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## **Toolmarks Examination Test No. 20-5282 Summary Report**

Each sample set contained three known aluminum stamp samples (Item 1) and two questioned aluminum stamp samples containing questioned toolmarks (Items 2 and 3). Participants were requested to examine these items and report their findings. Data were returned from 137 participants and are compiled into the following tables:

	<u>Page</u>
<a href="#"><u>Manufacturer's Information</u></a>	<u>2</u>
<a href="#"><u>Summary Comments</u></a>	<u>3</u>
<a href="#"><u>Table 1: Examination Results</u></a>	<u>4</u>
<a href="#"><u>Table 2: Conclusions</u></a>	<u>8</u>
<a href="#"><u>Table 3: Additional Comments</u></a>	<u>19</u>
<a href="#"><u>Appendix: Data Sheet</u></a>	

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

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Each sample set contained three known aluminum stamp samples (Item 1) and two questioned aluminum stamp samples containing questioned toolmarks (Items 2 and 3). Participants were requested to determine if any of the questioned toolmarks were made by the same stamp that produced the known stamp samples. Item 2 and Item 3 were produced with the same stamp as the Item 1 known stamp samples.

ITEMS 1, 2 and 3 (IDENTIFICATION MARKS): All three items were produced using an OBI (Open Back Inclined) 1 ton punch press. Each sample was placed into a fixture to secure the stamp in a fixed position. Once the items were stamped, they were packaged together as a batch in zip top bags. This process was repeated until the required number was produced. The stamped samples were then packaged into a pre-labeled envelope for each Item 1, 2, and 3.

SAMPLE PACK ASSEMBLY: The corresponding Item 1 known stamp samples along with the Item 2 and Item 3 questioned stamp samples were packaged into a pre-labeled sample pack box.

VERIFICATION: In addition to the sample sets examined and confirmed by predistribution laboratories, ten randomly selected sample sets were examined by a qualified toolmark examiner who also confirmed the expected results.

## **Summary Comments**

This test was designed to allow participants to assess their proficiency with a toolmark examination involving striated toolmarks. Each sample set contained three known aluminum stamp samples (Item 1) and two questioned aluminum stamp samples with questioned toolmarks (Items 2 and 3). Participants were requested to determine if any of the questioned toolmarks were made by the same stamp that produced the known stamp samples. Item 2 and Item 3 were produced with the same stamp as the Item 1 known stamp samples (Refer to Manufacturer's Information for preparation details.).

Of the 137 responding participants, 134 (98%) identified the Item 2 and Item 3 stamp samples as having been produced by the same stamp that produced the Item 1 known stamp samples. Two participants reported a response of "Inconclusive" in regard to both Item 2 and Item 3 stamp samples being produced with the same stamp as represented by Item 1. Both participants noted that the lack of the physical stamp for examination limited their analysis and contributed to these responses. One participant identified the known stamp as the source of Item 2 but was inconclusive in regard to Item 3.

In regard to inconclusive responses, some participants stated that as a matter of policy, a conclusion cannot be determined without access to the tool or when class characteristics match. Thus, responses of inconclusive are not indicated as outliers for this test, as no tool was provided for further examination.

# Examination Results

*Were any of the questioned stamped samples (Items 2, 3) produced with the same stamp as represented by Item 1?*

TABLE 1

WebCode	Item 2	Item 3	WebCode	Item 2	Item 3
279FTA	Yes	Yes	9EKZ4Y	Yes	Yes
2DCDM8	Yes	Yes	9K633N	Yes	Yes
2WA42	Yes	Yes	9UDTNZ	Yes	Yes
3NMCM8	Yes	Yes	9V8HRT	Yes	Yes
433WJ7	Yes	Yes	A9B96K	Yes	Yes
46PD2R	Yes	Yes	AD633L	Yes	Yes
4LDNNU	Yes	Yes	AQQH7L	Yes	Yes
4V7VQ8	Yes	Yes	AUPT2L	Yes	Yes
4X9T2Z	Yes	Yes	BH9JXT	Yes	Yes
67XX87	Yes	Yes	BKLUBY	Yes	Yes
6D3M3T	Yes	Yes	BLWVWX	Yes	Yes
6DH7MQ	Yes	Yes	BXJARK	Yes	Yes
6R2LY3	Yes	Yes	C922YV	Yes	Yes
6T8DH3	Yes	Yes	CAVR3N	Yes	Yes
6WTVZN	Yes	Yes	CC2DVU	Yes	Yes
796F73	Yes	Yes	CHALEK	Yes	Yes
7M4PKV	Yes	Yes	CPPJNP	Yes	Yes
8GR6U2	Yes	Yes	CVGLWW	Yes	Yes
8Z2XYN	Inc	Inc	DBHXWJ	Yes	Yes
94KC3P	Yes	Yes	DMYHFF	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	WebCode	Item 2	Item 3
DQFXRT	Yes	Yes	J9HQ2N	Yes	Yes
DW3NEN	Yes	Yes	JAU46K	Yes	Yes
DWN4UQ	Yes	Yes	JL374M	Yes	Yes
DYQYDU	Yes	Yes	JYVE6B	Yes	Yes
EARWQV	Yes	Yes	K77B8M	Yes	Yes
ECY3CW	Yes	Yes	KFCVUP	Yes	Yes
EFVTKU	Yes	Yes	KJEU6H	Yes	Inc
ETMFQP	Yes	Yes	KNKRAF	Yes	Yes
F8EWTR	Yes	Yes	L7KWGN	Yes	Yes
FEYW8J	Yes	Yes	LBYJ7M	Yes	Yes
FU8VBG	Yes	Yes	LFAPNE	Yes	Yes
G4RLBE	Yes	Yes	LTHDWC	Yes	Yes
G6QKUM	Yes	Yes	LVZXG7	Yes	Yes
GK4VJU	Yes	Yes	LZR2BB	Yes	Yes
GQ788E	Yes	Yes	MPD678	Yes	Yes
GTTGPT	Yes	Yes	NBUWQK	Yes	Yes
GXZC2F	Yes	Yes	NGBEZM	Yes	Yes
HBBZXJ	Yes	Yes	NHRPYE	Yes	Yes
HCHE6P	Yes	Yes	NW8PPD	Yes	Yes
HJ3HCT	Yes	Yes	P6GK3J	Yes	Yes
HNF62Q	Yes	Yes	P7RFNB	Yes	Yes
HWABVR	Yes	Yes	P88L98	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	WebCode	Item 2	Item 3
P9FWXJ	Yes	Yes	TP9ZTG	Yes	Yes
PCE9ZB	Yes	Yes	TXTUEE	Yes	Yes
PFGBL7	Yes	Yes	UCZCHY	Yes	Yes
PUHMG6	Yes	Yes	V22WEF	Yes	Yes
PWLHZ8	Yes	Yes	V4JBHF	Yes	Yes
PYRZY4	Yes	Yes	V6XMCE	Yes	Yes
PZ3XCK	Yes	Yes	V7AHX7	Yes	Yes
Q79UWK	Yes	Yes	V9XX8E	Yes	Yes
QMVG VH	Yes	Yes	VEP2H7	Inc	Inc
QQQBTJ	Yes	Yes	VYR4Y8	Yes	Yes
QV7HGH	Yes	Yes	VZKZLF	Yes	Yes
R4Z2GC	Yes	Yes	W4WA4C	Yes	Yes
R6A44B	Yes	Yes	WCREXD	Yes	Yes
RFRRXA	Yes	Yes	WH37PY	Yes	Yes
RMCN3K	Yes	Yes	WHHP8B	Yes	Yes
RVZNBG	Yes	Yes	WMCJ6D	Yes	Yes
RWBQY2	Yes	Yes	WTEN23	Yes	Yes
T4TFWG	Yes	Yes	WWEYW3	Yes	Yes
T673FF	Yes	Yes	X7HDEU	Yes	Yes
T7X2UE	Yes	Yes	XVNTGC	Yes	Yes
TDG62G	Yes	Yes	Y29FL2	Yes	Yes
TF8BH8	Yes	Yes	Y3HG9Z	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	WebCode	Item 2	Item 3
YDX8BC	Yes	Yes			
YH9KTB	Yes	Yes			
YVLKP4	Yes	Yes			
YVZUUX	Yes	Yes			
YXAWNA	Yes	Yes			
YZTBRA	Yes	Yes			
ZEB7YU	Yes	Yes			
ZQFN99	Yes	Yes			
ZU32HC	Yes	Yes			

<b>Response Summary</b>			<b>Total Participants: 137</b>	
<i>Were any of the questioned stamped samples (Items 2, 3) produced with the same stamp as represented by Item 1?</i>				
<b>Responses</b>		<u>ITEM 2</u>	<u>ITEM 3</u>	
	Yes	<b>135</b> (98.5%)	<b>134</b> (97.8%)	
	No	<b>0</b> (0.0%)	<b>0</b> (0.0%)	
	Inc	<b>2</b> (1.5%)	<b>3</b> (2.2%)	

# Conclusions

TABLE 2

WebCode	Conclusions
279FTA	Toolmarks present on the Item 2 and 3 aluminum samples were identified as having been produced by the Item 1 stamp.
2DCDM8	1. Examination of Exhibit 1 revealed three metal pieces labeled as known stamp samples which each contain a numeric stamp. 2. Examination of Exhibits 2 and 3 revealed two metal pieces, one per exhibit, each containing a numeric stamp. 3. Microscopic comparison revealed that Exhibits 2 and 3 were produced by the same stamp as Exhibit 1 based on agreement of class characteristics and sufficient agreement of individual characteristics.
2VA42	It was determined utilizing comparison microscopic examination that the questioned stamped impressions from 2 and 3 were positively made by the same metal stamp that created the item 1 test impressions. An identification determination is centered on the existence of sufficient class and individualizing characteristics in agreement between a questioned and known. Item 001 (including item 001-A, item 001-B and item 001-C) are being stored in the trace evidence storage.
3NMCM8	Questioned stamped samples (Item 2, 3) from warehouse were produced with the same stamp as three known samples produced with stamp found at suspect's home.
433WJ7	Item 1 consists of three stamped impressions from a suspect tool which was not submitted to the laboratory. The number present is either a "6" or a "9." Please note that some commercially available number stamp sets do not include separate stamps for "6" and "9" since one stamp can be used for both numerals. The size of the impressions are physically consistent with 1/2" stamps. Items 2 and 3 each consist of a stamped impression, also of the number "6" or "9," and also physically consistent with 1/2" stamps. The stamped characters in Items 2 and 3 were identified as having been produced by the tool represented by the Item 1 test marks.
46PD2R	On analysis, I found the characteristic marks on the questioned samples (Items 2 & 3) to be similar with the characteristic marks on the known stamp samples (Item 1). Therefore, I am of the opinion that the questioned stamped samples (Items 2 & 3) were produced with the same stamp as represented by Item 1.
4LDNNU	Due to corresponding characteristics found on the first questioned stamp sample from the warehouse (Item 2) and characteristics on three known stamp samples from suspect's home (Item 1) the first stamp sample (Item 2) was produced by same stamp as represented (Item 1). Due to corresponding characteristics found on the second questioned stamp sample from the warehouse (Item 3) and characteristics on three known stamp samples from suspect's home (Item 1) the second stamp sample (Item 3) was produced by same stamp as represented (Item 1).
4V7VQ8	Examinations showed the tool marks present on Items 2 and 3 were produced by the same tool as represented by Item 1.
4X9T2Z	Matching traces between Item 1, 2 and 3. All Traces have been produced with the same stamp.
67XX87	The five pieces of aluminum (1-01, 1-02, 1-03) were identified as having been stamped by the same tool due to consistent and repeatable marks.
6D3M3T	[No Conclusions Reported.]
6DH7MQ	The questioned stamp samples item 2 and item 3 were examined and found to each exhibit an impressed mark (number "9") in the center area. Microscopic comparisons of the impressed marks on items 2 and 3 and the reference marks (item 1) revealed matching class characteristics (general shape and form of the number "9") and fine details (scratches, damages). As the questioned stamp itself is not available, it cannot be determined if these details are individual or sub-class characteristics. However, we consider it very unlikely to find this level of correspondence with another stamp. Conclusion: The observations provide very strong support for the proposition that the marks on items 1, 2 and 3 originated from the same source rather than different sources.



## TABLE 2

WebCode	Conclusions
6R2LY3	Item 1.1 consists of three pieces of aluminum stamped with the number 6 or 9. Items 1.2 and 1.3 are two pieces of aluminum stamped with the number 6 or 9. The stamped numbers from Items 1.2 and 1.3 were microscopically compared to the stamped numbers from Item 1.1. Based on agreement of all discernible class characteristics and individual detail inside the numbers, the stamped numbers in Items 1.1, 1.2 and 1.3 were identified as having been made by the same tool.
6T8DH3	Item 1, Item 2, and Item 3 are pieces of metal containing impressed toolmarks from a stamping tool action. Toolmarks present on the Item 2 and Item 3 pieces of metal were identified as having been produced by the same tool that produced the toolmarks present on the Item 1 piece of metal.
6WTVZN	Items 2 and 3 were microscopically evaluated and compared with each other. The results of these comparisons are Identifications due to the sufficient quantity and quality of corresponding Individual Characteristics in the stamped impressions. Thus, it is the opinion of this Examiner that Items 2 and 3 were stamped with the same tool. Subsequently, Items 2 and 1 were microscopically compared with each other. The results of these comparisons are Identifications due to the sufficient quantity and quality of corresponding Individual Characteristics in the stamped impressions. Thus, it is the opinion of this Examiner that Items 2 and 3 were stamped with the same tool used to make Item 1.
796F73	The three known samples marked #1 were examined and microscopically compared to the two stamp samples marked #2 and #3 with positive results. (Identification). The stamped samples marked #2 and #3 were produced with the same stamp as the knowns marked #1.
7M4PKV	The results extremely strongly support that the toolmark on Item 2 was produced with the same stamp as represented by Item 1 (Level +4). The results extremely strongly support that the toolmark on Item 3 was produced with the same stamp as represented by Item 1 (Level +4).
8GR6U2	Questioned stamped samples (Items 2, 3,) have been produced with the same stamp as represented by Item 1.
8Z2XYN	The level of correspondence of details in all toolmarks (Item 1, Item 2 and Item 3) is conclusive. But since the Stamp cannot be examined, the individuality of the details cannot be judged. For that reason the Item 2 and Item 3 are inconclusive.
94KC3P	The stamp used to make the number for set #1 was identified as also making the stamped numbers in item #2 and item #3.
9EKZ4Y	A microscopic comparison was conducted between Test toolmarks, Item #1 (A,B,C) made by the recovered stamp and Items #2 and #3. The examinations determined that the impressions on Items #2 and #3 were made by the tool used to produce Item #1 (A,B,C) due to a sufficient agreement between impressions.
9K633N	1. The toolmark (numerical character stamped - questioned) present on item 2 was produced by the tool that produced the test marks (numerical character stamped - known) described in item 1 (identification). 2. The toolmark (numerical character stamped - questioned) present on item 3 was produced by the tool that produced the test marks (numerical character stamped - known) described in item 1 (identification).
9UDTNZ	1. Examination of Exhibit 1 revealed three non-ferromagnetic metal pieces consistent with aluminum. Each piece contains one toolmark of the character "6" or "9" impressed into in it consistent with a compression type tool such as a die stamp. 2. Examination of Exhibits 2 and 3 revealed each exhibit contains one non-ferromagnetic metal piece consistent with aluminum. Each piece contains one toolmark of the character "6" or "9" impressed into in it consistent with a compression type tool such as a die stamp. 3. The toolmark observed on Exhibits 1, 2, and 3 were microscopically compared and determined to be made by the same tool due to an agreement of class characteristics and a sufficient agreement of individual characteristics.
9V8HRT	Using a comparison microscope I examined casts created from test Item 1 with casts from exhibit Items 2 and 3. The results of my examination was that I made a positive ID of both Items 2 and 3; and in my opinion the same tool was used to make the impressions on all 3 Items (1 - 3).

TABLE 2

WebCode	Conclusions
A9B96K	Items 1-1-1, 1-1-2, and 1-1-3 (CTS Item 1) were determined to be pieces of metal with impressed toolmarks on them from a known tool. These toolmarks were determined to be consistent with having been made by a compression action. These toolmarks were determined to be are suitable for microscopic comparison. Items 1-2-1 (CTS Item 2) and 1-3-1 (CTS Item 3) were determined to be pieces of metal with impressed toolmarks on them. These toolmarks were determined to be consistent with having been made by a compression action. These toolmarks were determined to be suitable for microscopic comparison. Based on agreement of all discernible class characteristics, the toolmarks on both items 1-2-1 and 1-3-1 were microscopically compared to toolmarks on item 1-1-1. The toolmarks on both items 1-2-1 and 1-3-1 were identified as having been made by the same tool that made the toolmarks on item 1-1-1, in the opinion of the laboratory. These identification conclusions were based on sufficient similarities in the patterns of microscopic markings observed among the compared items.
AD633L	Microscopic examination and comparison of the stamped lead plates, Items #1 through #3, revealed that they possessed the same class characteristics as well as sufficient agreement of individual markings to determine that they were stamped from the same source.
AQQH7L	Item 2 was produced with the same stamp as represented by Item 1. Item 3 was produced with the same stamp as represented by Item 1.
AUPT2L	Stamp sample Item (2) is produced with the same stamp Item (1). Stamp sample Item (3) is produced with the same stamp Item (1).
BH9JXT	The stamped sampels (Item 2 and Item 3) were produced with the same stamp as represented by stamp Item 1.
BKLUBY	By means of microscopic comparison, the stamped 6 on each piece of metal (items 1, 2, and 3) were identified as having been produced by the same stamp. This qualitative identification is based on the agreement of all discernible class and sufficient agreement of individual characteristics.
BLWVWX	This report refers to exhibits by Lab Number. The following results only apply to the items tested. The three known stamp samples (Exhibit 1) were microscopically examined and compared to each other and to the question stamp samples (Exhibits 2 and 3). Based on an agreement of class characteristics and sufficient agreement of individual characteristics, Exhibits 2 and 3 were made by the same stamp, which made the samples in Exhibit 1. The probability that the toolmarks on Exhibits 1, 2 or 3 were made by a different source is so small that it is negligible. These conclusions conform with the relevant [Department] policy on Uniform Language for Testimony and Reports available a [Website].
BXJARK	Microscopic examination and comparison of the questioned stamped samples, Items #2 and #3, and the known stamp samples reference material, Item #1, revealed they possessed the same class characteristics, as well as, sufficient reproducing individual characteristics to one another and were determined to have been produced by the same stamping tool.
C922YV	The questioned toolmarks in items 2 and 3 of exhibit T2 were examined and determined to be impressed 6/9 characters from a stamp. These toolmarks were found upon microscopic comparison to have been made by the same stamp that created the Item 1 test impressions. These identifications are based upon agreement of both class and individual characteristics.
CAVR3N	Items 1, 2, 3 The numeric on Item 2 and Item 3 was stamped by the stamp (Item 1) from the suspects home.
CC2DVU	Items 2 and 3 were microscopically compared with Item 1, revealing correspondence of class characteristics and individual distinguishing characteristics. It was concluded that the stamped characters on Items 2 and 3 were made by the same tool as the stamped characters on Item 1.
CHALEK	Toolmark examination of the submitted items determined that the stamped impression found on Items #2 and Item #3 were both produced by the same stamp that produced the Item #1 stamped impression.
CPPJNP	The three known stamp samples from suspect's home in item 1 and the stamp samples in items 2 and

TABLE 2

WebCode	Conclusions
	3 from warehouse were made by the same stamp.
CVGLWV	The Items 1, 2 and 3 stamp samples were microscopically compared to each other and they were identified as having been made with the same tool, tool not received.
DBHXWJ	Item 2 and Item 3 were produced with the same stamp that produced Item 1.
DMYHFF	Through macroscopic/microscopic examination and based on agreement of discernible class characteristics and sufficient corresponding individual detail, the impressions on the pieces of metal, Laboratory Items 1-3, were identified as having been created by the same stamp.
DQFXRT	The stamped characters on Items 2 and 3 (two pieces of stamped metal) and the stamped characters on Item 1 (three pieces of stamped metal) were identified as having been produced by the same stamp, or a different stamp manufactured by the same tool in a similar state of wear. * * The comparative examinations showed agreement of characteristics that may be individual or subclass. Without the stamp for examination, the potential for subclass carryover cannot be assessed. This conclusion may be refined if a stamp is submitted for comparison.
DW3NEN	The questioned samples, items 2 and 3, were both produced by the stamp represented by item 1.
DWN4UQ	Tool marks observed on the submitted aluminum rectangles (Items 2 and 3) are identified as having been produced by the same tool that created the submitted known samples (Item T-1, T-2 and T-3). Identifications are made only to a degree of practical certainty and are based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.
DYQYDU	Items 2 and 3 were made by the same stamp that made item 1. There is sufficient agreement of defects/unique surface contours in the stamped impressions for an identification.
EARWQV	[No Conclusions Reported.]
ECY3CW	The submitted aluminum bar stock segments, Items 1A, 1B, 1C, 2, and 3, were impressed by the same stamp.
EFVTKU	Item 1 consists of three (3) known stamp samples that were marked 1A, 1B, and 1C for differentiation and comparison. All three (3) samples were microscopically compared for reproducibility, and were identified as having been made by the same tool. Items 2 and 3 are two (2) questioned stamp samples that were microscopically compared to each other and to the Item 1 known stamp samples. Items 1, 2, and 3 were all identified as having been made by the same tool.
ETMFQP	Tool marks observed on the submitted pieces of stamped aluminum (Item 2 and Item 3) are identified as having been produced by the known stamp that produced test samples (Item 1a, 1b, and 1c). Identifications are made only to a degree of practical certainty and are based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.
F8EWTR	Comparison microscope examinations were conducted and it is the finding of this examiner that the impressed tool marks found on the submitted stamp samples, Items 2 and 3, were made by the same tool that produced the known stamp samples, Item 1.
FEYW8J	Items 1, 2, and 3 were identified as having been stamped by the same tool.
FU8VBG	[No Conclusions Reported.]
G4RLBE	The questioned stamped samples (Items 2, 3,) were produced with the same stamp as represented by Item 1.
G6QKUM	Tool marks observed on items 2 and 3 are identified as having been produced by the same source as items 1A, 1B and 1C. Note: Identifications are made only to a degree of practical certainty and are

TABLE 2

WebCode	Conclusions
	based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.
GK4VJU	Examinations showed Item 2 (C-4) and Item 3 (C-5) were produced with the same stamp as Item 1 (C-1, C-2, and C-3).
GQ788E	[No Conclusions Reported.]
GTTGPT	Exhibit 1 (A through C) was macroscopically examined and microscopically compared to Exhibits 2 and 3 with the following results: The Exhibit 1 (A through C) known stamp samples as well as the Exhibit 2 and 3 questioned stamp samples each contains impressed toolmarks produced by a compression type tool(s), such as a numeric die stamp, that bear marks of value for comparison. Based on agreement of all discernible class characteristics and sufficient correspondence of individual characteristics, it was determined that the toolmarks on Exhibits 2 and 3 were identified as having been produced by the same tool that made the toolmarks on Exhibit 1 (A through C). An identification conclusion indicates the probability that the Exhibits 2 and 3 toolmarks were made by a different tool is so small that it is negligible.
GXZC2F	The stamped samples ITEM2 and ITEM 3 were both produced by the same stamp at ITEM1.
HBBZXJ	The laboratory examinations of the evidence stamp samples (item 2 and 3) and known stamp sample (item 1) were done by means of the comparison microscope Leica FS C. The enclosed evidence material (item 2 and 3) as well as the comparative material were obtained with the same stamp as item 1.
HCHE6P	1. Examination of Exhibit 1 disclosed it to be three pieces of aluminum displaying tool marks consistent with having been compressed by a stamp of the numeric '6' or '9'. Exhibit 1 is reported as being three known samples from the suspect's home. 2. Examination of Exhibits 2 and 3 disclosed them to be two pieces of aluminum displaying tool marks consistent with having been compressed by a stamp of the numeric '6' or '9'. 3. Exhibits 1 through 3 were visually and microscopically compared to one another. As a result of microscopic comparison, it was concluded that due to an agreement of class characteristics and a sufficient agreement of individual characteristics, Exhibits 2 and 3 were identified as having been damaged by the same tool as Exhibit 1.
HJ3HCT	Items 1 - 3 were examined using a stereomicroscope. Mikrosil casts were made of the known and questioned toolmarks and were compared using a toolmark microscope. Opinions of common origin are made when toolmarks are in significant agreement. Photomicrographs of the toolmarks and casts were taken and are filed under D#3333333. The toolmarks on items 1 - 3 were made by the same stamp.
HNF62Q	Toolmarks present on the Item 2 and Item 3 stampings were identified as having been produced by the Item 1 known stamp.
HWABVR	It was concluded that it was produced with the same stamp represented in item 2 and item 3 item 1.
J9HQ2N	1. Examinations showed the tool marks on Items 2 and 3 were produced by the same tool as represented by Item 1.
JAU46K	Identifications are made only to a degree of practical certainty and are based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility. Toolmarks observed on Items 1A, 1B, 1C (known stamp samples) and Items 2 and 3 (questioned stamp samples) are identified as having been produced by the same tool.
JL374M	The known samples from the Item 1 stamp were microscopically compared to Items 2 and 3. It was determined that Item 1 was the source of the Items 2 and 3 marks.
JYVE6B	There are sufficient individual markings present to identify items 2 and 3 (stamp samples from warehouse) as having been damaged by the same tool that damaged item 1 (stamp samples from

TABLE 2

WebCode	Conclusions
	suspect's home).
K77B8M	Examinations showed that the stamp tool that produced the Item 1 stamp impressions, was the same stamp tool that produced the Item 2 stamp impression. Examinations showed that the stamp tool that produced the Item 1 stamp impressions, was the same stamp tool that produced the Item 3 stamp impression.
KFCVUP	The stamps exhibited on items 2 and 3 were made by the same stamp exhibited on item 1, based on microscopic comparisons with agreement of class characteristics and corresponding individual detail.
KJEU6H	All the stamped samples were observed under oblique lightning under stereo and comparison microscopes. Between the stamp sample item 2 and item 1 no differences in striations and marks could be found. In the stamp item 3 very fine differences could be found. Therefore an id or exclusion couldn't be made.
KNKRAF	I microscopically compared the stamped toolmarks on Items 001-1A and 001-1B. I observed sufficient agreement of class and individual characteristics to conclude that toolmarks were produced by the same tool and that the tool is capable of producing reproducible marks for identification. I microscopically compared the stamped toolmarks on Item 001-1A to Items 001-2 and 001-3. I observed sufficient agreement of class and individual characteristics to conclude that both Item 001-2 and 001-3 were produced with the same tool that created the test impressions submitted as Item 001-1.
L7KWGN	Items 1B (CTS #2) and 1C (CTS #3) were identified as having been impressed by the same tool that impressed Item 1A (CTS #1) based on the agreement of class characteristics, and individual characteristics observed within the marked surfaces.
LBYJ7M	Item 1, Item 2, and Item 3 are pieces of metal bearing impressed toolmarks from a stamping action tool. Toolmarks present on the Item 2 and Item 3 questioned samples were identified as having been produced by the same tool that produced the toolmarks present on the Item 1 known stamp samples.
LFAPNE	THE NUMERIC CHARACTER STAMPED IN ITEM 2 AND ITEM 3 WERE MADE BY THE SAME TOOL WHICH STAMPED THE NUMERIC CHARACTER ON ITEM 1.
LTHDWC	The two stamps marked #2 and #3 were identified as having been made by the same stamp as the test stamps marked #1.
LVZXG7	A comparison of the stamp marks in items 2 and 3 with control stamp marks in item 1 was undertaken. A high degree of correspondence was noted between the control stamps in item 1 and the stamps in items 2 and 3. However without the original tool it is not possible to definitely determine if these features are random accidental damage features and not casting/forging marks, although some of the corresponding features do have the appearance of being randomly acquired. I have considered the proposition that the questioned stamped samples in items 2 and 3 were produced with the same stamp as represented by item 1; the results of this examination provide strong support for this proposition.
LZR2BB	Through macroscopic/microscopic examination and based on agreement of discernible class characteristics and sufficient corresponding individual detail, the impressions on the alloy bars, Laboratory Items 1-3, were identified as having been created by the same stamp.
MPD678	Questioned stamped samples (items 2 and 3) were produced with the same stamp used to produce stamp samples called item 1.
NBUWQK	Toolmarks exhibited on Item 2 and Item 3 were microscopically compared and compared to toolmarks exhibited on Item 1 known samples. As a result of microscopic comparison, it was concluded that Item 2 and Item 3 were identified as having been created by the same stamp as Item 1 known samples.
NGBEZM	The Item 2 and Item 3 stamp samples were identified as having been produced by the same stamp as represented by the Item 1 samples.

TABLE 2

WebCode	Conclusions
NHRPYE	<p>Toolmarks observed on Items #2 and #3 (questioned stamp samples) are identified as having been produced by the same tool that produced Items #1A, #1B, and #1C (known stamp samples).            *Identifications are made only to a degree of practical certainty and are based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.</p>
NW8PPD	<p>I received a sealed box containing three sealed envelopes. One of the envelopes, item 1, was described as containing three known stamp samples from a suspect's house, the other two envelopes, item 2 and item 3, were described as each containing a questioned stamp sample from a warehouse. I was asked to determine whether or not either of the questioned stamp samples were produced with the same stamp represented by known stamp samples. Each of the stamps consisted of a single stamped number, being either a "6" or a "9", measuring approximately 13.5 millimetres by 9 millimetres. It is possible to compare the toolmarks in objects to determine whether or not they could have been made by a particular tool, or as in this case, the same tool. To ascertain this, the shape, size and microscopic detail on the mark surface is compared to the shape, size and microscopic detail of test marks made with a known tool. In interpreting toolmark evidence, consideration is given to the probability of observing any correspondence in the size, shape and microscopic detail in the toolmark given the same tool made the toolmarks, as opposed to observing this correspondence given another tool had made the toolmarks. I compared the microscopic detail in both of the questioned stamp samples with the microscopic detail present in the known stamp samples using a comparison microscope, which allows me to look at the microscopic surface detail of two objects side-by-side. I found an excellent correspondence of microscopic detail between the three known stamped marks. I found an excellent correspondence of microscopic detail between the questioned stamp, item 2, and one of the known stamps. In my opinion, the probability of observing this correspondence of microscopic detail given the stamped marks were produced by the same tool is very high. Conversely, it is my opinion, that the probability of observing this correspondence given the stamped marks were produced by different tools is negligible. Therefore, in my opinion, the question stamped mark, item 2, was produced by the same tool which produced the known stamped marks in item 1. I found an excellent correspondence of microscopic detail between the questioned stamp, item 3, and one of the known stamps. In my opinion, the probability of observing this correspondence of microscopic detail given the stamped marks were produced by the same tool is very high. Conversely, it is my opinion, that the probability of observing this correspondence given the stamped marks were produced by different tools is negligible. Therefore, in my opinion, the questioned stamp mark, item 3, was produced by the same tool which produced the known stamped marks in item 1.</p>
P6GK3J	<p>Item 1 consists of three metal plates which contain impressed toolmarks that were produced using a compression action. The toolmarks on the Item 1 plates were reported as being test marks produced with a known stamping tool. Items 2 and 3 are metal plates that each contain an impressed toolmark that was produced using a compression action. The toolmarks present on the Item 2 and Item 3 plates were identified as being produced by the same tool as the test marks present on the Item 1 plates.</p>
P7RFNB	<p>Items 2 and 3 were microscopically identified as having been made by the same stamp responsible for stamping Item 1.</p>
P88L98	<p>Comparative examinations of the toolmarks on the first and second questioned stamp samples from warehouse (Item 2 and Item 3) were found to be consistent in class and individual characteristics with the three known stamp samples from suspect's home (Item 1). Based on the above findings, in my professional opinion, the two questioned stamped samples (Item 2 and Item 3) could have been produced with the same stamp as represented by Item 1.</p>
P9FWXJ	<p>Item 1 consists of three pieces of metal each bearing a stamped impression of a "6" or a "9". Item 2 and Item 3 each consist of a piece of metal bearing a stamped impression of a "6" or a "9". The stamped impressions present on Item 1, Item 2 and Item 3 were identified as having been produced by the same stamp.</p>
PCE9ZB	<p>Tool Mark Analysis: Methodology: Physical (Visual Examination), Microscopy (Comparison Microscope). The tool mark on Items 1, 2, and 3, the tool mark samples, were made with the same</p>

TABLE 2

WebCode	Conclusions
	tool based upon corresponding class and individual microscopic characteristics.
PFGBL7	Markings on items 1, 2 and 3 are made with the same tool.
PUHMG6	Through macroscopic/microscopic examination and based on agreement of discernible class characteristics and sufficient corresponding individual detail, the stamped numbers on the pieces of metal, Laboratory Items 1-3, were identified as having been created by the same stamp.
PWLHZ8	Since no recognizable differences could be found, item 2 and item 3 could have been produced with the same stamp as used for item 1.
PYRZY4	MICROSCOPIC COMPARISON OF EVIDENCE STAMP SAMPLES Q1 (ITEM 2) AND Q2 (ITEM 3) WITH KNOWN STAMP SAMPLES (ITEM 1) REVEALS THAT SUFFICIENT AGREEMENT OF INDIVIDUAL CHARACTERISTICS EXISTS TO IDENTIFY THE FOLLOWING: THE STAMP SAMPLE ON Q1 (ITEM 2) AND Q2 (ITEM 3) WERE PRODUCED WITH THE SAME STAMP AS REPRESENTED BY ITEM 1. SUFFICIENT AGREEMENT Sufficient agreement exists between two toolmarks means that the agreement is of a quantity and quality that the likelihood another tool could have made the mark is so remote as to be considered a practical impossibility. Sufficient agreement is related to the significant duplication of random toolmarks as evidenced by a pattern or combination of patterns of surface contours.
PZ3XCK	Item 1.1 was compared microscopically with Items 1.2 and 1.3. There is agreement of all discernible class characteristics and sufficient agreement of individual characteristics for identification. Item 1.1 created the toolmark on Items 1.2 and 1.3
Q79UWK	The impressions located on the five submitted aluminum tiles (Items 1A, 1B, 1C, 2, and 3) were all made with the same tool.
QMVGVB	Item 1 consists of three (3) pieces of aluminum stamped with either a "6" or "9". Item 2 and Item 3 are pieces of aluminum stamped with either a "6" or "9". Toolmarks present on the Item 2 and Item 3 questioned stamp samples were identified as having been produced by the same stamp/tool that created the toolmarks on the Item 1 known stamp samples.
QQQBTJ	The stamp samples, Exhibits 2 and 3, were made using the same stamp that created the samples, Exhibit 1.
QV7HGH	Item 2 and Item 3 are pieces of aluminum that have toolmarks present that were made with a stamping action. The toolmarks present on the Item 2 and Item 3 pieces of aluminum were identified as having been produced by the same stamp that produced the Item 1 samples.
R4Z2GC	The toolmarks on items #2 and #3 were microscopically identified as having been made by the suspect tool that generated the known samples of item #1.
R6A44B	The stamped numbers on items 2 and 3 are identified as having been produced by the same tool as the stamped numbers on item 1 (1A, 1B, 1C). Note: Identifications are made only to a degree of practical certainty and are based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.
RFRRXA	[No Conclusions Reported.]
RMCN3K	According to the submission form, the Item 01-01 aluminum blocks were said to have been stamped by a tool recovered by the agency. The Items 01-02 and 01-03 aluminum blocks were identified as having been stamped by the same tool as the Item 01-01 aluminum blocks.
RVZNBG	The stamped characters in each of items 1, 2 and 3 were all made by the same stamp based on an agreement of class and individual characteristics.
RWBQY2	[No Conclusions Reported.]
T4TFWG	Stamps samples from warehouse (items 2 3) where produced with suspect's stamp found as his



TABLE 2

WebCode	Conclusions
	home.
T673FF	The stamped samples in Items 2 and 3 were produced by the same stamp that produced the samples in Item 1, based on agreement observed in individual characteristics.
T7X2UE	Item 2 + 3 were compared against the three (3) samples in Item 1. It was determined that the stamp that imprinted on Item 2 + 3 was the same source that imprinted on the three samples from Item 1.
TDG62G	On the Item 2 and Item 3 there are impression marks which corresponds in form and individual characteristics with three known stamp samples of the Item 1. Impression marks on the Item 2 and Item 3 are made with the suspect's stamp found at his home.
TF8BH8	Tool Mark Analysis: Methodology: Physical (Visual Examination), Microscopy (Comparison Microscope). The tool mark on Items 2 and 3, the pieces of aluminum, were made by the same stamp that made Item 1, the pieces of aluminum known stamp samples, based upon corresponding class and individual microscopic characteristics.
TP9ZTG	Item 1 consists of three small pieces of metal, each bearing an impressed toolmark. Items 2 and 3 each consist of one small piece of metal bearing an impressed toolmark. The impressed toolmarks on Items 1, 2, and 3 are in the shape of the digit '9' or '6'. Toolmarks present on the Item 1, 2, and 3 pieces of metal were identified as having been created by the same tool.
TXTUEE	Specimens QT1-2 were microscopically compared to test stamping TKT1A. The results of the examinations were an identification. This means specimens QT1-2 were made by the same tool as TKT1A. These findings were verified by Firearms Examiner [Name].
UCZCHY	MICROSCOPIC COMPARISONS BETWEEN SUSPECTED NUMERIC STAMP ITEM 1 (K1), AND QUESTIONED BAR STOCKS ITEM 2 (Q1) AND ITEM 3 (Q2), REVEAL THAT SUFFICIENT AGREEMENT OF INDIVIDUAL CHARACTERISTICS EXISTS TO IDENTIFY THE FOLLOWING: THE TOOLMARK IMPRESSIONS ON ITEM 2 (Q1) AND ITEM 3 (Q2) WERE PRODUCED AND STAMPED BY ITEM 1 (K1).
V22WEF	Items 2 and 3 were compared microscopically with Item #1. Based on the agreement of all discernible class characteristics and sufficient agreement of corresponding individual characteristics, Items 1-3 have been identified as having been made by the same stamp.
V4JBHF	The two submitted stamped aluminum block samples, Exhibits 2 and 3, were stamped with the same stamp as the three submitted stamped samples, Exhibit 1.
V6XMCE	In my opinion the "6/9" characters on items 2 and 3 were made by the stamp as the "6/9" characters on the pieces in item 1. CONCLUSIVE MATCH
V7AHX7	1. The test and exhibit pieces of aluminum were all stamped with the numeral '6' or '9' depending on orientation. 2. The impressed numerals of both Items 2 and 3 were both identified as having been made by the same stamp as the stamp that impressed the numerals on the test samples, Item 1.
V9XX8E	The toolmarks on the questioned stamped samples recovered from the warehouse (Item 2 and Item 3) have been produced with the suspect's stamp found as his home (Item 01).
VEP2H7	EXAMINATIONS: The discernible toolmark class characteristics of the two questioned stamp samples (item A2 and item A3) and those of the three known stamp samples (items A1a-A1c) were first evaluated. The three known stamp samples were then microscopically compared with each other, followed by microscopic comparison with the two questioned stamp samples. RESULTS: All six stamp samples contain the impressed number "6" (or "9" if rotated 180 degrees) and all have similar discernible toolmark class characteristics. Microscopic comparison of the toolmarks in item A1a with those in item A1b and item A1c revealed that the known stamp is capable of reproducing highly detailed toolmarks. Microscopic comparison of the toolmarks in item A1a with those in item A2 revealed that they have high correspondence of detail. Microscopic comparison of the toolmarks in item A1a with those in item A3 revealed that they have high correspondence of detail. CONCLUSIONS: A definitive conclusion cannot be drawn at this time as to whether the impressed



TABLE 2

WebCode	Conclusions
	number "6" (or "9") on item A2 and on item A3 were created by the same tool that produced the known stamp samples on items A1a, A1b, and A1c. The results of the microscopic comparison suggest that the same tool may have been used to produce all of the numerical impressions; however, the source of details within the sample toolmarks must be further evaluated before drawing a conclusion. Therefore, the actual tool (stamp) should be submitted for examination.
VYR4Y8	The toolmarks observed on the questioned stamped aluminum bars (items 2 and 3) are identified as having been produced by the same tool that produced items 1A, 1B and 1C (three known samples). Identifications are made only to a degree of practical certainty and are based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.
VZKZLF	The Items 01-01, 01-02, and 01-03 aluminum blocks were identified as having been stamped by the same tool.
W4WA4C	Items 2 and 3, the unknown stamp samples, were made by the same stamp as Item 1, identified stamps, due to corresponding individual characteristics for conclusion (identification).
WCREXD	Items 2 and 3 were identified as being produced by the same tool as the stamp sample represented by Item 1.
WH37PY	All the three known stamp samples in item number 1 has same class and individual characteristics as the first questioned stamp (item 2) and second questioned stamp (item 3) from the warehouse. Measurements have been taken from all the stamp items and are similar to each other.
WHHP8B	Impressed toolmarks present on the Item 1 through Item 3 metal plates were identified as having been produced by the same stamp.
WMCJ6D	By means visual examination and a comparator microscope, he it was determined that the questioned stamped samples (item 2 and 3) produced with the same buffer as represented by item 1
WTEN23	Tool Mark Analysis: Methodology: Physical (Visual Examination), Microscopy (Comparison Microscope), Digital Micrometer. The tool marks on Items 2 and 3, the questioned stamp samples, were made with the same tool as Item 1, the known stamp samples, based upon corresponding class and individual microscopic characteristics.
WWEYW3	Toolmark Analysis: Methodology – Physical (Visual Examination), Microscopy (Comparison Microscopy). The tool mark on Items 2 and 3, the questioned stamp samples, were made with the same tool as Item 1, the known stamp samples, based upon corresponding class and individual microscopic characteristics.
X7HDEU	The stamp that was found in the suspect's house was not available for investigation. Assuming that the stamp found in the suspect's home has an individualizing surface, the result would be as follows: The stamped samples (item 2 and 3) are produced with the same stamp as presented by item 1.
XVNTGC	The Item 2 and Item 3 stamp samples were made by the same tool that produced the Item 1 known stamp samples. These identifications are based on sufficient agreement of the combination of individual characteristics and all discernible class characteristics.
Y29FL2	After microscopic comparison of the test samples (Item 1) to the blocks with stamped numbers (Items 2 & 3) it was determined that the tool that produced the sample stamps also produced the stamps on Items 2 & 3.
Y3HG9Z	The impressed toolmarks present on items 2 and 3 were identified as having been produced by the same tool as that which produced the impressed toolmarks present on the metal pieces received with item 1 based on the sufficient agreement of class and individual characteristics.
YDX8BC	Examinations showed that Item 2 and Item 3 were produced by the same stamp that produced Item 1.
YH9KTB	The known stampings from Item #1.1 were compared microscopically with Items #1.2 and #1.3.

TABLE 2

WebCode	Conclusions
YVLKP4	<p>Based on the agreement of class characteristics and sufficient agreement of corresponding individual characteristics, Items #1.1, #1.2 and #1.3 are identified as having been made by the same stamp.</p> <p>Toolmarks observed on the submitted metal squares (Items 2 and 3) are identified as having been produced by the same stamp that produced the submitted known samples (Items 1A, 1B and 1C). Identifications are made only to a degree of practical certainty and are based on sufficient agreement of the individual characteristics of tool marks. When sufficient agreement exists, in part, this means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.</p>
YVZUUX	<p>Microscopic examination and comparison of the stamped toolmark area (number 6 or 9) on the metal pieces (items # 2 and 3) with the corresponding numbered areas on the test toolmarked samples (item # 1) reveals sufficient evidence to conclude that the stamped toolmarks on Items # 2 and 3 were stamped with the same tool as produced the test toolmarks on item # 1.</p>
YXAWNA	<p>1. Exhibit 1 consists of three metal blocks, each with a test standard from a known die stamp. 2. Exhibit 2 and Exhibit 3 each contain a metal block with a single numeric stamp, which were microscopically compared to the Exhibit 1 test standards. a. Microscopic comparison disclosed sufficient agreement of class and individual characteristics to conclude that Exhibit 2 and Exhibit 3 were stamped by the same tool as Exhibit 1.</p>
YZTBRA	<p>Items 2 and 3 were identified as having been stamped by the same tool that stamped Item 1 based on the agreement of class characteristics, and individual characteristics observed within the marked surfaces (toolmarks).</p>
ZEB7YU	<p>The evidence in items 1, 2, and 3 was analyzed by physical and microscopic examination. The toolmarks present in the two (2) questioned stamp samples in items 2 and 3 were determined to have been made by the same stamp which made the three (3) known stamp samples in item 1.</p>
ZQFN99	<p>First and second questioned stamp sample produced by the suspect's stamp which found in his home</p>
ZU32HC	<p>The toolmarks on Items 1, 2, and 3 were examined microscopically and identified as having been produced by the same tool based on corresponding class and individual characteristics.</p>

# Additional Comments

TABLE 3

WebCode	Additional Comments
279FTA	<p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p>
2DCDM8	<p>TECHNICAL NOTES: Class characteristics are defined as measurable features of a firearm or tool, which indicate a restricted group source. They result from design features and are determined prior to manufacture of the firearm or tool. Individual characteristics are defined as marks produced by the random imperfections or irregularities of firearm or tool surfaces. These random imperfections or irregularities can be either produced incidental to manufacture or caused by use, corrosion, or damage, and are unique to that specific tool. Any conclusions indicating that a toolmark was made by a specific firearm or tool are not to the absolute exclusion of all other firearms or tools, because it is not feasible to examine all firearms or tools in the world. However, observing this amount of agreement between different sources is considered extremely remote.</p>
3NMCM8	<p>Used equipment: comparison microscope Projectina VisionX.</p>
6T8DH3	<p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not</p>

TABLE 3

WebCode	Additional Comments
	<p>originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p>
9K633N	<p>Identification: Based on the individual characteristics agreement observed through microscopic comparison examination.</p>
9UDTNZ	<p>TECHNICAL NOTES: Class characteristics are defined as measurable features of a firearm which indicate a restricted group source. They result from design features and are determined prior to manufacture of the firearm. Individual characteristics are defined as marks produced by the random imperfections or irregularities of firearm surfaces. These random imperfections or irregularities are produced incidental to manufacture and/or caused by use, corrosion, or damage, and are unique to that specific tool. Any conclusions indicating that a toolmark was made by a specific firearm are not to the absolute exclusion of all other firearms because it is not feasible to examine all possible firearms. However, observing this amount of agreement from a different source is considered extremely remote.</p>
DMYHFF	<p>When test samples are provided without a tool, it would be helpful to be provided manufacturing information about the tool used to create the test samples.</p>
HNF62Q	<p>Methods: Tool. The type, action, and manufacturer of a tool are normally determined by directly observing the function and manufacturer markings on the tool in question. When these are not present, published materials and tool literature in the Firearms/Toolmarks Discipline reference library may be used to make determinations. When a microscopic comparison is necessary using a questioned tool, test samples are created using a test material that is softer or similar in quality to the item being compared. Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source</p>

TABLE 3

WebCode	Additional Comments
	<p>Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Tool. The results of tool examinations describe type and/or operating condition of the tool as it was received in the Firearms/Toolmarks Discipline. Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p>
KJEU6H	<p>Because of fine differences between the stamped sample item 1 and item 3 no decision could be made between Yes or No. We Need to have the tool physically available to make a more detailed conclusion.</p>
LBYJ7M	<p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool</p>

TABLE 3

WebCode	Additional Comments
NGBEZM	<p>working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p> <p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p>
P6GK3J	<p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely</p>



TABLE 3

WebCode	Additional Comments
	<p>weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p>
P9FWXJ	<p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p>
PWLHZ8	<p>The non-continuous lines of the numeral - interrupted by 'individual features' - could already be contained in the basic form for stamp production - and thus produce whole series of stamps with identical 'individual features'. Therefore, there is a possibility that there are other stamps producing an indistinguishable stamp pattern.</p>
QMVGVB	<p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or</p>

TABLE 3

WebCode	Additional Comments
QV7HGH	<p>cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. 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Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.</p> <p>Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. 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Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient</p>



TABLE 3

WebCode	Additional Comments
	quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.
R4Z2GC	While it is helpful receiving a standardized set of known test samples, the absence of a tool makes it more difficult to evaluate for subclass.
UCZCHY	SUFFICIENT AGREEMENT: "Sufficient agreement" exists between two toolmarks means that the agreement is of a quantity and quality that the likelihood another tool could have made the mark is so remote as to be considered a practical impossibility. Sufficient agreement is related to the significant duplication of random toolmarks as evidenced by a pattern or combination of patterns of surface contours.
V6XMCE	My conclusion is based on the assumption that the stamp was damaged and not the mould from which the stamp was made.
VEP2H7	Impressed toolmarks must be carefully evaluated for the possibility of subclass characteristics carryover, which can occur during the tool manufacturing process. Since the scenario states that the police have custody of the actual tool (the stamp), the tool should be submitted and examined for the presence of subclass characteristics and for the presence of incidental marks and nicks that make the tool working surface unique.
WH37PY	The focus was on the stamped area only, the opposite sides of the stamp items were marked according to the laboratory procedures.
WHHP8B	Methods: Toolmark Examination. Toolmarks, whether they are present on two evidence items or on one evidence item and one test-mark created in the Laboratory, undergo two stages of comparison. First, the toolmarks are examined to determine and compare their class characteristics. The class characteristics of toolmarks include type of cutting action and the size and orientation of gripping or cutting surfaces. If the class characteristics of the toolmarks are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the impressed and striated marks present in two toolmarks to determine if patterns of similarity exist. At the completion of these comparisons, one of the following three opinions is issued: 1) Source Exclusion. Source exclusion is an Examiner's conclusion that two toolmarks did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two toolmarks can be differentiated by their class characteristics. A source exclusion based on general differences does not require a verification. However, a source exclusion based on a minor difference in a measured class characteristic requires a verification. 2) Source Identification. Source Identification is an Examiner's conclusion that two toolmarks originated from the same source. Conditions for a source identification include the degree of similarity being greater than the Examiner has ever observed in previous evaluations of toolmarks known to have been created by different tools; and the degree of similarity being equivalent to that normally observed in toolmarks known to have been created by the same tool. The basis for a source identification conclusion is an Examiner's decision that the observed class characteristics and corresponding individual characteristics provide extremely strong support for the proposition that the two toolmarks came from the same source and extremely weak support for the proposition that the two toolmarks came from different sources. Before being reported, a source identification requires a verification to be completed. 3) Inconclusive (No Conclusion). Inconclusive is an Examiner's conclusion that all observed class characteristics are in agreement but there is insufficient quality and quantity of corresponding individual characteristics such that the Examiner is unable to identify or exclude the two toolmarks as having originated from the same source. The basis for an inconclusive conclusion is an Examiner's decision that there is an insufficient quality and/or quantity of individual characteristics to identify or exclude. Reasons for an inconclusive conclusion include the presence of microscopic similarity that is insufficient to form the conclusion of source identification; or a lack of any observed microscopic similarity. Limitations: Toolmark Examination. Firearms/Toolmark Identification is an empirical science that relies on objective

TABLE 3

WebCode	Additional Comments
	measurements and a subjective comparison of microscopic marks of value. Due to changes in tool working surfaces from wear, corrosion and abuse or the employment of unusual tool/work piece orientations, toolmarks created by the same tool are not always identifiable as such.
X7HDEU	Forensic silicon material was used to make casts of all items (1,2 and 3). The castings of the samples were compared using a comparative microscope. Sample images of the comparisons were made.
YXAWNA	TECHNICAL NOTES: Class characteristics are defined as measurable features of a firearm/tool which indicate a restricted group source. They result from design features and are determined prior to manufacture of the firearm/tool. Individual characteristics are defined as marks produced by the random imperfections or irregularities of firearm/tool surfaces. These random imperfections or irregularities are produced incidental to manufacture and/or caused by use, corrosion, or damage, and are unique to that specific tool. Any conclusions indicating that a toolmark was made by a specific firearm/tool are not to the absolute exclusion of all other firearms/tools because it is not feasible to examine all possible firearms/tools. However, observing this amount of agreement from a different source is considered extremely remote.

-End of Report-  
(Appendix may follow)

## Test No. 20-5282: Toolmarks Examination

DATA MUST BE SUBMITTED BY **Nov. 16, 2020, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234F

WebCode: 6J7N8T

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 altered serial numbers on motorcycles. An informant has led investigators to an abandoned warehouse, where they have collected two stamped samples. The informant has also named a suspect whose home was subsequently searched. During the search, a stamp was found. Investigators are requesting that you examine the toolmarks on the questioned stamped samples recovered from the warehouse and determine if they could have been produced with the suspect's stamp found as his home.

*Please note the following:*

- Each Item is in an envelope, it is suggested that when the items are removed from their labeled envelope, they be marked according to your laboratory procedure.
- The focus of the examination should be on the stamped area only. The cut ends of the aluminum samples are NOT to be examined.

### Items Submitted (Sample Pack T2):

Item 1: Three known stamp samples from suspect's home.

Item 2: First questioned stamp sample from warehouse.

Item 3: Second questioned stamp sample from warehouse.

**1.) Were any of the questioned stamped samples (Items 2, 3,) produced with the same stamp as represented by Item 1?**

	Yes	No	Inconclusive*
<b>Item 2:</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Item 3:</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\*Should an item(s) be marked "Inconclusive", please document the reason in the Additional Comments section of this data sheet.

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

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

**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)