



Footwear Imprint Evidence Test No. 20-5331/5 Summary Report

Each sample pack contained either digitally produced photographs (20-5331) or directly downloadable digital images (20-5335) of seven questioned imprints and photographs of two suspect shoe soles and test imprints made with those shoes. Participants were requested to compare the imprints from the crime scene with the suspect shoes and report their findings. Data were returned by 195 participants: 113 for 20-5331 and 82 for 20-5335 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 consists of nine photographs. One photograph (K1a) shows the soles of the two suspect shoes lit from above. Two photographs (K1b and K1c) show the suspect soles lit with oblique lighting on the heels and toes, respectively. Four photographs (K1d, K1e, K1f and K1g) show known imprints made with the suspect shoes. Two photographs contain images of the seven questioned imprints, Q1-Q3 in the first photograph and Q4-Q7 in the second photograph. Participants were asked to compare the suspect shoe soles and their known imprints with the questioned imprints to determine if any associations or identifications could be established.

SAMPLE PREPARATION -

The shoes used in this test had been worn frequently over the course of more than three months. Once the shoes were no longer worn, the soles were cleaned of any debris with water and paper towels.

KNOWN IMPRINTS (K1d-K1g): Known imprints were created by coating the sole of each suspect shoe with ink and producing individual imprints on white paper. The imprints on K1d and K1e were created by rolling the toe and heel areas of each shoe separately. The heels were placed above their respective toes to distinguish the imprints from those on K1f and K1g. The imprints on K1f and K1g were produced by having the owner wear the shoe and step down onto paper placed on top of a semi-soft surface (per ASB standards).

QUESTIONED IMPRINTS (Q1-Q7): Questioned imprints Q1-Q7 were created by coating the sole of each shoe with fingerprint ink and having the wearer walk across the substrates (see table below). Item Q6 was created with a piece of adhesive tape stuck to the sole of the shoe used in its creation.

SAMPLE PACK ASSEMBLY -

Once verification was complete and sample preparation was done, each photo set was placed into a pre-labeled sample pack envelope, sealed with evidence tape, and initialed with "CTS." Digital download media were provided in a zipped file uploaded to the CTS portal.

VERIFICATION -

All laboratories that conducted the predistribution examination reported the expected associations and exclusions for all questioned imprints with the suspect shoes. Specifically, all labs associated imprints Q2, Q4, and Q7 with the suspect left shoe and associated imprints Q5 and Q6 with the suspect right shoe. The participants excluded the suspect shoes as the source of imprints Q1 and Q3.

Imprints	Shoe Type	Manufacturer	Left/Right	Size (U.S.)
Q1	Casual lace-up sneaker (Shoe not provided)	Ked's	Left	7
Q3	Casual lace-up sneaker (Shoe not provided)	Ked's	Right	7
Q2, Q4, Q7	Casual lace-up sneaker (Suspect shoe K1)	Ked's	Left	8
Q5, Q6	Casual lace-up sneaker (Suspect shoe K1)	Ked's	Right	8

Summary Comments

This test was designed to allow participants to assess their proficiency with footwear imprint examination and comparison. Test materials consisted of two photographs containing seven questioned footwear imprints (Q1-Q7), a photograph of the two suspect shoe soles (K1a), two photographs of oblique lighted images of the same soles (K1b-K1c), and four photographs of inked exemplar imprints made with the shoes (K1d-K1g). Participants were requested to determine if any of the questioned imprints were made by the suspect shoes, utilizing a seven-point conclusion scale. Two of the questioned imprints were made by the suspect right shoe (Q5, Q6), and three were made by the suspect left shoe (Q2, Q4, Q7). Two questioned imprints (Q1, Q3) were made by a second pair of unknown shoes (Refer to the Manufacturer's Information for preparation details).

Of the 195 responding participants, 184 (94.4%) reported all associations/exclusions and left/right orientations consistent with the consensus and expected results. Eleven participants were outliers in either print association, left/right designations, or both.

Regarding the print association, 185 of 195 participants (94.9%) reported the expected associations and exclusions for all seven questioned imprints. For those imprints that were associated with the suspect shoes (K1), all responses of association (A-D) were tallied together to determine the consensus. Overall, most participants were confident to report an Identification (A) or High Degree of Association (B) for all questioned items. Item Q5 had the lowest reported percentage of Identifications (62.6%), with 29.2% reporting a High Degree of Association (B) and another 5.6% reporting either Association (C) or Limited Association (D). Most participants reporting a limited association noted that this was due to the small number of RACs visible in the limited surface area of the partial imprint.

Nine participants were outliers in these conclusions of association. Four participants reported some level of association (A-D) between imprints Q1 and Q3 and the suspect shoes; one of these four also excluded (G) imprint Q4. Two participants reported an exclusion for imprint Q5; one of these participants also excluded imprint Q6. One participant excluded imprint Q4. Finally, two participants did not report in the requested manner, providing the letter "I" instead of a letter from the included seven-points conclusions scale. This anomaly was recorded across all prints associated with the suspect shoes (Q2, Q4, Q5, Q6, Q7).

Regarding the left/right designations, 190 of 195 participants (97.4%) reported the expected L/R shoe for all associated questioned imprints. One participant associated Q2 with the right suspect shoe. Another participant associated Q4 with the right suspect shoe. One additional participant associated Q7 with the right suspect shoe. The remaining two participants did not report as expected, providing a response of "G" or "A" instead of a left or right designation. This anomaly was recorded across all prints associated with the suspect shoes (Q2, Q4, Q5, Q6, Q7).

Examination Results

Indicate the results of your comparisons of the suspect shoes with the questioned imprints.

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
22WWRJ- 5331	G		A	L	G		
23ATXN- 5331	G		A	L	G		
2GTG3F- 5335	G		A	L	G		
2HL8EL- 5335	G		A	L	G		
36DLP2- 5335	G	L	A	L	G	R	
38GKZU- 5335	G		A	L	G		
3K6LHL- 5335	G	L	A	L	G	R	
3QBCLR- 5331	G	L	A	L	G	R	
3RPMWD- 5331	G		A	L	G		
3ZXD22- 5335	G		A	L	G		
44D9FD- 5331	G		A	L	G		
469RJZ- 5335	G	L	A	L	G	R	
47JT6Y- 5331	G		B	L	G		
47LKWF- 5335	G	G	A	G	G	G	
4AH62Y- 5331	G		A	L	G		
4F8G3M- 5335	G		A	L	G		
4HZDRG- 5335	G	L	A	L	G	R	

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
4LV6XT- 5335	G		A	L	G		
4QRTCE- 5335	G		A	L	G		
4WXPXZ- 5331	G		A	L	G		
67GHNM- 5335	G		A	L	G		
6DZLWP- 5335	G		A	L	G		
6F3K8H- 5335	G	L	A	L	G	R	
6LCKQZ- 5335	G		A	L	G		
6Q96UJ- 5331	G		A	L	G		
6UNYAG- 5331	G		A	L	G		
6XLKXD- 5335	G		A	L	G		
7ARTEV- 5331	G		I	L	G		
7U2TLB- 5335	G	L	A	L	G	R	
7XZ4HB- 5335	G		A	L	G		
7ZTVUG- 5335	G		A	L	G		
82UK8A- 5331	G		A	L	G		
86HRVD- 5331	G		A	L	G		
88KUG9- 5335	G		A	L	G		
8L2TL9- 5331	G		A	L	G		
936MT9- 5335	G		A	L	G		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
9BZKKH- 5331	G		A	L	G		
9LKVUA- 5331	G		A	L	G		
9RPV8K- 5331	G	L	I	L	G	R	
A2NP29- 5335	G		A	L	G		
A9TPEJ- 5331	G		A	L	G		
ABVMPC- 5331	G		C	L	G		
AHGF2C- 5331	G	L	A	L	G	R	
AJB77Q- 5331	G	L	A	L	G	R	
AR3LTA- 5331	G		A	L	G		
ARKXAU- 5331	G		A	L	G		
ATZWTJ- 5335	G		A	L	G		
B8QGMC- 5335	G		A	L	G		
BF4BX8- 5335	G		A	L	G		
BFJUH6- 5331	G		A	L	G		
BKFDNA- 5331	G		A	L	G		
BVYRPQ- 5331	G		A	L	G		
BYZTR9- 5335	G		A	L	G		
BZTPEH- 5335	G		A	L	G		
C24NAQ- 5331	G		A	L	G		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		L/R
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
C4L64G- 5335	G		A	L	G		
C62AY9- 5335	G		A	L	G		
C7E2TB- 5335	G		A	L	G		
CFEPK8- 5331	G		A	L	G		
CJNGZF- 5331	G		A	L	G		
CKAJH9- 5331	G		A	L	G		
CLNP4Q- 5335	F		A	L	F		
CW9W3F- 5335	G		A	L	G		
CZ99YE- 5335	G		A	L	G		
D2XT6B- 5331	G		A	L	G		
D42NNE- 5331	G		A	L	G		
D4ZYFB- 5331	F		A	L	G		
DARYYC- 5331	G		A	L	G		
DB3ZKB- 5331	G	L	A	L	G		R
DN9W4D- 5331	G		A	L	G		
DNRZBD- 5331	G		A	L	G		
DTGGM4- 5331	G		A	L	G		
E6VUHD- 5331	G		A	L	G		
EDAHJ8- 5331	G	L	A	L	G		R

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
EKK66F-5331	G	L	A	L	G	R	
ER73T3-5335	G		A	L	G		
ETXT7A-5331	G		A	L	G		
EUBPBD-5335	G		A	L	G		
F3M4TA-5331	G		A	L	G		
FA2MC9-5335	G		A	L	G		
FC7F6L-5331	G		A	L	G		
FHBEFC-5335	G		A	L	G		
FJR9H8-5331	G		A	L	G		
FRKN36-5335	G		A	L	G		
FXCQBB-5331	G	L	A	L	G	R	
G3G7X4-5335	G		A	L	G		
G89DFD-5331	G		A	L	G		
GA2A3L-5331	G		A	L	G		
GHQXZA-5331	G	L	A	L	G	R	
GLQ74J-5335	G	L	A	L	G	R	
GNXN3F-5331	G	L	A	L	G	R	
GRFQ8Y-5331	G		A	L	G		
GTC289-5331	G		A	L	G		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
GX9QNF- 5331	G		A	R	G		
GYHV24- 5331	G		A	L	G		
GZCL8J- 5335	G		A	L	G		
H7UB6X- 5331	G		A	L	G		
H8PU9K- 5335	G		A	L	G		
HHBXFK- 5331	G	L	A	L	G	R	
HLKBXH- 5331	G		A	L	G		
HNC8MC- 5335	G		A	L	G		
HP8XQ7- 5335	D	L	B	L	D	R	
J3ALKK- 5331	G		A	L	G		
J7BMM4- 5331	G		A	L	G		
J8LP93- 5331	G		A	L	G		
JC2WW2- 5331	G		A	L	G		
JCETZK- 5331	G		A	L	G		
JFWV66- 5331	G		A	L	G		
JL3PY2- 5331	G		A	L	G		
JNQWN4- 5335	G		A	L	G		
JQVNFG- 5331	G	L	A	L	G	R	
JXGHT3- 5335	G		A	L	G		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
KB2GXA- 5331	G		A	L	G		
KG7F9Y- 5335	G		A	L	G		
KUD7B8- 5331	G		A	L	G		
KURRK9- 5335	G		A	L	G		
KVALKJ- 5331	G	L	A	L	G	R	
L2AK9D- 5331	D	L	A	L	D	R	
LAHWNW- 5331	G		A	L	G		
M2KJ79- 5331	G	L	A	L	G	R	
M6KV29- 5331	G	L	A	L	G	R	
M8RB9E- 5331	G		A	L	G		
MAHCE2- 5331	G		A	L	G		
MBC3JG- 5335	G		A	L	G		
MKZWXY- 5331	G		A	L	G		
MQ6U3W- 5335	G		A	L	G		
MUMUN4- 5331	G		A	L	G		
MYFWNW- 5331	G		A	L	G		
MZTNGE- 5331	G	L	A	L	G	R	
N26MD9- 5335	G		A	L	G		
NNUAW8- 5335	G		A	L	G		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
NQ2P3D- 5335	G		A	L	G		
NRFWPV- 5335	G		A	L	G		
NYRA9C- 5331	G		A	L	G		
P7VGNE- 5335	G		A	L	G		
P9WHNC- 5335	G	L	A	L	G	R	
PCJ4GY- 5331	G	L	A	L	G	R	
PEL3RR- 5335	G		A	L	G		
PNATF6- 5331	G	L	A	L	G	R	
PR96C6- 5331	G		A	L	G		
PT3UFY- 5335	G		A	L	G		
PWL69W- 5331	G		A	L	G		
PXGUDP- 5331	G		A	L	G		
Q2TVC3- 5335	G	L	A	L	G	R	
QCBEVY- 5331	G		A	L	G		
QDP26Z- 5331	G		A	L	G		
QGNJ3T- 5331	G		A	L	G		
QHG9N9- 5331	G		A	L	G		
QN8KPW- 5335	G	L	A	L	G	R	
QUBPDA- 5331	C		A	L	C		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
QXVGND- 5335	G		A	L	G		
QY4T4T- 5335	G		A	L	G		
RLYPJY- 5335	G		A	L	G		
RWVTMT- 5331	G	L	A	L	G	R	
T24GXA- 5331	G		A	L	G		
T48CFQ- 5331	G		A	L	G		
T9NJ4Q- 5335	G		A	L	G		
TBBDKR- 5331	G		A	L	G		
TJPZTV- 5331	G		A	L	G		
TLBND9- 5335	D	L	A	L	D	R	
TQ9B3P- 5335	G		A	L	G		
TUMZ7Y- 5335	G	G	A		G	G	
UDR3EN- 5331	G		A	L	G		
UGT79W- 5331	G		A	L	G		
UKDXKY- 5335	G		A	L	G		
UQJREU- 5331	G		A	L	G		
UUH3BU- 5331	G		A	L	G		
VB7FM2- 5335	G		A	L	G		
VH3FWM- 5331	G		A	L	G		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	<u>Q1</u>		<u>Q2</u>		<u>Q3</u>		L/R
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
VXHD49- 5335	G		B	L	G		
W2BXLX- 5335	G		A	L	G		
W78L26- 5331	G		A	L	G		
WEL8B9- 5331	G		A	L	G		
WEYY4P- 5331	G		A	L	G		
WJVNKW- 5331	G		A	L	G		
WNK6WM- 5331	G	L	A	L	G		R
WWKMBY- 5335	G		A	L	G		
WYMLLR- 5331	G	L	A	L	G		R
WZ3PFJ- 5335	G		A	L	G		
X4WY4Q- 5331	G		A	L	G		
X98CLP- 5331	G		A	L	G		
XFQFTR- 5331	G		A	L	G		
XM9TRQ- 5335	G	L	A	L	G		R
XN3EM3- 5335	G		A	L	G		
XTFEJU- 5331	G		A	L	G		
Y4DEWX- 5335	G		A	L	G		
YDZDLH- 5335	G		A	L	G		
Z4AE8H- 5335	G		A	L	G		

TABLE 1a (Butcher Paper)

Questioned Imprints							
WebCode- Test	Q1		Q2		Q3		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
ZBTHEK- 5335	G		A	L	G		
ZJ368L- 5331	G		A	L	G		
ZMLWJN- 5335	G		A	L	G		
ZRUKU4- 5331	G		A	L	G		
ZVCMYN- 5331	G		B	L	G		
ZVTVP4- 5331	G		A	L	G		
ZXJWVR- 5335	G		A	L	G		

Response Summary						Participants: 195
	Q1 Conc.	L/R	Q2 Conc.	L/R	Q3 Conc.	L/R
Identification (A)	0 (0.0%)	N/A for non-assoc.	188 (96.4%)	L 192 (98.5%)	0 (0.0%)	N/A for non-assoc.
High Degree of Ass'n. (B)	0 (0.0%)		4 (2.1%)	R 1 (0.5%)	0 (0.0%)	
Association (C)	1 (0.5%)		1 (0.5%)		1 (0.5%)	
Limited Ass'n. (D)	3 (1.5%)		0 (0.0%)		3 (1.5%)	
Inconclusive (E)	0 (0.0%)		0 (0.0%)		0 (0.0%)	
Non-Ass'n. (F)	2 (1.0%)		0 (0.0%)		1 (0.5%)	
Exclusion (G)	189 (96.9%)		0 (0.0%)		190 (97.4%)	

Examination Results

Indicate the results of your comparisons of the suspect shoes with the questioned imprints.

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		L/R
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
22WWRJ-5331	A	L	A	R	A	R	A	L	
23ATXN-5331	A	L	A	R	A	R	A	L	
2GTG3F-5335	A	L	A	R	A	R	A	L	
2HL8EL-5335	A	L	A	R	A	R	A	L	
36DLP2-5335	A	L	B	R	A	R	B	L	
38GKZU-5335	A	L	C	R	A	R	A	L	
3K6LHL-5335	A	L	B	R	A	R	A	L	
3QBCLR-5331	A	L	A	R	A	R	A	L	
3RPMWD-5331	A	L	A	R	A	R	A	L	
3ZXD22-5335	A	L	A	R	A	R	A	L	
44D9FD-5331	A	L	B	R	A	R	A	L	
469RJZ-5335	A	L	C	R	A	R	A	L	
47JT6Y-5331	B	L	B	R	B	R	B	L	
47LKWF-5335	A	G	G	A	G	A	A	G	
4AH62Y-5331	A	L	A	R	A	R	A	L	
4F8G3M-5335	A	L	A	R	A	R	A	L	
4HZDRG-5335	A	L	B	R	A	R	B	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	<u>Q4</u>		<u>Q5</u>		<u>Q6</u>		<u>Q7</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
4LV6XT- 5335	A	L	B	R	A	R	A	L	
4QRTCE- 5335	A	L	A	R	A	R	A	L	
4WXPXZ- 5331	A	L	A	R	A	R	A	L	
67GHNM- 5335	A	L	A	R	A	R	A	L	
6DZLWP- 5335	A	L	A	R	A	R	A	L	
6F3K8H- 5335	A	L	A	R	A	R	A	L	
6LCKQZ- 5335	A	L	B	R	A	R	A	L	
6Q96UJ- 5331	A	L	A	R	A	R	A	L	
6UNYAG- 5331	A	L	C	R	A	R	A	L	
6XLKXD- 5335	A	L	A	R	A	R	A	L	
7ARTEV- 5331	I	L	I	R	I	R	I	L	
7U2TLB- 5335	A	L	B	R	A	R	B	L	
7XZ4HB- 5335	A	L	B	R	A	R	B	L	
7ZTVUG- 5335	A	L	A	R	A	R	A	L	
82UK8A- 5331	A	L	A	R	A	R	A	L	
86HRVD- 5331	A	L	A	R	A	R	A	L	
88KUG9- 5335	A	L	A	R	A	R	A	L	
8L2TL9- 5331	A	L	A	R	A	R	A	L	
936MT9- 5335	A	L	A	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
9BZKKH-5331	A	L	A	R	A	R	A	L	
9LKVUA-5331	B	L	B	R	B	R	A	L	
9RPV8K-5331	I	L	I	R	I	R	I	L	
A2NP29-5335	A	L	A	R	A	R	A	L	
A9TPEJ-5331	A	L	B	R	A	R	A	L	
ABVMPC-5331	A	L	C	R	A	R	A	L	
AHGF2C-5331	A	L	A	R	A	R	A	L	
AJB77Q-5331	A	L	B	R	A	R	B	L	
AR3LTA-5331	A	L	A	R	A	R	A	L	
ARKXAU-5331	A	L	B	R	A	R	A	L	
ATZWTJ-5335	A	L	A	R	A	R	A	L	
B8QGMC-5335	A	L	A	R	A	R	A	L	
BF4BX8-5335	A	L	A	R	A	R	A	L	
BFJUH6-5331	A	L	A	R	A	R	A	L	
BKFDNA-5331	A	L	A	R	A	R	A	L	
BVYRPQ-5331	A	L	B	R	A	R	A	L	
BYZTR9-5335	A	L	A	R	A	R	A	L	
BZTPEH-5335	A	L	A	R	A	R	A	L	
C24NAQ-5331	A	L	B	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
C4L64G-5335	A	L	A	R	A	R	A	L	
C62AY9-5335	A	L	A	R	A	R	A	L	
C7E2TB-5335	A	L	A	R	A	R	A	L	
CFEPK8-5331	A	L	A	R	A	R	A	L	
CJNGZF-5331	A	L	B	R	A	R	A	L	
CKAJH9-5331	A	L	A	R	A	R	A	L	
CLNP4Q-5335	A	L	A	R	A	R	A	L	
CW9W3F-5335	A	L	A	R	A	R	A	L	
CZ99YE-5335	A	L	B	R	A	R	B	L	
D2XT6B-5331	A	L	A	R	A	R	A	L	
D42NNE-5331	A	L	A	R	A	R	A	L	
D4ZYFB-5331	A	L	B	R	A	R	A	L	
DARYYC-5331	A	L	A	R	A	R	A	L	
DB3ZKB-5331	A	L	A	R	A	R	A	L	
DN9W4D-5331	A	L	B	R	A	R	A	L	
DNRZBD-5331	A	L	A	R	A	R	A	L	
DTGGM4-5331	A	L	B	R	A	R	A	L	
E6VUHD-5331	A	L	A	R	A	R	A	L	
EDAHH8-5331	A	L	A	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	<u>Q4</u>		<u>Q5</u>		<u>Q6</u>		<u>Q7</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
EKK66F-5331	A	L	A	R	A	R	A	L	
ER73T3-5335	A	L	A	R	A	R	A	L	
ETXT7A-5331	A	L	A	R	A	R	A	L	
EUBPBD-5335	A	L	A	R	A	R	A	L	
F3M4TA-5331	A	L	A	R	A	R	A	L	
FA2MC9-5335	A	L	A	R	A	R	A	L	
FC7F6L-5331	A	L	A	R	A	R	A	L	
FHBEFC-5335	A	L	A	R	A	R	A	L	
FJR9H8-5331	A	L	A	R	A	R	A	L	
FRKN36-5335	A	L	A	R	A	R	A	L	
FXCQBB-5331	A	L	B	R	A	R	A	L	
G3G7X4-5335	A	L	B	R	A	R	A	L	
G89DFD-5331	A	L	A	R	A	R	A	L	
GA2A3L-5331	A	L	B	R	A	R	A	L	
GHQXZA-5331	A	L	A	R	A	R	A	L	
GLQ74J-5335	A	L	A	R	A	R	A	L	
GNXN3F-5331	A	L	B	R	A	R	A	L	
GRFQ8Y-5331	A	L	A	R	A	R	A	L	
GTC289-5331	A	L	A	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
GX9QNF-5331	A	L	G		A	R	A	L	
GYHV24-5331	A	L	B	R	A	R	A	L	
GZCL8J-5335	A	L	A	R	A	R	A	L	
H7UB6X-5331	A	L	A	R	A	R	A	L	
H8PU9K-5335	A	L	A	R	A	R	A	L	
HHBXFK-5331	A	L	B	R	A	R	A	L	
HLKBXH-5331	A	L	A	R	A	R	A	L	
HNC8MC-5335	A	L	B	R	A	R	A	L	
HP8XQ7-5335	A	L	B	R	A	R	A	L	
J3ALKK-5331	A	L	A	R	A	R	A	L	
J7BMM4-5331	A	L	A	R	A	R	A	L	
J8LP93-5331	A	L	C	R	A	R	A	L	
JC2WW2-5331	A	L	A	R	A	R	A	L	
JCETZK-5331	A	L	A	R	A	R	A	L	
JFWV66-5331	G		A	R	A	R	A	L	
JL3PY2-5331	A	L	A	R	A	R	A	L	
JNQWN4-5335	A	L	A	R	A	R	A	L	
JQVNFG-5331	A	L	A	R	A	R	A	L	
JXGHT3-5335	A	L	A	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
KB2GXA-5331	A	L	B	R	A	R	A	L	
KG7F9Y-5335	A	L	B	R	A	R	A	L	
KUD7B8-5331	A	L	B	R	A	R	A	L	
KURRK9-5335	A	L	A	R	A	R	A	L	
KVALKJ-5331	A	L	A	R	A	R	A	L	
L2AK9D-5331	A	L	A	R	A	R	A	L	
LAHWNW-5331	A	L	B	R	A	R	A	L	
M2KJ79-5331	A	L	A	R	A	R	A	L	
M6KV29-5331	A	L	B	R	A	R	B	L	
M8RB9E-5331	A	L	B	R	A	R	A	L	
MAHCE2-5331	A	L	A	R	A	R	A	L	
MBC3JG-5335	A	L	B	R	A	R	B	L	
MKZWXY-5331	A	L	B	R	A	R	A	L	
MQ6U3W-5335	A	L	A	R	A	R	A	L	
MUMUN4-5331	B	L	A	R	B	R	A	L	
MYFWNW-5331	A	L	A	R	A	R	A	L	
MZTNGE-5331	A	L	A	R	A	R	A	R	
N26MD9-5335	A	L	B	R	A	R	A	L	
NNUAW8-5335	A	L	A	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	<u>Q4</u>		<u>Q5</u>		<u>Q6</u>		<u>Q7</u>		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
NQ2P3D-5335	A	L	B	R	A	R	A	L	
NRFWPV-5335	A	L	A	R	A	R	A	L	
NYRA9C-5331	A	L	B	R	A	R	A	L	
P7VGNE-5335	A	L	A	R	A	R	A	L	
P9WHNC-5335	A	L	A	R	A	R	A	L	
PCJ4GY-5331	A	L	A	R	A	R	A	L	
PEL3RR-5335	A	L	B	R	A	R	A	L	
PNATF6-5331	A	L	B	R	A	R	A	L	
PR96C6-5331	A	L	C	R	A	R	B	L	
PT3UFY-5335	A	L	A	R	A	R	A	L	
PWL69W-5331	A	L	A	R	A	R	A	L	
PXGUDP-5331	A	L	B	R	A	R	A	L	
Q2TVC3-5335	A	L	A	R	A	R	A	L	
QCBEVY-5331	A	L	A	R	A	R	A	L	
QDP26Z-5331	A	L	A	R	A	R	A	L	
QGNJ3T-5331	A	L	A	R	A	R	A	L	
QHG9N9-5331	A	L	A	R	A	R	A	L	
QN8KPW-5335	A	L	A	R	A	R	A	L	
QUBPDA-5331	A	L	C		A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
QXVGND-5335	A	L	C	R	A	R	B	L	
QY4T4T-5335	A	L	A	R	A	R	A	L	
RLYPJY-5335	A	L	A	R	A	R	A	L	
RWVTMT-5331	A	L	A	R	A	R	A	L	
T24GXA-5331	A	L	B	R	A	R	A	L	
T48CFQ-5331	A	L	B	R	A	R	A	L	
T9NJ4Q-5335	A	L	A	R	A	R	A	L	
TBBDKR-5331	A	L	B	R	A	R	B	L	
TJPZTV-5331	A	L	B	R	A	R	B	L	
TLBND9-5335	A	R	B	R	A	R	B	L	
TQ9B3P-5335	A	L	A	R	A	R	A	L	
TUMZ7Y-5335	A			A		A	A		
UDR3EN-5331	A	L	A	R	A	R	A	L	
UGT79W-5331	A	L	A	R	A	R	A	L	
UKDXKY-5335	A	L	A	R	A	R	A	L	
UQJREU-5331	A	L	A	R	A	R	A	L	
UUH3BU-5331	A	L	A	R	A	R	A	L	
VB7FM2-5335	A	L	B	R	A	R	B	L	
VH3FWM-5331	A	L	B	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
VXHD49- 5335	G		C	R	B	R	B	L	
W2BXLX- 5335	A	L	A	R	A	R	A	L	
W78L26- 5331	A	L	A	R	A	R	A	L	
WEL8B9- 5331	A	L	A	R	A	R	A	L	
WEYY4P- 5331	A	L	C	R	A	R	A	L	
WJVNKW- 5331	A	L	A	R	A	R	A	L	
WNK6WM- 5331	A	L	A	R	A	R	A	L	
WWKMBY- 5335	A	L	A	R	A	R	A	L	
WYMLLR- 5331	A	L	B	R	A	R	A	L	
WZ3PFJ- 5335	A	L	B	R	A	R	A	L	
X4WY4Q- 5331	A	L	A	R	A	R	A	L	
X98CLP- 5331	A	L	B	R	A	R	B	L	
XFQFTR- 5331	A	L	B	R	A	R	A	L	
XM9TRQ- 5335	A	L	B	R	A	R	B	L	
XN3EM3- 5335	A	L	B	R	A	R	B	L	
XTFEJU- 5331	A	L	A	R	A	R	A	L	
Y4DEWX- 5335	A	L	B	R	A	R	A	L	
YDZDLH- 5335	A	L	A	R	A	R	A	L	
Z4AE8H- 5335	A	L	A	R	A	R	A	L	

TABLE 1b (Kitchen Floor)

Questioned Imprints									
WebCode- Test	Q4		Q5		Q6		Q7		
	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	Conclusion	L/R	
ZBTHEK-5335	A	L	A	R	A	R	A	L	
ZJ368L-5331	A	L	A	R	A	R	A	L	
ZMLWJN-5335	A	L	A	R	A	R	A	L	
ZRUKU4-5331	A	L	A	R	A	R	A	L	
ZVCMYN-5331	A	L	B	R	B	R	A	L	
ZVTVP4-5331	A	L	D	R	A	R	A	L	
ZXJWVR-5335	A	L	A	R	A	R	A	L	

Response Summary								Participants: 195	
	Q4 Conc.		Q5 Conc.		Q6 Conc.		Q7 Conc.		
		L/R		L/R		L/R		L/R	
Identification (A)	188 (96.4%)	L	190 (97.4%)	R	186 (95.4%)	R	193 (99.0%)	L	192 (98.5%)
High Degree of Ass'n. (B)	3 (1.5%)	R	1 (0.5%)	L	5 (2.6%)	L	0 (0.0%)	R	1 (0.5%)
Association (C)	0 (0.0%)		10 (5.1%)		0 (0.0%)		0 (0.0%)		
Limited Ass'n. (D)	0 (0.0%)		1 (0.5%)		0 (0.0%)		0 (0.0%)		
Inconclusive (E)	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Non-Ass'n. (F)	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Exclusion (G)	2 (1.0%)		2 (1.0%)		1 (0.5%)		0 (0.0%)		

Conclusions

TABLE 2

WebCode-Test	Conclusions
22WWRJ-5331	<p>The submitted images and known impressions of the suspect shoes (K1 a-K1g) were examined and compared to the questioned impressions visible in Q1-Q7. Q2, Q4, and Q7 correspond to the known left shoe in tread pattern, tread size, tread wear, and individual characteristics including gouges and scratches in the tread surface. Thus, Q2, Q4, and Q7 were made by the known left shoe. Q5 and Q6 correspond to the known right shoe in tread pattern, tread size, tread wear, and individual characteristics including gouges, nicks, and scratches in the tread surface. Thus, Q5 and Q6 were made by the known right shoe. Q1 corresponds to the known left shoe in tread pattern, however, Q1 and the known left shoe are different in tread wear and individual characteristics. Thus, Q1 could not have been made by the known left shoe. Q3 corresponds to the known right shoe in tread pattern, however, Q3 and the known right shoe are different in tread wear and individual characteristics. Thus, Q3 could not have been made by the known right shoe.</p>
23ATXN-5331	<p>The Item Q1 through Q7 questioned footwear impressions were analyzed, compared and evaluated with the Item K1 right and left Keds women's US size 8 shoes. The Item Q1 questioned impression corresponds in tread design. However, The Item Q1 questioned footwear impression does not correspond in physical size or general wear with the K1 left shoe. The Item Q2 questioned impression corresponds in tread design, physical size, general wear and randomly acquired characteristics with the Item K1 Left shoe. The Item Q3 questioned impression corresponds in tread design. However, The Item Q1 questioned footwear impression does not correspond in physical size or general wear with the K1 right shoe. The Item Q4 questioned impression corresponds in tread design, physical size, general wear and randomly acquired characteristics with the Item K1 Left shoe. The Item Q5 questioned impression corresponds in tread design, physical size, general wear and randomly acquired characteristics with the Item K1 right shoe. The Item Q6 questioned impression corresponds in tread design, physical size, general wear and randomly acquired characteristics with the Item K1 right shoe. The Item Q7 questioned impression corresponds in tread design, physical size, general wear and randomly acquired characteristics with the Item K1 left shoe.</p>
2GTG3F-5335	<p>The results indicated that the recovered imprints Q2, Q4 and Q7 were made by the suspect's left shoe whereas the recovered imprints Q5 and Q6 were made by the suspect's right shoe. The recovered imprints Q1 and Q3 were not made by any of the suspect's shoes.</p>
2HL8EL-5335	<p>Comparison of the partial shoe imprint, labeled found on paper in the kitchen (creased butcher paper), Q1, (item 8.1), to the recovered "Keds" right and left shoes revealed an elimination. Comparison of the partial shoe imprint, labeled found on paper in the kitchen (creased butcher paper), Q2, (item 8.2), to the recovered "Keds" left shoe revealed an identification. Comparison of the partial shoe imprint, labeled found on paper in the kitchen (creased butcher paper), Q3, (item 8.3), to the recovered "Keds" right and left shoes revealed an elimination. Comparison of the partial shoe imprint, labeled found in the kitchen (smooth ceramic tile), Q4, (item 9.1), to the recovered "Keds" left shoe revealed an identification. Comparison of the partial shoe imprint, labeled found in the kitchen (smooth ceramic tile), Q5, (item 9.2), to the recovered "Keds" right shoe revealed an identification. Comparison of the partial shoe imprint, labeled found in the kitchen (smooth ceramic tile), Q6, (item 9.3), to the recovered "Keds" right shoe revealed an identification. Comparison of the partial shoe imprint, labeled found in the kitchen (smooth ceramic tile), Q7, (item 9.4), to the recovered "Keds" left shoe revealed an identification.</p>
36DLP2-5335	<p>Q1 – G (exclusion) Left. Results: The overall pattern was similar but the texture of the outsole did not correspond. Size and wear did not correspond. Two RACs in the shoe could not be observed in the shoeprint and one detail in the shoeprint did not correspond with any RAC in the shoe. Conclusion: It is not expected that a shoeprint assigned by the left shoe should look like the shoeprint Q1. The results extremely strongly support that the left shoe did not assign the shoeprint Q1. Q2 – A (identification) Left. Results: Pattern, size and wear conformity was observed between the shoe print and the corresponding part of the left shoe. In the shoeprint, several details that correspond with RACs in the shoe were also observed. Conclusion: It is expected that a shoeprint assigned by the left shoe should look like the</p>

TABLE 2

WebCode-Test	Conclusions
	<p>shoeprint Q2. The percentage of other shoes that can assign a shoeprint that looks like this is considered extremely small. The results extremely strongly support that the left shoe did assign the shoeprint Q2. Q3 – G (exclusion) Right. Results: The overall pattern and the size were similar but the texture of the outsole did not correspond. The general wear did not correspond. One RAC in the shoe could not be observed in the shoeprint. Conclusion: It is not expected that a shoeprint assigned by the right shoe should look like the shoeprint Q3. The results extremely strongly support that the right shoe did not assign the shoeprint Q3. Q4 - A (identification) Left. Results: Pattern and wear conformity was observed between the shoeprint and the corresponding part of the left shoe. There were a small difference between the size of the shoeprint and the size of the left shoe. In the shoeprint, several details that corresponded with RACs in the shoe were also observed. Conclusion: It is expected that a shoeprint assigned by the left shoe should look like the shoeprint Q4. The percentage of other shoes that can assign a shoeprint that looks like this is considered extremely small. The results extremely strongly support that the left shoe did assign the shoeprint Q4. Q5 – B (high degree of association) Right. Results: Pattern and size conformity was observed between the shoeprint and the corresponding part of the right shoe. Also the general wear in the shoeprint did resemble the wear in the shoe. In the shoeprint, a few details that correspond with RACs in the shoe were also observed. Conclusion: It is expected that a shoeprint assigned by the right shoe would look like the shoeprint Q5. The percentage of other shoes that can assign a shoeprint that looks like this is considered small. The results strongly support that the right shoe did assign the shoeprint Q5. Q6 - A (identification) Right. Results: Pattern, size and wear conformity was observed between the shoeprint and the corresponding part of the right shoe. In the shoeprint, several details that correspond with RACs in the shoe were also observed. Conclusion: It is expected that a shoeprint assigned by the right shoe should look like the shoeprint Q6. The percentage of other shoes that can assign a shoeprint that looks like this is considered extremely small. The results extremely strongly support that the right shoe did assign the shoeprint Q6. Q7 – B (high degree of association) Left. Results: Pattern and wear conformity was observed between the shoeprint and the corresponding part of the left shoe. There were a small difference between the size of the shoeprint and the size of the left shoe. In the shoeprint, a few details that corresponded with RACs in the shoe were also observed. Conclusion: It is expected that a shoeprint assigned by the left shoe would look like the shoeprint Q7. The percentage of other shoes that can assign a shoeprint that looks like this is considered small. The results strongly support that the right shoe did assign the shoeprint Q7.</p>
38GKZU-5335	<p>Identification. K1 is the known source of the questioned impression. Exclusion. This is the highest degree of non-association where sufficient differences were noted in the comparison between the questioned and known impression. This indicates the known was not the source of the questioned impression. Association of class characteristics. Class characteristics of both design and physical size correspond. This conclusion does not exclude other items that exhibit similar design and size.</p>
3K6LHL-5335	<p>The questioned prints Q2 and Q4 to Q7 showed the same details in pattern, size, wear and individual characteristics as the suspects shoes K1. Q2, Q4, Q6 and Q7 were made by these shoes – A/identification. Q5 is a small partial print of the heel with one individual characteristic and not as clear as other prints – B/High degree of association.</p>
3QBCLR-5331	<p>Impressions Q2, Q4 and Q7 orient with a left shoe and correspond in outsole design, physical size, wear and three to six randomly acquired characteristics (RACs) with the K1 left shoe. Therefore, this shoe was identified as the source of these impressions. Impressions Q5 and Q6 orient with a right shoe and correspond in outsole design, physical size, wear and two to five RACs with the K1 right shoe. Therefore, this shoe was identified as the source of these impressions. Impression Q1 orients with a left shoe and corresponds in general outsole design with the K1 left shoe. However, this impression is different in specific outsole design than this shoe. Therefore, this shoe was eliminated as the source of this impression. Impression Q3 orients with a right shoe and corresponds in general outsole design with the K1 right shoe. However, this impression is different in specific outsole design than this shoe. Therefore, this shoe was eliminated as the source of this impression.</p>
3RPMWD-5331	<p>The impressions marked Q2, Q4, Q5, Q6 and Q7 correspond in class characteristics, namely design (arrangement of footwear design elements and pattern/s), wear (extent of erosion to the outsole) and physical size (length, width and relative positions of various design elements in the outsole) and in</p>

TABLE 2

WebCode-Test	Conclusions
	individual characteristics (random characteristics i.e. nicks, cuts, tears etc. similar in size, shape, orientation and location resulting from random events), therefore it can be stated that the Suspect's shoes were the source of the impressions. The impressions marked Q1 and Q3 correspond in general design, however, significant differences are noted in how the design interacts with the border/s of the Suspect's shoes, therefore it can be stated that the Suspect's shoes were not the source of the impressions.
3ZXD22-5335	[No Conclusions Reported.]
44D9FD-5331	The known shoes are different in size, shape, design pattern, and/or wear pattern to the questioned impressions in Q1 and Q3. The known shoes are excluded from making the questioned impressions, Q1 and Q3. The known left shoe is similar in size, shape, design pattern, randomly acquired characteristics, and wear pattern to the questioned impressions in Q2 and Q4. The known left shoe made the questioned impressions in Q2 and Q4. The known left shoe is similar in shape, design pattern, randomly acquired characteristics, and wear pattern to the questioned impression in Q7. The known left shoe made the questioned impression in Q7. The known right shoe is similar in shape and design pattern, with one randomly acquired characteristic, to the questioned impression in Q5. The known right shoe or any shoe with similar class and individual characteristics could have made the questioned impression in Q5. The known right shoe is similar in size, shape, design pattern, randomly acquired characteristics, and wear pattern to the questioned impression in Q6. The known right shoe made the questioned impression in Q6.
469RJZ-5335	[No Conclusions Reported.]
47JT6Y-5331	Q1 and Q3 - Exclusion. Q2, Q4, Q5, Q6, Q7 - Positive screen based on correspondence of pattern, size, wear and one or more random features.
47LKWF-5335	The Q1 and Q3 impressions differ in physical size and specific design features in comparison with the known shoes. Therefore, the known shoes are not the source of the Q1 and Q3 impressions. The Q2, Q4 and Q7 impressions correspond in in physical size and design, specific location of wear, and a number of randomly acquired characteristics with the respective portions of the known left shoe sole. Therefore, the known left shoe is the source of the Q2, Q4, and Q7 impressions. The Q5 and Q6 impressions correspond in in physical size and design, specific location of wear, and a number of randomly acquired characteristics with the respective portions of the known right shoe sole. Therefore, the known right shoe is the source of the Q5 and Q6 impressions.
4AH62Y-5331	[No Conclusions Reported.]
4F8G3M-5335	The impressions Q2, Q4, and Q7 corresponded in outsole design, shape, size, wear and accidental characteristics with the known left shoe from item 1. The impression Q2, Q4, and Q7 were identified to the left shoe submitted in item 1. The impressions Q5 and Q6 corresponded in outsole design, shape, size, wear and accidental characteristics with the known right shoe from item 1. The impression Q5 and Q6 were identified to the right shoe submitted in item 1. The impressions Q1 and Q3 had different outsole designs than the designs of the shoes submitted in item 1; therefore, Q1 and Q3 could not have been made by the known shoes in item 1. The shoes in item 1 are excluded.
4HZDRG-5335	The questioned imprints Q2 and Q4 are associated with the sole of the left shoe. They share agreement of class characteristics and randomly acquired characteristics of sufficient quality and quantity with the recovered left shoesole and the known imprints, which were made with the left shoesole. The recovered left shoe was the source of, and made, the questioned imprints Q2 and Q4. Another item of footwear being the source of the imprints is considered a practical impossibility. The questioned imprints Q6 are associated with the sole of the right shoe. They share agreement of class characteristics and randomly acquired characteristics of sufficient quality and quantity with the recovered right shoesole and the known imprints, which were made with the right shoesole. The recovered right shoe was the source of, and made, the questioned imprints Q6. Another item of footwear being the source of the imprints is

TABLE 2

WebCode-Test	Conclusions
	<p>considered a practical impossibility. The questioned imprints Q5 are associated with the sole of the right shoe. They correspond in class characteristics of design, physical size, and general wear and randomly acquired characteristics to the recovered right shoe and the known imprints, which were made with the right shoesole. The quantity of the observed randomly acquired characteristics was sufficient for an identification. Other footwear with the same class characteristics observed in the imprints are included in the population of possible sources only if they display the same wear and randomly acquired characteristics observed in the questioned imprints Q5. The questioned imprints Q7 are associated with the sole of the left shoe. They correspond in class characteristics of design, physical size, and general wear and randomly acquired characteristics to the recovered left shoe and the known imprints, which were made with the left shoesole. The quantity of the observed randomly acquired characteristics was sufficient for an identification. Other footwear with the same class characteristics observed in the imprints are included in the population of possible sources only if they display the same wear and randomly acquired characteristics observed in the questioned imprints Q7. Sufficient differences were noted in the comparison of class characteristics between the questioned imprints Q1 and Q3 and the known imprints of the recovered shoes. The recovered shoes were not the source of, and did not make the questioned imprints Q1 and Q3.</p>
4LV6XT-5335	<p>Q1 was not made by the known shoe. Q2 was made by the known left shoe. Q3 was not made by the known shoe. Q4 was made by the known left shoe. Q5 was probably made by the known right shoe. Q6 was made by the known right shoe. Q7 was made by the known left shoe.</p>
4QRTCE-5335	<p>[No Conclusions Reported.]</p>
4WXPXZ-5331	<p>[No Conclusions Reported.]</p>
67GHNM-5335	<p>Examination revealed seven suitable patterned impressions labeled as Q1 through Q7. Q1 and Q3 could not have been made by the shoes represented in the photographs labeled as K1a through K1g due to significant differences in outsole pattern size and/or design. Q2, Q4, and Q7 were identified as having been made by the left shoe represented in the photographs labeled as K1a through K1g. Q5 and Q6 were identified as having been made by the right shoe represented in the photographs labeled as K1a through K1g.</p>
6DZLWP-5335	<p>In the opinion of the examiner, the left known footwear was the source of, and made, the questioned impressions at Q2-IMP1, Q4-IMP1, and Q7-IMP1. Another item of footwear being the source of the impression is considered a practical impossibility. It is also the opinion of the examiner, the right known footwear was the source of, and made, the questioned impressions at Q5-IMP1 and Q6-IMP1. Another item of footwear being the source of the impression is considered a practical impossibility. In the opinion of the examiner, the right and left known footwear was not the source, and did not make, the questioned impressions at Q1-IMP1 and Q3-IMP1.</p>
6F3K8H-5335	<p>The shoeprints, Q2, Q4 and Q7, have been produced by the sole of the left mark Keds. The shoeprints Q5 and Q6, have been produced by the sole of the right mark Keds. The shoeprints Q1 and Q3, have been not produced by the soles of the footwear mark Keds.</p>
6LCKQZ-5335	<p>IDENTIFICATION: Questioned and known items share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Highest degree of association. Q2 was identified as having been made by the left shoe of K1. Q4 was identified as having been made by the left shoe of K1. Q6 was identified as having been made by the right shoe of K1. Q7 was identified as having been made by the left shoe of K1. HIGH DEGREE OF ASSOCIATION - Correspondence of class characteristics, in addition to unusual wear and/or one or more randomly acquired characteristics between the questioned and known item. A high degree of association was observed between Q5 and the right shoe of K1. EXCLUSION - Questioned and known items exhibit sufficient differences of class and/or randomly acquired characteristics. Highest degree of non-association. Q1 was not made by K1. Q3 was not made by K1.</p>

TABLE 2

WebCode-Test	Conclusions
6Q96UJ-5331	<p>On examination, I found: i. The individual characteristic marks on the questioned imprints Q2, Q4 and Q7 to be similar to the individual characteristic marks on the soles of the recovered shoe K1 (LEFT). ii. The individual characteristic marks on the questioned imprints Q5 and Q6 to be similar to the individual characteristic marks on the soles of the recovered shoe K1 (RIGHT). iii. The individual characteristic marks on the questioned imprints Q1 and Q3 to be different to the individual characteristic marks on the soles of the recovered shoes K1 (LEFT/RIGHT). Therefore, I am of the opinion that: i. The questioned imprints Q2, Q4 and Q7 were made by the recovered shoe K1 (LEFT). ii. The questioned imprints Q5 and Q6 were made by the recovered shoe K1 (RIGHT). iii. The questioned imprints Q1 and Q3 were not made by the recovered shoes K1 (LEFT/RIGHT).</p>
6UNYAG-5331	<p>Q2, Q4 and Q7 were made by the known left shoe. Q6 was made by the known right shoe. Q5 could have been made by the known right shoe or by another shoe with all the same analyzed characteristics. Q5 could not have been made by the known left shoe. Q1 and Q3 could not have been made by the known shoes.</p>
6XLKXD-5335	<p>Q1 was not made by the K1 known left shoe. The submitted shoe can be excluded as a source of the impression. Q2 was identified to the K1 known left shoe. ETC...</p>
7ARTEV-5331	<p>The report below reflects the professional opinion reached by this examiner, based on the information available at the time of analysis. The following items were received from Forensics Proficiency Testing on April 16, 2020, and were used for this footwear examination: EVIDENCE: Item #Q1: Photograph of one partial footwear imprint on a floor. Item #Q2: Photograph of one partial footwear imprint on a floor. Item #Q3: Photograph of one partial footwear imprint on a floor. Item #Q4: Photograph of one partial footwear imprint on a floor. Item #Q5: Photograph of one partial footwear imprint on a floor. Item #Q6: Photograph of one partial footwear imprint on a floor. Item #Q7: Photograph of one partial footwear imprint on a floor. Item #K1: Photographs/Exemplars of one pair of Keds, US women's size 8. COMPARISON: The listed footwear imprints were compared to the known shoes with the following results: The questioned imprints labeled Item #Q2, Q4 and Q7 correspond in design, pattern, size and wear, and shares many individual random characteristics or defects with the left known shoe labeled Item #K1. In the opinion of the examiner, the imprints labeled Items #Q2, Q4 and Q7 were made by the known left shoe, Item K1. The possibility of another item of footwear being the source of the impression is considered a practical impossibility. The questioned imprints labeled Items #Q5 and Q6 corresponds in physical shape, pattern, design and wear, and shares many individual random characteristics or defects with the right known shoe labeled Item K1. In the opinion of the examiner, the imprints labeled Items #Q5 and Q6 were made by the known right shoe, Item K1. The possibility of another item of footwear being the source of the impression is considered a practical impossibility. The questioned imprints labeled Items #Q1 and Q3 were did not correspond in size and wear. The shoes labeled Item K1 was eliminated as having been the source of the imprints. All photographs were uploaded into the AXON system. The results of this comparison have not been verified by a second footwear examiner. If a verification is required, please contact the lab.</p>
7U2TLB-5335	<p>In interpreting this shoeprint evidence, consideration is given to the probability of observing these correspondences given the pair of shoes made the respective imprints in the kitchen, as opposed to observing these correspondences given the pair of shoes did not make the imprints in the kitchen. A good correspondence of pattern, size, wear and accidental damage was found between test prints made using the right shoe and one of the questioned imprints (Q6) and between test prints made using the left shoe and two of the questioned imprints (Q2 and Q4). In my opinion, the probability of obtaining these correspondences, given the shoes made the respective imprints in the kitchen is very high. Conversely, it is my opinion, that the probability of obtaining these correspondences, given these shoes did not make the respective imprints is so low that I consider it to be negligible. Therefore, it is my opinion that the left and right shoes made the respective imprints in the kitchen. A good correspondence of pattern, size, wear and some accidental damage was found between test prints made using the left shoe and one of the questioned imprints (Q7). In my opinion, the probability of obtaining these correspondences, given the left shoe made this imprint in the kitchen is very high. Conversely, it is my opinion, that the probability of obtaining these correspondences, given the left shoe did not make the imprint is low. Therefore it is my opinion that these correspondences provide extremely</p>

TABLE 2

WebCode- Test	Conclusions
	<p>strong support to the suggestion that the left shoe made the questioned imprint Q7 in the kitchen. A good correspondence of pattern, size, wear and some accidental damage was found between test prints made using the right shoe and one of the questioned imprints (Q5). In my opinion, the probability of obtaining these correspondences, given the right shoe made the imprint in the kitchen is high. Conversely, it is my opinion, that the probability of obtaining these correspondences, given the right shoe did not make the imprint is low. Therefore it is my opinion that these correspondences provide very strong support to the suggestion that the right shoe made the questioned imprint Q5 in the kitchen. Shoeprints Q1 and Q3 were different to the test prints made using the pair of shoes and therefore these two shoeprints were not made by the pair of shoes.</p>
7XZ4HB- 5335	<p>On 26 April 2018 the following items were received in the laboratory in connection with an investigation into an alleged break-in and burglary: Photographs K1a to K1c: Photographs of the suspect's shoes. Photographs K1d to K1g: Photographs of imprints prepared from the suspect's shoes. Photograph Q1 – Q3: Photograph of footwear impressions found on creased 'butcher paper' in the kitchen. Photograph Q4-Q7: Photograph of footwear impressions found on a smooth ceramic tile in the kitchen. I have examined the items to determine whether or not either of the submitted shoes recovered from the suspect could have made any of the footwear impressions photographed at the scene. The footwear impression in Q2 and Q4 have been made by a left shoe bearing the same sole pattern and dimensions as that of the suspect's left shoe. Furthermore, this impression has corresponding damage features as that present on the submitted left shoe, and correspondence in wear was observed. The combination of pattern, dimensions, wear pattern and damage demonstrates that these two impressions have therefore, in my opinion, been made by this shoe. The partial footwear impression in Q7 has been made by a left shoe bearing the same sole pattern that of the suspect's left shoe. Furthermore, correspondence in wear was observed with the submitted left shoe. There are also some damage areas on the sole of the submitted left shoe which correspond to areas of apparent damage on the scene footwear impression. The combination of pattern and wear detail, along with the damage features demonstrates, in my opinion, a high degree of association between this impression and the submitted left shoe. However, another the shoe with the same pattern and sole features could have also made this impression. The footwear impression in Q6 have been made by a right shoe bearing the same sole pattern and dimensions as that of the suspect's right shoe. Furthermore, these impressions have corresponding damage features as that present on the submitted right shoe and corresponding wear was observed. The combination of pattern, dimensions, no wear differences and damage demonstrates that this impression has therefore, in my opinion, been made by this shoe. The partial footwear impression in Q5 has been made by a right shoe bearing the same sole pattern that of the suspect's right shoe. Furthermore, correspondence in wear was observed to the submitted right shoe. There are also some damage areas on the submitted right shoe which correspond to areas of apparent damage on the scene footwear impression. The combination of pattern, wear detail along with the damage features demonstrates, in my opinion, a high degree of association between this impression and the submitted right shoe. However, another the shoe with the same pattern and sole features could have also made this impression. The footwear impression in photograph Q1 has been made by a left shoe with a similar sole pattern to the suspect's left shoe. However, this impression appears to have been made by a shoe of different size to that of the submitted shoe, has different wear features and no observed correspondence in areas of damage. I have concluded therefore that this impression has been made by a different shoe to the submitted shoes from the suspect. The partial footwear impression in photograph Q3 has been made by a right shoe with a similar sole pattern to the suspect's left shoe. However, this impression has different wear features. I have concluded therefore that this impression has been made by a different shoe to the submitted shoes from the suspect.</p>
7ZTVUG- 5335	<p>Impression Compared To Result Q1 1, Both Shoes Elimination Q2 1, Left Shoe Identification Q3 1, Both Shoes Elimination Q4 1, Left Shoe Identification Q5 1, Right Shoe Identification Q6 1, Right Shoe Identification Q7 1, Left Shoe Identification. [Participant submitted manually formatted data that was not transferrable into the final report, therefore, data is presented as is.]</p>
82UK8A- 5331	<p>The footwear Item# (K1 left) was identified as having made the questioned partial prints Items# (Q2, Q4 & Q7). The footwear Item# (K1 right) was identified as having made the questioned partial prints Items# (Q5 & Q6). The footwear Item# (K1 left & right) was excluded as having made the questioned</p>

TABLE 2

WebCode-Test	Conclusions
86HRVD-5331	<p>partial prints Items# (Q1 & Q3), due to having dissimilar tread pattern and physical size.</p> <p>Q1- The submitted photographs of the soles of the recovered shoes (k1a-k1c) were examined and compared to the impression visible in Q1. Q1 and the photographs correspond in tread pattern but are different in tread wear and tread size. Q1 also lacks an individual characteristic present on the tread in the photographs (k1a-k1c), surface gouge located in the tread of toe region on the plantar side of the known as well as a gouge in the center of the upper heel region. Thus, Q1 could not have been made by (k1a-k1c). Q2-The submitted photograph of the soles of the recovered shoes (K1a-K1c) were examined and compared to the impression visible in Q2. The questioned impression corresponds to the known footwear ((L) shoe) in tread pattern, tread size, tread wear and individual characteristics including a gouge in the tread on the plantar side of the upper toe region and a gouge in the tread in the upper heel region. Thus, Q2 was made by known (K1a-K1c). Q3- The submitted photographs of the soles of the recovered shoes (k1a-k1c) were examined and compared to the impression visible in Q3. Q3 and the photographs correspond in tread pattern but are different in tread wear and tread size. Q3 also lacks an individual characteristic present on the tread in the photographs (k1a-k1c), and a gouge in the tread in the upper heel region. Thus, Q3 could not have been made by (k1a-k1c). Q4-The submitted photograph of the soles of the recovered shoes (K1a-K1c) were examined and compared to the impression visible in Q4. The questioned impression corresponds to the known footwear ((L) shoe) in tread pattern, tread size, tread wear and individual characteristics including a gouge in the tread on the plantar side of the upper toe region and a gouge in the tread in the upper heel region. Thus, Q4 was made by known (K1a-K1c). Q5-The submitted photograph of the soles of the recovered shoes (K1a-K1c) were examined and compared to the impression visible in Q5. The questioned impression corresponds to the known footwear ((R) shoe) in tread pattern, tread size, tread wear and individual characteristics including a gouge in the tread in the upper heel region. Thus, Q5 was made by known (K1a-K1c). Q6-The submitted photograph of the soles of the recovered shoes (K1a-K1c) were examined and compared to the impression visible in Q6. The questioned impression corresponds to the known footwear ((R) shoe) in tread pattern, tread size, tread wear and individual characteristics including a gouge on the lateral side of the upper toe area, a gouge in the tread in the upper heel region and heavy wear in the center of the toe area. Thus, Q6 was made by known (K1a-K1c). Q7-The submitted photograph of the soles of the recovered shoes (K1a-K1c) were examined and compared to the impression visible in Q7. The questioned impression corresponds to the known footwear ((L) shoe) in tread pattern, tread size, tread wear and individual characteristics including a gouge in the tread on the plantar side of the upper toe region. Thus, Q7 was made by known (K1a-K1c).</p>
88KUG9-5335	<p>Three (3) footwear impressions noted in Exhibits Q1-Q3 (marked as Q2) and Q4-Q7 (marked as Q4 and Q7) were made by the left shoe depicted in Exhibits K1a through K1g based on design, physical size, shape, wear, partial manufacturer's logo (Q2 and Q4), and randomly acquired characteristics. This opinion means that the observed class characteristics and randomly acquired characteristics correspond and the examiner would not expect to see the same agreement of features repeated in an impression that came from a different source. Two (2) footwear impressions noted in Exhibit Q4-Q7 (marked as Q5 and Q6) were made by the right shoe depicted in Exhibits K1a through K1g based on design, physical size, shape, wear, and randomly acquired characteristics. This opinion means that the observed class characteristics and randomly acquired characteristics correspond and the examiner would not expect to see the same agreement of features repeated in an impression that came from a different source. Two (2) additional footwear impressions noted in Exhibit Q1-Q3 (marked as Q1 and Q3) were not made by the shoes depicted in Exhibits K1a through K1g based on differences in physical size, wear, and texturing. This opinion means that there are sufficient features in disagreement such that the examiner would not expect to see the same disagreement repeated in an impression that came from the same source.</p>
8L2TL9-5331	<p>I observed agreement of sole design features, general dimensions, wear patterns, and Randomly Acquired Characteristics of sufficient quality and quantity to conclude that the footwear impressions depicted in Items 001-Q2, 001-Q4, 001-Q5, 001-Q6, and 001-Q7 were produced by one of the submitted shoes. With respect to Items 001-Q1 and 001-Q3, I observed similar sole design features, but there are significant differences in the size and spatial relationship of the design elements within the tread patterns and the wear patterns when compared to those represented in the known prints and the</p>

TABLE 2

WebCode-Test	Conclusions
	<p>recovered shoes. These differences are significant enough to conclude that none of these questioned prints could have been made by either of the recovered shoes.</p>
936MT9-5335	<p>The marks Q2, Q4, Q5, Q6 and Q7 have shown corresponding features with the soles K1 in terms of: (1) General pattern and size. (2) General level of wear in multiple locations making specific interactions with the general design. (3) A number of acquired features in correspondence observed both on mark, print and sole. Below, we refer to the above as the observations. If these soles were at the source of the marks, given the elapsed time between the deposition of the marks and the recovery of the shoes (one day according to the circumstances provided), these observations are fully expected. If another unknown pair of shoes is at the source of the marks, it would be extraordinary to make these observations by chance. We have assigned to this possibility a probability well below one in 100'000. In verbal terms, we would say that these observations provide extremely strong support for the view that the marks has been left by these soles rather than by another unknown pair of shoes. The marks Q1 and Q3 cannot have been left by the shoes K1 due to differences in terms of general pattern, size and wear. Given the alleged circumstances, and the fact that the marks share similar pattern types, similar sizes and levels of wear, we are of the opinion that these marks have probably been left by respectively the left and the right sole of the same pair of shoes.</p>
9BZKKH-5331	<p>Photograph of questioned imprints found on paper in the kitchen (Items Q1-Q3): Q1 was determined to be a left shoe impression which is dissimilar in class characteristics (tread design and size) to the left known shoe (Item K1). It is our opinion that Q1 was not made by the left known shoe. Q2 was determined to be a left shoe impression which is similar in class characteristics (tread design and size) and wear to the left known shoe (Item K1). Q2 also shares randomly acquired characteristics to the left known shoe. It is our opinion that Q2 was made by the left known shoe. Q3 was determined to be a right shoe impression which is dissimilar in class characteristics (tread design and size) to the right known shoe (Item K1). It is our opinion that Q3 was not made by the right known shoe. Photograph of questioned imprints found in the kitchen (Items Q4-Q7): Q4 was determined to be a left shoe impression which is similar in class characteristics (tread design and size) and wear to the left known shoe (Item K1). Q4 also shares randomly acquired characteristics to the left known shoe. It is our opinion that Q4 was made by the left known shoe. Q5 was determined to be a partial shoe impression which is similar in class characteristics (tread design and size) and wear to the right known shoe (Item K1). Q5 also shares randomly acquired characteristics to the right known shoe. It is our opinion that Q5 was made by the right known shoe. Q6 was determined to be a right shoe impression which is similar in class characteristics (tread design and size) and wear to the right known shoe (Item K1). Q6 also shares randomly acquired characteristics to the right known shoe. It is our opinion that Q6 was made by the right known shoe. Q7 was determined to be a partial shoe impression which is similar in class characteristics (tread design and size) and wear to the left known shoe (Item K1). Q7 also shares randomly acquired characteristics to the left known shoe. It is our opinion that Q7 was made by the left known shoe. Photographs of known shoes and imprints of known shoes (Item K1a - K1g): This item was used as a comparison standard.</p>
9LKVUA-5331	<p>The Q1 left shoe impression on the butcher paper could not have been made by the K1 left shoe due to differences in class characteristics, including size and design. The K1 Keds shoes are excluded as the source of the impression. The Q2 left shoe impression on butcher paper was made by the K1 left shoe. The K1 left shoe was identified as the source of the Q2 left shoe impression based on class characteristics, including size, design, and wear, as well as randomly acquired characteristics. The Q3 right shoe impression on butcher paper could not have been made by the K1 right shoe due to differences in class characteristics, including size, design, and wear. The K1 Keds shoes are excluded as the source of the impression. The Q4 left shoe impression on ceramic tile could have been made by the K1 left shoe. There is a high degree of association between the K1 Keds left shoe and the Q4 impression, based on class characteristics, including size, design, and wear, as well as randomly acquired characteristics. The Q5 heel impression on ceramic tile could have been made by the K1 right shoe. There is a high degree of association between the K1 Keds right shoe and the Q5 impression, based on class characteristics, including size, design, and wear, as well as randomly acquired characteristics. The Q6 right shoe impression on ceramic tile could have been made by the K1 right shoe. There is a high degree of association between the K1 Keds right shoe and the Q6 impression,</p>

TABLE 2

WebCode-Test	Conclusions
9RPV8K-5331	<p>based on class characteristics, including size, design, and wear, as well as randomly acquired characteristics. The Q7 left shoe impression on ceramic tile was made by the K1 left shoe. The K1 left shoe was identified as the source of the Q7 left shoe impression based on class characteristics, including size, design, and wear, as well as randomly acquired characteristics.</p>
A2NP29-5335	<p>The questioned footwear marks, Exhibits Q5 and Q6 were made by the known right shoe. This opinion is the highest degree of association expressed by a footwear examiner. The questioned mark and the known footwear must share sufficient agreement of observable class and individual characteristics. In the opinion of the examiner the known footwear was the source of and made the questioned mark. The questioned footwear marks, Exhibits Q2, Q4 and Q7 were made by the known left shoe. This opinion is the highest degree of association expressed by a footwear examiner. The questioned mark and the known footwear must share sufficient agreement of observable class and individual characteristics. In the opinion of the examiner the known footwear was the source of and made the questioned mark. Questioned footwear marks, Q1 and Q3 were not made by the known pair of shoes. This opinion means that there are observable differences in class and/or identifying characteristics between the questioned mark and the known shoe.</p>
A9TPEJ-5331	<p>N/A</p> <p>Both shoes are excluded as the source of impressions Q1 and Q3. These impressions were not made with either of the submitted shoes. The left submitted shoe is identified as the source of impressions Q2, Q4 and Q7. These impressions were made with this particular shoe. There is a high degree of association between impression Q5 and the heel of the right submitted shoe. This impression could have been made with this shoe, or with another shoe with an outsole having a heel which is similar in design and dimensions, with some similar damage and wear. The right submitted shoe is identified as the source of impression Q6. This impression was made with this particular shoe.</p>
ABVMPC-5331	<p>Q1 and Q3 could not have been made by the known footwear. Q2 could have been made by the known left shoe or by another shoe exhibiting all the same analyzed characteristics. This impression could not have been made by the known right shoe. Q4 and Q7 were both made by the known left shoe. Q5 could have been made by the heel of the known right shoe or by another shoe with all the same analyzed characteristics. This impression could not have been made by the known left shoe. Q6 was made by the known right shoe.</p>
AHGF2C-5331	<p>The left Keds shoe was the source of and made questioned impression Q2, Q4, and Q7. The right Keds shoe was the source of and made questioned impressions Q5 and Q6. Another set of footwear being the source of the impression is considered a practical impossibility. Both the left and right shoes of the known Keds were not the source of, and did not make questioned impression Q1 and Q3.</p>
AJB77Q-5331	<p>The impressions depicted in the Q2 and Q4 photographs were made by the K1 left shoe. The impression depicted in the Q6 photograph was made by the K1 right shoe. The impression depicted in the Q5 photograph has a high degree of association with the K1 right shoe. The impression depicted in the Q7 photograph has a high degree of association with the K1 left shoe. The impressions depicted in the Q1 and Q3 photographs were not made by the K1 shoes.</p>
AR3LTA-5331	<p>Shoe print analysis disclosed four (4) stipple patterned shoe prints and three (3) stipple patterned partial shoe prints exhibiting sufficient characteristics to be of value for comparison and evaluation purposes. The test impressions of the left Keds women's canvas shoe, size 8 have been identified as a source of the questioned shoe prints labeled as "Q2", "Q4" and "Q7". The test impressions of the right Keds women's canvas shoe, size 8 have been identified as a source of the questioned shoe prints labeled as "Q5" and "Q6". The Keds women's canvas shoes, size 8 have been excluded as a source of the questioned shoe prints labeled as "Q1" and "Q3".</p>
ARKXAU-5331	<p>[No Conclusions Reported.]</p>

TABLE 2

WebCode-Test	Conclusions
ATZWJTJ-5335	<p>1. In item Q1 there is an imprint that differ in size and wear from the shoes that received in the laboratory. It is my opinion that the shoes that were received in the laboratory cannot create this imprint ("Exclusion"). 2. Imprint Q2 is an imprint of a left shoe that correspond in class characteristics (shape, design and wear) and also share some randomly acquired characteristics (RACs) with the left shoe (K1). It is my opinion that there is a full association between the left shoe (K1) and the imprint Q2 ("Identification"). 3. In item Q3 there is an imprint that differ in size and wear from the shoes that received in the laboratory. It is my opinion that the shoes that were received in the laboratory cannot create this imprint ("Exclusion"). 4. Imprint Q4 is an imprint of a left shoe that correspond in class characteristics (shape, design and wear) and also share some randomly acquired characteristics (RACs) with the left shoe (K1). It is my opinion that there is a full association between the left shoe (K1) and the imprint Q4 ("Identification"). 5. Imprint Q5 is an imprint of a right shoe that correspond in class characteristics (shape, design and wear) and also share some randomly acquired characteristics (RACs) with the right shoe (K1). It is my opinion that there is a full association between the right shoe (K1) and the imprint Q5 ("Identification"). 6. Imprint Q6 is an imprint of a right shoe that correspond in class characteristics (shape, design and wear) and also share some randomly acquired characteristics (RACs) with the right shoe (K1). It is my opinion that there is a full association between the right shoe (K1) and the imprint Q6 ("Identification"). 7. Imprint Q5 is an imprint of a right shoe that correspond in class characteristics (shape, design and wear) and also share some randomly acquired characteristics (RACs) with the right shoe (K1). It is my opinion that there is a full association between the right shoe (K1) and the imprint Q5 ("Identification").</p>
B8QGMC-5335	<p>Q1: Elimination to Left Shoe based on the differences in sizes, overall outsole pattern designs, and wear patterns; Elimination to Right Shoe based on the differences in the outsole pattern sizes and the orientation of the outsole pattern designs. Q2: Identification to the Left Shoe based on the areas circled in blue on the printed image as well as on the test impression on Item K1f. Q3: Elimination to Right Shoe based on the differences in sizes, overall outsole pattern designs, and wear patterns; Elimination to Left Shoe based on the differences in the outsole pattern sizes and the orientation of the outsole pattern designs. Q4: Identification to the Left Shoe based on the areas circled in blue on the printed image as well as on the test impression on Item K1f. Q5: Identification to the Right Shoe based on the areas circled in blue on the printed image as well as on the test impression on Item K1f. Q6: Identification to the Right Shoe based on the areas circled in blue on the printed image as well as on the test impression on Item K1f. Q7: Identification to the Left Shoe based on the areas circled in blue on the printed image as well as on the test impression on Item K1f.</p>
BF4BX8-5335	N/A
BFJUH6-5331	<p>Laboratory examinations were conducted between the submitted standards and impressions Q1 through Q7. The findings of this examiner are as follows: Impressions Q2, Q4, and Q7 were made by the submitted left shoe (K1). Impressions Q5 and Q6 were made by the submitted right shoe (K1). Impressions Q1 and Q3 were not made by the submitted shoes (K1) based on differences in individual characteristics.</p>
BKFDNA-5331	<p>The photographs (K1a-K1c) and the known imprints (K1d-K1g) from the Women's size 8 Keds shoes were visually compared to the three questioned imprints (Q1-Q3) on the butcher paper and to the four questioned imprints (Q4-Q7) on the tile floor. The tread design observed on the Keds shoes consisted of pebble-shaped elements. All seven questioned imprints (Q1-Q7) had a tread design consisting of pebble-shaped elements. The pebble-shaped tread design observed in the questioned imprint (Q1) is similar to the pebble-shaped tread design observed on the outsole of the LEFT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g). Upon closer examination, differences in the positions and pattern of the pebble-shaped elements, as well as differences in physical shape and size, wear, and randomly acquired individual characteristics were observed between the imprint and the LEFT Keds shoe. Therefore, the Keds shoes observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g) can be EXCLUDED as the source of, and did not make, the questioned imprint (Q1) on the butcher paper. Furthermore, the questioned imprint (Q1) was made by a Keds shoe bearing the pebble-shaped tread design that is smaller than a Women's size 8. The pebble-shaped tread design</p>

TABLE 2

WebCode-Test	Conclusions
	<p>observed in the questioned imprint (Q2) corresponds to the pebble-shaped tread design observed on the outsole of the LEFT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g). Upon closer examination, a correspondence in physical shape and size, the location and position of wear, and the size, shape, location, and position of randomly acquired individual characteristics was observed between the questioned imprint (Q2) and the LEFT Keds shoe. Therefore, the LEFT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g) can be IDENTIFIED as the source of, and did make, the questioned imprint (Q2) on the butcher paper. The pebble-shaped tread design observed in the questioned imprint (Q3) is similar to the pebble-shaped tread design observed on the outsole of the RIGHT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g). Upon closer examination, differences in the positions and pattern of the pebble-shaped elements, as well as differences in physical shape and size, wear, and randomly acquired individual characteristics were observed between the imprint and the RIGHT Keds shoe. Therefore, the Keds shoes observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g) can be EXCLUDED as the source of, and did not make, the questioned imprint (Q3) on the butcher paper. The pebble-shaped tread design observed in the questioned imprint (Q4) corresponds to the pebble-shaped tread design observed on the outsole of the LEFT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g). Upon closer examination, a correspondence in physical shape and size, the location and position of wear, and the size, shape, location, and position of randomly acquired individual characteristics was observed between the questioned imprint (Q4) and the LEFT Keds shoe. Therefore, the LEFT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g) can be IDENTIFIED as the source of, and did make, the questioned imprint (Q4) on the tile. The pebble-shaped tread design observed in the questioned imprint (Q5) corresponds to the pebble-shaped tread design observed on the outsole of the LEFT and RIGHT Keds shoes observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g). Upon closer examination, a correspondence in physical shape and size, the location and position of wear, and the size, shape, location, and position of randomly acquired individual characteristics was observed between the questioned imprint (Q5) and the RIGHT Keds shoe. Therefore, the RIGHT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g) can be IDENTIFIED as the source of, and did make, the questioned imprint (Q5) on the tile. The pebble-shaped tread design observed in the questioned imprint (Q6) corresponds to the pebble-shaped tread design observed on the outsole of the RIGHT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g). Upon closer examination, a correspondence in physical shape and size, the location and position of wear, and the size, shape, location, and position of randomly acquired individual characteristics was observed between the questioned imprint (Q6) and the RIGHT Keds shoe. Therefore, the RIGHT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g) can be IDENTIFIED as the source of, and did make, the questioned imprint (Q6) on the tile. The pebble-shaped tread design observed in the questioned imprint (Q7) corresponds to the pebble-shaped tread design observed on the outsole of the LEFT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g). Upon closer examination, a correspondence in physical shape and size, the location and position of wear, and the size, shape, location, and position of randomly acquired individual characteristics was observed between the questioned imprint (Q7) and the LEFT Keds shoe. Therefore, the LEFT Keds shoe observed in the photographs (K1a-K1c) and the known imprints (K1d-K1g) can be IDENTIFIED as the source of, and did make, the questioned imprint (Q7) on the tile.</p>
BVYRPQ-5331	[No Conclusions Reported.]
BYZTR9-5335	<p>Seven footwear impressions (Q1 through Q7) suitable for comparison were observed in items 8 through 14. Known left and right shoes (K1) were observed in items 1 through 7. Footwear impressions Q1 through Q7 were compared to K1 (left and right) with the following results: Both the left and right of K1 were excluded as the source of impression Q1. K1 (left and right) did not make impression Q1. K1 (left) was identified as the source of Q2. In the opinion of the examiner, K1 (left) made impression Q2. Both the left and right of K1 were excluded as the source of impression Q3. K1 (left and right) did not make impression Q3. K1 (left) was identified as the source of Q4. In the opinion of the examiner, K1 (left)</p>

TABLE 2

WebCode-Test	Conclusions
	made impression Q4. K1 (right) was identified as the source of Q5. In the opinion of the examiner, K1 (right) made impression Q5. K1 (right) was identified as the source of Q6. In the opinion of the examiner, K1 (right) made impression Q6. K1 (left) was identified as the source of Q7. In the opinion of the examiner, K1 (left) made impression Q7.
BZTPEH-5335	Example: Compared to 1B-K1f-1. Questioned and known items share agreement of class and randomly acquired characteristics of sufficient quality and quantity to render a finding of Identification. Areas of interest circled in blue. See images for Impression Item 1C-Q4. [Attachment not provided by participant]
C24NAQ-5331	In my opinion, the findings provide conclusive evidence that certain of the footwear marks recovered from the scene were made by the left and right shoes attributed to the suspect (item K1). The remaining footwear marks, although also of the same sole pattern type as the shoes, displayed differences in fine pattern detail/size alignment from the recovered shoes and therefore these particular marks could not have been made by the shoes (item K1).
C4L64G-5335	The Q1 impression was not made by the shoes represented in K1a-K1g. The left shoe represented in K1a-K1g has been identified as being the source of the Q2, Q4 and Q7 impressions. The Q2, Q4 and Q7 impressions were not made by the right shoe represented in K1a-K1g. The Q3 impression was not made by the shoes represented in K1a-K1g. The right shoe represented in K1a-K1g has been identified as being the source of the Q5 and Q6 impressions. The Q5 and Q6 impressions were not made by the left shoe represented in K1a-K1g.
C62AY9-5335	Two photographs contained footwear impressions (labeled Items Q1 through Q7) and were compared to the footwear exemplars (Items K1d through K1g) and images of a pair of shoes (Items K1a through K1c). Items Q1 through Q7 and Items K1a-K1f were examined visually and all comparisons were performed using ACE-V methodology. Footwear Impression Results for Items Q2, Q4 and Q7: Comparison results: The footwear impression in Item Q2 was in agreement in size, shape, tread design, and individualizing characteristics with the left shoe in Item K1; therefore, the impression was identified as having been made by the left shoe in Item K1. The footwear impression in Item Q4 was in agreement in size, shape, tread design, and individualizing characteristics with the left shoe in Item K1; therefore, the impression was identified as having been made by the left shoe in Item K1. The footwear impression in Item Q7 was in agreement in size, shape, tread design, and individualizing characteristics with the left shoe in Item K1; therefore, the impression was identified as having been made by the left shoe in Item K1. Footwear Impression Results for Items Q5 and Q6: Comparison results: The footwear impression in Item Q5 was in agreement in size, shape, tread design, and individualizing characteristics with the right shoe in Item K1; therefore, the impression was identified as having been made by the right shoe in Item K1. The footwear impression in Item Q6 was in agreement in size, shape, tread design, and individualizing characteristics with the right shoe in Item K1; therefore, the impression was identified as having been made by the right shoe in Item K1. Footwear Impression Results for Items Q1 and Q3: Comparison results: Item Q1 is excluded as being created by the left or right shoe from Item K1 due to differences in tread design. Item Q3 is excluded as being created by the left or right shoe from Item K1 due to differences in tread design.
C7E2TB-5335	Impressions Q1 and Q3 were not made by either of the shoes submitted in K1. Impressions Q2, Q4 and Q7 were made by the left shoe in K1. Impressions Q5 and Q6 were made by the right shoe in K1.
CFEPK8-5331	Examination of the submitted material disclosed the presence of seven, 7, questioned footwear impressions, designated as Q1 through Q7. Examination and comparison of the submitted material yielded the following results and conclusions: Q1, Q3 and the known 'Keds' shoes are similar with respect to tread design, dissimilar with respect to size and individualizing characteristics. Therefore, Q1 and Q3 were NOT made by the submitted 'Keds' shoes. Q2, Q4, Q7 and the left, known 'Keds' shoe are consistent with respect to tread design, size and individualizing characteristics. Therefore, Q2, Q4, and Q7 were made by the left, known 'Keds' shoe. Q5, Q6 and the right, known 'Keds' shoe are consistent with respect to tread design, size and individualizing characteristics. Therefore, Q5 and Q6 were made by the right, known 'Keds' shoe.

TABLE 2

WebCode-Test	Conclusions
CJNGZF-5331	<p>Comparative analysis revealed significant differences (physical size, tread element orientation, general condition of wear, and distinguishing damage characteristics) between the Item Q1 left questioned footwear impression and the Item K1a-K1c left shoe. It was concluded that the Item K1a-K1c left shoe did not make the Item Q1 left questioned footwear impression. Comparative analysis revealed significant differences (physical size, tread element orientation, general condition of wear, and distinguishing damage characteristics) between the Item Q3 right questioned footwear impression and the Item K1a-K1c right shoe. It was concluded that the Item K1a-K1c right shoe did not make the Item Q3 right questioned footwear impression. Comparative analysis between the Item Q2, Q4 and Q7 left questioned footwear impressions and the Item K1a-K1c left shoe revealed correspondence of class characteristics (pattern, physical size, and general condition of wear), and multiple distinguishing damage characteristics. It was concluded that the Item K1a-K1c left shoe was the source of, and made, the Item Q2, Q4, and Q7 left questioned footwear impressions. Another shoe being the source of the impressions is considered a practical impossibility. Comparative analysis between the Item Q6 right questioned footwear impression and the Item K1a-K1c right shoe revealed correspondence of class characteristics (pattern, physical size, and general condition of wear), and multiple distinguishing damage characteristics. It was concluded that the Item K1a-K1c right shoe was the source of, and made, the Item Q6 right questioned footwear impression. Another shoe being the source of the impressions is considered a practical impossibility. Comparative analysis between the Item Q5 right questioned footwear impression and the Item K1a-K1c right shoe revealed a strong similarity due to a combination of shared class characteristics (pattern, physical size, and general condition of wear), and one or more distinguishing damage characteristics. However, the quality and quantity of these characteristics were insufficient for an identification. Other footwear with the same class characteristics are included in the population of possible sources only if they display the same wear and/or randomly acquired characteristics observed in the Item Q5 impression. Comparative analysis revealed significant differences (left vs. right orientation) between the Item Q1, Q2, Q4, and Q7 left questioned footwear impressions and the Item K1a-K1c right shoe. It was concluded that the Item K1a-K1c right shoe did not make the Item Q1, Q2, Q4, and Q7 impressions. Comparative analysis revealed significant differences (left vs. right orientation) between the Item Q3, Q5, and Q6 right questioned footwear impressions and the Item K1a-K1c left shoe. It was concluded that the Item K1a-K1c left shoe did not make the Item Q3, Q5, and Q6 impressions.</p>
CKAJH9-5331	<p>A visual comparison was conducted between the questioned imprints (Items Q1 - Q3 and Q4 - Q7) and the photographs of the recovered shoes (K1a, K1b and K1c), known imprints of the recovered shoes (Items K1d - K1g). Impressions Q2, Q4, and Q7 corresponded in tread design, physical size, general wear and Randomly Acquired Characteristics (RACs) to the submitted left shoe. In the opinion of the examiner, the submitted left shoe made these impressions (Identification). Impressions Q5 and Q6 corresponded in tread design, physical size, general wear and RACs to the submitted right shoe. In the opinion of the examiner, the submitted right shoe made these impressions (Identification). Impressions Q1 and Q3 did not correspond in tread design and general wear with the left and right submitted shoes respectively (Exclusion).</p>
CLNP4Q-5335	<p>The identified impression Q-1 was made using a left shoe. However when compared to the samples of the known K-1 footwear, it does not correspond in similar individual characteristics to each other. The identified impression Q-2 was made using a left shoe. However when compared to the same of the known K-1 footwear, it corresponds in size, design, pattern and individual characteristics similar to each other. The identified impression Q-3 was made using a right shoe. However when compared to the samples of the known K-1 footwear, it does not correspond in similar individual characteristics to each other. The identified impression Q-4 was made using a left shoe. However when compared to the same of the known K-1 footwear, it corresponds in size, design, pattern and individual characteristics similar to each other. The identified impression Q-5 was made using a right shoe. However when compared to the same of the known K-1 footwear, it corresponds in size, design, pattern and individual characteristics similar to each other. The identified impression Q-6 was made using a right shoe. However when compared to the same of the known K-1 footwear, it corresponds in size, design, pattern and individual characteristics similar to each other. The identified impression Q-7 was made using a left shoe. However when compared to the same of the known K-1 footwear, it corresponds in size, design,</p>

TABLE 2

WebCode-Test	Conclusions
CW9W3F-5335	<p>pattern and individual characteristics similar to each other.</p> <p>The questioned footwear impressions "Q1" and "Q3" were excluded as being made by the known shoes (both left and right) of K1. The questioned footwear impressions "Q2," "Q4," and "Q7" corresponded in physical shape, physical size, outsole tread design, general wear characteristics, wear condition, mold/manufacturing characteristics, and randomly acquired characteristics with the known left shoe of K1 and were identified as being made by the known left shoe of K1. The right shoe of K1 was excluded. The questioned footwear impression "Q5" corresponded in physical shape, physical size, outsole tread design, general wear characteristics, and randomly acquired characteristics with the respective portion of the known right shoe of K1 and was identified as being made by the known right shoe of K1. The left shoe of K1 was excluded. The questioned footwear impression "Q6" corresponded in physical shape, physical size, outsole tread design, general wear characteristics, wear condition, and randomly acquired characteristics with the known right shoe of K1 and was identified as being made by the known right shoe of K1. The left shoe of K1 was excluded.</p>
CZ99YE-5335	<p>Item 1 contained two images of seven unknown footwear impressions, Q1-Q7, said to be from the scene of a burglary. These impressions were compared to images and known impressions (also on Item 1) from a pair of shoes recovered from one of the suspect's homes. A complete evaluation of an unknown impression and a known shoe includes looking at correspondence in tread design, physical size and shape of design present, wear characteristics and any distinctive characteristics randomly acquired on the tread of the shoe that are represented in the unknown impression. The known shoes corresponded in physical shape, tread design, size of tread and randomly acquired characteristics to the Q2, Q4 and Q6 unknown impressions. Therefore, the known shoes are the source of the unknown impressions from the scene (Type I Association/Identification). The Q5 and Q7 unknown impressions corresponded in physical shape, tread design, size of tread, some randomly acquired characteristics and/or possible randomly acquired characteristics to the known shoes from Item 1. Therefore, the unknown impressions could have been made by the known shoes from Item 1 or another source having the same distinct characteristics (Type II Association). This type of association was reached because both the unknown impressions and the known shoes exhibit characteristics not expected in the relevant population of this evidence type. The tread pattern in the Q1 and Q3 unknown impressions were different from the known shoes in size and wear. Therefore, the unknown impressions were not made by the Item 1 shoes (Exclusion). Further comparisons can be done upon the submission of additional known shoes. Item 2 was created by the scientist and will be retained at the [Laboratory]. Interpretation: The following descriptions are meant to provide context to the opinions reached in this report. Not every type of conclusion may be applicable in every case or for every material type. Type I Association: Identification. Source identification is reached when the discernible class and individual characteristics have corresponding detail and the examiner would not expect to see the same arrangement of details repeated in another source. This includes when two Items fit or realign together in a manner that is not expected to be replicated. Type II Association: Association with distinct characteristics. Items correspond in all measured physical properties, chemical composition and/or microscopic characteristics and share distinctive characteristic(s). Although the examiner would not expect to see these distinctive characteristic(s) repeated in another source, it lacked sufficient characteristics for a source identification. Type III Association: Association with conventional characteristics Items correspond in all measured physical properties, chemical composition and/or microscopic characteristics. However, it is possible for another sample to be indistinguishable from the submitted evidence; therefore, an individual source cannot be determined. Type IV Association: Association with limitations. An association of decreased evidential value in which items correspond in all measured physical properties, chemical composition and/or microscopic characteristics, but there is a limitation to the exam. Limitations could include items commonly encountered in the relevant population, the inability to perform a complete analysis, or limited information. Inconclusive. No conclusion could be reached regarding an association or an exclusion between the items. Exclusion with Limitations. The item exhibits differences to the comparison sample that suggests that it did not originate from the same source. However, there are limiting factors, such as possible natural or manufactured source variations. Exclusion. The items exhibit differences in physical properties and/or chemical composition to the comparison sample that demonstrate they did not originate from the same source.</p>

TABLE 2

WebCode- Test	Conclusions
D2XT6B- 5331	<p>The submitted questioned impression evidence (photographs) exhibit a total of seven (7) footwear impressions labeled Q1-Q7 which are of value for comparison. These seven(7)questioned impressions were compared to the submitted known "Keds" outsoles (K1). The following conclusions were reached and are the opinion of this Examiner: Q1: The Q1 questioned impression exhibits a general design that is similar to the submitted known K1 left and right outsoles. However, multiple class characteristic differences were observed. Therefore, the submitted known K1 left and right outsoles are eliminated as possible sources of the Q1 questioned impression. Q2: The Q2 questioned impression corresponds to the submitted known K1 left outsole in physical shape, general design, physical size, degree of wear and five (5) areas of randomly acquired characteristics. Therefore, the submitted known K1 left outsole is identified as the source of the Q2 questioned impression. It is unlikely that another item of footwear would contain the same combination of characteristics observed. The Q2 questioned impression exhibits a general design that is similar to the submitted known K1 right outsole. However, based on physical shape differences, the submitted known K1 right outsole is eliminated as a possible source of the Q2 questioned impression. Q3: The Q3 questioned impression exhibits a general design that is similar to the submitted known K1 left and right outsoles. However, multiple class characteristic differences were observed. Therefore, the submitted known K1 left and right outsoles are eliminated as possible sources of the Q3 questioned impression. Q4: The Q4 questioned impression corresponds to the submitted known K1 left outsole in physical shape, general design, physical size, degree of wear and five (5) areas of randomly acquired characteristics. Therefore, the submitted known K1 left outsole is identified as the source of the Q4 questioned impression. It is unlikely that another item of footwear would contain the same combination of characteristics observed. The Q4 questioned impression exhibits a general design that is similar to the submitted known K1 right outsole. However, based on physical shape differences, the submitted known K1 right outsole is eliminated as a possible source of the Q4 questioned impression. Q5: The Q5 questioned impression exhibits a general design that is similar to the submitted known K1 left outsole. However, based on physical shape differences, the submitted known K1 left outsole is eliminated as a possible source of the Q5 questioned impression. The Q5 questioned impression corresponds to the submitted known K1 right outsole in physical shape, general design, physical size, degree of wear and two (2) randomly acquired characteristics. Therefore, the submitted known K1 right outsole is identified as the source of the Q5 questioned impression. It is unlikely that another item of footwear would contain the same combination of characteristics observed. Q6: The Q6 questioned impression exhibits a general design that is similar to the submitted known K1 left outsole. However, based on physical shape differences, the submitted known K1 left outsole is eliminated as a possible source of the Q6 questioned impression. The Q6 questioned impression corresponds to the submitted known K1 right outsole in physical shape, general design, physical size, degree of wear and four (4) randomly acquired characteristics. Therefore, the submitted known K1 right outsole is identified as the source of the Q6 questioned impression. It is unlikely that another item of footwear would contain the same combination of characteristics observed. Q7:The Q7 questioned impression corresponds to the submitted known K1 left outsole in physical shape, general design, physical size, degree of wear and four (4) randomly acquired characteristics. Therefore, the submitted known K1 left outsole is identified as the source of the Q7 questioned impression. It is unlikely that another item of footwear would contain the same combination of characteristics observed. The Q7 questioned impression exhibits a general design that is similar to the submitted known K1 right outsole. However, based on physical shape differences, the submitted known K1 right outsole is eliminated as a possible source of the Q7 questioned impression.</p>
D42NNE- 5331	<p>The known left footwear K1 was the source of, and made, the questioned impressions Q2, Q4 and Q7 in exhibit FIEP. Another item of footwear being the source of the impressions is considered a practical impossibility. The known right footwear K1 was the source of, and made, the questioned impressions Q5 and Q6 in exhibit FIEP. Another item of footwear being the source of the impressions is considered a practical impossibility. These identifications are based on the agreement of both class and randomly acquired characteristics. The known footwear K1 was not the source of, and did not make, the questioned impressions Q1 and Q3 in exhibit FIEP. These exclusions are based on the disagreement of class characteristics.</p>

TABLE 2

WebCode-Test	Conclusions
D4ZYFB-5331	<p>Q1. Due to differences observed (randomly acquired characteristics in Q1 not present in known shoes) the known shoes were not the source of and did not make the questioned impression Q1. THIS IS AN EXCLUSION RESULT. Q2, Q4, Q7. The left known shoe was the source of, and made, the questioned impressions Q2, Q4, Q7. The chance of another shoe being the source of the impression is considered negligible. THIS IS AN IDENTIFICATION. Q3. Due to differences observed (size and pattern) the known shoes were not the source of and did not make the questioned impression Q3. THIS IS AN EXCLUSION RESULT. Q5. The characteristics observed exhibit strong associations between the questioned impression Q5 and the right known shoe; however, the quantity was insufficient for an identification. The right known shoe is a possible source of the questioned impression Q5 and could have produced the impression. Other shoes with the same class characteristics are included as possible sources only if they display the same wear and randomly acquired characteristics observed in the questioned impression. THIS IS A HIGH DEGREE OF ASSOCIATION. Q6. The right known shoe was the source of, and made, the questioned impression Q6. The chance of another shoe being the source of the impression is considered negligible. THIS IS AN IDENTIFICATION RESULT.</p>
DARYYC-5331	<p>The Items Q1 through Q7 questioned footwear impressions were analyzed, compared and evaluated with the Items K1 right and left known footwear. The Item Q1 questioned footwear impression does not correspond in general wear, tread design, and accidental characteristics with the Item K1 right and left shoes. The Item Q2 questioned footwear impression corresponds in tread design, physical size, general wear and accidental characteristics with the Item K1 left shoe. The Item Q3 questioned footwear impression does not correspond in general wear, tread design, and accidental characteristics with the Item K1 right and left shoes. The Item Q4 questioned footwear impression corresponds in tread design, physical size, general wear, and accidental characteristics with the Item K1 left shoe. The Item Q5 questioned footwear impression corresponds in tread design, physical size, general wear, and accidental characteristics with the Item K1 right shoe. The Item Q6 questioned footwear impression corresponds in tread design, physical size, general wear, and accidental characteristics with the Item K1 right shoe. The Item Q7 questioned footwear impression corresponds in tread design, physical size, general wear, and accidental characteristics with the Item K1 left shoe. Based upon the above factors, this examiners opinion is as follows: The Item K1 right shoe was the source of, and made, the questioned footwear impressions Q5 and Q6. The questioned impressions Q5 and Q6 and the known footwear K1 right shoe share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Another item of footwear being the source of the impression is considered a practical impossibility. The Item K1 left shoe was the source of, and made, the questioned footwear impressions Q2, Q4 and Q7. The questioned impressions Q2, Q4 and Q7 and the known footwear K1 left shoe share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Another item of footwear being the source of the impression is considered a practical impossibility. The Items K1 right shoe and K1 left shoe were excluded as being the source of the questioned footwear impressions Q1 and Q3. All conclusions listed herein have been verified by a second qualified latent print examiner.</p>
DB3ZKB-5331	<p>The partial footwear impressions (Item #4 {Q2} and Item #5 {Q4 and Q7}) share class and unique characteristics with the submitted shoes (Item #1) indicating the footwear impressions were made by the left shoe. The partial footwear impressions (Item #5 {Q5 and Q6}) share class and unique characteristics with the submitted shoes (Item #1) indicating the footwear impressions were made by the right shoe. The partial footwear impression (Item #4 {Q1}) shares a similar design as in the left shoe (Item #1). However the crêpe pattern and incidental marks evident in the question impression do not align with the known test impressions and therefore could not have been made by the left shoe from Item #1. The partial footwear impression (Item #4 {Q3}) shares a similar design as in the right shoe (Item #1). However the crêpe pattern and incidental marks evident in the question impression do not align with the known test impressions and therefore could not have been made by the right shoe from Item #1.</p>
DN9W4D-5331	<p>Two impressions (Q2 and Q4) depicted in the photographs were determined to be left shoe impressions. One of the impressions depicted in the photographs (Q7) was determined to be a partial left shoe impression. These left shoe impressions and partial left shoe impression are similar in tread</p>

TABLE 2

WebCode-Test	Conclusions
	<p>design, size, and wear to the suspect's left shoe. Additionally, these impressions share randomly acquired characteristics with the suspect's left shoe. It is our opinion that these impressions were made by the suspect's left shoe. One impression (Q5) depicted in the photographs was determined to be a partial right shoe impression. An additional impression (Q6) was determined to be a right shoe impression. These impressions are similar in tread design, size, and wear to the suspect's right shoe. Additionally, these impressions share randomly acquired characteristics with the suspect's right shoe. It is our opinion that these impressions were made by the suspect's right shoe. One impression (Q1) depicted in the photographs was determined to be a partial left shoe impression. An additional impression (Q3) depicted in the photographs was determined to be a partial right shoe impression. This partial left shoe impression and partial right shoe impression are dissimilar in tread design, size, and wear to the suspect's shoes. It is our opinion that these impressions were not made by the suspect's shoes.</p>
DNRZBD-5331	<p>Seven footwear impressions on the exhibit 1 photos were pre-labeled as Q1 through Q7. These impressions were compared to the known footwear, represented by the exhibit 2 photos, with the following results: Q1 - The outsole design of Q1 was dissimilar to both the right and left exhibit 2 shoes. In the opinion of this examiner, the exhibit 2 right and left shoes were not the source of, and did not make, Q1. Exclusion. Q2 - The outsole design, physical size, and general wear corresponded between Q2 and the exhibit 2 left shoe. In addition, several areas of randomly acquired characteristics were also seen to correspond. In my opinion, the exhibit 2 left shoe was the source of, and made, Q2. Another item of footwear being the source of this impression is considered a practical impossibility. Identification. The outsole design of Q2 was dissimilar to the exhibit 2 right shoe. In my opinion, the exhibit 2 right shoe was not the source of, and did not make, the impression Q2. Exclusion. Q3 - The outsole design of Q3 was dissimilar to both right and left exhibit 2 shoes. In my opinion, the exhibit 2 right and left shoes were not the source of, and did not make, Q3. Exclusion. Q4 - The outsole design, physical size, and general wear corresponded between Q4 and the exhibit 2 left shoe. In addition, several areas of randomly acquired characteristics were also seen to correspond. In my opinion, the exhibit 2 left shoe was the source of, and made, Q4. Another item of footwear being the source of this impression is considered a practical impossibility. Identification. The outsole design of Q4 was dissimilar to the exhibit 2 right shoe. In my opinion, the exhibit 2 right shoe was not the source of, and did not make, Q4. Exclusion. Q5 - The outsole design, physical size, and general wear corresponded between Q5 and the exhibit 2 right shoe. In addition, two randomly acquired characteristics were also seen to correspond. In my opinion, the exhibit 2 right shoe was the source of, and made, Q5. Another item of footwear being the source of this impression is considered a practical impossibility. Identification. The outsole design of Q5 was dissimilar to the exhibit 2 left shoe. In my opinion, the exhibit 2 left shoe was not the source of, and did not make, Q5. Exclusion. Q6 - The outsole design, physical size, and general wear corresponded between Q6 and the exhibit 2 right shoe. In addition, multiple areas of randomly acquired characteristics were also seen to correspond. In my opinion, the exhibit 2 right shoe was the source of, and made, Q6. Another item of footwear being the source of this impression is considered a practical impossibility. Identification. The outsole design of Q6 was dissimilar to the exhibit 2 left shoe. In my opinion, the exhibit 2 left shoe was not the source of, and did not make, Q6. Exclusion. Q7 - The outsole design, physical size, and general wear corresponded between Q7 and the exhibit 2 left shoe. In addition, multiple areas of randomly acquired characteristics were also seen to correspond. In my opinion, the exhibit 2 left shoe was the source of, and made, Q7. Another item of footwear being the source of this impression is considered a practical impossibility. Identification. The outsole design of Q7 was dissimilar to the exhibit 2 right shoe. In my opinion, the exhibit 2 right shoe was not the source of, and did not make, Q7. Exclusion.</p>
DTGGM4-5331	<p>Seven footwear imprints, identified as Q1 through Q7, were reportedly recovered from the kitchen of a residence where a burglary occurred. Q1, a left shoe imprint, could not have been made by the K1 left shoe due to differences in the class characteristic of physical size. The submitted left shoe of K1 is larger than the shoe which made the impression Q1. Q2, a left shoe imprint, was made by the K1 left shoe. This identification is based on sufficient, corresponding random accidental characteristics that are visible in both the imprint and the shoe. Q3, a right shoe imprint, could not have been made by the K1 right shoe due to differences in the class characteristic of outsole design. The submitted right shoe of K1</p>

TABLE 2

WebCode-Test	Conclusions
	contains a slightly different pattern in the outsole than the shoe which made the imprint Q1. Q4, a left shoe imprint, was made by the K1 left shoe. This identification is based on sufficient, corresponding random accidental characteristics that are visible in both the imprint and the shoe. Q5, a partial right shoe imprint, could have been made by the heel of the K1 right shoe or by another right shoe with similar class characteristics of design, physical size, wear in the areas visible. Q6, a right shoe imprint, was made by the K1 right shoe. This identification is based on sufficient, corresponding random accidental characteristics that are visible in both the imprint and the shoe. Q7, a partial left shoe imprint, was made by the K1 left shoe. This identification is based on sufficient, corresponding random accidental characteristics that are visible in both the imprint and the shoe.
E6VUHD-5331	The questioned, partial footwear impressions, Q1 and Q3, were not made by the known Keds shoes in Submission 001. The questioned, partial footwear impressions, Q2, Q4 and Q7, have all been identified as being made by the known left Keds shoe. The questioned, partial footwear impressions, Q5 and Q6, have been identified as being made by the known right Keds shoe.
EDAHJ8-5331	Q1 could not have been made by K based on different tread patterns and lack of similar individual characteristics. Q2 was made by K based on similar tread patterns, individual characteristics, size. Q3 could not have been made by K based on different tread patterns and lack of similar individual characteristics. Q4 was made by K based on similar tread patterns, individual characteristics, size. Q5 was made by K based on similar tread patterns and individual characteristics. Q6 was made by K based on similar tread patterns, individual characteristics, size. Q7 was made by K based on similar tread patterns and individual characteristics.
EKK66F-5331	Impression Q1 does not correspond in outsole design, physical size and wear to the K1 left shoe. Therefore, the K1 left shoe was eliminated as the source of this impression. The Q2 footwear impression corresponds to the K1 left shoe in outsole design, physical size, wear and 8 randomly acquired characteristics. Therefore, the K1 left shoe was identified as the source of this impression. Impression Q3 does not correspond in outsole design, physical size and wear to the K1 right shoe. Therefore, the K1 right shoe was eliminated as the source of this impression. The Q4 footwear impression corresponds to the K1 left shoe in outsole design, physical size, wear and 8 randomly acquired characteristics. Therefore, the K1 left shoe was identified as the source of this impression. The Q5 footwear impression corresponds to the K1 right shoe in outsole design, physical size, wear and 3 randomly acquired characteristics. Therefore, the K1 right shoe was identified as the source of this impression. The Q6 footwear impression corresponds to the K1 right shoe in outsole design, physical size, wear and 9 randomly acquired characteristics. Therefore, the K1 right shoe was identified as the source of this impression. The Q7 footwear impression corresponds to the K1 left shoe in outsole design, physical size, wear and 4 randomly acquired characteristics. Therefore, the K1 left shoe was identified as the source of this impression.
ER73T3-5335	IDENTIFICATION: Known shoe K1 (left shoe) was identified as the source of shoe impressions Q2, Q4, and Q7. Known shoe K1 (right shoe) was identified as the source of shoe impressions Q5 and Q6. EXCLUSION: Known shoe K1 (left shoe) was excluded as the source of shoe impression Q1. Known shoe K1 (right shoe) was excluded as the source of shoe impression Q3.
ETXT7A-5331	Item Description Finding Conclusion #2 Photograph Q1: One questioned footwear impression Different tread design from Item #1 Source Exclusion 1 #2 Photograph Q2: One questioned footwear impression Same tread design, tread size, and matching randomly acquired characteristics as Item #1 Source Identification 2 #2 Photograph Q3: One questioned footwear impression Different tread design from Item #1 Source Exclusion 1 Item Description Finding Conclusion #3 Photograph Q4: One questioned footwear impression Same tread design, tread size, and matching randomly acquired characteristics as Item #1 Source Identification 2 #3 Photograph Q5: One questioned footwear impression Same tread design, tread size, and matching randomly acquired characteristics as Item #1 Source Identification 2 #3 Photograph Q6: One questioned footwear impression Same tread design, tread size, and matching randomly acquired characteristics as Item #1 Source Identification 2 #3 Photograph Q7: One questioned footwear impression Same tread design, tread size, and matching randomly acquired characteristics as Item #1 Source Identification 2 1 The evidence exhibits fundamentally different characteristics than the known reference and could not have come from the

TABLE 2

WebCode-Test	Conclusions
	<p>same source 2 The likelihood that the evidence arose from a different source is so remote as to be considered a practical impossibility. Remarks Known transparencies of Item #1 were created and are included in the original packaging. The evidence and digital images are being retained at [Laboratory]. Analytical Detail These findings were determined using visual and overlay examination techniques. [Participant submitted manually formatted data that was not transferrable into the final report, therefore, data is presented as is.]</p>
EUBPBD-5335	<p>Impressions Q2, Q4 and Q7 were identified as being made by the left shoe in K1. Impressions Q5 and Q6 were identified as being made by the right shoe in K1. Impressions Q1 and Q3 were eliminated as being made by either shoe in K1.</p>
F3M4TA-5331	<p>The Item Q1 through Q7 questioned footwear impressions were analyzed, compared and evaluated with the Item K1 right and left shoes. The Item Q2, Q4 and Q7 questioned footwear impressions correspond in tread design, physical size, wear characteristics and randomly acquired (accidental) characteristics with the Item K1 left shoe. The Item Q5 and Q6 questioned footwear impressions correspond in tread design, physical size, wear characteristics and randomly acquired (accidental) characteristics with the Item K1 right shoe. The Item Q1 and Q3 questioned footwear impressions do not correspond in tread design detail (pattern and angle of pattern non corresponding), physical sizing and general wear characteristics. Based upon the above factors it is the opinion of this examiner that: The Item Q2, Q4 and Q7 questioned footwear impressions were made by the Item K1 left shoe. The Item Q5 and Q6 questioned footwear impressions were made by the Item K1 right shoe. The questioned impressions and known footwear share agreement in class characteristics and randomly acquired characteristics of sufficient quality and quantity that another item of footwear being the source of the impression is a practical impossibility. The Item K1 right and left shoes can be eliminated as a source of the Item Q1 and Q3 questioned footwear impressions. All conclusions have been verified by a second qualified examiner.</p>
FA2MC9-5335	<p>Based on correspondence of class characteristics and randomly acquired characteristics of sufficient quality and quantity: (a) the questioned impressions marked 'Q2', 'Q4' and 'Q7' were found to have been made by the left suspect shoe. (b) the questioned impressions marked 'Q5' and 'Q6' were found to have been made by the right suspect shoe. Based on differences in size or design elements, the pair of suspect shoes was excluded as a source of the questioned impressions marked 'Q1' and 'Q3'.</p>
FC7F6L-5331	<p>Questioned imprints of Q1-Q7 were compared with known imprint made with the the recovered shoes. Questioned imprints of Q2, Q4, Q7 were found to be consistent in shape, physical size, and individual characteristics with the imprint of the recovered left shoe. Questioned imprints of Q5, Q6 were found to be consistent in shape, physical size, and individual characteristics with the imprint of the suspect right shoe. Questioned imprints of Q1, Q3 were eliminated as having been made by the recovered shoe.</p>
FHBEFC-5335	<p>Examination revealed the presence of seven suitable patterned impressions designated Q1 through Q7. Comparison revealed that the suitable patterned impressions designated Q1 and Q3 could not have been made by the shoes represented in the photographs marked K1a through K1g due to significant differences in outsole pattern size and/or design. The suitable patterned impressions designated Q2, Q4 and Q7 were identified as having been made by the left shoe represented in the photographs marked K1a through K1g. The suitable patterned impressions designated Q5 and Q6 were identified as having been made by the right shoe represented in the photographs marked K1a through K1g.</p>
FJR9H8-5331	<p>Item Q1: The questioned impression was similar in shape and overall tread design to the test impression of the left shoe in the photograph labeled K1f, but the questioned impression was smaller in size and did not display similar wear patterns or randomly acquired characteristics. This impression was not made by this shoe (Category 4). Item Q2: The questioned impression was similar in size, shape and tread design to the test impression of the left shoe in the photograph labeled K1f. Additionally, there were several areas of wear and several randomly acquired characteristics that were consistent with those on the test impression. This impression was made by this shoe (Category 1). Identifications are not absolute and a statistical significance cannot be assigned. Item Q3: The questioned impression was similar in shape and overall tread design to the test impression of the right shoe in the photograph labeled K1f, but the impressions did not display similar wear patterns or randomly acquired</p>

TABLE 2

WebCode-Test	Conclusions
	<p>characteristics. This impression was not made by this shoe (Category 4). Item Q4: The questioned impression was similar in size, shape and tread design to the test impression of the left shoe in the photograph labeled K1f. Additionally, there were several areas of wear and several randomly acquired characteristics that were consistent with those on the test impression. This impression was made by this shoe (Category 1). Identifications are not absolute and a statistical significance cannot be assigned. Item Q5: The questioned impression was similar in size, shape and tread design to the test impression of the right shoe in the photograph labeled K1f. Additionally, there was a randomly acquired characteristic that was consistent with those on the test impression. This impression was made by this shoe (Category 1). Identifications are not absolute and a statistical significance cannot be assigned. Item Q6: The questioned impression was similar in size, shape and tread design to the test impression of the right shoe in the photograph labeled K1f. Additionally, there were several areas of wear and several randomly acquired characteristics that were consistent with those on the test impression. This impression was made by this shoe (Category 1). Identifications are not absolute and a statistical significance cannot be assigned. Item Q7: The questioned impression was similar in size, shape and tread design to the test impression of the left shoe in the photograph labeled K1f. Additionally, there were several areas of wear and several randomly acquired characteristics that were and consistent with those on the test impression. This impression was made by this shoe (Category 1). Identifications are not absolute and a statistical significance cannot be assigned.</p>
FRKN36-5335	<p>The impressions labeled Q1 and Q3 were not made by the shoes in K1. The impressions labeled Q2, Q4 and Q7 were made by the left shoe in K1. The impressions labeled Q5 and Q6 were made by the right shoe in K1.</p>
FXCQBB-5331	<p>Q1 is a left shoe impression that is similar in tread design to the known suspect shoes, but dissimilar in size and wear. Q3 is a partial right shoe impression that is similar in tread design to the known suspect shoes, but dissimilar in wear. It is my opinion that these two shoe impressions were not made by the known suspect shoes. Q2 is a left shoe impression that is similar in size, shape, tread design, and wear to the known left suspect shoe. In addition, this shoe impression shares randomly acquired characteristics with the known left suspect shoe. It is my opinion that this shoe impression was made by the known left suspect shoe. Q4 is a left shoe impression that is similar in size, shape, tread design, and wear to the known left suspect shoe. Q7 is a partial left shoe impression that is similar in size, shape, tread design and wear to the known left suspect shoe. In addition, these shoe impressions share randomly acquired characteristics with the known left suspect shoe. It is my opinion that these shoe impressions were made by the known left suspect shoe. Q5 is a partial shoe impression that is similar in tread design and wear to the heel of the known right suspect shoe. In addition, this shoe impression shares a possible randomly acquired characteristic with the known right suspect shoe. It is my opinion that this shoe impression could have been made by the known right suspect shoe, or any other shoe with similar characteristics. Q6 is a right shoe impression that is similar in size, shape, tread design, and wear to the known right suspect shoe. In addition, this shoe impression shares randomly acquired characteristics with the known right suspect shoe. It is my opinion that this shoe impression was made by the known right suspect shoe.</p>
G3G7X4-5335	<p>The recovered footwear, K1, outsole design consists of a textured pattern, a distinct heel and a Keds logo in the arch area; with a moderate degree of wear. K1 and test impressions of K1 were compared to each of the impressions Q1-Q7. Q1 is similar in general outsole design to the recovered shoes, K1, but has differences in physical size and degree of wear. Therefore, it was determined that this impression could not have been made by K1. Q2, Q4, and Q7 correspond in specific outsole design, physical size, general wear, and some randomly acquired characteristics to the recovered shoe K1 left. Q6 corresponds in specific outsole design, physical size, general wear, and some randomly acquired characteristics to the recovered shoe K1 right. Therefore, it was determined that these impressions were made by K1. Q3 is similar in general outsole design to K1, but has differences in degree of wear. Therefore, it was determined that this impression could not have been made by K1. Q5 corresponds in specific outsole design and physical size of the design elements to the recovered shoe K1 right. In addition, there is a randomly acquired characteristic corresponding in shape and location to damage to the right shoe. Therefore, it was determined that this impression was made by the K1 right or another shoe exhibiting the same characteristics. Insufficient detail in the impression prevents a stronger</p>

TABLE 2

WebCode-Test	Conclusions
	association.
G89DFD-5331	Q1-Non-Association between the questioned footwear impression and the known shoe(s) due to differences in wear and/or randomly acquired characteristics. Q@-The questioned impression and the known left shoe share agreement in class characteristics, wear and randomly acquired characteristics. Q3-Non-Association between the questioned footwear impression and the known shoe(s) due to differences in wear and/or randomly acquired characteristics. Q4-The questioned impression and the known left shoe share agreement in class characteristics, wear and randomly acquired characteristics. Q5-The questioned impression and the known right shoe share agreement in class characteristics, wear and randomly acquired characteristics. Q6-The questioned impression and the known right shoe share agreement in class characteristics, wear and randomly acquired characteristics. Q7-The questioned impression and the known left shoe share agreement in class characteristics, wear and randomly acquired characteristics.
GA2A3L-5331	The wording of my conclusions is the wording suggested in the SWGTREAD Range of Conclusions standard.
GHQXZA-5331	Item 1: This item was used for comparison purposes. Item 2: This photograph depicts a total of three questioned footwear impressions. One of the questioned impressions (Q2) is a nearly complete left footwear impression and is similar in size, shape, and tread design to the suspect's left shoe (01-01). In addition, there are at least two randomly acquired characteristics visible in the questioned impression and on the outsole of this shoe. It is my opinion that this questioned impression was made by the suspect's left shoe (Category 1). The other two questioned impressions (Q1 and Q3) are a nearly complete left footwear impression and a partial right footwear impression, respectively. The questioned impressions are different in size and/or tread characteristics from the suspect's shoes. It is my opinion that these questioned impressions were not made by either of the suspect's shoes (Category 5). Item 3: This photograph depicts a total of four questioned footwear impressions. Two of the questioned impressions (Q4 and Q7) are a nearly complete left footwear impression and a partial left footwear impression, respectively. The questioned impressions are similar in size, shape, and tread design to the suspect's left shoe (01-01). In addition, there are at least two randomly acquired characteristics visible in the questioned impressions and on the outsole of this shoe. It is my opinion that these questioned impressions were made by the suspect's left shoe (Category 1). The other two the questioned impressions (Q5 and Q6) are a partial right footwear impression and a nearly complete right footwear impression, respectively. The questioned impressions are similar in size, shape, and tread design to the suspect's right shoe (01-01). In addition, there is at least one randomly acquired characteristic visible in the questioned impressions and on the outsole of this shoe. It is my opinion that these questioned impressions were made by the suspect's right shoe (Category 1).
GLQ74J-5335	[No Conclusions Reported.]
GNXN3F-5331	Q1- EXCLUDED; Q2- CONCLUSIVE evidence; Q3- EXCLUDED; Q4- CONCLUSIVE evidence; Q5- EXTREMELY STRONG evidence; Q6- CONCLUSIVE evidence; Q7- CONCLUSIVE evidence;
GRFQ8Y-5331	It is the opinion of the undersigned examiners that the Questioned footwear impression Q1 in Submission 001 has a different outsole design, physical size, and wear characteristics than the Known left shoe in Submission 001. The footwear impression was not made by the Known left shoe. It is the opinion of the undersigned examiners that the Questioned footwear impression Q2 in Submission 001 corresponds in physical size, physical shape, outsole design, wear characteristics, and randomly acquired characteristics with the Known left shoe in Submission 001. The footwear impression Q2 was made by the Known left shoe. It is the opinion of the undersigned examiners that the Questioned footwear impression Q3 in Submission 001 has a different outsole design, physical size, and wear characteristics than the Known right shoe in Submission 001. The footwear impression was not made by the Known right shoe. It is the opinion of the undersigned examiners that the Questioned footwear impression Q4 in Submission 001 corresponds in physical size, physical shape, outsole design, wear characteristics, and randomly acquired characteristics with the Known left shoe in Submission 001. The footwear impression Q4 was made by the Known left shoe. It is the opinion of the undersigned

TABLE 2

WebCode-Test	Conclusions
	<p>examiners that the Questioned footwear impression Q5 in Submission 001 corresponds in physical size, physical shape, outsole design, wear characteristics, and randomly acquired characteristics with the Known right shoe in Submission 001. The footwear impression Q5 was made by the Known right shoe. It is the opinion of the undersigned examiners that the Questioned footwear impression Q6 in Submission 001 corresponds in physical size, physical shape, outsole design, wear characteristics, and randomly acquired characteristics with the Known right shoe in Submission 001. The footwear impression Q6 was made by the Known right shoe. It is the opinion of the undersigned examiners that the Questioned footwear impression Q7 in Submission 001 corresponds in physical size, physical shape, outsole design, wear characteristics, and randomly acquired characteristics with the Known left shoe in Submission 001. The footwear impression Q7 was made by the Known left shoe.</p>
GTC289-5331	<p>The Items Q1 through Q7 questioned footwear impressions were analyzed, compared and evaluated with the Items K1 right and left known footwear. The Item Q1 questioned footwear impression does not correspond physical size with the Item K1 right and left shoe. The Item Q2 questioned footwear impression corresponds in tread design, physical size, general wear, specific wear and accidental characteristics with the Item K1 left shoe. The Item Q3 questioned footwear impression does not correspond in tread design and physical size with the Item K1 right and left shoe. The Item Q4 questioned footwear impression corresponds in tread design, physical size, general wear, specific wear and accidental characteristics with the Item K1 left shoe. The Item Q5 questioned footwear impression corresponds in tread design, physical size, general wear, and accidental characteristics with the Item K1 right shoe. The Item Q6 questioned footwear impression corresponds in tread design, physical size, general wear, specific wear and accidental characteristics with the Item K1 right shoe. The Item Q7 questioned footwear impression corresponds in tread design, physical size, general wear, specific wear and accidental characteristics with the Item K1 left shoe. Based upon the above factors, this examiners opinion is as follows: The Item K1 right shoe was the source of, and made, the questioned footwear impressions Q3, Q5 and Q6. The questioned impressions Q3, Q5 and Q6 and the known footwear K1 right shoe share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Another item of footwear being the source of the impression is considered a practical impossibility. The Item K1 left shoe was the source of, and made, the questioned footwear impressions Q2, Q4 and Q7. The questioned impressions Q2, Q4 and Q7 and the known footwear K1 left shoe share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Another item of footwear being the source of the impression is considered a practical impossibility. The Items Q1 and Q3 questioned footwear impressions exhibit dissimilarities with the known footwear Item K1 right/left shoes. The Items Q1 and Q3 questioned footwear impressions were not made by the Items K1 right/left shoes. All conclusions listed herein have been verified by a second qualified latent print examiner.</p>
GX9QNF-5331	<p>Marks that have been positively identified, show consistency in size, wear, pattern configuration and matching damage features.</p>
GYHV24-5331	<p>The questioned footwear impressions in the submitted photographs were labeled Q1 through Q7, and consisted of full length and partial impressions. Impressions Q1 through Q7 were visually compared to photographs of the recovered Keds shoes and test impressions of these shoes. Although impressions Q1 and Q3 corresponded in gross tread design features to the recovered Keds shoes, they were dissimilar in physical size. In the opinion of the examiner, the recovered Keds shoes did not make impressions Q1 and Q3 (Exclusion). Impressions Q2, Q4, and Q7 corresponded in tread design, physical size, and wear characteristics to the recovered left Keds shoe. Randomly acquired characteristics present in these questioned impressions were also present in the test impressions and on the outsole of the recovered left shoe. In the opinion of the examiner, the recovered left Keds shoe made impressions Q2, Q4, and Q7 (Identification). Impression Q5 corresponded in tread design and physical size to the heel of the recovered right Keds shoe. A randomly acquired characteristic present in this questioned impression was also present in the test impressions and on the outsole of the recovered right shoe. In the opinion of the examiner, impression Q5 could have been made by the recovered right Keds shoe (High degree of association). Apparent distortion in the impression limited the comparison. Other shoes with the same tread design, physical size, and randomly acquired characteristic in the same location on the heel are also included in the population of possible sources. Impression Q6 corresponded in tread design,</p>

TABLE 2

WebCode-Test	Conclusions
	physical size, and wear characteristics to the recovered right Keds shoe. Randomly acquired characteristics present in this questioned impression were also present in the test impressions and on the outsole of the recovered right shoe. In the opinion of the examiner, the recovered right Keds shoe made impression Q6 (Identification).
GZCL8J-5335	[No Conclusions Reported.]
H7UB6X-5331	Impressions Q5 and Q6 were made by the submitted right shoe K1-Right. Impressions Q2, Q4, and Q7 were made by the submitted left shoe, K1-Left. Impression Q1 was made by a second left shoe with a similar outsole design as the submitted shoes, based on differences in class characteristics. Impression Q3 was made by a second right shoe with a similar outsole design as the submitted shoes, based on differences in class characteristics.
H8PU9K-5335	[No Conclusions Reported.]
HHBXFK-5331	When considered in combination, the level of correspondence between the marks Q2, Q4, Q5, Q6, Q7 and the impressions made by the suspect's shoes is such that in my opinion these findings provide conclusive association between the submitted left and right shoes and these marks. The differences observed between the marks Q1 and Q3 and the impressions made by the suspect's shoes is such that in my opinion the submitted left and right shoes can be eliminated as having created these impressions.
HLKBXH-5331	1.) Impression Q1 was not made by the right or left shoe of Item K1. 2.) Impression Q2 was made by the left shoe of Item K1. 3.) Impression Q3 was not made by the right or left shoe of Item K1. 4.) Impression Q4 was made by the left shoe of Item K1. 5.) Impression Q5 was made by the right shoe of Item K1. 6.) Impression Q6 was made by the right shoe of Item K1. 7.) Impression Q7 was made by the left shoe of Item K1.
HNC8MC-5335	On 7 April 2020 I received a Footwear Imprint Evidence test labelled 20-5335, in relation to an alleged burglary. It consisted of photographs of seven shoe impressions labelled Q1 – Q7 collected from the scene. Accompanying documentation stated that impressions Q1 – Q3 were made on butchers paper and impressions Q4 – Q7 on smooth ceramic tile. I also received scale photographs of the soles of the alleged suspect's shoes labelled K1a – K1c, dark and light rolled impressions of these shoes labelled k1d and K1e respectively and dark and light walked impressions labelled K1f and K1g respectively. I was asked to perform a shoe print comparison between the scene impressions and impressions made from the alleged offenders shoes labelled as above. By comparing the soles of the shoes to shoe impressions it is often possible to determine whether or not a particular shoe made an impression. Factors considered are the dimensions, sole pattern, any wear features and random damage seen in the sole of the shoe. These are compared to any features present in the shoe impression to establish whether or not there is any correspondence. In determining the strength of this correspondence I have considered: the likelihood of finding the shoe impression evidence if the shoe made the impression, and the likelihood of finding the shoe impression evidence if the shoe did not make impression. The statement of opinion as to the scientific significance of the correspondence between the shoe and the shoeprint is selected from the following scale: is excluded, indications of non-association, inconclusive, limited association of class characteristics, association of class characteristics, high degree of association, or an identification. The scene impression labelled Q1 consisted of a near complete left shoe. The manufacture brand "Keds" was visible. Good correspondence of brand, however lack of tread element, wear and damage correspondence was observed. Therefore in my opinion this shoe is excluded from making this scene impression. The scene impression labelled Q2 consisted of a left shoe impression over two sheets of paper which have subsequently become separated. When both sections of this impression are realigned an entire left shoe impression is obtained. There is also a visible line of paper overlap developed within the impression which indicates the alignment of the two pieces of paper during deposition of this particular scene impression. The left shoe displayed broad correspondence of pattern, dimensions, wear and areas of damage with the scene impression. Therefore, in my opinion, the left shoe made this scene impression to the exclusion of all others. The scene impression labelled Q3 consisted of a near complete right

TABLE 2

WebCode-Test	Conclusions
HP8XQ7-5335	<p>shoe. Good correspondence of dimensions and brand, "Keds" visible. However lack of tread element, wear and damage correspondence was observed. Therefore in my opinion this shoe is excluded from making this scene impression. The impression labelled Q4 consisted of a full Left shoe. The left shoe displayed broad correspondence of pattern, dimensions, wear and areas of damage with the scene impression. Therefore, in my opinion, the left shoe made this scene impression to the exclusion of all others. The impression labelled Q5 consisted of the heel portion of a shoe. The impression showed signs of movement. The right shoe heel displayed broad correspondence of pattern, dimensions and areas of damage with the scene impression. Therefore, in my opinion, there is a high degree of association between the right shoe and the scene impression. However, another shoe with the same sole pattern, dimensions and areas of damage could have produced this shoeprint. The impression labelled Q6 consisted of a full right shoe. A void area was noted in the toe region of this impression. The right shoe displayed broad correspondence of pattern, dimensions, wear and areas of damage with the scene impression. Therefore, in my opinion, the right shoe made this scene impression to the exclusion of all others. The impression labelled Q7 consisted of the toe portion of a left shoe. The left shoe displayed broad correspondence of pattern, dimensions, wear and areas of damage with the scene impression. Therefore, in my opinion, the left shoe made this scene impression to the exclusion of all others.</p> <p>Q1: Limited association of class characteristics: Left shoe impression. In the opinion of the examiner, factors have limited the conclusion to a general association of some class characteristics. Other shoes with the same class characteristics are included in the population of possible sources of the impression. Although impression Q1 is a good quality partial impression with a similar pattern type to the known shoe, the dimensions differ (known shoe is larger than Q1). Q2: High degree of association: Left shoe impression. In the opinion of the examiner, the characteristics observed exhibit strong associations between the questioned impression Q2 and known footwear; however, the quality and/or quantity were insufficient for an identification. The major limiting factor was that impression Q2 was made across two pieces of overlapping butcher's paper which separated after the impression was made. Other footwear with the same class characteristics are included as possible sources only if they display the same wear and randomly acquired characteristics observed in the questioned impression Q3: Limited association of class characteristics: Right shoe impression In the opinion of the examiner, factors have limited the conclusion to a general association of some class characteristics. Other shoes with the same class characteristics are included in the population of possible sources of the impression. Although impression Q3 is a good quality partial impression with a similar pattern type to the known shoe, the dimension differ (known shoe is larger than Q3) and there are two randomly acquired characteristics present in the known shoe but absent in Q3). Q4: Identification: Left shoe impression. In the opinion of the examiner, the particular known footwear was the source of, and made, the questioned impression Q4 and the chance of another item of footwear being the source of the impression is considered negligible. Q5: High degree of association: Right shoe impression. In the opinion of the examiner, the characteristics observed exhibit strong associations between the questioned impression Q5 and known footwear; however, the quality and/or quantity were insufficient for an identification. The major limiting factor was that impression Q5 was a partial impression consisting of a heel area only with indications of two overlaying impressions, although one randomly acquired characteristic was noted. Other footwear with the same class characteristics are included as possible sources only if they display the same wear and randomly acquired characteristics observed in the questioned impression. Q6: Identification: Right shoe impression. In the opinion of the examiner, the particular known footwear was the source of, and made, the questioned impression Q6 and the chance of another item of footwear being the source of the impression is considered negligible. Although impression Q6 appears to have been made over the top of a small rectangular object which was obscured a 4.5cm x 2cm section of the impression near the toe area, sufficient randomly acquired characteristics were unobstructed to allow for an identification. Q7: Identification: Left shoe impression. In the opinion of the examiner, the particular known footwear was the source of, and made, the questioned impression Q7 and the chance of another item of footwear being the source of the impression is considered negligible. Although impression Q7 is a partial impression of the toe area only, sufficient wear and multiple randomly acquired characteristics were located to allow for an identification.</p>

TABLE 2

WebCode- Test	Conclusions
J3ALKK- 5331	Q2, Q4 and Q7 come from left shoe K1. Q5 and Q6 come from right shoe K1. Q1 and Q3 do not come from shoes K1.
J7BMM4- 5331	<p>A statistical assessment of significance of associations is not possible, but the following categories are intended to provide context for the level of association reported. A Category 1 conclusion (identification) indicates that the compared samples exhibit characteristics demonstrating that the questioned impression was created by the known item. The size, shape, and tread design are the same. In addition there are randomly acquired characteristics, significant in size, clarity, and/or number that are the same. A Category 2 conclusion (class association) indicates that the compared samples exhibit characteristics demonstrating that the questioned impression could have been created by the known item, but associations within this category cannot definitively establish that the compared samples came from the same source. There are varying degrees of associations within this category depending on the types of characteristics observed. Category 2A: The questioned impression and known item share characteristics not expected to be encountered in the general population. The size, shape, and tread design are the same, as well as wear patterns and/or some small randomly acquired characteristics that are the same. Category 2B: The questioned impression and known item share characteristics that have been manufactured. The size, shape, and tread design are the same. A Category 3 (inconclusive) conclusion indicates that the compared samples do not exhibit enough characteristics to associate or eliminate the questioned impression and known item. The questioned impression and known item may share characteristics that have been manufactured or the general shape and tread design are the same, and further comparisons are not possible due to the quality of the impression or documentation of the impression. A Category 4 (elimination) conclusion indicates that the compared samples exhibit characteristics demonstrating that the questioned impression could not have been made by the known item. The Q2, Q4, and Q7 impressions were similar in size, shape, and tread design to the Suspect's left known shoe. In addition, there were several randomly acquired characteristics that were consistent with those in the Suspect's left known shoe. These impressions were made by this shoe (Category 1, CTS Conclusion A). Identifications are not absolute and a statistical significance cannot be assigned. The Q5 and Q6 impressions were similar in size, shape, and tread design to the Suspect's right known shoe. In addition, there were several randomly acquired characteristics that were consistent with those in the Suspect's right known shoe. These impressions were made by this shoe (Category 1, CTS Conclusion A). Identifications are not absolute and a statistical significance cannot be assigned. The Q1 and Q3 impressions were similar in tread design as the Suspect's known shoes but were different in size and had different randomly acquired characteristics. The Suspect's known shoes are eliminated from having made these impressions (Category 4, CTS Conclusion G).</p>
J8LP93- 5331	<p>The submitted known shoes (K1) were visually compared to questioned footwear impressions Q1 through Q7. The K1 left shoe was similar in tread design, size and wear characteristics to questioned footwear impressions Q2, Q4 and Q7. Additionally, Q2, Q4 and Q7 each contained several voids which were similar in size, shape and position to randomly acquired characteristics in the K1 left shoe. The K1 left shoe was identified as having made questioned footwear impressions Q2, Q4 and Q7 (Identification). The K1 right shoe was similar in tread design, size and wear characteristics to questioned footwear impression Q6. Additionally, Q6 contained several voids which were similar in size, shape and position to randomly acquired characteristics in the K1 right shoe. The K1 right shoe was identified as having made questioned footwear impression Q6 (Identification). The K1 right shoe was similar in tread design, size and wear characteristics to questioned footwear impression Q5. Additionally, Q5 contained one void which was similar in size, shape and position to a randomly acquired characteristic in the K1 right shoe. The K1 right shoe could have made questioned footwear impression Q5 (Association of class characteristics). Another shoe of similar size, tread design, wear characteristics and a similar randomly acquired characteristic could also have made this impression. The K1 shoes were similar in tread design but were larger in size than questioned footwear impressions Q1 (left) and Q3 (right). The K1 shoes also differed in wear characteristics to questioned footwear impressions Q1 and Q3. The K1 shoes were excluded from having made questioned footwear impressions Q1 and Q3 (Exclusion).</p>

TABLE 2

WebCode- Test	Conclusions
JC2WW2- 5331	The submitted images and known footwear impressions were examined and compared to the questioned footwear impressions (Q1-Q7). Q2, Q4 and Q7 correspond to the known left shoe in tread size, tread design and alignment, tread wear and individual characteristics to include scratches, gouges and voids in the tread surface. Thus Q2, Q4 and Q7 were made by the submitted known left shoe as represented by the images provided. Q5 and Q6 correspond to the known right shoe in tread size, tread design and alignment, tread wear and individual characteristics to include scratches, gouges and voids in the tread surface. Thus Q5 and Q6 were made by the submitted known right shoe as represented by the images provided. Q1 corresponds to the submitted known left shoe in tread design; however is different in tread size, tread element alignment and tread wear. Thus Q1 was not made by the submitted known left shoe as represented by the images provided. Q3 corresponds to the submitted right shoe in tread size and tread design; however is different in tread element alignment, tread wear, and a void in the tread surface. Thus Q3 was not made by the submitted known right shoe as represented by the images provided.
JCETZK- 5331	In the opinion of the examiner, the known left shoe of suspect #1 was the source of, and made, the questioned impression Q2. Another item of footwear being the source of the impression is considered a practical impossibility.
JFWV66- 5331	Q1 - With a difference in dimensions existing, the known shoes can be excluded as having made this shoe outsole impression. Q2 - With class, wear and randomly acquired characteristics in common, it can be determined within the limits of practical certainty that this shoe outsole impression was made by the left known shoe. Q3 - With a difference in dimensions existing, the known shoes can be excluded as having made this shoe outsole impression. 4 - With a difference in dimensions existing, the known shoes can be excluded as having made this shoe outsole impression. 5 - With class, wear and randomly acquired characteristics in common, it can be determined within the limits of practical certainty that this shoe outsole impression was made by the right known shoe. Q6 - With class, wear and randomly acquired characteristics in common, it can be determined within the limits of practical certainty that this shoe outsole impression was made by the right known shoe. 7 - With class, wear and randomly acquired characteristics in common, it can be determined within the limits of practical certainty that this shoe outsole impression was made by the left known shoe.
JL3PY2- 5331	Items Q1 and Q3 were not made using the shoes depicted in Item K1. Items Q2, Q4 and Q7 were identified as having been made using the left shoe as depicted in Item K1. Items Q5 and Q6 were identified as having been made using the right shoe as depicted in Item K1.
JNQWN4- 5335	Comparison of the left shoe impression labeled Q1, found on paper in the kitchen (creased butcher paper), (item 8.1), to the recovered left shoe revealed an elimination. Comparison of the left shoe impression labeled Q2, found on paper in the kitchen (creased butcher paper), (item 8.2), to the recovered left shoe revealed an identification. Comparison of the right partial shoe impression labeled Q3 found on paper in the kitchen (creased butcher paper), (item 8.3), to the recovered right shoe revealed an elimination. Comparison of the left shoe impression labeled Q4, found in the kitchen on the smooth ceramic tile floor, (item 9.1), to the recovered left shoe revealed an identification. Comparison of the right partial shoe impression labeled Q5, found in the kitchen on the smooth ceramic tile floor, (item 9.2), to the recovered right shoe revealed an identification. Comparison of the right shoe impression labeled Q6, found in the kitchen on the smooth ceramic tile floor, (item 9.3), to the recovered right shoe revealed an identification. Comparison of the left partial shoe impression labeled Q7, found in the kitchen on the smooth ceramic tile floor, (item 9.4), to the recovered left shoe revealed an identification.
JQVNFG- 5331	[No Conclusions Reported.]
JXGHT3- 5335	It was determined utilizing overlay and side by side comparison that questioned impressions Q1 and Q3 were not made the known items of footwear. It was determined utilizing overlay and side by side comparison that questioned impressions Q2, Q4 and Q7 were positively made by the known left shoe. It was determined utilizing overlay and side by side comparison that questioned impressions Q5 and Q6 were positively made by the known right shoe.

TABLE 2

WebCode-Test	Conclusions
KB2GXA-5331	<p>COMPARISONS: Compared the partial, questioned footwear impressions of value, Q-1 through Q-7, with the photographs of the known shoes, test impressions, and transparencies, respectively submitted in Submissions 001 and 001A. RESULTS: The partial, questioned footwear impressions of value, marked Q-1 and Q-3, were not made by the shoes in Submission 001. The partial, questioned footwear impressions of value, marked Q-2, Q-4, and Q-7, were each made by the known left shoe in Submission 001. The partial, questioned footwear impression of value, marked Q-5, corresponds in outsole design, general wear, and two (2) randomly acquired characteristics (individual characteristics) with the known right shoe in Submission 001, and was probably made (high degree of association) by this shoe. However, only the heel portion of the shoe is recorded in the questioned impression as well as there is some distortion within the impression, providing limited data and due to the lack of clarity and of more randomly acquired characteristics, a more closely association could not be made. The partial, questioned footwear impression of value, marked Q-5, was not made by the known left shoe in Submission 001. The partial, questioned footwear impression of value, marked Q-6, was made by the known right shoe in Submission 001.</p>
KG7F9Y-5335	<p>Test No. 20-5335: by [Analysts] (individually performed – same result) In a first step all the questioned items were checked for class association. All Scene of crime prints show the same class characteristics. In the next step the pictures were given a closer look, with the result, that all pictures could be “associated” with one of the questioned shoes (K1) or “excluded”: CONCLUSION Q2, Q4, Q5, Q6 and Q7 show a high degree of association or evidence beyond doubt (Identification), that the aforementioned Q-Pictures were made /caused by one of the soles of the suspect shoes K1 (class association and enough individualizing characteristics or wear). Q1 and Q3 have been excluded.</p>
KUD7B8-5331	<p>In the opinion if this examiner, the known footwear identified as K1 was not the source of, and did not make, impression Q1. This is based on a lack of agreement in size and wear. In the opinion of this examiner, the known left footwear identified as K1 was the source of, and made, impression Q2. Another item of footwear being the source of the impression is considered a practical impossibility. This is based on consistency in design features, wear pattern, degree of wear, and the agreement of seven individual characteristics. In the opinion if this examiner, the known footwear identified as K1 was not the source of, and did not make, impression Q3. This is based on a lack of agreement in the spatial relationship of the design features and wear. In the opinion of this examiner, the known left footwear identified as K1 was the source of, and made, impression Q4. Another item of footwear being the source of the impression is considered a practical impossibility. This is based on consistency in design features, wear pattern, degree of wear, and the agreement of seven individual characteristics. In the opinion of this examiner, the characteristics observed exhibit a strong association between the questioned impression identified as Q5 and the known right footwear identified as K1; however, the quantity/quality of individual characteristics were insufficient for an identification. Other footwear with the same design features observed in this impression are included in the population of possible sources only if they display the same size, same design feature spatial relationship, same lack of wear, and both randomly acquired characteristics observed in the questioned impression. In the opinion of this examiner, the known left footwear identified as K1 was not the source of, and did not make, impression Q5. This is based on a lack of agreement in the spatial relationship of the design features. In the opinion of this examiner, the known right footwear identified as K1 was the source of, and made, impression Q6. Another item of footwear being the source of the impression is considered a practical impossibility. This is based on consistency in design features, wear pattern, degree of wear, and the agreement of four individual characteristics. In the opinion of this examiner, the known left footwear identified as K1 was the source of, and made, impression Q7. Another item of footwear being the source of the impression is considered a practical impossibility. This is based on consistency in design features, wear pattern, degree of wear, and the agreement of two individual characteristics. It should be noted that one of the two individual characteristics is uniquely shaped in a manner that provides not only agreement in overall spatial relationship, but also in specific angular shape and rotational orientation.</p>
KURRK9-5335	<p>Items K1-Right and K1-Left are Excluded as the source of Q-IMP1 based on differences in outsole material/pattern and design. Item K1-Left is Identified as the source of Q-IMP2. Correspondence is</p>

TABLE 2

WebCode-Test	Conclusions
	<p>noted in the overall outsole material/pattern, physical size, and general wear. Corresponding individualizing characteristics are also present. Items K1-Right and K1-Left are Excluded as the source of Q-IMP3 based on differences in outsole material/pattern and design. Item K1-Left is Identified as the source of Q-IMP4. Correspondence is noted in the overall outsole material/pattern, physical size, and general wear. Corresponding individualizing characteristics are also present. Item K1-Right is Identified as the source of Q-IMP5. Correspondence is noted in the overall outsole material/pattern, physical size, and general wear. Corresponding individualizing characteristics are also present. Item K1-Right is Identified as the source of Q-IMP6. Correspondence is noted in the overall outsole material/pattern, physical size, and general wear. Corresponding individualizing characteristics are also present. Item K1-Left is Identified as the source of Q-IMP7. Correspondence is noted in the overall outsole material/pattern, physical size, and general wear. Corresponding individualizing characteristics are also present.</p>
KVALKJ-5331	Items Q2, Q4 and Q7 have been identified with item K1 left. Items Q5 and Q6 have been identified with item K1 right. Item Q1 different size and pattern. Item Q3 different pattern.
L2AK9D-5331	[No Conclusions Reported.]
LAHWNW-5331	Q1, a left shoe imprint, and Q3, a right shoe imprint could not have been made by the corresponding K1 left and right shoes due to differences of class and/or randomly acquired characteristics. The K1 shoes were eliminated as the source of Q1 and Q3. Q2, Q4 and Q7, left shoe imprints, were made by the K1 left shoe. These identifications are based on sufficient, corresponding random accidental characteristics that are visible in both the imprints and the shoe. Q5, a right heel imprint, exhibits a high degree of association with the K1 right shoe. There is correspondence of class characteristics, in addition to unusual wear and/or one or more randomly acquired characteristics in the areas visible in both the imprint and the shoe. Q6, a right shoe imprint, was made by the K1 right shoe. This identification is based on sufficient, corresponding random accidental characteristics that are visible in both the imprint and the shoe.
M2KJ79-5331	1- Impressions Q5 and Q6 were made by the suspect right shoe. 2- Impressions Q2, Q4, and Q7 were made by the suspect left shoe. Impressions Q1 and Q3 were made by another shoes not that shoe was found with the suspect.
M6KV29-5331	This case, if submitted to our Unit, would result in a 'very strong' support report being produced. We do not result up to 'conclusive' or 'identified' and send our casework to be reviewed by a Forensic Service Provider for evidential purposes. A potential match to Q2, Q4, Q5, Q6 and Q7 - similar pattern, configuration and size. Similar general degree of wear, some of which could be characteristic, and some potential corresponding features to the footwear submitted. All marks appeared to be of a similar general sole design. The marks numbered Q1 and Q3 however appear less worn, Q1 also appears smaller.
M8RB9E-5331	The exemplar left footwear depicted in items 1-7 is the source of the unknown footwear impressions item 9 (Q2), item 11 (Q4) and item 14 (Q7). The exemplar right footwear depicted in items 1-7 is the source of the unknown footwear impression item 13 (Q6). There is a high degree of association between the exemplar right footwear depicted in items 1-7 and the unknown footwear impression item 12 (Q5). For another shoe to be considered a possible source, it would have to display the same physical shape, size, tread design, wear and randomly acquired characteristic. The exemplar footwear depicted in items 1-7 are excluded as possible sources of the unknown footwear impressions item 8 (Q1) and item 10 (Q3).
MAHCE2-5331	An examination was conducted comparing the known submitted K1 left and K1 right outsoles (Keds – Womens, USA 8) to seven questioned crime scene footwear impressions of value (Q1 – Q7). Q1: Q1 is similar in general design and shape to the submitted K1 left “Keds” outsole. However, based on limiting class characteristics in specific design and physical size differences, the submitted K1 left “Keds” outsole is excluded as making Q1. Q1 is similar in general design to the submitted K1 right “Keds” outsole. However based on physical shape/orientation differences, the submitted K1 right outsole is excluded as making Q1. Q2: Q2 is identified as being made by the submitted K1 left "Keds" outsole

TABLE 2

WebCode-Test	Conclusions
	<p>based on design, physical size, degree/position of wear, and randomly acquired characteristics. Another item of footwear being the source of Q2 is considered a practical impossibility. Q2 is similar in general design to the submitted K1 right "Keds" outsole. However based on physical shape/orientation differences, the submitted K1 right outsole is excluded as making Q2. Q3: Q3 is similar in general design to the submitted K1 left "Keds" outsole. However based on physical shape/orientation differences, the submitted K1 left outsole is excluded as making Q3. Q3 is similar in general design and shape to the submitted K1 right "Keds" outsole. However, based on limiting class characteristics in specific design and physical size differences, the submitted K1 right "Keds" outsole is excluded as making Q3. Q4: Q4 is identified as being made by the submitted K1 left "Keds" outsole based on design, physical size, degree/position of wear, and randomly acquired characteristics. Another item of footwear being the source of Q4 is considered a practical impossibility. Q4 is similar in general design to the submitted K1 right "Keds" outsole. However based on physical shape/orientation differences, the submitted K1 right outsole is excluded as making Q4. Q5: Q5 is similar in general design and shape to the submitted K1 left "Keds" outsole. However, based on limiting class characteristics in specific design, the submitted K1 left "Keds" outsole is excluded as making Q5. Q5 is identified as being made by the submitted K1 right "Keds" outsole based on design, physical size, degree/position of wear, and randomly acquired characteristics. Another item of footwear being the source of Q5 is considered a practical impossibility. Q6: Q6 is similar in general design to the submitted K1 left "Keds" outsole. However based on physical shape/orientation differences, the submitted K1 left outsole is excluded as making Q6. Q6 is identified as being made by the submitted K1 right "Keds" outsole based on design, physical size, degree/position of wear, and randomly acquired characteristics. Another item of footwear being the source of Q6 is considered a practical impossibility. Q7: Q7 is identified as being made by the submitted K1 left "Keds" outsole based on design, physical size, degree/position of wear, and randomly acquired characteristics. Another item of footwear being the source of Q7 is considered a practical impossibility. Q7 is similar in general design to the submitted K1 right "Keds" outsole. However based on physical shape/orientation differences, the submitted K1 right outsole is excluded as making Q7.</p>
MBC3JG-5335	<p>Example of how I word my conclusions (for mark Q7): The footwear mark evidence provides extremely strong support for the proposition that mark Q7 was made by the submitted left shoe. Taken from the following possible conclusions: In expressing the evidential significance of my findings I have chosen from the following possible conclusions: Could have, inconclusive (equal support for either proposition), limited, moderate, moderately strong, strong, very strong, extremely strong and conclusive support. Each level of support can be used in either direction - association or non-association of the shoe with the mark.</p>
MKZWXY-5331	<p>Impressions Q2, Q4 et Q7 were made by the left shoe from recovered pair of shoes (Known imprints made with the recovered shoes K1f). Impression Q6, was made by the right shoe from recovered pair of shoes (Known imprints made with the recovered shoes K1f). Impression Q5 has a High degree of association with the the right shoe from recovered pair of shoes (Known imprints made with the recovered shoes K1f). Impression Q1 et Q3 were not made by recovered pair of shoes.</p>
MQ6U3W-5335	<p>The footwear impression, Q1, was not made by the shoes in K1. The footwear impression, Q2, was made by the left shoe in K1. The footwear impression, Q3, was not made by the shoes in K1. The footwear impression, Q4, was made by the left shoe in K1. The partial footwear impression, Q5, was made by the right shoe in K1. The footwear impression, Q6, was made by the right shoe in K1. The partial footwear impression, Q7, was made by the left shoe in K1.</p>
MUMUN4-5331	<p>The shoeprint impression (Q1) depicted in the photograph from the crime scene was dissimilar in class characteristics (tread design, size) to the recovered left shoe. It is our opinion that the shoeprint impression depicted in the photograph from the crime scene was not made by the recovered left shoe. The shoeprint impression (Q2) depicted in the photograph from the crime scene was similar in class characteristics (tread design, size) and also share randomly acquired characteristics to the recovered left shoe. It is our opinion that this shoeprint impression was made by the recovered left shoe. The shoeprint impression (Q3) depicted in the photograph from the crime scene was dissimilar in class characteristics (tread design, size) to the recovered right shoe. It is our opinion that the shoeprint impression depicted</p>

TABLE 2

WebCode-Test	Conclusions
	<p>in the photograph from the crime scene was not made by the recovered right shoe. The shoeprint impression (Q4) depicted in the photograph from the crime scene was similar in class characteristics (tread design, size) and also share randomly acquired characteristics to the recovered left shoe. Please note a movement was observed/noted. It is our opinion that this shoeprint impression was made by the recovered left shoe. The shoeprint impression (Q5) depicted in the photograph from the crime scene was similar in class characteristics (tread design, size) and also share randomly acquired characteristics to the recovered right shoe. It is our opinion that this shoeprint impression was made by the recovered right shoe. The shoeprint impression (Q6) depicted in the photograph from the crime scene was similar in class characteristics (tread design, size) and also share randomly acquired characteristics to the recovered right shoe. Please note a movement was observed/noted. It is our opinion that this shoeprint impression was made by the recovered right shoe. The shoeprint impression (Q7) depicted in the photograph from the crime scene was similar in class characteristics (tread design, size) and also share randomly acquired characteristics to the recovered left shoe. It is our opinion that this shoeprint impression was made by the recovered left shoe. Photograph of the soles of the recovered shoes were used as a comparison standard.</p>
MYFWNW-5331	<p>4: There were portions of two (2) left footwear impressions, marked Q1 and Q2, and one (1) right footwear impressions, marked Q3, present in the photograph of footwear impressions submitted in Item 4. 4 Vs. 1, 2 and 3: One (1) of the two (2) left footwear impressions, marked Q2, was a portion of a footwear impression in two (2) pieces which occurred due to a fold in the paper surface when the footwear impression was made. This impression was made by the left shoe represented in the photographs of shoe sole designs and copies of shoe sole designs submitted in Items 1, 2, and 3. The left footwear impression, marked Q1 and the right footwear impression, marked Q3, did not have the same wear characteristics and the overall footwear sole designs did not align properly; therefore, the pair of shoes represented in the photographs of shoe sole designs and copies of shoe sole designs submitted in Items 1, 2 and 3, could not have made these impressions. 5: There were portions of two (2) left footwear impressions, marked Q4 and Q7, one (1) right footwear impression, marked Q6, and one (1) heel portion of a footwear impression, marked Q5, present in the photograph of footwear impressions submitted in Item 5. 5 Vs. 1, 2, and 3: The two (2) left footwear impressions, marked Q4 and Q7, were made by the left shoe represented in the photographs of shoe sole designs and copies of shoe sole designs submitted in Items 1, 2, and 3. The heel portion of a footwear impression, marked Q5, and the right footwear impression, marked Q6, were made by the right shoe represented in the photographs of shoe sole designs and copies of shoe sole designs submitted in Items 1, 2, and 3. Footwear impression examinations are performed by conducting side by side visual and overlay comparisons. A determination that an unknown footwear impression was made by a known shoe means that there exists agreement of sufficient class and discernable individualizing characteristics to reach a conclusion the shoe made the impression.</p>
MZTNGE-5331	<p>Q-1: Item Q-1 impression not was made by Item K (Keds Womens USA size 8 shoe, 4700460723) right or left shoe. Q-2: Item Q-2 impression was made by Item K (Keds Womens USA size 8 shoe, 4700460723) left shoe. Q-3: Item Q-3 impression was not made by Item K (Keds Womens USA size 8 shoe, 4700460723) right or left shoe. Q-4: Item Q-4 impression was made by Item K (Keds Womens USA size 8 shoe, 4700460723) left shoe. Q-5: Item Q-5 impression was made by Item K (Keds Womens USA size 8 shoe, 4700460723) right shoe. Q-6: Item Q-6 impression was made by Item K (Keds Womens USA size 8 shoe, 4700460723) right shoe. Q-7: Item Q-7 impression was made by Item K (Keds Womens USA size 8 shoe, 4700460723) right shoe.</p>
N26MD9-5335	<p>Questioned imprints Q2, Q4 and Q7 were made by the recovered left shoe. Questioned imprint Q6 was made by the recovered right shoe. Questioned imprint Q5 was probably made by the right shoe. Questioned imprints Q1 and Q3 were not made by either shoe. If shoes with a sole pattern similar to Q1 or Q3 are recovered, submit them to this laboratory for examination.</p>
NNUAW8-5335	<p>Based upon my experience of undertaking and interpreting the results of footwear comparisons, and the level of correspondence noted in pattern, pattern configuration, pattern size, specific degree of wear and damage features, in my opinion, the findings show CONCLUSIVELY that the plimsolls K1 have made the footwear marks Q2,Q4,Q5,Q6 and Q7 recorded in the photographs. The creased butchers</p>

TABLE 2

WebCode-Test	Conclusions
NQ2P3D-5335	<p>paper also includes two further footwear marks (Q1 & Q3) which are similar in general pattern to the plimsolls K1, however there are clear and consistent discrepancies apparent in the pattern configuration and pattern size, such that, in my opinion, the marks have not been made by the plimsolls.</p> <p>The questioned footwear marks, Q1 to Q7, have been compared in detail to the submitted footwear impressions, K1a to K1g. All marks within the questioned impressions Q1-7, correspond in pattern design, however marks Q1 and Q3 are smaller in overall dimensions, indicating they were made by footwear of a smaller size, and display a lesser degree of wear and can therefore be excluded as having been made by the submitted footwear. Marks Q2, Q4, 5, 6 and 7 correspond in overall dimensions, and size, shape and position of textured sole detail. The general degree and distribution of wear is consistent between marks and recovered footwear. Furthermore, there are a number of characteristic features found to be in agreement in size, shape, position and orientation with randomly occurring damage on the outsole of both the left and right shoes. All these factors have been taken into account in the evaluation. In my opinion, the correspondence of features for Q2, Q4, Q6 and Q7 is of sufficient quality and quantity to state that there is conclusive evidence that these marks were made by the submitted footwear, with a high degree of association in relation to the support for mark Q5. Based on the information made available to me, in my opinion collectively the above findings provide conclusive support for the view that some of the recovered marks, as indicated were made by the submitted footwear.</p>
NRFWPV-5335	[No Conclusions Reported.]
NYRA9C-5331	<p>The photographs of the suspect's shoes and questioned impressions were visually examined and processed by superimposed comparison. We copied the photographs of known imprints of suspect's shoes K1f and K1g on transparent films and superimposed them over the photographs of questioned impressions Q1 to Q7, and the result as below : 1.Questioned impressions labelled Q2, Q4 and Q7 were found to be consistent in shape, physical size and individual characteristics with the suspect's left shoe. 2.Questioned impressions labelled Q5and Q6 were found to be consistent in shape, physical size and individual characteristics with the suspect's right shoe. 3.Questioned impressions labelled Q1and Q3 were found to have similar shape with the suspect's shoes, however they were dissimilar in physical size and individual characteristics from the suspect's shoes. Therefore, questioned impressions labelled Q1and Q3 can be eliminated.</p>
P7VGNE-5335	<p>In my opinion, the findings provide conclusive evidence that five of the seven footwear marks were made by the pair of shoes photographed as items K1a to c rather than an unrelated pair of shoes. The remaining two marks were made by shoes of the same pattern type but which were different in size and degree of wear from the recovered shoes.</p>
P9WHNC-5335	[No Conclusions Reported.]
PCJ4GY-5331	<p>I conducted a comparison of the seven questioned shoemarks labelled Q1 to Q7, to the test impressions made by the pair of Ked brand shoes submitted. In my opinion: The Q2, Q4 and Q7 impressions were made by the left shoe, The Q5 and Q6 impressions were made by the right shoe, The Q1 and Q3 impressions can be eliminated as having been made by either the left or right shoe submitted.</p>
PEL3RR-5335	<p>The results of the examination extremely strongly support that the imprint Q1 was not made with the shoes K1 (Level -4). The results of the examination extremely strongly support that the imprint Q2, Q4 were made with the left shoe K1 (Level +4). The results of the examination strongly support that the imprint Q3 was not made with the shoes K1 (Level -3). The results of the examination strongly support that the imprint Q5 was made with the right shoe K1 (Level +3). The results of the examination extremely strongly support that the imprint Q6 was made with the right shoe K1 (Level +4). The results of the examination extremely strongly support that the imprint Q7 was made with the left shoe K1 (Level +4).</p>

TABLE 2

WebCode-Test	Conclusions
PNATF6-5331	<p>On the item Q1 there is a shoeprint which doesn't correspond in pattern, size nor wear with the left shoe of the item K1. The shoeprint of item Q1 is not left by the shoe of item K1. On the item Q3 there is a shoeprint which doesn't correspond in pattern nor wear with the right shoe of the item K1. The shoeprint of item Q3 is not left by the shoe of item K1. On the items Q2, Q4, Q6 and Q7 there are shoeprints which correspond in pattern, wear, measurable size and several individual characteristics with the shoe of item K1. The shoeprints of the items Q2, Q4, Q6 and Q7 are left by the shoe of item K1. The shoeprint of the item Q5 correspond in pattern and some individual characteristics with the shoe of item K1. The shoeprint of the item Q5 is high degree of association left by the right shoe of the item K1.</p>
PR96C6-5331	<p>Impression Q2 and Q4 matches the toe, mid-sole and heel area of the left runner in pattern, size, wear, corresponding stipple, mould features and acquired features. Impression Q5 matches the heel area of the right runner in pattern, size and mould feature. Impression Q6 matches the toe, mid-sole and heel area of the right runner in pattern, corresponding stipple, size, mould feature, wear and an acquired feature. Impression Q7 matches the toe and mid-sole area of the left runner in pattern, size, wear and a mould feature. Impressions Q1 and Q3 do not match the suspects runners. The overall results offer extremely strong support for the proposition that some impressions at the scene were made by the runners of the suspect rather than other footwear. I have chosen the above from the following scale: weak support, moderate support, moderately strong support, strong support, very strong support, extremely strong support. The findings show impressions Q1 and Q3 were made by other footwear rather than the suspect's footwear.</p>
PT3UFY-5335	<p>As a result of the comparison the following opinion was formed: The shoe marks labelled (Q1) and (Q3) displayed a different size to the 'Keds' brand shoes submitted as Item K1. As such, the shoes were eliminated as having produced these marks. (Exclusion) There was sufficient correspondence of sole pattern, size, level of wear and randomly acquired characteristics between the shoe mark labelled (Q5) and (Q6) and the test mark taken from the RIGHT 'Keds' brand shoe. As such this shoe produced the mark, to the exclusion of all others. (Identification) There was sufficient correspondence of sole pattern, size, level of wear and randomly acquired characteristics between the shoe mark labelled (Q2), (Q4) and (Q7) and the test mark taken from the LEFT 'Keds' brand shoe. As such this shoe produced the mark, to the exclusion of all others. (Identification).</p>
PWL69W-5331	<p>A statistical assessment of significance of associations is not possible, but the following categories are intended to provide context for the level of association reported. A Category 1 conclusion (identification) indicates that the compared samples exhibit characteristics demonstrating that the questioned impression was created by the known item. The size, shape, and tread design are the same. In addition there are randomly acquired characteristics, significant in size, clarity, and/or number that are the same. A Category 2 conclusion (class association) indicates that the compared samples exhibit characteristics demonstrating that the questioned impression could have been created by the known item, but associations within this category cannot definitively establish that the compared samples came from the same source. There are varying degrees of associations within this category depending on the types of characteristics observed. Category 2A: The questioned impression and known item share characteristics not expected to be encountered in the general population. The size, shape, and tread design are the same, as well as wear patterns and/or some small randomly acquired characteristics that are the same. Category 2B: The questioned impression and known item share characteristics that have been manufactured. The size, shape, and tread design are the same. A Category 3 (inconclusive) conclusion indicates that the compared samples do not exhibit enough characteristics to associate or eliminate the questioned impression and known item. The questioned impression and known item may share characteristics that have been manufactured or the general shape and tread design are the same, and further comparisons are not possible due to the quality of the impression or documentation of the impression. A Category 4 (elimination) conclusion indicates that the compared samples exhibit characteristics demonstrating that the questioned impression could not have been made by the known item. The impression in the Q1 image was similar in shape, and general tread design to the Suspect's left known shoe. However, the impression in the Q1 image was smaller than the left known shoe. This impression was not made by this shoe (Category 4, CTS Category G). The impression in the Q2 image</p>

TABLE 2

WebCode-Test	Conclusions
	<p>was similar in size, shape, and tread design to the Suspect's left known shoe. In addition, there were areas of wear and several randomly acquired characteristics that were consistent with those in the left known shoe. This impression was made by this shoe (Category 1, CTS Category A). Identifications are not absolute and a statistical significance cannot be assigned. The impression in the Q3 image was similar in size, shape, and general tread design to the Suspect's right known shoe. However, individual tread elements did not align between the Q3 impression and the right known shoe. This impression was not made by this shoe (Category 4, CTS Category G). The impression in the Q4 image was similar in size, shape, and tread design to the Suspect's left known shoe. In addition, there were areas of wear and several randomly acquired characteristics that were consistent with those in the left known shoe. This impression was made by this shoe (Category 1, CTS Category A). Identifications are not absolute and a statistical significance cannot be assigned. The impression in the Q5 image was similar in size, shape, and tread design to the Suspect's right known shoe. In addition, there was a randomly acquired characteristic that was consistent with the right known shoe. This impression was made by this shoe (Category 1, CTS Category A). Identifications are not absolute and a statistical significance cannot be assigned. The impression in the Q6 image was similar in size, shape, and tread design to the Suspect's right known shoe. In addition, there were areas of wear and several randomly acquired characteristics that were consistent with those in the right known shoe. This impression was made by this shoe (Category 1, CTS Category A). Identifications are not absolute and a statistical significance cannot be assigned. The impression in the Q7 image was similar in size, shape, and tread design to the Suspect's left known shoe. In addition, there were areas of wear and a randomly acquired characteristic that were consistent with those in the left known shoe. This impression was made by this shoe (Category 1, CTS Category A). Identifications are not absolute and a statistical significance cannot be assigned.</p>
PXGUDP-5331	<p>In the opinion of the examiner, Item 001.A (K1a) left Keds brand, women's size 8 (US) shoe was not the source of, and did not make, Item 001.B.01 (Q1) left full shoe track found on a piece of creased butcher paper in the kitchen. In the opinion of the examiner, Item 001.A (K1a) left Keds brand, women's size 8 (US) shoe was the source of, and made, Item 001.B.02 (Q2) left full shoe track found on a piece of creased butcher paper in the kitchen. In the opinion of the examiner, Item 001.A (K1a) right Keds brand, women's size 8 (US) shoe was not the source of, and did not make, Item 001.B.03 (Q3) right partial shoe track found on a piece of creased butcher paper in the kitchen. In the opinion of the examiner, Item 001.A (K1a) left Keds brand, women's size 8 (US) shoe was the source of, and made, Item 001.C.01 (Q4) left full shoe track found on the smooth ceramic tile in the kitchen. In the opinion of the examiner, the characteristics observed exhibit strong associations between Item 001.C.02 (Q5) right partial shoe track found on the smooth ceramic tile in the kitchen and Item 001.A (K1a) right Keds brand, women's size 8 (US) shoe; however, the quality and/or quantity were insufficient for an identification. Other footwear with the same class characteristics observed in the impression are included in the population of possible sources only if they display the same wear and/or randomly acquired characteristics observed in Item 001.C.02 (Q5). In the opinion of the examiner, Item 001.A (K1a) right Keds brand, women's size 8 (US) shoe was the source of, and made, Item 001.C.03 (Q6) right full shoe track found on the smooth ceramic tile in the kitchen. In the opinion of the examiner, Item 001.A (K1a) left Keds brand, women's size 8 (US) shoe was the source of, and made, Item 001.C.04 (Q7) left partial shoe track found on the smooth ceramic tile in the kitchen.</p>
Q2TVC3-5335	<p>Items 2, 4, and 7 were made by the left shoe that made the left test impression submitted. Items 5 and 6 were made by the right shoe that made the right test impression submitted. Items 1 and 3 were not made by the shoes that made the test impressions submitted.</p>
QCBEVY-5331	<p>The right shoe from Item #K1 is identified as having made the questioned impressions Q5 and Q6 based on a correspondence of observed class characteristics (specific tread design and size), general wear, and randomly acquired characteristics of sufficient quality and quantity. The left shoe from Item #K1 is identified as having made the questioned impressions Q2, Q4, and Q7 based on a correspondence of observed class characteristics (specific tread design and size), general wear, and randomly acquired characteristics of sufficient quality and quantity. The shoes from Item #K1 are excluded as having made the questioned impressions Q1 and Q3 based on observed differences in class characteristics (size/dimensions and tread design elements)</p>

TABLE 2

WebCode-Test	Conclusions
QDP26Z-5331	Item Q1 through Q7 questioned footwear impressions were analyzed, compared and evaluated with the Item K1 right and left known shoes. Item Q2, Q4 and Q7 questioned footwear impressions correspond in tread design, physical size, wear characteristics and randomly acquired/accidental characteristics with the K1 left shoe. Item Q5 and Q6 questioned footwear impressions correspond in tread design, physical size, wear characteristics and randomly acquired/accidental characteristics with the K1 right shoe. Item Q1 and Q3 questioned footwear impressions do NOT correspond in tread design detail, physical size and general wear. Based upon the above factors it is the opinion of this examiner that: The Item Q2, Q4 and Q7 questioned footwear impressions were made by the K1 left shoe. The Item Q5 and Q6 questioned footwear impressions were made by the K1 right shoe. The Item K1 known shoes can be eliminated as a source of the Item Q1 and Q3 questioned footwear impressions.
QGNJ3T-5331	1) Impressions Q2, Q4 and Q7 were made by the submitted left Keds shoe (item K1f-L). 2) Impressions Q5 and Q6 were made by the submitted right Keds shoe (item K1f-R). 3) Impression Q1 was made by a second left shoe. 4) Impression Q3 was made by a second right shoe. 5) Impressions Q1 and Q3 were possibly from the same pair of shoes. Suspect footwear include Keds shoes; however, any suspect shoe should be submitted for examination.
QHG9N9-5331	[No Conclusions Reported.]
QN8KPW-5335	Q2, Q4 & Q7 are partial left athletic shoe imprints. The imprints appear similar in physical size, tread design, wear, and individual characteristics to the K1 left shoe. In the opinion of the examiner, the left shoe in K1 was the source of, and made, the footwear imprints Q2, Q4 & Q7. Another item of footwear being the source of the imprints is considered a practical impossibility. Q5 & Q6 are partial right athletic shoe imprints. The imprints appear similar in physical size, tread design, wear, and individual characteristics to the K1 right shoe. In the opinion of the examiner, the right shoe in K1 was the source of, and made, the footwear imprints Q5 & Q6. Another item of footwear being the source of the imprints is considered a practical impossibility. Q1 is a partial left athletic shoe imprint. The imprint is similar in design to the left shoe in K1, but was not similar in size and wear characteristics; therefore the imprint was not made by the left shoe in K1. Q3 is a partial right athletic shoe imprint. The imprint is similar in design to the right shoe in K1, but was not similar in size and mold characteristics; therefore the imprint was not made by the right shoe in K1.
QUBPDA-5331	The footwear impressions in Items Q2, Q4, Q6 and Q7 were determined to have similar physical size, tread design and wear characteristics to the known impressions of the shoes of Item K1. Also, individual identifying characteristics were associated between Q2, Q4, Q6, Q7 and K1. These characteristics allowed an identification of Q2, Q4 and Q7 to the left shoe of K1 and Q6 to the right shoe of K1. Therefore no other shoe could have made these impressions. Items Q1, Q3 and Q5 had similar tread design and physical size to the shoes in Item K1. However, a lack of sufficient detail precluded a closer association to the shoes of K1.
QXVGND-5335	Q1. The imprint has not been produced by any of the shoes. Q2. The results gives extremely strong support for that the imprint has been produced by the left shoe. Q3. The imprint has not been produced by any of the shoes. Q4. The results gives extremely strong support for that the imprint has been produced by the left shoe. Q5. The results gives support for that the imprint has been produced by the right shoe. Q6. The results gives extremely strong support for that the imprint has been produced by the right shoe. Q7. The results gives strong support for that the imprint has been produced by the left shoe.
QY4T4T-5335	Q1 compared to 1, Both shoes Elimination. Q2 compared to 1, Left Shoe Identification. Q3 compared to 1, Both Shoes Elimination. Q4 compared to 1, Left Shoe Identification. Q5 compared to 1, Right Shoe Identification. Q6 compared to 1, Right Shoe Identification. Q7 compared to 1, Left Shoe Identification.
RLYPJY-5335	The impressions Q2, Q4, and Q7 corresponded in physical size, outsole design, wear, and several accidental characteristics with the known K1 left shoe. The impressions Q2, Q4, Q7, and Q9 were identified to, and were made by the known left shoe. The impressions Q5 and Q6 corresponded in

TABLE 2

WebCode-Test	Conclusions
	physical size, outsole design, wear, and several accidental characteristics with the known K1 right shoe. The impressions Q5 and Q6 were identified to, and were made by the known right shoe. The impressions Q1 and Q3 were different outsole designs than the known shoes; therefore, the known shoes are excluded and could not have made Q1 and Q3.
RWVTMT-5331	In this test we used TrasoScan system, Lucia Forensic 7.40 program and additional transparent foil. The comparisons of the enclosed footwear impressions (Q1-Q7 and K1a-K1g) concerned the physical size and shape of the outsole, the outsole design and random individual identifying characteristics. From the performed comparative analysis we observed that on the surface of the outsoles of shoes, being the comparative material, there were present some individual identifying characteristics. Similar individual characteristics were also found in the evidence material marked Q2, Q4 and Q7 on the left outsole, Q5 and Q6 on the right outsole. Thus we concluded that Items Q1 and Q3 are different from the comparative materials.
T24GXA-5331	[No Conclusions Reported.]
T48CFQ-5331	The questioned imprints Q2 on Item 4, Q4 and Q7 on Item 5 were identified as having been produced using the left shoe depicted in Items 1-3. The questioned imprint Q6 was identified as having been produced using the right shoe depicted in Items 1-3. The questioned imprints Q1 and Q3 on Item 4 were not produced using the shoes depicted in Items 1-3. The questioned imprint Q5 on Item 5 displays an insufficient quality and quantity of corresponding individual characteristics and could not be identified as having been produced using the right shoe depicted in Items 1-3.
T9NJ4Q-5335	No report required per policy
TBBDKR-5331	RESULTS: Item #1-2 contained two (2) photographs depicting seven (7) impressions labeled Q1, Q2, Q3, Q4, Q5, Q6, and Q7. The design of the outsoles of the right and left shoes, item #1-1, were found to be different than the pattern present in the full, left impression, Q1. The design characteristics, physical size, and areas of wear of the full impression, Q2, were found to correspond to the left shoe, item #1-1. Randomly acquired characteristics were found to correspond in position and orientation between the full impression, Q2, and the outsole of the left shoe, item #1-1. The design of the outsoles of the right and left shoes, item #1-1, were found to be different than the pattern present in the partial, right impression, Q3. The design characteristics, physical size, and areas of wear of the full impression, Q4, were found to correspond to the left shoe, item #1-1. Randomly acquired characteristics were found to correspond in position and orientation between the full impression, Q4, and the outsole of the left shoe, item #1-1. The design characteristics, physical size, areas of wear, and one randomly acquired characteristic of the partial impression, Q5, were found to correspond to the outsole of the right shoe, item #1-1. The design characteristics, physical size, and areas of wear of the full impression, Q6 were found to correspond to the right shoe, item #1-1. Randomly acquired characteristics were found to correspond in position and orientation between the full impression, Q6, and the outsole of the right shoe, item #1-1. The design characteristics, physical size, areas of wear, and two randomly acquired characteristics of the partial impression, Q7, were found to correspond to the outsole of the left shoe, item #1-1. OPINION: The shoes, item #1-1, were not the source of the full impression, Q1. This is an Exclusion. Please see Association Key below. These associations are significant enough to determine that the left shoe, item #1-1, was the source of the full impression, Q2. This is an Identification. Please see Association Key below. The shoes, item #1-1, were not the source of the partial impression, Q3. This is an Exclusion. Please see Association Key below. These associations are significant enough to determine that the left shoe, item #1-1, was the source of the full impression, Q4. This is an Identification. Please see Association Key below. The partial impression, item #Q5, was very likely to have been made by the right shoe, item #1-1. This is a High Degree of Association. Please see Association Key below. These associations are significant enough to determine that the right shoe, item #1-1, was the source of the full impression, Q6. This is an Identification. Please see Association Key below. The partial impression, item #Q7, was very likely to have been made by the left shoe, item #1-1. This is a High Degree of Association. Please see Association Key below. [Attachment not provided by participant]

TABLE 2

WebCode-Test	Conclusions
TJPZTV-5331	I have considered the proposition that the supplied footwear, labelled L and R made the recovered detail labelled Q1-Q7: In my opinion the results of the examination show that the recovered footwear did not make the detail in marks Q1 and Q3. In my opinion the results of the examination provide conclusive support that the Left shoe made the detail in mark Q2 and Q4. In my opinion the results of the examination provide strong support that the right shoe made the detail in mark Q5. In my opinion the results of the examination provide conclusive support that the right shoe made the detail in mark Q6. In my opinion the results of the examination provide strong support that the left shoe made the detail in mark Q7.
TLBND9-5335	[No Conclusions Reported.]
TQ9B3P-5335	[No Conclusions Reported.]
TUMZ7Y-5335	Q1 and Q3 were eliminated from both shoes in Item #3. Q2, Q4 and Q7 were made by the left shoe in Item #3. Q5 and Q6 were made by the right shoe in Item #3.
UDR3EN-5331	The questioned impressions (Exhibits Q1 through Q7) were compared to the outsole tread design elements and randomly acquired characteristics present on Exhibits K1a through K1g, the recovered shoes. Based on the outsole tread design elements and randomly acquired characteristics present on Exhibits K1a through K1g, Exhibits Q5 and Q6 have been identified as having been made by the right recovered shoe; Exhibits Q2, Q4 and Q7 have been identified as coming from the left recovered shoe. Exhibits K1a through K1g can be eliminated as the source of the Exhibits Q1 and Q3, questioned imprints, based on the difference in randomly acquired characteristics. However, the tread design elements in Exhibits Q1 and Q3 are similar to the recovered shoes.
UGT79W-5331	Photographs of the shoe prints submitted as Items Q1-Q7 were examined and compared to photographs of soles and impressions of known shoes submitted as K1. Items Q2, Q4, and Q7 were made by the K1 left shoe. Items Q5 and Q6 were made by the K1 right shoe. Items Q1 and Q3 were not made by the K1 shoes.
UKDXKY-5335	The questioned impressions in Q2, Q4, and Q7 were made by the left shoe in K1. The questioned impressions in Q5 and Q6 were made by the right shoe in K1. The questioned impressions in Q1 and Q3 were eliminated as having been made by either of the shoes in K1.
UQJREU-5331	It was determined that the Impressions, Q-1 and Q-3 were not made by the submitted shoes, K-1. It was also determined that the impressions, Q-2, Q-4, Q-5, Q-6 and Q-7 were made by the submitted shoes, K-1.
UUH3BU-5331	The outsole impression visible in Exhibit #Q1 and the partial outsole impression visible in Exhibit #Q3 were excluded from having been made by the outsole of either shoe in Exhibit #K1 based on class characteristic differences (size). The outsole impressions visible in Exhibits #Q2 and #Q4 and the partial outsole impression visible in Exhibit #Q7 were identified as having been made by the outsole of the left shoe in Exhibit #K1. The partial outsole impression visible in Exhibit #Q5 and the outsole impression visible in Exhibit #Q6 were identified as having been made by the outsole of the right shoe in Exhibit #K1.
VB7FM2-5335	The left and right shoes (soles and test impressions depicted in K1a through K1g) were compared to the impressions from the scene (depicted in Q1 through Q7) with the following conclusions: Impressions on creased butcher paper in kitchen - Q1: Neither the left, nor the right shoe are the source of Q1. EXCLUSION. Q2: The left shoe was identified as the source of Q2. IDENTIFICATION. Q3: Neither the left, nor the right shoe are the source of Q3. EXCLUSION. Impressions on smooth ceramic tile in kitchen - Q4: The left shoe was identified as the source of Q4. IDENTIFICATION. Q5: The right shoe could be the source Q5. HIGH DEGREE OF ASSOCIATION. The heel of another shoe, including one of different length, containing a similar sole pattern, size, degree of wear, and randomly acquired characteristic may have made the impression. Q6: The right shoe was identified as the source of Q6. IDENTIFICATION. Q7: The left shoe could be the source Q7. HIGH DEGREE OF ASSOCIATION.

TABLE 2

WebCode-Test	Conclusions
	Another shoe, including one of different length, containing a ball with similar sole pattern, size, degree of wear, and randomly acquired characteristics, may have made the impression. The left shoe was eliminated as the source of Q5 and Q6. EXCLUSION. The right shoe was eliminated as the source of Q2, Q4, and Q7. EXCLUSION.
VH3FWM-5331	The left Keds shoe (Item K1) is similar in general tread design, mold characteristics, size, and apparent wear and shares multiple randomly acquired characteristics with Items Q2, Q4, and Q7. Therefore, the left Keds shoe (Item K1) was identified as having made these questioned shoe impressions (Items Q2, Q4, and Q7). The right Keds shoe (Item K1) is similar in general tread design, mold characteristics, size, and apparent wear with Items Q5 and Q6. Because of the presence of multiple shared randomly acquired characteristics, the right Keds shoe (Item K1) was identified as having made the questioned shoe impression, Item Q6. The right Keds shoe (Item K1) and Item Q5 share one randomly acquired characteristic and exhibit a strong association however, Item Q5 is a double stepped heel impression and the quality was insufficient for an identification. Other footwear with the same class characteristics observed in the impression are included in the population of possible sources only if they display the same wear and randomly acquired characteristic observed in the questioned impression. The Keds shoes (Item K1) bear a similar general tread design to Items Q1 and Q3, however differences were observed in mold characteristics. Because of these observed differences, the Keds shoes (Item K1) are excluded as having been the source of these questioned impressions. COMMENTS Item Q1 is a nearly full length left shoe impression and is a smaller size than the left Keds shoes (Item K1). Item Q3 is a partial right shoe impression that is similar in size to the right Keds shoe (Item K1).
VXHD49-5335	Q2 and Q7 had class characteristics and randomly acquired characteristics that corresponded to the known left shoe hence having a high degree of association with the known print. The design and physical size of the known right shoe and Q6 corresponded hence being concluded as association of class characteristics. Q7 had a high degree of association with the known left shoe as the class characteristics and randomly acquired characteristics of the known left shoe and the questioned print corresponded.
W2BXLX-5335	The following is the opinion of this examiner: The known footwear (right and left) are not the source of and did not make the questioned impressions Q1-IMP1 or Q3-IMP1. The known left footwear (K1L) is the source of the questioned impression Q2-IMP1, Q4-IMP1 and Q7-IMP1. Another item of footwear being the source of these impressions is considered a practical impossibility. The known right footwear (K1R) is the source of the questioned impression Q5-IMP1 and Q6-IMP1. Another item of footwear being the source of these impressions is considered a practical impossibility.
W78L26-5331	The left and right shoes of item K1 are excluded as being the source of impressions Q1 and Q3. The left shoe of item K1 is identified as the source of impressions Q2, Q4 and Q7. The right shoe of item K1 is identified as the source of impressions Q5 and Q6.
WEL8B9-5331	The questioned footwear imprint, specimen #Q1, was compared to reference imprints and photographs of the outsoles from the known shoes, specimens #K1a-K1g. The questioned imprint, specimen #Q1, was not made by the outsoles of the known shoes, specimens #K1a-K1g, due to differences in randomly acquired characteristics. The questioned footwear imprint, specimen #Q2, was compared to reference imprints and photographs of the outsole from the known left shoe, specimens #K1a-K1g. The questioned imprint, specimen #Q2 was made by the left outsole of the known shoe, specimen #K1a-K1g, due to agreement of class and randomly acquired characteristics in the outsole design. The questioned footwear imprint, specimen #Q3, was compared to reference imprints and photographs of the outsoles from the known shoes, specimens #K1a-K1g. The questioned imprint, specimen #Q3, was not made by the outsoles of the known shoes, specimens #K1a-K1g, due to differences in randomly acquired characteristics. The questioned footwear imprint, specimen #Q4, was compared to reference imprints and photographs of the outsole from the known left shoe, specimens #K1a-K1g. The questioned imprint, specimen #Q4 was made by the left outsole of the known shoe, specimen #K1a-K1g, due to agreement of class and randomly acquired characteristics in the outsole design. The questioned footwear imprint, specimen #Q5, was compared to reference imprints and photographs of the outsole from the known shoes, specimens #K1a-K1g. The questioned imprint, specimen #Q5 was made by the right outsole of the known shoe, specimen #K1a-K1g, due to

TABLE 2

WebCode-Test	Conclusions
	<p>agreement of class and randomly acquired characteristics in the outsole design. The questioned footwear imprint, specimen #Q6, was compared to reference imprints and photographs of the outsole from the known right shoe, specimens #K1a-K1g. The questioned imprint, specimen #Q6 was made by the right outsole of the known shoe, specimen #K1a-K1g, due to agreement of class and randomly acquired characteristics in the outsole design. The questioned footwear imprint, specimen #Q7, was compared to reference imprints and photographs of the outsole from the known left shoe, specimens #K1a-K1g. The questioned imprint, specimen #Q7 was made by the left outsole of the known shoe, specimen #K1a-K1g, due to agreement of class and randomly acquired characteristics in the outsole design.</p>
WEYY4P-5331	<p>Q2, Q4 and Q7 were made by K1 left. Q6 was made by K1 right. Q5 could have been made by K1 right or another shoe exhibiting the same characteristics. Q1, Q3, Q5 and Q6 could not have been made by K1 left. Q1-Q4 and Q7 could not have been made by K1 right.</p>
WJVNKW-5331	<p>The outsole of the left shoe is identified as the source for impressions Q2, Q4, and Q7. The outsole of the right shoe is excluded as a source for these impressions. The outsole of the right shoe is identified as the source for impressions Q5 and Q6. The outsole of the left shoe is excluded as a source for these impressions. The outsoles of both shoes are excluded as a possible source for impressions Q1 and Q3.</p>
WNK6WM-5331	<p>1. Questioned impressions Q2, Q4 and Q7 were made by the recovered left Keds brand shoe, USA size 8 (K1). 2. Questioned impressions Q5 and Q6 were made by the recovered right Keds brand shoe, USA size 8 (K1). 3. Questioned impression Q1 was made by a second left Keds brand shoe of smaller size than K1. 4. Questioned impression Q3 was made by a second right Keds brand shoe of smaller size than K1.</p>
WWKMBY-5335	<p>The right shoe (Item K1) was identified as the source of two of the imprints on the tile in the kitchen (Imprints Q5 and Q6). The left shoe (Item K1) was identified as the the source of one of the imprints on the paper in the kitchen (Imprint Q2) and two of the imprints on the tile in the kitchen (Imprints Q4 and Q7). The shoes (Item K1) were eliminated as the source of the remaining two imprints on the paper in the kitchen (Imprints Q1 and Q3).</p>
WYMLLR-5331	<p>[No Conclusions Reported.]</p>
WZ3PFJ-5335	<p>Image 20-5335_Q1-Q3 was an image of questioned imprints found on paper in the kitchen (creased butcher paper). Three impressions identified as Q1, Q2, and Q3 were located in the image. Q1 Impression: This impression was a nearly full length footwear impression made by a left shoe. The lateral edge of the impression was cut-off in the image. The recovered shoes were excluded from having made the Q1 impression due to differences in specific sole design, general wear, and size. Q2 Impression: This impression was a nearly full length footwear impression made by a left shoe; however, there was a crease in the paper that divided the impression lengthwise. The recovered left shoe was identified as having made the Q2 impression based on the agreement of randomly acquired characteristics and Schallamach pattern. Q3 Impression: This impression was a partial footwear impression made by a right shoe. This impression consisted of most of the heel area, arch, and part of the ball area of the shoe. The recovered shoes were excluded from having made the Q3 impression due to differences in specific sole design and general wear. Image 20-5335_Q4-Q7 was an image of questioned imprints found on smooth ceramic tile in the kitchen. Four impressions identified as Q4, Q5, Q6, and Q7 were located in the image. Q4 Impression: This impression was a nearly full length footwear impression made by a left shoe. The recovered left shoe was identified as having made the Q4 impression based on the agreement of randomly acquired characteristics and Schallamach pattern. Q5 Impression: This impression was a partial footwear impression made by the heel of a shoe. A high degree of association was found between the recovered right shoe and the Q5 impression based on the agreement of a randomly acquired characteristic. Q6 Impression: This impression was a nearly full length footwear impression made by a right shoe. There is a rectangular void in the medial edge of the toe/ball area of the impression. The recovered right shoe was identified as having made the Q6 impression based on the agreement of randomly acquired characteristics and Schallamach pattern. Q7 Impression: This impression was a partial footwear impression made by a left shoe. This impression</p>

TABLE 2

WebCode- Test	Conclusions
X4WY4Q- 5331	<p>consisted of the forefoot (toe/ball) area of the shoe. The recovered left shoe was identified as having made the Q7 impression based on the agreement of randomly acquired characteristics.</p> <p>Item Q1 is an imprint of an almost complete left shoe on butcher paper. This imprint is smaller in size than that of the left known shoe in K1. It is the opinion of this examiner that the imprint in Item Q1 was not made by the left known shoe in K1. Item Q2 is an imprint of two halves of a left shoe separated by a crease in the butcher paper. This imprint exhibits the same size, tread pattern, general wear, and randomly acquired characteristics as those present in the left known shoe of K1. It is the opinion of this examiner that the imprint in Item Q2 can be identified as having been made by the left known shoe in K1. Item Q3 is an imprint of an almost complete right shoe on butcher paper. This imprint is smaller in size than the right known shoe in K1. It is the opinion of this examiner that the imprint in Item Q3 was not made by the right known shoe in K1. Item Q4 is an imprint of an almost complete left shoe on ceramic tile. This imprint exhibits the same size, tread pattern, general wear, and randomly acquired characteristics as those present in the left known shoe of K1. It is the opinion of this examiner that the imprint in Item Q4 can be identified as having been made by the left known shoe in K1. Item Q5 is an imprint of the heel area of a right shoe on ceramic tile. This imprint exhibits the same size, tread pattern, general wear, and randomly acquired characteristics as those present in the right known shoe of K1. It is the opinion of this examiner that the imprint in Item Q5 can be identified as having been made by the right known shoe in K1. Item Q6 is an imprint of an almost complete right shoe on ceramic tile. This imprint exhibits the same size, tread pattern, general wear, and randomly acquired characteristics as those present in the right known shoe of K1. It is the opinion of this examiner that the imprint in Item Q6 can be identified as having been made by the right known shoe in K1. Item Q7 is an imprint of the toe area of a left shoe on ceramic tile. This imprint exhibits the same size, tread pattern, general wear, and randomly acquired characteristics as those present in the left known shoe of K1. It is the opinion of this examiner that the imprint in Item Q7 can be identified as having been made by the left known shoe in K1.</p>
X98CLP- 5331	<p>Q1 has been excluded as having been produced by known left and right shoes. Q2 has been identified as having been produced by the known left shoe. Q3 has been excluded as having been produced by the known left and right shoes. Q4 has been identified as having been produced by the known left shoe. Q5 - there is a high degree of association between Q5 and the known right shoe including all class characteristics as well as one or more randomly acquired characteristics. Q6 has been identified as having been produced by the known right shoe. Q7 - there is a high degree of association between Q5 and the known left shoe including all class characteristics as well as one or more randomly acquired characteristics</p>
XFQFTR- 5331	<p>ITEMS OF EVIDENCE: Item: 1 (K1a): Photograph of the soles of the recovered shoes, lighted from above. Item: 2 (K1b-K1c): Two oblique lighted images of the soles of the recovered shoes, light direction indicated by arrows. Item: 3 (K1d-K1g): Known imprints made with the recovered shoes. Item: 3.1 Transparencies reprinted from the Item 3 known imprint photographs of K1d-K1g. Item: 4 (Q1-Q3): Questioned imprints found on paper in the kitchen (creased butcher paper). Item: 4.1 Unknown footwear impression represented as Q1. RESULTS: The Item 4.1 impression was not made by the Item 1 shoes. Item: 4.2 Unknown footwear impression represented as Q2. RESULTS: The Item 4.2 impression was made by the Item 1 left shoe. Item: 4.3 Unknown footwear impression represented as Q3. RESULTS: The Item 4.3 impression was not made by the Item 1 shoes. Item: 5 (Q4-Q7): Questioned imprints found in the kitchen (smooth ceramic tile). Item: 5.1 Unknown footwear impression represented as Q4. RESULTS: The Item 5.1 impression was made by the Item 1 left shoe. Item: 5.2 Unknown footwear impression represented as Q5. RESULTS: The Item 5.2 impression corresponds in combined class characteristics, wear pattern, and some random identifying characteristics with the Item 1 right shoe. Therefore, the Item 5.2 impression could have been made by the Item 1 right shoe or another shoe that displays the same combined class characteristics, wear pattern, and random identifying characteristics. Item: 5.3 Unknown footwear impression represented as Q6. RESULTS: The Item 5.3 impression was made by the Item 1 right shoe. Item: 5.4 Unknown footwear impression represented as Q7. RESULTS: The Item 5.4 impression was made by the Item 1 left shoe. Impression evidence in this case was examined utilizing the ACE-V methodology.</p>

TABLE 2

WebCode-Test	Conclusions
XM9TRQ-5335	<p>I have been asked to compare seven questioned scene impressions, numbered Q1 to Q7, inclusive, with the soles of a pair of shoes. By comparing the soles of the shoes to shoeprints it is often possible to determine whether or not a particular shoe made a print. Factors considered are the dimensions, sole pattern, any wear features and random damage seen in the sole of the shoe. These are compared to any features present in the shoeprint to establish whether or not there is any correspondence. The conclusions that may be reached are chosen from the following scale: neutral, slight support, moderate support, strong support, very strong support, extremely strong support, and conclusive. In determining the strength of this correspondence I have considered: the likelihood of finding the shoeprint evidence if the shoe made the print, and the likelihood of finding the shoeprint evidence if the shoe did not make the print. The likelihoods attributed to each print may vary depending on factors such as completeness of print and clarity of detail. Impressions Q2, Q4 and Q6 each represented a single, near-complete shoeprint. Each shoeprint displayed a correspondence of sole pattern, dimensions, wear features and multiple random damage features to the left shoe, the left shoe and the right shoe, respectively. In my opinion, the probability of observing these correspondences given the shoes made the prints is very high. Conversely, the probability of these correspondences given the scene print was made by other shoes is so low that I consider it negligible. In my opinion, these are conclusive correspondences; these shoes, and only these shoes, could have made these shoeprints. Impression Q5 represented a single shoeprint heel area. Impression Q7 represented a single shoeprint forefoot area. Each shoeprint displayed a correspondence of sole pattern, dimensions, wear features and limited random damage features to the right shoe and the left shoe, respectively. In my opinion, the probability of observing these correspondences given the shoes made the scene prints is very high. Conversely, the probability of these correspondences given the scene print was made by other shoes is low. In my opinion, this evidence provides extremely strong support for the proposition that the shoes made the shoeprints. However, I cannot exclude the possibility that other shoes with the same sole pattern, of similar dimensions, with similar wear detail, and with similar random damage features could have made the shoeprints. Impressions Q1 and Q3 each represented the majority of a single shoeprint. There was broad similarity in sole pattern with the left and right shoe, respectively, and the shoeprints displayed the same brand as the shoes. However, the detail of the stippled pattern within the shoeprints was different to that on the shoe soles in both cases. In at least the case of shoeprint Q1, the shoeprint was also smaller than the shoe sole. In my opinion, the shoes are excluded from having made either of these two prints.</p>
XN3EM3-5335	<p>I am satisfied that the suspects training shoes were responsible for five of the impressions recovered from the scene (conclusive association). Two of the impressions from the scene could not have been made by the suspects training shoes(conclusive elimination).</p>
XTFEJU-5331	<p>Impressions Q2, Q4, and Q7 and the K1 known left shoe have similar class characteristics and similar randomly acquired characteristics of sufficient quality and quantity. Therefore, impressions Q2, Q4, and Q7 were made by the K1 known left shoe. Impressions Q5 and Q6 and the K1 known right shoe have similar class characteristics and similar randomly acquired characteristics of sufficient quality and quantity. Therefore, impressions Q5 and Q6 were made by the K1 known right shoe. Impressions Q1 and Q3 have a similar general outsole design to the K1 known shoes; however, the specific outsole design, the arrangement and position of the tread elements on the outsole, is dissimilar. Additionally, the impressions were made with shoes that are smaller than the K1 known shoes. Consequently, impressions Q1 and Q3 were not made by the K1 known shoes.</p>
Y4DEWX-5335	<p>The left Keds shoe recovered from the suspect's home made shoe impressions Q2, Q4, and Q7 found in the kitchen. The right Keds shoe recovered from the suspect's home made shoe impression Q6 found in the kitchen. The right Keds shoe recovered from the suspect's home most likely made shoe impression Q5 found in the kitchen. Both have the same tread pattern and are of a similar size and have similar general wear. There is also some limited corresponding agreement in individual characteristics between the right shoe and the scene impression; however, there is insufficient detail in the scene impression for an identification. The Keds shoes recovered from the suspect's home could not have made impressions Q1 and Q3 found in the kitchen.</p>

TABLE 2

WebCode-Test	Conclusions
YDZDLH-5335	<p>By comparing the sole pattern of a shoe to a shoeprint impression it is often possible to determine whether or not that particular shoe made that impression. I have compared the Keds shoes to the scene impressions Q1 to Q7. The comparison process examines the shoe and the shoe impression to investigate any correspondence or difference in sole pattern and dimensions, the presence of any wear, and the location, size and shape of any randomly acquired characteristics. In determining the strength of the correspondence I have considered the probability of finding the shoe impression evidence if the shoe made the impression, and the probability of the finding the shoe impression evidence if another shoe made the impression. The statement of opinion as to the scientific significance of the correspondence between the shoe and the shoe impression is selected from the following scale: is neutral, provides slight support, provides moderate support, provides strong support, provides very strong support, provides extremely strong support and conclusive. In my opinion, if the submitted shoes had made the scene impressions, the probability of observing a correspondence of sole pattern, dimensions, wear, and randomly acquired characteristics between the submitted shoes and scene impressions Q2, Q4, Q5, Q6 and Q7 is very high. Conversely, given the large number of shoe soles with different patterns, dimensions, wear, and randomly acquired characteristics, the probability of observing these features given the scene impressions Q2, Q4, Q5, Q6 and Q7 were made by another pair of shoes is so low that I consider it negligible. Therefore in my opinion, the submitted shoes made the scene impressions Q2, Q4, Q5, Q6 and Q7. The shoe sole patterns had the same sole patterns as scene impressions Q1 and Q3. However the dimensions, the wear, and randomly acquired characteristics of the submitted shoes were different to those seen in the scene impressions Q1 and Q3. Therefore in my opinion, the submitted shoes did not make these shoe impressions.</p>
Z4AE8H-5335	[No Conclusions Reported.]
ZBTHEK-5335	<p>Two photographs were examined for the presence of footwear impressions and were preserved through digital imaging. The two photographs contain seven footwear impressions (labeled Items Q1 through Q7) and were compared to the shoe photographs (Items K1a, K1b, and K1c) and to the footwear exemplars made from the shoes (Items K1d through K1g). The footwear impressions, the photos of the shoes, and the exemplars were examined visually and all comparisons were performed using ACE-V methodology. Items Q2, Q4, and Q7: Item Q impressions listed above are similar in size, shape, and tread design to the Left shoe from Item K1 and possess identifying characteristics that correlate between the Item Q impressions and the Left shoe. Comparison results: Items Q2, Q4, and Q7 were made by the Left shoe from Item K1. Items Q5 and Q6: Item Q impressions listed above are similar in size, shape, and tread design to the Right shoe from Item K1 and possess identifying characteristics that correlate between the Item Q impressions and the Right shoe. Comparison results: Items Q5 and Q6 were made by the Right shoe from Item K1. Items Q1 and Q3: Item Q impressions listed above are not similar in tread design to the shoes from Item K1. Comparison results: Items Q1 and Q3 are excluded as having been made by the shoes from Item K1.</p>
ZJ368L-5331	<p>The questioned impressions (Items Q1 - Q7) were visually compared to the known impressions and images of the Keds shoes (Item K1). The footwear impressions Q1 and Q3 did not correspond in tread design alignment, wear characteristics, or randomly acquired characteristics (RACs) with the Keds shoes. In my opinion, the recovered shoes did not produce questioned impressions Q1 or Q3 (Exclusion). The footwear impressions Q2, Q4, and Q7 corresponded in tread design, physical size, wear characteristics, and RACs with the left Keds shoe. In my opinion, these impressions were produced either by the left Keds shoe or by another shoe with corresponding tread design, physical size, wear characteristics, and RACs (Identification). It is unlikely that another shoe shares all of these characteristics. The footwear impressions Q5 and Q6 corresponded in tread design, physical size, wear characteristics, and randomly acquired characteristics (RACs) with the right Keds shoe. In my opinion, these impressions were produced either by the right Keds shoe or by another shoe with corresponding tread design, physical size, wear characteristics, and RACs (Identification). It is unlikely that another shoe shares all of these characteristics.</p>
ZMLWJN-5335	<p>Item 8 - 8.1 One left shoe impression labeled Q1, found on paper in the kitchen (creased butcher paper). Examined visually and with 1 to 1 transparency overlays. Comparison of the left shoe</p>

TABLE 2

WebCode-Test	Conclusions
	<p>impression labeled Q1, found on paper in the kitchen (creased butcher paper), (item 8.1), to the recovered left shoe revealed an elimination. 8.2 One left shoe impression labeled Q2, found on paper in the kitchen (creased butcher paper). Examined visually and with 1 to 1 transparency overlays. Comparison of the left shoe impression labeled Q2, found on paper in the kitchen (creased butcher paper), (item 8.2), to the recovered left shoe revealed an identification. 8.3 One right partial shoe impression labeled Q2, found on paper in the kitchen (creased butcher paper). Examined visually and with 1 to 1 transparency overlays. Comparison of the right partial shoe impression labeled Q3 found on paper in the kitchen (creased butcher paper), (item 8.3), to the recovered right shoe revealed an elimination. Item 9 - 9.1 One left shoe impression labeled Q4, found in the kitchen on the smooth ceramic tile floor. Examined visually and with 1 to 1 transparency overlays. Comparison of the left shoe impression labeled Q4, found in the kitchen on the smooth ceramic tile floor, (item 9.1), to the recovered left shoe revealed an identification. 9.2 One right partial shoe impression labeled Q5, found in the kitchen on the smooth ceramic tile floor. Examined visually and with 1 to 1 transparency overlays. Comparison of the right partial shoe impression labeled Q5, found in the kitchen on the smooth ceramic tile floor, (item 9.2), to the recovered right shoe revealed an identification. 9.3 One right shoe impression labeled Q6, found in the kitchen on the smooth ceramic tile floor. Examined visually and with 1 to 1 transparency overlays. Comparison of the right shoe impression labeled Q6, found in the kitchen on the smooth ceramic tile floor, (item 9.3), to the recovered right shoe revealed an identification. 9.4 One left partial shoe impression labeled Q7, found in the kitchen on the smooth ceramic tile floor. Examined visually and with 1 to 1 transparency overlays. Comparison of the left partial shoe impression labeled Q7, found in the kitchen on the smooth ceramic tile floor, (item 9.4), to the recovered left shoe revealed an identification.</p>
ZRUKU4-5331	<p>The questioned footwear imprints, specimens #Q1 and #Q3, were compared to reference imprints and photographs of the outsole from the known shoes, specimens #K1a-K1g. The questioned imprints, specimens #Q1 and #Q3, were not made by the outsoles of the known shoes, specimens #K1a-K1g, due to differences in outsole design and randomly acquired characteristics. The questioned footwear imprints, specimens #Q2, #Q4 and #Q7, were compared to reference imprints and photographs of the outsole from the known left shoe, specimens #K1a-K1g. The questioned imprints, specimens #Q2, #Q4 and #Q7, were made by the left outsole of the known shoe, specimen #K1a-K1g, due to agreement of class and randomly acquired characteristics in the outsole design. The questioned footwear imprints, specimens #Q5 and #Q6, were compared to reference imprints and photographs of the outsole from the known right shoe, specimens #K1a-K1g. The questioned imprints, specimens #Q5 and #Q6, were made by the right outsole of the known shoe, specimen #K1a-K1g, due to agreement of class and randomly acquired characteristics in the outsole design.</p>
ZVCMYN-5331	<p>Q1: I conclude that the known shoes were excluded from making the suspect impression due to sufficient differences, namely size. EXCLUSION. Q2: I conclude that the pattern design, physical size and wear pattern correspond to the left shoe, therefore the left shoe, or shoe with similar characteristics and wear pattern, could have made the suspect impression: HIGH DEGREE OF ASSOCIATION. Q3: As per Q1. Q4: I conclude that the suspect impression and the left shoe share the same class characteristics and randomly acquired characteristics, therefore the left shoe formed the suspect impression. IDENTIFICATION. Q5: I conclude that the pattern design, physical size and wear pattern correspond to the right shoe, therefore the right shoe, or shoe with similar characteristics and wear pattern could have made the suspect impression: HIGH DEGREE OF ASSOCIATION. Q6: As per Q5. Q7: As per Q4.</p>
ZVTVP4-5331	<p>The questioned imprint item Q1 is not in agreement in size of the tread design imprint with the known imprint items K1d - K1g made with the recovered suspect shoes. The questioned imprint disagreed with the tread alignment of the known imprints. Therefore, the questioned imprint item Q1 was excluded as having been made with the recovered suspect shoes. The questioned imprint item Q2 is in agreement in size, shape, tread design and individualizing characteristics with the known imprints made with the recovered suspect left shoe. Therefore, the questioned imprint item Q2 was identified as having been made with the recovered suspect left shoe. The questioned imprints item Q3 is not in agreement in size of the tread design imprint with the shoes in the known specimen. The questioned imprint disagreed with the tread alignment of the known imprints. Therefore, the questioned imprint item Q3 was excluded as</p>

TABLE 2

WebCode- Test	Conclusions
ZXJWVR- 5335	<p>having been made with the recovered suspect shoes. The questioned imprints item Q4 is in agreement in size, shape, tread design and individualizing characteristics with the known imprints made with the recovered suspect left shoe. Therefore, the questioned imprint item Q4 was identified as having been made with recovered suspect left shoe. The questioned imprint item Q5 lacks comparable class characteristics with the known imprint items K1d - K1g due to poor impression quality and sample size of known imprints collected. Only one identifying characteristic was observed to be consistent to the known imprint items K1d- K1f made with the recovered suspect right shoe. Therefore, the questioned imprint item Q5 could have been made with the recovered suspect right shoe. The questioned imprint item Q6 is in agreement in size, shape, tread design and individualizing characteristics with the known imprints made by the recovered suspect right shoe. Therefore, the questioned imprint item Q6 was identified as having been made by the known imprint items K1d - K1g made with the recovered suspect right shoe. The questioned imprint item Q7 is in agreement in tread design and individualizing characteristics with the known imprints made by the recovered suspect left shoe. Therefore, the questioned imprint item Q7 was identified as having been made with the recovered suspect left shoe. Based on the above findings; I. The questioned imprints items Q1 and Q3 exhibit dissimilarities with respect to class characteristics and identifying characteristics in comparison to the known imprint items K1d - K1g made with the recovered suspect shoes. Therefore, in my professional opinion, the questioned imprint items Q1 and Q3 were excluded as having been made with the recovered suspect shoes. II. The questioned imprint items Q2, Q4 and Q7 share agreement of class and identifying characteristics of sufficient impression quality and quantity with the known imprint items K1d - K1g made with the recovered suspect left shoe. Therefore, in my professional opinion, the questioned imprint items Q2, Q4 and Q7 were identified as having been made with the recovered suspect left shoe. III. The questioned imprint item Q6 shares agreement of class and identifying characteristics of sufficient impression quality and quantity with the known imprint items K1d - K1g made with the recovered suspect right shoe. Therefore, in my professional opinion, the questioned imprint item Q6 was identified as having been made with the recovered suspect right shoe. IV. The questioned imprint item Q5 lacks comparable class characteristics with the known imprints item K1d - K1g due to poor impression quality and quantity of tread elements present in the questioned imprint. However, the questioned imprint contained one identifying characteristic consistent to the known imprints item K1d- K1f made by the recovered suspect right shoe. Therefore, in my professional opinion, the questioned imprint item Q5 could have been made with the recovered suspect right shoe.</p> <p>Examination of the questioned impressions revealed seven suitable patterned impressions labeled Q1 through Q7. Comparison of Impressions Q1 and Q3 revealed that they could not have been made by the shoes represented in the images marked K1a through K1g due to significant differences in outsole pattern size and design. Impressions labeled Q2, Q4, and Q7 were identified as having been made by the left shoe represented in the images marked K1a through K1g. Impressions labeled Q5 and Q6 were identified as having been made by the right shoe represented in the images marked K1a through K1g.</p>

Additional Comments

TABLE 3

WebCode-Test	Additional Comments
38GKZU-5335	Q5- association of class characteristics. Noted movement in the questioned impression. Wasn't able to tell whether movement or different wear pattern.
3QBCLR-5331	I would like to recommend that CTS discontinue the sale of both a physical and digital version of the Footwear Imprint Evidence proficiency test and combine the two so that it is unnecessary for laboratories to pay for two tests in order to get access to both photographs and digital images. It would also provide a more level playing field for those participants who are unwilling to pay for both. If this request is implemented, it would make sense for CTS to provide the options to the participant before distribution - Option A (digital download only), Option B (photographs only) and Option C (both digital download and photographs). Thanks, in advance, for your consideration.
6UNYAG-5331	Our laboratory does not use the provided scale of conclusions. We adhere to our State's report writing guidelines which reports as stated in Section 2 above and does not use a scale [Table 2: Conclusions]. For Q5, "C" was chosen because the underlined title of that selection best fit the way we currently report our conclusions. If our procedures did allow for a scale in reporting, this analyst would have chosen "B" "Correspondence of class characteristics, in addition to unusual wear and/or one or more randomly acquired characteristics between the questioned and the known item".
7ZTVUG-5335	Eliminations were based on differences in size and pattern element orientation.
936MT9-5335	Exclusion on Q1 and Q3 due to a difference in terms of general pattern, size and wear.
ABVMPC-5331	Our laboratory does not use the provided scale of conclusions. We adhere to our State's report writing guidelines which reports as stated in Section 2 above [Table 2: Conclusions]. For Q2 and Q5, "C" was chosen because the underlined title of that selection best fit the way we currently report our conclusions. If our procedures did allow for a scale in reporting, this analyst would have chosen "B" for Q2 and Q5: ("Correspondence of class characteristics, in addition to unusual wear and/or one or more randomly acquired characteristics between the questioned and the known item"). Submission of the substrate for Q2 would have been requested of the submitting agency. Additional examinations would have been conducted in an attempt to reconstruct the substrate to it's original condition. It is possible that an identification could have been made on this impression based on this further examination.
CZ99YE-5335	A conclusion of Type II was reached for unknown impressions Q5 and Q7 because they were both partial impressions with slippage present. Therefore only a few randomly acquired characteristics could be confirmed. In addition, for the Q7 comparison, the known left impressions lacked enough definition/clarity in the upper left toe area to be able to confirm additional RACs that were present in both the unknown impression and the known shoe. If these RACs could have been confirmed on the known impressions, the exam would have resulted in a Type I Association.
DARYYC-5331	The Item Q1 questioned footwear impression does not corresponds in general wear, tread design, and accidental characteristics with the Item K1 left shoe. The Item Q3 questioned footwear impression does not corresponds in general wear, tread design, and accidental characteristics with the Item K1 right shoe.
FRKN36-5335	Usually once an identification is made with the submitted shoes, the comparison of the additional questioned impressions to the known shoe is deferred.
GNXN3F-5331	Q1- EXCLUDED: Scene mark SMALLER in size & inner configuration of texturing INCONSISTENT; Footwear displays more extensive wear to the ball & heel areas- as indicated by the denser elements in these areas; Gross damage in disagreement. Q2- CONCLUSIVE evidence: Scene mark displays CONSISTENT wear (denser elements to ball & heel areas) & has 13 damage features in agreement. Q3- EXCLUDED: Inner configuration of texturing INCONSISTENT; Footwear displays more extensive wear to the ball & heel areas- as indicated by the denser elements in these areas; Gross damage in disagreement. Q4- CONCLUSIVE evidence: Scene mark displays CONSISTENT wear (denser elements

TABLE 3

WebCode-Test	Additional Comments
	to ball area) & has 11 damage features in agreement. Q5- EXTREMELY STRONG evidence: Scene mark has 3 damage features in agreement. Q6- CONCLUSIVE evidence: Scene mark displays CONSISTENT wear (denser elements to ball area) & has 9 damage features in agreement. Q7- CONCLUSIVE evidence: Scene mark displays CONSISTENT wear (denser elements to ball area) & has 5 damage features in agreement.
GYHV24-5331	I would also include the range of conclusions in my report, as well as images depicting one of the identifications (Q4).
HHBXFK-5331	Whilst the impression Q5 would not be considered an ident if treated in isolation, when the impression is considered in combination with the other impressions at the scene, as a collective I would report as above that this has been made by the same submitted shoes.
J8LP93-5331	<p>Association Scale for Footwear and Tire Impressions: The following descriptions are meant to provide context to the levels of opinions reached in footwear and tire impression comparisons. Each level may not include every variable in every case. Lacks sufficient detail – No comparison was conducted: the examiner determined there were no discernible questioned footwear/tire impressions or features present. Or – A comparison was conducted: the examiner determined that there was insufficient detail in the questioned impression for a meaningful conclusion. This opinion only applies to the known footwear or tire that was examined and does not necessarily preclude future examinations with other known footwear or tires. Exclusion – This is the highest degree of non-association expressed in footwear and tire impression examinations. Sufficient differences were noted in the comparison of class and/or randomly acquired characteristics between the questioned impression and the known footwear or tire. Indications of non-association – The questioned impression exhibits dissimilarities when compared to the known footwear or tire; however, the details or features were not sufficiently clear to permit an exclusion. Limited association of class characteristics – Some similar class characteristics were present; however, there were significant limiting factors in the questioned impression that did not permit a stronger association between the questioned impression and the known footwear or tire. These factors may include but were not limited to: insufficient detail, lack of scale, improper position of scale, improper photographic techniques, distortion or significant lengths of time between the date of the occurrence and when the footwear or tires were recovered that could account for a different degree of general wear. No confirmable differences were observed that could exclude the footwear or tire. Association of class characteristics – The class characteristics of both design and physical size must correspond between the questioned impression and the known footwear or tire. Correspondence of general wear may also be present. High degree of association – The questioned impression and known footwear or tire must correspond in the class characteristics of design, physical size, and general wear. For this degree of association there must also exist: (1) wear that, by virtue of its specific location, degree and orientation make it unusual and/or (2) one or more randomly acquired characteristics. Identification – This is the highest degree of association expressed by a footwear and tire impression examiner. The questioned impression and the known footwear or tire share agreement of class and randomly acquired characteristics of sufficient quality and quantity.</p>
JC2WW2-5331	Conclusions and terminology reported are based on [Laboratory] policy.
M6KV29-5331	The 'rolled' impressions were not used due to the heel and toe rolled separately. This is not our usual procedure. This examination has not been peer reviewed in accordance with our procedure. Positive cases will be reassessed by a Forensic Service Provider. Should this have been a negative serious offence, this would have then been peer reviewed prior to reporting results.
NNUAW8-5335	Note: The footwear mark Q6 appears to record an apparent void (absence of any pattern elements) in the inner aspect of the toe area which is not present on the right plimsoll K1. In my opinion, this feature would be what I might expect to see if a small piece of adhesive tape or similar had at some time become attached to the tread of the right plimsoll.
NQ2P3D-5335	Routinely, any detailed footwear marks examination requires the submission of the actual items of footwear so that any correspondence or difference, particularly in relation to randomly acquired characteristics, can be directly related to the items of footwear.

TABLE 3

WebCode-Test	Additional Comments
PEL3RR-5335	The appearance of the shoe soles K1 was very specific and highly detailed. Though the submitted pictures of the shoe soles (K1a-K1c) were of good quality, having access to the actual shoes would have been valuable and helpful in confirming the observed details.
PR96C6-5331	In our laboratory, the highest degree of association is "extremely strong support" rather than "identification". We always have the footwear for comparison to enable us to determine if certain features were mould features or acquired features and to make dynamic test impressions. We were unable to replicate the movement of the right heel.
PT3UFY-5335	Mark submitted as Q2 was split across two surfaces and therefore the comparison was conducted in two parts. While the marks had a single label the comparison was conducted as if they were separate marks. Regardless the same result was reached for both (Identification).
TBBDKR-5331	NOTE: Class characteristics can include outsole design, physical size, areas of wear, and/or texturing.
TJPZTV-5331	Conclusions based on the assumption that damage features would be confirmed on the footwear, as it was not possible to be definitive with provided photographs.
TLBND9-5335	Unable to compare size as there is no full print foot in the scene of crime.
VH3FWM-5331	Known shoes bearing this amount of texture in the tread design should include additional oblique lighting photographs to give a clear image of the shape of randomly acquired characteristics, as well as the land mark tread design elements surrounding these characteristics. In addition, side lighting or angled lighting would have made the shape of the angled marks in the left heel and ball of the right shoe more clearly defined. In case work, a piece of paper that had a shoe impression deposited while folded would also be photographed in such a manner. Unfolding the paper and taking a flat comparison photograph requires the examiner to try to replicate the fold using a pristine piece of paper.
WEYY4P-5331	Due to limited randomly acquired characteristics (individual characteristics) and the quality of the impression in Q5, choice C was chosen. Our laboratory currently does not use a range of conclusions based on our state's requirements and C was the best option to fit our reporting criteria (we do not use high degree of association). Had I been able to use that reporting title, I would have chosen B for Q5. In our laboratory, no conclusions would be made without physically having the suspected shoes. Furthermore, additional exemplars/known imprints would have been created due to the quality of the ones received.
WZ3PFJ-5335	It would be helpful to have the shoes to be able to make additional test-impression if needed.
XFQFTR-5331	During normal casework, the known shoes would be required in order to confirm any random identifying characteristics observed in the unknown impressions.
XTFEJU-5331	In regular casework, unless we had the item of evidence that contained Q2, we would consider the Q2 as two impressions and examined them separately.
ZRUKU4-5331	Q1: The elements of the question and known imprints have disagreement in design. The wear patterns are inconsistent in both imprints. Numerous accidental characteristics are not in agreement. Q3: The elements of the question and known imprints have disagreement in design. The wear patterns are inconsistent in both imprints. Numerous accidental characteristics are not in agreement.

-End of Report-
(Appendix may follow)

Test No. 20-5331: Footwear Imprint Evidence

DATA MUST BE SUBMITTED BY **June 29, 2020, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: 7EAVKF

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

Scenario:

Police are investigating a break-in and burglary in a local neighborhood. Footwear imprints were recovered from the kitchen of the affected home. In reviewing the footage from the home security system, two female suspects were observed and one was identified. Shoes were recovered from the identified suspect's home the next day. The shoes appear to have been washed. Investigators are asking you to compare the imprints recovered at the scene with photographs of the shoe soles and known imprints made with the shoes. The recovered shoes are manufactured by Keds, and the shoe tag reads: Womens/Femmes USA 8 UK 5.5 EUR 39 CM 25, WF 62186, 4700460723.

Shoes and known imprints have been labeled with 'L' and 'R' to indicate 'Left' and 'Right' shoes. The inked imprints in images K1d and K1e were made by rolling the toe and heel areas separately onto paper. The inked imprints in images K1f and K1g were made by having the owner wear the shoe and step down onto paper placed on top of a semi-soft surface (per ASB standards).

Items Submitted (Sample Pack FIEP - Photographs):

Item K1a: Photograph of the soles of the recovered shoes, lighted from above.

Items K1b-K1c: Two oblique lighted images of the soles of the recovered shoes, light direction indicated by arrows.

Items K1d-K1g: Known imprints made with the recovered shoes.

Items Q1-Q3: Questioned imprints found on paper in the kitchen. (creased butcher paper)

Items Q4-Q7: Questioned imprints found in the kitchen. (smooth ceramic tile)

Instructions:

Select from the following list of conclusions and insert the appropriate letter in the spaces provided. If the wording below differs from the normal wording of your conclusions, adapt these conclusions as best you can and use your preferred wording in your written conclusions. These conclusions are adapted from the SWGTREAD Range of Conclusions standard.

A. Identification - Questioned and known items share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Highest degree of association.

B. High degree of association - Correspondence of class characteristics, in addition to unusual wear and/or one or more randomly acquired characteristics between the questioned and known item.

C. Association of class characteristics - Correspondence of design and physical size and possibly general wear between the questioned and known item.

D. Limited association of class characteristics - Some similar class characteristics between the questioned and known item with significant limiting factors.

E. Inconclusive* - Questioned item lacks sufficient detail for a meaningful conclusion in comparison to the known item. (adapted from SWGTREAD "Lacks sufficient detail" conclusion).

F. Indications of non-association - Questioned item exhibits dissimilarities in comparison to the known item.

G. Exclusion - Questioned and known items exhibit sufficient differences of class and/or randomly acquired characteristics. Highest degree of non-association.

*Should the response "E" be used, please document the reason in the Additional Comments section of this data sheet.

1.) Indicate the results of your comparisons of the recovered shoes with the questioned imprints by writing the letter of your conclusion next to each questioned imprint in the table.

If an identification or positive association is made (A-D), indicate whether the imprint is associated with the right or left suspect shoe. If a non-association or inconclusive finding is reported (E-G), do NOT indicate a right or left shoe.

Butcher Paper		
<u>Imprint</u>		<u>L/R</u>
Q1:	<input type="text"/>	<input type="text"/>
Q2:	<input type="text"/>	<input type="text"/>
Q3:	<input type="text"/>	<input type="text"/>

Kitchen Floor		
<u>Imprint</u>		<u>L/R</u>
Q4:	<input type="text"/>	<input type="text"/>
Q5:	<input type="text"/>	<input type="text"/>
Q6:	<input type="text"/>	<input type="text"/>
Q7:	<input type="text"/>	<input type="text"/>

2.) What would be the wording of the Conclusions in your report?

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

3.) Additional Comments

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

A2LA Certificate No.

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

Authorized Contact Person and Title

Laboratory Name

Location (City/State)