



Bloodstain Pattern Analysis

Test No. 26-5601/5 Summary Report

Each participant received a sample pack containing either printed photographs (5601) or digital images (5605) of bloodstains for Angle of Impact Determination and Pattern Description, where they were asked to analyze these items and report their findings. Data were returned from 156 participants: 49 for 26-5601 and 107 for 26-5605 and are compiled into the following tables:

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

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

Manufacturer's Information

Each sample pack contained photos in either a physically printed format or as a digitally downloadable file. Images were intended for angle of impact determinations, and pattern recognition and description analyses. Participants were asked to determine the angle of impact of Stains A - E (Item 1), identify the pattern for Items 2 - 4, and identify and write a brief description of the pattern(s) for Item 5.

SAMPLE PREPARATION: Images were assembled onto test templates prior to physical printing.

SAMPLE PACK ASSEMBLY: Once verification was complete, each photo set was placed into a pre-labeled sample pack envelope, sealed, and initialed. A zipped file containing the digitally downloadable media was uploaded to the CTS Portal.

VERIFICATION: Predistribution results were consistent with each other and the manufacturer's preparation information.

ANGLE OF IMPACT DETERMINATION

Item 1: For each angle of impact stain, human whole blood was released from a pipette at a height of approximately thirty-six inches above the impact surface. White poster board targets were placed on an inclined plane at the following predetermined angles from the vertical:

Stain	Preparation Angle
A	17°
B	39°
C	35°
D	28°
E	22°

Please note that the preparation angle is the value used at 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

- Item 2: A blood-soaked bundle of fabric was placed onto a horizontal posterboard and dragged across it while still wet.
- Item 3: A knife was dipped into a blood-filled weigh boat positioned 50 inches above the floor and 37 inches from the vertical posterboard, behind the shoulder. The knife was then swung downward toward the target.
- Item 4: Blood was released from a syringe held at a 20° angle, 3 inches above the floor, onto a horizontal posterboard 5.5 inches away.
- Item 5: Approximately 4 mL of blood was deposited onto the floor tile. A flip flop's toe area was slapped into the blood on the tile. The flip flop's heel was then dipped into a container of blood, held above the tile, and slowly moved across the surface, then pressed onto the tile near its edge.

Summary Comments

This test was designed to allow participants to assess their proficiency in the Angle of Impact Determination and Pattern Description. Participants had the option of receiving the stains and patterns for examination in the form of either printed photographs or digital images. Refer to the Manufacturer's Information for detailed explanations of how the angles and patterns were created.

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). Participants were asked to report the Length, Width, and Angle of the stain. Using the provided length and width measurements, CTS also generated a Calculated Angle of Impact (CalcAng). Results marked with an "X" in Table 1 are greater than or equal to ± 3 standard deviations (STD) from the grand mean (GM). 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). For some participants, significantly discrepant length/width measurements were excluded from calculations while their angle was not; this is due to an appropriate length/width ratio being achieved resulting in an angle value within the ± 3 STD range. A total of 16 participants were excluded from both the reported angle and the calculated angle statistics. The Grand Mean and Standard Deviation are shown below, based on each Calculated Angle.

Stain	Preparation Angle	Calculated Angle	
		Grand Mean	Standard Deviation
A	17°	18.98°	1.54
B	39°	41.33°	1.44
C	35°	35.24°	1.57
D	28°	28.37°	1.88
E	22°	22.05°	1.23

Pattern Description

The pattern description section was divided into two separate parts. The first part of the pattern description section consisted of single pattern targets and participants were asked to select the pattern type(s) that best described the pattern contained in the image. The second part of the pattern description section consisted of one target, and participants were asked to select the pattern types that best described the patterns contained in the image and provide a detailed description of the possible bloodstain patterns or events that created the final result.

In Table 2, part one, Item 2, 80.6% of participants reported "Swipe." Of those who did not report "Swipe," "Transfer Stain" and "Wipe" were the next most commonly reported responses. For Item 3, all participants reported "Cast-off Pattern." For Item 4, 97.4% of participants reported "Projected Pattern."

In Table 3, part two, Item 5, the majority of participants reported the following distinct pattern mechanisms and characteristics: 1) Transfer Stain (98.7%), 2) Drip Trail (78.7%), and 3) Impact Pattern (56.8%).

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: Angle of Impact Determination
Stain A - Preparation Angle: 17°

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
2DMZKD-5605	1.50	-0.03	-0.40	4.70	-0.04	-0.12	18.80	-0.16	-0.12	18.61
38BHFG-5605	0.76	-0.77	-10.29 X	2.19	-2.55	-8.55 X	20.30	1.34	1.03	20.31
3AE4DE-5605	1.50	-0.03	-0.40	4.90	0.16	0.55	17.80	-1.16	-0.89	17.83
3CGCAC-5605	1.50	-0.03	-0.40	4.80	0.06	0.21	18.00	-0.96	-0.73	18.21
3DDRLA-5601	1.20	-0.33	-4.41 X	3.20	-1.54	-5.16 X	22.00	3.04	2.33	22.02
3RD9RB-5605	1.44	-0.09	-1.20	4.71	-0.03	-0.09	18.00	-0.96	-0.73	17.80
3YXKUH-5605	1.60	0.07	0.94	4.80	0.06	0.21	19.00	0.04	0.03	19.47
4B6PJB-5605	1.60	0.07	0.94	4.80	0.06	0.21	19.00	0.04	0.03	19.47
4CZ9LC-5605	1.60	0.07	0.94	5.00	0.26	0.88	19.00	0.04	0.03	18.66
4MX9XG-5601	1.53	0.00	0.00	4.41	-0.33	-1.10	20.00	1.04	0.80	20.30
63UMXA-5605	1.80	0.27	3.61 X	5.00	0.26	0.88	21.00	2.04	1.57	21.10
6AQPR9-5601	1.60	0.07	0.94	3.70	-1.04	-3.48 X	25.60	6.64	5.10 X	25.62 X
6QWW7B-5605	1.70	0.17	2.27	4.70	-0.04	-0.12	21.00	2.04	1.57	21.20
6TXYR7-5605	1.50	-0.03	-0.40	5.00	0.26	0.88	17.40	-1.56	-1.20	17.46
7JD4EC-5605	1.50	-0.03	-0.40	4.70	-0.04	-0.12	19.00	0.04	0.03	18.61
7K3JF8-5605	1.60	0.07	0.94	4.70	-0.04	-0.12	19.90	0.94	0.72	19.90
7QQ4L9-5605	1.40	-0.13	-1.74	4.80	0.06	0.21	17.00	-1.96	-1.50	16.96
7TY8LB-5601	1.50	-0.03	-0.40	4.80	0.06	0.21	18.00	-0.96	-0.73	18.21
7VW4B8-5605	1.50	-0.03	-0.40	4.50	-0.24	-0.80	19.47	0.51	0.39	19.47
7X9K4A-5605	1.20	-0.33	-4.41 X	4.10	-0.64	-2.14	17.00	-1.96	-1.50	17.02

TABLE 1: Angle of Impact Determination
Stain A - Preparation Angle: 17°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
8HP7CB-5601	1.60	0.07	0.94	4.60	-0.14	-0.46	20.40	1.44	1.11	20.35
8M7CA7-5601	2.00	0.47	6.28 X	5.00	0.26	0.88	24.00	5.04	3.87 X	23.58
9JFRH7-5605	15.00	13.47	180.0 X	48.00	43.26	145.3 X	18.20	-0.76	-0.58	18.21
A9KQTA-5605	1.50	-0.03	-0.40	5.00	0.26	0.88	17.50	-1.46	-1.12	17.46
AFZG63-5601	1.45	-0.08	-1.07	4.15	-0.59	-1.97	20.45	1.49	1.15	20.45
AYN3M6-5605	1.50	-0.03	-0.40	5.00	0.26	0.88	17.00	-1.96	-1.50	17.46
B6UWGZ-5605	1.40	-0.13	-1.74	5.00	0.26	0.88	16.30	-2.66	-2.04	16.26
BMPVW3-5605	1.53	0.00	0.00	4.25	-0.49	-1.63	21.00	2.04	1.57	21.10
BZJ472-5605	1.50	-0.03	-0.40	5.01	0.27	0.92	17.48	-1.48	-1.13	17.42
C4YNY9-5601	1.60	0.07	0.94	5.00	0.26	0.88	18.70	-0.26	-0.20	18.66
C9NC8Z-5605	1.60	0.07	0.94	5.00	0.26	0.88	18.70	-0.26	-0.20	18.66
CAJV92-5605	1.50	-0.03	-0.40	4.70	-0.04	-0.12	18.60	-0.36	-0.27	18.61
CC9DC8-5605	1.00	-0.53	-7.08 X	4.00	-0.74	-2.47	14.48	-4.48	-3.44 X	14.48
CCPFW2-5605	2.14	0.61	8.15 X	7.21	2.47	8.30 X	17.20	-1.76	-1.35	17.27
CK76K2-5605	1.60	0.07	0.94	4.70	-0.04	-0.12	19.10	0.14	0.11	19.90
D9NK26-5605	1.50	-0.03	-0.40	4.80	0.06	0.21	18.00	-0.96	-0.73	18.21
DNFPYZ-5605	1.70	0.17	2.27	4.50	-0.24	-0.80	22.20	3.24	2.49	22.20
DXN423-5601	1.40	-0.13	-1.74	4.00	-0.74	-2.47	20.50	1.54	1.18	20.49
E6363W-5605	1.55	0.02	0.27	4.89	0.15	0.51	18.48	-0.48	-0.37	18.48
E7EVB2-5605	1.60	0.07	0.94	5.03	0.29	0.98	19.00	0.04	0.03	18.55

TABLE 1: Angle of Impact Determination
Stain A - Preparation Angle: 17°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
EE6MDZ-5605	1.50	-0.03	-0.40	4.40	-0.34	-1.13	20.00	1.04	0.80	19.93
EEUNF6-5605	59.70	58.17	777.3 X	181.60	176.86	593.8 X	19.20	0.24	0.19	19.19
EJ42X4-5605	1.53	0.00	0.00	4.67	-0.07	-0.22	19.10	0.14	0.11	19.12
EJYJZ6-5605	2.59	1.06	14.16 X	7.78	3.04	10.22 X	19.40	0.44	0.34	19.45
F7A82Z-5601	1.60	0.07	0.94	4.60	-0.14	-0.46	20.35	1.39	1.07	20.35
FBNGE6-5605	0.90	-0.63	-8.42 X	2.80	-1.94	-6.50 X	18.70	-0.26	-0.20	18.75
FFE6VW-5605	1.60	0.07	0.94	5.00	0.26	0.88	19.00	0.04	0.03	18.66
FFJ9M2-5605	1.57	0.04	0.53	5.03	0.29	0.98	18.19	-0.77	-0.59	18.19
G9V2NT-5605	1.57	0.04	0.53	5.05	0.31	1.05	18.10	-0.86	-0.66	18.11
GCUCJT-5605	1.55	0.02	0.27	4.96	0.22	0.75	18.20	-0.76	-0.58	18.21
GFK6UY-5605	1.50	-0.03	-0.40	4.90	0.16	0.55	17.83	-1.13	-0.87	17.83
GGKXZU-5605	1.52	-0.01	-0.13	4.83	0.09	0.31	18.42	-0.54	-0.41	18.34
GHFJRZ-5605	1.50	-0.03	-0.40	4.00	-0.74	-2.47	22.00	3.04	2.33	22.02
GPZK9X-5605	1.00	-0.53	-7.08 X	5.00	0.26	0.88	12.00	-6.96	-5.34 X	11.54 X
GTA2WW-5605	1.50	-0.03	-0.40	4.50	-0.24	-0.80	19.50	0.54	0.42	19.47
GULGQX-5601	1.50	-0.03	-0.40	5.20	0.46	1.56	16.77	-2.19	-1.68	16.77
GZG4TU-5605	1.52	-0.01	-0.13	4.82	0.08	0.28	18.41	-0.55	-0.42	18.38
H28PYQ-5605	1.40	-0.13	-1.74	4.50	-0.24	-0.80	18.00	-0.96	-0.73	18.13
H69TTY-5605	4.10	2.57	34.34 X	12.80	8.06	27.07 X	18.70	-0.26	-0.20	18.68
H6MCDV-5605	1.50	-0.03	-0.40	5.00	0.26	0.88	17.50	-1.46	-1.12	17.46

TABLE 1: Angle of Impact Determination
Stain A - Preparation Angle: 17°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
H986PY-5605	0.80	-0.73	-9.76 X	2.52	-2.22	-7.44 X	18.50	-0.46	-0.35	18.51
HA3MQZ-5605	1.40	-0.13	-1.74	5.10	0.36	1.22	16.60	-2.36	-1.81	15.93
HCA6PV-5605	1.70	0.17	2.27	5.00	0.26	0.88	19.90	0.94	0.72	19.88
HMQUJU-5605	9.05	7.52	100.5 X	22.78	18.04	60.6 X	23.41	4.45	3.42 X	23.41
HTWMDP-5601	1.80	0.27	3.61 X	5.00	0.26	0.88	21.00	2.04	1.57	21.10
HVQ3D2-5601	1.50	-0.03	-0.40	5.00	0.26	0.88	17.50	-1.46	-1.12	17.46
J8UUCR-5601	1.50	-0.03	-0.40	4.30	-0.44	-1.47	20.42	1.46	1.12	20.42
JHANKY-5601	1.50	-0.03	-0.40	5.00	0.26	0.88	17.46	-1.50	-1.15	17.46
JHBRZV-5605	1.50	-0.03	-0.40	4.70	-0.04	-0.12	18.50	-0.46	-0.35	18.61
K8NZ6Q-5605	1.50	-0.03	-0.40	4.80	0.06	0.21	18.20	-0.76	-0.58	18.21
KWQ44P-5605	1.60	0.07	0.94	4.80	0.06	0.21	19.00	0.04	0.03	19.47
KWQCXU-5605	1.56	0.03	0.40	4.99	0.25	0.85	18.00	-0.96	-0.73	18.22
L6F8NX-5605	1.42	-0.11	-1.47	4.70	-0.04	-0.12	17.60	-1.36	-1.04	17.59
LHAETT-5601	1.60	0.07	0.94	4.52	-0.22	-0.73	20.73	1.77	1.36	20.73
LNBNQ-5605	1.54	0.01	0.13	4.86	0.12	0.41	18.47	-0.49	-0.37	18.47
LQZ9JW-5605	1.53	0.00	0.00	4.90	0.16	0.55	18.30	-0.66	-0.50	18.19
LRVPVT-5605	1.60	0.07	0.94	5.00	0.26	0.88	18.70	-0.26	-0.20	18.66
LWUVT-5605	1.60	0.07	0.94	4.90	0.16	0.55	19.00	0.04	0.03	19.06
LZZWBT-5605	1.52	-0.01	-0.13	4.93	0.19	0.65	18.00	-0.96	-0.73	17.96
M7CH9Q-5605	1.50	-0.03	-0.40	4.60	-0.14	-0.46	19.03	0.07	0.06	19.03

TABLE 1: Angle of Impact Determination
Stain A - Preparation Angle: 17°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
MPJCRW-5605	2.79	1.26	16.84 X	8.46	3.72	12.50 X	19.30	0.34	0.26	19.26
MYMQ9P-5601	1.00	-0.53	-7.08 X	3.00	-1.74	-5.83 X	19.47	0.51	0.39	19.47
N2QHGP-5605	1.60	0.07	0.94	4.90	0.16	0.55	18.70	-0.26	-0.20	19.06
N8G6WV-5605	1.50	-0.03	-0.40	5.00	0.26	0.88	17.50	-1.46	-1.12	17.46
NU7LAU-5605	1.60	0.07	0.94	4.40	-0.34	-1.13	21.30	2.34	1.80	21.32
P6MPWJ-5605	1.60	0.07	0.94	5.00	0.26	0.88	18.66	-0.30	-0.23	18.66
PEE4ZP-5605	1.40	-0.13	-1.74	4.60	-0.14	-0.46	18.00	-0.96	-0.73	17.72
PUQGHM-5605	1.60	0.07	0.94	4.80	0.06	0.21	19.47	0.51	0.39	19.47
Q3VYCQ-5601	1.60	0.07	0.94	4.80	0.06	0.21	19.50	0.54	0.42	19.47
QNUACJ-5605	1.50	-0.03	-0.40	4.30	-0.44	-1.47	20.42	1.46	1.12	20.42
QPPXNN-5605	1.70	0.17	2.27	5.40	0.66	2.23	18.30	-0.66	-0.50	18.35
QWAWLN-5601	1.70	0.17	2.27	5.00	0.26	0.88	19.90	0.94	0.72	19.88
RFYUZZ-5605	1.50	-0.03	-0.40	4.62	-0.12	-0.39	18.90	-0.06	-0.04	18.95
RVAFHP-5605	2.44	0.91	12.16 X	5.13	0.39	1.32	28.40	9.44	7.25 X	28.40 X
T3QB3Q-5605	1.56	0.03	0.40	4.81	0.07	0.25	18.90	-0.06	-0.04	18.92
T6C7PH-5605	1.60	0.07	0.94	4.90	0.16	0.55	19.00	0.04	0.03	19.06
UBDTRH-5605	1.50	-0.03	-0.40	4.50	-0.24	-0.80	19.50	0.54	0.42	19.47
UBWKTF-5605	1.60	0.07	0.94	4.70	-0.04	-0.12	19.90	0.94	0.72	19.90
UN3N8H-5605	1.50	-0.03	-0.40	4.30	-0.44	-1.47	20.40	1.44	1.11	20.42
UN9VJQ-5605	1.33	-0.20	-2.67	5.20	0.46	1.56	14.80	-4.16	-3.19 X	14.82

TABLE 1: Angle of Impact Determination
Stain A - Preparation Angle: 17°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
UWXGNP-5605	1.60	0.07	0.94	4.80	0.06	0.21	19.47	0.51	0.39	19.47
V9L38P-5601	1.40	-0.13	-1.74	4.50	-0.24	-0.80	18.00	-0.96	-0.73	18.13
VF867E-5605	1.50	-0.03	-0.40	4.10	-0.64	-2.14	21.40	2.44	1.87	21.46
VVCK2J-5605	2.00	0.47	6.28 X	4.00	-0.74	-2.47	30.00	11.04	8.47 X	30.00 X
VYZNKM-5605	1.50	-0.03	-0.40	4.60	-0.14	-0.46	19.00	0.04	0.03	19.03
W3U6AL-5601	15.00	13.47	180.0 X	45.00	40.26	135.2 X	19.47	0.51	0.39	19.47
W4PKMH-5605	1.40	-0.13	-1.74	4.60	-0.14	-0.46	18.00	-0.96	-0.73	17.72
WNX4GK-5601	1.56	0.03	0.40	4.13	-0.61	-2.04	22.19	3.23	2.48	22.19
WQ699N-5601	1.58	0.05	0.67	4.60	-0.14	-0.46	20.09	1.13	0.87	20.09
XQ4LFG-5605	1.60	0.07	0.94	5.00	0.26	0.88	18.70	-0.26	-0.20	18.66
XZKEKH-5605	1.60	0.07	0.94	4.60	-0.14	-0.46	20.00	1.04	0.80	20.35
Y9CE99-5605	1.50	-0.03	-0.40	5.00	0.26	0.88	17.50	-1.46	-1.12	17.46
YB3AJH-5605	1.40	-0.13	-1.74	4.80	0.06	0.21	17.00	-1.96	-1.50	16.96
YB7T8K-5601	1.50	-0.03	-0.40	4.80	0.06	0.21	18.20	-0.76	-0.58	18.21
YCRPLD-5605	3.00	1.47	19.64 X	10.00	5.26	17.67 X	17.46	-1.50	-1.15	17.46
YDNB3B-5605	1.50	-0.03	-0.40	4.86	0.12	0.41	18.00	-0.96	-0.73	17.98
YE2M6L-5601	1.50	-0.03	-0.40	4.20	-0.54	-1.80	21.00	2.04	1.57	20.92
YE764K-5601	1.50	-0.03	-0.40	4.50	-0.24	-0.80	19.00	0.04	0.03	19.47
YKR4BK-5605	0.41	-1.12	-14.97 X	1.35	-3.39	-11.37 X	17.70	-1.26	-0.97	17.68
YQC4NC-5605	1.50	-0.03	-0.40	4.80	0.06	0.21	18.00	-0.96	-0.73	18.21

TABLE 1: Angle of Impact Determination
Stain A - Preparation Angle: 17°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
Z7ZWT- 5605	1.50	-0.03	-0.40	4.50	-0.24	-0.80	19.47	0.51	0.39	19.47
ZHGLM9- 5605	1.90	0.37	4.94 X	5.00	0.26	0.88	22.30	3.34	2.57	22.33
ZHGNC- 5601	1.41	-0.12	-1.60	4.48	-0.26	-0.86	18.30	-0.66	-0.50	18.34

Summary Statistics for Stain A Preparation Angle: 17°					Responding Participants: 123	
	Width (mm*)		Length (mm*)		Angle°	CalcAng°
Grand Mean	1.53		4.74		18.96	18.98
Standard Deviation	0.07		0.30		1.30	1.54
Participants included in calculations	99		107		115	119
Participants excluded from calculations (indicated by X)	25		17		9	4

*Statistical evaluation for length/width measurements includes those who did not report in mm, which may result in a higher number of participants excluded from these calculations. This difference in measurement unit has no effect on the statistical evaluation of the Angle° or CalcAng° data.

TABLE 1: Angle of Impact Determination
Stain B - Preparation Angle: 39°

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
2DMZKD-5605	4.80	0.07	0.48	7.20	0.08	0.34	41.10	-0.17	-0.12	41.81
38BHFG-5605	2.66	-2.07	-14.41 X	3.92	-3.20	-14.19 X	42.70	1.43	1.05	42.73
3AE4DE-5605	4.80	0.07	0.48	7.20	0.08	0.34	41.80	0.53	0.39	41.81
3CGCAC-5605	4.60	-0.13	-0.92	7.10	-0.02	-0.10	40.00	-1.27	-0.93	40.38
3DDRLA-5601	4.50	-0.23	-1.61	6.90	-0.22	-0.99	40.00	-1.27	-0.93	40.71
3RD9RB-5605	4.66	-0.07	-0.50	7.27	0.15	0.65	40.00	-1.27	-0.93	39.87
3YXKUH-5605	4.80	0.07	0.48	7.20	0.08	0.34	42.00	0.73	0.54	41.81
4B6PJB-5605	4.80	0.07	0.48	7.30	0.18	0.78	41.00	-0.27	-0.20	41.11
4CZ9LC-5605	5.00	0.27	1.87	7.60	0.48	2.11	41.00	-0.27	-0.20	41.14
4MX9XG-5601	4.59	-0.14	-0.99	6.70	-0.42	-1.87	43.00	1.73	1.27	43.24
63UMXA-5605	4.80	0.07	0.48	7.10	-0.02	-0.10	43.00	1.73	1.27	42.54
6AQPR9-5601	4.20	-0.53	-3.70 X	6.80	-0.32	-1.43	38.14	-3.13	-2.30	38.14
6QWW7B-5605	4.90	0.17	1.17	7.10	-0.02	-0.10	43.00	1.73	1.27	43.64
6TXYR7-5605	4.70	-0.03	-0.22	7.20	0.08	0.34	40.70	-0.57	-0.42	40.75
7JD4EC-5605	4.70	-0.03	-0.22	7.10	-0.02	-0.10	41.00	-0.27	-0.20	41.45
7K3JF8-5605	4.60	-0.13	-0.92	6.90	-0.22	-0.99	41.80	0.53	0.39	41.81
7QQ4L9-5605	4.40	-0.33	-2.31	7.00	-0.12	-0.55	39.00	-2.27	-1.67	38.94
7TY8LB-5601	4.80	0.07	0.48	7.20	0.08	0.34	42.00	0.73	0.54	41.81
7VW4B8-5605	4.50	-0.23	-1.61	7.00	-0.12	-0.55	40.00	-1.27	-0.93	40.01
7X9K4A-5605	4.10	-0.63	-4.39 X	6.90	-0.22	-0.99	36.50	-4.77	-3.51 X	36.46 X

TABLE 1: Angle of Impact Determination
Stain B - Preparation Angle: 39°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
8HP7CB-5601	4.80	0.07	0.48	7.00	-0.12	-0.55	43.30	2.03	1.49	43.29
8M7CA7-5601	5.00	0.27	1.87	8.00	0.88	3.88 X	39.00	-2.27	-1.67	38.68
9JFRH7-5605	45.00	40.27	280.2 X	72.00	64.88	287.4 X	38.68	-2.59	-1.90	38.68
A9KQTA-5605	4.50	-0.23	-1.61	7.00	-0.12	-0.55	40.00	-1.27	-0.93	40.01
AFZG63-5601	4.70	-0.03	-0.22	6.84	-0.28	-1.25	43.40	2.13	1.57	43.40
AYN3M6-5605	4.50	-0.23	-1.61	7.00	-0.12	-0.55	40.00	-1.27	-0.93	40.01
B6UWGZ-5605	4.70	-0.03	-0.22	7.00	-0.12	-0.55	42.20	0.93	0.68	42.18
BMPVW3-5605	4.42	-0.31	-2.17	6.78	-0.34	-1.52	41.00	-0.27	-0.20	40.69
BZJ472-5605	4.81	0.08	0.55	7.30	0.18	0.78	41.21	-0.06	-0.04	41.22
C4YNY9-5601	4.80	0.07	0.48	7.20	0.08	0.34	41.90	0.63	0.46	41.81
C9NC8Z-5605	4.80	0.07	0.48	7.40	0.28	1.23	40.50	-0.77	-0.57	40.44
CAJV92-5605	4.60	-0.13	-0.92	7.00	-0.12	-0.55	41.10	-0.17	-0.12	41.08
CC9DC8-5605	4.00	-0.73	-5.09 X	6.00	-1.12	-4.98 X	41.81	0.54	0.40	41.81
CCPFW2-5605	7.21	2.48	17.24 X	11.85	4.73	20.94 X	37.50	-3.77	-2.77	37.48
CK76K2-5605	4.70	-0.03	-0.22	7.20	0.08	0.34	40.80	-0.47	-0.35	40.75
D9NK26-5605	4.80	0.07	0.48	7.00	-0.12	-0.55	43.00	1.73	1.27	43.29
DNFPYZ-5605	4.90	0.17	1.17	7.00	-0.12	-0.55	44.40	3.13	2.30	44.43
DXN423-5601	4.70	-0.03	-0.22	6.90	-0.22	-0.99	42.80	1.53	1.13	42.93
E6363W-5605	4.74	0.01	0.06	7.28	0.16	0.69	40.62	-0.65	-0.48	40.62
E7EVB2-5605	4.72	-0.01	-0.08	7.18	0.06	0.25	41.00	-0.27	-0.20	41.10

TABLE 1: Angle of Impact Determination
Stain B - Preparation Angle: 39°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
EE6MDZ-5605	4.80	0.07	0.48	7.20	0.08	0.34	41.80	0.53	0.39	41.81
EEUNF6-5605	92.90	88.17	613.5 X	143.90	136.78	605.9 X	40.20	-1.07	-0.79	40.21
EJ42X4-5605	4.75	0.02	0.13	7.14	0.02	0.07	41.70	0.43	0.32	41.70
EJYJZ6-5605	4.90	0.17	1.17	7.39	0.27	1.18	41.50	0.23	0.17	41.53
F7A82Z-5601	4.80	0.07	0.48	7.10	-0.02	-0.10	42.53	1.26	0.93	42.54
FBNGE6-5605	1.49	-3.24	-22.55 X	2.22	-4.90	-21.72 X	42.20	0.93	0.68	42.16
FFE6VV-5605	4.80	0.07	0.48	7.20	0.08	0.34	42.00	0.73	0.54	41.81
FFJ9M2-5605	4.78	0.05	0.34	7.39	0.27	1.18	40.30	-0.97	-0.71	40.30
G9V2NT-5605	4.78	0.05	0.34	7.29	0.17	0.74	41.00	-0.27	-0.20	40.97
GCUCJT-5605	4.77	0.04	0.27	7.35	0.23	1.01	40.50	-0.77	-0.57	40.46
GFK6UY-5605	4.70	-0.03	-0.22	7.20	0.08	0.34	40.75	-0.52	-0.38	40.75
GGKXZU-5605	4.73	0.00	-0.01	7.25	0.13	0.56	40.82	-0.45	-0.33	40.72
GHFJRZ-5605	6.00	1.27	8.83 X	8.00	0.88	3.88 X	48.00	6.73	4.95 X	48.59 X
GPZK9X-5605	5.00	0.27	1.87	8.00	0.88	3.88 X	39.00	-2.27	-1.67	38.68
GTA2WW-5605	4.50	-0.23	-1.61	6.00	-1.12	-4.98 X	48.60	7.33	5.39 X	48.59 X
GULGQX-5601	4.70	-0.03	-0.22	7.20	0.08	0.34	40.75	-0.52	-0.38	40.75
GZG4TU-5605	4.70	-0.03	-0.22	7.25	0.13	0.56	40.44	-0.83	-0.61	40.41
H28PYQ-5605	5.00	0.27	1.87	7.20	0.08	0.34	44.00	2.73	2.01	43.98
H69TTY-5605	8.00	3.27	22.74 X	12.10	4.98	22.05 X	41.40	0.13	0.10	41.39
H6MCDV-5605	4.80	0.07	0.48	7.25	0.13	0.56	41.50	0.23	0.17	41.46

TABLE 1: Angle of Impact Determination
Stain B - Preparation Angle: 39°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
H986PY-5605	2.03	-2.70	-18.80 X	3.08	-4.04	-17.91 X	41.20	-0.07	-0.05	41.23
HA3MQZ-5605	4.80	0.07	0.48	7.40	0.28	1.23	39.70	-1.57	-1.15	40.44
HCA6PV-5605	4.80	0.07	0.48	7.70	0.58	2.56	38.60	-2.67	-1.96	38.56
HMQUJU-5605	27.64	22.91	159.4 X	41.15	34.03	150.7 X	41.33	0.06	0.04	42.20
HTWMDP-5601	4.80	0.07	0.48	7.00	-0.12	-0.55	43.00	1.73	1.27	43.29
HVQ3D2-5601	4.90	0.17	1.17	7.30	0.18	0.78	42.00	0.73	0.54	42.16
J8UUCR-5601	4.60	-0.13	-0.92	7.10	-0.02	-0.10	40.38	-0.89	-0.65	40.38
JHANKY-5601	4.90	0.17	1.17	7.40	0.28	1.23	41.46	0.19	0.14	41.46
JHBRZV-5605	4.60	-0.13	-0.92	7.00	-0.12	-0.55	41.60	0.33	0.24	41.08
K8NZ6Q-5605	4.70	-0.03	-0.22	7.10	-0.02	-0.10	41.30	0.03	0.02	41.45
KWQ44P-5605	4.80	0.07	0.48	7.10	-0.02	-0.10	43.00	1.73	1.27	42.54
KWQCXU-5605	4.70	-0.03	-0.22	7.28	0.16	0.69	40.00	-1.27	-0.93	40.21
L6F8NX-5605	4.48	-0.25	-1.75	7.05	-0.07	-0.32	39.50	-1.77	-1.30	39.45
LHAETT-5601	4.74	0.01	0.06	7.00	-0.12	-0.55	42.62	1.35	0.99	42.62
LNBNQ-5605	4.74	0.01	0.06	7.25	0.13	0.56	40.83	-0.44	-0.32	40.83
LQZ9JW-5605	4.74	0.01	0.06	7.29	0.17	0.74	40.60	-0.67	-0.49	40.56
LRVPVT-5605	4.80	0.07	0.48	7.20	0.08	0.34	41.80	0.53	0.39	41.81
LWUVT-5605	4.70	-0.03	-0.22	7.40	0.28	1.23	39.00	-2.27	-1.67	39.43
LZZWBT-5605	4.79	0.06	0.41	7.39	0.27	1.18	40.00	-1.27	-0.93	40.40
M7CH9Q-5605	4.70	-0.03	-0.22	7.00	-0.12	-0.55	42.18	0.91	0.67	42.18

TABLE 1: Angle of Impact Determination
Stain B - Preparation Angle: 39°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
MPJCRW-5605	5.11	0.38	2.63	7.75	0.63	2.78	41.30	0.03	0.02	41.25
MYMQ9P-5601	2.60	-2.13	-14.83 X	3.60	-3.52	-15.61 X	46.24	4.97	3.65 X	46.24 X
N2QHGP-5605	4.80	0.07	0.48	7.30	0.18	0.78	40.80	-0.47	-0.35	41.11
N8G6WV-5605	4.70	-0.03	-0.22	6.50	-0.62	-2.76	46.30	5.03	3.70 X	46.31 X
NU7LAU-5605	4.70	-0.03	-0.22	7.20	0.08	0.34	40.80	-0.47	-0.35	40.75
P6MPWJ-5605	4.80	0.07	0.48	7.20	0.08	0.34	41.81	0.54	0.40	41.81
PEE4ZP-5605	4.60	-0.13	-0.92	7.20	0.08	0.34	40.00	-1.27	-0.93	39.71
PUQGHM-5605	4.70	-0.03	-0.22	7.00	-0.12	-0.55	42.18	0.91	0.67	42.18
Q3VYCQ-5601	4.80	0.07	0.48	7.20	0.08	0.34	41.80	0.53	0.39	41.81
QNUACJ-5605	4.70	-0.03	-0.22	7.00	-0.12	-0.55	42.18	0.91	0.67	42.18
QPPXNN-5605	3.50	-1.23	-8.57 X	5.20	-1.92	-8.52 X	42.30	1.03	0.76	42.30
QWAWLN-5601	4.80	0.07	0.48	7.70	0.58	2.56	38.60	-2.67	-1.96	38.56
RFYUZK-5605	4.39	-0.34	-2.38	6.91	-0.21	-0.94	39.40	-1.87	-1.37	39.44
RVAFHP-5605	4.20	-0.53	-3.70 X	6.46	-0.66	-2.94	40.55	-0.72	-0.53	40.55
T3QB3Q-5605	4.74	0.01	0.06	7.19	0.07	0.30	41.20	-0.07	-0.05	41.24
T6C7PH-5605	4.70	-0.03	-0.22	7.30	0.18	0.78	41.00	-0.27	-0.20	40.08
UBDTRH-5605	4.70	-0.03	-0.22	7.20	0.08	0.34	40.80	-0.47	-0.35	40.75
UBWKTF-5605	4.85	0.12	0.82	7.16	0.04	0.16	42.64	1.37	1.01	42.64
UN3N8H-5605	4.50	-0.23	-1.61	6.90	-0.22	-0.99	40.70	-0.57	-0.42	40.71
UN9VJQ-5605	4.95	0.22	1.52	7.25	0.13	0.56	43.10	1.83	1.35	43.06

TABLE 1: Angle of Impact Determination
Stain B - Preparation Angle: 39°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
UWXGNP-5605	4.80	0.07	0.48	7.00	-0.12	-0.55	43.29	2.02	1.49	43.29
V9L38P-5601	4.70	-0.03	-0.22	6.90	-0.22	-0.99	43.00	1.73	1.27	42.93
VF867E-5605	4.50	-0.23	-1.61	6.60	-0.52	-2.32	43.00	1.73	1.27	42.99
VVCK2J-5605	5.00	0.27	1.87	7.00	-0.12	-0.55	45.00	3.73	2.74	45.58
VYZNKM-5605	4.70	-0.03	-0.22	7.10	-0.02	-0.10	41.50	0.23	0.17	41.45
W3U6AL-5601	49.00	44.27	308.0 X	74.00	66.88	296.3 X	41.46	0.19	0.14	41.46
W4PKMH-5605	4.60	-0.13	-0.92	7.20	0.08	0.34	40.00	-1.27	-0.93	39.71
WNX4GK-5601	4.83	0.10	0.68	6.94	-0.18	-0.81	44.10	2.83	2.08	44.10
WQ699N-5601	4.68	-0.05	-0.36	7.09	-0.03	-0.15	41.30	0.03	0.02	41.31
XQ4LFG-5605	4.80	0.07	0.48	7.30	0.18	0.78	41.10	-0.17	-0.12	41.11
XZKEKH-5605	4.70	-0.03	-0.22	7.00	-0.12	-0.55	42.00	0.73	0.54	42.18
Y9CE99-5605	4.50	-0.23	-1.61	7.00	-0.12	-0.55	40.00	-1.27	-0.93	40.01
YB3AJH-5605	4.60	-0.13	-0.92	7.00	-0.12	-0.55	41.00	-0.27	-0.20	41.08
YB7T8K-5601	4.90	0.17	1.17	7.20	0.08	0.34	42.90	1.63	1.20	42.89
YCRPLD-5605	10.00	5.27	36.66 X	14.00	6.88	30.47 X	45.58	4.31	3.17 X	45.58
YDNB3B-5605	4.67	-0.06	-0.43	7.04	-0.08	-0.37	41.60	0.33	0.24	41.56
YE2M6L-5601	4.60	-0.13	-0.92	6.90	-0.22	-0.99	42.00	0.73	0.54	41.81
YE764K-5601	5.00	0.27	1.87	6.50	-0.62	-2.76	53.00	11.73	8.63 X	50.28 X
YKR4BK-5605	1.32	-3.41	-23.74 X	2.03	-5.09	-22.56 X	40.60	-0.67	-0.49	40.56
YQC4NC-5605	4.70	-0.03	-0.22	7.00	-0.12	-0.55	42.00	0.73	0.54	42.18

TABLE 1: Angle of Impact Determination
Stain B - Preparation Angle: 39°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
Z7ZWT-5605	4.80	0.07	0.48	7.10	-0.02	-0.10	42.53	1.26	0.93	42.54
ZHGLM9-5605	4.90	0.17	1.17	7.50	0.38	1.67	40.80	-0.47	-0.35	40.79
ZHGNC-5601	4.36	-0.37	-2.59	6.92	-0.20	-0.90	39.00	-2.27	-1.67	39.05

Summary Statistics for Stain B					Responding Participants: 123				
	Width (mm*)			Length (mm*)			Angle°		CalcAng°
Grand Mean	4.73			7.12			41.27		41.33
Standard Deviation	0.14			0.23			1.36		1.44
Participants included in calculations	105			105			116		117
Participants excluded from calculations (indicated by X)	19			19			8		6

*Statistical evaluation for length/width measurements includes those who did not report in mm, which may result in a higher number of participants excluded from these calculations. This difference in measurement unit has no effect on the statistical evaluation of the Angle° or CalcAng° data.

TABLE 1: Angle of Impact Determination
Stain C - Preparation Angle: 35°

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
2DMZKD-5605	4.80	-0.02	-0.13	8.40	0.05	0.15	34.90	-0.34	-0.22	34.85
38BHFG-5605	2.15	-2.67	-18.54 X	3.63	-4.72	-14.22 X	36.30	1.06	0.69	36.32
3AE4DE-5605	4.70	-0.12	-0.83	8.50	0.15	0.46	33.60	-1.64	-1.06	33.57
3CGCAC-5605	4.90	0.08	0.56	8.50	0.15	0.46	35.00	-0.24	-0.16	35.20
3DDRLA-5601	4.70	-0.12	-0.83	8.10	-0.25	-0.75	35.00	-0.24	-0.16	35.47
3RD9RB-5605	4.76	-0.06	-0.41	8.47	0.12	0.36	34.00	-1.24	-0.80	34.19
3YXKUH-5605	4.90	0.08	0.56	8.50	0.15	0.46	35.00	-0.24	-0.16	35.20
4B6PJB-5605	4.80	-0.02	-0.13	8.60	0.25	0.76	34.00	-1.24	-0.80	33.93
4CZ9LC-5605	4.90	0.08	0.56	8.70	0.35	1.06	34.00	-1.24	-0.80	34.28
4MX9XG-5601	4.61	-0.21	-1.45	8.08	-0.27	-0.81	35.00	-0.24	-0.16	34.79
63UMXA-5605	5.00	0.18	1.26	8.40	0.05	0.15	37.00	1.76	1.14	36.53
6AQPR9-5601	4.00	-0.82	-5.69 X	7.70	-0.65	-1.96	31.30	-3.94	-2.55	31.30
6QWW7B-5605	5.00	0.18	1.26	8.40	0.05	0.15	36.00	0.76	0.49	36.53
6TXYR7-5605	4.80	-0.02	-0.13	8.40	0.05	0.15	34.80	-0.44	-0.29	34.85
7JD4EC-5605	4.80	-0.02	-0.13	8.10	-0.25	-0.75	36.00	0.76	0.49	36.34
7K3JF8-5605	4.70	-0.12	-0.83	8.20	-0.15	-0.45	35.00	-0.24	-0.16	34.97
7QQ4L9-5605	4.80	-0.02	-0.13	8.80	0.45	1.36	33.00	-2.24	-1.45	33.06
7TY8LB-5601	4.80	-0.02	-0.13	8.30	-0.05	-0.15	35.00	-0.24	-0.16	35.33
7VW4B8-5605	4.50	-0.32	-2.22	8.00	-0.35	-1.05	34.23	-1.01	-0.65	34.23
7X9K4A-5605	4.90	0.08	0.56	8.63	0.28	0.85	34.60	-0.64	-0.41	34.60

TABLE 1: Angle of Impact Determination
Stain C - Preparation Angle: 35°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
8HP7CB-5601	4.90	0.08	0.56	8.10	-0.25	-0.75	37.20	1.96	1.27	37.22
8M7CA7-5601	5.00	0.18	1.26	9.00	0.65	1.96	34.00	-1.24	-0.80	33.75
9JFRH7-5605	46.00	41.18	286.0 X	83.00	74.65	225.0 X	33.65	-1.59	-1.03	33.66
A9KQTA-5605	4.75	-0.07	-0.48	8.50	0.15	0.46	34.00	-1.24	-0.80	33.97
AFZG63-5601	4.81	-0.01	-0.06	7.80	-0.55	-1.65	38.07	2.83	1.83	38.07
AYN3M6-5605	4.80	-0.02	-0.13	8.00	-0.35	-1.05	37.00	1.76	1.14	36.87
B6UWGZ-5605	4.80	-0.02	-0.13	7.90	-0.45	-1.35	37.40	2.16	1.40	37.42
BMPVW3-5605	4.24	-0.58	-4.02 X	8.07	-0.28	-0.84	32.00	-3.24	-2.10	31.70
BZJ472-5605	4.84	0.02	0.14	8.54	0.19	0.58	34.55	-0.69	-0.45	34.52
C4YNY9-5601	4.80	-0.02	-0.13	8.50	0.15	0.46	34.40	-0.84	-0.54	34.38
C9NC8Z-5605	4.80	-0.02	-0.13	8.75	0.40	1.21	33.40	-1.84	-1.19	33.27
CAJV92-5605	4.80	-0.02	-0.13	8.30	-0.05	-0.15	35.30	0.06	0.04	35.33
CC9DC8-5605	4.00	-0.82	-5.69 X	7.00	-1.35	-4.07 X	34.85	-0.39	-0.25	34.85
CCPFW2-5605	7.10	2.28	15.84 X	11.25	2.90	8.74 X	39.10	3.86	2.50	39.13
CK76K2-5605	4.90	0.08	0.56	8.50	0.15	0.46	35.50	0.26	0.17	35.20
D9NK26-5605	4.80	-0.02	-0.13	8.60	0.25	0.76	34.00	-1.24	-0.80	33.93
DNFPYZ-5605	5.00	0.18	1.26	8.00	-0.35	-1.05	38.60	3.36	2.17	38.68
DXN423-5601	4.80	-0.02	-0.13	7.70	-0.65	-1.96	38.30	3.06	1.98	38.56
E6363W-5605	4.83	0.01	0.08	8.44	0.09	0.27	34.91	-0.33	-0.21	34.91
E7EVB2-5605	4.87	0.05	0.35	8.45	0.10	0.30	35.00	-0.24	-0.16	35.19

TABLE 1: Angle of Impact Determination
Stain C - Preparation Angle: 35°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
EE6MDZ-5605	4.90	0.08	0.56	8.10	-0.25	-0.75	37.20	1.96	1.27	37.22
EEUNF6-5605	91.80	86.98	604.0 X	159.70	151.35	456.1 X	35.10	-0.14	-0.09	35.09
EJ42X4-5605	4.83	0.01	0.08	8.05	-0.30	-0.90	36.90	1.66	1.07	36.87
EJYJZ6-5605	4.52	-0.30	-2.08	8.02	-0.33	-0.99	34.30	-0.94	-0.61	34.30
F7A82Z-5601	4.90	0.08	0.56	8.20	-0.15	-0.45	36.70	1.46	0.94	36.70
FBNGE6-5605	2.41	-2.41	-16.73 X	4.14	-4.21	-12.68 X	35.60	0.36	0.23	35.60
FFE6VW-5605	4.90	0.08	0.56	8.60	0.25	0.76	35.00	-0.24	-0.16	34.73
FFJ9M2-5605	4.88	0.06	0.42	8.56	0.21	0.64	34.76	-0.48	-0.31	34.76
G9V2NT-5605	4.90	0.08	0.56	8.61	0.26	0.79	34.70	-0.54	-0.35	34.69
GCUCJT-5605	4.90	0.08	0.56	8.64	0.29	0.88	34.60	-0.64	-0.41	34.55
GFK6UY-5605	4.80	-0.02	-0.13	8.40	0.05	0.15	34.85	-0.39	-0.25	34.85
GGKXZU-5605	4.90	0.08	0.56	8.35	0.00	0.00	35.95	0.71	0.46	35.93
GHFJRZ-5605	6.00	1.18	8.20 X	9.00	0.65	1.96	41.00	5.76	3.73 X	41.81 X
GPZK9X-5605	5.00	0.18	1.26	9.00	0.65	1.96	34.00	-1.24	-0.80	33.75
GTA2WW-5605	4.80	-0.02	-0.13	8.50	0.15	0.46	34.30	-0.94	-0.61	34.38
GULGQX-5601	4.80	-0.02	-0.13	8.40	0.05	0.15	34.85	-0.39	-0.25	34.85
GZG4TU-5605	4.80	-0.02	-0.13	8.43	0.08	0.24	34.70	-0.54	-0.35	34.71
H28PYQ-5605	5.00	0.18	1.26	8.30	-0.05	-0.15	37.00	1.76	1.14	37.04
H69TTY-5605	6.50	1.68	11.67 X	11.32	2.97	8.95 X	35.00	-0.24	-0.16	35.04
H6MCDV-5605	5.00	0.18	1.26	8.75	0.40	1.21	34.80	-0.44	-0.29	34.85

TABLE 1: Angle of Impact Determination
Stain C - Preparation Angle: 35°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
H986PY-5605	1.93	-2.89	-20.06 X	3.30	-5.05	-15.21 X	35.80	0.56	0.36	35.79
HA3MQZ-5605	4.70	-0.12	-0.83	8.70	0.35	1.06	33.00	-2.24	-1.45	32.70
HCA6PV-5605	5.10	0.28	1.95	8.90	0.55	1.66	35.00	-0.24	-0.16	34.96
HMQUJU-5605	28.12	23.30	161.8 X	48.93	40.58	122.3 X	35.08	-0.16	-0.10	35.08
HTWMDP-5601	4.80	-0.02	-0.13	8.50	0.15	0.46	34.00	-1.24	-0.80	34.38
HVQ3D2-5601	5.10	0.28	1.95	8.70	0.35	1.06	35.90	0.66	0.43	35.89
J8UUCR-5601	4.80	-0.02	-0.13	8.10	-0.25	-0.75	36.34	1.10	0.71	36.34
JHANKY-5601	4.90	0.08	0.56	8.50	0.15	0.46	35.20	-0.04	-0.03	35.20
JHBRZV-5605	4.80	-0.02	-0.13	8.60	0.25	0.76	34.30	-0.94	-0.61	33.93
K8NZ6Q-5605	4.80	-0.02	-0.13	8.20	-0.15	-0.45	36.20	0.96	0.62	35.83
KWQ44P-5605	4.90	0.08	0.56	8.30	-0.05	-0.15	36.00	0.76	0.49	36.18
KWQCXU-5605	4.93	0.11	0.77	8.47	0.12	0.36	36.00	0.76	0.49	35.60
L6F8NX-5605	4.58	-0.24	-1.66	8.24	-0.11	-0.33	33.80	-1.44	-0.93	33.77
LHAETT-5601	4.75	-0.07	-0.48	8.43	0.08	0.24	34.30	-0.94	-0.61	34.30
LNBNQ-5605	4.84	0.02	0.14	8.49	0.14	0.43	34.76	-0.48	-0.31	34.76
LQZ9JW-5605	4.82	0.00	0.01	8.45	0.10	0.30	34.80	-0.44	-0.29	34.78
LRVPVT-5605	4.70	-0.12	-0.83	8.60	0.25	0.76	33.10	-2.14	-1.38	33.13
LWUVT-5605	4.60	-0.22	-1.52	8.60	0.25	0.76	33.00	-2.24	-1.45	32.34
LZZWBT-5605	4.95	0.13	0.91	8.92	0.57	1.72	34.00	-1.24	-0.80	33.71
M7CH9Q-5605	4.70	-0.12	-0.83	7.90	-0.45	-1.35	36.50	1.26	0.81	36.51

TABLE 1: Angle of Impact Determination
Stain C - Preparation Angle: 35°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
MPJCRW-5605	6.06	1.24	8.62 X	10.47	2.12	6.39 X	35.40	0.16	0.10	35.37
MYMQ9P-5601	2.00	-2.82	-19.58 X	4.10	-4.25	-12.80 X	29.20	-6.04	-3.91 X	29.20 X
N2QHGP-5605	4.90	0.08	0.56	8.40	0.05	0.15	35.20	-0.04	-0.03	35.69
N8G6WV-5605	4.90	0.08	0.56	7.10	-1.25	-3.76 X	43.60	8.36	5.41 X	43.64 X
NU7LAU-5605	4.80	-0.02	-0.13	8.40	0.05	0.15	34.80	-0.44	-0.29	34.85
P6MPWJ-5605	4.80	-0.02	-0.13	8.40	0.05	0.15	34.85	-0.39	-0.25	34.85
PEE4ZP-5605	4.60	-0.22	-1.52	8.40	0.05	0.15	33.00	-2.24	-1.45	33.20
PUQGHM-5605	4.90	0.08	0.56	8.50	0.15	0.46	35.20	-0.04	-0.03	35.20
Q3VYCQ-5601	4.80	-0.02	-0.13	8.40	0.05	0.15	34.80	-0.44	-0.29	34.85
QNUACJ-5605	4.80	-0.02	-0.13	8.10	-0.25	-0.75	36.34	1.10	0.71	36.34
QPPXNN-5605	5.00	0.18	1.26	9.40	1.05	3.17 X	32.10	-3.14	-2.03	32.13
QWAWLN-5601	5.10	0.28	1.95	8.90	0.55	1.66	35.00	-0.24	-0.16	34.96
RFYUZZ-5605	4.53	-0.29	-2.01	8.02	-0.33	-0.99	34.40	-0.84	-0.54	34.39
RVAFHP-5605	4.42	-0.40	-2.77	7.54	-0.81	-2.44	35.89	0.65	0.42	35.89
T3QB3Q-5605	4.85	0.03	0.21	8.41	0.06	0.18	35.20	-0.04	-0.03	35.22
T6C7PH-5605	4.80	-0.02	-0.13	8.40	0.05	0.15	35.00	-0.24	-0.16	34.85
UBDTRH-5605	4.90	0.08	0.56	8.00	-0.35	-1.05	37.80	2.56	1.66	37.77
UBWKTF-5605	4.91	0.09	0.63	8.65	0.30	0.91	34.59	-0.65	-0.42	34.59
UN3N8H-5605	4.60	-0.22	-1.52	8.00	-0.35	-1.05	35.00	-0.24	-0.16	35.10
UN9VJQ-5605	5.00	0.18	1.26	8.15	-0.20	-0.60	37.80	2.56	1.66	37.84

TABLE 1: Angle of Impact Determination
Stain C - Preparation Angle: 35°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
UWXGNP-5605	4.50	-0.32	-2.22	8.00	-0.35	-1.05	34.23	-1.01	-0.65	34.23
V9L38P-5601	4.70	-0.12	-0.83	7.90	-0.45	-1.35	37.00	1.76	1.14	36.51
VF867E-5605	4.50	-0.32	-2.22	7.20	-1.15	-3.46 X	38.70	3.46	2.24	38.68
VVCK2J-5605	5.00	0.18	1.26	9.00	0.65	1.96	34.00	-1.24	-0.80	33.75
VYZNKM-5605	4.80	-0.02	-0.13	8.30	-0.05	-0.15	35.30	0.06	0.04	35.33
W3U6AL-5601	49.00	44.18	306.8 X	82.00	73.65	221.9 X	36.70	1.46	0.94	36.70
W4PKMH-5605	4.60	-0.22	-1.52	8.60	0.25	0.76	32.00	-3.24	-2.10	32.34
WNX4GK-5601	4.89	0.07	0.49	7.72	-0.63	-1.90	39.30	4.06	2.63	39.30
WQ699N-5601	4.84	0.02	0.14	8.31	-0.04	-0.12	35.62	0.38	0.25	35.62
XQ4LFG-5605	4.90	0.08	0.56	8.50	0.15	0.46	35.20	-0.04	-0.03	35.20
XZKEKH-5605	4.80	-0.02	-0.13	8.00	-0.35	-1.05	37.00	1.76	1.14	36.87
Y9CE99-5605	5.00	0.18	1.26	8.50	0.15	0.46	36.00	0.76	0.49	36.03
YB3AJH-5605	4.60	-0.22	-1.52	8.00	-0.35	-1.05	35.00	-0.24	-0.16	35.10
YB7T8K-5601	4.90	0.08	0.56	8.30	-0.05	-0.15	36.20	0.96	0.62	36.18
YCRPLD-5605	9.00	4.18	29.03 X	15.00	6.65	20.04 X	36.87	1.63	1.05	36.87
YDNB3B-5605	4.83	0.01	0.08	8.27	-0.08	-0.24	35.70	0.46	0.30	35.74
YE2M6L-5601	4.70	-0.12	-0.83	7.40	-0.95	-2.86	39.00	3.76	2.43	39.43
YE764K-5601	5.00	0.18	1.26	7.50	-0.85	-2.56	42.00	6.76	4.37 X	41.81 X
YKR4BK-5605	1.36	-3.46	-24.02 X	2.36	-5.99	-18.05 X	35.20	-0.04	-0.03	35.19
YQC4NC-5605	4.80	-0.02	-0.13	8.40	0.05	0.15	35.00	-0.24	-0.16	34.85

TABLE 1: Angle of Impact Determination
Stain C - Preparation Angle: 35°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
Z7ZWT- 5605	5.00	0.18	1.26	8.00	-0.35	-1.05	38.68	3.44	2.23	38.68
ZHGLM9- 5605	5.00	0.18	1.26	8.90	0.55	1.66	34.20	-1.04	-0.67	34.18
ZHGNCD- 5601	4.39	-0.43	-2.98	8.28	-0.07	-0.21	32.00	-3.24	-2.10	32.02

Summary Statistics for Stain C Preparation Angle: 35°					Responding Participants: 123	
	Width (mm*)		Length (mm*)		Angle°	CalcAng°
Grand Mean	4.82		8.35		35.24	35.24
Standard Deviation	0.14		0.33		1.55	1.57
Participants included in calculations	106		106		119	119
Participants excluded from calculations (indicated by X)	18		18		5	4

*Statistical evaluation for length/width measurements includes those who did not report in mm, which may result in a higher number of participants excluded from these calculations. This difference in measurement unit has no effect on the statistical evaluation of the Angle° or CalcAng° data.

TABLE 1: Angle of Impact Determination
Stain D - Preparation Angle: 28°

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
2DMZKD-5605	1.90	-0.01	-0.18	4.20	0.18	0.84	27.40	-0.95	-0.51	26.90
38BHFG-5605	1.22	-0.69	-8.83 X	2.56	-1.46	-6.78 X	28.50	0.15	0.08	28.46
3AE4DE-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	27.60	-0.75	-0.40	27.61
3CGCAC-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	27.00	-1.35	-0.72	27.61
3DDRLA-5601	1.70	-0.21	-2.72	3.40	-0.62	-2.88	30.00	1.65	0.88	30.00
3RD9RB-5605	1.87	-0.04	-0.56	4.22	0.20	0.94	26.00	-2.35	-1.25	26.30
3YXKUH-5605	2.00	0.09	1.10	4.30	0.28	1.31	28.00	-0.35	-0.19	27.72
4B6PJB-5605	1.90	-0.01	-0.18	4.20	0.18	0.84	27.00	-1.35	-0.72	26.90
4CZ9LC-5605	2.00	0.09	1.10	4.60	0.58	2.70	26.00	-2.35	-1.25	25.77
4MX9XG-5601	1.87	-0.04	-0.56	3.71	-0.31	-1.44	30.00	1.65	0.88	30.27
63UMXA-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	28.00	-0.35	-0.19	27.61
6AQPR9-5601	1.10	-0.81	-10.36 X	2.20	-1.82	-8.46 X	30.00	1.65	0.88	30.00
6QWW7B-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
6TXYR7-5605	1.80	-0.11	-1.45	4.10	0.08	0.38	26.00	-2.35	-1.25	26.04
7JD4EC-5605	1.90	-0.01	-0.18	4.00	-0.02	-0.09	28.00	-0.35	-0.19	28.36
7K3JF8-5605	1.80	-0.11	-1.45	3.80	-0.22	-1.02	28.30	-0.05	-0.03	28.27
7QQ4L9-5605	1.80	-0.11	-1.45	4.20	0.18	0.84	25.00	-3.35	-1.78	25.38
7TY8LB-5601	1.90	-0.01	-0.18	3.90	-0.12	-0.55	29.00	0.65	0.34	29.16
7VW4B8-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	26.74	-1.61	-0.86	26.74
7X9K4A-5605	2.03	0.12	1.48	4.11	0.09	0.42	29.60	1.25	0.66	29.60

TABLE 1: Angle of Impact Determination
Stain D - Preparation Angle: 28°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
8HP7CB-5601	2.00	0.09	1.10	3.90	-0.12	-0.55	30.90	2.55	1.36	30.85
8M7CA7-5601	2.00	0.09	1.10	5.00	0.98	4.56 X	24.00	-4.35	-2.32	23.58
9JFRH7-5605	19.00	17.09	217.5 X	44.00	39.98	185.9 X	25.58	-2.77	-1.48	25.58
A9KQTA-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
AFZG63-5601	1.82	-0.09	-1.19	3.81	-0.21	-0.97	28.53	0.18	0.09	28.53
AYN3M6-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
B6UWGZ-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	26.70	-1.65	-0.88	26.74
BMPVW3-5605	1.79	-0.12	-1.58	3.79	-0.23	-1.06	28.00	-0.35	-0.19	28.18
BZJ472-5605	1.96	0.05	0.59	4.48	0.46	2.14	25.94	-2.41	-1.28	25.94
C4YNY9-5601	2.00	0.09	1.10	4.10	0.08	0.38	29.20	0.85	0.45	29.20
C9NC8Z-5605	2.00	0.09	1.10	4.40	0.38	1.77	26.70	-1.65	-0.88	27.04
CAJV92-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	27.60	-0.75	-0.40	27.61
CC9DC8-5605	1.50	-0.41	-5.27 X	4.00	-0.02	-0.09	22.02	-6.33	-3.37 X	22.02 X
CCPFW2-5605	3.40	1.49	18.92 X	7.80	3.78	17.58 X	25.80	-2.55	-1.36	25.84
CK76K2-5605	2.00	0.09	1.10	4.10	0.08	0.38	28.90	0.55	0.29	29.20
D9NK26-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	28.00	-0.35	-0.19	27.61
DNFPYZ-5605	2.00	0.09	1.10	3.70	-0.32	-1.48	32.70	4.35	2.31	32.72
DXN423-5601	1.60	-0.31	-3.99 X	3.50	-0.52	-2.41	27.40	-0.95	-0.51	27.20
E6363W-5605	1.91	0.00	-0.05	4.20	0.18	0.84	27.05	-1.30	-0.69	27.05
E7EVB2-5605	1.93	0.02	0.21	4.24	0.22	1.03	27.00	-1.35	-0.72	27.08

TABLE 1: Angle of Impact Determination
Stain D - Preparation Angle: 28°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
EE6MDZ-5605	1.90	-0.01	-0.18	3.70	-0.32	-1.48	30.90	2.55	1.36	30.90
EEUNF6-5605	70.70	68.79	875.6 X	141.60	137.58	639.8 X	30.00	1.65	0.88	29.95
EJ42X4-5605	1.93	0.02	0.21	4.11	0.09	0.42	28.00	-0.35	-0.19	28.01
EJYJZ6-5605	3.81	1.90	24.14 X	8.31	4.29	19.95 X	27.30	-1.05	-0.56	27.29
F7A82Z-5601	1.90	-0.01	-0.18	4.00	-0.02	-0.09	28.36	0.01	0.00	28.36
FBNGE6-5605	0.96	-0.95	-12.14 X	1.97	-2.05	-9.53 X	29.20	0.85	0.45	29.16
FFE6VV-5605	2.00	0.09	1.10	4.20	0.18	0.84	28.00	-0.35	-0.19	28.44
FFJ9M2-5605	1.90	-0.01	-0.18	4.29	0.27	1.26	26.29	-2.06	-1.10	26.29
G9V2NT-5605	1.96	0.05	0.59	4.24	0.22	1.03	27.50	-0.85	-0.45	27.53
GCUCJT-5605	1.93	0.02	0.21	4.19	0.17	0.80	27.40	-0.95	-0.51	27.43
GFK6UY-5605	1.90	-0.01	-0.18	4.00	-0.02	-0.09	28.36	0.01	0.00	28.36
GGKXZU-5605	1.92	0.01	0.08	4.05	0.03	0.14	28.39	0.04	0.02	28.30
GHFJRZ-5605	3.00	1.09	13.83 X	6.00	1.98	9.21 X	30.00	1.65	0.88	30.00
GPZK9X-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
GTA2WW-5605	2.00	0.09	1.10	3.80	-0.22	-1.02	31.80	3.45	1.83	31.76
GULGQX-5601	1.90	-0.01	-0.18	4.00	-0.02	-0.09	28.36	0.01	0.00	28.36
GZG4TU-5605	1.89	-0.02	-0.30	4.09	0.07	0.33	27.53	-0.82	-0.44	27.52
H28PYQ-5605	1.90	-0.01	-0.18	4.00	-0.02	-0.09	28.00	-0.35	-0.19	28.36
H69TTY-5605	6.20	4.29	54.56 X	13.10	9.08	42.23 X	28.20	-0.15	-0.08	28.25
H6MCDV-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00

TABLE 1: Angle of Impact Determination
Stain D - Preparation Angle: 28°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
H986PY-5605	1.12	-0.79	-10.10 X	2.39	-1.63	-7.57 X	27.90	-0.45	-0.24	27.94
HA3MQZ-5605	1.80	-0.11	-1.45	4.20	0.18	0.84	26.00	-2.35	-1.25	25.38
HCA6PV-5605	2.00	0.09	1.10	4.40	0.38	1.77	27.00	-1.35	-0.72	27.04
HMQUJU-5605	11.00	9.09	115.7 X	24.46	20.44	95.1 X	26.72	-1.63	-0.87	26.73
HTWMDP-5601	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
HVQ3D2-5601	2.00	0.09	1.10	4.20	0.18	0.84	28.40	0.05	0.03	28.44
J8UUCR-5601	1.90	-0.01	-0.18	3.60	-0.42	-1.95	31.86	3.51	1.87	31.86
JHANKY-5601	1.90	-0.01	-0.18	4.30	0.28	1.31	26.22	-2.13	-1.13	26.22
JHBRZV-5605	1.90	-0.01	-0.18	3.70	-0.32	-1.48	30.80	2.45	1.30	30.90
K8NZ6Q-5605	1.90	-0.01	-0.18	3.90	-0.12	-0.55	29.30	0.95	0.50	29.16
KWQ44P-5605	2.00	0.09	1.10	3.80	-0.22	-1.02	32.00	3.65	1.94	31.76
KWQCXU-5605	1.93	0.02	0.21	4.22	0.20	0.94	27.00	-1.35	-0.72	27.22
L6F8NX-5605	1.81	-0.10	-1.32	3.99	-0.03	-0.13	27.00	-1.35	-0.72	26.98
LHAETT-5601	2.00	0.09	1.10	4.22	0.20	0.94	28.29	-0.06	-0.03	28.29
LNBNQ-5605	1.96	0.05	0.59	4.07	0.05	0.24	28.79	0.44	0.23	28.79
LQZ9JW-5605	1.91	0.00	-0.05	4.16	0.14	0.66	27.30	-1.05	-0.56	27.33
LRVPVT-5605	2.00	0.09	1.10	4.30	0.28	1.31	25.80	-2.55	-1.36	27.72
LWUVT-5605	1.90	-0.01	-0.18	4.20	0.18	0.84	27.00	-1.35	-0.72	26.90
LZZWBT-5605	1.94	0.03	0.33	4.18	0.16	0.75	28.00	-0.35	-0.19	27.65
M7CH9Q-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	26.74	-1.61	-0.86	26.74

TABLE 1: Angle of Impact Determination
Stain D - Preparation Angle: 28°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
MPJCRW-5605	3.29	1.38	17.52 X	7.03	3.01	14.00 X	27.90	-0.45	-0.24	27.90
MYMQ9P-5601	1.10	-0.81	-10.36 X	2.40	-1.62	-7.53 X	27.28	-1.07	-0.57	27.28
N2QHGP-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	27.90	-0.45	-0.24	27.61
N8G6WV-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	26.70	-1.65	-0.88	26.74
NU7LAU-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	26.80	-1.55	-0.83	26.74
P6MPWJ-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
PEE4ZP-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	27.00	-1.35	-0.72	26.74
PUQGHM-5605	1.90	-0.01	-0.18	3.90	-0.12	-0.55	29.16	0.81	0.43	29.16
Q3VYCQ-5601	1.70	-0.21	-2.72	4.00	-0.02	-0.09	25.20	-3.15	-1.68	25.15
QNUACJ-5605	1.90	-0.01	-0.18	3.70	-0.32	-1.48	30.89	2.54	1.35	30.90
QPPXNN-5605	2.10	0.19	2.37	4.40	0.38	1.77	28.50	0.15	0.08	28.51
QWAWLN-5601	2.00	0.09	1.10	4.40	0.38	1.77	27.00	-1.35	-0.72	27.04
RFYUZZ-5605	1.80	-0.11	-1.45	3.90	-0.12	-0.55	27.50	-0.85	-0.45	27.49
RVAFHP-5605	2.76	0.85	10.77 X	4.97	0.95	4.42 X	33.73	5.38	2.86	33.73
T3QB3Q-5605	1.94	0.03	0.33	4.09	0.07	0.33	28.30	-0.05	-0.03	28.32
T6C7PH-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	28.00	-0.35	-0.19	27.61
UBDTRH-5605	1.90	-0.01	-0.18	4.00	-0.02	-0.09	28.40	0.05	0.03	28.36
UBWKTF-5605	1.90	-0.01	-0.18	3.84	-0.18	-0.83	29.66	1.31	0.70	29.66
UN3N8H-5605	2.00	0.09	1.10	3.60	-0.42	-1.95	33.70	5.35	2.85	33.75
UN9VJQ-5605	1.90	-0.01	-0.18	3.75	-0.27	-1.25	30.40	2.05	1.09	30.44

TABLE 1: Angle of Impact Determination
Stain D - Preparation Angle: 28°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
UWXGNP-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	26.74	-1.61	-0.86	26.74
V9L38P-5601	1.80	-0.11	-1.45	3.80	-0.22	-1.02	28.00	-0.35	-0.19	28.27
VF867E-5605	1.90	-0.01	-0.18	3.70	-0.32	-1.48	30.80	2.45	1.30	30.90
VVCK2J-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
VYZNKM-5605	1.90	-0.01	-0.18	3.80	-0.22	-1.02	30.00	1.65	0.88	30.00
W3U6AL-5601	19.00	17.09	217.5 X	40.00	35.98	167.3 X	28.36	0.01	0.00	28.36
W4PKMH-5605	1.80	-0.11	-1.45	4.00	-0.02	-0.09	27.00	-1.35	-0.72	26.74
WNX4GK-5601	1.98	0.07	0.84	3.57	-0.45	-2.09	33.69	5.34	2.84	33.68
WQ699N-5601	1.90	-0.01	-0.18	4.10	0.08	0.38	27.61	-0.74	-0.40	27.61
XQ4LFG-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	27.60	-0.75	-0.40	27.61
XZKEKH-5605	1.90	-0.01	-0.18	4.10	0.08	0.38	28.00	-0.35	-0.19	27.61
Y9CE99-5605	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
YB3AJH-5605	1.80	-0.11	-1.45	4.20	0.18	0.84	25.00	-3.35	-1.78	25.38
YB7T8K-5601	2.00	0.09	1.10	4.10	0.08	0.38	29.20	0.85	0.45	29.20
YCRPLD-5605	4.00	2.09	26.56 X	7.00	2.98	13.86 X	34.85	6.50	3.46 X	34.85 X
YDNB3B-5605	1.92	0.01	0.08	4.06	0.04	0.19	28.20	-0.15	-0.08	28.22
YE2M6L-5601	1.80	-0.11	-1.45	3.80	-0.22	-1.02	28.00	-0.35	-0.19	28.27
YE764K-5601	2.00	0.09	1.10	4.00	-0.02	-0.09	30.00	1.65	0.88	30.00
YKR4BK-5605	0.59	-1.32	-16.85 X	1.26	-2.76	-12.83 X	27.90	-0.45	-0.24	27.92
YQC4NC-5605	1.90	-0.01	-0.18	3.90	-0.12	-0.55	29.00	0.65	0.34	29.16

TABLE 1: Angle of Impact Determination
Stain D - Preparation Angle: 28°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
Z7ZWT-5605	2.00	0.09	1.10	3.70	-0.32	-1.48	32.72	4.37	2.32	32.72
ZHGLM9-5605	2.00	0.09	1.10	4.70	0.68	3.17 X	25.20	-3.15	-1.68	25.18
ZHGNCD-5601	1.83	-0.08	-1.07	3.68	-0.34	-1.58	29.80	1.45	0.77	29.82

Summary Statistics for Stain D Preparation Angle: 28°					Responding Participants: 123				
	Width (mm*)		Length (mm*)		Angle°		CalcAng°		
Grand Mean	1.91		4.02		28.35		28.37		
Standard Deviation	0.08		0.22		1.88		1.88		
Participants included in calculations	104		104		121		121		
Participants excluded from calculations (indicated by X)	20		20		3		2		

*Statistical evaluation for length/width measurements includes those who did not report in mm, which may result in a higher number of participants excluded from these calculations. This difference in measurement unit has no effect on the statistical evaluation of the Angle° or CalcAng° data.

TABLE 1: Angle of Impact Determination
Stain E - Preparation Angle: 22°

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
2DMZKD-5605	2.30	-0.02	-0.16	6.40	0.17	0.51	21.40	-0.66	-0.51	21.06
38BHFG-5605	1.43	-0.89	-6.82 X	3.71	-2.52	-7.60 X	22.70	0.64	0.50	22.67
3AE4DE-5605	2.30	-0.02	-0.16	6.50	0.27	0.81	20.70	-1.36	-1.06	20.72
3CGCAC-5605	2.20	-0.12	-0.93	6.40	0.17	0.51	20.00	-2.06	-1.60	20.11
3DDRLA-5601	2.00	-0.32	-2.46	5.40	-0.83	-2.51	21.00	-1.06	-0.82	21.74
3RD9RB-5605	2.33	0.01	0.06	6.40	0.17	0.51	21.00	-1.06	-0.82	21.35
3YXKUH-5605	2.50	0.18	1.37	6.50	0.27	0.81	23.00	0.94	0.73	22.62
4B6PJB-5605	2.40	0.08	0.60	6.40	0.17	0.51	22.00	-0.06	-0.05	22.02
4CZ9LC-5605	2.30	-0.02	-0.16	6.70	0.47	1.41	20.00	-2.06	-1.60	20.08
4MX9XG-5601	2.20	-0.12	-0.93	5.88	-0.35	-1.06	22.00	-0.06	-0.05	21.97
63UMXA-5605	2.40	0.08	0.60	6.00	-0.23	-0.70	24.00	1.94	1.51	23.58
6AQPR9-5601	1.90	-0.42	-3.23 X	5.40	-0.83	-2.51	20.60	-1.46	-1.14	20.60
6QWW7B-5605	2.30	-0.02	-0.16	6.10	-0.13	-0.40	22.00	-0.06	-0.05	22.15
6TXYR7-5605	2.30	-0.02	-0.16	6.40	0.17	0.51	21.00	-1.06	-0.82	21.06
7JD4EC-5605	2.30	-0.02	-0.16	6.10	-0.13	-0.40	22.00	-0.06	-0.05	22.15
7K3JF8-5605	2.30	-0.02	-0.16	6.10	-0.13	-0.40	22.20	0.14	0.11	22.15
7QQ4L9-5605	2.00	-0.32	-2.46	6.20	-0.03	-0.09	19.00	-3.06	-2.38	18.82
7TY8LB-5601	2.40	0.08	0.60	6.30	0.07	0.21	22.00	-0.06	-0.05	22.39
7VW4B8-5605	2.00	-0.32	-2.46	6.00	-0.23	-0.70	19.47	-2.59	-2.01	19.47
7X9K4A-5605	2.46	0.14	1.06	6.38	0.15	0.45	22.68	0.62	0.48	22.68

TABLE 1: Angle of Impact Determination
Stain E - Preparation Angle: 22°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
8HP7CB-5601	2.40	0.08	0.60	6.00	-0.23	-0.70	23.60	1.54	1.20	23.58
8M7CA7-5601	3.00	0.68	5.19 X	7.00	0.77	2.32	25.00	2.94	2.29	25.38
9JFRH7-5605	22.00	19.68	150.6 X	65.00	58.77	177.2 X	19.78	-2.28	-1.77	19.78
A9KQTA-5605	2.25	-0.07	-0.55	6.00	-0.23	-0.70	22.00	-0.06	-0.05	22.02
AFZG63-5601	2.27	-0.05	-0.39	6.00	-0.23	-0.70	22.23	0.17	0.13	22.23
AYN3M6-5605	2.50	0.18	1.37	6.30	0.07	0.21	23.00	0.94	0.73	23.38
B6UWGZ-5605	2.30	-0.02	-0.16	6.00	-0.23	-0.70	25.50	3.44	2.68	22.54
BMPVW3-5605	2.24	-0.08	-0.62	5.92	-0.31	-0.94	22.00	-0.06	-0.05	22.23
BZJ472-5605	2.37	0.05	0.37	6.74	0.51	1.53	20.59	-1.47	-1.14	20.59
C4YNY9-5601	2.30	-0.02	-0.16	6.20	-0.03	-0.09	21.80	-0.26	-0.20	21.78
C9NC8Z-5605	2.40	0.08	0.60	6.60	0.37	1.11	21.10	-0.96	-0.75	21.32
CAJV92-5605	2.30	-0.02	-0.16	6.40	0.17	0.51	21.10	-0.96	-0.75	21.06
CC9DC8-5605	2.00	-0.32	-2.46	4.00	-2.23	-6.73 X	30.00	7.94	6.18 X	30.00 X
CCPFW2-5605	3.50	1.18	9.02 X	10.20	3.97	11.97 X	20.40	-1.66	-1.29	20.07
CK76K2-5605	2.40	0.08	0.60	6.40	0.17	0.51	22.60	0.54	0.42	22.02
D9NK26-5605	2.50	0.18	1.37	6.70	0.47	1.41	22.00	-0.06	-0.05	21.91
DNFPYZ-5605	2.10	-0.22	-1.70	5.50	-0.73	-2.21	22.40	0.34	0.26	22.45
DXN423-5601	2.20	-0.12	-0.93	5.70	-0.53	-1.60	23.00	0.94	0.73	22.70
E6363W-5605	2.34	0.02	0.14	6.36	0.13	0.39	21.59	-0.47	-0.37	21.59
E7EVB2-5605	2.39	0.07	0.52	6.43	0.20	0.60	22.00	-0.06	-0.05	21.82

TABLE 1: Angle of Impact Determination
Stain E - Preparation Angle: 22°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
EE6MDZ-5605	2.30	-0.02	-0.16	6.10	-0.13	-0.40	22.20	0.14	0.11	22.15
EEUNF6-5605	53.20	50.88	389.4 X	134.50	128.27	386.7 X	23.30	1.24	0.96	23.30
EJ42X4-5605	2.38	0.06	0.45	6.27	0.04	0.12	22.30	0.24	0.19	22.31
EJYJZ6-5605	2.70	0.38	2.90	7.38	1.15	3.46 X	21.50	-0.56	-0.44	21.46
F7A8Z2-5601	2.40	0.08	0.60	6.00	-0.23	-0.70	23.58	1.52	1.18	23.58
FBNGE6-5605	0.91	-1.41	-10.80 X	2.39	-3.84	-11.58 X	22.40	0.34	0.26	22.38
FFE6VW-5605	2.40	0.08	0.60	6.60	0.37	1.11	21.00	-1.06	-0.82	21.32
FFJ9M2-5605	2.39	0.07	0.52	6.48	0.25	0.75	21.64	-0.42	-0.33	21.64
G9V2NT-5605	2.39	0.07	0.52	6.37	0.14	0.42	22.00	-0.06	-0.05	22.04
GCUCJT-5605	2.32	0.00	-0.01	6.38	0.15	0.45	21.30	-0.76	-0.59	21.32
GFK6UY-5605	2.30	-0.02	-0.16	6.40	0.17	0.51	21.06	-1.00	-0.78	21.06
GGKXZU-5605	2.38	0.06	0.45	6.34	0.11	0.33	22.09	0.03	0.02	22.05
GHFJRZ-5605	2.50	0.18	1.37	6.00	-0.23	-0.70	25.00	2.94	2.29	24.62
GPZK9X-5605	2.00	-0.32	-2.46	7.00	0.77	2.32	17.00	-5.06	-3.94 X	16.60 X
GTA2WW-5605	2.20	-0.12	-0.93	6.20	-0.03	-0.09	20.80	-1.26	-0.98	20.78
GULGQX-5601	2.40	0.08	0.60	6.20	-0.03	-0.09	22.77	0.71	0.55	22.77
GZG4TU-5605	2.37	0.05	0.37	6.34	0.11	0.33	21.96	-0.10	-0.08	21.95
H28PYQ-5605	2.40	0.08	0.60	6.80	0.57	1.71	21.00	-1.06	-0.82	20.67
H69TTY-5605	4.70	2.38	18.20 X	12.45	6.22	18.75 X	22.20	0.14	0.11	22.18
H6MCDV-5605	2.25	-0.07	-0.55	6.00	-0.23	-0.70	22.00	-0.06	-0.05	22.02

TABLE 1: Angle of Impact Determination
Stain E - Preparation Angle: 22°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
H986PY-5605	1.02	-1.30	-9.96 X	2.71	-3.52	-10.62 X	22.10	0.04	0.03	22.11
HA3MQZ-5605	2.60	0.28	2.13	6.60	0.37	1.11	20.10	-1.96	-1.52	23.20
HCA6PV-5605	2.50	0.18	1.37	6.50	0.27	0.81	22.60	0.54	0.42	22.62
HMQUJU-5605	13.58	11.26	86.16 X	31.30	25.07	75.58 X	25.71	3.65	2.84	25.71
HTWMDP-5601	2.00	-0.32	-2.46	7.00	0.77	2.32	17.00	-5.06	-3.94 X	16.60 X
HVQ3D2-5601	2.50	0.18	1.37	6.30	0.07	0.21	23.40	1.34	1.04	23.38
J8UUCR-5601	2.30	-0.02	-0.16	5.90	-0.33	-1.00	22.94	0.88	0.68	22.94
JHANKY-5601	2.40	0.08	0.60	6.50	0.27	0.81	21.67	-0.39	-0.30	21.67
JHBRZV-5605	2.30	-0.02	-0.16	6.30	0.07	0.21	21.90	-0.16	-0.12	21.41
K8NZ6Q-5605	2.30	-0.02	-0.16	6.10	-0.13	-0.40	22.30	0.24	0.19	22.15
KWQ44P-5605	2.40	0.08	0.60	6.20	-0.03	-0.09	23.00	0.94	0.73	22.77
KWQCXU-5605	2.37	0.05	0.37	6.47	0.24	0.72	21.00	-1.06	-0.82	21.49
L6F8NX-5605	2.20	-0.12	-0.93	6.22	-0.01	-0.03	20.70	-1.36	-1.06	20.71
LHAETT-5601	2.48	0.16	1.21	6.45	0.22	0.66	22.61	0.55	0.43	22.61
LNBNQ-5605	2.40	0.08	0.60	6.28	0.05	0.15	22.47	0.41	0.32	22.47
LQZ9JW-5605	2.32	0.00	-0.01	6.40	0.17	0.51	21.30	-0.76	-0.59	21.25
LRVPVT-5605	2.30	-0.02	-0.16	6.60	0.37	1.11	20.40	-1.66	-1.29	20.39
LWUVT-5605	2.30	-0.02	-0.16	6.40	0.17	0.51	21.00	-1.06	-0.82	21.06
LZZWBT-5605	2.40	0.08	0.60	6.42	0.19	0.57	22.00	-0.06	-0.05	21.95
M7CH9Q-5605	2.30	-0.02	-0.16	5.90	-0.33	-1.00	22.90	0.84	0.65	22.94

TABLE 1: Angle of Impact Determination
Stain E - Preparation Angle: 22°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
MPJCRW-5605	4.00	1.68	12.85 X	10.56	4.33	13.05 X	22.30	0.24	0.19	22.26
MYMQ9P-5601	1.20	-1.12	-8.58 X	3.60	-2.63	-7.93 X	19.47	-2.59	-2.01	19.47
N2QHGP-5605	2.40	0.08	0.60	6.40	0.17	0.51	22.10	0.04	0.03	22.02
N8G6WV-5605	2.40	0.08	0.60	5.60	-0.63	-1.90	25.40	3.34	2.60	25.38
NU7LAU-5605	2.20	-0.12	-0.93	6.20	-0.03	-0.09	20.80	-1.26	-0.98	20.78
P6MPWJ-5605	2.40	0.08	0.60	6.00	-0.23	-0.70	23.58	1.52	1.18	23.58
PEE4ZP-5605	2.20	-0.12	-0.93	6.00	-0.23	-0.70	22.00	-0.06	-0.05	21.51
PUQGHM-5605	2.30	-0.02	-0.16	6.20	-0.03	-0.09	21.78	-0.28	-0.22	21.78
Q3VYCQ-5601	2.40	0.08	0.60	6.20	-0.03	-0.09	22.80	0.74	0.58	22.77
QNUACJ-5605	2.30	-0.02	-0.16	5.90	-0.33	-1.00	22.94	0.88	0.68	22.94
QPPXNN-5605	2.80	0.48	3.66 X	7.00	0.77	2.32	23.60	1.54	1.20	23.58
QWAWLN-5601	2.50	0.18	1.37	6.50	0.27	0.81	22.60	0.54	0.42	22.62
RFYUZZ-5605	2.22	-0.10	-0.78	5.91	-0.32	-0.97	22.00	-0.06	-0.05	22.06
RVAFHP-5605	2.32	0.00	-0.01	5.42	-0.81	-2.45	25.34	3.28	2.55	25.34
T3QB3Q-5605	2.38	0.06	0.45	6.38	0.15	0.45	21.90	-0.16	-0.12	21.90
T6C7PH-5605	2.40	0.08	0.60	6.40	0.17	0.51	22.00	-0.06	-0.05	22.02
UBDTRH-5605	2.30	-0.02	-0.16	5.80	-0.43	-1.30	23.40	1.34	1.04	23.36
UBWKTF-5605	2.44	0.12	0.91	6.19	-0.04	-0.13	23.22	1.16	0.90	23.22
UN3N8H-5605	2.30	-0.02	-0.16	6.00	-0.23	-0.70	22.50	0.44	0.34	22.54
UN9VJQ-5605	2.25	-0.07	-0.55	5.80	-0.43	-1.30	22.80	0.74	0.58	22.83

TABLE 1: Angle of Impact Determination
Stain E - Preparation Angle: 22°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
UWXGNP-5605	2.30	-0.02	-0.16	6.20	-0.03	-0.09	21.78	-0.28	-0.22	21.78
V9L38P-5601	2.20	-0.12	-0.93	6.00	-0.23	-0.70	22.00	-0.06	-0.05	21.51
VF867E-5605	2.30	-0.02	-0.16	5.80	-0.43	-1.30	23.40	1.34	1.04	23.36
VVCK2J-5605	3.00	0.68	5.19 X	6.00	-0.23	-0.70	30.00	7.94	6.18 X	30.00 X
VYZNKM-5605	2.20	-0.12	-0.93	6.10	-0.13	-0.40	21.10	-0.96	-0.75	21.14
W3U6AL-5601	23.00	20.68	158.3 X	63.00	56.77	171.2 X	21.41	-0.65	-0.51	21.41
W4PKMH-5605	2.20	-0.12	-0.93	6.20	-0.03	-0.09	21.00	-1.06	-0.82	20.78
WNX4GK-5601	2.50	0.18	1.37	5.77	-0.46	-1.39	25.68	3.62	2.82	25.68
WQ699N-5601	2.35	0.03	0.22	6.19	-0.04	-0.13	22.31	0.25	0.19	22.31
XQ4LFG-5605	2.30	-0.02	-0.16	6.30	0.07	0.21	21.40	-0.66	-0.51	21.41
XZKEKH-5605	2.30	-0.02	-0.16	6.30	0.07	0.21	21.00	-1.06	-0.82	21.41
Y9CE99-5605	2.50	0.18	1.37	6.50	0.27	0.81	23.00	0.94	0.73	22.62
YB3AJH-5605	2.20	-0.12	-0.93	6.20	-0.03	-0.09	21.00	-1.06	-0.82	20.78
YB7T8K-5601	2.40	0.08	0.60	6.70	0.47	1.41	21.00	-1.06	-0.82	20.99
YCRPLD-5605	5.00	2.68	20.50 X	13.00	6.77	20.41 X	22.62	0.56	0.44	22.62
YDNB3B-5605	2.35	0.03	0.22	6.29	0.06	0.18	21.90	-0.16	-0.12	21.94
YE2M6L-5601	2.10	-0.22	-1.70	6.10	-0.13	-0.40	20.00	-2.06	-1.60	20.14
YE764K-5601	2.25	-0.07	-0.55	5.75	-0.48	-1.45	23.00	0.94	0.73	23.04
YKR4BK-5605	0.68	-1.64	-12.56 X	1.85	-4.38	-13.21 X	21.60	-0.46	-0.36	21.57
YQC4NC-5605	2.30	-0.02	-0.16	6.10	-0.13	-0.40	22.00	-0.06	-0.05	22.15

TABLE 1: Angle of Impact Determination
Stain E - Preparation Angle: 22°, continued

WebCode- Test	Width			Length			Angle			CalcAng
	mm*	Diff	CPV	mm*	Diff	CPV	Deg.	Diff	CPV	
Z7ZWT-5605	2.10	-0.22	-1.70	6.00	-0.23	-0.70	20.48	-1.58	-1.23	20.49
ZHGLM9-5605	2.60	0.28	2.13	6.90	0.67	2.02	22.10	0.04	0.03	22.14
ZHGNC-5601	2.22	-0.10	-0.78	5.87	-0.36	-1.09	22.20	0.14	0.11	22.22

Summary Statistics for Stain E Preparation Angle: 22°					Responding Participants: 123				
	Width (mm*)		Length (mm*)		Angle°		CalcAng°		
Grand Mean	2.32		6.23		22.06		22.05		
Standard Deviation	0.13		0.33		1.29		1.23		
Participants included in calculations	106		108		119		119		
Participants excluded from calculations (indicated by X)	18		16		5		4		

*Statistical evaluation for length/width measurements includes those who did not report in mm, which may result in a higher number of participants excluded from these calculations. This difference in measurement unit has no effect on the statistical evaluation of the Angle° or CalcAng° data.

Pattern Description, Part 1

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

TABLE 2: Single Pattern Recognition
Item 2

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
2DHFWA-5601	Swipe	7VW4B8-5605	Swipe
2DMZKD-5605	Swipe	7X9K4A-5605	Swipe
37VC3C-5605	Swipe	8HP7CB-5601	Swipe
38BHFG-5605	Swipe	8M7CA7-5601	Swipe
3AE4DE-5605	Swipe		Transfer Stain
3BAMFG-5605	Transfer Stain	9JFRH7-5605	Swipe
3CGCAC-5605	Swipe	9LTAR4-5601	Swipe
3DDRLA-5601	Transfer Stain	A9KQTA-5605	Swipe
3RD9RB-5605	Swipe	AAA7U6-5605	Swipe
3YXKUH-5605	Swipe	AFZG63-5601	Swipe
	Transfer Stain	AYN3M6-5605	Swipe
	Wipe	B6UWGZ-5605	Swipe
48KX99-5601	Swipe	BMPVW3-5605	Swipe
4B6PJB-5605	Swipe	BZJ472-5605	Wipe
	Wipe	C4YNY9-5601	Swipe
4CZ9LC-5605	Bubble ring	C6N4Z4-5605	Swipe
	Swipe	C9NC8Z-5605	Swipe
4MX9XG-5601	Transfer Stain	C9NFW4-5605	Swipe
4NMNZC-5605	Swipe	CAJV92-5605	Swipe
63UMXA-5605	Swipe	CC9DC8-5605	Bubble ring
6AQPR9-5601	Swipe		Wipe
6QWW7B-5605	Swipe	CCPFW2-5605	Swipe
6TXR7-5605	Swipe	CK2KXX-5601	Swipe
	Wipe	CK76K2-5605	Swipe
734CC8-5601	Swipe	CUR73W-5601	Swipe
7JD4EC-5605	Swipe	D2NEW3-5601	Swipe
7K3JF8-5605	Swipe	D9NK26-5605	Swipe
7QQ4L9-5605	Wipe	DNFPYZ-5605	Swipe
7TY8LB-5601	Swipe		Wipe

TABLE 2: Single Pattern Recognition
Item 2, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
DXN423-5601	Swipe	HCA6PV-5605	Bubble ring
E6363W-5605	Swipe		Swipe
E7EVB2-5605	Swipe	HMQUJU-5605	Swipe
ECKN7W-5601	Swipe	HTWMDP-5601	Pool
EE6MDZ-5605	Swipe	HVQ3D2-5601	Transfer Stain
EEUNF6-5605	Swipe	J8UUCR-5601	Swipe
EJ42X4-5605	Swipe	JHANKY-5601	Swipe
EJYJZ6-5605	Swipe		Transfer Stain
ELVQQX-5601	Swipe	JHBRZV-5605	Swipe
F4KN7U-5601	Swipe	K88WGQ-5601	Swipe
F7A82Z-5601	Bubble ring	K8NZ6Q-5605	Wipe
	Swipe	KWQ44P-5605	Transfer Stain
FBNGE6-5605	Swipe	KWQCXU-5605	Transfer Stain
FFE6VV-5605	Swipe	L6F8NX-5605	Swipe
FFJ9M2-5605	Swipe	LHAETT-5601	Swipe
G9V2NT-5605	Swipe	LNBNQ-5605	Swipe
GCUCJT-5605	Swipe	LQZ9JW-5605	Swipe
GCIYUHR-5601	Swipe	LRVPVT-5605	Swipe
GFK6UY-5605	Swipe	LVUVT-5605	Swipe
GGKXZU-5605	Transfer Stain	LYCDFM-5601	Swipe
GHFJRZ-5605	Swipe	LZZWBT-5605	Swipe
GPZK9X-5605	Swipe	M7CH9Q-5605	Bubble ring
GTA2WW-5605	Wipe		Swipe
GULGQX-5601	Swipe		Wipe
GZG4TU-5605	Transfer Stain	MMYDJU-5601	Transfer Stain
H28PYQ-5605	Transfer Stain	MNVTWQ-5601	Swipe
H69TTY-5605	Swipe	MPJCRW-5605	Swipe
H6MCDV-5605	Swipe	MYMQ9P-5601	Bubble ring
H986PY-5605	Swipe		Expiration Pattern
HA3MQZ-5605	Swipe	N2QHGP-5605	Swipe

TABLE 2: Single Pattern Recognition
Item 2, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
N8G6WV-5605	Swipe	V9L38P-5601	Swipe
NKQK6L-5601	Swipe		Transfer Stain
NU7LAU-5605	Swipe	VA23QE-5601	Swipe
P6MPWJ-5605	Swipe	VF867E-5605	Swipe
	Transfer Stain		Wipe
PDHMNT-5605	Swipe	VPXGPM-5605	Swipe
PEE4ZP-5605	Swipe	WVCK2J-5605	Expiration Pattern
PUQGHM-5605	Bubble ring	VYZNKM-5605	Swipe
	Expiration Pattern	W3U6AL-5601	Swipe
	Void	W4PKMH-5605	Swipe
	Wipe	WNX4GK-5601	Swipe
Q3VYCQ-5601	Wipe	WQ699N-5601	Swipe
QNUACJ-5605	Swipe	XQ4LFG-5605	Swipe
QPPXNN-5605	Transfer Stain	XZKEKH-5605	Swipe
QWAWLN-5601	Bubble ring	Y9CE99-5605	Transfer Stain
	Swipe	YB3AJH-5605	Transfer Stain
R7DJWK-5601	Swipe	YB7T8K-5601	Transfer Stain
RFYUZK-5605	Swipe	YCRPLD-5605	Wipe
RVAFHP-5605	Bubble ring	YDNB3B-5605	Swipe
	Expiration Pattern	YE2M6L-5601	Swipe
T3QB3Q-5605	Swipe	YE764K-5601	Transfer Stain
T6C7PH-5605	Transfer Stain	YH4LFE-5601	Swipe
UBDTRH-5605	Swipe	YKR4BK-5605	Wipe
UBWKTF-5605	Expiration Pattern	YQC4NC-5605	Swipe
	Swipe		Wipe
UCDHKF-5601	Swipe	Z7ZWTA-5605	Swipe
UN3N8H-5605	Swipe	Z9KWKE-5605	Bubble ring
UN9VJQ-5605	Swipe		Expiration Pattern
	Wipe		Void
UWXGNP-5605	Swipe		Wipe
UZWWCE-5601	Swipe		

TABLE 2: Single Pattern Recognition
Item 2, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
ZHGLM9-5605	Swipe		
ZHGNCD-5601	Swipe		
ZLHFVC-5601	Swipe		
ZWEZLG-5605	Swipe		

Pattern Types Reported for Item 2 Responding Participants: 155		
Pattern Type	Number Reported (Percent)	
Swipe	125	(80.6%)
Transfer Stain	21	(13.5%)
Wipe	18	(11.6%)
Bubble ring	10	(6.5%)
Expiration Pattern	6	(3.9%)
Void	2	(1.3%)
Pool	1	(0.6%)

TABLE 2: Single Pattern Recognition
Item 3

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
2DHFWA-5601	Cast-off Pattern	A9KQTA-5605	Cast-off Pattern
2DMZKD-5605	Cast-off Pattern	AAA7U6-5605	Cast-off Pattern
37VC3C-5605	Cast-off Pattern		Projected Pattern
38BHFG-5605	Cast-off Pattern	AFZG63-5601	Cast-off Pattern
3AE4DE-5605	Cast-off Pattern	AYN3M6-5605	Cast-off Pattern
3BAMFG-5605	Cast-off Pattern	B6UWGG-5605	Cast-off Pattern
3CGCAC-5605	Cast-off Pattern	BMPVW3-5605	Cast-off Pattern
3DDRLA-5601	Cast-off Pattern	BZJ472-5605	Cast-off Pattern
3RD9RB-5605	Cast-off Pattern	C4YNY9-5601	Cast-off Pattern
3YXKUH-5605	Cast-off Pattern	C6N4Z4-5605	Cast-off Pattern
48KX99-5601	Cast-off Pattern	C9NC8Z-5605	Cast-off Pattern
4B6PJB-5605	Cast-off Pattern	C9NFW4-5605	Cast-off Pattern
4CZ9LC-5605	Cast-off Pattern	CAJV92-5605	Cast-off Pattern
4MX9XG-5601	Cast-off Pattern	CC9DC8-5605	Cast-off Pattern
4NMNZC-5605	Cast-off Pattern	CCPFW2-5605	Cast-off Pattern
63UMXA-5605	Cast-off Pattern	CK2KXX-5601	Cast-off Pattern
6AQPR9-5601	Cast-off Pattern	CK76K2-5605	Cast-off Pattern
6QWW7B-5605	Cast-off Pattern	CUR73W-5601	Cast-off Pattern
6TXYR7-5605	Cast-off Pattern	D2NEW3-5601	Cast-off Pattern
734CC8-5601	Cast-off Pattern	D9NK26-5605	Cast-off Pattern
7JD4EC-5605	Cast-off Pattern	DNFPYZ-5605	Cast-off Pattern
7K3JF8-5605	Cast-off Pattern	DXN423-5601	Cast-off Pattern
7QQ4L9-5605	Cast-off Pattern	E6363W-5605	Cast-off Pattern
7TY8LB-5601	Cast-off Pattern	E7EVB2-5605	Cast-off Pattern
7VW4B8-5605	Cast-off Pattern	ECKN7W-5601	Cast-off Pattern
7X9K4A-5605	Cast-off Pattern	EE6MDZ-5605	Cast-off Pattern
8HP7CB-5601	Cast-off Pattern	EEUNF6-5605	Cast-off Pattern
8M7CA7-5601	Cast-off Pattern	EJ42X4-5605	Cast-off Pattern
9JFRH7-5605	Cast-off Pattern	EJYJZ6-5605	Cast-off Pattern
9LTAR4-5601	Cast-off Pattern	ELVQQX-5601	Cast-off Pattern

TABLE 2: Single Pattern Recognition
Item 3, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
F4KN7U-5601	Cast-off Pattern	KWQCXU-5605	Cast-off Pattern
F7A82Z-5601	Cast-off Pattern	L6F8NX-5605	Cast-off Pattern
FBNGE6-5605	Cast-off Pattern	LHAETT-5601	Cast-off Pattern
FFE6VV-5605	Cast-off Pattern	LNBNQ-5605	Cast-off Pattern
FFJ9M2-5605	Cast-off Pattern	LQZ9JW-5605	Cast-off Pattern
G9V2NT-5605	Cast-off Pattern	LRVPVT-5605	Cast-off Pattern
GCUCJT-5605	Cast-off Pattern	LVUVT-5605	Cast-off Pattern
GCIUHR-5601	Cast-off Pattern	LYCDFM-5601	Cast-off Pattern
GFK6UY-5605	Cast-off Pattern	LZZWBT-5605	Cast-off Pattern
GGKXZU-5605	Cast-off Pattern	M7CH9Q-5605	Cast-off Pattern
GHFJRZ-5605	Cast-off Pattern	MMYDJU-5601	Cast-off Pattern
GPZK9X-5605	Cast-off Pattern	MNVTWQ-5601	Cast-off Pattern
GTA2WW-5605	Cast-off Pattern	MPJCRW-5605	Cast-off Pattern
GULGQX-5601	Cast-off Pattern	MYMQ9P-5601	Cast-off Pattern
GZG4TU-5605	Cast-off Pattern	N2QHGP-5605	Cast-off Pattern
H28PYQ-5605	Cast-off Pattern	N8G6WV-5605	Cast-off Pattern
H69TTY-5605	Cast-off Pattern	NKQK6L-5601	Cast-off Pattern
H6MCDV-5605	Cast-off Pattern	NU7LAU-5605	Cast-off Pattern
H986PY-5605	Cast-off Pattern	P6MPWJ-5605	Cast-off Pattern
HA3MQZ-5605	Cast-off Pattern	PDHMNT-5605	Cast-off Pattern
HCA6PV-5605	Cast-off Pattern	PEE4ZP-5605	Cast-off Pattern
HMQUJU-5605	Cast-off Pattern	PUQGHM-5605	Cast-off Pattern
HTWMDP-5601	Cast-off Pattern	Q3VYCQ-5601	Cast-off Pattern
HVQ3D2-5601	Cast-off Pattern	QNUACJ-5605	Cast-off Pattern
J8UUCR-5601	Cast-off Pattern	QPPXNN-5605	Cast-off Pattern
JHANKY-5601	Cast-off Pattern	QWAWLN-5601	Cast-off Pattern
JHBRZV-5605	Cast-off Pattern	R7DJWK-5601	Cast-off Pattern
K88WGQ-5601	Cast-off Pattern	RFYUZZ-5605	Cast-off Pattern
K8NZ6Q-5605	Cast-off Pattern	RVAFHP-5605	Cast-off Pattern
KWQ44P-5605	Cast-off Pattern	T3QB3Q-5605	Cast-off Pattern

TABLE 2: Single Pattern Recognition
Item 3, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
T6C7PH-5605	Cast-off Pattern	Z7ZWT A-5605	Cast-off Pattern
UBDTRH-5605	Cast-off Pattern	Z9KWKE-5605	Cast-off Pattern
UBWKTF-5605	Cast-off Pattern	ZHGLM9-5605	Cast-off Pattern
UCDHKF-5601	Cast-off Pattern	ZHGNCD-5601	Cast-off Pattern
UN3N8H-5605	Cast-off Pattern	ZLHFVC-5601	Cast-off Pattern
UN9VJQ-5605	Cast-off Pattern	ZWEZLG-5605	Cast-off Pattern
UWXGNP-5605	Cast-off Pattern		
UZWVCE-5601	Cast-off Pattern		
V9L38P-5601	Cast-off Pattern		
VA23QE-5601	Cast-off Pattern		
VF867E-5605	Cast-off Pattern		
VPXGPM-5605	Cast-off Pattern		
VCK2J-5605	Cast-off Pattern		
VYZNKM-5605	Cast-off Pattern		
W3U6AL-5601	Cast-off Pattern		
W4PKMH-5605	Cast-off Pattern		
WNX4GK-5601	Cast-off Pattern		
WQ699N-5601	Cast-off Pattern		
XQ4LFG-5605	Cast-off Pattern		
XZKEKH-5605	Cast-off Pattern		
Y9CE99-5605	Cast-off Pattern		
YB3AJH-5605	Cast-off Pattern		
YB7T8K-5601	Cast-off Pattern		
YCRPLD-5605	Cast-off Pattern		
YDNB3B-5605	Cast-off Pattern		
YE2M6L-5601	Cast-off Pattern		
YE764K-5601	Cast-off Pattern		
YH4LFE-5601	Cast-off Pattern		
YKR4BK-5605	Cast-off Pattern		
YQC4NC-5605	Cast-off Pattern		

Pattern Types Reported for Item 3 Responding Participants: 155	
<u>Pattern Type</u>	<u>Number Reported (Percent)</u>
Cast-off Pattern	155 (100.0%)
Projected Pattern	1 (0.6%)

TABLE 2: Single Pattern Recognition
Item 4

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
2DHFWA-5601	Projected Pattern	9LTAR4-5601	Projected Pattern
2DMZKD-5605	Projected Pattern	A9KQTA-5605	Projected Pattern
37VC3C-5605	Projected Pattern	AAA7U6-5605	Projected Pattern
38BHFG-5605	Projected Pattern		Splash Pattern
3AE4DE-5605	Projected Pattern	AFZG63-5601	Projected Pattern
3BAMFG-5605	Projected Pattern	AYN3M6-5605	Projected Pattern
3CGCAC-5605	Projected Pattern	B6UWGZ-5605	Projected Pattern
3DDRLA-5601	Projected Pattern	BMPVW3-5605	Projected Pattern
3RD9RB-5605	Projected Pattern	BZJ472-5605	Projected Pattern
3YXKUH-5605	Pool	C4YNY9-5601	Splash Pattern
	Splash Pattern	C6N4Z4-5605	Projected Pattern
48KX99-5601	Projected Pattern	C9NC8Z-5605	Projected Pattern
4B6PJB-5605	Projected Pattern	C9NFW4-5605	Projected Pattern
4CZ9LC-5605	Projected Pattern	CAJV92-5605	Projected Pattern
4MX9XG-5601	Projected Pattern	CC9DC8-5605	Projected Pattern
4NMNZC-5605	Projected Pattern	CCPFW2-5605	Projected Pattern
63UMXA-5605	Projected Pattern	CK2KXX-5601	Projected Pattern
6AQPR9-5601	Projected Pattern	CK76K2-5605	Projected Pattern
6QWW7B-5605	Projected Pattern	CUR73W-5601	Projected Pattern
6TXYR7-5605	Projected Pattern	D2NEW3-5601	Projected Pattern
734CC8-5601	Projected Pattern	D9NK26-5605	Projected Pattern
7JD4EC-5605	Projected Pattern	DNFPYZ-5605	Projected Pattern
7K3JF8-5605	Projected Pattern	DXN423-5601	Projected Pattern
7QQ4L9-5605	Projected Pattern	E6363W-5605	Projected Pattern
7TY8LB-5601	Projected Pattern	E7EVB2-5605	Projected Pattern
7VW4B8-5605	Projected Pattern	ECKN7W-5601	Projected Pattern
7X9K4A-5605	Projected Pattern	EE6MDZ-5605	Projected Pattern
8HP7CB-5601	Projected Pattern	EEUNF6-5605	Projected Pattern
8M7CA7-5601	Projected Pattern	EJ42X4-5605	Projected Pattern
9JFRH7-5605	Projected Pattern	EJYJZ6-5605	Projected Pattern

TABLE 2: Single Pattern Recognition
Item 4, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
ELVQQX-5601	Projected Pattern	K88WGQ-5601	Projected Pattern
F4KN7U-5601	Projected Pattern	K8NZ6Q-5605	Projected Pattern
F7A82Z-5601	Projected Pattern	KWQ44P-5605	Projected Pattern
FBNGE6-5605	Projected Pattern	KWQCXU-5605	Pool
FFE6VV-5605	Projected Pattern		Projected Pattern
FFJ9M2-5605	Projected Pattern	L6F8NX-5605	Projected Pattern
G9V2NT-5605	Projected Pattern	LHAETT-5601	Projected Pattern
GCUCJT-5605	Projected Pattern	LNBBNQ-5605	Projected Pattern
GCIUHR-5601	Projected Pattern	LQZ9JW-5605	Projected Pattern
GFK6UY-5605	Impact Pattern	LRVPVT-5605	Projected Pattern
	Projected Pattern	LWUVT-5605	Projected Pattern
GGKXZU-5605	Projected Pattern	LYCDFM-5601	Projected Pattern
GHFJRZ-5605	Projected Pattern	LZZWBT-5605	Projected Pattern
GPZK9X-5605	Pool	M7CH9Q-5605	Projected Pattern
	Projected Pattern	MMYDJU-5601	Projected Pattern
GTA2WW-5605	Projected Pattern	MNVTWQ-5601	Projected Pattern
GULGQX-5601	Projected Pattern	MPJCRW-5605	Projected Pattern
GZG4TU-5605	Projected Pattern	MYMQ9P-5601	Projected Pattern
H28PYQ-5605	Projected Pattern	N2QHGP-5605	Projected Pattern
H69TTY-5605	Projected Pattern	N8G6WV-5605	Projected Pattern
H6MCDV-5605	Projected Pattern	NKQK6L-5601	Projected Pattern
H986PY-5605	Projected Pattern	NU7LAU-5605	Projected Pattern
HA3MQZ-5605	Projected Pattern	P6MPWJ-5605	Projected Pattern
HCA6PV-5605	Impact Pattern	PDHMNT-5605	Projected Pattern
HMQUJU-5605	Projected Pattern		Splash Pattern
HTWMDP-5601	Projected Pattern	PEE4ZP-5605	Projected Pattern
HVQ3D2-5601	Projected Pattern	PUQGHM-5605	Projected Pattern
J8UUCR-5601	Projected Pattern	Q3VYCQ-5601	Projected Pattern
JHANKY-5601	Projected Pattern	QNUACJ-5605	Projected Pattern
JHBRZV-5605	Projected Pattern	QPPXNN-5605	Projected Pattern

TABLE 2: Single Pattern Recognition
Item 4, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
QWAWLN-5601	Impact Pattern	YDNB3B-5605	Projected Pattern
R7DJWK-5601	Projected Pattern	YE2M6L-5601	Projected Pattern
RFYUZZ-5605	Projected Pattern	YE764K-5601	Projected Pattern
RVAFHP-5605	Projected Pattern	YH4LFE-5601	Projected Pattern
T3QB3Q-5605	Projected Pattern	YKR4BK-5605	Projected Pattern
T6C7PH-5605	Projected Pattern	YQC4NC-5605	Projected Pattern
UBDTRH-5605	Projected Pattern	Z7ZWTA-5605	Projected Pattern
	Splash Pattern	Z9KWKE-5605	Projected Pattern
UBWKTF-5605	Projected Pattern		Splash Pattern
UCDHKF-5601	Projected Pattern	ZHGLM9-5605	Projected Pattern
UN3N8H-5605	Projected Pattern	ZHGNCD-5601	Projected Pattern
UN9VJQ-5605	Projected Pattern	ZLHFVC-5601	Projected Pattern
UWXGNP-5605	Projected Pattern	ZWEZLG-5605	Projected Pattern
UZWVCE-5601	Projected Pattern		
V9L38P-5601	Projected Pattern		
VA23QE-5601	Projected Pattern		
VF867E-5605	Projected Pattern		
VPXGPM-5605	Projected Pattern		
VWCK2J-5605	Projected Pattern		
VYZNKM-5605	Projected Pattern		
W3U6AL-5601	Projected Pattern		
W4PKMH-5605	Projected Pattern		
WNX4GK-5601	Projected Pattern		
WQ699N-5601	Projected Pattern		
XQ4LFG-5605	Projected Pattern		
XZKEKH-5605	Projected Pattern		
Y9CE99-5605	Projected Pattern		
YB3AJH-5605	Projected Pattern		
YB7T8K-5601	Projected Pattern		
YCRPLD-5605	Projected Pattern		

Pattern Types Reported for Item 4 Responding Participants: 155	
<u>Pattern Type</u>	<u>Number Reported (Percent)</u>
Projected Pattern	151 (97.4%)
Splash Pattern	6 (3.9%)
Impact Pattern	3 (1.9%)
Pool	3 (1.9%)

Pattern Description, Part 2

For the following pattern, indicate the pattern type(s) that best describes the image.

TABLE 3: Pattern Recognition
Item 5

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
2DHFWA-5601	Drip Stain	3YXKU-5605	Drip Stain
	Drip trail		Impact Pattern
	Impact Pattern		Pool
	Transfer Stain		Transfer Stain
2DMZKD-5605	Drip trail	48KX99-5601	Drip trail
	Splash Pattern		Impact Pattern
	Transfer Stain		Transfer Stain
37VC3C-5605	Drip trail	4B6PJB-5605	Drip Stain
	Splash Pattern		Drip trail
	Transfer Stain		Impact Pattern
38BHFG-5605	Drip Stain		Transfer Stain
	Drip trail	4CZ9LC-5605	Drip trail
	Splash Pattern		Splash Pattern
	Transfer Stain		Transfer Stain
3AE4DE-5605	Drip trail	4MX9XG-5601	Drip trail
	Impact Pattern		Impact Pattern
	Transfer Stain		Pool
3BAMFG-5605	Drip Stain		Transfer Stain
	Drip trail	4NMNZC-5605	Drip Stain
	Impact Pattern		Drip trail
	Pool		Impact Pattern
	Transfer Stain		Pool
3CGCAC-5605	Drip trail		Transfer Stain
	Projected Pattern	63UMXA-5605	Drip trail
	Transfer Stain		Impact Pattern
3DDRLA-5601	Drip trail		Transfer Stain
	Impact Pattern	6AQPR9-5601	Void
	Transfer Stain		Drip Stain
3RD9RB-5605	Drip Stain		Drip trail
	Drip trail		Impact Pattern
	Impact Pattern		Transfer Stain
	Pool	6QWW7B-5605	Drip Stain
	Transfer Stain		Impact Pattern
	Void		Pool

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
6QWW7B-5605	Transfer Stain		Impact Pattern
6TXR7-5605	Drip Stain		Pool
	Drip trail		Transfer Stain
	Impact Pattern	8M7CA7-5601	Drip Stain
	Pool		Transfer Stain
	Transfer Stain	9JFRH7-5605	Drip trail
	Void		Pool
734CC8-5601	Drip trail		Splash Pattern
	Splash Pattern		Transfer Stain
	Transfer Stain	9LTAR4-5601	Drip trail
7JD4EC-5605	Drip Stain		Impact Pattern
	Drip trail		Transfer Stain
	Impact Pattern	A9KQTA-5605	Drip trail
	Transfer Stain		Impact Pattern
7K3JF8-5605	Drip trail		Pool
	Splash Pattern		Transfer Stain
	Transfer Stain	AAA7U6-5605	Drip Pattern
7QQ4L9-5605	Drip trail		Drip trail
	Splash Pattern		Pool
	Transfer Stain		Splash Pattern
7TY8LB-5601	Cast-off Pattern		Transfer Stain
	Pool	AFZG63-5601	Drip trail
	Splash Pattern		Splash Pattern
	Transfer Stain		Transfer Stain
7VW4B8-5605	Cast-off Pattern	AYN3M6-5605	Drip Pattern
	Drip Pattern		Impact Pattern
	Drip Stain		Pool
	Drip trail		Transfer Stain
	Pool	B6UWGZ-5605	Drip trail
	Splash Pattern		Splash Pattern
	Transfer Stain		Transfer Stain
	Void	BMPVW3-5605	Bubble ring
7X9K4A-5605	Drip trail		Drip Stain
	Splash Pattern		Drip trail
	Transfer Stain		Expiration Pattern
8HP7CB-5601	Drip trail		Splash Pattern

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
BMPVW3-5605	Transfer Stain		Pool
BZJ472-5605	Drip trail		Transfer Stain
	Splash Pattern	CUR73W-5601	Drip Stain
	Transfer Stain		Drip trail
C4YNY9-5601	Impact Pattern		Splash Pattern
	Pool		Transfer Stain
	Transfer Stain	D2NEW3-5601	Drip trail
C6N4Z4-5605	Drip Pattern		Impact Pattern
	Drip Stain		Transfer Stain
	Drip trail	D9NK26-5605	Drip Stain
	Pool		Drip trail
	Splash Pattern		Impact Pattern
	Transfer Stain		Transfer Stain
C9NC8Z-5605	Drip trail	DNFPYZ-5605	Drip Stain
	Splash Pattern		Impact Pattern
	Transfer Stain		Projected Pattern
C9NFW4-5605	Drip trail		Transfer Stain
	Splash Pattern		Void
	Transfer Stain	DXN423-5601	Drip trail
CAJV92-5605	Drip trail		Splash Pattern
	Impact Pattern		Transfer Stain
	Transfer Stain	E6363W-5605	Drip Stain
CC9DC8-5605	Drip Pattern		Drip trail
	Drip Stain		Impact Pattern
	Splash Pattern		Transfer Stain
	Transfer Stain	E7EVB2-5605	Drip Stain
	Void		Splash Pattern
CCPFW2-5605	Drip trail		Transfer Stain
	Splash Pattern	ECKN7W-5601	Drip Stain
	Transfer Stain		Drip trail
CK2KXX-5601	Drip Stain		Splash Pattern
	Drip trail		Transfer Stain
	Impact Pattern	EE6MDZ-5605	Drip Stain
	Transfer Stain		Impact Pattern
CK76K2-5605	Drip Pattern		Transfer Stain
	Drip trail	EEUNF6-5605	Drip trail

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
EEUNF6-5605	Impact Pattern		Transfer Stain
	Pool	GCUUHR-5601	Drip Stain
	Transfer Stain		Drip trail
EJ42X4-5605	Drip trail		Splash Pattern
	Impact Pattern		Transfer Stain
	Transfer Stain	GFK6UY-5605	Cast-off Pattern
EJYZ6-5605	Drip trail		Drip Pattern
	Impact Pattern		Drip trail
	Transfer Stain		Splash Pattern
ELVQQX-5601	Drip Stain		Transfer Stain
	Drip trail	GGKXZU-5605	Drip trail
	Splash Pattern		Impact Pattern
	Transfer Stain		Pool
F4KN7U-5601	Drip Stain		Transfer Stain
	Drip trail	GHFJRZ-5605	Drip Pattern
	Impact Pattern		Transfer Stain
	Transfer Stain	GPZK9X-5605	Drip Pattern
F7A82Z-5601	Drip trail		Drip Stain
	Impact Pattern		Drip trail
	Pool		Pool
	Transfer Stain		Splash Pattern
FBNGE6-5605	Drip trail		Transfer Stain
	Impact Pattern	GTA2WW-5605	Bubble ring
	Pool		Drip trail
	Transfer Stain		Expiration Pattern
FFE6VV-5605	Drip trail		Transfer Stain
	Splash Pattern	GULGQX-5601	Drip Stain
	Transfer Stain		Impact Pattern
FFJ9M2-5605	Drip trail		Pool
	Impact Pattern		Splash Pattern
	Transfer Stain		Transfer Stain
G9V2NT-5605	Drip trail		Void
	Impact Pattern	GZG4TU-5605	Drip Stain
	Transfer Stain		Drip trail
GCUCJT-5605	Drip trail		Impact Pattern
	Impact Pattern		Pool

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
GZG4TU-5605	Transfer Stain		Splash Pattern
H28PYQ-5605	Drip trail		Transfer Stain
	Splash Pattern	JHANKY-5601	Drip trail
	Transfer Stain		Impact Pattern
H69TTY-5605	Drip trail		Splash Pattern
	Impact Pattern		Transfer Stain
	Pool	JHBRZV-5605	Drip Stain
	Transfer Stain		Impact Pattern
H6MCDV-5605	Drip trail		Pool
	Impact Pattern		Transfer Stain
	Transfer Stain	K88WGQ-5601	Drip Stain
H986PY-5605	Drip Stain		Drip trail
	Splash Pattern		Splash Pattern
	Transfer Stain		Transfer Stain
HA3MQZ-5605	Drip Stain	K8NZ6Q-5605	Drip Stain
	Drip trail		Impact Pattern
	Impact Pattern		Transfer Stain
	Transfer Stain		Void
HCA6PV-5605	Drip Pattern	KWQ44P-5605	Drip trail
	Drip trail		Splash Pattern
	Splash Pattern		Transfer Stain
	Transfer Stain	KWQCXU-5605	Drip trail
HMQUJU-5605	Drip Stain		Impact Pattern
	Drip trail		Pool
	Splash Pattern		Transfer Stain
	Transfer Stain	L6F8NX-5605	Drip trail
HTWMDP-5601	Drip Pattern		Impact Pattern
HVQ3D2-5601	Drip Stain		Transfer Stain
	Impact Pattern	LHAETT-5601	Drip Stain
	Pool		Drip trail
	Transfer Stain		Impact Pattern
J8UUCR-5601	Drip Pattern		Splash Pattern
	Drip Stain		Transfer Stain
	Drip trail	LNBQNQ-5605	Drip Stain
	Impact Pattern		Splash Pattern
	Pool		Transfer Stain

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
LQZ9JW-5605	Drip Stain	MPJCRW-5605	Drip trail
	Drip trail		Impact Pattern
	Impact Pattern		Transfer Stain
	Pool	MYMQ9P-5601	Drip Pattern
	Transfer Stain		Pool
LRVPVT-5605	Drip trail	N2QHGP-5605	Cast-off Pattern
	Impact Pattern		Drip trail
	Pool		Splash Pattern
	Transfer Stain		Transfer Stain
LVUVT-5605	Drip Pattern	N8G6WV-5605	Drip Stain
	Drip trail		Impact Pattern
	Pool		Pool
	Transfer Stain		Transfer Stain
LYCDFM-5601	Drip trail	NKQK6L-5601	Drip trail
	Impact Pattern		Impact Pattern
	Pool		Transfer Stain
	Transfer Stain	NU7LAU-5605	Drip Stain
LZZWBT-5605	Drip trail		Drip trail
	Impact Pattern		Impact Pattern
	Splash Pattern		Pool
	Transfer Stain		Transfer Stain
M7CH9Q-5605	Cast-off Pattern	P6MPWJ-5605	Drip trail
	Drip Pattern		Impact Pattern
	Drip trail		Pool
	Impact Pattern		Transfer Stain
	Pool	PDHMNT-5605	Drip trail
	Splash Pattern		Impact Pattern
	Transfer Stain		Splash Pattern
	Void		Transfer Stain
MMYDJU-5601	Drip trail	PEE4ZP-5605	Drip trail
	Impact Pattern		Impact Pattern
	Transfer Stain		Pool
MNVTWQ-5601	Drip Stain		Transfer Stain
	Drip trail	PUQGHM-5605	Drip Stain
	Splash Pattern		Drip trail
	Transfer Stain		Splash Pattern

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
PUQGHM-5605	Transfer Stain	UBDTRH-5605	Drip Stain
Q3VYCQ-5601	Drip Stain		Drip trail
	Splash Pattern		Impact Pattern
	Transfer Stain		Transfer Stain
QNUACJ-5605	Drip Pattern	UBWKTF-5605	Drip trail
	Drip Stain		Splash Pattern
	Drip trail		Transfer Stain
	Impact Pattern	UCDHKF-5601	Drip trail
	Pool		Impact Pattern
	Splash Pattern		Transfer Stain
	Transfer Stain	UN3N8H-5605	Drip trail
QPPXNN-5605	Drip trail		Impact Pattern
	Splash Pattern		Pool
	Transfer Stain		Transfer Stain
QWAWLN-5601	Drip Pattern	UN9VJQ-5605	Drip trail
	Drip trail		Impact Pattern
	Splash Pattern		Pool
	Transfer Stain		Transfer Stain
R7DJWK-5601	Drip trail	UWXGNP-5605	Drip Stain
	Impact Pattern		Impact Pattern
	Transfer Stain		Pool
RFYUZZ-5605	Drip trail		Transfer Stain
	Impact Pattern	UZWWCE-5601	Drip Stain
	Splash Pattern		Drip trail
	Transfer Stain		Splash Pattern
RVAFHP-5605	Drip Pattern		Transfer Stain
	Drip trail	V9L38P-5601	Drip Stain
	Splash Pattern		Impact Pattern
	Transfer Stain		Transfer Stain
	Void	VA23QE-5601	Drip trail
T3QB3Q-5605	Drip Stain		Impact Pattern
	Impact Pattern		Transfer Stain
	Transfer Stain	VF867E-5605	Drip Stain
T6C7PH-5605	Drip trail		Impact Pattern
	Impact Pattern		Transfer Stain
	Transfer Stain	VPXGPM-5605	Drip Stain

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
VPXGPM-5605	Impact Pattern	YB3AJH-5605	Splash Pattern
	Pool		Transfer Stain
	Transfer Stain		Drip Stain
WCK2J-5605	Drip Pattern	YB7T8K-5601	Splash Pattern
	Drip trail		Transfer Stain
	Transfer Stain		Drip Stain
VYZNKM-5605	Drip trail	YCRPLD-5605	Drip trail
	Splash Pattern		Impact Pattern
	Transfer Stain		Pool
W3U6AL-5601	Drip Stain	YDNB3B-5605	Transfer Stain
	Drip trail		Drip Pattern
	Impact Pattern		Drip Stain
	Pool	YE2M6L-5601	Transfer Stain
	Transfer Stain		Drip trail
W4PKMH-5605	Drip Stain		Splash Pattern
	Impact Pattern	YE764K-5601	Transfer Stain
	Pool		Drip Stain
	Transfer Stain		Drip trail
WNX4GK-5601	Drip Stain	YKR4BK-5605	Impact Pattern
	Splash Pattern		Pool
	Transfer Stain		Splash Pattern
WQ699N-5601	Drip trail	YH4LFE-5601	Transfer Stain
	Splash Pattern		Drip trail
	Transfer Stain		Impact Pattern
XQ4LFG-5605	Drip Stain	YQC4NC-5605	Pool
	Drip trail		Splash Pattern
	Impact Pattern		Transfer Stain
	Pool	Y9CE99-5605	Drip Stain
	Splash Pattern		Drip trail
	Transfer Stain		Impact Pattern
	Void		Pool
XZKEKH-5605	Drip Stain		
	Impact Pattern		
	Pool		
	Transfer Stain		
Y9CE99-5605	Drip trail		

TABLE 3: Pattern Recognition
Item 5, continued

WebCode-Test	Pattern Type	WebCode-Test	Pattern Type
YQC4NC-5605	Transfer Stain		
Z7ZWTA-5605	Drip trail		
	Splash Pattern		
	Transfer Stain		
Z9KWKE-5605	Drip trail		
	Impact Pattern		
	Splash Pattern		
	Transfer Stain		
	Void		
ZHGLM9-5605	Drip Stain		
	Splash Pattern		
	Transfer Stain		
ZHGNCD-5601	Drip Pattern		
	Drip Stain		
	Drip trail		
	Transfer Stain		
ZLHFVC-5601	Drip Stain		
	Drip trail		
	Splash Pattern		
	Transfer Stain		
ZWEZLG-5605	Bubble ring		
	Drip Pattern		
	Drip Stain		
	Impact Pattern		
	Pool		
	Transfer Stain		

Pattern Types Reported for Item 5
Responding Participants: 155

<u>Pattern Type</u>	<u>Number Reported (Percent)</u>
Transfer Stain	153 (98.7%)
Drip trail	122 (78.7%)
Impact Pattern	88 (56.8%)
Drip Stain	68 (43.9%)
Splash Pattern	68 (43.9%)
Pool	53 (34.2%)
Drip Pattern	22 (14.2%)
Void	12 (7.7%)
Cast-off Pattern	3 (1.9%)
Bubble ring	3 (1.9%)
Expiration Pattern	2 (1.3%)

Pattern Description, Part 2

For the following pattern, write a brief description.

TABLE 4: Pattern Description
Item 5

WebCode-Test	Detailed Pattern Description
2DHFWA-5601	Transfer stain observed in upper center area of target. Impact pattern observed in lower left area of target. Multiple drip stains forming a drip trail observed diagonally across center area and lower right area of target.
2DMZKD-5605	The horizontal target surface has several distinct patterns within it. In the top half of the surface, in the middle, is a closed "U" shape, approximately 65 mm by 60 mm, with parallel lines visible on the top right portion of the stain. Based on the shape and the parallel lines, this is most like a transfer stain of a heel of a shoe. Between the middle of the target surface and the bottom right are five mostly circular stains ranging in size from 7-14 mm. The stains are in a linear path and are most likely a drip trail. In the bottom left of the target surface, there is a large puddle of blood, approximately 70mm by 100 mm in size, mostly surrounded by long thin spines of blood. Based on the large volume of blood and the spines around and connected to the stain this is most likely a splash pattern.
37VC3C-5605	Stain consistent with a splash pattern near lower left corner of tile, exhibiting a large quantity of blood with long spines with directionality towards the same corner. Possible drying and flaking of the splash pattern is observed along its right edge. Small and large satellite spatter stains are observed in a radiating pattern moving away from the splash pattern on the tile. A possible transfer pattern near the center line, adjacent to the top edge of the tile. A linear pattern is observed within and along the top edge of the transfer pattern. A possible drip trail moving between the transfer pattern and the lower right corner is also observed.
38BHFG-5605	A splash pattern is observed in the lower left-hand corner of the target with a portion of an altered stain at the lower right edge of it. At approximately the middle of the image to the lower right-hand corner are three drip stains comprising a drip trail; however, no obvious features to indicate direction of movement/travel are present. At the top middle of the target is a transfer stain. This transfer stain is straight at one side and then a U shape connects the two ends of the straight edge. Within the transfer stain is a nearly continuous pool of blood with a portion at the top right corner that is comprised of parallel lines/pattern. This transfer stain may be the heel of a shoe/sole. There are some stains present mainly at the middle of the target that indicated there may be additional spatter creating event(s). However, there are not enough additional features to support further characterization(s).
3AE4DE-5605	A transfer pattern, featuring a semi-circular saturated blotch with parallel tread grooves visible inside, likely from an incomplete impression of shoe heel, was observed in the upper middle part of the image. To the bottom left of the image, an impact pattern, created by an object striking liquid blood on the target surface, was identified. This pattern appeared as a central irregular pool of blood with a number of radiating spine projections and satellite stains. A drip trail, formed by multiple round drip stains, was observed to span diagonally across the middle to the bottom right part of the image.
3BAMFG-5605	In the top of the image is a Transfer Stain, likely a stamped impression of the heel of a shoe. A short Drip Trail, consisting of only four Drip Stains, is present on the diagonal between the heel impression and the bottom right corner of the image. Using CTS terminology, in the bottom left corner is a small Pool surrounded by an Impact Pattern of spatter.
3CGCAC-5605	In the upper part of the image, there is a transfer stain containing fragments of shoe sole tread pattern (heel). This pattern shows a brighter colour than the other stains. Between this transfer stain and the bottom right corner of the image, a few drip stains are visible. In the lower left-hand part of the image a projected bloodstain can be seen.
3DDRLA-5601	Item 5 was a complex stain consisting of a drip trail, impact pattern, and a transfer stain on a vinyl tile in the horizontal plane. The drip trail goes from the bottom right of the image to the middle, the impact pattern is on the bottom left of the image, the transfer stain is on the top-middle of the image.

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
3RD9RB- 5605	Item 5 has a drip trail that extends from the lower right side to the center of the photo (this is descriptive and not indicative of direction). This trail consists of circular drip stains with smooth edge characteristics. A transfer stain is observed in the upper center of the photo. The overall shape and pattern of the transfer stain is visually consistent with the heel of a shoe. A small void is observed inside the transfer stain. An impact pattern is observed in the lower left of the photo. This pattern consists of a pool of blood that is surrounded by spines and spatter stains that have directionality outward and away from the pool.
3YXKU- 5605	Irregular shaped stain toward top of picture, with variation in colour/density and the appearance of parallel lines pattern towards the top transfer, with source possibly a shoe heel or similar. Irregular shaped stain (pool) in bottom left corner of picture, dark in colour, with some flaking present. There are spines radiating out from bottom and left side. There are at least 40 elliptical stains (<1-5mm) radiating out from the pool, predominantly upwards and to the right. Together these stains indicate a possible impact pattern, possibly caused by a shoe stepping into the blood pool. There are at least 3 near circular drip stains (~10mm) in a linear distribution between the bottom right corner and the central region of the picture drip stains. There are other near circular airborne stains in the vicinity of the drip stains (~3-5mm) which could be smaller drips, spatter and/or satellite stains.
48KX99- 5601	A transfer stain is present near the upper middle of the target. A drip trail is present near the lower portion of the transfer stain, extending to the lower right corner of the target. The directionality of this drip trail was not determined. An impact pattern is present near the lower left corner of the target. The impact pattern appears to have an altered parent stain with spines and includes associated spatter stains in a radiating distribution over the majority of the target.
4B6PJB- 5605	Red-brown stains consistent with an impact pattern (B) were in the lower left corner of the image. A red-brown transfer stain (A) with a repeating linear pattern was near the top of the image. Four drip stains, making a drip trail (C1-C4), were between stain A and the lower right corner of the image. Additional red-brown stains were present throughout the image.
4CZ9LC- 5605	A large irregular shaped bloodstain with protruding spines, mostly on the lower left side, and measuring approximately 80mm X 70mm was located in the bottom left. Several satellite stains were located near and to the upper right of this bloodstain. A large bloodstain measuring approximately 70mm X 70mm having a rounded bottom edge and left/right linear pattern staining at the top was located in the top center. Three drip stains measuring 1cm to 1.3cm were arranged in a linear formation between the bottom right and the bloodstain in the top center.
4MX9XG- 5601	Roughly centrally in the image is a transfer bloodstain, approx 70mm x 75mm in size. The top edge of this bloodstain consists of a series of parallel horizontal lines. The size, shape and pattern within this bloodstain provides support for it being a partial shoesole impression (ie. the transfer of blood on the outsole of a shoe onto the target surface), namely the heel portion. Roughly centrally within the stain is an area devoid of blood - I am unable to determine whether this is a void in the pattern, or the absence of blood in this area on the outsole of the shoe. A series of circular bloodstains, ranging between ~5mm-10mm in size extends from the lower right corner of the image to a transfer bloodstain in the centre of the image. The size and distribution of these bloodstains provides support for the bloodstains to be a drip trail. In the lower left of the image is an accumulation of blood (a small blood pool- I note minimal satellite staining around this blood pool). The blood appears to have dried, due to the presence of cracking (and possible flaking) around the edge of the stain. Elongated spines extend from the pool to the left side (including upper left and lower left). The presence of the elongated bloodstains could suggest the pool being impacted into (prior to the blood drying) to create an impact pattern. Spatter bloodstains, ranging in size between approx 2mmx3mm to approx 6mmx 12mm are present in the remaining areas of the image. The spatter bloodstains general extend away from the lower centre and left of the image, with directionality towards the right of the image, towards the top right, to the top, and to the top left of the image. There is some deviation within the directionality (ie. the spatter may not all be associated with one origin).
4NMNZC- 5605	Bloodstaining consisted of: A relatively large bloodstain towards the upper section of the photograph which indicates both linear markings and a curved lower edge. In my opinion, this is caused by a

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	bloodstained object (possibly the sole of a shoe) coming into contact with the target surface producing a transfer bloodstain. A large volume bloodstain with associated satellite bloodstains radiating out predominately from the lower left of the parent stain on the lower left of the photograph. In my opinion, this staining has resulted from an impact of an object into a pool of blood on the target surface forming an impact pattern. Some additional spatter bloodstains above and to the right of the pool of blood could have originated from the same action. A series of relatively large circular drip stains on the right hand side of the photograph forming a drip trail on the target surface.
63UMXA- 5605	Red-brown stain A in the top center of the photograph is a transfer stain with a void present. Red-brown stains B along the right side of the photograph are a drip trail. Red-brown stain C in the lower left corner of the photograph is consistent with an impact pattern(s). There are additional red-brown stains present, including elliptical stains which exhibit directionality; some toward the top right and some toward the top left of the photograph.
6AQPR9- 5601	A transfer stain with a shoe impression was visualized, resulting from contact between a blood-bearing surface and another surface. An impact pattern was visible on the floor resulting from an object striking liquid blood. A drip stain forming due to gravity created a drip trail on the floor, resulting from the movement of the source of drip stains between two points.
6QWW7B- 5605	In the upper portion of the picture, there is a transfer stain. A linear pattern is visible in the upper part of the transfer stain. Between the transfer stain and the lower right corner, there are a few drip stains. In the lower left corner, there is an impact pattern with spines around part of its border, caused by an object striking liquid blood that was present on the floor. Throughout the picture, there are some spatter stains.
6TXR7- 5605	There are a few drip stains in a drip trail from the middle to the lower right area of the photo (this is describing the location and is not specifying a direction of travel). The stain in the upper middle area is a transfer stain. There is a void in the middle portion of the stain. The stain in lower left area is a blood pool with impact pattern.
734CC8- 5601	Located in the bottom right of photo: Four near circular red-brown stains in a near linear orientation. DRIP TRAIL. Located in the top middle of photo: An irregular shaped red-brown stain. TRANSFER STAIN Located in the bottom left corner of photo: A large irregularly shaped red-brown stain with a heavy density. There is spining and satellite stains noted surround the parent stain. The satellite stains are randomly distributed across the photo with an elliptical shape and heavy stain density. SPLASH PATTERN
7JD4EC- 5605	The image of the vinyl tile has multiple bloodstain patterns. I observed an impact pattern on the lower left side. This stain shows a radiating distribution of smaller elongated bloodstains around the larger stain. On the right side of the image, I observed multiple drip stains of similar sizes, and the general angle of the drips appears to be perpendicular to the tile surface. The drip stains appear to be forming a drip trail. Towards the top center of the image, I observed a transfer stain, which shows contact between a blood-bearing surface and the tile.
7K3JF8- 5605	There is a drip trail with circular stains in a line from the lower right corner of the image to near the center. No directionality is noted in this trail. The stains in this trail appear dried and are beginning to show some skeletonization. There is a splash pattern in the lower left corner of the image that is 6.5-8cm in diameter. This is also dried and showing some skeletonization. There is a transfer stain; possibly the heel of footwear in the upper center of the image.
7QQ4L9- 5605	Observation #A- Drip Trail- A drip trail consisted of approximately 6 circular shaped stains, measuring between 12mm to 4mm were on the tile. This spatter pattern was located between the lower right corner of the tile and the center of the tile. The stains struck the tile at or near 90°. There was no progressive impact angle change. The pattern had linear orientation. Direction of travel was not able to be determined. When analysis was conducted on the pattern, some of the stains were flaking. Observation #B- Splash pattern- A splash pattern was on the tile. The overall pattern size measured approximately 8.5cm x 7.2cm. A large volume accumulation was present in the overall

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	pattern, and the stain had spines and spatter radiating toward the left lower corner of the photograph. Large elliptical spatter stains were present above and to the right of the primary stain. When analysis was conducted on the pattern, the parent stain was flaking. Observation #C- Transfer stain- A transfer pattern showed recognizable characteristics of a shoe impression on the tile. The impression had a direction of travel toward the top of the photograph. A blood-bearing sole of a shoe imprinted a partial sole pattern onto the tile.
7TY8LB- 5601	At the bottom left of the image is a splash pattern with radiating spines. There are numerous satellite spatter bloodstains with varying size and directionality distributed across most areas of the image. The splash has formed a pool on the surface which has dried and there is flaking present with areas displaying edge characteristics. The resultant pool measures approximately 7cm x 7cm. Located centrally near the top of the image is a transfer stain. There is a pattern associated with the transfer which has the appearance of a shoe outsole impression. There are several circular bloodstains in a linear arrangement distributed between the transfer stain and the bottom right corner of the image. The circular bloodstains range in diameter from approximately 3mm to 13mm. The linear arrangement is indicative of a cast-off pattern.
7VW4B8- 5605	Splash stain on bottom left with satellite stains and pooling. Drip trail with drip stains on bottom right corner. Transfer stain (sole) on top middle with void in center of stain. Cast-off patterns showing different directionality.
7X9K4A- 5605	In the middle top of the photo there is a transfer stain. This stain resulted from contact between a blood-bearing surface (possibly the heel of a shoe) and another surface (in this case, the floor). In the bottom left of the photo, there is a splash pattern. This stain/pattern was created from a large volume of liquid blood falling onto a surface (in this case, the floor). There is a drip trail on the bottom right toward the middle of the photo (not directionally, but locationally). This pattern resulted from the movement of a source of drip stains between these two points. There are spatter stains mostly on the top half of the photo, with most of the stains traveling upward, leftward, or rightward. These spatter stains could not definitively be identified as either cast-off or impact.
8HP7CB- 5601	If this pattern was being analyzed for normal laboratory casework, I would have asked for images that did not cut off the blood stains/showed more of the floor to ensure my determination factored in all of the available data. The image includes a partial transfer (pattern) stain at the top/center that appears to continue (very faintly) off the top of the image. There is a drip trail from roughly the bottom right corner to the top left corner of the image. It possibly ends/starts at the bottom of the transfer pattern. Exact directionality (where it began and where it ended) is unknown. An impact pattern(s) that appears to originate from a pool of blood is in the bottom left corner of the image with spatter stains and spines radiating out from the pool. Due to some crossing spatter stain directionalities, it is possible there is more than one impact to the pool with spatter overlapping or that an irregular shaped item struck the pool. It would require more photos of any additional stains in the area to decide if this could be determined/reconstructed.
8M7CA7- 5601	Blood drops resulting from the incident are visible on the tile. The darker stain on the lower left corner has some elongation (splashing) in areas around the stain's edge, indicative of blood dropping into blood. The transfer stain in the upper part of the image has a visible impression, potentially from a shoe. This stain appears to have occurred after the lower left corner stain due to the coloration, as well as the absence of cracking from the blood drying.
9JFRH7- 5605	The lower left quadrant of the photo depicted a pool of blood with long spines on the left side demonstrating a possible splash pattern. The right side of the stain appears to have dried and has been distributed demonstrated by the presence of 'flaking' blood. There are satellite staining moving in directions radiating out from the splash pattern. At the top of the photo there appears to be a transfer pattern with a fairly regular margin and what appears to be straight lines similar to that from the sole of a shoe. Directly under the transfer pattern and towards the bottom right edge of the photo is a drip trail. Directionality of the drip trail cannot be determined, each drop occurred at approximately 90 degrees .

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
9LTAR4- 5601	A transfer stain is present in the upper middle of the item 5 target. An impact pattern, consisting of a parent stain in the lower left quadrant and satellite stains over the entire target, is present in item 5. A drip trail is present in the lower right third of the item 5 target.
A9KQTA- 5605	Item #5 is a vinyl tile in the horizontal plane. The image consists of three main features: 1) A drip trail from the bottom right side of the image toward the top left of the image. The drip trail consists of a linear pattern of at least five intact, circular stains of slightly varying size, without scalloped edges, spines, or satellite spatter. No directionality is seen. The drips are dry and begging to crack. 2) A pool of blood that has been impacted by an external force in the left lower quadrant of the image. The left side of the pool shows extremely elongated spines fanning out on the left side from the central pool indicating that the location and direction of the impact was to the right of the spines. Directional spatter are located above and to the right of the pool, indicating their origin. Small bubbles are seen in the middle of the stain; another indicator of impact to the pool. The stain has since dried and begun to flake off, indicating a significant amount of time has likely passed since it was deposited. 3) A transfer stain in the upper middle portion of the image appears to be the heel of a bloody shoeprint that was possibly the source of impact to the adjacent blood pool. The shoeprint consists of a series of horizontal, parallel, linear features in the heel/arch area.
AAA7U6- 5605	Bottom left: Large volume of blood, likely splash and / or repeated drips causing Satellite stains + spines Mid -> bottom right: Few large round stains, drip trail Upper middle: Heavy transfer stain with regular parallel lines at edge - likely potential footwear mark.
AFZG63- 5601	Several bloodstain patterns can be recognized in Item # 5 (Vinyl Tile-Horizontal Plane). In the upper central portion of the image was a non-spatter stain with irregular margins and a recognizable pattern, resembling a transfer stain. Deposited on the target, surrounding the stain was a random distribution of multiple spatter stains of varying sizes, which were elliptical and circular in shape. Extending in a linear orientation from the bottom right portion of the image to the center, were several circular shaped spatter stains with consistent size ranges. The individual stains had no progressive impact angle change and no evident flow, which was consistent in appearance with a drip trail. The stains were dark red in color, dry, and cracking. In the bottom left portion of the image was an irregular shaped bloodstain with irregular margins and volume accumulation. Extending outward from the stain to the left, and bottom left portion of the image were multiple elongated spines, which were radiating outward from the primary stain. The stain was dark red in color, cracking, and similar in appearance to a splash pattern. Flaking was observed to the bottom right side of the stain.
AYN3M6- 5605	Pool of blood in the bottom left of the image, irregular perimeter and lack of secondary spatters indicate this has been generated through a flow of blood onto the surface rather than dripping of blood from any height. Right edge showing flaking of dried blood film from non-porous surface of tile. Radiating spines/spatters extending from the edge, indicate that an impact into the pooled blood staining has occurred – some larger volume directional stains show area of convergence approximating to the pooled staining: could have been generated by this impact. Also consider the possibility that some of the airborne stains could be cast off a blood stained object as it is moved above the tile. There are also drip stains in a linear formation forming a possible drip trail, spanning area from bottom right of image to the transfer stain in the top central area. Indicate blood dripping from a (possibly moving) surface above the tile. To upper central area of the image there is a transfer stain, within which are patterned areas revealing textured nature of contacting surface: consider footwear tread as a possibility (e.g. heel of a shoe?). Much of patterning likely obscured due to the volume of blood transferred.
B6UWGZ- 5605	There are at least 3 separate distinct patterns noted on the target: 1) SPLASH - large (~2.5" x 2.5") irregular shaped parent stain with elongated spines radiating from mainly the left side of the stain. Additionally there are numerous elongated satellite stains with tails radiating across the target around / originating from the splash pattern. The stain is dried and flaking. 2) DRIP TRAIL - several near circular drip stains with smooth edges (diameters ranging from ~3mm - 8mm) distributed linearly from right lower corner to middle of target. The individual drip stains are dried and flaking. 3)

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
BMPVW3- 5605	TRANSFER - situated in the middle upper portion of the target is a dried square-ish shaped stain (~2 1/4" x 2 1/2") with a curved lower edge, thin linear parallel striations at the top of the stain, and a near circular void in the middle of the stain. The transfer stain is consistent with the shape and size of a shoe impression. Item 5 was a photograph of bloodstains and bloodstain patterns deposited on a vinyl tile target on a horizontal plane. In the lower left portion of the photograph, there was a Splash Pattern with irregular Edge Characteristics. The Splash Pattern was the Parent Stain of various Satellite Stains radiating outward. The Parent Stain as well as a few of the larger Satellite Stains contained bubble rings. In the lower right portion of the photograph, there were Drip Stains with no apparent directionality, deposited in a linear orientation creating a Drip Trail. The Drip Trail was from the lower right edge of the photograph upwards and to the left, towards the center of the photograph. In the upper center portion of the photograph, there was a bloodstain pattern that appeared to be a Transfer Stain. The stain appeared to have been created when a blood-bearing surface came into contact with another surface. In approximately the center of the photograph, below the transfer stain, were several small circular stains with bubble rings. The stains appeared to be an Expiration Pattern.
BZJ472- 5605	At the bottom of the image is located a Splash pattern, resulting from a large volume of liquid blood falling onto a surface, generating a spatter pattern whose area of convergence is located above the parent stain. On the other hand, drip trail composed of five drip stains produced by gravity without the application of an external force. At the top of the image is located a Transfer stain resulting from contact between two surfaces, the ground being impregnated with blood. The transfer stain was deposited after the splash pattern because there was a spatter stain below it. Over the transfer stain there are expanded lines of the transfer stain resulting from the contact of a surface with droplets previously deposited on the ground.
C4YNY9- 5601	There are two main features of this overall pattern. The first being an area of pooled bloodstaining (measuring approximately 70mm x 80mm) in the lower, left corner of the image. There are numerous examples of elongated stains (acute angle spines) extending outwards from the blood pool, predominantly radiating away in a south, south-west or west directionality that indicate that an impact event has occurred into this blood pool. Part of the blood pool appears to have been altered after the blood has dried, as evidenced by the blood flaking and approximate 10mm area of possible perimeter staining located in the south-east corner of the staining. Note: The potential for this staining to be formed as a result of a drip pattern is considered to be unlikely due to the overall lack of satellite stains immediately surrounding the area of pooling. The second main feature of the overall pattern is an area of transfer staining (measuring approximately 70mm x 80mm) in the upper, central area of the image. The main observable features of this transfer staining include a rounded (horseshoe) shape at the lower end of the staining and the regularly repeated linear patterning (spaced approximately 2.5mm apart) that is predominantly visible at the upper end of the transfer staining. There are four, near circular, possible drip stains (between approximately 6-12mm in size) extending from the lower right corner of the image to an area just beneath the transfer staining. These stains are dry in appearance and show some evidence of blood flaking. There is insufficient information available from this single image to enable further comments as to whether these four stains form part of an overall cast-off or drip pattern. There are numerous spattered bloodstains present on the majority of the floor as captured in the image. Some of these are <1mm in size and near circular, others are irregularly shaped and others are elongated (up to approximately 20mm in size) and predominantly exhibiting a north, north-east or east directionality. It is possible that at least some of these spattered stains could have been generated by the impact event into the blood pool.
C6N4Z4- 5605	This is a complex bloodstain pattern. There is heavy 'U-shaped' transfer stain at the upper centre of the image which bares some linear transfer marks. In my view, one possible explanation for the size and shape of this stain is that it was formed as a result of a blood-wet heel part of the sole of a shoe contacting the floor. A few heavy circular drip stains of blood are present. The drip stain in the bottom right-hand corner has begun to alter (it appears to have flaked upon drying). There is a pool of blood in the bottom left-hand corner of the image with irregular edge characteristics, although the

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	edges are rounded in places. The pool has begun to alter in one area (it appears to have flaked upon drying). Some of the edges of the blood stain exhibit thin protrusions of blood emanating away from the pool, in multiple directions. There are also a number of small airborne stains present around the periphery of the pool. In my opinion, these features form a drip pattern and could be present as a result of blood dripping onto the target surface, pooling, with secondary spatters of blood subsequently created as blood continues to drip into the pool. Larger, splash pattern blood stains exhibiting directionality, are present across the image and in my opinion, the angle of impact of some of these stains indicates that they could also be a feature of the drip pattern created from the pool in the bottom left of the image. In my opinion, there are some splash pattern blood stains exhibiting directionality present that, given their angle of impact, could not be as a result of secondary blood spatter from the pool in the lower left corner. In my opinion, they could have been formed as a result of a similar action but from another blood pool, not present on the image.
C9NC8Z- 5605	Lower left large stain – A splash pattern which has resulted in a number of satellite stains being formed. The stain has become flaked at the bottom right to leave a small perimeter stain. Upper right large stain – A transfer stain with some of the original surface pattern present. The edge characteristics are well defined, curved at the bottom and linear to the sides and appear to form the shape of a heel of an item of footwear. A small void is present within the transfer stain. Below the transfer stain are a few drip stains forming a drip trail.
C9NFW4- 5605	In the bottom left corner there is a large heavy blood stain which has rounded edges and spines coming from it particularly on the left side. In my opinion, this area of blood staining is a splash pattern. There is an area of flaked bloodstaining on the right side which in my opinion indicates that the stain has been disturbed after it had dried. There are also directional spatter stains, at least some appear to originate from the area of the splash pattern. There are also some circular blood stains approximately 7mm in diameter; in my opinion these are drips of blood which form a drip pattern. There is an area of blood staining towards the top right of the image which has a round end and patterning within the stain - parallel lines. In my opinion this blood staining is formed by a transfer pattern, likely from an apparent partial footwear mark in blood.
CAJV92- 5605	Item 5 has various components. One is an approximately 80 centimeter in diameter irregular shaped bloodstain in the bottom left of the image. There are circular to elliptical shaped accompanying drops that appear in random locations around the bloodstain and the elliptical ones radiate outward from the bloodstain. Another component at the lower left edge of the bloodstain shows longer and more linear characteristics that would be produced by the impact of an object into the bloodstain. A component in the top center of the image is a transfer stain from a bloody object. The object is about 70 x 85 millimeters and is similar to the shape of a shoe heel with a linear tread pattern. Finally, there are four circular blood stains ranging from 6 to 12 millimeters in diameter forming a drip trail from between the right lower corner of the image to the transfer stain. These are nearly circular indicating they hit the target at about 90 degrees.
CC9DC8- 5605	In the top half of the photo, just to the right of center, there is an apparent transfer stain with a relatively small void in the bottom center of that stain, which appears to show the outline of the heel of a shoe. There is a drip stain to the bottom right of the apparent transfer stain and a series of drip stains continuing to the bottom right of the photo. The large blood stain in the bottom left portion of the photo appears to be consistent with a large volume of blood falling on a surface, consistent with a splash pattern. There are numerous spines and satellites radiating out from the pattern. There are various blood stains present above the splash pattern and to the left of the apparent transfer stain. These could be accompanying drops, drip patterns, satellite stains with the parent stain being the splash pattern present in the bottom left of the photo, or spatter stains from the creation of the transfer stain.
CCPFW2- 5605	In the lower-left section, a splash pattern is observed, containing a large amount of blood. The stain features irregular edges, satellite drops, and spines; likewise, tails extending from the central stain are visible. In the upper-central section, a stain with a transfer pattern is observed, compatible with a footwear impression showing a striped sole. From the lower-right section, toward the transfere

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	pattern, a drip trail is observed.
CK2KXX- 5601	An impact pattern was located near the lower left corner with spines and associated spatter stains arranged in a radiating distribution. A drip trail consisting of several drip stains was located diagonally across the target. A transfer stain was located near the upper edge of the target.
CK76K2- 5605	There is a transfer pattern in the middle of the image near the top of the photograph, that appears to have come from a possible shoe. There is a drip trail going across the photograph from the transfer pattern to the lower right corner of the image. In the lower left corner of the image there appears to be a blood pool that demonstrates characteristics consistent with a drip pattern.
CUR73W- 5601	There is a transfer stain in the top center of the target. There are a series of drip stains making up a drip trail arranged diagonally across the bottom right to the center of the target. There is a splash pattern in the bottom left of the target.
D2NEW3- 5601	ITEM 5 Area A – bottom left of image: Heavy bloodstain with elongated spines to predominantly left / bottom and radiating spatter with upwards / diagonally right directionality. Some variation in size. Spatter stains at angles to each other and within pattern. Discussed absence of void / lighter bloodstain to centre of stain / where any impact took place and also lack of much variation in size of radiating spatter stains, therefore questioning impact pattern. Discussed splash pattern; elliptical spatter and elongated spines present but latter only to side (predominantly). Literature (Principles of Bloodstain Pattern Analysis: Theory and Practice) states ‘minor impact into quantity of blood > 1ml (such as stepping into a pool of existing blood can create splashed bloodstain pattern. Therefore, one does not necessarily rule out the other. Given OSAC terminology of splash = pattern created from a large volume of blood falling onto surface, and irregular arrangement of elongated spines around heavy bloodstain, agreed that would call Area A an impact pattern. (which may have been minor and possibly stepping into pool of blood given presence of blood stain footwear mark also within image). Impact bloodstain pattern. Area B – Upper right of image: Oblong shaped bloodstain with lighter blood in repeating linear horizontal pattern at top. Transfer bloodstain pattern. Area C: Bottom right of image: Four circular drip stains in linear arrangement. MRT less comfortable with drip trail given only four drip stains and unknown if continues pattern off page. Agreed possible that source of wet blood fell in linear arrangement by chance when so few stains, therefore to report only as drip stains. Would want to see area beyond target surface to report as drip trail, but could be part of a drip trail. Drip trail.
D9NK26- 5605	This is an image of grey and white tile in the horizontal plane. The investigation indicated a stabbing with multiple wounds to the victim’s arm and abdomen. I examined the image and observed the following bloodstains. Numerous elongated satellite stains are present throughout the image. The directionality of a majority of the satellite stains indicate that they originate from an impact pattern in the lower left corner of the image. The impact pattern is irregular in shape with narrow elongated spines on the left and bottom sides. A drip trail made up of four circular drip stains extends between the center and lower right corner of the image. A transfer pattern, that appears to be made by a footwear heel, is in the upper middle area of the image.
DNFPYZ- 5605	Depicted in Lab Item 1.5 is a tile with three (3) distinct bloodstain patterns which will be addressed as Pattern Areas “A”, “B” and “C”. It appears that the tile was not textured because it did not alter the appearance of other bloodstains deposited on the tile. The patterns were deposited on a horizontal plane. Lab Item 1.5 Pattern Area “A” – Is located in the lower left corner of the photograph. The pattern is somewhat circular in appearance with radiating appendages extending outwards from the initial pattern. The pattern area is approximately seventy-five (75) millimeters by eight-two (82) millimeters. Other bloodstains radiate from the initial pattern area creating dark, thick, elliptical stain with directionality indicating they originated from pattern “A” over the remainder of the target area. Noted is an absence of radiating stains on the right side of the pattern area, and a disruption of staining in that portion of the pattern area, therefore consideration should be taken into account that the pattern may have been impacted or the pattern has characteristics of a projected pattern and the loss of a large volume of blood. Lab Item 1.5 Pattern Area “B” – Pattern Area “B” is located in the top center of the photograph. The pattern is “U” shaped with a lighter margin at the base of the “U”.

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	The absence of blood is noted in the center of the pattern area creating a somewhat circular pattern. Located on what would be the top of the "U" shaped pattern, is an area of linear stains with uniform spacing approximately three (3) millimeters apart. Lab Item 1.5 Pattern Area "C" – Located in the lower right of corner of the tile are a series of circular bloodstains ranging in size from approximately three (3) millimeters to twelve (12) millimeters extending to the center of the tile (Black Rectangle).
DXN423- 5601	A large stain, approximately 8x8cm with irregular margins is present in the bottom left corner of the image. Spines and satellites are present along the left edge of the stain with additional oblong stains throughout the image. The oblong stains have varied directionality, with some directed towards the top right, top center, and top left of the image. Fewer, smaller oblong stains on the right side of the parent stain are directed towards the lower right side of the image. This is consistent with, but not limited to, a splash pattern. Four round stains are present on the right side of the image with one in the lower right hand corner, each additional stain slightly higher and to the left. The stains range in size from approximately 6 to 13mm and do not indicate any directionality. This is consistent with, but not limited to, a drip trail. A large U-shaped stain with horizontal lines in the top right portion is present in the top center of the image. The shape resembles the heel of a shoe. This is consistent with, but not limited to, a transfer stain.
E6363W- 5605	A transfer stain was located in the upper/middle portion of the image. A drip trail comprised of four drip stains was located between the transfer stain and the lower right corner of the image. A bloodstain depicting an impact pattern, characterized by spining towards the left and flaking of dried blood on the right, was located in the lower left corner of the image. Satellite staining was observed above and to the right of the impact pattern that resulted from the impact into liquid blood.
E7EVB2- 5605	Complex area of bloodstaining including a splash pattern, several drip stains, and a transfer stain with volume and repeating linear elements/voids. There are circular and elongated spatter stains distributed throughout the area of interest. Radiating spines extend outwards from the central volume of the splash pattern; one edge has perimeter staining with dried, flaking blood. The drip stains are circular and approximately 10mm in diameter. The transfer stain varies in concentration throughout the stain, with the edges appearing lighter red/more dilute.
ECKN7W- 5601	There is a transfer stain on the top center area of the target. Between the center and bottom right of the target, a drip trail, consisting of multiple drip stains, is present. There is also a splash pattern on the bottom left and across the target. After drying, it appears the right edge of the parent stain of the splash pattern was altered due to cracking of the stain.
EE6MDZ- 5605	The top center of the target has a pattern 80mm x 80mm with sell defined shape and edges and varying concentrations of blood throughout. The shape is possibly footwear similar to a heel and is a transfer stain. The bottom left of the target has a pattern 105mm x 120mm which is a parent stain with satellites. The margins of the parent have significant spines on one side and appears to be disrupted/altered on the other side. The pattern is an impact pattern. The bottom right of the target has a linear arrangement of circular stains 10mm in size and are drip stains.
EEUNF6- 5605	Four patterns are present on the target surface with the first two being related. In the lower left corner of the target, a POOL of staining was present on the target surface. While this pool was still liquid, an IMPACT PATTERN was created with this staining. The pool was altered to show a radiating distribution of bloodstains and spatter stains across the target as a result of application of some type of force. The upper center of the target has a TRANSFER STAIN that suggests the shape and texture of a shoe/boot tread. Finally, an apparent DRIP TRAIL is present between the lower right corner and the transfer stain in the top center of the target.
EJ42X4- 5605	There is a complex bloodstain pattern on a horizontal vinyl tile that consists of at least three events. There are at least 5 near circular drip bloodstains oriented from the bottom right corner of the tile towards the top left corner of the tile, ranging in size from 3mm to 12mm in diameter. These drip stains formed a short linear drip trail over a distance of 165mm. To the left and near the bottom left corner of the of the drip trail was an irregular shaped altered blood pool, which is consistent with an impact pattern, 62mmx73mm in size, with spatter stains surrounding it. Irregular shaped elliptical

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	spatter stains were radiating outwards from the parent stain towards the left side of this stain. There are pieces of the dried blood that flaked off from the lower right corner of the parent stain. To the top of the drip trail and towards the top edge of the tile was an irregular shaped pattern transfer stain (possibly an outsole), 70mmx78mm in size. The bloodstain had a rounded shape at the bottom with some parallel lines to the top. There were also two small voids near the center of this bloodstain. Item 5 represents a drip trail, transfer stain, and an impact pattern. Note: It is unclear whether the dried blood that flaked off from the impact pattern represents an altered stain.
EJYJZ6- 5605	There are three bloodstain patterns/areas of interest (labeled A-C) on the target. A drip trail (Pattern A) is present on the lower right portion of the target. A centrally located transfer stain (Pattern B) can be observed in the upper middle of the target which has a patterned appearance on areas of the perimeter. An impact pattern (Pattern C) is observable on the lower left portion of the target with the vast majority of the spatter staining throughout the target being attributed to this pattern.
ELVQQX- 5601	A splash pattern with associated spining and satellite stains is present in the lower left corner of the target. There is a transfer stain present near the top of the target. A drip trail comprised of drip stains is present on the target between the transfer stain and lower right corner.
F4KN7U- 5601	Impact pattern observed in bottom left hand corner of target with spatter stains radiating across the target. Transfer stain observed in upper middle of target. Multiple drip stains observed forming drip trail diagonally across target.
F7A82Z- 5601	A pool is present at the bottom left hand side of the image. There has been an impact into this pool which has created spines and there is impact spatter radiating out of the pool in all directions. The pool has been altered as it dried and cracked. A second pool is present at the top of the image which has a visible transfer stain at its edge. There is also a drip trail between this pool and the bottom right hand side of the image.
FBNGE6- 5605	Item #5: A drip trail is between the bottom right and center of the target. A pool of blood supporting transfer staining of parallel fine lines near the edges is located near the upper center portion of the target. An impact pattern is located near the bottom left side of the target and exhibits radiating spines from a portion of the central pool along with some radiating spatter stains.
FFE6VV- 5605	A complex area of staining was imaged which had reportedly been located on the tile floor of a residence. A splash pattern was identified in the lower left corner of the image and consisted of a center stain with a radiating distribution of elliptical stains and spines which extended throughout the surrounding area. A drip trail was identified in the lower right corner of the image; the associated circular stains were present in a linear orientation which extended diagonally between the center of the image. A transfer stain was identified in the upper middle area of the image. The transfer stain consisted of defined margins, a pattern of parallel lines, and was consistent with a shoe impression.
FFJ9M2- 5605	1- On the upper center, a transfert stain with a particular pattern (stripes), possible the pattern of the heel of a sole. 2- On the bottom left corner, an impact pattern. An object impact a pool of blood on the floor or an bloodied objet hit the ground. Presence of spikes on the left side of the pool. 3- From the middle to the bottom right corner, a drip trail. No directionnality can be defined. 4- On the entire picture, spatter pattern whose original mechanisms cannot be established.
G9V2NT- 5605	This is a complex bloodstain pattern that extends across (and beyond) the entire image. There is an irregular shaped blood pool (8cmx9cm) in the lower left corner of the image. There are spines/elongated stains radiating outward, with a majority extending from the left side of the bloodstain. Flaking blood on the right side of the bloodstain. Impact Pattern Four near circular drip bloodstains extend diagonally across the image between the lower right corner and the near center. These bloodstains range in size from 6mm-11mm. There is a fifth smaller (3mm) drip bloodstain nearby that may be associated with this pattern. Drip Trail Just above the center of the image (at the upper margin of the drip trail) is a somewhat regular shaped bloodstain. It covers an area 7cmx8cm, with the lower margin being rounded and the upper margin being squared off. There is an accumulation of blood covering all but a portion at the top of the pattern. In this area there are lines running horizontally across the pattern – these lines faintly continue upward to the edge of the image.

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	These are likely associated with the item that created the pattern. There is a 7mmx9mm area in the center of the pattern that lacks blood, other than a faint horizontal line. Transfer Pattern There are also several near circular to elliptical shaped spatter bloodstains in the upper 2/3 of the image. These are multi-directional and range in size from submillimeter to 6mmx14mm. Some of the smaller near circular stains have a dilute appearance. These are possibly related to the impact pattern.
GCUCJT- 5605	Item 5 is an image of a complex bloodstain pattern consisting of a transfer bloodstain in the upper center of the image, a drip trail going diagonally from the lower right corner of the image to the transfer pattern, and an impact pattern in the lower left corner.
GCYUHR- 5601	There is a transfer stain in the upper portion of the tile. There is a series of drip stains forming a drip trail oriented between the transfer stain and the lower right section of the tile. In the lower left corner of the tile is a splash pattern with spining and spatter stains.
GFK6UY- 5605	A splash bloodstain pattern is observed and consists of bloodstains produced when blood strikes a surface and creates smaller secondary droplets. Drip patterns are also present and consist of individual blood drops that fall under the force of gravity. A drip trail is identified and consists of a series of blood drops that indicate movement while blood is dripping. A transfer stain, likely from part of a shoe sole, is also identified. This stain is produced when a blood-contaminated shoe comes into contact with the surface, leaving a partial shoe sole impression. Cast-off patterns are also observed. These consist of a series of bloodstains created when blood is released from an object moving through the air.
GGKXZU- 5605	A complex pattern consisting of at least three pattern types. Pattern 5.1 is a pool located in the lower left corner of the photograph. The main body of the stain is approximately 100mm by 110mm. There is an accumulation of blood with associated spines and spatter located around the perimeter indicating that the pool was impacted after deposition. The majority of the larger spines are extending from the stain between 6 and 10. Pattern 5.2 is a pattern transfer located in the middle of the photograph. It measures approximately 85mm by 80mm. There are several parallel and perpendicular lines located along the upper edge of the stain. The lines and general shape of the stain indicate a possible shoe print transfer. Pattern 5.3 is a drip trail consisting of approximately 5 circular stains greater than 4mm in diameter. There is color variation among the three patterns. Pattern 5.2 is a brighter red and appears to have less drying time than the other two stains which would indicate it occurred after the other two stains.
GHFJRZ- 5605	Item 2 is identified as a swipe pattern, where there's a transfer of blood between two surfaces and motion is observed from the top of the bottom of the pattern. Item 3 is identified as a cast off pattern which is formed from blood being released from an objective motion. Item 4 is a Projected pattern , is a result of blood being ejected under pressure in this case, the victim wound from the carotid artery. Item 5 present two patterns. the top one in photo is a transfer stain, show the characteristics of the object form. the second pattern on the bottom one is a drip pattern, from blood dripping into another liquid.
GPZK9X- 5605	large volumes of blood drips, creating a drip pattern / splash pattern where blood has dripped into a volume of blood creating directional satellite staining radiating away from the pool created. Areas of the pool of blood have dried and begun to flake away Possible heel of footwear in blood (transfer stain) Linear heel pattern visible with small void centre of heel. Footwear comparison recommended with suspect / victim. Drip stains creating a drip trail alongside directional blood staining over surface of floor
GTA2WW- 5605	The bottom left of the image shows a large amount of blood with bubble rings indicating an expiration pattern. This pattern also seems to have hit the ground at a high velocity. The top center of the image contains a transfer pattern of what may possibly be a shoe imprint. The blood on this shoe did not come from any of the other stains on this image. There is also a drip trail towards the center and right side of the image, and it does not look like they fell from very high heights. There are several satellite stains throughout the image, and many of them do not look like they originate from any of the parent stains on the image; I would look elsewhere for the parent stains of these

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
GULGX- 5601	mysterious satellite stains. The following bloodstain patterns were observed on the tile: Located near the lower left corner of the target (as oriented) is a somewhat circular heavily concentrated bloodstain ~8 cm in diameter. There is evidence of flaking and cracking within this central stain. There are spines and thin elongated stains primarily noted on the left edge of the stain. Scattered on the target are elliptical spatter stains of various sizes and directionality. Many of these elliptical stains are 1-1.5 cm in length. Generally, the elliptical stains display a directionality indicated they originated from at or near the circular stain described above. This concentrated stain is characteristic of a pool. The radiating spines and elliptical stains associated with the pool and with directionality indicating origin from the pool are characteristic of a splash mechanism; however, an impact mechanism (such as something striking the pre-existing pool) cannot be excluded as having caused or contributed to the radiating spines and elliptical spatter on the tile. A cast-off mechanism cannot be excluded as contributing to some of the elliptical spatter stains on the tile. Approximately 3 inches to the right and toward the top of the target (as it is oriented) is another stain ~7 cm wide also more heavily concentrated within the center indicative of a pool or large volume transfer. This stain is curved along one edge (bottom as the target is oriented) with clearly defined thin equidistant linear transfer stains noted along the opposite edge. (Lighter somewhat distorted areas of similar staining noted along the curved edge as well.) Near the center of this stain is an absence of staining creating an irregularly shaped void ~1 cm). Overall, this stain appears brighter red in color and not as concentrated as the other large stained area. There is no evidence of cracking and flaking in this stain. A series of circular to nearly circular stains with rim features characteristic of drip stains were observed spanning from the 120cm scale marking (~1/2" from the curved edge of the upper large stain) to ~275 cm scale marking (nearly to the right edge of the photo) suggestive of a drip trail. Three (3) of the stains in the series were similar in size (~1 cm in diameter) with a few smaller circular stains noted in between. Cracks were also noted within some of these circular stains.
GZG4TU- 5605	In the top middle section of the image, there is a transfer stain, measuring approximately 70mm wide by 65mm long, that consists of a curved edge with approximately 10 thin parallel lines on the opposite edge, consistent with a shoe impression (heel). This stain is brighter red than the other stains and appears to have been deposited on top of the spatter stains surrounding the transfer stain. At the base of the curved edge of the transfer stain, oriented in the 5 o'clock position, there are 5 circular stains of various sizes, 3 that appear similar in size. These circular stains are drip stains. They appear to be in a linear pattern and could possibly be a drip trail. The drip stains appear dry with cracking evident in the far lower right corner stains. The lower left corner contains a dried pool measuring approximately 65mm wide by 80mm long that has an irregular edge with a majority of spines in the 6 to 10 o'clock position. This pool appears to have been impacted at some point while it was still wet, causing the spines, and possibly some of the spatter stains. The right side of the pool is dried and flaking. There are several elliptical and irregular shaped spatter stains on the vinyl tile with the majority of the elliptical stains radiating outward in the 11 to 2 o'clock position. All directions are as viewed looking at the image with the ruler in the upper left corner.
H28PYQ- 5605	In the bottom left corner a blood volume greater than a droplet can be observed with connecting spines radiating away from the stain, together with some elongated satellite stains, indicating a splash pattern created from a large volume of liquid blood falling onto a surface. From/to the right lower corner to/from the upper centre region spans a linear distribution of drip stains (estimated 1.5 cm diameter drip stains) within approximately 6 cm distance (or less) from one another, indicating a drip trail resulting from the movement of a blood dripping source between two points. In the upper centre region, a patterned stain with both diffuse and sharp edges can be observed. The stain is classified as a transfer stain, indicating contact between a blood bearing surface and another surface, where the pattern is consistent with the heel of a shoe sole. Additional blood spatter stains that may not be explained by the aforementioned blood stain patterns can also be observed in the upper half portion of the image.

TABLE 4: Pattern Description
Item 5, continued

WebCode-Test	Detailed Pattern Description
H69TTY-5605	Many elliptical to oval spatter stains covered much of the target surface. An apparent transfer stain with a pool and patterned areas of thin parallel lines was present near the upper center (labeled B). A drip trail (labeled C) comprised of four drip stains was on the target between stain B and the bottom right corner. An apparent impact pattern with a pool and a portion of the bottom right altered (labeled A) was at the bottom left of the target.
H6MCDV-5605	One irregular reddish-brown stain in the lower left of the image, measuring ~3 inches by 3.5 inches, with spines, satellite spatter and elliptical reddish-brown stains with directionality originating from this stain, circular reddish-brown stains in the middle to lower right of the image, ranging from ~1/8 inch to 1/2 inch in diameter, and one reddish-brown apparent footwear imprint in the top middle of the image, measuring ~3 inches by 3.5 inches. The size, shape and distribution of the reddish-brown stains are consistent with a transfer stain, an impact pattern, and a drip trail.
H986PY-5605	A splash pattern is present at the lower left corner of the image. This pattern includes a heavy parent stain with irregular margins, thin, elongated spines and satellite spatter. The spatter stains with directionality toward the top of the image could also be associated with the splash pattern. Per the item details, no major arteries were compromised, so a projected pattern was ruled out. A transfer pattern, with pattern transfer, was observed on the upper center portion of the image. This pattern had varying concentrations, no indications of movement, and repeating horizontal lines at the top portion. Circular drip stains were also observed diagonally from the center to the lower right corner of the image.
HA3MQZ-5605	Item 5 was a photograph of bloodstains on a vinyl tile. Some of the bloodstains had a flaky/cracked appearance. On the upper middle area of the photograph was a transfer stain with linear features and had the appearance of the heel area of a partial footwear impression. A possible drip trail consisting of four drip stains ranging from 6-12.5 mm in size were located between the transfer stain and the lower right corner of the photograph. At the lower left corner of the photograph was an impact pattern that consisted of a radiating distribution of satellite stains with an area of convergence to an area measuring 7 cm by 8 cm. The central stain had contiguous and smooth margins indicating a possible altered pool or altered low-height splash pattern. Some elliptical spatter stains at the top left of the photograph had the appearance of a linear distribution, which may suggest deposition via a cast-off mechanism.
HCA6PV-5605	From a bloodstain pattern analysis perspective, the documented stains represent a complex combination of different bloodstain categories. The upper larger stain is most appropriately interpreted as a patterned transfer stain with possible footwear- or heel-related characteristics. The lower larger stain represents a substantial blood desposition with pronounced spine and satellite formation. The surrounding stains include both passive drip stains and directional projected pattern. Taken together, the overall pattern distribution supports a dynamic event involving multiple blood transfer and blood deposition mechanisms rather than a single passive bleeding process.
HMQUJU-5605	In the lower left of the image, a broad, irregularly shaped bloodstain is visible. To its left are several millimeter-size, oval-shaped bloodstains (spatters) extending from left to right across the image, extending to the top. To its right are very elongated, thin-scale bloodstains (line-shaped spatters) concentrated in the lower left corner of the image. The spatters associated with the broad bloodstain indicate a SPLASH PATTERN, a pattern commonly found when a blade is extracted from a puncture wound. The line-shaped spatters associated to the broad bloodstain indicate a IMPACTED VOLUME (French pattern term meeting this definition "A bloodstain pattern resulting from the impact of an element in liquid blood present on the surface"), a pattern commonly found when liquid blood is impacted. In the bottom right of the image, a circular centimeter-size bloodstain. This bloodstain can be linked to others with the same characteristics, creating a line extending to the center of the image. These characteristics allow us to identify DRIP STAIN, and the whole would be a DRIP TRAIL. Slightly above the center of the image is a broad shape with a rounded bottom and a top displaying a series of parallel lines. These characteristics are reminiscent of the imprint of a shoe sole and therefore a TRANSFER STAIN. We note that the rounded part of this TRANSFER STAIN partially covers a SPATTER. This suggests that this shoe print was made AFTER the SPLASH PATTERN without being able

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	to determine the time elapsed between these two events.
HTWMDP- 5601	The pattern consists of multiple discrete, circular to elliptical bloodstains deposited on a horizontal tile surface. These stains exhibit satellite spatter radiating from central deposits, which is indicative of passive dripping under the influence of gravity. The lack of arterial involvement or high-force impact in the provided scenario supports the classification of these deposits as a drip pattern.
HVG3D2- 5601	The photograph showed many areas of bloodstaining. There were circular stains in the centre and the lower right corner of the photograph. In my opinion, these were drip stains. At the top of the photo was an area of heavy bloodstaining with well defined edges that, in my opinion, was transfer staining. Within this stain was a series of parallel lines that likely formed part of a shoe impression. In the lower left of the photograph was a large area of heavy, pooled bloodstaining, some of which had begun to flake off the surface. The staining had both round, well-defined edges on one side and radiating spines on the other. In my opinion, the pooled bloodstaining has been subjected to a forceful impact whilst it was still liquid, creating an impact pattern. Numerous additional spatter stains were present across the surface, these were all likely related to the impact spatter creating event mentioned.
J8UUCR- 5601	There is a large volume of suspected blood that appears to have fallen onto the horizontal surface (floor) creating a splash pattern. There is a partial suspected footwear impression in the upper section of the horizontal plane that transferred blood from a blood bearing surface, possibly in a pool on the floor and transferred onto a non-blood bearing area of the floor. It is possible that when the force from the suspected footwear came into contact with the blood bearing surface; an impact pattern was created. There are multiple drip patterns, drip stains, and a drip trail caused by free falling blood droplets and added movement from the bottom right towards the top left of the horizontal plane.
JHANKY- 5601	The photo shows several bloodstain formation mechanisms on flat, non-absorbent surface. In the upper, central part of the photo, a contact/transfer stain with irregular edges is visible, which may correspond to a shoe sole or some other flat surface with a striated pattern. In the lower left corner of the photo, a spot with irregular edges and long, thread-like projections radiating outward, characteristic for an impact spot, is visible. In the lower right and central parts of the photo, a series of several (5) circular drops of varying diameters, forming a linear pattern, are visible. Additionally, small, elliptical bloodstains, even less than 0.3 cm in size, with varying non-consistent trajectories, are visible across the entire surface of the photo. Some of the stains have visible dried surface. This mechanism is visible on the drops classified as drip trail, and in the spot classified as impact pattern in the lower left corner of the photo (the right part of this bloodstain with visible drying and chipping of the original shape). Due to the cropped image view, the measurement of the areas where the bloodstains appeared was abandoned as it was not possible to correlate them with fixed reference lines or planes.
JHBRZV- 5605	An impact pattern was located on the bottom left of the image. The bottom right corner of this impact area was dried and flaking, resulting in some alteration. There was associated spatter radiating from this impact site. A transfer pattern was observed near the top center of the target. Drip stains were distributed between the bottom right corner and the transfer pattern.
K88WGQ- 5601	In the middle of the uppermost portion of the image, there is a transfer stain. A splash pattern is in the lower left corner of the image. There is a drip trail with drip stains ranging between the bottom right corner and the middle part of the image.
K8NZ6Q- 5605	This pattern area contains (2) stains with notable volume. The first (yellow box) is approximately 69 mm by 87.3 mm. Its general shape is circular, with spines, which create irregular margins around the periphery of the stain. The central core of this stain is dark red with evidence of dimensionality and flaking (red box) within the dried stain, but the periphery of the stain contains light red elements, which also can be observed within the spines. There is a variance in color within the spines around the volume. Several of these spines also have a non-uniformed appearance (red arrows). There are also three areas within the pattern area which exhibit circular shaped absence of blood within the central core of the volume, which appear consistent with air pockets (orange circles), and not an

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	artifact of the flaking (red box). In the areas around this volume stain (yellow box) there is also dark red elliptical (white circles) stains which radiate outward from this parent volume. This observation is based on the directionality characteristics exhibited by these individual elliptical stains. These elliptical stains range in size from 6.3 mm to less than 1 mm. The second volume stain (blue shape) is approximately 71.9 mm by 87.8 mm and maintains a non-descript shape, but it appears consistent with the heel area of an unknown footwear. The distribution of this stain is patterned (white arrow) with a variance in color from dark red in the center to light red in the adjacent patterned elements. The pattern distribution is observed to be a series of parallel lines along the periphery, but the central core is being concealed by a notable level of blood volume. There is an absence of blood (yellow arrow) within the central core of the blood volume (blue shape) which measures approximately 9.6 mm by 12.6 mm. The linear elements of the stain are well-defined and the edge characteristics around the periphery of the stain have a pitted appearance. The color of this stain (white arrow) appears notably lighter than the other large volume stain (yellow box) within the pattern area. Additionally, there are several circular stains (red circles) deposited throughout the pattern area, which range in size from 12.4 mm to less than 1 mm. These circular stains have a random distribution throughout the pattern area and are observed with well-formed edge characteristics. The larger circular stains contain evidence of dimensionality (3D) or texture.
KWQ44P-5605	There is a pattern transfer in center upper third of the image. There is a splash pattern in the bottom left corner. There is a drip trail that runs from the approximate center of the image to the bottom right corner. There are numerous elliptically shaped spatter stains that are likely associated with the splash.
KWQCXU-5605	The image shows a complex pattern with multiple areas of bloodstaining observed, labeled as areas 1-4: Area 1: Near the top of the image, a stain roughly rectangular in shape with a curved bottom portion, measuring approximately 8.2cm tall by 7.3cm wide. This pattern has irregular margins with a well-defined curved line around the bottom of the stain. Geometric shapes and repeating patterns are present in the form of straight, evenly spaced lines of similar width and length running approximately left-right. It is characterized as a Transfer pattern with possible characteristics of a footwear impression. Area 2: A sequence of circular bloodstains in a linear distribution with measurements ranging from approximately 3mm to 12mm (generally >4mm, no progressive change in shape). These are characterized as a Drip trail. Area 3: In the bottom left quadrant of the image, an accumulation of blood on a horizontal surface is characterized as a Pool. There are elongated spines in a radiating distribution around the margin of the pool, but only on portions of the margin. The radiating elongated spatter are all apparently in a single "fan" (all apparently point back to same general area), and there are no areas noted where the radiating elongated spatter overlaps. There are multiple irregularly shaped strands on the pool margin. There is a lack of significant spatter in the near vicinity of the pool. There are no observed areas of transfer within or around the margin of the pool. Due to the radiating spines being present only around portions of the pool, and no other clear indications of a splash (e.g., multiple overlapping "fans" of radiating elongated spines/spatter), it is my opinion that this pattern is more likely an impact pattern into a pool rather than a splash pattern. In normal casework, I would classify this pattern simply as a pool with radiating elongated spines since I cannot completely rule out splash at this time. But, given the test parameters, I will mark the box for impact as it is, in my opinion, the most likely pattern type based on observed characteristics. Area 4: Remaining spatter and irregularly shaped stains across the image. The majority of the spatter stains have directionalities pointing towards the pool in the lower left quadrant of the image, but some have directionalities pointing slightly to the outside of the pool. There is not enough consistency in the directionalities to classify this as radiating spatter. The irregularly shaped stains are not perfectly circular or elliptical, but most appear to have just minor abnormalities making them non-circular and non-elliptical.
L6F8NX-5605	An irregular-shaped impact pattern with spines and radiating satellite spatter is in the lower left corner. The satellite spatter is mostly elliptical and radiating away from the parent stain. A drip trail comprised of five near circular drip bloodstains in a linear orientation is between the bottom right corner and the center of the tile. An irregular-shaped transfer bloodstain is centrally located towards the top of the tile. There is a repeating linear pattern on the top of the transfer stain, possibly

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
LHAETT- 5601	resembling a shoe tread. Partial satellite spatter stains near the bottom edges of the transfer stain indicate that the transfer stain was deposited on top of the satellite spatter. On the bottom to mid-right side, there are four circular stains in a linear pattern with diameters of ~10mm for three of them and ~6mm for the smaller stain. There does appear to be a possible accompanying drop near this smaller stain that has a diameter of ~3mm. The stains are a concentrated dark red with flaking. The edges are smooth so no directionality can be determined. Total length is ~17cm. These are consistent with drips but could be considered a drip trail with limited movement due to the minimal length. Approximately 1.5cm above the uppermost drip is a pattern with a mostly red center and a tread-like pattern near the top right side and along the edges. The stain has a rounded bottom and flat top (as viewed) and measures ~7cm x ~8cm. There is a clear spot in the center that could be a result of surface interactions. There are a few faint lines of the tread pattern above this stain, and it might extend beyond the photo. This is consistent with a transfer pattern from a shoe (partial footwear impression). There are spatter stains (circular, oval, and elliptical) that surround this transfer pattern. No observations of disruption of the transfer stain or spatter stains – cannot determine sequencing. On the bottom left, there is a central stain measuring ~8cm in diameter with dark red color and scalloped edges with numerous spines extending radially from the left side of the stain. These spines extend beyond the photo. This left side does appear slightly lighter than the rest of the stain, likely due to the lighter (white) section of target surface at that location. The remaining portion is darker and shows flaking. The bottom of the stain has an alteration of the flaking, and a skeletal ring can be seen that indicates the original edges. The bottom and right sides do have very faint elongated spines and elliptical stains that seem to radiate from the central stain. Some of the larger spatter stains do have a somewhat radial distribution from this central stain but some do not. The spatter stains are of multiple shapes and diameters (circular, oval, elliptical) and do have directionalities away from this central stain. There is a possible void (absence of spatter stains) on the mid-right side of the central stain. Some of the spatter stains are very small, circular stains with diameters of ~1mm to ~2mm. I would not eliminate the impact of a blood pool or a splash with uneven surface interaction. Additionally, some of the spatter stains could be separate event(s). More information could be gathered by other photos of the immediate vicinity of this location.
LNBQNT- 5605	Item 5 was a photo depicting a complex bloodstain pattern located on a horizontal vinyl tile. The complex bloodstain pattern was composed of drip stains oriented between the bottom right corner of the image to the center of the image, a transfer stain near the upper margin of the image, a splash pattern near the bottom left corner of the image, and multiple spatter stains observed throughout the pattern.
LQZ9JW- 5605	From the lower left side of the image to the upper right side: A small pool of blood and an Impact pattern emerging from it in most direction but less in the lower right side of the image. A shoe blood print transfer stain at the upper center of the image, directed upwards. A blood drip trail consisted of four drip stains with no directionality, one edge drop at the center of the image and the other edge drop is at the lower right side.
LRVPVT- 5605	Examined visually. In the top middle of the image was observed a transfer stain from an apparent shoe tread. A transfer stain is a bloodstain resulting from contact between a blood-bearing surface and another surface. Observed in the lower left of the image and spanning throughout was blood pool altered by an impact. A pool is a bloodstain resulting from an accumulation of liquid blood on a surface. An impact pattern is bloodstain pattern resulting from an object striking liquid blood, which appears to have occurred to the lower right portion of the stain. Spanning from the middle of the image to the lower right of the image was observed a drip trail. A drip trail is a bloodstain pattern resulting from the movement of a source of drip stains, formed by gravity, between two points.
LWUVT- 5605	The image provided shows a possible Transfer stain in the top middle area of the image. In the lower left area of this image there is a possible Blood Pool consistent with being caused by a Drip Pattern. A possible Drip Trail was noted in the lower right and middle area of the image.

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
LYCDFM- 5601	There is a drip trail on the right side of the target. There is a transfer stain on the upper center area of the target. There is an altered/dried pool of blood on the lower left side of the target. The pool of blood on the lower left side of the target is disrupted/altered, therefore an impact pattern is also present.
LZZWBT- 5605	(lower left corner of the photograph) A pattern composed of a large central stain of irregular shape, surrounded by long, narrow spatters and elliptical stains with tails – a splash pattern. (upper part of the photograph – central area) An irregular stain, generally covered with a homogeneous layer of blood or with evenly distributed lines/streaks. The shape of the stain suggests that it may be an impression of a shoe heel. Therefore, it is a transfer stain. (lower right corner – central part of the photograph) Several round stains (drop stains) forming a drip trail. (in the upper left corner of the photograph, to the left of the transfer stain) Moreover, not all elliptical-shaped stains that also exhibit so-called tails could have been caused by a splash or transfer. This suggests that they occurred independently, for example, as a result of an impact pattern.
M7CH9Q- 5605	{NOTE: All directional references are with the provided image in the proper orientation, as per CTS. There are limitations surrounding the analysis and conclusions based upon a lack of photographic evidence.} This complex pattern is located on the horizontal plane of the floor. The target surface consists of tile inlaid in a diamond pattern in alternating bands of brown-gray woodgrain and white texture surrounding a central woodgrain diamond. A Transfer Stain consistent in size, shape, and appearance with a partial footwear tread pattern is present in the upper middle of the image, near the peak of the smaller white diamond. The Transfer Stain presents in a solid "U-shape" with repeating horizontal lines visible in the upper third of the pattern. The remaining portion of the Transfer Stain is heavier so that all detail, except the stain's regular margins, are largely obliterated. Located in a linear distribution between the bottom of the "U-shaped" Transfer Stain and the 4 o'clock corner of the photograph are a series of round stains of varying size. Given the victim's mechanism of injury and known movement in the scene, both Drip Trail and Cast-off Pattern should be included for this pattern's potential classifications. Two partially overlapping patterns are present in the lower left quadrant of the photograph, between the two white tile bands. The visible portions of the first pattern consist of elongated spines and associated satellite stains radiating from 3 o'clock to 1 o'clock around a central area that is partially obliterated by an overlying pool. A void in the radiating spines is present between 1 o'clock and 3 o'clock. The most likely classification here is an Impact Pattern, with the void being the likely source/location from which the impact was delivered. However, due to the pattern's physical characteristics and the central pool overlying the middle of the pattern and precluding the confirmation of an impact area, a Splash Pattern cannot be excluded. The blood comprising the pool has been altered by drying and flaking with entire portions having been lost, especially in the lower right quadrant where a perimeter stain is still visible on the floor. Finally, visible across the image are circular and elliptical spatter stains of various sizes, surrounding the pool in random distribution. The impact angles of these spatter stains are opposing rather than uniformly radiating, indicating they are part of a larger Drip Pattern, of which the pool is the volume accumulation central stain.
MMYDJU- 5601	This photograph depicts several bloodstained areas on the horizontal plane of a vinyl tiled floor. Located near the top of the photograph is a half oval-shaped bloodstain, measuring approximately 80 x 72 millimeters. The majority of the stain is occupied by non-discreet bloodstaining. Located at the top region of the stain however, is a series of regular spaced parallel lines consistent with a possible shoe outsole. Additionally, located around the remaining perimeter of the stain is a patterned region - although not clearly defined in detail. Based upon these observations, this stain is best characterized as a transfer bloodstain pattern. Located at the bottom left hand corner of the photograph is a generally round bloodstained area having irregular edges. The overall measurement of the parent stain is approximately 80 x 70 millimeters. Located on the left side and bottom regions of this "parent" stain are spiny extensions that radiate outward. These extensions range in width from approximately 2 millimeters to < 1 millimeter and have a length of > 33 millimeters. Additionally, located around the remaining regions of the "parent" stain are a series of directional spatter stains that appear to converge back to the main stained region. Based upon these observations, this stain is

TABLE 4: Pattern Description
Item 5, continued

WebCode-Test	Detailed Pattern Description
	best characterized as an impact bloodstain pattern. Located between the bottom right hand corner of the photograph and the previously described transfer stain, are a series of generally circular stains, having diameters of approximately 13 x 13 millimeters down to 5 x 5 millimeters. These stains are consistent with drip stains and are in a linear pattern. These stains are best characterized as drip bloodstains, and due to their linear nature (albeit short), the pattern is best characterized as a drip trail.
MNVTWQ-5601	In the middle of the target there is a transfer stain. Next to the transfer stain is a drip trail consisting of drip stains between the middle of the target and the bottom right corner of the target. In the bottom left corner of the target there is a splash pattern with an altered right edge.
MPJCRW-5605	A series of circular stains in a linear orientation extended from the lower right corner to the middle of the surface (A). These stains were consistent with a drip trail. Near the top of the surface was a U-shaped stain with an apparent tread pattern (B). This pattern was consistent with a transfer stain. In the lower left corner was an irregular shaped stain that appeared altered on the right side (C). Elliptical satellite staining radiated from this parent stain. This pattern was consistent with an impact pattern.
MYMQ9P-5601	The pattern consists of multiple circular bloodstains and localized blood accumulations on a horizontal tile surface. Several stains exhibit associated satellite stains. A larger accumulation is present with a central blood mass and surrounding satellite stains, while a secondary accumulation is consistent with blood pooling. The overall pattern is most consistent with a combination of Drip Pattern and Pool Pattern.
N2QHGP-5605	In the upper center of the image, a transfer stain from the heel of a blood-stained shoe is visible, surrounded by several cast-off patterns. A splash pattern can be seen in the lower left of the image, and a drip trail of four drops can be seen in the lower right.
N8G6WV-5605	Centre top of photograph shows transfer pattern showing a heel with parallel patterns. Drip stains leading between heel transfer pattern and lower right corner of photograph, showing 4 drip stains. Pooled blood in lower left corner with associated impact pattern and satellite stains emanating from pooled blood.
NKQK6L-5601	A Transfer Stain was noted on the upper middle portion of the target. A Drip Trail was observed between the Transfer Stain and the lower right corner of this target. An Impact Pattern was noted on the lower left corner of the target.
NU7LAU-5605	We observe a pool of blood with several elliptical stains surrounding/radiating from the pool as well as longer spines. This suggest that the pool was stepped in following the transfer pattern on the floor next to the pool. We also observe at least 4 circular stains, drip stains, possibly leading to a drip trail.
P6MPWJ-5605	A complex pattern with several different elements, including the following: A transfer stain at the upper centre of the image. The lower part of this stain is heavy and semi-circular in shape. Upper part is lighter and has a linear element of parallel lines in blood. Overall, the pattern has the appearance of a partial footwear mark formed in blood. A pool of blood present at lower left of the image. There are numerous spines present at the periphery, suggesting that an object or surface had impacted into the blood, resulting in the blood spattering away from the main area of staining. To the right and centre of the image there are a few circular spatters of blood, ranging in size from approximately 6mm to 11 mm in diameter. These spatters form a linear pattern. The size of the stains and linearity suggests that these stains form a drip trail of blood spatters. In addition to the above areas of staining, there are also numerous individual blood spatters present. These vary in size and area of origin. These spatters do not form an overall distinct pattern, other than to state that they are spatters of blood that have been deposited onto the surface at an oblique angle.
PDHMNT-5605	The impact pattern in the bottom left corner indicates that a small pool of blood was struck with an object or that a heavily bloodstained object struck that area of the tile. In addition, I cannot rule out the possibility that the bottom left corner pattern was formed by a volume of liquid striking the surface (i.e. it could be a splash pattern). The transfer stain/pattern in the upper centre indicates that a

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	bloodstained shoe sole came into contact with the tile in that area. The drip trail, between the bottom right corner and the centre, indicates that an individual was bleeding while moving or that blood dripped from a bloodstained object e.g. a knife while it was being moved. The directionality of the spatter staining on the upper half of the tile indicates that most of it arose during the creation of the impact pattern.
PEE4ZP- 5605	A pool of blood is observed in the lower left-hand corner of the image. A pool of blood is a bloodstain resulting from an accumulation of liquid blood on a surface. The pool of blood appears to have been impacted by an object, which resulted in an impact pattern across the image. An impact pattern is a bloodstain pattern resulting from an object striking liquid blood. A transfer stain is observed at the upper center area of the image. The transfer stain resulted from contact between a blood-bearing surface, which appears to be the heel of a shoe, and another surface (the tile floor). A drip trail is observed from the center to the lower right-hand corner of the image. The drip trail is a bloodstain pattern that resulted from the movement of a source of drip stains between two points.
PUQGHM- 5605	The image shows several bloodstain patterns. In the bottom left corner is a splash pattern with satellite stains branching from the main blood stain. The splash is an altered stain, specifically in the lower left side where areas of the dried blood have been removed or moved; the outline of the original stain is present and pieces of dried blood are visible outside of the stain. Drip stains are also present; drips from the bottom right to upper left. Drip trails are also visible with different directions of motion apparent (bottom left-upper right, bottom-top). In addition to these, an apparent transfer stain from a partial footwear impression is visible in the upper middle area of the image which also appears to have serum separation creating a serum stain. Throughout the image, there are areas of insect activity creating insect stains.
Q3VYCQ- 5601	Dark r/b staining, irregular in shape (~7cmx8cm) in the bottom left corner. Bottom right edge of stain has potential thickness, and disruption with possible portions moved or flaked off. Top right corner had apparent crackling- as though thickness has dried. Middle has possible air bubbles. Bottom left of stain has brighter color, appearing to not be as thick/voluminous in staining. There are spines surrounding approximately 1/2 of stain, lighter in color than the mass. There are large elliptical to directional stains from the large stain towards the top of the photo and diagonally out to the right. Many of these stains are >1 cm in length. Randomly distributed. Projected patterns are known to have spines that radiate around the entire stain and without an accumulation of volume in the center mass. Without a breach to the arteries, a projected pattern wasn't a likely description. An impact to a bloodstain is known to create these types of spines and larger elliptical stains, however there isn't visible evidence of an impact to the stain. Large quantities of splashed blood can create spatters, and can be of mixed and larger sizes. Splashes may occur with the movement of the victim, or stepping into a blood pool, so a splash appears to be a potential mechanism. Above and to the right of the dark stain is a large r/b stain ~7cm X 8cm, lighter in color than the previously discussed stain. There is a clear area in the middle of this stain. Along edges are an apparent texture (lighter in color and along the bottom left towards the bottom and right side). The main body of the stain doesn't extend to these edges. At the top of the stain are patterns that appear linear. These appear light in color as well. Towards the top edge of the photo are possible continuations of the linear staining. With the visible linear pattern and edges with texture, the stain appears to be a transfer pattern, with the pattern from the stained item that came into contact with the tile. The clear area in the stain is potentially from a space on the item itself that maintained the 'void' type area within the transfer. From the bottom of this stain and to the right is a r/b stain, round in shape, ~ 1 cm. Down and to the right is another round r/b stain ~ 6 mm diameter. Down and to the right is another round-ish, r/b stain- appears slightly irregular at the edges, ~1 cm. Down and to the right and at the edge of the photo is another r/b stain that appears to have dried and have cracking through it. Possibly round before drying. While there are four stains in a "row", they are not all consistent in size and/or shape, so a drip trail can't be conclusively identified. However, at minimum, the stain adjacent to the transfer is consistent with a drip stain.

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
QNUACJ- 5605	In the bottom left corner, there is a large volume of blood (a pool of blood) that appears to have fallen onto a horizontal surface, forming a splash pattern. It appears to be a drip pattern where blood drips into blood, creating a drip stain. In the top middle of the picture, there is transfer stain of a partial suspected footwear impression. Minimal detail is observed due to the large quantity of suspected blood. Due to the force that the suspected footwear impression created when coming into contact with the horizontal plane, an impact pattern was created. Between the transfer stain of the suspected footwear impression and the bottom right corner, there is a drip trail.
QPPXNN- 5605	The floor exhibits a splash pattern in the lower left side of the image. A pattern of transfer is adjacent toward the central top of the image. A drip trail (of at least 3 drops) connects the lower right corner of the image to the transfer stain.
QWAWLN- 5601	From a bloodstain pattern analysis perspective, the documented stains represent a complex combination of different bloodstain categories. The upper larger stain is most appropriately interpreted as a patterned transfer stain with possible footwear- or heel-related characteristics. The lower larger stain represents a substantial blood desposition with pronounced spine and satellite formation. The surrounding stains include both passive drip stains and directional projected pattern. Taken together, the overall pattern distribution supports a dynamic event involving multiple blood transfer and blood deposition mechanisms rather than a single passive bleeding process.
R7DJWK- 5601	In the lower left-hand corner of the target is a bloodstain with spining and associated spatter stains and satellite stains. A portion of this bloodstain appears to be distorted/alterd. Therefore, an impact pattern is observed. Most of the target has spatter stains and satellite stains radiating out from the impact pattern (with differing directionalities). Near the upper center of the target, a transfer stain is observed. The transfer stain shows no indication of movement or alteration. There is a linear arrangement of mostly rounded drip stains from the middle of the target to the lower right-hand corner of the target (not necessarily the direction of travel); therefore, a drip trail is observed.
RFYUZK- 5605	The pattern appears to be a splash pattern at the bottom left corner of the photograph with associated impact spatter stains radiating out away from the larger pool. A few drips are observed starting at the bottom right corner and moving up to what appears to be a transfer pattern from the heel of a shoe up in the top center of the photo.
RVAFHP- 5605	In this photo I identify five bloodstain patterns: 1. Drip pattern; a bloodstain pattern resulting from a liquid that dripped into another liquid. 2. Drip trail; characteristics that are compatible with the movement. A bloodstain pattern resulting from the movement of a source of drip stains between two points. 3. Splash Pattern; is a bloodstain pattern created from a large volume of liquid blood falling onto the surface. 4. Transfer Stain; a bloodstain resulting from contact between a blood-bearing surface and another surface. 5. Void; an absence of blood in an otherwise continuous bloodstain or bloodstain pattern.
T3QB3Q- 5605	The image for item 5 is of a white and grey tile flooring on the horizontal plane, with an L-scale along the left and upper borders. A complex bloodstain pattern spans the entirety of the image, 24x29cm. An altered pool is in the lower left corner of the image. The parent pool is 7x8cm. The lower right portion is altered and flaking. At least 30 spines and elliptical spatter stains radiate to the left out from the left side of the pool. At least 25 elliptical and irregular-shaped spatter stains are dispersed throughout the image, mostly in the upper portion above the blood pool. These all have a general directionality away from the pool. The altered blood pool, spines, and surrounding spatter is consistent with an impact bloodstain pattern. An irregular-shaped bloodstain is in the top center of the image. This pattern is 7.5x8cm in size. The color intensity and deposition vary throughout the pattern, with the margins having a much lighter deposition. A repeating linear pattern in the bloodstain is present at the top end. This bloodstain is consistent with a pattern transfer bloodstain. Four near-circular drip bloodstains are on the tile between the pattern transfer bloodstain and the lower right corner of the image. These drip bloodstains are arranged in a linear orientation and range in size from 6mm to 12.5mm in diameter. The margins are slightly irregular on the drip stains, and the stains are beginning to crack and flake. An additional near-circular bloodstain is near the drip bloodstains and measures 3mm in diameter – this is likely an accompanying drop from the drip

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	bloodstains or could be related to satellite spatter from the impact pattern. This could be a drip bloodstain trail due to the orientation, but since it is such a short segment (~15cm long) this will be classified as drip bloodstains only.
T6C7PH- 5605	The image consists of a horizontal surface with multiple types of bloodstain patterns present. A transfer stain, in the upper portion of the image, is present with an apparent pattern. Between the transfer stain and the bottom right corner of the image is a drip trail. This drip trail consists of multiple circular stains around 10 mm in size in a linear distribution. Finally, an amorphous stain with irregular margins and spines is located in the lower left corner of the image. There are various spatter stains radiating from this stain throughout the image. The stain appears to be altered on the right side and spines are more concentrated on the opposite side of the altered area. This stain can be classified as an impact pattern.
UBDTRH- 5605	Item 5: This image consists of multiple bloodstain patterns. There are multiple predominantly round red-brown stains each consistent with drip stains, one lighter red-brown stain consistent with a transfer stain and one irregularly shaped stain consistent with an impact pattern. Several drip stains are in a diagonal line across the image (lower right corner to the center) indicating movement and are consistent with a drip trail. In the top center of the image there is transfer stain approximately 7.5 cm wide by 8.5 cm long. The top of the stain is squared off with visible repeating horizontal lines; the bottom of the stain is rounded and there is a void in the middle of the stain. In the lower left corner, there is an irregularly shaped stain (approximately 8.0 x 7.5 cm) consistent with an impact pattern. There are satellite stains and thin spines coming off the parent stain indicating some amount of force was applied. The lower right corner of the stain appears disrupted with uneven edges. Throughout the top two-thirds of the image, there are numerous elongated bowling pin shaped spatter stains with an overall directionality of bottom to top. The stains on the left side of the image have more of a right to left directionality, and the stains on the right side of the image are left to right. There is not enough detail to determine the source of these stains.
UBWKTF- 5605	Top in the middle of the image, a footwear transfer is present. Diagonally down and to the right from the footwear transfer, at least (4) drip stains are present creating a drip trail. In the bottom left of the image, a splash is present with satellite stains in various directionalities.
UCDHKF- 5601	A transfer stain was observed in the upper middle portion of the target. A drip trail was noted as present between the lower right corner and the middle of the target. An impact pattern was observed on the target. The parent stain of the impact pattern was in the lower left quadrant of the target and spatter stains were noted to the right of the parent stain and in the top half of the target.
UN3N8H- 5605	Item 5 shows evidence of a lot of movement after a blood-letting event. With the ruler in the upper left-hand corner, there is a small Pool of blood with defined edges in the lower left corner of the image. The Pool is aprx. 75mm by 75mm and is also an Altered stain, with small spatters radiating out from the left side. It appears that something has come in contact with the right side of the Pool (Altered stain) to create these small spatters radiating to the left. The main portion of this Pool has dried and is flaking away from the floor, denoting a lapse of time since it was deposited. There are also 5 circular / 90 degree Drip stains in a linear pattern, running from the lower right corner, upwards toward the middle of the photo, creating a Drip Trail. The Drip stains have dried and are showing signs of cracking, denoting a lapse of time since they were deposited. There is a Transfer pattern above the Drip Trail that has the appearance of being made by a bloodied heel of footwear. A partial footwear pattern consisting of narrow horizontal lines aprx. 3mm apart on the heel. The partial bloody Transfer stain / footwear impression is redder than surrounding bloodstains and gives the appearance of a more recent deposition. Additionally, there are numerous small bloodstain spatters radiating upwards and to the left and right of the bloody footwear impression. In general, they are impacting at an aprx. 25 degree angle.
UN9VJQ- 5605	On the lower right quadrant series of circular stains in a linear array, ranging from 2-12mm - drip trail - possible accompanying drops for smaller stains. At the top aspect of this pattern is an irregular shape with irregular margins - 7 cm x 6.5 cm - dense staining in the centre with lighter margins. the upper aspect and part of the central area has thin bar horizontal pattern feature and the lower left

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	area has faint features of a possible continuous curved edge - appears to be the heel area of a shoe impression -transfer pattern. The lower left quadrant is an irregular shaped stain. The main stain is ~8cm diameter. There is some flaking and slight perimeter staining present on the lower right aspect and linear projections and spines from the left aspect and to a lesser extent the upper aspect. Appears to be an impact into a pool of liquid blood and then alteration after a period of drying. Across the upper half of the stimulus are numerous small 1-3 mm elliptical stains with tails indicating directionality between 11 and 2 o'clock - somewhat radiating, but not uniform and don't converge to a common area of convergence. There are also smaller sub-1 mm near circular stains, many having pale centres and some with irregular shaped margins - may be due to surface substrate effects (texture, hydrophobic?) Unclear if the pale centres are true air bubbles. These stains don't appear to uniformly originate from the pool at lower left in a standard drip pattern arrangement. Appears more likely to be a separate satellite and/or spatter event/s to the pooling.
UWXGNP- 5605	There is an impact pattern associated with an altered blood pool in the bottom left of the photograph. Satellite stains are visible extending from this impact pattern and some alteration (flaking) has occurred. There is a transfer stain present at the top middle of the photograph. This stain shows characteristics of the object that created the stain. A blood bearing shoe heel is a possible source of a stain with this appearance. There are a number of drip stains present between the transfer stain and the bottom right of the photograph. The near circular shape of these stains indicate that they originated from a stationary or slow-moving object.
UZWVCE- 5601	At the top middle of the target, a transfer stain with a linear and parallel pattern on the top margin and a curved bottom margin was observed. A drip trail consisting of several drip stains was noted between the bottom margin of the transfer stain and the bottom right corner of the target. A splash pattern was observed on the bottom left corner of the target. Satellite spatter and spining radiated out from the parent stain of the splash pattern. The splash pattern was altered via cracking throughout the parent stain with flaking noted on the bottom right margin. Spatter stains were dispersed over the top portion of the target.
V9L38P- 5601	There is a large, irregular-shaped stain with a moderate intensity in the upper centre area of the image. This shows a pattern of parallel lines and the general shape of the heel of a shoe. The pattern areas and perimeter of the stain show a lighter intensity. In my opinion this is a transfer stain (pattern transfer). There is a large, irregular-shaped stain with a dark/heavy intensity in the lower left area of the image. The left and lower margins of the stain show long spines. Above and to the right of the large stain, is a series of elliptical shaped stains with a majority showing directionality pointing back to the central stain, and appear to radiate away from the central stain (-> spatter stains). The spines and radiating spatter stains suggests an object has contacted the small possible pool of blood with some force -> in my opinion this is an impact pattern. There is a series of four circular-shaped stains with regular, continuous margins (size range 6-12 mm in diameter). In my opinion, these are drip stains.
VA23QE- 5601	A transfer pattern is present in the upper center of the vinyl tile. A drip trail is present between the transfer pattern and the lower right corner of the target. An impact pattern is present in the lower left corner of the tile.
VF867E- 5605	Bloodstains are on poster board that is on the horizontal plane. This photos was divided into three areas. The bloodstain toward the top of the target measures approximately 5.5cm x 8cm. The stain is curved on one end and has linear striations on the other end. This bloodstain appears to be a pattern impression. Classification: Transfer At the bottom right area of the target and extending toward the middle of the target are a series of primarily circular stains and they measure approximately 1cm. The series of bloodstains is approximately 13cm in length. Classification: Drip Stains The rest of the target has a larger stain toward the left, bottom area of the target. This stain is approximately 5.5cm x 6cm in size. The stain is irregular shaped. There are several elliptical stains that are approximately less and 1mm to 4mm on other areas of the target. These stains primarily show directionality away from the larger stain. Classification: Impact Pattern

TABLE 4: Pattern Description
Item 5, continued

WebCode-Test	Detailed Pattern Description
VPXGPM-5605	There are drip stains in the lower right quadrant of the photo. There is a pool which has been altered creating an impact pattern with directionality down and to the left in the lower left quadrant of the photo. There is a transfer stain in the top center of the photo. There are spatter stains with various directionalities throughout the photo.
VWCK2J-5605	Upon observing the vinyl tile a drip pattern is observed in the lower left hand corner. A drip trail is observed in the lower right hand corner leading upward to a transfer stain.
VYZNKM-5605	The item #1-1-5 photograph depicts at least three different bloodstain patterns located on the floor of the victim's house. One pattern is located in the upper central portion of the image. This pattern consists of a pattern transfer (transfer stain). The pattern transfer (transfer stain) consists of a pattern with linear striations running crosswise to the pattern. One end of the pattern has a straight edge, and the opposite end is rounded. The pattern has the appearance of a shoe/boot heel impression. Another pattern consists of a drip trail and is located in the lower right side and extends towards the middle of the image. This pattern consists of a linear series of at least three drip stains. Another pattern consists of a splash pattern and is located primarily in the lower left portion of the image. This pattern consists of a parent stain with irregular margins, numerous large radiating spatters, and spines.
W3U6AL-5601	Bottom left: A pool with an impact pattern. Something hit the pool of blood or somebody stepped in it. Top middle: A transfer stain from a shoe. On the right, below the transfer stain: drip stains, that form a drip trail with orientation top to bottom or bottom to top. On the top: spatter stains with different orientations. Some of them are so big that they can be drip stains from a moving object.
W4PKMH-5605	A pool is observed at the lower left corner of the image. A pool is a bloodstain resulting from an accumulation of liquid blood on a surface. An impact pattern is observed surrounding the pool. An impact pattern is a bloodstain pattern resulting from an object striking liquid blood. A transfer stain is observed at the upper center of the image. A transfer stain is a bloodstain resulting from contact between a blood-bearing surface and another surface. Multiple drip stains are observed at the center of the image and at the lower right corner of the image. A drip stain is a bloodstain resulting from a falling drop that formed due to gravity.
WNX4GK-5601	Bloodstain in lower left corner of the photograph with heavy, dry, cracked staining. Scalloped edges with spines and satellite stains around entire parent stain. Lower right corner of the stain has been altered, resulting in flaking and removal of blood in the parent stain. Parent stain is approximately 7.5 cm x 7.5 cm. Consistent with splash pattern. Bloodstain near top center of photograph. Within staining are defined lines of demarcation. Stain is approximately 7.5 cm in width. Length cannot be measured because it appears to go beyond the borders of the photograph. Consistent with a transfer pattern. Four heavy stains in a roughly linear formation from the lower right corner to the transfer stain. Round stains with cracking. Smooth borders. Three stains are approximately 11 mm, the fourth stain is approximately 6.5 mm. Consistent with drip stains. Possibly part of a drip trail but insufficient information in this photograph to determine. Hundreds of additional round to elliptical stains throughout the entire photograph. Vary in size, shape and directionality. Range from <1 mm to approximately 6 mm. Appears to be more than one overlapping pattern due to changes in size and directionality, however, photograph is insufficient to distinguish or categorize due to the patterns extending beyond the frame. Stains consistent with spatter.
WQ699N-5601	A suspected splash patter was observed in the lower left quadrant of the photograph with several resulting satellite stains of varying sizes surrounding the left edge. A transfer stain with horizontal lines running throughout the upper edge was visible in the upper half of the photograph. While a drip trail ran from the middle to the lower right quadrant of the photo.
XQ4LFG-5605	1. A pattern transfer stain, with a curved lower margin and regularly spaced parallel lines at the top, is located at the upper middle portion of the photograph. There is an irregularly shaped void in the center of this transfer stain. 2. A few passive drip stains (approximately 1 cm in diameter) create a short, roughly linear drip trail starting just below the transfer stain and continuing to the bottom right corner of the photograph. 3. A volume of blood creates a small pool with irregular margins at the

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	lower left corner. The lower left edges of this pool have protruding partially connected splines due to some related force. A splash cannot be ruled out as the initial source of this volume. 4. However, very thin, near incident (low angle) apparent impact spatter stains are scattered above and to the right of the small pool. This suggests that impact was made with this volume of blood in the plane of the floor tile. 5. The right side portion of the same lower left corner blood volume is altered. This half of the pool appears to have dried or clotted with time prior to physical change, which caused the blood to flake away. A perimeter stain remains. 6. Finally, numerous small and large (approximately 5mmx13mm max) apparent spatter stains are located primarily on the upper half of the photograph, surrounding the transfer stain. These elliptical stains are heavy and dark in appearance with soft rounded tails pointing upward and toward the right and left corners of the photograph. Directionality of some of these spatter stains suggest that their source could be the blood volume at the lower left corner. Others suggest the presence of a blood source above the surface or away from the photographed area.
XZKEKH- 5605	There is a transfer stain in the upper part of the image. A striped pattern is visible in the transfer stain. Drip stains are visible between the transfer stain and the lower right hand corner. There is a pool of blood in which an impact occurred on the lower left hand corner of the image. Several spatter stains are also visible throughout the image
Y9CE99- 5605	Complex pattern consisting of a transfer stain with linear markings on the top half of the image, left of center. A splash pattern on the bottom left of the image with satellite stains radiating out, and a linear drip trail diagonally oriented from the center of the image towards the bottom right corner.
YB3AJH- 5605	Multiple bloodstain patterns were indicated on the target in Item 5. The circular stains on the right side of the target are indicative of drip stains. Due to limited information, it cannot be determined whether these stains are part of a drip trail. The transfer stain in the top center of the image bears characteristics similar to the heel of footwear. The stains on the bottom left side of the target have indications of either a splash pattern or a projected pattern. Based on information that "no major arteries (were) compromised", a splash pattern is more likely. The image labeled Item 5 depicted three main sets of stains. Three to four circular stains ranging in size from approximately 7mm to 12mm in diameter were observed on the right side of the image spanning between the lower right corner and the center of the image. A larger bloodstain (approximately 75mm by 80mm) was depicted near the top center of the image. The bottom edge was rounded and the sides were linear. Thin parallel linear bloodstains were observed at the top right of the stain. A larger roughly circular bloodstain (approximately 75mm by 80 mm) with irregular shaped margins was depicted in the lower left corner of the image. Additional spatter stains possibly associated with this stain were depicted throughout the image.
YB7T8K- 5601	A large irregular shaped pool of blood is present in the lower left corner of the target which has spines radiating outwards on the left side, and mostly elliptical spatter stains (ranging in size from 1-6 mm) radiating outwards across the rest of the target. This pattern is characteristic of an impact pattern created by an object striking the liquid blood in the lower left corner. A large semicircular shaped bloodstain is present at the top of the target in the center. A pattern of parallel lines is apparent at the top of this stain, indicating this is a transfer stain, characteristic of a bloodied heel print. Four circular drip stains are on the right side of the target between the heel print and the bottom right corner of the target. These are in a linear distribution forming a drip trail.
YCRPLD- 5605	Transfer stain is located in the upper middle of the image. It appears to be the apparent heel of a shoe. A drip stain with associated satellite staining is located in the lower left of the image. Also some small drip stains on lower right of image and appear in a diagonal direction upward to the middle of the image up to the bottom of the transfer stain.
YDNB3B- 5605	Bloodstains, including a transfer pattern (outsole impression), a drip trail, and an impact pattern, were on the floor.
YE2M6L- 5601	Three stain patterns visible Transfer pattern in the shape of the heel block from a shoe containing a small void in the approximate centre and an edge characteristic along the top edge consisting of in

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	excess of seven parallel lines. Below this pattern was the second pattern identified as a drip trail pattern consisting of at least four near circular stains in a linear orientation between the transfer stain and the bottom right of the photograph. The third was a splash pattern in the bottom left corner of the photograph consisting of a large irregular stain with protruding spines and satellite stains. There were numerous additional elliptical stains for which an age a of origin/convergence and a mechanism for their formation could not be established.
YE764K- 5601	It may be possible when examining blood stain patterns to make an interpretation of the action or actions which produced the blood stains. I have made these determinations where I am able to, and they are my opinions based on my training and experience in this field. I have used the following terminology to describe the observed patterns: Drip stain: A blood stain resulting from a falling drop that formed due to gravity. Drip trail: A blood stain pattern resulting from the movement of a source of drip stains between two points. Impact pattern: A blood stain pattern resulting from an object striking liquid blood. Pool: A blood stain resulting from an accumulation of liquid blood on a surface. Spatter: A blood stain resulting from an airborne blood drop created when external force is applied to liquid blood. Splash pattern: A blood stain pattern created from a large volume of liquid blood falling onto a surface. Transfer stain: A blood stain resulting from contact between a blood-bearing surface and another surface. There were three blood stain patterns on the vinyl tile, item 5. It was not possible to determine the order in which the patterns were created. Towards the upper centre of the tile was a transfer pattern created, presumably, by contact with a shoe heel that was heavily blood stained. A small area of the tile was visible within the central area of the transfer pattern. Below the transfer pattern and to the right of the tile, was a trail of drip stains which indicated that blood had freely fallen from an object whilst it was moving. On the lower left of the tile was a pool of blood that had possibly dried unevenly with the right side appearing altered given the irregular edge features. The alteration is likely the result of an impact into the pool given the radiating spatter originating from it. There was insufficient information in the blood pool pattern to determine how it was created and in the absence of all of the blood patterning on the adjacent tiles, I cannot exclude the possibility that a volume of blood had splashed on to the tile prior to the impact.
YH4LFE- 5601	A transfer stain is noted on the top center portion of the target. A drip trail is noted extending across the target between the lower right corner and the center of the target. A pool of blood is noted on the lower left corner of the target. The pool of blood is the source of an impact pattern. Spatter stains and spines are noted radiating around the pool of blood. Spatter stains are also noted radiating across the top portion and right side of the target.
YKR4BK- 5605	A splash pattern is present on the target, which is supported by elongated spines on the parent stain and satellite stains in somewhat chaotic orientation further away from the parent stain. A drip trail consisting of four round stains in linear orientation is on the middle to right side of the target. The top of the target supports a transfer stain.
YQC4NC- 5605	The image includes an impact pattern in the lower left corner, where it appears an impact occurred into a small pool of apparent blood. There are ovoid and elliptical shaped blood spatter stains exhibiting directionality away from the impacted pool of blood. Near the top of the image there is a transfer stain with a heavy concentration of blood in the center that appears to be a partial bloody shoe impression. There is also a drip trail between the bottom right corner of the image and just below the transfer pattern. The drip stains in the trail do not exhibit directionality. They are fairly circular in shape with smooth edge characteristics.
Z7ZWTA- 5605	in the lower left corner, there is a large volume of blood that is a splash pattern and displays characteristics that blood has dripped into blood. Towards the top middle portion of the image, there is a transfer stain (partial suspected footwear impression). There is also a drip trail present.
Z9KWKE- 5605	Apparent drip trail comprising of four drip stains on right side of image. Transfer stain to top centre of image which appears to be an apparent footwear mark in blood with a small void in the centre of the stain. Splash pattern on lower left side of the image, which shows alterations to the stain where the stain is broken/irregular on the right edge. Addition possible void area to the right side of the splash pattern in the centre of the image. Evidence of impact pattern across image with directional and

TABLE 4: Pattern Description
Item 5, continued

WebCode- Test	Detailed Pattern Description
	spatter stains throughout, which indicate at least three different areas of convergence.
ZHGLM9- 5605	In the lower left of the image, there is a center mass of blood approximately 90mm by 75mm in dimension with satellite stains emanating in all directions. The distribution of the satellite stains is not uniform with those with more acute angles towards the left of the image, less acute towards the top, and very few traveling towards the right. Some of the larger stains with directionality traveling upward in the image orientation could also be cast-off or potentially impact as a result of a forceful transfer. I would need to see a full view of the floor to help with this determinations. The lower right of this center mass appears to have been altered after drying as there are flaking and skeletonized areas. This center mass is classified as a splash pattern. There is a series of parallel linear stains adjacent to another center mass in the top middle of the image. Its dimensions are approximately 70mm by 50 mm. This is classified as a transfer. It is indeterminant if the heavy volume within the transfer stain was the result of the a heavier volume on the transfer object or if there was a pre-existing deposit of blood and the transfer occurred over the top of the There are also at least 4 near-circular stains arranged in a linear distribution from below the transfer stain towards the lower right corner of the image with one of the stains flaking after drying.
ZHGNCD- 5601	A drip on drip stain is visible on the lower left side of the image surrounded by satellite stains and on the right is a drip trail towards a contact transfer pattern.
ZLHFVC- 5601	On the lower right side of the target, there are several drip stains creating a drip trail. On the lower left side of the target, there is a splash pattern. On the upper portion of the target, there is a transfer stain.
ZWEZLG- 5605	In the top half of the image, you can see a transfer stain with a linear pattern associated which, in my opinion, has the appearance of a possible footwear mark. There are a few drip stains also present. Towards the bottom of the image, you can see an area of drip stains which have pooled together (drip pattern). There has been some form of impact into the pool to generate an impact pattern, as visualised with the satellite stains which are projected away from the pool. There are also possibly some bubble rings in some of the smaller spots of blood, which could suggest they are part of an expiration pattern, although the blood staining visible in this image is not specifically diagnostic of such a distribution. One side of this pool is also starting to flake away at the edges, suggesting it has been altered after it has dried.

Additional Comments

TABLE 5

WebCode-Test	Additional Comments
2DHFWA-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
38BHFG-5605	The PowerPoint shape format was utilized for the stains of Item 1 and the default unit of measurement was in cms and not converted to mms for the table of Item 1. Using this does not reflect the stains actual physical size.
3BAMFG-5605	As always, only having a portion of the stains for Item 5 make it difficult. I would probably not call something a drip trail if it only had four stains close together. Also seeing more of the surrounding spatter around the pools would be useful when drawing our conclusions.
3RD9RB-5605	Based on our laboratory's technical procedure, the bloodstain in item 2 would be reported as a swipe or a wipe. Future tests should show the entire bloodstain as an analyst should never make a pattern determination without examining the entire pattern.
3YXKU-5605	It was impossible to print the pictures true to size. Therefore the measurements of the item 1 stains for angle of impact calculations were based on my printout and not necessarily true to size. The ratio of width/length should not be affected however.
48KX99-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
4B6PJB-5605	item 2 would be classified as a smear in casework (using lab definition) which includes both swipe and wipe as possible mechanisms.
4MX9XG-5601	Item 2: Classified as the more conservative "transfer" pattern. There is visible motion within the bloodstain pattern, and no confirmable perimeter stains, which favours a "swipe" pattern over a wipe. However I cannot exclude the pattern being created from a bloodstain being wiped through prior to it having a chance to dry. Additionally, the whole pattern has not been captured in the provided image and therefore details contained within the non-visible end of the pattern may allow for greater discernment in the classification. Item 3: The requirement of a forced answer, together with an incomplete pattern being captured in the image provided, limits the analysis able to be conducted. The size of the bloodstains, linear distribution, and slight change in angle of impact (being circular stains near the top right corner, with slight elongation nearer the bottom left corner) favours a "cast-off" pattern, over other spatter pattern. Features within the pattern in the non-visible areas of the pattern may allow for further discrimination as to the pattern classification. Item 4: The whole image has not been captured within the image provided. Features of the bloodstain, together with the contextual information (ie. wound severing carotid artery) favours the "projected pattern" classification over other spatter patterns. Item 5: Data (including further bloodstains) not provided in the captured images, may allow for greater analysis and discrimination of the pool and spatter bloodstains within the image, which cannot otherwise be further commented upon.
6TXR7-5605	For Item 2: According to my laboratory technical procedures, I would have to say this is a swipe or wipe since there is no obvious disruption of an original stain. For Item 5: It appears that some of the stains go beyond what was captured in the photographs. The lack of extra documentation and information makes it difficult to properly interpret the stains.
734CC8-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
9LTAR4-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
C6N4Z4-5605	Section 1 [Table 1: Angle of Impact Determination] - Angle of impact determination is not conducted at this laboratory Section II, Part 2 [Table 3: Pattern Recognition] - it was considered whether the spines produced from the pool in the lower left corner of the image where as a result of impact spatter. In my view, whilst this couldn't be entirely eliminated, a splash pattern / drip pattern is more likely.

TABLE 5

WebCode-Test	Additional Comments
C9NFW4-5605	Have not done angle measurement as not carried out at laboratory.
CK2KXX-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
CUR73W-5601	The angle of impact determination was not completed as our laboratory does not offer this service.
ECKN7W-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
EEUNF6-5605	Angle of impact measurements done in PowerPoint and the zoomed images were measured in millimeters.
EJYJZ6-5605	NOTE: Section I [Table 1: Angle of Impact Determination] width and length measurements are not in millimeters. They were calculated utilizing PowerPoint and the numbers are a ratio and not actual measurements.
ELVQXX-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
F4KN7U-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
FBNGE6-5605	Section 1 [Table 1: Angle of Impact Determination] width and length measurements are not in millimeters. They were calculated utilizing PowerPoint and the numbers are a ratio and not actual measurements.
GCYUHR-5601	Angle of Impact Determination was not completed as our laboratory does not provide this service.
H69TTY-5605	We use a software program to measure ellipses for part 1 [Table 1: Angle of Impact Determination], so the length and widths are not true to actual size and should not be used in the final results. As with most years, it is extremely frustrating that CTS continues to provide images that are cut off and not showing the entire stain(s)/pattern(s) present. These areas could provide context to assist with classifying stains/patterns and would be present in real casework.
H986PY-5605	Item 1: width and length measurements entered were based on size of ellipses drawn in powerpoint, not the measurements of the actual stains.
HA3MQZ-5605	Item 2: Swipe is best explanation as there is no obvious pre-existing stain. Wipe cannot be ruled out as it is possible to create the pattern's appearance if there was not significant time for the stain show perimeter staining. Item 3: Cast-off Pattern Item 4: Projected pattern as best explanation. Appearance of ligaments/possible mucous strands, and some stains with a lighter color were noted.
HCA6PV-5605	Item 4 was not recreatable for us. Further informations about the origin of the mechanism for the item would be interesting.
K88WGQ-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
LYCDFM-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
M7CH9Q-5605	"Bubble Ring" is a characteristic/feature of bloodstains, not a pattern type, and should not be included as a selection for the "Section II" exercises [Table 2: Single Pattern Recognition and Table 3: Pattern Recognition] in which participants are tasked with Pattern Recognition. Lack of entire photo and the contextual information it contains for the descriptive question prevents definitive conclusions from being made and necessitates the analyst including more than one pattern for several bloodstain patterns in

TABLE 5

WebCode-Test	Additional Comments
	the image.
MMYDJU-5601	The Angle of Impact Determination portion of the CTS Bloodstain Pattern Analysis Proficiency will not be performed, as our laboratory does not include procedures for the determination of the angle of impact and this is not an analytical procedure that is performed during bloodstain pattern analysis.
MNVTWQ-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
MPJCRW-5605	Angle measurements generated using software and are based off of PowerPoint ellipses sizes instead of actual stain sizes.
MYMQ9P-5601	The bloodstain pattern is most consistent with passive blood deposition resulting from gravitational blood flow. No characteristic features supporting classification as an Arterial Spurting Pattern, Expirated Bloodstain Pattern, or Cast-off Pattern were identified. The observed blood accumulation and associated satellite stains are consistent with repeated dripping and subsequent pooling on a smooth horizontal surface.
NKQK6L-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
PDHMNT-5605	item 4 was interpreted as a projected pattern but cannot rule out a splash pattern
QWAWLN-5601	Item 4 was not recreatable for us. Further information about the origin of the mechanism for the item would be interesting.
R7DJWK-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
RVAFHP-5605	Caliper Mitutoyo, Model No. CD-6" CS, Serial # 03297987, ICF-08865, CAL. Date: 10-03-23, Due Date: 10-03-28 Section 1: Angle of Impact Determination Practice purpose only, because Division's scope is "Bloodstain Pattern Classification".
T6C7PH-5605	Item 2 Comments: If made an option, I would have selected smear as the classification, as there are indications of motion through the stain.
UBDTRH-5605	For item 4, this pattern is a combination of two pattern types. The secondary pattern is consistent with a splash pattern. This pattern is consistent with projected blood that resulted in a splash pattern. There is a lack of additional stains within the scene and the rest of the image that would be needed in order to classify this stain into only one pattern type.
UBWKTF-5605	For item 2: this analyst wanted to acknowledge the presence of bubble rings in within the bloodstain.
UCDHKF-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
UZWVCE-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
VA23QE-5601	Angle of impact determinations were not completed as my laboratory does not provide this service.
VYZNKM-5605	Two of the patterns from section II [Table 2: Single Pattern Recognition] of this test, specifically items 2 and 4 are cropped and may lack potential significant diagnostic features relevant to the proper classification of these patterns. A proper forensic evaluation of bloodstain patterns should include complete representative patterns in the full context of their surrounding patterns where relevant. At one time, the test stains/patterns were included with relevant overall images for contextual purposes. I feel that the contextual information is important for a thorough examination and classification of bloodstain patterns.

TABLE 5

WebCode-Test	Additional Comments
YB3AJH-5605	Item 2 had possible indications of movement but not enough to classify it as a swipe pattern
YH4LFE-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
YKR4BK-5605	PowerPoint was used for Section 1 [Table 1: Angle of Impact Determination] measurements for angle of impact. These measurements are in inches rather than mm.
YQC4NC-5605	I classified Item 1 as a swipe or a wipe. However, I would not normally feel comfortable committing to a classification of a partial bloodstain. Context is extremely important in bloodstain pattern analysis, so I don't understand why the images of the bloodstains are cut off so that the entire stain is not visible. In real casework, it would be irresponsible to interpret a bloodstain when you can't even see the whole stain.
Z9KWKE-5605	Item 1 does not form part of our accreditation therefore has not been completed.
ZLHFVC-5601	Angle of impact determinations were not completed, as my laboratory does not provide this service.
ZWEZLG-5605	Question 1 has not been answered since we do not calculate the angle of impact at [Laboratory].

-End of Report-
(Appendix may follow)

Test No. 26-5601: Bloodstain Pattern Analysis

DATA MUST BE SUBMITTED BY **July 13, 2026, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: CQQ62E

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

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

Patterns provided in the Pattern Description section of the test include a simulated scenario for each item.

Pattern images provided are simulations and are cropped to meet the purposes of this proficiency test where necessary. Expanded views are not available.

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

Examine bloodstains A-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 posterboard targets at predetermined angles from the vertical.

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

Report your measurements in accordance with your laboratory's requirement for significant figures. Please note that answers will be rounded to two decimal places in the Summary Report.

<u>Stain</u>	<u>Width (mm)</u>	<u>Length (mm)</u>	<u>Angle of Impact (degrees)</u>
A			
B			
C			
D			
E			

Section II: PATTERN DESCRIPTION, PART 1

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

Single Pattern Recognition: For each of the following items, indicate the pattern type that best describes the image. While you can select multiple pattern types if needed, please only select those that are most representative of your analysis. 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: This pattern was found on the floor of a restaurant where a shooting had occurred. The victim was shot in the stomach and attempted to escape before collapsing on the floor of the restaurant. (The target was a white poster board positioned in the horizontal plane.)

- | | | |
|---|---|---|
| ☐ Bubble ring | ☐ Expiration Pattern | ☐ Splash Pattern |
| ☐ Cast-off Pattern | ☐ Impact Pattern | ☐ Swipe |
| ☐ Drip Pattern | ☐ Pool | ☐ Transfer Stain |
| ☐ Drip Stain | ☐ Projected Pattern | ☐ Void |
| ☐ Drip trail | ☐ Saturation Stain | ☐ Wipe |

Item 3: This pattern was located on the wall in the victim's home. The victim was found unconscious on the floor in a puddle of blood with several stab wounds. (The target was a white poster board positioned in the vertical plane.)

- | | | |
|---|---|---|
| ☐ Bubble ring | ☐ Expiration Pattern | ☐ Splash Pattern |
| ☐ Cast-off Pattern | ☐ Impact Pattern | ☐ Swipe |
| ☐ Drip Pattern | ☐ Pool | ☐ Transfer Stain |
| ☐ Drip Stain | ☐ Projected Pattern | ☐ Void |
| ☐ Drip trail | ☐ Saturation Stain | ☐ Wipe |

Item 4: This pattern was located on the floor of the victim's kitchen. The victim was found with a wound severing the carotid artery. (The target was a white poster board positioned in the horizontal plane.)

- | | | |
|---|---|---|
| ☐ Bubble ring | ☐ Expiration Pattern | ☐ Splash Pattern |
| ☐ Cast-off Pattern | ☐ Impact Pattern | ☐ Swipe |
| ☐ Drip Pattern | ☐ Pool | ☐ Transfer Stain |
| ☐ Drip Stain | ☐ Projected Pattern | ☐ Void |
| ☐ Drip trail | ☐ Saturation Stain | ☐ Wipe |

Section II: PATTERN DESCRIPTION, Part 2

Note: This part of the test is not a reconstruction of a scenario, but simply a test of pattern recognition and description.

Recognition and Description: For the following item, please indicate the pattern type(s) that best describe the image and write a brief description using the Suggested Terminology Glossary provided in the Appendix. Although you may use different terminology in your casework, in order to standardize responses for this exercise, please make your pattern selection(s) from the options provided and write your description using the suggested terminology.

Item 5: This pattern was found on the floor in the victim's house. The victim told police that upon returning home, they found the suspect inside their residence. The suspect attacked the victim, inflicting multiple stab wounds to their arm and abdomen, with no major arteries compromised. The victim was able to flee the scene. (The target was a tile positioned in the horizontal plane.)

- | | | |
|---|---|---|
| ☐ Bubble ring | ☐ Expiration Pattern | ☐ Splash Pattern |
| ☐ Cast-off Pattern | ☐ Impact Pattern | ☐ Swipe |
| ☐ Drip Pattern | ☐ Pool | ☐ Transfer Stain |
| ☐ Drip Stain | ☐ Projected Pattern | ☐ Void |
| ☐ Drip trail | ☐ Saturation Stain | ☐ Wipe |

Brief Pattern Description

Note: Please use appropriate punctuation to indicate the end of sentences, sections, and statements in the free-form space below. Extra spacing and returns used for separation within your text will not transfer and may cause your information to be illegible in the Summary Report. The use of lists and tabular formats to deliver information is also cautioned against, as these do not transfer.

Additional Comments

Note: Please use appropriate punctuation to indicate the end of sentences, sections, and statements in the free-form space below. Extra spacing and returns used for separation within your text will not transfer and may cause your information to be illegible in the Summary Report. The use of lists and tabular formats to deliver information is also cautioned against, as these do not transfer.

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 angle (alpha), relative to the plane of a target, at which a blood drop strikes the target.

Area of Convergence

The space in two dimensions to which the directionalities of spatter stains can be retraced to determine the location of the spatter producing event.

Area of Origin

The space in three dimensions to which the trajectories of spatter can be utilized to determine the location of the spatter producing event.

Backspatter Pattern

A bloodstain pattern resulting from blood drops which can be produced when a projectile creates an entrance wound.

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 Pattern

A bloodstain pattern resulting from blood drops released from an object due to its abrupt 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

A bloodstain 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 which can be produced when a projectile creates an exit wound.

Impact Pattern

A bloodstain pattern resulting from an object striking liquid blood.

Insect Stain

A bloodstain resulting from insect activity.

Parent Stain

A bloodstain from which a satellite stain(s) originated.

Perimeter Stain

An altered stain consisting of its edge characteristics, the central area having been partially or entirely removed.

Pool

A bloodstain resulting from an accumulation of liquid blood on a surface.

Projected Pattern

A bloodstain pattern resulting from the ejection of blood under hydraulic pressure, typically from a breach in the circulatory system.

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 an airborne blood drop created when external force is applied to liquid blood.

Splash Pattern

A bloodstain pattern created from a large volume of liquid blood falling onto a surface.

Swipe

A bloodstain 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

An altered stain resulting from an object moving through a preexisting wet bloodstain.

* As established by the AAFS Standards Board (ASB) - 2017

RELEASE OF DATA TO ACCREDITATION BODIES

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

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

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

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

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

ANAB Certificate No.

A2LA Certificate No.

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

Authorized Contact Person and Title

Laboratory Name

Location (City/State)