



Firearms Examination

Test No. 20-5261 Summary Report

Each sample set consisted of three known expended bullets (Item 1) test-fired from a suspect weapon and four questioned expended bullets (Items 2-5). Participants were requested to examine these items and report their findings. Data were returned from 347 participants and are compiled into the following tables:

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

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

Manufacturer's Information

Each sample set contained five items: Item 1 consisted of three bullets fired in the suspect's firearm. Item 2 consisted of one bullet recovered from the victim and Items 3, 4, and 5 each consisted of one bullet recovered from the scene. PMC® Bronze 380 Auto 90 grain Full Metal Jacket (FMJ) was used for all five items. Participants were requested to determine which, if any, of the recovered questioned bullets (Items 2-5) were fired from the same firearm as the known bullets (Item 1).

The bullets in Items 1-5 were fired in a Smith & Wesson M&P Bodyguard 380 (Serial Number KCZ6669).

ITEMS 1, 2, 3, 4, 5 (IDENTIFICATION): Multiple magazines were loaded with PMC® Bronze 380 auto ammunition for firing with the Smith & Wesson M&P Bodyguard handgun. After the ammunition was expended, the bullets were collected and packaged together as a batch. This process was repeated until the required number was produced. Out of each batch, the necessary number of bullets were selected and inscribed with a "1" (three bullets), "2" (one bullet), "3" (one bullet), "4" (one bullet), and a "5" (one bullet), then sealed into their respective boxes.

SAMPLE SET ASSEMBLY: For each sample set, Items 1-5 were placed in a sample pack box. This process was repeated until all of the sample sets were prepared. Once verification was completed, the sample packs were sealed with evidence tape and initialed "CTS."

VERIFICATION: During test production, 10% of the bullets from each batch were selected and intercompared to confirm that markings were consistent. All three predistribution laboratories reported the expected responses.

Summary Comments

This test was designed to allow participants to assess their proficiency in a comparison of expended bullets. Participants were provided with four questioned expended PMC® Bronze 380 Auto 90 grain Full Metal Jacket (FMJ) bullets (Items 2, 3, 4, and 5), which they were requested to compare with three known expended bullets (Item 1) that were fired in the suspect's weapon, a Smith & Wesson M&P Bodyguard 380 handgun. For each sample set, the Item 2, 3, 4, and 5 bullets were fired in the same firearm that discharged the Item 1 bullets. (Refer to Manufacturer's Information for preparation details.)

In Table 1 Response Summary, 336 of 347 responding participants (97%) identified Items 2, 3, 4, and 5 as having been fired from the same firearm as the Item 1 bullets. The remaining eleven participants were outliers who either eliminated or were inconclusive for one or more of the questioned bullets (Items 2, 3, 4, 5). Three were Inconclusive for Items 2-5; Two eliminated or were inconclusive for Item 4; Two eliminated or were inconclusive for Item 5; One eliminated Item 3; One was inconclusive for Items 4 and 5; One eliminated Items 3 and 4; One eliminated Items 2, 4, and 5.

Examination Results

Were any of the recovered questioned bullets (Items 2-5) fired in the same firearm as the known bullets (Item 1)?

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
23UQRW	Yes	Yes	Yes	Yes	38797H	Yes	Yes	Yes	Yes
23UTB9	Yes	Yes	Yes	Yes	38H4E4	Yes	Yes	Yes	Yes
248K3P	Yes	Yes	Yes	Yes	3BMHDV	Yes	Yes	Yes	Yes
27XLBY	Yes	Yes	Yes	Yes	3EJ8RG	Yes	Yes	Yes	Yes
296YYR	Yes	Yes	Yes	Yes	3N8Z6Y	Yes	Yes	Yes	Yes
2BM4MP	Yes	Yes	Yes	Yes	3QCQ7M	Yes	Yes	Yes	Yes
2CKG7B	Yes	Yes	Yes	Yes	3Z3BCK	Yes	Yes	Yes	Yes
2HQ2GM	Yes	Yes	Yes	Yes	477HQN	Yes	Yes	Yes	Yes
2KRB3P	Yes	Yes	Yes	Yes	49WG6L	Yes	Yes	Yes	Yes
2LT2GK	Yes	Yes	Yes	Yes	4A7GAT	Yes	Yes	Yes	Yes
2M2ZP8	Yes	Yes	Yes	Yes	4AJHNE	Yes	Yes	Yes	Yes
2P8JQN	Yes	Yes	Yes	Yes	4DRB3M	Yes	Yes	Yes	Yes
2RFTMR	Yes	Yes	Yes	Yes	4FCH4V	Yes	Yes	Yes	Yes
2WQY3Y	Yes	Yes	Yes	Yes	4FWYJX	Yes	Yes	Yes	Yes
2X4C8V	Yes	Yes	Yes	Yes	4GMBU4	Yes	Yes	Yes	Yes
2Z4PJM	Yes	Yes	Yes	Inc	4JTRB8	Yes	Yes	Yes	Yes
2ZMQBV	Yes	Yes	Yes	Yes	4JUKAF	Yes	Yes	Yes	Yes
37V7JK	Yes	Yes	Yes	Yes					

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
4N7HMU	Yes	Yes	Yes	Yes	7VGH3P	Yes	Yes	Yes	Yes
4UC22M	Yes	Yes	Yes	Yes	7YGR4J	Yes	Yes	Yes	Yes
4VPNLL	Yes	Yes	Yes	Yes	7YXE3	Yes	Yes	Yes	Yes
4WYVHM	Yes	Yes	Yes	Yes	7ZU47U	Yes	Yes	Yes	Yes
4YN9Z7	Yes	Yes	Yes	Yes	83AANN	Yes	Yes	Yes	Yes
64VY4C	Yes	Yes	Yes	Yes	83EH2H	Yes	Yes	Yes	Yes
6763XM	Yes	Yes	Yes	Yes	83F7NM	Yes	Yes	Yes	Yes
6AHPP8	Yes	Yes	Yes	Yes	8ADXWG	Yes	Yes	Yes	Yes
6ECJM9	Yes	Yes	Yes	Yes	8B67WK	Yes	Yes	Yes	Yes
6EYZQH	Yes	Yes	Yes	Yes	8BAFTQ	Yes	Yes	Yes	Yes
6K6WBH	Yes	Yes	Yes	Yes	8DDHC2	Yes	Yes	Yes	Yes
6LYMGW	Yes	Yes	Yes	Yes	8J2TWX	Yes	Yes	Yes	Yes
6X7HRL	Yes	Yes	Yes	Yes	8MLPFG	Yes	Yes	Yes	Yes
6XQ9MR	Yes	Yes	Yes	Yes	8MYEJU	Yes	Yes	Yes	Yes
764PPK	Yes	Yes	Yes	Yes	8NC7EV	Yes	Yes	Yes	Yes
7EU84U	Yes	Yes	Yes	Yes	97D9TF	Yes	Yes	Yes	Yes
7HTGGG	Yes	Yes	Yes	Yes	988YYU	Yes	Yes	Yes	Yes
7JPWQT	Yes	Yes	Yes	Yes	99DL9R	Yes	Yes	Yes	Yes
7PTQY3	Yes	Yes	Yes	Yes	99H2KT	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
9ATQ3J	Yes	Yes	Yes	Yes	B8TPQC	Yes	Yes	Yes	Yes
9BKYVL	Yes	Yes	Yes	Yes	BA3EFF	Yes	Yes	Yes	Yes
9H37UD	Yes	Yes	Yes	Yes	BFPFHE	Yes	Yes	Yes	Yes
9M2JFH	Yes	Yes	Yes	Yes	BLFPRD	Yes	Yes	Yes	Yes
9QGR4G	Yes	Yes	Yes	Yes	BM9LEL	Inc	Inc	Inc	Inc
9TKUMQ	Yes	Yes	Yes	Yes	BMPN2Z	Inc	Inc	Inc	Inc
9TKV74	Yes	Yes	Yes	Yes	BURNLN	Yes	Yes	Yes	Yes
9WJ6JQ	Yes	Yes	Yes	Yes	BWX7KJ	Yes	Yes	Yes	Yes
9YRDQQ	Yes	Yes	Yes	Yes	BYKQLG	Yes	Yes	Yes	Yes
A77QZ9	Yes	Yes	Yes	Yes	C6LLHL	Yes	Yes	Yes	Yes
ADQGUG	Yes	Yes	Yes	Yes	C73HBL	Yes	Yes	Yes	Yes
AFTPQE	Yes	Yes	Yes	Yes	C7Y3VZ	Yes	Yes	Yes	Inc
AT4XVR	Yes	Yes	Yes	Yes	CB9FDY	Yes	Yes	Yes	Yes
AWHQRC	Yes	Yes	Yes	Yes	CCNQEC	Yes	Yes	Yes	Yes
B2NNUN	Yes	Yes	Yes	Yes	CFQGY7	Yes	Yes	Yes	Yes
B76X22	Inc	Inc	Inc	Inc	CKRYPH	Yes	Yes	Yes	Yes
B7HM6D	Yes	Yes	Yes	Yes	CLBRUL	Yes	Yes	Yes	Yes
B8DERJ	Yes	Yes	Yes	Yes	CM2VJM	Yes	Yes	Yes	Yes
B8JBRJ	Yes	Yes	Yes	Yes	CNGYDE	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
CPA7HC	Yes	Yes	Yes	Yes	EBMK7G	Yes	Yes	Yes	Yes
CPAT9X	Yes	Yes	Yes	Yes	EDQFPK	Yes	Yes	Yes	Yes
CT8H7W	Yes	Yes	Yes	Yes	EDTXUA	Yes	Yes	Yes	Yes
CWN2AY	Yes	Yes	Yes	Yes	EE4P27	Yes	Yes	Yes	Yes
CZTKJT	Yes	Yes	Yes	Yes	EFFL7B	Yes	Yes	Yes	Yes
D27CBA	Yes	Yes	Yes	Yes	EMYR3G	Yes	Yes	Yes	Yes
D3Y3GN	Yes	Yes	Yes	Yes	ENCCVR	Yes	Yes	Yes	Yes
D498UD	Yes	Yes	Yes	Yes	EPJR4H	Yes	Yes	Yes	Yes
DBPQCR	Yes	Yes	Yes	Yes	EQEDXA	Yes	Yes	Yes	Yes
DCJDQF	Yes	Yes	Yes	Yes	ER6LWD	Yes	Yes	Yes	Yes
DDUKMG	Yes	Yes	Yes	Yes	EUDNTA	Yes	Yes	Yes	Yes
DLTXUC	Yes	Yes	Yes	Yes	EVM6L	Yes	Yes	Yes	Yes
DQK6CK	Yes	Yes	Inc	Inc	EWZC6A	Yes	Yes	Yes	Yes
DRTKJQ	Yes	Yes	Yes	Yes	EZZJNL	Yes	Yes	Yes	Yes
E6D98V	Yes	Yes	Yes	Yes	F2QVXR	Yes	Yes	Yes	Yes
E6JDRE	Yes	Yes	Yes	Yes	F7K368	Yes	Yes	Yes	Yes
E8N29P	Yes	Yes	Yes	Yes	FE3AAQ	Yes	Yes	Yes	Yes
E9FXXJ	Yes	Yes	Yes	Yes	FFCG9D	Yes	Yes	Yes	Yes
EAQZJH	Yes	Yes	Yes	Yes	FVLAUV	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
FXTJ8L	Yes	Yes	Yes	Yes	HDZJUL	Yes	Yes	Yes	Yes
FYN4UK	Yes	Yes	Yes	Yes	HL9V7J	Yes	Yes	Yes	Yes
G37J4D	Yes	Yes	Yes	Yes	HQKYWL	Yes	Yes	Yes	Yes
G8CG9B	Yes	Yes	Yes	Yes	HU6VG6	Yes	Yes	Yes	Yes
GD2W2N	Yes	Yes	Yes	Yes	HW9QZ9	Yes	Yes	Yes	Yes
GKK6H9	Yes	Yes	Yes	Yes	HWQGAT	Yes	Yes	Yes	Yes
GM7QAV	Yes	No	Yes	Yes	HYXR9G	Yes	Yes	Yes	Yes
GMM3TZ	Yes	Yes	Yes	Yes	J3G6QJ	Yes	Yes	Yes	Yes
GMQH8M	Yes	Yes	Yes	Yes	J6KZAM	Yes	Yes	Yes	Yes
GQN4UJ	Yes	Yes	Yes	Yes	J8CVYG	Yes	Yes	Yes	Yes
GXR6YJ	Yes	Yes	Yes	Yes	JF4JL7	Yes	Yes	Yes	Yes
GY3RVC	Yes	Yes	Yes	Yes	JFFFQB	Yes	Yes	Yes	Yes
GY86J9	Yes	Yes	Yes	Yes	JGVEBZ	Yes	Yes	Yes	Yes
H33HGH	Yes	Yes	Yes	Yes	JH6NYQ	Yes	Yes	Yes	Yes
H49ZFD	Yes	Yes	Yes	Yes	JM6QAL	Yes	Yes	Yes	Yes
H6JYFN	Yes	Yes	Yes	Yes	JWP3HD	Yes	Yes	Yes	Yes
H7KKKG	Yes	Yes	Yes	Yes	JYE9Y4	Yes	Yes	Yes	Yes
HBPLF6	Yes	Yes	Yes	Yes	JZ6CPQ	Yes	Yes	Yes	Yes
HC7TN8	Yes	Yes	Yes	Yes	K2FQHH	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
K3BC7G	Yes	Yes	Yes	Yes	LV4C4Q	Yes	Yes	Yes	Yes
K6XXX4	Yes	Yes	Yes	Yes	LZ3G7B	Yes	Yes	Yes	Yes
K8HXXK	Yes	Yes	Yes	Yes	M67WK	Yes	Yes	Yes	Yes
KC2T2C	Yes	Yes	Yes	Yes	M9UCHY	Yes	Yes	Yes	Yes
KFYEN9	Yes	Yes	Yes	Yes	MEDN9L	Yes	Yes	Yes	Yes
KGB99F	Yes	Yes	Yes	Yes	MFAVZD	Yes	Yes	Yes	Yes
KNEZXD	Yes	Yes	Yes	Yes	MHRBYJ	Yes	Yes	Yes	Yes
KPLBUG	Yes	Yes	Yes	Yes	MK4WZ8	Yes	Yes	Yes	Yes
KTP7DJ	Yes	Yes	Yes	Yes	MLE3W9	Yes	Yes	Yes	Yes
KVCPEG	Yes	Yes	Yes	Yes	MLQMUJ	Yes	Yes	Yes	Yes
KWJ6M9	Yes	Yes	Yes	Yes	MPZF7C	Yes	Yes	Yes	Yes
KWPG9J	Yes	Yes	Yes	Yes	MWY7MF	Yes	Yes	Yes	Yes
L74VM7	Yes	Yes	Yes	Yes	N4E4UZ	Yes	Yes	Yes	Yes
L7KWMM	Yes	Yes	Yes	Yes	N4RX9E	Yes	Yes	Yes	Yes
LGQRRD	Yes	Yes	Yes	Yes	NDGL4G	Yes	No	No	Yes
LLKTR7	Yes	Yes	Yes	Yes	NDWRGL	Yes	Yes	Yes	Yes
LMR9YC	No	Yes	No	No	NE9GRB	Yes	Yes	Yes	Yes
LPJ6N7	Yes	Yes	Yes	Yes	NEWPX9	Yes	Yes	Yes	Yes
LPY9HX	Yes	Yes	Yes	Yes	NJL8AY	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
NNY6MD	Yes	Yes	Yes	Yes	QDAXY9	Yes	Yes	Yes	Yes
NPUQAD	Yes	Yes	Yes	Yes	QFH9XX	Yes	Yes	Yes	Yes
NUNMY4	Yes	Yes	Yes	Yes	QGDN8A	Yes	Yes	Yes	Yes
NYFUHD	Yes	Yes	Yes	Yes	QHGTCC	Yes	Yes	Yes	Yes
NYJAWY	Yes	Yes	Yes	Yes	QJ2998	Yes	Yes	Yes	Yes
P4NHTT	Yes	Yes	Yes	Yes	QMCMAH	Yes	Yes	Yes	Yes
P629FH	Yes	Yes	Yes	Yes	QMUJU6	Yes	Yes	Yes	Yes
P8UX9C	Yes	Yes	Yes	Yes	QN77D6	Yes	Yes	Yes	Yes
PB67AG	Yes	Yes	Yes	Yes	QT79NZ	Yes	Yes	Yes	Yes
PDV8E6	Yes	Yes	Yes	Yes	QUY4B9	Yes	Yes	Yes	Yes
PGBNLN	Yes	Yes	Yes	Yes	QXXF89	Yes	Yes	Yes	Yes
PHDPZ	Yes	Yes	Yes	Yes	R2RVW8	Yes	Yes	Yes	Yes
PMGHFJ	Yes	Yes	Yes	Yes	R76LEV	Yes	Yes	Yes	Yes
PMZEU6	Yes	Yes	Yes	Yes	R7LXW2	Yes	Yes	Yes	Yes
PNDP8B	Yes	Yes	Yes	Yes	RCEUMD	Yes	Yes	Yes	Yes
PPMXV3	Yes	Yes	Yes	Yes	RD66CK	Yes	Yes	Yes	Yes
Q4PPG7	Yes	Yes	Yes	Yes	RG66XB	Yes	Yes	Yes	Yes
Q9F7KK	Yes	Yes	Yes	Yes	RGMFDV	Yes	Yes	Yes	Yes
QARWWA	Yes	Yes	Yes	Yes	RLFHEA	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
RLT7L3	Yes	Yes	Yes	Yes	UZV3C9	Yes	Yes	Yes	Yes
RZGYJQ	Yes	Yes	Yes	Yes	V2JZTD	Yes	Yes	Inc	Yes
T9V3CB	Yes	Yes	Yes	Yes	V3EHWZ	Yes	Yes	Yes	Yes
TA66XA	Yes	Yes	Yes	Yes	V4QHTU	Yes	Yes	Yes	Yes
TEXDYU	Yes	Yes	Yes	Yes	V6JBPD	Yes	Yes	Yes	Yes
TKLRAV	Yes	Yes	Yes	Yes	VACB6U	Yes	Yes	Yes	Yes
TLTBQ4	Yes	Yes	Yes	Yes	VC3EWF	Yes	Yes	Yes	Yes
TLUDAG	Yes	Yes	Yes	Yes	VC48UN	Yes	Yes	Yes	Yes
TNZNEW	Yes	Yes	Yes	Yes	VF2N94	Yes	Yes	No	Yes
TPUEKC	Yes	Yes	Yes	Yes	VF67DU	Yes	Yes	Yes	Yes
TVZXXH	Yes	Yes	Yes	Yes	VFJWXX	Yes	Yes	Yes	Yes
TWCU3M	Yes	Yes	Yes	Yes	VGG3HX	Yes	Yes	Yes	Yes
TY84K6	Yes	Yes	Yes	Yes	VHRUPU	Yes	Yes	Yes	Yes
U72V74	Yes	Yes	Yes	Yes	VJWJPG	Yes	Yes	Yes	Yes
UCQ98R	Yes	Yes	Yes	Yes	VMYKPE	Yes	Yes	Yes	Yes
UDC9U2	Yes	Yes	Yes	Yes	VMYKRZ	Yes	Yes	Yes	Yes
UFQJ27	Yes	Yes	Yes	Yes	VP7VN4	Yes	Yes	Yes	Yes
UU7H9T	Yes	Yes	Yes	Yes	VPADTT	Yes	Yes	Yes	Yes
UVWYTZ	Yes	Yes	Yes	Yes	VUZM3R	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
VYF6CW	Yes	Yes	Yes	Yes	XLXKN6	Yes	Yes	Yes	Yes
W6BL2R	Yes	Yes	Yes	Yes	XMQ6NX	Yes	Yes	Yes	Yes
W82NA2	Yes	Yes	Yes	Yes	XN6HF2	Yes	Yes	Yes	Yes
WE42NB	Yes	Yes	Yes	Yes	XNPFDY	Yes	Yes	Yes	Yes
WH2H3Q	Yes	Yes	Yes	Yes	XZ4DH3	Yes	Yes	Yes	Yes
WHGR7Y	Yes	Yes	Yes	Yes	Y342BX	Yes	Yes	Yes	Yes
WLPLGQ	Yes	Yes	Yes	Yes	Y4GBN6	Yes	Yes	Yes	Yes
WLZWNU	Yes	Yes	Yes	Yes	Y8YU9Y	Yes	Yes	Yes	Yes
WNPXW4	Yes	Yes	Yes	Yes	YCNGVR	Yes	Yes	Yes	Yes
WR8Z2N	Yes	Yes	Yes	Yes	YD6DMQ	Yes	Yes	Yes	Yes
WUH24A	Yes	Yes	Yes	Yes	YKMU2M	Yes	Yes	Yes	Yes
WYDRC7	Yes	Yes	Yes	Yes	YLE3ZP	Yes	Yes	Yes	Yes
X9DRED	Yes	Yes	Yes	Yes	YR4DJZ	Yes	Yes	Yes	Yes
X9XJC4	Yes	Yes	Yes	Yes	YWF3ZN	Yes	Yes	Yes	Yes
XBHC4X	Yes	Yes	Yes	Yes	YYLTZC	Yes	Yes	Yes	Yes
XDNTL3	Yes	Yes	Yes	Yes	YYMLYK	Yes	Yes	Yes	Yes
XDPU3U	Yes	Yes	Yes	Yes	Z7FDKJ	Yes	Yes	Yes	Yes
XFEWB3	Yes	Yes	Yes	Yes	ZAFNFJ	Yes	Yes	Yes	Yes
XJE3VZ	Yes	Yes	Yes	Yes	ZC9BGM	Yes	Yes	Yes	Yes

TABLE 1

WebCode	Item 2	Item 3	Item 4	Item 5	WebCode	Item 2	Item 3	Item 4	Item 5
ZD22M2	Yes	Yes	Yes	Yes					
ZFMRQR	Yes	Yes	Yes	Yes					
ZGFYT4	Yes	Yes	Yes	Yes					
ZHBL8T	Yes	Yes	Yes	Yes					
ZL9UMV	Yes	Yes	Yes	Yes					
ZVGBN3	Yes	Yes	Yes	Yes					
ZWDVB2	Yes	Yes	Yes	Yes					
ZYK786	Yes	Yes	Yes	Yes					

Response Summary						Participants: 347	
<i>Were any of the recovered questioned bullets (Items 2-5) fired in the same firearm as the known bullets (Item 1)?</i>							
Responses		<u>Item 2</u>	<u>Item 3</u>	<u>Item 4</u>	<u>Item 5</u>		
	Yes	343 (98.8%)	342 (98.6%)	339 (97.7%)	340 (98.0%)		
	No	1 (0.3%)	2 (0.6%)	3 (0.9%)	1 (0.3%)		
	Inc	3 (0.9%)	3 (0.9%)	5 (1.4%)	6 (1.7%)		

Conclusions

TABLE 2

WebCode	Conclusions
23UQRW	Items 1 through 5. Items 2, 3, 4, and 5 were Identified to Item 1.
23UTB9	The bullets identified from E-1 to E-7, corresponding to the item 1, are caliber .380, with rifling to the right (R-5) and were fired by the same firearm (identification).
248K3P	Our firearms and marks unit of the forensic laboratory performed the investigations of the items (sent by CTS) and came to the following results: The forensic material consists of in total 7 bullets (9 mm/.380) with following description: Item 1: Three bullets fired using the suspect's handgun (known) Items 2 – 5 Four (4) bullets recovered at the crime scene (questioned) The fired bullets (item 2, 3, 4, 5) have the same class characteristics. They also have the same class characteristics of the bullets fired from the seized pistol. The comparison of the striations of all the bullets show correlating traces to each other. In other words, all four (4) bullets from the crime scene were fired from the seized gun.
27XLBY	The four fired bullets (Items 1-2 through 1-5) were fired by the firearm in Item 1-1.
296YYR	As a result of my examination I formed the opinion that the four discharged cartridge cases listed as exhibits 2-5 had been discharged by the exhibit Smith & Wesson M&P Bodyguard 380 handgun.
2BM4MP	Items 2-5 were Identified to Item 1.
2CKG7B	The reference projectiles fired from the Smith & Wesson pistol, specimen #1, were microscopically compared to the copper jacketed projectiles, specimens #2 through #5. It was determined that specimens #2 through #5 were fired from the Smith & Wesson pistol, specimen #1.
2HQ2GM	Exhibits 2, 3, 4 and 5 were fired by the same firearm used to fire the test fires described on Exhibit 1 based on sufficient agreement of individual characteristics.
2KRB3P	Comparative examinations of Items 2 through 5 (four questioned bullets) against Item 1 (three known bullets) showed the presence of matching features. This means that Items 1 through 5 were fired in the same firearm . * *Source identification is reached when the discernable class and individual characteristics have corresponding detail and the examiner would not expect to see the same arrangement of details repeated in another source.
2LT2GK	Items 2, 3, 4, and 5 The four bullets were compared to a test-fired bullet from Item 1. Microscopic comparison of these bullets revealed that they have the same class of rifling and sufficient corresponding individual marks to conclude that Items 2, 3, 4, and 5 were fired in the Smith & Wesson pistol.
2M2ZP8	In my opinion a microscopical comparison of test fires from Item One against the recovered Items 2, 3, 4 & 5 has shown that there is sufficient agreement of class and individual characteristic markings to conclusively determine that Items 2, 3, 4 & 5 were all fired from the recovered weapon Item One.
2P8JQN	The below listed spent bullets were macroscopically and microscopically examined and compared with test bullets, Lab Evidence# 001-A1,Property# 20-5261, Item #1, from the S&W 380 auto handgun. It is my opinion that the below listed items were fired from this firearm (identification). Property# Lab Evidence# Item# Item Description 20-5261 001-A2 2 Spent 38 (380) caliber bullet 20-5261 001-A3 3 Spent 38 (380) caliber bullet 20-5261 001-A4 4 Spent 38 (380) caliber bullet 20-5261 001-A5 5 Spent 38 (380) caliber bullet. [Participant reported data in a format that could no be reproduced in this report].

TABLE 2

WebCode	Conclusions
2RFTMR	I microscopically compared Items 1A, 1B, and 1C to each other. I determined that Items 1A, 1B, and 1C were fired in the same firearm based on sufficient agreement of individual characteristics within the land impressions. I microscopically compared Item 1A to Items 2, 3, 4, and 5. I determined that Items 2, 3, 4, and 5 were fired in the same firearm as Item 1A based on sufficient agreement of individual characteristics within the land impressions. Sufficient agreement means the quantity and quality of the agreement of toolmarks produced by the firearm exceed the agreement of toolmarks produced by different firearms, such that the likelihood another firearm could have produced these marks is so remote as to be considered practically impossible.
2WQY3Y	The following findings reflect the professional opinion of the examiner authoring this report. Examination of the three (3) fired full metal jacket bullets (Item 1) revealed they are 380 caliber and fired through a firearm barrel rifled with five (5) lands and grooves with a right hand twist. Item 1 is reportedly test fired bullets from the recovered Smith & Wesson M&P Bodyguard 380 caliber semi-automatic pistol. Examination of the four (4) fired full metal jacket bullets (Items 2 through 5) revealed they are 380 caliber and fired through a firearm barrel rifled with five (5) lands and grooves with a right hand twist. Microscopic examination of Items 2 through 5 with Item 1 revealed Items 2 through 5 were fired through the same firearm barrel as Item 1.
2X4C8V	The submitted fired bullets, Items 01-01A through 01-01C and Items 01-02 through 01-05, were all fired from the same firearm.
2Z4PJM	The fired bullets (Items 2, 3, and 4) are identified as having been fired from the same firearm as the reported test shots, Items 1-T1 thru 1-T3. The submitted bullet (Item 5) is not identified or eliminated (Inconclusive) as having been fired from the submitted firearm. The individual characteristics present are not sufficient for identification purposes. 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. Item 5 is consistent with being a .38 caliber class (including .380 Auto caliber) fired metal jacketed bullet displaying conventional rifling specifications of 5 lands and grooves with a right twist.
2ZMQBV	The fired bullets in Submissions #1a-1e (boxes marked items 1-5) were microscopically compared and identified as having been fired from the same unknown firearm based on sufficient agreement in individual characteristics present to conclude an identification.
37V7JK	Items 1T1, 1T2, and 1T3 were three fired .380 Auto caliber copper jacketed bullets that were fired through a barrel with conventional right twist rifling of five lands and grooves. Items 2, 3, 4 and 5 were all .380 Auto caliber copper jacketed bullets that had been fired through a barrel(s) with right twist conventional rifling of five lands and grooves. Items 2, 3, 4, and 5 were intercompared to Items 1T1, 1T2, and 1T3 using a comparison microscope. Corresponding class and individual characteristics sufficient for an identification were observed. Items 2, 3, 4, and 5 were all fired in the same firearm as Items 1T1, 1T2, and 1T3.
38797H	The bullets (Items 2 through 5) were fired in the Smith & Wesson handgun.
38H4E4	Examinations showed Item 2, 3, 4 and 5 were discharged from the Smith & Wesson M&P Bodyguard 380.
3BMHDV	Items 2, 3, 4, 5 The bullets were Identified to the firearm represented by the Item 1 tests.
3EJ8RG	Items #2 through #5 were fired from Item #1.
3N8Z6Y	A microscopic examination and comparison of evidence received in this laboratory revealed

TABLE 2

WebCode	Conclusions
	the following: Items 2, 3, 4 and 5 were fired in the same Smith & Wesson BodyGuard pistol, caliber .380.
3QCQ7M	Items 2, 3, 4, and 5 The bullets were Identified to the Item 1 pistol.
3Z3BCK	The examination of the recovered fired bullet under a comparison microscope allows us to conclude that the item 2,3,4 and 5 were all fired from the seized Smith & Wesson M&P Bodyguard.
477HQN	The test fired bullets in Item 1-1 were microscopically compared to Items 1-2, 1-3, 1-4, and 1-5 and found to have corresponding individual characteristics. Therefore, Items 1-2, 1-3, 1-4, and 1-5 were fired from the firearm that produced Item 1-1.
49WG6L	Items 2 through 5 are identified as having been fired in the .380 Auto caliber Smith & Wesson, model M&P Bodyguard, semiautomatic pistol (received as test shots 1A through 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.
4A7GAT	Items 002 - 005 were fired in the same firearm as Item 001 (identification). This conclusions is also the opinion of Firearms Examiner [Name].
4AJHNE	PISTOL SMITH&WESSON M&P BODYGUARD,CALIBER 380AUTO (9X17MM), SERIAL NUMBER ????? FIRED BULLETS THAT INSCRIBED ITEM2, ITEM3, ITEM4 AND ITEM5.
4DRB3M	Items 2, 3, 4 and 5 were Identified to Item 1A.
4FCH4V	Items #2, #3, #4, and #5 were fired from the firearm submitted as Item #1 in this case.
4FWYJX	[No Conclusions Reported.]
4GMBU4	The items 2,3,4,5 are factory made bullets of .380 auto cartridges (ammunition). All bullets were usable for identification and were fired from the barrel of Smith & Wesson M&P Bodyguard .380 handgun, recovered from the vehicle.
4JTRB8	Assuming zero subclass contribution, based on correspondence in microscopic details in both land and groove impressions, Items 2 thru 5 were fired from the Smith & Wesson M&P Bodyguard pistol (Items 1A thru 1C).
4JUKAF	Items 1, 2, 3, 4 and 5 bullets were all fired through the same rifled gun barrel.
4N7HMU	1. Examinations showed Items 2, 3, 4, and 5 were discharged from the same firearm as Item 1.
4UC22M	RESULTS, OPINIONS, AND INTERPRETATIONS: Four fired bullets (Items 002, 003, 004, and 005) were compared microscopically to each other and to Item 001 (documented as test-fired bullets from a Smith & Wesson M&P Bodyguard 380 handgun). These items were all identified as having been fired by the same firearm. DEFINITIONS: Identification/Identified - A determination by the examiner that the items evaluated display agreement of all class characteristics, and the extent of agreement of individual characteristics meets or surpasses the level of agreement demonstrated by marks known to have been produced by the same firearm and exceeds that which can occur in marks made by different firearms. This means that the likelihood another firearm could have made the marks evaluated by the examiner is so remote as to be considered a practical impossibility.
4VPNLL	Item 001-1 is three nominal .38 caliber copper jacketed bullets that were reported to have been test fired in the Smith & Wesson M&P Bodyguard 380 Auto caliber pistol recovered from

TABLE 2

WebCode	Conclusions
	the suspect's vehicle. The projectiles from this firearm all have five land and grooves with a right hand twist. I microscopically compared Items 001-2, 001-3, 001-4, and 001-5 to one of the test fired bullets in Item 001-1. I observed agreement of all discernible class characteristics and sufficient agreement of individual characteristics to conclude that Item 001-2 through Item 001-5 were fired in the same firearm that produced the test fires in Item 001-1.
4WYVHM	Through macroscopic/microscopic examination and based on agreement of discernible class characteristics and sufficient corresponding individual detail, the fired bullets, Laboratory Items 1-5, were identified as having been fired from the same firearm.
4YN9Z7	1. The bullets identified E-1 to E-7, corresponding to item 1, are .380 caliber, with rifling to the right (R-5), and were fired by the same firearm (Identification).
64VY4C	Items 2, 3, 4, and 5 were identified as having been fired in the submitted firearm.
6763XM	All the items(#2, #3 #4, #5) were microscopically compared with item(#1). Based on these comparative examinations and observed class and individual characteristics, it was determined that: All items(#2, #3 #4, #5) were fired in the same firearm as the known bullets(#1).
6AHPP8	Item F1 consisted of item 1, three bullets test fired in the pistol recovered from the suspect, and items 2 through 5, four bullets recovered from the victim and crime scene. The items were each identified as expended nominal 9mm or 38 caliber bullets with five-right conventional rifling impressions. Based on correspondence of firearm related class characteristics and significant correspondence of individualizing characteristics, I determined that each of the items 2 through 5 bullets was fired from the firearm used to generate the item 1 test fired bullets.
6ECJM9	Items 2 thru 5 were fired from the same firearm that fired the Item 1 Test fires
6EYZQH	Exhibits 1-2, 1-3, 1-4, and 1-5 were microscopically identified as having been fired in the same firearm that fired Exhibit 1-1. Exhibits 1-2, 1-3, 1-4, and 1-5 were determined to be of 380 Auto caliber displaying rifling characteristics of 5 lands and grooves, right twist.
6K6WBH	Bullet Analysis: Methodology: Physical (Visual Examination); Electronic Balance/Digital Caliper/Digital Micrometer; Microscopy (Comparison Microscope). Items 2, 3, 4, and 5 are 38 caliber class bullets based upon the diameter. Items 2, 3, 4, and 5, the bullets, were fired through the barrel of the same firearm as Items 1A, 1B and 1C, the test fires, based upon corresponding class and individual microscopic characteristics. Opinion/Interpretation: Items 2, 3, 4, and 5 are consistent with bullets loaded in .380 Auto caliber cartridges based upon the weight and style.
6LYMGW	Item 1 is three 380 caliber fired bullets exhibiting rifling characteristics of five lands and grooves with a right hand twist. Items 2, 3, 4 and 5 are 380 class caliber fired bullets exhibiting rifling characteristics of five lands and grooves with a right hand twist. Based on an agreement of class and individual characteristics, Items 2, 3, 4 and 5 were identified as having been fired from the same firearm that fired Item 1.
6X7HRL	The Exhibit 2, 3, 4 and 5 bullets were fired from the same firearm that fired the Exhibit 1 bullets.
6XQ9MR	The three submitted projectiles, Item 1, were all fired from the same firearm, reportedly from a Smith and Wesson Model Bodyguard .380 Auto caliber pistol. The four submitted fired projectiles, Items 2 – 5, were fired from the same firearm as the submitted test fired projectiles, Item 1, reportedly from a Smith and Wesson Model Bodyguard .380 Auto caliber pistol.
764PPK	After microscopic comparison, it was determined that Items# 2, 3, 4, and 5 were fired from Item# 1 based on sufficient agreement of class and individual characteristics of the land

TABLE 2

WebCode	Conclusions
	impression marks.
7EU84U	Items #2, #3, #4, and #5 were fired by the firearm that fired the test fired bullets in Item #1.
7HTGGG	Our laboratory is not reporting potential associations in terms of "identification" or "inconclusive", but indicates the level of support that the observations bring to the proposition that the questioned bullet was fired in the firearm at the source of the control bullets as opposed to another unknown firearm. In the present case, we reached the following conclusions: The observations provide very strong support for the view that the questioned bullets under Items 2 and 3 were fired in the firearm at the source of the control bullets (Item 1), rather than in another unknown firearm. That is, our observations are at least 75'000 times more probable if the questioned bullets were fired in the same firearm as the bullets under Item 1, rather than in another firearm. The scale used by our laboratory has been published in: Marquis R, Biedermann A, Cadola L, Champod C, Gueissaz L, Massonnet G, et al. Discussion on How to Implement a Verbal Scale in a Forensic Laboratory: Benefits, Pitfalls and Suggestions to Avoid Misunderstandings. Science & Justice, 2016; 56 (5): 364-370. The observations provide strong support for the view that the questioned bullets under Items 4 and 5 were fired in the firearm at the source of the control bullets (Item 1), rather than in another unknown firearm. That is, our observations are at least 7'500 times more probable if the questioned bullets were fired in the same firearm as the bullets under Item 1, rather than in another unknown firearm.
7JPWQT	The projectiles in Items 2 through 5 were fired in the gun that fired the projectiles in Item 1, based on agreement observed in individual characteristics.
7PTQY3	I microscopically compared item 1, the three test-fired bullets, to items 2, 3, 4, and 5 and found all class characteristics to agree. I also found sufficient agreement for identification in the individual characteristics, including striations in the land impressions. I concluded that items 2, 3, 4, and 5 were fired in the recovered firearm.
7VGH3P	Item 1 consist of three test-fired bullets from a .380 Auto caliber Smith & Wesson pistol, Model M&P Bodyguard. Items 2 through 5 are .38 caliber/9mm full metal jacketed bullets fired from a barrel rifled with 5 lands, right twist. The Items 2 through 5 bullets were identified as having been fired from the barrel of the 1 pistol.
7YGR4J	Submission 001-2 (item #2) through 001-5 (item #5) fired bullets were microscopically compared. Items #2 through #5 fired bullets were identified as having been fired in the same firearm. Items 001-2 (item #2) through 001-5 (item #5) fired bullets were microscopically compared to 001-1 (item #1)(test fired bullets reported as being fired from a Smith & Wesson, M&P Bodyguard, .380 caliber pistol). Items #2 through #5 fired bullets were identified as having been fired from the Smith & Wesson pistol.
7YXE3	The bullets (Items 2-5) were fired in the same firearm as the known bullets (Item 1).
7ZU47U	The four bullets (2 - 5) were fired from the Smith & Wesson model M&P Bodyguard 380 pistol (1).
83AANN	Item 1 consists of three test fired bullets that were reported to have been fired from a .380 Auto caliber Smith & Wesson pistol, Model M&P Bodyguard 380. Items 2 through 5 are .380 Auto caliber copper jacketed round nose bullets that were fired from a barrel rifled with 5 grooves, right twist. The Item 2 through 5 bullets were identified as having been fired from the same barrel as the Item 1 test fires.
83EH2H	Examination of the Item 2 through Item 5 revealed them to be 380 caliber full metal jacketed fired bullets that had been fired from a firearm with a conventional rifled barrel consisting of

TABLE 2

WebCode	Conclusions
	five lands and grooves, right twist. Based on the agreement of class characteristics, Item 2 through Item 5 fired bullets were microscopically compared to test exemplars labeled as having been fired from the Item 1 pistol. The four fired bullets were identified as having been fired by the Smith & Wesson pistol based on the sufficient agreement of individual characteristics. The significance of these identifications is made to the practical, not absolute, exclusion of all other firearms.
83F7NM	I conducted a comparative microscopic examination between the three bullets (Item 1) and each of the single bullets in Items 2, 3, 4 and 5. This revealed that all four bullets (Items 2 to 5) were discharged through the same barrel (in the same firearm) as the bullets (Item 1).
8ADXWG	SUBMISSION 002, 003, 004, and 005: These projectiles were identified to the submission 001 projectiles that were submitted as having been fired from a Smith & Wesson M&P Bodyguard 380 pistol. All firearms were visually examined and test fired unless otherwise noted. The method of testing for ammunition components included visual examination and microscopic comparisons. The test results for the above listed items fall into one of the four conclusions listed below: 1. Identified: Agreement of all discernible class characteristics and sufficient agreement of individual characteristics where the extent of agreement leads to the conclusion that the items were fired in/from the same firearm. 2. Inconclusive: Could not be Identified or Eliminated. Due to possible changes in firearm operating surfaces from wear, corrosion, and ordinary fouling and differences in ammunition, cartridge cases and projectiles fired in the same firearm are sometimes not identifiable as such. 3. Eliminated: Significant disagreement of discernible class characteristics and/or individual characteristics leading to the conclusion that the items were not fired in/from that same firearm. 4. No Value/Unsuitable for Microscopic comparison: The item lacks individual characteristics for microscopic comparison. This might also include items that did not come from ammunition or ammunition components. When applicable, all NIBIN correlations and leads were viewed and/or generated by the ATF Correlation Center.
8B67WK	The recovered bullets in items 2 through 5 were examined and determined to be consistent in size, weight, shape and composition with 380 Auto caliber bullets. These bullets were microscopically compared to each other and the test fired bullets in item 1. It was determined that the bullets in items 2 through 5 were all fired in the recovered Smith & Wesson M&P Bodyguard 380 pistol.
8BAFTQ	Item 2, item 3, item 4 and item 5 were fired from the same firearm that fired the bullets marked as item 1.
8DDHC2	In my opinion, there is sufficient agreement of class and individual marks to conclude that items 2,3,4 and 5 were fired in the same gun used to generate item 1.
8J2TWX	NOTES: Date Worked 07/22/2020. Test bullet # 1, Item 1 was compared microscopically to Items 2, 3, 4 and 5 and was found to have a sufficient agreement between striations; therefore, Items 2, 3, 4 and 5 were fired from the same firearm as Item 1. Items 1, 2, 3, 4 and 5 will be forwarded to the Property Custody Division. Equipment used: Leeds LCF3 Comparison Microscope Serial # 488878 Torbal Balance Model AD60 Serial # 100602123. REPORT: Items 1, 2, 3, 4, 5. A microscopic comparison was conducted between Test bullet # 1, Item 1 and Items 2, 3 and 4. The examinations determined that Items 2, 3 and 4 were fired from the same firearm that fired Item 1 due to a sufficient agreement between striations. Disposition: Items 1, 2, 3, 4 and 5 will be forwarded to the Property Custody Section.
8MLPFG	Comparisons performed between the bullets (Items 1, 2, 3, 4, 5) resulted in an identification. Based on these comparisons, the bullets (Items 2-5) have been identified as having been fired from the barrel of the .380 Smith & Wesson firearm used to test fire Item 1.

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8MYEJU	As a product of the comparison of the close projectiles in boxes marked as Items 2, 3, 4 and 5, reason for study, in relation to the close samples (Item 1) obtained from the Smith & Wess M&P Bodyguard .380 Auto firearm, it establishe that they present uniprocedence, that is, the close projectiles in the boxes marked as Items 2, 3, 4 and 5 were fired by the firearm in question.
8NC7EV	Items 2 through 5 were identified as having been fired by the same firearm that fired Item 1 based on the agreement of class and individual characteristics.
97D9TF	Items 2 through 5 (each a fired bullet) were fired from the same firearm which fired item 1 (test fired bullets).
988YYU	see Report. [Report not provided by participant].
99DL9R	The comparative study yielded IDENTIFICATION OF UNIPROCEDENT, that is to say that there is agreement between class characteristics and individual characteristics, which indicates that the reference shells and the questioned shells were fired at the same firearm.
99H2KT	Based on an agreement of class and individual characteristics, Items 2 through 5 were identified as having been fired from the same firearm as Item 1.
9ATQ3J	Exhibit 1 and exhibits 2, 3, 4 and 5 were microscopically examined and identified as having been fired from the same firearm based on the agreement of the combination of individual characteristics and all discernible class characteristics. The conclusions in this report are the opinion of the undersigned examiner. When a conclusion is verified it is also the opinion of the verifier.
9BKYVL	1. The Item QA-02 through QA-05 bullets were identified, within the limits of practical certainty, as having been fired by the same firearm as the QA-01 test fired bullets. 2. There is one firearm represented by Items QA-02 through QA-05.
9H37UD	The four (4) 380 Auto caliber missiles (items #2 - #5) were microscopically examined and were determined to have been fired by the Smith and Wesson model pistol (item #1).
9M2JFH	Laboratory examinations were conducted and it is the finding of this examiner that projectiles A through D (items 2 through 5) were fired in the summited .380 Auto Smith & Wesson pistol, model M&P Bodyguard 380.
9QGR4G	1. Examination of Exhibit 1 revealed three .380 Auto bullets labeled as test standards from the recovered Smith and Wesson M&P Bodyguard 380 pistol. 2. Examination of Exhibits 2 through 5 revealed four .380 caliber bullets. 3. Microscopic comparison revealed that Exhibits 2 through 5 were fired from the same firearm as Exhibit 1 based on agreement of discernible class characteristics and sufficient agreement of individual characteristics.
9TKUMQ	Items #2, #3, #4, and #5 were fired in the same firearm as Item #1.
9TKV74	1. A microscopic comparative examination of Bullets B-1 through B-4 (Items 2, 3, 4 and 5) against each other and Pistol P-1 (Item 1), disclosed that Bullets B-1 through B-4 were discharged from Pistol P-1.
9WJ6JQ	Items 2, 3, 4, and 5 were fired in the same firearm as the known bullets in Item 1.
9YRDQQ	The projectiles in Items 2 through 5 were fired in the same gun that fired the projectiles in Item 1, based on agreement observed in individual characteristics.
A77QZ9	Using the Bayesian approach in casework we view our findings under two hypotheses, namely: H1: The questioned bullet was fired with the submitted firearm. H2: The questioned bullet was

TABLE 2

WebCode	Conclusions
	fired with another firearm of the same caliber and with the same class characteristics as the submitted firearm. The likelihood of the findings under the two hypotheses is estimated. The likelihood ratio is expressed on a verbal scale: Approximately equally probable (LR = 1-2); Slightly more probable (LR = 2-10); More probable (LR = 10-100); Much more probable (LR = 100-10,000); Very much more probable (LR = 10,000-1,000,000); Extremely more probable (LR = >1,000,000). Item 2: The findings of the examination are at least very much more probable if H1 is true than if H2 is true. Item 3: The findings of the examination are at least very much more probable if H1 is true than if H2 is true. Item 4: The findings of the examination are at least very much more probable if H1 is true than if H2 is true. Item 5: The findings of the examination are at least very much more probable if H1 is true than if H2 is true.
ADQGUG	Comparison microscope examinations were conducted and it is the finding of this examiner that projectiles A through D were fired in the .380 Auto Smith & Wesson pistol, model M&P Bodyguard 380.
AFTPQE	The fired bullets items 2-5 are identified to test shots reportedly from a .380 Auto caliber, Smith & Wesson, M&P Bodyguard 380. 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.
AT4XVR	The questioned bullets, identified on Item 2, Item 3, Item 4 and Item 5, were part of the same .380 Auto caliber cartridges; which were fired with the suspicious weapon, Smith & Wesson M&P Bodyguard Caliber .380 Auto.
AWHQRC	CTS Items 2 through 5 were compared to the test-fired bullets in CTS Item 1 using a comparison microscope. Based on these comparisons, it is my opinion that there was agreement of discernable class characteristics and sufficient agreement of individual characteristics to conclude that all the bullets were fired from the same firearm.
B2NNUN	Items 2, 3, 4, and 5 were fired by the firearm that fired Item 1.
B76X22	It is highly likely that the fired bullets, items 2, 3, 4, and 5, were fired from the Smith and Wesson M&P pistol.
B7HM6D	The submitted fired bullets (Items 2 through 5) are identified as having been fired from the same firearm as the submitted test shots (Items 1-1, 1-2, and 1-3). 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.
B8DERJ	The incriminated projectiles described as Item 2, 3, 4, 5, were fired by the firearm, pistol type, caliber 380 auto, Smith & Wesson brand, model M&P, corresponding to the projectiles of Item 1.
B8JBRJ	My examination showed the fired bullets contained in Items 2, 3, 4 and 5 had been fired by the exhibit pistol Item 1.
B8TPQC	The Items 2 through 5 fired bullets and the Item 1 test fired bullets were examined and microscopically compared to each other. The results are that the Items 2 through 5 were identified as having been fired in the same firearm as the Item 1 test fires.
BA3EFF	The Item 2, 3, 4, and 5 bullets were Identified to the Item 1 firearm.

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WebCode	Conclusions
BFPFHE	Items 001-01-A through 001-01-C and 001-02 through 001-05 are seven nominal .38 caliber fired metal jacketed bullets most similar to bullets loaded in 380 Auto caliber cartridges based on weight and design features. I microscopically compared Items 001-02 through 001-05 to the test fired bullets from the Smith & Wesson pistol, Items 001-01-A through 001-01-C. I observed agreement of all discernable class characteristics and sufficient agreement of individual characteristics to conclude that Items 001-02 through 001-05 were fired from the Smith & Wesson pistol.
BLFPRD	Items 2, 3, 4, and 5 were identified as having been fired in the same firearm as Item 1 based on sufficient agreement of class and individual characteristics.
BM9LEL	Microscopic examination and comparison revealed that Items 2-5 could neither be identified nor eliminated as having been fired from the same unknown firearm or from the same firearm that reportedly fired the Item 1 test fires, due to insufficient agreement / disagreement of individual characteristics; however, similar class characteristics were noted. Visual and microscopic examination of Items 2-5, revealed them to be 38 / 9mm caliber-class bullets fired from a firearm with a rifling pattern of five (5) lands and grooves with a right twist. The size, weight and configuration of Items 2-5 are most consistent with bullets typically found loaded in 380 Auto cartridges. Firearms with a similar rifling pattern include, but are not limited to, the following: Smith & Wesson brand 380 Auto semi-automatic pistols. The list of possible firearms was generated using an in-house expanded version of the General Rifling Characteristics Database created by the Federal Bureau of Investigation. This is not meant to be an all-inclusive list but rather an investigative aide, any suspect firearm of the appropriate caliber-class should be submitted for comparison; however, a complete list of the search results will be maintained in the case file.
BMPNZZ	The bullets, Exhibits 2, 3, 4 and 5, could be neither identified nor eliminated as having been fired from the same firearm as the bullets, Exhibit 1.
BURNLN	Examinations showed that Item 2, Item 3, Item 4 and Item 5 were discharged from the same firearm as the known bullets (Item 1).
BW7XKJ	The results strongly support that the bullets Item 2, Item 3, Item 4 and Item 5 have been fired in the same firearm as the bullets Item 1. No other connections have been observed.
BYKQLG	Through macroscopic/microscopic examination and based on agreement of discernible class characteristics and sufficient corresponding individual detail, the fired bullets, Laboratory Items 1-5, were identified as having been fired from the same firearm.
C6LLHL	MICROSCOPIC COMPARISON EXAMINATIONS OF THE EVIDENCE BULLETS ITEM 2 THROUGH ITEM 5 AND THE TEST FIRED BULLETS ITEM 1 FROM THE S&W M&P BODYGUARD .380 AUTO PISTOL K1 HAVE REVEALED THAT SUFFICIENT AGREEMENT OF INDIVIDUAL CHARACTERISTICS EXISTS TO IDENTIFY THE EVIDENCE BULLETS ITEM 2 THROUGH ITEM 5 AS HAVING BEEN FIRED WITH THE S&W .380 AUTO PISTOL K1. Sufficient agreement is related to the significant duplication of random toolmarks as evidenced by a pattern or combination of patterns of surface contours. "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.
C73HBL	The incriminated bullet recovered from the victim and the three bullets recovered at the crime scene were fired by the same seized .380 caliber Smith & Wess pistol type firearm.
C7Y3VZ	A. Items 2, 3, and 4 were determined to be .38 caliber class spent projectiles and all discernible general rifling characteristics are in agreement. B. As a result of physical, visual,

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	and microscopic comparative analysis it is my opinion that Items 2, 3, and 4 have sufficient agreement of the individual characteristics to each other and to the test specimens in Item 1. C. Items 2, 3, and 4 are all identified as having been fired by the Smith and Wesson MP Bodyguard .380 Auto caliber handgun or another firearm with the same general rifling characteristics which could produce the same quality and quantity of individual characteristics. D. Item 5 is a .38 caliber class spent projectile and exhibits agreement with all discernible general rifling characteristics as Items 1, 2, 3, and 4; there is some agreement of individual characteristics however the quantity and quality is not in sufficient agreement to meet the standard for Identification. The Smith and Wesson MP Bodyguard .380 Auto caliber handgun can neither be identified as the source of Item 5, nor can it be eliminated as not having fired Item 5.
CB9FDY	Evidence Submitted: Item 1: Three (3) fired bullets. Test fires from Smith & Wesson M&P Bodyguard .380 Auto caliber pistol, serial number unknown. Item 2: One (1) fired bullet Item 3: One (1) fired bullet Item 4: One (1) fired bullet Item 5: One (1) fired bullet Results/Conclusions: The four (4) fired bullets, items 2, 3, 4 and 5, were each identified as having been fired in the Smith & Wesson pistol, item 1. Digital images were taken of all items of evidence and will be on file at the Crime Lab and will be available upon request.
CCNQEC	Laboratory evidence items 1 (1.2, 1.3, 1.4 and 1.5) were microscopically compared to test fired bullets contained in laboratory evidence item 1 (1.1), with the following results. The expended bullets contained in laboratory evidence item 1 (1.2, 1.3, 1.4 and 1.5) were all identified as having been fired from the same firearm that produced the test fired bullets in laboratory item 1 (1.1).
CFQGY7	Compare Items 1-2, 1-3, 1-4, and 1-5 to the test shot Item 1-1-3. Blue dot below and above land impressions and red dot above land impression. See images. [No images provided by participant].
CKRYPH	Item 1 through Item 5 are jacketed round nose bullets from the .38 Caliber family (which includes .380 Auto caliber). Items 2 through 5 were identified as having been fired from the same barrel that fired the Item 1 bullets.
CLBRUL	The projectiles in Items 2, 3, 4 and 5 were fired in the same gun that fired the projectiles in Item 1, based on agreement observed in individual characteristics.
CM2VJM	Lab Item(s)/ Designator(s): 1, 2, 3, 4, 5. Item Type: Fired bullet evidence. Microscopic Findings: Identification - fired by the same firearm.
CNGYDE	PROJECTILES: Item 1A, Item 1B, Item 1C, Item 2, Item 3, Item 4, Item 5. The bullets were Identified to each other. The bullets are 38 caliber class (380/9mm) based on their design features. Item 1C displays rifling characteristics similar to firearms by Smith & Wesson, among others.
CPA7HC	The findings of this examiner are the following: Exhibits 2 through 5 were fired from exhibit 1 (.380 Auto caliber Smith & Wesson model M&P firearm) based on sufficient agreement of individual characteristics observed.
CPAT9X	The Items 2, 3, 4, and 5 bullets were fired from the same firearm as the Item 1 test-fired bullets.
CT8H7W	Item 002, Item 003, Item 004, and Item 005 were microscopically compared to Item 001 and were identified as having been fired from the same firearm barrel as Item 001 due to correspondence of all discernible class characteristics and sufficient agreement of individual characteristics.

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WebCode	Conclusions
CWN2AY	The questioned bullets (Items 2-5) were fired from one (the same) firearm. The questioned bullets (Items 2-5) were fired from the same firearm as the known bullets (Item 1).
CZTKJT	The three-fired bullets in Exhibit 1 were microscopically compared to each other and to the fired bullets in Exhibits 2, 3, 4 and 5. Based on an agreement of class characteristics and sufficient agreement of individual characteristics, Exhibits 2, 3, 4 and 5 were identified as having been fired from the same firearm as Exhibit 1. The probability that Exhibits 2, 3, 4 and 5 were fired in a different firearm, other than the firearm that fired Exhibit 1, is so small that it is negligible. These conclusions conform with the relevant [Laboratory] policy on Uniform Language for Testimony and Reports available at [Website].
D27CBA	Bullet Analysis: Methodology: Physical (Visual Examination); Electronic Balance/Caliper/Digital Micrometer; Microscopy (Comparison Microscope). Items 2, 3, 4, and 5 are 38 caliber class bullets based upon the diameter. Items 2, 3, 4, and 5, the bullets, were fired through the barrel of the Smith & Wesson pistol, recovered firearm based upon corresponding class and individual microscopic characteristics. Opinion/Interpretation: Items 2, 3, 4, and 5 are consistent with bullets loaded in .380 Auto caliber cartridges based upon the weight and style.
D3Y3GN	The four jacketed bullets (Items 2-5) were microscopically compared to test fired bullets from the Smith & Wesson, model M&P Bodyguard 380, .380 Auto caliber pistol (Item 1). Based on sufficient corresponding individual barrel markings observed, the four jacketed bullets (Items 2-5) were identified as having been fired in the Smith & Wesson pistol (Item 1).
D498UD	Comparison microscope examinations were conducted and it is the finding of this examiner that projectiles A through D (Items 2 through 5) were fired in the submitted .380 Auto Smith & Wesson pistol, model M&P Bodyguard 380(Item1).
DBPQCR	The questioned 38 caliber class bullets (Items 2,3,4,5) were fired in the same firearm as the known bullets (Item 1).
DCJDQF	Microscopic examination and comparison of the four (4) fired 380 caliber bullets Items 2, 3, 4 and 5 to the three (3) fired 380 Auto caliber bullets Item 1 reveals corresponding class characteristics along with matching individual barrel engraved striations with significant duplication of patterns establishing that the four (4) fired bullets Items 2, 3, 4 and 5 were all fired from the same 380 caliber pistol as the three (3) fired 380 Auto caliber bullets Item 1. (Identification)
DDUKMG	Items #2, #3, #4 and #5 were all fired in Item #1.
DLTXUC	The Item 1, 2, 3, 4 and 5 bullets were Identified to each other.
DQK6CK	Visual and microscopic examination of the metal jacketed bullets (Items 1, 1(A, B) and 2 through 5) revealed they are consistent with 38 caliber bullets having six land and groove impressions with right twist and having been originally loaded in a 380 Auto cartridge. Common firearms with the same general rifling characteristics as the metal jacketed bullets (Items 1, 1(A, B) and 2 through 5) include, but are not limited to, the following: Smith & Wesson. All 38 caliber firearms encountered during the course of this investigation should be submitted to the [Laboratory] for examination. Microscopic comparison of the metal jacketed bullets (Items 1, 1A, 1B, 2 and 3) revealed sufficient agreement of individual characteristics to conclude that they were fired through the same barrel. Microscopic comparison of the metal jacketed bullets (Items 4 and 5) revealed sufficient agreement of individual characteristics to conclude that they were fired through the same barrel. Microscopic comparison of the metal jacketed bullets (Items 1, 1A, 1B, 2 and 3) failed to reveal sufficient quantity and quality of individual characteristics to determine whether or not they were fired through the same barrel as the metal jacketed bullets (Items 4 and 5). Evidence examined for this report will be returned

TABLE 2

WebCode	Conclusions
	to the [Laboratory] Quality Manager.
DRTKJQ	The bullets in Items 2, 3, 4 and 5 were discharged from the same barrel which discharged the bullets in Item 1. These identifications are based on an agreement of both class and individual characteristics.
E6D98V	Item 1 bullets (from recovered firearm) and Items 2 through 5 bullets were fired by the Smith and Wesson M&P Bodyguard 380 Auto caliber recovered handgun.
E6JDRE	Through macroscopic/microscopic examination and based on agreement of discernible class characteristics and sufficient corresponding individual detail, the fired bullets, Laboratory Items 1-5, were identified as having been fired from the same firearm.
E8N29P	All of the fired bullets in Items #2, #3, #4 and #5 were fired by the firearm in Item #1
E9FXXJ	The seven fired bullets (1-01 "a"- "c" and 1-02 - 1-05) were identified as having been fired from the same firearm due to consistent and repeatable marks.
EAQZJH	Items 001-02 through 001-05 were fired from the same firearm as Item 001-01 (Identification). This is also the opinion of a second verifying examiner.
EBMK7G	Based on the agreement of individual characteristics and all discernible class characteristics, it was determined that the three shell casings from the scene and the shell casing from the autopsy were all fired in the Smith & Wesson pistol. (Identification).
EDQFPK	Q1B THROUGH Q4B WERE FIRED WITH K1.
EDTXUA	1) Examination of Exhibit 1 revealed three non-ferromagnetic, fired bullets that were disclosed to be test fired from a .380 Auto caliber Smith & Wesson, model M&P Bodyguard, with an unknown serial number. 2) Examination of Exhibit 2 revealed one non-ferromagnetic, fired .380 Auto caliber bullet with five lands and grooves, right twist. 3) Examination of Exhibit 3 revealed one non-ferromagnetic, fired .380 Auto caliber bullet with five lands and grooves, right twist. 4) Examination of Exhibit 4 revealed one non-ferromagnetic, fired .380 Auto caliber bullet with five lands and grooves, right twist. 5) Examination of Exhibit 5 revealed one non-ferromagnetic, fired .380 Auto caliber bullet with five lands and grooves, right twist. 6) Exhibits 1 through 5 were microscopically compared to each other. An agreement of class characteristics and a sufficient agreement of individual characteristics was observed between Exhibit 1, Exhibit 2, Exhibit 3, Exhibit 4, and Exhibit 5. Thus, it was concluded that Exhibit 1, Exhibit 2, Exhibit 3, Exhibit 4, and Exhibit 5 were fired from the same firearm.
EE4P27	The fired bullets in Items 2, 3, 4, and 5 were identified as having been fired from the firearm in Item 1.
EFFL7B	Items 2 through 5 (fired bullets) are identified as having been from Item 1 (fired bullet test shots). 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. Items 1 through 5 are consistent with being .38/9mm caliber class fired bullets displaying conventional rifling specifications of five lands and grooves with a right twist.
EMYR3G	The bullets in Item 1 (A, B, C) were visually inspected. The bullets in Items 2, 3, 4, and 5 were identified to the bullet Item 1(C).
ENCCVR	Items 2, 3, 4 and 5: A microscopic comparison was conducted between Test bullet #1 (Item 1) that was fired from the recovered firearm and Items 2, 3, 4 and 5. The examinations determined that Items 2, 3, 4 and 5 were fired from the recovered firearm due to sufficient

TABLE 2

WebCode	Conclusions
	agreement between striations. Disposition: All of the above evidence will be held in the Firearms Section of the laboratory. All firearm comparison examinations were conducted using the AFTE's (Association of Firearm & Tool Mark Examiners) Theory of Identification. Identifications are the opinion of a qualified examiner that two tool marks were made by the same tool based on sufficient agreement of individual characteristics. The agreement of individual characteristics is of a quantity and quality that the likelihood another (different) tool could have made the mark is so remote as to be considered a practical impossibility. All exclusions and inconclusive findings were based upon exemplars available at the time of the examinations.
EPJR4H	The items #2-5 projectiles were fired from the same firearm as the item #1 tests. This is based on agreement of all discernable class characteristics and sufficient agreement of individual characteristics found in the land impressions.
EQEDXA	1) Exhibits 1 (Three .380 Metal Jacketed Bullets), 2 (One .380 Metal Jacketed Bullet), 3 (One .380 Metal Jacketed Bullet), 4 (One .380 Metal Jacketed Bullet), and 5 (One .380 Metal Jacketed Bullet) were visually examined and microscopically compared to each other. a) The Exhibits 1, 2, 3, 4, and 5 bullets were all fired from the same firearm based on an agreement of class characteristics and a sufficient agreement of individual characteristics .
ER6LWD	The four questioned bullets in "Item 2" to "Item 5" were fired from the firearm that fired the three bullets in "Item 1".
EUDNTA	1. Based on the agreement of all discernible class characteristics and sufficient agreement of individual characteristics, with no apparent subclass influence, it was concluded that the bullets in Exhibits 1, 2, 3, 4, and 5 were fired in the same firearm.
EWVM6L	The fired bullets in Item #1 are of 380 caliber and exhibit 5 land and groove impressions with a right hand twist. The fired bullets in Items #2 through #5 are each of 380/38 class caliber and exhibit 5 land and groove impressions with a right hand twist. Items #2 through #5 were fired by the same "Known Firearm" that fired Item #1.
EWZC6A	Items #2-5 These fired bullets were compared microscopically with tests fired in the recovered firearm, Item #1. Based on the agreement of all discernible class characteristics and sufficient agreement of corresponding individual characteristics, these bullets have been identified as having been fired from the recovered firearm, Item #1.
EZZJNL	The bullets (Items 2, 3, 4 and 5) were fired in the same firearm as the known bullets (Item 1).
F2QVXR	Items 2 through 5 were Identified to Item 1.
F7K368	The fired bullets, items #2-5, were microscopically identified as having been fired from the same firearm that fired the test fired bullets of item #1.
FE3AAQ	Items 2, 3, 4, 5: A microscopic comparison was conducted between Test bullet # 1, Item 1 that was fired from the recovered firearm and Items 2, 3, 4 and 5. The examinations determined that Items 2, 3, 4 and 5 were fired from the recovered firearm, due to a sufficient agreement between striations. Disposition: The above listed evidence will be forwarded to the Property Custody Section.
FFCG9D	The three test fired bullets (Item 1) and the four individually packaged bullets (Items 2, 3, 4, 5) were microscopically intercompared to one another with the following results: Items 2, 3, 4, and 5 were all fired in the same firearm that produced the test fired bullets in Item 1 based on agreement of all discernable class characteristics and agreement of individual characteristics.
FVLAUV	Macroscopic comparisons made between the four (04) questioned bullets showed that they

TABLE 2

WebCode	Conclusions
	were fired by the same firearm. Macroscopic comparisons made between the four (04) incriminated bullets and the test fired in the recovered firearm showed that they were fired by the same firearm (Smith & Wesson M&P Bodyguard 380 handgun).
FXTJ8L	Item 1 A through C (Known Test Bullets) were used for comparison to unknown fired bullets (Items 2 through 5). Items 2 through 5 (unknown bullets) are 380/38 caliber class bullets exhibiting rifling characteristics of 5 lands and grooves with a right-twist. Items 2 through 5 were suitable for further comparison. Items 2 through 5 (unknown bullets) were identified as having been fired by the same firearm that fired Item 1 (Known Test Bullets) based on the agreement of class and individual characteristics.
FYN4UK	The four (4) incriminated bullets described in this report in items 2,3,4,5, and the bullets described in item 1, taken as standard samples from the suspected firearm pistol-type brand SMITH & WESSON, Model M&P BODYGUARD have individual characteristics of uni-precedence with each other, which allow to establish that they were shot through the same barrel of the aforementioned firearm.
G37J4D	The four exhibit fired bullets (Items 2, 3, 4 & 5) were discharged in the exhibit S&W, M&P pistol (Item 1).
G8CG9B	The items 2, 3, 4 and 5 fired bullet specimens were fired from the same firearm as the item 1 (known) fired bullet specimens.
GD2W2N	See attached report. [Report not provided by participant].
GKK6H9	The four fired metal jacketed bullets (Items 2, 3, 4, and 5) are identified as having been fired from Item 1 (Smith & Wesson M&P Bodyguard 380 pistol). ** 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. **
GM7QAV	Microscopic comparison made between test shots from the submitted Firearm (Item #1) and recovered Projectiles (Item #2, Item #3, Item #4, Item #5) with the following results: Items #2, #4, #5 POSITIVE Identification. Item #3 Negative Elimination. Items #2, #4, #5 were fired by the submitted Firearm. Item #3 was fired by a different (second) Firearm.
GMM3TZ	The fired bullets in Items #2, #3, #4, and #5 were fired by the firearm in Item #1.
GMQH8M	The fired bullets in Item #2, Item #3, Item #4, and Item #5 were fired from the same firearm that fired the bullets in Item #1.
GQN4UJ	Items #2, #3, #4, and #5 were fired in Item #1.
GXR6YJ	By means of microscopic comparison, the bullets (items 1, 2, 3, 4 and 5) were identified as having been fired from the same firearm. This qualitative identification is based on the agreement of all discernible class and sufficient agreement of individual characteristics.
GY3RVC	Items 1-2, 1-3, 1-4, and 1-5 were fired by Item 1-1.
GY86J9	1. Exhibit 1 contains three fired bullets. Exhibits 2 through 5 each contain one fired bullet. Examination revealed each fired bullet in Exhibits 1 through 5 is .380 / 38 class caliber containing five land and groove impressions with a right hand twist. 2. The fired bullets in Exhibits 1 through 5 were microscopically compared and were determined to be fired from the same firearm based on an agreement of class characteristics and a sufficient agreement of individual characteristics.

TABLE 2

WebCode	Conclusions
H33HGH	1. The three bullets (Item 01-01) were fired from a single firearm; presumably the Smith & Wesson pistol listed in the given scenario. 2. The four bullets (Items 01-02 - 01-05) were fired from the same Smith & Wesson pistol that fired the bullets (Item 01-01).
H49ZFD	The seven submitted bullets (Items 1A, 1B, 1C, 2, 3, 4, and 5) were fired from the same firearm.
H6JYFN	There is sufficient agreement of a combination of individual characteristics and all discernible class characteristics for me to opine that bullet items 2, 3, 4 and 5 were discharged from one and the same handgun as test bullet items 1.
H7KKKG	MICROSCOPIC COMPARISONS BETWEEN EVIDENCE BULLET SPECIMENS ITEM #2 THROUGH ITEM #5 (Q1B THROUGH Q4B) AND THE TEST FIRED BULLETS FROM FIREARM ITEM 1 (K1: S&W M&P BODYGUARD .380 AUTO), REVEAL THAT SUFFICIENT AGREEMENT OF INDIVIDUAL CHARACTERISTICS EXISTS TO IDENTIFY THE FOLLOWING: ITEM #2 THROUGH ITEM #5 (Q1B THROUGH Q4B) WERE FIRED WITH S&W FIREARM ITEM #1 (K1). "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.
HBPLF6	The results strongly support the hypothesis, that the aforementioned bullets were fired in the seized firearm.
HC7TN8	Projectiles A through D (Item 2 through Item 5) were fired in the submitted .380 Auto Smith and Wesson pistol, model M&P Bodyguard.
HDZJUL	Item 1 is three (3) known fired .380 Auto caliber, copper-jacketed bullets, that were fired from a rifled barrel with five (5) lands and grooves, right twist. Items 2, 3, 4, and 5 are four (4) fired .38/9 class caliber, copper-jacketed bullets, that were fired from a rifled barrel with five (5) lands and grooves, right twist. Items 2, 3, 4, and 5 were microscopically compared to each other and to the Item 1 test fired bullets and identified as having been fired from the same firearm.
HL9V7J	Items 1-2, 1-3, 1-4 and 1-5 - Identification - fired by Item 1-1.
HQKYWL	Items 1, 2, 3, 4, 5: A microscopic comparison was conducted between Test bullets #1, 2, Item 1 that was fired from the recovered firearm and Items 2, 3, 4 and 5. The examinations determined that Items 2, 3, 4 and 5 were fired from the recovered firearm, due to a sufficient agreement between striations. Disposition: The above listed evidence will be forwarded to the Property Custody Division. All firearm comparison examinations were conducted using the AFTE's (Association of Firearm & Tool Mark Examiners) Theory of Identification. Identifications are the opinion of a qualified examiner that two tool marks were made by the same tool based on sufficient agreement of individual characteristics. The agreement of individual characteristics is of a quantity and quality that the likelihood another (different) tool could have made the mark is so remote as to be considered a practical impossibility. All exclusions and inconclusive findings were based upon exemplars available at the time of the examinations.
HU6VG6	The test fired bullet (Item 1.1 A) and the fired bullets (Items 2, 3, 4 & 5) were microscopically examined and compared. Based on the observed agreement of their class characteristics and sufficient agreement of their individual characteristics, the bullets (Items 2, 3, 4 & 5) are identified as having been fired from the pistol (Item 1).
HW9QZ9	The Item 2, 3, 4 and 5 bullets are identified as having been fired in the same firearm that the

TABLE 2

WebCode	Conclusions
	Item 1 bullets were fired in.
HWQGAT	The items 2, 3, 4 and 5 were identified as having been fired from the same firearm as the known bullets item 1.
HYXR9G	Items 1,2,3,4,5 Identification: fired by the same firearm
J3G6QJ	The Fired Bullets in Items 2,3,4 & 5 were fired in the same Firearm that fired the test shots in Item 1.
J6KZAM	Identification: The following items were compared and were found to show the presence of matching features. The opinion of Identification is based upon the agreement of a combination of individual characteristics and all discernible class characteristics consistent with having been fired by the same firearm. Item 1 (Smith & Wesson pistol) Item 2 (bullet) Item 3 (bullet) Item 4 (bullet) Item 5 (bullet)
J8CVYG	Items 2, 3, 4 and 5 were fired in the same firearm as the item 1 test fires.
JF4JL7	The hypothesis that all recovered bullets (items 2, 3, 4 and 5) are fired in the recovered firearm is very strongly supported.
JFFFQB	All of the fired bullets in Items #2, #3, #4, and #5 were fired by the firearm in Item #1.
JGVEBZ	Items #2, #3, #4 and #5 were fired in the same firearm as Item #1.
JH6NYQ	[No Conclusions Reported.]
JM6QAL	The submitted specimens marked as Items 2, 3, 4, and 5 were examined and identified as four (4) fired .380 Auto caliber jacketed bullets exhibiting five (5) land and groove impressions with a right twist. Items 2 through 5 were microscopically inter-compared and compared to Item 1 sample bullets. As a result of microscopic examination, it was concluded that Items 2 through 5 were identified as having been fired from the same firearm that fired Item 1 sample bullets.
JWP3HD	The Item 2 through 5 bullets were Identified to Item 1.
JYE9Y4	The test specimens (item # 1.1) are .380 caliber class bullets and were submitted for microscopic comparisons. The four (4) expended bullets were originally components of .380 class caliber cartridges that had been fired in a barrel with five (5) lands and grooves of conventional style rifling with a right hand twist. A microscopic examination and comparison of Item # 01.02 to 01.05 to test expended bullets from a known .380 Auto caliber Smith & Wesson Bodyguard, semi-automatic pistol revealed sufficient agreement of individual characteristics to conclude that they all had been fired from the known S&W pistol. The evidence will be held at the laboratory.
JZ6CPQ	All the bullets in the test fired from the same firearms.
K2FQHH	See attached Report. [Report not provided by participant].
K3BC7G	Item 1 fired Items 2, 3, 4, and 5.
K6XX4	Items #1 have been compared microscopically with Items #2-5. All share agreement in discernible class characteristics and have sufficient individual characteristics for identification. All of these items, #2-#5 were fired from the same firearm that fired Item #1.
K8HXXK	The submitted specimens marked as Items 2 through 5 were examined and identified as four (4) caliber .380 Auto fired bullets with five (5) lands and grooves with a right twist. Items 2 through 5 were microscopically examined against Item 1 test bullets submitted by investigator, from the caliber .380 Auto Smith & Wesson firearm found at the crime scene. As a result of microscopic examination it was concluded that Items 2 through 5 were identified as having

TABLE 2

WebCode	Conclusions
	been fired from same firearm as Item 1 test bullets submitted.
KC2T2C	The Items 01-01 to 01-05 bullets were all identified as having been fired from the same firearm.
KFYEN9	I microscopically compared Items 2, 3, 4, and 5 to Item 1 (A, B, C). I identified Items 2, 3, 4, and 5 as being fired in the same firearm as Item 1 based on sufficient agreement of individual characteristics within the land impressions.
KGB99F	The Items 2, 3, 4, and 5 fired bullets were all fired from the same firearm that fired the Item 1 test fired bullets. These identifications are based on sufficient agreement of the combination of individual characteristics and all discernible class characteristics.
KNEZXD	Item 2 through Item 5 were Identified to Item 1.
KPLBUG	Proficiency Test 2020-5261: Firearms Examination Participant Code U2601B Examination of the four (4) fired full metal jacketed bullets (Items 2, 3, 4, & 5) revealed they are 380 caliber and fired through a firearm barrel rifled with five (5) lands and grooves with a right-hand twist. Microscopic examination of Items 2, 3, 4, & 5 with the reported test fired bullets (Item 1) revealed Items 2, 3, 4, & 5 were fired through the same firearm barrel as the reported test fired bullets in Item 1.
KTP7DJ	Items 2-5 were examined and found to be 380 caliber jacketed bullets that were fired from a firearm having five lands and grooves with a right twist. Items 2-5 were microscopically compared to the known bullets submitted as Item 1. Items 2-5 were fired from the same firearm as the bullets submitted under Item 1.
KVCPEG	The fourth (4) Items 2, 3, 4, 5 projectiles and the three (3) Item 1 projectiles, all of .380 Caliber are uniprocessive, that is, they were shot in the Smith & Wesson M&P Body Guard pistol.
KWJ6M9	The four fired bullets (items: 2 thru 5) and the three submitted test bullets (item: 1) were visually and microscopically examined and their characteristics noted. The four recovered bullets (items: 2 thru 5) were microscopically compared to each other and to the three submitted test bullets (from item number: 1). The microscopic comparisons of the four recovered bullets, showed the following: Item numbers: 2 thru 5 displayed similar class rifling characteristics and areas of matching individual characteristics with each other and with the three test fired bullets (from item: 1). Items: 2 thru 5 were microscopically identified as having been fired thru the same gun barrel as the test bullets (IDENTIFICATION).
KWPG9J	Item 1.1 consists of three fired bullets stated to have been fired by a Smith & Wesson brand 380 Auto pistol, model Bodyguard. Items 1.2, 1.3, 1.4 and 1.5 are consistent with four fired 380 caliber bullets having five land and groove impressions with a right twist. They were microscopically compared to the bullets from Item 1.1. Based on agreement of all discernible class characteristics and corresponding individual detail in the land impressions, Items 1.2, 1.3, 1.4 and 1.5 were identified as having been fired by the same firearm that fired the bullets from Item 1.1.
L74VM7	[Laboratory] Items 1-5 were fired by the same firearm.
L7KWMM	The submitted bullets were examined and all were determined to be fired full metal jacketed bullets. The bullets test fired from the 380 Auto caliber Smith & Wesson M&P Bodyguard handgun (Item 1) and the questioned bullets, Items 2, 3, 4, and 5, had five land and groove impressions with a right-hand twist. Questioned bullets Items 2, 3, 4, and 5 were microscopically compared to the test-fired bullets (Item 1) from the suspected Smith & Wesson handgun. All the questioned bullets were identified as having been fired from the Smith &

TABLE 2

WebCode	Conclusions
	Wesson handgun based on sufficient agreement of individual characteristics in the rifling impressions. Representative digital images were taken.
LGQRRD	Items 2 through 5 were identified as having been fired by the same firearm as Item 1, based on the agreement of class characteristics, and individual characteristics observed within the land and groove engraved areas.
LLKTR7	Items 1 (test fired bullets), 2, 3, 4, and 5 were microscopically examined and compared. Based on observed agreement of class characteristics and sufficient agreement of individual characteristics, the bullets were identified as having been fired from the same firearm that fired Item 1, the Smith & Wesson pistol.
LMR9YC	MICROSCOPIC COMPARISON EXAMINATIONS OF THE EVIDENCE .380 AUTO BULLETS Q1B-Q4B (ITEMS 2-5) AND THE TEST FIRED BULLETS FROM THE S&W M&P BODYGUARD .380 AUTO PISTOL K1 (ITEM 1) HAVE REVEALED THAT SUFFICIENT AGREEMENT OF INDIVIDUAL CHARACTERISTICS EXISTS TO IDENTIFY THE FOLLOWING: Q2B (ITEM 3) WAS FIRED WITH THE S&W .380 AUTO PISTOL K1 (ITEM 1). Q1B (ITEM 2), Q3B (ITEM 4) AND Q4B (ITEM 5) WERE FIRED WITH THE SAME UNKNOWN FIREARM. Q1B, Q3B AND Q4B CAN BE ELIMINATED AS HAVING BEEN FIRED WITH THE S&W .380 AUTO PISTOL K1 (ITEM 1) AND Q2B DUE TO DIFFERENCES IN LAND AND GROOVE WIDTH DIMENSIONS. SHOULD AN ADDITIONAL SUSPECT FIREARM BE RECOVERED PLEASE SUBMIT AND REFERENCE THE ABOVE CC#. Sufficient agreement is related to the significant duplication of random toolmarks as evidenced by a pattern or combination of patterns of surface contours. "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.
LPJ6N7	Items 1 (test fired bullets), 2, 3, 4, and 5 were microscopically examined and compared. Based on observed agreement of class characteristics and sufficient agreement of individual characteristics, the bullets were identified as having been fired from the Smith & Wesson semiautomatic pistol.
LPY9HX	Items 2, 3, 4, and 5 were fired in the same firearm as the item 1 test fires.
LV4C4Q	It is my opinion that the four bullets in items 2, 3, 4 and 5 had all been fired from the same gun that had fired the bullets in item 1.
LZ3G7B	Items 001-01 - 001-05 were fired in the same firearm (identification).
M67VVK	The four bullets, Items 2 through 5, were identified as having been fired from the test fired bullets in Item 1.
M9UCHY	Items 2, 3, 4, and 5 were all microscopically identified as having been fired from same firearm as Item 1a (test). Items 2, 3, 4, and 5 were determined to be of 380 Auto caliber, displaying rifling characteristics of five lands and grooves, right twist.
MEDN9L	Item (1-5) were fired from the same firearm.
MFAVZD	The four bullets (items 01-02 – 01-05) were fired from the Smith & Wesson model Bodyguard pistol, represented by the test fired bullets (item 01-01).
MHRBYJ	There is sufficient agreement of a combination of individual characteristics and all discernible class characteristics for me to opine that bullet items 2, 3, 4 and 5 were discharged from one and the same handgun as test bullet items 1.
MK4WZ8	After microscopic comparison, it was determined that Items# 2, 3, 4, and 5 questioned bullets were fired from the same firearm as Item #1 known bullets, based on sufficient agreement of

TABLE 2

WebCode	Conclusions
	class and individual characteristics of the land impression marks.
MLE3W9	The fired bullets in Items 2, 3, 4 and 5 were fired by the firearm that fired the bullets in Item 1.
MLQMUJ	Items 2 through 5 were identified as having been fired from Item 1.
MPZF7C	Item 2, Item 3, Item 4 and Item 5 were discharged from the recovered firearm.
MWY7MF	Item #2, Item #3, Item #4 and Item #5 (fired bullet evidence); Identification - fired by Item #1 (Firearm).
N4E4UZ	The fired bullets, items 2 through 5, were identified as having been fired from the firearm used to produce the three test fired bullets, item 1.
N4RX9E	Results: 2, 3, 4, 5 Fired Bullet evidence Identification - fired by 1 Firearm
NDGL4G	Items 2 and 5 (two bullets) were identified* as having been fired from Item 1 (said to be test fired bullets from a Smith & Wesson Model M&P Bodyguard 380 380 Auto caliber pistol). Item 1 did not fire Item 3 (a bullet) or Item 4 (a bullet). Item 3 and Item 4 were identified* as having been fired from the same firearm. *Source identification is reached when the discernable class and individual characteristics have corresponding detail and the examiner would not expect to see the same arrangement of details repeated in another source.
NDWRGL	1. The bullets marked E-1 to E-7, corresponding to item 1, are .380 caliber with right rifling (R-5) and were fired by the same firearm (identification).
NE9GRB	Items 2 through 5 were fired in the same firearm as the item 1 test fires.
NEWPX9	The Item 2 - 5 bullets were IDENTIFIED to the Item 1 test fired bullets. Remarks The method of testing for ammunition components (that have results that fall into the range of conclusions defined below) included microscopic comparison: Identified: Agreement of all discernible class characteristics and sufficient agreement of individual characteristics where the extent of agreement leads to the conclusion that the items were fired in/from the same firearm. Inconclusive (+): Agreement of all discernible class characteristics and some agreement of individual characteristics but insufficient for an identification. Inconclusive: Agreement of all discernible class characteristics without significant agreement or disagreement of individual characteristics; therefore, the items could neither be identified nor eliminated as having been fired in/from the same firearm. Inconclusive (-): Agreement of all discernible class characteristics and some disagreement of individual characteristics, but insufficient for an elimination. Eliminated: Significant disagreement of discernible class characteristics and/or individual characteristics leading to the conclusion that the items were not fired in/from the same firearm.
NJL8AY	Before examination the bullets recovered after a homicide in a warehouse were marked TG1 (Item 2), TG2 (Item 3), TG3 (Item 4) and TG4 (Item 5). The bullets test fired from the suspect's handgun were marked VG1, VG2 and VG3. These bullets were compared using a Leica FSC comparison Microscope. The bullets bear appropriate marks that make them suitable for comparative analysis. Identification of the firearm used, based on these marks, appears to be possible. Based on the observed similarities in the individual characteristics of TG1, TG2, TG3 and TG4 compared to VG1, VG2 and VG3 it is concluded that all the recovered questioned bullets were fired in the suspect's firearm.
NNY6MD	see attached report. [Report not provided by participant].
NPUQAD	Based on the agreement in all discernible class characteristics and sufficient agreement in the individual characteristics, the seven bullets (B-1 – B-7) were fired from the same firearm.

TABLE 2

WebCode	Conclusions
NUNMY4	Microscopic examination and comparison of the three supplied test fired bullets (items # 1) with the four evidence bullets (items # 2, 3, 4 and 5) reveals sufficient microscopic evidence to conclude that all seven of these bullets (items # 1 through 5) were fired from the same firearm.
NYFUHD	The questioned bullets (incriminated), Items 2, 3, 4 and 5; they were shot with the Smith & Wess M&P Bodyguard 380 handgun, confiscated from the suspect arrested later that day. The comparative study of Items 2, 3, 4 and 5, with the reference samples Item 1, is concluded as uniprecedent.
NYJAWY	There was agreement of all discernible class characteristics and sufficient agreement of tool marks in the land and groove impressions. The bullets may have been fired from the same firearm or from different firearms that were rifled using the same tool in the same approximate state of wear. Without evaluating the firearm barrel that may have fired the bullets, it could not be determined whether the tool marks in the land and groove impressions were individual characteristics or potential subclass characteristics. If a suspected firearm were submitted for examination, the potential for subclass influence may be evaluated.
P4NHTT	Items #2, #3, #4, and #5 were fired by the firearm from Item #1.
P629FH	Items 2, 3, 4, and 5 were determined to have been fired in the same firearm that Item 1 test fires fired from.
P8UX9C	Item 1: The Item 1 submitted bullets are consistent in class characteristics with the Items 2, 3, 4 and 5 submitted fired bullets. Item 2: The Item 2 bullet is consistent in class characteristics with the Items 1, 3, 4 and 5 submitted fired bullets. Item 3: The Item 3 bullet is consistent in class characteristics with the Items 1, 2, 4 and 5 submitted fired bullets. Item 4: The Item 4 bullet is consistent in class characteristics with the Items 1, 2, 3 and 5 submitted fired bullets. Item 5: The Item 5 bullet is consistent in class characteristics with the Items 1, 2, 3 and 4 submitted fired bullets. Item 1 was compared to items 2, 3, 4 and 5. The Items 1, 2, 3, 4 and 5 fired bullets were identified as having been fired from the same firearm. Identifications are based on sufficient agreement of the individual characteristics of tool marks. Sufficient agreement, in part, means that the likelihood of another tool producing the same marks is so remote that it is considered a practical impossibility.
PB67AG	Item 1 (three bullets said to test specimens from a 380 Auto caliber firearm) and Items 2, 3, 4 and 5 (four bullets) were identified (1) as having been fired by the same firearm or a different firearm manufactured by the same tool in a similar state of wear (2). 1: Source identification is reached when the discernible class and individual characteristics have corresponding detail and the examiner would not expect to see the same arrangement of details repeated in another source. 2: The comparative examination showed agreement of characteristics that may be individual or subclass. Without the firearm for examination, the potential for subclass carryover cannot be assessed or ruled out. This conclusion may be refined if a firearm is submitted for comparison.
PDV8E6	I conducted a microscopic comparison of the test fired bullets of Item 1 with each of the exhibit bullets of Items 2, 3, 4 & 5. I made an identification for all four of the examined items and in my opinion Items 2, 3, 4 & 5 were fired through the same barrel (firearm) as that which produced the test fired bullets of Item 1.
PGBNLN	The reference projectiles fired from the Smith & Wesson pistol, specimen #1, were microscopically compared to the copper jacketed projectiles, specimens #2 through #5. It was determined that specimens #2 through #5 were fired from the Smith & Wesson pistol, specimen #1.
PHDPDZ	All questioned bullets (Items 2-5) were fired in the same firearm as the known bullets (Item 1)?

TABLE 2

WebCode	Conclusions
PMGHFJ	A microscopic comparative examination of the evidence disclosed Items 2,3,4,and 5 (bullet specimens) were fired from Item 1 (S&W firearm).
PMZEU6	The Item 2 through 5 bullets were identified, within the limits of practical certainty ¹ , as having been fired from the pistol that generated the Item 1 test fires.
PNDP8B	The four (4) fired bullets, items 1.2, 1.3, 1.4, and 1.5, were each identified as having been fired in the Smith & Wesson pistol, item 1.1.
PPMXV3	There are sufficient individual markings present to identify items 2 through 5 (bullets) as having been fired through item 1 (pistol).
Q4PPG7	The seven bullets (1A to 1C, 2 to 5) are suitable for comparison to a firearm. The seven bullets (1A to 1C, 2 to 5) were fired from the same unknown firearm. The seven bullets (1A to 1C, 2 to 5) are consistent with 380 Auto caliber and were fired from a firearm with five lands and grooves with a right twist. Possible firearms from which the seven bullets (1A to 1C, 2 to 5) may have been fired include, but are not limited to, 380 Auto caliber pistols marketed by Smith & Wesson.
Q9F7KK	Test fires from a .380 caliber Smith & Wesson Bodyguard (Item 1) were submitted for comparison to .380 caliber bullets recovered from the scene (Items 2-5). Items 2-5 were microscopically compared to the test fired bullets (Item 1) provided. Due to sufficient agreement of both class and individual characteristics it was concluded that the questioned bullets, Items 2-5, were fired in the same firearm as the known bullets (Item 1).
QARWWA	The Item 2, 3, 4, and 5 caliber 380 Auto bullets were examined microscopically and identified as having been fired from the firearm represented by the Item 1 caliber 380 Auto bullets based on corresponding class and individual characteristics.
QDAXY9	The known three bullets Item 1 and all the questioned bullets Item 2, Item 3, Item 4 and Item 5 have the same class characteristics and matching individual characteristics, so it is undoubtedly proved, that the all bullets Item 2, Item 3, Item 4 and Item 5 were fired in the same firearm as the known bullets Item 1.
QFH9XX	Items 2 through 5 were identified as having been fired from the same firearm as Item 1.
QGDN8A	After a microscopic comparison, I identified the four fired bullets (Items 2 through 5) as having been fired from the suspect's Smith & Wesson M&P Bodyguard 380 Auto caliber pistol based on sufficient agreement of individual characteristics in the land impressions.
QHGTCC	Items 2, 3, 4, and 5 were identified as having been fired in Item 1 pistol based upon sufficient agreement of individual characteristics.
QJ2998	Items 1 through 5 were Identified to each other.
QMCMAH	Items 2-5 were microscopically compared to Item 1. It is my opinion that items 2-5 were fired by the same firearm as that which fired item 1. Based on sufficient agreement of marks seen in the land engraved areas of the rifling.
QMUJU6	The recovered questioned bullets (Items 2-5) have fired in the same firearm as the known bullets (Item 1)
QN77D6	Items 1 through 5 were all Identified as having been fired from a single firearm.
QT79NZ	Comparison microscope examinations were conducted and it is the finding of this examiner that projectiles A through D (Items 2 through 5) were fired in the submitted .380 Auto Smith & Wesson pistol, model M&P Bodyguard (Item 1).

TABLE 2

WebCode	Conclusions
QUY4B9	Items 1B through 1E (CTS item #2-Item #5) were identified as having been fired by item 1A (CTS item #1) based on the agreement of class and individual characteristics.
QXXF89	The projectiles in Items 2 through 5 were fired in the same gun that fired the projectiles in Item 1, based on agreement observed in individual characteristics.
R2RVW8	Items 2 through 5 were fired in the same firearm as the item 1 test fires.
R76LEV	Test fired bullets from Item 1, were microscopically examined and compared with the recovered fired bullets, Items 2, 3, 4 and 5. Based on the observed agreement of their class characteristics and sufficient agreement of their individual characteristics, Items 2, 3, 4 and 5 are identified as having been fired in the same firearm as the test fired bullets from Item 1.
R7LXW2	All of the fired bullets in Items #2 through #5 were fired in the firearm that fired the tests in Item #1.
RCEUMD	The four evidence bullets were examined and microscopically compared to the three bullets from the known firearm with the following results: The evidence bullets (Lab Items 2-5) were determined to be consistent with nominal .38 caliber, to include 380 Auto. These bullets were identified as having been fired from the same firearm that fired the three bullets (Lab Item 1).
RD66CK	The fired bullets in items 001-02 through 001-05 were microscopically compared with each other and with the test fired bullets in item 001-01 with the following results: The fired bullets in items 001-02 through 001-05 were identified as having been fired through the barrel of the same firearm as the test fired bullets in item 001-01.
RG66XB	The bullets in Items #2, #3, #4 and #5 were fired by the firearm that fired the test shots in Item #1.
RGMFDV	Items Submitted: Item 1: Three test fired bullets from the recovered firearm (Smith & Wesson model M&P Bodyguard semi-automatic pistol, caliber .380 Auto) - KNOWN Item 2: Bullet recovered from the victim (questioned). Item 3: First bullet recovered from the scene (questioned). Item 4: Second bullet recovered from the scene (questioned). Item 5: Third bullet recovered from the scene (questioned). Results/Conclusions: The four fired bullets (Items 2, 3, 4, and 5) were examined and microscopically compared to the test fired bullets from the Smith & Wesson pistol (Item 1). At the conclusion of the examination, it was determined that all of the fired bullets were fired by the Smith & Wesson pistol.
RLFHEA	See Generated Report. [Report not provided by participant].
RLT7L3	Items 2 through 5 were identified as having been fired from the same firearm as Item 1, reportedly test fired from a Smith & Wesson Model M&P Bodyguard 380, .380 Auto caliber pistol.
RZGYJQ	The fired bullets Items 2, 3, 4 and 5 were fired by the same firearm as the test fired bullets of Item 1.
T9V3CB	Items #2 through #5 were fired in the same firearm as Item #1.
TA66XA	See attached report: [Report not provided by participant].
TEXDYU	The Item 2 through 5 fired bullets were microscopically compared to the Item 1 test fired bullets with the following results: Items 2 through 5 were identified as having been fired in the same firearm as the Item 1 test fired bullets.
TKLRAV	After microscopic comparison of the test fires from the suspect's weapon (Item 1) and the recovered fired bullets (Items 2, 3, 4, & 5) it was determined that: The fired bullets listed as Items 2, 3, 4 & 5 were all fired from the suspect's weapon.

TABLE 2

WebCode	Conclusions
TLTBQ4	The four 38 caliber bullets (items 2, 3, 4 & 5) were identified as having been fired from the same firearm as the three bullets fired using the recovered firearm (item 1). Agreement of the characteristics is sufficient to determine that the recovered firearm is the source of the projectiles.
TLUDAG	By means of bullets and its derivatives examination, microscopic examination and microscopic comparison examinations it was determined that: 1. The bullets corresponding to Items 1, 2, 3, 4 and 5 respectively, marked E-1 to E-7, are .380 caliber, with five land & groove right hand twist (R-5) and were fired by the same firearm (identification).
TNZNEW	Projectiles A through D (Items 2 through 5) were fired in the same firearm as the Item 1 projectiles indicated as having been fired in a .380 Auto Smith & Wesson, model Bodyguard pistol, serial number unknown.
TPUEKC	Items #2, #3, #4, #5 and Item #1 (test fire) were microscopically examined and compared. Based on the observed agreement of their class characteristics and sufficient agreement of their individual characteristics, Items #2, #3, #4, #5 and Item #1 (test fire) are identified as having been fired from the same firearm.
TVZXXH	The bullets were microscopically compared and sufficient agreement was found in the land and groove impressions to determine that the recovered bullets (Items 2 through 5) were fired in the same firearm as the bullets from Item 1. The identification is based on the presumption that the firearm was evaluated for subclass prior to the test materials being created. If this were real casework my conclusion would be a single gun or any gun made around the same time with the same tools could have fired these bullets. Submittal and evaluation of the firearm may help determine if subclass is present and therefore may result in a more definitive conclusion. The conclusion that sufficient agreement for identification exists means that the likelihood another firearm could have fired the submitted bullet is so remote as to be considered a practical impossibility.
TWCU3M	1) Examinations showed the four (4) bullets listed as Item 2, Item 3, Item 4 and Item 5 were all discharged from the Smith & Wesson, model: M&P Bodyguard, caliber:.380 Auto, semiautomatic pistol (Item 1).
TY84K6	Items 2, 3, 4 and 5 were discharged from the same firearm as Item 1.
U72V74	1.) Examinations showed Items 2, 3, 4 and 5 were discharged from the same firearm as Item 1.
UCQ98R	Laboratory Items 001.B (Item 2), 001.C (Item 3), 001.D (Item 4), and 001.E (Item 5) four copper jacketed FMJ bullets are identified as being fired by the same firearm as Laboratory Item 001.A (Item 1) three test fired bullets from the recovered handgun.
UDC9U2	Items 2, 3, 4, and 5 are .380 Auto caliber jacketed bullets identified as having been fired from the same barrel as the Item 1 .380 Auto caliber jacketed test-fired bullets.
UFQJ27	Items 2 through 5, each a caliber 380 Auto full metal jacketed bullet, were microscopically examined and identified as having been fired from the firearm represented by Item 1.
UU7H9T	Items 2 through 5 are four fired copper jacketed bullets. Based on weight, physical dimensions and design, the likely caliber of these bullets is 380 Auto. They were compared to each other and these bullets have the same class of rifling and sufficient corresponding individual microscopic marks to conclude that items 2 through 5 were fired in a single firearm. Item 2 was compared to the Item 1 test fires from the Smith & Wesson pistol. These bullets have the same class of rifling and sufficient corresponding individual microscopic marks to conclude that

TABLE 2

WebCode	Conclusions
	Items 2 through 5 were fired in the same firearm as Item 1.
UVWYTZ	Item 1 consists of three .380 Auto caliber full metal jacketed bullets reportedly test fired from a Smith & Wesson pistol, Model M&P Bodyguard rifled with 5 grooves, right twist. Items 2, 3, 4, and 5 are .38 caliber/9mm copper full metal jacketed bullets that were identified as having been fired from the same barrel as the Item 1 bullets.
UZV3C9	See attached report. [Report not provided by participant].
V2JZTD	There was sufficient agreement of class and individual characteristics between the recovered bullets, Items 2, 3 and 5 and the bullets fired using the recovered firearm, Item 1. In my opinion, the recovered bullets, Items 2, 3 and 5 have been discharged in the recovered firearm. There was agreement of class characteristics and some agreement of individual characteristics between the recovered bullet, Item 4 and the bullets fired using the recovered firearm, Item 1 but insufficient for identification.
V3EHWZ	The bullets Items 2, 3, 4 and 5 were Identified to the Item 1 bullets.
V4QHTU	The Item 2 through 5 bullets were Identified to the Item 1 pistol.
V6JBPD	All the recovered questioned bullets(items 2-5) were fired in the same firearm as known bullets(item 1).
VACB6U	On examination, I found the characteristics marks on the questioned bullets recovered from the victim (Item 2) and questioned bullets recovered from the scene (Item 3-5) to be similar to the characteristics marks on the bullets fired using the recovered firearm (Item 1). Hence, I am of the opinion that the questioned bullets (Item 2-5) were fired from the Smith & Wesson M&P Bodyguard 380 handgun.
VC3EWF	The four fired bullets (Items 2 – 5) were fired from the same barrel, or from a barrel(s) made at or near the same time using the same rifling tool(s), as the known bullets (Item 1).
VC48UN	The fired bullets in Items #2, #3, #4 & #5 were fired from the firearm in Item #1.
VF2N94	Item 1 consisted of 3 fired .380" ACP calibre FMJ bullets with 5R rifling which had been discharged from the suspect weapon. These 3 bullets (known) were compared microscopically and were matched in terms of gross, individual and consecutive nature of striae. Items 2 -5 each consisted of a fired .380" ACP calibre FMJ bullet with 5R rifling. These bullets were compared microscopically to the controls (item 1). Items 2,3 and 5 were positively identified as having been fired from the suspect weapon. item 4 did not match the controls and was not fired from the suspect weapon. It had been fired in a 2nd weapon with similar gross features. In my opinion, 5 shots were fired at the scene; 3 shots were fired from the suspect weapon and i shot was fired from a 2nd weapon. Both weapons were identified as .380" ACP calibre self-loading pistols.
VF67DU	The projectiles in Item's 2, 3, 4, and 5 were all identified as having been fired from the Item 1 firearm, based on the correspondence of individual characteristics.
VFJWXX	The evidence in items 1, 2, 3, 4, and 5 was analyzed by physical and microscopic examination. The four (4) bullets in items 2, 3, 4, and 5 were determined to have been fired from the same weapon which fired the three (3) known bullets in item 1.
VGG3HX	An examination of test fired bullets in Item 1 and the exhibit fired bullets in Items 2, 3, 4 & 5 was conducted using a comparison microscope, which is an instrument that allows two objects to be viewed simultaneously under magnification so that any similarities can be assessed. All exhibit fired bullets contained in Items 2, 3, 4 & 5 were identified as having been fired from the exhibit .380 ACP calibre Smith & Wesson Bodyguard Model self-loading pistol.

TABLE 2

WebCode	Conclusions
VHRUPU	The submitted test fired bullets, Item #1, were compared microscopically with the submitted bullets, Items #2-#5. There is agreement in all discernible class characteristics and sufficient agreement in corresponding individual characteristics for identification. Items #2-#5 were fired from the same firearm that discharged the submitted tests, Item #1.
VJWJPG	It was determined that the Item 2 through Item 5 bullets were fired from the same barrel as the Item 1 test fires.
VMYKPE	All recovered questioned bullets (Items 2-5) were fired from the same firearm.
VMYKRZ	Items #2, #3, #4 and #5 were fired by the firearm in Item #1
VP7VN4	MICROSCOPIC COMPARISON OF EVIDENCE BULLETS Q1B THROUGH Q4B (ITEM 2 THROUGH ITEM 5) WITH TEST FIRED BULLETS FROM K1 SMITH & WESSON M&P BODYGUARD PISTOL (ITEM 1) REVEALS THAT SUFFICIENT AGREEMENT OF INDIVIDUAL CHARACTERISTICS EXISTS TO IDENTIFY THE FOLLOWING: Q1B THROUGH Q4B (ITEM 2 THROUGH ITEM 5) WERE FIRED WITH K1, SMITH & WESSON M&P BODYGUARD PISTOL (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.
VPADTT	1. Examination of Exhibit 1 revealed three fired .380 Auto bullets. 2. Examination of Exhibits 2, 3, 4, and 5 revealed each contains one fired bullet consistent with those loaded in .380 Auto cartridges. 3. Microscopic comparison revealed Exhibits 2, 3, 4, and 5 were fired from the same firearm as Exhibit 1 due to agreement of class characteristics and sufficient agreement of individual characteristics. 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.
VUZM3R	Bullet Analysis: Methodology: Physical (Visual Examination); Electronic Balance/Caliper/Digital Micrometer; Microscopy (Comparison Microscope). Items 2, 3, 4, and 5 are 38 caliber class bullets based upon the diameter. Items 2, 3, 4, and 5, the bullets, were fired through the barrel of Item 1, the Smith & Wesson pistol, based upon corresponding class and individual microscopic characteristics. Opinion/Interpretation: Items 2, 3, 4, and 5 are consistent with bullets loaded in .380 Auto caliber cartridges based upon the weight and style.
VYF6CW	Items 2, 3, 4 and 5 are identified as having been fired in the same firearm that fired the item 1 bullets.
W6BL2R	Items 2 through 5 are identified as having been fired by the same firearm as fired items 1A through 1C (reported test shots from a .380 Auto caliber, Smith & Wesson, model M&P Bodyguard, semiautomatic pistol, no serial number reported). The firearm was not submitted for examination. 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.

TABLE 2

WebCode	Conclusions
W82NA2	The Item 2 through 5 bullets were Identified to the Item 1 bullets.
WE42NB	Item (1)consists of three fired bullets that were submitted as known (test fire) samples microscopically compared to items (2,3,4,5) identified as having been fired from the same firearm.
WH2H3Q	The fired bullets of items #2, #3, #4 and #5 were microscopically identified as having been fired from the Smith & Wesson pistol that fired items #1(A-C).
WHGR7Y	The four bullets cases are matching with the three bullets test .
WLPLGQ	Bullet Analysis: Methodology Physical(Visual Examination); Electronic Balance/Digital Caliper/Digital Micrometer; Microscopy(Comparison Microscope). Items 2, 3, 4 and 5 are 38 caliber class bullets based upon the diameter. Items 2, 3, 4 and 5, the bullets, were fired through the barrel of Item 1, the Smith & Wesson model M&P Bodyguard pistol, based upon corresponding class and individual microscopic characteristics.
WLZWNW	Item 1-1-1 (CTS item 1) is comprised of three projectiles test fired by a Smith & Wesson M&P Bodyguard 380 Auto caliber handgun. These projectiles were submitted as known standards for comparison. Item 1-1-1 projectiles were fired by a gun having conventional style rifling consisting of five lands and grooves with a right twist. They are suitable for microscopic comparison. Items 1-2-1 (CTS item 2), 1-3-1 (CTS item 3), 1-4-1 (CTS item 4), and 1-5-1 (CTS item 5) are 38 caliber projectiles consistent with projectiles loaded into 380 Auto caliber cartridges. They were fired by a gun having conventional style rifling consisting of five lands and grooves with a right twist. They are all suitable for microscopic comparison. Based on agreement of all discernible class characteristics, items 1-2-1, 1-3-1, 1-4-1, and 1-5-1 were microscopically compared to a test fired bullet from item 1-1-1. Items 1-2-1, 1-3-1, 1-4-1, and 1-5-1 were identified as having been fired by the same gun that fired item 1-1-1, in the opinion of the laboratory. These identification conclusions are based on sufficient similarities in the patterns of microscopic markings observed among the compared items.
WNPXW4	The firearm in Item 1 fired the fired bullet evidence in Items 2, 3, 4, and 5.
WR8Z2N	2, 3, 4, 5 Fired Bullet evidence Identification - fired by the same firearm 1 Fired Bullet evidence
WUH24A	A microscopic comparison was conducted between Test bullet 1, Item 1 and Items 2, 3, 4, 5. The examinations determined that Items 2, 3, 4, and 5 were fired from the same firearm that fired Item 1 due to a sufficient agreement between striations. Disposition: Items 1,2,3,4 and 5 will be forwarded to the Property Custody Section.
WYDRC7	Items 2,3,4 and 5 were all microscopically identified as having been fired from the firearm that fired the three test fires of Item 1.
X9DRED	1.The bullets described in the item 1 and the bullets described in the items 2,3,4, and 5 are .380 caliber, whit five (5) land and groove, right twist (R-5) and were fired by same firearm. (identification)
X9XJC4	Items 2 - 5 were identified as having been fired in the same firearm as Item 1 based on agreement in class and individual characteristics.
XBHC4X	The bullets Items 2, 3, 4, and 5 were identified as having been fired from the same recovered firearm that produced the Item 1 test fires.
XDNTL3	The fired bullets, Items 2, 3, 4, and 5, were identified as having been fired in the suspect's firearm, a Smith & Wesson M&P Bodyguard 380 Auto caliber pistol based on the presence of sufficient agreement of individual marks in the firearm's barrel.

TABLE 2

WebCode	Conclusions
XDPU3U	Projectile Items 2, 3, 4, and 5 were identified as having been fired from the same firearm as the fired projectiles within Item 1 based on agreement of class characteristics and sufficient agreement of individual characteristics within the bullet grooves.
XFEWB3	Items #2, #3, #4, and #5 were fired by the recovered firearm in Item #1.
XJE3VZ	The item #2-5 were fired from the same firearm that fired the item #1 Test fires. This is based on the agreement of all discernible class characteristics and sufficient agreement found in the land impressions.
XLXKN6	The fired bullets in Items #2, #3, #4, and #5 were fired by the firearm in Item #1.
XMQ6NX	The four projectiles identified as items No. 2, 3, 4 and 5, together with the three witness projectiles identified as item No.1, present the same class and identity characteristics with each other, therefore it is concluded that they correspond to the caliber .380, and were fired by the same firearm, which fired the projectiles of item No.1.
XN6HF2	Items 1B, 1C and 2 - 5 were Identified to Item 1A.
XNPFDY	The submitted fired bullets (Items 2, 3, 4, and 5) were fired from the same firearm as test fires (Items 1-1 through 1-3) reportedly fired from a Smith & Wesson pistol.
XZ4DH3	Items 1 through 5 were examined and analyzed using microscopy. The Items 2 through 5 bullets were identified as having been fired from the same firearm that reportedly fired the Item 1 test fired bullets based on corresponding class and individual characteristics.
Y342BX	The submitted fired bullets, Items 2, 3, 4, and 5, were fired from the same firearm as the submitted test fired bullets, Item 1.
Y4GBN6	Chart format - no sentences used Items #2, #3, #4 and #5 fired by Item #1
Y8YU9Y	Examinations showed Items 2, 3, 4 and 5 were discharged from the same firearm as Item 1.
YCNGVR	Items 2, 3, 4 and 5 where shot from the recovered firearm (item 1)
YD6DMQ	The Item 2, 3, 4, and 5 bullets were Identified to the firearm that fired the Item 1 bullets.
YKMU2M	The test-fired bullets, item 1, were compared to the questioned bullets, items 2 through 5, using a comparison microscope. Based on these comparisons, it is my opinion that items 2 through 5 were fired in the same firearm that produced the test-fired bullets based on agreement of all discernible class characteristics and sufficient agreement of individual characteristics.
YLE3ZP	The four fired metal jacketed bullets (Items #2, #3, #4, and #5) are identified as having been fired in the same firearm as the submitted test shots (Items #1-T1, #1-T2, and #1-T3). 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.
YR4DJZ	Items 2 through 5 were fired in the same firearm as the item 1 test fires.
YWF3ZN	Item 1 and Items 2 - 5 were microscopically examined and compared. Based on the observed agreement of their class characteristics and sufficient agreement of their individual characteristics, Items 2 - 5 are identified as having been fired from the recovered firearm, Item 1.
YYLTZC	The four nominal 38 caliber bullets (items 2 through 5) and the bullets (items 1a, 1b, and 1c) from the suspect's firearm were fired from the same firearm.

TABLE 2

WebCode	Conclusions
YYMLYK	The fired bullets in Items #2, #3, #4, and #5 were fired by the firearm that fired the known fired test shots in Item #1.
Z7FDKJ	Items #2, #3, #4 and #5 were fired by Item #1.
ZAFNFJ	Items #2, #3, #4, and #5 were fired by the same firearm as the test shot fired bullets in Item #1.
ZC9BGM	Bullet Analysis: Methodology: Physical (Visual Examination); Electronic Balance/Digital Caliper/Digital Micrometer; Microscopy (Comparison Microscope). Items 2, 3, 4 and 5 are 38 caliber class bullets based upon the diameter. Items 2, 3, 4 and 5, the bullets, were fired through the barrel of the same firearm as Items 1A, 1B and 1C, the test fires, based upon corresponding class and individual microscopic characteristics. Opinion/Interpretation: Items 2, 3, 4 and 5 are consistent with bullets loaded in .380 AUTO caliber cartridges based upon the weight and style.
ZD22M2	Items 2, 3, 4 and 5 were identified as having been fired by the same firearm that fired Item 1 based on agreement of class and individual characteristics.
ZFMQRQ	The recovered bullets from the victim and scene (Item 2, Item 3, Item 4 and Item 5) wear same general rifling characteristics as bullets fired using the recovered firearm (Item 1). These 4 bullets were fired in the Smith & Wesson M&P Bodyguard 380 handgun.
ZGFYT4	Item 1 was microscopically compared to Items 2-5. Item 1 and Items 2-5 are an Identification, therefore, Item 2-5 were fired in the submitted Smith & Wesson .380 Auto firearm.
ZHBL8T	Microscopic examination and comparison of the four (4) fired 380 caliber bullets Items 2, 3, 4 and 5 to the three (3) fired 380 Auto caliber bullets Item 1 reveals corresponding class characteristics along with matching individual barrel engraved striations with significant duplication of patterns establishing that the four (4) fired bullets Items 2, 3, 4 and 5 were all fired from the same 380 caliber pistol as the three (3) fired 380 Auto caliber bullets Item 1. (Identification)
ZL9UMV	Item 1 consists of three (3) .38 caliber round nose, copper jacketed bullets fired from a barrel with five (5) grooves, and a right twist and were reported as being fired from a .380 ACP caliber Smith and Wesson pistol, Model Bodyguard 380. Items 2 through 5 consist of four (4) copper jacketed bullets, consistent in weight and design with bullets loaded in .380 ACP cartridges, that were fired from a barrel with five (5) grooves, and a right twist. The Item 2 through Item 5 bullets were identified as having been fired from the barrel of the Item 1 pistol.
ZVGBN3	See Report. [Report not provided by participant].
ZWDVB2	Item 2, Item 3, Item 4 and Item 5 were discharged from the same pistol than Item 1.
ZYG786	The submitted specimens marked as Items 2, 3, 4, and 5 were examined and identified as four (4) fired .380 Auto caliber jacketed bullets exhibiting five (5) land and groove impressions with a right twist. Items 2 through 5 were microscopically inter-compared and compared to Item 1 sample bullets. As a result of microscopic examination, it was concluded that Items 2 through 5 were identified as having been fired from the firearm that fired Item 1 sample bullets.

Additional Comments

TABLE 3

WebCode	Additional Comments
23UTB9	A. E-1 to E-3 are item 1, E-4 is item 2, E-5 is item 3, E-6 is item 4, E-7 is item 5. B. Identification: based on the agreement of the individuals characteristics observed by microscopic comparison examination.
2KRB3P	Two land engraved areas on Items 1-5 marked very poorly
2M2ZP8	Good agreement of class markings, 5R rifling form, size and width of LEA's and GEA's. Excellent agreement of fine individual markings observed within each of the LEA's and some of the GEA's to conclude that all recovered items were fired in the recovered weapon Item One.
2X4C8V	The internal Justice Trax numbers were used for reporting: Item 1 - itemized as Items 01-01A through 01-01C. Item 2 - itemized as Item 01-02. Item 3 - itemized as Item 01-03. Item 4 - itemized as Item 01-04. Item 5 - itemized as Item 01-05.
2Z4PJM	Item 5 (fired bullet) could not be identified to Items 1-T1 through 1-T3. Inconclusive (could not be identified or eliminated): The class characteristics are the same; however, there is not sufficient agreement in the individual characteristics or there are not sufficient individual characteristics present to make an identification.
3BMHDV	The method of testing for ammunition components (that have results that fall into the range of conclusions defined below) included microscopic comparison: Identified: Agreement of all discernible class characteristics and sufficient agreement of individual characteristics where the extent of agreement leads to the conclusion that the items were fired in/from the same firearm. Inconclusive (+): Agreement of all discernible class characteristics and some agreement of individual characteristics but insufficient for an identification. Inconclusive: Agreement of all discernible class characteristics without significant agreement or disagreement of individual characteristics; therefore, the items could neither be identified nor eliminated as having been fired in/from the same firearm. Inconclusive (-): Agreement of all discernible class characteristics and some disagreement of individual characteristics, but insufficient for an elimination. Eliminated: Significant disagreement of discernible class characteristics and/or individual characteristics leading to the conclusion that the items were not fired in/from the same firearm. The submitted items will be transferred to the Evidence Section for return to your agency. Questions regarding this report should be addressed to: [email].
3Z3BCK	The test was unusually difficult. One the possible explanations is as follow : the pistol used was new and the imprints on the bullets were not yet fully stable. Moreover, one of the bullets of item 1 was damaged on the best land imprint.
4AJHNE	THE MAIN BOX AND 2 SMALL BOXES COME NOT SEALED WITHOUT ANY RECORD (IT MAY BE OPEN BY POST OFFICE SECURITY CLEARANCE).
4YN9Z7	1. These conclusion are based in bullet examination, microscopic examination and microscopic comparison examination. 2. Identification: Based on agreement of individual characteristics observed by microscopic comparison examination. 3.The E-1 to E-3 is Item 1, E-4 is Item 2, E-5 is Item 3, E-6 is Item 4, and E-7 is Item 5.
6AHPP8	This conclusion would not normally be made without direct examination of the suspect weapon for possible subclass influence. For the purposes of this exercise I am assuming the recovered pistol is free from subclass influence. This statement should be part of the scenario

TABLE 3

WebCode	Additional Comments
6EYZQH	<p>for these cases. Alternatively, a silicone cast of the barrel should be included with the evidence items.</p> <p>Potential subclass influence in at least 1 land impression. However, plenty of individual characteristics present for identification to be made.</p>
7VGH3P	<p>Methods: Bullet Examination. Two bullets, either two evidence items or one evidence item and one bullet test fired in the Laboratory, undergo two stages of comparison. First, the bullets are examined to determine and compare their class characteristics. The class characteristics of fired bullets include diameter, number of land and groove impressions, direction of twist, and the widths of the land and groove impressions. If the class characteristics of the two bullets are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the striated marks present on two bullets 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 bullets did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two bullets 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 bullets 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 bullets known to have been fired from different barrels; and the degree of similarity is equivalent to that normally observed in bullets known to have been fired from the same barrel. 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 bullets 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; a lack of any observed microscopic similarity; or microscopic dissimilarity that is insufficient to form the conclusion of source exclusion. Limitations: Bullet Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to random changes in barrels such as wear, corrosion and lead and jacket material accumulation, bullets fired from the same barrel are sometimes not identifiable as such. Additionally, some barrel manufacturing methods routinely produce barrels that leave limited microscopic marks of value on fired bullets. Additionally, damaged, corroded or fragmented bullets may be of little or no value for comparison purposes.</p>
7YGR4J	<p>Proficiency Test was submitted under submission 001, subitemized items 001-1 (item #1) through 001-5 (item #5).</p>
83AANN	<p>Methods: Bullet Examination. Two bullets, either two evidence items or one evidence item and one bullet test fired in the Laboratory, undergo two stages of comparison. First, the bullets are</p>

TABLE 3

WebCode	Additional Comments
	<p>examined to determine and compare their class characteristics. The class characteristics of fired bullets include diameter, number of land and groove impressions, direction of twist, and the widths of the land and groove impressions. If the class characteristics of the two bullets are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the striated marks present on two bullets 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 bullets did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two bullets 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 bullets 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 bullets known to have been fired from different barrels; and the degree of similarity is equivalent to that normally observed in bullets known to have been fired from the same barrel. 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 bullets 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; a lack of any observed microscopic similarity; or microscopic dissimilarity that is insufficient to form the conclusion of source exclusion. Limitations: Bullet Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to random changes in barrels such as wear, corrosion and lead and jacket material accumulation, bullets fired from the same barrel are sometimes not identifiable as such. Additionally, some barrel manufacturing methods routinely produce barrels that leave limited microscopic marks of value on fired bullets. Additionally, damaged, corroded or fragmented bullets may be of little or no value for comparison purposes.</p>
83F7NM	<p>The degree of correspondence and reproducibility of striae between the three bullets in Item 1 was only average in quality/quantity. Sufficient microscopic information existed to be able to ID all four bullets (Items 2 to 5) however from a number of different land and groove engravings. Sufficient microscopic detail was present in the same relative positions and this striated information exceeded the threshold for CMS in a 3D mark.</p>
9BKYYL	<p>As per information received, the Item QA-01 test fired bullets were generated by a .380 Auto calibre, Smith & Wesson M&P Bodyguard model, semi-automatic pistol.</p>
9QGR4G	<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</p>

TABLE 3

WebCode	Additional Comments
	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.
B76X22	The strength of the conclusion in this report was influenced by the fact that no gun was submitted to the lab and consequently a direct sub-class evaluation of the gun could not take place.
B8DERJ	The incriminated projectiles described as Item 2, 3, 4, 5, are positive with the projectiles described as Item 1.
B8JBRJ	Attached to this statement are the Appendices for qualifications and for the conclusions with descriptions of fired bullet comparisons. [Attachment not included.]
B8TPQC	I would have liked to have had a few more test fires.
BM9LEL	These bullets including the knowns did not mark well. No individual detail in the LEAs for identification purposes. Unable to ID or Eliminate based on lack of markings.
BMPNZZ	There was no significant agreement in individual marks among the test fired bullets, Exhibit 1. Class characteristics were in agreement between the bullets, Exhibits 2, 3, 4 and 5, and the test fired bullets, Exhibit 1. Had the suspect firearm been available, additional test fires would have been taken to further evaluate the repeatability and significance of individual marks.
C7Y3VZ	The three /3/ test fired specimens (Test 1) were sub-labeled as T1A, T1B, T1C. Items T1A, T1B, T1C were subjected to comparative analysis of the individual characteristics and found to having sufficient agreement. The three test specimens were Identified to each other prior to any comparative analysis against the unknown specimens.
CKRYPH	Methods: Bullet Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to random changes in barrels such as wear, corrosion and lead and jacket material accumulation, bullets fired from the same barrel are sometimes not identifiable as such. Additionally, some barrel manufacturing methods routinely produce barrels that leave limited microscopic marks of value on fired bullets. Additionally, damaged, corroded or fragmented bullets may be of little or no value for comparison purposes. Limitations: Bullet Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to random changes in barrels such as wear, corrosion and lead and jacket material accumulation, bullets fired from the same barrel are sometimes not identifiable as such. Additionally, some barrel manufacturing methods routinely produce barrels that leave limited microscopic marks of value on fired bullets. Additionally, damaged, corroded or fragmented bullets may be of little or no value for comparison purposes.
DQK6CK	Though items 1, 1A and 1B are listed as known's they are treated as unknowns due to them not being created in this lab. While all discernible class characteristics were the same the similarities and differences between items 1, 1A, 1B, 2 and 3 and items 4 and 5 were not of sufficient quantity and quality to determine whether or not the were fired through the same

TABLE 3

WebCode	Additional Comments
	barrel. While there were some differences in the individual characteristics between the two groups they did not outweigh the similarities. If the firearm was within the lab where it could be examined the result could be different. The conservative call is inconclusive
EQEDXA	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 firearms/tools. However, observing this amount of agreement from a different source is considered extremely remote.
EUDNTA	Technical Note: 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.
EVM6L	When translating the CTS test into our current LIMS system for documentation, the Items were given unique sub-designators. CTS Items #1 through #5 were submitted as only Item #1 in our LIMS; therefore, CTS Item #1 was sub-designated as Items #1-1A, #1-1B, and #1-1C, and CTS Items #2 through #5 were sub-designated as Items #1-2 through #1-5 for the purposes of filling out our LIMS matrix.
FXTJ8L	Test bullets were poor exemplars. Really would like to see fA when examining case.
GY86J9	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.
J3G6QJ	There was poor reproduction between test shots, I was able to identify 1-1 to 1-3, 1-2 to 1-3 but was unable to identify 1-1 to 1-2.
JWP3HD	It would have been helpful to also have a cast of the barrel for Item 1, there were very good groove markings, but I hesitated to base my identification solely on those as subclass could not be ruled out.
K3BC7G	Wording assumes the bullets provided in Item 1 were fired in the lab with the noted firearm.
LLKTR7	Potential subclass agreement was noted in the Gimps, however this agreement was not used

TABLE 3

WebCode	Additional Comments
	to establish the IDs. Test fires could be ID to each other, however these TF samples did not reproduce marks in the Limps well. Some damage on the bearing surface was observed in Items 2 and 4.
MWY7MF	Our results are presented in a table to the agency instead of being presented in sentence form.
NDWRGL	1. Identification: Based on the individual characteristics agreement observed through microscopic comparison examination. 2. Our laboratory received all submitted bullets (Item 1 to Item 5) in just one item.
P629FH	Test fires very difficult to ID to each other due to variable marking. In actual case work, additional test fires would have been generated/requested. If additional test fires were unobtainable, would have reported all as inconclusive.
QGDN8A	The identifications of the bullets with the firearm in this case are made to the practical, not absolute, exclusion of all other firearms. This is because it is not possible to examine all firearms in the world, a prerequisite for absolute certainty. The conclusion that sufficient agreement for identification exists between two firearm-produced toolmarks means that the likelihood another firearm could have made the questioned mark is so remote as to be considered a practical impossibility.
TLUDAG	Identification: Based on the agreement of the individual characteristics observed by microscopic comparison examination.
UDC9U2	Methods: Bullet Examination. Two bullets, either two evidence items or one evidence item and one bullet test fired in the Laboratory, undergo two stages of comparison. First, the bullets are examined to determine and compare their class characteristics. The class characteristics of fired bullets include diameter, number of land and groove impressions, direction of twist, and the widths of the land and groove impressions. If the class characteristics of the two bullets are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the striated marks present on two bullets 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 bullets did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two bullets 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 bullets 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 bullets known to have been fired from different barrels; and the degree of similarity is equivalent to that normally observed in bullets known to have been fired from the same barrel. 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

TABLE 3

WebCode	Additional Comments
	<p>unable to identify or exclude the two bullets 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; a lack of any observed microscopic similarity; or microscopic dissimilarity that is insufficient to form the conclusion of source exclusion. Limitations: Bullet Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to random changes in barrels such as wear, corrosion and lead and jacket material accumulation, bullets fired from the same barrel are sometimes not identifiable as such. Additionally, some barrel manufacturing methods routinely produce barrels that leave limited microscopic marks of value on fired bullets. Additionally, damaged, corroded or fragmented bullets may be of little or no value for comparison purposes.</p>
UWWTZ	<p>Methods: Bullet Examination. Two bullets, either two evidence items or one evidence item and one bullet test fired in the Laboratory, undergo two stages of comparison. First, the bullets are examined to determine and compare their class characteristics. The class characteristics of fired bullets include diameter, number of land and groove impressions, direction of twist, and the widths of the land and groove impressions. If the class characteristics of the two bullets are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the striated marks present on two bullets 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 bullets did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two bullets 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 bullets 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 bullets known to have been fired from different barrels; and the degree of similarity is equivalent to that normally observed in bullets known to have been fired from the same barrel. 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 bullets 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; a lack of any observed microscopic similarity; or microscopic dissimilarity that is insufficient to form the conclusion of source exclusion. Limitations: Bullet Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to random changes in barrels such as wear, corrosion and lead and jacket material accumulation, bullets fired from the same barrel are sometimes not identifiable as such.</p>

TABLE 3

WebCode	Additional Comments
	Additionally, some barrel manufacturing methods routinely produce barrels that leave limited microscopic marks of value on fired bullets. Additionally, damaged, corroded or fragmented bullets may be of little or no value for comparison purposes.
V2JZTD	Item 4: There was some agreement of individual characteristics between item 1 and item 4, however the level of agreement was insufficient for a positive identification. There were also some differences of individual characteristics between item 1 and item 4, but insufficient for elimination.
VC3EWF	Identifications are made under the following assumptions: (1) the bullets recovered from the scene and victim were left at or near the same time during the incident and/or (2) subclass influence was considered and eliminated prior to submission of the evidence. If these assumptions could not be made, my conclusions may have been different. If the tests are going to continue to be prepared in this way, I feel that information should be provided regarding barrel evaluations (e.g. subclass considered and eliminated, subclass not eliminated). I should not have to make assumptions regarding individuality when I would not do that in casework. Providing this information would ensure that that the test was approached with the same set of facts and examiners were not making different assumptions.
WLPLGQ	Opinion/Interpretation: Items 2, 3, 4 and 5 are consistent with bullets loaded in .380 Auto caliber cartridges based upon the weight and style.
X9DRED	Identification: Is based on in the agreement of the individual characteristic observed through the microscopic examination.
XDNTL3	The identification of the fired bullets with the firearm in this case is made to the practical, not absolute, exclusion of all other firearms. This is because it is not possible to examine all firearms in the world, a prerequisite for absolute certainty. The conclusion that sufficient agreement for identification exists between two firearm-produced toolmarks means that the likelihood another firearm could have made the questioned mark is so remote as to be considered a practical impossibility.
XFEWB3	All fired bullet evidence was evaluated for potential subclass characteristics; however, identifications were made based on a cumulative observation of multiple areas on the fired bullets' bearing surfaces.
YKMU2M	Having a silicone cast of the bore may aid in evaluating the potential for subclass.
YW3ZFN	Many of the observed markings were not gross in nature and did not extend the entire length of the impressions. However, as many of the corresponding markings were on groove impressions, I would cast the barrel of the recovered firearm in order to better assess the potential for subclass characteristics and carryover.
YYLTZC	A microscopic comparison between the four nominal 38 caliber bullets (items 2 through 5) and bullets (items 1a, 1b, and 1c) from the suspect's firearm was performed, and identifications were made based on sufficient individual corresponding detail observed in rifling marks. All examinations were conducted using the methods outlined in TP-8: Version 18
YYMLYK	Identification based on LIMPs indexed with a silver, purple and pink index for Items #2 through #4 and a purple, pink, and blue index for Item 5. Images in file -> Item 1-1 used as the standard

TABLE 3

WebCode	Additional Comments
ZL9UMV	<p>Methods: Bullet Examination. Two bullets, either two evidence items or one evidence item and one bullet test fired in the Laboratory, undergo two stages of comparison. First, the bullets are examined to determine and compare their class characteristics. The class characteristics of fired bullets include diameter, number of land and groove impressions, direction of twist, and the widths of the land and groove impressions. If the class characteristics of the two bullets are not clearly different, the examination moves to a second stage using comparative microscopy. A microscopic comparison examination consists of a search of the striated marks present on two bullets 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 bullets did not originate from the same source. The basis for a source exclusion conclusion is an Examiner's decision that two bullets 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 bullets 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 bullets known to have been fired from different barrels; and the degree of similarity is equivalent to that normally observed in bullets known to have been fired from the same barrel. 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 bullets 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; a lack of any observed microscopic similarity; or microscopic dissimilarity that is insufficient to form the conclusion of source exclusion.</p> <p>Limitations: Bullet Examination. Firearms/Toolmark Identification is an empirical science that relies on objective measurements and a subjective comparison of microscopic marks of value. Due to random changes in barrels such as wear, corrosion and lead and jacket material accumulation, bullets fired from the same barrel are sometimes not identifiable as such. Additionally, some barrel manufacturing methods routinely produce barrels that leave limited microscopic marks of value on fired bullets. Additionally, damaged, corroded or fragmented bullets may be of little or no value for comparison purposes.</p>

-End of Report-
(Appendix may follow)

Test No. 20-5261: Firearms Examination

DATA MUST BE SUBMITTED BY **July 27, 2020, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: XUFQMX

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 homicide that occurred in a warehouse. The victim was shot once and the bullet was recovered by the medical examiner. Investigators also recovered three bullets from the scene. A suspect was apprehended later that day and a Smith & Wesson M&P Bodyguard 380 handgun was seized from his vehicle. Three rounds of PMC Bronze 380 auto 90 grain FMJ ammunition (consistent with the bullets found at the scene) were test fired from the recovered firearm and the bullets collected. Investigators are asking you to compare the recovered bullets from the victim and scene with those test fired in the recovered firearm and report your findings.

Please note the following:

- Each Item is in a small labeled box, it is suggested that when the items are removed from their labeled boxes, they be marked according to your laboratory procedure. However, in case the items are separated from their boxes before labeling has occurred, each item has been inscribed with its item number.

-The bullet stated to have been recovered from the victim was never exposed to biological material.

Items Submitted (Sample Pack F1):

Item 1: Three bullets fired using the recovered firearm (known).

Item 2: Bullet recovered from the victim (questioned)

Item 3: First bullet recovered from the scene (questioned).

Item 4: Second bullet recovered from the scene (questioned).

Item 5: Third bullet recovered from the scene (questioned).

1.) Were any of the recovered questioned bullets (Items 2-5) fired in the same firearm as the known bullets (Item 1)?

<i>Item 2</i>	Yes <input type="radio"/>	No <input type="radio"/>	Inconclusive* <input type="radio"/>
<i>Item 3</i>	Yes <input type="radio"/>	No <input type="radio"/>	Inconclusive* <input type="radio"/>
<i>Item 4</i>	Yes <input type="radio"/>	No <input type="radio"/>	Inconclusive* <input type="radio"/>
<i>Item 5</i>	Yes <input type="radio"/>	No <input type="radio"/>	Inconclusive* <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)