Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

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

Tire Track Imprint Evidence
Test No. 24-5351/5 Summary Report

Each sample set contained one of the following: physically printed photographs (24-5351) or downloadable digital images (24-5355) of four questioned tire track imprints, photographs of a suspect tire, and test imprints made with that tire. All participants also had access to an additional set of inked exemplars as a downloadable digital supplemental image set. Participants were asked to compare the imprints from the crime scene with the suspect tire and report their findings. Data were returned by 73 participants: 31 for 24-5351 and 42 for 24-5355 and are compiled into the following tables:

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

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

Manufacturer's Information

Each sample set contained photographs in either a physically printed format or as a digitally downloadable file. Images consisted of a suspect tire, inked exemplars of a suspect tire, and questioned tire track imprints. Participants also had access to a second set of inked exemplars as a digitally downloadable supplemental file on the CTS Portal. Participants were asked to compare the imprints from the crime scene with the suspect tire and report their findings.

SAMPLE PREPARATION: The previously driven tires used in production of the test were gently cleaned to remove any loose debris from the surface prior to inking.

KNOWN EXEMPLARS: Inked exemplar imprints (K1_Ink-K8_Ink; K1_Sup-K8_Sup) were created by pushing a vehicle equipped with the suspect tire across an inked surface and then white containerboard sheeting. The suspect tire images (K1-K8) were created by removing the tire from the vehicle and photographing in segments after known exemplars and questioned imprints were collected. The suspect tire was photographed in segments (K1-K8), with the start and end of each segment indicated by a red line. The inked exemplars were segmented to match the photographs.

QUESTIONED IMPRINTS: Questioned imprints were created by pushing a vehicle equipped with the suspect or elimination tire across an inked surface and then the substrate. All production materials were repositioned and the process repeated as necessary to capture all tire track imprints in question.

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

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

Imprint	Substrate	Tire Brand	Tire Spec (DOT Info)	Segment(s) associated during production
Q1	No Trespassing Sign	Douglas All Season	M+S 175/70R13 82S (DOT M6FH NF1R 4719)	K4-K5
Q2	No Trespassing Sign	Douglas All Season	M+S 175/70R13 82S (DOT M6FH NF1R 4719)	K1-K2
Q3	Cardboard	Douglas All Season	M+S 175/70R13 82S (DOT M6FH NF1R 4719)	K6-K7
Q4	Cardboard	Bridgestone Turanza	M+S 235/45R18 94V (DOT 7XFU JB2)	N/A

Summary Comments

This test was designed to allow participants to assess their proficiency with tire track imprint examination and comparison. Test materials consisted of photographs, or digital images. Three of the questioned tire track imprints (Q1-Q3) were made by the known tire. The remaining questioned tire track imprint (Q4) was made by a different tire for which photographs were not provided. Refer to the Manufacturer's Information for preparation details.

Participants were asked to report their examination results using a seven-point conclusion scale adapted from the SWGTREAD Range of Conclusion standard. For those imprints that were associated with the known tire, all responses of association (A-D) were tallied together, and all responses of non-association (F-G) were tallied together to determine consensus. If an association was made, participants were asked to report the segment(s) of the suspect tire to which the association was made.

Of the 73 responding participants, 68 participants (93%) reported all associations/non-associations and tire segment(s) consistent with the manufacturer's preparation information and consensus results. Three participants were outliers in imprint association and two reported inconsistent tire segments. Overall, most participants were confident to report an Identification (A) for all associated questioned items and an Exclusion (G) for the non-associated questioned item.

Examination Results

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

TABLE 1a *(No Trespassing sign)*

WebCode-Test	Questioned Imprints Q1 Conclusion	Q1 Segment(s)	Q2 Conclusion	Q2 Segment(s)
2GJ3EY-5355	A	K4-K5	A	K1-K2
2RXBY7-5351	A	K4-K5	A	K1-K2
2U7D26-5351	A	K4-K5	A	K1-K2
3GFZ2Z-5355	A	K4-K5	A	K1-K2
3YBTMX-5355	A	K4-K5	A	K1-K2
4DVH72-5351	A	K4-K5	A	K1-K2
4P4BPZ-5355	B	K4-K5	A	K1-K2
6JCGBZ-5351	A	K4-K5	A	K1-K2
6WK9UY-5355	A	K4-K5	A	K1-K2
7TGUMZ-5355	B	K4-K5	A	K1-K2
84U8N2-5355	A	K5	A	K1-K2
8DH67U-5355	A	K4-K5	A	K1-K2
8XTT3Z-5355	A	K4-K5	A	K1-K2
9NFLEV-5355	A	K4-K5	A	K1-K2
9QMNGT-5355	A	K4-K5	A	K1-K2
AFZZ7R-5355	A	K4-K5	A	K1-K2
ALMYDR-5355	A	K4-K5	A	K1-K2

TABLE 1a *(No Trespassing sign)*

WebCode-Test	Questioned Imprints Q1 Conclusion	Q1 Segment(s)	Q2 Conclusion	Q2 Segment(s)
AMEVZZ-5355	A	K4-K5	A	K1-K2
AV83KQ-5351	A	K4-K5	A	K1-K2
AXFF3T-5351	A	K4-K5	A	K1-K2
BMX2YQ-5351	A	K4-K5	A	K1-K2
C7NM2T-5351	A	K4-K5	A	K1-K2
CHH4QU-5355	A	K4-K5	A	K1-K2
CRNUAW-5351	A	K4-5	A	K1-2
D2JK7N-5351	B	K4-K5	A	K1-K2
D7XX9W-5351	A	K4-K5	A	K1-K2
DDHCXM-5351	A	K4-K5	A	K1-K2
E3FBXN-5355	A	K5	A	K1-K2
EDFQZL-5351	G		A	K1-K2
EDGLJR-5355	A	K4-K5	A	K1-K2
EFJJUK-5355	A	K4-K5	A	K1-K2
EZ9TZT-5351	A	K4-K5	A	K1-K2
FCHXFM-5351	A	K4-K5	A	K1-K2
FFY64M-5355	A	K4-K5	A	K1-K2
GQBPZN-5355	A	K4-K5	A	K1-K2

TABLE 1a *(No Trespassing sign)*

WebCode-Test	Questioned Imprints Q1 Conclusion	Q1 Segment(s)	Q2 Conclusion	Q2 Segment(s)
GVNRMJ-5351	A	K4-K5	A	K1-K2
H33XXG-5355	A	K4-K5	A	K1-K2
H6CX4N-5351	A	K4-K5	A	K1-K2
J4XQFL-5351	A	K4-K5	A	K1-K2
JEG6HN-5351	A	K4-K5	A	K1-K2
JHGGEN-5355	A	K4-K5	A	K1-K2
JU7KCM-5355	C	K8	A	K1-K2
JZLBA9-5355	A	K4-K5	A	K1-K2
K6J2JJ-5351	F		A	K1
KW74XL-5351	A	K4-K5	A	K1-K2
LE4RJG-5355	A	K4-K5	A	K1-K2
LMJ68F-5355	A	K4	A	K1-K2
LNV2CK-5351	A	K4-K5	A	K1-K2
MDMVQG-5355	A	K4-K5	A	K1-K2
NEDJLH-5351	B	K4-K5	A	K1-K2
NFDA2D-5355	C	K4-K5	B	K1-K2
NWD7DG-5351	A	K4-K5	A	K1-K2
P738FC-5355	A	K4 K5	A	K1 K2

TABLE 1a *(No Trespassing sign)*

WebCode-Test	Questioned Imprints Q1 Conclusion	Q1 Segment(s)	Q2 Conclusion	Q2 Segment(s)
P73G2G-5351	B	K4-K5	A	K1-K3
PGLV4J-5351	A	K4-K5	A	K1-K2
PTDFKA-5355	A	K4-K5	A	K1-K2
QRDRPH-5351	A	K4-K5	A	K1-K2
QX3ECB-5355	A	K4-K5	A	K1-K2
U6UVEC-5355	B	K4, 5	B	K1, 2
UX933C-5351	A	K4	A	K1
UY9TH8-5355	A	K4-K5	A	K2
V2PPCB-5351	A	K4-K5	A	K1-K2
VHFH9A-5355	A	K5	A	K1
W9HE97-5355	A	K4-K5	A	K1-K2
WEBAG6-5355	A	K4-K5	A	K1-K2
WQ3686-5355	A	K4-K5	A	K1-K2
XFFA74-5351	A	K4-K5	A	K1-K2
XFVPYC-5355	A	K4-K5	F	
XLMXJ6-5355	A	K4-K5	A	K1-K2
XMZK46-5355	A	K4-K5	A	K1-K2
XWBMP7-5355	A	K4-K5	A	K1-K2

TABLE 1a *(No Trespassing sign)*

WebCode-Test	Questioned Imprints Q1 Conclusion	Q1 Segment(s)	Q2 Conclusion	Q2 Segment(s)
YMU8R3-5355	B	K4-K5	B	K1-K2
ZECKF4-5351	A	K4-K5	A	K1-K2

Response Summary

Participants: **73**

Q1 Conclusion		Segment(s), by frequency		Q2 Conclusion		Segment(s), by frequency	
Identification (A)	**62** *(84.9%)*	K4-K5	**62** *(84.9%)*	Identification (A)	**69** *(94.5%)*	K1-K2	**64** *(87.7%)*
High Degree of Ass'n. (B)	**7** *(9.6%)*			High Degree of Ass'n. (B)	**3** *(4.1%)*		
Association (C)	**2** *(2.7%)*			Association (C)	**0** *(0.0%)*		
Limited Ass'n. (D)	**0** *(0.0%)*			Limited Ass'n. (D)	**0** *(0.0%)*		
Inconclusive (E)	**0** *(0.0%)*			Inconclusive (E)	**0** *(0.0%)*		
Non-Ass'n. (F)	**1** *(1.4%)*			Non-Ass'n. (F)	**1** *(1.4%)*		
Exclusion (G)	**1** *(1.4%)*			Exclusion (G)	**0** *(0.0%)*		

Please Note: Only segment(s) reported (format-specific) at a frequency of 5% or greater are tallied in the summary totals.

Examination Results

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

TABLE 1b *(Cardboard)*

	Questioned Imprints			
	Q3		Q4	
WebCode-Test	Conclusion	Segment(s)	Conclusion	Segment(s)
2GJ3EY-5355	A	K6-K7	G	
2RXBY7-5351	A	K6-K7	G	
2U7D26-5351	A	K6-K7	G	
3GFZ2Z-5355	A	K6-K7	G	K1-K8
3YBTMX-5355	A	K6-K7	G	
4DVH72-5351	A	K6-K7	G	
4P4BPZ-5355	B	K6-K7	G	
6JCGBZ-5351	A	K6-K7	G	
6WK9UY-5355	A	K6-K7	G	
7TGUMZ-5355	B	K6&K7	G	
84U8N2-5355	A	K6-K7	G	
8DH67U-5355	A	K6-K7	G	
8XTT3Z-5355	A	K6-K7	G	
9NFLEV-5355	A	K5-K7	G	
9QMNGT-5355	A	K6-K7	G	
AFZZ7R-5355	A	K6-K7	G	
ALMYDR-5355	A	K6-K7	G	K1-K8

TABLE 1b *(Cardboard)*

WebCode-Test	Questioned Imprints Q3 Conclusion	Q3 Segment(s)	Q4 Conclusion	Q4 Segment(s)
AMEVZZ-5355	A	K6-K7	G	
AV83KQ-5351	A	K6-K7	G	
AXFF3T-5351	A	K6-K7	G	
BMX2YQ-5351	A	K6-K7	G	
C7NM2T-5351	A	K6-K7	G	
CHH4QU-5355	A	K6-K7	G	K1-K8
CRNUAW-5351	A	K6-7	G	
D2JK7N-5351	B	K6-K7	G	
D7XX9W-5351	A	K6-K7	G	
DDHCXM-5351	A	K6-K7	G	
E3FBXN-5355	A	K6-K7	G	
EDFQZL-5351	A	K6-K7	G	
EDGLJR-5355	A	K5-K7	G	
EFJJUK-5355	A	K6-K7	G	K1-K8
EZ9TZT-5351	A	K6-K7	G	
FCHXFM-5351	A	K6-K7	G	
FFY64M-5355	A	K6-K7	G	
GQBPZN-5355	A	K6-K7	G	

TABLE 1b *(Cardboard)*

WebCode-Test	Questioned Imprints Q3 Conclusion	Q3 Segment(s)	Q4 Conclusion	Q4 Segment(s)
GVNRMJ-5351	A	K6-K7	G	
H33XXG-5355	A	K6-K7	G	K1-K8
H6CX4N-5351	A	K6-K7	G	
J4XQFL-5351	A	K6-K7	G	
JEG6HN-5351	A	K6-K7	G	
JHGGEN-5355	A	K6-K7	G	
JU7KCM-5355	A	K6-K7	G	
JZLBA9-5355	B	K1-K8	G	K1-K8
K6J2JJ-5351	E		G	
KW74XL-5351	A	K6-K7	G	
LE4RJG-5355	A	K6-K7	G	
LMJ68F-5355	A	K6-K7	G	
LNV2CK-5351	A	K6-K7	G	
MDMVQG-5355	A	K6-K7	G	
NEDJLH-5351	D	K6-K7	G	
NFDA2D-5355	B	K6-K7	G	
NWD7DG-5351	A	K6-K7	G	
P738FC-5355	A	K6 K7	G	

TABLE 1b *(Cardboard)*

WebCode-Test	Questioned Imprints Q3 Conclusion	Q3 Segment(s)	Q4 Conclusion	Q4 Segment(s)
P73G2G-5351	A	K6-K8	G	
PGLV4J-5351	A	K6-K7	G	
PTDFKA-5355	A	K6-K7	G	K1-K8
QRDRPH-5351	A	K6-K7	G	
QX3ECB-5355	A	K6	G	
U6UVEC-5355	B	K6, 7	G	
UX933C-5351	A	K6	G	
UY9TH8-5355	A	K6-K7	G	
V2PPCB-5351	A	K6-K7	G	
VHFH9A-5355	A	K6	G	
W9HE97-5355	A	K6-K7	G	
WEBAG6-5355	A	K6-K7	G	
WQ3686-5355	A	K6-K7	G	
XFFA74-5351	A	K6-K7	G	
XFVPYC-5355	A	K6	G	
XLMXJ6-5355	B	K6-K7	G	
XMZK46-5355	A	K6-K7	G	
XWBMP7-5355	A	K7-K6	G	K1-K8

TABLE 1b *(Cardboard)*

WebCode-Test	Questioned Imprints Q3 Conclusion	Q3 Segment(s)	Q4 Conclusion	Q4 Segment(s)
YMU8R3-5355	B	K6-K7	G	
ZECKF4-5351	A	K6-K7	G	

Response Summary

Participants: **73**

Q3 Conclusion		Segment(s), by frequency		Q4 Conclusion		Segment(s), by frequency
Identification (A)	**63** *(86.3%)*	K6-K7	**59** *(80.8%)*	Identification (A)	**0** *(0.0%)*	N/A for non-assoc.
High Degree of Ass'n. (B)	**8** *(11.0%)*	K6	**4** *(5.5%)*	High Degree of Ass'n. (B)	**0** *(0.0%)*	
Association (C)	**0** *(0.0%)*			Association (C)	**0** *(0.0%)*	
Limited Ass'n. (D)	**1** *(1.4%)*			Limited Ass'n. (D)	**0** *(0.0%)*	
Inconclusive (E)	**1** *(1.4%)*			Inconclusive (E)	**0** *(0.0%)*	
Non-Ass'n. (F)	**0** *(0.0%)*			Non-Ass'n. (F)	**0** *(0.0%)*	
Exclusion (G)	**0** *(0.0%)*			Exclusion (G)	**73** *(100.0%)*	

Please Note: Only segment(s) reported (format-specific) at a frequency of 5% or greater are tallied in the summary totals.

Examination Results

TABLE 1c - Complete Results

Response Summary Participants: **73**

Q1 Conclusion		Segment(s), by frequency	
Identification (A)	**62** *(84.9%)*	K4-K5	**62** *(84.9%)*
High Degree of Ass'n. (B)	**7** *(9.6%)*		
Association (C)	**2** *(2.7%)*		
Limited Ass'n. (D)	**0** *(0.0%)*		
Inconclusive (E)	**0** *(0.0%)*		
Non-Ass'n. (F)	**1** *(1.4%)*		
Exclusion (G)	**1** *(1.4%)*		

Q2 Conclusion		Segment(s), by frequency	
Identification (A)	**69** *(94.5%)*	K1-K2	**64** *(87.7%)*
High Degree of Ass'n. (B)	**3** *(4.1%)*		
Association (C)	**0** *(0.0%)*		
Limited Ass'n. (D)	**0** *(0.0%)*		
Inconclusive (E)	**0** *(0.0%)*		
Non-Ass'n. (F)	**1** *(1.4%)*		
Exclusion (G)	**0** *(0.0%)*		

Q3 Conclusion		Segment(s), by frequency	
Identification (A)	**63** *(86.3%)*	K6-K7	**59** *(80.8%)*
High Degree of Ass'n. (B)	**8** *(11.0%)*	K6	**4** *(5.5%)*
Association (C)	**0** *(0.0%)*		
Limited Ass'n. (D)	**1** *(1.4%)*		
Inconclusive (E)	**1** *(1.4%)*		
Non-Ass'n. (F)	**0** *(0.0%)*		
Exclusion (G)	**0** *(0.0%)*		

Q4 Conclusion		Segment(s), by frequency
Identification (A)	**0** *(0.0%)*	N/A for non-assoc.
High Degree of Ass'n. (B)	**0** *(0.0%)*	
Association (C)	**0** *(0.0%)*	
Limited Ass'n. (D)	**0** *(0.0%)*	
Inconclusive (E)	**0** *(0.0%)*	
Non-Ass'n. (F)	**0** *(0.0%)*	
Exclusion (G)	**73** *(100.0%)*	

Please Note: Only segment(s) reported (format-specific) at a frequency of 5% or greater are tallied in the summary totals.

Conclusions

TABLE 2

WebCode-Test	Conclusions
2GJ3EY-5355	Q1 – Q3 correspond in tread design, physical size, wear, and multiple randomly acquired characteristics to the known tire and therefore, were made by that tire. Q4 has a different design in comparison to the known tire and therefore, could not have been made by that tire.
2RXBY7-5351	The questioned tire impressions Q1 and Q2 from the No Trespassing Sign and Q3 from the piece of cardboard are similar in tread design and wear to the known test impressions from the suspect vehicle. These impressions also share randomly acquired (RACs) with the known test impressions. It is my opinion that Q1, Q2, and Q3 were made by the tire of the suspect vehicle. The other tire impression from the cardboard, Q4, is dissimilar in tread design to the known test impressions from the suspect vehicle. It is my opinion that this tire impression was not made by the tire of the suspect vehicle.
2U7D26-5351	Tire Impressions Q1 through Q3 correspond with the recovered tire in tread design, physical size, wear, and randomly acquired characteristics. Therefore, this tire was identified as the source of these impressions. Tire Impression Q4 does not correspond with the recovered tire in tread design. Therefore, this tire was excluded as the source of this impression.
3GFZ2Z-5355	A tire tread impression examination and comparison were completed between the question (unknown) (Q1-Q4) tire tread impressions and the known tire tread exemplars (K1-K8) provided. The following results were concluded: Question impression Q1 was compared and identified to known exemplars K4-K5, the question impression and known exemplars correspond in tread design, noise pattern, and have multiple randomly acquired characteristics in common. Question impression Q2 was compared and identified to known exemplars K1-K2, the question impression and known exemplars correspond in tread design, noise pattern, and have multiple randomly acquired characteristics in common. Question impression Q3 was compared and identified to known exemplars K6-K7, the question impression and known exemplars correspond in tread design, noise pattern, and have multiple randomly acquired characteristics in common. Question impression Q4 was compared and excluded from the exemplars K1-K8, the question impression and known exemplars do not correspond in tread design. Background information about the discipline of tire tread examinations and comparisons: Tire tread examiner's examine and compare the size, outsole design, wear, and random accidental characteristics in known shoes and in impression evidence. Agreement or disagreement of these characteristics between the known tire tread and the tire impression evidence help an examiner in reaching a conclusion of an identification, exclusion, or a range of associations.
3YBTMX-5355	Impressions Q1, Q2, and Q3 were identified as having been made by the tire in question. Impression Q4 was eliminated as having been made by the tire in question.
4DVH72-5351	Exhibits 4.1, 4.2 and 5.1 (questioned tire impressions Q1 through Q3) were identified as having been made by the tire that made exhibit 2, the submitted known tire impressions. Exhibit 5.2 (questioned tire impression Q4) was not made by the tire that made exhibit 2, the submitted known tire impressions, based on differences in class characteristics.
4P4BPZ-5355	The comparison of the traces found at the theft location (Q1, Q2, Q3 and Q4) with the eight segments of the tire mounted on the vehicle in question highlighted the following results: • The trace of question Q1 presents with the segments K4 and K5 a high degree of association (B), by the correspondence of the class characteristics, in addition to some acquired individual characteristics. • The trace of question Q2 presents with the segments K1 and K2 a degree of identification (A), by the correspondence of the class characteristics, in addition to the acquired individual characteristics of sufficient quantity. • The trace of question Q3 presents with the segments K6 and K7 a high degree of association (B), by the correspondence of the class characteristics, in addition to some acquired individual characteristics.• Question trace Q4 presents with the different segments a high degree of non-association (G), in regard to the sufficient class differences and the absence of acquired individual characteristics.

TABLE 2

WebCode-Test	Conclusions
6JCGBZ-5351	Exhibits 4.1, 4.2, and 5.1 (unknown tire impressions Q1 through Q3) were made by the same tire that made exhibit 2, the submitted known tire impressions. Exhibit 5.2 (unknown tire impression Q4) was made by a second tire based on differences in class characteristics.
6WK9UY-5355	The questioned imprints were compared to the imprints of the recovered tire. Item Q1, Q2 and Q3 shared enough details and individual characteristics to make identifications. Item Q4 has a totally different pattern so that the tire could be excluded.
7TGUMZ-5355	In my opinion, the findings provide conclusive support for the view that the tyre in question made at least one of the impressions at the scene. There was one tyre impression present that did not agree in tread pattern with the tyre in question.
84U8N2-5355	Item: 4 Q1-Q2: Photograph of questioned imprints found on No Trespassing sign (24-5355_Items Q1-Q2). Item: 4.1 Unknown impression represented on Item 4 (Q1). RESULTS: The Item 4.1 impression was made by the Item 1 tire. Item: 4.2 Unknown impression represented on Item 4 (Q2). RESULTS: The Item 4.2 impression was made by the Item 1 tire. Item: 5 Q3-Q4: Photograph of questioned imprints found on a piece of cardboard (24-5355_Items Q3-Q4). Item: 5.1 Unknown impression represented on Item 5 (Q3). RESULTS: The Item 5.1 impression was made by the Item 1 tire. Item: 5.2 Unknown impression represented on Item 5 (Q4). RESULTS: The Item 5.2 impression was not made by the Item 1 tire(s).
8DH67U-5355	[No Conclusions Reported.]
8XTT3Z-5355	Item Q1 has tire marks that corresbond in pattern, size, and numerous acquired characterisrics with items K4-K5. Tire marks in item Q1 have been made by the tire shown in items K4-K5. Item Q2 has tire marks that corresbond in pattern, size, and numerous acquired characterisrics with items K1-K2. Tire marks in item Q2 have been made by the tire shown in items K1-K2. Item Q3 has tire marks that corresbond in pattern, size, and numerous acquired characterisrics with items K6-K7. Tire marks in item Q3 have been made by the tire shown in items K6-K7. Item Q4 has tire marks that do not corresbond in pattern with items K1-K8. The marks in item Q4 have not been made by the tire shown in items K1-K8.
9NFLEV-5355	Items Q1 - Q2 (impressions found on no trespassing sign) and Items Q3 - Q4 (impressions found on a piece of cardboard) were examined for tire impressions. Four tire impressions, Q1, Q2, Q3 and Q4 were identified on the two submitted photos. The four tire impressions found were compared to the photographs of the known tire in Items K1-K8 and to the tire exemplars K1_ink – K8_ink and K1_sup – K8_sup. Items Q1 through Q4, K1-K8, K1_ink – K8_ink and K1_sup – K8_sup were examined visually, and all comparisons were performed using ACE-V methodology. Tire Impression Results for Items Q1, Q2 and Q3: The impressions listed above are similar in size, shape, tread design and have individualizing characteristics when compared to the tire in Item K1-K8 and to the exemplars made from the tire, Item K1_ink – K8_ink and Item K1-sup – Item K8_sup. Comparison Results: The impressions are identified as being made by the tire in K1-K8. Tire Impression Results for Item Q4: The impression listed above is not similar in size, shape and tread design when compared to the tire K1-K8 or the exemplars K1_ink – K8_ink or K1-Sup – K8_sup. Comparison Results: The tire impression in Item Q4 is excluded as being created by the tire in Item K1-K8.
9QMNGT-5355	Impressions 1-Q1, 1-Q2 and 1-Q3 were made by the tire in Item 1. The impression 1-Q4 was not made by the tire in Item 1.
AFZZ7R-5355	I am of opinion that the imprints Q1 and Q2 found on the "No Trespassing sign" and Q3 found on the piece of cardboard were made by the recovered tyre. The imprint Q4 found on the piece of cardboard

TABLE 2

WebCode-Test	Conclusions
	was not made by the recovered tyre.
ALMYDR-5355	[No Conclusions Reported.]
AMEVZZ-5355	A. Based on the highest degree of association in size ,noise treatment ,and randomly acquired characteristics ,the Q1 questioned imprint is all the same from the recovered tire (segments K4-K5). B. Based on the highest degree of association in size ,noise treatment ,and randomly acquired characteristics ,the Q2 questioned imprint is all the same from the recovered tire (segments K1-K2). C. Based on the highest degree of association in size ,noise treatment ,and randomly acquired characteristics ,the Q3 questioned imprint is all the same from the recovered tire (segments K6-K7). D. Based on the highest degree of non-association in size ,noise treatment ,and randomly acquired characteristics ,the questioned Q4 imprint should come from tires different to the recovered tire obviously.
AV83KQ-5351	The questioned tire track impressions in the submitted photographs were visually compared to the submitted photographs of known tire segments (designated by the agency as K1 through K8) and their test impressions. Impression Q1 corresponded in tread design, physical size, wear characteristics, and mold features to the known tire in the submitted photographs, segments K4 and K5. Voids observed in Q1 corresponded in shape, size, orientation, and position to randomly acquired characteristics on this known tire. In the opinion of the examiner, the known tire in the submitted photographs made impression Q1 (Identification). While this opinion cannot specifically exclude all other sources, the quality and extent of corresponding features would not be expected in other tires. Impression Q2 corresponded in tread design, physical size, and wear characteristics to the known tire in the submitted photographs, segments K1 and K2. Voids observed in Q2 corresponded in shape, size, orientation, and position to randomly acquired characteristics on this known tire. In the opinion of the examiner, the known tire in the submitted photographs made impression Q2 (Identification). While this opinion cannot specifically exclude all other sources, the quality and extent of corresponding features would not be expected in other tires. Impression Q3 corresponded in tread design, physical size, and wear characteristics to the known tire in the submitted photographs, segments K6 and K7. Voids observed in Q3 corresponded in shape, size, orientation, and position to randomly acquired characteristics on this known tire. In the opinion of the examiner, the known tire in the submitted photographs made impression Q3 (Identification). While this opinion cannot specifically exclude all other sources, the quality and extent of corresponding features would not be expected in other tires. Impression Q4 differed in tread design from the known tire in the submitted photographs. In the opinion of the examiner, the known tire in the submitted photographs did not make impression Q4 (Exclusion).
AXFF3T-5351	When comparing Q1, Q2, and Q3 with tire images and tire imprint images, it was concluded as Identification because tire tread patterns, tread block sizes, scratches, and friction shapes were match with each other. Q4 was concluded as Exclusion because the tread pattern and shape were different from those of the recovered tire images.
BMX2YQ-5351	Visual examination (oblique lighting) of the submitted material, photographs, disclosed the presence of four (4) questioned tire track impressions designated as Q1 through Q4, a known "Douglas All Season" tire and known "Douglas All Season" inked test impressions in eight (8) segments designated as K1 through K8. Visual examination (oblique lighting) and comparison (superimposition/overlay and side by side) of the submitted material yielded the following results and conclusions: Q1 through Q3 share the same tread design to one another. Q4 is dissimilar with respect to tread design to Q1, Q2, and Q3. Q1 through Q3 and the known "Douglas All Season" tire are consistent with respect to tread design, size, and individualizing characteristics (i.e Schallamach abrasions, nicks, cuts, gouges, and air bubbles and flashing from the manufacturing process). Therefore, Q1 through Q3 WERE MADE by the known "Douglas All Season" tire. Q4 and the known "Douglas All Season" tire are dissimilar with respect to tread design. Therefore, Q4 WAS NOT made by the known "Douglas All Season" tire.

TABLE 2

WebCode-Test	Conclusions
C7NM2T-5351	Comparison examinations were conducted between the submitted unknown impressions and the submitted known impressions, exhibit 2. Exhibits 4.1, 4.2 and 5.1 (questioned tire impressions Q1 through Q3) were identified as having been made by the tire that made exhibit 2, the submitted known tire impressions. Exhibit 5.2 (questioned tire impression Q4) was not made by the tire that made exhibit 2, the submitted known tire impressions, based on differences in class characteristics.
CHH4QU-5355	Q1TT1 - The Q1TT1 impression was made by the K4-K5 tire segments based on sufficient agreement of observable class and randomly acquired characteristics. Sufficient differences were noted between the characteristics present in the Q1TT1 impression and those present in the K1-K3 and K6-K8 tire segments to conclude that the impression was not made by tire segments K1-K3 or K6-K8. Q2TT1 - The Q2TT1 impression was made by the K1-K2 tire segments based on sufficient agreement of observable class and randomly acquired characteristics. Sufficient differences were noted between the characteristics present in the Q2TT1 impression and those present in the K3-K8 tire segments to conclude that the impression was not made by tire segments K3-K8. Q3TT1 - The Q3TT1 impression was made by the K6-K7 tire segments based on sufficient agreement of observable class and randomly acquired characteristics. Sufficient differences were noted between the characteristics present in the Q3TT1 impression and those present in the K1-K5 and K8 tire segments to conclude that the impression was not made by tire segments K1-K5 and K8. Q4TT1 - Sufficient differences were noted between the characteristics present in the Q4TT1 impression and those present in the K1-K8 tire segments to conclude that the impression was not made by tire segments K1-K8.
CRNUAW-5351	The Q1 tire impression corresponds to the tire, segments K4 and K5, in tread design, physical size, general wear and randomly acquired characteristics. Therefore, this section of tire was identified as the source of this impression. The Q2 tire impression corresponds to the tire, segments K1 and K2, in tread design, physical size, wear (general and specific) and randomly acquired characteristics. Therefore, this section of tire was identified as the source of this impression. The Q3 tire impression corresponds to the tire, segments K6 and K7, in tread design, physical size, wear (general and specific) and randomly acquired characteristics. Therefore, this section of tire was identified as the source of this impression. The Q4 tire impression does not correspond in tread design to the tire, segments K1 through K8. Therefore this tire was excluded as the source of this impression.
D2JK7N-5351	Item #4 is a printed photograph containing two (2) questioned partial tire impressions from the scene, Q1 and Q2. Item #5 is a printed photograph containing two (2) questioned partial tire impressions from the scene, Q3 and Q4. The questioned partial tire impression from the scene (Item #4 Q2) shares class characteristics (including manufacturer's tread design and noise treatment), wear, and randomly acquired characteristics of sufficient quality and quantity with the known tire and submitted test impressions photographs (Item #1, Item #2, and Item #3) indicating that the impression was made by the tire. (Identification) The questioned partial tire impressions from the scene (Item #4 Q1 and Item #5 Q3) correspond in manufacturer's tread design, noise treatment, wear, and some randomly acquired characteristics with the known tire and submitted test impressions photographs (Item #1, Item #2, and Item #3) indicating that the impressions were made by the tire or another tire of the same design, approximate sizing, condition, and randomly acquired characteristics. (High Degree of Association) The questioned partial tire impression from the scene (Item #5 Q4) exhibited significant difference in manufacturer's tread design when compared to the known tire and test impressions photographs (Item #1, Item #2, and Item #3), indicating that the impression could not have been made by the tire. (Exclusion)
D7XX9W-5351	1- The Items Q1, Q2 and Q3 questioned tire impressions were all made by the submitted known tire. These identifications are based on sufficient agreement of the combination of individual characteristics (randomly acquired characteristics) and all discernible class characteristics. 2- Q4 questioned tire impressions was made by the another tire.

TABLE 2

WebCode-Test	Conclusions
DDHCXM-5351	In the opinion of this examiner, the tire segments depicted in Laboratory Items 001.L (K4) and 001.M (K5) were the source of, and made, Laboratory Item 001.Q.01 (Q1) questioned tire impression on No Trespassing sign. In the opinion of this examiner, the tire segments depicted in Laboratory Items 001.I (K1) and 001.J (K2) were the source of, and made, Laboratory Item 001.Q.02 (Q2) questioned tire impression on No Trespassing sign. In the opinion of this examiner, the tire segments depicted in Laboratory Items 001.N (K6) and 001.O (K7) were the source of, and made, Laboratory Item 001.R.01 (Q3) questioned tire impression on a piece of cardboard. In the opinion of this examiner, the tire segments depicted in Laboratory Items 001.A through 001.H (K1 through K8) were not the source of, and did not make, Laboratory Item 001.R.02 (Q4) questioned tire impression on a piece of cardboard.
E3FBXN-5355	Examination of the images submitted in Item #1 (1-3, 1-4) revealed four tire track impressions 1-3-1Q1,1-3-2Q2, 1-4-1Q3, 1-4-2Q4. Impressions #1-3-1Q1, 1-3-2Q2, and 1-4-1Q3 were made by the tire in Item #1 (#1-1). Impressions #1-4-2Q4 was not made by the tire in Item #1 (#1-1). Test impressions in Item #1 (#1-2) are related to the tire in Item #1 (#1-1) . These test impressions were used for comparison purposes.
EDFQZL-5351	Q1-Q4 were compared to K1-K8. Q1 was excluded as having originated from K1-K8 based on the lack of corresponding randomly acquired characteristics. Q2 was identified to segments K1-K2 based on corresponding wear and characteristics. Q3 was identified to segments K6-K7, also based on several areas of wear and characteristics that presented in both the known and questioned impressions. Q4 was eliminated due to the lack of class characteristics.
EDGLJR-5355	[No Conclusions Reported.]
EFJJUK-5355	The impressions labeled as Q1, Q2, and Q3 were made by the known tire. The impression labeled as Q4 was not made by the known tire due to differences in tread design.
EZ9TZT-5351	The Item Q1 questioned tire impression corresponds in tread design, physical size, general wear, and five (5) randomly acquired characteristics with the segments K4 and K5 known tire. The Item Q2 questioned tire impression corresponds in tread design, physical size, general wear, and five (5) randomly acquired characteristics with the segments K1 and K2 known tire. The Item Q3 questioned tire impression corresponds in tread design, physical size, general wear, and three (3) randomly acquired characteristics with the segments K6 and K7 known tire. The Item Q4 questioned tire impression does not correspond in tread design or physical size with the segments K1 through K8. Based on the above factors, it is the opinion of this examiner that: In the opinion of this examiner, the segments K4 and K5 of the known tire, was the source of, and made, the questioned impression Item Q1. Another tire being the source of the impression is considered a practical impossibility. In the opinion of this examiner, the segments K1 and K2 of the known tire, was the source of, and made, the questioned impression Item Q2. Another tire being the source of the impression is considered a practical impossibility. In the opinion of this examiner, the segments K6 and K7 of the known tire, was the source of, and made, the questioned impression Item Q3. Another tire being the source of the impression is considered a practical impossibility. In the opinion of this examiner, the segments K1 through k8 known tire was excluded as being the source of and did not make questioned impression Q4. All conclusions listed herein have been verified by a second qualified latent print examiner.
FCHXFM-5351	Lucia Forensic 8.10 software and additionally a transparent foil were used in this test. The photographs of a tire (items K1-K8) and their imprints (items K1_ink-K8_ink) were compared with photographs of questioned imprints (items Q1-Q4). It was observed that on the surface of the tire, being the comparative material, there were present some individual identifying characteristics. Similar individual characteristics were also found in the evidence material marked Q1 (segments K4-K5), Q2 (segment K1-K2), Q3 (segments K6-K7), and therefore it was assigned a grade A to them. Item Q4 is different from the comparative materials (grade G).

TABLE 2

WebCode-Test	Conclusions
FFY64M-5355	Questioned impressions Q1, Q2 and Q3 were made by the submitted tire. Questioned impression Q4 was not made by the submitted tire.
GQBPZN-5355	The questioned imprints Q1, Q2, Q3 were left by the recovered tire. The questioned imprint Q4 was not left by the recovered tire.
GVNRMJ-5351	Impressions Q1 - Q3 are similar in tread design, dimension (including pitch sequence), wear and randomly acquired characteristics to the known tire. Therefore, the known tire made impressions Q1 - Q3. Impression Q4 has a different tread design than the known tire. Therefore, the known tire did not make impression Q4. Tire impression analysis is based on the comparison of class and randomly acquired characteristics. Corresponding class and randomly acquired characteristics support the conclusion that the tire was the source of, and made, the questioned impression. Currently, the possibility that other tires having the same class and randomly acquired characteristics cannot be statistically calculated.
H33XXG-5355	The known tire was identified as having made the questioned impressions in Q1, Q2, and Q3. The known tire was eliminated as having made the questioned impressions in Q4 due to differences in class characteristics (tread design).
H6CX4N-5351	The Q1 (Item 1.1.1) questioned tire impression was made by segments K4 and K5 (Items 1.3.4, 1.4.4, 1.3.5, and 1.4.5) of the known suspect tire. This identification is based on sufficient agreement of the combination of individual characteristics and all discernible class characteristics. The Q2 (Item 1.1.2) questioned tire impression was made by segments K1 and K2 (Items 1.3.1, 1.4.1, 1.3.2, and 1.4.2) of the known suspect tire. This identification is based on sufficient agreement of the combination of individual characteristics and all discernible class characteristics. The Q3 (Item 1.2.1) questioned tire impression was made by segments K6 and K7 (Items 1.3.6, 1.4.6, 1.3.7, and 1.4.7) of the known suspect tire. This identification is based on sufficient agreement of the combination of individual characteristics and all discernible class characteristics. The Q4 (Item 1.2.2) questioned tire impression was not made by segments K1 through K8 (Items 1.3.1 through 1.3.8 and 1.4.1 through 1.4.8) of the known suspect tire. These eliminations are based on differences in class characteristics (different tread design).
J4XQFL-5351	Exhibits 4.1, 4.2, and 5.1 (questioned tire impressions Q1 through Q3) were identified as having been made by the tire that made exhibit 2, the submitted known impressions. Exhibit 5.2 (questioned tire impression Q4) was not made by the tire that made exhibit 2, the submitted known impressions, based on differences in class characteristics.
JEG6HN-5351	The digital photos depicting the known tire/test impressions were reviewed for quality and found to display suitable manufacturer design features and randomly acquired characteristics needed for a detailed comparison to the Q1-Q4 questioned impressions. All known and questioned items were found to include appropriately placed scales for use in physical size measurement/comparison. Comparative analysis between the Q1 impression and known tire/impressions (segments K4-K5) revealed correspondence of class characteristics (pattern/physical size/general condition of wear) and multiple randomly acquired characteristics. It was concluded that the recovered tire was the source of, and made, the Q1 impression. Another tire being the source of the impression is considered a practical impossibility. Comparative analysis between the Q2 impression and known tire/impressions (segments K1-K2) revealed correspondence of class characteristics (pattern/physical size/general condition of wear) and multiple randomly acquired characteristics. It was concluded that the recovered tire was the source of, and made, the Q2 impression. Another tire being the source of the impression is considered a practical impossibility. Comparative analysis between the Q3 impression and known tire/impressions (segments K6-K7) revealed correspondence of class characteristics (pattern/physical size/general condition of wear) and multiple randomly acquired characteristics. It was concluded that the recovered tire was the source of, and made, the Q3 impression. Another tire being the source of the impression is

TABLE 2

WebCode-Test	Conclusions
	considered a practical impossibility. Comparative analysis revealed significant manufacturer characteristic differences (tread pattern) between the Q4 impression and the known tire/impressions. It was concluded that the recovered tire did not make the Q4 impression.
JHGGEN-5355	Questioned impressions Q1, Q2, and Q3 are identified as being made by the known tire. Q1, Q2, and Q3 correspond in physical size, tread design, wear, pitch sequence, siping, and randomly acquired characteristics with the following segments of the known tire: Q1 to segments K4-K5, Q2 to segments K1-K2, Q3 to segments K6-K7. The known tire was excluded as the source of the questioned impression Q4 due to tread design.
JU7KCM-5355	1) The pieces of evidence identified K1 through K7 correspond in design and similar pattern when compared to the piece of evidence identified Q1. However, they do not have individual characteristics among themselves. 2) The piece of evidence identified K8 corresponds in design, pattern, physical size and general wear characteristics when compared to the piece of evidence identified Q1 (rotate 180° on its own axis). 3) The pieces of evidence identified K3 through K8 correspond in design and similar pattern when compared to the piece of evidence identified Q2. However, they do not have individual characteristics among themselves. 4) The pieces of evidence identified K1 and K2 correspond in design, pattern and individual characteristics when compared to the piece of evidence identified Q2 (rotated 180° on its own axis). 5) The pieces of evidence identified K1 through K5 and K8 correspond in design and similar pattern when compared to the piece of evidence identified Q3. However, they do not have individual characteristics among themselves. 6) The pieces of evidence identified K6 and K7 correspond in design, pattern and individual characteristics when compared to the piece of evidence identified Q3 (rotated 180° on its own axis). 7) The pieces of evidence identified K1 to K8 have a different pattern and design when compared to the piece of evidence Q4.
JZLBA9-5355	1 The tire impression labeled “Q1” as described in paragraph 3, and photographs of the recovered tire (segments) K4 and K5 share agreement of class and randomly acquired characteristics of sufficient quality and quantity with the highest degree of association. The imprint was therefore made by the recovered tire (segments) K4 and K5. 2 The tire impression labeled “Q2” as described in paragraph 3, and photographs of the recovered tire (segments) K1 and K2 share agreement of class and randomly acquired characteristics of sufficient quality and quantity with the highest degree of association. The imprint was therefore made by the recovered tire (segments) K1 and K2. 3 The design and physical size and general wear of the tire impression labeled “Q3” as described in paragraph 3, and photographs of the recovered tire (segments) K1 to K8 are consistent. . The recovered tire (segments) K1 to K8 is therefore included in the population of possible sources only if they display the design and physical size and general wear characteristics. 4 Sufficient differences were noted in the comparison of the design and physical size and general wear characteristics of the tire impression labeled “Q4” as described in paragraph 3, and photographs of the recovered tire (segments) K1 to K8 to be excluded from the population of possible sources. The tire as visible in photographs “K1” to “K8” is therefore excluded as a possible source.
K6J2JJ-5351	[No Conclusions Reported.]
KW74XL-5351	The known tire is identified as the source of impressions Q1, Q2 and Q3. The known tire is similar in design and dimensions to these impressions, and also has several randomly acquired characteristics which can be seen in these impressions. In the opinion of the examiner, the particular known tire was the source of, and made, these questioned impressions. Another tire being these source of the impressions is considered a practical impossibility. The known tire is excluded as a possible source of impression Q4. The known tire is different in design from the impression. In the opinion of the examiner, the particular known tire was not the source of, and did not make, this impression.

TABLE 2

WebCode-Test	Conclusions
LE4RJG-5355	Four tire impressions (Q1-Q4) suitable for comparison were observed in items Q1 through Q4. The known tire was divided into sections (K1-K8) by the submitting agency. These sections were assigned item numbers K1-K8 for this lab request. Tire impressions Q1 through Q4 were compared to the known tire sections/items K1 through K8 with the following results: Sections/items K4 and K5 were identified as the source of impression Q1. In the opinion of the examiner, sections/items K4 and K5 and impression Q1 correspond is tread design, physical size, wear, and randomly acquired characteristics in sufficient quantity and quality to conclude that sections/items K4 and K5 made impression Q1. Sections/items K1 and K2 were identified as the source of impression Q2. In the opinion of the examiner, sections/items K1 and K2 and impression Q2 correspond is tread design, physical size, wear, and randomly acquired characteristics in sufficient quantity and quality to conclude that sections/items K1 and K2 made impression Q2. Sections/items K6 and K7 were identified as the source of impression Q3. In the opinion of the examiner, sections/items K6 and K7 and impression Q3 correspond is tread design, physical size, wear, and randomly acquired characteristics in sufficient quantity and quality to conclude that sections/items K6 and K7 made impression Q3. Sections/items K1 through K8 were excluded as the source of impression Q4. Sections/items K1 through K8 do not correspond in tread design with impression Q4. In the opinion of the examiner, sections/items K1 through K8 did not make impression Q4. Remarks: The following conclusion scale is included for reference: Identification: The highest degree of association. The questioned impression and the known surface share agreement of class and randomly acquired characteristics of sufficient quality and quantity to conclude that the known footwear or tire is the source of the questioned impression. High degree of association: The questioned impression and known surface correspond in the class characteristics of design, physical size, and general wear. There are additional individualizing characteristics; however, the conclusion is limited. The known shoe or tire probably made the impression, but this conclusion doesn't reach the level of a definitive identification. Other footwear or tires 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 the questioned impression. Association of class characteristics: The questioned impression and known surface correspond in class characteristics of both design and physical size. Correspondence of general wear may also be present. The known footwear or tire is a possible source of the questioned impression and therefore could have produced the impression. Other footwear or tires with the same class characteristics observed in the impression are included in the population of possible sources. Limited association of class characteristics: The questioned impression and known surface may correspond in some class characteristics: design, shape, physical size, general wear; however, there were significant limiting factors that do not permit a stronger association between the questioned impression and known surface. No confirmable differences were observed that could exclude the footwear or tire. The known footwear or tire is a possible source of the questioned impression and therefore could have produced the impression. Other footwear or tires with the same class characteristics observed in the impression are included in the population of possible sources. Indications of non-association: The questioned impression exhibits dissimilarities when compared to the known surface; however, the details or features were not sufficiently clear to permit an exclusion. Exclusion: The highest degree of non-association. Sufficient differences were noted in the comparison of class and/or randomly acquired characteristics between the questioned impression and the known surface. The known shoe or tire was not the source of, and did not make, the questioned impression. Lacks sufficient detail - Inconclusive: A comparison was conducted, however there is insufficient detail in the questioned impression for a meaningful conclusion.
LMJ68F-5355	[No Conclusions Reported.]
LNV2CK-5351	The Q1 impression and the tire segments K4/K5 share agreement of class and randomly acquired characteristics. The K tire was identified as making this impression. The Q2 impression and the tire segments K1/K2 share agreement of class and randomly acquired characteristics. The K tire was identified as making this impression. The Q3 impression and the tire segments K6/K7 share agreement of class and randomly acquired characteristics. The K tire was identified as making this impression. The Q4 impression and the tire segments exhibit dissimilarities. The K tire was excluded as making this

TABLE 2

WebCode-Test	Conclusions
	impression.
MDMVQG-5355	BY COMPARING THE TIRE MARKS FOUND AT THE SCENE WITH THE MARKS ON THE TIRE OF THE SUSPECT VEHICLE; It was observed that the crime scene tire track numbered Q1 was consistent with the tracks in the segments numbered K4-K5, the crime scene tire track numbered Q2 was consistent with the tracks in the segments numbered K1 and K2, and the crime scene tire track numbered Q3 was consistent with the tracks in the segments numbered K6 and K7. It was observed that the class characteristics were different between the crime scene tire tracks numbered Q4 and the tire tracks of the suspect vehicle. As a result, it was determined that the tire tracks numbered Q1, Q2 and Q3 were formed by the tire tracks of the suspect vehicle. It was concluded that the tire track numbered Q4 was formed with one of the tires that could not be recovered or with a tire belonging to a different vehicle. Translated with DeepL.com (free version)
NEDJLH-5351	Q1 was found to show agreement in tread pattern, size, spacing and limited fine detail to the submitted tyre, such that in our opinion, it is probable that this tyre made the mark. For another tyre to have made the mark, it would have to show agreement in tread pattern, size and spacing and limited fine detail. Q2 was found to show agreement in tread pattern, size, spacing, wear and fine detail to the submitted tyre, such that in our opinion, this tyre is responsible for the mark. Q3 was found to show agreement in tread pattern, size and spacing to the submitted tyre, such that, in our opinion, this tyre could have made the mark. For another tyre to have made the mark, it would have to show agreement in tread pattern, size and spacing. Q4 was found to be different in pattern from the submitted tyre. This tyre did not make the mark.
NFDA2D-5355	Q1 Evaluation: K4 and K5 – Association of class characteristics with Q1 In the opinion of the examiner, the known tyre is a possible source of the questioned impression Q1 and therefore could have produced the impression. Other tyres with the same class characteristics (tread pattern) are included as possible sources. Given questioned impression was only a partial with significant overlap (of another questioned impression) it prevented sufficient comparison of unique features to provide a stronger association. Q2 EVALUATION: K1 and K2 – High degree of association with Q2 In the opinion of the examiner, the characteristics observed exhibit strong associations between the questioned impression and known tyre; however, the quality and/or quantity were insufficient for an identification. The known tyre is a possible source of the questioned impression and could have produced the impression. Other tyres with the same class characteristics are included as possible sources only if they display the same wear and/or randomly acquired characteristics observed in the questioned impression. Q3 EVALUATION: Segments K6 and K7: High degree of association with Q3 In the opinion of the examiner, the characteristics observed exhibit strong associations between the questioned impression and known tyre; however, the quality and/or quantity were insufficient for an identification. The known tyre is a possible source of the questioned impression and could have produced the impression. Other tyres with the same class characteristics are included as possible sources only if they display the same wear and/or randomly acquired characteristics observed in the questioned impression. Q4 EVALUATION: Exclusion. Known tyre did not make impression Q4 In the opinion of the examiner, due to differences observed (tread pattern) the particular known tyre was not the source of and did not make the impression.
NWD7DG-5351	The photographs of questioned imprints (Q1-Q6) were visually examined and compared to the known tire (K1-K8 and K1_Ink – K8_Ink). Q1 - IDENTIFICATION – The impression and the known tire share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Q1 was determined to have been made by the known tire. Q2 - IDENTIFICATION – The impression and the known tire share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Q2 was determined to have been made by the known tire. Q3 - IDENTIFICATION – The impression and the known tire share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Q3 was determined to have been made by the known tire. Q4 – EXCLUSION – The impression and the known tire have different tread designs. Q4 was determined to not have been made by the known tire.

TABLE 2

WebCode-Test	Conclusions
P738FC-5355	Having conducted a tyre mark comparison between the questioned impression Q1 and the recovered tyre, a Douglas All Weather, M+S 175/70R13 82S, DOT M6Fh NF1R 4719 tyre, I formed the following opinion: the particular known tyre was the source of, and made, the questioned impression Q1. The chance of another tyre being the source of the impression is considered negligible. The above would be repeated for both Q2 and Q3 in my statement. For Q4 I would write; Having conducted a tyre mark comparison between the questioned impression Q1 and the recovered tyre, a Douglas All Weather, M+S 175/70R13 82S, DOT M6Fh NF1R 4719 tyre, I formed the following opinion: due to differences observed, namely the tread pattern did not correspond in size, shape or location between Q4 and the known tyre, the particular known tyre was not the source of and did not make the impression.
P73G2G-5351	The questioned imprints Q1 and Q2 found on the No Trespassing sign may have originated from the recovered tire. The questioned imprints Q3 found in a piece of cardboard may have originated from the recovered tire. The questioned imprints Q4 did not originated from the recovered tire
PGLV4J-5351	(Source Identification) Impression Q1 corresponds in tread design, physical size, general wear and three randomly acquired characteristics (RACs) with the Item 3 tire. Therefore, this tire was identified as the source of this impression. (Source Identification) Impression Q2 corresponds in tread design, physical size, specific wear and three randomly acquired characteristics (RACs) with the Item 3 tire. Therefore, this tire was identified as the source of this impression. (Source Identification) Impression Q3 corresponds in tread design, physical size, general wear and four randomly acquired characteristics (RACs) with the Item 3 tire. Therefore, this tire was identified as the source of this impression. (Source Exclusion) Impression Q4 does not correspond in tread design with the Item 3 tire. Therefore, this tire was excluded as the source of this impression.
PTDFKA-5355	The known tire was identified as having made the questioned impressions in Q1, Q2 and Q3. The known tire was eliminated as having made the questioned impression in Q4 due to differences in tread design.
QRDRPH-5351	Photograph of questioned imprints found on No Trespassing sign (Item Q1-Q2): This photograph depicts questioned imprints labeled Q1 and Q2, further determined to be tire impressions. Tire impression Q1 and Q2 are similar in class characteristics (tread design and size), wear, and share randomly acquired characteristics to the photographs of the known tire (K4-K5, K1-K2, respectively). It is our opinion that tire impression Q1 and Q2 were made by the known tire. Photograph of questioned imprints found on piece of cardboard (Item Q3-Q4): This photograph depicts questioned imprints labeled Q3 and Q4, further determined to be a tire impression and a partial tire impression, respectively. Tire impression Q3 is similar in class characteristics (tread design and size), wear, and share randomly acquired characteristics to the photographs of the known tire (K6-K7). It is our opinion that tire impression Q3 was made by the known tire. Partial tire impression Q4 is dissimilar in class characteristic (tread design) to the known tire (K1-K8). It is our opinion that partial tire impression Q4 was not made by the known tire. Photographs of known tire and imprints of known tire (K1-K8, K1_INK-K8_INK): This item was used for comparison purposes.
QX3ECB-5355	Examination of the above listed items revealed impressions labeled as 1-Q1, 1-Q2, 1-Q3, and 1-Q4. These impressions were compared to the tire in Item #1 with the below listed results. Impression Compared To Result 1-Q1 1, One Tire Identification 1-Q2 1, One Tire Identification 1-Q3 1, One Tire Identification 1-Q4 1, One Tire Elimination
U6UVEC-5355	Q1, Q2, and Q3: support for inclusion based on class characteristics and specific characteristics of use

TABLE 2

WebCode-Test	Conclusions
UX933C-5351	Items Submitted: Sidewall Information from Known Tire: All Season, M+S 175/70R13 825, DOT M6FH NR14 4719 Items K1 – K8: Photographs of the recovered tire (segments), lighted from above. Items K1 Ink – K8 Ink: Photographs of known imprints made with the recovered tire (segments). Items K1 Sup – K8 Sup: Digital supplemental images of known imprints made with the recovered tire (segments). Item Q1: Photograph of questioned imprint found on No Trespassing sign. Item Q2: Photograph of questioned imprint found on No Trespassing sign. Item Q3: Photograph of questioned imprint found on a piece of cardboard. Item Q4: Photograph of questioned imprint found on a piece of cardboard. Examination: The questioned imprint labeled Q1 and the known tire segment labeled K4, share agreement of class, wear and randomly acquired characteristics of sufficient quality and quantity. It is the opinion of this examiner, that Q1 was made by the known tire segment labeled K4. The questioned imprint labeled Q2 and the known tire segment labeled K1, share agreement of class, wear and randomly acquired characteristics of sufficient quality and quantity. It is the opinion of this examiner, that Q2 was made by the known tire segment labeled K1. The questioned imprint labeled Q3 and the known tire segment labeled K6, share agreement of class, wear and randomly acquired characteristics of sufficient quality and quantity. It is the opinion of this examiner, that Q3 was made by the known tire segment labeled K6. The questioned imprint labeled Q4 was eliminated as having been made by the K1 tire.
UY9TH8-5355	Item #1 (segments K4 and K5) has been identified as the source of impression Q1. Item #1 (segment K2) has been identified as the source of impression Q2. Item #1 (segments K6 and K7) has been identified as the source of impression Q3. Item #1 (segments K1-K8) has been excluded as the source of impression Q4.
V2PPCB-5351	The questioned imprints Q1 and Q2 found on the No Trespassing sign may have originated from the recovered tire. The questioned imprints Q3 found on a piece of cardboard may have originated from the recovered tire. The questioned imprints Q4 did not originate from the recovered tire.
VHFH9A-5355	[No Conclusions Reported.]
W9HE97-5355	Examination of Lab Item #1 and Lab Item #2 revealed two comparable tire impressions labeled Q1 and Q2 on Lab Item #1 and two comparable tire impressions labeled Q3 and Q4 on Lab Item #2. Comparison of Q1- Q4 (Lab Item #1 and Lab Item #2) to the known tire segments K1-K8 (Lab Items #3 – #10) resulted in the following conclusions. The tire impression labeled Q1 of Lab Item #1 was made by the known tire of K1 – K8, segments K4 and K5 (Lab Items #6 and #7), in the opinion of the scientist, based on shared agreement in design, pitch sequence, wear and randomly acquired characteristics. The tire impression labeled Q2 of Lab Item #1 was made by the known tire of K1 – K8, segments K1 and K2 (Lab Items #3 and #4), in the opinion of the scientist, based on shared agreement in design, pitch sequence, wear and randomly acquired characteristics. The tire impression labeled Q3 of Lab Item #2 was made by the known tire of K1 – K8, segments K6 and K7 (Lab Items #8 and #9), in the opinion of the scientist, based on shared agreement in design, pitch sequence, wear and randomly acquired characteristics. The tire impression labeled Q4 of Lab Item #2 was not made by segments K1 – K8 of the known tire (Lab Items #3 – #10), in the opinion of the scientist, based on different tread design.
WEBAG6-5355	Manufactured pattern impressions suitable for comparative examination were noted in Exhibits Q1-Q2 and Q3-Q4. One (1) manufactured pattern impression noted in Exhibit Q1-Q2 (marked as Q1) was made by the tire represented in Exhibits K4, K5, K4_Ink, and K5_Ink based on design, physical size, wear, noise treatment, 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. One (1) manufactured pattern impression noted in Exhibit Q1-Q2 (marked as Q2) was made by the tire represented in Exhibits K1, K2, K1_Ink, and K2_Ink based on design, physical size, wear, noise treatment, and randomly acquired characteristics. This opinion means that the observed class

TABLE 2

WebCode-Test	Conclusions
	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. One (1) manufactured pattern impression noted in Exhibit Q3-Q4 (marked as Q3) was made by the tire represented in Exhibits K6, K7, K6_Ink, and K7_Ink based on design, physical size, wear, noise treatment, 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. One (1) manufactured pattern impression noted in Exhibit Q3-Q4 (marked as Q4) was not made by the tire represented in Exhibits K1 through K8 and K1_Ink through K8_Ink based on differences in design. 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.
WQ3686-5355	Impressions 1-Q1, 1-Q2, and 1-Q3 were made by the tire in Item 1. Impression 1-Q4 was not made by the tire in Item 1.
XFFA74-5351	In the opinion of the examiner, the particular known tire segments K4 - K5 were the source of, and made, the partial, questioned tire track impression Q1. In the opinion of the examiner, the particular known tire segments K1 - K2 were the source of, and made, the partial, questioned tire track impression Q2. In the opinion of the examiner, the particular known tire segments K6 - K7 were the source of, and made, the partial, questioned tire track impression Q3. In the opinion of the examiner, the particular known tire was not the source of, and did not make, the partial, known tire track impression Q4.
XFVPYC-5355	[No Conclusions Reported.]
XLMXJ6-5355	The questioned imprint Q1 and Q2 shares agreement of class characteristics and randomly acquired characteristics of sufficient quality and quantity with the recovered tire and the known imprint (segment K4 / K5 for Q1 - K1 / K2 for Q2), which were made with the tire. The recovered tire was the source of, and made, the questioned imprints Q1 and Q2. Another item of tire being the source of the imprint is considered a practical impossibility. The class characteristics of both design and physical size correspond between the questioned imprint Q3 and the known imprint (segment K6 / K7). The characteristics observed exhibit strong associations between the questioned imprint Q3 and the known tire. Sufficient differences were noted in the comparison of class characteristics between the questioned imprints Q4 and the known imprints of the tire. The recovered tire was not the sopurce of, and did not make the questioned imprints Q4.
XMZK46-5355	Impressions 2-1(Q1) 2-2(Q2) and 2-3(Q3) were made by the tire in Item 1. Impression #2-4(Q4) was not made by the tire in Item #1.
XWBMP7-5355	Impression Q1 Compared to Item 1(tire) -Identification Impression. Q2 Compared to Item 1(tire) -Identification Impression Q3. Compared to Item 1(tire) -Identification Impression. Q4 Compared to Item 1(tire) -Elimination
YMU8R3-5355	•The tire tread fragment found at the crime scene, identified as Item Q1, presents physical characteristics of design, dimensions, damage and wear, similar to the photographs of the tire segments of the suspect vehicle and identified as Tire Track Imprint Evidence 24-5355 (Item K4- Item K5) and the impressions of the Tire Track Imprint Evidence 24-5355 of the recovered tire identified as (Item K4_ink-Item K5_ink); therefore it is concluded that the fragment identified as Item Q1, could have been produced by the tire segments identified as Tire Track Imprint Evidence 24-5355 (Item K4- Item K5), taken from the tire of the suspect vehicle. •The tire tread found at the crime scene, identified as Item Q2, presents physical characteristics of design, dimensions, damage, wear and imperfections, similar to the photographs of the tire segments of the suspect vehicle and identified as Tire Track Imprint Evidence 24-5355 (Item K1- Item K2) and the impressions of the Tire Track Imprint Evidence 24-5355 of the

TABLE 2

WebCode-Test	Conclusions
	recovered tire identified as (Item K1_ink-Item K2_ink); therefore it is concluded that the fragment identified as Item Q2, could have been produced by the tire segments identified as Tire Track Imprint Evidence 24-5355 (Item K1- Item K2), taken from the tire of the suspect vehicle. •The tire tread, found at the crime scene, identified as Item Q3, presents physical characteristics of design, dimensions, damage and wear, similar to the photographs of the tire segments of the suspect vehicle and identified as Tire Track Imprint Evidence 24-5355 (Item K6- Item K7) and the impressions of the Tire Track Imprint Evidence 24-5355 of the recovered tire identified (Item K6_ink-Item K7_ink); therefore it is concluded that the fragment identified as Item Q3, could have been produced by the tire segments identified as Tire Track Imprint Evidence 24-5355 (Item K6- Item K7), taken from the tire of the suspect vehicle. •The tire tread fragment found at the crime scene, identified as Item Q4, presents physical characteristics of design and dimensions, different from the photographs of the tire segments of the suspect vehicle and identified as Tire Track Imprint Evidence 24-5355 (Item k1 to Item k8). Therefore, it is concluded that the fragment identified as Item Q4 does not belong to the tire tread of the suspect vehicle.
ZECKF4-5351	The tire from which the images (Items K1 thru K8) and the inked imprints (Item K1_Ink thru K8_Ink) were obtained is identified as having made the impressions depicted in Items Q1, Q2, and Q3 based on an agreement of class characteristics (tread design and size), wear, and randomly acquired characteristics of sufficient quality and quantity. This tire was the source of the questioned impressions. Another tire being the source of these impressions is considered a practical impossibility. The tire from which the images (Items K1 thru K8) and the inked imprints (Item K1_Ink thru K8_Ink) were obtained is excluded as having made the impression depicted in Item Q4 based on differences in class characteristics (tread design), therefore this impression could not have been made by this tire.

Additional Comments

TABLE 3

WebCode-Test	Additional Comments
2GJ3EY-5355	Q1 – Q3 have a similar general tread design. The full width tire impressions have a four-rib, three-groove symmetrical design. The impressions from the scene were compared to the submitted tire and test impressions of that tire. The recovered tire is a Douglas All Season passenger tire, M&S 175/70R13 82S, DOT M6FH NF1R 4719. The DOT number indicates this tire was manufactured during the 47th week of 2019. The tire exhibits some wear. Searches* were performed using the provided tire sidewall information. A search* was performed for a possible source of the Q4 impression. A possible source includes, but is not limited to, the Bridgestone Dueler HP Sport AS. This information is for investigative purposes only. The impression is suitable for comparison, should a vehicle or suspect tires be submitted. * A search of the laboratory's tire reference collection (2023 & 2020 Tread Design Guides) and internet.
2U7D26-5351	For those individuals who take both the footwear and tire tests, it would be preferred to provide more time between the due dates for these tests. Footwear is due in June and the tire test is due in September. It would be nice if the tire test could have a due date in November so that the two tests are due about 6 months apart. Please consider naming the the known tire "K1" and all the sections of the tread and test impressions "S1" to "S8". This would make participants' case notes and reporting simpler.
7TGUMZ-5355	File sizes were very large, causing delays in viewing.
84U8N2-5355	Submission of the known tire is preferred to confirm identifying characteristics.
8DH67U-5355	Q4- Exclusion, the tire tread was a different model than the tire sent for examination.
AV83KQ-5351	Impression Q4 is suitable for a make/model examination. Please contact the undersigned if this examination is desired. The association scale for tire impressions would be included in the report.
H6CX4N-5351	Having photographs of the tire segments with oblique lighting coming in from more than one direction would be helpful for evaluating individual characteristics. This is especially true for the outer ribs on the rounded edges which are more in shadow for the included photographs.
NEDJLH-5351	Although we do carry out these types of examinations, the questioned marks are very rarely of a suitable quality for us to comment on any features other than tread pattern, size and spacing.
XFFA74-5351	The partial, questioned tire track impression, Q4, does not bear the same tire tread design as the known tire in Submission 001.
YMU8R3-5355	•In the photograph identified as Tire Track Imprint Evidence 24-5355 Items Q1-Q2, due to the material in which they were found, which was red, black and white, it was more difficult to see the physical characteristics of the design, dimensions and damage, in addition to the overlapping of the photograph of Items Q1-Q2. •In the photograph identified as Tire Track Imprint Evidence 24-5355 Items Q3-Q4, the overlapping of the tire tracks found on a piece of cardboard made it difficult to see the physical characteristics of the design, dimensions and damage. •By visually analyzing Tire Track Imprint Evidence 24-5355 Items Q1-Q2 and Items Q3-Q4, with the inked tire tracks known as Tire Track Imprint Evidence 24-5355 (k1_ink to k8_ink) the direction of movement marked in the Evidence differs, when observing the images and studying the pattern or mark of the tire, it was necessary to change and reverse the printed direction of the tire. •When analyzing the Tire Track Imprint Evidence 24-5355 Items Q1-Q2 and Items Q3-Q4, using the GIMP, BLENDER AND WORD programs with the Tire Track Imprint Evidence 24-5355 (Item k1_ink to Item k8_ink) and the Tire Track Imprint Evidence 24-5351/5 (Item k1_sup to Item k8_sup), when matching the images, it was difficult to see that the dimensions of the physical characteristics between them were lost. •When analyzing the Tire Track Imprint Evidence 24-5355 Items Q1-Q2 and Items Q3-Q4, using the GIMP, BLENDER AND WORD programs, the brightness, exposure, contrast, highlights, shadows, as well as the color (saturation, warmth, tone and sharpness) were played with.

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 24-5351: Tire Track Imprint Evidence

DATA MUST BE SUBMITTED BY **Sept. 16, 2024, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: 49KB6W

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 burglary at a business. Tire track imprints were recovered on objects near the business. On day of the incident, the suspect vehicle was located approximately 7 miles from the business. Investigators were able to recover one tire directly from the vehicle. You are asked to compare the imprints recovered at the scene with photographs of the tire and known imprints made with the tire. The recovered tire contains the following information on the sidewall: Douglas All Season, M+S 175/70R13 82S, DOT M6FH NF1R 4719.

Known, inked imprints (K1_Ink through K8_Ink) have been labeled with an arrow to indicate directionality of movement. These inked imprints were made by placing the vehicle in neutral, and then pushing it across inking material and a continuous piece of white containerboard.

CTS provides a digital download supplemental for the Tire Track Imprint Evidence test series. This supplemental contains an additional set of known inked exemplars (K1_Sup - K8_Sup), accessible through a link on the CTS Portal data entry form (see below). While the photo packet contains all materials necessary to complete the test as presented, the supplemental is intended to bolster participant confidence in their conclusions.

For the supplemental images, you are not limited to conducting only on-screen comparisons and may employ any other method you wish. However, because of differences in printing technology, CTS cannot guarantee the quality of images you print from the digital media.

Items Submitted (Sample Pack TIEP - Photographs):
K1-K8: Photographs of the recovered tire (segments), lighted from above.
K1_Ink-K8_Ink: Images of known imprints made with the recovered tire (segments).
K1_Sup-K8_Sup: Digital supplemental images of known imprints made with the recovered tire (segments).
Q1-Q2: Photograph of questioned imprints found on No Trespassing sign.
Q3-Q4: Photograph of questioned imprints found on a piece of cardboard.

To verify a complete and accurate download, the hash value for the downloaded .ZIP file is as follows:
24-5351_5 TTIE-Sup.zip MD5 hash value: 05055d40f37eeaa31e7dcf55046e4177
24-5351_5 TTIE-Sup.zip SHA1 hash value: 8dd1ae8830a7176dc5c2536d42513fda7ef5e4b0

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 tire 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 to which segment(s) of the tire the association has been made. Report a single segment or multiple segments like the example shown below.

Example:

Imprint		Segment(s)
Q1:	B	K1

Imprint		Segment(s)
Q2:	A	K1-K2

No Trespassing Sign

Imprint		Segment(s)
Q1:		
Q2:		

Cardboard

Imprint		Segment(s)
Q3:		
Q4:		

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 ANAB and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

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

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

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

ANAB Certificate No.

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety

Authorized Contact Person and Title

Laboratory Name

Location (City/State)