lower left bottom of the exhibit. In the upper right hand side of the exhibit was an apparent transfer pattern of a bloodied right foot that pointed upwards and slightly to the left, possibly wearing a sock as indicated by the fiber patterns that could be observed on the exhibit. At the lower right hand bottom of the exhibit was an apparent dried blood stain with observed creasing that had initially been blood drop(s) deposited-into-blood which resulted in the observed secondary satellite spatter.</p>

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
HZ4WGD-561	The target contains three individual bloodstain patterns. 1. Left side, from top to bottom: (part of) a transfer stain with movement; whether it is a 'swipe' or a 'wipe' pattern is inconclusive. However, the amount of blood in the transfer stain is a little more probable when it originates from a 'swipe' mechanism than when it would be the result of a 'wipe' mechanism. Directionality can not be determined. 2. Top right corner: a transfer stain with the edge characteristics of a large part of a right foot. Furthermore, the transfer stain shows textile characteristics, probably from a sock. The pattern shows no indication for movement. 3. Bottom right corner: an accumulation of blood with relatively small stains surrounding it (satellite stains); the edge characteristics show multiple partly circular shapes, which indicates for multiple (passive) bloodstains dripped into liquid blood. Given these observations, this pattern can therefore be classified as 'drip pattern'. A sequence of events can not be determined.
J9UGUV-560	On the left side of the target is a long bloodstain of a consistent width. Without being able to see the top of the pattern, the pattern appears consistent with a SWIPE pattern. No direction of movement is obvious. In the top right corner of the target is a large patterned bloodstain in the shape of a right foot. A fabric pattern is observed within this blood staining which is consistent with a pattern TRANSFER stain of a bloodstained right stockinged foot. In the bottom right of the target is a pattern of circular bloodstains with scalloped edges. There appears to be overlapping of these large circular stains and also associated smaller satellite spatter stains around the edges. This is consistent with a small DRIP PATTERN.
JDLLPL-561	Item #5 consists bloodstains located on a white foam board target placed on a horizontal plain[sic]. Three separate and distinct bloodstain patterns are located on Item #5. A swipe bloodstain pattern is located along the left side of Item #5. A transfer bloodstain pattern, possibly created by a right foot in a knit sock, is located on the upper side of Item #5. A drip pattern is located on the lower right side of Item #5. This drip pattern consists of a pool of parent stains with radiating satellite stains.
JJP8H4-561	There is a vertical swipe mark along the left side of the photograph. There is a dried drip pattern in the bottom right corner of the photograph. A transfer stain in the shape of a sock impression from a right foot is in the upper right corner of the photograph.
JL3GVA-560	There is a transfer pattern left by a right socked foot on the upper right side. On the left side there is a swipe pattern directing to the upper corner. On the lower right corner there is a drip pattern (altered stain).
JLFBBB-561	To the left is a smear of bloodstaining extending downwards, which has the appearance of a 'swipe' pattern. However, as part of the stain is outside the frame of the photo provided, I cannot exclude the possibility that the pattern arose through the wiping of a bloodstain. Extending from the mid upper area to the right hand side of the photo, there is a 'transfer' pattern. This transfer stain appears to be a footprint (of the right foot) with visible features of a fabric, such as a sock, being worn over the foot, and bloodstained, with the resulting pattern being transferred to the surface. To the bottom right hand corner is a 'drip' pattern, of blood dropping into blood, with associated satellite staining.
JPE8TV-560	A transfer stain consistent with a swipe observed along full length of left side. This transfer stain is approximately 6cm width in total and has no discernable pattern. Drip stains are present on bottom right of page. They appear to have created a small drip pattern with associated satellite stains. A transfer stain observed towards the top right of the page. The shape of this transfer stain is consistent with that of a right foot. Within the transfer stain is a patterned appearance suggestive of fabric.
JRL68R-560	There appear to be three separate blood patterns. 1. Along the left side of the target. The top of the stain is obscured by the ruler. However this stain appears to be a swipe with a direction from top to bottom of the target. 2. Top Right. Transfer pattern. A fabric pattern in the shape of a right foot. Presumably originates from contact with a right foot wearing a wet blood stained fabric such as a

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	sock. 3. Bottom Right. A drip pattern with a number of satellite stains.
JTFNBD-561	On the left side is a swipe pattern made by mop or some other things. In the right corner of the top, there is a transfer stain made by a part of footprint with sock outside. You can see the decorative pattern of the sock. Two dry drip stains are in the lower right corner.
JV6Y9X-560	Transfer stain- of a bloody sock print, right foot. Wipe or swipe mark, could not discern which one. Drip pattern, with small pool of blood, with satellites.
KGL2RG-560	There is a transfer stain with an apparent fabric impression in blood on the top right area of the target. In the bottom right area of the target, there is a drip pattern with satellite stains in different directions around a parent stain. On the left side of the target, there is a swipe pattern.
KJQMNU-560	A bloodstained socked right foot has produced a transfer bloodstain on the target surface in the top right of the image. A bloodstained object has moved from the top left towards the bottom left of the image producing a swipe stain on the target surface. Blood dripping into blood has produced a drip pattern in the bottom right of the image.
KMUFKD-560	The first pattern is a swipe pattern which begins at the top left of the photograph and extends to the bottom left of the photograph. It is an irregular non-spatter stain with no satellite stains and does not evolve from a pre-existing stain. The second pattern is a transfer stain which begins from the top right of the photograph to 195mm. It is a non-spatter stain with a patterned deposit. The third pattern is a drip pattern which is located in the bottom right corner of the photograph and measures from 220mm to 260mm. It is an irregular non-spatter stain with some volume accumulation and random spatter around the margins.
L224ZL-561	This image consists of a drip pattern in the lower right corner exhibiting satellite spatter surrounding the parent stains. A bloody socked right foot makes contact with the upper right portion of the page, creating a contact transfer pattern in the shape of a partial right foot (minus the toe area) with a fabric weave pattern. On the left side of the page is a transfer stain with downward motion. The origin of this stain is not depicted on this page and therefore it is difficult further characterize it as a swipe or a wipe.
L68KJB-560	The item contained one photograph depicting three distinct patterns. There was a transfer stain in the upper right corner of the photograph. The pattern appeared to extend outside the frame of the photograph. The portion of the transfer stain included in the photograph measured ~10 x 23.5 cm. The overall appearance of the transfer stain appears to be a footprint with a fabric impression. A drip pattern measuring ~5 x 5 cm was located in the bottom right corner of the image. There are satellite stains immediately surrounding the perimeter and several more ~2-3 cm from the drip pattern. All of the satellites show random directionality and non-linear distribution from the parent stain. A linear pattern is located along the majority of the left side of the target, which could be the result of either a swipe or a wipe. More information is necessary to make a full assessment of this pattern, as this pattern is cut off and critical detail is located above of the top edge of this target. There are internal striations throughout the pattern, extending along the long axis, indicating movement and there is some apparent feathering near the bottom portion of the pattern. Possible multiple directions are indicated so a defined direction of motion is not able to be determined. A small stain measuring ~1 cm x 2.2 cm is present to the left of the linear stain. It is possible that this stain is part of the linear stain.
L9RA4N-560	Transfer stain located in the upper right hand portion, most likely resulting from a bloody sock coming in contact with the surface. Swipe pattern located on the left portion going across the length of the foamboard, from the top to the bottom. Drip pattern with several stains in the lower portion of the foamboard as a result of blood dripping into blood.
LJ3N2F-561	Pattern 1 was located along the left side of the image. It consisted of one stain with clearly defined borders[sic], variations in color/density and visible tapering at one end. Because no start point could be determined, thus being unable to confirm the presence or absence of a preexisting stain,

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	this pattern was determined to be a transfer. Pattern 2 was located on the upper right section of the image. It consisted of one pattern with a clearly defined border[sic], color/density changes and fabric texturing throughout. Based on the size, shape, color and visible fabric texturing, this pattern was determined to be a transfer from a socked right foot. Pattern 3 was located on the bottom right section of the image. It consisted of a central asymmetric stain surrounded by a random distribution of smaller satellite stains. This pattern was determined to be a drip pattern.
LM6LC9-560	A drip pattern is present in the lower right corner of the target with satellite stains around the parent stain. A transfer stain consistent with a socked right foot is present near the upper right corner of the target. A swipe pattern is present along the entire left side of the target; however, no conclusion as to the direction of travel could be determined.
LP9KLF-561	There are three patterns. There is a drip pattern in the lower right corner of the target. There is a partial transfer on the right side and it appears consistent with a blood soaked, socked, human foot. There is a partial wipe or swipe along the left side of the target. The origin of this stain is not visible at the top of the target.
LQ37E8-560	A swipe pattern or wipe pattern is noted along the left side of the target. A transfer stain consistent with a sock-clad right foot is present in the upper right area of the target. A drip pattern is present in the lower right area of the target. Satellite stains are present surrounding the parent stain of this pattern.
LRXTVG-560	There are three distinct bloodstain patterns that can be identified on Item 5. There are two transfer stains located in the upper right corner and left side of the target. Both of these patterns are consistent with blood-bearing surface coming in contact with another surface. The transfer pattern on the left side of the target could be a wipe or swipe, however, without seeing the entire pattern and both ends, further classification cannot be made. The bloodstain pattern in the lower right corner is consistent with multiple drip stains with smaller satellite stains surrounding the parent stain. The resulting pattern from blood dripping into blood is a drip pattern.
M9XB3R-560	There are three distinct bloodstain patterns on the foamboard. A Swipe, or possible wipe, pattern measuring approximately 300mm in length and 60mm wide is located at the left side of the board extending from the upper left side to the lower left side. The upper part of the pattern is obstructed. A smaller swipe stain approximately 20mm in length and 5mm wide is located to the far left side of the board. A transfer stain is located at the right side of the board. The features of the stain are consistent with contact between the target surface and a blood-bearing object such as a sock (or fabric) - covered right foot. The overall dimensions of the stain are approximately 240mm in length and 950mm in width, and the stain is partially obstructed at the upper and right sides. A drip pattern and associated satellite staining is located at the lower right hand corner of the board. The pattern is approximately 55mm x 30mm in size.
MBPGEB-560	Drip pattern observed on the bottom right with associated satellite stains. An apparent patterned transfer (shape of a partially obscured right foot wearing a sock) observed on the upper right side of the target. A swipe and/or wipe pattern is observed on nearly the entire left side of the target (cannot tell if a possible wipe due to the top part of the pattern not visible on the target). A smaller swipe pattern is observed on the far left, middle area of the target.
MF7FEK-561	On the left side of the foamboard, a vertical "Swipe Pattern" was found. On the right side of the foamboard, a "Transfer Stain" (i.e. partial bloodstained fabric print likely created with right foot) was found on the top, whereas a "Drip Pattern" with "Satellite Stain" were found on the bottom.
MTTJMG-561	1) Along the left side of the foam board is a swipe pattern starting at the top and ending at the bottom near the ruler marking of 290 - 300 mm. 2) Multiple drip pattern is noted on the bottom right corner of the foam board with a few satellite stains formed around the parent drip stains. 3) A transfer stain with a knit/cloth-type weave pattern is noted on the upper right side of this board. The pattern appears to be a right human foot, sock-type pattern.

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
MUE6XY-561	On the left side of the picture a swipe pattern can be seen which has an upwards direction from an approximately 6 cm wide object. In the up right corner there is a right foot-mark through a knitted textile. On the right bottom of the surface there is a splash of thereabouts 10 drops (0.5 ml) of blood.
MW7PWW-560	There are three main classification bloodstain pattern types that are identifiable on this surface (Item 5). 1) A wipe pattern located on the left side of the photograph, resulting from the transfer of blood from a blood-bearing surface to the foam board surface, with characteristics that indicate that relative movement occurred between the two surfaces. 2) A transfer pattern located on the top right of the photograph. There appears to be a weave pattern within the transfer, possibly from a blood stained sock on a right foot. 3) There is an accumulation of blood drops, forming a pool located on the bottom right of the photograph. A drip pattern is forming from liquid blood being dripped into the pool of blood.
N43HCN-561	A somewhat linear stain measuring approximately 6-6.5 cm wide and approximately 30 cm long is located on the left side of the target. Striations are seen in the stain. Stain is consistent with a swipe pattern with directionality unknown. In the upper right part of the target is a transfer stain measuring approximately 9.5 cm wide at widest and approximately 23 cm long. This impression is a right foot impression with some kind of covering over the foot, consistent with a sock. Toward the bottom right corner of the target is a primary stain measuring approximately 3 cm wide and 5 cm long. This stain is irregularly shaped with some satellite stains around parent stain. The satellite stains are round to elliptical shaped and tend to show directionality away from parent stain and measure from 2 mm to less than 1 mm. This pattern is most consistent with a drip pattern.
N8NQRW-560	Staining to the left of the image: ~300mm long and 60mm wide with striations throughout and feathering at the bottom edges = Transfer staining with indications of a downwards directionality. Staining to the top right: ~240mm long and 100mm wide (at widest point) with a semi-structured pattern throughout = Transfer staining, where the transfer source is a wet bloodied sock on a right foot. Staining to the bottom right: ~50x40mm, irregularly-shaped staining with numerous omni-directional spatter/satellite stains surrounding it = Drip pattern.
NB3968-560	On the left side of the target is a swipe pattern running the length of the target. A transfer stain (apparent socked right foot) is seen near the right upper corner. In the lower right corner of the target is a drip pattern with satellite spatter.
NDAP2H-561	Three distinct patterns were observed on this horizontal target surface. 1) On the left, extending from the top to the bottom, is a transfer stain which exhibits lateral motion as observed in the striations and edge characteristics that are visible. Further characterization (swipe vs. wipe) was inconclusive because the edge characteristics on the opposite side of the pattern are not present in the photo. There are not enough characteristics present in this pattern to establish directionality. 2) To the right is a transfer stain which appears to be a contact pattern transfer created by a bloodstained stocking right foot. A textile knit pattern is evident throughout the stain. 3) On the bottom right of the target surface is a drip pattern of blood into blood. Randomly oriented satellite spatter is seen around the periphery of the central drip pattern.
NDNJTY-560	At the left side of the target, is either a swipe or a wipe pattern. (The top of the pattern is not depicted, therefore can not determine if the pattern starts through a pre-existing bloodstain or not.) At the right side of the target is a transfer[sic] pattern of a foot that appears to have a sock on. And at the bottom right corner of the target is a drip pattern.
NDREMJ-561	There are three prominent RB stains on the horizontal surface. On the upper right is a RB stain with apparent fabric impressions. The overall stain is consistent with the shape of a foot. A (presumably) bloody object came in contact with this surface, resulting in the pattern transfer. On the upper left is a RB stain that extends to the lower left. There is feathering at the bottom of the stain, indicating that directionality of this stain is from the top of the page to the bottom of the page. A portion of the stain is not seen in this photo, so it is not known if there was a pre-existing source of blood. This

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	stain is either a wipe or a swipe. The final RB stain is in the lower right portion of the horizontal surface. This stain has an irregular margin with areas of spines and satellites. It appears to have dried and/or clotted. This RB stain is a drip pattern.
NRQCVA-560	In the upper right hand corner of the photograph, there is a transfer stain containing a pattern. This pattern appears to be a fabric impression. The pattern has a distinct shape. The top of the stain has been cut off in the photograph. In the bottom right hand corner of the photograph, there is a drip pattern which contains satellite stains which extends towards the center of the photograph. On the left side of the photograph, there are transfer stains. The top position of the larger stain has been cut off in the photograph. Motion is observed.
NW4Q7F-560	Swipe pattern - It's the transfer of blood from deposited blood to other clean/non blood surface with characteristics that shows motion between two surfaces. Transfer pattern - It's a pattern resulted from contact of a foot wearing a sock from blood bearing surface on the other surface. Drip pattern - Drops of blood dripping on to blood from a vertical suspended source.
NXW8DN-560	Three distinct stains were observed on Item 5. A transfer pattern in the upper right corner of the image. The overall shape of the stain and the impression of knitted type fabric would indicate the possible source of the stain to be a blood stained sock. A drip pattern in the lower right of the image. Stain most likely due to the drip stains accumulating in the same area creating a small pool of blood. Some satellite staining around the central stain. A transfer in the left of the image. Not all the stain is visible making it difficult to conclude conclusively if it is a swipe or wipe pattern.
P39FFD-560	Item 5 shows three distinct bloodstains in a horizontal plane on white background foam board. In the lower right corner of the photograph there is a bloodstain with the characteristics of a drip pattern that has some satellite stains radiating out from it. The parent stain measures approximately 4 cm by 5 cm. In the upper right corner running along the right side of the photograph is a transfer stain typical of that from a bloody sock worn on a right foot. The weave of the cloth is readily discernible. The heel of the footprint appears along the right edge of the photograph whilst part of the big toe can be seen at the top of the photograph. The photograph does not show the entire foot. Along the left side of the photograph is a stain measuring approximately 5 cm wide and 30 cm long. The entirety of the stain is not depicted in the photograph. The stain has the characteristics of a transfer stain with a swipe pattern starting at the bottom of the photograph and moving upward.
P7LUNY-561	In the upper right corner there is a transfer pattern consisting of a fabric impression of a socked right foot. In the lower right corner there is a drip pattern. On the left side of the target there is a swipe/wipe pattern. One side of the pattern is cut off by the photograph of the target.
PBJJJ7-560	A swipe pattern oriented along left side of target between top and bottom. Drip pattern in lower right hand corner with numerous, small satellite spatter stains. Transfer stain in upper right hand corner consistent with fabric/weave, possibly from a bloody sock on a right foot.
PF9TGP-560	At the top right of the plane there is a transfer stain where a blood-bearing object with a non blood-bearing object. The bloodstain which ran from the top left to the bottom left of the plane is a swipe pattern. The bloodstain at the bottom right is a drip stain where multiple satellite stains were noted around the parent stain.
PHXZZ2-561	There is a swipe or wipe pattern on the left. On the right, there is a transfer pattern of the right foot clad probably in a sock showing distinct weave pattern of fabric. A blood stain pattern could be observed in a right bottom corner. It is probably a drip pattern, with a dried (clotted) pool of blood.
PLEWGH-561	There is a possible swipe pattern present on the left side of the image that appears to begin near the bottom left corner of the target and continues up the left side, stopping underneath of the scale that was placed in the photo. There is a small drip pattern in the lower right corner of the target that appears to have been created by multiple droplets falling onto the surface. There is satellite spatter present around the drip pattern. There is a transfer stain in the upper right corner of the image that

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	demonstrates characteristics of a possible cloth covered foot.
PMAFK4-560	A transfer stain, consistent with a socked foot, was observed on the upper right corner of the target. A drip pattern was noted on the lower right corner of this target with satellite stains surrounding this drip pattern. A swipe pattern was observed on the left side of the target.
PXCXTL-560	Three patterns were in the photo. The pattern on the left side of the photo was a swipe pattern oriented mostly vertical. The direction of movement was from beyond the top of the photo toward the bottom of the photo. Striae were present within the pattern along its length. The width was ~1 7/8", and the length was ~11 1/2". The pattern in the upper right side of the photo was a transfer pattern of a mostly complete, bloodied, socked right foot. The pattern was oriented at a slight angle from the upper left to lower right of the photo. The impression was ~9 1/4" long, ~3 3/4" wide at the ball area, and ~2 1/4" wide at the heel area. The pattern in the lower right side of the photo was a drip pattern. The pattern had irregular margins with a volume accumulation. Elliptical and circular satellite stains were in variable orientations around the perimeter. The pattern measured ~2 1/4" by ~1 1/4" at its widest areas.
PYN3KC-561	A swipe pattern is present on the left side of the image measuring at least 30 cm in length. The pattern is almost straight, except for a slight bowing towards the right. A transfer pattern is present in the upper right corner, measuring approximately 9.5 cm in width and at least 23 cm in length. The source of this pattern appears to be a bloody sock. A drip pattern is present in the lower right corner producing satellite stains. The pattern is approximately 5.5 cm x 3.0 cm.
Q27GNC-560	The target is a piece of foamboard in the horizontal plane containing three (3) pattern types. Pattern type (A) is located closest to the Y axis ruler on the left edge margin of the document. This pattern type is approximately 12" in length and 2" in width. The pattern type is a swipe pattern with feathering towards the termination of the stain. Pattern type labeled B is a contact transfer stain located in the top right corner of the document. The transfer stain could possibly be from a saturated bloody sock or object that made contact with a clean surface. The size is approximately 8" in length and 4" wide, with consistent blood throughout the pattern. No friction ridge detail [sic] present. The third pattern type are two parent stains that is indicative of a drip pattern type, which is located in the bottom right corner of the document. This is indicated by the two pools of blood surrounded by satellite spatter, which indicates consistent blood dripping into blood. Some coagulation is present towards the center of both stains.
Q4WN7N-560	A 55 x 30mm, furrowed, irregularly shaped stain with irregular borders [sic], with several associated circular and elliptical satellite stains ranging in width from <1 to 3mm in size distributed around the stain, displaying characteristics of a drip pattern. Transfer stain resulting from contact between a blood bearing surface and the foamboard, >195mm in length, exhibiting characteristics of a fabric impression, and bearing resemblance of a socked heel and partial ball of foot. Linear stain, 145-150mm in width and >300mm in length, containing striations parallel to the length of the stain, resulting from contact between a blood bearing surface and a nonblood bearing surface and displaying characteristics of a transfer stain, with associated 2-4mm wide transfer stain parallel to the larger stain.
Q9TUHP-560	To the left of the page, between the lower left and upper left of the area framed by the L-shaped scale, is a swipe pattern. On the lower right of the page is a drip pattern. This has resulted in the formation of a small pool with a number of satellite stains. The directionality of some of the satellite stains varies from that of others as they have been produced by the action of different drops. Above the drip pattern is a transfer stain.
QHXP8-561	There are three different major types of Bloodstain pattern on Item 5, which are swipe pattern, transfer pattern and drip pattern. It is clear to see that there are three bloodstand [sic] patterns on formboard [sic] – horizontal plane. At lower right, it can be seen that two bloodstains are recongised [sic] as drip pattern. At upper right is transfer pattern and the pattern is most likely transfered [sic] from cloths. The left bloodstain is swipe pattern. The directionality of the action is

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	from up to low.
QKGC DX-560	Left side of pattern is a swipe which measures approximately 12" in length and 1 7/8" in width. There is a void area and then a thin swipe pattern that extends from the top of the pattern for approximately 9". The upper right corner of the pattern contains a transfer stain which is possibly fabric. The heel area is facing towards the bottom of the pattern with the ball of foot area towards the top of the pattern. The striation pattern of the fabric is vertical and extends from heel to toe and appears to be a right foot. The transfer pattern measures approximately 9 1/2" in length and 3 13/16" at its widest point. The lower right corner contains a dried pool which measures approximately 2 1/8" in length and 1 1/16" at its widest point at the bottom of pool and 1 2/16" at widest point at top of the pool. The pool resulted from a drip pattern.
QLRFPZ-561	On the top right corner there can be a transfer pattern observed which is consistent with a knitted textile surface (it could have originated from a sock based on the footshaped form). Furthermore a swipe pattern[sic] is visible with directionality from top left to bottom left corner. On the bottom right corner a drip pattern was observed (blood into blood).
QMMYTM-561	Three (3) distinct bloodstain patterns are present on the target surface. Located on the left side of the photograph is a swipe pattern which extends the length of the photograph. The pattern is ~30.5 cm in length and ~ 6 cm in width. Located in the upper right center and extending to the mid right side of the photograph is a bloodstain pattern, consisting of parallel lines with a ribbed appearance and uniform size. The pattern is consistent with a transfer stain. Located in the lower right corner of the photograph is an area of pooled blood approximately 3 cm by 5 cm at the widest points. Small satellite stains are observed adjacent to the area of pooled blood. The pattern is a drip pattern of blood in blood. The three patterns on the target consist of a swipe pattern, transfer pattern and a drip pattern.
QRKF83-560	1. A swipe or a wipe pattern measuring approximately 30 cm long was located on the left side of the foamboard. One end of the pattern could not be observed. 2. A transfer pattern made by a right foot clad in sock was located at the upper and central part of the foamboard. Except for the stem of the first toe, the toes of this foot imprint could not be observed. This partial sock-clad foot imprint measured approximately 21 cm long and 9.5 cm wide at the ball region. 3. A drip pattern with small amounts of satellite spatter stains was located at the lower right corner of the foamboard.
QX4DK9-561	Located in the upper right corner of the foamboard is a transfer stain which takes up the upper right corner of the board. To the left[sic] of this stain, extending beyond the target area, is a swipe stain. Located in the lower right corner is a drip pattern with multiple satellite stains around its perimeter.
RP9ZAV-560	A transfer pattern is located in the upper right quadrant. The transfer pattern appears consistent with a bloody sock-covered foot coming into contact with the target. A drip pattern is located in the lower right quadrant. The left side of the target has a swipe pattern. There is an area within this swipe that has a void, which may indicate two separate swipe pattern events or an object with a portion that did not come into contact with the target when the event occurred. There is a small stain on the middle left end of the target that may be part of the larger swipe pattern event or may be a separate swipe or transfer pattern event.
RRFH9Q-561	The photo exhibits a large possible swipe pattern on the left side. A smaller possible transfer stain/swipe pattern appears approximately 160mm down the left side of the photo and is located to the left of the larger possible swipe pattern. A possible transfer stain is present on the upper right side. A possible drip pattern appears on the lower right side of the photo. Possible satellite stains can be observed around the possible drip pattern.
RVYDBH-560	Top right corner - Transfer bloodstain - apparent footmark made with socked foot. Left side - Swipe blood mark (direction of deposition is top to bottom) Lower right corner - Drip pattern formed of dripped bloodstains (at approximately 90 degrees to foam board) with associated satellite bloodstains.

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
RX8X9C-560	The RB stain to the left is a transfer stain. The origin of the stain is not visible. The RB stain to the top right of the foamboard is another transfer stain in the shape of an apparent partial fabric impression of a foot. The RB stain on the bottom right of the foamboard is a drip pattern with a parent stain and satellite stains.
T2K9K7-560	There are three separate bloodstains in Item 5. The stain in the top right of the image = transfer stain. The stain in the lower right of the image = drip pattern with satellite stains. The stain in the left side of the image = swipe pattern or wipe pattern. The origin of the bloodstain is blocked by the scale so I cannot see the complete pattern.
T2XRJH-560	I see three separate patterns on the page. Located in the upper right portion is a recognizable pattern transfer stain. It shows a distinct weave and shape consistent with a sock foot. Located in the lower right corner is a small splash stain with a volume accumulation of irregular shape and irregular edges. There are numerous spines along the edges w/ accompanying satellite stains, radiating from the source. There is a linear stain along the left edge of the page. Without the benefit of seeing the upper end, (origination or termination) unable to state this as being a swipe or wipe but can state it as a transfer stain.
TKFTF7-560	This photograph has the following four overall patterns present: 1. A transfer stain appearing as a right socked foot on the right side of the photograph. 2. A drip pattern, approximately 4cm wide with associated satellite stains on the bottom right side of the photograph. 3. A swipe and/or wipe on the left side of the photograph that is approximately 6.5cm wide at its widest. Some satellite spatter from the drip pattern may have been wiped through during the production of this pattern. The entire pattern was not documented and therefore the direction of movement was not determined. 4. A swipe pattern to the left of the swipe/wipe pattern that is approximately 2cm x 0.5cm in size.
TNC43C-561	There are three different patterns which are: 1. Swipe pattern resulting from the transfer of blood from the blood bearing surface on to another surface, with characteristics that indicate relative motion between the surface. 2. Drip pattern resulting from blood dripping into another blood. 3. Transfer pattern resulting from the right foot inside sock coming into contact with the surface.
TP7PV4-560	There is a swipe pattern on the left side of the photograph. There is a transfer stain from a stockinged foot on the upper right side of the photograph. There is a drip pattern on the lower right side of the photograph.
TTQMJU-560	Item #5 consists of multiple staining patterns noted. A Transfer Stain is apparent on the upper right portion of the target. This stain appears to be in the approximate shape of a foot and texturing within the stain to suggest a fabric-type impression such as a sock being worn while depositing the stain on the target. Below this pattern is a Drip Pattern on the lower right portion of the target. The left of the target is dominated by a large stain that is either a Swipe Pattern or Wipe Pattern. Because a portion of the stain (upper) is missing from the target of view, the determination of swipe or wipe pattern cannot be made. If this portion is observed, a determination between the two patterns may be possible. Finally, a small Swipe Pattern is noted to the far left of the target and may or may not be related to the larger swipe pattern noted. The smaller swipe pattern is consistent with movement generally upwards, but with a slight twist not noted in the more dominant swipe pattern.
TVDURA-560	This image consists of three separate bloodstains. The stain found on the left side of the image is a transfer stain. The stain in the upper right corner of the image is also a transfer stain. The stain in the lower right corner of the image is a drip pattern resulting from blood dripping into blood. Satellite stains can be seen around the main stain as well.
TW9A68-561	There are three predominant patterns on this target surface. The elongated, linear pattern to the left side of the image is a partial swipe pattern. The pattern to the upper right is a partial transfer (fabric) pattern in the shape of a right foot. The lower right pattern is a drip pattern with associated radiating satellite stains.

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
TYDTBF-561	Three bloodstain patterns are recognized: To the left there is a swipe pattern with a swipe direction upwards (from bottom to top) in one continuous movement. Low right there is a small drip pattern. Above right there is a transfer stain. A textile knit work pattern is seen with distinct and blurred part. From the shape and pattern details the pattern is judged done by a step with a right foot wearing a bloody sock.
U4GVGM-560	Stain pattern A appears to be a swipe pattern which is a bloodstain pattern resulting from the transfer of blood from a blood bearing surface onto another surface, with characteristics that indicate relative motion between the two surfaces. The overall length of the stain is approx. 305mm. The width of the stain is approx 62 mm. Stain pattern B appears to be a transfer stain pattern resulting from contact between a blood-bearing surface & another surface. A fabric pattern is present in the stain and the overall pattern is consistent with a foot, (Right). The approx width of the heel is 57mm. The length of the pattern is approx 243 mm. Stain pattern C appears to be a drip pattern resulting from a liquid that dripped into another liquid, at least one of which was blood. Satellite stain patterns that originate during the formation of the parent stain as a result of blood impacting a surface surround the parent stain. The satellite stains range in size from approximately 5mm to sub-millimeter.
U9FKA9-561	The image is composed of a drip pattern, a swipe/wipe pattern and a transfer pattern. The transfer pattern is consistent with a fabric impression of a bloodstained right foot with a sock.
UA9NN2-560	This photograph is of bloodstains on foamboard in the horizontal plane. The left side of the photograph contains a transfer stain extending from the bottom of the photograph to the top where it goes out of frame. Secondary transfer stains, swipe patterns are visible around the larger stain. The right side of the photograph contains two areas of staining. The lower right corner contains a drip pattern with edge characteristics and satellite stains. The parent stain can also be classified as an altered stain due to the formation of a textured surface after drying. Above the drip pattern is a large transfer stain resembling a socked foot with the heel partially out of frame on the right side of the photograph and the toes partially out of frame at the top of the photograph.
UBQDB3-560	On the left portion of the photograph and spanning from the top to the bottom, there is a transfer pattern about 4.5 cm wide. There is an about 1 cm linear void to the right of the main pattern adjacent to a thin linear transfer stain about 2mm wide that appears to be a part of the main transfer pattern. The overall transfer pattern has feathering near the bottom of the photograph indicating movement of a bloody object on the target from the top to bottom. On the right section of the photograph and spanning from the top right to below the middle right, there is a portion of a fabric-textured transfer pattern about 21 cm in length. Portions of this transfer pattern and the previously described pattern are cut off at the top of the photograph. In the bottom right area of the photo is a small drip pattern about 4x3 cm in size with satellite stains radiating away from the pattern and into the center and bottom regions of the photo. The drip pattern appears altered by drying.
UCFTEH-560	Item 5 was an image that measured 24 cm x 30 cm and depicted multiple bloodstain patterns. An irregular-shaped transfer pattern was observed in the upper right image that measured 24 cm x 10 cm. This pattern exhibited what appeared to be a fabric pattern transfer in the shape of a foot. The top portion of this pattern was cut off by the top margin of the image. A drip pattern measuring 4.5 cm x 4.5 cm was observed in the lower right portion of the image. Small spatter stains (ranging in size from less than 1 mm to 2 mm x 7 mm) were observed surrounding this parent stain with varying directionality and with an irregular distribution pattern. A curvilinear swipe pattern was observed on the left side of the image that measured 7 cm x 30 cm. Curvilinear striations were observed running up and down throughout this pattern. The top portion of this pattern was cut off by the margin of the image. Smaller areas of swipe stains were observed to the left and to the right of the main pattern.
UFXF44-560	There is a transfer stain on the top right, with fabric pattern - appears to be a right foot in a sock. Below this, on the bottom right, are a few drip stains, possible starting a drip pattern, with satellite

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	stains/spatter radiating away. Down the left side is a transfer stain, appears to be a wipe or a swipe but can only see one end so unable to categorise further. Small transfer stain next to this, middle left.
UW8RQ9-561	Item 5 consists of a photograph of three bloodstains. A brief description of the patterns follows: Only one end of the stain that extends from the bottom of the image to the top is contained in the image. Without that information it could not be determined if the stain is a wipe or swipe. The stain at the top right of the image is a transfer from what was likely a bloody textile, given the textured appearance of the stain. The overall shape resembles a foot; the stain may have been made by a person wearing a blood soaked sock and stepping on the horizontal foam board. The smaller bloodstain at the bottom right of the image a stain made by a volume of blood dropped on the horizontal surface. It took at least two drops of blood to make the stain.
V8KQ3B-560	There is a transfer stain (pattern transfer) which has the characteristics of a bloodied sock. It is not a bare foot because one can see the pattern transfer of the material in blood. The pattern is made by the right foot. A bloodied sock came into contact with a clean surface. Below the bloodied sock, is a drip pattern. It is characterised by an accumulation of blood with irregular margins and is surrounded by numerous satellite stains. The forensic indication of a drip pattern shows a stationary blood source. The pattern has dried completely. On the left is a swipe pattern with characteristics of bloodied hair being swept on a target surface. The small bifurcations made by the bloodied hair of hair-like object is visible. The direction of movement is from the upper left hand corner to the lower left hand corner. If the entire pattern was visible, a more accurate description could be made.
VA7RL4-560	Top right corner: reddish-brown transfer stain that appeared to be consistent with a partial foot impression with the heel pointing toward the lower corner of page; toe area not visible - extends beyond top margin of page; apparent fabric pattern visible throughout transfer stain; maximum visible length of stain ~240 mm (~24 cm). Bottom right corner: A drip pattern with a dark, reddish-black, parent stain with irregular shape and ~55 mm x 35 (~5.5 cm x 3.5 cm) in size; appeared to be dry; irregular margins with multiple scallops and few, randomly-distributed satellite stains (< 1 mm-3 mm in diameter). Left side: reddish-brown transfer stain oriented vertically along left side; visible portion ~300 mm x 60 mm (~30 cm x 6 cm) (appeared to extend beyond top margin of page); vertical striations and irregular margins; no satellite stains observed; bottom edge of stain appeared feathered, indicating downward directionality; void present near right side of pattern; pattern possibly a wipe or swipe; however no distinction can be made since top portion (origin) of pattern is not visible.
VG3XNX-560	There is a swipe pattern along the left side of the target. In the upper right side of the target, there is a transfer pattern which is consistent with a socked foot. There is a drip pattern in the lower right side of the target with visible satellite stains. The parent stain appears altered from drying.
VGM7MN-561	Upper left is a swipe pattern with movement from lower left to upper left. Upper right is a transfer pattern with fabric characteristics. Lower right is a drip pattern with satellite stains.
VK8GV7-561	On the upper right is a transfer pattern. On the lower right is a drip pattern that includes an altered stain. On the left side is a swipe pattern.
VWZJ2Z-561	The right side of the target shows a Transfer Stain that could be declared by a right foot covered with textile. At the right bottom side of the target a Drip Pattern is shown, surrounded by smaller more or less circular and oval satellite stains. Spines are attached to the parent stain. The parent stain shows a craquelé effect. On the left side of the target a partial Swipe Pattern is shown with an upwards movement. No overlapping parts could be detected between these three patterns. Therefore no indication of a sequence of events could be recognized.
VY4CVY-561	Transfer stain of right foot clad in a sock, showing distinct weave pattern of fabric' on right top corner of target. Drip pattern with satellite stains on right bottom corner of target. Transfer stain with characteristics indicating relative motion between the two surfaces. The movement is probably from top to bottom

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
W6AREZ-560	The origin of the stain that spans the left side is out of the field of view, this stain would be a wipe or swipe depending on the origin (less specifically, a transfer stain). The top right corner of the photograph exhibits a transfer stain (possibly a sock, also with a portion out of the field of view). The bottom right corner exhibits a drip pattern (altered by drying) and limited satellite spatter.
W8FNTW-561	1. Drip pattern (upper, right hand corner). 2. Transfer stain (upper, left hand corner). 3. Swipe stain (lower, from the left side to right side). [Participant included a diagram that could not be replicated within the report.]
WEG3EX-561	There are three (3) distinct patters[sic]: (left) - SWIPE. directionality --> bottom to top, as evident by the unequal irregular feather pattern at bottom that became more stabilize as it moved towards the top of the target. The volume of blood being deposited lessens as the swipe travels upward. The striations in the swipe pattern were consistent with being made by some type of a type of brush (i.e.. paint brush) (top/right) - TRANSFER. The outline of the stain is consistent with a right foot and the blood is deposited in a weave pattern, consistent with the weave of a sock. (bottom/right) - DRIP PATTERN. It appears that a small pool of blood was initially on the target when the drip pattern occurred. The overall edge characteristics of the stain are smooth with similar slight scallops throughout and several satellite stains surrounding the parent stain, which were created during the falling drops. The size, shape and amount of the satellite stains are consistent with the distance between the target and the blood source being minimal and with low force.
WHW3HX-560	A swipe pattern was observed on the left side of the target. A transfer stain was observed on the right side of the target. The transfer stain is in the shape of a right foot and has a distinctive pattern within the stain indicative of fabric. A drip pattern was observed in the lower right corner of the target. Satellite stains were observed around the drip pattern.
WNN467-561	The foam board contains three main bloodstain patterns. The bloodstain pattern on the upper right portion of the board is a transfer pattern that appears to be from a socked right foot. The bloodstain pattern on the lower right portion of the board appears to be a drip pattern of at least three blood drops. Satellite stains are present around the parent stains. The partial bloodstain pattern along the left side of the board appears to most likely be a swipe, although without viewing the complete pattern, the possibility of a wipe cannot be eliminated.
WTVBBV-560	Item 5 consisted of three different bloodstain patterns on a horizontal foamboard. 1. The bottom right corner exhibited a drip pattern. There is an accumulation of blood with irregular margins with spines present that measured approximately 43mm by 45mm. The drip pattern was surrounded by a number of smaller stains measuring between 1mm to 3mm with a varying distribution. 2. The top left to bottom left part exhibited a swipe pattern. The stain does not have a recognizable pattern and measured approximately 47mm by 302mm. Striations were visible within the body of the stain indicative of motion with no accumulation of blood. Another thinner swipe pattern was observed next to it which can be considered as a extension of the main stain. 3. The top half and right side exhibited a transfer stain. A non-spatter bloodstain that exhibited a recognizable weave pattern measuring approximately 40mm to 98mm and an overall length of approximately 196mm. The recognizable pattern was consistent with part of a right foot.
WWFLJE-561	A swipe pattern is located along the left side of the photograph created by a bloodstained object moving across the foam board from the lower left to the upper left corner of the photograph. A transfer stain resembling a footprint covered with a bloodstained sock is located in the upper right quadrant of the photograph. This conclusion is supported by the static manner in which the pattern has been produced. A drip pattern that has subsequently dried is located in the lower right corner of the photograph. This conclusion is supported by comparison to very similar appearing test drip patterns produced by dripping pig's blood from a pipette onto smooth cardboard stock at a height of approximately 12 inches.
X8WP4H-560	The results and conclusions provided form my expert opinion. By this I mean my opinion based on my scientific knowledge, experience and training. At the top right of the photograph was a transfer

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	<p>pattern. This was foot shaped and contained characteristics consistent with a knitted fabric. In my opinion, this was likely to have been caused by contact with a blood stained socked foot. On the left side of the photograph was a linear stain. This had, in my opinion, either been caused by the movement of a blood stained object across the surface resulting in a transfer of blood to that surface or when an object had moved through a pre-existing wet bloodstain altering the original appearance of the blood staining. These blood staining patterns are known as swipe or wipes respectively. At the bottom right of the photograph was an area of blood staining, along with some small satellite spatters. In my opinion, this blood stain pattern was a drip pattern which results from blood falling into blood, however other mechanisms such as a splash pattern are also possible.</p>
XBA87E-561	<p>The target displays 3 separate and different patterns. The stain on the left does not show both boundaries. This stain appears to be a swipe and exhibits striations through the stain. There is also some feathering observed in the stain but without both boundaries being visible a direction cannot be determined. The stain on the right is a transfer stain. The shape of the stain suggests it was made by a bloodstained sock coming into contact with the target. The lines that make up the pattern are consistent with the fabric lines of a sock that was saturated with blood to varying degrees. The bottom stain exhibits an irregular margin, and can be described as a drip pattern. Blood has dripped into a preexisting blood stain. This has caused the irregular margin as well as satellite stains dispersed randomly around the parent stain.</p>
XEUYEW-561	<p>With the photograph in the proper orientation, there are three (3) separate patterns: one (1) along the left side from top to bottom, one (1) in the upper right area, and one (1) in the lower right area. The pattern along the left side measures approximately 6.5cm wide and 35cm long. The pattern is roughly linear in shape. There are striations within the pattern. The left side of the pattern has a contiguous boundary, while the right side has a feathered boundary. The bottom edge shows feathering. There is no pre-existing stain visible near this pattern. This is a swipe pattern. The pattern on the upper right area shows an obvious knit pattern within the shape of a right foot. This is a transfer pattern from a right foot clothed in a knit fabric. The pattern in the lower right area shows volume accumulation with an irregular margin. There is random spatter around the accumulation. This is a drip pattern.</p>
XQNBUV-560	<p>The photo depicts three apparent bloodstain pattern areas: 1) (located at the left side of the photo) Consists of 2 linear transfer stains running parallel and touching each other, and 1 narrower linear transfer stain not touching the others. The first stain measures approximately 2.5cm wide, the second stain measures approximately 2.1 cm wide and the third stain measures approximately 0.2cm wide. Feathering at the bottom of each stain suggests a top to bottom motion, however the top of the stain is not visible in the photo. All three stains are consistent with either a swipe or a wipe. The top of the stain would need to be seen in order to differentiate between a swipe or a wipe. All three stains are consistent with being made by an object similar to a brush. 2) (located at the top right corner of the photo) Consists of a transfer stain in the morphological shape of a right foot (ball, arch and heel areas are visible in the photo). There is an apparent fabric pattern visible in the impression that is consistent with being made by a socked foot. 3) (located at the bottom right corner of the photo) Consists of at least four drip stains adjacent to and in contact with each other. There appears to be an accumulation of dried blood on top of these drip stains with related satellite stains. The accumulated blood and satellite stains are consistent with the drip stains falling into each other.</p>
XTDEM3-561	<p>A drip pattern is in the lower right corner, just below a transfer pattern (apparent fabric impression). To the left of both patterns is a transfer stain extending along the length of the left side of the target.</p>
XTPF6U-560	<p>Along the left side of the page is an approximately 12 inch (") by 2.5 inch swipe bloodstain. There is evidence of motion in the bloodstain from the top to the bottom. In the upper right corner of the page is a patterned transfer bloodstain in the shape of a right foot. The recognizable pattern appears to be fabric. The bloodstain is approximately 9.5" long by 3.75" wide at the widest point. In the lower right corner of the page are at least two mostly circular bloodstains, which overlap to</p>

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	create a drip pattern. Irregular margins and spines are present at the edges of the drip pattern. Approximately 40 spatter bloodstains with a random distribution and varying directionality are present surrounding the drip pattern.
XXJB4G-560	In the top right corner is a transfer stain. This stain is consistent with a bloody sock on the right foot. In the bottom right corner is a drip pattern, with several satellite stains around it. On the left side of the target surface is a swipe pattern, going from top to bottom.
XXNURK-561	A small transfer/swipe stain close to the left ruler. A swipe pattern from top to bottom on the left part of the picture. On the upper right part of the picture there is a transfer stain made by the contact of a righ[sic] foot wearing a sock. On the lower right part a drip pattern and accompanying drops.
XZRV4V-560	A swipe pattern is present on the left side of the target. There is a transfer stain in the upper right corner. There is a drip pattern in the lower right corner with satellite stains surrounding an irregularly shaped parent stain.
Y2ZXF2-561	Transfer stain (Right foot - Sock). Drip pattern. Swipe pattern or Wipe pattern - because we can't see the origin of the pattern on the picture.
YGENBZ-560	The red-brown stain on the left side of the picture from top left corner to bottom left corner is consistent with a transfer pattern. The pattern is a result from the transfer of blood with further information, the entire stain depicted, a further description of the stain to differentiate between a swipe and a wipe can be drawn. The red-brown stain on the right side of the picture from the top right corner and half way down the picture is consistent with a transfer. The pattern is a result from contact between a blood bearing surface and the foam board. The red-brown stain in the bottom right corner of the picture is consistent with a drip pattern. This pattern is a result of blood dripping into blood.
YRYZMC-560	In the left side of the image is a swipe or wipe stain. Since the entire stain is not in the image, the stain cannot be differentiated between a swipe or wipe stain. In the upper right hand corner of the image is a transfer stain, possibly from a sock. In the lower right hand corner is a drip pattern stain.
YT8AFA-560	Right upper portion of photograph contains a transfer stain that appears consistent in shape and texture with a foot contained in fabric. Entire stain is not contained within the photograph. The left side of the photograph has a transfer pattern (swipe or wipe) unable to differentiate because entire stain is not contained within the photograph. A dried "crackly" appearing drip pattern is visible at the lower right portion of the photograph with some satellite spatter surrounding the main stained area.
Z3MQEU-560	Transfer stain consistent with a right foot (sock on foot) on the upper right end of target. Drip pattern with satellite stains surrounding it on the lower right corner of the target. Swipe stain across the left side of the target.
Z9E3PD-561	A swipe pattern is observed on the left side of the image, with lateral motion from the top of the image toward the bottom of the image. Due to the inability to see the entire pattern in the image, this stain could also be a wipe pattern. A transfer stain is observed in the upper right quadrant of the image. The stain is a right foot impression in which the individual was wearing a sock. A drip pattern with multiple satellite stains is observed in the lower right quadrant of the image.
ZD88HG-560	Left side of target is consistent with either a swipe (existing bloody object) or a wipe (altering existing stain). The top of the pattern is not visible and therefore not fully able to be classified. Direction appears to be top to bottom. Top right corner of target is transfer stain consistent with fabric, possibly a sock. Bottom right of target is consistent with a drip pattern.
ZFDFFK-560	At the bottom right is a blood drip pattern with associated satellite stains surrounding the parent stains. Across the top right is a transfer pattern that formed after contacting a bloodied fabric surface. The overall shape of this stain suggests it formed when a person's right foot (wearing a sock with blood on the sole) made contact with the board. Extending between the top left and bottom left

TABLE 2b - Part 2: Recognition and Description

Item 5, continued

WebCode-Test	Detailed Pattern Description
	<p>is a transfer pattern that formed due to relative movement between the board and another surface. The overall pattern suggests either two close parallel patterns formed separately or a single pattern formed as a result of contact and movement from two similar bloodied surfaces in close proximity to one another. The incomplete nature of the pattern at the top left (what appeared to be the top edge of the board) adds some uncertainty as to the directionality of this stain. However, the absence of feathering at the bottom edge of the stain and any indication of a prior blood deposit on the board at this location suggests the possibility of a swipe beginning at this location. Feathering of peripheral stains at the lower right side of this stain supports the contention of directionality from the bottom left towards the top left.</p>
ZLM9F6-560	<p>A transfer pattern is observed of a sock. Best explanation is that a person stepped into blood with his right foot covered in a sock and then stepped onto a clean surface. A drip pattern is observed lower on the right hand side. This indicates a stationery[sic] blood source and resulting in blood dripping into blood. The 3rd pattern is difficult because the origin of the stain is not visible. It is a swipe. The swipe is on the left hand side of the photograph and the directionality is from top to bottom.</p>
ZQDHNH-560	<p>The target contained three major patterns as follows: 1. On the left side there was smeared blood the main body of which was about 4.5 cm wide and it extended beyond the target area at the top. There was a gradual decrease in the volume of blood from the bottom of the smear to the top. The stain was probably a swipe with the direction of movement from the bottom to the top of the target. 2. In the bottom right corner there was staining in an area about 5.5 cm by 3 cm which had the appearance of a drip pattern. 3. On the right side there was a transfer stain which was probably made by a bloodstained sock worn on a right foot.</p>
ZQVRW4-561	<p>Item 5 consists of three distinct patterns - one along the left side (A), one in the bottom right corner (B), and one on the right side (C). Pattern A is an approximately linear pattern traveling the length of the photo along the left side. There is feathering present at the distal/bottom of the stain and this is indicative of movement. The stain was deposited on the surface by moving from top left to bottom left. The origin of the stain isn't visible and has been cut off or obscured by the ruler in the photo. Pattern A is consistent with a wipe (from an object moving through blood on a surface) or a swipe (transfer of blood from a blood bearing surface/object onto another surface). Without being able to see the origin of the pattern, it is not possible to conclude whether the pattern is a swipe or wipe. Pattern B is in the bottom right corner of the photo and consists of a central pool, with ruffled edges, surrounded by random spatter of varying size (spatter ranges in size from < 1mm to > 2mm). The central stain has dried and the surface has cracked. Some of the spatter surrounding the central stain shows direction of travel away from the central stain. Pattern B is consistent with a drip pattern resulting from a liquid that dripped into another liquid, one of which is blood. Pattern C is on the right side of the photo and consists of a bloodstain in the shape of a right foot (one that is not wearing a shoe). There is no friction ridge detail visible, so the foot is not bare. Within the bloodstain, particularly within the area left by the outer edge of the foot, there is a pattern visible that is consistent with stockinette stitch. Stockinette stitch is present in garments that are knit (e.g. socks, sweaters, t-shirts) and its presence in Pattern C indicates that the foot that left the bloodstain was wearing a sock. Pattern C is consistent with a transfer stain - a stain resulting from the contact of blood bearing surface (sock covered foot) with another surface (foam board).</p>

Additional Comments

TABLE 3

WebCode-Test	Additional Comments
23QB3W-561	Angle of impact determinations were made using enlarged images. The width and lengths, in millimeters, of the actual stain images was obtained by comparing the enlarged images with the associated scale.
24EWG7-560	The angle of impact determination is not typically calculated in casework.
2CX3FX-560	I do not perform angle of impact determination.
3A7DM6-561	Please show the entire pattern.
3AJZ6J-561	A small swipe pattern is located extreme left middle of screen. This is separate to large swipe pattern, but may have been caused by the same mechanism. Transfer bloodstain typical of a bloodied sock impression.
3C84H6-560	Would require to see other boundary of swipe to confirm directionality.
4AHWYU-561	The swipe pattern in the left side of the target could possibly have been made by hair saturated with blood due to the thin lines.
7L2LK4-560	On the extreme left there is a small blood stain which appears to be associated with the adjacent large stain.
87NAWV-561	It's impossible to recognize if the left pattern is a wipe or a swipe because the start is missing.
9FMM4U-561	In my opinion the best description for the pattern located on the left side of the Item 5 (pattern description) is a smear, because the differentiation between a swipe or wipe is difficult cause[sic] we can not observe a possible point of origin in the top of the target that helps define either as a swipe or a wipe.
9UN2MC-560	Item 2 will have a split in reporting consensus: 1) Expiration Pattern and 2) Projected Pattern. Using the recommended terminology only, as directed, results in an overlap for this answer.
AQ27YB-561	A 10x loupe was used for Item 1 Angle of Impact determination.
AYEXP9-561	The vertical bloodstain depicted on the left side of the Item 5 image is a partial bloodstain. Additional photographs should be submitted for full characterization of this stain pattern. In actual casework, I would request additional images depicting this stain in full context for further evaluation. The volume of blood in this stain appears to be decreasing from bottom to top suggesting an upward motion; however the apparent volume of blood could be due to variations in applied pressure or variations in blood volume as the stain was being formed. Additionally, without full context of this stain, there may be additional interpretable information that could be determined from a complete image of the stain.
BF2U49-560	It is difficult to fully comment on BPA when you cant's[sic] see the entirety of the pattern.
CD9PF9-561	Not enough information available to determine the sequence of blood shedding events resulting in the deposition of the above mentioned major pattern types.
CFDPLU-561	The swipe pattern in the left side of the target could possibly have been made by hair saturated with blood due to the thin lines.
EQQ2ZG-560	Would be beneficial to see the entire pattern on the left side of the target to determine if it could be a wipe pattern.
FAUVWY-561	Not being able to see the top portion of the pattern on the left makes this determinatin[sic] more ambiguous. It does not seem logical to have this portion of the picture cut out.
HT38QE-560	The following statements would be included on the report: All stains are presumed to be blood until

TABLE 3

WebCode-Test	Additional Comments
	confirmed by the DNA Department. The above listed conclusions are based on the information provided and may change upon receipt of additional information.
JJP8H4-561	Regarding the stains depicted in Item #5 (foamboard-horizonal[sic] plane). The photograph is cropped, not allowing two out of the three stains to be viewed in their entirety. This hampered our ability to make a more determinative analysis. Placing a bureau scale in an area of the stain that obstructs the view of the entire stain is counterproductive.
JLFBBB-561	Our laboratory does not issue reports detailing the angle of impact as a crime scene. Therefore, we have not completed Section 1: Angle of Impact Determination as it is not relevant to us.
L68KJB-560	Item five is an unacceptable photograph. Two of the patterns are cut off. For one of the patterns, the net effect is that it cannot be conclusively identified. Item 2 is another example of a photograph which does not contain the entire pattern. Neither of these photographs follow minimal accepted standards of documenting bloodstain patterns for off-scene analysis. This is a continuing problem with this test. We are consistently asked to make conclusions based on photographs which include only part of the overall pattern. There are times when the printed photograph needs to be "to scale" to make an assessment. This is not required all of the time. A printed photograph which captures an area much larger in size than the photograph itself is acceptable as long as proper photographic techniques are utilized and scales are included. This approach follows accepted standards in the field and more accurately represents case work. Understanding the dynamics of bloodstains at a crime scene can extend beyond the printed page.
LP9KLF-561	Section II Part 2 photograph represents two poorly documented bloodstain patterns, but requests pattern recognition of the stains. This portion of the test should reflect casework practices- not encouragement of speculation. Please use more volume for the stains in Item 1.
NDAP2H-561	Item 5 conclusion is written with the assumption that the patterns presented were created using blood.
NW4Q7F-560	The swipe pattern in the left side of the target could possibly have been made by hair saturated with blood due to the thin lines.
P7LUNY-561	Characteristics of the swipe/wipe pattern are more consistent with it being a swipe pattern (possible hair swipe) beginning at the bottom of the target and going towards the top. However, all of the characteristics needed to conclusively say this are not present especially the missing end of the pattern.
Q9TUHP-560	The transfer stain described in Part 2 (above) appears to be an impression created by a knitted fabric. As this is the approximate size and shape of an adult foot, it is possible that it was formed by a foot in a bloodstained sock.
TKFTF7-560	Photos should document the complete/entire pattern in question. Two patterns were cut off in item 5, making the direction of movement and pattern type difficult to determine. The other end of the pattern may have made it easier to see if it was a swipe or a wipe, and in which direction it was produced.
TP7PV4-560	Would have reported the following for section 1: A = $20.7 \pm 0.8^\circ$; B = $44 \pm 3^\circ$; C = $17 \pm 1^\circ$; D = $22.4 \pm 1.6^\circ$; and E = $32 \pm 3^\circ$.
TW9A68-561	Directionality of the swipe pattern cannot be conclusively determined without viewing the entire pattern to examine feathering characteristics any potential blood volume depletion within the stain area.
U9FKA9-561	Seeing the whole pattern can be crucial in characterizing a bloodstain pattern. Because the origin of the pattern was NOT in the photo, we had to be conservative about identifying pattern type when it came to swipe vs. wipe. While it is not always necessary to include the entire pattern (e.g. the pattern transfer in the same photo), CTS should know which patterns rely on having the origin in the photo vs. which ones don't.
UA9NN2-560	You seem to be putting too much emphasis on getting the correct size photograph with a proper scale and not enough emphasis on the bloodstain pattern. One cannot determine a pattern if only

TABLE 3

WebCode-Test	Additional Comments
UBQDB3-560	part of the pattern is present. We would not have accepted Item 5 for analysis because the stains were not complete. Your photograph has omitted a portion of the transfer stain on the left side. Due to this omission, we cannot determine if there is a source of blood that generated a wipe pattern or an absence of a logical source leading us to call this a swipe pattern. As such, we can only say it is a transfer pattern and will not make assumptions as to the type of transfer pattern. We can always adjust for an improper scale but we cannot fix missing data.
VA7RL4-560	On Item 5, portions of the entire stain are not visible and cut off in the photograph. In casework, this would be insufficient for analysis and either one photograph of contiguous staining or multiple photographs encompassing the entirety of the staining would be necessary in order to form an opinion regarding potential mechanisms of deposition for a staining pattern.
VY4CVY-561	We do not calculate the angle of impact of bloodstains at crime scenes.
W6AREZ-560	The origin of the "transfer" stain is not on the target (it is above it) so it is impossible classify it as a wipe pattern or a swipe pattern.
W8FNTW-561	A photograph such as Item 5 and without additional information or photographs would not have been used for BPA analysis, as it is lacking information regarding the entire stain.
WNN467-561	Horizontal Plane
ZLM9F6-560	The wipe/swipe stains in this exercise are atypical and not what we would expect to see at a scene. In addition, documentation of the bloodstain patterns would include the entire stain, not a partial view.
ZLM9F6-560	The transfer of the sock is on the right hand side of the Item 5 image. It is from the top of the image with the toes out of picture and reaches ± 195 mm towards the bottom.

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 15-560: Bloodstain Pattern Analysis

DATA MUST BE RECEIVED BY August 24, 2015 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

Accreditation Release Statement

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

This participant's data is intended for submission to ASCLD/LAB and/or ANAB.
(Accreditation Release section on the last page must be completed and submitted.)

This participant's data is NOT intended for submission to ASCLD/LAB or ANAB.

Online Data Entry

Visit www.cts-portal.com to enter your proficiency test results online. If you have any questions please do not hesitate to contact CTS.

This test is divided into two sections: Angle of Impact Determination and Pattern Description.

Items Submitted (Sample Pack BSP - Photographs):

Item 1: Angle of Impact Determination (Stains A through E)

Items 2 - 4: Pattern Description: Part 1

Item 5: Pattern Description: Part 2

Appendix: Suggested Terminology Glossary

Section I: ANGLE OF IMPACT DETERMINATION

Item 1 - Examine bloodstains A through E and report the length and width of each stain, along with the calculated angle of impact. For all stains, the blood was dropped from a pipette onto white coated posterboard targets at predetermined angles from the vertical.

Please report a single value for each measurement/calculation, not a range of values.

<u>Stain</u>	<u>Width (mm)</u>	<u>Length (mm)</u>	<u>Angle of Impact (degrees)</u>
A	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
B	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
C	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
D	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
E	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>

Please return all pages of this data sheet.

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Section II: PATTERN DESCRIPTION

NOTE: The Pattern Description section is divided into two parts. Please read the instructions carefully prior to filling out the data sheet.

Part 1 - Mechanism of Deposition: For each of the following patterns, indicate the **single** pattern type that best describes the mechanism of deposition. Although you may use different terminology in your casework, in order to standardize responses for this exercise, please make your selection using the terminology provided.

Item 2: Target is a piece of foamboard in the vertical plane.

<input type="checkbox"/> Cast-off Pattern	<input type="checkbox"/> Impact Pattern	<input type="checkbox"/> Splash Pattern
<input type="checkbox"/> Cessation Cast-off Pattern	<input type="checkbox"/> Mist Pattern	<input type="checkbox"/> Swipe Pattern
<input type="checkbox"/> Drip Pattern	<input type="checkbox"/> Projected Pattern	<input type="checkbox"/> Transfer Stain
<input type="checkbox"/> Drip Stain	<input type="checkbox"/> Saturation Stain	<input type="checkbox"/> Wipe Pattern
<input type="checkbox"/> Expiration Pattern		

Item 3: Target is a textured vinyl tile in the horizontal plane.

<input type="checkbox"/> Cast-off Pattern	<input type="checkbox"/> Impact Pattern	<input type="checkbox"/> Splash Pattern
<input type="checkbox"/> Cessation Cast-off Pattern	<input type="checkbox"/> Mist Pattern	<input type="checkbox"/> Swipe Pattern
<input type="checkbox"/> Drip Pattern	<input type="checkbox"/> Projected Pattern	<input type="checkbox"/> Transfer Stain
<input type="checkbox"/> Drip Stain	<input type="checkbox"/> Saturation Stain	<input type="checkbox"/> Wipe Pattern
<input type="checkbox"/> Expiration Pattern		

Item 4: Target is a piece of foamboard in the horizontal plane.

<input type="checkbox"/> Cast-off Pattern	<input type="checkbox"/> Impact Pattern	<input type="checkbox"/> Splash Pattern
<input type="checkbox"/> Cessation Cast-off Pattern	<input type="checkbox"/> Mist Pattern	<input type="checkbox"/> Swipe Pattern
<input type="checkbox"/> Drip Pattern	<input type="checkbox"/> Projected Pattern	<input type="checkbox"/> Transfer Stain
<input type="checkbox"/> Drip Stain	<input type="checkbox"/> Saturation Stain	<input type="checkbox"/> Wipe Pattern
<input type="checkbox"/> Expiration Pattern		

Please return all pages of this data sheet.

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Collaborative Testing Services ~ Forensic Testing Program

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **15-560: Bloodstain Pattern Analysis**

This release page must be completed and received by **August 24, 2015** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

ASCLD/LAB RELEASE

If your lab has been accredited by ASCLD/LAB and you are submitting this data as part of their external proficiency test requirements, have the laboratory's designated individual complete the following.

The information below must be completed in its entirety for the results to be submitted to ASCLD/LAB.

**** NOTE: Per the request of ASCLD/LAB, do not complete the ASCLD/LAB release section below if your laboratory is not accredited in the category of testing Bloodstain Pattern Analysis. ****

ASCLD/LAB Legacy Certificate No. _____ ASCLD/LAB International Certificate No. _____

Signature _____ Date _____

Laboratory Name _____

Location (City/State) _____

ANAB RELEASE

If your laboratory maintains its accreditation through ANAB, please complete the following form in its entirety to have your results forwarded.

ANAB Certificate No. _____

Signature and Title _____ Date _____

Laboratory Name _____

Location (City/State) _____

Accreditation Release**Return Instructions**

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

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

Please return all pages of this data sheet.

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Appendix: Suggested Terminology Glossary*

Accompanying Drop	A small blood drop produced as a by-product of drop formation.
Altered Stain	A bloodstain with characteristics that indicate a physical change has occurred.
Angle of Impact	The acute angle (alpha), relative to the plane of a target, at which a blood drop strikes the target.
Area of Convergence	The area containing the intersections generated by lines drawn through the long axes of individual stains that indicates in two dimensions the location of the blood source.
Area of Origin	The three-dimensional location from which spatter originated.
Backspatter Pattern	A bloodstain pattern resulting from blood drops that traveled in the opposite direction of the external force applied; associated with an entrance wound created by a projectile.
Blood Clot	A gelatinous mass formed by a complex mechanism involving red blood cells, fibrinogen, platelets, and other clotting factors.
Bloodstain	A deposit of blood on a surface.
Bloodstain Pattern	A grouping or distribution of bloodstains that indicates through regular or repetitive form, order, or arrangement the manner in which the pattern was deposited.
Bubble Ring	An outline within a bloodstain resulting from air in the blood.
Cast-off Pattern	A bloodstain pattern resulting from blood drops released from an object due to its motion.
Cessation Cast-off Pattern	A bloodstain pattern resulting from blood drops released from an object due to its rapid deceleration.
Directional Angle	The angle (gamma) between the long axis of a spatter stain and a defined reference line on the target.
Directionality	The characteristic of a bloodstain that indicates the direction blood was moving at the time of deposition.
Drip Pattern	A bloodstain pattern resulting from a liquid that dripped into another liquid, at least one of which was blood.
Drip Stain	A bloodstain resulting from a falling drop that formed due to gravity.
Drip Trail	A bloodstain pattern resulting from the movement of a source of drip stains between two points.
Edge Characteristic	A physical feature of the periphery of a bloodstain.
Expiration Pattern	A bloodstain pattern resulting from blood forced by airflow out of the nose, mouth, or a wound.
Flow Pattern	A bloodstain pattern resulting from the movement of a volume of blood on a surface due to

gravity or movement of the target.

Forward Spatter Pattern	A bloodstain pattern resulting from blood drops that traveled in the same direction as the impact force.
Impact Pattern	A bloodstain pattern resulting from an object striking liquid blood.
Insect Stain	A bloodstain resulting from insect activity.
Mist Pattern	A bloodstain pattern resulting from blood reduced to a spray of micro-drops as a result of the force applied.
Parent Stain	A bloodstain from which a satellite stain originated.
Perimeter Stain	An altered stain that consists of the peripheral characteristics of the original stain.
Pool	A bloodstain resulting from an accumulation of liquid blood on a surface.
Projected Pattern	A bloodstain pattern resulting from the ejection of a volume of blood under pressure.
Satellite Stain	A smaller bloodstain that originated during the formation of the parent stain as a result of blood impacting a surface.
Saturation Stain	A bloodstain resulting from the accumulation of liquid blood in an absorbent material.
Serum Stain	The stain resulting from the liquid portion of blood (serum) that separates during coagulation.
Spatter Stain	A bloodstain resulting from a blood drop dispersed through the air due to an external force applied to a source of liquid blood.
Splash Pattern	A bloodstain pattern resulting from a volume of liquid blood that falls or spills onto a surface.
Swipe Pattern	A bloodstain pattern resulting from the transfer of blood from a blood-bearing surface onto another surface, with characteristics that indicate relative motion between the two surfaces.
Target	A surface onto which blood has been deposited.
Transfer Stain	A bloodstain resulting from contact between a blood-bearing surface and another surface.
Void	An absence of blood in an otherwise continuous bloodstain or bloodstain pattern.
Wipe Pattern	An altered bloodstain pattern resulting from an object moving through a preexisting wet bloodstain.

* As established by the Scientific Working Group on Bloodstain Pattern Analysis (SWGSTAIN) - April 2009